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PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

Amazon Site Code – DYT3
2625 Sheffield Road
Ottawa, Ontario, K1B 3V6

Prepared for

Amazon Canada Fulfillment Services, ULC
300 Boren Avenue North
Seattle, Washington

Prepared by

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Project Number: TR841C8D1-038A

Original: 2 August 2022

Revised: 13 October 2022

Geosyntec consultants

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1. EXECUTIVE SUMMARY

Geosyntec Consultants International, Inc. (Geosyntec) was retained by Amazon Canada Fulfillment Services, ULC (Amazon) to prepare a Phase Two Environmental Site Assessment (ESA) for the property located at 2625 Sheffield Road in Ottawa, Ontario (hereinafter referred to as the "Phase One Property", "Phase Two Property", or the "Site"). Geosyntec's assignment was conducted in accordance with the scope of work outlined in Geosyntec's proposals to Amazon dated 23 December 2021, 16 May 2022, and 27 September 2022 and Amazon's purchase order 5Z-07380566 dated 24 January 2022 revised 19 May 2022 and 4 October 2022, as well as with the terms and conditions described in the Amazon Services, Inc. and Geosyntec Consultants, Inc. Master Services Agreement dated 10 January 2018.

Geosyntec understands that Amazon intends to redevelop the Phase Two Property for commercial/industrial use as a warehouse under a ground lease agreement with CP REIT Ontario Properties Limited (CP REIT). It is Geosyntec's understanding that this Phase Two ESA is required by the City of Ottawa (City) to support Site redevelopment. As there is no proposed change to a more sensitive land use, in accordance with the Ontario *Environmental Protection Act* (EPA) and Ontario Regulation (O. Reg.) 153/04, a Record of Site Condition (RSC) is not required.

The Phase Two Property measures approximately 7.06 hectares (17.4 acres) in size. The Site is located at the northeast corner of Sheffield Road and Humber Place and is developed with an approximately 33,472 square metre (sq. m.) commercial warehouse building (the "Site building") initially constructed in 1967. The Site building is currently vacant but was formerly occupied by various grocery retailers, most recently Loblaw Properties Limited (Loblaw), and utilized for grocery distribution activities. The Phase Two Property may be accessed from Sheffield Road to the west and Humber Place from the south. There are no on-Site surface water bodies.

The Phase Two Property is located in an area that is developed with a mix of commercial, industrial and undeveloped/forested land. The Phase Two Property is bounded by an industrial/commercial property to the north; a railway line followed by undeveloped/forested land and Green's Creek to the east; an industrial/commercial property and vacant lot to the south; and Sheffield Road followed by industrial/commercial properties to the west.

The results of a Phase One ESA conducted by Geosyntec in 2022 identified current and historical potentially contaminating activities (PCAs) at the Site and surrounding lands within the Phase One Study Area. As a result of the PCAs, Geosyntec identified multiple areas of potential environmental concern (APECs) and related contaminants of potential concern (COPCs) in soil and groundwater.

Based on the findings presented in the Phase One ESA, Geosyntec prepared a Phase Two Sampling and Analysis Plan (SAP) for the Site. The Phase Two SAP considered prior soil and

groundwater investigation data collected from the Site and included a data gap analysis of available data relative to the identified APECs on the Site.

Geosyntec conducted the Phase Two ESA soil and groundwater investigation between 24 May and 3 June 2022 that included: the advancement of 10 boreholes with four completed as groundwater monitoring wells; development of four newly installed and seven existing monitoring wells; groundwater level monitoring of 11 monitoring wells; field screening; and the collection of soil and groundwater samples for laboratory analyses of applicable COPCs. The applicable generic Site Condition Standards for the Site are the '*Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition'* for Industrial/Commercial/ Community property uses and coarse-textured soils (Table 3 SCS).

It is our understanding that the existing Site building might be demolished and that a smaller warehouse building would be constructed in the same general footprint. At the request of Amazon, a sub-slab vapour investigation was conducted within the proposed building footprint to assess potential vapour intrusion risk. Geosyntec conducted installation, screening and sampling for volatile organic compounds (VOCs) and petroleum hydrocarbons (PHCs) aliphatic and aromatic fractionations at five sub-slab locations on 26 May 2022. The results were compared to the MECP Commercial Soil Vapour Screening Levels (SVSLs) which were developed using the MECP's industrial/commercial Health Based Indoor Air Criteria (HBIAC).

Soil

The Phase Two ESA investigation did not identify any COPCs at concentrations greater than the Table 3 SCS in soil at the Phase Two Property. PHC concentrations greater than the Table 3 SCS were identified in past investigations in the vicinity of an existing oil-water separator within the former vehicle repair area within the Site building and in the vicinity of the existing on-Site private fuel outlet (Trow, 2010; EXP, 2020b). Several additional soil samples were collected in these areas, with concentrations less than the Table 3 SCS such that the extent of the PHC impacts have been horizontally and vertically delineated.

Groundwater

The Phase Two ESA investigation did not identify any COPCs greater than the Table 3 SCS in groundwater at the Phase Two Property.

Soil Vapour

The Phase Two ESA investigation identified 1,2-Dichloroethane at concentrations greater than the MECP Commercial SVSLs in one sub-slab vapour sample collected from beneath the southern portion of the existing Site building. 1,2-Dichloroethane was also identified at concentrations greater

than the MECP Commercial SVSLs in one sub-slab vapour sample collected from beneath the southern portion of the existing Site building during a past investigation (Geosyntec, 2020b).

Recommendations

Geosyntec understands that the on-Site private fuel outlet and oil-water separator are scheduled for removal by the Site owner. Geosyntec recommends that remediation of PHC-impacted soils previously identified in these areas be undertaken in accordance with O. Reg. 153/04 and O. Reg. 406/19, including oversight by a Qualified Person (as defined by the regulations) and confirmatory sampling to demonstrate that the concentrations of PHCs in soil at the Site are less than the applicable SCS.

Since the Phase Two ESA investigation did not identify any COPCs greater than the Table 3 SCS in groundwater, no recommendations are necessary for groundwater.

With respect to the VOCs in sub-slab vapour that exceed the MECP Commercial SVSLs at the Phase Two Property, Geosyntec recommends that following the existing Site building demolition, soil sampling for VOCs be undertaken beneath the southern portion of the Site building to assess whether sub-slab vapour exceedances are related to VOC-impacted soils and to assess the potential for vapour intrusion in the proposed Site building.

2. INTRODUCTION

This Phase Two ESA report is structured to meet the requirements of Table 1, Schedule E of Ontario Regulation (O. Reg.) 153/04, as amended, as follows:

- Section 2 – Introduction, including Site description, Phase Two Property ownership, current and proposed future Phase Two Property uses, and applicable SCS;
- Section 3 – Background Information, including physical setting and summary of past investigations;
- Section 4 – Scope of the Investigation, including an overview of the investigation, media investigated, Phase One Conceptual Site Model (CSM), deviations from the Phase Two SAP, and impediments;
- Section 5 – Investigation Methods, including a description of drilling and excavating, soil sampling, field screening measurements, groundwater monitoring well installation details, field measurements of groundwater quality parameters, groundwater sampling, sub-slab vapour pin/soil vapour probe installation, sub-slab/soil vapour sampling, analytical testing, residue management procedures, and quality assurance and quality control (QA/QC) measures, as applicable;
- Section 6 – Review and Evaluation, including description of the geology, groundwater elevations and flow direction, groundwater hydraulic gradients, soil texture, soil field screening and quality results, groundwater quality results, sediment quality results, sub-slab/soil vapour quality results, QA/QC results, and the Phase Two CSM;
- Section 7 – Qualifications and Limitations;
- Section 8 – Conclusions, including a summary of results;
- Section 9 – Signatures; and
- Section 10 – References included throughout this report.

The tables, figures, and appendices that document the results of the Phase Two ESA investigation follow the text. The tables show the monitoring well construction details (**Table 1)**, soil analytical results (**Table 2**), groundwater analytical results (**Table 3**), and sub-slab/soil vapour analytical results (**Table 4**).The figures show the Phase Two Property location (**Figure 1**), the Phase Two Property Layout (**Figure 2)**, the Phase One Study Area (**Figure 3**), PCAs (**Figure 4**), APECs (**Figure 5)**, soil and groundwater sampling locations (**Figure 6**), sub-slab vapour investigation locations (**Figure 7**), groundwater elevations, contours, and inferred groundwater flow direction (**Figure 8**), soil exceedances (**Figure 9**), sub-slab vapour exceedances (**Figure 10**), cross section location plan (**Figure 11**), cross sections showing soil exceedances (**Figures 12** and **Figure 13**), and human and ecological exposure pathways **(Figure 14** and **Figure 15**). The appendices provide copies of the Phase Two SAP (**Appendix A)**, borehole logs and soil vapour sampling forms

(**Appendix B)**, analytical laboratory reports (**Appendix C)**, plan of survey for the Site (**Appendix D**), and the geophysical survey report (**Appendix E**).

Geosyntec Consultants International, Inc. (Geosyntec) was retained by Amazon Canada Fulfillment Services, ULC (Amazon) to conduct a Phase Two Environmental Site Assessment (ESA) for the property located at 2625 Sheffield Road in Ottawa, Ontario (hereinafter referred to as the "Phase One Property", "Phase Two Property", or the "Site"). A Phase Two Property Location Map is presented on **Figure 1**.

Geosyntec's assignment was conducted in accordance with the scope of work outlined in Geosyntec's proposals to Amazon dated 23 December 2021, 16 May 2022, and 27 September 2022 and Amazon's purchase order 5Z-07380566 dated 24 January 2022 revised 19 May 2022 and 4 October 2022, as well as with the terms and conditions described in the Amazon Services, Inc. and Geosyntec Consultants, Inc. Master Services Agreement dated 10 January 2018. The findings and conclusions presented in this Phase Two ESA are the result of professional interpretation of the information collected at the time of this study.

This Phase Two ESA report has been prepared solely for the benefit of Geosyntec's Client, Amazon Canada Fulfillment Services, ULC (Amazon) and its subsidiaries and affiliated entities. Geosyntec has issued the Phase Two ESA report to Amazon, and grants the right to Amazon Canada Fulfillment Services, ULC, and its subsidiaries and affiliated entities to rely on the report contents. Except as specifically set forth in Geosyntec's proposal to Client to perform this work, no other party shall have the right to rely on Geosyntec's opinions rendered in connection with the Services without Geosyntec's written consent which may be conditioned on the third party's agreement to be bound to acceptable conditions and limitations similar to this Agreement. Please note that Geosyntec's consent to provide a right-to-rely on this report is subject to Client's approval and to agreement to Geosyntec's terms and conditions associated with Geosyntec's performance of this specific scope of work.

2.1 Phase Two Property Description

The Phase Two Property measures approximately 7.06 hectares (17.4 acres) in size. The Site is located at the northeast corner of Sheffield Road and Humber Place and is developed with an approximately 33,472 square metre (sq. m.) commercial warehouse building (the "Site building") initially constructed in 1967. The Site building is currently vacant but was formerly occupied by various grocery retailers, most recently Loblaw Properties Limited (Loblaw), and utilized for grocery distribution activities. The Phase Two Property may be accessed from Sheffield Road to the west and Humber Place from the south. There are no on-Site surface water bodies. A Phase Two Property Layout Plan is presented on **Figure 2.**

The Phase Two Property is located in an area that is developed with a mix of commercial, industrial and undeveloped/forested land. The Phase Two Property is bounded by an industrial/commercial

property to the north; a railway line followed by undeveloped/forested land and Green's Creek to the east; an industrial/commercial property and vacant lot to the south; and Sheffield Road followed by industrial/commercial properties to the west. The Phase One Study Area is presented on **Figure 3**.

2.2 Ownership Information

CP REIT Ontario Properties Limited (CP REIT) is the owner of the Phase Two Property, which is located within the City of Ottawa (City). A Phase Two Property Location Map and Phase Two Property Layout Plan are provided on **Figure 1** and **Figure 2**, respectively. Copies of the plans of survey for the Phase Two Property, signed and sealed by a surveyor, is provided in **Appendix D**.

Phase Two Property Information	
Phase Two Property Addresses:	2625 Sheffield Road, Ottawa, ON K1B 3V6
Property Identification Numbers (PINs):	04262-0111 (LT), 04262-0112 (LT)
Legal Description:	PT BLK A, PL 783, AS IN N282567 T/W OT70637; OTTAWA/GLOUCESTER PT BLK A, PL 783, PART 1 & 2, 5R1419, S/T OT70637; OTTAWA/GLOUCESTER
Ownership:	CP REIT Ontario Properties Limited
Site Contact Information:	Andrew Reial andrew.reial@choicereit.com 416-324-7913

No other parties engaged Geosyntec to prepare this Phase Two ESA.

2.3 Current and Proposed Future Uses

The Phase Two Property is developed with an approximately 33,472 sq. m. vacant commercial warehouse building. Asphalt paved parking and laneways are present surrounding the Site building. Landscaped areas are present along the northern, western, and southern perimeter of the Phase Two Property. Geosyntec understands that the Site building is scheduled to be demolished.

Geosyntec understands that Amazon intends to redevelop the Phase Two Property for commercial/industrial use as a warehouse under a ground lease agreement with CP REIT. It is Geosyntec's understanding that this Phase Two ESA is required by the City to support Site redevelopment. As there is no proposed change to a more sensitive land use, in accordance with the Ontario *Environmental Protection Act* (EPA) and O. Reg. 153/04, a Record of Site Condition (RSC) is not required.

2.4 Applicable Site Condition Standards

The applicable SCS for the Phase Two Property are derived from the Ontario Ministry of Environment, Conservation and Parks (MECP)[1] document entitled, "*Soil, Ground Water and Sediment Standards for Use under Part XV.I of the Environmental Protection Act*" (Queen's Printer, 2011) (MECP Standards). The SCS are divided into a series of tables based on land use type and groundwater use, as well as presence of "sensitive" conditions.

Geosyntec considered the following rationale for determining the applicable generic SCS:

- The Phase Two Property is located in an area of the Ottawa that is serviced by the municipal drinking water system. Further, upon review of the WWIS database, no water wells were identified to be located within the Phase One Study Area that are utilized for human consumption and/or agricultural usage. Geosyntec notes that there appears to be at least two potentially active water supply wells for commercial and industrial purposes (i.e., non-potable) located within the Phase One Study Area (i.e., Well ID No. #1511776 and #7277670), however based on the distances from the Site and/or the projected direction of groundwater flow, it is anticipated that these wells are not located within the zone of influence of the Site;
- The Phase Two Property is not considered environmentally sensitive, as defined by Section 41 of O. Reg. 153/04, as amended. Based on the results of the Phase One ESA, the Site is not located within an area of natural significance, nor does it include or is it adjacent to, or within, 30 metres (m) of such an area, as defined in Section 41(1)(a) of O. Reg. 153/04, as amended;
- The results of pH analyses for submitted soil samples conducted on the Phase Two Property by Geosyntec and others between 2020 and 2022, were within the range for non-environmentally sensitive sites. The following table describes the soil pH data collected from the Site:

Soil Designation	pH Value	Sample Depth (m bgs)	Sample Location	Report Reference
Surface (< 1.5 m bgs)	7.49	0.8 – 1.5	BH/MW102	EXP, 2020b
Subsurface (> 1.5 m bgs)	8.03	3.8 – 4.6	BH/MW102	EXP, 2020b
Surface (< 1.5 m bgs)	8.12	0 – 0.6	BH-7	AECOM, 2021
Surface (< 1.5 m bgs)	7.58	0 – 0.6	BH-18	AECOM, 2021
Surface (< 1.5 m bgs)	7.88	0.8 – 1.5	MW22-1	Geosyntec, 2022b
Subsurface (> 1.5 m bgs)	7.83 / 8.00	3.8 – 4.6	MW22-1	Geosyntec, 2022b
Surface (< 1.5 m bgs)	7.62	0.8 – 1.5	MW22-2	Geosyntec, 2022b
Subsurface (> 1.5 m bgs)	7.34 / 7.23	3.8 – 4.6	MW22-2	Geosyntec, 2022b
Surface (< 1.5 m bgs)	7.90	0 – 0.6	BH22-3	Geosyntec, 2022b

[1] Previously the Ministry of Environment (MOE) and Ministry of Environment and Climate Change (MOECC).

Soil Designation	pH Value	Sample Depth (m bgs)	Sample Location	Report Reference
Surface (< 1.5 m bgs)	8.07	0 – 0.8	MW22-4	Geosyntec, 2022b
Surface (< 1.5 m bgs)	7.98	0.8 – 1.5	MW22-5	Geosyntec, 2022b
Surface (< 1.5 m bgs)	7.84	0 – 0.8	BH22-6	Geosyntec, 2022b
Surface (< 1.5 m bgs)	8.18	0 – 0.6	BH22-7	Geosyntec, 2022b
Surface (< 1.5 m bgs)	7.60	0 – 0.6	BH22-8	Geosyntec, 2022b
Surface (< 1.5 m bgs)	7.65	0 – 0.8	BH22-9	Geosyntec, 2022b
Surface (< 1.5 m bgs)	7.80 / 7.64	0 – 0.8	BH22-10	Geosyntec, 2022b

Notes:
m bgs – metres below ground surface

- The Phase Two Property is not considered a shallow soil property in accordance with Section 43.1(1)(a) of O. Reg. 153/04, as amended. Based on the results of drilling activities conducted at the Site to date, greater than 2 m of overburden soil exists across more than two-thirds of the Site;
- The Phase Two Property is not considered a property located within 30 m of a water body per Section 43.1(1)(b) of O. Reg. 153/04, as amended. There are no surface water bodies present at the Site or within 30 m of the Site. The nearest body of water relative to the Phase Two Property is Green's Creek, located approximately 60 m east of the Phase Two Property;
- Three samples were submitted for grain-size analysis as part of this Phase Two ESA. Two of the samples were classified as medium to fine-grained by the laboratory while one was classified as coarse-grained. Furthermore, grain-size analysis was performed as part of previous Phase II ESAs conducted by Trow in 2010 and EXP in 2020 and the geotechnical investigation conducted by AECOM in 2021. In total, 23 samples have been submitted for grain-size analysis for the Site, 10 of which were classified as medium to fine-grained by the laboratory. Given that only a portion of the grain-size data set supports the use of medium to fine-grained classification, the coarse-textured standards will be applied; and
- The planned future use of the Phase Two Property is for logistics purposes (commercial/industrial land use). The proposed finished grading of the Site is anticipated to be similar to the existing grade.

Based on the available Site-specific information as described above, the applicable SCS for the Phase Two Property, as defined in the MECP Standards, are the '*Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition'* for Industrial/Commercial/Community property uses and coarse-textured soils (the "Table 3 SCS"). As such, analytical results obtained as part of this Phase Two ESA were compared to the Table 3 SCS.

Groundwater elevations measured at the Phase Two Property during previous Site investigations indicate that shallow groundwater condition (i.e., less than 3 m bgs) may be present at the Phase Two Property. If volatile compounds are identified in groundwater samples collected, then the shallow groundwater standards may be evaluated to assess the potential for assessment of vapour intrusion risk.

Based on the applicable Site-specific information as described above, the applicable standards for soil vapour samples are the MECP Commercial Soil Vapour Screening Levels (SVSLs) which were developed using the MECP's industrial/commercial Health Based Indoor Air Criteria (HBIAC) that were updated to reflect the most current toxicity reference values (MECP, 2020), divided by MECP's default attenuation factor of 0.004.

3. BACKGROUND INFORMATION

The following sections provide general background information relevant to the Phase Two Property.

3.1 Physical Setting

3.1.1 Water Bodies

The Phase Two Property does not include a water body. The nearest body of water relative to the Site is Green's Creek, located approximately 60 m east of the Phase Two Property. Green's Creek generally flows from south to north and discharges into Ottawa River, located approximately 6.5 km north of the Phase Two Property.

3.1.2 Areas of Natural Significance

The Phase Two Property is not located within an area of natural and scientific interest (ANSI), nor does it include or is it adjacent to or is within 30 m of an ANSI, as defined in Section 41(1)(a) of O. Reg. 153/04, as amended. No ANSIs were identified within the Phase One Study Area as reported in the Phase One ESA (Geosyntec, 2022).

According to the Rideau Valley Conservation Authority (RVCA) interactive mapping program[2], Ministry of the Natural Resources and Forestry (MNRF) significant woodlands are present between approximately 40 and 60 m to the east of the Phase Two Property and a non-provincially significant wetland is present approximately 200 m to the east of the Phase Two Property.

3.1.3 Topography and Surface Water Drainage

Based on a review of Google Earth™ satellite imagery, the Phase Two Property is situated at an elevation of approximately 65 m above mean sea level (amsl). Topographic elevation contours show the Phase Two Property and Phase One Study Area to be generally flat. Stormwater runoff from the Phase Two Property likely percolates into the ground surface or runs overland to catch basins located along Sheffield Road and Humber Place.

3.1.4 Municipal Drinking Water

The Phase Two Property and Phase One Study Area are serviced by the City of Ottawa municipal drinking water system, which obtains its water from a surface water source (Ottawa River)[3]. Based on a review of the WWIS database, no water wells located within the Phase One Study Area are

[2] https://www.rvca.ca/regulations-planning/map-a-property

[3] https://ottawa.ca/en/living-ottawa/drinking-water-stormwater-and-wastewater/drinking-water#:~:text=Using%20the%20Ottawa%20River%20as,operates%20six%20groundwater%20well%20systems.

utilized for human consumption and/or agricultural usage. According to the Phase One ESA, Geosyntec notes that there appears to be at least two potentially active water supply wells for commercial and industrial purposes (i.e., non-potable) located within the Phase One Study Area (i.e., Well ID No. #1511776 and #7277670), however based on the distances from the Site and/or the projected direction of groundwater flow, it is anticipated that these wells are not located within the zone of influence of the Site. The Phase Two Property is not located in a wellhead protection area or other designation identified on the MECP Source Protection Information Atlas[4].

3.2 Past Investigations

3.2.1 Summary of Past Investigations

The following environmental assessment documents were provided by Loblaw as part of environmental due diligence efforts conducted by Amazon in 2020:

- *Phase I Assessment, National Grocers Distribution Centre, 2625 Sheffield Road, Ottawa, Ontario, K1G 3LS*, prepared by Bluewing Environmental Services Inc. (Bluewing) for National Grocers, dated 03 October 1992;
- *Phase I Assessment Follow-Up Report, National Grocers Distribution Centre, 2625 Sheffield Road, Ottawa, Ontario, K1G 3LS*, prepared by Bluewing for National Grocers, dated 26 January 1995;
- *Phase I Environmental Site Assessment, Vacant Lot, 2692 Sheffield Drive, Ottawa, ON*', prepared by Jacques Whitford Environmental Ltd. (Jacques Whitford) for Loblaw, dated 06 November 2008;
- *Limited Phase II Environmental Site Assessment of 2692 Sheffield Road, Ottawa, ON*, prepared by Jacques Whitford for Loblaw, dated 14 November 2008;
- *Environmental Review Summary, Vacant Lot – 2692 Sheffield Road, Ottawa, Ontario*, prepared by Paterson Group Inc. (Paterson) for 1075748 Ontario Inc., dated 20 November 2008;
- *Supplemental Soil Sampling, 2692 Sheffield Road, Ottawa, ON*, prepared by Jacques Whitford for Loblaw, dated 18 March 2009;

[4] https://www.lioapplications.lrc.gov.on.ca/SourceWaterProtection/index.html?viewer=SourceWaterProtection.SWPViewer&locale=en-CA

- *Phase I Environmental Site Assessment, 2625 Sheffield Road, Ottawa, ON*', prepared by Trow Associates Inc. (Trow) for Loblaw, dated December 2009;

- *Shear-wave Velocity Sounding, 2626 Sheffield Road, Ottawa*, prepared by Geophysics GPR International Inc. (GGI) for Trow, dated 28 December 2009 *[Geosyntec notes that there appears to be an error in Site address. It should be listed as 2625 Sheffield Road]*;

- *Phase II Environmental Site Assessment, 2625 Sheffield Road, Ottawa, ON*, prepared by Trow for Loblaw, dated February 2010;

- *Asbestos Building Materials Reassessment Report, Loblaw Inc., Distribution Centre 2016, 2625 Sheffield Road, Ottawa, Ontario*, prepared by Pinchin Ltd. (Pinchin) for Loblaw, dated 21 August 2019;

- *Draft Geotechnical Study, DYT3 – 2625 Sheffield Road, Ottawa, ON, K1B 3V6*, prepared by AECOM Canada Ltd. (AECOM) for Amazon, dated 15 June 2020; and

- *Geotechnical Investigation and Pavement Design Report, DYT3 – 2625 Sheffield Road, Ottawa, ON, K1B 3V6*, prepared by AECOM for Amazon, dated 7 October 2021.

In addition, the following environmental assessment documents were provided by CP REIT:

- *Phase I Environmental Site Assessment, 2625 Sheffield Road, Ottawa, Ontario*, prepared by EXP Services Inc. (EXP) for Loblaw and Choice Properties Limited Partnership, dated 17 July 2020;

- *Phase II Environmental Site Assessment, 2625 Sheffield Road, Ottawa, Ontario,* prepared by EXP for Loblaw and Choice Properties Limited Partnership, dated 8 October 2020;

- *Screening Level Risk Assessment, 2625 Sheffield Road, Ottawa, Ontario,* prepared by EXP for Loblaw and Choice Properties Limited Partnership, dated 4 December 2020;

- *Delineation Program, 2625 Sheffield Road, Ottawa, Ontario,* prepared by EXP for Loblaw and Choice Properties Limited Partnership, dated 18 January 2021; and

- *Emergency Clean-up Assessment after a Diesel Spill – Paved Area facing Door #17, Ottawa Distribution Center – 2625 Sheffield Road, Ottawa, Ontario*, prepared by Englobe Corp. (Englobe) for Loblaw and Choice Properties Limited Partnership, dated 18 March 2021.

The following environmental assessment documents were prepared by Geosyntec for the Phase Two Property:

- *Phase I Environmental Site Assessment, Amazon Site Code DYT3, 2625 Sheffield Road and 1360 Humber Place, Ottawa, Ontario, K1B 3V6*, prepared by Geosyntec for Amazon, dated 2 September 2020;

- *Limited Environmental Site Assessment, Amazon Site Code DYT3, 2625 Sheffield Road, Ottawa, Ontario, Canada*, prepared by Geosyntec for Amazon, dated 27 October 2020; and

- *Pre-Renovation Designated Substances and Hazardous Building Materials Investigation Report, 2625 Sheffield Road, Ottawa, Ontario*, prepared by Milosh Environmental Inc. for Geosyntec, dated 30 October 2020.

A summary of above-noted reports is provided below.

Geosyntec notes that the property (1360 Humber Place) located south of the Phase Two Property is also owned by CP REIT and leased by Amazon. Geosyntec included 1360 Humber Place as part of the original version of this Phase Two ESA (dated August 2022) for due diligence purposes on behalf of Amazon. This Phase Two ESA (Revised October 2022) has excluded 1360 Humber Place as it is not part of the Site Plan Control application submission to the City.

1992 and 1995 Bluewing Assessments (Bluewing, 1992; Bluewing, 1995)

The 1992 assessment completed by Bluewing included a historical records review and evaluated environmental compliance matters pertaining to the Phase Two Property. At the time of the assessment, the Phase Two Property was occupied by National Grocers. The assessment included the surveying of indoor air, sewer effluent, and building materials for asbestos. A follow-up assessment was completed by Bluewing in 1995 following the implementation of recommendations outlined in Bluewing's 1992 report. Based on Geosyntec's review, the following pertinent information was noted in the reports:

- Two 22,730 L (6,000 gallon) diesel USTs were located on the north end of the Phase Two Property. The USTs were of fiberglass construction and installed in August 1992. It is noted that the database records for the Phase Two Property indicate that the USTs in this area are 35,000 L (9,250 gallon) in capacity. As such, it is inferred that the smaller capacity USTs replaced previous USTs, which were installed in 1978. During the UST replacement activities, Bluewing was advised that four truckloads of contaminated soil were removed from the area. One AST was also observed in this area by Bluewing, and was noted to be utilized for temporary storage during the USTs replacement activities.
- Two 1,900 L (500 gallon) USTs, which stored waste oil and supply oil, were also reportedly located on the Phase Two Property, near the northwest corner of the Site building. The USTs were of single-wall steel construction and installed in 1976.

- Three catch basins were observed in former truck repair garage within the Site building, which connected to an oil-water separator. In addition, three catch basins were observed in a battery room, and were utilized to discharge of battery wash water (after neutralizing with baking soda). Two catch basins were also located in a compactor room and were utilized to capture wastewater from floor washers. Dye testing of the sewer system confirmed that effluent captured at these locations were discharged to the municipal sanitary sewer system (and not the storm system).
- Chemicals stored at the Phase Two Property were noted to include household hazardous products, pool chemicals, pesticides, and fertilizers, packaged for retail sale. Hazardous wastes generated at the Phase Two Property included waste petroleum naptha generated in a parts washer, waste oil, and interceptor sludge. It was noted that hazardous waste was removed for off-Site disposal by licensed waste haulers.
- A transformer was located in a locked vault within the Site building which could not be accessed. Bluewing noted that Ottawa Hydro had indicated that the transformer was not '*[polychlorinated biphenyl] PCB contaminated*'. Fluorescent light bulbs removed for replacement were managed by an electrical contractor.
- Mechanical insulation on pipe elbows and valves, as well as sprayed ceiling insulation was observed and sampled for asbestos analysis. It is noted that a more comprehensive asbestos surveys have been subsequently conducted as summarized below.
- One 40 to 50 L spill had reportedly occurred at an unspecified location on the Phase Two Property in 1990. The spill was noted to have been reported to the Ministry of the Environment[5]. No further details were provided.

<u>2692 Sheffield Road Investigations (2008-2009)</u>

The 2008/2009 Jacques Whitford environmental reports and 2009 Paterson review letter were prepared for 2692 Sheffield Road, located approximately 30 m to the southwest of the Phase Two Property. The property was a vacant lot owned by Loblaw at the time. Presently, this location is developed with a commercial/industrial building occupied by Dragona Flooring. The work was completed in relation to the divestiture of this property by Loblaw.

Issues of potential environmental concern identified during a Phase I ESA for this property included on-Site suspect fill materials, on-Site snow disposal activities, and the off-Site storage of waste oil in near proximity to the property. A Phase II ESA was subsequently completed to assess these findings, and included the advancement of three boreholes, each of which was installed as a

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monitoring well. Soil quality conditions were further evaluated in a subsequent supplemental soil investigation which included the advancement of 11 test pits.

The results of groundwater elevation contouring conducted at this location indicated the direction of groundwater flow at this property was generally east/northeast (i.e., towards the Phase Two Property).

Jacques Whitford compared the analytical data for the submitted soil and groundwater concentrations to numerical criteria presented in the MECP[6] documented entitled '*Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*', dated March 9, 2004 (2004 MECP Standards). Based on Site-specific considerations, Jacques Whitford concluded that the MECP Standards applicable to the Phase Two Property were those identified as the *Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition* for industrial/commercial/community land uses and coarse-textured soils (2004 Table 3 SCS).

With respect to soil conditions, the results of the borehole and test pit investigations identified localized salt-related impacts, and barium concentrations exceeding generic background criteria. No concentrations of contaminants greater than the 2004 Table 3 SCS were identified in groundwater, which were submitted for laboratory analysis of volatile organic compounds (VOCs), petroleum hydrocarbons (PHCs) fractions F1-F4 (F1-F4), polycyclic aromatic hydrocarbons (PAHs), metals, and inorganic parameter[7] analyses.

2009 Trow Phase I ESA Report (Trow, 2009)

The Phase I ESA completed at the Phase Two Property by Trow in December 2009 included a review of historical and regulatory information, a Site reconnaissance, and interviews. At the time of the 2009 Phase I ESA, the configuration of the Phase Two Property was generally consistent with present day. The Phase Two Property was occupied by Loblaw. Based on the results of the Phase I ESA, Trow identified the following APECs:

- Bulk fuel storage in USTs on the north end of the Phase Two Property;
- A former waste oil UST(s) to the northwest of the Site building. Trow was advised that the oil UST(s) was/were removed in approximately 1999;

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6 Formerly the Ministry of the Environment and Climate Change (MOECC), previously the Ministry of the Environment (MOE).

7 Metals and inorganics parameters included antimony, arsenic, barium, beryllium, boron, cadmium, chromium, hexavalent chromium, cobalt, copper, iron, lead, mercury, molybdenum, nickel, selenium, silver, sodium (groundwater only), thallium, vanadium, zinc, electrical conductivity (soil only), free cyanide (soil only), pH (soil only), and sodium adsorption ratio (soil only).

- A level monitoring indicator indicating the suspected presence of a heating oil UST was observed in the partial basement beneath the office portion of the Site building;
- An oil-water separator located in the truck repair garage of the Site building, which had been in use for more than 40 years;
- Petroleum staining on the concrete floor slab was observed in the wash bay area of the Site building. Cracks were observed in the concrete floor slab;
- An off-Site railway located adjacent to the east of the Phase Two Property; and
- A historical building located in the area which is now occupied by the south extension (former freezer area) of the Site building. Specifically, demolition practices and unknown former use of this building were identified as a concern.

Based on the findings of the Phase I ESA, Trow recommended the completion of a Phase II ESA at the Phase Two Property. Based on Geosyntec's review of the Trow report, the following additional pertinent information is noted:

- Two 205 L (45 gallon) drums of mechanical oil and one 205 L (45 gallon) drum of washer fluid were observed in the wash bay.
- A forklift repair area was located in the northwest portion of the Site building, west of the battery bay. Chemicals/wastes observed in this area included hydraulic oil in several 20 L (5 gallon) pails, waste oil in two 205 L (45 gallon) drums, waste liquid (unspecified) in a parts washer basin, as well as solvents and paints in a locked storage unit.
- A workshop related to building maintenance activities was located in the northwestern portion of the Site building. Limited quantities of spray paint, cleaning solution, and mechanical oil were observed to be stored in this area.
- Wash water generated during the washing of batteries was captured in a wash basin, then transferred to a metal container for eventual removal by a third party. White discoloration was observed on the concrete floor surface adjacent to the wash basin.
- A mechanical scrubber was utilized to wash the floors of the facility. The waste wash water from the scrubber was discharged to a drain that connected to a holding tank in the wash bay. Sediment filtered from the wash water in the holding tank was collected by a third party. The filtered liquid was discharged to the oil-water separator in the garage. It was further noted that the oil-water separator was connected to catch basins in the old garage, and truck wash bay, and that the unit was serviced twice a year.

<u>2009 GGI Shear-wave Velocity Sounding Report (GGI, 2009)</u>

The report describes the results of a geophysical survey completed at the Phase Two Property. The purpose of the work was not clear in the report; however, appeared to be conducted for

geotechnical purposes. Based on the results of the survey, the overburden at the Phase Two Property was characterized as 'very dense soil and soft rock'.

2010 Trow Phase II ESA Report (Trow, 2010)

A Phase II ESA conducted by Trow at the Phase Two Property in February 2010 focused on investigating some of the APECs identified during the 2009 Phase I ESA. Specifically, the Phase II ESA assessed soil and groundwater conditions in the areas of the on-Site private fuel outlet and the location of the former on-Site building. Soil was also investigated at the adjoining property to the south (1360 Humber Place) to investigate the adjacent railway to the east of the Phase Two Property. APECs identified within the interior of the Site building during Trow's Phase I ESA including the oil-water separator, and petroleum staining in the wash bay, were not investigated as part of the Phase II ESA.

The Phase II ESA included the advancement of six boreholes (i.e., MW10-1, BH10-2, MW10-3 to MW10-6), four of which were advanced near the private fuel outlet. Five of the six boreholes were completed as monitoring wells. The locations of the boreholes/monitoring wells are presented on **Figure 2**. Geosyntec notes that MW10-1 was advanced off-Site at 1360 Humber Place.

Based on the results of field screening, one soil sample from each of the borehole locations was selected and submitted for laboratory analysis of one or more COPCs which included benzene, toluene, ethylbenzene, and xylenes (collectively 'BTEX'), PHCs F1-F4, polycyclic aromatic hydrocarbons (PAHs), and metals[8]. Groundwater samples collected from each of the monitoring wells were also submitted to for analysis of one or more of the COPCs.

The Phase II ESA also included a review of a previous report entitled *Removal of Underground Storage Tank, 2625 Sheffield Road, Ottawa, ON*, prepared by Oliver, Mangione & McCalla (OMMA), dated 11 October 2000, which was unavailable at the time of Trow's Phase I ESA. This report was not provided for Geosyntec review. A brief summary of this report by Trow noted that a former waste oil UST to the northwest of the Site building was removed in 2000, and no petroleum impacts were identified during confirmatory sampling. Based on these findings, Trow no longer considered this finding an APEC and, as such, subsurface investigation activities were no longer necessary in this area. Geosyntec notes that a later Phase I ESA report completed by EXP (described below) indicated that two USTs (one waste oil tank and one motor oil tank) were removed by from this area during the UST removal program.

[8] Metals parameters included antimony, arsenic, barium, beryllium, boron (groundwater only), cadmium, chromium, cobalt, copper, iron (groundwater only), lead, molybdenum, nickel, selenium, silver, sodium (groundwater only), thallium, vanadium, and zinc.

The Phase II ESA also included a geophysical survey over a 20 m by 20 m area in vicinity of the suspected heating fuel UST identified in the 2009 Phase I ESA. The report indicated that no evidence of an existing UST in this area was observed. It was also that a '*potential buried object and a pipe/linear object were noted in the corner. Based on the above, it is anticipated that any former storage tank that may have serviced the boiler room would have thus been removed prior to installing the gas line'*. Subsurface impacts were not investigated in the area by Trow due to safety concerns associated with the buried utilities in the area. It is further noted that the geophysical survey was limited due to buried electrical utility and parked cars.

Trow compared the analytical data for the submitted soil and groundwater samples to the 2004 Table 3 SCS. The report indicated that all reported contaminant concentrations in the submitted soil and groundwater samples met the 2004 Table 3 SCS, with the exception of PHC F2 in soil, and silver in groundwater, both of which were detected near the on-Site private fuel outlet.

2019 Pinchin Asbestos Report (Pinchin, 2019)

The 2019 Pinchin report summarizes an assessment of the condition of known ACM in the Site building materials, as part of an annual inspection program implemented at the Phase Two Property. The report indicated that an asbestos survey was conducted in 2008, and identified the following ACMs in the Site building:

- Friable aircel insulation on piping in the maintenance office washroom and electrical room;
- Friable parging cement insultation on pipe fittings in the maintenance office washroom, electrical room, maintenance room, the workshop, and basement boiler room;
- Non-friable 12" by 12" vinyl floor tile and mastic in the maintenance room and hydro vault;
- Non-friable paper in interior core of fire doors located in the outside garage, cafeteria stairs, and in the wash bay under the stairway; and
- Non-friable ceiling tiles in various areas could not be accessed, and were assumed to be ACMs.

It should be noted that the report indicated that the survey was conducted for the long-term management of ACMs at the Phase Two Property and was not completed for construction or renovation purposes. Based on the results of the condition assessment, no recommendations for immediate remedial action were provided in this report.

2020 AECOM Geotechnical Study Report (AECOM, 2020)

The Geotechnical Study completed at the Phase Two Property by AECOM in June 2020 included a review of available Site information to identify expected subsurface conditions and a Site reconnaissance to review on-Site pavement conditions.

AECOM recommended that a field geotechnical investigation for pavement design purposes be completed at the Phase Two Property. The geotechnical investigation was to include the drilling of 20 boreholes to provide Site specific geotechnical and subgrade information.

2020 Draft EXP Phase I ESA Report (EXP, 2020a)

The Phase I ESA completed for the Phase Two Property by EXP in July 2020 included a review of historical and regulatory information, a Site reconnaissance, and interviews. Geosyntec notes that the Phase I ESA also included a review of the 1999 UST removal report by OMMA, several UST inspection documents, geotechnical reports, building material assessment reports (beyond the 2019 Pinchin Asbestos report noted above), and spill reports, all of which were not available for Geosyntec review.

With respect to the 1999 OMMA UST removal activities, further details were provided in the EXP report. It was noted that OMMA had removed a waste oil UST and a new oil UST from this location. Each of the USTs had an estimated capacity of 2,250 L (600 gallons). Four soil samples collected from each of the sidewalls of the location (no sampling of the excavation base was noted), and a water sample (presumably from the excavation cavity) were collected and submitted for laboratory analysis. The analytical suite for the samples was not specified. The report indicated that the soil samples met guidance criteria available at the time, and hydrocarbon concentrations in the water sample were non-detectable.

Based on the results of the Phase I ESA, EXP identified the following issues of potential environmental concern:

- Existing fuel USTs on the north end of the Phase Two Property, as well as the 2004 Table 3 SCS exceedances of PHC F2 in soil, and silver in groundwater, previously identified at this location during the 2010 Trow Phase II ESA;
- Former oil USTs located to the northwest of the Site building. It was noted that confirmatory soil and groundwater samples collected during the removal of these USTs in 1999 were compared to regulatory criteria which has since been revised. Due to changes in the fractional speciation and analysis of hydrocarbon compounds since this time, it could not be confirmed whether concentrations met the current 2011 Table 3 SCS expressed as PHCs F1-F4;
- EXP was advised that fill material of unknown origin was imported during the development of the Phase Two Property. In addition, the report noted that fill material of unknown origin was utilized to backfill the excavation of the former oil USTs, and identified fill materials related to on-Site historical railway spurs; and
- Former and current commercial/industrial operations in the vicinity of the Phase Two Property.

Based on the results of the Phase I ESA, EXP recommended the completion of a Phase II ESA at the Phase Two Property.

2020 Geosyntec Phase I ESA (Geosyntec, 2020a)

Geosyntec prepared a Phase I ESA for the Phase Two Property and adjoining property to the south (1360 Humber Place) in September 2020, which included a review of historical and regulatory documents, a Site reconnaissance, and interviews. At the time of the Phase I ESA, the Phase Two Property was occupied by Loblaw for grocery distribution activities.

Based on the results of the Phase I ESA, Geosyntec identified the following findings:

- Operation of a truck repair/maintenance area within the Site building, which was active through 2000. An oil-water separator associated with this activity appears to have been in operation since the construction of the Site building;
- Documented hazardous materials storage/handling activities including: various oils, washer fluid, waste oils, solvents, battery wash water, and wastes extracted from on-Site settling tanks;
- Numerous spill records were identified in database records for the Phase Two Property. A total of 25 database listings pertained to diesel fuel releases ranging in volume from less than 1 L (0.3 gallons) to 500 L (130 gallons) and another four records pertained to oil/hydraulic fluid releases ranging in volume from 4 L (1 gallon) to 48 L (13 gallons);
- Two rail spurs were historically located in the central portion of the Phase Two Property;
- In 2011, a fire occurred in the southern portion of the Site building. It was not documented to what extent the fire damaged the building or how the fire was brought under control. Geosyntec notes that fires often result in subsurface contamination issues due to PAHs, dioxins, and/or firefighting agents (the type of material used to extinguish the fire is not known);
- Existing fuel USTs on the north end of the Phase Two Property, as well as the 2011 Table 3 SCS exceedances of PHC F1 and F2 in soil, and silver in groundwater, previously identified at this location during the 2010 Trow Phase II ESA;
- Former oil USTs located to the northwest of the Site building and evidence of a possible third heating oil UST (indicated by a level monitoring indicator in a basement and suspected exterior fill and vent pipes) identified during previous Phase I ESAs by others;
- Commercial/industrial land usage in the Phase One Study Area has been conducted since the 1960s. Numerous operations listed as waste generators, identified as dry cleaning operations generating halogenated solvents, and/or identified in spill records were

identified at properties located hydraulically upgradient or adjacent to the Phase Two Property; and

- Re-worked fill material was noted in the 2010 Trow Phase II ESA at six borehole locations. In addition, poor quality fill material may have also been associated with two railway spurs historically located in the central portion of the Phase Two Property.

Geosyntec also noted that the Phase Two Property was historically utilized for agricultural purposes and that a railway was located on the adjoining property to the east.

2020 EXP Phase II ESA (EXP, 2020b)

A Phase II ESA conducted by EXP in August 2020 at the Phase Two Property and adjoining property to the south (1360 Humber Place) focused on investigating the APECs identified during the 2020 EXP Phase I ESA. Specifically, the Phase II ESA assessed soil and/or groundwater conditions in the areas of the on-Site private fuel outlet, former waste oil USTs, former interior truck repair garage, presence of fill material and former on-Site rail spurs and off-Site industrial operations to the north, west, and south of the Phase Two Property.

The Phase II ESA included the advancement of nine boreholes (i.e., BH/MW101 to BH/MW106, BH107, BH108, and BH/MW109). Seven boreholes were completed as monitoring wells. The locations of the boreholes/monitoring wells are presented on **Figure 2**. Geosyntec notes that BH/MW109 was advanced off-Site at 1360 Humber Place.

Based on the results of field screening, one or more soil samples from each of the borehole locations was selected and submitted for laboratory analysis of one or more COPCs which included BTEX, VOCs, PHCs F1-F4, PAHs, and metals[9]. Groundwater samples collected from each of the newly installed monitoring wells as well as three of the existing monitoring wells (i.e., MW10-3, MW10-4, and MW10-6) were also submitted to for analysis of one or more of the COPCs.

EXP compared the analytical data for the submitted soil and groundwater concentrations to the MECP *Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition* for industrial/commercial/community land uses and medium to fine-textured soils (the 2011 Table 3 SCS).

[9] Metals parameters included antimony, arsenic, barium, beryllium, boron, hot water soluble boron (soil only) cadmium, chromium, hexavalent chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, sodium (groundwater only), thallium, vanadium, uranium, and zinc.

The report indicated that all reported contaminant concentrations in the submitted soil and groundwater samples met the 2011 Table 3 SCS, with the exception of the following:

- PHC F2 concentrations (370, 540, and 990 µg/g vs. the 2011 Table 3 SCS of 250 µg/g) for soil samples BH/MW103-S2, S4, and S5, collected in the vicinity of the oil-water separator located in the northwest corner of the Site building at depths between 1.2 m to 3.7 m bgs, exceeded the 2011 Table 3 SCS. Hydrocarbon odour and staining were reported to have been observed at these depths during the field investigation. A fourth soil sample BH/MW103-S7 at a depth of 4.3 m to 4.9 m bgs was submitted for PHC/BTEX analysis. The concentrations in this sample met the 2011 Table 3 SCS; and
- A PHC F2 concentration (660 µg/g vs. the 2011 Table 3 SCS of 250 µg/g) for the duplicate soil sample of BH107-S2, collected south of the fueling USTs in the vicinity of a former PHC F2 soil exceedance between 0.9 m and 1.5 m bgs. Hydrocarbon odour and staining were reported to have been observed at this depth interval during the field investigation. A second soil sample BH107-S3 at a depth of 1.5 m to 2.3 m bgs was submitted for PHC/BTEX analysis. The concentrations in this sample met the 2011 Table 3 SCS.

Concentrations of ethylbenzene in soil sample BH/MW103-S4, select PAHs in soil sample BH108-S1B, and various metals in several boreholes were also detected at concentrations below the 2011 Table 3 SCS. Non-detectable concentrations of BTEX, VOCs, PHCs F1-F4, and PAHs, were reported for the remainder of the submitted soil and groundwater samples. Geosyntec notes MW10-4, which had an elevated concentration of silver during the 2010 Trow Phase II ESA, was re-sampled for metals parameters by EXP and silver was not detected.

2020 Geosyntec Limited ESA (Geosyntec, 2020b)

Geosyntec conducted a Limited ESA at the Phase Two Property in October 2020 to evaluate potential vapour intrusion to indoor air risk within the existing Site building footprint. The Limited ESA included the installation of seven sub-slab vapour pins within the Site building (SSV-01, SSV-02 and SSV-04 to SSV-08) to facilitate sub-slab vapour sample collection. Proposed sub-slab vapour sample SSV-03 was not collected as the concrete slab in this location was beyond the length of the drill bit available at the time of the field work.

Two sub-slab vapour samples were collected and submitted to the analytical laboratory for VOC analysis by United States Environmental Protection Agency (USEPA) Method TO-15. Analytical results for sub-slab vapour samples were compared to the MECP Residential and Commercial Soil Vapour Screening Levels (SVSLs) and the USEPA Residential and Commercial Vapour Intrusion Screening Levels (SLs).

The sub-slab vapour results can be summarized, as follows:

- The following VOC concentrations exceeded the MECP Commercial SVSLs and/or the USEPA Commercial SLs:
    - Chloroform concentrations at SSV-02 (610 µg/m^3) exceeded the USEPA Commercial SL (18 micrograms per cubic meter [µg/m^3]); and
    - Trichloroethylene (TCE) concentrations at SSV-01 (106 µg/m^3) exceeded the USEPA Commercial SL (100 µg/m^3).
- The following VOCs had concentrations that exceeded the MECP Residential SVSLs and/or the USEPA Residential SLs: 1,3-butadiene (SSV-06); benzene (SSV-05 and SSV-06); bromodichloromethane (SSV-02); chloroform (SSV-01 and SSV-07); dichlorodifluoromethane (SSV-06); ethylbenzene (SSV-06); and tetrachloroethylene (SSV-01 and SSV-02).
- Various other VOCs were detected at low levels; however, none of the detected concentrations exceeded either the MECP Residential and Commercial SVSLs or USEPA Residential and Commercial SLs.
- Methane was detected at low concentrations (between 0.0 and 0.2% by volume [%vol]) during screening at the sub-slab sample locations, which is below the lower explosive limit of methane (5%vol).

<u>2020 Milosh Pre-Renovation DSS & HM Survey (Milosh, 2020)</u>

Geosyntec (on behalf of Amazon) subcontracted Milosh to prepare a Pre-Renovation Designated Substances and Hazardous Building Materials Investigation Report (DSS&HM Survey) for the Phase Two Property. Milosh surveyed 11 designated substances within building materials at the Site, as defined by Section 30 of the Ontario *Occupational Health and Safety Act* (OHSA) and Ontario Regulation 490/09, as follows: asbestos, lead, mercury, silica, isocyanates, vinyl chloride monomer, benzene, acrylonitrile, coke oven emissions, arsenic, and ethylene oxide. Other hazardous materials assessed as part of the investigation included PCBs, ozone depleting substances (ODS), mould, and radioactive materials.

A total of 59 samples were collected from 17 different Site building materials for analysis of ACM. Based on the analytical laboratory data, the following ACM was detected at the Phase Two Property:

- Drywall joint compound in the northwest corner of the 1967 portion of the Site building (2% chrysotile asbestos);
- Grey caulking located around exterior perimeter doors (2% chrysotile asbestos);

- Rooftop exhaust vents on the 1967 portion of the Site building (3% chrysotile asbestos); and
- Black caulking located around inner windows of the 1967 portion of the Site building (3% chrysotile asbestos).

Milosh also summarized previously sampled and identified ACM as describe in the 2019 Pinchin Asbestos Report:

- White air-cell mechanical pipe insulation throughout 1967 and 1976 portions of the Site building in ceiling spaces and wall cavities (60% chrysotile asbestos);
- Grey parging cement insulation throughout 1967 to 1976 portions of the Site building in ceiling spaces and wall cavities (40% chrysotile asbestos);
- Mastic beneath 12" x 12" brown vinyl floor tiles located in main office (0.5% to 5% chrysotile asbestos);
- 12" x 12" salmon vinyl floor tiles and mastic located in the main office beneath existing beige floor tiles (0.5% to 5% chrysotile asbestos); and
- Packing material within fire doors located in the 1967 to 1974 portions of the Site building (40% chrysotile asbestos).

Milosh identified building materials at the Site building that were presumed to be ACM (but were not sampled) that including potential ACM associated with knuckle joint connections of the cast-steel water pipe drainage systems and the roof. Milosh noted that the investigation was limited-intrusive in nature. As such, it was recommended that during renovation or demolition of the Site building, if suspect ACMs are identified, work should stop and the materials should be tested to confirm asbestos content.

Six samples of suspected lead-based paint (LBP) applications were collected and submitted for total lead analysis. Based on the laboratory analysis, the following LBP was detected at concentrations >0.1% lead content at the Phase Two Property:

- Cream paint located in the main office (0.1170%);
- Reddish brown paint located in the basement mechanical rooms, maintenance shop, garage bay areas (0.4760%); and
- Yellow paint located throughout warehouse areas (0.3980%).

Milosh also indicated that although not tested or observed, lead may also be present in wiring connectors, electric cable sheathing, solder joints on copper piping, ceramic glazes, lead sheeting, and masonry mortar at the Site.

Based on the age of the building and observations made during the survey, Milosh provided a summary of the potential or presumed presence of the other assessed designated substances and hazardous substances in the Site building materials and provided recommendations for the abatement and management of these materials during a renovation or demolition of the Site building.

2020 EXP Delineation Report (EXP, 2020c)

A Phase II ESA conducted by EXP at the Phase Two Property in November 2020 focused on horizontally delineating the PHC F2 exceedances beneath the northwestern portion of the Site building and in the vicinity of the on-Site private fuel outlet.

The Phase II ESA included the advancement of eight boreholes (i.e., BH201 to BH208). Four boreholes were completed around each identified soil exceedance. The locations of the boreholes are presented on **Figure 2**.

One soil sample from each of the borehole locations was selected and submitted for laboratory analysis of BTEX and PHCs F1-F4. EXP compared the analytical data for the submitted soil concentrations to the 2011 Table 3 SCS.

The report indicated that all reported contaminant concentrations in the submitted soil samples were less than the 2011 Table 3 SCS.

2020 EXP SLRA Report (EXP, 2020d)

A screening level risk assessment (SLRA) conducted by EXP in December 2020 focused on evaluating the risk of known contaminant of concern (COC), PHC F2 in soil, to potential human and ecological receptors at the Phase Two Property.

A component value screening was completed based on Site-specific factors. EXP noted that due to the shallow groundwater encountered at the Phase Two Property (at a depth of 1.52 m bgs) as a conservative approach, volatile groundwater parameters were compared to the MECP 2011 *Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Groundwater Condition* (the "2011 Table 7 SCS"). EXP did not identify any further COCs upon comparison of the groundwater analytical results to the 2011 Table 7 SCS.

The results of the SLRA were reported as follows:

- No unacceptable risks were identified for direct contact with soil by Site visitors, long-term workers, or construction/subsurface workers;
- No unacceptable risks were identified for outdoor air inhalation by Site visitors, long-term workers, or construction/subsurface workers;

- No unacceptable risks were identified for direct or indirect contact with soil by plants, soil invertebrates, mammals or birds;
- No unacceptable risks were identified for indirect contact with soil by aquatic organisms as a result of contaminant leaching from soil to groundwater and migration to off-Site water bodies; and
- Potential risks were identified for indoor air inhalation by Site visitors and long-term workers within the Site building.

EXP recommended that a sub-slab vapour or indoor air quality assessment be completed to assess whether the COC (PHC F2) present in soil beneath the Site building represents a health risk to occupants.

EXP further noted that no risk management measures (RMMs) were required for on and off-Site ecological receptors.

2021 Englobe Emergency Diesel Spill Clean-up Letter (Englobe, 2021)

An emergency clean-up assessment was conducted by Englobe Corp. (Englobe) to assess on-Site conditions after a diesel spill clean-up at the Phase Two Property. The spill occurred on 2 January 2021, in which a trailer reefer fuel tank was punctured resulting in a release of approximately 335 L of diesel fuel to the asphalt pavement in the northeastern portion of the Phase Two Property (near Door #17).

A specialized contractor was retained by Loblaw. A vacuum truck was used to recover the spilled diesel and the asphalt pavement was cleaned with degreaser. The area was pressure washed to remove any additional diesel. All pumped diesel and wash water were collected for off-Site disposal.

Englobe conducted a visual reconnaissance of the release area on 12 January 2021. Englobe observed some cracks in the asphalt in the area of the spill. It was concluded that the area was sufficiently cleaned the deep cleaning of the asphalt and seasonal frozen soil conditions prevented migration of diesel into the subsurface.

Geosyntec notes that no soil testing was completed as part of the spill response or Englobe's assessment.

2021 AECOM Geotechnical Investigation Report (AECOM, 2021)

The 2021 AECOM geotechnical investigation included the advancement of 16 boreholes (BH-1 to BH-3, BH-7, BH-10 to BH-12, and BH-14 to BH-22) throughout the Phase Two Property to depths ranging between 1.37 m and 5.18 m bgs in January 2021. No groundwater monitoring wells were installed as part of this investigation.

The soil stratigraphy at the Phase Two Property was characterized as follows:

- The ground surface was comprised of a layer of asphalt in all boreholes (except one) ranging in thickness from 40 to 180 millimetres (mm). The existing asphalt varied in condition between very poor to good. One borehole (i.e., BH-22) was advanced within a grassed area at the Phase Two Property. A layer of topsoil with a thickness of 50 mm was encountered at this location;
- A layer of granular base consisting of sand and gravel was encountered beneath the asphalt in all boreholes ranging in thickness from 330 mm to 1.42 m;
- Fill material was encountered beneath the granular base. The fill thickness was approximately 800 mm; and
- A native clayey silt layer was encountered beneath the fill material. The thickness of this layer ranged from 600 mm to 1.4 m. All boreholes were completed in this unit.

Soil quality samples were collected from two boreholes (BH-7 and BH-18) and were submitted to the analytical laboratory for laboratory analysis of chloride, sulphate, pH, electrical conductivity (EC), resistivity, and redox potential.

The depth to groundwater was visually recorded by AECOM at one borehole location (i.e., BH-7) at a depth of approximately 4 m bgs.

AECOM noted that no abnormal odours or staining were observed during the geotechnical investigation.

3.2.2 Validation and Use of Data from Previous Investigations

Geosyntec conducted a review of the methods for soil and groundwater sample collection, analytical protocols and QA/QC procedures documented in the 2010 Trow Phase II ESA, 2020 EXP Phase II ESA, 2020 EXP Delineation Report, and 2021 AECOM Geotechnical Report, as discussed in the SAP (see **Appendix A**). The soil and groundwater sampling, analytical and QA/QC protocols employed by Trow, EXP, and AECOM generally met the requirements of O.Reg. 153/04, as amended with the following exceptions:

- Duplicate samples for soil and groundwater were not collected as part of the 2010 Trow Phase II ESA; and
- Duplicate samples for soil were collected for PHC and BTEX parameters only as part of the 2020 EXP Phase II ESA. Adequate duplicate samples for all COPCs were collected in groundwater as part of the 2020 EXP Phase II ESA.

Laboratory reports from the above noted investigations (i.e., Trow, 2010; EXP, 2020b; EXP, 2020c; and AECOM, 2021) were reviewed to assess laboratory QA/QC procedures. Method

blanks were evaluated for detections above the reporting limit. Certified reference materials or internal reference materials were evaluated for acceptance within recovery limits. Surrogates were evaluated for recovery within acceptance limits. Where calculable, laboratory duplicates, and calibration verification standards or laboratory control samples were compared against applicable criteria or recovery limits. All laboratory data were found to be within acceptable limits.

As such, the data presented in the above noted investigations (i.e., Trow, 2010; EXP, 2020b; EXP, 2020c; and AECOM, 2021) is considered adequate for the purposes of meeting the data quality objectives (DQOs) of this Phase Two ESA and can be relied upon for the purposes of this Phase Two ESA.

4. SCOPE OF INVESTIGATION

The following subsections detail the investigation activities conducted as part of this Phase Two ESA.

4.1 Overview of the Site Investigation

To assess the COPC concentrations in the potentially impacted media at each of the APECs identified in the 2022 Geosyntec Phase One ESA, this Phase Two ESA consisted of drilling boreholes, installing monitoring wells, and sampling and analytical testing of soil and groundwater samples.

Geosyntec notes that the property (1360 Humber Place) located south of the Phase Two Property is also owned by CP REIT and leased by Amazon. Geosyntec included 1360 Humber Place as part of the original version of this Phase Two ESA (dated August 2022) for due diligence purposes on behalf of Amazon. This Phase Two ESA (Revised October 2022) has excluded 1360 Humber Place as it is not part of the Site Plan Control application submission to the City.

Geosyntec conducted the following activities at the Phase Two Property between 24 May 2022 and 3 June 2022:

- Advanced seven exterior boreholes (MW22-1, MW22-2, MW22-4, MW22-5, BH22-6, BH22-9, BH22-10) between 24 and 26 May 2022 to a maximum depth of 6.1 m bgs. Soil samples were collected and submitted for analyses of COPCs including PHCs F1 to F4, PAHs, VOCs including BTEX, metals (including arsenic [As], antimony [Sb], and selenium [Se], hexavalent chromium [Cr(VI)], and mercury [Hg]), B-HWS, CN-, EC, and/or SAR;

- Advanced three interior boreholes (BH22-3, BH22-7, and BH22-8) on 25 and 26 May 2022 to a maximum depth of 1.2 m bgs. Soil samples were collected and submitted for analyses of COPCs including PHCs F1 to F4, PAHs, VOCs including BTEX, metals (including As, Sb, and Se, Cr(VI), and Hg), B-HWS, CN-, EC, and/or SAR;

- Installed four monitoring wells (MW22-1, MW22-2, MW22-4, and MW22-5) in the shallow overburden aquifer on 24, 26, and 27 May 2022 to assess for the presence of the identified COPCs in groundwater;

- Developed the newly installed and select existing monitoring wells drilled by others (MW10-3 and MW101 to MW106) between 25 and 27 May 2022. Geosyntec notes that additional existing monitoring wells could not be located, were found to be damaged, or were inaccessible at the time of the Phase Two ESA (see Section 4.4);

- Collected groundwater samples from the newly installed and existing monitoring wells on 27 May and 3 June 2022. Groundwater samples were submitted for analyses of COPCs including PHCs, PAHs, VOCs, metals (including As, Sb, Se, Cr [VI], Hg), chloride (Cl-), and/or CN-; and

- Conducted groundwater level monitoring at the Phase Two Property on 2 June 2022 to record synoptic water level measurements.

Consistent with the Phase Two SAP Recommendations (**Appendix A**), Geosyntec also retained a specialized contractor to conduct a geophysical survey using ground penetrating radar (GPR) technology to determine the approximate locations of the former on-Site waste oil and heating oil USTs.

The approximate locations of the soil investigation boreholes and groundwater monitoring wells are shown on **Figure 6**. A copy of the Phase Two SAP is provided in **Appendix A**.

Geosyntec notes that the property (1360 Humber Place) located south of the Phase Two Property is also owned by CP REIT and leased by Amazon. Geosyntec included 1360 Humber Place as part of the original version of the SAP and Phase Two ESA (dated July 2022) for due diligence purposes on behalf of Amazon. Sampling locations on 1360 Humber Place are not included in this report as this property is not part of the Site Plan Control application submission to the City. The rationale for the selection of the proposed investigation locations is provided in the table below (see Section 4.4 for deviations from the Phase Two SAP):

Area of Potential Environmental Concern	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)	Proposed Sampling Locations (Soil)	Proposed Sampling Locations (Groundwater)
APEC #1 – Fill material of unknown quality	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, low or high pH, EC, and SAR	Soil	MW22-1 MW22-2 BH22-3 MW22-4 MW22-5 BH22-6 BH22-7 BH22-8 BH22-9 BH22-10	Not required as fill material does not intersect the water table

Area of Potential Environmental Concern	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)	Proposed Sampling Locations (Soil)	Proposed Sampling Locations (Groundwater)
APEC #2 – Private fuel outlet with two diesel USTs installed in 1978	BTEX, PHCs	Soil and groundwater	Not required due to previous investigations conducted at the Phase Two Property (Trow, 2010, EXP, 2020b, EXP, 2020c)	MW10-3* MW10-4* MW10-5* MW10-6*
APEC #3 – Former truck repair and maintenance activities	VOCs, BTEX, PHCs	Soil and groundwater	Not required due to previous investigations conducted at the Phase Two Property (EXP, 2020b, EXP, 2020c)	MW103*
APEC #4A – Former waste oil and supply oil USTs installed in 1976 and removed in 1999	BTEX, PHCs	Soil and groundwater	MW22-1	MW22-1
APEC #4B – Material of unknown quality used to backfill the former waste oil and supply oil USTs in 1999	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, low or high pH, EC, and SAR	Soil	MW22-1	Not required as backfill material does not intersect the water table
APEC #5A – Two former heating oil USTs	BTEX, PHCs, PAHs	Soil and groundwater	MW22-2 BH22-3	MW22-2
APEC #5B – Material of unknown quality used to backfill the former heating oil USTs	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, low or high pH, EC, and SAR	Soil	MW22-2 BH22-3	Not required as backfill material does not intersect the water table

Area of Potential Environmental Concern	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)	Proposed Sampling Locations (Soil)	Proposed Sampling Locations (Groundwater)
APEC #6 – Former rail spurs	PHCs, PAHs, Metals (including As, Sb, Se)	Soil	MW22-4	Not required as potential impacts expected to be in surficial soils
APEC #7 – Material of unknown quality used to backfill the former building	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, low or high pH, EC, and SAR	Soil	BH22-9	Not required as potential impacts expected to be in surficial soils
APEC #8 – Forklift battery washing and storage activities	Metals (including As, Sb, Se)	Soil	BH22-8	Not required as potential impacts expected to be in surficial soils
APEC #9 – Chemicals/wastes stored in the forklift repair area	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-	Soil	BH22-7	Not required as potential impacts expected to be in surficial soils
APEC #10 - On-Site fire that occurred in 2011	PHCs, PAHs, Metals (including As, Sb, Se), PFAS	Soil	BH22-10	Not required as potential impacts expected to be in surficial soils
APEC #11 – On-Site diesel spill that occurred in 2021	BTEX, PHCs	Soil	BH22-6	Not required as potential impacts expected to be in the surficial soils
APEC #12A – Former dry cleaning operations to the north of the Phase Two Property at 2575 Sheffield Road	VOCs	Groundwater	Not required due to off-Site concern	MW10-6*

Area of Potential Environmental Concern	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)	Proposed Sampling Locations (Soil)	Proposed Sampling Locations (Groundwater)
APEC #12B – Current and former end of life vehicle waste disposal site operations to the north of the Phase Two Property at 2575 Sheffield Road	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-	Groundwater	Not required due to off-Site concern	MW10-6*
APEC #13 – Current railway on the adjoining lands to the east of the Phase Two Property	PHCs, PAHs, Metals (including As, Sb, Se)	Groundwater	Not required due to off-Site concern	MW22-4 MW22-5
APEC #14A – Current metal fabrication operations to the south of the Phase Two Property at 1350 Humber Place	Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater	Not required due to off-Site concern	MW106*
APEC #14B – Former waste processing facility to the south of the Phase Two Property at 1350 Humber Place	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, Na, Cl-	Groundwater	Not required due to off-Site concern	MW106*
APEC #15 – Current and/or former electronics manufacturing operations to the northwest of the Phase Two Property at 2574 Sheffield Road	VOCs, BTEX, PHCs, Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater	Not required due to off-Site concern	MW101*
APEC #16A –Former metal plating operations to the west of the Phase Two Property at 2590 Sheffield Road	VOCs, Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater	Not required due to off-Site concern	MW101*

Area of Potential Environmental Concern	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)	Proposed Sampling Locations (Soil)	Proposed Sampling Locations (Groundwater)
APEC #16B – Former metal fabrication operations to the west of the Phase Two Property at 2590 Sheffield Road	Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater	Not required due to off-Site concern	MW101*
APEC #17 – Current and/or former automotive repair operations to the west of the Phase Two Property at 2600-2616 Sheffield Road and 1325 Humber Place	VOCs, BTEX, PHCs	Groundwater	Not required due to off-Site concern	MW101* MW104* MW105*
APEC #18 – Current and/or former commercial trucking operations to the west of the Phase Two Property at 2612 and 2660 Sheffield Road	VOCs, BTEX, PHCs	Groundwater	Not required due to off-Site concern	MW101* MW104* MW105*
APEC #19 – Current and/or former commercial printing operations to the west of the Phase Two Property at 1335 Humber Place	VOCs	Groundwater	Not required due to off-Site concern	MW105*
APEC #20A – Former dry cleaning operations to the west of the Phase Two Property at 2616 Sheffield Road	VOCs	Groundwater	Not required due to off-Site concern	MW104*

Area of Potential Environmental Concern	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)	Proposed Sampling Locations (Soil)	Proposed Sampling Locations (Groundwater)
APEC #20B – Former textile restoration operations to the west of the Phase Two Property at 2616 Sheffield Road	VOCs, BTEX, PHCs, Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater	Not required due to off-Site concern	MW104*
APEC #20C – Current and former organic waste processing and transfer facility operations to the west of the Phase Two Property at 2612 Sheffield Road	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, Na, Cl-	Groundwater	Not required due to off-Site concern	MW104*

Notes:
* – Existing monitoring well drilled by others
VOCs – Volatile Organic Compounds
BTEX – Benzene, Toluene, Ethylbenzene, Xylenes
PHCs F1-F4 – Petroleum Hydrocarbons Fractions F1 to F4
PAHs – Polycyclic Aromatic Hydrocarbons
As, Sb, Se – Arsenic, Antimony, and Selenium
CN- - Cyanide
Cr (VI) – Hexavalent Chromium
B-HWS – Boron (Hot Water Soluble)
Hg – Mercury
Na – Sodium
Cl- – Chloride
EC – Electrical Conductivity
SAR – Sodium Adsorption Ratio
PFAS – Per- and Polyfluoroalkyl Substances

It is our understanding that the existing Site building might be demolished and that a smaller warehouse building would be constructed in the same general footprint. At the request of Amazon, a sub-slab vapour investigation was conducted within the proposed building footprint to assess potential vapour intrusion risk. Geosyntec conducted the pin installation, screening and sampling for volatile organic compounds (VOCs) and petroleum hydrocarbons (PHCs) aliphatic and aromatic fractionations at five sub-slab locations on 26 May 2022. The approximate locations of the sub-slab vapour pin locations are shown on **Figure 7**.

4.2 Media Investigated

The rationale for the media to be investigated was provided in the findings of the Phase One ESA (Geosyntec, 2022), and the Phase Two SAP (**Appendix A**). Soil and groundwater were identified as media of concern for the APECs identified for the Phase Two Property; therefore, soil and groundwater sampling were conducted as part of this Phase Two ESA. There are no surface water bodies on the Phase Two Property; thus, sediment does not constitute a medium of concern for the Phase Two Property and was not investigated.

As noted above, sub-slab vapour was assessed within the proposed building footprint at the request of Amazon.

4.3 Phase One Conceptual Site Model

Geosyntec prepared a Phase One Conceptual Site Model (CSM) for the Site as part of the 2022 Phase One ESA. The Phase One CSM is depicted on **Figures 1** through **5**, which illustrate the following, where applicable:

- Existing buildings and structures;
- Water bodies located in whole or in part within the Phase One Study Area;
- Areas of natural significance located in whole or in part on the Phase One Study Area (not applicable);
- Roads (including names) within the Phase One Study Area;
- Areas where a PCA has occurred, and locations of tanks in the Phase One Study Area;
- APECs;
- Drinking water wells at the Phase One Property (not applicable); and
- Uses of properties adjacent to the Phase One Property.

4.3.1 Potentially Contaminating Activities

On and off-Site PCAs were identified during the Phase One ESA, which led to multiple APECs on the Phase One Property:

PCA Classification *(Table 2 of Schedule D, O. Reg. 153/04)*	**Location of PCA**
#30 – Importation of Fill Material of Unknown Quality	On-Site (PCAs #1, #4B, #5B, #7)
#28 – Gasoline and Associated Products Storage in Fixed Tanks	On-Site (PCAs #2, #4A, #5A)
#11 – Commercial Trucking and Container Terminals	On-Site (PCA #3) Off-Site (PCAs #17, #19)
#46 – Rail Yards, Tracks, and Spurs	On-Site (PCA #6) Off-Site (PCA #13)
#6 – Battery Manufacturing, Recycling, and Bulk Storage	On-Site (PCA #8)
#8 – Chemical Manufacturing, Processing, and Bulk Storage	On-Site (PCA #9)
No PCA # – Impacts from a Fire	On-Site (PCA #10)
No PCA # - Impacts from a Diesel Spill	On-Site (PCA #11)
#37 – Operation of Dry Cleaning Equipment (where chemicals are used)	Off-Site (PCAs #12, #17)
#49 – Salvage Yard including automobile wrecking	Off-Site (PCA #12)
#34 – Metal Fabrication	Off-Site (PCAs #14, #16)

PCA Classification *(Table 2 of Schedule D, O. Reg. 153/04)*	Location of PCA
#58 – Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners	Off-Site (PCAs #14, #17)
#19 – Electronic and Computer Equipment Manufacturing	Off-Site (PCA #15)
#33 – Metal Treatment, Coating, Plating, and Finishing	Off-Site (PCA #16)
#10 – Commercial Autobody Shops	Off-Site (PCAs #17, #20)
#54 – Textile Manufacturing and Processing	Off-Site (PCA #17)
#31 – Ink Manufacturing, Processing and Bulk Storage	Off-Site (PCA #20)

The above-mentioned PCAs were considered to represent the following APECs on the Phase One Property:

- **APEC #1** – Fill material of unknown quality across the entire Phase One Property;
- **APEC #2** – Private fuel outlet with two diesel underground storage tanks (USTs) installed in 1978 in the north-central portion of the Phase One Property;
- **APEC #3** – Former truck repair and maintenance activities within the northwestern portion of the Site building;
- **APEC #4A** – Former waste oil and supply oil USTs installed in 1976 and removed in 1999 along the northwestern exterior of the Site building;
- **APEC #4B** – Material of unknown quality used to backfill the former waste oil and supply oil USTs in 1999 along the northwestern exterior of the Site building;
- **APEC #5A** – Two former 10,000-gallon heating oil USTs located in the vicinity of the western portion of the Site building;
- **APEC #5B** – Material of unknown quality used to backfill the former heating oil USTs located in the vicinity of the western portion of the Site building;
- **APEC #6** – Former rail spurs located in the central portion of the Phase One Property;
- **APEC #7** – Material of unknown quality used to backfill the former building located in the southern portion of the Phase One Property;
- **APEC #8** – Forklift battery washing and storage activities in the north-central portion of the Site building;
- **APEC #9** – Chemicals/wastes stored in the forklift repair area in the northwestern portion of the Site building;
- **APEC #10** – On-Site fire that occurred in 2011 along the southwestern exterior of the Site building;

- **APEC #11** – On-Site diesel spill that occurred in 2021 in the northeastern portion of the Phase One Property;
- **APEC #12A** – Former dry cleaning operations to the north of the Phase One Property at 2575 Sheffield Road;
- **APEC #12B** – Current and former end of life vehicle waste disposal site operations to the north of the Phase One Property at 2575 Sheffield Road;
- **APEC #13** – Current railway on the adjoining lands to the east of the Phase One Property;
- **APEC #14A** – Current metal fabrication operations to the south of the Phase One Property at 1350 Humber Place;
- **APEC #14B** – Former waste processing facility to the south of the Phase One Property at 1350 Humber Place;
- **APEC #15** – Current and/or former electronics manufacturing operations to the northwest of the Phase One Property at 2574 Sheffield Road;
- **APEC #16A** – Former metal plating operations to the west of the Phase One Property at 2590 Sheffield Road;
- **APEC #16B** – Former metal fabrication operations to the west of the Phase One Property at 2590 Sheffield Road;
- **APEC #17** – Current and/or former automotive repair operations to the west of the Phase One Property at 2600-2616 Sheffield Road and 1325 Humber Place;
- **APEC #18** – Current and/or former commercial trucking operations to the west of the Phase One Property at 2612 and 2660 Sheffield Road;
- **APEC #19** – Current and/or former commercial printing operations to the west of the Phase One Property at 1335 Humber Place;
- **APEC #20A** – Former dry cleaning operations to the west of the Phase One Property at 2616 Sheffield Road;
- **APEC #20B** – Former textile restoration operations to the west of the Phase One Property at 2616 Sheffield Road; and
- **APEC #20C** – Current and former organic waste processing and transfer facility operations to the west of the Phase One Property at 2612 Sheffield Road.

The PCAs and APECs are shown on **Figures 4** and **5**, respectively.

4.3.2 Underground Utilities

Based on the Site reconnaissance and Geosyntec's interviewing effort, active buried underground utilities located on the Phase One Property consist of electricity, potable water, sanitary and storm sewers, communications, and natural gas. Reportedly, no utility plans are available for the Phase One Property. No additional utilities were identified as part of the Phase Two ESA (see Section 6.10.4).

4.3.3 Geological and Hydrogeological Information

A review of the ERIS *'Ontario Base Map (OBM)'* map, as well as satellite imagery available for viewing on Google Earth™, indicates that the Phase One Property is situated at an elevation of approximately 65 m amsl. Topographic elevation contours show the Phase One Property and Phase One Study Area to be generally flat.

According to the ERIS *'Physiography of Southern Ontario'* map, the physiography of the Phase One Study Area is derived from clay plains of the Ottawa Valley Clay Plains. The ERIS 'Surficial Geology of Southern Ontario' map indicates that the Phase One Study area is located in a region comprised of one overburden unit which consists of offshore marine deposits (clay and silt). According to the ERIS *'Bedrock Geology of Ontario'* map, the bedrock at the Phase One Property is comprised of shale, limestone, dolostone, and siltstone of the Georgian Bay Formation, Blue Mountain Formation, Billings Formation, Collingwood Member, and Eastview Member.

Based on a review of information available in the well records from the WWIS database, the depth to the upper groundwater surface at the Phase One Property is expected to be approximately 1.0 to 3.30 m bgs. Previous investigations at the Phase One Property indicated the following:

- Four groundwater monitoring wells were installed at the Phase One Property during the 2010 Trow Phase II ESA. Depths to groundwater measured in the monitoring wells at the time of the investigation ranged between approximately 2.1 and 2.3 m bgs. The direction of groundwater flow across the Site was not assessed as part of the Trow Phase II ESA;

- A report which included groundwater elevation contouring was provided by Loblaw for a nearby property (2692 Sheffield Road located approximately 30 m to the southwest of the Phase One Property) indicated that the inferred groundwater flow direction was to the east/northeast; and

- Six groundwater monitoring wells were installed at the Phase One Property during the 2020 EXP Phase II ESA. Depths to groundwater measured in the monitoring wells at the time of the investigation ranged between approximately 1.56 and 4.98 m bgs. The direction of groundwater flow was determined to be toward the southwest.

There are no on-Site water bodies. The nearest body of water relative to the Site is Green's Creek, located approximately 60 m east of the Phase One Property. Green's Creek generally flows from south to north and discharges into Ottawa River, located approximately 6.5 kilometers (km) north of the Site. Based on the groundwater contouring completed at the adjoining property to the west, the topography of the Site area, and the location of Green's Creek, groundwater flow across the Phase One Property area is projected to be generally east/northeast.

4.3.4 Data Gaps and Uncertainty

The following data gaps were identified during preparation of the Phase One ESA:

- The chain of title indicates that Ottawa Regional Linen Services Incorporated owned the Phase One Property from 1972 to 1975. However, other sources of information indicate that the Site was occupied by National Grocers since its development in approximately 1967. No further evidence of Ottawa Regional Linen Services Incorporated occupying the Site is provided in reviewed documentation. Due to this discrepancy, Geosyntec is limited in its ability to express an opinion regarding the potential for environmental impact to the Phase One Property from this operation.
- The ERIS report indicates that poor or inadequate address information was available for a total of 37 *'unplottable sites'* located in the vicinity of the Phase One Property; therefore, these properties could not be readily mapped by ERIS. Because the location of these records with respect to the Phase One Property could not be discerned, Geosyntec is limited in its ability to express an opinion regarding the potential for environmental impact to the Phase One Property from these properties.
- Based on the review of previous environmental reports (see Section 4.1.5), select reports documenting environmental work conducted at the Phase One Property were not provided for Geosyntec's review.

4.4 Deviations from the Sampling and Analysis Plan

A copy of the Phase Two SAP is provided in **Appendix A**. The Phase Two SAP was prepared to meet the following objectives:

- To define the appropriate sampling and analysis procedures to meet the DQOs of the Phase Two ESA; and
- To define the QA/QC procedures to ensure the representativeness of the data utilized as part of the Phase Two ESA.

Geosyntec notes that the property (1360 Humber Place) located south of the Phase Two Property is also owned by CP REIT and leased by Amazon. Geosyntec included 1360 Humber Place as part

of the original version of the SAP and Phase Two ESA (dated August 2022) for due diligence purposes on behalf of Amazon. This Phase Two ESA (Revised October 2022) has excluded 1360 Humber Place as it is not part of the Site Plan Control application submission to the City.

Geosyntec notes the following deviations from the Phase Two SAP:

- Due to access limitations, the boreholes drilled within the Site building (i.e., BH22-3, BH22-7, and BH22-8) were completed using a rapid percussion drill. Due to the physical limitations associated with this equipment, refusal was encountered at depths of 1.2 m bgs (compared to the proposed depth of 3.0 m bgs). Soil samples from these locations were still submitted for laboratory analyses of the appropriate COPCs per the APEC table from the Phase One ESA (Geosyntec, 2022). Given that no exceedances of any of the COPCs were identified at concentrations greater than the Table 3 SCS in the submitted samples from these locations, the investigation completed is considered adequate for the purposes of this Phase Two ESA;

- Select existing monitoring wells drilled by others at the Phase Two Property were not sampled as per the below table:

APEC(s)	Sampling Location(s)	Rationale for Sample Not Collected
APEC #2	MW10-4	Monitoring well was inaccessible at the time of the Phase Two ESA. Groundwater data was collected from this location for the required COPCs during the 2020 EXP Phase II ESA with no exceedances identified above the Table 3 SCS. Furthermore, MW10-3 located in the vicinity of this location was sampled for all required COPCs as part of this Phase Two ESA.
APEC #2	MW10-5	Monitoring well could not be located at the time of the Phase Two ESA. Groundwater data was collected from this location for the required COPCs during the 2020 EXP Phase II ESA with no exceedances identified above the Table 3 SCS. Furthermore, MW10-3 located in the vicinity of this location was sampled for all required COPCs as part of this Phase Two ESA.
APEC #2, APEC #12A, APEC #12B	MW10-6	Monitoring well was inaccessible at the time of the Phase Two ESA. Groundwater data was collected from this location for the required COPCs during the 2020 EXP Phase II ESA with no exceedances identified above the Table 3 SCS. Furthermore, MW10-3 located in the vicinity of this location was sampled for all required COPCs as part of this Phase Two ESA.

Based on a review of the sampling methods and results of the overall QA/QC program conducted as part of the investigation activities at the Phase Two Property, the DQOs are considered to be

met and the data presented in this Phase Two ESA for the horizontal and vertical assessment of COPCs is considered adequate, such that it can be relied upon for the purposes of this Phase Two ESA.

4.5 Impediments

No physical impediments or denial of access that prevented adequate investigation of the APECs was encountered during the completion of this Phase Two ESA, other than the refusal of rapid percussion drill at certain locations and inaccessibility of select monitoring wells drilled by others (as described above).

5. INVESTIGATION METHODS

5.1 General

Geosyntec implemented the following tasks using Geosyntec's standard operating procedures (SOPs) and referencing the Phase Two SAP (**Appendix A**) during investigations conducted at the Phase Two Property:

- The locations of buried utilities were identified prior to drilling activities. Ontario One Call was contacted to locate underground public utilities to the Site boundary. Geosyntec subcontracted a private utility locator to confirm that proposed borehole and sub-slab vapour pin locations were clear of buried utilities;
- Geosyntec subcontracted the private utility locator to conduct a GPR scan in the vicinity of APEC #4 and APEC #5 to assess evidence of the former USTs;
- Drilling by a MECP-licensed drilling contractor using a drill rig equipped with direct push technology (DPT) or a percussion hammer drill. DPT or split spoons were utilized to facilitate the collection of soil samples for field screening and laboratory analyses;
- Logging of geologic materials from the boreholes using visual and manual methods;
- Field screening of geologic materials using a hand-held photoionization detector (PID) to aid in selecting samples for laboratory analysis;
- Soil sampling by collecting sub-samples from the geologic cores for laboratory analysis;
- Installing and developing single monitoring wells within select boreholes to facilitate sampling of groundwater;
- Groundwater sampling using purging techniques that included field parameter measurements at existing monitoring wells;
- Measuring water levels using a water level indicator;
- Measuring for potential presence of non-aqueous phase liquid (NAPL) layers using an oil-water interface probe;
- Installing five temporary sub-slab vapour probes using a rotary hammer drill to advance through the concrete slab and then placing a VaporPin™ with an air-tight seal into the drilled holes;
- Performing a leak check by using helium to ensure indoor air was not being introduced into the sub-slab vapour samples;
- Sub-slab vapour sampling using purging techniques that included field parameter measurements;

- Analytical testing by subcontracted laboratories in accordance with protocols specified by O. Reg. 153/04, as amended;
- Residue management processes for the disposal of soil cuttings and purge water;
- Removal of the temporary sub-slab vapour probes; and
- QA/QC measures that included field QC samples and data validation.

5.2 Geophysical Survey

Geosyntec retained Underground Service Locators (USL) to conduct a GPR scan in two locations in the northwestern portion of the Phase Two Property. The first area was along the western exterior wall of the former vehicle maintenance area of the Site building in the vicinity of two former waste and supply oil USTs that were reportedly removed in 1999. The second area was along the western exterior wall of the office portion of the Site building in the vicinity of a former heating oil UST.

According to the GPR scan, no evidence of USTs was present in either of the scanned locations. See **Appendix E** for the geophysical survey report.

5.3 Drilling

Geosyntec retained a MECP-licensed driller, Aardvark Drilling Inc. (Aardvark), to drill 10 boreholes (MW22-1, MW22-1, BH22-3, MW22-4, MW22-5, and BH22-6 to BH22-10) at the Phase Two Property between 24 May and 27 May 2022. Four of the boreholes (MW22-1, MW22-2, MW22-4, and MW22-5) were instrumented as groundwater monitoring wells. Geosyntec was present for the duration of the drilling activities. Boreholes were advanced using a Geoprobe 7822DT direct push rig or a Bosch hammer drill to a maximum depth of 6.1 m bgs. Following collection of the soil cores, four boreholes (MW22-1, MW22-2, MW22-4, and MW22-5) were advanced using hollow stem augers and instrumented with groundwater monitoring wells. Non-dedicated down-hole drilling equipment was decontaminated prior to first use on-Site, as well as between drilling locations to minimize the potential for cross-contamination. No petroleum-based greases or solvents were used during drilling activities.

5.4 Soil: Sampling

From each borehole location, soil samples were collected at discrete intervals using DPT or split spoon samplers advanced using a percussion hammer drill. Non-dedicated sampling equipment was decontaminated prior to initial use on-Site and between sampling locations.

The soil samples collected from the boreholes were logged for physical characteristics, as well as olfactory and visual observations of contamination. Soil samples collected during drilling were classified in the field by Geosyntec using procedures similar to those described in the American

Society for Testing and Materials (ASTM) visual-manual standard for the description and identification of soils (ASTM, 2000). Dedicated disposable nitrile gloves were utilized during the handling of soil samples. Soil samples were placed directly into laboratory-supplied sample containers and kept on ice until the samples could be relinquished to the laboratory for analysis. Samples collected for VOCs and PHC F1 analysis were collected using Terra Core™ samplers and preserved with methanol. Geological descriptions of soil samples are provided on the borehole logs (**Appendix B**) and a summary of the geological conditions at the Phase Two Property is provided in Section 6.1.

5.5 Field Screening Measurements

Field screening of soil samples for the presence of PHC and/or VOC-derived vapours was conducted using an RKI Eagle 2 equipped with an organic vapour meter (OVM) and PID. The RKI Eagle 2 was calibrated prior to use and at a minimum of once per subsequent field day according to the manufacturer's directions. Hexane and isobutylene were used as reference gases for the OVM and PID modes, respectively. Soil was collected into new, disposable plastic zip-lock bags, the headspace could equilibrate in the bags for a minimum of five minutes, then the headspace was screened within each bag with the instrument. According to the manufacturer specifications, the precision of the instrument allows for measurement intervals of 50 parts per million by volume (ppm_v) for the OVM mode and 1 ppm_v for the PID mode.

In general, samples with the highest OVM/PID screening results, or samples that indicated visual or olfactory evidence of impact, were selected for laboratory analysis of COPCs. At borehole locations where OVM/PID readings were negligible, samples were collected from near the surface and/or at the soil-groundwater interface. The OVM/PID screening results are presented on the borehole logs in **Appendix B**.

5.6 Groundwater: Monitoring Well Installation

Monitoring wells were installed by Aardvark, a MECP-licensed well contractor. Geosyntec was present for the duration of the monitoring well installation activities. The monitoring well construction details are summarized in **Table 1** and presented on the borehole logs (**Appendix B**).

Down-hole drilling equipment and non-dedicated well development equipment was decontaminated prior to first use on-Site, as well as between drilling locations to minimize the potential for cross-contamination.

5.6.1 Installation of Monitoring Wells

Monitoring wells were installed following borehole advancement and the collection of continuous soil samples using a Geoprobe 7822DT drill rig equipped with hollow stem augers. Monitoring wells were constructed using flush-threaded, Schedule 40, clean, polyvinyl chloride (PVC) casings

with slotted well screens with a 51-mm (2-in) diameter. Well screens were 3.0 to 3.1 m in length and were installed such that they intersected the water table. Monitoring wells were installed in accordance with O. Reg. 903. No solvents, lubricants, or adhesives were used in the well construction.

After the borehole had been advanced to the target depth, the total depth of the borehole was measured using a weighted measuring tape. The PVC casing and screen were then assembled, capped, and lowered into the open hole. The annular space between the borehole wall and the well screen was filled with silica well sand to approximately 0.3 m above the top of the screen. A bentonite seal was then installed above the sand and hydrated using potable water. Quik-Grout® was then installed above the bentonite seal to 0.3 m below surface and was topped with sand and cement to surface to minimize heaving. The monitoring well locations were completed with flush mounted protective casings.

5.6.2 Monitoring Well Development

The newly installed and available existing on-Site monitoring wells were developed prior to groundwater sample collection in order to improve the hydraulic communication between the well and the surrounding materials. Each well was developed using dedicated Waterra® tubing and a foot valve with manual purging. A Horiba water quality meter was used to record water quality parameters during development, including pH, specific conductance, dissolved oxygen (DO), oxygen reduction potential (ORP), temperature, and turbidity. Development continued until the turbidity decreased to below 100 Nephelometric Turbidity Units (NTU) or three monitoring well volumes were removed. Development water was contained on-Site in 205-L drums.

5.7 Groundwater: Field Measurement of Water Quality Parameters

Low flow purging techniques were implemented to minimize hydraulic stress in the well by maintaining low drawdown, and by using low flow pumping rates during both purging and sampling (USEPA, 2017). Purging was performed using a peristaltic pump, as described below, with dedicated high-density polyethylene (HDPE) tubing. During purging, the pH, specific conductance, DO, ORP, temperature, and turbidity of the groundwater was measured using a Horiba water quality meter. Instrument calibration was conducted daily according to the manufacturer specifications using calibration references provided by the equipment supplier. Field parameters were recorded during purging until the parameter values stabilized to within the following criteria:

- ±0.1 units for pH
- ±3% for specific conductance
- ±10 mV for ORP
- ±10% (or 3 readings <0.2 milligrams per litre [mg/L]) for DO

Groundwater samples were collected once field parameters had stabilized, consistent with the Phase Two SAP (**Appendix A**).

Field parameters were recorded during purging until the parameter values stabilized. The purge water was inspected for the presence of separate phase liquids (e.g., sheens). Observations on the physical appearance and odour (if apparent) of the purged water were noted in the field records.

5.8 Groundwater: Sampling

Following low flow purging (as described above), low flow sampling techniques were also performed using a peristaltic pump and with dedicated HDPE tubing. Samples for the analysis of VOCs and/or PHC F1 were collected by decanting through dedicated tubing directly into pre-labelled containers supplied by the laboratory (so the samples did not pass through the peristaltic pump or flow-through cell prior to collection). Samples for PAHs, PHCs F2-F4, metals and inorganics (including As, Sb, Se, Cr[VI], Hg, Na, Cl-, CN-), pH, and conductivity were collected by pumping groundwater directly from the dedicated tubing into lab-provided bottles using a peristaltic pump. Samples for analysis of metals were filtered using a 0.45-micron disposable filter.

Groundwater sample handling was conducted with dedicated and disposable nitrile gloves. Non-dedicated groundwater sampling equipment (i.e., oil-water interface probe and water level meter) were decontaminated using a phosphate-free detergent/potable water solution, then rinsed with distilled water, prior to and after the collection of each groundwater sample.

5.9 Sediment: Sampling

No water bodies are present on the Phase Two Property and, as such, sediment is not a media of concern for the Phase Two Property. Sediment sampling was not conducted as part of the Phase Two ESA.

5.10 Sub-slab Vapour: Probe Installation

Geosyntec installed five temporary sub-slab vapour probes (SSV-09 through SSV-13) using a rotary hammer drill. The sampling locations were adjusted in the field, as needed, to avoid rebar and potential subsurface obstructions, and observed seams and cracks in the concrete slab. The sub-slab sampling locations are shown on **Figure 7**.

Upon completion of drilling, the sub-slab vapour probes (VaporPin™) were installed with an airtight seal into the drilled holes. The sub-slab vapor probes were removed after completion of sampling, and the holes were backfilled with liquid hydraulic cement until flush with the surface of the existing concrete slab.

5.11 Sub-slab Vapour: Field Screening

After the sub-slab vapour probes were allowed to equilibrate, Geosyntec purged and sampled each location. Prior to sampling, approximately 3 L of vapour was purged using a 1-L Tedlar® bag and "lung box" and screened for the presence of volatile organic compounds (VOCs) using an RKI GX-6000 equipped with a PID, and methane, carbon dioxide, hydrogen sulfide, and oxygen using a LANDTEC GEM5000 multi-gas meter. Helium was used during purging and screening as a leak check for indoor air being introduced into the sample through potential leaks in the sample train or probe. A shut-in vacuum test was also performed as a leak check for the sample train before purging and again before sampling.

5.12 Sub-slab Vapour: Sampling

Sub-slab vapour samples were collected in pre-evacuated, batch certified-clean 1.4-liter SUMMA® canisters equipped with 250 milliliters per minute (ml/min) flow controllers.

5.13 Analytical Testing

Soil and groundwater samples submitted for analysis were representative of the conditions encountered during the investigation activities. Soil and groundwater samples were analyzed by ALS Environmental in Waterloo, Ontario (ALS). ALS is accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) and employs in-house QA/QC programs to verify sample integrity that consist of method blank samples, matrix spike samples, spiked blank samples, surrogate analysis, laboratory duplicate samples, and QA samples. ALS conducted the laboratory analysis following the Analytical Protocol (MOE, 2011).

Sub-slab vapour samples were transported to ALS in Waterloo, Ontario, for VOC and PHC F1 and F2 total fractionation analysis by United States Environmental Protection Agency (USEPA) Method TO-15 and PHC aliphatic/aromatic sub-fractionation analysis by procedures adapted from USEPA Method TO-15 and Atlantic Risk-Based Corrective Action (RBCA).

Copies of the analytical laboratory reports are provided in **Appendix C**.

5.14 Residue Management Procedures

Soil cuttings and residual soils generated during the advancement of boreholes and monitoring well installation at the Phase Two Property, were containerized in 205-L drums and temporarily stored on-Site for subsequent characterization and off-Site disposal.

Purged groundwater from monitoring well development and groundwater sampling activities and wash water utilized for equipment decontamination were containerized in one additional 205-L drum and temporarily stored on-Site for future off-Site disposal.

The sub-slab vapour probes were removed after completion of sampling, and the holes were backfilled with liquid hydraulic cement until flush with the surface of the existing concrete slab.

5.15 Elevation Surveying

Geosyntec retained Annis O'Sullivan Vollebekk Ltd. (AOV), a professional land surveyor, to conduct a well elevation survey at the Phase Two Property on 3 June 2022. Geodetic elevations were provided in reference to the CGVD28 geodetic datum. A summary of the survey elevation data is presented in **Table 1**.

5.16 Quality Assurance and Quality Control Measures

5.16.1 Description of Sample Handling

Sample handling was conducted referencing the *Protocol for Analytical Methods Used in the Assessment of Properties* (MOE, 2011; Analytical Protocol) and Geosyntec's Phase Two SAP, with exceptions described in Section 4.4. Sample handling was conducted using dedicated and disposable nitrile gloves. Samples were placed directly into laboratory-supplied containers pre-charged with preservatives (where required) and expediently stored within coolers packed with ice, then transported under chain of custody to the laboratory in accordance with the sample handling and custody procedures.

Indelible ink pens were utilized to label sample containers with the following information:

- Project name
- Name or initials of individual collecting the sample
- Date and time of sample collection
- Analyses to be performed
- Preservation chemical (if used)

The following table summarizes the sample containers and preservatives utilized as part of the investigations (the details are provided on the chain of custodies, which are appended to the analytical laboratory reports provided in **Appendix C**):

Parameter	Sample Matrix	Sample Container	Sample Volume	Preservative
VOCs and PHC F1	Soil	glass vials with septum lids pre-charged with 10 milliliters (mL) methanol	3 x 40 mL	Methanol

Parameter	Sample Matrix	Sample Container	Sample Volume	Preservative
PAHs, PHCs F2-F4, moisture, metals (including As, Sb, Se, Cr [VI], Hg), Na, B-HWS, EC, SAR, CN-, pH	Soil	glass wide-mouth jar with Teflon™ lined lid	120 or 250 mL	None
PFAS	Soil	HDPE wide-mouth jar	120 mL	None
VOCs and PHC F1	Groundwater	3 x glass vials with septum lids	2 to 3 x 40 mL – vials filled completely, no headspace or bubbles	$NaHSO_4$
PHCs F2-F4 and PAHs	Groundwater	amber glass bottle	2 x 60 mL or 2 x 100 mL	$NaHSO_4$
PCBs	Groundwater	amber glass bottle	2 x 100 mL	None
Anions	Groundwater	HDPE	Variable	None
Cyanide	Groundwater	HDPE	60 mL	NaOH
Metals	Groundwater	HDPE	60 mL	HNO_3, field-filtered
Hg	Groundwater	glass vial	40 mL	HCl
Cr (VI)	Groundwater	HDPE	60 mL	NaOH and buffer, field-filtered
PFAS	Distilled Water (Equipment Blank)	HDPE	60 mL	None

5.16.2 Sampling Equipment Cleaning Procedures

Non-dedicated and non-disposable sampling equipment was cleaned before initial use and following each use to prevent the introduction of extraneous material into samples and to prevent cross contamination between sample locations. Sampling equipment was decontaminated by washing with a non-phosphate detergent such as Alconox™ or equivalent. Equipment decontamination consisted of the following:

1. Wash with non-phosphate detergent and water solution to remove contamination from the equipment.
2. Deionized or distilled water rinse to remove residual detergent solution.

5.16.3 Field Quality Control Measures

The field quality control measures taken during the Phase Two ESA generally met the requirements documented in the Phase Two SAP, and requirements of subsection 3(3) of Schedule E in O. Reg. 153/04, as amended, and included the following:

- Non-dedicated and non-disposable sampling equipment was cleaned before initial use and following each use.
- A minimum of one field duplicate sample was submitted for every ten soil and ten groundwater samples submitted for chemical analysis per parameter group.
- One trip blank for analysis of VOC/PHC F1 accompanied each laboratory submission of groundwater VOC/PHC F1 samples.
- Field instruments were calibrated prior to use according to the manufacturer's directions. Where possible, the meters were calibrated using a minimum two-point calibration technique, in accordance with the manufacturer's instructions. Calibration checks using commercially prepared standard solutions or gases were conducted at least once per day and at the end of each sampling session. Instrument calibration information was recorded in the field documentation.
- Equipment blanks were collected by running distilled water over dedicated sampling equipment utilized during PFAS sampling (i.e., DPT acetate liners and nitrile gloves) to assess whether PFAS sources were introduced to the samples.
- Leak checks for the sampling train and probe was performed prior to soil vapour sample collection
- The vacuum of SUMMA™ canisters for soil vapour samples were measured in the field prior to sampling and after sampling to check for potential canister leaks during transport to and from the laboratory.

The results of the QA/QC program are also discussed in Section 6.9. Deviations from the Phase Two SAP are described in Section 4.4.

Based on a review of the sampling methods and results of the overall QA/QC program conducted as part of the investigation activities at the Phase Two Property, the DQOs are considered to be met and the data presented in this Phase Two ESA for the horizontal and vertical assessment of COPCs are considered adequate, such that it can be relied upon for the purposes of this Phase Two ESA.

6. REVIEW AND EVALUATION

6.1 Geology

The Phase Two Property is located in a region comprised of one overburden unit which consists of offshore marine deposits (clay and silt), as shown in geological records prepared by the Ontario Geological Survey (OGS). Further, a review of literature pertaining to the geology of the Ottawa region indicates that these native clay soils are associated with post-glacial Champlain Sea marine deposits. A Champlain Sea clay deposit typically includes a surficial crust (consisting of stiffer and drier clay) underlain by a weaker and more compressible clay layer (City of Ottawa, 2017). The map of the Physiography of Southern Ontario shows the Site to be located within a region of clay plains of the Ottawa Valley Clay Plains (Chapman and Putnam, 1984). OGS identifies bedrock underlying the Site as shale, limestone, dolostone, and siltstone of the Georgian Bay Formation, Blue Mountain Formation, Billings Formation, Collingwood Member, and Eastview Member.

Based on the results of the field investigation, the Phase Two Property is underlain by a layer of sand and gravel fill material, followed by a layer of clayey silt which extended to the maximum investigated depth of 6.1 m bgs. Interbedded lenses of coarse sand were present within the clayey silt unit in the eastern portion of the Phase Two Property. The Site investigation geologic data is summarized in the following table:

Geological Unit	Approximate Maximum Thickness (m)	Approximate Depth Below Ground Surface (m bgs)	Properties
Fill	1.5	0.0 to 0.2 (minimum) 0.0 to 1.5 (maximum)	Fill material comprised of sand and gravel with trace silt present throughout the northern portion of the Phase Two Property. Trace brick fragments present in fill material at BH22-9. This unit is located in the unsaturated zone.
Silty Clay	>4.6	1.5 to 6.1 (maximum investigated depth)	Native overburden material consisting of a heterogenous mixture of silty clay. Interbedded lenses of coarse sand present within the clayey silt unit in the eastern portion of the Phase Two Property (i.e., MW22-4 and MW22-5).

A cross-section location plan is presented on **Figure 11**. Cross-sections showing the stratigraphy of the Site are presented on **Figures 12** and **13**.

6.2 Groundwater: Elevations and Flow Direction

Eleven of the monitoring well locations at the Phase Two Property were used to assess the groundwater elevations and flow direction including the monitoring wells installed as part of this Phase Two ESA (i.e., MW22-1, MW22-2, MW22-4, and MW22-5) and seven existing monitoring wells drilled by others (i.e., MW10-3, and MW101 to MW106; Trow, 2010 and EXP, 2020b). These wells were selected to provide adequate spatial coverage for establishing groundwater flow direction. Well depths ranged between 3.8 and 5.8 m bgs and were installed to intersect the water table.

Geosyntec measured the depth to groundwater at the Site on 2 June 2022. The measured depth to groundwater ranged from 1.135 to 3.704 metres below top of casing (m btoc). Groundwater levels were measured with a water level tape. Water level elevations were calculated by subtracting the depth to water reading from the surveyed top of pipe elevation. A summary of the depths to groundwater measured during the monitoring event is located in the table below. Neither NAPL layers nor sheening were observed at the Site during the groundwater monitoring activities.

Monitoring Well ID	Groundwater Measurement	Stick-up Interval (m ags)	Riser Elevation (m amsl)	Groundwater Elevation (m amsl)
MW22-1	1.505 m btoc	NA	67.20	65.70
MW22-2	2.633 m btoc	NA	67.99	65.36
MW22-4	1.135 m btoc	NA	67.03	65.90
MW22-5	1.495 m btoc	NA	67.38	65.89
MW10-3	1.358 m btoc	NA	66.78	65.42
MW101	1.957 m btoc	NA	66.44	64.48
MW102	2.030 m btoc	NA	66.92	64.89
MW103	1.815 m btoc	NA	67.12	65.31
MW104	3.704 m btoc	NA	67.98	64.28
MW105	2.765 m btoc	NA	66.49	63.73
MW106	3.151 m btoc	NA	66.22	63.07

Notes:

[1]Surveyed by AOV on 3 June 2022.
m btoc – metres below top of casing
m ags – metres above ground surface
m amsl – metres above mean sea level
NA – Not applicable

Based on the measured groundwater levels on 2 June 2022 and field observations recorded during soil logging, the water table is located below the surface fill (where encountered) and within the native silty clay unit.

Groundwater elevations and inferred flow directions, based on depths to groundwater measured on 2 June 2022, are presented on **Figure 8**. The hydraulic gradient is directed to the northwest in the northern portion of the Phase Two Property and to the southwest in the central and southern portions of the Phase Two Property. Groundwater flow is inferred to be in the same direction as the hydraulic gradient. In Geosyntec's Phase One ESA, groundwater at the Site was inferred to flow to the east in the direction of Green's Creek (Geosyntec, 2022). Groundwater contours presented on **Figure 8** indicate that the shallow groundwater at the Site flows in a northwesterly/southwesterly direction.

The Phase Two Property is provided with potable water, sanitary and stormwater services. Furthermore, service trenches are present along Sheffield Road. As such, underground utilities may be influencing the natural shallow groundwater flow regime, which was regionally expected to be to the east based on the location of Green's Creek.

6.3 Groundwater: Hydraulic Gradient

Water level measurements collected from the on-Site monitoring wells provide information with respect to horizontal hydraulic gradient. The water level data collected during groundwater monitoring activities on 2 June 2022 was utilized to calculate minimum and maximum horizontal gradients for the Site. The horizontal hydraulic gradients were calculated as follows:

$$i_{hor} = \frac{\Delta H}{D}$$

Where:

I_{hor} – Horizontal hydraulic gradient (unitless);
H – Change in groundwater elevations between monitoring wells (m); and
D – Lateral distance between contour intervals (m).

The calculated hydraulic gradient for the on-Site data set ranged from 0.01 to 0.02. The average horizontal hydraulic gradient is calculated to be 0.02.

Since no COPCs were identified in groundwater, deeper groundwater monitoring wells were not required to assess vertical distribution of COPCs in groundwater. Therefore, due to the absence of deeper monitoring wells, the vertical hydraulic gradient was not assessed.

6.4 Soil Texture

Geosyntec selected three soil sample locations for grain size analysis across the Phase Two Property. The samples were selected in the silty clay unit at depths ranging from 2.29 to 5.33 m bgs. A summary of the grain size analyses conducted at the Site are provided in the table below:

Sample ID	Sample Depth (m bgs)	Diameter Range (mm)	Grain Size Results (%wt)	Grain Size Classification
MW22-1-3A	3.05 – 3.81	Gravel (>4.75)	3.5	Medium-to-fine
		Sand (0.075 – 4.75)		
		Silt (0.005 – 0.075)	96.5	
		Clay (<0.005)		
MW22-5-4A	4.57 – 5.33	Gravel (>4.75)	2.00	Coarse
		Sand (0.075 – 4.75)	67.76	
		Silt (0.005 – 0.075)	14.37	
		Clay (<0.005)	15.87	
BH22-10-2B	2.29 – 3.05	Gravel (>4.75)	<1	Medium-to-fine
		Sand (0.075 – 4.75)	4.54	
		Silt (0.005 – 0.075)	38.65	
		Clay (<0.005)	56.71	

Grain-size analyses were also performed as part of previous subsurface investigations at the Phase Two Property (Trow, 2010; EXP, 2020b; and AECOM, 2021). In total, 20 samples were submitted for grain-size analysis during previous investigations, eight of which were classified as medium to fine-grained by the laboratory.

Given that only a portion of the grain-size data set supports the use of medium to fine-grained classification, coarse-textured standards are considered appropriate for the purposes of the Phase Two ESA investigation.

6.5 Soil: Field Screening

During the borehole investigation, field screening measurements collected ranged from 0 ppm_v (several samples) to 190 ppm_v in OVM mode and 0 ppm_v for all measurements in PID mode. Geosyntec did not observe visual or olfactory evidence of impacts during the drilling and soil sampling activities with the exception of MW22-2 where a petroleum odour and black staining were encountered at a depth of 3.05 to 3.81 m bgs. The field screening measurements and results are shown on the borehole logs in **Appendix B**.

6.6 Soil Quality

Soil samples were generally collected in accordance with the Phase Two SAP, with exceptions of the deviations noted in Section 4.4. As noted above, no visual or olfactory evidence of impact was identified during the soil investigation with the exception of MW22-2 where a petroleum odour and black staining was encountered at a depth of 3.05 to 3.81 m bgs. At BH22-9, trace brick

fragments were encountered at a depth of 0 to 0.76 m bgs. The visual and olfactory observations are shown on the borehole logs provided in **Appendix B**.

The analytical data for the submitted soil samples collected from the boreholes are summarized in **Table 2**, which also provides the sample depths and a comparison of analytical results to the Table 3 SCS. The soil sample locations are shown on **Figure 6**. Soil analytical results are presented on the certificate of analysis in **Appendix C**.

In the analyzed soil samples, COPCs were not detected at concentrations greater than the analytical reporting limits (RLs) or were detected at concentrations less than the Table 3 SCS, with the exception of the following:

- Vanadium was detected at a concentration of 102 µg/g (duplicate concentration 91.5 µg/g) (versus the Table 3 SCS of 86 µg/g) in soil sample MW22-1-3B at a depth of 3.81 – 4.57 m bgs.
- Sodium adsorption ratio (SAR) was detected at a concentration of 23.5 (versus the Table 3 SCS of 12) in soil sample MW22-1-1B at a depth of 0.76 – 1.52 m bgs.
- Electrical conductivity (EC) was detected at concentrations greater than the Table 3 SCS of 1.4 mS/cm in the following soil samples (reported concentration in parentheses): MW22-1-3B at 3.81 – 4.57 m bgs (2.04 mS/cm), BH22-3-1 at 0 – 0.6 m bgs (1.41 mS/cm), MW22-4-1A at 0 – 0.76 m bgs (1.53 mS/cm), BH22-9-1A at 0 – 0.76 m bgs (1.71 mS/cm), BH22-10-1A at 0 – 0.76 m bgs (1.73 mS/cm [duplicate 1.43 mS/cm]).

The following parameters were detected at concentrations greater than the Table 3 SCS in soil at the Phase Two Property during past investigations (see Section 3.2):

Parameter	Past Investigation Reference	Rationale
PHCs	Trow, 2010 EXP, 2020b EXP, 2020c	During the 2010 Trow Phase II ESA, concentrations of PHC F1 (64 µg/g) and PHC F2 (342 µg/g) were greater than the Table 3 SCS of 55 µg/g and 230 µg/g, respectively at MW10-3 at a depth of 0.60 – 0.76 m bgs. MW10-3 is located in the vicinity of the on-Site private fuel outlet. During the 2020 EXP Phase II ESA, select PHC concentrations were greater than the Table 3 SCS at the following locations: • MW103 (located in the vicinity of the interior oil-water separator): o PHC F1 (61 µg/g) and PHC F2 (370 µg/g) at a depth of 1.2 – 1.8 m bgs; o PHC F2 (540 µg/g) at a depth of 2.4 – 3.1 m bgs; and o PHC F2 (990 µg/g) at a depth of 3.1 – 3.7 m bgs. • BH107 (located in the vicinity of the on-Site private fuel outlet): o PHC F2 (660 µg/g) at a depth of 0.9 – 1.5 m bgs. Deeper samples with concentrations below the Table 3 SCS were obtained to achieve vertical delineation at both locations. During the 2020 EXP Delineation, horizontal delineation to the north, south, east and west of each previously identified exceedance location was achieved. Geosyntec notes that PHC F1 and PHC F2 are considered COCs for the purposes of this Phase Two ESA.
EC	AECOM, 2021	During the 2021 AECOM Geotechnical Investigation, a concentration of EC (2.78 mS/cm) was greater than the Table 3 SCS of 1.4 mS/cm at BH-18 at a depth of 0.0 – 0.6 m bgs. Geosyntec notes that exemption under O. Reg. 153/04, Section 49.1 Paragraph 1 is being relied upon. This parameter is not considered a COC for the purposes of this Phase Two ESA.

All other maximum RLs were less than the Table 3 SCS for all parameters analyzed in soil samples collected from the Site. There are no Table 3 SCS for PFAS parameters; however, all PFAS parameters were less than the laboratory RLs. Accordingly, no COCs were identified as a result of maximum RLs or unavailable Table 3 SCS.

Vanadium concentrations were greater than the Table 3 SCS in soil at one borehole location. Geosyntec considers this concentration to be naturally occurring as vanadium can be associated with the Champlain Sea clay deposits, which commonly contain concentrations of trace metals, including vanadium, above the *'Table 1: Full Depth Background Site Condition Standards'* (Table 1 SCS). It is noted that the Table 1 SCS for vanadium is interchangeable with the Table 3 SCS (i.e., 86 µg/g). In a 2017 study conducted by Geofirma Engineering Ltd., Dillon Consulting Limited, and the City of Ottawa (City of Ottawa, 2017), a review of analytical data collected from 285 soil samples identified the average and maximum concentrations of vanadium to be 75 µg/g and 136 µg/g, respectively, with the 75th percentile concentration (i.e., 92.5 µg/g) exceeding the Table 1 SCS. The study concluded that naturally occurring concentrations of vanadium, above the respective Table 1 SCS, could be expected to occur commonly in clay soils in the Ottawa region.

Considering this information, vanadium concentrations identified in on-Site soils are considered to be representative of local background conditions and do not represent a COC for the Site.

The source of the elevated EC and SAR in soil is attributed to the application of de-icing salt on the adjacent right of ways (i.e., Sheffield Road and Humber Place) and the paved surfaces of the Site, for the purposes of safety for vehicular and pedestrian traffic during the winter months. As such, an exemption under O. Reg. 153/04, Section 49.1, Paragraph 1 is relied upon.

In summary, concentrations of PHCs are greater than the Table 3 SCS in select soil samples collected from the Phase Two Property and are considered to represent COCs at the Phase Two Property. The lateral distribution of these exceedances is shown by parameter group on **Figure 9**. Cross sections showing the vertical distribution of the exceedances are shown on **Figures 12** and **13**.

6.7 Groundwater Quality

Groundwater samples were generally collected in accordance with the Phase Two SAP, with the exceptions of the deviations noted in Section 4.4. No NAPL was encountered during the groundwater investigation; however, a slight sheen was observed on the surface of the groundwater during well development at MW22-2. The analytical data for the submitted groundwater samples collected from the monitoring wells are summarized in **Table 3**, which also provides the depths of the monitoring well screen intervals and a comparison of analytical results to the Table 3 SCS. The monitoring well locations are shown on **Figure 6**. Groundwater analytical results are presented on the certificate of analysis in **Appendix C**.

In the analyzed groundwater samples, COPCs were not detected at concentrations greater than the analytical RLs or were detected at concentrations less than the Table 3 SCS, with the exception of the following:

- Chloride was detected at a concentration of 4,340 milligrams/litre (mg/L) (versus the Table 3 SCS of 2,300 mg/L) in groundwater sample MW101.

The following parameters had concentrations greater than the Table 3 SCS in groundwater samples collected from the Phase Two Property during past investigations (see Section 3.2); however, they were not identified as COCs in groundwater based on the summarized rationale below:

Parameter	Past Investigation Reference	Rationale
Silver	Trow, 2010 EXP, 2020b	During the 2010 Trow Phase II ESA, concentrations of silver (2 µg/L) were greater than the Table 3 SCS of 1.5 µg/L at MW10-4 in the vicinity of the on-Site private fuel outlet. This location was re-sampled for metals during the 2020 EXP Phase II ESA. The silver concentration at MW10-4 was less than the analytical RL and the Table 3 SCS.

The source of the elevated chloride in groundwater is attributed to the application of de-icing salt on the adjacent right of ways (i.e., Sheffield Road and Humber Place) and the paved surfaces of the Site, for the purposes of safety for vehicular and pedestrian traffic during the winter months. As such, an exemption under O. Reg. 153/04, Section 49.1, Paragraph 1 is relied upon.

In summary, no COCs were identified in groundwater for the Site.

6.8 Sediment Quality

There are no water bodies on the Phase Two Property and, as such, sediment sampling was not completed as part of this Phase Two ESA.

6.9 Sub-Slab Soil Vapour Quality

Sub-slab vapour samples were collected in accordance with Geosyntec's sub-slab vapour sampling SOP which generally aligns with the MECP Draft Technical Guidance for Soil Vapour Intrusion Assessment (MECP, 2021). PID field screening measurements collected ranged from 0 ppmv to 1.8 ppmv. Methane was not detected (0.0% by volume [%vol]) during screening at the sub-slab sample locations. The field screening measurements are shown on the sub-slab vapour field forms in **Appendix B**.

The analytical data for the submitted sub-slab vapour samples collected from beneath the Site building are summarized in **Table 4**, which also provides a comparison of analytical results to the MECP Commercial SVSLs. The sub-slab vapour sample locations are shown on **Figure 7**. Sub-slab vapour analytical results are presented on the certificate of analysis in **Appendix C**.

In the analyzed sub-slab vapour samples, VOCs and/or PHC aliphatic/aromatic fractionations were not detected at concentrations greater than the analytical RLs or were detected at concentrations less than the MECP Commercial SVSLs, with the exception of the following:

- 1,2-Dichloroethane was detected at a concentration of 196 micrograms per cubic metre (µg/m^3) (versus the MECP Commercial SVSL of 34 µg/m^3) at SSV-13.

The following parameters had concentrations greater than the MECP Commercial SVSLs in sub-slab vapour samples collected from the Phase Two Property during past investigations (see Section 3.2):

- 1,2-Dichloroethane was detected at a concentration of 188 µg/m^3 (versus the MECP Commercial SVSL of 34 µg/m^3) at SSV-06.

The lateral distribution of the above-noted exceedances is shown on **Figure 10**.

6.10 Quality Assurance and Quality Control Results

QA/QC measures were implemented during the soil, groundwater, and sub-slab vapour investigations to result in representative samples and analytical data that meet the DQOs established for this Phase Two ESA (see Phase Two SAP in **Appendix A**). Deviations from the Phase Two SAP are described in Section 4.4.

Geosyntec validated the analytical data according to standard data validation procedures. Laboratory sample hold times, method blanks, and analyte lists were reviewed to evaluate whether the sample was analyzed within specified times, the laboratory instrument was operating within specification, and reports were prepared according to project requirements. Field data such as sample labels, dates, and stabilization of parameters were also reviewed. Copies of the analytical laboratory reports are provided in **Appendix C**.

The methods for the field QA/QC program are discussed in Section 5.12 and the results are summarized below. A summary of the data validation results, and QA/QC methods employed as part of the investigations is provided in the subsections below.

6.10.1 Summary of Field QA/QC Program

Soil Field QA/QC Program

Field duplicate soil samples were collected and submitted by Geosyntec during soil sampling activities to evaluate the precision of the sampling and analysis system. A summary of the field duplicate soil sample pairings submitted for analysis is presented on the following table:

Analytical Parameters in Soil	Total Samples	Total Duplicates	Duplicate Sample ID
VOCs	12	3	DUP01 (duplicate of BH22-10-1B) DUP03 (duplicate of MW22-2-3A) DUP05 (duplicate of MW22-1-3B)
BTEX	12	3	
PHCs	12	3	
Metals (including As, Sb, Se, Cr [VI]; excluding Vanadium [V])	12	3	DUP02 (duplicate of BH22-10-1A) DUP04 (duplicate of MW22-2-3B) DUP05 (duplicate of MW22-1-3B)
V	13	3	DUP02 (duplicate of BH22-10-1A) DUP04 (duplicate of MW22-2-3B) DUP05 (duplicate of MW22-1-3B)
Hg	12	3	DUP02 (duplicate of BH22-10-1A) DUP04 (duplicate of MW22-2-3B) DUP05 (duplicate of MW22-1-3B)
B-HWS	12	3	
CN-	12	3	
pH	12	3	
EC and SAR	12	3	
PAHs	12	3	DUP02 (duplicate of BH22-10-1A) DUP04 (duplicate of MW22-2-3B) DUP05 (duplicate of MW22-1-3B)

Analytical Parameters in Soil	Total Samples	Total Duplicates	Duplicate Sample ID
PFAS	1	1	DUP01 (duplicate of BH22-10-1B)

As indicated in the table above, the number of duplicate analyses met the O. Reg. 153/04 requirement that at least one field duplicate sample is submitted for every ten samples submitted for analysis per parameter group. Method blanks were evaluated for detections greater than the RLs. Surrogates were evaluated for recovery within acceptance limits. Where calculable, laboratory duplicates, matrix spikes and matrix spike duplicates, and laboratory control samples were compared to applicable criteria or recovery limits. The QA/QC results were within acceptable limits.

In order to evaluate soil sampling precision, the relative percent difference (RPD) between parameter concentrations for corresponding soil primary and duplicate sample pairings was calculated using the following formula:

$$RPD = \frac{ABS\ (Rep - Dup)}{(Rep + Dup)/2} * 100$$

Where:

ABS – Absolute Difference
REP – Primary Sample Concentration;
Dup – Duplicate Sample Concentration;

It is noted that the 30% RPD performance criteria utilized for this evaluation represents the minimum performance standard (which varies by parameter) established for laboratory primary/duplicate aliquots in the Analytical Protocol (MOE, 2011), although there is inherently more variability in the field collection of primary/duplicate sample soil pairings.

For soil field duplicate samples, all RPDs were below the project acceptance criteria of 30%, with the following exceptions:

- MW22-1-3B/DUP05: concentrations of hexavalent chromium (maximum RPD of 54.0%);
- MW22-2-3A/DUP03: concentrations of PHC F2 (maximum RPD of 107%);
- MW22-2-3B/DUP04: concentrations of arsenic (maximum RPD of 32.3%), barium (maximum RPD of 42.5%), and copper (maximum RPD of 34.8%); and
- BH22-10-1A/DUP02: concentrations of barium (maximum RPD of 32.7%), hot water soluble boron (maximum RPD of 32.7%), chromium (maximum RPD of 66.2%), copper (maximum RPD of 30.9%), lead (maximum RPD of 33.9%), molybdenum (maximum RPD of 30.8%), vanadium (maximum RPD of 70.9%), zinc (maximum RPD of 47.2%), and SAR (maximum RPD of 119%).

The overall level of variability in the soil primary/duplicate samples are attributed to soil heterogeneity and are within expected ranges. None of the above parameters exceeded the applicable SCS and therefore are not expected to alter the conclusions of this Phase Two ESA.

Groundwater Field QA/QC Program

Field duplicate groundwater samples were submitted during groundwater sampling activities to evaluate the precision of the sampling and analysis procedures. A summary of the field duplicate groundwater sample pairings submitted for analysis is presented on the following table:

Analytical Parameters in Groundwater	Total Samples	Total Duplicates	Duplicate Sample ID
VOCs	10	2	DUP01 (duplicate of MW22-5) DUP02 (duplicate of MW22-2)
BTEX	10	2	DUP01 (duplicate of MW22-5) DUP02 (duplicate of MW22-2)
PHCs	10	2	DUP01 (duplicate of MW22-5) DUP02 (duplicate of MW22-2)
Metals (including As, Sb, Se, Cr [VI])	6	1	DUP01 (duplicate of MW22-5)
Hg	6	1	DUP01 (duplicate of MW22-5)
CN-	6	1	DUP01 (duplicate of MW22-5)
Cl-	6	1	DUP01 (duplicate of MW22-5)
PAHs	6	1	DUP01 (duplicate of MW22-5)

As indicated in the table above, the number of duplicate analyses met the O. Reg. 153/04 requirement that at least one field duplicate sample is submitted for every ten samples submitted for analysis per parameter group.

Method blanks were evaluated for detections greater than the RLs. Surrogates were evaluated for recovery within acceptance limits. Where calculable, laboratory duplicates, matrix spikes and matrix spike duplicates, and laboratory control samples and laboratory control sample duplicates were compared to applicable criteria or recovery limits. These QA/QC results were within acceptable limits.

Two trip blank samples (one for each groundwater sampling event) were submitted for analysis of VOCs/PHC F1. The reported VOC/PHC F1 concentrations for the trip blanks were not detected at concentrations greater than the laboratory RLs. As such, the potential for the introduction of positive bias during the collection, transport and storage of these groundwater samples is considered low and the sample data are considered reliable for the purposes of this Phase Two ESA.

For the groundwater sample field duplicates, the RPDs for the reported parameter concentrations in groundwater between the primary and duplicate samples were calculated at values below the project acceptance criteria of 30% with the following exception:

- MW22-5/DUP01: concentrations of cadmium (maximum RPD 33.5%).

The overall level of variability in the groundwater primary/duplicate samples are within expected ranges. The above parameter did not exceed the applicable SCS and therefore the result is not expected to alter the conclusions of this Phase Two ESA.

Soil Vapour Field QA/QC Program

No field duplicate soil vapour sample was collected during soil vapour sampling activities.

Method blanks were evaluated for detections greater than the RLs. Surrogates were evaluated for recovery within acceptance limits. Where calculable, laboratory duplicates and laboratory control samples were compared to applicable criteria or recovery limits. These QA/QC results were within acceptable limits.

The SUMMA™ canisters arrived at the laboratory in good condition with some remaining vacuum to allow for canister leak checks by comparing the vacuum recorded after sampling in the field and upon arrival at the laboratory. The difference in vacuum after sampling and upon arrival at the laboratory was less than 4 inches of mercury (in Hg), which is acceptable.

Soil vapour sample analyses were all within the recommended holding times specified by the laboratory.

6.10.2 Deviations from Analytical Protocol

A summary of Geosyntec's soil and groundwater sample handling procedures with respect to the methods in the Analytical Protocol (MOE, 2011) is provided below:

- Soil and groundwater samples analyses were within the holding times specified in the Analytical Protocol (MOE, 2011).
- Soil and groundwater samples were placed in coolers with ice upon collection. Appropriate temperatures were maintained during sample storage and during transport to the laboratory. Upon receipt at the laboratory, the average temperature readings for soil and groundwater sample submissions were within the required temperature range of 5±3 degrees Celsius (°C) with the exception of the following:
    - Certificate of Analysis L2712428 (Groundwater): average temperature reading was 17.7°C when submitted to the analytical laboratory.
- Soil and groundwater samples collected by Geosyntec were placed in laboratory-supplied containers, pre-charged with preservative (where applicable), which met the bottling and preservation criteria of the Analytical Protocol (MOE, 2011).

6.10.3 Laboratory Certificates of Analyses

Geosyntec received a certificate of analysis for each sample submitted for laboratory analysis. Laboratory-applied qualifiers are included in their respective reports. Copies of laboratory certificates of analyses for soil, groundwater and sub-slab/soil vapour samples incorporated into this Phase Two ESA are included in **Appendix C.**

6.10.4 Results of QA/QC Program

Four of the groundwater samples contained visible sediment in groundwater. Measured concentrations of organic substances in water can be biased high due to presence of sediment. Geosyntec notes that the concentrations of affected VOC parameters were less than the laboratory RLs or the Table 3 SCS. As such, these occurrences were found not to significantly impact the quality of the data for this Phase Two ESA.

The soil vapour samples overall are concluded to be representative of known and acceptable accuracy and precision, and suitable for use for meeting project objectives. However, field precision could not be evaluated. Should these samples be held to the standard of a Phase Two ESA submitted to the MECP as part of an RSC submission, additional sampling with collection of a duplicate soil vapour sample may be necessary.

The laboratory analytical reports also identified select issues pertaining to the analysis of QC samples. Issues included the inability to calculate matrix spike recoveries due to high analyte background, matrix spike recoveries falling outside of desired DQO, anomalous surrogate recoveries due to matrix interference, and estimated ion abundance ratios. These issues are largely related to the heterogeneous nature of the soil samples recovered. They have been reviewed and found not to significantly impact the quality of the data derived from the laboratory reports.

Overall, field and laboratory data collected by Geosyntec met the DQOs of the investigations, and decision-making was not affected by the data collected. It is noted that certain data collected by others are being relied upon for the purposes of identifying maximum concentrations at the Phase Two Property (see Section 3.2).

6.11 Phase Two Conceptual Site Model

6.11.1 Introduction and Background

The Phase Two Property measures approximately 7.06 hectares (17.4 acres) in size. The Site is located at the northeast corner of Sheffield Road and Humber Place and is developed with an approximately 33,472 sq. m. commercial warehouse building (the “Site building”) initially constructed in 1967. The Site building is currently vacant but was formerly occupied by various grocery retailers, most recently Loblaw and utilized for grocery distribution activities. The Phase Two Property may be accessed from Sheffield Road to the west and Humber Place from the south.

There are no on-Site surface water bodies. The location of the Phase Two Property and a Phase Two Property Layout Map are shown on **Figure 1** and **Figure 2**, respectively.

CP REIT is the owner of the Phase Two Property, which is located within the City of Ottawa. The PINs and legal descriptions associated with the Phase Two Property are provided in the table below:

Phase Two Property Information	
Phase Two Property Addresses:	2625 Sheffield Road, Ottawa, ON K1B 3V6
Property Identification Numbers (PINs):	04262-0111 (LT), 04262-0112 (LT)
Legal Description:	PT BLK A, PL 783, AS IN N282567 T/W OT70637; OTTAWA/GLOUCESTER PT BLK A, PL 783, PART 1 & 2, 5R1419, S/T OT70637; OTTAWA/GLOUCESTER
Ownership:	CP REIT Ontario Properties Limited
Site Contact Information:	Andrew Reial andrew.reial@choicereit.com 416-324-7913

The Phase One Study Area is shown on **Figure 3**, the PCAs are shown on **Figure 4**, the APECs are shown on **Figure 5** and the sampling locations are shown on **Figure 6.**

Based on the available Site-specific information as presented herein, the applicable SCS for the Phase Two Property, are the Table 3 SCS.

6.11.2 Potentially Contaminating Activities

On and off-Site PCAs were identified during the Phase One ESA, which led to multiple APECs on the Phase Two Property:

PCA Classification *(Table 2 of Schedule D, O. Reg. 153/04)*	**Location of PCA**
#30 – Importation of Fill Material of Unknown Quality	On-Site (PCAs #1, #4B, #5B, #7)
#28 – Gasoline and Associated Products Storage in Fixed Tanks	On-Site (PCAs #2, #4A, #5A)
#11 – Commercial Trucking and Container Terminals	On-Site (PCA #3) Off-Site (PCAs #17, #19)
#46 – Rail Yards, Tracks, and Spurs	On-Site (PCA #6) Off-Site (PCA #13)
#6 – Battery Manufacturing, Recycling, and Bulk Storage	On-Site (PCA #8)
#8 – Chemical Manufacturing, Processing, and Bulk Storage	On-Site (PCA #9)
No PCA # – Impacts from a Fire	On-Site (PCA #10)
No PCA # - Impacts from a Diesel Spill	On-Site (PCA #11)
#37 – Operation of Dry Cleaning Equipment (where chemicals are used)	Off-Site (PCAs #12, #17)
#49 – Salvage Yard including automobile wrecking	Off-Site (PCA #12)

#34 – Metal Fabrication	Off-Site (PCAs #14, #16)
#58 – Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners	Off-Site (PCAs #14, #17)
#19 – Electronic and Computer Equipment Manufacturing	Off-Site (PCA #15)
#33 – Metal Treatment, Coating, Plating, and Finishing	Off-Site (PCA #16)
#10 – Commercial Autobody Shops	Off-Site (PCAs #17, #20)
#54 – Textile Manufacturing and Processing	Off-Site (PCA #17)
#31 – Ink Manufacturing, Processing and Bulk Storage	Off-Site (PCA #20)

The locations of the PCAs, differentiated by colour as to which off-Site PCAs resulted in an APEC at the Site, are shown on **Figure 4.**

6.11.3 Areas of Potential Environmental Concern

The on and off-Site PCAs within the Phase One Study Area resulted in the identification of APECs at the Phase Two Property (**Figure 5**).

The APEC summary table is as follows:

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
APEC #1 – Fill material of unknown quality	Entire Phase One Property	#30 – Importation of Fill Material of Unknown Quality	On-Site (PCA #1)	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, low or high pH, EC, and SAR	Soil
APEC #2 – Private fuel outlet with two diesel USTs installed in 1978	North-central portion of the Phase One Property	#28 – Gasoline and Associated Products Storage in Fixed Tanks	On-Site (PCA #2)	BTEX, PHCs	Soil and groundwater
APEC #3 – Former truck repair and maintenance activities	Northwest portion of the Site building	#11 – Commercial Trucking and Container Terminals	On-Site (PCA #3)	VOCs, BTEX, PHCs	Soil and groundwater

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
APEC #4A – Former waste oil and supply oil USTs installed in 1976 and removed in 1999	Northwest exterior of the Site building	#28 – Gasoline and Associated Products Storage in Fixed Tanks	On-Site (PCA #4A)	BTEX, PHCs	Soil and groundwater
APEC #4B – Material of unknown quality used to backfill the former waste oil and supply oil USTs in 1999	Northwest exterior of the Site building	#30 – Importation of Fill Material of Unknown Quality	On-Site (PCA #4B)	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, low or high pH, EC, and SAR	Soil
APEC #5A – Two former heating oil USTs	Western interior and exterior portion of the Site building	#28 – Gasoline and Associated Products Storage in Fixed Tanks	On-Site (PCA #5A)	BTEX, PHCs, PAHs	Soil and groundwater
APEC #5B – Material of unknown quality used to backfill the former heating oil USTs	Western interior and exterior portion of the Site building	#30 – Importation of Fill Material of Unknown Quality	On-Site (PCA #5B)	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, low or high pH, EC, and SAR	Soil
APEC #6 – Former rail spurs	Central portion of the Phase One Property	#46 – Rail Yards, Tracks, and Spurs	On-Site (PCA #6)	PHCs, PAHs, Metals (including As, Sb, Se)	Soil

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
APEC #7 – Material of unknown quality used to backfill the former building	South-central portion of the Phase One Property	#30 – Importation of Fill Material of Unknown Quality	On-Site (PCA #7)	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, low or high pH, EC, and SAR	Soil
APEC #8 – Forklift battery washing and storage activities	North-central portion of the Site building	#6 – Battery Manufacturing, Recycling, and Bulk Storage	On-Site (PCA #8)	Metals (including As, Sb, Se)	Soil
APEC #9 – Chemicals/wastes stored in the forklift repair area	Northwestern portion of the Site building	#8 – Chemical Manufacturing, Processing, and Bulk Storage	On-Site (PCA #9)	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-	Soil
APEC #10 - On-Site fire that occurred in 2011	Southern exterior portion of the Site building	No PCA # - Impacts from a Fire	On-Site (PCA #10)	PHCs, PAHs, Metals (including As, Sb, Se), PFAS	Soil
APEC #11 – On-Site diesel spill that occurred in 2021	Northeastern portion of the Phase One Property	No PCA # - Environmental Spill	On-Site (PCA #11)	BTEX, PHCs	Soil
APEC #12A – Former dry cleaning operations to the north of the Phase One Property at 2575 Sheffield Road	Northern portion of the Phase One Property	#37 – Operation of Dry Cleaning Equipment (where chemicals are used)	Off-Site (PCA #12)	VOCs	Groundwater

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
APEC #12B – Current and former end of life vehicle waste disposal site operations to the north of the Phase One Property at 2575 Sheffield Road	Northern portion of the Phase One Property	#49 – Salvage Yard including automobile wrecking	Off-Site (PCA #12)	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-	Groundwater
APEC #13 – Current railway on the adjoining lands to the east of the Phase One Property	Eastern portion of the Phase One Property	#46 – Rail Yards, Tracks, and Spurs	Off-Site (PCA #13)	PHCs, PAHs, Metals (including As, Sb, Se)	Groundwater
APEC #14A – Current metal fabrication operations to the south of the Phase One Property at 1350 Humber Place	Southeast portion of the Phase One Property	#34 – Metal Fabrication	Off-Site (PCA #14)	Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater
APEC #14B – Former waste processing facility to the south of the Phase One Property at 1350 Humber Place	Southeast portion of the Phase One Property	#58 – Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners	Off-Site (PCA #14)	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, Na, Cl-	Groundwater
APEC #15 – Current and/or former electronics manufacturing operations to the northwest of the Phase One Property	Northwestern portion of the Phase One Property	#19 – Electronic and Computer Equipment Manufacturing	Off-Site (PCA #15)	VOCs, BTEX, PHCs, Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
at 2574 Sheffield Road					
APEC #16A – Former metal plating operations to the west of the Phase One Property at 2590 Sheffield Road	Northwestern portion of the Phase One Property	#33 – Metal Treatment, Coating, Plating, and Finishing	Off-Site (PCA #16)	VOCs, Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater
APEC #16B – Former metal fabrication operations to the west of the Phase One Property at 2590 Sheffield Road	Northwestern portion of the Phase One Property	#34 – Metal Fabrication	Off-Site (PCA #16)	Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater
APEC #17 – Current and/or former automotive repair operations to the west of the Phase One Property at 2600-2616 Sheffield Road and 1325 Humber Place	Western portion of the Phase One Property	#10 – Commercial Autobody Shops	Off-Site (PCAs #17 and #20)	VOCs, BTEX, PHCs	Groundwater
APEC #18 – Current and/or former commercial trucking operations to the west of the Phase One Property at 2612 and 2660 Sheffield Road	Western portion of the Phase One Property	#11 – Commercial Trucking and Container Terminals	Off-Site (PCAs #17 and #19)	VOCs, BTEX, PHCs	Groundwater

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
APEC #19 – Current and/or former commercial printing operations to the west of the Phase One Property at 1335 Humber Place	Western portion of the Phase One Property	#31 - Ink Manufacturing, Processing, and Bulk Storage	Off-Site (PCA #20)	VOCs	Groundwater
APEC #20A – Former dry cleaning operations to the west of the Phase One Property at 2616 Sheffield Road	Western portion of the Phase One Property	#37 – Operation of Dry Cleaning Equipment (where chemicals are used)	Off-Site (PCA #17)	VOCs	Groundwater
APEC #20B – Former textile restoration operations to the west of the Phase One Property at 2616 Sheffield Road	Western portion of the Phase One Property	#54 – Textile Manufacturing and Processing	Off-Site (PCA #17)	VOCs, BTEX, PHCs, Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater
APEC #20C – Current and former organic waste processing and transfer facility operations to the west of the Phase One Property at 2612 Sheffield Road	Western portion of the Phase One Property	#58 – Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners	Off-Site (PCA #17)	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, Na, Cl-	Groundwater

Notes:

VOCs – Volatile Organic Compounds
BTEX – Benzene, Toluene, Ethylbenzene, Xylenes
PHCs F1-F4 – Petroleum Hydrocarbons Fractions F1 to F4
PAHs – Polycyclic Aromatic Hydrocarbons
As, Sb, Se – Arsenic, Antimony, and Selenium
CN- - Cyanide
Cr (VI) – Hexavalent Chromium
B-HWS – Boron (Hot Water Soluble)
Hg – Mercury
Na – Sodium
Cl- – Chloride
EC – Electrical Conductivity
SAR – Sodium Adsorption Ratio
PFAS – Per- and Polyfluoroalkyl Substances

6.11.4 Subsurface Structures and Utilities

The underground utilities located at the Phase Two Property consist of electricity, potable water, sanitary and storm sewers, communications, and natural gas. Reportedly, no utility plans are available for the Phase Two Property. No additional utilities were identified as part of the Phase Two ESA.

Groundwater flow is likely occurring predominantly in the native silty clay zone, and the water table encountered at the Phase Two Property exists between approximately 1.14 to 3.70 m bgs. Typically, the depths of the buried utilities are between 2 and 4 m bgs, which would therefore be situated within the water table. It is considered likely that buried utilities/structures may be influencing the natural shallow groundwater flow regime.

6.11.5 Physical Setting

The Phase Two Property is located in an area that is developed with a mix of commercial, industrial and undeveloped/forested land. The Phase Two Property is bounded by an industrial/commercial property to the north; a railway line followed by undeveloped/forested land and Green's Creek to the east; an industrial/commercial property and vacant lot to the south; and Sheffield Road followed by industrial/commercial properties to the west.

Based on a review of Google Earth™ satellite imagery, the Phase Two Property is situated at an elevation of approximately 65 m amsl. Topographic elevation contours show the Phase Two Property and Phase One Study Area to be generally flat.

6.11.6 Stratigraphy

The Phase Two Property is located in a region comprised of one overburden unit which consists of offshore marine deposits (clay and silt), as shown in geological records prepared by the OGS. Further, a review of literature pertaining to the geology of the Ottawa region indicates that these native clay soils are associated with post-glacial Champlain Sea marine deposits. A Champlain Sea clay deposit typically includes a surficial crust (consisting of stiffer and drier clay) underlain by a weaker and more compressible clay layer (City of Ottawa, 2017). The map of the Physiography of Southern Ontario shows the Site to be located within a region of clay plains of the Ottawa Valley Clay Plains (Chapman and Putnam, 1984). OGS identifies bedrock underlying the Site as shale, limestone, dolostone, and siltstone of the Georgian Bay Formation, Blue Mountain Formation, Billings Formation, Collingwood Member, and Eastview Member. Bedrock was not encountered during the Phase Two ESA investigation at a maximum investigated depth of 6.10 m bgs; therefore, depth to bedrock cannot be confirmed.

Based on the results of field investigations conducted at the Phase Two Property, the Phase Two Property is underlain by a layer of sand and gravel fill material, followed by a layer of clayey silt which extended to the maximum investigated depth of 6.1 m bgs. Interbedded lenses of coarse

sand were present within the clayey silt unit in the eastern portion of the Phase Two Property. The Site investigation geologic data is summarized in the following table:

Geological Unit	Approximate Maximum Thickness (m)	Approximate Depth Below Ground Surface (m bgs)	Properties
Fill	1.5	0.0 to 0.2 (minimum) 0.0 to 1.5 (maximum)	Fill material comprised of sand and gravel with trace silt present throughout the northern portion of the Phase Two Property. Trace brick fragments present in fill material at BH22-9. This unit is located in the unsaturated zone.
Silty Clay	>4.6	1.5 to 6.1 (maximum investigated depth)	Native overburden material consisting of a heterogenous mixture of silty clay. Interbedded lenses of coarse sand present within the clayey silt unit in the eastern portion of the Phase Two Property (i.e., MW22-4 and MW22-5).

A cross-section location plan is presented on **Figure 11**. Cross-sections showing the stratigraphy of the Site are presented on **Figures 12** and **13**.

6.11.7 Hydrogeology and Groundwater Flow

Groundwater elevations and inferred groundwater flow direction, based on depths to groundwater measured on 2 June 2022, are presented on **Figure 8**. The hydraulic gradient is directed to the northwest in the northern portion of the Phase Two Property and to the southwest in the central and southern portions of the Phase Two Property. Groundwater flow is inferred to be in the same direction as the hydraulic gradient. In Geosyntec's Phase One ESA, groundwater at the Site was inferred to flow to the east in the direction of Green's Creek (Geosyntec, 2022). Groundwater contours presented on **Figure 8** indicate that the shallow groundwater at the Site flows in a northwesterly/southwesterly direction.

The Phase Two Property is provided with potable water, sanitary and stormwater services. Furthermore, service trenches are present along Sheffield Road. As such, underground utilities may be influencing the natural shallow groundwater flow regime, which was regionally expected to be to the east based on the location of Green's Creek.

The water level data collected during the 2 June 2022 groundwater monitoring event was utilized to assess the minimum and maximum horizontal gradients for the Site. The calculated hydraulic gradient for the on-Site data set ranged from 0.01 to 0.02. The average horizontal hydraulic gradient is calculated to be 0.02.

Since no contaminants were identified in groundwater at concentrations greater than the Table 3 SCS, the vertical hydraulic gradient was not assessed.

6.11.8 Approximate Depth to Bedrock

The Phase Two Property is located in an area with bedrock described as consisting of shale, limestone, dolostone, and siltstone of the Georgian Bay Formation, Blue Mountain Formation, Billings Formation, Collingwood Member, and Eastview Member. Bedrock was not encountered during the Phase Two ESA investigation at a maximum investigated depth of 6.10 m bgs; therefore, depth to bedrock cannot be confirmed.

6.11.9 Approximate Depth to Water Table

The existing monitoring wells at the Site were screened across the water table and the measured depth to groundwater ranged between 1.14 to 3.70 m bgs on 2 June 2022.

6.11.10 Section 35, 41, or 43.1 of O. Reg. 153/04

The Phase Two Property and Phase One Study Area are serviced by the City of Ottawa municipal drinking water system, which obtains its water from a surface water source (Ottawa River)[10]. Further, upon review of the WWIS database, no water wells were identified to be located within the Phase One Study Area that are utilized for human consumption and/or agricultural usage. Geosyntec notes that there appears to be at least two potentially active water supply wells for commercial and industrial purposes (i.e., non-potable) located within the Phase One Study Area (i.e., Well ID No. #1511776 and #7277670), however based on the distances from the Site and/or the projected direction of groundwater flow, it is anticipated that these wells are not located within the zone of influence of the Site. Geosyntec is of the opinion that a non-potable groundwater condition exists at the Site, in accordance with Section 35 of O. Reg. 153/04, as amended. The Phase Two Property is not located in a wellhead protection area or other designation identified on the MECP Source Protection Information Atlas[11].

The Phase Two Property is not considered environmentally sensitive, as defined by Section 41 of O. Reg. 153/04, as amended. Based on the results of the Phase One ESA, the Site is not located within an ANSI, nor does it include or is it adjacent to, or within, 30 m of such an area, as defined in Section 41(1)(a) of O. Reg. 153/04, as amended. In addition, 17 pH samples were collected and analyzed for the Phase Two Property as part of this investigation and previous investigations. The results were within the range for non-environmentally sensitive sites for surface (<1.5 m bgs) and subsurface (>1.5 m bgs) soils;

[10] https://ottawa.ca/en/living-ottawa/drinking-water-stormwater-and-wastewater/drinking-water

[11] https://www.lioapplications.lrc.gov.on.ca/SourceWaterProtection/index.html?viewer=SourceWaterProtection.SWPViewer&locale=en-CA

The Phase Two Property is not considered a shallow soil property in accordance with Section 43.1(1)(a) of O. Reg. 153/04 because greater than 2 m of overburden soil exists across more than two thirds of the Site.

The Phase Two Property is not considered a property located within 30 m of a water body per Section 43.1(1)(b) of O. Reg. 153/04, as amended. There are no surface water bodies present at the Site or within 30 m of the Site. The nearest body of water relative to the Phase Two Property is Green's Creek, located approximately 60 m east of the Phase Two Property.

Based on the available Site-specific information, the applicable SCS for the Phase Two Property are the Table 3 SCS.

6.11.11 Soil Brought to the Phase Two Property

The following findings were identified in Geosyntec's Phase One ESA with respect to soil brought to the Phase Two Property (Geosyntec, 2022):

- Based on the review of the borehole logs provided in the 2010 Trow Phase II ESA and the 2020 EXP Phase II ESA and Delineation Investigation, fill material and/or suspected re-worked material was noted in all borehole locations completed at the Phase Two Property. According to the aerial photograph review conducted as part of the Phase One ESA, ground disturbance assumed to be associated with early grading/development was observed at the Phase Two Property in 1965.

- According to the 2009 Trow Phase I ESA, a historical building was located in the area which is now occupied by the south extension (former freezer area) of the Site building. Demolition practices associated with the building's removal were identified as a concern. According to the aerial photograph review, a former building was observed in the southern portion of the Phase Two Property which appeared to have been constructed sometime between 1965 and 1976 and was demolished by 1999.

- According to the 2020 EXP Phase I ESA, EXP was reportedly advised that fill material of unknown origin was imported during the development of the Phase Two Property. In addition, the report noted that fill material of unknown origin was utilized to backfill the excavation of the former oil USTs formerly located at the northwest corner of the Site building and identified fill materials related to the removal of the former on-Site railway spurs in the central portion of the Phase Two Property.

- According to the 1975 Internorth Construction Plans reviewed during the Phase One ESA, a 10,000-gallon heating oil storage tank was shown beneath the western portion of the Site building (i.e., the former office) with piping extending out of the building to the north and traveling along the northern exterior of the office portion in an east-west orientation. The construction plan proposed to remove this existing storage tank and

install a new 10,000-gallon heating oil storage tank along the western exterior of the office portion of the Site building. The proposed piping would run along the northern exterior of the Site building and connect with existing piping. The fill and vent pipes associated with this heating oil UST were to be installed along the northern exterior of the office portion of the Site building. During the Site reconnaissance, Geosyntec observed possible cut off fill and vent pipes along the northern exterior of the western portion of the Site building (i.e., the former office portion) consistent with the proposed plans. Geosyntec notes that fill material of unknown origin may have been utilized to backfill the excavation of the former heating oil USTs.

Based on the above, fill material at the Site was investigated as APEC #1 (i.e., the entire Site), APEC #4B (i.e., waste oil UST backfill), APEC #5B (i.e., heating oil UST backfill), APEC #8 (i.e., former building backfill). To assess the COPCs associated with fill material, the following was conducted:

- Fill material samples were submitted for all COPCs in 10 boreholes completed across the Phase Two Property (i.e., APEC #1);
- A sample of the fill material was submitted for all COPCs at MW22-1 (i.e., APEC #4B). Geosyntec notes that backfill material was not encountered at this sampling location;
- A sample of the fill material was submitted for all COPCs at MW22-2 (i.e. APEC #5B). Geosyntec notes that backfill material consisting of fine to medium sand was present to a depth of 3.05 m bgs at this sampling location; and
- A sample of the fill material was submitted for all COPCs at BH22-9 (i.e., APEC #8). Geosyntec notes that trick brick and asphalt fragments were present in the fill material at this sampling location.

6.11.12 Proposed Buildings or Structures

Geosyntec understands from Amazon that the future land use of the Phase Two Property will be commercial/industrial. The current Site building is proposed for demolition and the Site is proposed to be redeveloped with an approximately 26,120 sq. m. (281,200 sq. ft.) warehouse and associated parking areas and laneways in the same general footprint of the existing Site building.

6.11.13 Distribution of Contaminants

The approximate locations of the boreholes and monitoring wells are shown on **Figure 6**. The rationale for the selection of borehole/monitoring well locations is provided in the table below:

Area of Potential Environmental Concern	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)	Proposed Sampling Locations (Soil)	Proposed Sampling Locations (Groundwater)
APEC #1 – Fill material of unknown quality	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, low or high pH, EC, and SAR	Soil	MW22-1 MW22-2 BH22-3 MW22-4 MW22-5 BH22-6 BH22-7 BH22-8 BH22-9 BH22-10	Not required as fill material does not intersect the water table
APEC #2 – Private fuel outlet with two diesel USTs installed in 1978	BTEX, PHCs	Soil and groundwater	Not required due to previous investigations conducted at the Phase Two Property (Trow, 2010, EXP, 2020b, EXP, 2020c)	MW10-3*
APEC #3 – Former truck repair and maintenance activities	VOCs, BTEX, PHCs	Soil and groundwater	Not required due to previous investigations conducted at the Phase Two Property (EXP, 2020b, EXP, 2020c)	MW103*
APEC #4A – Former waste oil and supply oil USTs installed in 1976 and removed in 1999	BTEX, PHCs	Soil and groundwater	MW22-1	MW22-1 MW102*
APEC #4B – Material of unknown quality used to backfill the former waste oil and supply oil USTs in 1999	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, low or high pH, EC, and SAR	Soil	MW22-1	Not required as backfill material does not intersect the water table

Area of Potential Environmental Concern	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)	Proposed Sampling Locations (Soil)	Proposed Sampling Locations (Groundwater)
APEC #5A – Two former heating oil USTs	BTEX, PHCs, PAHs	Soil and groundwater	MW22-2 BH22-3	MW22-2
APEC #5B – Material of unknown quality used to backfill the former heating oil USTs	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, low or high pH, EC, and SAR	Soil	MW22-2 BH22-3	Not required as backfill material does not intersect the water table
APEC #6 – Former rail spurs	PHCs, PAHs, Metals (including As, Sb, Se)	Soil	MW22-4	Not required as potential impacts expected to be in surficial soils
APEC #7 – Material of unknown quality used to backfill the former building	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, low or high pH, EC, and SAR	Soil	BH22-9	Not required as potential impacts expected to be in surficial soils
APEC #8 – Forklift battery washing and storage activities	Metals (including As, Sb, Se)	Soil	BH22-8	Not required as potential impacts expected to be in surficial soils
APEC #9 – Chemicals/wastes stored in the forklift repair area	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-	Soil	BH22-7	Not required as potential impacts expected to be in surficial soils
APEC #10 - On-Site fire that occurred in 2011	PHCs, PAHs, Metals (including As, Sb, Se), PFAS	Soil	BH22-10	Not required as potential impacts expected to be in surficial soils

Area of Potential Environmental Concern	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)	Proposed Sampling Locations (Soil)	Proposed Sampling Locations (Groundwater)
APEC #11 – On-Site diesel spill that occurred in 2021	BTEX, PHCs	Soil	BH22-6	Not required as potential impacts expected to be in the surficial soils
APEC #12A – Former dry cleaning operations to the north of the Phase One Property at 2575 Sheffield Road	VOCs	Groundwater	Not required due to off-Site concern	MW10-3*
APEC #12B – Current and former end of life vehicle waste disposal site operations to the north of the Phase One Property at 2575 Sheffield Road	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-	Groundwater	Not required due to off-Site concern	MW10-3*
APEC #13 – Current railway on the adjoining lands to the east of the Phase One Property	PHCs, PAHs, Metals (including As, Sb, Se)	Groundwater	Not required due to off-Site concern	MW22-4 MW22-5
APEC #14A – Current metal fabrication operations to the south of the Phase One Property at 1350 Humber Place	Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater	Not required due to off-Site concern	MW106*
APEC #14B – Former waste processing facility to the south of the Phase One Property at 1350 Humber Place	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, Na, Cl-	Groundwater	Not required due to off-Site concern	MW106*
APEC #15 – Current and/or former electronics manufacturing operations to the northwest of the Phase One Property at 2574 Sheffield Road	VOCs, BTEX, PHCs, Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater	Not required due to off-Site concern	MW101*

Area of Potential Environmental Concern	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)	Proposed Sampling Locations (Soil)	Proposed Sampling Locations (Groundwater)
APEC #16A –Former metal plating operations to the west of the Phase One Property at 2590 Sheffield Road	VOCs, Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater	Not required due to off-Site concern	MW101*
APEC #16B – Former metal fabrication operations to the west of the Phase One Property at 2590 Sheffield Road	Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater	Not required due to off-Site concern	MW101*
APEC #17 – Current and/or former automotive repair operations to the west of the Phase One Property at 2600-2616 Sheffield Road and 1325 Humber Place	VOCs, BTEX, PHCs	Groundwater	Not required due to off-Site concern	MW101* MW104* MW105*
APEC #18 – Current and/or former commercial trucking operations to the west of the Phase One Property at 2612 and 2660 Sheffield Road	VOCs, BTEX, PHCs	Groundwater	Not required due to off-Site concern	MW101* MW104* MW105*

Area of Potential Environmental Concern	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)	Proposed Sampling Locations (Soil)	Proposed Sampling Locations (Groundwater)
APEC #19 – Current and/or former commercial printing operations to the west of the Phase One Property at 1335 Humber Place	VOCs	Groundwater	Not required due to off-Site concern	MW105*
APEC #20A – Former dry cleaning operations to the west of the Phase One Property at 2616 Sheffield Road	VOCs	Groundwater	Not required due to off-Site concern	MW104*
APEC #20B – Former textile restoration operations to the west of the Phase One Property at 2616 Sheffield Road	VOCs, BTEX, PHCs, Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater	Not required due to off-Site concern	MW104*
APEC #20C – Current and former organic waste processing and transfer facility operations to the west of the Phase One Property at 2612 Sheffield Road	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, Na, Cl-	Groundwater	Not required due to off-Site concern	MW104*

Notes:
* – Existing monitoring well drilled by others
VOCs – Volatile Organic Compounds
BTEX – Benzene, Toluene, Ethylbenzene, Xylenes
PHCs F1-F4 – Petroleum Hydrocarbons Fractions F1 to F4
PAHs – Polycyclic Aromatic Hydrocarbons
As, Sb, Se – Arsenic, Antimony, and Selenium
CN- - Cyanide
Cr (VI) – Hexavalent Chromium
B-HWS – Boron (Hot Water Soluble)
Hg – Mercury
Na – Sodium
Cl- – Chloride
EC – Electrical Conductivity
SAR – Sodium Adsorption Ratio
PFAS – Per- and Polyfluoroalkyl Substances

Soil

In the analyzed soil samples, COPCs were not detected at concentrations greater than the analytical RLs or were detected at concentrations less than the Table 3 SCS, with the exception of the following:

- Vanadium was detected at a concentration of 102 µg/g (duplicate concentration 91.5 µg/g) (versus the Table 3 SCS of 86 µg/g) in soil sample MW22-1-3B at a depth of 3.81 – 4.57 m bgs.
- SAR was detected at a concentration of 23.5 (versus the Table 3 SCS of 12) in soil sample MW22-1-1B at a depth of 0.76 – 1.52 m bgs.
- EC was detected at concentrations greater than the Table 3 SCS of 1.4 mS/cm in the following soil samples (reported concentration in parentheses): MW22-1-3B at 3.81 – 4.57 m bgs (2.04 mS/cm), BH22-3-1 at 0 – 0.6 m bgs (1.41 mS/cm), MW22-4-1A at 0 – 0.76 m bgs (1.53 mS/cm), BH22-9-1A at 0 – 0.76 m bgs (1.71 mS/cm), BH22-10-1A at 0 – 0.76 m bgs (1.73 mS/cm [duplicate 1.43 mS/cm]).

The following parameters were detected at concentrations greater than the Table 3 SCS in soil at the Phase Two Property during past investigations (see Section 3.2):

Parameter	Past Investigation Reference	Rationale
PHCs	Trow, 2010 EXP, 2020b EXP, 2020c	During the 2010 Trow Phase II ESA, concentrations of PHC F1 (64 µg/g) and PHC F2 (342 µg/g) were greater than the Table 3 SCS of 55 µg/g and 230 µg/g, respectively at MW10-3 at a depth of 0.60 – 0.76 m bgs. MW10-3 is located in the vicinity of the on-Site private fuel outlet. During the 2020 EXP Phase II ESA, select PHC concentrations were greater than the Table 3 SCS at the following locations: • MW103 (located in the vicinity of the interior oil-water separator): o PHC F1 (61 µg/g) and PHC F2 (370 µg/g) at a depth of 1.2 – 1.8 m bgs; o PHC F2 (540 µg/g) at a depth of 2.4 – 3.1 m bgs; and o PHC F2 (990 µg/g) at a depth of 3.1 – 3.7 m bgs. • BH107 (located in the vicinity of the on-Site private fuel outlet): o PHC F2 (660 µg/g) at a depth of 0.9 – 1.5 m bgs. Deeper samples with concentrations below the Table 3 SCS were obtained to achieve vertical delineation at both locations. During the 2020 EXP Delineation, horizontal delineation to the north, south, east and west of each previously identified exceedance location was achieved. Geosyntec notes that PHC F1 and PHC F2 are considered COCs for the purposes of this Phase Two ESA.
EC	AECOM, 2021	During the 2021 AECOM Geotechnical Investigation, a concentration of EC (2.78 mS/cm) was greater than the Table 3 SCS of 1.4 mS/cm at BH-18 at a depth of 0.0 – 0.6 m bgs. Geosyntec notes that exemption under O. Reg. 153/04, Section 49.1 Paragraph 1 is being relied upon. This parameter is not considered a COC for the purposes of this Phase Two ESA.

All other maximum RLs were less than the Table 3 SCS for all parameters analyzed in soil samples collected from the Site. There are no Table 3 SCS for PFAS parameters; however, all PFAS

parameters were less than the laboratory RLs. Accordingly, no COCs were identified as a result of maximum RLs or unavailable Table 3 SCS.

Vanadium concentrations were greater than the Table 3 SCS in soil at one borehole location. Geosyntec considers this concentration to be naturally occurring as vanadium can be associated with the Champlain Sea clay deposits, which commonly contain concentrations of trace metals, including vanadium, above the Table 1 SCS. It is noted that the Table 1 SCS for vanadium is interchangeable with the Table 3 SCS (i.e., 86 µg/g). In a 2017 study conducted by Geofirma Engineering Ltd., Dillon Consulting Limited, and the City of Ottawa (City of Ottawa, 2017), a review of analytical data collected from 285 soil samples identified the average and maximum concentrations of vanadium to be 75 µg/g and 136 µg/g, respectively, with the 75th percentile concentration (i.e., 92.5 µg/g) exceeding the Table 1 SCS. The study concluded that naturally occurring concentrations of vanadium, above the respective Table 1 SCS, could be expected to occur commonly in clay soils in the Ottawa region. Considering this information, vanadium concentrations identified in on-Site soils are considered to be representative of local background conditions and do not represent a COC for the Site.

The source of the elevated EC and SAR in soil is attributed to the application of de-icing salt on the adjacent right of ways (i.e., Sheffield Road and Humber Place) and the paved surfaces of the Site, for the purposes of safety for vehicular and pedestrian traffic during the winter months. As such, an exemption under O. Reg. 153/04, Section 49.1, Paragraph 1 is relied upon.

In summary, concentrations of PHCs are greater than the Table 3 SCS in select soil samples collected from the Phase Two Property and are considered to represent COCs at the Phase Two Property. The lateral distribution of these exceedances is shown by parameter group on **Figure 9**. Cross sections showing the vertical distribution of the exceedances are shown on **Figures 12** and **13**.

Groundwater

In the analyzed groundwater samples, COPCs were not detected at concentrations greater than the analytical RLs or were detected at concentrations less than the Table 3 SCS, with the exception of the following:

- Chloride was detected at a concentration of 4,340 mg/L (versus the Table 3 SCS of 2,300 mg/L) in groundwater sample MW101.

The following parameters had concentrations greater than the Table 3 SCS in groundwater samples collected from the Phase Two Property during past investigations (see Section 3.2); however, they were not identified as COCs in groundwater based on the summarized rationale below:

Parameter	Past Investigation Reference	Rationale
Silver	Trow, 2010 EXP, 2020b	During the 2010 Trow Phase II ESA, concentrations of silver (2 µg/L) were greater than the Table 3 SCS of 1.5 µg/L at MW10-4 in the vicinity of the on-Site private fuel outlet. This location was re-sampled for metals during the 2020 EXP Phase II ESA. The silver concentration at MW10-4 was less than the analytical RL and the Table 3 SCS.

The source of the elevated chloride in groundwater is attributed to the application of de-icing salt on the adjacent right of ways (i.e., Sheffield Road and Humber Place) and the paved surfaces of the Site, for the purposes of safety for vehicular and pedestrian traffic during the winter months. As such, an exemption under O. Reg. 153/04, Section 49.1, Paragraph 1 is relied upon.

In summary, no COCs were identified in groundwater for the Site.

Sediment

No sediment is present on the Phase Two Property. No visual or olfactory evidence of impact, including NAPL, was encountered during the Phase Two ESA investigation.

Sub-slab/Soil Vapour

At the request of Amazon, a sub-slab vapour investigation was conducted within the proposed building footprint to assess potential vapour intrusion risk. Geosyntec conducted the pin installation, screening and sampling for VOCs and PHCs aliphatic and aromatic fractionations at five sub-slab locations on 26 May 2022. The results were compared to the MECP Commercial SVSLs which were developed using the MECP's industrial/commercial HBIAC. The approximate locations of the sub-slab vapour pin locations are shown on **Figure 7**.

In the analyzed sub-slab vapour samples, VOCs and/or PHC aliphatic/aromatic fractionations were not detected at concentrations greater than the analytical RLs or were detected at concentrations less than the MECP Commercial SVSLs, with the exception of the following:

- 1,2-Dichloroethane was detected at a concentration of 196 µg/m^3 (versus the MECP Commercial SVSL of 34 µg/m^3) at SSV-13.

The following parameters had concentrations greater than the MECP Commercial SVSLs in sub-slab vapour samples collected from the Phase Two Property during past investigations:

- 1,2-Dichloroethane was detected at a concentration of 188 µg/m^3 (versus the MECP Commercial SVSL of 34 µg/m^3) at SSV-06.

The lateral distribution of the above-noted exceedances is shown on **Figure 10**.

6.11.14 Contaminant Exposure Pathways

The human health and ecological CSMs for this Site were based on an industrial/commercial/community setting, in a non-potable groundwater condition, with no surface water bodies present at the Site. The human health and ecological CSM diagrams are presented in **Figure 14** and **Figure 15**, respectively, and show:

- Contaminant release mechanisms;
- Contaminant transport pathways;
- On- and off-Site human and ecological receptors;
- Receptor exposure points; and
- Routes of exposure.

Figure 14 summarizes the human health CSM. The Phase Two Property was previously used for industrial/commercial purposes and the Site building is currently unoccupied. It is understood that the existing Site building will be demolished and a future building for industrial/commercial property use will be constructed on the Phase Two Property in the same footprint as the existing Site building. As such, the identified on-Site receptors are a construction (or utility) worker, indoor and outdoor workers, and property visitors. The adjacent and nearby property use currently includes roadways, industrial facilities, and vacant land. As such, the identified off-Site human receptors are construction (or utility) workers, indoor and outdoor workers, and property visitors.

Figure 15 summarizes the ecological CSM. The Site is located within an urban area and is not considered to be within an environmentally sensitive area. There is limited potential for Species at Risk (SaR) and/or SaR habitat on or in the vicinity of the Site. The Site is primarily covered by a mix of asphalt and concrete surface coverings with minimal landscaped areas. It is possible that a significant portion of the Site in the future will remain paved or be under the footprint of a future building. The ecological CSM assumes that receptors have the potential to have direct contact with all on-Site soils without any barriers or restrictions. As such, the identified on and off-Site ecological receptors are those typical of Eastern Ontario terrestrial urban and vegetated environments and include terrestrial plants, soil invertebrates, reptiles, amphibians, terrestrial mammals, and terrestrial birds. Given the presence of Green's Creek approximately 60 m east of the Site, aquatic receptors including aquatic plants, aquatic invertebrates, and fish were also considered as off-Site ecological receptors.

6.11.15 Non-Standard Delineation, Schedule E, Section 7.1

Non-standard delineation, as defined by O. Reg. 153/04, Schedule E, Section 7.1, was not required.

6.11.16 Exemption Under Section 49.1, Paragraphs 1 to 3

An exemption under O. Reg. 153/04, Section 49.1, Paragraph 1 is relied upon. Based on previous investigations and the current Phase Two ESA the following salt-related parameters were identified at concentrations greater than the Table 3 SCS at the Phase Two Property:

- EC in soil at BH-18 (AECOM, 2021);
- SAR in soil at MW22-1;
- EC in soil at MW22-1, BH22-3, MW22-4, BH22-9, and BH22-10; and
- Chloride in groundwater at MW101.

The source of the elevated EC and SAR in soil and chloride in groundwater is attributed to the application of de-icing salt on the adjacent right of ways (i.e., Sheffield Road and Humber Place) and the paved surfaces present at the Phase Two Property, for the purposes of safety for vehicular and pedestrian traffic during the winter months. No other potential sources of salt-related constituents were identified for the Phase Two Property. Exemption under O. Reg. 153/04, Section 49.1, Paragraphs 2 and 3 are not required.

7. CONCLUSIONS

The Phase Two Property measures approximately 7.06 hectares (17.4 acres) in size. The Site is located at the northeast corner of Sheffield Road and Humber Place and is developed with an approximately 33,472 sq. m. commercial warehouse building (the "Site building") initially constructed in 1967. The Site building is currently vacant but was formerly occupied by various grocery retailers, most recently Loblaw, and utilized for grocery distribution activities. The Phase Two Property may be accessed from Sheffield Road to the west and Humber Place from the south. There are no on-Site surface water bodies.

The Phase Two Property is located in an area that is developed with a mix of commercial, industrial and undeveloped/forested land. The Phase Two Property is bounded by an industrial/commercial property to the north; a railway line followed by undeveloped/forested land and Green's Creek to the east; an industrial/commercial property and vacant lot to the south; and Sheffield Road followed by industrial/commercial properties to the west.

The results of a Phase One ESA conducted by Geosyntec in 2022 identified current and historical PCAs at the Site and surrounding lands within the Phase One Study Area. As a result of the PCAs, Geosyntec identified multiple APECs and related COPCs in soil and groundwater.

Based on the findings presented in the Phase One ESA, Geosyntec prepared a Phase Two SAP for the Site. The Phase Two SAP considered prior soil and groundwater investigation data collected from the Site and included a data gap analysis of available data relative to the identified APECs on the Site. Geosyntec conducted the Phase Two ESA soil and groundwater investigation between 24 May and 3 June 2022 that included: the advancement of 10 boreholes with four completed as groundwater monitoring wells; development of four newly installed and seven existing monitoring wells; groundwater level monitoring of 11 monitoring wells; field screening; and the collection of soil and groundwater samples for laboratory analyses of applicable COPCs. The applicable generic Site Condition Standards for the Site are the Table 3 SCS.

It is our understanding that the existing Site building might be demolished and that a smaller warehouse building would be constructed in the same general footprint. At the request of Amazon, a sub-slab vapour investigation was conducted within the proposed building footprint to assess potential vapour intrusion risk. Geosyntec conducted installation, screening and sampling for VOCs and PHCs aliphatic and aromatic fractionations at five sub-slab locations on 26 May 2022. The results were compared to the MECP Commercial SVSLs which were developed using the MECP's industrial/commercial HBIAC.

Soil

The Phase Two ESA investigation did not identify any COPCs at concentrations greater than the Table 3 SCS. PHC concentrations greater than the Table 3 SCS were identified in past investigations in the vicinity of an existing oil-water separator within the former vehicle repair

area within the Site building and in the vicinity of the existing on-Site private fuel outlet (Trow, 2010; EXP, 2020b). Several additional soil samples were collected in these areas, with concentrations less than the Table 3 SCS such that the extent of the PHC impacts have been horizontally and vertically delineated.

Groundwater

The Phase Two ESA investigation did not identify any COPCs greater than the Table 3 SCS in groundwater.

Soil Vapour

The Phase Two ESA investigation identified 1,2-Dichloroethane at concentrations greater than the MECP Commercial SVSLs in one sub-slab vapour sample collected from beneath the southern portion of the existing Site building. 1,2-Dichloroethane was also identified at concentrations greater than the MECP Commercial SVSLs in one sub-slab vapour sample collected from beneath the southern portion of the existing Site building during a past investigation (Geosyntec, 2020b).

Recommendations

Geosyntec understands that the on-Site private fuel outlet and oil-water separator are scheduled for removal by the Site owner. Geosyntec recommends that remediation of PHC-impacted soils previously identified in these areas be undertaken in accordance with O. Reg. 153/04 and O. Reg. 406/19, including oversight by a Qualified Person (as defined by the regulations) and confirmatory sampling to demonstrate that the concentrations of PHCs in soil at the Site are less than the applicable SCS.

Since the Phase Two ESA investigation did not identify any COPCs greater than the Table 3 SCS in groundwater, no recommendations are necessary for groundwater.

With respect to the VOCs in sub-slab vapour that exceed the MECP Commercial SVSLs at the Phase Two Property, Geosyntec recommends that following the existing Site building demolition, soil sampling for VOCs be undertaken beneath the southern portion of the Site building to assess whether sub-slab vapour exceedances are related to VOC-impacted soils and to assess the potential for vapour intrusion in the proposed Site building.

8. SIGNATURES

Geosyntec prepared this Phase Two Environmental Site Assessment for the property located at 2625 Sheffield Road in Ottawa, Ontario in general accordance with the requirements stipulated in O. Reg. 153/04, as amended.

This Phase Two ESA was prepared and written by Brooke Wallace, B.Sc. and reviewed by Paula Hutchison, P. Eng., and QP$_{ESA}$ for this Phase Two ESA.

Respectfully Submitted,

Brooke Wallace
Senior Staff Scientist

Paula Hutchison, P. Eng., QP$_{ESA}$
Principal Engineer

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TABLES

Table 1
Monitoring Well Installation Details
2625 Sheffield Road, Ottawa, Ontario

Well/Probe ID	Date Installed	Top of Riser Elevation[1] (m amsl)	Ground Surface Elevation[1] (m amsl)	Total Depth (m bgs)	Sandpack Interval (m bgs)	Screen Interval (m bgs)	Top of Sandpack / Base of Seal (m bgs)	Stick-Up Interval (m ags/bgs)	Construction Material	Screen Slot Size (mm)	Well Diameter (mm)	Well Status
MW10-1[2]	16-Feb-10	--	--	6.1	2.7 - 6.1	3.0 - 6.1	2.7	--	Schedule 40 PVC	0.25	38	Missing
MW10-3[2]	16-Feb-10	66.78	66.81	5.5	2.1 - 5.5	2.4 - 5.5	2.1	-0.03	Schedule 40 PVC	0.25	38	In Use
MW10-4[2]	17-Feb-10	--	--	5.5	2.1 - 5.5	2.4 - 5.5	2.1	--	Schedule 40 PVC	0.25	38	Inaccessible
MW10-5[2]	17-Feb-10	--	--	5.5	2.1 - 5.5	2.4 - 5.5	2.1	--	Schedule 40 PVC	0.25	38	Missing
MW10-6[2]	17-Feb-10	--	--	5.5	2.1 - 5.5	2.4 - 5.5	2.1	--	Schedule 40 PVC	0.25	38	Inaccessible
MW101[3]	28-Aug-20	66.44	66.56	4.6	1.2 - 4.6	1.5 - 4.6	1.2	-0.12	Schedule 40 PVC	0.25	51	In Use
MW102[3]	28-Aug-20	66.92	66.99	4.6	1.2 - 4.6	1.5 - 4.6	1.2	-0.07	Schedule 40 PVC	0.25	51	In Use
MW103[3]	28-Aug-20	67.12	67.18	5.2	1.9 - 5.2	2.1 - 5.2	1.9	-0.06	Schedule 40 PVC	0.25	32	In Use
MW104[3]	28-Aug-20	67.98	68.08	5.5	1.9 - 5.5	2.2 - 5.5	1.9	-0.10	Schedule 40 PVC	0.25	51	In Use
MW105[3]	31-Aug-20	66.49	66.58	4.9	1.5 - 4.9	1.8 - 4.9	1.5	-0.09	Schedule 40 PVC	0.25	51	In Use
MW106[3]	31-Aug-20	66.22	66.32	4.9	1.5 - 4.9	1.8 - 4.9	1.5	-0.10	Schedule 40 PVC	0.25	51	In Use
MW109[3]	31-Aug-20	--	--	4.9	1.5 - 4.9	1.8 - 4.9	1.5	--	Schedule 40 PVC	0.25	51	Damaged
MW22-1[4]	26-May-22	66.92	66.99	6.1	2.7 - 6.0	3.0 - 6.1	2.7	-0.07	Schedule 40 PVC	0.25	51	In Use
MW22-2[4]	26-May-22	67.99	68.07	4.6	1.2 - 4.6	1.5 - 4.6	1.2	-0.08	Schedule 40 PVC	0.25	51	In Use
MW22-4[4]	24-May-22	67.03	67.15	4.6	1.2 - 4.6	1.5 - 4.6	1.2	-0.12	Schedule 40 PVC	0.25	51	In Use
MW22-5[4]	24-May-22	67.38	67.48	6.1	2.7 - 6.0	3.0 - 6.1	2.7	-0.10	Schedule 40 PVC	0.25	51	In Use

Notes:

1 - Ground surface and top of riser elevations surveyed by Annis, O'Sullivan, Vollebekk Ltd. on June 7, 2022. Elevations are geodetic and are referred to the CGVD28 geodetic datum.

2 - Monitoring wells installed by Trow Associates Inc. on February 16, 2010 and February 17, 2010.

3 - Monitoring wells installed by EXP Services Inc. on August 28, 2020 and August 31, 2020.

4 - Monitoring wells installed by Geosyntec Consultants International, Inc.

-- - data not available
ID - identifier
mm - millimeters
m ags - metres above ground surface
m amsl - metres above mean sea level
m bgs - metres below ground surface
PVC - polyvinyl chloride

Table 2
Soil Analytical Data
2625 Sheffield Road, Ottawa, Ontario

				2010 Trow Phase II ESA						2020 EXP Phase II ESA			
Report Source			Maximum Concentration	MW10-1	BH10-2	MW10-3	MW10-4	MW10-5	MW10-6	BH/MW102	BH/MW102	BH/MW102	BH/MW102
Location ID				MW10-1-S2	BH10-2-S2	MW10-3-S2	MW10-4-S2	MW10-5-S6	MW10-6-S7	BH/MW102-S1	BH/MW102-S2	BH/MW102-S5	BH/MW102-S6
Sample ID				16-Feb-2010	16-Feb-2010	16-Feb-2010	17-Feb-2010	17-Feb-2010	17-Feb-2010	28-Aug-2020	28-Aug-2020	28-Aug-2020	28-Aug-2020
Date Sampled				0.60 - 0.76	0.60 - 0.76	0.60 - 0.76	0.60 - 0.76	3.05 - 3.66	4.11 - 4.72	0.3 - 0.8	0.8 - 1.5	3.1 - 3.8	3.8 - 4.6
Sample Depth (m bgs)													
QA/QC													
Lab Sample ID				1008150-01	1008150-02	1008150-03	1008150-04	1008150-05	1008150-06	NNH588	NNH589	NNH590	NNH591
	Units	*Table 3 SCS*[1]											
Volatile Organic Compounds													
Acetone	µg/g	16	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.50
Benzene	µg/g	0.32	<0.03	-- -	-- -	<0.03	<0.002	<0.002	<0.002	-- -	-- -	<0.020	<0.020
Bromodichloromethane	µg/g	18	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
Bromoform	µg/g	0.61	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
Bromomethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
Carbon tetrachloride	µg/g	0.21	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
Chlorobenzene	µg/g	2.4	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
Dibromochloromethane	µg/g	13	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
Chloroform	µg/g	0.47	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
1,2-Dibromoethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
1,2-Dichlorobenzene	µg/g	6.8	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
1,3-Dichlorobenzene	µg/g	9.6	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
1,4-Dichlorobenzene	µg/g	0.2	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
Dichlorodifluoromethane	µg/g	16	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
1,1-Dichloroethane	µg/g	17	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
1,2-Dichloroethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
1,1-Dichloroethylene	µg/g	0.064	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
cis-1,2-Dichloroethylene	µg/g	55	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
trans-1,2-Dichloroethylene	µg/g	1.3	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
Methylene Chloride	µg/g	1.6	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
1,2-Dichloropropane	µg/g	0.16	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
cis-1,3-Dichloropropene[2]	µg/g	--	<0.030	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.030
trans-1,3-Dichloropropene[2]	µg/g	--	<0.040	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.040
1,3-Dichloropropene (cis & trans)	µg/g	0.18	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
Ethylbenzene	µg/g	9.5	**0.17**	-- -	-- -	**0.17**	<0.002	<0.002	<0.002	-- -	-- -	<0.020	<0.020
n-Hexane	µg/g	46	**0.064**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
Methyl Ethyl Ketone	µg/g	70	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.50
Methyl Isobutyl Ketone	µg/g	31	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.50
Methyl tert butyl ether (MTBE)	µg/g	11	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
Styrene	µg/g	34	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
1,1,1,2-Tetrachloroethane	µg/g	0.087	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
1,1,2,2-Tetrachloroethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
Tetrachloroethylene	µg/g	4.5	**0.241**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
Toluene	µg/g	68	**0.12**	-- -	-- -	**0.12**	<0.002	<0.002	<0.002	-- -	-- -	<0.020	<0.020
1,1,1-Trichloroethane	µg/g	6.1	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
1,1,2-Trichloroethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
Trichloroethylene	µg/g	0.91	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
Trichlorofluoromethane	µg/g	4	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.050
Vinyl chloride	µg/g	0.032	<0.020	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<0.020
o-Xylene[3]	µg/g	26	**0.15**	-- -	-- -	**0.15**	<0.002	<0.002	<0.002	-- -	-- -	<0.020	<0.020
m+p-Xylenes[3]	µg/g	26	**0.18**	-- -	-- -	**0.18**	<0.002	<0.002	<0.002	-- -	-- -	<0.040	<0.020
Xylenes (Total)[3]	µg/g	26	**0.33**	-- -	-- -	**0.33**	<0.004	<0.004	<0.004	-- -	-- -	<0.040	<0.020
Petroleum Hydrocarbons													
F1 (C6-C10)	µg/g	55	**64**	-- -	-- -	**64**	<10	<10	<10	-- -	-- -	<10	<10
F1-BTEX	µg/g	55	**61**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	<10	<10
F2 (C10-C16)	µg/g	230	**990**	-- -	-- -	**342**	<10	<10	<10	-- -	-- -	<10	<10
F3 (C16-C34)	µg/g	1,700	**420**	-- -	-- -	**217**	<10	<10	<10	-- -	-- -	<50	<50
F4 (C34-C50)	µg/g	3,300	**223**	-- -	-- -	<10	<10	<10	<10	-- -	-- -	<50	<50
F4G-SG (GHH-Silica)	µg/g	3,300	**950**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Metals													
Antimony	µg/g	40	**0.37**	<1	<1	-- -	-- -	-- -	-- -	<0.20	-- -	-- -	-- -
Arsenic	µg/g	18	**7.5**	**2**	**2**	-- -	-- -	-- -	-- -	**5.7**	-- -	-- -	-- -
Barium	µg/g	670	**356**	**212**	**215**	-- -	-- -	-- -	-- -	**94**	-- -	-- -	-- -
Beryllium	µg/g	8	**0.9**	<0.5	**0.5**	-- -	-- -	-- -	-- -	**0.84**	-- -	-- -	-- -
Boron (Hot Water Soluble)	µg/g	2	**0.36**	-- -	-- -	-- -	-- -	-- -	-- -	**0.14**	-- -	-- -	-- -
Boron	µg/g	120	**9.3**	-- -	-- -	-- -	-- -	-- -	-- -	**7.1**	-- -	-- -	-- -
Cadmium	µg/g	1.9	**0.61**	<0.5	<0.5	-- -	-- -	-- -	-- -	**0.11**	-- -	-- -	-- -
Chromium (Total)	µg/g	160	**81.1**	**38**	**40**	-- -	-- -	-- -	-- -	**24**	-- -	-- -	-- -
Chromium, Hexavalent	µg/g	8	**0.48**	-- -	-- -	-- -	-- -	-- -	-- -	<0.18	-- -	-- -	-- -
Cobalt	µg/g	80	**21.3**	**11**	**12**	-- -	-- -	-- -	-- -	**13**	-- -	-- -	-- -
Copper	µg/g	230	**37.3**	**24**	**23**	-- -	-- -	-- -	-- -	**34**	-- -	-- -	-- -
Lead	µg/g	120	**50**	**7**	**6**	-- -	-- -	-- -	-- -	**16**	-- -	-- -	-- -
Mercury	µg/g	3.9	**0.0306**	-- -	-- -	-- -	-- -	-- -	-- -	<0.050	-- -	-- -	-- -
Molybdenum	µg/g	40	**4.6**	<1	<1	-- -	-- -	-- -	-- -	**1.2**	-- -	-- -	-- -
Nickel	µg/g	270	**45**	**25**	**24**	-- -	-- -	-- -	-- -	**29**	-- -	-- -	-- -
Selenium	µg/g	5.5	<1.0	<1	<1	-- -	-- -	-- -	-- -	<0.50	-- -	-- -	-- -
Silver	µg/g	40	**0.21**	<0.3	<0.3	-- -	-- -	-- -	-- -	<0.20	-- -	-- -	-- -
Thallium	µg/g	3.3	**0.25**	<1	<1	-- -	-- -	-- -	-- -	**0.22**	-- -	-- -	-- -
Uranium	µg/g	33	**0.78**	-- -	-- -	-- -	-- -	-- -	-- -	**0.65**	-- -	-- -	-- -
Vanadium	µg/g	86	**102**	**52**	**56**	-- -	-- -	-- -	-- -	**39**	-- -	-- -	-- -
Zinc	µg/g	340	**113**	**51**	**53**	-- -	-- -	-- -	-- -	**55**	-- -	-- -	-- -
Polycyclic Aromatic Hydrocarbons													
Acenaphthene	µg/g	96	<0.05	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -
Acenaphthylene	µg/g	0.15	<0.05	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -
Anthracene	µg/g	0.67	<0.05	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -
Benzo(a)anthracene	µg/g	0.96	**0**	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -
Benzo(a)pyrene	µg/g	0.3	**0.0089**	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -
Benzo(b&j)fluoranthene	µg/g	0.96	**0.017**	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -
Benzo(g,h,i)perylene	µg/g	9.6	**0.015**	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -
Benzo(k)fluoranthene	µg/g	0.96	**0**	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -
Chrysene	µg/g	9.6	**0.0063**	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -
Dibenz(a,h)anthracene	µg/g	0.1	**0**	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -
Fluoranthene	µg/g	9.6	**0.0089**	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -
Fluorene	µg/g	62	<0.05	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -
Indeno(1,2,3-cd)pyrene	µg/g	0.76	**0.01**	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -
1+2-Methylnaphthalenes	µg/g	76	<0.042	<0.04	-- -	-- -	-- -	-- -	-- -	<0.0071	-- -	-- -	-- -
1-Methylnaphthalene	µg/g	76	<0.03	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -
2-Methylnaphthalene	µg/g	76	<0.03	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -
Naphthalene	µg/g	9.6	<0.02	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -
Phenanthrene	µg/g	12	**0**	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -
Pyrene	µg/g	96	**0.01**	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -
Cyanides													
Cyanide, Weak Acid Diss	µg/g	0.051	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Saturated Paste Extractables													
Sodium Adsorption Ratio		12	**23.5**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Calcium[4]	mg/L	--	**301**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Magnesium[4]	mg/L	--	**54.5**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Sodium[4]	mg/L	--	**222**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Physical Tests													
Electrical Conductivity	mS/cm	1.4	**2.78**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
pH	pH units	--	**8.18**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	**7.49**	-- -	**8.03**
Perfluorinated Compounds													
Perfluorononane sulfonic acid (PFNS)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
8:2 Fluorotelomer sulfonic acid(8:2 FTS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
6:2 Fluorotelomer sulfonic acid(6:2 FTS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
4:2 Fluorotelomer sulfonic acid(4:2 FTS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
10:2 Fluorotelomer sulfonic acid(10:2 F)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorobutane sulfonic acid (PFBS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorohexane sulfonic acid (PFHxS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorotridecanoic acid (PFTrDA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorooctane sulfonic acid (PFOS)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoropentane sulfonic acid (PFPeS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Et PFO sulfonamide (EtFOSA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Et PFO sulfonamidoethanol (EtFOSE)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Et PFO sulfonamidoacetic acid(EtFOSAA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Me PFO sulfonamide (MeFOSA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Me PFO sulfonamidoacetic acid(MeFOSAA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Me PFO sulfonamidoethanol (MeFOSE)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoroheptane sulfonic acid (PFHpS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorooctane sulfonamide (FOSA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorodecane sulfonic acid (PFDS)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorobutanoic acid (PFBA)	µg/kg	--	<1.0	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorodecanoic acid (PFDA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorododecanoic acid (PFDoDA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoroheptanoic acid (PFHpA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorohexanoic acid (PFHxA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorononanoic acid (PFNA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorooctanoic acid (PFOA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoropentanoic acid (PFPeA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorotetradecanoic acid (PFTeDA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoroundecanoic acid (PFUnDA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
9Cl-PF3ONS	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
11Cl-PF3OUdS	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -

Notes:

[1] Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition for industrial/commercial/community property uses and coarse textured soils from Soil, groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (MOECC, 2011) (Table 3 SCS).

[2] The Table 3 SCS apply to the total of cis-1,3-dichloropropene and trans-1,3-dichloropropene.

[3] The Table 3 SCS apply to the total of m+p-xylenes and o-xylene.

Bold - indicates constituent was detected greater than the analytical reporting limit

50 Associated value greater than Table 3 SCS

50 Associated value greater than Table 3 SCS; however, exemption under O.Reg. 153/04, Section 49.1, Paragraph 1 being relied upon and not a contaminant of concern

- - no Table 3 SCS available
-- - not analyzed
< - analyte was not detected at a concentration greater than the associated analytical reporting limit
µg/g - micrograms per gram
ID - identifier
m bgs - metres below ground surface
mg/g - milligrams per gram
kg/g - kilograms per gram
mS/cm - milliSiemens per centimetre
QA/QC - quality assurance/quality control
SCS - site condition standard

Table 2
Soil Analytical Data
2625 Sheffield Road, Ottawa, Ontario

				2020 EXP Phase II ESA											
Report Source				BH/MW103	BH/MW103	BH/MW103	BH/MW103	BH/MW106	BH107	BH107	BH107	BH107	BH108	BH/MW109
Location ID				BH/MW103-S2	BH/MW103-S4	BH/MW103-S5	BH/MW103-S7	BH/MW106-S2	BH107-S2	DUP1	BH107-S3	DUP2	BH108-S1B	BH/MW109-S1B
Sample ID				28-Aug-2020	28-Aug-2020	28-Aug-2020	28-Aug-2020	31-Aug-2020	28-Aug-2020	28-Aug-2020	28-Aug-2020	28-Aug-2020	31-Aug-2020	31-Aug-2020
Date Sampled				1.2 - 1.8	2.4 - 3.1	3.1 - 3.7	4.3 - 4.9	0.8 - 1.5	0.9 - 1.5	0.9 - 1.5 Duplicate	1.5 - 2.3	1.5 - 2.3 Duplicate	0.6 - 0.7	0.6 - 0.8
Sample Depth (m bgs)														
QA/QC														
Lab Sample ID				NNH592	NNH593	NNH601	NPX753	NNH594	NNH595	NNH597	NNH603	NNH604	NNH596	NNH598
	Units	*Table 3 SCS*[1]	**Maximum Concentration**											
Volatile Organic Compounds														
Acetone	µg/g	16	<0.50	<0.50	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzene	µg/g	0.32	<0.03	<0.020	<0.020	<0.020	<0.020	-- -	<0.020	<0.020	<0.020	<0.020	-- -	-- -
Bromodichloromethane	µg/g	18	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Bromoform	µg/g	0.61	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Bromomethane	µg/g	0.05	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Carbon tetrachloride	µg/g	0.21	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Chlorobenzene	µg/g	2.4	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Dibromochloromethane	µg/g	13	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Chloroform	µg/g	0.47	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,2-Dibromoethane	µg/g	0.05	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,2-Dichlorobenzene	µg/g	6.8	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,3-Dichlorobenzene	µg/g	9.6	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,4-Dichlorobenzene	µg/g	0.2	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Dichlorodifluoromethane	µg/g	16	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1-Dichloroethane	µg/g	17	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,2-Dichloroethane	µg/g	0.05	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1-Dichloroethylene	µg/g	0.064	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
cis-1,2-Dichloroethylene	µg/g	55	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
trans-1,2-Dichloroethylene	µg/g	1.3	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Methylene Chloride	µg/g	1.6	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,2-Dichloropropane	µg/g	0.16	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
cis-1,3-Dichloropropene[2]	µg/g	--	<0.030	<0.030	<0.030	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
trans-1,3-Dichloropropene[2]	µg/g	--	<0.040	<0.040	<0.040	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,3-Dichloropropene (cis & trans)	µg/g	0.18	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Ethylbenzene	µg/g	9.5	**0.17**	**0.066**	**0.034**	**0.066**	<0.020	-- -	<0.020	<0.020	<0.020	<0.020	-- -	-- -
n-Hexane	µg/g	46	**0.064**	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Methyl Ethyl Ketone	µg/g	70	<0.50	<0.50	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Methyl Isobutyl Ketone	µg/g	31	<0.50	<0.50	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Methyl tert butyl ether (MTBE)	µg/g	11	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Styrene	µg/g	34	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1,1,2-Tetrachloroethane	µg/g	0.087	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1,2,2-Tetrachloroethane	µg/g	0.05	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Tetrachloroethylene	µg/g	4.5	**0.241**	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Toluene	µg/g	68	**0.12**	<0.020	<0.020	<0.020	<0.040	-- -	<0.020	<0.020	<0.020	<0.020	-- -	-- -
1,1,1-Trichloroethane	µg/g	6.1	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1,2-Trichloroethane	µg/g	0.05	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Trichloroethylene	µg/g	0.91	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Trichlorofluoromethane	µg/g	4	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Vinyl chloride	µg/g	0.032	<0.020	<0.020	<0.020	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
o-Xylene[3]	µg/g	26	**0.15**	<0.020	<0.020	<0.020	<0.020	-- -	<0.020	<0.020	<0.020	<0.020	-- -	-- -
m+p-Xylenes[3]	µg/g	26	**0.18**	<0.020	<0.020	<0.040	<0.040	-- -	<0.040	<0.040	<0.040	<0.040	-- -	-- -
Xylenes (Total)[3]	µg/g	26	**0.33**	<0.020	<0.020	<0.040	<0.040	-- -	<0.040	<0.040	<0.040	<0.040	-- -	-- -
Petroleum Hydrocarbons														
F1 (C6-C10)	µg/g	55	**64**	**61**	**34**	**54**	<10	-- -	**25**	**25**	<10	<10	-- -	-- -
F1-BTEX	µg/g	55	**61**	**61**	**34**	**54**	<10	-- -	**25**	**25**	<10	<10	-- -	-- -
F2 (C10-C16)	µg/g	230	**990**	**370**	**540**	**990**	<10	-- -	**160**	**660**	<10	<10	-- -	-- -
F3 (C16-C34)	µg/g	1,700	**420**	**200**	**240**	**420**	<50	-- -	**110**	**410**	<50	<50	-- -	-- -
F4 (C34-C50)	µg/g	3,300	**223**	<50	**52**	**55**	<50	-- -	<50	<50	<50	<50	-- -	-- -
F4G-SG (GHH-Silica)	µg/g	3,300	**950**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Metals														
Antimony	µg/g	40	**0.37**	-- -	-- -	-- -	-- -	<0.2	-- -	-- -	-- -	-- -	**0.37**	<0.2
Arsenic	µg/g	18	**7.5**	-- -	-- -	-- -	-- -	**3.3**	-- -	-- -	-- -	-- -	**4.5**	**1.2**
Barium	µg/g	670	**356**	-- -	-- -	-- -	-- -	**71**	-- -	-- -	-- -	-- -	**110**	**52**
Beryllium	µg/g	8	**0.9**	-- -	-- -	-- -	-- -	**0.33**	-- -	-- -	-- -	-- -	**0.47**	**0.36**
Boron (Hot Water Soluble)	µg/g	2	**0.36**	-- -	-- -	-- -	-- -	**0.24**	-- -	-- -	-- -	-- -	**0.36**	**0.08**
Boron	µg/g	120	**9.3**	-- -	-- -	-- -	-- -	**5.2**	-- -	-- -	-- -	-- -	<5.0	<5.0
Cadmium	µg/g	1.9	**0.61**	-- -	-- -	-- -	-- -	**0.12**	-- -	-- -	-- -	-- -	**0.61**	<0.10
Chromium (Total)	µg/g	160	**81.1**	-- -	-- -	-- -	-- -	**18**	-- -	-- -	-- -	-- -	**40**	**28**
Chromium, Hexavalent	µg/g	8	**0.48**	-- -	-- -	-- -	-- -	<0.18	-- -	-- -	-- -	-- -	**0.37**	<0.18
Cobalt	µg/g	80	**21.3**	-- -	-- -	-- -	-- -	**7.4**	-- -	-- -	-- -	-- -	**9.6**	**7.3**
Copper	µg/g	230	**37.3**	-- -	-- -	-- -	-- -	**12**	-- -	-- -	-- -	-- -	**29**	**7.8**
Lead	µg/g	120	**50**	-- -	-- -	-- -	-- -	**14**	-- -	-- -	-- -	-- -	**50**	**4**
Mercury	µg/g	3.9	**0.0306**	-- -	-- -	-- -	-- -	<0.050	-- -	-- -	-- -	-- -	<0.050	<0.050
Molybdenum	µg/g	40	**4.6**	-- -	-- -	-- -	-- -	**2.3**	-- -	-- -	-- -	-- -	**3.3**	**0.52**
Nickel	µg/g	270	**45**	-- -	-- -	-- -	-- -	**17**	-- -	-- -	-- -	-- -	**28**	**16**
Selenium	µg/g	5.5	<1.0	-- -	-- -	-- -	-- -	<0.50	-- -	-- -	-- -	-- -	<0.50	<0.50
Silver	µg/g	40	**0.21**	-- -	-- -	-- -	-- -	<0.20	-- -	-- -	-- -	-- -	**0.21**	<0.20
Thallium	µg/g	3.3	**0.25**	-- -	-- -	-- -	-- -	**0.25**	-- -	-- -	-- -	-- -	**0.22**	**0.09**
Uranium	µg/g	33	**0.78**	-- -	-- -	-- -	-- -	**0.5**	-- -	-- -	-- -	-- -	**0.78**	**0.5**
Vanadium	µg/g	86	**102**	-- -	-- -	-- -	-- -	**22**	-- -	-- -	-- -	-- -	**42**	**33**
Zinc	µg/g	340	**113**	-- -	-- -	-- -	-- -	**30**	-- -	-- -	-- -	-- -	**110**	**30**
Polycyclic Aromatic Hydrocarbons														
Acenaphthene	µg/g	96	<0.05	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -	-- -	<0.0050	<0.0050
Acenaphthylene	µg/g	0.15	<0.05	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -	-- -	<0.0050	<0.0050
Anthracene	µg/g	0.67	<0.05	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -	-- -	<0.0050	<0.0050
Benzo(a)anthracene	µg/g	0.96	**0**	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -	-- -	<0.0050	<0.0050
Benzo(a)pyrene	µg/g	0.3	**0.0089**	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -	-- -	**0.0089**	<0.0050
Benzo(b&j)fluoranthene	µg/g	0.96	**0.017**	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -	-- -	**0.017**	<0.0050
Benzo(g,h,i)perylene	µg/g	9.6	**0.015**	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -	-- -	**0.015**	<0.0050
Benzo(k)fluoranthene	µg/g	0.96	**0**	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -	-- -	<0.0050	<0.0050
Chrysene	µg/g	9.6	**0.0063**	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -	-- -	**0.0063**	<0.0050
Dibenz(a,h)anthracene	µg/g	0.1	**0**	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -	-- -	<0.0050	<0.0050
Fluoranthene	µg/g	9.6	**0.0089**	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -	-- -	**0.0089**	<0.0050
Fluorene	µg/g	62	<0.05	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -	-- -	<0.0050	<0.0050
Indeno(1,2,3-cd)pyrene	µg/g	0.76	**0.01**	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -	-- -	**0.01**	<0.0050
1+2-Methylnaphthalenes	µg/g	76	<0.042	-- -	-- -	-- -	-- -	<0.0071	-- -	-- -	-- -	-- -	<0.0071	<0.0071
1-Methylnaphthalene	µg/g	76	<0.03	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -	-- -	<0.0050	<0.0050
2-Methylnaphthalene	µg/g	76	<0.03	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -	-- -	<0.0050	<0.0050
Naphthalene	µg/g	9.6	<0.02	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -	-- -	<0.0050	<0.0050
Phenanthrene	µg/g	12	**0**	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -	-- -	<0.0050	<0.0050
Pyrene	µg/g	96	**0.01**	-- -	-- -	-- -	-- -	<0.0050	-- -	-- -	-- -	-- -	**0.01**	<0.0050
Cyanides														
Cyanide, Weak Acid Diss	µg/g	0.051	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Saturated Paste Extractables														
Sodium Adsorption Ratio		12	**23.5**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Calcium[4]	mg/L	--	**301**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Magnesium[4]	mg/L	--	**54.5**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Sodium[4]	mg/L	--	**222**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Physical Tests														
Electrical Conductivity	mS/cm	1.4	**2.78**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
pH	pH units	--	**8.18**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorinated Compounds														
Perfluorononane sulfonic acid (PFNS)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
8:2 Fluorotelomer sulfonic acid(8:2 FTS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
6:2 Fluorotelomer sulfonic acid(6:2 FTS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
4:2 Fluorotelomer sulfonic acid(4:2 FTS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
10:2 Fluorotelomer sulfonic acid(10:2 F)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorobutane sulfonic acid (PFBS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorohexane sulfonic acid (PFHxS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorotridecanoic acid (PFTrDA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorooctane sulfonic acid (PFOS)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoropentane sulfonic acid (PFPeS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Et PFO sulfonamide (EtFOSA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Et PFO sulfonamidoethanol (EtFOSE)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Et PFO sulfonamidoacetic acid(EtFOSAA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Me PFO sulfonamide (MeFOSA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Me PFO sulfonamidoacetic acid(MeFOSAA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Me PFO sulfonamidoethanol (MeFOSE)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoroheptane sulfonic acid (PFHpS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorooctane sulfonamide (FOSA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorodecane sulfonic acid (PFDS)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorobutanoic acid (PFBA)	µg/kg	--	<1.0	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorodecanoic acid (PFDA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorododecanoic acid (PFDoDA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoroheptanoic acid (PFHpA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorohexanoic acid (PFHxA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorononanoic acid (PFNA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorooctanoic acid (PFOA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoropentanoic acid (PFPeA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorotetradecanoic acid (PFTeDA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoroundecanoic acid (PFUnDA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
9Cl-PF3ONS	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
11Cl-PF3OUdS	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -

Notes:

[1] Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition for industrial/commercial/community property uses and coarse textured soils from Soil, groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (MOECC, 2011) (Table 3 SCS).

[2] The Table 3 SCS apply to the total of cis-1,3-dichloropropene and trans-1,3-dichloropropene.

[3] The Table 3 SCS apply to the total of m+p-xylenes and o-xylene.

Bold - indicates constituent was detected greater than the analytical reporting limit

50 Associated value greater than Table 3 SCS

50 Associated value greater than Table 3 SCS; however, exemption under O.Reg. 153/04, Section 49.1, Paragraph 1 being relied upon and not a contaminant of concern

- - no Table 3 SCS available

-- - not analyzed

< - analyte was not detected at a concentration greater than the associated analytical reporting limit

µg/g - micrograms per gram

ID - identifier

m bgs - metres below ground surface

mg/g - milligrams per gram

kg/g - kilograms per gram

mS/cm - milliSiemens per centimetre

QA/QC - quality assurance/quality control

SCS - site condition standard

Table 2
Soil Analytical Data
2625 Sheffield Road, Ottawa, Ontario

				2021 EXP Delineation								
Report Source			**Maximum Concentration**	BH201	BH202	BH202	BH203	BH204	BH205	BH206	BH207	BH208
Location ID				BH201-S2	BH202-S2B	DUP1	BH203-S2	BH204-S2	BH205-S6	BH206-S6	BH207-S8	BH208-S8
Sample ID				5-Nov-2020	5-Nov-2020	5-Nov-2020	5-Nov-2020	5-Nov-2020	9-Nov-2020	9-Nov-2020	5-Nov-2020	5-Nov-2020
Date Sampled				0.6 - 1.2	0.8 - 1.2	0.6 - 1.2	0.6 - 1.2	0.6 - 1.2	3.1 - 3.7	3.1 - 3.7	4.3 - 4.9	4.3 - 4.9
Sample Depth (m bgs)						Duplicate						
QA/QC												
Lab Sample ID				2045529-01	2045529-02	2045529-07	2045529-03	2045529-04	2046046-01	2046046-02	2045529-05	2045529-06
	Units	***Table 3 SCS*** [1]										
Volatile Organic Compounds												
Acetone	µg/g	16	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzene	µg/g	0.32	<0.03	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Bromodichloromethane	µg/g	18	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Bromoform	µg/g	0.61	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Bromomethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Carbon tetrachloride	µg/g	0.21	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Chlorobenzene	µg/g	2.4	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Dibromochloromethane	µg/g	13	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Chloroform	µg/g	0.47	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,2-Dibromoethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,2-Dichlorobenzene	µg/g	6.8	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,3-Dichlorobenzene	µg/g	9.6	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,4-Dichlorobenzene	µg/g	0.2	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Dichlorodifluoromethane	µg/g	16	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1-Dichloroethane	µg/g	17	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,2-Dichloroethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1-Dichloroethylene	µg/g	0.064	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
cis-1,2-Dichloroethylene	µg/g	55	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
trans-1,2-Dichloroethylene	µg/g	1.3	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Methylene Chloride	µg/g	1.6	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,2-Dichloropropane	µg/g	0.16	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
cis-1,3-Dichloropropene[2]	µg/g	--	<0.030	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
trans-1,3-Dichloropropene[2]	µg/g	--	<0.040	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,3-Dichloropropene (cis & trans)	µg/g	0.18	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Ethylbenzene	µg/g	9.5	**0.17**	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
n-Hexane	µg/g	46	**0.064**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Methyl Ethyl Ketone	µg/g	70	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Methyl Isobutyl Ketone	µg/g	31	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Methyl tert butyl ether (MTBE)	µg/g	11	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Styrene	µg/g	34	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1,1,2-Tetrachloroethane	µg/g	0.087	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1,2,2-Tetrachloroethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Tetrachloroethylene	µg/g	4.5	**0.241**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Toluene	µg/g	68	**0.12**	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,1-Trichloroethane	µg/g	6.1	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1,2-Trichloroethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Trichloroethylene	µg/g	0.91	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Trichlorofluoromethane	µg/g	4	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Vinyl chloride	µg/g	0.032	<0.020	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
o-Xylene[3]	µg/g	26	**0.15**	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
m+p-Xylenes[3]	µg/g	26	**0.18**	<0.050	**0.16**	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Xylenes (Total)[3]	µg/g	26	**0.33**	<0.050	**0.16**	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Petroleum Hydrocarbons												
F1 (C6-C10)	µg/g	55	**64**	<7	<7	<7	<7	<7	<7	<7	<7	<7
F1-BTEX	µg/g	55	**61**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
F2 (C10-C16)	µg/g	230	**990**	<4	<4	<4	<4	<4	<4	<4	<4	<4
F3 (C16-C34)	µg/g	1,700	**420**	<8	<8	<8	<8	<8	<8	<8	<8	<8
F4 (C34-C50)	µg/g	3,300	**223**	<6	<6	<6	<6	<6	<6	<6	<6	<6
F4G-SG (GHH-Silica)	µg/g	3,300	**950**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Metals												
Antimony	µg/g	40	**0.37**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Arsenic	µg/g	18	**7.5**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Barium	µg/g	670	**356**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Beryllium	µg/g	8	**0.9**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Boron (Hot Water Soluble)	µg/g	2	**0.36**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Boron	µg/g	120	**9.3**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Cadmium	µg/g	1.9	**0.61**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Chromium (Total)	µg/g	160	**81.1**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Chromium, Hexavalent	µg/g	8	**0.48**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Cobalt	µg/g	80	**21.3**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Copper	µg/g	230	**37.3**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Lead	µg/g	120	**50**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Mercury	µg/g	3.9	**0.0306**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Molybdenum	µg/g	40	**4.6**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Nickel	µg/g	270	**45**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Selenium	µg/g	5.5	<1.0	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Silver	µg/g	40	**0.21**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Thallium	µg/g	3.3	**0.25**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Uranium	µg/g	33	**0.78**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Vanadium	µg/g	86	**102**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Zinc	µg/g	340	**113**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Polycyclic Aromatic Hydrocarbons												
Acenaphthene	µg/g	96	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Acenaphthylene	µg/g	0.15	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Anthracene	µg/g	0.67	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(a)anthracene	µg/g	0.96	**0**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(a)pyrene	µg/g	0.3	**0.0089**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(b&j)fluoranthene	µg/g	0.96	**0.017**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(g,h,i)perylene	µg/g	9.6	**0.015**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(k)fluoranthene	µg/g	0.96	**0**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Chrysene	µg/g	9.6	**0.0063**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Dibenz(a,h)anthracene	µg/g	0.1	**0**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Fluoranthene	µg/g	9.6	**0.0089**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Fluorene	µg/g	62	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Indeno(1,2,3-cd)pyrene	µg/g	0.76	**0.01**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1+2-Methylnaphthalenes	µg/g	76	<0.042	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1-Methylnaphthalene	µg/g	76	<0.03	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
2-Methylnaphthalene	µg/g	76	<0.03	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Naphthalene	µg/g	9.6	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Phenanthrene	µg/g	12	**0**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Pyrene	µg/g	96	**0.01**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Cyanides												
Cyanide, Weak Acid Diss	µg/g	0.051	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Saturated Paste Extractables												
Sodium Adsorption Ratio		12	**23.5**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Calcium[4]	mg/L	--	**301**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Magnesium[4]	mg/L	--	**54.5**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Sodium[4]	mg/L	--	**222**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Physical Tests												
Electrical Conductivity	mS/cm	1.4	**2.78**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
pH	pH units	--	**8.18**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorinated Compounds												
Perfluorononane sulfonic acid (PFNS)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
8:2 Fluorotelomer sulfonic acid(8:2 FTS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
6:2 Fluorotelomer sulfonic acid(6:2 FTS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
4:2 Fluorotelomer sulfonic acid(4:2 FTS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
10:2 Fluorotelomer sulfonic acid(10:2 F)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorobutane sulfonic acid (PFBS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorohexane sulfonic acid (PFHxS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorotridecanoic acid (PFTrDA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorooctane sulfonic acid (PFOS)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoropentane sulfonic acid (PFPeS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Et PFO sulfonamide (EtFOSA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Et PFO sulfonamidoethanol (EtFOSE)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Et PFO sulfonamidoacetic acid(EtFOSAA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Me PFO sulfonamide (MeFOSA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Me PFO sulfonamidoacetic acid(MeFOSAA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Me PFO sulfonamidoethanol (MeFOSE)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoroheptane sulfonic acid (PFHpS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorooctane sulfonamide (FOSA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorodecane sulfonic acid (PFDS)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorobutanoic acid (PFBA)	µg/kg	--	<1.0	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorodecanoic acid (PFDA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorododecanoic acid (PFDoDA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoroheptanoic acid (PFHpA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorohexanoic acid (PFHxA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorononanoic acid (PFNA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorooctanoic acid (PFOA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoropentanoic acid (PFPeA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorotetradecanoic acid (PFTeDA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoroundecanoic acid (PFUnDA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
9Cl-PF3ONS	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
11Cl-PF3OUdS	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -

Notes:

[1] Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition for industrial/commercial/community property uses and coarse textured soils from Soil, groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (MOECC, 2011) (Table 3 SCS).

[2] The Table 3 SCS apply to the total of cis-1,3-dichloropropene and trans-1,3-dichloropropene.

[3] The Table 3 SCS apply to the total of m+p-xylenes and o-xylene.

Bold - indicates constituent was detected greater than the analytical reporting limit

50	Associated value greater than Table 3 SCS
50	Associated value greater than Table 3 SCS; however, exemption under O.Reg. 153/04, Section 49.1, Paragraph 1 being relied upon and not a contaminant of concern

- - no Table 3 SCS available
-- - not analyzed
< - analyte was not detected at a concentration greater than the associated analytical reporting limit
µg/g - micrograms per gram
ID - identifier
m bgs - metres below ground surface
mg/g - milligrams per gram
kg/g - kilograms per gram
mS/cm - milliSiemens per centimetre
QA/QC - quality assurance/quality control
SCS - site condition standard

Table 2
Soil Analytical Data
2625 Sheffield Road, Ottawa, Ontario

				2021 AECOM Geotechnical Investigation		Geosyntec 2022 Phase Two ESA						
Report Source			Maximum Concentration	BH-7	BH-18	MW22-1	MW22-1	MW22-1	MW22-1	MW22-2	MW22-2	MW22-2
Location ID				S-60634622-BH7-SS1	S-60634622-BH18-SS1	MW22-1-1B_260522	MW22-1-3B_260522	DUP05	MW22-1-4B_260522	MW22-2-1B_260522	MW22-2-3A_260522	DUP03
Sample ID				15-Jan-2021	15-Jan-2021	26-May-2022	26-May-2022	26-May-2022	26-May-2022	26-May-2022	26-May-2022	26-May-2022
Date Sampled				0 - 0.6	0 - 0.6	0.8 - 1.5	3.8 - 4.6	3.8 - 4.6	5.3 - 6.1	0.8 - 1.5	3.0 - 3.8	3.0 - 3.8
Sample Depth (m bgs)								Duplicate				Duplicate
QA/QC												
Lab Sample ID				1979229	1979230	L2710246-1	L2710246-3	L2710246-13	L2710246-4	L2710246-5	L2710246-6	L2710246-11
	Units	*Table 3 SCS*[1]										
Volatile Organic Compounds												
Acetone	µg/g	16	<0.50	-- -	-- -	<0.50	<0.50	<0.50	-- -	<0.50	<0.50	<0.50
Benzene	µg/g	0.32	<0.03	-- -	-- -	<0.0068	<0.0068	<0.0068	-- -	<0.0068	<0.0068	<0.0068
Bromodichloromethane	µg/g	18	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
Bromoform	µg/g	0.61	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
Bromomethane	µg/g	0.05	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
Carbon tetrachloride	µg/g	0.21	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
Chlorobenzene	µg/g	2.4	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
Dibromochloromethane	µg/g	13	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
Chloroform	µg/g	0.47	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
1,2-Dibromoethane	µg/g	0.05	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
1,2-Dichlorobenzene	µg/g	6.8	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
1,3-Dichlorobenzene	µg/g	9.6	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
1,4-Dichlorobenzene	µg/g	0.2	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
Dichlorodifluoromethane	µg/g	16	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
1,1-Dichloroethane	µg/g	17	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
1,2-Dichloroethane	µg/g	0.05	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
1,1-Dichloroethylene	µg/g	0.064	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
cis-1,2-Dichloroethylene	µg/g	55	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
trans-1,2-Dichloroethylene	µg/g	1.3	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
Methylene Chloride	µg/g	1.6	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
1,2-Dichloropropane	µg/g	0.16	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
cis-1,3-Dichloropropene[2]	µg/g	--	<0.030	-- -	-- -	<0.030	<0.030	<0.030	-- -	<0.030	<0.030	<0.030
trans-1,3-Dichloropropene[2]	µg/g	--	<0.040	-- -	-- -	<0.030	<0.030	<0.030	-- -	<0.030	<0.030	<0.030
1,3-Dichloropropene (cis & trans)	µg/g	0.18	<0.050	-- -	-- -	<0.042	<0.042	<0.042	-- -	<0.042	<0.042	<0.042
Ethylbenzene	µg/g	9.5	**0.17**	-- -	-- -	<0.018	<0.018	<0.018	-- -	<0.018	<0.018	<0.018
n-Hexane	µg/g	46	**0.064**	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
Methyl Ethyl Ketone	µg/g	70	<0.50	-- -	-- -	<0.50	<0.50	<0.50	-- -	<0.50	<0.50	<0.50
Methyl Isobutyl Ketone	µg/g	31	<0.50	-- -	-- -	<0.50	<0.50	<0.50	-- -	<0.50	<0.50	<0.50
Methyl tert butyl ether (MTBE)	µg/g	11	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
Styrene	µg/g	34	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
1,1,1,2-Tetrachloroethane	µg/g	0.087	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
1,1,2,2-Tetrachloroethane	µg/g	0.05	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
Tetrachloroethylene	µg/g	4.5	**0.241**	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
Toluene	µg/g	68	**0.12**	-- -	-- -	<0.080	<0.080	<0.080	-- -	<0.080	<0.080	<0.080
1,1,1-Trichloroethane	µg/g	6.1	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
1,1,2-Trichloroethane	µg/g	0.05	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
Trichloroethylene	µg/g	0.91	<0.050	-- -	-- -	<0.010	<0.010	<0.010	-- -	<0.010	<0.010	<0.010
Trichlorofluoromethane	µg/g	4	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
Vinyl chloride	µg/g	0.032	<0.020	-- -	-- -	<0.020	<0.020	<0.020	-- -	<0.020	<0.020	<0.020
o-Xylene[3]	µg/g	26	**0.15**	-- -	-- -	<0.020	<0.020	<0.020	-- -	<0.020	<0.020	<0.020
m+p-Xylenes[3]	µg/g	26	**0.18**	-- -	-- -	<0.030	<0.030	<0.030	-- -	<0.030	<0.030	<0.030
Xylenes (Total)[3]	µg/g	26	**0.33**	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
Petroleum Hydrocarbons												
F1 (C6-C10)	µg/g	55	**64**	-- -	-- -	<5.0	<5.0	<5.0	-- -	<5.0	<5.0	<5.0
F1-BTEX	µg/g	55	**61**	-- -	-- -	<5.0	<5.0	<5.0	-- -	<5.0	<5.0	<5.0
F2 (C10-C16)	µg/g	230	**990**	-- -	-- -	<10	<10	<10	-- -	<10	**82**	**25**
F3 (C16-C34)	µg/g	1,700	**420**	-- -	-- -	<50	<50	<50	-- -	<50	**60**	<50
F4 (C34-C50)	µg/g	3,300	**223**	-- -	-- -	<50	<50	<50	-- -	<50	<50	<50
F4G-SG (GHH-Silica)	µg/g	3,300	**950**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Metals												
Antimony	µg/g	40	**0.37**	-- -	-- -	<1.0	<1.0	<1.0	-- -	<1.0	-- -	-- -
Arsenic	µg/g	18	**7.5**	-- -	-- -	**4.3**	**3.8**	**3.5**	-- -	**1.5**	-- -	-- -
Barium	µg/g	670	**356**	-- -	-- -	**131**	**356**	**316**	-- -	**38.7**	-- -	-- -
Beryllium	µg/g	8	**0.9**	-- -	-- -	<0.50	**0.9**	**0.82**	-- -	<0.50	-- -	-- -
Boron (Hot Water Soluble)	µg/g	2	**0.36**	-- -	-- -	**0.14**	**0.19**	**0.17**	-- -	<0.10	-- -	-- -
Boron	µg/g	120	**9.3**	-- -	-- -	**9**	**7.7**	**6.9**	-- -	<5.0	-- -	-- -
Cadmium	µg/g	1.9	**0.61**	-- -	-- -	<0.50	<0.50	<0.50	-- -	<0.50	-- -	-- -
Chromium (Total)	µg/g	160	**81.1**	-- -	-- -	**15.4**	**81.1**	**72**	-- -	**11.9**	-- -	-- -
Chromium, Hexavalent	µg/g	8	**0.48**	-- -	-- -	<0.20	**0.4**	**0.23**	-- -	<0.20	-- -	-- -
Cobalt	µg/g	80	**21.3**	-- -	-- -	**7.3**	**21.3**	**19**	-- -	**4**	-- -	-- -
Copper	µg/g	230	**37.3**	-- -	-- -	**17**	**37.3**	**34.8**	-- -	**8.4**	-- -	-- -
Lead	µg/g	120	**50**	-- -	-- -	**12.7**	**6.9**	**6.1**	-- -	**4.4**	-- -	-- -
Mercury	µg/g	3.9	**0.0306**	-- -	-- -	**0.0174**	<0.0050	<0.0050	-- -	**0.0072**	-- -	-- -
Molybdenum	µg/g	40	**4.6**	-- -	-- -	**2.6**	<1.0	<1.0	-- -	<1.0	-- -	-- -
Nickel	µg/g	270	**45**	-- -	-- -	**17.2**	**45**	**40.3**	-- -	**9.9**	-- -	-- -
Selenium	µg/g	5.5	<1.0	-- -	-- -	<1.0	<1.0	<1.0	-- -	<1.0	-- -	-- -
Silver	µg/g	40	**0.21**	-- -	-- -	<0.20	<0.20	<0.20	-- -	<0.20	-- -	-- -
Thallium	µg/g	3.3	**0.25**	-- -	-- -	<0.50	<0.50	<0.50	-- -	<0.50	-- -	-- -
Uranium	µg/g	33	**0.78**	-- -	-- -	<1.0	<1.0	<1.0	-- -	<1.0	-- -	-- -
Vanadium	µg/g	86	**102**	-- -	-- -	**21.9**	**102**	**91.5**	**47.2**	**23.1**	-- -	-- -
Zinc	µg/g	340	**113**	-- -	-- -	**27.9**	**113**	**104**	-- -	**17.8**	-- -	-- -
Polycyclic Aromatic Hydrocarbons												
Acenaphthene	µg/g	96	<0.05	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	-- -	-- -
Acenaphthylene	µg/g	0.15	<0.05	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	-- -	-- -
Anthracene	µg/g	0.67	<0.05	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	-- -	-- -
Benzo(a)anthracene	µg/g	0.96	**0**	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	-- -	-- -
Benzo(a)pyrene	µg/g	0.3	**0.0089**	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	-- -	-- -
Benzo(b&j)fluoranthene	µg/g	0.96	**0.017**	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	-- -	-- -
Benzo(g,h,i)perylene	µg/g	9.6	**0.015**	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	-- -	-- -
Benzo(k)fluoranthene	µg/g	0.96	**0**	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	-- -	-- -
Chrysene	µg/g	9.6	**0.0063**	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	-- -	-- -
Dibenz(a,h)anthracene	µg/g	0.1	**0**	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	-- -	-- -
Fluoranthene	µg/g	9.6	**0.0089**	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	-- -	-- -
Fluorene	µg/g	62	<0.05	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	-- -	-- -
Indeno(1,2,3-cd)pyrene	µg/g	0.76	**0.01**	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	-- -	-- -
1+2-Methylnaphthalenes	µg/g	76	<0.042	-- -	-- -	<0.042	<0.042	<0.042	-- -	<0.042	-- -	-- -
1-Methylnaphthalene	µg/g	76	<0.03	-- -	-- -	<0.030	<0.030	<0.030	-- -	<0.030	-- -	-- -
2-Methylnaphthalene	µg/g	76	<0.03	-- -	-- -	<0.030	<0.030	<0.030	-- -	<0.030	-- -	-- -
Naphthalene	µg/g	9.6	<0.02	-- -	-- -	<0.013	<0.013	<0.013	-- -	<0.013	-- -	-- -
Phenanthrene	µg/g	12	**0**	-- -	-- -	<0.046	<0.046	<0.046	-- -	<0.046	-- -	-- -
Pyrene	µg/g	96	**0.01**	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	-- -	-- -
Cyanides												
Cyanide, Weak Acid Diss	µg/g	0.051	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -	<0.050	-- -	-- -
Saturated Paste Extractables												
Sodium Adsorption Ratio		12	**23.5**	-- -	-- -	**23.5**	**3.77**	**3.81**	-- -	**1.00**	-- -	-- -
Calcium[4]	mg/L	--	**301**	-- -	-- -	**1.98**	**118**	**121**	-- -	**6.41**	-- -	-- -
Magnesium[4]	mg/L	--	**54.5**	-- -	-- -	<0.50	**54**	**54.5**	-- -	<0.50	-- -	-- -
Sodium[4]	mg/L	--	**222**	-- -	-- -	**120**	**197**	**201**	-- -	**9.2**	-- -	-- -
Physical Tests												
Electrical Conductivity	mS/cm	1.4	**2.78**	**1.19**	**2.78**	**0.573**	**2.04**	**2.04**	-- -	**0.088**	-- -	-- -
pH	pH units	--	**8.18**	**8.12**	**7.58**	**7.88**	**7.83**	**8.00**	-- -	**7.62**	-- -	-- -
Perfluorinated Compounds												
Perfluorononane sulfonic acid (PFNS)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
8:2 Fluorotelomer sulfonic acid(8:2 FTS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
6:2 Fluorotelomer sulfonic acid(6:2 FTS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
4:2 Fluorotelomer sulfonic acid(4:2 FTS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
10:2 Fluorotelomer sulfonic acid(10:2 F)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorobutane sulfonic acid (PFBS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorohexane sulfonic acid (PFHxS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorotridecanoic acid (PFTrDA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorooctane sulfonic acid (PFOS)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoropentane sulfonic acid (PFPeS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Et PFO sulfonamide (EtFOSA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Et PFO sulfonamidoethanol (EtFOSE)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Et PFO sulfonamidoacetic acid(EtFOSAA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Me PFO sulfonamide (MeFOSA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Me PFO sulfonamidoacetic acid(MeFOSAA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Me PFO sulfonamidoethanol (MeFOSE)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoroheptane sulfonic acid (PFHpS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorooctane sulfonamide (FOSA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorodecane sulfonic acid (PFDS)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorobutanoic acid (PFBA)	µg/kg	--	<1.0	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorodecanoic acid (PFDA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorododecanoic acid (PFDoDA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoroheptanoic acid (PFHpA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorohexanoic acid (PFHxA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorononanoic acid (PFNA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorooctanoic acid (PFOA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoropentanoic acid (PFPeA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorotetradecanoic acid (PFTeDA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoroundecanoic acid (PFUnDA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
9Cl-PF3ONS	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
11Cl-PF3OUdS	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -

Notes:

[1] Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition for industrial/commercial/community property uses and coarse textured soils from Soil, groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (MOECC, 2011) (Table 3 SCS).

[2] The Table 3 SCS apply to the total of cis-1,3-dichloropropene and trans-1,3-dichloropropene.

[3] The Table 3 SCS apply to the total of m+p-xylenes and o-xylene.

Bold - indicates constituent was detected greater than the analytical reporting limit

50 Associated value greater than Table 3 SCS

50 Associated value greater than Table 3 SCS; however, exemption under O.Reg. 153/04, Section 49.1, Paragraph 1 being relied upon and not a contaminant of concern

- - no Table 3 SCS available
-- - not analyzed
< - analyte was not detected at a concentration greater than the associated analytical reporting limit
µg/g - micrograms per gram
ID - identifier
m bgs - metres below ground surface
mg/g - milligrams per gram
kg/g - kilograms per gram
mS/cm - milliSiemens per centimetre
QA/QC - quality assurance/quality control
SCS - site condition standard

Table 2
Soil Analytical Data
2625 Sheffield Road, Ottawa, Ontario

				Geosyntec 2022 Phase Two ESA								
Report Source				MW22-2	MW22-2	BH22-3	MW22-4	MW22-4	MW22-5	BH22-6	BH22-7	BH22-8
Location ID				MW22-2-3B_260522	DUP04	BH22-3-1_260522	MW22-4-1A_240522	MW22-4-1B_240522	MW22-5-1B_240522	BH22-6-1A_260522	BH22-7-1_250522	BH22-8-1_250522
Sample ID			**Maximum Concentration**	26-May-2022	26-May-2022	26-May-2022	24-May-2022	24-May-2022	24-May-2022	26-May-2022	25-May-2022	25-May-2022
Date Sampled				3.8 - 4.6	3.8 - 4.6	0.0 - 0.6	0.0 - 0.8	0.8 - 1.5	0.8 - 1.5	0.0 - 0.8	0.0 - 0.6	0.0 - 0.6
Sample Depth (m bgs)					Duplicate							
QA/QC												
Lab Sample ID				L2710246-7	L2710246-12	L2710246-9	L2710246-14	L2710246-15	L2710246-17	L2710246-20	L2710246-22	L2710246-24
	Units	***Table 3 SCS*[1]**										
Volatile Organic Compounds												
Acetone	µg/g	16	<0.50	-- -	-- -	<0.50	-- -	<0.50	<0.50	<0.50	<0.50	<0.50
Benzene	µg/g	0.32	<0.03	-- -	-- -	<0.0068	-- -	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068
Bromodichloromethane	µg/g	18	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
Bromoform	µg/g	0.61	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
Bromomethane	µg/g	0.05	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
Carbon tetrachloride	µg/g	0.21	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
Chlorobenzene	µg/g	2.4	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
Dibromochloromethane	µg/g	13	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
Chloroform	µg/g	0.47	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dibromoethane	µg/g	0.05	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichlorobenzene	µg/g	6.8	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-Dichlorobenzene	µg/g	9.6	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
1,4-Dichlorobenzene	µg/g	0.2	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
Dichlorodifluoromethane	µg/g	16	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethane	µg/g	17	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloroethane	µg/g	0.05	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethylene	µg/g	0.064	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
cis-1,2-Dichloroethylene	µg/g	55	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
trans-1,2-Dichloroethylene	µg/g	1.3	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
Methylene Chloride	µg/g	1.6	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloropropane	µg/g	0.16	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
cis-1,3-Dichloropropene[2]	µg/g	--	<0.030	-- -	-- -	<0.030	-- -	<0.030	<0.030	<0.030	<0.030	<0.030
trans-1,3-Dichloropropene[2]	µg/g	--	<0.040	-- -	-- -	<0.030	-- -	<0.030	<0.030	<0.030	<0.030	<0.030
1,3-Dichloropropene (cis & trans)	µg/g	0.18	<0.050	-- -	-- -	<0.042	-- -	<0.042	<0.042	<0.042	<0.042	<0.042
Ethylbenzene	µg/g	9.5	**0.17**	-- -	-- -	<0.018	-- -	<0.018	<0.018	<0.018	<0.018	<0.018
n-Hexane	µg/g	46	**0.064**	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
Methyl Ethyl Ketone	µg/g	70	<0.50	-- -	-- -	<0.50	-- -	<0.50	<0.50	<0.50	<0.50	<0.50
Methyl Isobutyl Ketone	µg/g	31	<0.50	-- -	-- -	<0.50	-- -	<0.50	<0.50	<0.50	<0.50	<0.50
Methyl tert butyl ether (MTBE)	µg/g	11	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
Styrene	µg/g	34	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,1,2-Tetrachloroethane	µg/g	0.087	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2,2-Tetrachloroethane	µg/g	0.05	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
Tetrachloroethylene	µg/g	4.5	**0.241**	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	**0.241**	<0.050
Toluene	µg/g	68	**0.12**	-- -	-- -	<0.080	-- -	<0.080	<0.080	<0.080	<0.080	<0.080
1,1,1-Trichloroethane	µg/g	6.1	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2-Trichloroethane	µg/g	0.05	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
Trichloroethylene	µg/g	0.91	<0.050	-- -	-- -	<0.010	-- -	<0.010	<0.010	<0.010	<0.010	<0.010
Trichlorofluoromethane	µg/g	4	<0.050	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
Vinyl chloride	µg/g	0.032	<0.020	-- -	-- -	<0.020	-- -	<0.020	<0.020	<0.020	<0.020	<0.020
o-Xylene[3]	µg/g	26	**0.15**	-- -	-- -	<0.020	-- -	<0.020	<0.020	<0.020	<0.020	<0.020
m+p-Xylenes[3]	µg/g	26	**0.18**	-- -	-- -	<0.030	-- -	<0.030	<0.030	<0.030	<0.030	<0.030
Xylenes (Total)[3]	µg/g	26	**0.33**	-- -	-- -	<0.050	-- -	<0.050	<0.050	<0.050	<0.050	<0.050
Petroleum Hydrocarbons												
F1 (C6-C10)	µg/g	55	**64**	-- -	-- -	<5.0	-- -	<5.0	<5.0	<5.0	<5.0	<5.0
F1-BTEX	µg/g	55	**61**	-- -	-- -	<5.0	-- -	<5.0	<5.0	<5.0	<5.0	<5.0
F2 (C10-C16)	µg/g	230	**990**	-- -	-- -	<10	-- -	<10	<10	<10	<10	<10
F3 (C16-C34)	µg/g	1,700	**420**	-- -	-- -	<50	-- -	<50	<50	**99**	<50	**55**
F4 (C34-C50)	µg/g	3,300	**223**	-- -	-- -	<50	-- -	<50	<50	**223**	<50	<50
F4G-SG (GHH-Silica)	µg/g	3,300	**950**	-- -	-- -	-- -	-- -	-- -	-- -	**950**	-- -	-- -
Metals												
Antimony	µg/g	40	**0.37**	<1.0	<1.0	<1.0	<1.0	-- -	<1.0	<1.0	<1.0	<1.0
Arsenic	µg/g	18	**7.5**	**3.6**	**2.6**	**4.1**	**6.3**	-- -	**2.5**	**7.5**	**1.3**	**1.4**
Barium	µg/g	670	**356**	**154**	**100**	**219**	**162**	-- -	**54.2**	**98.5**	**28.4**	**18.1**
Beryllium	µg/g	8	**0.9**	**0.55**	<0.50	**0.77**	<0.50	-- -	<0.50	**0.6**	<0.50	<0.50
Boron (Hot Water Soluble)	µg/g	2	**0.36**	**0.25**	**0.3**	**0.13**	**0.34**	-- -	**0.1**	**0.22**	<0.10	<0.10
Boron	µg/g	120	**9.3**	**6.1**	<5.0	**8.9**	**7.6**	-- -	<5.0	**9.3**	<5.0	<5.0
Cadmium	µg/g	1.9	**0.61**	<0.50	<0.50	<0.50	<0.50	-- -	<0.50	<0.50	<0.50	<0.50
Chromium (Total)	µg/g	160	**81.1**	**44.3**	**37.9**	**51.1**	**10.2**	-- -	**11.1**	**19.6**	**12.5**	**9.2**
Chromium, Hexavalent	µg/g	8	**0.48**	<0.20	<0.20	**0.21**	<0.20	-- -	<0.20	<0.20	<0.20	<0.20
Cobalt	µg/g	80	**21.3**	**11.8**	**9.4**	**15.1**	**6.8**	-- -	**6.6**	**11.3**	**4.1**	**3.9**
Copper	µg/g	230	**37.3**	**21.6**	**15.2**	**27.9**	**8.8**	-- -	**16.5**	**26.6**	**9.1**	**8.2**
Lead	µg/g	120	**50**	**9.2**	**10**	**6.6**	**22.6**	-- -	**6.2**	**17.6**	**3**	**2.7**
Mercury	µg/g	3.9	**0.0306**	**0.0165**	**0.0195**	**0.0066**	**0.0118**	-- -	**0.0142**	**0.0306**	**0.0063**	**0.0067**
Molybdenum	µg/g	40	**4.6**	<1.0	<1.0	<1.0	**4.6**	-- -	<1.0	**3**	<1.0	<1.0
Nickel	µg/g	270	**45**	**28.5**	**24.6**	**30**	**12.8**	-- -	**12.1**	**25.1**	**7.8**	**6.7**
Selenium	µg/g	5.5	<1.0	<1.0	<1.0	<1.0	<1.0	-- -	<1.0	<1.0	<1.0	<1.0
Silver	µg/g	40	**0.21**	<0.20	<0.20	<0.20	<0.20	-- -	<0.20	<0.20	<0.20	<0.20
Thallium	µg/g	3.3	**0.25**	<0.50	<0.50	<0.50	<0.50	-- -	<0.50	<0.50	<0.50	<0.50
Uranium	µg/g	33	**0.78**	<1.0	<1.0	<1.0	<1.0	-- -	<1.0	<1.0	<1.0	<1.0
Vanadium	µg/g	86	**102**	**57.4**	**45.5**	**75.2**	**11.3**	-- -	**22.2**	**28.6**	**19.5**	**19.9**
Zinc	µg/g	340	**113**	**63.4**	**49.3**	**82.4**	**8.4**	-- -	**24.2**	**38.5**	**13.5**	**10.9**
Polycyclic Aromatic Hydrocarbons												
Acenaphthene	µg/g	96	<0.05	<0.050	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	µg/g	0.15	<0.05	<0.050	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050	<0.050
Anthracene	µg/g	0.67	<0.05	<0.050	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050	<0.050
Benzo(a)anthracene	µg/g	0.96	**0**	<0.050	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050	<0.050
Benzo(a)pyrene	µg/g	0.3	**0.0089**	<0.050	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050	<0.050
Benzo(b&j)fluoranthene	µg/g	0.96	**0.017**	<0.050	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050	<0.050
Benzo(g,h,i)perylene	µg/g	9.6	**0.015**	<0.050	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050	<0.050
Benzo(k)fluoranthene	µg/g	0.96	**0**	<0.050	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050	<0.050
Chrysene	µg/g	9.6	**0.0063**	<0.050	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050	<0.050
Dibenz(a,h)anthracene	µg/g	0.1	**0**	<0.050	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050	<0.050
Fluoranthene	µg/g	9.6	**0.0089**	<0.050	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050	<0.050
Fluorene	µg/g	62	<0.05	<0.050	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050	<0.050
Indeno(1,2,3-cd)pyrene	µg/g	0.76	**0.01**	<0.050	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050	<0.050
1+2-Methylnaphthalenes	µg/g	76	<0.042	<0.042	<0.042	<0.042	<0.042	-- -	<0.042	<0.042	<0.042	<0.042
1-Methylnaphthalene	µg/g	76	<0.03	<0.030	<0.030	<0.030	<0.030	-- -	<0.030	<0.030	<0.030	<0.030
2-Methylnaphthalene	µg/g	76	<0.03	<0.030	<0.030	<0.030	<0.030	-- -	<0.030	<0.030	<0.030	<0.030
Naphthalene	µg/g	9.6	<0.02	<0.013	<0.013	<0.013	<0.013	-- -	<0.013	<0.013	<0.013	<0.013
Phenanthrene	µg/g	12	**0**	<0.046	<0.046	<0.046	<0.046	-- -	<0.046	<0.046	<0.046	<0.046
Pyrene	µg/g	96	**0.01**	<0.050	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050	<0.050
Cyanides												
Cyanide, Weak Acid Diss	µg/g	0.051	<0.050	<0.050	<0.050	<0.050	<0.050	-- -	<0.050	<0.050	<0.050	<0.050
Saturated Paste Extractables												
Sodium Adsorption Ratio		12	**23.5**	**1.57**	**1.32**	**8.36**	**0.49**	-- -	**4.44**	**5.01**	**4.43**	**0.35**
Calcium[4]	mg/L	--	**301**	**13.8**	**16.9**	**34.2**	**301**	-- -	**13.1**	**53.7**	**2.16**	**14**
Magnesium[4]	mg/L	--	**54.5**	**4.28**	**4.62**	**11.7**	**26.5**	-- -	**2.05**	**10.3**	**0.65**	**1.57**
Sodium[4]	mg/L	--	**222**	**26.1**	**23.8**	**222**	**32.9**	-- -	**65.4**	**153**	**28.9**	**5.23**
Physical Tests												
Electrical Conductivity	mS/cm	1.4	**2.78**	**0.205**	**0.202**	**1.41**	**1.53**	-- -	**0.402**	**1.08**	**0.146**	**0.125**
pH	pH units	--	**8.18**	**7.34**	**7.23**	**7.90**	**8.07**	-- -	**7.98**	**7.84**	**8.18**	**7.60**
Perfluorinated Compounds												
Perfluorononane sulfonic acid (PFNS)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
8:2 Fluorotelomer sulfonic acid(8:2 FTS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
6:2 Fluorotelomer sulfonic acid(6:2 FTS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
4:2 Fluorotelomer sulfonic acid(4:2 FTS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
10:2 Fluorotelomer sulfonic acid(10:2 F)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorobutane sulfonic acid (PFBS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorohexane sulfonic acid (PFHxS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorotridecanoic acid (PFTrDA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorooctane sulfonic acid (PFOS)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoropentane sulfonic acid (PFPeS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Et PFO sulfonamide (EtFOSA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Et PFO sulfonamidoethanol (EtFOSE)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Et PFO sulfonamidoacetic acid(EtFOSAA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Me PFO sulfonamide (MeFOSA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Me PFO sulfonamidoacetic acid(MeFOSAA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
N-Me PFO sulfonamidoethanol (MeFOSE)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoroheptane sulfonic acid (PFHpS)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorooctane sulfonamide (FOSA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorodecane sulfonic acid (PFDS)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorobutanoic acid (PFBA)	µg/kg	--	<1.0	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorodecanoic acid (PFDA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorododecanoic acid (PFDoDA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoroheptanoic acid (PFHpA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorohexanoic acid (PFHxA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorononanoic acid (PFNA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorooctanoic acid (PFOA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoropentanoic acid (PFPeA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluorotetradecanoic acid (PFTeDA)	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Perfluoroundecanoic acid (PFUnDA)	µg/kg	--	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
9Cl-PF3ONS	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
11Cl-PF3OUdS	µg/kg	--	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -

Notes:

[1] Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition for industrial/commercial/community property uses and coarse textured soils from Soil, groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (MOECC, 2011) (Table 3 SCS).

[2] The Table 3 SCS apply to the total of cis-1,3-dichloropropene and trans-1,3-dichloropropene.

[3] The Table 3 SCS apply to the total of m+p-xylenes and o-xylene.

Bold - indicates constituent was detected greater than the analytical reporting limit

50	Associated value greater than Table 3 SCS
50	Associated value greater than Table 3 SCS; however, exemption under O.Reg. 153/04, Section 49.1, Paragraph 1 being relied upon and not a contaminant of concern

- - no Table 3 SCS available
-- - not analyzed
< - analyte was not detected at a concentration greater than the associated analytical reporting limit
µg/g - micrograms per gram
ID - identifier
m bgs - metres below ground surface
mg/g - milligrams per gram
kg/g - kilograms per gram
mS/cm - milliSiemens per centimetre
QA/QC - quality assurance/quality control
SCS - site condition standard

Table 2
Soil Analytical Data
2625 Sheffield Road, Ottawa, Ontario

				Geosyntec 2022 Phase Two ESA				
Report Source			**Maximum Concentration**	BH22-9	BH22-10	BH22-10	BH22-10	BH22-10
Location ID				BH22-9-1A_240522	BH22-10-1A_25052022	DUP02	BH22-10-1B_25052022	DUP01
Sample ID				24-May-2022	25-May-2022	25-May-2022	25-May-2022	25-May-2022
Date Sampled				0.0 - 0.8	0.0 - 0.8	0.0 - 0.8	0.8 - 1.5	0.8 - 1.5
Sample Depth (m bgs)						Duplicate		Duplicate
QA/QC								
Lab Sample ID				L2710246-26	L2710246-28	L2710246-33	L2710246-29	L2710246-32
	Units	***Table 3 SCS*** [1]						
Volatile Organic Compounds								
Acetone	µg/g	16	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Benzene	µg/g	0.32	<0.03	<0.0068	-- -	-- -	<0.0068	<0.0068
Bromodichloromethane	µg/g	18	<0.050	<0.050	-- -	-- -	<0.050	<0.050
Bromoform	µg/g	0.61	<0.050	<0.050	-- -	-- -	<0.050	<0.050
Bromomethane	µg/g	0.05	<0.050	<0.050	-- -	-- -	<0.050	<0.050
Carbon tetrachloride	µg/g	0.21	<0.050	<0.050	-- -	-- -	<0.050	<0.050
Chlorobenzene	µg/g	2.4	<0.050	<0.050	-- -	-- -	<0.050	<0.050
Dibromochloromethane	µg/g	13	<0.050	<0.050	-- -	-- -	<0.050	<0.050
Chloroform	µg/g	0.47	<0.050	<0.050	-- -	-- -	<0.050	<0.050
1,2-Dibromoethane	µg/g	0.05	<0.050	<0.050	-- -	-- -	<0.050	<0.050
1,2-Dichlorobenzene	µg/g	6.8	<0.050	<0.050	-- -	-- -	<0.050	<0.050
1,3-Dichlorobenzene	µg/g	9.6	<0.050	<0.050	-- -	-- -	<0.050	<0.050
1,4-Dichlorobenzene	µg/g	0.2	<0.050	<0.050	-- -	-- -	<0.050	<0.050
Dichlorodifluoromethane	µg/g	16	<0.050	<0.050	-- -	-- -	<0.050	<0.050
1,1-Dichloroethane	µg/g	17	<0.050	<0.050	-- -	-- -	<0.050	<0.050
1,2-Dichloroethane	µg/g	0.05	<0.050	<0.050	-- -	-- -	<0.050	<0.050
1,1-Dichloroethylene	µg/g	0.064	<0.050	<0.050	-- -	-- -	<0.050	<0.050
cis-1,2-Dichloroethylene	µg/g	55	<0.050	<0.050	-- -	-- -	<0.050	<0.050
trans-1,2-Dichloroethylene	µg/g	1.3	<0.050	<0.050	-- -	-- -	<0.050	<0.050
Methylene Chloride	µg/g	1.6	<0.050	<0.050	-- -	-- -	<0.050	<0.050
1,2-Dichloropropane	µg/g	0.16	<0.050	<0.050	-- -	-- -	<0.050	<0.050
cis-1,3-Dichloropropene[2]	µg/g	--	<0.030	<0.030	-- -	-- -	<0.030	<0.030
trans-1,3-Dichloropropene[2]	µg/g	--	<0.040	<0.030	-- -	-- -	<0.030	<0.030
1,3-Dichloropropene (cis & trans)	µg/g	0.18	<0.050	<0.042	-- -	-- -	<0.042	<0.042
Ethylbenzene	µg/g	9.5	**0.17**	<0.018	-- -	-- -	<0.018	<0.018
n-Hexane	µg/g	46	**0.064**	**0.064**	-- -	-- -	<0.050	<0.050
Methyl Ethyl Ketone	µg/g	70	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Methyl Isobutyl Ketone	µg/g	31	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Methyl tert butyl ether (MTBE)	µg/g	11	<0.050	<0.050	-- -	-- -	<0.050	<0.050
Styrene	µg/g	34	<0.050	<0.050	-- -	-- -	<0.050	<0.050
1,1,1,2-Tetrachloroethane	µg/g	0.087	<0.050	<0.050	-- -	-- -	<0.050	<0.050
1,1,2,2-Tetrachloroethane	µg/g	0.05	<0.050	<0.050	-- -	-- -	<0.050	<0.050
Tetrachloroethylene	µg/g	4.5	**0.241**	<0.050	-- -	-- -	<0.050	<0.050
Toluene	µg/g	68	**0.12**	<0.080	-- -	-- -	<0.080	<0.080
1,1,1-Trichloroethane	µg/g	6.1	<0.050	<0.050	-- -	-- -	<0.050	<0.050
1,1,2-Trichloroethane	µg/g	0.05	<0.050	<0.050	-- -	-- -	<0.050	<0.050
Trichloroethylene	µg/g	0.91	<0.050	<0.010	-- -	-- -	<0.010	<0.010
Trichlorofluoromethane	µg/g	4	<0.050	<0.050	-- -	-- -	<0.050	<0.050
Vinyl chloride	µg/g	0.032	<0.020	<0.020	-- -	-- -	<0.020	<0.020
o-Xylene[3]	µg/g	26	**0.15**	<0.020	-- -	-- -	<0.020	<0.020
m+p-Xylenes[3]	µg/g	26	**0.18**	**0.031**	-- -	-- -	<0.030	<0.030
Xylenes (Total)[3]	µg/g	26	**0.33**	<0.050	-- -	-- -	<0.050	<0.050
Petroleum Hydrocarbons								
F1 (C6-C10)	µg/g	55	**64**	<5.0	-- -	-- -	<5.0	<5.0
F1-BTEX	µg/g	55	**61**	<5.0	-- -	-- -	<5.0	<5.0
F2 (C10-C16)	µg/g	230	**990**	<10	-- -	-- -	<10	<10
F3 (C16-C34)	µg/g	1,700	**420**	<50	-- -	-- -	<50	<50
F4 (C34-C50)	µg/g	3,300	**223**	**99**	-- -	-- -	<50	<50
F4G-SG (GHH-Silica)	µg/g	3,300	**950**	-- -	-- -	-- -	-- -	-- -
Metals								
Antimony	µg/g	40	**0.37**	<1.0	<1.0	<1.0	-- -	-- -
Arsenic	µg/g	18	**7.5**	**5.6**	**4.2**	**4.8**	-- -	-- -
Barium	µg/g	670	**356**	**144**	**215**	**299**	-- -	-- -
Beryllium	µg/g	8	**0.9**	<0.50	<0.50	<0.50	-- -	-- -
Boron (Hot Water Soluble)	µg/g	2	**0.36**	**0.28**	**0.23**	**0.32**	-- -	-- -
Boron	µg/g	120	**9.3**	**9.2**	**7.3**	**8.9**	-- -	-- -
Cadmium	µg/g	1.9	**0.61**	<0.50	<0.50	<0.50	-- -	-- -
Chromium (Total)	µg/g	160	**81.1**	**19.7**	**18.3**	**9.2**	-- -	-- -
Chromium, Hexavalent	µg/g	8	**0.48**	**0.48**	**0.21**	<0.20	-- -	-- -
Cobalt	µg/g	80	**21.3**	**8.5**	**6.8**	**5.8**	-- -	-- -
Copper	µg/g	230	**37.3**	**11.8**	**10.1**	**7.4**	-- -	-- -
Lead	µg/g	120	**50**	**15.9**	**12**	**16.9**	-- -	-- -
Mercury	µg/g	3.9	**0.0306**	**0.013**	**0.0104**	**0.0095**	-- -	-- -
Molybdenum	µg/g	40	**4.6**	**4.1**	**3.3**	**4.5**	-- -	-- -
Nickel	µg/g	270	**45**	**16.4**	**15.1**	**12.4**	-- -	-- -
Selenium	µg/g	5.5	<1.0	<1.0	<1.0	<1.0	-- -	-- -
Silver	µg/g	40	**0.21**	<0.20	<0.20	<0.20	-- -	-- -
Thallium	µg/g	3.3	**0.25**	<0.50	<0.50	<0.50	-- -	-- -
Uranium	µg/g	33	**0.78**	<1.0	<1.0	<1.0	-- -	-- -
Vanadium	µg/g	86	**102**	**23.8**	**21.2**	**10.1**	-- -	-- -
Zinc	µg/g	340	**113**	**21.4**	**15.7**	**9.7**	-- -	-- -
Polycyclic Aromatic Hydrocarbons								
Acenaphthene	µg/g	96	<0.05	<0.050	<0.050	<0.050	-- -	-- -
Acenaphthylene	µg/g	0.15	<0.05	<0.050	<0.050	<0.050	-- -	-- -
Anthracene	µg/g	0.67	<0.05	<0.050	<0.050	<0.050	-- -	-- -
Benzo(a)anthracene	µg/g	0.96	**0**	<0.050	<0.050	<0.050	-- -	-- -
Benzo(a)pyrene	µg/g	0.3	**0.0089**	<0.050	<0.050	<0.050	-- -	-- -
Benzo(b&j)fluoranthene	µg/g	0.96	**0.017**	<0.050	<0.050	<0.050	-- -	-- -
Benzo(g,h,i)perylene	µg/g	9.6	**0.015**	<0.050	<0.050	<0.050	-- -	-- -
Benzo(k)fluoranthene	µg/g	0.96	**0**	<0.050	<0.050	<0.050	-- -	-- -
Chrysene	µg/g	9.6	**0.0063**	<0.050	<0.050	<0.050	-- -	-- -
Dibenz(a,h)anthracene	µg/g	0.1	**0**	<0.050	<0.050	<0.050	-- -	-- -
Fluoranthene	µg/g	9.6	**0.0089**	<0.050	<0.050	<0.050	-- -	-- -
Fluorene	µg/g	62	<0.05	<0.050	<0.050	<0.050	-- -	-- -
Indeno(1,2,3-cd)pyrene	µg/g	0.76	**0.01**	<0.050	<0.050	<0.050	-- -	-- -
1+2-Methylnaphthalenes	µg/g	76	<0.042	<0.042	<0.042	<0.042	-- -	-- -
1-Methylnaphthalene	µg/g	76	<0.03	<0.030	<0.030	<0.030	-- -	-- -
2-Methylnaphthalene	µg/g	76	<0.03	<0.030	<0.030	<0.030	-- -	-- -
Naphthalene	µg/g	9.6	<0.02	<0.013	<0.013	<0.013	-- -	-- -
Phenanthrene	µg/g	12	**0**	<0.046	<0.046	<0.046	-- -	-- -
Pyrene	µg/g	96	**0.01**	<0.050	<0.050	<0.050	-- -	-- -
Cyanides								
Cyanide, Weak Acid Diss	µg/g	0.051	<0.050	<0.050	<0.050	<0.050	-- -	-- -
Saturated Paste Extractables								
Sodium Adsorption Ratio		12	**23.5**	**1.65**	**2.89**	**0.74**	-- -	-- -
Calcium[4]	mg/L	--	**301**	**255**	**203**	**269**	-- -	-- -
Magnesium[4]	mg/L	--	**54.5**	**34.2**	**20.9**	**17**	-- -	-- -
Sodium[4]	mg/L	--	**222**	**106**	**162**	**46.6**	-- -	-- -
Physical Tests								
Electrical Conductivity	mS/cm	1.4	**2.78**	**1.71**	**1.73**	**1.43**	-- -	-- -
pH	pH units	--	**8.18**	**7.65**	**7.80**	**7.64**	-- -	-- -
Perfluorinated Compounds								
Perfluorononane sulfonic acid (PFNS)	µg/kg	--	<0.50	-- -	-- -	-- -	<0.50	<0.50
8:2 Fluorotelomer sulfonic acid(8:2 FTS)	µg/kg	--	<0.10	-- -	-- -	-- -	<0.10	<0.10
6:2 Fluorotelomer sulfonic acid(6:2 FTS)	µg/kg	--	<0.10	-- -	-- -	-- -	<0.10	<0.10
4:2 Fluorotelomer sulfonic acid(4:2 FTS)	µg/kg	--	<0.10	-- -	-- -	-- -	<0.10	<0.10
10:2 Fluorotelomer sulfonic acid(10:2 F)	µg/kg	--	<0.10	-- -	-- -	-- -	<0.10	<0.10
Perfluorobutane sulfonic acid (PFBS)	µg/kg	--	<0.10	-- -	-- -	-- -	<0.10	<0.10
Perfluorohexane sulfonic acid (PFHxS)	µg/kg	--	<0.10	-- -	-- -	-- -	<0.10	<0.10
Perfluorotridecanoic acid (PFTrDA)	µg/kg	--	<0.50	-- -	-- -	-- -	<0.50	<0.50
Perfluorooctane sulfonic acid (PFOS)	µg/kg	--	<0.50	-- -	-- -	-- -	<0.50	<0.50
Perfluoropentane sulfonic acid (PFPeS)	µg/kg	--	<0.10	-- -	-- -	-- -	<0.10	<0.10
N-Et PFO sulfonamide (EtFOSA)	µg/kg	--	<0.50	-- -	-- -	-- -	<0.50	<0.50
N-Et PFO sulfonamidoethanol (EtFOSE)	µg/kg	--	<0.10	-- -	-- -	-- -	<0.10	<0.10
N-Et PFO sulfonamidoacetic acid(EtFOSAA)	µg/kg	--	<0.10	-- -	-- -	-- -	<0.10	<0.10
N-Me PFO sulfonamide (MeFOSA)	µg/kg	--	<0.50	-- -	-- -	-- -	<0.50	<0.50
N-Me PFO sulfonamidoacetic acid(MeFOSAA)	µg/kg	--	<0.10	-- -	-- -	-- -	<0.10	<0.10
N-Me PFO sulfonamidoethanol (MeFOSE)	µg/kg	--	<0.50	-- -	-- -	-- -	<0.50	<0.50
Perfluoroheptane sulfonic acid (PFHpS)	µg/kg	--	<0.10	-- -	-- -	-- -	<0.10	<0.10
Perfluorooctane sulfonamide (FOSA)	µg/kg	--	<0.50	-- -	-- -	-- -	<0.50	<0.50
Perfluorodecane sulfonic acid (PFDS)	µg/kg	--	<0.50	-- -	-- -	-- -	<0.50	<0.50
Perfluorobutanoic acid (PFBA)	µg/kg	--	<1.0	-- -	-- -	-- -	<1.0	<1.0
Perfluorodecanoic acid (PFDA)	µg/kg	--	<0.50	-- -	-- -	-- -	<0.50	<0.50
Perfluorododecanoic acid (PFDoDA)	µg/kg	--	<0.50	-- -	-- -	-- -	<0.50	<0.50
Perfluoroheptanoic acid (PFHpA)	µg/kg	--	<0.10	-- -	-- -	-- -	<0.10	<0.10
Perfluorohexanoic acid (PFHxA)	µg/kg	--	<0.10	-- -	-- -	-- -	<0.10	<0.10
Perfluorononanoic acid (PFNA)	µg/kg	--	<0.10	-- -	-- -	-- -	<0.10	<0.10
Perfluorooctanoic acid (PFOA)	µg/kg	--	<0.10	-- -	-- -	-- -	<0.10	<0.10
Perfluoropentanoic acid (PFPeA)	µg/kg	--	<0.10	-- -	-- -	-- -	<0.10	<0.10
Perfluorotetradecanoic acid (PFTeDA)	µg/kg	--	<0.50	-- -	-- -	-- -	<0.50	<0.50
Perfluoroundecanoic acid (PFUnDA)	µg/kg	--	<0.10	-- -	-- -	-- -	<0.10	<0.10
9Cl-PF3ONS	µg/kg	--	<0.50	-- -	-- -	-- -	<0.50	<0.50
11Cl-PF3OUdS	µg/kg	--	<0.50	-- -	-- -	-- -	<0.50	<0.50

Notes:

[1] Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition for industrial/commercial/community property uses and coarse textured soils from Soil, groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (MOECC, 2011) (Table 3 SCS).

[2] The Table 3 SCS apply to the total of cis-1,3-dichloropropene and trans-1,3-dichloropropene.

[3] The Table 3 SCS apply to the total of m+p-xylenes and o-xylene.

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50 Associated value greater than Table 3 SCS

50 Associated value greater than Table 3 SCS; however, exemption under O.Reg. 153/04, Section 49.1, Paragraph 1 being relied upon and not a contaminant of concern

- - no Table 3 SCS available
-- - not analyzed
< - analyte was not detected at a concentration greater than the associated analytical reporting limit
µg/g - micrograms per gram
ID - identifier
m bgs - metres below ground surface
mg/g - milligrams per gram
kg/g - kilograms per gram
mS/cm - milliSiemens per centimetre
QA/QC - quality assurance/quality control
SCS - site condition standard

Table 3
Groundwater Analytical Data
2625 Sheffield Road, Ottawa, Ontario

				2010 Trow Phase II ESA					2020 EXP Phase II ESA		
Report Source			**Maximum Concentrations**								
Location				MW10-1	MW10-3	MW10-4	MW10-5	MW10-6	BH/MW101	BH/MW102	BH/MW103
Sample ID				MW10-1	MW10-3	MW10-4	MW10-5	MW10-6	BH/MW101	BH/MW102	BH/MW103
Date Sampled				22-Feb-2010	22-Feb-2010	22-Feb-2010	22-Feb-2010	22-Feb-2010	8-Sep-2020	8-Sep-2020	8-Sep-2020
Screen Interval (m bgs)				3.05 - 6.10	2.44 - 5.49	2.44 - 5.49	2.44 - 5.49	2.44 - 5.49	1.52 - 4.57	1.52 - 4.57	2.13 - 5.18
QA/QC											
Laboratory Sample ID				1009034-01	1009034-02	1009034-03	1009034-04	1009034-05	NOW680	NOW681	NOW682
	Units	***Table 3 SCS*** [1]									
Volatile Organic Compounds											
Acetone	µg/L	130,000	<30	-- -	-- -	-- -	-- -	-- -	<10	<10	<10
Benzene	µg/L	44	<0.5	-- -	<0.5	<0.5	<0.5	<0.5	<0.20	<0.20	<0.20
Bromodichloromethane	µg/L	85,000	<2.0	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
Bromoform	µg/L	380	<5.0	-- -	-- -	-- -	-- -	-- -	<1.0	<1.0	<1.0
Bromomethane	µg/L	5.6	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
Carbon tetrachloride	µg/L	0.79	<0.20	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
Chlorobenzene	µg/L	630	<0.50	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
Dibromochloromethane	µg/L	82,000	<2.0	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
Chloroform	µg/L	2.4	<1.0	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
1,2-Dibromoethane	µg/L	0.25	<0.20	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
1,2-Dichlorobenzene	µg/L	4,600	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	µg/L	9,600	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	µg/L	8	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
Dichlorodifluoromethane	µg/L	4,400	<2.0	-- -	-- -	-- -	-- -	-- -	<1.0	<1.0	<1.0
1,1-Dichloroethane	µg/L	320	<0.50	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
1,2-Dichloroethane	µg/L	1.6	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
1,1-Dichloroethylene	µg/L	1.6	<0.50	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
cis-1,2-Dichloroethylene	µg/L	1.6	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
trans-1,2-Dichloroethylene	µg/L	1.6	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
Methylene Chloride	µg/L	610	<5.0	-- -	-- -	-- -	-- -	-- -	<2.0	<2.0	<2.0
1,2-Dichloropropane	µg/L	16	<0.50	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
cis-1,3-Dichloropropene[2]	µg/L	5.2	<0.30	-- -	-- -	-- -	-- -	-- -	<0.30	<0.30	<0.30
trans-1,3-Dichloropropene[2]	µg/L	5.2	<0.40	-- -	-- -	-- -	-- -	-- -	<0.40	<0.40	<0.40
1,3-Dichloropropene (cis & trans)	µg/L	5.2	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
Ethylbenzene	µg/L	2,300	<0.5	-- -	<0.5	<0.5	<0.5	<0.5	<0.20	<0.20	<0.20
n-Hexane	µg/L	51	<1.0	-- -	-- -	-- -	-- -	-- -	<1.0	<1.0	<1.0
Methyl Ethyl Ketone	µg/L	470,000	<20	-- -	-- -	-- -	-- -	-- -	<10	<10	<10
Methyl Isobutyl Ketone	µg/L	140,000	<20	-- -	-- -	-- -	-- -	-- -	<5.0	<5.0	<5.0
MTBE	µg/L	190	<2.0	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
Styrene	µg/L	1,300	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	µg/L	3.3	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	µg/L	3.2	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
Tetrachloroethylene	µg/L	1.6	<0.50	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
Toluene	µg/L	18,000	<0.50	-- -	<0.5	<0.5	<0.5	<0.5	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	µg/L	640	<0.50	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
1,1,2-Trichloroethane	µg/L	4.7	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
Trichloroethylene	µg/L	1.6	<0.20	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
Trichlorofluoromethane	µg/L	2,500	<5.0	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
Vinyl chloride	µg/L	0.5	<0.50	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
o-Xylene[3]	µg/L	4,200	<0.30	-- -	<0.5	<0.5	<0.5	<0.5	<0.20	<0.20	<0.20
m+p-Xylenes[3]	µg/L	4,200	<0.5	-- -	<0.5	<0.5	<0.5	<0.5	<0.20	<0.20	<0.20
Xylenes (Total)[3]	µg/L	4,200	<1.0	-- -	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20
Petroleum Hydrocarbons											
F1 (C6-C10)	µg/L	750	<200	-- -	<200	<200	<200	<200	<25	<25	<25
F1-BTEX	µg/L	750	<25	-- -	-- -	-- -	-- -	-- -	<25	<25	<25
F2 (C10-C16)	µg/L	150	<100	-- -	<100	<100	<100	<100	<100	<100	<100
F2-Naphth	µg/L	--	<100								
F3 (C16-C34)	µg/L	500	<250	-- -	<100	<100	<100	<100	<200	<200	<200
F3-PAH	µg/L	--	<250								
F4 (C34-C50)	µg/L	500	<250	-- -	<100	<100	<100	<100	<200	<200	<200
Total Hydrocarbons (C6-C50)	µg/L	--	<370								
Dissolved Metals											
Antimony	µg/L	20,000	**26**	-- -	-- -	**26**	-- -	-- -	<0.50	-- -	-- -
Arsenic	µg/L	1,900	**1.64**	-- -	-- -	<10	-- -	-- -	<1.0	-- -	-- -
Barium	µg/L	29,000	**1,000**	-- -	-- -	**990**	-- -	-- -	**1,000**	-- -	-- -
Beryllium	µg/L	67	<1.0	-- -	-- -	<1	-- -	-- -	<0.40	-- -	-- -
Boron (Total)	µg/L	45,000	**380**	-- -	-- -	<50	-- -	-- -	**96**	-- -	-- -
Cadmium	µg/L	2.7	**1.3**	-- -	-- -	<1	-- -	-- -	**0.88**	-- -	-- -
Chromium	µg/L	810	<50	-- -	-- -	<50	-- -	-- -	<5.0	-- -	-- -
Chromium, Hexavalent	µg/L	140	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	-- -	-- -
Cobalt	µg/L	66	**16.8**	-- -	-- -	<5	-- -	-- -	**16**	-- -	-- -
Copper	µg/L	87	**49.2**	-- -	-- -	<5	-- -	-- -	**19**	-- -	-- -
Lead	µg/L	25	**4.5**	-- -	-- -	<1	-- -	-- -	**0.64**	-- -	-- -
Mercury	µg/L	0.29	<0.10	-- -	-- -	-- -	-- -	-- -	<0.10	-- -	-- -
Molybdenum	µg/L	9,200	**38**	-- -	-- -	**10**	-- -	-- -	**12**	-- -	-- -
Nickel	µg/L	490	**176**	-- -	-- -	**9**	-- -	-- -	**130**	-- -	-- -
Selenium	µg/L	63	<5	-- -	-- -	<5	-- -	-- -	<2.0	-- -	-- -
Silver	µg/L	1.5	**2**	-- -	-- -	**2**	-- -	-- -	<0.090	-- -	-- -
Sodium	µg/L	2,300,000	**2,110,000**	-- -	-- -	**51,400**	-- -	-- -	**1,500,000**	-- -	-- -
Thallium	µg/L	510	**0.078**	-- -	-- -	<1	-- -	-- -	<0.050	-- -	-- -
Uranium	µg/L	420	**9.0**	-- -	-- -	-- -	-- -	-- -	**5.1**	-- -	-- -
Vanadium	µg/L	250	**5.3**	-- -	-- -	<10	-- -	-- -	**2.7**	-- -	-- -
Zinc	µg/L	1,100	**110**	-- -	-- -	<20	-- -	-- -	**5.6**	-- -	-- -
Polycyclic Aromatic Hydrocarbons											
Acenaphthene	µg/L	600	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Acenaphthylene	µg/L	1.8	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Anthracene	µg/L	2.4	<0.020	<0.01	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(a)anthracene	µg/L	4.7	<0.020	<0.01	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(a)pyrene	µg/L	0.81	<0.01	<0.01	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(b&j)fluoranthene	µg/L	0.75	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(g,h,i)perylene	µg/L	0.2	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(k)fluoranthene	µg/L	0.4	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Chrysene	µg/L	1	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Dibenz(a,h)anthracene	µg/L	0.52	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Fluoranthene	µg/L	130	<0.020	<0.01	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Fluorene	µg/L	400	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Indeno(1,2,3-cd)pyrene	µg/L	0.2	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1+2-Methylnaphthalenes	µg/L	1,800	**0.174**	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1-Methylnaphthalene	µg/L	1,800	**0.066**	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
2-Methylnaphthalene	µg/L	1,800	**0.109**	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Naphthalene	µg/L	1,400	**0.074**	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Phenanthrene	µg/L	580	**0.086**	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Pyrene	µg/L	68	<0.020	<0.01	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Anions and Nutrients											
Chloride	mg/L	2,300	**4,340**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Physical Tests											
Electrical Conductivity	mS/cm	--	**11.5**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
pH	pH units	--	**7.83**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Cyanides											
Cyanide, Weak Acid Diss	µg/L	66	<2.0	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -

Notes:

[1] Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition for all types of property uses and coarse textured soils from Soil, groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (MOECC, 2011) (Table 3 SCS).

[2] The Table 3 SCS apply to the total of cis-1,3-dichloropropene and trans-1,3-dichloropropene.

[3] The Table 3 SCS apply to the total of m+p-xylenes and o-xylene.

Bold - indicates constituent was detected greater than the analytical reporting limit

50 Associated value greater than Table 3 SCS; however, data not utilized as subsequent analytical data collected from this location

50 Associated value greater than Table 3 SCS; however, exemption under O.Reg. 153/04, Section 49.1, Paragraph 1 being relied upon and not a contaminant of concern

- - no Table 3 SCS available
-- - not analyzed
< - analyte was not detected at a concentration greater than the associated analytical reporting limit
µg/L - micrograms per litre
ID - identifier
m bgs - metres below ground surface
mg/L - milligrams per litre
mS/cm - milliSiemens per centimetre
QA/QC - quality assurance/quality control
SCS - site condition standard

Table 3
Groundwater Analytical Data
2625 Sheffield Road, Ottawa, Ontario

				2020 EXP Phase II ESA							
Report Source			**Maximum Concentrations**	BH/MW104	BH/MW105	BH/MW106	BH/MW109	MW10-3	MW10-4	MW10-6	MW10-6
Location				BH/MW104	BH/MW105	BH/MW106	BH/MW109	MW10-3	MW10-4	MW10-6	DUP
Sample ID				8-Sep-2020	8-Sep-2020	8-Sep-2020	8-Sep-2020	8-Sep-2020	29-Sep-2020	8-Sep-2020	8-Sep-2020
Date Sampled				2.44 - 5.49	1.98 - 5.03	1.98 - 5.03	1.98 - 5.03	2.44 - 5.49	2.44 - 5.49	2.44 - 5.49	2.44 - 5.49
Screen Interval (m bgs)											Duplicate
QA/QC											
Laboratory Sample ID				NOW683	NOW684	NOW685	NOW686	NOW687	NTL924	NOW688	NOW689
	Units	***Table 3 SCS[1]***									
Volatile Organic Compounds											
Acetone	µg/L	130,000	<30	<10	<10	<10	<10	-- -	-- -	<10	<10
Benzene	µg/L	44	<0.5	<0.20	<0.20	<0.20	<0.20	<0.20	-- -	<0.20	<0.20
Bromodichloromethane	µg/L	85,000	<2.0	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Bromoform	µg/L	380	<5.0	<1.0	<1.0	<1.0	<1.0	-- -	-- -	<1.0	<1.0
Bromomethane	µg/L	5.6	<0.50	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Carbon tetrachloride	µg/L	0.79	<0.20	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
Chlorobenzene	µg/L	630	<0.50	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
Dibromochloromethane	µg/L	82,000	<2.0	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Chloroform	µg/L	2.4	<1.0	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
1,2-Dibromoethane	µg/L	0.25	<0.20	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
1,2-Dichlorobenzene	µg/L	4,600	<0.50	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
1,3-Dichlorobenzene	µg/L	9,600	<0.50	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
1,4-Dichlorobenzene	µg/L	8	<0.50	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Dichlorodifluoromethane	µg/L	4,400	<2.0	<1.0	<1.0	<1.0	<1.0	-- -	-- -	<1.0	<1.0
1,1-Dichloroethane	µg/L	320	<0.50	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
1,2-Dichloroethane	µg/L	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
1,1-Dichloroethylene	µg/L	1.6	<0.50	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
cis-1,2-Dichloroethylene	µg/L	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
trans-1,2-Dichloroethylene	µg/L	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Methylene Chloride	µg/L	610	<5.0	<2.0	<2.0	<2.0	<2.0	-- -	-- -	<2.0	<2.0
1,2-Dichloropropane	µg/L	16	<0.50	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
cis-1,3-Dichloropropene[2]	µg/L	5.2	<0.30	<0.30	<0.30	<0.30	<0.30	-- -	-- -	<0.30	<0.30
trans-1,3-Dichloropropene[2]	µg/L	5.2	<0.40	<0.40	<0.40	<0.40	<0.40	-- -	-- -	<0.40	<0.40
1,3-Dichloropropene (cis & trans)	µg/L	5.2	<0.50	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Ethylbenzene	µg/L	2,300	<0.5	<0.20	<0.20	<0.20	<0.20	<0.20	-- -	<0.20	<0.20
n-Hexane	µg/L	51	<1.0	<1.0	<1.0	<1.0	<1.0	-- -	-- -	<1.0	<1.0
Methyl Ethyl Ketone	µg/L	470,000	<20	<10	<10	<10	<10	-- -	-- -	<10	<10
Methyl Isobutyl Ketone	µg/L	140,000	<20	<5.0	<5.0	<5.0	<5.0	-- -	-- -	<5.0	<5.0
MTBE	µg/L	190	<2.0	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Styrene	µg/L	1,300	<0.50	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
1,1,1,2-Tetrachloroethane	µg/L	3.3	<0.50	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
1,1,2,2-Tetrachloroethane	µg/L	3.2	<0.50	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Tetrachloroethylene	µg/L	1.6	<0.50	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
Toluene	µg/L	18,000	<0.50	<0.20	<0.20	<0.20	<0.20	<0.40	-- -	<0.20	<0.20
1,1,1-Trichloroethane	µg/L	640	<0.50	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
1,1,2-Trichloroethane	µg/L	4.7	<0.50	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Trichloroethylene	µg/L	1.6	<0.20	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
Trichlorofluoromethane	µg/L	2,500	<5.0	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Vinyl chloride	µg/L	0.5	<0.50	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
o-Xylene[3]	µg/L	4,200	<0.30	<0.20	<0.20	<0.20	<0.20	<0.20	-- -	<0.20	<0.20
m+p-Xylenes[3]	µg/L	4,200	<0.5	<0.20	<0.20	<0.20	<0.20	<0.40	-- -	<0.20	<0.20
Xylenes (Total)[3]	µg/L	4,200	<1.0	<0.20	<0.20	<0.20	<0.20	<0.40	-- -	<0.20	<0.20
Petroleum Hydrocarbons											
F1 (C6-C10)	µg/L	750	<200	<25	<25	<25	<25	<25	-- -	<25	<25
F1-BTEX	µg/L	750	<25	<25	<25	<25	<25	<25	-- -	<25	<25
F2 (C10-C16)	µg/L	150	<100	<100	<100	<100	<100	<100	-- -	<100	<100
F2-Naphth	µg/L	--	<100								
F3 (C16-C34)	µg/L	500	<250	<200	<200	<200	<200	<200	-- -	<200	<200
F3-PAH	µg/L	--	<250								
F4 (C34-C50)	µg/L	500	<250	<200	<200	<200	<200	<200	-- -	<200	<200
Total Hydrocarbons (C6-C50)	µg/L	--	<370								
Dissolved Metals											
Antimony	µg/L	20,000	**26**	<0.50	<0.50	**0.55**	**0.64**	-- -	<0.50	<0.50	<0.50
Arsenic	µg/L	1,900	**1.64**	**1.1**	<1.0	**1.4**	**1.5**	-- -	<1.0	<1.0	<1.0
Barium	µg/L	29,000	**1,000**	**160**	**160**	**170**	**280**	-- -	**140**	**99**	**99**
Beryllium	µg/L	67	<1.0	<0.40	<0.40	<0.40	<0.40	-- -	<0.40	<0.40	<0.40
Boron (Total)	µg/L	45,000	**380**	**81**	**380**	**120**	**65**	-- -	**20**	**32**	**31**
Cadmium	µg/L	2.7	**1.3**	<0.090	<0.090	<0.090	**0.15**	-- -	**0.94**	**0.18**	**0.2**
Chromium	µg/L	810	<50	<5.0	<5.0	<5.0	<5.0	-- -	<5.0	<5.0	<5.0
Chromium, Hexavalent	µg/L	140	<0.50	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Cobalt	µg/L	66	**16.8**	<0.50	**2.7**	**1.3**	**2.3**	-- -	**4**	**2.6**	**2.7**
Copper	µg/L	87	**49.2**	**3.6**	**1.6**	**3.3**	**7.4**	-- -	**27**	**4.8**	**4.7**
Lead	µg/L	25	**4.5**	<0.50	<0.50	<0.50	<0.50	-- -	**4.5**	**1.1**	**1.1**
Mercury	µg/L	0.29	<0.10	<0.10	<0.10	<0.10	<0.10	-- -	-- -	<0.10	<0.10
Molybdenum	µg/L	9,200	**38**	**18**	**22**	**25**	**38**	-- -	**3.6**	**4.3**	**4.6**
Nickel	µg/L	490	**176**	**3.3**	**8**	**7.7**	**35**	-- -	**57**	**17**	**17**
Selenium	µg/L	63	<5	<2.0	<2.0	<2.0	<2.0	-- -	<2.0	<2.0	<2.0
Silver	µg/L	1.5	**2**	<0.090	<0.090	<0.090	<0.090	-- -	<0.090	<0.090	<0.090
Sodium	µg/L	2,300,000	**2,110,000**	**37,000**	**180,000**	**240,000**	**550,000**	-- -	**1,000,000**	**580,000**	**580,000**
Thallium	µg/L	510	**0.078**	<0.050	**0.078**	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
Uranium	µg/L	420	**9.0**	**4.7**	**4.9**	**5.4**	**9**	-- -	**1.3**	**0.79**	**0.77**
Vanadium	µg/L	250	**5.3**	**2.5**	**0.86**	**1.8**	**1.4**	-- -	**1.6**	**3**	**3**
Zinc	µg/L	1,100	**110**	<5.0	<5.0	<5.0	**6.7**	-- -	**110**	**26**	**26**
Polycyclic Aromatic Hydrocarbons											
Acenaphthene	µg/L	600	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Acenaphthylene	µg/L	1.8	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Anthracene	µg/L	2.4	<0.020	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(a)anthracene	µg/L	4.7	<0.020	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(a)pyrene	µg/L	0.81	<0.01	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(b&j)fluoranthene	µg/L	0.75	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(g,h,i)perylene	µg/L	0.2	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(k)fluoranthene	µg/L	0.4	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Chrysene	µg/L	1	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Dibenz(a,h)anthracene	µg/L	0.52	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Fluoranthene	µg/L	130	<0.020	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Fluorene	µg/L	400	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Indeno(1,2,3-cd)pyrene	µg/L	0.2	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1+2-Methylnaphthalenes	µg/L	1,800	**0.174**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1-Methylnaphthalene	µg/L	1,800	**0.066**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
2-Methylnaphthalene	µg/L	1,800	**0.109**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Naphthalene	µg/L	1,400	**0.074**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Phenanthrene	µg/L	580	**0.086**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Pyrene	µg/L	68	<0.020	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Anions and Nutrients											
Chloride	mg/L	2,300	**4,340**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Physical Tests											
Electrical Conductivity	mS/cm	--	**11.5**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
pH	pH units	--	**7.83**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Cyanides											
Cyanide, Weak Acid Diss	µg/L	66	<2.0	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -

Notes:

[1] Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition for all types of property uses and coarse textured soils from Soil, groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (MOECC, 2011) (Table 3 SCS).

[2] The Table 3 SCS apply to the total of cis-1,3-dichloropropene and trans-1,3-dichloropropene.

[3] The Table 3 SCS apply to the total of m+p-xylenes and o-xylene.

Bold - indicates constituent was detected greater than the analytical reporting limit

50 Associated value greater than Table 3 SCS; however, data not utilized as subsequent analytical data collected from this location

50 Associated value greater than Table 3 SCS; however, exemption under O.Reg. 153/04, Section 49.1, Paragraph 1 being relied upon and not a contaminant of concern

- - no Table 3 SCS available
-- - not analyzed
< - analyte was not detected at a concentration greater than the associated analytical reporting limit
µg/L - micrograms per litre
ID - identifier
m bgs - metres below ground surface
mg/L - milligrams per litre
mS/cm - milliSiemens per centimetre
QA/QC - quality assurance/quality control
SCS - site condition standard

Table 3
Groundwater Analytical Data
2625 Sheffield Road, Ottawa, Ontario

				2022 Geosyntec Phase Two ESA						
Report Source			**Maximum Concentrations**	MW101	MW102	MW103	MW104	MW106	MW10-3	MW22-1
Location				MW101	MW102-270522	MW103-270522	MW104	MW106-270522	MW10-3-270522	MW22-1
Sample ID				3-Jun-2022	27-May-2022	27-May-2022	3-Jun-2022	27-May-2022	27-May-2022	3-Jun-2022
Date Sampled				1.52 - 4.57	1.52 - 4.57	2.13 - 5.18	2.44 - 5.49	1.98 - 5.03	2.44 - 5.49	3.05 - 6.10
Screen Interval (m bgs)										
QA/QC										
Laboratory Sample ID				L2712428-1	L2710532-1	L2710532-2	L2712428-8	L2710532-7	L2710532-3	L2712428-2
	Units	***Table 3 SCS*** [1]								
Volatile Organic Compounds										
Acetone	µg/L	130,000	<30	<30	<30	<30	<30	<30	<30	<30
Benzene	µg/L	44	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	µg/L	85,000	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromoform	µg/L	380	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane	µg/L	5.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon tetrachloride	µg/L	0.79	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chlorobenzene	µg/L	630	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dibromochloromethane	µg/L	82,000	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chloroform	µg/L	2.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	µg/L	0.25	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichlorobenzene	µg/L	4,600	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	µg/L	9,600	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	µg/L	8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dichlorodifluoromethane	µg/L	4,400	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-Dichloroethane	µg/L	320	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	µg/L	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	µg/L	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,2-Dichloroethylene	µg/L	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
trans-1,2-Dichloroethylene	µg/L	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	µg/L	610	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	µg/L	16	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene[2]	µg/L	5.2	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
trans-1,3-Dichloropropene[2]	µg/L	5.2	<0.40	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
1,3-Dichloropropene (cis & trans)	µg/L	5.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	µg/L	2,300	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
n-Hexane	µg/L	51	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Methyl Ethyl Ketone	µg/L	470,000	<20	<20	<20	<20	<20	<20	<20	<20
Methyl Isobutyl Ketone	µg/L	140,000	<20	<20	<20	<20	<20	<20	<20	<20
MTBE	µg/L	190	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Styrene	µg/L	1,300	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	µg/L	3.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	µg/L	3.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethylene	µg/L	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	µg/L	18,000	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	µg/L	640	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	µg/L	4.7	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethylene	µg/L	1.6	<0.20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichlorofluoromethane	µg/L	2,500	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	µg/L	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
o-Xylene[3]	µg/L	4,200	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
m+p-Xylenes[3]	µg/L	4,200	<0.5	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Xylenes (Total)[3]	µg/L	4,200	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Petroleum Hydrocarbons										
F1 (C6-C10)	µg/L	750	<200	<25	<25	<25	<25	<25	<25	<25
F1-BTEX	µg/L	750	<25	<25	<25	<25	<25	<25	<25	<25
F2 (C10-C16)	µg/L	150	<100	<100	<100	<100	<100	<100	<100	<100
F2-Naphth	µg/L	--	<100	<100	-- -	-- -	<100	<100	<100	-- -
F3 (C16-C34)	µg/L	500	<250	<250	<250	<250	<250	<250	<250	<250
F3-PAH	µg/L	--	<250	<250	-- -	-- -	<250	<250	<250	-- -
F4 (C34-C50)	µg/L	500	<250	<250	<250	<250	<250	<250	<250	<250
Total Hydrocarbons (C6-C50)	µg/L	--	<370	<370	<370	<370	<370	<370	<370	<370
Dissolved Metals										
Antimony	µg/L	20,000	**26**	<1.0	-- -	-- -	<0.10	<1.0	<1.0	-- -
Arsenic	µg/L	1,900	**1.64**	<1.0	-- -	-- -	**1.64**	**1.3**	<1.0	-- -
Barium	µg/L	29,000	**1,000**	**254**	-- -	-- -	**84.5**	**101**	**125**	-- -
Beryllium	µg/L	67	<1.0	<1.0	-- -	-- -	<0.10	<1.0	<1.0	-- -
Boron (Total)	µg/L	45,000	**380**	<100	-- -	-- -	**71**	<100	<100	-- -
Cadmium	µg/L	2.7	**1.3**	**0.869**	-- -	-- -	<0.010	<0.050	**1.3**	-- -
Chromium	µg/L	810	<50	<5.0	-- -	-- -	<0.50	<5.0	<5.0	-- -
Chromium, Hexavalent	µg/L	140	<0.50	<0.50	-- -	-- -	<0.50	<0.50	<0.50	-- -
Cobalt	µg/L	66	**16.8**	**16.8**	-- -	-- -	<0.10	<1.0	**2.9**	-- -
Copper	µg/L	87	**49.2**	**49.2**	-- -	-- -	**3.23**	**2.9**	**3.3**	-- -
Lead	µg/L	25	**4.5**	**0.77**	-- -	-- -	<0.050	<0.50	<0.50	-- -
Mercury	µg/L	0.29	<0.10	<0.0050	-- -	-- -	<0.0050	<0.0050	<0.0050	-- -
Molybdenum	µg/L	9,200	**38**	**7.06**	-- -	-- -	**2.63**	**2.35**	**2.85**	-- -
Nickel	µg/L	490	**176**	**176**	-- -	-- -	**1.48**	**6.2**	**31.8**	-- -
Selenium	µg/L	63	<5	<0.50	-- -	-- -	**0.382**	<0.50	<0.50	-- -
Silver	µg/L	1.5	**2**	<0.50	-- -	-- -	<0.050	<0.50	<0.50	-- -
Sodium	µg/L	2,300,000	**2,110,000**	**2,110,000**	-- -	-- -	**28,900**	**421,000**	**862,000**	-- -
Thallium	µg/L	510	**0.078**	<0.10	-- -	-- -	<0.010	<0.10	<0.10	-- -
Uranium	µg/L	420	**9.0**	**2.91**	-- -	-- -	**1.41**	**0.58**	**1.49**	-- -
Vanadium	µg/L	250	**5.3**	**5.3**	-- -	-- -	**4.26**	<5.0	**5.1**	-- -
Zinc	µg/L	1,100	**110**	<10	-- -	-- -	**1.2**	<10	<10	-- -
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	µg/L	600	<0.05	<0.020	-- -	-- -	<0.020	<0.020	<0.020	-- -
Acenaphthylene	µg/L	1.8	<0.05	<0.020	-- -	-- -	<0.020	<0.020	<0.020	-- -
Anthracene	µg/L	2.4	<0.020	<0.020	-- -	-- -	<0.020	<0.020	<0.020	-- -
Benzo(a)anthracene	µg/L	4.7	<0.020	<0.020	-- -	-- -	<0.020	<0.020	<0.020	-- -
Benzo(a)pyrene	µg/L	0.81	<0.01	<0.010	-- -	-- -	<0.010	<0.010	<0.010	-- -
Benzo(b&j)fluoranthene	µg/L	0.75	<0.05	<0.020	-- -	-- -	<0.020	<0.020	<0.020	-- -
Benzo(g,h,i)perylene	µg/L	0.2	<0.05	<0.020	-- -	-- -	<0.020	<0.020	<0.020	-- -
Benzo(k)fluoranthene	µg/L	0.4	<0.05	<0.020	-- -	-- -	<0.020	<0.020	<0.020	-- -
Chrysene	µg/L	1	<0.05	<0.020	-- -	-- -	<0.020	<0.020	<0.020	-- -
Dibenz(a,h)anthracene	µg/L	0.52	<0.05	<0.020	-- -	-- -	<0.020	<0.020	<0.020	-- -
Fluoranthene	µg/L	130	<0.020	<0.020	-- -	-- -	<0.020	<0.020	<0.020	-- -
Fluorene	µg/L	400	<0.05	<0.020	-- -	-- -	<0.020	<0.020	<0.020	-- -
Indeno(1,2,3-cd)pyrene	µg/L	0.2	<0.05	<0.020	-- -	-- -	<0.020	<0.020	<0.020	-- -
1+2-Methylnaphthalenes	µg/L	1,800	**0.174**	<0.028	-- -	-- -	<0.028	<0.028	<0.028	-- -
1-Methylnaphthalene	µg/L	1,800	**0.066**	<0.020	-- -	-- -	<0.020	<0.020	<0.020	-- -
2-Methylnaphthalene	µg/L	1,800	**0.109**	<0.020	-- -	-- -	<0.020	<0.020	<0.020	-- -
Naphthalene	µg/L	1,400	**0.074**	<0.050	-- -	-- -	<0.050	<0.050	<0.050	-- -
Phenanthrene	µg/L	580	**0.086**	<0.020	-- -	-- -	<0.020	<0.020	<0.020	-- -
Pyrene	µg/L	68	<0.020	<0.020	-- -	-- -	<0.020	<0.020	<0.020	-- -
Anions and Nutrients										
Chloride	mg/L	2,300	**4,340**	**4,340**	-- -	-- -	**8.82**	**1,080**	**2,070**	-- -
Physical Tests										
Electrical Conductivity	mS/cm	--	**11.5**	**11.5**	-- -	-- -	**1.14**	**4.38**	**6.89**	-- -
pH	pH units	--	**7.83**	**7.73**	-- -	-- -	**7.61**	**7.83**	**7.72**	-- -
Cyanides										
Cyanide, Weak Acid Diss	µg/L	66	<2.0	<2.0	-- -	-- -	<2.0	<2.0	<2.0	-- -

Notes:

[1] Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition for all types of property uses and coarse textured soils from Soil, groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (MOECC, 2011) (Table 3 SCS).

[2] The Table 3 SCS apply to the total of cis-1,3-dichloropropene and trans-1,3-dichloropropene.

[3] The Table 3 SCS apply to the total of m+p-xylenes and o-xylene.

Bold - indicates constituent was detected greater than the analytical reporting limit

50 Associated value greater than Table 3 SCS; however, data not utilized as subsequent analytical data collected from this location

50 Associated value greater than Table 3 SCS; however, exemption under O.Reg. 153/04, Section 49.1, Paragraph 1 being relied upon and not a contaminant of concern

- - no Table 3 SCS available
-- - not analyzed
< - analyte was not detected at a concentration greater than the associated analytical reporting limit
µg/L - micrograms per litre
ID - identifier
m bgs - metres below ground surface
mg/L - milligrams per litre
mS/cm - milliSiemens per centimetre
QA/QC - quality assurance/quality control
SCS - site condition standard

Table 3
Groundwater Analytical Data
2625 Sheffield Road, Ottawa, Ontario

				2022 Geosyntec Phase Two ESA				
Report Source			**Maximum Concentrations**	MW22-2	MW22-2	MW22-4	MW22-5	MW22-5
Location				MW22-2	DUP02	MW22-4-270522	MW22-5-270522	DUP01-270522
Sample ID				3-Jun-2022	3-Jun-2022	27-May-2022	27-May-2022	27-May-2022
Date Sampled				1.52 - 4.57	1.52 - 4.57	1.52 - 4.57	3.05 - 6.10	3.05 - 6.10
Screen Interval (m bgs)					Duplicate			Duplicate
QA/QC								
Laboratory Sample ID				L2712428-3	L2712428-5	L2710532-8	L2710532-6	L2710532-4
	Units	***Table 3 SCS*** [1]						
Volatile Organic Compounds								
Acetone	µg/L	130,000	<30	<30	<30	<30	<30	<30
Benzene	µg/L	44	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	µg/L	85,000	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Bromoform	µg/L	380	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane	µg/L	5.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon tetrachloride	µg/L	0.79	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chlorobenzene	µg/L	630	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dibromochloromethane	µg/L	82,000	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Chloroform	µg/L	2.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	µg/L	0.25	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichlorobenzene	µg/L	4,600	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	µg/L	9,600	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	µg/L	8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dichlorodifluoromethane	µg/L	4,400	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-Dichloroethane	µg/L	320	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	µg/L	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	µg/L	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,2-Dichloroethylene	µg/L	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
trans-1,2-Dichloroethylene	µg/L	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	µg/L	610	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	µg/L	16	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene[2]	µg/L	5.2	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
trans-1,3-Dichloropropene[2]	µg/L	5.2	<0.40	<0.30	<0.30	<0.30	<0.30	<0.30
1,3-Dichloropropene (cis & trans)	µg/L	5.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	µg/L	2,300	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50
n-Hexane	µg/L	51	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
Methyl Ethyl Ketone	µg/L	470,000	<20	<20	<20	<20	<20	<20
Methyl Isobutyl Ketone	µg/L	140,000	<20	<20	<20	<20	<20	<20
MTBE	µg/L	190	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Styrene	µg/L	1,300	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	µg/L	3.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	µg/L	3.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethylene	µg/L	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	µg/L	18,000	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	µg/L	640	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	µg/L	4.7	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethylene	µg/L	1.6	<0.20	<0.50	<0.50	<0.50	<0.50	<0.50
Trichlorofluoromethane	µg/L	2,500	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	µg/L	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
o-Xylene[3]	µg/L	4,200	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
m+p-Xylenes[3]	µg/L	4,200	<0.5	<0.40	<0.40	<0.40	<0.40	<0.40
Xylenes (Total)[3]	µg/L	4,200	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
Petroleum Hydrocarbons								
F1 (C6-C10)	µg/L	750	<200	<25	<25	<25	<25	<25
F1-BTEX	µg/L	750	<25	<25	<25	<25	<25	<25
F2 (C10-C16)	µg/L	150	<100	<100	<100	<100	<100	<100
F2-Naphth	µg/L	--	<100	-- -	-- -	<100	<100	<100
F3 (C16-C34)	µg/L	500	<250	<250	<250	<250	<250	<250
F3-PAH	µg/L	--	<250	-- -	-- -	<250	<250	<250
F4 (C34-C50)	µg/L	500	<250	<250	<250	<250	<250	<250
Total Hydrocarbons (C6-C50)	µg/L	--	<370	<370	<370	<370	<370	<370
Dissolved Metals								
Antimony	µg/L	20,000	**26**	-- -	-- -	<1.0	<1.0	<1.0
Arsenic	µg/L	1,900	**1.64**	-- -	-- -	<1.0	<1.0	<1.0
Barium	µg/L	29,000	**1,000**	-- -	-- -	**82.6**	**292**	**306**
Beryllium	µg/L	67	<1.0	-- -	-- -	<1.0	<1.0	<1.0
Boron (Total)	µg/L	45,000	**380**	-- -	-- -	<100	<100	<100
Cadmium	µg/L	2.7	**1.3**	-- -	-- -	**0.084**	**0.094**	**0.067**
Chromium	µg/L	810	<50	-- -	-- -	<5.0	<5.0	<5.0
Chromium, Hexavalent	µg/L	140	<0.50	-- -	-- -	<0.50	<0.50	<0.50
Cobalt	µg/L	66	**16.8**	-- -	-- -	**8.6**	**4.8**	**5.3**
Copper	µg/L	87	**49.2**	-- -	-- -	<2.0	<2.0	<2.0
Lead	µg/L	25	**4.5**	-- -	-- -	<0.50	<0.50	<0.50
Mercury	µg/L	0.29	<0.10	-- -	-- -	<0.0050	<0.0050	<0.0050
Molybdenum	µg/L	9,200	**38**	-- -	-- -	**3.07**	**1.28**	**1.29**
Nickel	µg/L	490	**176**	-- -	-- -	**25.2**	**11.1**	**11.2**
Selenium	µg/L	63	<5	-- -	-- -	<0.50	<0.50	<0.50
Silver	µg/L	1.5	**2**	-- -	-- -	<0.50	<0.50	<0.50
Sodium	µg/L	2,300,000	**2,110,000**	-- -	-- -	**590,000**	**246,000**	**258,000**
Thallium	µg/L	510	**0.078**	-- -	-- -	<0.10	<0.10	<0.10
Uranium	µg/L	420	**9.0**	-- -	-- -	**4.44**	**2.89**	**3.13**
Vanadium	µg/L	250	**5.3**	-- -	-- -	<5.0	<5.0	<5.0
Zinc	µg/L	1,100	**110**	-- -	-- -	<10	<10	<10
Polycyclic Aromatic Hydrocarbons								
Acenaphthene	µg/L	600	<0.05	-- -	-- -	<0.020	<0.020	<0.020
Acenaphthylene	µg/L	1.8	<0.05	-- -	-- -	<0.020	<0.020	<0.020
Anthracene	µg/L	2.4	<0.020	-- -	-- -	<0.020	<0.020	<0.020
Benzo(a)anthracene	µg/L	4.7	<0.020	-- -	-- -	<0.020	<0.020	<0.020
Benzo(a)pyrene	µg/L	0.81	<0.01	-- -	-- -	<0.010	<0.010	<0.010
Benzo(b&j)fluoranthene	µg/L	0.75	<0.05	-- -	-- -	<0.020	<0.020	<0.020
Benzo(g,h,i)perylene	µg/L	0.2	<0.05	-- -	-- -	<0.020	<0.020	<0.020
Benzo(k)fluoranthene	µg/L	0.4	<0.05	-- -	-- -	<0.020	<0.020	<0.020
Chrysene	µg/L	1	<0.05	-- -	-- -	<0.020	<0.020	<0.020
Dibenz(a,h)anthracene	µg/L	0.52	<0.05	-- -	-- -	<0.020	<0.020	<0.020
Fluoranthene	µg/L	130	<0.020	-- -	-- -	<0.020	<0.020	<0.020
Fluorene	µg/L	400	<0.05	-- -	-- -	<0.020	<0.020	<0.020
Indeno(1,2,3-cd)pyrene	µg/L	0.2	<0.05	-- -	-- -	<0.020	<0.020	<0.020
1+2-Methylnaphthalenes	µg/L	1,800	**0.174**	-- -	-- -	<0.028	**0.173**	**0.174**
1-Methylnaphthalene	µg/L	1,800	**0.066**	-- -	-- -	<0.020	**0.066**	**0.065**
2-Methylnaphthalene	µg/L	1,800	**0.109**	-- -	-- -	<0.020	**0.107**	**0.109**
Naphthalene	µg/L	1,400	**0.074**	-- -	-- -	<0.050	**0.074**	**0.07**
Phenanthrene	µg/L	580	**0.086**	-- -	-- -	<0.020	**0.085**	**0.086**
Pyrene	µg/L	68	<0.020	-- -	-- -	<0.020	<0.020	<0.020
Anions and Nutrients								
Chloride	mg/L	2,300	**4,340**	-- -	-- -	**1,210**	**965**	**1,020**
Physical Tests								
Electrical Conductivity	mS/cm	--	**11.5**	-- -	-- -	**5.35**	**3.84**	**3.85**
pH	pH units	--	**7.83**	-- -	-- -	**7.14**	**7.21**	**7.3**
Cyanides								
Cyanide, Weak Acid Diss	µg/L	66	<2.0	-- -	-- -	<2.0	<2.0	<2.0

Notes:

[1] Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition for all types of property uses and coarse textured soils from Soil, groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (MOECC, 2011) (Table 3 SCS).

[2] The Table 3 SCS apply to the total of cis-1,3-dichloropropene and trans-1,3-dichloropropene.

[3] The Table 3 SCS apply to the total of m+p-xylenes and o-xylene.

Bold - indicates constituent was detected greater than the analytical reporting limit

50 Associated value greater than Table 3 SCS; however, data not utilized as subsequent analytical data collected from this location

50 Associated value greater than Table 3 SCS; however, exemption under O.Reg. 153/04, Section 49.1, Paragraph 1 being relied upon and not a contaminant of concern

- - no Table 3 SCS available
-- - not analyzed
< - analyte was not detected at a concentration greater than the associated analytical reporting limit
µg/L - micrograms per litre
ID - identifier
m bgs - metres below ground surface
mg/L - milligrams per litre
mS/cm - milliSiemens per centimetre
QA/QC - quality assurance/quality control
SCS - site condition standard

Table 4
Sub-slab Vapour Analytical Data
2625 Sheffield Road, Ottawa, Ontario

					2020 Geosyntec Limited ESA							2022 Geosyntec Ph Two ESA				
Report Source																
Location ID				Maximum Concentrations	SSV-01	SSV-02	SSV-04	SSV-05	SSV-06	SSV-07	SSV-08	SSV-09	SSV-10	SSV-11	SSV-12	SSV-13
Sample ID					SSV-01-20201008	SSV-02-20201008	SSV-04-20201008	SSV-05-20201008	SSV-06-20201008	SSV-07-20201008	SSV-08-20201008	SSV-09-20220526	SSV-10-20220526	SSV-11-20220526	SSV-12-20220526	SSV-13-20220526
Date Sampled (dd-mmm-yyyy)					8-Oct-20	8-Oct-20	8-Oct-20	8-Oct-20	8-Oct-20	8-Oct-20	8-Oct-20	26-May-22	26-May-22	26-May-22	26-May-22	26-May-22
Lab Sample ID					L2515127-1	L2515127-2	L2515127-3	L2515127-4	L2515127-5	L2515127-6	L2515127-7	L2710626-1	L2710626-2	L2710626-3	L2710626-4	L2710626-5
	Units	*CAS*	*MECP Screening Level*[1,2]													
Volatile Organic Compounds																
1,1,1-Trichloroethane	µg/m³	71-55-6	180,000	**3.1**	<1.1	**2.5**	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	**3.1**	<1.1	<1.1	<27
1,1,2,2-Tetrachloroethane	µg/m³	79-34-5	15	<34	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<1.4	<1.4	<1.4	<1.4	<34
1,1,2-Trichloroethane	µg/m³	79-00-5	56	<27	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<1.1	<1.1	<1.1	<1.1	<27
1,1-Dichloroethane	µg/m³	75-34-3	29,000	<20	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<20
1,1-Dichloroethene	µg/m³	75-35-4	36,000	**10**	<0.79	<0.79	<0.79	<0.79	**10**	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<20
1,2,4-Trichlorobenzene	µg/m³	120-82-1	1,400	<37	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<37
1,2,4-Trimethylbenzene	µg/m³	95-63-6	--	**85.1**	**26.7**	<0.98	**1.4**	**1.6**	**85.1**	<0.98	<0.98	**1.29**	**1.08**	**1.86**	**3.68**	**37**
1,2-Dibromoethane	µg/m³	106-93-4	1.50	<38	<0.077	<0.077	<0.077	<0.077	<0.077	<0.077	<0.077	<1.5	<1.5	<1.5	<1.5	<38
1,2-Dichlorobenzene	µg/m³	95-50-1	110,000	<30	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<30
1,2-Dichloroethane	µg/m³	107-06-2	34	**196**	<0.040	<0.040	<0.040	<0.040	**188**	<0.040	<0.040	<0.81	<0.81	<0.81	<0.81	**196**
1,2-Dichloropropane	µg/m³	78-87-5	720	<23	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.92	<0.92	<0.92	<0.92	<23
1,3,5-Trimethylbenzene	µg/m³	108-67-8	--	**45.3**	**6.8**	<0.98	**1.0**	**1.3**	**45.3**	<0.98	<0.98	<0.98	<0.98	<0.98	**1.23**	<24
1,3-Butadiene	µg/m³	106-99-0	--	**3.6**	<0.22	<0.22	**1.5**	**0.39**	**3.62**	<0.22	<0.22	<0.44	<0.44	<0.44	<0.44	<21
1,3-Dichlorobenzene	µg/m³	541-73-1	--	<30	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<30
1,4-Dichlorobenzene	µg/m³	106-46-7	220	**0.61**	**0.18**	<0.12	**0.14**	**0.4**	<0.12	<0.12	**0.61**	<1.2	<1.2	<1.2	<1.2	<30
1,4-Dioxane	µg/m³	123-91-1	640,000	**5.9**	<0.72	**1.44**	<0.72	<0.72	**3.00**	<0.72	**2.09**	<0.72	**5.88**	<0.72	<0.72	<18
2-Hexanone	µg/m³	591-78-6	--	<100	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<100
4-Ethyltoluene	µg/m³	622-96-8	--	**14.7**	**3.41**	<0.98	<0.98	<0.98	**14.7**	<0.98	<0.98	<0.98	<0.98	<0.98	**1.02**	<24
Acetone	µg/m³	67-64-1	2,100,000	**2,100.0**	**300**	**19.7**	**132**	**91.2**	**730**	**97.2**	**101**	**94**	**73**	**39**	**96**	**2,100**
Allyl chloride	µg/m³	107-05-1	--	<16	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<16
Benzene	µg/m³	71-43-2	410	**94.2**	**3.1**	**1.2**	**9.5**	**19.9**	**50.6**	**0.8**	**0.3**	**4.64**	**2.61**	**4.26**	**1.99**	**94.2**
Benzyl chloride	µg/m³	100-44-7	--	<26	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<26
Bromodichloromethane	µg/m³	75-27-4	--	**6.1**	<0.67	**6.1**	<0.67	<0.67	<0.67	<0.67	<0.67	<1.3	<1.3	<1.3	<1.3	<33
Bromoform	µg/m³	75-25-2	--	**0.4**	<0.21	<0.21	<0.21	<0.21	**0.39**	<0.21	<0.21	<2.1	<2.1	<2.1	<2.1	<51
Bromomethane	µg/m³	74-83-9	890	<19	<0.78	<0.78	<0.78	<0.78	<0.78	<0.78	<0.78	<0.78	<0.78	<0.78	<0.78	<19
Carbon Disulfide	µg/m³	75-15-0	--	**7.2**	**2.03**	**4.05**	**7.15**	**5.86**	**5.32**	<0.62	**0.74**	**6.4**	**3.7**	**1.8**	<1.6	<39
Carbon Tetrachloride	µg/m³	56-23-5	360	**0.7**	**0.18**	**0.27**	**0.21**	**0.20**	**0.56**	**0.65**	**0.31**	<1.3	<1.3	<1.3	<1.3	<31
Chlorobenzene	µg/m³	108-90-7	180,000	<31	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92	<23
Chloroethane	µg/m³	75-00-3	--	**17.7**	<0.53	<0.53	<0.53	<0.53	**17.7**	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<2,900
Chloroform	µg/m³	67-66-3	18,000	**610.0**	**5.41**	**610**	<0.098	**0.114**	**2.98**	**11.3**	**2.2**	<0.98	<0.98	<0.98	<0.98	<24
Chloromethane	µg/m³	74-87-3	--	<740,000	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<740,000
cis-1,2-Dichloroethene	µg/m³	156-59-2	27,000	<20	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<20
cis-1,3-Dichloropropene	µg/m³	10061-01-5	220	<23	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.91	<0.91	<0.91	<0.91	<23
Cyclohexane	µg/m³	110-82-7	--	**52.0**	**2.71**	**1.34**	**13.3**	**14.1**	**48.1**	<0.69	<0.69	**4.1**	**2.6**	**2.05**	**3.79**	**52**
Dibromochloromethane	µg/m³	124-48-1	--	<42	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<42
Dichlorodifluoromethane	µg/m³	75-71-8	--	**47,000**	**2.67**	**2.33**	**2.37**	**3.09**	**6,170**	**2.34**	**2.51**	**2.7**	**3.05**	**3.34**	**4.83**	**47,000**
Ethyl acetate	µg/m³	141-78-6	--	**0.8**	<0.72	<0.72	<0.72	<0.72	<0.72	<0.72	<0.72	<0.72	<0.72	<0.72	**0.82**	<18
Ethylbenzene	µg/m³	100-41-4	360,000	**39.3**	**18.2**	<0.87	**1.51**	**2.81**	**39.3**	**0.88**	<0.87	**1.23**	**0.95**	**1.21**	**1.26**	**35**
Freon 113	µg/m³	76-13-1	--	<38	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<38
Freon 114	µg/m³	76-14-2	--	**5.9**	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	**5.9**	<1.4	<1.4	<1.4	**3.1**	<260,000
Hexachlorobutadiene	µg/m³	87-68-3	41	<53	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<2.1	<2.1	<2.1	<2.1	<53
Isooctane	µg/m³	540-84-1	--	**37.0**	<0.93	<0.93	<0.93	<0.93	**3.84**	<0.93	<0.93	**1.41**	<0.93	**1.39**	<0.93	**37**
Isopropylbenzene	µg/m³	98-82-8	--	<24	**--**	-- -	-- -	-- -	-- -	-- -	-- -	<0.98	<0.98	<0.98	<0.98	<24
m&p-Xylene[3]	µg/m³	108-38-3	130,000	**100**	**100**	**4.3**	**8.1**	**13.7**	**53.9**	**4.7**	<1.7	**5.1**	**4.5**	**5.2**	**5.4**	**54**
Methyl ethyl ketone	µg/m³	78-93-3	250,000	**59**	**37.9**	**5.6**	**11.5**	**12.5**	**29.6**	**6.9**	**8.5**	**17**	**7.57**	**8.56**	**5.33**	**59**
Methyl isobutyl ketone	µg/m³	108-10-1	150,000	**2.9**	**2.8**	<0.82	**1.1**	<0.82	**1.4**	<0.82	**2.9**	<0.82	<0.82	<0.82	<0.82	<20
Methylene chloride	µg/m³	75-09-2	39,000	**1.5**	<0.69	<0.69	<0.69	<0.69	**1.47**	<0.69	<0.69	<0.69	<0.69	<0.69	<0.69	<17
Methyl tert butyl ether (MTBE)	µg/m³	1634-04-4	3,400	<18	<0.72	<0.72	<0.72	<0.72	<0.72	<0.72	<0.72	<0.72	<0.72	<0.72	<0.72	<18
Naphthalene	µg/m³	91-20-3	660	<26								<1.0	<1.0	<1.0	<1.0	<26
n-Heptane	µg/m³	142-82-5	--	**180**	**6.1**	**2.4**	**27.9**	**39.3**	**180**	**4.8**	<0.82	**5.05**	**3.75**	**5.71**	**12.6**	<160
n-Hexane	µg/m³	110-54-3	450,000	**303**	**8.4**	**3.42**	**38.8**	**47.7**	**303**	**3.5**	<0.70	**8.97**	**8.27**	**5.89**	**12.9**	**224**
o-Xylene[3]	µg/m³	95-47-6	130,000	**44**	**44**	**1.0**	**2.4**	**3.5**	**35.2**	**1.1**	<0.87	**1.32**	**1.3**	**1.47**	**1.35**	<22
Propylene	µg/m³	115-07-1	--	<350	<0.34	<0.34	<52.6	<40.5	<49.4	<0.34	<0.34	<16	<5.9	<2.4	<7.1	<350
Styrene	µg/m³	100-42-5	46,000	**1,110**	<0.85	<0.85	<0.85	<0.85	-- -	<0.85	<0.85	<0.85	<0.85	<0.85	<0.85	**1,110**
Tetrachloroethylene	µg/m³	127-18-4	3,400	**820**	**820**	**259**	**68.4**	**8.6**	**1.6**	**6.2**	**4.7**	**170**	**17.4**	**15**	**14**	<34
Tetrahydrofuran	µg/m³	109-99-9	--	**5.9**	**2.18**	<0.59	**4.52**	**2.14**	**5.91**	**0.91**	**3.11**	<0.59	<0.59	<0.59	<0.59	<15
Toluene	µg/m³	108-88-3	890,000	**277**	**16.3**	**6.48**	**25.1**	**36.1**	**246**	**9.09**	**1.79**	**13.1**	**13.2**	**15**	**9.4**	**277**
trans-1,2-Dichloroethene	µg/m³	156-60-5	11,000	<20	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<20
trans-1,3-Dichloropropene	µg/m³	10061-02-6	220	<23	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.91	<0.91	<0.91	<0.91	<23
Trichloroethylene	µg/m³	79-01-6	220	**106**	**106**	**2.98**	**0.18**	**0.20**	**1.79**	**0.24**	<0.11	<1.1	<1.1	<1.1	<1.1	<27
Trichlorofluoromethane	µg/m³	75-69-4	--	**140**	**3**	**17.8**	**4.5**	**22.9**	**30.5**	**4.2**	**4.3**	**8.1**	**11**	**5.4**	**29.7**	**140**
Vinyl acetate	µg/m³	108-05-4	--	**2.7**	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	**2.7**	<1.8	<1.8	<1.8	<44
Vinyl bromide	µg/m³	593-60-2	--	<22	<0.87	<0.87	<0.87	<0.87	<0.87	<0.87	<0.87	<0.87	<0.87	<0.87	<0.87	<22
Vinyl chloride	µg/m3	75-01-4	100	<1,600	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.51	<0.51	<0.51	<0.51	<1,600
Xylene (total)	µg/m3	1330-20-7	130,000	**54**	--	--	--	--	--	--	--	**6.4**	**5.8**	**6.7**	**6.8**	**54**
PHC Aliphatic/Aromatic Fractionation																
F1 (C6-C10)	µg/m³	PHCF1	2,100,000	**31,800**	--	--	--	--	--	--	--	**347**	**198**	**244**	**362**	**31,800**
F1-BTEX	µg/m³	PHCF1 - BTEX	2,100,000	**31,400**	--	--	--	--	--	--	--	**322**	**175**	**217**	**343**	**31,400**
Aliphatic C6-C8	µg/m³	PHCAL0608	8,200,000	**31,500**	--	--	--	--	--	--	--	**134**	**128**	**156**	**199**	**31,500**
Aliphatic C>8-C10	µg/m³	PHCAL0810	450,000	**2,910**	--	--	--	--	--	--	--	**221**	**74**	**90**	**172**	**2,910**
Aromatic C>8-C10	µg/m³	PHCAR0810	89,000	**990**	--	--	--	--	--	--	--	<15	<15	<15	**20**	**990**
F2 (C10-C16)	µg/m³	PHCF2	400,000	**3,880**	--	--	--	--	--	--	--	**201**	**648**	**299**	**311**	**3,880**
F2-Naphthalene	µg/m³	PHCF2 - Naphth	400,000	**3,880**	--	--	--	--	--	--	--	**201**	**648**	**299**	**311**	**3,880**
Aliphatic C>10-C12	µg/m³	PHCAL1012	450,000	**2,380**	--	--	--	--	--	--	--	**71**	**128**	**109**	**139**	**2,380**
Aliphatic C>12-C16	µg/m³	PHCAL1216	450,000	**760**	--	--	--	--	--	--	--	**90**	**418**	**130**	**95**	**760**
Aromatic C>10-C12	µg/m³	PHCAR1012	89,000	<370	--	--	--	--	--	--	--	<15	<15	<15	<15	<370
Aromatic C>12-C16	µg/m³	PHCAR1216	89,000	<740	--	--	--	--	--	--	--	<30	<30	<30	<30	<740

Notes:
Sub-slab vapor samples were analyzed for VOCs by US EPA Method TO-15 in 2020 and 2022.
Sub-slab vapor samples were analyzed for aliphatic/aromatic fractionation by US EPA Method TO-15 and Atlantic Risk-Based Corrective Action (RBCA) in 2022.
Detected concentrations are **bold**.

[1]MECP screening levels for soil vapor calculated using the following equation: $C_{sv} = C_{airT} / \alpha v$ from MECP (2021) "(Draft) Technical Guidance For Soil Vapour Intrusion Assessment", (PIBS # 8477), and rounded to two significant figures.

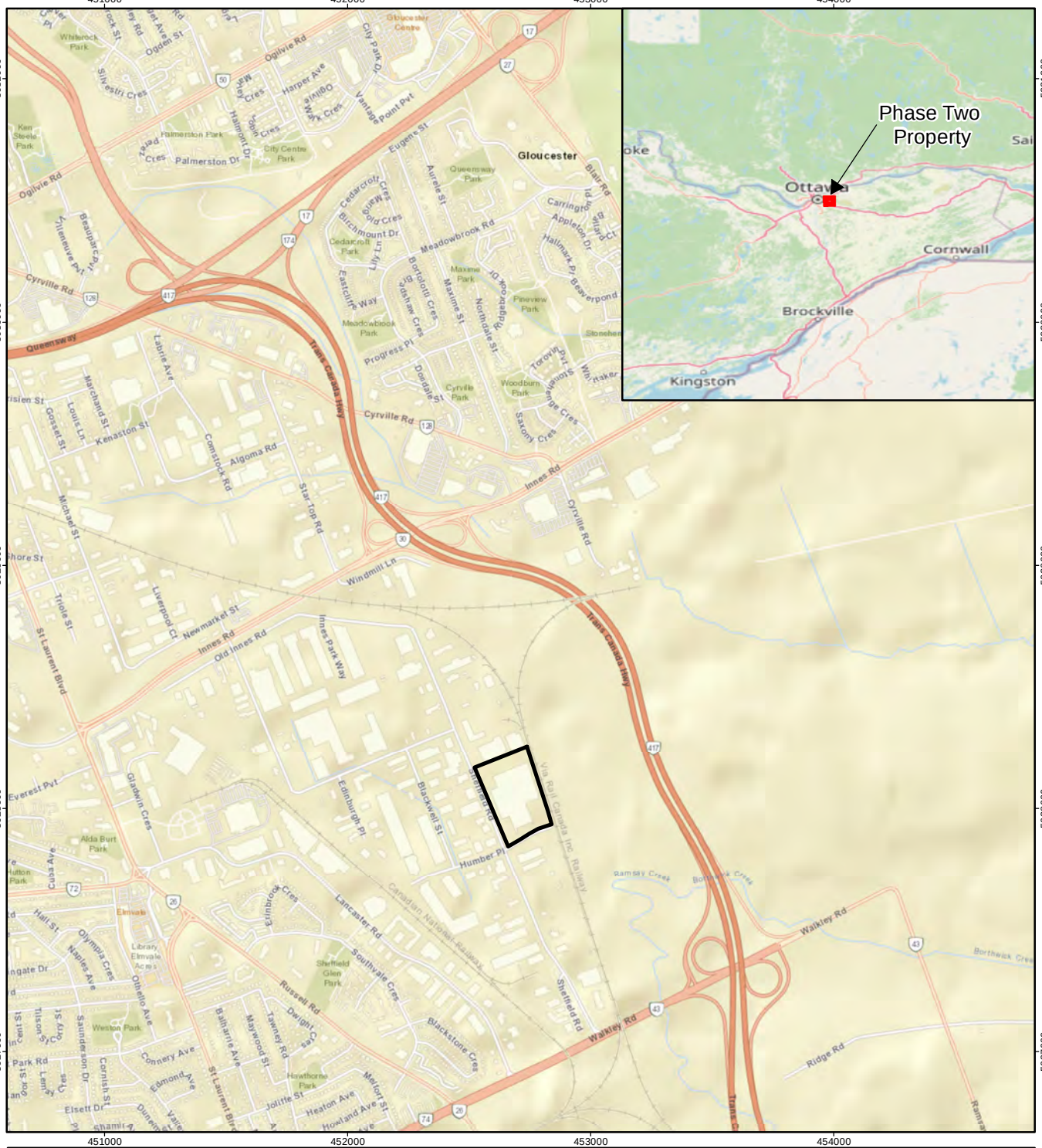
Where: Csv = industrial/commercial soil vapor screening level
CairT = industrial/commercial HBIAC
α = industrial/commercial attenuation factor (0.004)

[2]All HBIAC values used in the calculation of the soil vapor screening levels were from "Modified Generic Risk Assessment 'Approved Model' November 2016", MECP (PIBS # 8450e) for industrial/commercial non-potable groundwater condition, updated with toxicity reference values from MECP (2020) "Human Health Toxicity Reference Values (TRVs) Selected for Use at Contaminated Sites in Ontario".

[3]Risk-based screening level provided for Xylene mixture.

HBIAC = Health Based Indoor Air Criteria
MECP = Ontario Ministry of Environment, Conservation, and Parks, (Previously Ministry of Environment [MOE], and Ministry of Environment and Climate Change [MOECC])
VOCs = Volatile Organic Compounds
US EPA = United States Environmental Protection Agency
µg/m³ = Micrograms per cubic meter
-- = Screening level not available
"<" = Compound not detected above laboratory reporting limit shown.
50 Detected concentration is greater than MECP Industrial/Commercial SVSL.

FIGURES



Legend:

Phase Two Property

FIGURE 1

PHASE TWO PROPERTY LOCATION MAP

2625 SHEFFIELD ROAD,
OTTAWA, ON

Notes:
1) Map Projection: NAD 1983 UTM Zone 18N
2) Data Source Credits
3) Service Layer Credits
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Sources: Esri, HERE, Garmin, USGS,

OFFICE LOCATION: SEATTLE		REVISION: 00	Geosyntec consultants
DATE PLOTTED: 12-Oct-2022	DATE REVISED: 12-Oct-2022	REVIEWED: PH	
APPROX. SCALE: 1:24,000	PAGE SIZE: 8.5 x 11 in	CHECKED: BW	TRUE NORTH
		DRAWN: MVI	0 250 500 750 m

P:\CAD_GIS\Projects\Hazelt\920 GIS\TR841C8D1_Ottawa\MXDs\Revisions\100522\Phase II\Figure 1 Site Location Map.mxd

Diesel Exhaust Fluid Tank
BH204
BH/MW101
BH206
MW10-6
MW10-5
MW10-4
Oil/Water Separator
BH203
BH107
BH201
BH/MW102
MW10-3
Doors 1-34
BH202
BH205
Compressor room
SV-02
BH/MW103
Boiler/Furnace Room
BH208
SV-01
BH207
UST fill and vent pipes
Electrical Vault
SV-04
SV-08
Former Battery Bay
Office
SV-03
BH/MW104
Former Forklift
Repair Area
Sheffield Road
Site Building
SV-07
SV-05
Historical Building
Rail Line
Doors 37-44
BH10-2
SV-06
BH108
Area of 2011 Fire
Former Meat Office
BH/MW105
BH/MW106
Doors 45-62
Humber Place
(Formerly Leeds Avenue)
5028000
5028000

Notes:
Locations are approximate.
L = Litre
AST = Aboveground Storage Tank
UST = Underground Storage Tank

Legend:

- Borehole/Monitoring Well (EXP, 2020)
- Borehole (EXP, 2020)
- Sub-Slab Vapour Sample Location (Geosyntec, 2020)
- Borehole/Monitoring Well (Trow, 2010)
- Borehole (Trow, 2010)
- Former Rail Spur
- Phase Two Property
- Approximate area of 335 L diesel spill
- Approximate 10,000-gallon UST location
- Current on-Site diesel fueling area (incl. two USTs and one AST)
- Oil/Water Separator and Former Truck Repair Garage
- Approximate location of former waste oil and new oil USTs
- Historical Building Footprint

Notes:
1) Map Projection: NAD 1983 UTM Zone 18N
2) Data Source Credits
3) Service Layer Credits
4) Imagery Credits: © 2022 Microsoft Corporation © 2022 Maxar ©CNES (2022) Distribution Airbus DS

FIGURE 2

PHASE TWO PROPERTY LAYOUT MAP

2625 SHEFFIELD ROAD,
OTTAWA, ON

OFFICE LOCATION: SEATTLE		REVISION: 00	Geosyntec consultants
DATE PLOTTED: 06-Oct-2022	DATE REVISED: 06-Oct-2022	REVIEWED: PH	
APPROX. SCALE: 1:1,427	PAGE SIZE: 11 x 17 in	CHECKED: BW	TRUE NORTH; 0 10 20 30 m
		DRAWN: MVI	

P:\CAD_GIS\Projects\Hazel\920 GIS\TR841C8D1_Ottawa\MXDs\Revisions\10522\Phase II\Figure 2 Site Layout Map.mxd

Legend:

- Phase Two Property
- Phase One Study Area (250 metres from Phase Two Property Boundary)

Notes:
Locations are approximate.
MTI - Multi-tenant industrial
MTC - Multi-tenant commercial

Notes:
1) Map Projection: NAD 1983 UTM Zone 18N
2) Data Source Credits
3) Service Layer Credits
4) Imagery Credits: © 2022 Microsoft Corporation © 2022 Maxar ©CNES (2022) Distribution Airbus DS

FIGURE 3

PHASE ONE STUDY AREA

2625 SHEFFIELD ROAD,
OTTAWA, ON

OFFICE LOCATION: SEATTLE		REVISION: 00	Geosyntec consultants
DATE PLOTTED: 05-Oct-2022	DATE REVISED: 05-Oct-2022	REVIEWED: PH	
		CHECKED: BW	TRUE NORTH
APPROX. SCALE: 1:3,521	PAGE SIZE: 11 x 17 in	DRAWN: MVI	0 25 50 75 100 m

P:\CAD_GIS\Projects\Hazel\920 GIS\TR841C8D1_Ottawa\MXDs\Revisions\100522\Figure 3 Study Area Map.mxd

Legend:

- Phase Two Property
- Phase One Study Area (250 metres from Phase Two Property Boundary)

A — PCA that contributes to an APEC at the Phase Two Property

B — PCA that does not contribute to an APEC at the Phase Two Property

Notes:
Locations are approximate.
MTI - Multi-tenant industrial
MTC - Multi-tenant commercial
PCA - Potentially Contaminating Activity
APEC - Area of Potential Environmental Concern

Notes:
1) Map Projection: NAD 1983 UTM Zone 18N
2) Data Source Credits
3) Service Layer Credits
4) Imagery Credits: © 2022 Microsoft Corporation © 2022 Maxar ©CNES (2022) Distribution Airbus DS

FIGURE 4

POTENTIALLY CONTAMINATING ACTIVITIES

2625 SHEFFIELD ROAD,
OTTAWA, ON

OFFICE LOCATION: SEATTLE		REVISION: 00	Geosyntec consultants
DATE PLOTTED: 05-Oct-2022	DATE REVISED: 05-Oct-2022	REVIEWED: PH	
APPROX. SCALE: 1:3,521	PAGE SIZE: 11 x 17 in	CHECKED: BW	TRUE NORTH
		DRAWN: MVI	0 25 50 75 100 m

P:\CAD_GIS\Projects\Hazel\920 GIS\TR\841C8D1_Ottawa\MXDs\Revisions\100522\Figure 4 PCA Map.mxd

Notes:
Locations are approximate.
AST = Aboveground Storage Tank
UST = Underground Storage Tank
APEC = Area of Potential Environmental Concern

APEC	Description
APEC #1	Fill material of unknown quality
APEC #2	Private fuel outlet with two USTs installed in 1978
APEC #3	Former truck repair and maintenance activities
APEC #4A	Former waste oil and supply oil USTs installed in 1976 and removed in 1999
APEC #4B	Material of unknown quality used to backfill the former waste oil and supply oil USTs in 1999
APEC #5A	Two former 10,000-gallon heating oil USTs
APEC #5B	Material of unknown quality used to backfill the former heating oil USTs
APEC #6	Former rail spurs
APEC #7	Material of unknown quality used to backfill the former building
APEC #8	Forklift battery washing and storage activities
APEC #9	Chemicals/wastes stored in the forklift repair area
APEC #10	On-Site fire that occurred in 2011
APEC #11	On-Site diesel spill that occurred in 2021
APEC #12A	Former dry cleaning operations to the north of the Phase One Property at 2575 Sheffield Road
APEC #12B	Current and former end of life vehicle waste disposal site operations to the north of the Phase One Property at 2575 Sheffield Road
APEC #13	Current railway on the adjoining lands to the east of the Phase One Property
APEC #14A	Current metal fabrication operations to the south of the Phase One Property at 1350 Humber Place
APEC #14B	Former waste processing facility to the south of the Phase One Property at 1350 Humber Place
APEC #15	Current and/or former electronics manufacturing operations to the northwest of the Phase One Property at 2574 Sheffield Road
APEC #16A	Former metal plating operations to the west of the Phase One Property at 2590 Sheffield Road
APEC #16B	Former metal fabrication operations to the west of the Phase One Property at 2590 Sheffield Road
APEC #17	Current and/or former automotive repair operations to the west of the Phase One Property at 2600-2616 Sheffield Road and 1325 Humber Place
APEC #18	Current and/or former commercial trucking operations to the west of the Phase One Property at 2612 and 2660 Sheffield Road
APEC #19	Current and/or former commercial printing operations to the west of the Phase One Property at 1335 Humber Place
APEC #20A	Former dry cleaning operations to the west of the Phase One Property at 2616 Sheffield Road
APEC #20B	Former textile restoration operations to the west of the Phase One Property at 2616 Sheffield Road
APEC #20C	Current and former organic waste processing and transfer facility operations to the west of the Phase One Property at 2612 Sheffield Road

Legend:

- Borehole/Monitoring Well (EXP, 2020)
- Borehole (EXP, 2020)
- Sub-Slab Vapour Sample Location (Geosyntec, 2020)
- Borehole/Monitoring Well (Trow, 2010)
- Borehole (Trow, 2010)
- Phase Two Property
- Former Rail Spur

Notes:
1) Map Projection: NAD 1983 UTM Zone 18N
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3) Service Layer Credits
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FIGURE 5

AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

2625 SHEFFIELD ROAD,
OTTAWA, ON

OFFICE LOCATION: SEATTLE		REVISION: 00	Geosyntec consultants
DATE PLOTTED: 06-Oct-2022	DATE REVISED: 06-Oct-2022	REVIEWED: PH	
APPROX. SCALE: 1:1,500	PAGE SIZE: 11 x 17 in	CHECKED: BW	TRUE NORTH
		DRAWN: MVI	0 10 20 30 m

P:\CAD_GIS\Projects\Hazard\920 GIS\TR841C8D1_Ottawa\MXDs\Revisions100522\Figure 5 APEC Map.mxd

APEC	Description
APEC #1	Fill material of unknown quality
APEC #2	Private fuel outlet with two USTs installed in 1978
APEC #3	Former truck repair and maintenance activities
APEC #4A	Former waste oil and supply oil USTs installed in 1976 and removed in 1999
APEC #4B	Material of unknown quality used to backfill the former waste oil and supply oil USTs in 1999
APEC #5A	Two former 10,000-gallon heating oil USTs
APEC #5B	Material of unknown quality used to backfill the former heating oil USTs
APEC #6	Former rail spurs
APEC #7	Material of unknown quality used to backfill the former building
APEC #8	Forklift battery washing and storage activities
APEC #9	Chemicals/wastes stored in the forklift repair area
APEC #10	On-Site fire that occurred in 2011
APEC #11	On-Site diesel spill that occurred in 2021
APEC #12A	Former dry cleaning operations to the north of the Phase One Property at 2575 Sheffield Road
APEC #12B	Current and former end of life vehicle waste disposal site operations to the north of the Phase One Property at 2575 Sheffield Road
APEC #13	Current railway on the adjoining lands to the east of the Phase One Property
APEC #14A	Current metal fabrication operations to the south of the Phase One Property at 1350 Humber Place
APEC #14B	Former waste processing facility to the south of the Phase One Property at 1350 Humber Place
APEC #15	Current and/or former electronics manufacturing operations to the northwest of the Phase One Property at 2574 Sheffield Road
APEC #16A	Former metal plating operations to the west of the Phase One Property at 2590 Sheffield Road
APEC #16B	Former metal fabrication operations to the west of the Phase One Property at 2590 Sheffield Road
APEC #17	Current and/or former automotive repair operations to the west of the Phase One Property at 2600-2616 Sheffield Road and 1325 Humber Place
APEC #18	Current and/or former commercial trucking operations to the west of the Phase One Property at 2612 and 2660 Sheffield Road
APEC #19	Current and/or former commercial printing operations to the west of the Phase One Property at 1335 Humber Place
APEC #20A	Former dry cleaning operations to the west of the Phase One Property at 2616 Sheffield Road
APEC #20B	Former textile restoration operations to the west of the Phase One Property at 2616 Sheffield Road
APEC #20C	Current and former organic waste processing and transfer facility operations to the west of the Phase One Property at 2612 Sheffield Road

Notes:
Locations are approximate.
* denotes Monitoring Well Not Sampled during Phase Two ESA (Inaccessible or Damaged)
AST = Aboveground Storage Tank
UST = Underground Storage Tank
APEC = Area of Potential Environmental Concern

Legend:
- Soil Boring (AECOM, 2021)
- Borehole/Monitoring Well (EXP, 2020)
- Borehole (EXP, 2020)
- Borehole/Monitoring Well (Trow, 2010)
- Borehole (Trow.2010)
- Monitoring Well Location (Geosyntec, 2022)
- Borehole Location (Geosyntec, 2022)
- Former Rail Spur
- Phase Two Property

Notes:
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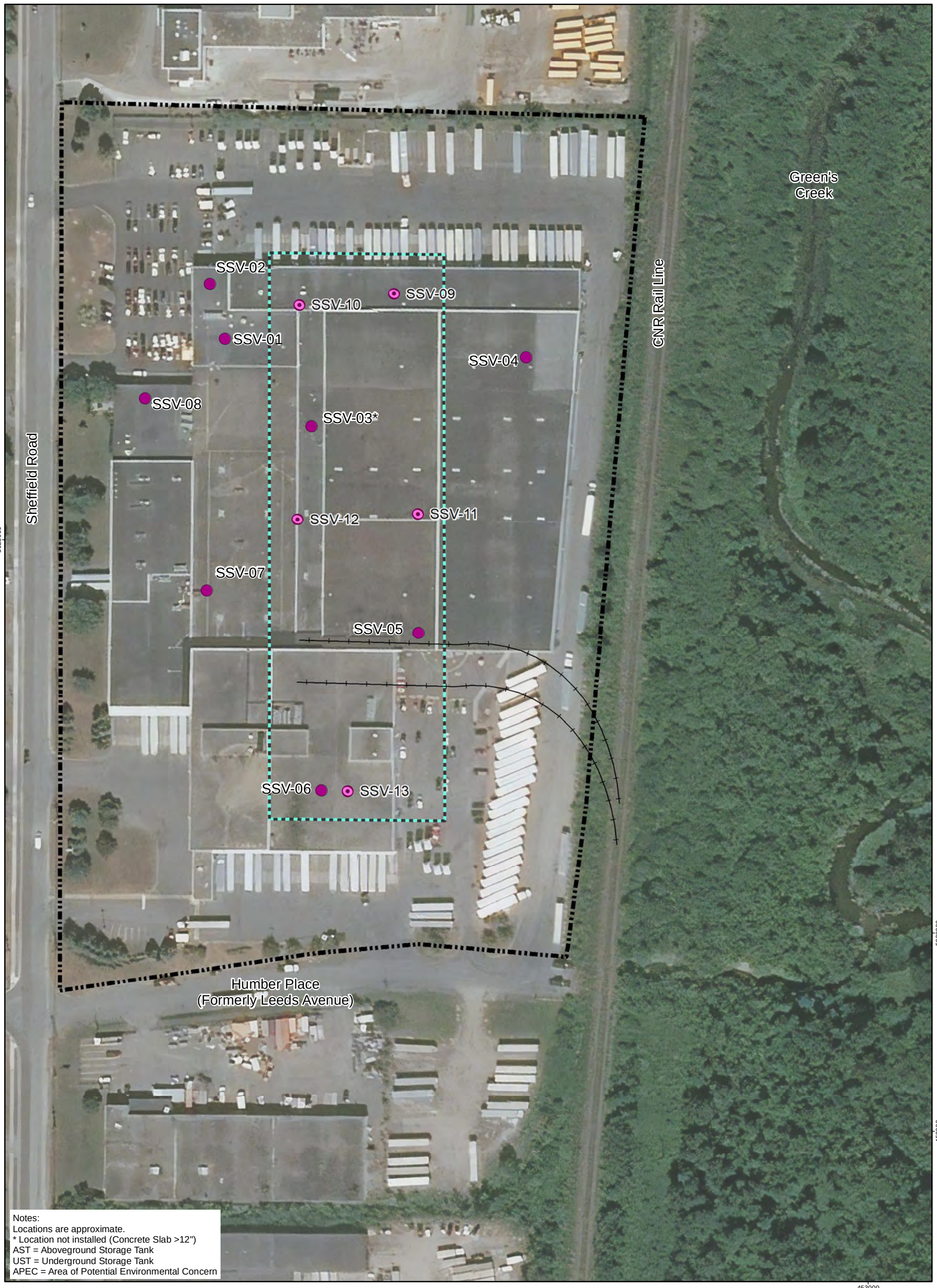
FIGURE 6

SOIL AND GROUNDWATER SAMPLING LOCATION PLAN

2625 SHEFFIELD ROAD,
OTTAWA, ON

OFFICE LOCATION: SEATTLE		REVISION: 00	Geosyntec consultants
DATE PLOTTED: 06-Oct-2022	DATE REVISED: 06-Oct-2022	REVIEWED: PH	
APPROX. SCALE: 1:1,500	PAGE SIZE: 11 x 17 in	CHECKED: BW	TRUE NORTH
		DRAWN: MVI	0 10 20 30 m

P:\CAD_GIS\Projects\Hazel\920 GIS\TR\841C8D1_Ottawa\MXDs\Revisions100522\Phase II\Figure 6 SoilGroundwaterSampling.mxd



Notes:
Locations are approximate.
* Location not installed (Concrete Slab >12")
AST = Aboveground Storage Tank
UST = Underground Storage Tank
APEC = Area of Potential Environmental Concern

Legend:

- Sub-Slab Vapour Sample Location (Geosyntec, 2022)
- Sub-Slab Vapour Sample Location (Geosyntec, 2020)
- Proposed Building Footprint
- Former Rail Spur
- Phase Two Property

Notes:
1) Map Projection: NAD 1983 UTM Zone 18N
2) Data Source Credits
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FIGURE 7

SUB-SLAB VAPOUR SAMPLING LOCATION PLAN

2625 SHEFFIELD ROAD,
OTTAWA, ON

OFFICE LOCATION: SEATTLE		REVISION: 00	Geosyntec consultants
DATE PLOTTED: 06-Oct-2022	DATE REVISED: 06-Oct-2022	REVIEWED: PH	
APPROX. SCALE: 1:1,500	PAGE SIZE: 11 x 17 in	CHECKED: BW	TRUE NORTH; 0 10 20 30 m
		DRAWN: MVI	

P:\CAD_GIS\Project\Hazel\920 GIS\TR841C8D1_Ottawa\MXDs\Revisions100522\Phase II\Figure 7 SubSlabVaporSampling.mxd

Notes:
Locations are approximate.
* denotes Monitoring Well Not Sampled during Phase Two ESA (Inaccessible or Damaged)
AST = Aboveground Storage Tank
UST = Underground Storage Tank
APEC = Area of Potential Environmental Concern
masl = metres above mean sea level
- Groundwater elevations reported in masl.
- Groundwater wells were gauged on June 2, 2022.

Legend:

- Monitoring Well Location (Geosyntec, 2022)
- Groundwater Elevation Contours (masl)
- Inferred Groundwater Flow Direction
- Borehole/Monitoring Well (EXP, 2020)
- Borehole/Monitoring Well (Trow, 2010)
- Phase Two Property
- Proposed Building Footprint
- Former Rail Spur

MW22-11 – Groundwater Monitoring Well Name
64.88 – Groundwater Elevation (masl)

Notes:
1) Map Projection: NAD 1983 UTM Zone 18N
2) Data Source Credits
3) Service Layer Credits
4) Imagery Credits: © 2022 Microsoft Corporation © 2022 Maxar ©CNES (2022) Distribution Airbus DS

FIGURE 8

GROUNDWATER ELEVATIONS AND INFERRED FLOW DIRECTION

2625 SHEFFIELD ROAD,
OTTAWA, ON

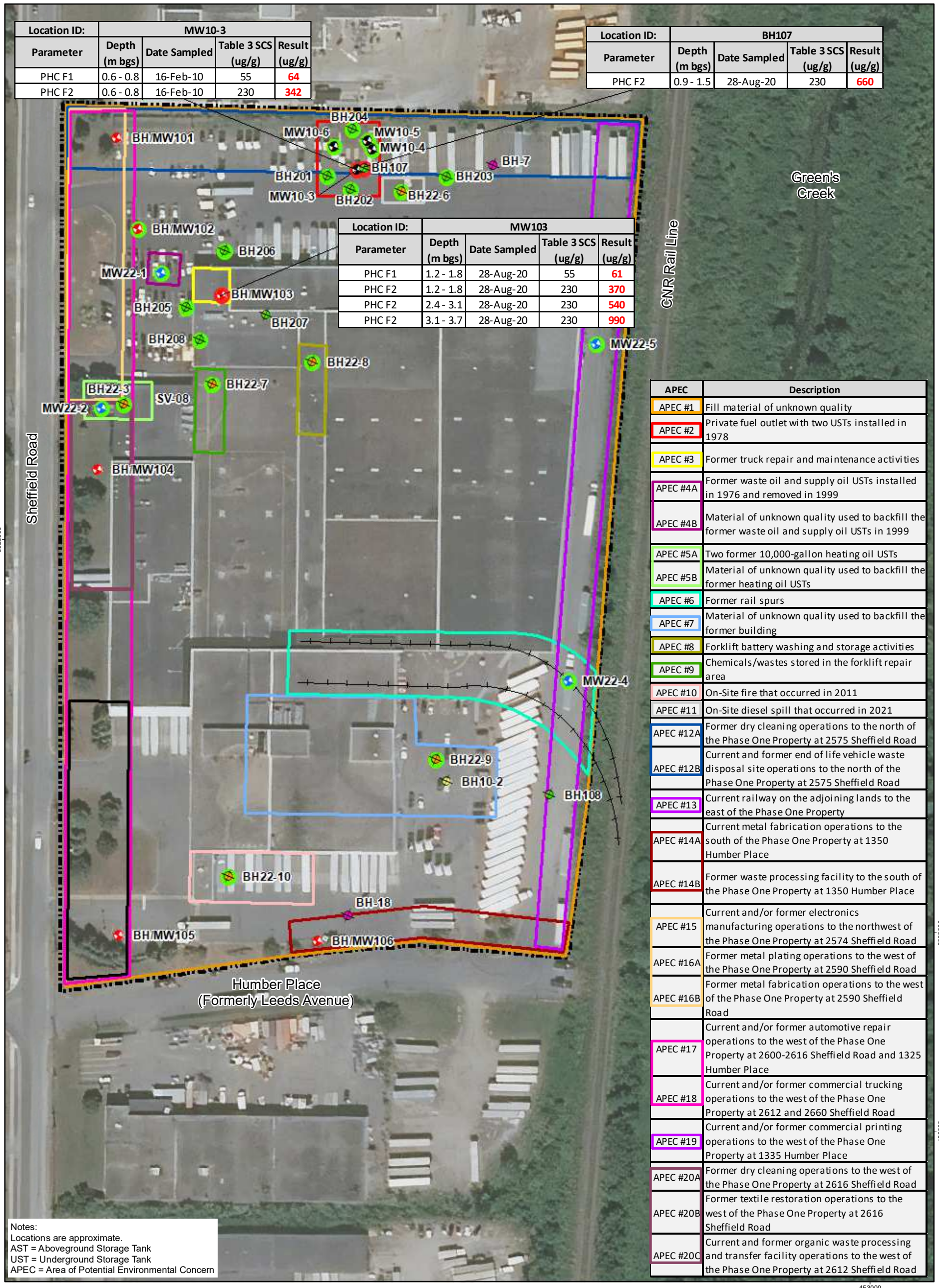
OFFICE LOCATION: SEATTLE		REVISION: 00	Geosyntec consultants
DATE PLOTTED: 06-Oct-2022	DATE REVISED: 06-Oct-2022	REVIEWED: PH	
		CHECKED: BW	TRUE NORTH
APPROX. SCALE: 1:1,500	PAGE SIZE: 11 x 17 in	DRAWN: MVI	0 10 20 30 m

P:\CAD_GIS\Projects\Hazel\920 GIS\TR841C8D1_Ottawa\MXDs\Revisions100522\Phase II\Figure 8 GWEFlowDirection.mxd

Location ID:	MW10-3			
Parameter	Depth (m bgs)	Date Sampled	Table 3 SCS (ug/g)	Result (ug/g)
PHC F1	0.6 - 0.8	16-Feb-10	55	64
PHC F2	0.6 - 0.8	16-Feb-10	230	342

Location ID:	BH107			
Parameter	Depth (m bgs)	Date Sampled	Table 3 SCS (ug/g)	Result (ug/g)
PHC F2	0.9 - 1.5	28-Aug-20	230	660

Location ID:	MW103			
Parameter	Depth (m bgs)	Date Sampled	Table 3 SCS (ug/g)	Result (ug/g)
PHC F1	1.2 - 1.8	28-Aug-20	55	61
PHC F2	1.2 - 1.8	28-Aug-20	230	370
PHC F2	2.4 - 3.1	28-Aug-20	230	540
PHC F2	3.1 - 3.7	28-Aug-20	230	990



APEC	Description
APEC #1	Fill material of unknown quality
APEC #2	Private fuel outlet with two USTs installed in 1978
APEC #3	Former truck repair and maintenance activities
APEC #4A	Former waste oil and supply oil USTs installed in 1976 and removed in 1999
APEC #4B	Material of unknown quality used to backfill the former waste oil and supply oil USTs in 1999
APEC #5A	Two former 10,000-gallon heating oil USTs
APEC #5B	Material of unknown quality used to backfill the former heating oil USTs
APEC #6	Former rail spurs
APEC #7	Material of unknown quality used to backfill the former building
APEC #8	Forklift battery washing and storage activities
APEC #9	Chemicals/wastes stored in the forklift repair area
APEC #10	On-Site fire that occurred in 2011
APEC #11	On-Site diesel spill that occurred in 2021
APEC #12A	Former dry cleaning operations to the north of the Phase One Property at 2575 Sheffield Road
APEC #12B	Current and former end of life vehicle waste disposal site operations to the north of the Phase One Property at 2575 Sheffield Road
APEC #13	Current railway on the adjoining lands to the east of the Phase One Property
APEC #14A	Current metal fabrication operations to the south of the Phase One Property at 1350 Humber Place
APEC #14B	Former waste processing facility to the south of the Phase One Property at 1350 Humber Place
APEC #15	Current and/or former electronics manufacturing operations to the northwest of the Phase One Property at 2574 Sheffield Road
APEC #16A	Former metal plating operations to the west of the Phase One Property at 2590 Sheffield Road
APEC #16B	Former metal fabrication operations to the west of the Phase One Property at 2590 Sheffield Road
APEC #17	Current and/or former automotive repair operations to the west of the Phase One Property at 2600-2616 Sheffield Road and 1325 Humber Place
APEC #18	Current and/or former commercial trucking operations to the west of the Phase One Property at 2612 and 2660 Sheffield Road
APEC #19	Current and/or former commercial printing operations to the west of the Phase One Property at 1335 Humber Place
APEC #20A	Former dry cleaning operations to the west of the Phase One Property at 2616 Sheffield Road
APEC #20B	Former textile restoration operations to the west of the Phase One Property at 2616 Sheffield Road
APEC #20C	Current and former organic waste processing and transfer facility operations to the west of the Phase One Property at 2612 Sheffield Road

Notes:
Locations are approximate.
AST = Aboveground Storage Tank
UST = Underground Storage Tank
APEC = Area of Potential Environmental Concern

Legend:

- Monitoring Well Location (Geosyntec, 2022)
- Borehole Location (Geosyntec, 2022)
- Borehole/Monitoring Well (EXP, 2020)
- Borehole (EXP, 2020)
- Borehole/Monitoring Well (Trow, 2010)
- Borehole Location (Trow, 2010)
- Soil Boring (AECOM, 2021)
- One or more parameters exceed the Table 3 SCS
- Parameter concentrations meet the Table 3 SCS
- Former Rail Spur
- Phase Two Property

Notes:
1) Map Projection: NAD 1983 UTM Zone 18N
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3) Service Layer Credits
4) Imagery Credits: © 2022 Microsoft Corporation © 2022 Maxar ©CNES (2022) Distribution Airbus DS

FIGURE 9

PHC EXCEEDANCES IN SOIL

2625 SHEFFIELD ROAD,
OTTAWA, ON

OFFICE LOCATION: SEATTLE		REVISION: 00	Geosyntec consultants
DATE PLOTTED: 06-Oct-2022	DATE REVISED: 06-Oct-2022	REVIEWED: PH	
APPROX. SCALE: 1:1,500	PAGE SIZE: 11 x 17 in	CHECKED: BW	TRUE NORTH
		DRAWN: MVI	0 10 20 30 m

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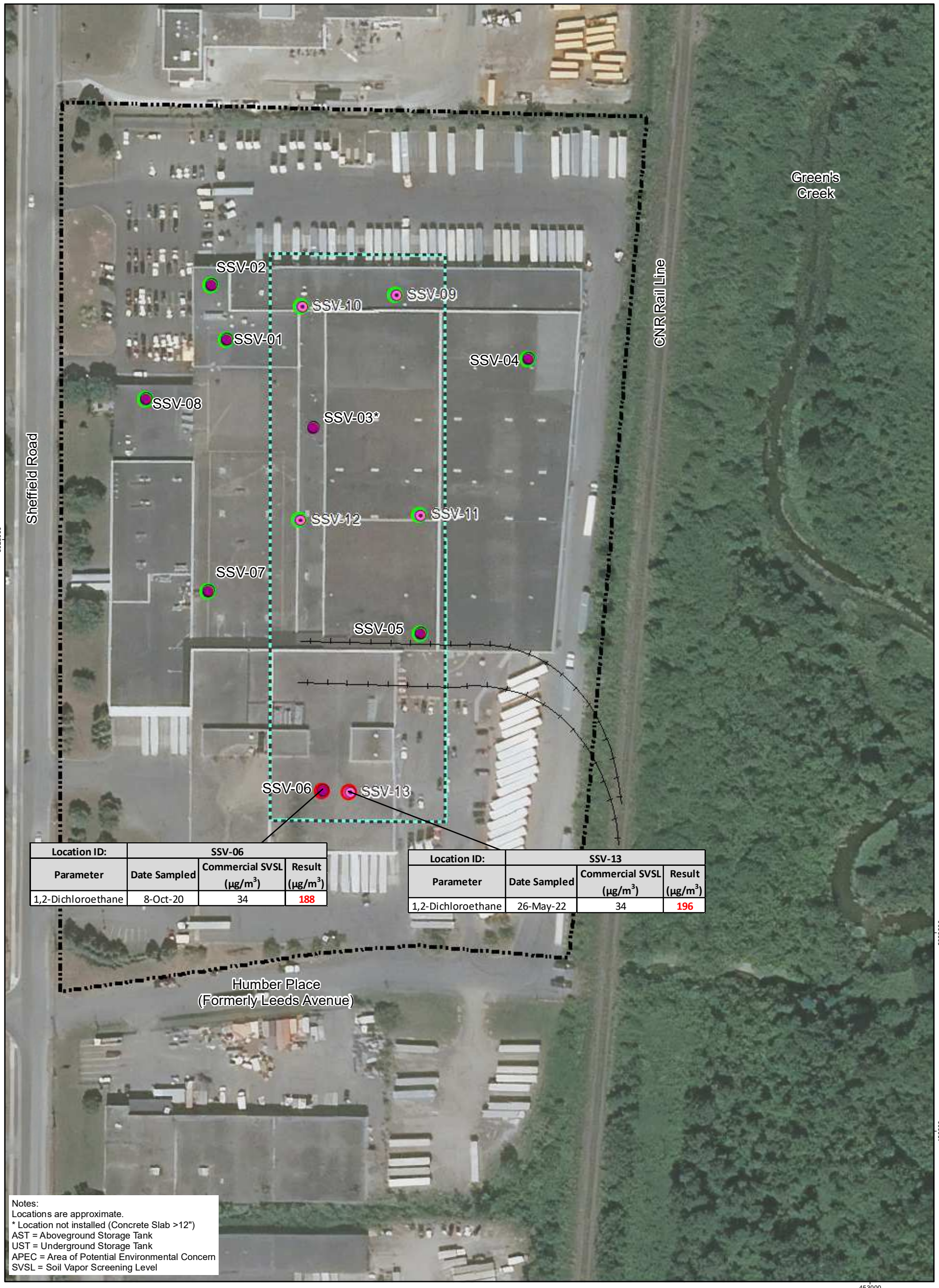

Location ID:	SSV-06		
Parameter	Date Sampled	Commercial SVSL (µg/m³)	Result (µg/m³)
1,2-Dichloroethane	8-Oct-20	34	188

Location ID:	SSV-13		
Parameter	Date Sampled	Commercial SVSL (µg/m³)	Result (µg/m³)
1,2-Dichloroethane	26-May-22	34	196

Notes:
Locations are approximate.
* Location not installed (Concrete Slab >12")
AST = Aboveground Storage Tank
UST = Underground Storage Tank
APEC = Area of Potential Environmental Concern
SVSL = Soil Vapor Screening Level

Legend:
- Sub-Slab Vapor Sample Location (Geosyntec, 2020)
- Sub-Slab Vapor Sample Location (Geosyntec, 2022)
- One or more parameters exceed the Commercial SVSLs
- Parameter concentrations meet the Commercial SVSLs
- Former Rail Spur
- Proposed Building Footprint
- Phase Two Property

Notes:
1) Map Projection: NAD 1983 UTM Zone 18N
2) Data Source Credits
3) Service Layer Credits
4) Imagery Credits: © 2022 Microsoft Corporation © 2022 Maxar ©CNES (2022) Distribution Airbus DS

FIGURE 10

VOC EXCEEDANCES IN SUB-SLAB VAPOUR

2625 SHEFFIELD ROAD,
OTTAWA, ON

OFFICE LOCATION: SEATTLE		REVISION: 00	Geosyntec consultants
DATE PLOTTED: 06-Oct-2022	DATE REVISED: 06-Oct-2022	REVIEWED: PH	
APPROX. SCALE: 1:1,500	PAGE SIZE: 11 x 17 in	CHECKED: BW	TRUE NORTH
		DRAWN: MVI	0 10 20 30 m

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Notes:
Locations are approximate.
* denotes Monitoring Well Not Sampled during Phase Two ESA (Inaccessible or Damaged)
AST = Aboveground Storage Tank
UST = Underground Storage Tank
APEC = Area of Potential Environmental Concern

Legend:

- Monitoring Well Location (Geosyntec, 2022)
- Borehole Location (Geosyntec, 2022)
- Soil Boring (AECOM, 2021)
- Borehole/Monitoring Well (EXP, 2020)
- Borehole (EXP, 2020)
- Borehole/Monitoring Well (Trow, 2010)
- Borehole (Trow.2010)
- Cross Section
- Former Rail Spur
- Phase Two Property

Notes:
1) Map Projection: NAD 1983 UTM Zone 18N
2) Data Source Credits
3) Service Layer Credits
4) Imagery Credits: © 2022 Microsoft Corporation © 2022 Maxar ©CNES (2022) Distribution Airbus DS

FIGURE 11

CROSS SECTION LOCATION PLAN

2625 SHEFFIELD ROAD,
OTTAWA, ON

OFFICE LOCATION: SEATTLE		REVISION: 00	Geosyntec consultants
DATE PLOTTED: 06-Oct-2022	DATE REVISED: 06-Oct-2022	REVIEWED: PH	
APPROX. SCALE: 1:1,500	PAGE SIZE: 11 x 17 in	CHECKED: BW	TRUE NORTH
		DRAWN: MVI	0 10 20 30 m

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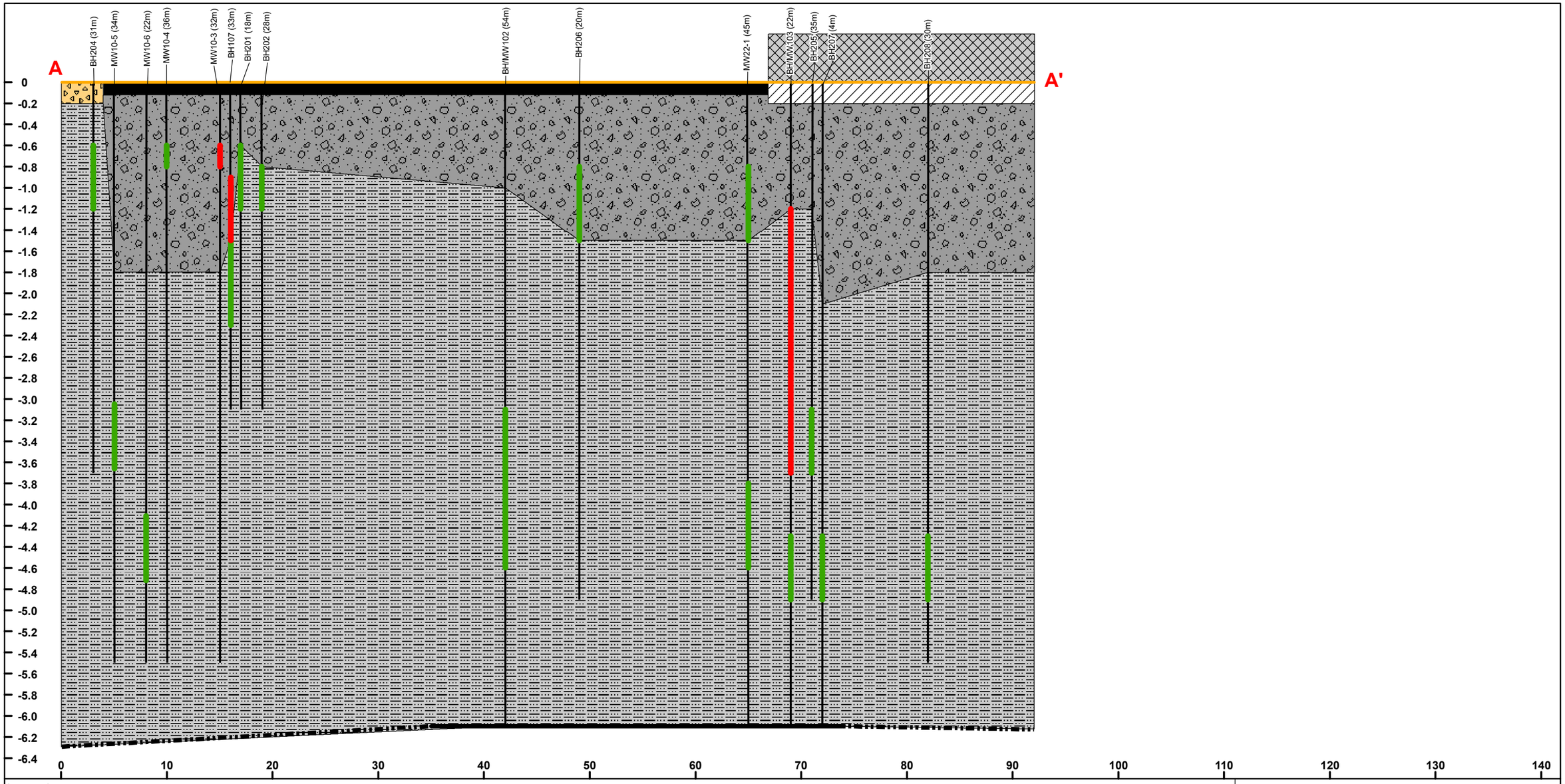

Legend:

- Sample Exceeds the Table 3 SCS
- Sample Meets the Table 3 SCS
- Surface
- Boring
- Stratigraphy Boundary
- Inferred Stratigraphy Boundary
- Asphalt
- Site Building
- Concrete
- Fill
- Silty Clay
- Topsoil

BH208 (30m)—Offset distance from cross-section in meters

Sample Location

Notes:
1) Map Projection: NAD 1983 UTM Zone 17N
2) Data Source Credits
3) Service Layer Credits
4) Imagery Credits:

Notes:
MECP - Ministry of the Environment Conservation and Parks
Table 3 SCS: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Industrial/Commercial/Community Property Uses and Coarse-Textured Soils.
All depths are approximate.

FIGURE 13

CROSS SECTION A-A' CONCENTRATIONS OF PHCS IN SOIL

2625 SHEFFIELD ROAD AND 1360 HUMBER PLACE, OTTAWA, ON

OFFICE LOCATION: SEATTLE		REVISION: 00	Geosyntec consultants
DATE PLOTTED: 13-Jul-2022	DATE REVISED: 13-Jul-2022	REVIEWED: PH	
APPROX. SCALE: 1:376	PAGE SIZE: 11 x17 in	CHECKED: BW	TRUE NORTH
		DRAWN: MVI	

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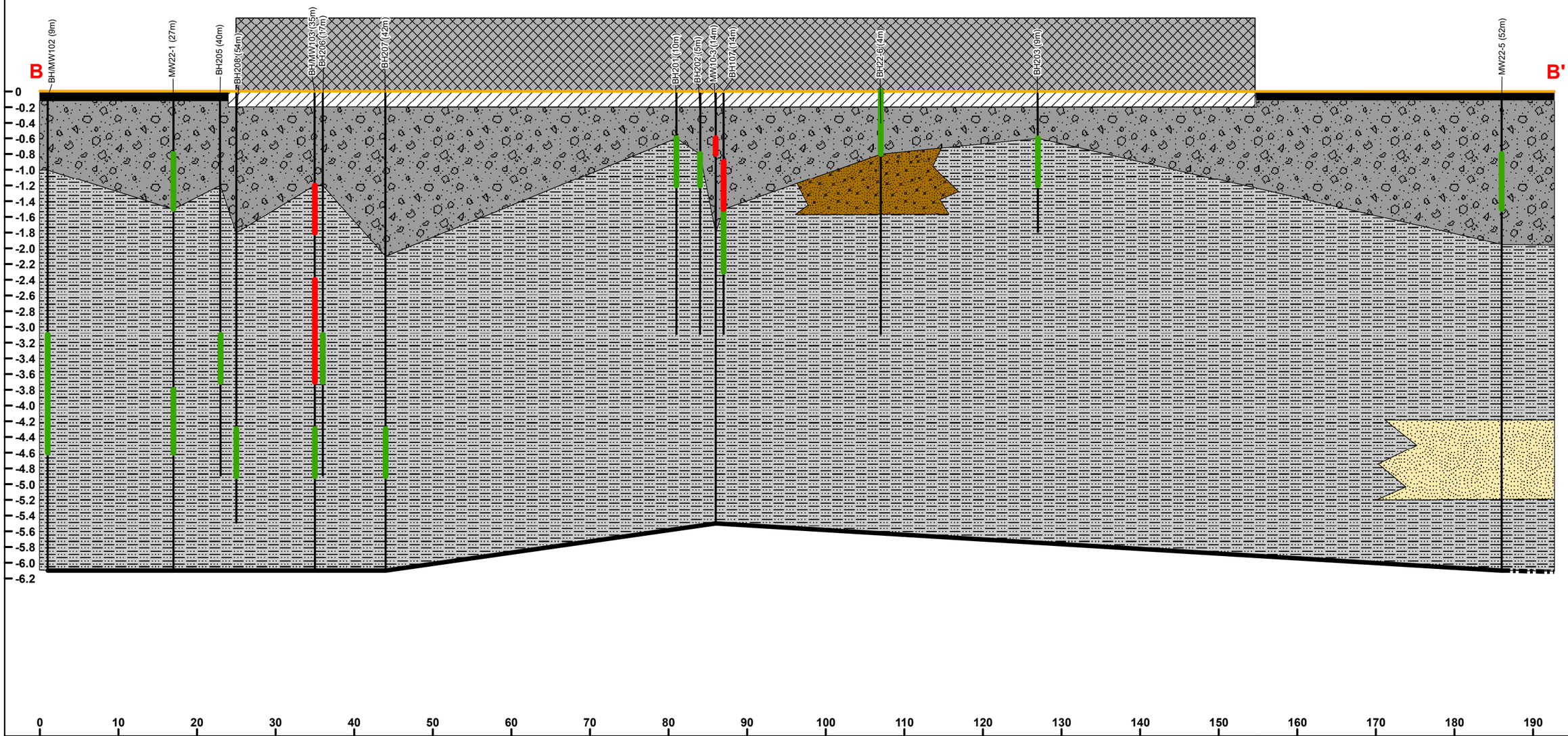

Legend:

- Sample Exceeds the Table 3 SCS
- Sample Meets the Table 3 SCS
- Surface
- Boring
- Stratigraphy Boundary
- Inferred Stratigraphy Boundary
- Asphalt
- Building
- Concrete
- Fill
- Sand
- Sandy Silt
- Silty Clay

MW11-1 (28m) — Offset distance from cross-section in meters

Sample Location

Notes:
1) Map Projection: NAD 1983 UTM Zone 17N
2) Data Source Credits
3) Service Layer Credits
4) Imagery Credits:

Notes:
MECP - Ministry of the Environment Conservation and Parks
Table 3 SCS: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Industrial/Commercial/Community Property Uses and Coarse-Textured Soils.
All depths are approximate

FIGURE 14

CROSS SECTION B-B' CONCENTRATIONS OF PHCS IN SOIL

2625 SHEFFIELD ROAD AND 1360 HUMBER PLACE, OTTAWA, ON

OFFICE LOCATION: SEATTLE		REVISION: 00	Geosyntec consultants
DATE PLOTTED: 13-Jul-2022	DATE REVISED: 13-Jul-2022	REVIEWED: PH	
APPROX. SCALE: 1:514	PAGE SIZE: 11 x17 in	CHECKED: BW	TRUE NORTH
		DRAWN: MVI	

P:\CAD_GIS\Projects\Hazel\920 GIS\TR841C9D1_Ottawa\MXDs\Revisions 06\232\Figure 14 Cross Section B PHCs in Soil.mxd

Primary Contaminant Source	Contaminant Release Mechanism	Exposure Point	Exposure Route	ON-SITE RECEPTORS				OFF-SITE RECEPTORS			
				Workers - Sub-Surface	Workers - Long Term (Indoor)	Workers - Long Term (Outdoor)	Property Visitor	Workers - Sub-Surface	Workers - Long Term (Indoor)	Workers - Long Term (Outdoor)	Property Visitor
Soil		Soil	Direct Contact (Incidental Ingestion, Skin Contact)	●	○	●	●	○	○	○	○
	Dust Generation	Dust Blown	Particulate Inhalation	●	○	●	●	●	○	●	●
		Indoor Air	Inhalation	○	●	○	●	○	●	○	●
	Volatilization		Skin Contact	○	●	○	●	○	●	○	●
		Outdoor Air	Inhalation	●	○	●	●	●	○	●	●
			Skin Contact	●	○	●	●	●	○	●	●
		Outdoor Air at an Excavation	Inhalation	●	○	○	○	●	○	○	○
			Skin Contact	●	○	○	○	●	○	○	○
	Leaching										
Groundwater		Groundwater	Incidental Ingestion & Skin Contact	●	○	○	○	●	○	○	○
		Indoor Air	Inhalation	○	○	○	○	○	○	○	○
	Volatilization		Skin Contact	○	○	○	○	○	○	○	○
		Outdoor Air	Inhalation	○	○	○	○	○	○	○	○
			Skin Contact	○	○	○	○	○	○	○	○
		Trench Air	Inhalation	○	○	○	○	○	○	○	○
			Skin Contact	○	○	○	○	○	○	○	○

Notes

○ Pathway is incomplete

● Pathway is potentially complete

Human Health Conceptual Site Model Without RMMs

2625 Sheffield Road, Ottawa, Ontario

Geosyntec consultants

Guelph | October 2022

Figure 14

Ecological Conceptual Site Model Without RMMs
2625 Sheffield Road, Ottawa, Ontario

Geosyntec consultants

Guelph | October 2022

Figure 15

APPENDIX A

PHASE TWO SAMPLING AND ANALYSIS PLAN

Geosyntec consultants

engineers | scientists | innovators

PHASE TWO SAMPLING AND ANALYSIS PLAN

Amazon Site Code – DYT3
2625 Sheffield Road and 1360 Humber Place
Ottawa, Ontario, K1B 3V6

Prepared for

Amazon Canada Fulfillment Services, ULC
300 Boren Avenue North
Seattle, Washington

Prepared by
Geosyntec Consultants International, Inc.
295 Hagey Boulevard, Suite 290
Waterloo, Ontario N2L 6R5

Project Number: TR841C8D1-038A

2 August 2022

Geosyntec consultants

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1. INTRODUCTION

Geosyntec Consultants International, Inc. (Geosyntec) was retained by Amazon Canada Fulfillment Services, ULC (Amazon) to prepare this Phase Two Sampling and Analysis Plan (SAP) outlining the environmental sampling and analysis procedures to be implemented at 2625 Sheffield Road and 1360 Humber Place in Ottawa, Ontario (hereinafter referred to as the "Site" or "Phase One Property"). Geosyntec's assignment was conducted in accordance with the scope of work described in Geosyntec's proposal and change order request to Amazon (dated 21 December 2021 and 16 May 2022) and Amazon's purchase orders 5Z-07380566 and 5Z-07380566 (dated 24 January 2022 and 19 May 2022), as well as with the terms and conditions described in the Amazon Services, Inc. and Geosyntec Consultants, Inc. Master Services Agreement dated 10 January 2018.

This SAP was developed following the requirements of Ontario Regulation (O. Reg.) 153/04, as amended and relevant Ministry of the Environment, Conservation and Parks (MECP) guidance documents. It is Geosyntec's understanding that Amazon intends to redevelop this Site for use as a warehouse. As there is no proposed change to a more sensitive land use, in accordance with the Ontario *Environmental Protection Act* (EPA) and O. Reg. 153/04, Geosyntec understands that a Record of Site Condition (RSC) is not required; however, the City of Ottawa (City) requires environmental assessments to support Site redevelopment. Therefore, to support Site plan approval applications, Geosyntec prepared a Phase One Environmental Site Assessment (ESA) for the Site, which revealed certain areas of potential environmental concern (APECs) on the Phase One Property.

1.1 Objective

The objectives of this SAP are to present the following:

- The sampling and analysis standard operating procedures (SOPs) to meet the data quality objectives (DQOs) of the Phase Two ESA (Sections 2.0 and 3.0);
- The Quality Assurance/Quality Control (QA/QC) procedures for data representativeness (Section 4.0); and
- The proposed sampling locations to investigate APECs and associated contaminants of potential concern (COPCs) in the media potentially impacted, as identified by Geosyntec in the Phase One ESA (Geosyntec, 2022) prepared for the Site. The scope of work for the proposed investigation considers a data gap analysis of the available analytical data collected at the Site to date (Section 5.0).

2. STANDARD OPERATING PROCEDURES

The SOPs for soil and groundwater sampling activities for the Phase Two ESA are described in the following sections.

2.1 Preparation Activities

Prior to commencing Site investigation activities, Geosyntec will prepare a Task Hazard Analysis (THA) to assess potential health and safety hazards specific to the Phase Two ESA investigation activities. In addition, public utility services (i.e., Ontario One Call) and a private utility locator will be retained to identify the location of known public and private utilities in the vicinity of the proposed investigation locations at the Site.

2.2 Borehole Drilling

Boreholes will be advanced at the Site by an MECP-licensed drilling contractor. Borehole drilling may be performed using hollow or solid stem auger, or direct push technique (DPT) drilling methods, depending on the targeted depth of drilling and soil sampling requirements. Geosyntec personnel will observe the drilling program and will specify the drilling locations and depths. After each borehole is advanced to the specified depth, the total depth will be measured with a weighted measuring tape to verify the drilling depth and the total depth recorded in the field log. If fluids are used during borehole drilling, the amount and type of fluid lost to the formation will be recorded in the field logs.

2.3 Soil Sample Screening

During the drilling program, soil samples will be field screened using a combustible gas indicator (CGI) and/or a hand-held photoionization detector (PID) with a 10.6 eV lamp to assess the potential presence and magnitude of petroleum hydrocarbons (PHCs) and/or volatile organic compound (VOC) concentrations. The equipment will be calibrated before use and checked periodically throughout the day. Soil samples will be transferred into plastic zip-top bags or glass jars for field screening. Glass jars, if used, will be sealed with plastic wrap and aluminum foil secured by the ring top of the glass jars. Measurements will be obtained by inserting the probe of the CGI and/or PID into the bag or through the plastic wrap/aluminum foil layers of the jar to measure total organic vapours in the headspace. Soil samples will be stored for approximately 10 minutes or longer following sample collection and then shaken prior to obtaining a screening measurement to enhance volatilization. The maximum measured PID and/or CGI readings will be recorded in the field logs.

2.4 Soil Sample Logging

The soil samples will be classified using procedures similar to those described in the American Society for Testing and Materials visual-manual standard for the description and identification of soils (ASTM, 2000). A log will be prepared for each borehole and will include a unique identification number, date, description of geologic or other material encountered, including the type, texture, colour, moisture content, and other observations of condition, such as staining, odours, weathering features, and CGI/PID screening measurement results. The borehole log will

also contain observations noted during drilling, such as the locations where soil samples were recovered, notes on sample recovery, total depth drilled, drilling refusal, and visual or olfactory evidence of free-flowing product. The identification and location of soil samples submitted for laboratory analysis will be indicated.

2.5 Soil Sampling

Soil samples will be collected continuously, to the extent practical, using split-spoon samplers or acetate liners inside DPT rods. Equipment is to be decontaminated before initial use and between sampling locations. Upon collection of the soil samples, sub-samples of undisturbed soils will be expediently transferred into laboratory supplied containers for potential laboratory analysis.

2.6 Monitoring Well Installation

A MECP-licensed well and drilling contractor will install a single, vertically oriented monitoring well in each borehole that is designated for well construction. Monitoring wells will be comprised of 50-millimetre (mm) Schedule 40 polyvinyl chloride (PVC) screen/riser pipe and will be constructed with 3 metres (m) of number 10 slot screen and screened to intersect the water table, which is expected to be located at depths ranging from 1.0 to 4.98 metres (m) below ground surface (bgs) based on information for nearby wells obtained from the Ontario Well Water Information System (WWIS) and previous investigations at the Site. Monitoring wells will be installed in accordance with O. Reg. 903. No solvents, lubricants, or adhesives will be used during well construction.

The annular space around and above the well screen will be backfilled with silica sand to form a sand pack. A bentonite seal, at least 0.3 m thick, will be placed above the sand pack and hydrated with distilled or potable water from ground surface. The remainder of the borehole will be filled with a cement grout/bentonite mixture or bentonite. Each layer will be installed by tremie pipe or through the drill string (hollow augers) to minimize the potential for bridging of materials within the borehole. After each layer is installed, a weighted measuring tape will be used to verify the installation depth of the layer. Monitoring wells will be completed with either aboveground or flushmount protective casings. A PVC slip cap will be inserted over the open end of the pipe of the wells, which will be completed aboveground.

A log will be prepared for each monitoring well that includes the borehole log information, in addition to the surveyed location and surface elevation of the well, monitoring well identification number, information pertaining to well construction (i.e., screened interval, sand pack, seal location and thickness, well diameter and screen slot size), and date of installation.

2.7 Monitoring Well Development

No sooner than approximately 24 hours following monitoring well installation, each new monitoring well will be developed using a dedicated Waterra™ tubing in an attempt to remove

fluids that may have been introduced into the well during drilling (i.e., drilling fluids), and to remove particulates that may have become entrained in the well and filter sand pack. Similarly, existing monitoring wells will also be developed. A Horiba or equivalent water quality meter will be used to record water quality parameters during development, including dissolved oxygen (DO), temperature, pH, specific conductance, oxygen reduction potential (ORP), and turbidity. The water quality parameters will be measured by placing electrodes into a flow through chamber, or flow through cell, and pumping a continuous flow of groundwater across the electrodes, allowing the chamber to overflow into a larger container beneath. Turbulence in the chamber will be minimized to the extent possible. Development will continue until groundwater quality parameters have stabilized, turbidity has been sufficiently reduced, or at least five well casing volumes have been purged. For wells installed in low permeability materials (e.g., clays), wells may be developed by pumping the well dry on two or more occasions.

The depth to water before and after development will be measured and recorded. Visual and olfactory observations of the purged water will also be noted. The date of development, time that development started and stopped, and the estimated volume of fluid removed during development will be recorded in the field documentation.

2.8 Synoptic Water Level Measurements

Prior to groundwater sampling and approximately 24 hours following monitoring well development, static groundwater levels will be measured in the new and existing on-Site wells using an interface probe attached to a pre-calibrated measuring tape. The tape will contain graduations in metric units. Prior to use, the tape will be inspected for missing or defective graduation marks. When the probe is lowered into a well and contacts water, the probe will provide a visual and audible signal. Water levels will be recorded to the nearest 0.01 m in the field documentation. The probe and section of the tape in contact with water will be decontaminated before initial use and in between wells.

2.9 LNAPL and DNAPL Measurement

The top and bottom of the water columns in the monitoring wells will be assessed for the presence of light or dense non-aqueous phase liquid (LNAPL and DNAPL, respectively) layers using an interface probe. The probe will be calibrated by the manufacturer, with graduations in metric units. The probe will provide an intermittent visual and audible signal when water is contacted, and a solid signal when NAPL is contacted. Prior to use, the tape will be inspected for missing or defective graduation marks. Presence, thickness of free product layers, and depth to free product layers will be recorded to the nearest 0.01 m in the field documentation. The probe and section of the tape in contact with water will be decontaminated before initial use and in between wells.

If NAPL is reportedly encountered using the interface probe, the results will be verified by visual inspection using a bailer.

2.10 Groundwater Sampling

Following static groundwater level measurements and prior to collecting groundwater samples, the water in the well casing will be purged to allow sampling of groundwater that is representative of subsurface conditions.

Groundwater samples will be collected from new and select existing monitoring wells using low-flow sampling techniques. Purging will be conducted using peristaltic or submersible pumps connected to the dedicated tubing in the well. Purging of the groundwater will be performed at relatively low flow rates (between 0.1 and 0.5 litres per minute) to minimize drawdown of the water level in the well. Water purged from the wells will be monitored for water quality parameters to document changes in water quality. Water will continue to be purged from the wells until the drawdown of water level has stabilized and three consecutive water quality measurements over approximately three minutes has stabilized (pH ±0.1 pH units, specific conductance ±3%, turbidity ±10%, DO ±10% and ORP ±10%).

Groundwater samples will be transferred directly from the pump tubing into laboratory supplied sample containers. The date of purging, time that purging started and stopped, volume of fluid removed during purging, water levels before and after purging, samples collected, time samples collected, and analyses requested will be recorded in the field documentation.

2.11 Sample Containers, Labelling, Storage, Packaging, and Transportation

The volume and type of containers and the preservatives to be used for field and laboratory analyses, as provided by the laboratory, must comply with MECP protocols and laboratory specific requirements as described in the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the *Environmental Protection Act* (Queen's Printer, July 1, 2011). Certified pre-cleaned containers will be provided by the laboratory.

Sample identifiers will consist of the sample location name, depth, and sample date (if applicable). Indelible ink pens will be used to label the sample containers. In addition to the sample identifier, samples will be labelled with the following information:

- Project name;
- Name or initials of individual collecting the sample;
- Date and time of sample collection;
- Analyses to be performed; and
- Preservation chemical (if used).

Soil and groundwater samples will be placed in a sample cooler expediently following collection and stored on ice, then transported under a chain of custody to the laboratory in accordance with the sample handling and custody procedures. Trip blanks, field duplicates, and equipment blanks

(see Sections 4.2 and 4.3) will also follow the outlined sample handling and custody procedures above.

Chain of custody documentation (including custody seals on coolers) will be documented by Geosyntec personnel associated with field work at the end of each field day. Chain of custody forms will accompany the sample shipments. Once the samples arrive at the laboratory, Geosyntec will assess the laboratory sample receipt documentation to assess whether the samples have been logged correctly and that the appropriate analyses have been requested. Sample log in forms will be requested from each laboratory within approximately 24 hours of sample shipment.

2.12 Investigation Derived Waste (IDW)

Soil cuttings generated from the drilling program; purged groundwater from monitoring well development and groundwater sampling activities; and wash water utilized for equipment decontamination will be stored on-Site in appropriate storage containers (such as 205-L drums) and transported to a designated storage area for characterization, as appropriate, and subsequent proper disposal in accordance with applicable regulations.

2.13 Surveying

The horizontal position and reference elevation of the borings and monitoring wells will be surveyed, relative to a geodetic benchmark and on-Site features. Using top of casing elevations measured for the monitoring wells, groundwater elevations will be calculated to assess the direction of groundwater flow.

3. LABORATORY ANALYTICAL METHODS

A certified laboratory will be utilized and request to follow the analytical methods that are part of standard MECP protocols. Laboratory reports will include the analytical results of the samples and QA/QC analyses conducted, including laboratory QC sample analyses (e.g., method blanks, spikes, surrogates, laboratory control samples).

4. QUALITY ASSURANCE / QUALITY CONTROL

Field QA/QC samples consisting of trip blank, field duplicate, and equipment blank samples will be collected to monitor sampling and laboratory analytical performance.

4.1 Equipment Decontamination Procedure

Non-dedicated and non-disposable sampling equipment will be decontaminated before initial use and following each use to prevent the introduction of extraneous material into samples and to prevent cross contamination between sample locations. Sampling equipment will be

decontaminated by washing with a non-phosphate detergent such as Liquinox™ or equivalent. Equipment decontamination will consist of the following:

1. Wash with non-phosphate detergent and water solution. This step will remove contamination from the equipment. The non-phosphate detergent will be diluted as directed by the manufacturer.
2. Rinse with distilled or potable water, as appropriate. This step will rinse away residual detergent solution.

4.2 Trip Blanks

Trip blanks for groundwater VOC/PHC F1 analyses are sample bottles containing analyte-free, deionized water, prepared at the contract laboratory, and stored and shipped with the field samples. The trip blanks will not be opened in the field. Information obtained from the trip blank analyses will be used to assess whether, and to what extent, sample handling and analysis has introduced positive bias to the sample results. One trip blank for analysis of VOC/PHC F1 will accompany each laboratory submission of groundwater VOC/PHC F1 samples.

4.3 Field Duplicates

Field duplicates are co-located samples (collected at the same time from the same location using the same sampling procedure) that will be analyzed to evaluate the precision of the sampling and analysis system. Field duplicate samples submitted for laboratory analyses will be submitted without indication of which investigative sample the duplicate represents (i.e., blind duplicate). Field duplicates will be collected and analyzed for both soil and groundwater samples at a frequency of one field duplicate for every 10 samples per parameter group.

4.4 Equipment Blanks

Equipment blanks are used to assess sources of field and laboratory contamination. Equipment blanks are required for soil Per- and Polyfluoroalkyl Substances (PFAS) analyses. Equipment blanks are prepared by pouring PFAS-free water over or through reusable or dedicated field sampling equipment and collecting the rinsate in a sample container.

4.5 Calibration Procedures

Field instruments will be calibrated prior to use according to the manufacturer's directions. Where possible, the field instruments will be calibrated using a two-point calibration technique, in accordance with the manufacturer's instructions. Calibration checks using commercially prepared standard solutions or gases will be conducted at least once per day and at the end of each sampling session. Instrument calibration information will be recorded in the field documentation. The pH meter will be re-calibrated if the calibration drifts by ± 0.5 pH units. The specific conductance,

DO, ORP, and/or turbidity meters will be re-calibrated if the calibration drifts by greater than 20% of the standard concentration.

4.6 Data Quality Objectives

DQOs set the level of data uncertainty, such that decision making is not affected and the overall objectives of the Phase Two ESA, as stated in Section 2, are met for the collected field data. DQOs are established based on the need to monitor the primary data quality indicators (i.e., precision, bias, accuracy, representativeness, completeness, and comparability), which are described as follows:

- Precision is a measure of agreement among replicate measurements of the same property under prescribed similar conditions.
- Accuracy is the closeness of an individual measurement to the true value. This includes a combination of random error (precision) and systematic error (bias) components that result from sampling and analytical operations.
- Representativeness is the degree to which sample data accurately and precisely represent a characteristic of a population parameter at a sampling point.
- Completeness is a measure of the amount of the valid data obtained from the measurement system compared to the amount that should have been collected.

Analytical reporting limits (RLs) have been established by the laboratory to allow for a meaningful comparison of the concentration data to the applicable MECP Site Condition Standards (SCS). A description of the DQOs is provided below.

4.6.1 Precision

Precision measures the reproducibility of measurements under a given set of conditions. Analytical precision is the measurement of the variability associated with duplicate or replicate analyses. Total precision is the measurement of the variability associated with the entire sampling and analysis process, which is evaluated through analysis of duplicate field samples and measures variability introduced by both the laboratory and field operations. Field duplicate samples will be used to assess field and analytical precision. The precision measurement expressed as the relative percent difference (RPD) is as follows:

$$RPD = \left(\frac{(Sample\ Result - Duplicate\ Result)}{(\frac{Sample\ Result + Duplicate\ Result}{2})} \right) * 100\%$$

The analytical laboratory will have statistically based acceptability limits for RPDs established for each method of analysis and sample matrix. The laboratory will review the QC samples to assess whether the internal QC data are within the limits of acceptability.

Suspect trends will be investigated by the analytical laboratory, and corrective actions taken. If the laboratory does not have statistically derived control limits, the analytical precision acceptability limits for this Phase Two ESA will be based on method limits.

Sampling precision will be evaluated based on the RPD for field duplicate samples. The field precision acceptability limits will be 30% for groundwater analyses performed by the certified laboratory. Soil samples may be evaluated against the 30% criteria, recognizing that soil is inherently more variable.

4.6.2 Accuracy

Accuracy is the nearness of a result or the mean of a set of results to the true or accepted value and measures the bias of an analytical system by comparing the difference of a measurement with a reference value. The percent recovery of an analyte, which has been added to the environmental samples, or to a blank sample, at a known concentration before extraction and analysis, provides a quantitative tool for evaluation of analytical accuracy. The laboratory is not to use the same spiking solutions used for accuracy assessments as for instrument calibrations. The following equation illustrates how accuracy is evaluated:

$$Accuracy\ as\ Percent\ Recovery = \left(\frac{Spiked\ Sample\ Result - Sample\ Result}{Spike\ True\ Value}\right) * 100\%$$

Percent recoveries for surrogates and laboratory control samples serve as a measure of analytical accuracy. The laboratory will review the QC samples and surrogate recoveries (organic analyses) for each analysis to assess whether the internal QC data are within the limits of acceptability. The laboratory will investigate any suspect trends and take appropriate corrective actions.

4.6.3 Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Unlike precision and accuracy, which can be expressed in quantitative terms, representativeness is a qualitative parameter that is most concerned with the proper design of the sampling program. Standardized sampling procedures are presented to support this objective.

4.6.4 Comparability

Comparability is a qualitative parameter expressing the confidence with which one dataset can be compared with another, whether it was generated by a single laboratory or during inter-laboratory studies. Sample data should be comparable for similar samples and sample conditions. The objective for the QA/QC program is to produce data with the greatest possible degree of comparability. The number of matrices sampled, and the range of field conditions encountered are considered in assessing comparability. The use of standardized field and analytical procedures contribute to the comparability of analytical data.

4.6.5 Completeness

Completeness is a measure of whether the collected data meet the project objectives. The data must meet the acceptance criteria, including accuracy and precision, to be considered complete, and any other criteria specified for an analytical method. The data will be reviewed or validated to keep invalid data from being processed through data collection. The following equation illustrates how completeness is evaluated:

$$Completeness = \left(\frac{Acceptable\ Results}{Total\ Results}\right) * 100\%$$

The goal for completeness is 100%. If this goal is not achieved, the sources of non-conformance will be evaluated to assess whether resampling and reanalysis is necessary to meet the objectives of the Phase Two ESA.

5. PHASE TWO ESA SCOPE OF WORK

5.1 Background

The Phase Two Property measures approximately 7.63 hectares (18.9 acres) in size. The majority of the Site (with the address of 2625 Sheffield Road) is located on the north side of Humber Place and is developed with an approximately 33,900 square metre (sq. m.) commercial warehouse building (the "Site building") initially constructed in 1967. The Site building is currently vacant but was formerly occupied by various grocery retailers, most recently Loblaw Properties Limited (Loblaw), and utilized for grocery distribution activities. The remainder of the Phase Two Property is located on the south side of Humber Place (with the address of 1360 Humber Place). This portion consists of a gravel lot formerly utilized for supplemental truck trailer storage. The Phase Two Property may be accessed from Sheffield Road to the west and Humber Place from the south. The southeast parcel (i.e., 1360 Humber Place) may be accessed from Humber Place to the north. There are no on-Site surface water bodies.

According to historical records, the Phase One Property was developed for agricultural use (inferred cropland) prior to 1946. According to historical aerial photographs and information provided by Loblaw, the Site building was constructed in approximately 1967 in the central portion of the northern parcel of the Phase One Property, with additions completed circa 1974, 1975, 1992, and 1997. Choice Properties Limited Partnership (Choice Properties) is the current owner of the Phase One Property. It is Geosyntec's understanding that Amazon intends to redevelop this Site for use as a warehouse under a ground lease agreement with Choice Properties.

Prior to initiating preparation of this SAP and implementing the field work, Geosyntec identified potentially contaminating activities (PCAs) on the Site and on other properties located within the Phase One Study Area (250 m of Site boundaries), which resulted in multiple APECs on the Site. The APECs and related PCAs and COPCs are summarized in the following table as presented in the Phase One ESA (Geosyntec, 2022):

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
APEC #1 – Presence of fill material of unknown quality across the entire Phase One Property	Entire Phase One Property (including the southeast parcel)	#30 – Importation of Fill Material of Unknown Quality	On-Site (PCA #1)	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, low or high pH, EC, and SAR	Soil
APEC #2 – Presence of an on-Site private fuel outlet with two diesel USTs which has been in operation since 1978	North-central portion of the Phase One Property	#28 – Gasoline and Associated Products Storage in Fixed Tanks	On-Site (PCA #2)	BTEX, PHCs	Soil and groundwater
APEC #3 – Former on-Site truck repair and maintenance activities	Northwest portion of the Site building	#11 – Commercial Trucking and Container Terminals	On-Site (PCA #3)	VOCs, BTEX, PHCs	Soil and groundwater
APEC #4A – Presence of former on-Site waste oil and supply oil USTs installed in 1976 and removed in 1999.	Northwest exterior of the Site building	#28 – Gasoline and Associated Products Storage in Fixed Tanks	On-Site (PCA #4A)	BTEX, PHCs	Soil and groundwater
APEC #4B – Material of unknown quality used to backfill former on-Site waste oil and supply oil USTs in 1999.	Northwest exterior of the Site building	#30 – Importation of Fill Material of Unknown Quality	On-Site (PCA #4B)	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, low or high pH, EC, and SAR	Soil

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
APEC #5A – Presence of two former on-Site heating oil USTs.	Western interior and exterior portion of the Site building	#28 – Gasoline and Associated Products Storage in Fixed Tanks	On-Site (PCA #5A)	BTEX, PHCs, PAHs	Soil and groundwater
APEC #5B – Material of unknown quality used to backfill former on-Site heating oil USTs.	Western interior and exterior portion of the Site building	#30 – Importation of Fill Material of Unknown Quality	On-Site (PCA #5B)	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, low or high pH, EC, and SAR	Soil
APEC #6 – Former rail spurs located in the central portion of the Phase One Property	Central portion of the Phase One Property	#46 – Rail Yards, Tracks, and Spurs	On-Site (PCA #6)	PHCs, PAHs, Metals (including As, Sb, Se)	Soil
APEC #7 – Former rail spurs located on the southeast parcel of the Phase One Property.	Southeast parcel of the Phase One Property	#46 – Rail Yards, Tracks, and Spurs	On-Site (PCA #7)	PHCs, PAHs, Metals (including As, Sb, Se)	Soil
APEC #8 – Material of unknown quality used to backfill the former building located in the southern portion of the Phase One Property.	South-central portion of the Phase One Property	#30 – Importation of Fill Material of Unknown Quality	On-Site (PCA #8)	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, low or high pH, EC, and SAR	Soil
APEC #9 – Forklift battery washing and storage activities in the central portion of the Site building.	North-central portion of the Site building	#6 – Battery Manufacturing, Recycling, and Bulk Storage	On-Site (PCA #9)	Metals (including As, Sb, Se)	Soil

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
APEC #10 – Chemicals/wastes stored in the forklift repair area in the northwestern portion of the Site building.	Northwestern portion of the Site building	#8 – Chemical Manufacturing, Processing, and Bulk Storage	On-Site (PCA #10)	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-	Soil
APEC #11 - On-Site fire that occurred in 2011 with unknown impacts.	Southern exterior portion of the Site building	No PCA # - Impacts from a Fire	On-Site (PCA #11)	PHCs, PAHs, Metals (including As, Sb, Se), PFAS	Soil
APEC #12 – On-Site diesel spill that occurred in 2021	Northeastern portion of the Phase One Property	No PCA # - Environmental Spill	On-Site (PCA #12)	BTEX, PHCs	Soil
APEC #13A – Former dry cleaning operations on the adjoining property to the north at 2575 Sheffield Road.	Northern portion of the Phase One Property	#37 – Operation of Dry Cleaning Equipment (where chemicals are used)	Off-Site (PCA #13)	VOCs	Groundwater
APEC #13B – Current and former end of life vehicle waste disposal site operations on the adjoining property to the north at 2575 Sheffield Road.	Northern portion of the Phase One Property	#49 – Salvage Yard including automobile wrecking	Off-Site (PCA #13)	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-	Groundwater
APEC #14 – Current railway on the adjoining lands to the east of the Phase One Property.	Eastern portion of the Phase One Property	#46 – Rail Yards, Tracks, and Spurs	Off-Site (PCA #14)	PHCs, PAHs, Metals (including As, Sb, Se)	Groundwater

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
APEC #15A – Current metal fabrication operations on the adjoining property to the west of the southeast parcel of the Phase One Property at 1350 Humber Place.	Western portion of the southeast parcel of the Phase One Property and southeast portion of the Phase One Property.	#34 – Metal Fabrication	Off-Site (PCA #15)	Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater
APEC #15B – Former waste processing facility on the adjoining property to the west of the southeast parcel of the Phase One Property at 1350 Humber Place.	Western portion of the southeast parcel of the Phase One Property and southeast portion of the Phase One Property.	#58 – Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners	Off-Site (PCA #15)	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, Na, Cl-	Groundwater
APEC #16A – Former commercial trucking operations located on the adjoining property to the south of the southeast parcel of the Phase One Property at 2715 Sheffield Road.	Southern portion of the southeast parcel of the Phase One Property	#11 – Commercial Trucking and Container Terminals	Off-Site (PCA #16)	VOCs, BTEX, PHCs	Groundwater
APEC #16B – Current and/or former metal fabrication operations on the adjoining property to the south of the southeast parcel of the Phase One	Southern portion of the southeast parcel of the Phase One Property	#34 – Metal Fabrication	Off-Site (PCA #16)	Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
Property at 2715 Sheffield Road.					
APEC #16C – Former PCB storage facility on the adjoining property to the south of the southeast parcel of the Phase One Property at 2715 Sheffield Road.	Southern portion of the southeast parcel of the Phase One Property	#55 – Transformer Manufacturing, Processing, and Use	Off-Site (PCA #16)	PCBs	Groundwater
APEC #17 – Current and/or former electronics manufacturing operations to the northwest of the Phase One Property at 2574 Sheffield Road.	Northwestern portion of the Phase One Property	#19 – Electronic and Computer Equipment Manufacturing	Off-Site (PCA #17)	VOCs, BTEX, PHCs, Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater
APEC #18A – Former metal plating operations on a property to the west of the Phase One Property at 2590 Sheffield Road.	Northwestern portion of the Phase One Property	#33 – Metal Treatment, Coating, Plating, and Finishing	Off-Site (PCA #18)	VOCs, Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
APEC #18B – Former metal fabrication operations on a property to the west of the Phase One Property at 2590 Sheffield Road.	Northwestern portion of the Phase One Property	#34 – Metal Fabrication	Off-Site (PCA #18)	Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater
APEC #19 – Current and/or former automotive repair operations on properties to the west of the Phase One Property at 2600-2616 Sheffield Road and 1325 Humber Place.	Western portion of the Phase One Property	#10 – Commercial Autobody Shops	Off-Site (PCAs #19 and #22)	VOCs, BTEX, PHCs	Groundwater
APEC #20 – Current and/or former commercial trucking operations on properties to the west and southwest of the Phase One Property at 2612, 2660, and 2716 Sheffield Road.	Western portion of the Phase One Property	#11 – Commercial Trucking and Container Terminals	Off-Site (PCAs #19, #21, and #23)	VOCs, BTEX, PHCs	Groundwater
APEC #21 – Current and/or former commercial printing operations on properties to the west of the Phase One Property at 1335 Humber Place.	Western portion of the Phase One Property	#31 - Ink Manufacturing, Processing, and Bulk Storage	Off-Site (PCA #22)	VOCs	Groundwater

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground Water, Soil and/or Sediment)
APEC #22A – Former dry cleaning operations on a property to the west of the Phase One Property at 2616 Sheffield Road.	Western portion of the Phase One Property	#37 – Operation of Dry Cleaning Equipment (where chemicals are used)	Off-Site (PCA #19)	VOCs	Groundwater
APEC #22B – Former textile restoration operations on a property to the west of the Phase One Property at 2616 Sheffield Road.	Western portion of the Phase One Property	#54 – Textile Manufacturing and Processing	Off-Site (PCA #19)	VOCs, BTEX, PHCs, Metals (including As, Sb, Se, Cr [VI], Hg)	Groundwater
APEC #22C – Current and former organic waste processing and transfer facility operations on a property to the west of the Phase One Property at 2612 Sheffield Road.	Western portion of the Phase One Property	#58 – Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners	Off-Site (PCA #19)	VOCs, BTEX, PHCs, PAHs, Metals (including As, Sb, Se, Cr [VI], Hg), B-HWS, CN-, Na, Cl-	Groundwater

Notes:
VOCs – Volatile Organic Compounds
BTEX – Benzene, Toluene, Ethylbenzene, Xylenes
PHCs F1-F4 – Petroleum Hydrocarbons Fractions F1 to F4
PAHs – Polycyclic Aromatic Hydrocarbons
As, Sb, Se – Arsenic, Antimony, and Selenium
CN- - Cyanide
Cr (VI) – Hexavalent Chromium
PCBs – Polychlorinated Biphenyls
B-HWS – Boron (Hot Water Soluble)
Hg – Mercury
Na – Sodium
Cl- – Chloride
EC – Electrical Conductivity
SAR – Sodium Adsorption Ratio
PFAS – Per- and Polyfluoroalkyl Substances

The locations of the APECs on the Site are shown on **Figure 1**.

5.2 Applicable Site Condition Standards

The applicable SCS for the Site are derived from the MECP[1] document entitled, "*Soil, Ground Water and Sediment Standards for Use under Part XV.I of the Environmental Protection Act*" (Queen's Printer, 2011) (MECP Standards). The SCS are divided into a series of tables based on land use type and groundwater use, as well as presence of "sensitive" conditions.

Geosyntec considered the following rationale for determining the applicable generic SCS:

- The Site is located in an area of the Ottawa that is serviced by the municipal drinking water system. Further, upon review of the WWIS database, no water wells were identified to be located within the Phase One Study Area that are utilized for human consumption and/or agricultural usage. Geosyntec notes that there appears to be at least two potentially active water supply wells for commercial and industrial purposes (i.e., non-potable) located within the Phase One Study Area (i.e., Well ID No. #1511776 and #7277670), however based on the distances from the Site and/or the projected direction of groundwater flow, it is anticipated that these wells are not located within the zone of influence of the Site;
- The Site is not considered environmentally sensitive, as defined by Section 41 of O. Reg. 153/04, as amended. Based on the results of the Phase One ESA, the Site is not located within an area of natural significance, nor does it include or is it adjacent to, or within, 30 metres (m) of such an area, as defined in Section 41(1)(a) of O. Reg. 153/04, as amended;
- The results of pH analyses for submitted soil samples from previous environmental studies, conducted on the Site by others between 2020 and 2021, were within the range for non-environmentally sensitive sites. The following table describes the soil pH data collected from the Site:

Soil Designation	pH Value	Sample Depth (m bgs)	Sample Location	Report Reference
Surface (< 1.5 m bgs)	7.49	0.8 – 1.5	BH/MW102	EXP, 2020b
Subsurface (> 1.5 m bgs)	8.03	3.8 – 4.6	BH/MW102	EXP, 2020b
Surface (< 1.5 m bgs)	8.12	0 – 0.6	BH-7	AECOM, 2021
Surface (< 1.5 m bgs)	7.58	0 – 0.6	BH-18	AECOM, 2021

Notes:
m bgs – metres below ground surface

- The Site is not considered a shallow soil property in accordance with Section 43.1(1)(a) of O. Reg. 153/04, as amended. Based on the results of drilling activities conducted at the Site to date, greater than 2 m of overburden soil exists across more than two-thirds of the Site;
- The Site is not considered a property located within 30 m of a water body per Section 43.1(1)(b) of O. Reg. 153/04, as amended. There are no surface water bodies

[1] Previously the Ministry of Environment (MOE) and Ministry of Environment and Climate Change (MOECC).

present at the Site or within 30 m of the Site. The nearest body of water relative to the Site is Green's Creek, located approximately 60 m east of the Phase One Property;

- Grain-size analysis was performed as part of the Phase II ESAs conducted by Trow in 2010 and EXP in 2020 and the geotechnical investigation conducted by AECOM in 2021. In total, 20 samples were submitted for grain-size analysis, eight of which were classified as medium to fine-grained by the laboratory. Given that only a portion of the grain-size data set supports the use of medium to fine-grained classification, coarse-textured standards will be applied; and
- The planned future use of the Site is for logistics purposes (commercial/industrial land use). The proposed finished grading of the Site is anticipated to be similar to the existing grade.

Based on the available Site-specific information as described above, the applicable SCS for the Site, as defined in the MECP Standards, are the '*Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition'* for Industrial/Commercial/Community property uses and coarse-textured soils (the "Table 3 SCS"). As such, analytical results obtained as part of this Phase Two ESA were compared to the Table 3 SCS.

Groundwater elevations measured at the Site during previous Site investigations indicate that shallow groundwater condition (i.e., less than 3 m bgs) may be present at the Site. If volatile compounds are identified in groundwater samples collected, then the shallow groundwater standards may be evaluated to assess the potential for assessment of vapour intrusion risk.

Based on the applicable Site-specific information as described above, the applicable standards for sub-slab vapour samples are the MECP Commercial Soil Vapour Screening Levels (SVSLs) which were developed using the MECP's industrial/commercial Health Based Indoor Air Criteria (HBIAC) divided by MECP's default attenuation factor of 0.004.

5.3 Available Analytical Data

The following subsurface environmental investigation reports were provided to Geosyntec for review:

- *Phase II Environmental Site Assessment, 2625 Sheffield Road, Ottawa, ON*, prepared by Trow for Loblaw, dated February 2010;
- *Geotechnical Investigation and Pavement Design Report, DYT3 – 2625 Sheffield Road, Ottawa, ON, K1B 3V6*, prepared by AECOM for Amazon, dated 7 October 2021;
- *Phase II Environmental Site Assessment, 2625 Sheffield Road, Ottawa, Ontario,* prepared by EXP for Loblaw and Choice Properties Limited Partnership, dated 8 October 2020; and

- *Delineation Program, 2625 Sheffield Road, Ottawa, Ontario*, prepared by EXP for Loblaw and Choice Properties Limited Partnership, dated 18 January 2021.

The following subsurface environmental assessment document was prepared by Geosyntec for the Site:

- *Limited Environmental Site Assessment, Amazon Site Code DYT3, 2625 Sheffield Road, Ottawa, Ontario, Canada*, prepared by Geosyntec for Amazon, dated 27 October 2020.

The approximate sample locations from the above-listed reports are shown on **Figure 1**.

As part of these investigations, samples of soil, groundwater, and sub-slab vapour were collected for laboratory analysis. Soil samples were collected between 2010 and 2021, for laboratory analysis of the following parameter groups:

- VOCs
- BTEX
- PHCs (F1-F4)
- PAHs
- Metals, including hydride forming metals (antimony, arsenic, and selenium), boron (hot water soluble), chromium VI, and mercury
- Other regulated parameters (ORPs) including pH and electrical conductivity (EC)

As presented in AECOM's 2021 geotechnical investigation report, soil samples were collected from two boreholes (BH-7 and BH-18) and were submitted for laboratory analysis of chloride, sulphate, sulfide, pH, EC, resistivity, and redox potential. Geosyntec evaluated this data but only considered the pH and EC data for use in the Phase Two ESA, as these samples were not collected for the purposes of assessing COPCs associated with PCAs/APECs in accordance with O. Reg. 153/04.

Groundwater samples were collected between 2010 and 2020, for laboratory analysis of the following parameter groups:

- VOCs
- BTEX
- PHCs (F1-F4)
- PAHs
- Metals, including hydride forming metals (antimony, arsenic, and selenium), chromium VI, and mercury

Sub-slab vapour samples were collected in 2020 for laboratory analysis of VOCs.

The analytical data for the available soil and groundwater samples compared to the Table 3 SCS is provided in **Table 1** and **Table 2**, respectively. The analytical data for the available sub-slab vapour data collected for environmental due diligence purposes compared to the MECP Commercial SVSLs is provided in **Table 3**.

5.3.1 Validation and Use of Data from Previous Investigations

Geosyntec conducted a review of the methods for soil, groundwater and sub-slab vapour sample collection, analytical protocols and QA/QC procedures documented in the prior environmental reports. The sampling, analytical and QA/QC protocols employed by others generally complied with the minimum requirements stipulated in O.Reg. 153/04.

5.4 Data Gap Analysis and Proposed Investigations

Geosyntec assessed the available soil and groundwater data for the Site and evaluated whether the investigations previously conducted included the characterization of COPCs and delineation of certain COPCs in soil and groundwater, for the media of concern (i.e., soil and/or groundwater) within each of the APECs identified in the Phase One ESA. Based on this assessment, certain data gaps in soil and groundwater remain as discussed below.

5.4.1 Soil Data Gap Analysis

Review of the existing soil analytical data, compared to the APECs and COPCs indicates that further investigation is required to assess COPCs in soil at the following APECs:

- APEC #1 - Presence of fill material of unknown quality across the entire Phase One Property:
    - Limited data is present for all COPCs (VOCs, PHCS, PAHs, O. Reg. 153/04 metals, and ORPs) in soil across the majority of the Site, especially in the eastern portion. As such, further investigation is required to investigate soil quality for all COPCs.
- APEC #2 - Presence of a private fuel outlet with two diesel USTs which has been in operation since 1978 in the north-central portion of the Phase One Property:
    - Several prior investigations have taken place at this APEC location. Concentrations of PHCs F1 and F2 were present in soils greater than the Table 3 SCS during the 2010 Trow Phase II ESA and the 2020 EXP Phase II ESA. These Contaminants of Concern (COCs) were delineated as part of the 2020 EXP Delineation Investigation.
    - No further soil data required to investigate this APEC.

- APEC #3 - Former truck repair and maintenance activities in the northwest portion of the Site building:
    - A previous investigation has taken place at this APEC location. Concentrations of PHC F1 and F2 were present in soils greater than the Table 3 SCS during the 2020 EXP Phase II ESA. These COCs were delineated as part of the 2020 EXP Delineation Investigation.
    - No further soil data required to investigate this APEC.
- APEC #4A - Presence of former waste oil and supply oil USTs installed in 1976 and removed in 1999 along the northwest exterior of the Site building:
    - No soil data from previous investigations was collected in the location of the former USTs. As such, further investigation is required to investigate soil quality for all COPCs.
- APEC #4B - Material of unknown quality used to backfill former on-Site waste oil and supply oil USTs in 1999 along the northwest exterior of the Site building:
    - No soil data from previous investigations was collected in the location of the former USTs. As such, further investigation is required to investigate soil quality for all COPCs.
    - Geosyntec recommends that a geophysical survey be conducted prior to drilling to confirm the borehole location.
- APEC #5A - Presence of two former heating oil USTs located in the northwest portion (interior and exterior) of the Site building:
    - No soil data from previous investigations was collected in the location of the former USTs. As such, further investigation is required to investigate soil quality for all COPCs.
    - Geosyntec recommends that a geophysical survey be conducted prior to drilling to confirm the borehole locations.
- APEC #5B - Material of unknown quality used to backfill former on-Site heating oil USTs located in the northwest portion (interior and exterior) of the Site building:
    - No soil data from previous investigations was collected in the location of the former USTs. As such, further investigation is required to investigate soil quality for all COPCs.

- APEC #6 - Former rail spurs located in the central portion of the Phase One Property:
    - Soil data was collected from this location during a previous investigation for PAHs and O. Reg. 153/04 metals. No data is available for PHCs. As such, further investigation is required to investigate soil quality for select COPCs.
- APEC #7 - Former rail spurs located on the southeast parcel of the Phase One Property:
    - Soil data was collected from this location during a previous investigation for PAHs and O. Reg. 153/04 metals. No data is available for PHCs. As such, further investigation is required to investigate soil quality for select COPCs.
- APEC #8 - Material of unknown quality used to backfill the former building located in the southern portion of the Phase One Property:
    - Soil data was collected from this location during a previous investigation for O. Reg. 153/04 metals. No data is available for the remaining COPCs. As such, further investigation is required to investigate soil quality for select COPCs.
- APEC #9 - Forklift battery washing and storage activities in the central portion of the Site building:
    - No soil data from previous investigations was collected in the location of the former battery washing and storage area. As such, further investigation is required to investigate soil quality for all COPCs.
- APEC #10 - Chemicals/wastes stored in the forklift repair area in the central portion of the Site building:
    - No soil data from previous investigations was collected in the location of the former forklift repair area. As such, further investigation is required to investigate soil quality for all COPCs.
- APEC #11 - On-Site fire that occurred in 2011 with unknown impacts along the southern exterior of the Site building:
    - No soil data from previous investigations was collected in the location of the historical fire. As such, further investigation is required to investigate soil quality for all COPCs.
- APEC #12 - On-Site 335 L diesel spill in the northeastern portion of the Phase One Property:

- No soil data from previous investigations was collected in the location of the historical diesel spill. As such, further investigation is required to investigate soil quality for all COPCs.

Geosyntec notes that an exceedance of EC was present at a previous sampling location during the 2021 AECOM Geotechnical Investigation. For the purposes of safety for vehicular and pedestrian traffic, road salt was used for de-icing on the developed portions of the Site (and on the adjacent municipal roadways to the north and east of the Site). No other potential sources of salt-related constituents were identified for the Phase One Property. Therefore, it is the opinion of the Qualified Person for Environmental Site Assessment (QP_{ESA}) that this exceedance of EC can be attributed to road salting activities and is exempt as a contaminant as per Section 49.1, Paragraph 1 of O. Reg 153/04. As such, no further delineation of EC is proposed at this time.

5.4.2 Groundwater Data Gap Analysis

Review of the existing groundwater analytical data, compared to the APECs and COPCs indicates that further investigation is required to assess COPCs in groundwater at the following APECs:

- APEC #2 - Presence of a private fuel outlet with two diesel USTs which has been in operation since 1978 in the north-central portion of the Phase One Property:
    - Groundwater data from previous investigations in this area includes all COPCs. Geosyntec recommends that all existing monitoring wells located within this area be re-sampled for all COPCs for data reliance purposes.
- APEC #3 - Former truck repair and maintenance activities in the northwest portion of the Site building:
    - Groundwater data from previous investigations in this area includes all COPCs. Geosyntec recommends that all existing monitoring wells located within this area be re-sampled for all COPCs for data reliance purposes.
- APEC #4A - Presence of former waste oil and supply oil USTs installed in 1976 and removed in 1999 along the northwest exterior of the Site building:
    - No groundwater data from previous investigations was collected in the location of the former USTs. As such, further investigation is required to investigate groundwater quality for all COPCs.
- APEC #5A - Presence of two former heating oil USTs located in the northwest portion (interior and exterior) of the Site building:

  - No groundwater data from previous investigations was collected in the location of the former USTs. As such, further investigation is required to investigate groundwater quality for all COPCs.

- APEC #13A - Former dry cleaning operations on the adjoining property to the north at 2575 Sheffield Road:

  - Groundwater data from previous investigations in this area includes all COPCs. Geosyntec recommends that all existing monitoring wells located within this area be re-sampled for all COPCs for data reliance purposes.

- APEC #13B - Current and former end of life vehicle waste disposal site operations on the adjoining property to the north at 2575 Sheffield Road:

  - Groundwater data was collected from this location during a previous investigation for VOCs, PHCs, and O. Reg. 153/04 metals. No data is available for PAHs. Geosyntec recommends that all existing monitoring wells located within this area be re-sampled for all COPCs for data reliance purposes and the ongoing nature of this PCA.

- APEC #14 - Current railway on the adjoining lands to the east of the Phase One Property:

  - Groundwater data was collected from a portion of this location for PAHs. No data is available for PHCs, and O. Reg. 153/04 metals. Geosyntec recommends additional monitoring well installation along the eastern Site boundary and re-sampling of the existing monitoring well for all COPCs due to the ongoing nature of this PCA.

- APEC #15A - Current metal fabrication operations on the adjoining property to the west of the southeast parcel of the Phase One Property at 1350 Humber Place:

  - Groundwater data was collected from this location during a previous investigation for all COPCs. Geosyntec recommends that all existing monitoring wells located within this area be re-sampled for all COPCs for data reliance purposes and the ongoing nature of this PCA.

- APEC #15B - Former waste processing facility on the adjoining property to the west of the southeast parcel of the Phase One Property at 1350 Humber Place:

  - Groundwater data was collected from this location for VOCs, PHCs, and O. Reg. 153/04 metals. No data is available for PAHs or ORPs. As such, further investigation is required to investigate groundwater quality for all COPCs. Geosyntec recommends re-sampling of the existing monitoring wells for all COPCs for data reliance purposes.

- APEC #16A - Former commercial trucking operations located on the adjoining property to the south of the southeast parcel of the Phase One Property at 2715 Sheffield Road:
    - Groundwater data was collected from this location during a previous investigation for all COPCs. Geosyntec recommends that all existing monitoring wells located within this area be re-sampled for all COPCs for data reliance purposes.
- APEC #16B - Current and/or former metal fabrication operations on the adjoining property to the south of the southeast parcel of the Phase One Property at 2715 Sheffield Road:
    - Groundwater data was collected from this location during a previous investigation for all COPCs. Geosyntec recommends that all existing monitoring wells located within this area be re-sampled for all COPCs for data reliance purposes and the ongoing nature of this PCA.
- APEC #16C - Former PCB storage facility on the adjoining property to the south of the southeast parcel of the Phase One Property at 2715 Sheffield Road:
    - No groundwater data was collected from this location during previous investigations for the COPC. Geosyntec recommends that the existing monitoring well located within this area be sampled for the COPC.
- APEC #17 - Current and/or former electronics manufacturing operations to the northwest of the Phase One Property at 2574 Sheffield Road:
    - Groundwater data was collected from this location during a previous investigation for all COPCs. Geosyntec recommends that all existing monitoring wells located within this area be re-sampled for all COPCs for data reliance purposes and the ongoing nature of this PCA.
- APEC #18A - Former metal plating operations on a property to the west of the Phase One Property at 2590 Sheffield Road:
    - Groundwater data was collected from this location during a previous investigation for all COPCs. Geosyntec recommends that all existing monitoring wells located within this area be re-sampled for all COPCs for data reliance purposes.
- APEC #18B - Former metal fabrication operations on a property to the west of the Phase One Property at 2590 Sheffield Road:
    - Groundwater data was collected from this location during a previous investigation for all COPCs. Geosyntec recommends that all existing monitoring wells located within this area be re-sampled for all COPCs for data reliance purposes.

- APEC #19 - Current and/or former automotive repair operations on properties to the west of the Phase One Property at 2600-2616 Sheffield Road and 1325 Humber Place:

    - Groundwater data was collected from this location during a previous investigation for all COPCs. Geosyntec recommends that all existing monitoring wells located within this area be re-sampled for all COPCs for data reliance purposes and the ongoing nature of this PCA.

- APEC #20 - Current and/or former commercial trucking operations on properties to the west and southwest of the Phase One Property at 2612, 2644, 2658, 2660, and 2716 Sheffield Road:

    - Groundwater data was collected from this location during a previous investigation for all COPCs. Geosyntec recommends that all existing monitoring wells located within this area be re-sampled for all COPCs for data reliance purposes and the ongoing nature of this PCA.

- APEC #21 - Current and/or former commercial printing operations on properties to the west of the Phase One Property at 1335 Humber Place:

    - Groundwater data was collected from this location during a previous investigation for all COPCs. Geosyntec recommends that all existing monitoring wells located within this area be re-sampled for all COPCs for data reliance purposes and the ongoing nature of this PCA.

- APEC #22A - Former dry cleaning operations on a property to the west of the Phase One Property at 2616 Sheffield Road:

    - Groundwater data was collected from this location during a previous investigation for all COPCs. Geosyntec recommends that all existing monitoring wells located within this area be re-sampled for all COPCs for data reliance purposes.

- APEC #22B - Former textile restoration operations on a property to the west of the Phase One Property at 2616 Sheffield Road.

    - Groundwater data was collected from this location during a previous investigation for all COPCs. Geosyntec recommends that all existing monitoring wells located within this area be re-sampled for all COPCs for data reliance purposes.

- APEC #22C - Current and former organic waste processing and transfer facility operations on a property to the west of the Phase One Property at 2612 Sheffield Road:

    - Groundwater data was collected from this location during a previous investigation for VOCs, PHCs, and O. Reg. 153/04 metals. No data is available for PAHs or

ORPs. As such, further investigation is required to investigate groundwater quality for all COPCs. Geosyntec recommends re-sampling of the existing monitoring wells for all COPCs for data reliance purposes and the ongoing nature of this PCA.

5.4.3 Proposed Soil and Groundwater Investigation

Based on assessment of the data gaps, additional soil and groundwater sampling should be conducted. The proposed investigation locations are shown on **Figure 1**. This information is summarized in **Table 4**. A summary of the proposed sampling program is presented below:

- Geosyntec will retain a MECP-licensed drilling contractor to advance 11 boreholes (MW22-1, MW22-2, BH22-3, MW22-4 and MW22-5 and BH22-6 to BH22-11; see **Figure 1**). Boreholes will be advanced to depths ranging from approximately 3.05 m to 6.10 m bgs;

- During borehole advancement, the soil cores will be screened VOCs using a photoionization detected (PID) and assessed for visual/olfactory potential evidence of impacts. One soil sample from each location will be collected from within the fill material. One "worst case" soil sample from each location will be collected from depths where the PID concentration is highest and/or where there is potential evidence of visual/olfactory impact, within the targeted proposed depth interval. Additional soil samples for vertical delineation will also be collected at each location and placed 'on hold' for laboratory analysis. All soil samples will be submitted for the COPCs corresponding to each APEC;

- Groundwater monitoring wells will be installed in four of the 11 boreholes (MW22-1, MW22-2, MW22-4 and MW22-5; see **Figure 1**);

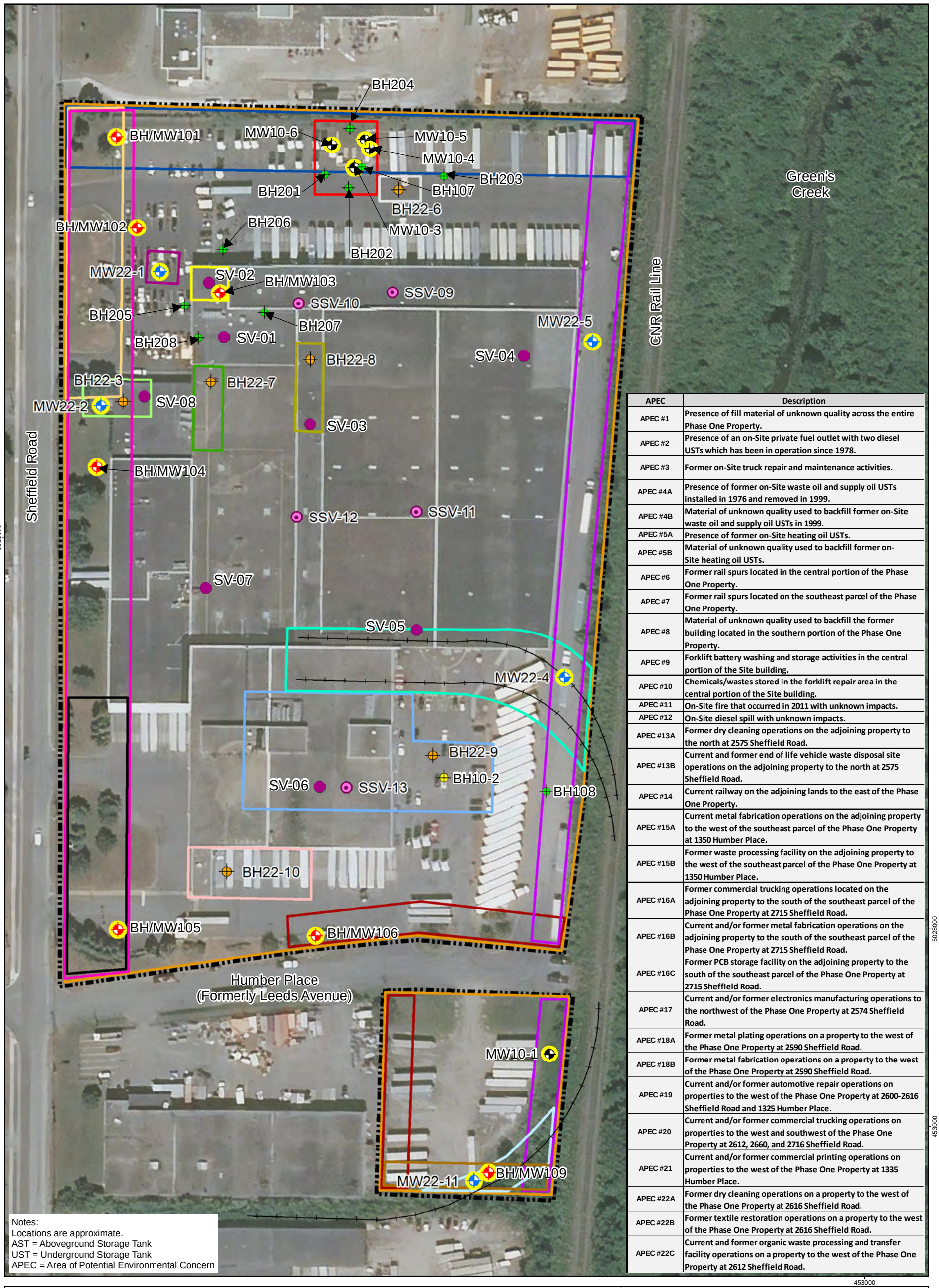
- The existing 12 on-Site monitoring wells (MW10-1, MW10-3 to MW10-6, BH/MW101 to BH/MW106 and BH/MW109; see **Figure 1**) will be redeveloped and sampled for the COPCs corresponding to each APEC;

- Field duplicate samples will be submitted at a frequency of one field duplicate sample for every 10 soil and 10 groundwater samples submitted for chemical analysis per parameter group;

- One trip blank will be submitted for analysis of VOC/PHC F1 for each laboratory submission of groundwater VOC/PHC F1 samples; and

- A minimum of two equipment blanks will be submitted for PFAS analysis.

FIGURE



Notes:
Locations are approximate.
AST = Aboveground Storage Tank
UST = Underground Storage Tank
APEC = Area of Potential Environmental Concern

APEC	Description
APEC #1	Presence of fill material of unknown quality across the entire Phase One Property.
APEC #2	Presence of an on-Site private fuel outlet with two diesel USTs which has been in operation since 1978.
APEC #3	Former on-Site truck repair and maintenance activities.
APEC #4A	Presence of former on-Site waste oil and supply oil USTs installed in 1976 and removed in 1999.
APEC #4B	Material of unknown quality used to backfill former on-Site waste oil and supply oil USTs in 1999.
APEC #5A	Presence of former on-Site heating oil USTs.
APEC #5B	Material of unknown quality used to backfill former on-Site heating oil USTs.
APEC #6	Former rail spurs located in the central portion of the Phase One Property.
APEC #7	Former rail spurs located on the southeast parcel of the Phase One Property.
APEC #8	Material of unknown quality used to backfill the former building located in the southern portion of the Phase One Property.
APEC #9	Forklift battery washing and storage activities in the central portion of the Site building.
APEC #10	Chemicals/wastes stored in the forklift repair area in the central portion of the Site building.
APEC #11	On-Site fire that occurred in 2011 with unknown impacts.
APEC #12	On-Site diesel spill with unknown impacts.
APEC #13A	Former dry cleaning operations on the adjoining property to the north at 2575 Sheffield Road.
APEC #13B	Current and former end of life vehicle waste disposal site operations on the adjoining property to the north at 2575 Sheffield Road.
APEC #14	Current railway on the adjoining lands to the east of the Phase One Property.
APEC #15A	Current metal fabrication operations on the adjoining property to the west of the southeast parcel of the Phase One Property at 1350 Humber Place.
APEC #15B	Former waste processing facility on the adjoining property to the west of the southeast parcel of the Phase One Property at 1350 Humber Place.
APEC #16A	Former commercial trucking operations located on the adjoining property to the south of the southeast parcel of the Phase One Property at 2715 Sheffield Road.
APEC #16B	Current and/or former metal fabrication operations on the adjoining property to the south of the southeast parcel of the Phase One Property at 2715 Sheffield Road.
APEC #16C	Former PCB storage facility on the adjoining property to the south of the southeast parcel of the Phase One Property at 2715 Sheffield Road.
APEC #17	Current and/or former electronics manufacturing operations to the northwest of the Phase One Property at 2574 Sheffield Road.
APEC #18A	Former metal plating operations on a property to the west of the Phase One Property at 2590 Sheffield Road.
APEC #18B	Former metal fabrication operations on a property to the west of the Phase One Property at 2590 Sheffield Road.
APEC #19	Current and/or former automotive repair operations on properties to the west of the Phase One Property at 2600-2616 Sheffield Road and 1325 Humber Place.
APEC #20	Current and/or former commercial trucking operations on properties to the west and southwest of the Phase One Property at 2612, 2660, and 2716 Sheffield Road.
APEC #21	Current and/or former commercial printing operations on properties to the west of the Phase One Property at 1335 Humber Place.
APEC #22A	Former dry cleaning operations on a property to the west of the Phase One Property at 2616 Sheffield Road.
APEC #22B	Former textile restoration operations on a property to the west of the Phase One Property at 2616 Sheffield Road.
APEC #22C	Current and former organic waste processing and transfer facility operations on a property to the west of the Phase One Property at 2612 Sheffield Road.

Legend:

- Proposed Groundwater Sampling Locations
- Proposed Monitoring Well Location
- Proposed Borehole Location
- Proposed Sub-Slab Vapor Sample Location
- Borehole/Monitoring Well (EXP, 2020)
- Borehole (EXP, 2020)
- Sub-Slab Vapor Sample Location (Geosyntec, 2020)
- Borehole/Monitoring Well (Trow, 2010)
- Borehole (Trow, 2010)
- Former Rail Spur

Areas of Potential Environmental Concern

- APEC #1
- APEC #2
- APEC #3
- APEC #4A,4B
- APEC #5A,5B
- APEC #6
- APEC #7
- APEC #8
- APEC #9
- APEC #10
- APEC #11
- APEC #12
- APEC #13A,13B
- APEC #14
- APEC #15A,15B
- APEC #16A,16B,16C
- APEC #17, #18A, #18B, #22A, #22B, #22C
- APEC #19, #20
- APEC #21
- Phase One Property

Notes:
1) Map Projection: NAD 1983 UTM Zone 18N
2) Data Source Credits
3) Service Layer Credits
4) Imagery Credits: © 2022 Microsoft Corporation © 2022 Maxar ©CNES (2022) Distribution Airbus DS

FIGURE 1

PROPOSED SAMPLING LOCATION PLAN

2625 SHEFFIELD ROAD AND 1360 HUMBER PLACE, OTTAWA, ON

OFFICE LOCATION: SEATTLE		REVISION: 00	Geosyntec consultants
DATE PLOTTED: 14-Jun-2022	DATE REVISED: 14-Jun-2022	REVIEWED: PH	
APPROX. SCALE: 1:1,500	PAGE SIZE: 11 x 17 in	CHECKED: BW	TRUE NORTH
		DRAWN: MVI	0 10 20 30 m

C:\GIS\CAD_GIS\Projects\Hazel\920 GIS\TR841C8D1_Ottawa\MXDs\Figure 8 GroundwaterSampling.mxd

TABLES

Table 1
Available Soil Analytical Data
2625 Sheffield Road and 1360 Humber Place, Ottawa, Ontario

				2010 Trow Phase II ESA						2020 EXP Phase II ESA	
Report Source				MW10-1	BH10-2	MW10-3	MW10-4	MW10-5	MW10-6	BH/MW102	BH/MW102
Location ID				MW10-1-S2	BH10-2-S2	MW10-3-S2	MW10-4-S2	MW10-5-S6	MW10-6-S7	BH/MW102-S1	BH/MW102-S2
Sample ID				16-Feb-2010	16-Feb-2010	16-Feb-2010	17-Feb-2010	17-Feb-2010	17-Feb-2010	28-Aug-2020	28-Aug-2020
Date Sampled				0.60 - 0.76	0.60 - 0.76	0.60 - 0.76	0.60 - 0.76	3.05 - 3.66	4.11 - 4.72	0.3 - 0.8	0.8 - 1.5
Sample Depth (m bgs)											
QA/QC											
Lab Sample ID				1008150-01	1008150-02	1008150-03	1008150-04	1008150-05	1008150-06	NNH588	NNH589
	Units	*Table 3 SCS* [1]	**Maximum Concentration**								
Volatile Organic Compounds											
Acetone	µg/g	16	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzene	µg/g	0.32	<0.03	-- -	-- -	<0.03	<0.002	<0.002	<0.002	-- -	-- -
Bromodichloromethane	µg/g	18	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Bromoform	µg/g	0.61	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Bromomethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Carbon tetrachloride	µg/g	0.21	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Chlorobenzene	µg/g	2.4	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Dibromochloromethane	µg/g	13	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Chloroform	µg/g	0.47	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,2-Dibromoethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,2-Dichlorobenzene	µg/g	6.8	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,3-Dichlorobenzene	µg/g	9.6	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,4-Dichlorobenzene	µg/g	0.2	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Dichlorodifluoromethane	µg/g	16	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1-Dichloroethane	µg/g	17	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,2-Dichloroethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1-Dichloroethylene	µg/g	0.064	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
cis-1,2-Dichloroethylene	µg/g	55	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
trans-1,2-Dichloroethylene	µg/g	1.3	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Methylene Chloride	µg/g	1.6	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,2-Dichloropropane	µg/g	0.16	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
cis-1,3-Dichloropropene[2]	µg/g	--	<0.030	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
trans-1,3-Dichloropropene[2]	µg/g	--	<0.040	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,3-Dichloropropene (cis & trans)	µg/g	0.18	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Ethylbenzene	µg/g	9.5	**0.17**	-- -	-- -	**0.17**	<0.002	<0.002	<0.002	-- -	-- -
n-Hexane	µg/g	46	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Methyl Ethyl Ketone	µg/g	70	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Methyl Isobutyl Ketone	µg/g	31	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Methyl tert butyl ether (MTBE)	µg/g	11	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Styrene	µg/g	34	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1,1,2-Tetrachloroethane	µg/g	0.087	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1,2,2-Tetrachloroethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Tetrachloroethylene	µg/g	4.5	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Toluene	µg/g	68	**0.12**	-- -	-- -	**0.12**	<0.002	<0.002	<0.002	-- -	-- -
1,1,1-Trichloroethane	µg/g	6.1	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1,2-Trichloroethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Trichloroethylene	µg/g	0.91	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Trichlorofluoromethane	µg/g	4	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Vinyl chloride	µg/g	0.032	<0.020	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
o-Xylene[3]	µg/g	26	**0.15**	-- -	-- -	**0.15**	<0.002	<0.002	<0.002	-- -	-- -
m+p-Xylenes[3]	µg/g	26	**0.18**	-- -	-- -	**0.18**	<0.002	<0.002	<0.002	-- -	-- -
Xylenes (Total)[3]	µg/g	26	**0.33**	-- -	-- -	**0.33**	<0.004	<0.004	<0.004	-- -	-- -
Petroleum Hydrocarbons											
F1 (C6-C10)	µg/g	55	**64**	-- -	-- -	**64**	<10	<10	<10	-- -	-- -
F1-BTEX	µg/g	55	**61**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
F2 (C10-C16)	µg/g	230	**990**	-- -	-- -	**342**	<10	<10	<10	-- -	-- -
F3 (C16-C34)	µg/g	1,700	**420**	-- -	-- -	**217**	<10	<10	<10	-- -	-- -
F4 (C34-C50)	µg/g	3,300	**55**	-- -	-- -	<10	<10	<10	<10	-- -	-- -
F4G-SG (GHH-Silica)	µg/g	3,300	**-- -**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Metals											
Antimony	µg/g	40	**0.37**	<1	<1	-- -	-- -	-- -	-- -	<0.20	-- -
Arsenic	µg/g	18	**5.7**	**2**	**2**	-- -	-- -	-- -	-- -	**5.7**	-- -
Barium	µg/g	670	**215**	**212**	**215**	-- -	-- -	-- -	-- -	**94**	-- -
Beryllium	µg/g	8	**0.84**	<0.5	**0.5**	-- -	-- -	-- -	-- -	**0.84**	-- -
Boron (Hot Water Soluble)	µg/g	2	**0.36**	-- -	-- -	-- -	-- -	-- -	-- -	**0.14**	-- -
Boron	µg/g	120	**7.1**	-- -	-- -	-- -	-- -	-- -	-- -	**7.1**	-- -
Cadmium	µg/g	1.9	**0.61**	<0.5	<0.5	-- -	-- -	-- -	-- -	**0.11**	-- -
Chromium (Total)	µg/g	160	**40**	**38**	**40**	-- -	-- -	-- -	-- -	**24**	-- -
Chromium, Hexavalent	µg/g	8	**0.37**	-- -	-- -	-- -	-- -	-- -	-- -	<0.18	-- -
Cobalt	µg/g	80	**13**	**11**	**12**	-- -	-- -	-- -	-- -	**13**	-- -
Copper	µg/g	230	**34**	**24**	**23**	-- -	-- -	-- -	-- -	**34**	-- -
Lead	µg/g	120	**50**	**7**	**6**	-- -	-- -	-- -	-- -	**16**	-- -
Mercury	µg/g	3.9	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	<0.050	-- -
Molybdenum	µg/g	40	**3.3**	<1	<1	-- -	-- -	-- -	-- -	**1.2**	-- -
Nickel	µg/g	270	**29**	**25**	**24**	-- -	-- -	-- -	-- -	**29**	-- -
Selenium	µg/g	5.5	<0.50	<1	<1	-- -	-- -	-- -	-- -	<0.50	-- -
Silver	µg/g	40	**0.21**	<0.3	<0.3	-- -	-- -	-- -	-- -	<0.20	-- -
Thallium	µg/g	3.3	**0.25**	<1	<1	-- -	-- -	-- -	-- -	**0.22**	-- -
Uranium	µg/g	33	**0.78**	-- -	-- -	-- -	-- -	-- -	-- -	**0.65**	-- -
Vanadium	µg/g	86	**56**	**52**	**56**	-- -	-- -	-- -	-- -	**39**	-- -
Zinc	µg/g	340	**110**	**51**	**53**	-- -	-- -	-- -	-- -	**55**	-- -
Polycyclic Aromatic Hydrocarbons											
Acenaphthene	µg/g	96	<0.02	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Acenaphthylene	µg/g	0.15	<0.02	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Anthracene	µg/g	0.67	<0.02	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Benzo(a)anthracene	µg/g	0.96	<0.02	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Benzo(a)pyrene	µg/g	0.3	**0.0089**	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Benzo(b&j)fluoranthene	µg/g	0.96	**0.017**	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Benzo(g,h,i)perylene	µg/g	9.6	**0.015**	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Benzo(k)fluoranthene	µg/g	0.96	<0.02	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Chrysene	µg/g	9.6	**0.0063**	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Dibenz(a,h)anthracene	µg/g	0.1	<0.02	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Fluoranthene	µg/g	9.6	**0.0089**	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Fluorene	µg/g	62	<0.02	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Indeno(1,2,3-cd)pyrene	µg/g	0.76	**0.01**	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
1+2-Methylnaphthalenes	µg/g	76	<0.04	<0.04	-- -	-- -	-- -	-- -	-- -	<0.0071	-- -
1-Methylnaphthalene	µg/g	76	<0.02	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
2-Methylnaphthalene	µg/g	76	<0.02	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Naphthalene	µg/g	9.6	<0.02	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Phenanthrene	µg/g	12	<0.02	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Pyrene	µg/g	96	**0.01**	<0.02	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Cyanides											
Cyanide, Weak Acid Diss	µg/g	0.051	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Polychlorinated Biphenyls											
Total PCB	µg/g	1.1	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Saturated Paste Extractables											
Sodium Adsorption Ratio		12	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Calcium[4]	mg/L	--	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Magnesium[4]	mg/L	--	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Sodium[4]	mg/L	--	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Physical Tests											
Electrical Conductivity	mS/cm	1.4	**2.78**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
pH	pH units	--	**8.12**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	**7.49**

Table 1
Available Soil Analytical Data
2625 Sheffield Road and 1360 Humber Place, Ottawa, Ontario

				2020 EXP Phase II ESA							
Report Source			**Maximum Concentration**	BH/MW102	BH/MW102	BH/MW103	BH/MW103	BH/MW103	BH/MW103	BH/MW106	BH107
Location ID				BH/MW102-S5	BH/MW102-S6	BH/MW103-S2	BH/MW103-S4	BH/MW103-S5	BH/MW103-S7	BH/MW106-S2	BH107-S2
Sample ID				28-Aug-2020	28-Aug-2020	28-Aug-2020	28-Aug-2020	28-Aug-2020	28-Aug-2020	31-Aug-2020	28-Aug-2020
Date Sampled				3.1 - 3.8	3.8 - 4.6	1.2 - 1.8	2.4 - 3.1	3.1 - 3.7	4.3 - 4.9	0.8 - 1.5	0.9 - 1.5
Sample Depth (m bgs)											
QA/QC											
Lab Sample ID				NNH590	NNH591	NNH592	NNH593	NNH601	NPX753	NNH594	NNH595
	Units	***Table 3 SCS*** [1]									
Volatile Organic Compounds											
Acetone	µg/g	16	<0.50	-- -	<0.50	<0.50	<0.50	-- -	-- -	-- -	-- -
Benzene	µg/g	0.32	<0.03	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	-- -	<0.020
Bromodichloromethane	µg/g	18	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
Bromoform	µg/g	0.61	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
Bromomethane	µg/g	0.05	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
Carbon tetrachloride	µg/g	0.21	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
Chlorobenzene	µg/g	2.4	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
Dibromochloromethane	µg/g	13	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
Chloroform	µg/g	0.47	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
1,2-Dibromoethane	µg/g	0.05	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
1,2-Dichlorobenzene	µg/g	6.8	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
1,3-Dichlorobenzene	µg/g	9.6	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
1,4-Dichlorobenzene	µg/g	0.2	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
Dichlorodifluoromethane	µg/g	16	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
1,1-Dichloroethane	µg/g	17	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
1,2-Dichloroethane	µg/g	0.05	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
1,1-Dichloroethylene	µg/g	0.064	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
cis-1,2-Dichloroethylene	µg/g	55	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
trans-1,2-Dichloroethylene	µg/g	1.3	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
Methylene Chloride	µg/g	1.6	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
1,2-Dichloropropane	µg/g	0.16	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
cis-1,3-Dichloropropene[2]	µg/g	--	<0.030	-- -	<0.030	<0.030	<0.030	-- -	-- -	-- -	-- -
trans-1,3-Dichloropropene[2]	µg/g	--	<0.040	-- -	<0.040	<0.040	<0.040	-- -	-- -	-- -	-- -
1,3-Dichloropropene (cis & trans)	µg/g	0.18	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
Ethylbenzene	µg/g	9.5	**0.17**	<0.020	<0.020	**0.066**	**0.034**	**0.066**	<0.020	-- -	<0.020
n-Hexane	µg/g	46	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
Methyl Ethyl Ketone	µg/g	70	<0.50	-- -	<0.50	<0.50	<0.50	-- -	-- -	-- -	-- -
Methyl Isobutyl Ketone	µg/g	31	<0.50	-- -	<0.50	<0.50	<0.50	-- -	-- -	-- -	-- -
Methyl tert butyl ether (MTBE)	µg/g	11	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
Styrene	µg/g	34	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
1,1,1,2-Tetrachloroethane	µg/g	0.087	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
1,1,2,2-Tetrachloroethane	µg/g	0.05	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
Tetrachloroethylene	µg/g	4.5	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
Toluene	µg/g	68	**0.12**	<0.020	<0.020	<0.020	<0.020	<0.020	<0.040	-- -	<0.020
1,1,1-Trichloroethane	µg/g	6.1	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
1,1,2-Trichloroethane	µg/g	0.05	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
Trichloroethylene	µg/g	0.91	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
Trichlorofluoromethane	µg/g	4	<0.050	-- -	<0.050	<0.050	<0.050	-- -	-- -	-- -	-- -
Vinyl chloride	µg/g	0.032	<0.020	-- -	<0.020	<0.020	<0.020	-- -	-- -	-- -	-- -
o-Xylene[3]	µg/g	26	**0.15**	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	-- -	<0.020
m+p-Xylenes[3]	µg/g	26	**0.18**	<0.040	<0.020	<0.020	<0.020	<0.040	<0.040	-- -	<0.040
Xylenes (Total)[3]	µg/g	26	**0.33**	<0.040	<0.020	<0.020	<0.020	<0.040	<0.040	-- -	<0.040
Petroleum Hydrocarbons											
F1 (C6-C10)	µg/g	55	**64**	<10	<10	**61**	**34**	**54**	<10	-- -	**25**
F1-BTEX	µg/g	55	**61**	<10	<10	**61**	**34**	**54**	<10	-- -	**25**
F2 (C10-C16)	µg/g	230	**990**	<10	<10	**370**	**540**	**990**	<10	-- -	**160**
F3 (C16-C34)	µg/g	1,700	**420**	<50	<50	**200**	**240**	**420**	<50	-- -	**110**
F4 (C34-C50)	µg/g	3,300	**55**	<50	<50	<50	**52**	**55**	<50	-- -	<50
F4G-SG (GHH-Silica)	µg/g	3,300	**-- -**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Metals											
Antimony	µg/g	40	**0.37**	-- -	-- -	-- -	-- -	-- -	-- -	<0.2	-- -
Arsenic	µg/g	18	**5.7**	-- -	-- -	-- -	-- -	-- -	-- -	**3.3**	-- -
Barium	µg/g	670	**215**	-- -	-- -	-- -	-- -	-- -	-- -	**71**	-- -
Beryllium	µg/g	8	**0.84**	-- -	-- -	-- -	-- -	-- -	-- -	**0.33**	-- -
Boron (Hot Water Soluble)	µg/g	2	**0.36**	-- -	-- -	-- -	-- -	-- -	-- -	**0.24**	-- -
Boron	µg/g	120	**7.1**	-- -	-- -	-- -	-- -	-- -	-- -	**5.2**	-- -
Cadmium	µg/g	1.9	**0.61**	-- -	-- -	-- -	-- -	-- -	-- -	**0.12**	-- -
Chromium (Total)	µg/g	160	**40**	-- -	-- -	-- -	-- -	-- -	-- -	**18**	-- -
Chromium, Hexavalent	µg/g	8	**0.37**	-- -	-- -	-- -	-- -	-- -	-- -	<0.18	-- -
Cobalt	µg/g	80	**13**	-- -	-- -	-- -	-- -	-- -	-- -	**7.4**	-- -
Copper	µg/g	230	**34**	-- -	-- -	-- -	-- -	-- -	-- -	**12**	-- -
Lead	µg/g	120	**50**	-- -	-- -	-- -	-- -	-- -	-- -	**14**	-- -
Mercury	µg/g	3.9	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	<0.050	-- -
Molybdenum	µg/g	40	**3.3**	-- -	-- -	-- -	-- -	-- -	-- -	**2.3**	-- -
Nickel	µg/g	270	**29**	-- -	-- -	-- -	-- -	-- -	-- -	**17**	-- -
Selenium	µg/g	5.5	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	<0.50	-- -
Silver	µg/g	40	**0.21**	-- -	-- -	-- -	-- -	-- -	-- -	<0.20	-- -
Thallium	µg/g	3.3	**0.25**	-- -	-- -	-- -	-- -	-- -	-- -	**0.25**	-- -
Uranium	µg/g	33	**0.78**	-- -	-- -	-- -	-- -	-- -	-- -	**0.5**	-- -
Vanadium	µg/g	86	**56**	-- -	-- -	-- -	-- -	-- -	-- -	**22**	-- -
Zinc	µg/g	340	**110**	-- -	-- -	-- -	-- -	-- -	-- -	**30**	-- -
Polycyclic Aromatic Hydrocarbons											
Acenaphthene	µg/g	96	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Acenaphthylene	µg/g	0.15	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Anthracene	µg/g	0.67	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Benzo(a)anthracene	µg/g	0.96	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Benzo(a)pyrene	µg/g	0.3	**0.0089**	-- -	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Benzo(b&j)fluoranthene	µg/g	0.96	**0.017**	-- -	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Benzo(g,h,i)perylene	µg/g	9.6	**0.015**	-- -	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Benzo(k)fluoranthene	µg/g	0.96	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Chrysene	µg/g	9.6	**0.0063**	-- -	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Dibenz(a,h)anthracene	µg/g	0.1	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Fluoranthene	µg/g	9.6	**0.0089**	-- -	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Fluorene	µg/g	62	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Indeno(1,2,3-cd)pyrene	µg/g	0.76	**0.01**	-- -	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
1+2-Methylnaphthalenes	µg/g	76	<0.04	-- -	-- -	-- -	-- -	-- -	-- -	<0.0071	-- -
1-Methylnaphthalene	µg/g	76	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
2-Methylnaphthalene	µg/g	76	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Naphthalene	µg/g	9.6	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Phenanthrene	µg/g	12	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Pyrene	µg/g	96	**0.01**	-- -	-- -	-- -	-- -	-- -	-- -	<0.0050	-- -
Cyanides											
Cyanide, Weak Acid Diss	µg/g	0.051	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Polychlorinated Biphenyls											
Total PCB	µg/g	1.1	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Saturated Paste Extractables											
Sodium Adsorption Ratio		12	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Calcium[4]	mg/L	--	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Magnesium[4]	mg/L	--	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Sodium[4]	mg/L	--	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Physical Tests											
Electrical Conductivity	mS/cm	1.4	**2.78**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
pH	pH units	--	**8.12**	-- -	**8.03**	-- -	-- -	-- -	-- -	-- -	-- -

Table 1
Available Soil Analytical Data
2625 Sheffield Road and 1360 Humber Place, Ottawa, Ontario

				2020 EXP Phase II ESA					2021 EXP Delineation		
Report Source			**Maximum Concentration**	BH107	BH107	BH107	BH108	BH/MW109	BH201	BH202	BH202
Location ID				DUP1	BH107-S3	DUP2	BH108-S1B	BH/MW109-S1B	BH201-S2	BH202-S2B	DUP1
Sample ID				28-Aug-2020	28-Aug-2020	28-Aug-2020	31-Aug-2020	31-Aug-2020	5-Nov-2020	5-Nov-2020	5-Nov-2020
Date Sampled				0.9 - 1.5	1.5 - 2.3	1.5 - 2.3	0.6 - 0.7	0.6 - 0.8	0.6 - 1.2	0.8 - 1.2	0.6 - 1.2
Sample Depth (m bgs)				Duplicate		Duplicate					Duplicate
QA/QC											
Lab Sample ID				NNH597	NNH603	NNH604	NNH596	NNH598	2045529-01	2045529-02	2045529-07
	Units	***Table 3 SCS*** [1]									
Volatile Organic Compounds											
Acetone	µg/g	16	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzene	µg/g	0.32	<0.03	<0.020	<0.020	<0.020	-- -	-- -	<0.020	<0.020	<0.020
Bromodichloromethane	µg/g	18	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Bromoform	µg/g	0.61	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Bromomethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Carbon tetrachloride	µg/g	0.21	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Chlorobenzene	µg/g	2.4	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Dibromochloromethane	µg/g	13	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Chloroform	µg/g	0.47	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,2-Dibromoethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,2-Dichlorobenzene	µg/g	6.8	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,3-Dichlorobenzene	µg/g	9.6	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,4-Dichlorobenzene	µg/g	0.2	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Dichlorodifluoromethane	µg/g	16	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1-Dichloroethane	µg/g	17	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,2-Dichloroethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1-Dichloroethylene	µg/g	0.064	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
cis-1,2-Dichloroethylene	µg/g	55	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
trans-1,2-Dichloroethylene	µg/g	1.3	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Methylene Chloride	µg/g	1.6	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,2-Dichloropropane	µg/g	0.16	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
cis-1,3-Dichloropropene[2]	µg/g	--	<0.030	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
trans-1,3-Dichloropropene[2]	µg/g	--	<0.040	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,3-Dichloropropene (cis & trans)	µg/g	0.18	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Ethylbenzene	µg/g	9.5	**0.17**	<0.020	<0.020	<0.020	-- -	-- -	<0.050	<0.050	<0.050
n-Hexane	µg/g	46	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Methyl Ethyl Ketone	µg/g	70	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Methyl Isobutyl Ketone	µg/g	31	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Methyl tert butyl ether (MTBE)	µg/g	11	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Styrene	µg/g	34	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1,1,2-Tetrachloroethane	µg/g	0.087	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1,2,2-Tetrachloroethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Tetrachloroethylene	µg/g	4.5	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Toluene	µg/g	68	**0.12**	<0.020	<0.020	<0.020	-- -	-- -	<0.050	<0.050	<0.050
1,1,1-Trichloroethane	µg/g	6.1	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1,2-Trichloroethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Trichloroethylene	µg/g	0.91	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Trichlorofluoromethane	µg/g	4	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Vinyl chloride	µg/g	0.032	<0.020	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
o-Xylene[3]	µg/g	26	**0.15**	<0.020	<0.020	<0.020	-- -	-- -	<0.050	<0.050	<0.050
m+p-Xylenes[3]	µg/g	26	**0.18**	<0.040	<0.040	<0.040	-- -	-- -	<0.050	**0.16**	<0.050
Xylenes (Total)[3]	µg/g	26	**0.33**	<0.040	<0.040	<0.040	-- -	-- -	<0.050	**0.16**	<0.050
Petroleum Hydrocarbons											
F1 (C6-C10)	µg/g	55	**64**	**25**	<10	<10	-- -	-- -	<7	<7	<7
F1-BTEX	µg/g	55	**61**	**25**	<10	<10	-- -	-- -	-- -	-- -	-- -
F2 (C10-C16)	µg/g	230	**990**	**660**	<10	<10	-- -	-- -	<4	<4	<4
F3 (C16-C34)	µg/g	1,700	**420**	**410**	<50	<50	-- -	-- -	<8	<8	<8
F4 (C34-C50)	µg/g	3,300	**55**	<50	<50	<50	-- -	-- -	<6	<6	<6
F4G-SG (GHH-Silica)	µg/g	3,300	**-- -**	**-- -**	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Metals											
Antimony	µg/g	40	**0.37**	-- -	-- -	-- -	**0.37**	<0.2	-- -	-- -	-- -
Arsenic	µg/g	18	**5.7**	-- -	-- -	-- -	**4.5**	**1.2**	-- -	-- -	-- -
Barium	µg/g	670	**215**	-- -	-- -	-- -	**110**	**52**	-- -	-- -	-- -
Beryllium	µg/g	8	**0.84**	-- -	-- -	-- -	**0.47**	**0.36**	-- -	-- -	-- -
Boron (Hot Water Soluble)	µg/g	2	**0.36**	-- -	-- -	-- -	**0.36**	**0.08**	-- -	-- -	-- -
Boron	µg/g	120	**7.1**	-- -	-- -	-- -	<5.0	<5.0	-- -	-- -	-- -
Cadmium	µg/g	1.9	**0.61**	-- -	-- -	-- -	**0.61**	<0.10	-- -	-- -	-- -
Chromium (Total)	µg/g	160	**40**	-- -	-- -	-- -	**40**	**28**	-- -	-- -	-- -
Chromium, Hexavalent	µg/g	8	**0.37**	-- -	-- -	-- -	**0.37**	<0.18	-- -	-- -	-- -
Cobalt	µg/g	80	**13**	-- -	-- -	-- -	**9.6**	**7.3**	-- -	-- -	-- -
Copper	µg/g	230	**34**	-- -	-- -	-- -	**29**	**7.8**	-- -	-- -	-- -
Lead	µg/g	120	**50**	-- -	-- -	-- -	**50**	**4**	-- -	-- -	-- -
Mercury	µg/g	3.9	<0.050	-- -	-- -	-- -	<0.050	<0.050	-- -	-- -	-- -
Molybdenum	µg/g	40	**3.3**	-- -	-- -	-- -	**3.3**	**0.52**	-- -	-- -	-- -
Nickel	µg/g	270	**29**	-- -	-- -	-- -	**28**	**16**	-- -	-- -	-- -
Selenium	µg/g	5.5	<0.50	-- -	-- -	-- -	<0.50	<0.50	-- -	-- -	-- -
Silver	µg/g	40	**0.21**	-- -	-- -	-- -	**0.21**	<0.20	-- -	-- -	-- -
Thallium	µg/g	3.3	**0.25**	-- -	-- -	-- -	**0.22**	**0.09**	-- -	-- -	-- -
Uranium	µg/g	33	**0.78**	-- -	-- -	-- -	**0.78**	**0.5**	-- -	-- -	-- -
Vanadium	µg/g	86	**56**	-- -	-- -	-- -	**42**	**33**	-- -	-- -	-- -
Zinc	µg/g	340	**110**	-- -	-- -	-- -	**110**	**30**	-- -	-- -	-- -
Polycyclic Aromatic Hydrocarbons											
Acenaphthene	µg/g	96	<0.02	-- -	-- -	-- -	<0.0050	<0.0050	-- -	-- -	-- -
Acenaphthylene	µg/g	0.15	<0.02	-- -	-- -	-- -	<0.0050	<0.0050	-- -	-- -	-- -
Anthracene	µg/g	0.67	<0.02	-- -	-- -	-- -	<0.0050	<0.0050	-- -	-- -	-- -
Benzo(a)anthracene	µg/g	0.96	<0.02	-- -	-- -	-- -	<0.0050	<0.0050	-- -	-- -	-- -
Benzo(a)pyrene	µg/g	0.3	**0.0089**	-- -	-- -	-- -	**0.0089**	<0.0050	-- -	-- -	-- -
Benzo(b&j)fluoranthene	µg/g	0.96	**0.017**	-- -	-- -	-- -	**0.017**	<0.0050	-- -	-- -	-- -
Benzo(g,h,i)perylene	µg/g	9.6	**0.015**	-- -	-- -	-- -	**0.015**	<0.0050	-- -	-- -	-- -
Benzo(k)fluoranthene	µg/g	0.96	<0.02	-- -	-- -	-- -	<0.0050	<0.0050	-- -	-- -	-- -
Chrysene	µg/g	9.6	**0.0063**	-- -	-- -	-- -	**0.0063**	<0.0050	-- -	-- -	-- -
Dibenz(a,h)anthracene	µg/g	0.1	<0.02	-- -	-- -	-- -	<0.0050	<0.0050	-- -	-- -	-- -
Fluoranthene	µg/g	9.6	**0.0089**	-- -	-- -	-- -	**0.0089**	<0.0050	-- -	-- -	-- -
Fluorene	µg/g	62	<0.02	-- -	-- -	-- -	<0.0050	<0.0050	-- -	-- -	-- -
Indeno(1,2,3-cd)pyrene	µg/g	0.76	**0.01**	-- -	-- -	-- -	**0.01**	<0.0050	-- -	-- -	-- -
1+2-Methylnaphthalenes	µg/g	76	<0.04	-- -	-- -	-- -	<0.0071	<0.0071	-- -	-- -	-- -
1-Methylnaphthalene	µg/g	76	<0.02	-- -	-- -	-- -	<0.0050	<0.0050	-- -	-- -	-- -
2-Methylnaphthalene	µg/g	76	<0.02	-- -	-- -	-- -	<0.0050	<0.0050	-- -	-- -	-- -
Naphthalene	µg/g	9.6	<0.02	-- -	-- -	-- -	<0.0050	<0.0050	-- -	-- -	-- -
Phenanthrene	µg/g	12	<0.02	-- -	-- -	-- -	<0.0050	<0.0050	-- -	-- -	-- -
Pyrene	µg/g	96	**0.01**	-- -	-- -	-- -	**0.01**	<0.0050	-- -	-- -	-- -
Cyanides											
Cyanide, Weak Acid Diss	µg/g	0.051	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Polychlorinated Biphenyls											
Total PCB	µg/g	1.1	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Saturated Paste Extractables											
Sodium Adsorption Ratio		12	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Calcium[4]	mg/L	--	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Magnesium[4]	mg/L	--	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Sodium[4]	mg/L	--	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Physical Tests											
Electrical Conductivity	mS/cm	1.4	**2.78**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
pH	pH units	--	**8.12**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -

Table 1
Available Soil Analytical Data
2625 Sheffield Road and 1360 Humber Place, Ottawa, Ontario

				2021 EXP Delineation						2021 AECOM Geotechnical Investigation	
Report Source			**Maximum Concentration**								
Location ID				BH203	BH204	BH205	BH206	BH207	BH208	BH-7	BH-18
Sample ID				BH203-S2	BH204-S2	BH205-S6	BH206-S6	BH207-S8	BH208-S8	S-60634622-BH7-SS1	S-60634622-BH18-SS1
Date Sampled				5-Nov-2020	5-Nov-2020	9-Nov-2020	9-Nov-2020	5-Nov-2020	5-Nov-2020	15-Jan-2021	15-Jan-2021
Sample Depth (m bgs)				0.6 - 1.2	0.6 - 1.2	3.1 - 3.7	3.1 - 3.7	4.3 - 4.9	4.3 - 4.9	0 - 0.6	0 - 0.6
QA/QC											
Lab Sample ID				2045529-03	2045529-04	2046046-01	2046046-02	2045529-05	2045529-06	1979229	1979230
	Units	***Table 3 SCS*** [1]									
Volatile Organic Compounds											
Acetone	µg/g	16	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzene	µg/g	0.32	<0.03	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	-- -	-- -
Bromodichloromethane	µg/g	18	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Bromoform	µg/g	0.61	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Bromomethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Carbon tetrachloride	µg/g	0.21	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Chlorobenzene	µg/g	2.4	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Dibromochloromethane	µg/g	13	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Chloroform	µg/g	0.47	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,2-Dibromoethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,2-Dichlorobenzene	µg/g	6.8	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,3-Dichlorobenzene	µg/g	9.6	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,4-Dichlorobenzene	µg/g	0.2	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Dichlorodifluoromethane	µg/g	16	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1-Dichloroethane	µg/g	17	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,2-Dichloroethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1-Dichloroethylene	µg/g	0.064	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
cis-1,2-Dichloroethylene	µg/g	55	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
trans-1,2-Dichloroethylene	µg/g	1.3	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Methylene Chloride	µg/g	1.6	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,2-Dichloropropane	µg/g	0.16	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
cis-1,3-Dichloropropene[2]	µg/g	--	<0.030	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
trans-1,3-Dichloropropene[2]	µg/g	--	<0.040	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,3-Dichloropropene (cis & trans)	µg/g	0.18	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Ethylbenzene	µg/g	9.5	**0.17**	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-- -	-- -
n-Hexane	µg/g	46	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Methyl Ethyl Ketone	µg/g	70	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Methyl Isobutyl Ketone	µg/g	31	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Methyl tert butyl ether (MTBE)	µg/g	11	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Styrene	µg/g	34	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1,1,2-Tetrachloroethane	µg/g	0.087	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1,2,2-Tetrachloroethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Tetrachloroethylene	µg/g	4.5	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Toluene	µg/g	68	**0.12**	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-- -	-- -
1,1,1-Trichloroethane	µg/g	6.1	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1,1,2-Trichloroethane	µg/g	0.05	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Trichloroethylene	µg/g	0.91	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Trichlorofluoromethane	µg/g	4	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Vinyl chloride	µg/g	0.032	<0.020	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
o-Xylene[3]	µg/g	26	**0.15**	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-- -	-- -
m+p-Xylenes[3]	µg/g	26	**0.18**	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-- -	-- -
Xylenes (Total)[3]	µg/g	26	**0.33**	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	-- -	-- -
Petroleum Hydrocarbons											
F1 (C6-C10)	µg/g	55	**64**	<7	<7	<7	<7	<7	<7	-- -	-- -
F1-BTEX	µg/g	55	**61**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
F2 (C10-C16)	µg/g	230	**990**	<4	<4	<4	<4	<4	<4	-- -	-- -
F3 (C16-C34)	µg/g	1,700	**420**	<8	<8	<8	<8	<8	<8	-- -	-- -
F4 (C34-C50)	µg/g	3,300	**55**	<6	<6	<6	<6	<6	<6	-- -	-- -
F4G-SG (GHH-Silica)	µg/g	3,300	**-- -**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Metals											
Antimony	µg/g	40	**0.37**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Arsenic	µg/g	18	**5.7**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Barium	µg/g	670	**215**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Beryllium	µg/g	8	**0.84**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Boron (Hot Water Soluble)	µg/g	2	**0.36**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Boron	µg/g	120	**7.1**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Cadmium	µg/g	1.9	**0.61**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Chromium (Total)	µg/g	160	**40**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Chromium, Hexavalent	µg/g	8	**0.37**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Cobalt	µg/g	80	**13**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Copper	µg/g	230	**34**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Lead	µg/g	120	**50**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Mercury	µg/g	3.9	<0.050	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Molybdenum	µg/g	40	**3.3**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Nickel	µg/g	270	**29**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Selenium	µg/g	5.5	<0.50	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Silver	µg/g	40	**0.21**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Thallium	µg/g	3.3	**0.25**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Uranium	µg/g	33	**0.78**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Vanadium	µg/g	86	**56**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Zinc	µg/g	340	**110**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Polycyclic Aromatic Hydrocarbons											
Acenaphthene	µg/g	96	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Acenaphthylene	µg/g	0.15	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Anthracene	µg/g	0.67	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(a)anthracene	µg/g	0.96	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(a)pyrene	µg/g	0.3	**0.0089**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(b&j)fluoranthene	µg/g	0.96	**0.017**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(g,h,i)perylene	µg/g	9.6	**0.015**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(k)fluoranthene	µg/g	0.96	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Chrysene	µg/g	9.6	**0.0063**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Dibenz(a,h)anthracene	µg/g	0.1	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Fluoranthene	µg/g	9.6	**0.0089**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Fluorene	µg/g	62	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Indeno(1,2,3-cd)pyrene	µg/g	0.76	**0.01**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1+2-Methylnaphthalenes	µg/g	76	<0.04	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1-Methylnaphthalene	µg/g	76	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
2-Methylnaphthalene	µg/g	76	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Naphthalene	µg/g	9.6	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Phenanthrene	µg/g	12	<0.02	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Pyrene	µg/g	96	**0.01**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Cyanides											
Cyanide, Weak Acid Diss	µg/g	0.051	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Polychlorinated Biphenyls											
Total PCB	µg/g	1.1	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Saturated Paste Extractables											
Sodium Adsorption Ratio		12	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Calcium[4]	mg/L	--	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Magnesium[4]	mg/L	--	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Sodium[4]	mg/L	--	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Physical Tests											
Electrical Conductivity	mS/cm	1.4	**2.78**	-- -	-- -	-- -	-- -	-- -	-- -	**1.19**	**2.78**
pH	pH units	--	**8.12**	-- -	-- -	-- -	-- -	-- -	-- -	**8.12**	**7.58**

Table 1
Available Soil Analytical Data
2625 Sheffield Road and 1360 Humber Place, Ottawa, Ontario

Notes:

[1] Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for Industrial/Commercial/Community property uses and coarse textured soils from Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (MOECC, 2011) (Table 3 SCS)

[2] The Table 3 SCS applies to the total of cis-1,3-dichloropropene and

Associated value greater than Table 3 SCS

Associated value greater than Table 3 SCS; however, exemption under O. Reg. 153/04, Section 49.1, Paragraph 1 being relied upon and not a contaminant of concern

- - no Table 3 SCS available
-- - not analyzed
% - percentage
< - analyte was not detected at a concentration greater than the associated analytical reporting limit
µg/g - micrograms per gram
mS/cm - millisiemens/centimeter
dd-mmm-yy - day-month-year
duplicate - field duplicate sample
ID - identifier
m bgs - metres below ground surface
QA/QC - quality assurance/quality control
SCS - site condition standard

Table 2
Available Groundwater Analytical Data
2625 Sheffield Road and 1360 Humber Place, Ottawa, Ontario

				2010 Trow Phase II ESA					2020 EXP Phase II ESA		
Report Source											
Location				MW10-1	MW10-3	MW10-4	MW10-5	MW10-6	BH/MW101	BH/MW102	BH/MW103
Sample ID			Maximum	MW10-1	MW10-3	MW10-4	MW10-5	MW10-6	BH/MW101	BH/MW102	BH/MW103
Date Sampled			Concentrations	22-Feb-2010	22-Feb-2010	22-Feb-2010	22-Feb-2010	22-Feb-2010	8-Sep-2020	8-Sep-2020	8-Sep-2020
Screen Interval (m bgs)				3.05 - 6.10	2.44 - 5.49	2.44 - 5.49	2.44 - 5.49	2.44 - 5.49	1.52 - 4.57	1.52 - 4.57	2.13 - 5.18
QA/QC											
Laboratory Sample ID				1009034-01	1009034-02	1009034-03	1009034-04	1009034-05	NOW680	NOW681	NOW682
	Units	***Table 3 SCS*** [1]									
Volatile Organic Compounds											
Acetone	µg/L	130,000	<10	-- -	-- -	-- -	-- -	-- -	<10	<10	<10
Benzene	µg/L	44	<0.5	-- -	<0.5	<0.5	<0.5	<0.5	<0.20	<0.20	<0.20
Bromodichloromethane	µg/L	85,000	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
Bromoform	µg/L	380	<1.0	-- -	-- -	-- -	-- -	-- -	<1.0	<1.0	<1.0
Bromomethane	µg/L	5.6	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
Carbon tetrachloride	µg/L	0.79	<0.20	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
Chlorobenzene	µg/L	630	<0.20	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
Dibromochloromethane	µg/L	82,000	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
Chloroform	µg/L	2.4	<0.20	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
1,2-Dibromoethane	µg/L	0.25	<0.20	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
1,2-Dichlorobenzene	µg/L	4,600	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	µg/L	9,600	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	µg/L	8	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
Dichlorodifluoromethane	µg/L	4,400	<1.0	-- -	-- -	-- -	-- -	-- -	<1.0	<1.0	<1.0
1,1-Dichloroethane	µg/L	320	<0.20	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
1,2-Dichloroethane	µg/L	1.6	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
1,1-Dichloroethylene	µg/L	1.6	<0.20	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
cis-1,2-Dichloroethylene	µg/L	1.6	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
trans-1,2-Dichloroethylene	µg/L	1.6	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
Methylene Chloride	µg/L	610	<2.0	-- -	-- -	-- -	-- -	-- -	<2.0	<2.0	<2.0
1,2-Dichloropropane	µg/L	16	<0.20	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
cis-1,3-Dichloropropene[2]	µg/L	5.2	<0.30	-- -	-- -	-- -	-- -	-- -	<0.30	<0.30	<0.30
trans-1,3-Dichloropropene[2]	µg/L	5.2	<0.40	-- -	-- -	-- -	-- -	-- -	<0.40	<0.40	<0.40
1,3-Dichloropropene (cis & trans)	µg/L	5.2	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
Ethylbenzene	µg/L	2,300	<0.5	-- -	<0.5	<0.5	<0.5	<0.5	<0.20	<0.20	<0.20
n-Hexane	µg/L	51	<1.0	-- -	-- -	-- -	-- -	-- -	<1.0	<1.0	<1.0
Methyl Ethyl Ketone	µg/L	470,000	<10	-- -	-- -	-- -	-- -	-- -	<10	<10	<10
Methyl Isobutyl Ketone	µg/L	140,000	<5.0	-- -	-- -	-- -	-- -	-- -	<5.0	<5.0	<5.0
MTBE	µg/L	190	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
Styrene	µg/L	1,300	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	µg/L	3.3	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	µg/L	3.2	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
Tetrachloroethylene	µg/L	1.6	<0.20	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
Toluene	µg/L	18,000	<0.5	-- -	<0.5	<0.5	<0.5	<0.5	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	µg/L	640	<0.20	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
1,1,2-Trichloroethane	µg/L	4.7	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
Trichloroethylene	µg/L	1.6	<0.20	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
Trichlorofluoromethane	µg/L	2,500	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	<0.50	<0.50
Vinyl chloride	µg/L	0.5	<0.20	-- -	-- -	-- -	-- -	-- -	<0.20	<0.20	<0.20
o-Xylene[3]	µg/L	4,200	<0.5	-- -	<0.5	<0.5	<0.5	<0.5	<0.20	<0.20	<0.20
m+p-Xylenes[3]	µg/L	4,200	<0.5	-- -	<0.5	<0.5	<0.5	<0.5	<0.20	<0.20	<0.20
Xylenes (Total)[3]	µg/L	4,200	<1.0	-- -	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20
Petroleum Hydrocarbons											
F1 (C6-C10)	µg/L	750	<200	-- -	<200	<200	<200	<200	<25	<25	<25
F1-BTEX	µg/L	750	<25	-- -	-- -	-- -	-- -	-- -	<25	<25	<25
F2 (C10-C16)	µg/L	150	<100	-- -	<100	<100	<100	<100	<100	<100	<100
F3 (C16-C34)	µg/L	500	<200	-- -	<100	<100	<100	<100	<200	<200	<200
F4 (C34-C50)	µg/L	500	<200	-- -	<100	<100	<100	<100	<200	<200	<200
Dissolved Metals											
Antimony	µg/L	20,000	**26**	-- -	-- -	**26**	-- -	-- -	<0.50	-- -	-- -
Arsenic	µg/L	1,900	**1.5**	-- -	-- -	<10	-- -	-- -	<1.0	-- -	-- -
Barium	µg/L	29,000	**1,000**	-- -	-- -	**990**	-- -	-- -	**1,000**	-- -	-- -
Beryllium	µg/L	67	<1	-- -	-- -	<1	-- -	-- -	<0.40	-- -	-- -
Boron (Total)	µg/L	45,000	**380**	-- -	-- -	<50	-- -	-- -	**96**	-- -	-- -
Cadmium	µg/L	2.7	**0.94**	-- -	-- -	<1	-- -	-- -	**0.88**	-- -	-- -
Chromium	µg/L	810	<50	-- -	-- -	<50	-- -	-- -	<5.0	-- -	-- -
Chromium, Hexavalent	µg/L	140	<0.50	-- -	-- -	-- -	-- -	-- -	<0.50	-- -	-- -
Cobalt	µg/L	66	**16**	-- -	-- -	<5	-- -	-- -	**16**	-- -	-- -
Copper	µg/L	87	**27**	-- -	-- -	<5	-- -	-- -	**19**	-- -	-- -
Lead	µg/L	25	**4.5**	-- -	-- -	<1	-- -	-- -	**0.64**	-- -	-- -
Mercury	µg/L	0.29	<0.10	-- -	-- -	-- -	-- -	-- -	<0.10	-- -	-- -
Molybdenum	µg/L	9,200	**38**	-- -	-- -	**10**	-- -	-- -	**12**	-- -	-- -
Nickel	µg/L	490	**130**	-- -	-- -	**9**	-- -	-- -	**130**	-- -	-- -
Selenium	µg/L	63	<5	-- -	-- -	<5	-- -	-- -	<2.0	-- -	-- -
Silver	µg/L	1.5	**2**	-- -	-- -	**2**	-- -	-- -	<0.090	-- -	-- -
Sodium	µg/L	2,300,000	**1,500,000**	-- -	-- -	**51,400**	-- -	-- -	**1,500,000**	-- -	-- -
Thallium	µg/L	510	**0.078**	-- -	-- -	<1	-- -	-- -	<0.050	-- -	-- -
Uranium	µg/L	420	**9**	-- -	-- -	-- -	-- -	-- -	**5.1**	-- -	-- -
Vanadium	µg/L	250	**3**	-- -	-- -	<10	-- -	-- -	**2.7**	-- -	-- -
Zinc	µg/L	1,100	**110**	-- -	-- -	<20	-- -	-- -	**5.6**	-- -	-- -
Polycyclic Aromatic Hydrocarbons											
Acenaphthene	µg/L	600	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Acenaphthylene	µg/L	1.8	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Anthracene	µg/L	2.4	<0.01	<0.01	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(a)anthracene	µg/L	4.7	<0.01	<0.01	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(a)pyrene	µg/L	0.81	<0.01	<0.01	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(b&j)fluoranthene	µg/L	0.75	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(g,h,i)perylene	µg/L	0.2	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(k)fluoranthene	µg/L	0.4	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Chrysene	µg/L	1	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Dibenz(a,h)anthracene	µg/L	0.52	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Fluoranthene	µg/L	130	<0.01	<0.01	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Fluorene	µg/L	400	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Indeno(1,2,3-cd)pyrene	µg/L	0.2	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1+2-Methylnaphthalenes	µg/L	1,800	<0.10	<0.10	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1-Methylnaphthalene	µg/L	1,800	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
2-Methylnaphthalene	µg/L	1,800	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Naphthalene	µg/L	1,400	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Phenanthrene	µg/L	580	<0.05	<0.05	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Pyrene	µg/L	68	<0.01	<0.01	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Polychlorinated Biphenyls											
Total Polychlorinated Biphenyls	µg/L	7.8	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Anions and Nutrients											
Chloride	mg/L	2,300	**-- -**	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Cyanides											
Cyanide, Weak Acid Diss	µg/L	66	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -

Table 2
Available Groundwater Analytical Data
2625 Sheffield Road and 1360 Humber Place, Ottawa, Ontario

			2020 EXP Phase II ESA							
		Report Source								
		Location	BH/MW104	BH/MW105	BH/MW106	BH/MW109	MW10-3	MW10-4	MW10-6	MW10-6
		Sample ID	BH/MW104	BH/MW105	BH/MW106	BH/MW109	MW10-3	MW10-4	MW10-6	DUP
		Date Sampled	8-Sep-2020	8-Sep-2020	8-Sep-2020	8-Sep-2020	8-Sep-2020	29-Sep-2020	8-Sep-2020	8-Sep-2020
		Screen Interval (m bgs)	2.44 - 5.49	1.98 - 5.03	1.98 - 5.03	1.98 - 5.03	2.44 - 5.49	2.44 - 5.49	2.44 - 5.49	2.44 - 5.49
		QA/QC								Duplicate
		Laboratory Sample ID	NOW683	NOW684	NOW685	NOW686	NOW687	NTL924	NOW688	NOW689
	Units	*Table 3 SCS* [1]								
Volatile Organic Compounds										
Acetone	µg/L	130,000	<10	<10	<10	<10	-- -	-- -	<10	<10
Benzene	µg/L	44	<0.20	<0.20	<0.20	<0.20	<0.20	-- -	<0.20	<0.20
Bromodichloromethane	µg/L	85,000	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Bromoform	µg/L	380	<1.0	<1.0	<1.0	<1.0	-- -	-- -	<1.0	<1.0
Bromomethane	µg/L	5.6	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Carbon tetrachloride	µg/L	0.79	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
Chlorobenzene	µg/L	630	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
Dibromochloromethane	µg/L	82,000	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Chloroform	µg/L	2.4	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
1,2-Dibromoethane	µg/L	0.25	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
1,2-Dichlorobenzene	µg/L	4,600	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
1,3-Dichlorobenzene	µg/L	9,600	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
1,4-Dichlorobenzene	µg/L	8	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Dichlorodifluoromethane	µg/L	4,400	<1.0	<1.0	<1.0	<1.0	-- -	-- -	<1.0	<1.0
1,1-Dichloroethane	µg/L	320	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
1,2-Dichloroethane	µg/L	1.6	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
1,1-Dichloroethylene	µg/L	1.6	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
cis-1,2-Dichloroethylene	µg/L	1.6	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
trans-1,2-Dichloroethylene	µg/L	1.6	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Methylene Chloride	µg/L	610	<2.0	<2.0	<2.0	<2.0	-- -	-- -	<2.0	<2.0
1,2-Dichloropropane	µg/L	16	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
cis-1,3-Dichloropropene[2]	µg/L	5.2	<0.30	<0.30	<0.30	<0.30	-- -	-- -	<0.30	<0.30
trans-1,3-Dichloropropene[2]	µg/L	5.2	<0.40	<0.40	<0.40	<0.40	-- -	-- -	<0.40	<0.40
1,3-Dichloropropene (cis & trans)	µg/L	5.2	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Ethylbenzene	µg/L	2,300	<0.20	<0.20	<0.20	<0.20	<0.20	-- -	<0.20	<0.20
n-Hexane	µg/L	51	<1.0	<1.0	<1.0	<1.0	-- -	-- -	<1.0	<1.0
Methyl Ethyl Ketone	µg/L	470,000	<10	<10	<10	<10	-- -	-- -	<10	<10
Methyl Isobutyl Ketone	µg/L	140,000	<5.0	<5.0	<5.0	<5.0	-- -	-- -	<5.0	<5.0
MTBE	µg/L	190	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Styrene	µg/L	1,300	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
1,1,1,2-Tetrachloroethane	µg/L	3.3	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
1,1,2,2-Tetrachloroethane	µg/L	3.2	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Tetrachloroethylene	µg/L	1.6	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
Toluene	µg/L	18,000	<0.20	<0.20	<0.20	<0.20	<0.40	-- -	<0.20	<0.20
1,1,1-Trichloroethane	µg/L	640	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
1,1,2-Trichloroethane	µg/L	4.7	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Trichloroethylene	µg/L	1.6	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
Trichlorofluoromethane	µg/L	2,500	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Vinyl chloride	µg/L	0.5	<0.20	<0.20	<0.20	<0.20	-- -	-- -	<0.20	<0.20
o-Xylene[3]	µg/L	4,200	<0.20	<0.20	<0.20	<0.20	<0.20	-- -	<0.20	<0.20
m+p-Xylenes[3]	µg/L	4,200	<0.20	<0.20	<0.20	<0.20	<0.40	-- -	<0.20	<0.20
Xylenes (Total)[3]	µg/L	4,200	<0.20	<0.20	<0.20	<0.20	<0.40	-- -	<0.20	<0.20
Petroleum Hydrocarbons										
F1 (C6-C10)	µg/L	750	<25	<25	<25	<25	<25	-- -	<25	<25
F1-BTEX	µg/L	750	<25	<25	<25	<25	<25	-- -	<25	<25
F2 (C10-C16)	µg/L	150	<100	<100	<100	<100	<100	-- -	<100	<100
F3 (C16-C34)	µg/L	500	<200	<200	<200	<200	<200	-- -	<200	<200
F4 (C34-C50)	µg/L	500	<200	<200	<200	<200	<200	-- -	<200	<200
Dissolved Metals										
Antimony	µg/L	20,000	<0.50	<0.50	**0.55**	**0.64**	-- -	<0.50	<0.50	<0.50
Arsenic	µg/L	1,900	**1.1**	<1.0	**1.4**	**1.5**	-- -	<1.0	<1.0	<1.0
Barium	µg/L	29,000	**160**	**160**	**170**	**280**	-- -	**140**	**99**	**99**
Beryllium	µg/L	67	<0.40	<0.40	<0.40	<0.40	-- -	<0.40	<0.40	<0.40
Boron (Total)	µg/L	45,000	**81**	**380**	**120**	**65**	-- -	**20**	**32**	**31**
Cadmium	µg/L	2.7	<0.090	<0.090	<0.090	**0.15**	-- -	**0.94**	**0.18**	**0.2**
Chromium	µg/L	810	<5.0	<5.0	<5.0	<5.0	-- -	<5.0	<5.0	<5.0
Chromium, Hexavalent	µg/L	140	<0.50	<0.50	<0.50	<0.50	-- -	-- -	<0.50	<0.50
Cobalt	µg/L	66	<0.50	**2.7**	**1.3**	**2.3**	-- -	**4**	**2.6**	**2.7**
Copper	µg/L	87	**3.6**	**1.6**	**3.3**	**7.4**	-- -	**27**	**4.8**	**4.7**
Lead	µg/L	25	<0.50	<0.50	<0.50	<0.50	-- -	**4.5**	**1.1**	**1.1**
Mercury	µg/L	0.29	<0.10	<0.10	<0.10	<0.10	-- -	-- -	<0.10	<0.10
Molybdenum	µg/L	9,200	**18**	**22**	**25**	**38**	-- -	**3.6**	**4.3**	**4.6**
Nickel	µg/L	490	**3.3**	**8**	**7.7**	**35**	-- -	**57**	**17**	**17**
Selenium	µg/L	63	<2.0	<2.0	<2.0	<2.0	-- -	<2.0	<2.0	<2.0
Silver	µg/L	1.5	<0.090	<0.090	<0.090	<0.090	-- -	<0.090	<0.090	<0.090
Sodium	µg/L	2,300,000	**37,000**	**180,000**	**240,000**	**550,000**	-- -	**1,000,000**	**580,000**	**580,000**
Thallium	µg/L	510	<0.050	**0.078**	<0.050	<0.050	-- -	<0.050	<0.050	<0.050
Uranium	µg/L	420	**4.7**	**4.9**	**5.4**	**9**	-- -	**1.3**	**0.79**	**0.77**
Vanadium	µg/L	250	**2.5**	**0.86**	**1.8**	**1.4**	-- -	**1.6**	**3**	**3**
Zinc	µg/L	1,100	<5.0	<5.0	<5.0	**6.7**	-- -	**110**	**26**	**26**
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	µg/L	600	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Acenaphthylene	µg/L	1.8	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Anthracene	µg/L	2.4	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(a)anthracene	µg/L	4.7	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(a)pyrene	µg/L	0.81	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(b&j)fluoranthene	µg/L	0.75	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(g,h,i)perylene	µg/L	0.2	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Benzo(k)fluoranthene	µg/L	0.4	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Chrysene	µg/L	1	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Dibenz(a,h)anthracene	µg/L	0.52	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Fluoranthene	µg/L	130	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Fluorene	µg/L	400	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Indeno(1,2,3-cd)pyrene	µg/L	0.2	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1+2-Methylnaphthalenes	µg/L	1,800	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
1-Methylnaphthalene	µg/L	1,800	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
2-Methylnaphthalene	µg/L	1,800	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Naphthalene	µg/L	1,400	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Phenanthrene	µg/L	580	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Pyrene	µg/L	68	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Polychlorinated Biphenyls										
Total Polychlorinated Biphenyls	µg/L	7.8	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Anions and Nutrients										
Chloride	mg/L	2,300	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -
Cyanides										
Cyanide, Weak Acid Diss	µg/L	66	-- -	-- -	-- -	-- -	-- -	-- -	-- -	-- -

Table 2
Available Groundwater Analytical Data
2625 Sheffield Road and 1360 Humber Place, Ottawa, Ontario

Notes:

[1] Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for all types of property uses and coarse textured soils from Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the *Environmental Protection Act* (MOECC, 2011) (Table 3 SCS)

[2] The Table 3 SCS apply to the total of cis-1,3-dichloropropene and trans-1,3-dichloropropene.

[3] The Table 3 SCS apply to the total of m+p-xylenes and o-xylene.

Bold - indicates constituent was detected greater than the analytical reporting limit

Associated value greater than Table 3 SCS

Associated value greater than Table 3 SCS; however, exemption under O.Reg. 153/04, Section 49.1, Paragraph 1 being relied upon and not a contaminant of concern

- - no Table 3 SCS available

-- - not analyzed

< - analyte was not detected at a concentration greater than the associated analytical reporting limit

µg/L - micrograms per litre

ID - identifier

m bgs - metres below ground surface

mg/L - milligrams per litre

mS/cm - milliSiemens per centimetre

QA/QC - quality assurance/quality control

SCS - site condition standard

Table 3
Available Soil Vapour Analytical Data
2625 Sheffield Road and 1360 Humber Place, Ottawa, Ontario

Historical Report Source				**2020 Geosyntec Limited ESA**						
Location ID			**Maximum Concentrations**	SSV-01	SSV-02	SSV-04	SSV-05	SSV-06	SSV-07	SSV-08
Sample ID				SSV-01-20201008	SSV-02-20201008	SSV-04-20201008	SSV-05-20201008	SSV-06-20201008	SSV-07-20201008	SSV-08-20201008
Date Sampled (dd-mmm-yyyy)				8-Oct-20	8-Oct-20	8-Oct-20	8-Oct-20	8-Oct-20	8-Oct-20	8-Oct-20
Lab Sample ID				L2515127-1	L2515127-2	L2515127-3	L2515127-4	L2515127-5	L2515127-6	L2515127-7
	Units	***MECP Screening Level*** [1,2]								
Volatile Organic Compounds										
1,1,1-Trichloroethane	µg/m^3	178,776	**2.5**	<1.1	**2.5**	<1.1	<1.1	<1.1	<1.1	<1.1
1,1,2,2-Tetrachloroethane	µg/m^3	15	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069
1,1,2-Trichloroethane	µg/m^3	56	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055
1,1-Dichloroethane	µg/m^3	29,498	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81	<0.81
1,1-Dichloroethene	µg/m^3	12,514	**10**	<0.79	<0.79	<0.79	<0.79	**10**	<0.79	<0.79
1,2,4-Trichlorobenzene	µg/m^3	1,430	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
1,2,4-Trimethylbenzene	µg/m^3	--	**85.1**	**26.7**	<0.98	**1.4**	**1.6**	**85.1**	<0.98	<0.98
1,2-Dibromoethane	µg/m^3	1.49	<0.077	<0.077	<0.077	<0.077	<0.077	<0.077	<0.077	<0.077
1,2-Dichlorobenzene	µg/m^3	107,265	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
1,2-Dichloroethane	µg/m^3	34	**188**	<0.040	<0.040	<0.040	<0.040	**188**	<0.040	<0.040
1,2-Dichloropropane	µg/m^3	715	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14
1,3,5-Trimethylbenzene	µg/m^3	--	**45.3**	**6.8**	<0.98	**1.0**	**1.3**	**45.3**	<0.98	<0.98
1,3-Butadiene	µg/m^3	--	**3.62**	<0.22	<0.22	**1.5**	**0.39**	**3.62**	<0.22	<0.22
1,3-Dichlorobenzene	µg/m^3	--	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2
1,4-Dichlorobenzene	µg/m^3	223	**0.61**	**0.18**	<0.12	**0.14**	**0.4**	<0.12	<0.12	**0.61**
1,4-Dioxane	µg/m^3	643,592	**3.00**	<0.72	**1.44**	<0.72	<0.72	**3.00**	<0.72	**2.09**
2-Hexanone	µg/m^3	--	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1
4-Ethyltoluene	µg/m^3	--	**14.7**	**3.41**	<0.98	<0.98	<0.98	**14.7**	<0.98	<0.98
Acetone	µg/m^3	2,145,306	**730**	**300**	**19.7**	**132**	**91.2**	**730**	**97.2**	**101**
Allyl chloride	µg/m^3	--	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63
Benzene	µg/m^3	406	**50.6**	**3.1**	**1.2**	**9.5**	**19.9**	**50.6**	**0.8**	**0.3**
Benzyl chloride	µg/m^3	--	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	µg/m^3	--	**6.1**	<0.67	**6.1**	<0.67	<0.67	<0.67	<0.67	<0.67
Bromoform	µg/m^3	--	**0.39**	<0.21	<0.21	<0.21	<0.21	**0.39**	<0.21	<0.21
Bromomethane	µg/m^3	894	<0.78	<0.78	<0.78	<0.78	<0.78	<0.78	<0.78	<0.78
Carbon Disulfide	µg/m^3	--	**7.15**	**2.03**	**4.05**	**7.15**	**5.86**	**5.32**	<0.62	**0.74**
Carbon Tetrachloride	µg/m^3	358	**0.65**	**0.18**	**0.27**	**0.21**	**0.20**	**0.56**	**0.65**	**0.31**
Chlorobenzene	µg/m^3	178,776	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92	<0.92
Chloroethane	µg/m^3	--	**17.7**	<0.53	<0.53	<0.53	<0.53	**17.7**	<0.53	<0.53
Chloroform	µg/m^3	17,878	**610**	**5.41**	**610**	<0.098	**0.114**	**2.98**	**11.3**	**2.2**
Chloromethane	µg/m^3	--	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
cis-1,2-Dichloroethene	µg/m^3	26,816	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79
cis-1,3-Dichloropropene	µg/m^3	223	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091
Cyclohexane	µg/m^3	--	**48.1**	**2.71**	**1.34**	**13.3**	**14.1**	**48.1**	<0.69	<0.69
Dibromochloromethane	µg/m^3	--	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7
Dichlorodifluoromethane	µg/m^3	--	**6,170**	**2.67**	**2.33**	**2.37**	**3.09**	**6,170**	**2.34**	**2.51**
Ethyl acetate	µg/m^3	--	<0.72	<0.72	<0.72	<0.72	<0.72	<0.72	<0.72	<0.72
Ethylbenzene	µg/m^3	178,776	**39.3**	**18.2**	<0.87	**1.51**	**2.81**	**39.3**	**0.88**	<0.87
Freon 113	µg/m^3	--	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Freon 114	µg/m^3	--	**5.9**	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	**5.9**
Hexachlorobutadiene	µg/m^3	41	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11
Isooctane	µg/m^3	--	**3.84**	<0.93	<0.93	<0.93	<0.93	**3.84**	<0.93	<0.93
Isopropylbenzene	µg/m^3	--	-- -		-- -	-- -	-- -	-- -	-- -	-- -
m&p-Xylene[3]	µg/m^3	125,143	**100**	**100**	**4.3**	**8.1**	**13.7**	**53.9**	**4.7**	<1.7
Methyl ethyl ketone	µg/m^3	250,687	**37.9**	**37.9**	**5.6**	**11.5**	**12.5**	**29.6**	**6.9**	**8.5**
Methyl isobutyl ketone	µg/m^3	150,412	**2.92**	**2.8**	<0.82	**1.1**	<0.82	**1.4**	<0.82	**2.9**
Methylene chloride	µg/m^3	38,864	**1.47**	<0.69	<0.69	<0.69	<0.69	**1.47**	<0.69	<0.69
Methyl tert butyl ether (MTBE)	µg/m^3	3,438	<0.72	<0.72	<0.72	<0.72	<0.72	<0.72	<0.72	<0.72
n-Heptane	µg/m^3	--	**180**	**6.1**	**2.4**	**27.9**	**39.3**	**180**	**4.8**	<0.82
n-Hexane	µg/m^3	446,939	**303**	**8.4**	**3.42**	**38.8**	**47.7**	**303**	**3.5**	<0.70
o-Xylene[3]	µg/m^3	125,143	**44**	**44**	**1.0**	**2.4**	**3.5**	**35.2**	**1.1**	<0.87
Propylene	µg/m^3	--	<52.6	<0.34	<0.34	<52.6	<40.5	<49.4	<0.34	<0.34
Styrene	µg/m^3	46,482	<0.85	<0.85	<0.85	<0.85	<0.85	-- -	<0.85	<0.85
Tetrachloroethylene	µg/m^3	3,438	**820**	**820**	**259**	**68.4**	**8.6**	**1.6**	**6.2**	**4.7**
Tetrahydrofuran	µg/m^3	--	**5.91**	**2.18**	<0.59	**4.52**	**2.14**	**5.91**	**0.91**	**3.11**
Toluene	µg/m^3	893,878	**246**	**16.3**	**6.48**	**25.1**	**36.1**	**246**	**9.09**	**1.79**
trans-1,2-Dichloroethene	µg/m^3	10,727	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79	<0.79
trans-1,3-Dichloropropene	µg/m^3	223	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091
Trichloroethylene	µg/m^3	218	**106**	**106**	**2.98**	**0.18**	**0.20**	**1.79**	**0.24**	<0.11
Trichlorofluoromethane	µg/m^3	--	**30.5**	**3**	**17.8**	**4.5**	**22.9**	**30.5**	**4.2**	**4.3**
Vinyl acetate	µg/m^3	--	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8
Vinyl bromide	µg/m^3	--	<0.87	<0.87	<0.87	<0.87	<0.87	<0.87	<0.87	<0.87
Vinyl chloride	µg/m^3	102	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051

Notes:
All sub-slab vapor samples were collected on 8 October 2020.
Sub-slab vapor samples were analyzed for VOCs by US EPA Method TO-15.
Detected concentrations are **bold**.

[1]MECP screening levels for soil vapor calculated using the following equation: Csv = CairT / αv from "Draft Technical Guidance: Soil Vapour Intrusion Assessment September 2013" MOE (PIBS # 8477).

Where: Csv = industrial/commercial soil vapor screening level[2]
CairT = industrial/commercial HBIAC
αv = industrial/commercial attenuation factor (0.004)

[2]All HBIAC values used in the calculation of the soil vapor screening levels were from "Modified Generic Risk Assessment 'Approved Model' November 2016", MOECC (PIBS # 8450e).

[3]Risk-based screening level provided for Xylene mixture.
HBIAC = Health Based Indoor Air Criteria

MECP = Ontario Ministry of Environment, Conservation, and Parks, (Previously Ministry of Environment [MOE], and Ministry of Environment and Climate Change [MOECC])

VOCs = Volatile Organic Compounds
US EPA = United States Environmental Protection Agency
µg/m^3 = Micrograms per cubic meter
-- = Screening level not available
"<" = Compound not detected above laboratory reporting limit shown.

Table 4
Sampling and Analysis Plan
2625 Sheffield Road and 1360 Humber Place,
Ottawa, Ontario

Proposed Investigation Location	Media	Parameter Suite: Metals	As, Sb, Se	Cr (VI)	CN-	Hg	EC and SAR	Na, Cl	B-HWS	VOCs	BTEX	PHCs F1-F4	PAHs	PFAS	PCBs	pH	Grain Size	Sampling System	Target Lithological Unit	Soil Sampling Depths (m bgs)	Maximum Borehole Depth (m bgs)	Monitoring Well Screened Interval (m bgs)	Rationale/Comments
Sampling and Analysis Plan																							
Proposed Borehole Locations (No Monitoring Wells)																							
BH22-3	Soil	•	•	•	•	•	•		•	•	•	•	•			•		Judgemental	Fill	0.0 to 3.0	6.1	NA	
	Soil[a]	•	•	•	•	•	•		•	•	•	•	•			•		Judgemental	Upper OB	3.0 to 6.1			
BH22-6	Soil	•	•	•	•	•	•		•	•	•	•	•			•		Judgemental	Fill	0.0 to 1.5	3.0	NA	
	Soil[a]	•	•	•	•	•	•		•	•	•	•	•			•		Judgemental	Upper OB	1.5 to 3.0			
BH22-7	Soil	•	•	•	•	•	•		•	•	•	•	•			•		Judgemental	Fill	0.0 to 1.5	3.0	NA	
	Soil[a]	•	•	•	•	•	•		•	•	•	•	•			•		Judgemental	Upper OB	1.5 to 3.0			
BH22-8	Soil	•	•	•	•	•	•		•	•	•	•	•			•		Judgemental	Fill	0.0 to 1.5	3.0	NA	Soil samples should represent 'worse-case' conditions observed over the prescribed intervals.
	Soil[a]	•	•	•	•	•	•		•	•	•	•	•			•		Judgemental	Upper OB	1.5 to 3.0			
BH22-9	Soil	•	•	•	•	•	•		•	•	•	•	•			•		Judgemental	Fill	0.0 to 1.5	3.0	NA	
	Soil[a]	•	•	•	•	•	•		•	•	•	•	•			•		Judgemental	Upper OB	1.5 to 3.0			
BH22-10	Soil	•	•	•	•	•	•		•	•	•	•	•	•		•		Judgemental	Fill	0.0 to 1.5	3.0	NA	
	Soil[a]	•	•	•	•	•	•		•	•	•	•	•	•		•	•	Judgemental	Upper OB	1.5 to 3.0			
BH22-11	Soil	•	•	•	•	•	•		•	•	•	•	•			•		Judgemental	Fill	0.0 to 1.5	3.0	NA	
	Soil[a]	•	•	•	•	•	•		•	•	•	•	•			•		Judgemental	Upper OB	1.5 to 3.0			
Proposed Borehole and Monitoring Well Locations																							
MW22-1	Soil	•	•	•	•	•	•		•	•	•	•	•			•		Judgemental	Fill	0.0 to 1.5	6.1[b]	1.5 to 4.6[b]	Soil samples should represent 'worse-case' conditions observed over the indicated intervals. Monitoring well screened intervals should straddle the water table.
	Soil	•	•	•	•	•	•		•	•	•	•	•			•		Judgemental	Upper OB	1.5 to 3.0*			
	Soil[a]	•	•	•	•	•	•		•	•	•	•	•			•	•	Judgemental	Upper OB	3.0 to 6.1			
	Groundwater									•	•	•						Judgemental	UGBZ	NA			
MW22-2	Soil	•	•	•	•	•	•		•	•	•	•	•			•		Judgemental	Fill	0.0 to 1.5	6.1[b]	1.5 to 4.6[b]	
	Soil	•	•	•	•	•	•		•	•	•	•	•			•		Judgemental	Upper OB	1.5 to 3.0*			
	Soil[a]	•	•	•	•	•	•		•	•	•	•	•			•		Judgemental	Upper OB	3.0 to 6.1			
	Groundwater									•	•	•						Judgemental	UGBZ	NA			
MW22-4	Soil	•	•	•	•	•	•		•	•	•	•	•			•		Judgemental	Fill	0.0 to 1.5	6.1[b]	1.5 to 4.6[b]	
	Soil[a]	•	•	•	•	•	•		•	•	•	•	•			•		Judgemental	Upper OB	1.5 to 6.1			
	Groundwater	•	•	•	•	•		•		•	•	•	•					Judgemental	UGBZ	NA			
MW22-5	Soil	•	•	•	•	•	•		•	•	•	•	•			•		Judgemental	Fill	0.0 to 1.5	6.1[b]	1.5 to 4.6[b]	
	Soil[a]	•	•	•	•	•	•		•	•	•	•	•			•	•	Judgemental	Upper OB	1.5 to 6.1			
	Groundwater	•	•	•	•	•		•		•	•	•	•					Judgemental	UGBZ	NA			
Existing Monitoring Well Locations																							
MW10-1	Groundwater	•	•	•	•	•		•		•	•	•	•					Judgemental	UGBZ	NA	NA	3.0 to 6.1	
MW10-3	Groundwater									•	•							Judgemental	UGBZ	NA	NA	2.4 to 5.5	
MW10-4	Groundwater									•	•							Judgemental	UGBZ	NA	NA	2.4 to 5.5	
MW10-5	Groundwater									•	•							Judgemental	UGBZ	NA	NA	2.4 to 5.5	
MW10-6	Groundwater	•	•	•	•	•		•		•	•	•	•					Judgemental	UGBZ	NA	NA	2.4 to 5.5	
MW101	Groundwater	•	•	•	•	•		•		•	•	•	•					Judgemental	UGBZ	NA	NA	1.5 to 4.6	Existing monitoring wells are assumed to be in suitable condition for sampling
MW102	Groundwater									•	•	•						Judgemental	UGBZ	NA	NA	1.5 to 4.6	
MW103	Groundwater									•	•	•						Judgemental	UGBZ	NA	NA	2.1 to 5.2	
MW104	Groundwater	•	•	•	•	•		•		•	•	•	•					Judgemental	UGBZ	NA	NA	2.4 to 5.5	
MW105	Groundwater	•	•	•	•	•		•		•	•	•	•					Judgemental	UGBZ	NA	NA	2.0 to 5.0	
MW106	Groundwater	•	•	•	•	•		•		•	•	•	•					Judgemental	UGBZ	NA	NA	2.0 to 5.0	
MW109	Groundwater	•	•	•	•	•		•		•	•	•	•		•			Judgemental	UGBZ	NA	NA	2.0 to 5.0	
	Total Soil Samples	24	24	24	24	24	24		24	24	24	24	24	2		24	3						
	Soil Field Duplicates	3	3	3	3	3	3		3	3	3	3	3	1		3	0						
	Equipment Blanks													2									
	Total Groundwater Samples	9	9	9	9	9		9		13	16	16	9	0	1								
	Groundwater Field Duplicates	1	1	1	1	1		1		2	2	2	1	0	1								
	Trip Blank									1	1	1											
	Maximum Number of Samples	37	37	37	37	37	27	10	27	43	46	46	37	5	2	27	3						

Notes:

[a] - To be Submitted on Hold for Delineation Purposes
[b] – Dependent on Depth of Water Table
APEC – Area of Potential Environmental Concern
COPC – Contaminant of Potential Concern
m bgs – Metres Below Ground Surface
NA – Not Applicable
UGBZ – Upper Groundwater Bearing Zone
OB – Overburden
VOCs – Volatile Organic Compounds
PHCs F1-F4 – Petroleum Hydrocarbons Fractions F1 to F4
PAHs – Polycyclic Aromatic Hydrocarbons
As, Sb, Se – Arsenic, Antimony and Selenium
CN^- – Cyanide
Cr (VI) – Hexavalent Chromium
B-HWS – Boron (Hot Water Soluble)
EC – Electrical Conductivity
Hg – Mercury
SAR – Sodium Adsorption Ratio
BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PFAS - Perfluoroalkyl and Polyfluoroalkyl Substances
PCBs - Polychlorinated Biphenyls

APPENDIX B

BOREHOLE LOGS AND SOIL VAPOUR SAMPLING FORMS

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Borehole No. MW22-1 Page 1 of 1 Borehole Log

Project No.:	TR841C8D1-038A	**Location:**	2625 Sheffield Road, Ottawa, ON
Client:	Prime	**Coordinates:**	5029841.81 N 374795.62 E
Logged By:	BW	**Borehole Diameter:**	203 mm
Reviewed By:	FS	**Site Datum:**	CGVD28
Drilling Company:	Aardvark	**Ground Surface Elevation:**	67.32 m amsl
Drilling Method:	DPT	**Top PVC Casing Elevation:**	67.2 m amsl
Well Material:	N/A	**Completion Date:**	26 May 2022

Depth (m)	Depth (ft)	Water Level	Stratigraphy	Lithologic Description	Geologic Samples: Unified Soil Classification	Recovery (%)	PID (ppmv)	OVM (ppmv)	Soil Sample ID	Well Configuration	Comments
				ASPHALT							Flush-mount protective cover
				Granular Base							
	1			Sand and gravel FILL; trace silt; trace cobbles; dark brown; trace oxidation; dry; loose			0.0	10	1A		
	2										
	3			light brown		75					Bentonite Pellets
1	4						0.0	10	1B		2-inch Diameter SCH 40 PVC Riser
	5			1" cobble at 1.5 m (5 ft)							
	6			Silty CLAY; trace sand; grey; trace oxidation; moist; firm			0.0	0	2A		
2	7					100					
	8						0.0	0	2B		
	9										
3	10			greyish brown; soft			0.0	0	3A		
	11										
	12			transitioning to grey							Silica Sand (#2)
4	13			grey; moist to wet	CL	100	0.0	0	3B		
	14										
	15			wet							
	16						0.0	5	4A		
5	17					100					2-inch Diameter Slotted SCH 40 PVC Screen (0.01 inch)
	18						0.0	5	4B		
	19										
6	20			Borehole depth 6.1 m (20 ft) bgs							2-inch Diameter PVC End Cap
	21										
	22										
7	23										
	24										

Notes:
% - percentage
bgs - below ground surface
ft - feet
m - metres
PID - photoionization detector
ppmv - parts per million by volume

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Borehole No. MW22-2 Page 1 of 1 Borehole Log

Project No.:	TR841C8D1-038A	**Location:**	2625 Sheffield Road, Ottawa, ON
Client:	Prime	**Coordinates:**	5029778.97 N 374792.96 E
Logged By:	BW	**Borehole Diameter:**	203 mm
Reviewed By:	FS	**Site Datum:**	CGVD28
Drilling Company:	Aardvark	**Ground Surface Elevation:**	68.07 m amsl
Drilling Method:	DPT	**Top PVC Casing Elevation:**	67.99 m amsl
Well Material:	N/A	**Completion Date:**	26 May 2022

Depth (m)	Depth (ft)	Water Level	Stratigraphy	Lithologic Description	Geologic Samples: Unified Soil Classification	Recovery (%)	PID (ppmv)	OVM (ppmv)	Soil Sample ID	Well Configuration	Comments
				Topsoil						Flush-mount protective cover	
	1			Medium to fine sand FILL; some silty clay; brown; dry; loose			0.0	8	1A		
	2					57				Bentonite Pellets	
1	3						0.0	0	1B	2-inch Diameter SCH 40 PVC Riser	
	4										
	5										
	6						0.0	10	2A	Silica Sand (#2)	
2	7					50					
	8									2-inch Diameter Slotted SCH 40 PVC Screen (0.01 inch)	
	9						0.0	5	2B		
3	10			CONCRETE at 3.0 m (10 ft)							
	11			fine SAND; grey; wet; loose; petroleum odour; black staining; sheen on wet soil	SP		0.0	10	3A		
	12			Silty CLAY; trace sand; grey; wet; soft; no odour; no staining		55					
4	13						0.0	5	3B		
	14										
	15									2-inch Diameter PVC End Cap	
	16				CL		0.0	5	4A		
5	17					100					
	18						0.0	5	4B		
	19										
6	20			Borehole depth 6.1 m (20 ft) bgs							
	21										
	22										
7	23										
	24										

Notes:
% - percentage
bgs - below ground surface
ft - feet
m - metres
PID - photoionization detector
ppmv - parts per million by volume

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Borehole No. BH22-3 Page 1 of 1 Borehole Log

Project No.:	TR841C8D1-038A	**Location:**	2625 Sheffield Road, Ottawa, ON
Client:	Prime	**Coordinates:**	Not Surveyed
Logged By:	BW	**Borehole Diameter:**	127 mm
Reviewed By:	FS	**Site Datum:**	Not Surveyed
Drilling Company:	Aardvark	**Ground Surface Elevation:**	Not Surveyed
Drilling Method:	Bosch Hammer Drill	**Top PVC Casing Elevation:**	Not Surveyed
Well Material:	N/A	**Completion Date:**	26 May 2022

Depth (m)	Depth (ft)	Water Level	Stratigraphy	Lithologic Description	Geologic Samples: Unified Soil Classification	Recovery (%)	PID (ppmv)	OVM (ppmv)	Soil Sample ID	Comments
				CONCRETE						
	1			Silty CLAY; trace gravel; grey with brown mottling; wet; soft; sulphur odour	CL	37	0.0	5	1	
	2									
1	3					100	0.0	15	2	
	4			Borehole depth 1.2 m (4 ft) bgs						Notes: % - percentage bgs - below ground surface ft - feet m - metres PID - photoionization detector ppmv - parts per million by volume
	5									
	6									
2	7									
	8									
	9									
3	10									
	11									
	12									
4	13									
	14									
	15									
5	16									
	17									
	18									
	19									
6	20									
	21									
	22									
7	23									
	24									

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Borehole No. MW22-4 Page 1 of 1 Borehole Log

Project No.:	TR841C8D1-038A	**Location:**	2625 Sheffield Road, Ottawa, ON
Client:	Prime	**Coordinates:**	5029763.51 N 375002.27 E
Logged By:	BW	**Borehole Diameter:**	203 mm
Reviewed By:	FS	**Site Datum:**	CGVD28
Drilling Company:	Aardvark	**Ground Surface Elevation:**	67.15 m amsl
Drilling Method:	DPT	**Top PVC Casing Elevation:**	67.03 m amsl
Well Material:	N/A	**Completion Date:**	24 May 2022

Depth (m)	Depth (ft)	Water Level	Stratigraphy	Lithologic Description	Geologic Samples: Unified Soil Classification	Recovery (%)	PID (ppmv)	OVM (ppmv)	Soil Sample ID	Well Configuration	Comments
				ASPHALT							Flush-mount protective cover
				Granular Base							
	1			Sand and Gravel FILL; trace silt; greyish brown; dry; loose		58	0.0	55	1A		Bentonite Pellets
	2										
1	3			some silt; trace cobbles; brown; moist; loose			0.0	45	1B		2-inch Diameter SCH 40 PVC Riser
	4										
	5			some gravel							
	6			SAND; trace silt; trace gravel; medium; brown; moist to wet; loose	SP	75	0.0	40	2A		Silica Sand (#2)
2	7										
	8			Silty CLAY; grey with brown mottling; wet; loose			0.0	40	2B		2-inch Diameter Slotted SCH 40 PVC Screen (0.01 inch)
	9			moist; firm							
3	10										
	11			some coarse sand; trace cobble; grey; wet; soft	CL	100	0.0	55	3A		
	12										
	13			moist			0.0	45	3B		
4	14										
	15			SAND; some gravel; trace cobble and silt; coarse; grey; wet; loose	SP						2-inch Diameter PVC End Cap
	16						0.0	90	4A		
5	17			Silty CLAY; grey; soft; wet	CL	100					
	18						0.0	105	4B		
	19										
6	20			Borehole depth 6.1 m (20 ft) bgs							
	21										
	22										
7	23										
	24										

Notes:
% - percentage
bgs - below ground surface
ft - feet
m - metres
PID - photoionization detector
ppmv - parts per million by volume

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Borehole No. MW22-5 Page 1 of 1 Borehole Log

Project No.:	TR841C8D1-038A	**Location:**	2625 Sheffield Road, Ottawa, ON
Client:	Prime	**Coordinates:**	5029876.71 N 374961.93 E
Logged By:	BW	**Borehole Diameter:**	203 mm
Reviewed By:	FS	**Site Datum:**	CGVD28
Drilling Company:	Aardvark	**Ground Surface Elevation:**	67.48 m amsl
Drilling Method:	DPT	**Top PVC Casing Elevation:**	67.38 m amsl
Well Material:	N/A	**Completion Date:**	24 May 2022

Depth (m)	Depth (ft)	Water Level	Stratigraphy	Lithologic Description	Geologic Samples: Unified Soil Classification	Recovery (%)	PID (ppmv)	OVM (ppmv)	Soil Sample ID	Well Configuration	Comments
				ASPHALT							Flush-mount protective cover
				Granular Base							
	1			Sand FILL; some gravel; light brown; medium to coarse; dry; loose			0.0	25	1A		
	2					60					Bentonite Pellets
1	3						0.0	25	1B		
	4										2-inch Diameter SCH 40 PVC Riser
	5			trace gravel; brown; wet							
	6						0.0	15	2A		
2	7			Silty CLAY; trace cobbles; grey with brown mottling; moist; firm		70					
	8						0.0	20	2B		
	9										
3	10				CL						
	11						0.0	20	3A		
	12					100					Silica Sand (#2)
4	13						0.0	30	3B		
	14			SAND; some clay; trace gravel; dark brown; coarse; wet; loose; soft trace cobbles							2-inch Diameter Slotted SCH 40 PVC Screen (0.01 inch)
	15			grey	SP						
5	16			transitioning to Silty CLAY			0.0	40	4A		
	17			Silty CLAY; some sand; trace cobbles; grey and brown; wet; soft		100					
	18				CL						
	19						0.0	40	4B		
6	20										2-inch Diameter PVC End Cap
	21			Borehole depth 6.1 m (20 ft) bgs							
	22										
7	23										
	24										

Notes:
% - percentage
bgs - below ground surface
ft - feet
m - metres
PID - photoionization detector
ppmv - parts per million by volume

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Borehole No. BH22-6 Page 1 of 1 Borehole Log

Project No.:	TR841C8D1-038A	**Location:**	2625 Sheffield Road, Ottawa, ON
Client:	Prime	**Coordinates:**	Not Surveyed
Logged By:	BW	**Borehole Diameter:**	102 mm
Reviewed By:	FS	**Site Datum:**	Not Surveyed
Drilling Company:	Aardvark	**Ground Surface Elevation:**	Not Surveyed
Drilling Method:	DPT	**Top PVC Casing Elevation:**	Not Surveyed
Well Material:	N/A	**Completion Date:**	24 May 2022

Depth (m)	Depth (ft)	Water Level	Stratigraphy	Lithologic Description	Geologic Samples: Unified Soil Classification	Geologic Samples: Recovery (%)	Geologic Samples: PID (ppmv)	Geologic Samples: OVM (ppmv)	Geologic Samples: Soil Sample ID	Comments
				ASPHALT						
				Granular Base						
	1			Sand FILL; some gravel; grey to light brown; dry; loose		83	0.0	10	1A	
	2									
1	3			Sandy SILT; grey; moist; soft	ML		0.0	5	1B	
	4									
	5			Silty CLAY; trace sand; grey; trace oxidation; moist; firm	CL	100	0.0	5	2A	
2	6									
	7			moist to wet; soft						
	8						0.0	5	2B	
	9									
3	10			Borehole depth 3.0 m (10 ft) bgs						Notes: % - percentage bgs - below ground surface ft - feet m - metres PID - photoionization detector ppmv - parts per million by volume
	11									
	12									
4	13									
	14									
	15									
5	16									
	17									
	18									
	19									
6	20									
	21									
	22									
7	23									
	24									

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Borehole No. BH22-7 Page 1 of 1 Borehole Log

Project No.:	TR841C8D1-038A	**Location:**	2625 Sheffield Road, Ottawa, ON
Client:	Prime	**Coordinates:**	Not Surveyed
Logged By:	BW	**Borehole Diameter:**	127 mm
Reviewed By:	FS	**Site Datum:**	Not Surveyed
Drilling Company:	Aardvark	**Ground Surface Elevation:**	Not Surveyed
Drilling Method:	Bosch Hammer Drill	**Top PVC Casing Elevation:**	Not Surveyed
Well Material:	N/A	**Completion Date:**	25 May 2022

Depth (m)	Depth (ft)	Water Level	Stratigraphy	Lithologic Description	Geologic Samples: Unified Soil Classification	Recovery (%)	PID (ppmv)	OVM (ppmv)	Soil Sample ID	Comments
				CONCRETE						
	1			Medium sand FILL; trace gravel; brown; moist; loose		25	0.0	0	1	
	2			Silty CLAY; dark grey; dry to moist; soft grey with brown mottling; moist	CL					
1	3					27	0.0	0	2	
	4			Borehole depth 1.2 m (4 ft) bgs						Notes: % - percentage bgs - below ground surface ft - feet m - metres PID - photoionization detector ppmv - parts per million by volume
	5									
	6									
2	7									
	8									
	9									
3	10									
	11									
	12									
4	13									
	14									
	15									
5	16									
	17									
	18									
6	19									
	20									
	21									
	22									
7	23									
	24									

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Borehole No. BH22-8 Page 1 of 1 Borehole Log

Project No.:	TR841C8D1-038A	**Location:**	2625 Sheffield Road, Ottawa, ON
Client:	Prime	**Coordinates:**	Not Surveyed
Logged By:	BW	**Borehole Diameter:**	127 mm
Reviewed By:	FS	**Site Datum:**	Not Surveyed
Drilling Company:	Aardvark	**Ground Surface Elevation:**	Not Surveyed
Drilling Method:	Bosch Hammer Drill	**Top PVC Casing Elevation:**	Not Surveyed
Well Material:	N/A	**Completion Date:**	25 May 2022

Depth (m)	Depth (ft)	Water Level	Stratigraphy	Lithologic Description	Geologic Samples: Unified Soil Classification	Recovery (%)	PID (ppmv)	OVM (ppmv)	Soil Sample ID	Comments
				CONCRETE						
	1			Medium sand FILL; brown; moist; loose		28	0.0	15	1	
	2									
	3			Silty SAND; some gravel; moist; loose	SP	100	0.0	10	2	
1	4			Silty CLAY; dark grey; moist; soft	CL					
	5			Borehole depth 1.2 m (4 ft) bgs						Notes: % - percentage bgs - below ground surface ft - feet m - metres PID - photoionization detector ppmv - parts per million by volume
	6									
2	7									
	8									
	9									
3	10									
	11									
	12									
4	13									
	14									
	15									
5	16									
	17									
	18									
6	19									
	20									
	21									
	22									
7	23									
	24									

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Borehole No. BH22-9 Page 1 of 1 Borehole Log

Project No.:	TR841C8D1-038A	**Location:**	2625 Sheffield Road, Ottawa, ON
Client:	Prime	**Coordinates:**	Not Surveyed
Logged By:	BW	**Borehole Diameter:**	102 mm
Reviewed By:	FS	**Site Datum:**	Not Surveyed
Drilling Company:	Aardvark	**Ground Surface Elevation:**	Not Surveyed
Drilling Method:	DPT	**Top PVC Casing Elevation:**	Not Surveyed
Well Material:	N/A	**Completion Date:**	24 May 2022

Depth (m)	Depth (ft)	Water Level	Stratigraphy	Lithologic Description	Geologic Samples: Unified Soil Classification	Recovery (%)	PID (ppmv)	OVM (ppmv)	Soil Sample ID	Comments
				ASPHALT						
				Granular Base						
	1			Sand FILL; some gravel; trace silt; trace brick pieces; trace asphalt pieces; grey; dry; firm			0.0	55	1A	
	2					43				
1	3			Silty CLAY; greyish brown; trace oxidation; moist; firm			0.0	40	1B	
	4									
	5									
	6				CL		0.0	190	2A	
2	7					50				
	8			moist to wet						
	9						0.0	50.8	2B	
3	10			Borehole depth 3.0 m (10 ft) bgs						Notes: % - percentage bgs - below ground surface ft - feet m - metres PID - photoionization detector ppmv - parts per million by volume
	11									
	12									
4	13									
	14									
	15									
5	16									
	17									
	18									
	19									
6	20									
	21									
	22									
7	23									
	24									

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Borehole No. BH22-10 Page 1 of 1 Borehole Log

Project No.:	TR841C8D1-038A	**Location:**	2625 Sheffield Road, Ottawa, ON
Client:	Prime	**Coordinates:**	Not Surveyed
Logged By:	BW	**Borehole Diameter:**	102 mm
Reviewed By:	FS	**Site Datum:**	Not Surveyed
Drilling Company:	Aardvark	**Ground Surface Elevation:**	Not Surveyed
Drilling Method:	DPT	**Top PVC Casing Elevation:**	Not Surveyed
Well Material:	N/A	**Completion Date:**	25 May 2022

Depth (m)	Depth (ft)	Water Level	Stratigraphy	Lithologic Description	Geologic Samples: Unified Soil Classification	Geologic Samples: Recovery (%)	Geologic Samples: PID (ppmv)	Geologic Samples: OVM (ppmv)	Geologic Samples: Soil Sample ID	Comments
				ASPHALT						
				Granular Base						
	1			Sand and Gravel FILL; greyish brown; dry; loose			0.0	150	1A	
	2					52				
1	3			Clayey SILT; trace gravel; brown; trace oxidation; moist; soft	ML		0.0	15	1B	
	4									
	5									
	6			Silty CLAY; greyish brown; trace oxidation; moist; firm			0.0	55	2A	
2	7				CL	100				
	8						0.0	10	2B	
	9									
3	10			Borehole depth 3.0 m (10 ft) bgs						Notes: % - percentage bgs - below ground surface ft - feet m - metres PID - photoionization detector ppmv - parts per million by volume
	11									
	12									
4	13									
	14									
	15									
5	16									
	17									
	18									
	19									
6	20									
	21									
	22									
7	23									
	24									

SUB-SLAB & SOIL VAPOR PROBE MEASUREMENTS

Geosyntec consultants

1. Client Site Code: DYT3 Date: 26-May-22
Project/Phase Number: TR841C8D1
Site Location: 2625 Sheffield Rd, Ottawa, ON
Weather: Indoor / Overcast
Field Personnel: AI
Recorded By: AI

Probe No.: SSV-09 ☒ Sub-slab probe ☐ Soil vapor probe
MinRae 3000 or RKI GX-6000/GX-2012 Serial No.: 14502010 4RN Lamp: 10.6 / 11.7 eV
Landtech GEM 5000 Plus (or Similar) Landfill Gas Meter Serial No.: GEM 5000 Plus 506145
MDG 2002 Helium detector Serial No.: 042503
Leak Detection Method: ☒ Helium ☐ Water Dam ☐ Other
Approximate Building Square Footage:

2. Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other
Surface Thickness: ~8-10 (inches) centimeters ☐ Unknown
Slab Condition: good
Vapor Barrier Present?: ☐ Yes ☐ No ☒ Unknown

3. Probe construction details:
Probe type (i.e. VaporPin®, Stainless Steel Implant, Threaded Brass Sub-slab Probe, etc.): VaporPin
Tubing Type (Nylaflow, Teflon, or Teflon-lined tubing): Nylaflow
Probe diameter: 5/8 inch Tubing diameter: 1/4 inch Borehole diameter: 5/8 inch
Drilling Method (i.e. Direct Push, Hammer Drill, Hand Auger, etc.): Hammer Drill
Borehole Depth (ft bgs): NA Sand Pack Interval (ft bgs): NA
Date Installed: 26-May-22 Time Installed: 10:20

4. 1 Casing Volume: ☒ Sub-slab probe <0.1 L ☐ Soil vapor probe _____ L (Calculate volume for soil vapor probe)

5. Initial Probe Pressure (Prior to Purging) (readings should be to 0.000 in-W.C.):
☒ Positive ☐ Negative/Vacuum
Gauge Reading 0.0 Units: inH2O Gauge or Meter Used: Dwyer 477

6. Field tubing blank reading (ppmv): PID Reading 0.0 ppmv

7. Shut in test prior to purging completed? ☒ Yes ☐ No

8. Purging - Probes should be purged a minimum of 3 pore volumes prior to sample collection.
If methane is detected during purging at greater than 0.1% (2% of LEL) but less than 30%, notify PM and re-sample all probes 24-hours later.

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4* (%v)	CO_2 (%v)	O_2 (%v)	H_2S (ppmv)	Helium Shroud (%) Min	Helium Shroud (%) Max	Helium Sample (ppmv, %) (circle one)	VOCs by PID (ppmv)
26-May-22	14:57	15:01	4	1	0.25	1	0.0	0.1	20.4	0	10.5	12.4	0	0.0
start 15:03	15:03	15:07	8	1	0.25	2	0.0	0.1	20.3	0	10.8	13.1	0	0.0
	15:07	15:11	12	1	0.25	3	0.0	0.1	20.3	0	11.0	13.6	0	0.0
	14:59		← Ambient Atmosphere in Vicinity of Sample Location →				0.0	0.1	21.0	0	--	--	0	0.0
Methane Re-sampling (if required)														
			← Ambient Atmosphere in Vicinity of Sample Location →				~~0.0~~	~~0~~			--	--		

9. Calculate 5% of the minimum helium concentration in the shroud: 5250 ppmv
Note: 1% helium = 10,000 ppmv
Confirm that helium in field screened samples is less than 5% of the minimum helium concentration in the shroud prior to sampling: ☒ Confirmed
Note: If not confirmed, troubleshoot leak prior to sample collection and document in comments below

10. Shut in test prior to sample collection completed? ☒ Yes ☐ No

11. Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
~~26-May-22~~ 26-May-22	15:15 / 15:20	SSV-09-20220526	01400-0544	G36	G36	30	5

Analysis/Method Requested on COC: TO15 VOCs and PHCs F1 & F2 subfractions

Comments:

SUB-SLAB & SOIL VAPOR PROBE MEASUREMENTS

Geosyntec consultants

1. Client Site Code: DYT3 Date: 26-May-22
Project/Phase Number: TR841C8D1
Site Location: 2625 Sheffield Rd, Ottawa, ON
Weather: Indoor / Overcast
Field Personnel: AI
Recorded By: AI

Probe No.: SSV-10 ☒ Sub-slab probe ☐ Soil vapor probe
MinRae 3000 or RKI GX-6000/GX-2012 Serial No.: 14502404RN Lamp: 10.6 / 11.7 eV
Landtech GEM 5000 Plus (or Similar) Landfill Gas Meter Serial No.: G506145
MDG 2002 Helium detector Serial No.: 042503
Leak Detection Method: ☒ Helium ☐ Water Dam ☐ Other
Approximate Building Square Footage:

2. Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other
Surface Thickness: ~8 (inches/centimeters) ☐ Unknown
Slab Condition: good
Vapor Barrier Present?: ☐ Yes ☐ No ☒ Unknown

3. Probe construction details:
Probe type (i.e. VaporPin®, Stainless Steel Implant, Threaded Brass Sub-slab Probe, etc.): VaporPin
Tubing Type (Nylaflow, Teflon, or Teflon-lined tubing): Nylaflow
Probe diameter: 5/8 inch Tubing diameter: 1/4 inch Borehole diameter: 5/8 inch
Drilling Method (i.e. Direct Push, Hammer Drill, Hand Auger, etc.): Hammer Drill
Borehole Depth (ft bgs): NA Sand Pack Interval (ft bgs): NA
Date Installed: 26-May-22 Time Installed: 10:40

4. 1 Casing Volume: ☒ Sub-slab probe <0.1 L ☐ Soil vapor probe _____ L (Calculate volume for soil vapor probe)

5. Initial Probe Pressure (Prior to Purging) (readings should be to 0.000 in-W.C.):
☒ Positive ☐ Negative/Vacuum
Gauge Reading 0.0 Units: inH2O Gauge or Meter Used: Dwyer 477

6. Field tubing blank reading (ppmv): PID Reading 0.6 ppmv

7. Shut in test prior to purging completed? ☒ Yes ☐ No

8. Purging - Probes should be purged a minimum of 3 pore volumes prior to sample collection.
If methane is detected during purging at greater than 0.1% (2% of LEL) but less than 30%, notify PM and re-sample all probes 24-hours later.

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4* (%v)	CO_2 (%v)	O_2 (%v)	H_2S (ppmv)	Helium Shroud (%) Min	Helium Shroud (%) Max	Helium Sample (ppmv, %) (circle one)	VOCs by PID (ppmv)
26-May-22	15:35	15:39	4	1	0.25	1	0.0	0.2	20.2	0	10.0	12.7	0	0.0
	15:39	15:43	8	1	0.25	2	0.0	0.3	20.2	0	10.1	14.4	0	0.0
	15:44	15:48	12	1	0.25	3	0.0	0.5	20.0	0	10.5	12.2	0	0.0
	15:38		← Ambient Atmosphere in Vicinity of Sample Location →				0.0	0.1	21.1	0	--	--	0	0.0
Methane Re-sampling (if required)														
			← Ambient Atmosphere in Vicinity of Sample Location →								--	--		

9. Calculate 5% of the minimum helium concentration in the shroud: 5000 ppmv
Note: 1% helium = 10,000 ppmv
Confirm that helium in field screened samples is less than 5% of the minimum helium concentration in the shroud prior to sampling: ☒ Confirmed
Note: If not confirmed, troubleshoot leak prior to sample collection and document in comments below

10. Shut in test prior to sample collection completed? ☒ Yes ☐ No

11. Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
26-May-22	15:53/15:57	SSV-10_20220526	01400-0426	G232	G232	30	4.5

Analysis/Method Requested on COC: TO15 VOC and PHC F1 + F2 subfractions

Comments:

SUB-SLAB & SOIL VAPOR PROBE MEASUREMENTS

Geosyntec consultants

1. Client Site Code: DYT3 Date: 26-May-22
Project/Phase Number: TR841C8D1
Site Location: 2625 Sheffield Rd, Ottawa, ON
Weather: Indoor/Overcast
Field Personnel: AJ
Recorded By: AJ

Probe No.: SSV-11 ☒ Sub-slab probe ☐ Soil vapor probe
MinRae 3000 or RKI GX-6000/GX-2012 Serial No.: 14502010MRN Lamp: 10.6 / 11.7 eV
Landtech GEM 5000 Plus (or Similar) Landfill Gas Meter Serial No.: G506145
MDG 2002 Helium detector Serial No.: 042503.
Leak Detection Method: ☒ Helium ☐ Water Dam ☐ Other
Approximate Building Square Footage:

2. Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other
Surface Thickness: ~8-10 (inches) centimeters ☐ Unknown
Slab Condition: Bolts nearby in slab but okay otherwise
Vapor Barrier Present?: ☐ Yes ☐ No ☒ Unknown

3. Probe construction details:
Probe type (i.e. VaporPin®, Stainless Steel Implant, Threaded Brass Sub-slab Probe, etc.): VaporPin
Tubing Type (Nylaflow, Teflon, or Teflon-lined tubing): Nylaflow
Probe diameter: 5/8 inch Tubing diameter: 1/4 inch Borehole diameter: 5/8 inch
Drilling Method (i.e. Direct Push, Hammer Drill, Hand Auger, etc.): Hammer Drill
Borehole Depth (ft bgs): NA Sand Pack Interval (ft bgs): NA
Date Installed: 26-May-22 Time Installed: 10:05

4. 1 Casing Volume: ☒ Sub-slab probe <0.1 L ☐ Soil vapor probe _____ L (Calculate volume for soil vapor probe)

5. Initial Probe Pressure (Prior to Purging) (readings should be to 0.000 in-W.C.):
☒ Positive ☐ Negative/Vacuum
Gauge Reading 0.0 Units: inH2O Gauge or Meter Used: Dwyer 477

6. Field tubing blank reading (ppm_v): PID Reading 0.0 ppm_v

7. Shut in test prior to purging completed? ☒ Yes ☐ No

8. Purging - Probes should be purged a minimum of 3 pore volumes prior to sample collection.
If methane is detected during purging at greater than 0.1% (2% of LEL) but less than 30%, notify PM and re-sample all probes 24-hours later.

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4* (%v)	CO_2 (%v)	O_2 (%v)	H_2S (ppmv)	Helium Shroud (%) Min	Helium Shroud (%) Max	Helium Sample (ppmv %) (circle one)	VOCs by PID (ppmv)
26-May-22	13:45	13:49	4	1	0.25	1	0.0	1.1	18.6	0	11.2	12.8	0	0.0
	13:49	13:53	8	1	0.25	2	0.0	1.6	18.3	0	14.0	15.4	0	0.0
	13:53	13:56	P2	1	0.25	3	0.0	1.8	18.1	0	11.4	12.5	0	0.0
	13:50		← Ambient Atmosphere in Vicinity of Sample Location →				0.0	0.1	21.0	0	--	--	0	0.0

Methane Re-sampling (if required)

			← Ambient Atmosphere in Vicinity of Sample Location →								--	--		

9. Calculate 5% of the minimum helium concentration in the shroud: 5600 ppm_v
Note: 1% helium = 10,000 ppm_v
Confirm that helium in field screened samples is less than 5% of the minimum helium concentration in the shroud prior to sampling: ☒ Confirmed
Note: If not confirmed, troubleshoot leak prior to sample collection and document in comments below

10. Shut in test prior to sample collection completed? ☒ Yes ☐ No

11. Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
26-May-22	14:01/14:06	SSV-11_20220526	01400-0404	G343	G343	30	4

Analysis/Method Requested on COC: TO15 VOCs + PHC F1 & F2 subfractions

Comments:

SUB-SLAB & SOIL VAPOR PROBE MEASUREMENTS

Geosyntec consultants

1. Client Site Code: DYT3 Date: 26-May-2022
Project/Phase Number: TR841C8D1
Site Location: 2625 Sheffield Rd, Ottawa, ON
Weather: Indoor / Overcast
Field Personnel: AI, MRP
Recorded By: AI

Probe No.: SSV-12 ☒ Sub-slab probe ☐ Soil vapor probe
MinRae 3000 or RKI GX-6000/GX-2012 Serial No.: 14502010 4RN Lamp: 10.6 / 11.7 eV
Landtech GEM 5000 Plus (or Similar) Landfill Gas Meter Serial No.: G5006145
MDG 2002 Helium detector Serial No.: 042503
Leak Detection Method: ☒ Helium ☐ Water Dam ☐ Other
Approximate Building Square Footage: —

2. Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other
Surface Thickness: 8-10 inches/centimeters ☐ Unknown
Slab Condition: good
Vapor Barrier Present?: ☐ Yes ☐ No ☒ Unknown

3. Probe construction details:
Probe type (i.e. VaporPin®, Stainless Steel Implant, Threaded Brass Sub-slab Probe, etc.): VaporPin
Tubing Type (Nylaflow, Teflon, or Teflon-lined tubing): Nylaflow
Probe diameter: 5/8 inch Tubing diameter: 1/4 inch Borehole diameter: 5/8 inch
Drilling Method (i.e. Direct Push, Hammer Drill, Hand Auger, etc.): Hammer Drill
Borehole Depth (ft bgs): NA Sand Pack Interval (ft bgs): NA
Date Installed: 26-May-22 Time Installed: 9:40

4. 1 Casing Volume: ☒ Sub-slab probe <0.1 L ☐ Soil vapor probe _____ L (Calculate volume for soil vapor probe)

5. Initial Probe Pressure (Prior to Purging) (readings should be to 0.000 in-W.C.):
☒ Positive ☐ Negative/Vacuum
Gauge Reading: 0.0 Units: inH2O Gauge or Meter Used: Dwyer 477

6. Field tubing blank reading (ppmv): PID Reading: 0.0 ppmv

7. Shut in test prior to purging completed? ☒ Yes ☐ No

8. Purging - Probes should be purged a minimum of 3 pore volumes prior to sample collection.
*If methane is detected during purging at greater than 0.1% (2% of LEL) but less than 30%, notify PM and re-sample all probes 24-hours later.

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4* (%v)	CO_2 (%v)	O_2 (%v)	H_2S (ppmv)	Helium Shroud (%) Min	Helium Shroud (%) Max	Helium Sample (ppmv, %) (circle one)	VOCs by PID (ppmv)
26-May-22	12:44	12:49	5	1	0.2	1	0.0	0.6	19.7	0	12.7	17.8	125*	0.0
↓	13:01	13:06	10	1	0.2	2	0.0	0.8	19.5	0	10.0	13.5	175*	0.0
	13:06	13:11	15	1	0.2	3	0.0	0.9	19.5	0	10.1	12.5	50*	0.0
	13:14		← Ambient Atmosphere in Vicinity of Sample Location →				0.0	0.1	21.0	0	--	--	0→525*	0.0

Methane Re-sampling (if required)

			← Ambient Atmosphere in Vicinity of Sample Location →								--	--		

9. Calculate 5% of the minimum helium concentration in the shroud: 5000 ppmv
Note: 1% helium = 10,000 ppmv
Confirm that helium in field screened samples is less than 5% of the minimum helium concentration in the shroud prior to sampling: ☒ Confirmed
Note: If not confirmed, troubleshoot leak prior to sample collection and document in comments below

10. Shut in test prior to sample collection completed? ☒ Yes ☐ No

11. Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
26-May-22	13:20 / 13:25	SSV-12_20220526	01400-0200	Q308	G302	30	4

Analysis/Method Requested on COC: TO15 VOCs + PHC F1 and F2 subtractions

Comments: *less than 5% but added putty to probe and tightened fittings. Helium meter reading up to 525 ppm in ambient air
Swapped out desiccant in case moisture was issue and appeared to improve

SUB-SLAB & SOIL VAPOR PROBE MEASUREMENTS

Geosyntec consultants

1. Client Site Code: DYT3 Date: 26-May-2022
Project/Phase Number: TR841C8D1
Site Location: 2625 Sheffield Rd, Ottawa, ON
Weather: Indoor/Overcast
Field Personnel: AI, MRP
Recorded By: AI

Probe No.: SSV-13 ☒ Sub-slab probe ☐ Soil vapor probe
MinRae 3000 or RKI GX-6000/GX-2012 Serial No.: 145020104RN Lamp (10.6) / 11.7 eV
Landtech GEM 5000 Plus (or Similar) Landfall Gas Meter Serial No.: G506145
MDG 2002 Helium detector Serial No.: 042503
Leak Detection Method: ☒ Helium ☐ Water Dam ☐ Other
Approximate Building Square Footage: Unknown - proposed new building

2. Surface Type: ☐ Asphalt ☒ Concrete ☐ Grass ☐ Other
Surface Thickness: ~8-10 (inches)/centimeters ☐ Unknown
Slab Condition: good
Vapor Barrier Present?: ☐ Yes ☐ No ☒ Unknown

3. Probe construction details:
Probe type (i.e. VaporPin®, Stainless Steel Implant, Threaded Brass Sub-slab Probe, etc.): VaporPin
Tubing Type (Nylaflow, Teflon, or Teflon-lined tubing): Nylaflow
Probe diameter: 5/8 inch Tubing diameter: 1/4 inch Borehole diameter: 5/8 inch
Drilling Method (i.e. Direct Push, Hammer Drill, Hand Auger, etc.): Hammer Drill
Borehole Depth (ft bgs): NA Sand Pack Interval (ft bgs): NA
Date Installed: 26-May-22 Time Installed: 9:15

4. 1 Casing Volume: ☒ Sub-slab probe <0.1 L ☐ Soil vapor probe _____ L (Calculate volume for soil vapor probe)

5. Initial Probe Pressure (Prior to Purging) (readings should be to 0.000 in-W.C.):
☒ Positive ☐ Negative/Vacuum
Gauge Reading 0.0 Units: in H2O Gauge or Meter Used: Dwyer 477

6. Field tubing blank reading (ppmv): PID Reading 0.0 ppmv

7. Shut in test prior to purging completed? ☒ Yes ☐ No

8. Purging - Probes should be purged a minimum of 3 pore volumes prior to sample collection.
*If methane is detected during purging at greater than 0.1% (2% of LEL) but less than 30%, notify PM and re-sample all probes 24-hours later.

Date	Start Time	End Time	Elapsed Time (min.)	Bag Volume (L)	Purge Rate (LPM)	Cumulative Volume (L)	CH_4* (%v)	CO_2 (%v)	O_2 (%v)	H_2S (ppmv)	Helium Shroud (%) Min	Helium Shroud (%) Max	Helium Sample (ppmv / %) (circle one)	VOCs by PID (ppmv)
26-May-22	11:41	11:45	4	1	0.25	1	0.0	0.1	20.7	0	11.1	14.8	0	0.0
↓	11:46	11:50	8	1	0.25	2	0.0	0.1	20.6	0	11.0	15.2	600 *	0.0
	11:56	12:00	12	1	0.25	3	0.0	0.1	20.5	0	10.2	20.2	1050 *	0.0
	12:01		← Ambient Atmosphere in Vicinity of Sample Location →				0.0	0.1	21.0	0	--	--	0 → 1254	0.1 → 1.0
Methane Re-sampling (if required)														
			← Ambient Atmosphere in Vicinity of Sample Location →								--	--		

9. Calculate 5% of the minimum helium concentration in the shroud: 5000 ppmv
Note: 1% helium = 10,000 ppmv
Confirm that helium in field screened samples is less than 5% of the minimum helium concentration in the shroud prior to sampling: ☒ Confirmed
Note: If not confirmed, troubleshoot leak prior to sample collection and document in comments below

10. Shut in test prior to sample collection completed? ☒ Yes ☐ No

11. Sample Collection

Date	Time	Sample ID	Summa Canister ID	Flow Controller #	Vacuum Gauge #	Initial Vacuum (in. Hg)	Final Vacuum (in. Hg)
26-May-22	12:07/12:12	SSV-13_20220526	01400-0076	G352	G357	30	4

Analysis/Method Requested on COC: TO15 VOCs + PHCF1 and F2 + subfractions

Comments: *Some helium but below 5% and meter was fluctuating in ambient. Added putty to probe as extra precaution

APPENDIX C

LABORATORY REPORTS

GEOSYNTEC CONSULTANTS
INTERNATIONAL INC
ATTN: Felipe Solano
295 Hagey Blvd
Suite 290
WATERLOO ON N2L 6R5

Date Received: 27-MAY-22
Report Date: 17-JUN-22 14:35 (MT)
Version: FINAL REV. 2

Client Phone: 519-822-2230

Certificate of Analysis

Lab Work Order #: L2710246

Project P.O. #: NOT SUBMITTED
Job Reference: TR841C8D1
C of C Numbers: 20-94522
Legal Site Desc:

Comments:
17-JUN-2022 BaP and metals added

Gayle Braun
Senior Account Manager

Summary of Guideline Exceedances

Guideline ALS ID	Client ID	Grouping	Analyte	Result	Guideline Limit	Unit
Ontario Regulation 153/04 - April 15, 2011 Standards - T3-Soil-Ind/Com/Commu. Property Use (Coarse)						
L2710246-1	MW22-1-1B_260522	Saturated Paste Extractables	SAR	23.5	12	SAR
L2710246-3	MW22-1-3B_260522	Physical Tests	Conductivity	2.04	1.4	mS/cm
		Metals	Vanadium (V)	102	86	ug/g
L2710246-9	BH22-3-1_260522	Physical Tests	Conductivity	1.41	1.4	mS/cm
L2710246-13	DUP05	Physical Tests	Conductivity	2.04	1.4	mS/cm
		Metals	Vanadium (V)	91.5	86	ug/g
L2710246-14	MW22-4-1A_240522	Physical Tests	Conductivity	1.53	1.4	mS/cm
L2710246-26	BH22-9-1A_240522	Physical Tests	Conductivity	1.71	1.4	mS/cm
L2710246-28	BH22-10-1A_25052022	Physical Tests	Conductivity	1.73	1.4	mS/cm
L2710246-33	DUP02	Physical Tests	Conductivity	1.43	1.4	mS/cm
L2710246-34	BH22-11-1A_24052022	Saturated Paste Extractables	SAR	20.9	12	SAR
		Polycyclic Aromatic Hydrocarbons	Benzo(a)pyrene	0.394	0.3	ug/g

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

Physical Tests - SOIL

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	L2710246-1	L2710246-3	L2710246-5	L2710246-6	L2710246-7	L2710246-9	L2710246-11	L2710246-12	L2710246-13
				Sample Date	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22
				Sample ID	MW22-1-1B_260522	MW22-1-3B_260522	MW22-2-1B_260522	MW22-2-3A_260522	MW22-2-3B_260522	BH22-3-1_260522	DUP03	DUP04	DUP05
Conductivity	mS/cm	1.4	-		0.573	2.04	0.0880		0.205	1.41		0.202	2.04
Grain Size Curve		-	-										
% Moisture	%	-	-		7.10	36.1	7.87	21.0	29.8	16.9	35.7	7.59	5.26
pH	pH units	-	-		7.88	7.83	7.62		7.34	7.90		7.23	8.00

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

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 / Sample Date / Sample ID								
				L2710246-14 24-MAY-22 MW22-4-1A_240522	L2710246-15 24-MAY-22 MW22-4-1B_240522	L2710246-17 24-MAY-22 MW22-5-1B_240522	L2710246-19 24-MAY-22 MW22-5-4A_240522	L2710246-20 26-MAY-22 BH22-6-1A_260522	L2710246-22 25-MAY-22 BH22-7-1_250522	L2710246-24 25-MAY-22 BH22-8-1_250522	L2710246-26 24-MAY-22 BH22-9-1A_240522	L2710246-28 25-MAY-22 BH22-10-1A_25052022
Conductivity	mS/cm	1.4	-	1.53		0.402		1.08	0.146	0.125	1.71	1.73
Grain Size Curve		-	-				SEE ATTACHED					
% Moisture	%	-	-	5.93	4.94	4.61		16.0	18.8	34.4	22.1	2.56
pH	pH units	-	-	8.07		7.98		7.84	8.18	7.60	7.65	7.80

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

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

Physical Tests - SOIL

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	Sample Date	Sample ID			
				L2710246-29	L2710246-31	L2710246-32	L2710246-33	L2710246-34	L2710246-35
				25-MAY-22	25-MAY-22	25-MAY-22	25-MAY-22	24-MAY-22	24-MAY-22
				BH22-10-1B_25052022	BH22-10-2B_25052022	DUP01	DUP02	BH22-11-1A_24052022	BH22-11-2A_24052022
Conductivity	mS/cm	1.4	-				1.43	1.40	
Grain Size Curve		-	-		SEE ATTACHED				
% Moisture	%	-	-	16.9		16.5	12.2	1.70	24.4
pH	pH units	-	-				7.64	7.98	

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

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

Particle Size - SOIL

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID: L2710246-2 Sample Date: 26-MAY-22 Sample ID: MW22-1-3A_260522	Lab ID: L2710246-19 Sample Date: 24-MAY-22 Sample ID: MW22-5-4A_240522	Lab ID: L2710246-31 Sample Date: 25-MAY-22 Sample ID: BH22-10-2B_25052022
Gravel (4.75mm - 3in.)	%	-	-		2.0	<1.0
Medium Sand (0.425mm - 2.0mm)	%	-	-		33.4	<1.0
Coarse Sand (2.0mm - 4.75mm)	%	-	-		8.9	<1.0
Fine Sand (0.075mm - 0.425mm)	%	-	-		25.4	4.5
Silt (0.002mm - 0.075mm)	%	-	-		17.4	48.6
Silt (0.005mm - 0.075mm)	%	-	-		14.4	38.7
Clay (<0.002mm)	%	-	-		12.8	46.8
Clay (<0.005mm)	%	-	-		15.9	56.7
General Texture Class		-	-	Fine		
MUST PSA % > 75um	%	-	-	3.5		

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

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.

Cyanides - SOIL

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	L2710246-1	L2710246-3	L2710246-5	L2710246-7	L2710246-9	L2710246-12	L2710246-13	L2710246-14	L2710246-17
				Sample Date	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	24-MAY-22	24-MAY-22
				Sample ID	MW22-1-1B_260522	MW22-1-3B_260522	MW22-2-1B_260522	MW22-2-3B_260522	BH22-3-1_260522	DUP04	DUP05	MW22-4-1A_240522	MW22-5-1B_240522
Cyanide, Weak Acid Diss	ug/g	0.051	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050

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

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

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID / Sample Date / Sample ID: L2710246-20 26-MAY-22 BH22-6-1A_260522	L2710246-22 25-MAY-22 BH22-7-1_250522	L2710246-24 25-MAY-22 BH22-8-1_250522	L2710246-26 24-MAY-22 BH22-9-1A_240522	L2710246-28 25-MAY-22 BH22-10-1A_25052022	L2710246-33 25-MAY-22 DUP02	L2710246-34 24-MAY-22 BH22-11-1A_24052022
Cyanide, Weak Acid Diss	ug/g	0.051	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050

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

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.

Saturated Paste Extractables - SOIL

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	L2710246-1	L2710246-3	L2710246-5	L2710246-7	L2710246-9	L2710246-12	L2710246-13	L2710246-14	L2710246-17
				Sample Date	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	24-MAY-22	24-MAY-22
				Sample ID	MW22-1-1B_260522	MW22-1-3B_260522	MW22-2-1B_260522	MW22-2-3B_260522	BH22-3-1_260522	DUP04	DUP05	MW22-4-1A_240522	MW22-5-1B_240522
SAR	SAR	12	-		23.5 SAR:M	3.77	1.00 SAR:M	1.57	8.36	1.32	3.81	0.49	4.44
Calcium (Ca)	mg/L	-	-		1.98	118	6.41	13.8	34.2	16.9	121	301	13.1
Magnesium (Mg)	mg/L	-	-		<0.50	54.0	<0.50	4.28	11.7	4.62	54.5	26.5	2.05
Sodium (Na)	mg/L	-	-		120	197	9.20	26.1	222	23.8	201	32.9	65.4

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

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.

Saturated Paste Extractables - SOIL

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	L2710246-20	L2710246-22	L2710246-24	L2710246-26	L2710246-28	L2710246-33	L2710246-34
				Sample Date	26-MAY-22	25-MAY-22	25-MAY-22	24-MAY-22	25-MAY-22	25-MAY-22	24-MAY-22
				Sample ID	BH22-6-1A_260522	BH22-7-1_250522	BH22-8-1_250522	BH22-9-1A_240522	BH22-10-1A_25052022	DUP02	BH22-11-1A_24052022
SAR	SAR	12	-		5.01	4.43	0.35	1.65	2.89	0.74	20.9
Calcium (Ca)	mg/L	-	-		53.7	2.16	14.0	255	203	269	8.72
Magnesium (Mg)	mg/L	-	-		10.3	0.65	1.57	34.2	20.9	17.0	3.60
Sodium (Na)	mg/L	-	-		153	28.9	5.23	106	162	46.6	290

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

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.

Metals - SOIL

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	L2710246-1	L2710246-3	L2710246-4	L2710246-5	L2710246-7	L2710246-9	L2710246-12	L2710246-13	L2710246-14
				Sample Date	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	24-MAY-22
				Sample ID	MW22-1-1B_260522	MW22-1-3B_260522	MW22-1-4B_260522	MW22-2-1B_260522	MW22-2-3B_260522	BH22-3-1_260522	DUP04	DUP05	MW22-4-1A_240522
Antimony (Sb)	ug/g	40	-		<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Arsenic (As)	ug/g	18	-		4.3	3.8		1.5	3.6	4.1	2.6	3.5	6.3
Barium (Ba)	ug/g	670	-		131	356		38.7	154	219	100	316	162
Beryllium (Be)	ug/g	8	-		<0.50	0.90		<0.50	0.55	0.77	<0.50	0.82	<0.50
Boron (B)	ug/g	120	-		9.0	7.7		<5.0	6.1	8.9	<5.0	6.9	7.6
Boron (B), Hot Water Ext.	ug/g	2	-		0.14	0.19		<0.10	0.25	0.13	0.30	0.17	0.34
Cadmium (Cd)	ug/g	1.9	-		<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Chromium (Cr)	ug/g	160	-		15.4	81.1		11.9	44.3	51.1	37.9	72.0	10.2
Cobalt (Co)	ug/g	80	-		7.3	21.3		4.0	11.8	15.1	9.4	19.0	6.8
Copper (Cu)	ug/g	230	-		17.0	37.3		8.4	21.6	27.9	15.2	34.8	8.8
Lead (Pb)	ug/g	120	-		12.7	6.9		4.4	9.2	6.6	10.0	6.1	22.6
Mercury (Hg)	ug/g	3.9	-		0.0174	<0.0050		0.0072	0.0165	0.0066	0.0195	<0.0050	0.0118
Molybdenum (Mo)	ug/g	40	-		2.6	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	4.6
Nickel (Ni)	ug/g	270	-		17.2	45.0		9.9	28.5	30.0	24.6	40.3	12.8
Selenium (Se)	ug/g	5.5	-		<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Silver (Ag)	ug/g	40	-		<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium (Tl)	ug/g	3.3	-		<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Uranium (U)	ug/g	33	-		<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vanadium (V)	ug/g	86	-		21.9	102	47.2	23.1	57.4	75.2	45.5	91.5	11.3
Zinc (Zn)	ug/g	340	-		27.9	113		17.8	63.4	82.4	49.3	104	8.4

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

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.

Metals - SOIL

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	L2710246-17	L2710246-20	L2710246-22	L2710246-24	L2710246-26	L2710246-28	L2710246-33	L2710246-34
				Sample Date	24-MAY-22	26-MAY-22	25-MAY-22	25-MAY-22	24-MAY-22	25-MAY-22	25-MAY-22	24-MAY-22
				Sample ID	MW22-5-1B_240522	BH22-6-1A_260522	BH22-7-1_250522	BH22-8-1_250522	BH22-9-1A_240522	BH22-10-1A_25052022	DUP02	BH22-11-1A_24052022
Antimony (Sb)	ug/g	40	-		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Arsenic (As)	ug/g	18	-		2.5	7.5	1.3	1.4	5.6	4.2	4.8	3.6
Barium (Ba)	ug/g	670	-		54.2	98.5	28.4	18.1	144	215	299	169
Beryllium (Be)	ug/g	8	-		<0.50	0.60	<0.50	<0.50	<0.50	<0.50	<0.50	0.61
Boron (B)	ug/g	120	-		<5.0	9.3	<5.0	<5.0	9.2	7.3	8.9	6.9
Boron (B), Hot Water Ext.	ug/g	2	-		0.10	0.22	<0.10	<0.10	0.28	0.23	0.32	0.38
Cadmium (Cd)	ug/g	1.9	-		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Chromium (Cr)	ug/g	160	-		11.1	19.6	12.5	9.2	19.7	18.3	9.2	50.7
Cobalt (Co)	ug/g	80	-		6.6	11.3	4.1	3.9	8.5	6.8	5.8	11.8
Copper (Cu)	ug/g	230	-		16.5	26.6	9.1	8.2	11.8	10.1	7.4	22.3
Lead (Pb)	ug/g	120	-		6.2	17.6	3.0	2.7	15.9	12.0	16.9	16.0
Mercury (Hg)	ug/g	3.9	-		0.0142	0.0306	0.0063	0.0067	0.0130	0.0104	0.0095	0.0281
Molybdenum (Mo)	ug/g	40	-		<1.0	3.0	<1.0	<1.0	4.1	3.3	4.5	1.3
Nickel (Ni)	ug/g	270	-		12.1	25.1	7.8	6.7	16.4	15.1	12.4	27.6
Selenium (Se)	ug/g	5.5	-		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Silver (Ag)	ug/g	40	-		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium (Tl)	ug/g	3.3	-		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Uranium (U)	ug/g	33	-		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vanadium (V)	ug/g	86	-		22.2	28.6	19.5	19.9	23.8	21.2	10.1	56.4
Zinc (Zn)	ug/g	340	-		24.2	38.5	13.5	10.9	21.4	15.7	9.7	96.6

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

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.

Speciated Metals - SOIL

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	L2710246-1	L2710246-3	L2710246-5	L2710246-7	L2710246-9	L2710246-12	L2710246-13	L2710246-14	L2710246-17
				Sample Date	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	24-MAY-22	24-MAY-22
				Sample ID	MW22-1-1B_260522	MW22-1-3B_260522	MW22-2-1B_260522	MW22-2-3B_260522	BH22-3-1_260522	DUP04	DUP05	MW22-4-1A_240522	MW22-5-1B_240522
Chromium, Hexavalent	ug/g	8	-		<0.20	0.40	<0.20	<0.20	0.21	<0.20	0.23	<0.20	<0.20

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

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						
				L2710246-20 26-MAY-22 BH22-6-1A_260522	L2710246-22 25-MAY-22 BH22-7-1_250522	L2710246-24 25-MAY-22 BH22-8-1_250522	L2710246-26 24-MAY-22 BH22-9-1A_240522	L2710246-28 25-MAY-22 BH22-10-1A_25052022	L2710246-33 25-MAY-22 DUP02	L2710246-34 24-MAY-22 BH22-11-1A_24052022
Chromium, Hexavalent	ug/g	8	-	<0.20	<0.20	<0.20	0.48	0.21	<0.20	<0.20

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

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 - SOIL

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	L2710246-1	L2710246-3	L2710246-5	L2710246-6	L2710246-9	L2710246-11	L2710246-13	L2710246-15	L2710246-17
				Sample Date	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	24-MAY-22	24-MAY-22
				Sample ID	MW22-1-1B_260522	MW22-1-3B_260522	MW22-2-1B_260522	MW22-2-3A_260522	BH22-3-1_260522	DUP03	DUP05	MW22-4-1B_240522	MW22-5-1B_240522
Acetone	ug/g	16	-		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Benzene	ug/g	0.32	-		<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068
Bromodichloromethane	ug/g	18	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Bromoform	ug/g	0.61	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Bromomethane	ug/g	0.05	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Carbon tetrachloride	ug/g	0.21	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Chlorobenzene	ug/g	2.4	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Dibromochloromethane	ug/g	13	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Chloroform	ug/g	0.47	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dibromoethane	ug/g	0.05	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichlorobenzene	ug/g	6.8	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-Dichlorobenzene	ug/g	9.6	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,4-Dichlorobenzene	ug/g	0.2	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Dichlorodifluoromethane	ug/g	16	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethane	ug/g	17	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloroethane	ug/g	0.05	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethylene	ug/g	0.064	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
cis-1,2-Dichloroethylene	ug/g	55	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
trans-1,2-Dichloroethylene	ug/g	1.3	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Methylene Chloride	ug/g	1.6	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloropropane	ug/g	0.16	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
cis-1,3-Dichloropropene	ug/g	-	-		<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
trans-1,3-Dichloropropene	ug/g	-	-		<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
1,3-Dichloropropene (cis & trans)	ug/g	0.18	-		<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042
Ethylbenzene	ug/g	9.5	-		<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018
n-Hexane	ug/g	46	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Methyl Ethyl Ketone	ug/g	70	-		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Methyl Isobutyl Ketone	ug/g	31	-		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MTBE	ug/g	11	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Styrene	ug/g	34	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050

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

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

Volatile Organic Compounds - SOIL

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	L2710246-20	L2710246-22	L2710246-24	L2710246-26	L2710246-29	L2710246-32	L2710246-34
				Sample Date	26-MAY-22	25-MAY-22	25-MAY-22	24-MAY-22	25-MAY-22	25-MAY-22	24-MAY-22
				Sample ID	BH22-6-1A_260522	BH22-7-1_250522	BH22-8-1_250522	BH22-9-1A_240522	BH22-10-1B_25052022	DUP01	BH22-11-1A_24052022
Acetone	ug/g	16	-		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Benzene	ug/g	0.32	-		<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068
Bromodichloromethane	ug/g	18	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Bromoform	ug/g	0.61	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Bromomethane	ug/g	0.05	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Carbon tetrachloride	ug/g	0.21	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Chlorobenzene	ug/g	2.4	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Dibromochloromethane	ug/g	13	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Chloroform	ug/g	0.47	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dibromoethane	ug/g	0.05	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichlorobenzene	ug/g	6.8	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-Dichlorobenzene	ug/g	9.6	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,4-Dichlorobenzene	ug/g	0.2	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Dichlorodifluoromethane	ug/g	16	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethane	ug/g	17	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloroethane	ug/g	0.05	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethylene	ug/g	0.064	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
cis-1,2-Dichloroethylene	ug/g	55	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
trans-1,2-Dichloroethylene	ug/g	1.3	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Methylene Chloride	ug/g	1.6	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloropropane	ug/g	0.16	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
cis-1,3-Dichloropropene	ug/g	-	-		<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
trans-1,3-Dichloropropene	ug/g	-	-		<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
1,3-Dichloropropene (cis & trans)	ug/g	0.18	-		<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042
Ethylbenzene	ug/g	9.5	-		<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018
n-Hexane	ug/g	46	-		<0.050	<0.050	<0.050	0.064	<0.050	<0.050	<0.050
Methyl Ethyl Ketone	ug/g	70	-		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Methyl Isobutyl Ketone	ug/g	31	-		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MTBE	ug/g	11	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Styrene	ug/g	34	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050

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

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

Volatile Organic Compounds - SOIL

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	L2710246-1	L2710246-3	L2710246-5	L2710246-6	L2710246-9	L2710246-11	L2710246-13	L2710246-15	L2710246-17
				Sample Date	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	24-MAY-22	24-MAY-22
				Sample ID	MW22-1-1B_260522	MW22-1-3B_260522	MW22-2-1B_260522	MW22-2-3A_260522	BH22-3-1_260522	DUP03	DUP05	MW22-4-1B_240522	MW22-5-1B_240522
1,1,1,2-Tetrachloroethane	ug/g	0.087	-		<0.050	<0.050	<0.050	<0.050	<0.050	<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	<0.050	<0.050	<0.050	<0.050	<0.050
Tetrachloroethylene	ug/g	4.5	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	ug/g	68	-		<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
1,1,1-Trichloroethane	ug/g	6.1	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2-Trichloroethane	ug/g	0.05	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Trichloroethylene	ug/g	0.91	-		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Trichlorofluoromethane	ug/g	4	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Vinyl chloride	ug/g	0.032	-		<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
o-Xylene	ug/g	-	-		<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<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	<0.030
Xylenes (Total)	ug/g	26	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Surrogate: 4-Bromofluorobenzene	%	-	-		71.7	60.2	68.7	68.8	61.6	69.8	58.2	69.3	70.8
Surrogate: 1,4-Difluorobenzene	%	-	-		95.0	82.2	91.1	92.4	86.3	88.8	77.2	92.3	93.6

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

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 - SOIL

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	L2710246-20	L2710246-22	L2710246-24	L2710246-26	L2710246-29	L2710246-32	L2710246-34
				Sample Date	26-MAY-22	25-MAY-22	25-MAY-22	24-MAY-22	25-MAY-22	25-MAY-22	24-MAY-22
				Sample ID	BH22-6-1A_260522	BH22-7-1_250522	BH22-8-1_250522	BH22-9-1A_240522	BH22-10-1B_25052022	DUP01	BH22-11-1A_24052022
1,1,1,2-Tetrachloroethane	ug/g	0.087	-		<0.050	<0.050	<0.050	<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	<0.050	<0.050	<0.050
Tetrachloroethylene	ug/g	4.5	-		<0.050	0.241	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	ug/g	68	-		<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
1,1,1-Trichloroethane	ug/g	6.1	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2-Trichloroethane	ug/g	0.05	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Trichloroethylene	ug/g	0.91	-		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Trichlorofluoromethane	ug/g	4	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Vinyl chloride	ug/g	0.032	-		<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
o-Xylene	ug/g	-	-		<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
m+p-Xylenes	ug/g	-	-		<0.030	<0.030	<0.030	0.031	<0.030	<0.030	<0.030
Xylenes (Total)	ug/g	26	-		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Surrogate: 4-Bromofluorobenzene	%	-	-		87.2	92.3	127.7	86.1	90.3	87.7	88.0
Surrogate: 1,4-Difluorobenzene	%	-	-		96.3	98.6	137.9	94.2	94.9	93.6	94.7

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

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 - SOIL

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	L2710246-1	L2710246-3	L2710246-5	L2710246-6	L2710246-9	L2710246-11	L2710246-13	L2710246-15	L2710246-17
				Sample Date	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	24-MAY-22	24-MAY-22
				Sample ID	MW22-1-1B_260522	MW22-1-3B_260522	MW22-2-1B_260522	MW22-2-3A_260522	BH22-3-1_260522	DUP03	DUP05	MW22-4-1B_240522	MW22-5-1B_240522
F1 (C6-C10)	ug/g	55	-		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
F1-BTEX	ug/g	55	-		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
F2 (C10-C16)	ug/g	230	-		<10	<10	<10	82	<10	25	<10	<10	<10
F2-Naphth	ug/g	-	-		<10	<10	<10		<10		<10		<10
F3 (C16-C34)	ug/g	1700	-		<50	<50	<50	60	<50	<50	<50	<50	<50
F3-PAH	ug/g	-	-		<50	<50	<50		<50		<50		<50
F4 (C34-C50)	ug/g	3300	-		<50	<50	<50	<50	<50	<50	<50	<50	<50
F4G-SG (GHH-Silica)	ug/g	3300	-										
Total Hydrocarbons (C6-C50)	ug/g	-	-		<72	<72	<72	142	<72	<72	<72	<72	<72
Chrom. to baseline at nC50		-	-		YES	YES	YES	YES	YES	YES	YES	YES	YES
Chrom. to baseline at nC50	ppm	-	-										
Surrogate: 2-Bromobenzotrifluoride	%	-	-		88.8	86.2	88.2	87.3	83.2	88.1	89.4	91.9	89.7
Surrogate: 3,4-Dichlorotoluene	%	-	-		80.2	61.6	69.6	78.8	77.6	71.3	56.8 SURR-ND	61.0	71.2

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

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 - SOIL

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	L2710246-20	L2710246-22	L2710246-24	L2710246-26	L2710246-29	L2710246-32	L2710246-34
				Sample Date	26-MAY-22	25-MAY-22	25-MAY-22	24-MAY-22	25-MAY-22	25-MAY-22	24-MAY-22
				Sample ID	BH22-6-1A_260522	BH22-7-1_250522	BH22-8-1_250522	BH22-9-1A_240522	BH22-10-1B_25052022	DUP01	BH22-11-1A_24052022
F1 (C6-C10)	ug/g	55	-		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
F1-BTEX	ug/g	55	-		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
F2 (C10-C16)	ug/g	230	-		<10	<10	<10	<10	<10	<10	<10
F2-Naphth	ug/g	-	-		<10	<10	<10	<10			<10
F3 (C16-C34)	ug/g	1700	-		99	<50	55	<50	<50	<50	159
F3-PAH	ug/g	-	-		99	<50	55	<50			155
F4 (C34-C50)	ug/g	3300	-		223	<50	<50	99	<50	<50	222
F4G-SG (GHH-Silica)	ug/g	3300	-		950						970
Total Hydrocarbons (C6-C50)	ug/g	-	-		322	<72	<72	99	<72	<72	381
Chrom. to baseline at nC50		-	-		NO	YES	YES	YES			NO
Chrom. to baseline at nC50	ppm	-	-						YES	YES	
Surrogate: 2-Bromobenzotrifluoride	%	-	-		91.2	87.5	93.0	86.1	70.3	80.5	93.2
Surrogate: 3,4-Dichlorotoluene	%	-	-		93.3	87.0	130.2	85.7	76.0	75.9	89.7

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

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.

Polycyclic Aromatic Hydrocarbons - SOIL

			Lab ID	L2710246-1	L2710246-3	L2710246-5	L2710246-7	L2710246-9	L2710246-12	L2710246-13	L2710246-14	L2710246-17
			Sample Date	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	26-MAY-22	24-MAY-22	24-MAY-22
			Sample ID	MW22-1-1B_260522	MW22-1-3B_260522	MW22-2-1B_260522	MW22-2-3B_260522	BH22-3-1_260522	DUP04	DUP05	MW22-4-1A_240522	MW22-5-1B_240522
		Guide Limits										
Analyte	Unit	#1	#2									
Acenaphthene	ug/g	96	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	ug/g	0.15	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Anthracene	ug/g	0.67	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(a)anthracene	ug/g	0.96	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(a)pyrene	mg/kg	0.3	-									
Benzo(a)pyrene	ug/g	0.3	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(b&j)fluoranthene	ug/g	0.96	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(g,h,i)perylene	ug/g	9.6	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(k)fluoranthene	ug/g	0.96	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Chrysene	ug/g	9.6	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Dibenz(a,h)anthracene	ug/g	0.1	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoranthene	ug/g	9.6	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluorene	ug/g	62	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Indeno(1,2,3-cd)pyrene	ug/g	0.76	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1+2-Methylnaphthalenes	ug/g	76	-	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042
1-Methylnaphthalene	ug/g	76	-	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
2-Methylnaphthalene	ug/g	76	-	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Naphthalene	ug/g	9.6	-	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013
Phenanthrene	ug/g	12	-	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046
Pyrene	ug/g	96	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Surrogate: 2-Fluorobiphenyl	%	-	-	76.9	69.2	77.0	76.1	79.3	79.9	80.7	78.0	86.1
Surrogate: d14-Terphenyl	%	-	-	65.8	70.4	65.3	75.1	90.4	71.5	87.0	68.4	84.0

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

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.

Polycyclic Aromatic Hydrocarbons - SOIL

		Guide Limits								
Lab ID				L2710246-20	L2710246-22	L2710246-24	L2710246-26	L2710246-28	L2710246-33	L2710246-34	L2710246-35
Sample Date				26-MAY-22	25-MAY-22	25-MAY-22	24-MAY-22	25-MAY-22	25-MAY-22	24-MAY-22	24-MAY-22
Sample ID				BH22-6-1A_260522	BH22-7-1_250522	BH22-8-1_250522	BH22-9-1A_240522	BH22-10-1A_25052022	DUP02	BH22-11-1A_24052022	BH22-11-2A_24052022
Analyte	**Unit**	**#1**	**#2**								
Acenaphthene	ug/g	96	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
Acenaphthylene	ug/g	0.15	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
Anthracene	ug/g	0.67	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
Benzo(a)anthracene	ug/g	0.96	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.298	
Benzo(a)pyrene	mg/kg	0.3	-								<0.020
Benzo(a)pyrene	ug/g	0.3	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.394	
Benzo(b&j)fluoranthene	ug/g	0.96	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.543	
Benzo(g,h,i)perylene	ug/g	9.6	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.280	
Benzo(k)fluoranthene	ug/g	0.96	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.184	
Chrysene	ug/g	9.6	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.379	
Dibenz(a,h)anthracene	ug/g	0.1	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.060	
Fluoranthene	ug/g	9.6	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.815	
Fluorene	ug/g	62	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
Indeno(1,2,3-cd)pyrene	ug/g	0.76	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.275	
1+2-Methylnaphthalenes	ug/g	76	-	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	
1-Methylnaphthalene	ug/g	76	-	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	
2-Methylnaphthalene	ug/g	76	-	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	
Naphthalene	ug/g	9.6	-	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	
Phenanthrene	ug/g	12	-	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	0.295	
Pyrene	ug/g	96	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.629	
Surrogate: 2-Fluorobiphenyl	%	-	-	75.9	78.1	75.4	78.1	75.5	75.4	82.2	78.9
Surrogate: d14-Terphenyl	%	-	-	77.1	73.2	75.0	74.0	71.4	72.0	82.7	

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

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.

Perfluorinated Compounds - SOIL

				Lab ID	L2710246-29	L2710246-32
				Sample Date	25-MAY-22	25-MAY-22
				Sample ID	BH22-10-1B_25052022	DUP01
		Guide Limits				
Analyte	Unit	#1	#2			
Perfluorononane sulfonic acid (PFNS)	ug/kg	-	-	<0.50	<0.50
8:2 Fluorotelomer sulfonic acid(8:2 FTS)	ug/kg	-	-	<0.10	<0.10
6:2 Fluorotelomer sulfonic acid(6:2 FTS)	ug/kg	-	-	<0.10	<0.10
4:2 Fluorotelomer sulfonic acid(4:2 FTS)	ug/kg	-	-	<0.10	<0.10
10:2 Fluorotelomer sulfonic acid(10:2 F)	ug/kg	-	-	<0.10	<0.10
Perfluorobutane sulfonic acid (PFBS)	ug/kg	-	-	<0.10	<0.10
Perfluorohexane sulfonic acid (PFHxS)	ug/kg	-	-	<0.10	<0.10
Perfluorotridecanoic acid (PFTrDA)	ug/kg	-	-	<0.50	<0.50
Perfluorooctane sulfonic acid (PFOS)	ug/kg	-	-	<0.50	<0.50
Perfluoropentane sulfonic acid (PFPeS)	ug/kg	-	-	<0.10	<0.10
N-Et PFO sulfonamide (EtFOSA)	ug/kg	-	-	<0.50	<0.50
N-Et PFO sulfonamidoethanol (EtFOSE)	ug/kg	-	-	<0.10	<0.10
N-Et PFO sulfonamidoacetic acid(EtFOSAA)	ug/kg	-	-	<0.10	<0.10
N-Me PFO sulfonamide (MeFOSA)	ug/kg	-	-	<0.50	<0.50
N-Me PFO sulfonamidoacetic acid(MeFOSAA)	ug/kg	-	-	<0.10	<0.10
N-Me PFO sulfonamidoethanol (MeFOSE)	ug/kg	-	-	<0.50	<0.50
Perfluoroheptane sulfonic acid (PFHpS)	ug/kg	-	-	<0.10	<0.10
Perfluorooctane sulfonamide (FOSA)	ug/kg	-	-	<0.50	<0.50
Perfluorodecane sulfonic acid (PFDS)	ug/kg	-	-	<0.50	<0.50
Perfluorobutanoic acid (PFBA)	ug/kg	-	-	<1.0	<1.0
Perfluorodecanoic acid (PFDA)	ug/kg	-	-	<0.50	<0.50
Perfluorododecanoic acid (PFDoDA)	ug/kg	-	-	<0.50	<0.50
Perfluoroheptanoic acid (PFHpA)	ug/kg	-	-	<0.10	<0.10
Perfluorohexanoic acid (PFHxA)	ug/kg	-	-	<0.10	<0.10
Perfluorononanoic acid (PFNA)	ug/kg	-	-	<0.10	<0.10
Perfluorooctanoic acid (PFOA)	ug/kg	-	-	<0.10	<0.10
Perfluoropentanoic acid (PFPeA)	ug/kg	-	-	<0.10	<0.10
Perfluorotetradecanoic acid (PFTeDA)	ug/kg	-	-	<0.50	<0.50
Perfluoroundecanoic acid (PFUnDA)	ug/kg	-	-	<0.10	<0.10
Surrogate: C8-PFOS	%	-	-	95.0	95.0

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

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

Perfluorinated Compounds - SOIL

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID: L2710246-29 Sample Date: 25-MAY-22 Sample ID: BH22-10-1B_25052022	Lab ID: L2710246-32 Sample Date: 25-MAY-22 Sample ID: DUP01
9Cl-PF3ONS	ug/kg	-	-	<0.50	<0.50
11Cl-PF3OUdS	ug/kg	-	-	<0.50	<0.50

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

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

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

Reference Information

Qualifiers for Individual Parameters Listed:

Qualifier	Description
SURR-ND	Surrogate recovery marginally exceeded ALS DQO. Reported non-detect results for associated samples were deemed to be unaffected.
SAR:M	Reported SAR represents a maximum value. Actual SAR may be lower if both Ca and Mg were detectable.

Methods Listed (if applicable):

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

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

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

BAP-WT	Soil	Benzo(a)pyrene	SW486 8270

The procedure uses a mechanical shaking technique to extract a representative sub-sample with a mixture of methanol and toluene. The extract is analyzed by GC/MSD.

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

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

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

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

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

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

EC-WT	Soil	Conductivity (EC)	MOEE E3138

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

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

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

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

Hydrocarbon results are expressed on a dry weight basis.

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

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**

Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

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

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

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

Fraction F1 is determined by extracting a soil or sediment sample as received with methanol, then analyzing by headspace-GC/FID.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

F2-F4-511-WT Soil F2-F4-O.Reg 153/04 (July 2011) CCME Tier 1

Petroleum Hydrocarbons (F2-F4 fractions) are extracted from soil with 1:1 hexane:acetone using a rotary extractor. Extracts are treated with silica gel to remove polar organic interferences. F2, F3, & F4 are analyzed by GC-FID. F4G-sg is analyzed gravimetrically.

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

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

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

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

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

GRAIN SIZE-HYD-SK Soil Grain Size by Hydrometer ASTM D6913/D7928

Particle size curve is generated from dry sieving (particles > 2 mm), wet sieving (particles 2 mm-75 um) and hydrometer readings (particles < 75 um)

ASTM D422-63 has been withdrawn, the ASTM D6913/D7928 standard serves as the successor method.

Reference Information

Methods Listed (if applicable):

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

PFAS-LL-EX-LCMS-WT	Soil	Perfluorinated Compounds by LC/MS-MS	MOECC E3506

Soil sample was extracted with alkaline organic solvent. Dilute organic extract with water (10% organic/water) then passed through SPE. Final extract of Perfluorinated compounds are analyzed by LC/MS-MS.

PH-WT	Soil	pH	MOEE E3137A

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

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

PSA-MUST-SK	Soil	% Particles > 75um (Coarse/Fine)	ASTM D6913

An air-dried sample is reduced to < 2 mm size and mixed with a dispersing agent (Calgon solution). The sample is washed through a 200 mesh (75 µm) sieve. The retained mass of sample is used to determine % sand fraction.

Reference: ASTM D422-63

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.

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

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

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

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

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

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

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

Chain of Custody Numbers:

20-94522

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
SK	ALS ENVIRONMENTAL - SASKATOON, SASKATCHEWAN, CANADA
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: L2710246 Report Date: 17-JUN-22

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
B-HWS-R511-WT	**Soil**							
Batch R5792497								
WG3734425-4 DUP		**L2710376-18**						
Boron (B), Hot Water Ext.		0.45	0.52		ug/g	15	30	02-JUN-22
WG3734425-2 IRM		**WT SAR4**						
Boron (B), Hot Water Ext.			101.4		%		70-130	02-JUN-22
WG3734425-3 LCS								
Boron (B), Hot Water Ext.			104.0		%		70-130	02-JUN-22
WG3734425-1 MB								
Boron (B), Hot Water Ext.			<0.10		ug/g		0.1	02-JUN-22
Batch R5792580								
WG3734421-4 DUP		**L2710246-12**						
Boron (B), Hot Water Ext.		0.30	0.30		ug/g	0.6	30	02-JUN-22
WG3734421-2 IRM		**WT SAR4**						
Boron (B), Hot Water Ext.			119.5		%		70-130	02-JUN-22
WG3734421-3 LCS								
Boron (B), Hot Water Ext.			107.0		%		70-130	02-JUN-22
WG3734421-1 MB								
Boron (B), Hot Water Ext.			<0.10		ug/g		0.1	02-JUN-22
BAP-WT	**Soil**							
Batch R5803537								
WG3740464-3 DUP		**WG3740464-5**						
Benzo(a)pyrene		<0.020	<0.020	RPD-NA	mg/kg	N/A	40	17-JUN-22
WG3740464-2 LCS								
Benzo(a)pyrene			109.2		%		60-140	17-JUN-22
WG3740464-1 MB								
Benzo(a)pyrene			<0.020		mg/kg		0.02	17-JUN-22
Surrogate: 2-Fluorobiphenyl			66.8		%		50-140	17-JUN-22
WG3740464-4 MS		**WG3740464-5**						
Benzo(a)pyrene			117.6		%		50-140	17-JUN-22
CN-WAD-R511-WT	**Soil**							
Batch R5792626								
WG3733565-3 DUP		**L2710246-34**						
Cyanide, Weak Acid Diss		<0.050	<0.050	RPD-NA	ug/g	N/A	35	01-JUN-22
WG3733565-2 LCS								
Cyanide, Weak Acid Diss			94.7		%		80-120	01-JUN-22
WG3733565-1 MB								
Cyanide, Weak Acid Diss			<0.050		ug/g		0.05	01-JUN-22
WG3733565-4 MS		**L2710246-34**						

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-R511-WT	**Soil**							
Batch R5792626								
WG3733565-4 MS		**L2710246-34**						
Cyanide, Weak Acid Diss			103.1		%		70-130	01-JUN-22
CR-CR6-IC-WT	**Soil**							
Batch R5792737								
WG3733710-4 CRM		**WT-SQC012**						
Chromium, Hexavalent			96.4		%		70-130	02-JUN-22
WG3733710-3 DUP		**L2710246-24**						
Chromium, Hexavalent		<0.20	<0.20	RPD-NA	ug/g	N/A	35	02-JUN-22
WG3733710-2 LCS								
Chromium, Hexavalent			89.5		%		80-120	02-JUN-22
WG3733710-1 MB								
Chromium, Hexavalent			<0.20		ug/g		0.2	02-JUN-22
EC-WT	**Soil**							
Batch R5792289								
WG3734423-5 DUP		**WG3734423-4**						
Conductivity		0.0870	0.0935		mS/cm	7.2	20	02-JUN-22
WG3734423-2 IRM		**WT SAR4**						
Conductivity			88.9		%		70-130	02-JUN-22
WG3734666-1 LCS								
Conductivity			96.8		%		90-110	02-JUN-22
WG3734423-1 MB								
Conductivity			<0.0040		mS/cm		0.004	02-JUN-22
Batch R5792340								
WG3734419-4 DUP		**WG3734419-3**						
Conductivity		0.181	0.179		mS/cm	1.3	20	02-JUN-22
WG3734419-2 IRM		**WT SAR4**						
Conductivity			102.8		%		70-130	02-JUN-22
WG3734703-1 LCS								
Conductivity			96.9		%		90-110	02-JUN-22
WG3734419-1 MB								
Conductivity			<0.0040		mS/cm		0.004	02-JUN-22
F1-HS-511-WT	**Soil**							
Batch R5791536								
WG3733607-4 DUP		**WG3733607-3**						
F1 (C6-C10)		<5.0	<5.0	RPD-NA	ug/g	N/A	30	01-JUN-22
WG3733607-2 LCS								

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F1-HS-511-WT	**Soil**							
Batch R5791536								
WG3733607-2 LCS								
F1 (C6-C10)			104.4		%		80-120	01-JUN-22
WG3733607-1 MB								
F1 (C6-C10)			<5.0		ug/g		5	01-JUN-22
Surrogate: 3,4-Dichlorotoluene			85.9		%		60-140	01-JUN-22
WG3733607-5 MS		**WG3733607-3**						
F1 (C6-C10)			112.8		%		60-140	01-JUN-22
Batch R5791997								
WG3733738-4 DUP		**WG3733738-3**						
F1 (C6-C10)		<5.0	<5.0	RPD-NA	ug/g	N/A	30	02-JUN-22
WG3733738-2 LCS								
F1 (C6-C10)			106.8		%		80-120	02-JUN-22
WG3733738-1 MB								
F1 (C6-C10)			<5.0		ug/g		5	02-JUN-22
Surrogate: 3,4-Dichlorotoluene			97.6		%		60-140	02-JUN-22
WG3733738-5 MS		**WG3733738-3**						
F1 (C6-C10)			108.6		%		60-140	02-JUN-22
Batch R5794818								
WG3734267-4 DUP		**WG3734267-3**						
F1 (C6-C10)		21.9	22.5		ug/g	2.8	30	06-JUN-22
WG3734267-2 LCS								
F1 (C6-C10)			94.8		%		80-120	06-JUN-22
WG3734267-1 MB								
F1 (C6-C10)			<5.0		ug/g		5	06-JUN-22
Surrogate: 3,4-Dichlorotoluene			89.1		%		60-140	06-JUN-22
WG3734267-5 MS		**WG3734267-3**						
F1 (C6-C10)			99.8		%		60-140	06-JUN-22
F2-F4-511-WT	**Soil**							
Batch R5793679								
WG3734413-8 DUP		**WG3734413-10**						
F2 (C10-C16)		<10	<10	RPD-NA	ug/g	N/A	40	03-JUN-22
F3 (C16-C34)		81	75		ug/g	7.0	40	03-JUN-22
F4 (C34-C50)		71	61		ug/g	16	40	03-JUN-22
WG3734413-7 LCS								
F2 (C10-C16)			87.5		%		70-130	03-JUN-22
F3 (C16-C34)			99.9		%		70-130	03-JUN-22
F4 (C34-C50)			80.7		%		70-130	03-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F2-F4-511-WT	**Soil**							
Batch R5793679								
WG3734413-6 MB								
F2 (C10-C16)			<10		ug/g		10	03-JUN-22
F3 (C16-C34)			<50		ug/g		50	03-JUN-22
F4 (C34-C50)			<50		ug/g		50	03-JUN-22
Surrogate: 2-Bromobenzotrifluoride			69.8		%		60-140	03-JUN-22
WG3734413-9 MS		**WG3734413-10**						
F2 (C10-C16)			93.3		%		60-140	03-JUN-22
F3 (C16-C34)			112.4		%		60-140	03-JUN-22
F4 (C34-C50)			96.3		%		60-140	03-JUN-22
Batch R5795027								
WG3733602-3 DUP		**WG3733602-5**						
F2 (C10-C16)		<10	<10	RPD-NA	ug/g	N/A	40	07-JUN-22
F3 (C16-C34)		<50	<50	RPD-NA	ug/g	N/A	40	07-JUN-22
F4 (C34-C50)		<50	<50	RPD-NA	ug/g	N/A	40	07-JUN-22
WG3733602-2 LCS								
F2 (C10-C16)			93.1		%		70-130	08-JUN-22
F3 (C16-C34)			101.2		%		70-130	08-JUN-22
F4 (C34-C50)			88.7		%		70-130	08-JUN-22
WG3733602-1 MB								
F2 (C10-C16)			<10		ug/g		10	08-JUN-22
F3 (C16-C34)			<50		ug/g		50	08-JUN-22
F4 (C34-C50)			<50		ug/g		50	08-JUN-22
Surrogate: 2-Bromobenzotrifluoride			89.0		%		60-140	08-JUN-22
WG3733602-4 MS		**WG3733602-5**						
F2 (C10-C16)			90.4		%		60-140	07-JUN-22
F3 (C16-C34)			96.8		%		60-140	07-JUN-22
F4 (C34-C50)			104.1		%		60-140	07-JUN-22
F4G-ADD-511-WT	**Soil**							
Batch R5795683								
WG3737258-2 LCS								
F4G-SG (GHH-Silica)			86.6		%		60-140	02-JUN-22
WG3737258-1 MB								
F4G-SG (GHH-Silica)			<250		ug/g		250	02-JUN-22
GRAIN SIZE-HYD-SK	**Soil**							

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
GRAIN SIZE-HYD-SK	**Soil**							
Batch R5795226								
WG3733461-1 DUP		**L2710246-19**						
Gravel (4.75mm - 3in.)		2.0	2.0		%	0.0	25	07-JUN-22
Coarse Sand (2.0mm - 4.75mm)		8.9	8.9	J	%	0.0	5	07-JUN-22
Medium Sand (0.425mm - 2.0mm)		33.4	35.4	J	%	1.9	5	07-JUN-22
Fine Sand (0.075mm - 0.425mm)		25.4	24.6	J	%	0.8	5	07-JUN-22
Silt (0.005mm - 0.075mm)		14.4	14.2	J	%	0.2	5	07-JUN-22
Clay (<0.005mm)		15.9	15.0	J	%	0.9	5	07-JUN-22
Silt (0.002mm - 0.075mm)		17.4	17.6	J	%	0.1	5	07-JUN-22
Clay (<0.002mm)		12.8	11.5	J	%	1.3	5	07-JUN-22
WG3733461-2 IRM		**2020-PSA_SOIL**						
Medium Sand (0.425mm - 2.0mm)			7.1		%		2-12	07-JUN-22
Fine Sand (0.075mm - 0.425mm)			33.8		%		29.6-39.6	07-JUN-22
Silt (0.005mm - 0.075mm)			34.4		%		27.4-37.4	07-JUN-22
Clay (<0.005mm)			24.7		%		21-31	07-JUN-22
Silt (0.002mm - 0.075mm)			39.1		%		32.3-42.3	07-JUN-22
Clay (<0.002mm)			20.0		%		16.1-26.1	07-JUN-22
HG-200.2-CVAA-WT	**Soil**							
Batch R5792098								
WG3734422-2 CRM		**WT-SS-2**						
Mercury (Hg)			115.1		%		70-130	02-JUN-22
WG3734422-6 DUP		**WG3734422-5**						
Mercury (Hg)		0.0066	0.0075		ug/g	12	40	02-JUN-22
WG3734422-3 LCS								
Mercury (Hg)			107.0		%		80-120	02-JUN-22
WG3734422-1 MB								
Mercury (Hg)			<0.0050		mg/kg		0.005	02-JUN-22
Batch R5792100								
WG3734433-2 CRM		**WT-SS-2**						
Mercury (Hg)			107.5		%		70-130	02-JUN-22
WG3734433-7 DUP		**WG3734433-6**						
Mercury (Hg)		0.0160	0.0163		ug/g	1.8	40	02-JUN-22
WG3734433-3 LCS								
Mercury (Hg)			110.0		%		80-120	02-JUN-22
WG3734433-1 MB								
Mercury (Hg)			<0.0050		mg/kg		0.005	02-JUN-22
MET-200.2-CCMS-WT	**Soil**							

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT	**Soil**							
Batch R5793022								
WG3734433-2 CRM		**WT-SS-2**						
Antimony (Sb)			104.8		%		70-130	02-JUN-22
Arsenic (As)			109.7		%		70-130	02-JUN-22
Barium (Ba)			115.2		%		70-130	02-JUN-22
Beryllium (Be)			107.9		%		70-130	02-JUN-22
Boron (B)			8.8		mg/kg		3.5-13.5	02-JUN-22
Cadmium (Cd)			104.8		%		70-130	02-JUN-22
Chromium (Cr)			107.0		%		70-130	02-JUN-22
Cobalt (Co)			111.0		%		70-130	02-JUN-22
Copper (Cu)			109.8		%		70-130	02-JUN-22
Lead (Pb)			102.4		%		70-130	02-JUN-22
Molybdenum (Mo)			107.6		%		70-130	02-JUN-22
Nickel (Ni)			110.5		%		70-130	02-JUN-22
Selenium (Se)			0.15		mg/kg		0-0.34	02-JUN-22
Silver (Ag)			118.6		%		70-130	02-JUN-22
Thallium (Tl)			0.078		mg/kg		0.029-0.129	02-JUN-22
Uranium (U)			104.7		%		70-130	02-JUN-22
Vanadium (V)			109.9		%		70-130	02-JUN-22
Zinc (Zn)			106.5		%		70-130	02-JUN-22
WG3734433-7 DUP		**WG3734433-6**						
Antimony (Sb)		<0.10	<0.10	RPD-NA	ug/g	N/A	30	02-JUN-22
Arsenic (As)		1.83	1.81		ug/g	1.1	30	02-JUN-22
Barium (Ba)		25.7	25.6		ug/g	0.2	40	02-JUN-22
Beryllium (Be)		0.29	0.31		ug/g	7.5	30	02-JUN-22
Boron (B)		<5.0	<5.0	RPD-NA	ug/g	N/A	30	02-JUN-22
Cadmium (Cd)		0.023	0.024		ug/g	4.9	30	02-JUN-22
Chromium (Cr)		10.9	11.4		ug/g	4.2	30	02-JUN-22
Cobalt (Co)		3.89	3.91		ug/g	0.5	30	02-JUN-22
Copper (Cu)		6.05	6.09		ug/g	0.6	30	02-JUN-22
Lead (Pb)		4.16	4.32		ug/g	3.7	40	02-JUN-22
Molybdenum (Mo)		0.18	0.20		ug/g	11	40	02-JUN-22
Nickel (Ni)		8.28	8.53		ug/g	2.9	30	02-JUN-22
Selenium (Se)		<0.20	<0.20	RPD-NA	ug/g	N/A	30	02-JUN-22
Silver (Ag)		<0.10	<0.10	RPD-NA	ug/g	N/A	40	02-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT	**Soil**							
Batch R5793022								
WG3734433-7 DUP		**WG3734433-6**						
Thallium (Tl)		0.061	0.064		ug/g	5.6	30	02-JUN-22
Uranium (U)		0.386	0.394		ug/g	2.0	30	02-JUN-22
Vanadium (V)		22.9	23.7		ug/g	3.4	30	02-JUN-22
Zinc (Zn)		15.7	15.8		ug/g	0.5	30	02-JUN-22
WG3734433-4 LCS								
Antimony (Sb)			93.6		%		80-120	02-JUN-22
Arsenic (As)			99.0		%		80-120	02-JUN-22
Barium (Ba)			100.8		%		80-120	02-JUN-22
Beryllium (Be)			85.5		%		80-120	02-JUN-22
Boron (B)			81.1		%		80-120	02-JUN-22
Cadmium (Cd)			95.9		%		80-120	02-JUN-22
Chromium (Cr)			94.6		%		80-120	02-JUN-22
Cobalt (Co)			95.4		%		80-120	02-JUN-22
Copper (Cu)			93.8		%		80-120	02-JUN-22
Lead (Pb)			88.8		%		80-120	02-JUN-22
Molybdenum (Mo)			90.3		%		80-120	02-JUN-22
Nickel (Ni)			94.4		%		80-120	02-JUN-22
Selenium (Se)			92.6		%		80-120	02-JUN-22
Silver (Ag)			76.9	MES	%		80-120	02-JUN-22
Thallium (Tl)			85.7		%		80-120	02-JUN-22
Uranium (U)			85.1		%		80-120	02-JUN-22
Vanadium (V)			99.0		%		80-120	02-JUN-22
Zinc (Zn)			91.4		%		80-120	02-JUN-22
WG3734433-1 MB								
Antimony (Sb)			<0.10		mg/kg		0.1	02-JUN-22
Arsenic (As)			<0.10		mg/kg		0.1	02-JUN-22
Barium (Ba)			<0.50		mg/kg		0.5	02-JUN-22
Beryllium (Be)			<0.10		mg/kg		0.1	02-JUN-22
Boron (B)			<5.0		mg/kg		5	02-JUN-22
Cadmium (Cd)			<0.020		mg/kg		0.02	02-JUN-22
Chromium (Cr)			<0.50		mg/kg		0.5	02-JUN-22
Cobalt (Co)			<0.10		mg/kg		0.1	02-JUN-22
Copper (Cu)			<0.50		mg/kg		0.5	02-JUN-22
Lead (Pb)			<0.50		mg/kg		0.5	02-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT	**Soil**							
Batch R5793022								
WG3734433-1 MB								
Molybdenum (Mo)			<0.10		mg/kg		0.1	02-JUN-22
Nickel (Ni)			<0.50		mg/kg		0.5	02-JUN-22
Selenium (Se)			<0.20		mg/kg		0.2	02-JUN-22
Silver (Ag)			<0.10		mg/kg		0.1	02-JUN-22
Thallium (Tl)			<0.050		mg/kg		0.05	02-JUN-22
Uranium (U)			<0.050		mg/kg		0.05	02-JUN-22
Vanadium (V)			<0.20		mg/kg		0.2	02-JUN-22
Zinc (Zn)			<2.0		mg/kg		2	02-JUN-22
Batch R5793620								
WG3734422-2 CRM		**WT-SS-2**						
Antimony (Sb)			99.1		%		70-130	02-JUN-22
Arsenic (As)			94.9		%		70-130	02-JUN-22
Barium (Ba)			104.0		%		70-130	02-JUN-22
Beryllium (Be)			99.0		%		70-130	02-JUN-22
Boron (B)			8.1		mg/kg		3.5-13.5	02-JUN-22
Cadmium (Cd)			104.8		%		70-130	02-JUN-22
Chromium (Cr)			94.2		%		70-130	02-JUN-22
Cobalt (Co)			96.4		%		70-130	02-JUN-22
Copper (Cu)			93.4		%		70-130	02-JUN-22
Lead (Pb)			94.7		%		70-130	02-JUN-22
Molybdenum (Mo)			108.2		%		70-130	02-JUN-22
Nickel (Ni)			101.6		%		70-130	02-JUN-22
Selenium (Se)			0.13		mg/kg		0-0.34	02-JUN-22
Silver (Ag)			118.8		%		70-130	02-JUN-22
Thallium (Tl)			0.071		mg/kg		0.029-0.129	02-JUN-22
Uranium (U)			96.0		%		70-130	02-JUN-22
Vanadium (V)			96.8		%		70-130	02-JUN-22
Zinc (Zn)			92.4		%		70-130	02-JUN-22
WG3734422-6 DUP		**WG3734422-5**						
Antimony (Sb)		<0.10	<0.10	RPD-NA	ug/g	N/A	30	02-JUN-22
Arsenic (As)		4.08	4.08		ug/g	0.1	30	02-JUN-22
Barium (Ba)		219	222		ug/g	1.2	40	02-JUN-22
Beryllium (Be)		0.77	0.71		ug/g	8.7	30	02-JUN-22
Boron (B)		8.9	7.7		ug/g	14	30	02-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT	**Soil**							
Batch R5793620								
WG3734422-6 DUP		**WG3734422-5**						
Cadmium (Cd)		0.060	0.078		ug/g	26	30	02-JUN-22
Chromium (Cr)		51.1	50.3		ug/g	1.6	30	02-JUN-22
Cobalt (Co)		15.1	14.8		ug/g	2.0	30	02-JUN-22
Copper (Cu)		27.9	27.5		ug/g	1.2	30	02-JUN-22
Lead (Pb)		6.59	5.92		ug/g	11	40	02-JUN-22
Molybdenum (Mo)		0.40	0.38		ug/g	6.7	40	02-JUN-22
Nickel (Ni)		30.0	29.4		ug/g	1.9	30	02-JUN-22
Selenium (Se)		<0.20	<0.20	RPD-NA	ug/g	N/A	30	02-JUN-22
Silver (Ag)		<0.10	<0.10	RPD-NA	ug/g	N/A	40	02-JUN-22
Thallium (Tl)		0.258	0.232		ug/g	11	30	02-JUN-22
Uranium (U)		0.575	0.490		ug/g	16	30	02-JUN-22
Vanadium (V)		75.2	74.1		ug/g	1.6	30	02-JUN-22
Zinc (Zn)		82.4	80.4		ug/g	2.4	30	02-JUN-22
WG3734422-4 LCS								
Antimony (Sb)			108.2		%		80-120	02-JUN-22
Arsenic (As)			108.9		%		80-120	02-JUN-22
Barium (Ba)			111.3		%		80-120	02-JUN-22
Beryllium (Be)			106.9		%		80-120	02-JUN-22
Boron (B)			101.3		%		80-120	02-JUN-22
Cadmium (Cd)			100.9		%		80-120	02-JUN-22
Chromium (Cr)			106.8		%		80-120	02-JUN-22
Cobalt (Co)			106.0		%		80-120	02-JUN-22
Copper (Cu)			102.8		%		80-120	02-JUN-22
Lead (Pb)			102.1		%		80-120	02-JUN-22
Molybdenum (Mo)			105.7		%		80-120	02-JUN-22
Nickel (Ni)			104.8		%		80-120	02-JUN-22
Selenium (Se)			98.4		%		80-120	02-JUN-22
Silver (Ag)			88.1		%		80-120	02-JUN-22
Thallium (Tl)			101.8		%		80-120	02-JUN-22
Uranium (U)			97.0		%		80-120	02-JUN-22
Vanadium (V)			110.9		%		80-120	02-JUN-22
Zinc (Zn)			101.0		%		80-120	02-JUN-22
WG3734422-1 MB								
							0.1	

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT	**Soil**							
Batch R5793620								
WG3734422-1 MB								
Antimony (Sb)			<0.10		mg/kg		0.1	02-JUN-22
Arsenic (As)			<0.10		mg/kg		0.1	02-JUN-22
Barium (Ba)			<0.50		mg/kg		0.5	02-JUN-22
Beryllium (Be)			<0.10		mg/kg		0.1	02-JUN-22
Boron (B)			<5.0		mg/kg		5	02-JUN-22
Cadmium (Cd)			<0.020		mg/kg		0.02	02-JUN-22
Chromium (Cr)			<0.50		mg/kg		0.5	02-JUN-22
Cobalt (Co)			<0.10		mg/kg		0.1	02-JUN-22
Copper (Cu)			<0.50		mg/kg		0.5	02-JUN-22
Lead (Pb)			<0.50		mg/kg		0.5	02-JUN-22
Molybdenum (Mo)			<0.10		mg/kg		0.1	02-JUN-22
Nickel (Ni)			<0.50		mg/kg		0.5	02-JUN-22
Selenium (Se)			<0.20		mg/kg		0.2	02-JUN-22
Silver (Ag)			<0.10		mg/kg		0.1	02-JUN-22
Thallium (Tl)			<0.050		mg/kg		0.05	02-JUN-22
Uranium (U)			<0.050		mg/kg		0.05	02-JUN-22
Vanadium (V)			<0.20		mg/kg		0.2	02-JUN-22
Zinc (Zn)			<2.0		mg/kg		2	02-JUN-22
Batch R5804340								
WG3740730-2 CRM		**WT-SS-2**						
Vanadium (V)			105.1		%		70-130	17-JUN-22
WG3740730-4 DUP		**L2714585-15**						
Vanadium (V)		15.6	15.7		ug/g	0.4	30	17-JUN-22
WG3740730-3 LCS								
Vanadium (V)			108.4		%		80-120	17-JUN-22
WG3740730-1 MB								
Vanadium (V)			<0.20		mg/kg		0.2	17-JUN-22
MOISTURE-WT	**Soil**							
Batch R5791210								
WG3733555-3 DUP		**L2710419-1**						
% Moisture		14.5	12.0		%	19	20	01-JUN-22
WG3733555-2 LCS								
% Moisture			99.1		%		90-110	01-JUN-22
WG3733555-1 MB								
% Moisture			<0.25		%		0.25	01-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MOISTURE-WT	**Soil**							
Batch R5791510								
WG3733936-3 DUP		**L2710246-29**						
% Moisture		16.9	16.9		%	0.3	20	02-JUN-22
WG3733936-2 LCS								
% Moisture			99.0		%		90-110	02-JUN-22
WG3733936-1 MB								
% Moisture			<0.25		%		0.25	02-JUN-22
Batch R5799020								
WG3739128-3 DUP		**L2714426-13**						
% Moisture		4.79	4.79		%	0.0	20	15-JUN-22
WG3739128-2 LCS								
% Moisture			99.6		%		90-110	15-JUN-22
WG3739128-1 MB								
% Moisture			<0.25		%		0.25	15-JUN-22
PAH-511-WT	**Soil**							
Batch R5791650								
WG3733846-3 DUP		**WG3733846-5**						
1-Methylnaphthalene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	01-JUN-22
2-Methylnaphthalene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	01-JUN-22
Acenaphthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Acenaphthylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Benzo(a)anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Benzo(a)pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Benzo(b&j)fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Benzo(g,h,i)perylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Benzo(k)fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Chrysene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Dibenz(a,h)anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Fluorene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Indeno(1,2,3-cd)pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Naphthalene		<0.013	<0.013	RPD-NA	ug/g	N/A	40	01-JUN-22
Phenanthrene		<0.046	<0.046	RPD-NA	ug/g	N/A	40	01-JUN-22
Pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
WG3733846-2 LCS								

Quality Control Report

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295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	**Soil**							
Batch R5791650								
WG3733846-2 LCS								
1-Methylnaphthalene			77.1		%		50-140	01-JUN-22
2-Methylnaphthalene			79.3		%		50-140	01-JUN-22
Acenaphthene			78.2		%		50-140	01-JUN-22
Acenaphthylene			81.7		%		50-140	01-JUN-22
Anthracene			82.6		%		50-140	01-JUN-22
Benzo(a)anthracene			80.3		%		50-140	01-JUN-22
Benzo(a)pyrene			91.3		%		50-140	01-JUN-22
Benzo(b&j)fluoranthene			83.8		%		50-140	01-JUN-22
Benzo(g,h,i)perylene			65.6		%		50-140	01-JUN-22
Benzo(k)fluoranthene			81.1		%		50-140	01-JUN-22
Chrysene			82.6		%		50-140	01-JUN-22
Dibenz(a,h)anthracene			68.9		%		50-140	01-JUN-22
Fluoranthene			76.5		%		50-140	01-JUN-22
Fluorene			78.5		%		50-140	01-JUN-22
Indeno(1,2,3-cd)pyrene			64.1		%		50-140	01-JUN-22
Naphthalene			79.8		%		50-140	01-JUN-22
Phenanthrene			79.0		%		50-140	01-JUN-22
Pyrene			76.2		%		50-140	01-JUN-22
WG3733846-1 MB								
1-Methylnaphthalene			<0.030		ug/g		0.03	01-JUN-22
2-Methylnaphthalene			<0.030		ug/g		0.03	01-JUN-22
Acenaphthene			<0.050		ug/g		0.05	01-JUN-22
Acenaphthylene			<0.050		ug/g		0.05	01-JUN-22
Anthracene			<0.050		ug/g		0.05	01-JUN-22
Benzo(a)anthracene			<0.050		ug/g		0.05	01-JUN-22
Benzo(a)pyrene			<0.050		ug/g		0.05	01-JUN-22
Benzo(b&j)fluoranthene			<0.050		ug/g		0.05	01-JUN-22
Benzo(g,h,i)perylene			<0.050		ug/g		0.05	01-JUN-22
Benzo(k)fluoranthene			<0.050		ug/g		0.05	01-JUN-22
Chrysene			<0.050		ug/g		0.05	01-JUN-22
Dibenz(a,h)anthracene			<0.050		ug/g		0.05	01-JUN-22
Fluoranthene			<0.050		ug/g		0.05	01-JUN-22
Fluorene			<0.050		ug/g		0.05	01-JUN-22
Indeno(1,2,3-cd)pyrene			<0.050		ug/g		0.05	01-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	**Soil**							
Batch R5791650								
WG3733846-1 MB								
Naphthalene			<0.013		ug/g		0.013	01-JUN-22
Phenanthrene			<0.046		ug/g		0.046	01-JUN-22
Pyrene			<0.050		ug/g		0.05	01-JUN-22
Surrogate: 2-Fluorobiphenyl			71.9		%		50-140	01-JUN-22
Surrogate: d14-Terphenyl			69.3		%		50-140	01-JUN-22
WG3733846-4 MS		**WG3733846-5**						
1-Methylnaphthalene			89.7		%		50-140	01-JUN-22
2-Methylnaphthalene			92.9		%		50-140	01-JUN-22
Acenaphthene			91.9		%		50-140	01-JUN-22
Acenaphthylene			97.2		%		50-140	01-JUN-22
Anthracene			98.5		%		50-140	01-JUN-22
Benzo(a)anthracene			96.2		%		50-140	01-JUN-22
Benzo(a)pyrene			105.1		%		50-140	01-JUN-22
Benzo(b&j)fluoranthene			95.7		%		50-140	01-JUN-22
Benzo(g,h,i)perylene			77.4		%		50-140	01-JUN-22
Benzo(k)fluoranthene			91.6		%		50-140	01-JUN-22
Chrysene			92.8		%		50-140	01-JUN-22
Dibenz(a,h)anthracene			83.0		%		50-140	01-JUN-22
Fluoranthene			93.9		%		50-140	01-JUN-22
Fluorene			93.6		%		50-140	01-JUN-22
Indeno(1,2,3-cd)pyrene			80.3		%		50-140	01-JUN-22
Naphthalene			92.7		%		50-140	01-JUN-22
Phenanthrene			90.5		%		50-140	01-JUN-22
Pyrene			93.1		%		50-140	01-JUN-22
Batch R5793268								
WG3734414-3 DUP		**WG3734414-5**						
1-Methylnaphthalene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	03-JUN-22
2-Methylnaphthalene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	03-JUN-22
Acenaphthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-JUN-22
Acenaphthylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-JUN-22
Anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-JUN-22
Benzo(a)anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-JUN-22
Benzo(a)pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-JUN-22
Benzo(b&j)fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-JUN-22

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Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	**Soil**							
Batch R5793268								
WG3734414-3 DUP		**WG3734414-5**						
Benzo(g,h,i)perylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-JUN-22
Benzo(k)fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-JUN-22
Chrysene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-JUN-22
Dibenz(a,h)anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-JUN-22
Fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-JUN-22
Fluorene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-JUN-22
Indeno(1,2,3-cd)pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-JUN-22
Naphthalene		<0.013	<0.013	RPD-NA	ug/g	N/A	40	03-JUN-22
Phenanthrene		<0.046	<0.046	RPD-NA	ug/g	N/A	40	03-JUN-22
Pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-JUN-22
WG3734414-2 LCS								
1-Methylnaphthalene			88.6		%		50-140	03-JUN-22
2-Methylnaphthalene			91.3		%		50-140	03-JUN-22
Acenaphthene			82.0		%		50-140	03-JUN-22
Acenaphthylene			90.4		%		50-140	03-JUN-22
Anthracene			98.8		%		50-140	03-JUN-22
Benzo(a)anthracene			96.3		%		50-140	03-JUN-22
Benzo(a)pyrene			108.7		%		50-140	03-JUN-22
Benzo(b&j)fluoranthene			95.3		%		50-140	03-JUN-22
Benzo(g,h,i)perylene			87.5		%		50-140	03-JUN-22
Benzo(k)fluoranthene			93.0		%		50-140	03-JUN-22
Chrysene			97.0		%		50-140	03-JUN-22
Dibenz(a,h)anthracene			88.4		%		50-140	03-JUN-22
Fluoranthene			110.7		%		50-140	03-JUN-22
Fluorene			80.4		%		50-140	03-JUN-22
Indeno(1,2,3-cd)pyrene			89.8		%		50-140	03-JUN-22
Naphthalene			91.2		%		50-140	03-JUN-22
Phenanthrene			91.2		%		50-140	03-JUN-22
Pyrene			109.1		%		50-140	03-JUN-22
WG3734414-1 MB								
1-Methylnaphthalene			<0.030		ug/g		0.03	03-JUN-22
2-Methylnaphthalene			<0.030		ug/g		0.03	03-JUN-22
Acenaphthene			<0.050		ug/g		0.05	03-JUN-22
Acenaphthylene			<0.050		ug/g		0.05	03-JUN-22

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Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	**Soil**							
Batch R5793268								
WG3734414-1 MB								
Anthracene			<0.050		ug/g		0.05	03-JUN-22
Benzo(a)anthracene			<0.050		ug/g		0.05	03-JUN-22
Benzo(a)pyrene			<0.050		ug/g		0.05	03-JUN-22
Benzo(b&j)fluoranthene			<0.050		ug/g		0.05	03-JUN-22
Benzo(g,h,i)perylene			<0.050		ug/g		0.05	03-JUN-22
Benzo(k)fluoranthene			<0.050		ug/g		0.05	03-JUN-22
Chrysene			<0.050		ug/g		0.05	03-JUN-22
Dibenz(a,h)anthracene			<0.050		ug/g		0.05	03-JUN-22
Fluoranthene			<0.050		ug/g		0.05	03-JUN-22
Fluorene			<0.050		ug/g		0.05	03-JUN-22
Indeno(1,2,3-cd)pyrene			<0.050		ug/g		0.05	03-JUN-22
Naphthalene			<0.013		ug/g		0.013	03-JUN-22
Phenanthrene			<0.046		ug/g		0.046	03-JUN-22
Pyrene			<0.050		ug/g		0.05	03-JUN-22
Surrogate: 2-Fluorobiphenyl			77.6		%		50-140	03-JUN-22
Surrogate: d14-Terphenyl			83.3		%		50-140	03-JUN-22
WG3734414-4 MS		**WG3734414-5**						
1-Methylnaphthalene			86.4		%		50-140	03-JUN-22
2-Methylnaphthalene			90.4		%		50-140	03-JUN-22
Acenaphthene			89.4		%		50-140	03-JUN-22
Acenaphthylene			99.2		%		50-140	03-JUN-22
Anthracene			100.2		%		50-140	03-JUN-22
Benzo(a)anthracene			100.9		%		50-140	03-JUN-22
Benzo(a)pyrene			112.6		%		50-140	03-JUN-22
Benzo(b&j)fluoranthene			98.6		%		50-140	03-JUN-22
Benzo(g,h,i)perylene			86.0		%		50-140	03-JUN-22
Benzo(k)fluoranthene			93.7		%		50-140	03-JUN-22
Chrysene			96.6		%		50-140	03-JUN-22
Dibenz(a,h)anthracene			90.4		%		50-140	03-JUN-22
Fluoranthene			95.5		%		50-140	03-JUN-22
Fluorene			92.7		%		50-140	03-JUN-22
Indeno(1,2,3-cd)pyrene			95.7		%		50-140	03-JUN-22
Naphthalene			87.9		%		50-140	03-JUN-22
Phenanthrene			89.4		%		50-140	03-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	**Soil**							
Batch R5793268								
WG3734414-4 MS		**WG3734414-5**						
Pyrene			93.3		%		50-140	03-JUN-22
PFAS-LL-EX-LCMS-WT	**Soil**							
Batch R5794573								
WG3735044-3 DUP		**WG3735044-5**						
Perfluorobutane sulfonic acid (PFBS)		<0.10	<0.10	RPD-NA	ug/kg	N/A	50	03-JUN-22
Perfluoropentane sulfonic acid (PFPeS)		<0.10	<0.10	RPD-NA	ug/kg	N/A	50	03-JUN-22
Perfluorohexane sulfonic acid (PFHxS)		<0.10	<0.10	RPD-NA	ug/kg	N/A	50	03-JUN-22
Perfluoroheptane sulfonic acid (PFHpS)		<0.10	<0.10	RPD-NA	ug/kg	N/A	50	03-JUN-22
Perfluorooctane sulfonic acid (PFOS)		<0.50	<0.50	RPD-NA	ug/kg	N/A	50	03-JUN-22
Perfluorodecane sulfonic acid (PFDS)		<0.50	<0.50	RPD-NA	ug/kg	N/A	50	03-JUN-22
Perfluorobutanoic acid (PFBA)		<1.0	<1.0	RPD-NA	ug/kg	N/A	50	03-JUN-22
Perfluoropentanoic acid (PFPeA)		<0.10	<0.10	RPD-NA	ug/kg	N/A	50	03-JUN-22
Perfluorohexanoic acid (PFHxA)		<0.10	<0.10	RPD-NA	ug/kg	N/A	50	03-JUN-22
Perfluoroheptanoic acid (PFHpA)		<0.10	<0.10	RPD-NA	ug/kg	N/A	50	03-JUN-22
Perfluorooctanoic acid (PFOA)		<0.10	<0.10	RPD-NA	ug/kg	N/A	50	03-JUN-22
Perfluorononanoic acid (PFNA)		<0.10	<0.10	RPD-NA	ug/kg	N/A	50	03-JUN-22
Perfluorodecanoic acid (PFDA)		<0.50	<0.50	RPD-NA	ug/kg	N/A	50	03-JUN-22
Perfluoroundecanoic acid (PFUnDA)		<0.10	<0.10	RPD-NA	ug/kg	N/A	50	03-JUN-22
Perfluorododecanoic acid (PFDoDA)		<0.50	<0.50	RPD-NA	ug/kg	N/A	50	03-JUN-22
Perfluorotridecanoic acid (PFTrDA)		<0.50	<0.50	RPD-NA	ug/kg	N/A	50	03-JUN-22
Perfluorotetradecanoic acid (PFTeDA)		<0.50	<0.50	RPD-NA	ug/kg	N/A	50	03-JUN-22
Perfluorooctane sulfonamide (FOSA)		<0.50	<0.50	RPD-NA	ug/kg	N/A	50	03-JUN-22
N-Me PFO sulfonamide (MeFOSA)		<0.50	<0.50	RPD-NA	ug/kg	N/A	50	03-JUN-22
N-Et PFO sulfonamide (EtFOSA)		<0.50	<0.50	RPD-NA	ug/kg	N/A	50	03-JUN-22
N-Me PFO sulfonamidoethanol (MeFOSE)		<0.50	<0.50	RPD-NA	ug/kg	N/A	50	03-JUN-22
N-Et PFO sulfonamidoethanol (EtFOSE)		<0.10	<0.10	RPD-NA	ug/kg	N/A	50	03-JUN-22
N-Me PFO sulfonamidoacetic acid(MeFOS		<0.10	<0.10	RPD-NA	ug/kg	N/A	50	03-JUN-22
N-Et PFO sulfonamidoacetic acid(EtFOSA		<0.10	<0.10	RPD-NA	ug/kg	N/A	50	03-JUN-22
4:2 Fluorotelomer sulfonic acid(4:2 FTS)		<0.10	<0.10	RPD-NA	ug/kg	N/A	50	03-JUN-22
6:2 Fluorotelomer sulfonic acid(6:2 FTS)		<0.10	<0.10	RPD-NA	ug/kg	N/A	50	03-JUN-22
8:2 Fluorotelomer sulfonic acid(8:2 FTS)		<0.10	<0.10	RPD-NA	ug/kg	N/A	50	03-JUN-22
10:2 Fluorotelomer sulfonic acid(10:2 F)		<0.10	<0.10	RPD-NA	ug/kg	N/A	50	03-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PFAS-LL-EX-LCMS-WT	**Soil**							
Batch R5794573								
WG3735044-3 DUP		**WG3735044-5**						
Perfluorononane sulfonic acid (PFNS)		<0.50	<0.50	RPD-NA	ug/kg	N/A	50	03-JUN-22
9Cl-PF3ONS		<0.50	<0.50	RPD-NA	ug/kg	N/A	50	03-JUN-22
11Cl-PF3OUdS		<0.50	<0.50	RPD-NA	ug/kg	N/A	50	03-JUN-22
WG3735044-2 LCS								
Perfluorobutane sulfonic acid (PFBS)			88.7		%		50-150	03-JUN-22
Perfluoropentane sulfonic acid (PFPeS)			107.3		%		50-150	03-JUN-22
Perfluorohexane sulfonic acid (PFHxS)			92.0		%		50-150	03-JUN-22
Perfluoroheptane sulfonic acid (PFHpS)			88.0		%		50-150	03-JUN-22
Perfluorooctane sulfonic acid (PFOS)			86.7		%		50-150	03-JUN-22
Perfluorodecane sulfonic acid (PFDS)			70.7		%		50-150	03-JUN-22
Perfluorobutanoic acid (PFBA)			98.6		%		50-150	03-JUN-22
Perfluoropentanoic acid (PFPeA)			106.7		%		50-150	03-JUN-22
Perfluorohexanoic acid (PFHxA)			116.0		%		50-150	03-JUN-22
Perfluoroheptanoic acid (PFHpA)			110.7		%		50-150	03-JUN-22
Perfluorooctanoic acid (PFOA)			96.0		%		50-150	03-JUN-22
Perfluorononanoic acid (PFNA)			97.3		%		50-150	03-JUN-22
Perfluorodecanoic acid (PFDA)			96.0		%		50-150	03-JUN-22
Perfluoroundecanoic acid (PFUnDA)			101.3		%		50-150	03-JUN-22
Perfluorododecanoic acid (PFDoDA)			108.7		%		50-150	03-JUN-22
Perfluorotridecanoic acid (PFTrDA)			86.7		%		50-150	03-JUN-22
Perfluorotetradecanoic acid (PFTeDA)			100.0		%		50-150	03-JUN-22
Perfluorooctane sulfonamide (FOSA)			155.3	LCS-H	%		50-150	03-JUN-22
N-Me PFO sulfonamide (MeFOSA)			84.7		%		50-150	03-JUN-22
N-Et PFO sulfonamide (EtFOSA)			92.0		%		50-150	03-JUN-22
N-Me PFO sulfonamidoethanol (MeFOSE)			119.3		%		50-150	03-JUN-22
N-Et PFO sulfonamidoethanol (EtFOSE)			101.3		%		50-150	03-JUN-22
N-Me PFO sulfonamidoacetic acid(MeFOS			106.0		%		50-150	03-JUN-22
N-Et PFO sulfonamidoacetic acid(EtFOSA			118.7		%		50-150	03-JUN-22
4:2 Fluorotelomer sulfonic acid(4:2 FTS)			88.7		%		50-150	03-JUN-22
6:2 Fluorotelomer sulfonic acid(6:2 FTS)			94.7		%		50-150	03-JUN-22
8:2 Fluorotelomer sulfonic acid(8:2 FTS)			82.0		%		50-150	03-JUN-22
10:2 Fluorotelomer sulfonic acid(10:2 F)			114.0		%		50-150	03-JUN-22
Perfluorononane sulfonic acid (PFNS)			88.0		%		50-150	03-JUN-22
9Cl-PF3ONS			88.7				50-150	

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PFAS-LL-EX-LCMS-WT	**Soil**							
Batch	**R5794573**							
WG3735044-2	**LCS**							
9Cl-PF3ONS			88.7		%		50-150	03-JUN-22
11Cl-PF3OUdS			98.7		%		50-150	03-JUN-22
WG3735044-1	**MB**							
Perfluorobutane sulfonic acid (PFBS)			<0.10		ug/kg		0.1	03-JUN-22
Perfluoropentane sulfonic acid (PFPeS)			<0.10		ug/kg		0.1	03-JUN-22
Perfluorohexane sulfonic acid (PFHxS)			<0.10		ug/kg		0.1	03-JUN-22
Perfluoroheptane sulfonic acid (PFHpS)			<0.10		ug/kg		0.1	03-JUN-22
Perfluorooctane sulfonic acid (PFOS)			<0.50		ug/kg		0.5	03-JUN-22
Perfluorodecane sulfonic acid (PFDS)			<0.50		ug/kg		0.5	03-JUN-22
Perfluorobutanoic acid (PFBA)			<1.0		ug/kg		1	03-JUN-22
Perfluoropentanoic acid (PFPeA)			<0.10		ug/kg		0.1	03-JUN-22
Perfluorohexanoic acid (PFHxA)			<0.10		ug/kg		0.1	03-JUN-22
Perfluoroheptanoic acid (PFHpA)			<0.10		ug/kg		0.1	03-JUN-22
Perfluorooctanoic acid (PFOA)			<0.10		ug/kg		0.1	03-JUN-22
Perfluorononanoic acid (PFNA)			<0.10		ug/kg		0.1	03-JUN-22
Perfluorodecanoic acid (PFDA)			<0.50		ug/kg		0.5	03-JUN-22
Perfluoroundecanoic acid (PFUnDA)			<0.10		ug/kg		0.1	03-JUN-22
Perfluorododecanoic acid (PFDoDA)			<0.50		ug/kg		0.5	03-JUN-22
Perfluorotridecanoic acid (PFTrDA)			<0.50		ug/kg		0.5	03-JUN-22
Perfluorotetradecanoic acid (PFTeDA)			<0.50		ug/kg		0.5	03-JUN-22
Perfluorooctane sulfonamide (FOSA)			<0.50		ug/kg		0.5	03-JUN-22
N-Me PFO sulfonamide (MeFOSA)			<0.50		ug/kg		0.5	03-JUN-22
N-Et PFO sulfonamide (EtFOSA)			<0.50		ug/kg		0.5	03-JUN-22
N-Me PFO sulfonamidoethanol (MeFOSE)			<0.50		ug/kg		0.5	03-JUN-22
N-Et PFO sulfonamidoethanol (EtFOSE)			<0.10		ug/kg		0.1	03-JUN-22
N-Me PFO sulfonamidoacetic acid(MeFOS			<0.10		ug/kg		0.1	03-JUN-22
N-Et PFO sulfonamidoacetic acid(EtFOSA			<0.10		ug/kg		0.1	03-JUN-22
4:2 Fluorotelomer sulfonic acid(4:2 FTS)			<0.10		ug/kg		0.1	03-JUN-22
6:2 Fluorotelomer sulfonic acid(6:2 FTS)			<0.10		ug/kg		0.1	03-JUN-22
8:2 Fluorotelomer sulfonic acid(8:2 FTS)			<0.10		ug/kg		0.1	03-JUN-22
10:2 Fluorotelomer sulfonic acid(10:2 F)			<0.10		ug/kg		0.1	03-JUN-22
Surrogate: C8-PFOS			105.0		%		50-150	03-JUN-22
Perfluorononane sulfonic acid (PFNS)			<0.50		ug/kg		0.5	03-JUN-22
9Cl-PF3ONS			<0.50		ug/kg		0.5	03-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PFAS-LL-EX-LCMS-WT	**Soil**							
Batch R5794573								
WG3735044-1 MB								
11Cl-PF3OUdS			<0.50		ug/kg		0.5	03-JUN-22
WG3735044-4 MS		**WG3735044-5**						
Perfluorobutane sulfonic acid (PFBS)			82.7		%		50-150	03-JUN-22
Perfluoropentane sulfonic acid (PFPeS)			106.0		%		50-150	03-JUN-22
Perfluorohexane sulfonic acid (PFHxS)			92.0		%		50-150	03-JUN-22
Perfluoroheptane sulfonic acid (PFHpS)			88.0		%		50-150	03-JUN-22
Perfluorooctane sulfonic acid (PFOS)			96.7		%		50-150	03-JUN-22
Perfluorodecane sulfonic acid (PFDS)			52.0		%		50-150	03-JUN-22
Perfluorobutanoic acid (PFBA)			85.1		%		50-150	03-JUN-22
Perfluoropentanoic acid (PFPeA)			105.3		%		50-150	03-JUN-22
Perfluorohexanoic acid (PFHxA)			113.4		%		50-150	03-JUN-22
Perfluoroheptanoic acid (PFHpA)			103.3		%		50-150	03-JUN-22
Perfluorooctanoic acid (PFOA)			90.0		%		50-150	03-JUN-22
Perfluorononanoic acid (PFNA)			92.7		%		50-150	03-JUN-22
Perfluorodecanoic acid (PFDA)			98.7		%		50-150	03-JUN-22
Perfluoroundecanoic acid (PFUnDA)			88.7		%		50-150	03-JUN-22
Perfluorododecanoic acid (PFDoDA)			95.4		%		50-150	03-JUN-22
Perfluorotridecanoic acid (PFTrDA)			94.7		%		50-150	03-JUN-22
Perfluorotetradecanoic acid (PFTeDA)			96.7		%		50-150	03-JUN-22
Perfluorooctane sulfonamide (FOSA)			97.4		%		50-150	03-JUN-22
N-Me PFO sulfonamide (MeFOSA)			76.7		%		50-150	03-JUN-22
N-Et PFO sulfonamide (EtFOSA)			93.3		%		50-150	03-JUN-22
N-Me PFO sulfonamidoethanol (MeFOSE)			128.0		%		50-150	03-JUN-22
N-Et PFO sulfonamidoethanol (EtFOSE)			102.7		%		50-150	03-JUN-22
N-Me PFO sulfonamidoacetic acid(MeFOS			118.7		%		50-150	03-JUN-22
N-Et PFO sulfonamidoacetic acid(EtFOSA			114.0		%		50-150	03-JUN-22
4:2 Fluorotelomer sulfonic acid(4:2 FTS)			85.3		%		50-150	03-JUN-22
6:2 Fluorotelomer sulfonic acid(6:2 FTS)			89.4		%		50-150	03-JUN-22
8:2 Fluorotelomer sulfonic acid(8:2 FTS)			89.3		%		50-150	03-JUN-22
10:2 Fluorotelomer sulfonic acid(10:2 F)			113.3		%		50-150	03-JUN-22
Perfluorononane sulfonic acid (PFNS)			74.0		%		50-150	03-JUN-22
9Cl-PF3ONS			94.0		%		50-150	03-JUN-22
11Cl-PF3OUdS			86.0		%		50-150	03-JUN-22
PH-WT	**Soil**							

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PH-WT	**Soil**							
Batch R5791413								
WG3733599-1 DUP		**L2710246-1**						
pH		7.88	7.87	J	pH units	0.01	0.3	01-JUN-22
WG3733932-1 LCS								
pH			7.03		pH units		6.9-7.1	01-JUN-22
PSA-MUST-SK	**Soil**							
Batch R5794801								
WG3735888-1 DUP		**L2710387-2**						
MUST PSA % > 75um		91.8	91.8	J	%	0.0	5	06-JUN-22
WG3735888-2 IRM		**2020-PSA_SOIL**						
MUST PSA % > 75um			42.9		%		37.9-47.9	06-JUN-22
SAR-R511-WT	**Soil**							
Batch R5792620								
WG3734423-5 DUP		**WG3734423-4**						
Calcium (Ca)		9.74	11.2		mg/L	14	30	02-JUN-22
Sodium (Na)		1.67	1.76		mg/L	5.2	30	02-JUN-22
Magnesium (Mg)		0.79	0.93		mg/L	17	30	02-JUN-22
WG3734423-2 IRM		**WT SAR4**						
Calcium (Ca)			85.5		%		70-130	02-JUN-22
Sodium (Na)			91.7		%		70-130	02-JUN-22
Magnesium (Mg)			86.7		%		70-130	02-JUN-22
WG3734423-3 LCS								
Calcium (Ca)			103.0		%		80-120	02-JUN-22
Sodium (Na)			102.8		%		80-120	02-JUN-22
Magnesium (Mg)			102.2		%		80-120	02-JUN-22
WG3734423-1 MB								
Calcium (Ca)			<0.50		mg/L		0.5	02-JUN-22
Sodium (Na)			<0.50		mg/L		0.5	02-JUN-22
Magnesium (Mg)			<0.50		mg/L		0.5	02-JUN-22
Batch R5792676								
WG3734419-4 DUP		**WG3734419-3**						
Calcium (Ca)		14.5	14.6		mg/L	0.7	30	02-JUN-22
Sodium (Na)		7.80	7.75		mg/L	0.6	30	02-JUN-22
Magnesium (Mg)		8.58	8.67		mg/L	1.0	30	02-JUN-22
WG3734419-2 IRM		**WT SAR4**						
Calcium (Ca)			113.5		%		70-130	02-JUN-22
Sodium (Na)			105.2		%		70-130	02-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
SAR-R511-WT	**Soil**							
Batch R5792676								
WG3734419-2 IRM		**WT SAR4**						
Magnesium (Mg)			114.2		%		70-130	02-JUN-22
WG3734419-5 LCS								
Calcium (Ca)			105.0		%		80-120	02-JUN-22
Sodium (Na)			103.6		%		80-120	02-JUN-22
Magnesium (Mg)			104.0		%		80-120	02-JUN-22
WG3734419-1 MB								
Calcium (Ca)			<0.50		mg/L		0.5	02-JUN-22
Sodium (Na)			<0.50		mg/L		0.5	02-JUN-22
Magnesium (Mg)			<0.50		mg/L		0.5	02-JUN-22
VOC-511-HS-WT	**Soil**							
Batch R5791536								
WG3733607-4 DUP		**WG3733607-3**						
1,1,1,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
1,1,2,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
1,1,1-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
1,1,2-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
1,1-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
1,1-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
1,2-Dibromoethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
1,2-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
1,2-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
1,2-Dichloropropane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
1,3-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
1,4-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Acetone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	01-JUN-22
Benzene		<0.0068	<0.0068	RPD-NA	ug/g	N/A	40	01-JUN-22
Bromodichloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Bromoform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Bromomethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Carbon tetrachloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Chlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Chloroform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
cis-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R5791536								
WG3733607-4 DUP		**WG3733607-3**						
cis-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	01-JUN-22
Dibromochloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Dichlorodifluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Ethylbenzene		<0.018	<0.018	RPD-NA	ug/g	N/A	40	01-JUN-22
n-Hexane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Methylene Chloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
MTBE		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
m+p-Xylenes		<0.030	<0.030	RPD-NA	ug/g	N/A	40	01-JUN-22
Methyl Ethyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	01-JUN-22
Methyl Isobutyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	01-JUN-22
o-Xylene		<0.020	<0.020	RPD-NA	ug/g	N/A	40	01-JUN-22
Styrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Tetrachloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Toluene		<0.080	<0.080	RPD-NA	ug/g	N/A	40	01-JUN-22
trans-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
trans-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	01-JUN-22
Trichloroethylene		<0.010	<0.010	RPD-NA	ug/g	N/A	40	01-JUN-22
Trichlorofluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	01-JUN-22
Vinyl chloride		<0.020	<0.020	RPD-NA	ug/g	N/A	40	01-JUN-22
WG3733607-2 LCS								
1,1,1,2-Tetrachloroethane			102.1		%		60-130	01-JUN-22
1,1,2,2-Tetrachloroethane			105.3		%		60-130	01-JUN-22
1,1,1-Trichloroethane			106.4		%		60-130	01-JUN-22
1,1,2-Trichloroethane			100.5		%		60-130	01-JUN-22
1,1-Dichloroethane			110.7		%		60-130	01-JUN-22
1,1-Dichloroethylene			99.1		%		60-130	01-JUN-22
1,2-Dibromoethane			99.8		%		70-130	01-JUN-22
1,2-Dichlorobenzene			99.4		%		70-130	01-JUN-22
1,2-Dichloroethane			107.8		%		60-130	01-JUN-22
1,2-Dichloropropane			107.0		%		70-130	01-JUN-22
1,3-Dichlorobenzene			97.8		%		70-130	01-JUN-22
1,4-Dichlorobenzene			98.5		%		70-130	01-JUN-22
Acetone			122.3		%		60-140	01-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R5791536								
WG3733607-2 LCS								
Benzene			107.7		%		70-130	01-JUN-22
Bromodichloromethane			115.4		%		50-140	01-JUN-22
Bromoform			101.8		%		70-130	01-JUN-22
Bromomethane			97.8		%		50-140	01-JUN-22
Carbon tetrachloride			105.9		%		70-130	01-JUN-22
Chlorobenzene			97.5		%		70-130	01-JUN-22
Chloroform			108.0		%		70-130	01-JUN-22
cis-1,2-Dichloroethylene			108.5		%		70-130	01-JUN-22
cis-1,3-Dichloropropene			98.8		%		70-130	01-JUN-22
Dibromochloromethane			103.1		%		60-130	01-JUN-22
Dichlorodifluoromethane			74.8		%		50-140	01-JUN-22
Ethylbenzene			87.6		%		70-130	01-JUN-22
n-Hexane			97.1		%		70-130	01-JUN-22
Methylene Chloride			114.8		%		70-130	01-JUN-22
MTBE			102.7		%		70-130	01-JUN-22
m+p-Xylenes			93.1		%		70-130	01-JUN-22
Methyl Ethyl Ketone			107.5		%		60-140	01-JUN-22
Methyl Isobutyl Ketone			97.6		%		60-140	01-JUN-22
o-Xylene			87.0		%		70-130	01-JUN-22
Styrene			89.3		%		70-130	01-JUN-22
Tetrachloroethylene			91.9		%		60-130	01-JUN-22
Toluene			93.5		%		70-130	01-JUN-22
trans-1,2-Dichloroethylene			103.4		%		60-130	01-JUN-22
trans-1,3-Dichloropropene			89.1		%		70-130	01-JUN-22
Trichloroethylene			100.7		%		60-130	01-JUN-22
Trichlorofluoromethane			97.1		%		50-140	01-JUN-22
Vinyl chloride			82.4		%		60-140	01-JUN-22
WG3733607-1 MB								
1,1,1,2-Tetrachloroethane			<0.050		ug/g		0.05	01-JUN-22
1,1,2,2-Tetrachloroethane			<0.050		ug/g		0.05	01-JUN-22
1,1,1-Trichloroethane			<0.050		ug/g		0.05	01-JUN-22
1,1,2-Trichloroethane			<0.050		ug/g		0.05	01-JUN-22
1,1-Dichloroethane			<0.050		ug/g		0.05	01-JUN-22
1,1-Dichloroethylene			<0.050		ug/g		0.05	01-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R5791536								
WG3733607-1 MB								
1,2-Dibromoethane			<0.050		ug/g		0.05	01-JUN-22
1,2-Dichlorobenzene			<0.050		ug/g		0.05	01-JUN-22
1,2-Dichloroethane			<0.050		ug/g		0.05	01-JUN-22
1,2-Dichloropropane			<0.050		ug/g		0.05	01-JUN-22
1,3-Dichlorobenzene			<0.050		ug/g		0.05	01-JUN-22
1,4-Dichlorobenzene			<0.050		ug/g		0.05	01-JUN-22
Acetone			<0.50		ug/g		0.5	01-JUN-22
Benzene			<0.0068		ug/g		0.0068	01-JUN-22
Bromodichloromethane			<0.050		ug/g		0.05	01-JUN-22
Bromoform			<0.050		ug/g		0.05	01-JUN-22
Bromomethane			<0.050		ug/g		0.05	01-JUN-22
Carbon tetrachloride			<0.050		ug/g		0.05	01-JUN-22
Chlorobenzene			<0.050		ug/g		0.05	01-JUN-22
Chloroform			<0.050		ug/g		0.05	01-JUN-22
cis-1,2-Dichloroethylene			<0.050		ug/g		0.05	01-JUN-22
cis-1,3-Dichloropropene			<0.030		ug/g		0.03	01-JUN-22
Dibromochloromethane			<0.050		ug/g		0.05	01-JUN-22
Dichlorodifluoromethane			<0.050		ug/g		0.05	01-JUN-22
Ethylbenzene			<0.018		ug/g		0.018	01-JUN-22
n-Hexane			<0.050		ug/g		0.05	01-JUN-22
Methylene Chloride			<0.050		ug/g		0.05	01-JUN-22
MTBE			<0.050		ug/g		0.05	01-JUN-22
m+p-Xylenes			<0.030		ug/g		0.03	01-JUN-22
Methyl Ethyl Ketone			<0.50		ug/g		0.5	01-JUN-22
Methyl Isobutyl Ketone			<0.50		ug/g		0.5	01-JUN-22
o-Xylene			<0.020		ug/g		0.02	01-JUN-22
Styrene			<0.050		ug/g		0.05	01-JUN-22
Tetrachloroethylene			<0.050		ug/g		0.05	01-JUN-22
Toluene			<0.080		ug/g		0.08	01-JUN-22
trans-1,2-Dichloroethylene			<0.050		ug/g		0.05	01-JUN-22
trans-1,3-Dichloropropene			<0.030		ug/g		0.03	01-JUN-22
Trichloroethylene			<0.010		ug/g		0.01	01-JUN-22
Trichlorofluoromethane			<0.050		ug/g		0.05	01-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R5791536								
WG3733607-1 MB								
Vinyl chloride			<0.020		ug/g		0.02	01-JUN-22
Surrogate: 1,4-Difluorobenzene			99.2		%		50-140	01-JUN-22
Surrogate: 4-Bromofluorobenzene			72.9		%		50-140	01-JUN-22
WG3733607-5 MS		**WG3733607-3**						
1,1,1,2-Tetrachloroethane			113.0		%		50-140	01-JUN-22
1,1,2,2-Tetrachloroethane			115.6		%		50-140	01-JUN-22
1,1,1-Trichloroethane			115.6		%		50-140	01-JUN-22
1,1,2-Trichloroethane			111.7		%		50-140	01-JUN-22
1,1-Dichloroethane			120.6		%		50-140	01-JUN-22
1,1-Dichloroethylene			113.8		%		50-140	01-JUN-22
1,2-Dibromoethane			112.0		%		50-140	01-JUN-22
1,2-Dichlorobenzene			106.2		%		50-140	01-JUN-22
1,2-Dichloroethane			116.7		%		50-140	01-JUN-22
1,2-Dichloropropane			115.3		%		50-140	01-JUN-22
1,3-Dichlorobenzene			103.6		%		50-140	01-JUN-22
1,4-Dichlorobenzene			103.4		%		50-140	01-JUN-22
Acetone			136.5		%		50-140	01-JUN-22
Benzene			116.4		%		50-140	01-JUN-22
Bromodichloromethane			120.7		%		50-140	01-JUN-22
Bromoform			111.2		%		50-140	01-JUN-22
Bromomethane			121.6		%		50-140	01-JUN-22
Carbon tetrachloride			115.2		%		50-140	01-JUN-22
Chlorobenzene			106.1		%		50-140	01-JUN-22
Chloroform			115.3		%		50-140	01-JUN-22
cis-1,2-Dichloroethylene			117.3		%		50-140	01-JUN-22
cis-1,3-Dichloropropene			100.4		%		50-140	01-JUN-22
Dibromochloromethane			113.7		%		50-140	01-JUN-22
Dichlorodifluoromethane			148.6	MES	%		50-140	01-JUN-22
Ethylbenzene			97.5		%		50-140	01-JUN-22
n-Hexane			118.9		%		50-140	01-JUN-22
Methylene Chloride			122.1		%		50-140	01-JUN-22
MTBE			113.0		%		50-140	01-JUN-22
m+p-Xylenes			101.6		%		50-140	01-JUN-22
Methyl Ethyl Ketone			116.7		%		50-140	01-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R5791536								
WG3733607-5 MS		**WG3733607-3**						
Methyl Isobutyl Ketone			107.1		%		50-140	01-JUN-22
o-Xylene			97.1		%		50-140	01-JUN-22
Styrene			98.4		%		50-140	01-JUN-22
Tetrachloroethylene			100.8		%		50-140	01-JUN-22
Toluene			104.3		%		50-140	01-JUN-22
trans-1,2-Dichloroethylene			111.4		%		50-140	01-JUN-22
trans-1,3-Dichloropropene			94.1		%		50-140	01-JUN-22
Trichloroethylene			107.1		%		50-140	01-JUN-22
Trichlorofluoromethane			121.0		%		50-140	01-JUN-22
Vinyl chloride			114.1		%		50-140	01-JUN-22
Batch R5791997								
WG3733738-4 DUP		**WG3733738-3**						
1,1,1,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
1,1,2,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
1,1,1-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
1,1,2-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
1,1-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
1,1-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
1,2-Dibromoethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
1,2-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
1,2-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
1,2-Dichloropropane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
1,3-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
1,4-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
Acetone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	02-JUN-22
Benzene		<0.0068	<0.0068	RPD-NA	ug/g	N/A	40	02-JUN-22
Bromodichloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
Bromoform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
Bromomethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
Carbon tetrachloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
Chlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
Chloroform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
cis-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R5791997								
WG3733738-4 DUP		**WG3733738-3**						
cis-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	02-JUN-22
Dibromochloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
Dichlorodifluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
Ethylbenzene		<0.018	<0.018	RPD-NA	ug/g	N/A	40	02-JUN-22
n-Hexane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
Methylene Chloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
MTBE		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
m+p-Xylenes		<0.030	<0.030	RPD-NA	ug/g	N/A	40	02-JUN-22
Methyl Ethyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	02-JUN-22
Methyl Isobutyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	02-JUN-22
o-Xylene		<0.020	<0.020	RPD-NA	ug/g	N/A	40	02-JUN-22
Styrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
Tetrachloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
Toluene		<0.080	<0.080	RPD-NA	ug/g	N/A	40	02-JUN-22
trans-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
trans-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	02-JUN-22
Trichloroethylene		<0.010	<0.010	RPD-NA	ug/g	N/A	40	02-JUN-22
Trichlorofluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	02-JUN-22
Vinyl chloride		<0.020	<0.020	RPD-NA	ug/g	N/A	40	02-JUN-22
WG3733738-2 LCS								
1,1,1,2-Tetrachloroethane			109.0		%		60-130	02-JUN-22
1,1,2,2-Tetrachloroethane			99.99		%		60-130	02-JUN-22
1,1,1-Trichloroethane			107.4		%		60-130	02-JUN-22
1,1,2-Trichloroethane			104.2		%		60-130	02-JUN-22
1,1-Dichloroethane			109.3		%		60-130	02-JUN-22
1,1-Dichloroethylene			99.7		%		60-130	02-JUN-22
1,2-Dibromoethane			108.9		%		70-130	02-JUN-22
1,2-Dichlorobenzene			108.5		%		70-130	02-JUN-22
1,2-Dichloroethane			108.6		%		60-130	02-JUN-22
1,2-Dichloropropane			108.5		%		70-130	02-JUN-22
1,3-Dichlorobenzene			107.2		%		70-130	02-JUN-22
1,4-Dichlorobenzene			107.8		%		70-130	02-JUN-22
Acetone			103.7		%		60-140	02-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R5791997								
WG3733738-2 LCS								
Benzene			109.1		%		70-130	02-JUN-22
Bromodichloromethane			116.2		%		50-140	02-JUN-22
Bromoform			108.2		%		70-130	02-JUN-22
Bromomethane			104.8		%		50-140	02-JUN-22
Carbon tetrachloride			108.7		%		70-130	02-JUN-22
Chlorobenzene			106.7		%		70-130	02-JUN-22
Chloroform			109.9		%		70-130	02-JUN-22
cis-1,2-Dichloroethylene			107.3		%		70-130	02-JUN-22
cis-1,3-Dichloropropene			109.8		%		70-130	02-JUN-22
Dibromochloromethane			111.8		%		60-130	02-JUN-22
Dichlorodifluoromethane			81.3		%		50-140	02-JUN-22
Ethylbenzene			100.1		%		70-130	02-JUN-22
n-Hexane			97.3		%		70-130	02-JUN-22
Methylene Chloride			114.6		%		70-130	02-JUN-22
MTBE			108.1		%		70-130	02-JUN-22
m+p-Xylenes			101.8		%		70-130	02-JUN-22
Methyl Ethyl Ketone			100.3		%		60-140	02-JUN-22
Methyl Isobutyl Ketone			87.0		%		60-140	02-JUN-22
o-Xylene			98.7		%		70-130	02-JUN-22
Styrene			100.6		%		70-130	02-JUN-22
Tetrachloroethylene			111.7		%		60-130	02-JUN-22
Toluene			104.3		%		70-130	02-JUN-22
trans-1,2-Dichloroethylene			107.7		%		60-130	02-JUN-22
trans-1,3-Dichloropropene			108.1		%		70-130	02-JUN-22
Trichloroethylene			109.8		%		60-130	02-JUN-22
Trichlorofluoromethane			101.0		%		50-140	02-JUN-22
Vinyl chloride			86.6		%		60-140	02-JUN-22
WG3733738-1 MB								
1,1,1,2-Tetrachloroethane			<0.050		ug/g		0.05	02-JUN-22
1,1,2,2-Tetrachloroethane			<0.050		ug/g		0.05	02-JUN-22
1,1,1-Trichloroethane			<0.050		ug/g		0.05	02-JUN-22
1,1,2-Trichloroethane			<0.050		ug/g		0.05	02-JUN-22
1,1-Dichloroethane			<0.050		ug/g		0.05	02-JUN-22
1,1-Dichloroethylene			<0.050		ug/g		0.05	02-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R5791997								
WG3733738-1 MB								
1,2-Dibromoethane			<0.050		ug/g		0.05	02-JUN-22
1,2-Dichlorobenzene			<0.050		ug/g		0.05	02-JUN-22
1,2-Dichloroethane			<0.050		ug/g		0.05	02-JUN-22
1,2-Dichloropropane			<0.050		ug/g		0.05	02-JUN-22
1,3-Dichlorobenzene			<0.050		ug/g		0.05	02-JUN-22
1,4-Dichlorobenzene			<0.050		ug/g		0.05	02-JUN-22
Acetone			<0.50		ug/g		0.5	02-JUN-22
Benzene			<0.0068		ug/g		0.0068	02-JUN-22
Bromodichloromethane			<0.050		ug/g		0.05	02-JUN-22
Bromoform			<0.050		ug/g		0.05	02-JUN-22
Bromomethane			<0.050		ug/g		0.05	02-JUN-22
Carbon tetrachloride			<0.050		ug/g		0.05	02-JUN-22
Chlorobenzene			<0.050		ug/g		0.05	02-JUN-22
Chloroform			<0.050		ug/g		0.05	02-JUN-22
cis-1,2-Dichloroethylene			<0.050		ug/g		0.05	02-JUN-22
cis-1,3-Dichloropropene			<0.030		ug/g		0.03	02-JUN-22
Dibromochloromethane			<0.050		ug/g		0.05	02-JUN-22
Dichlorodifluoromethane			<0.050		ug/g		0.05	02-JUN-22
Ethylbenzene			<0.018		ug/g		0.018	02-JUN-22
n-Hexane			<0.050		ug/g		0.05	02-JUN-22
Methylene Chloride			<0.050		ug/g		0.05	02-JUN-22
MTBE			<0.050		ug/g		0.05	02-JUN-22
m+p-Xylenes			<0.030		ug/g		0.03	02-JUN-22
Methyl Ethyl Ketone			<0.50		ug/g		0.5	02-JUN-22
Methyl Isobutyl Ketone			<0.50		ug/g		0.5	02-JUN-22
o-Xylene			<0.020		ug/g		0.02	02-JUN-22
Styrene			<0.050		ug/g		0.05	02-JUN-22
Tetrachloroethylene			<0.050		ug/g		0.05	02-JUN-22
Toluene			<0.080		ug/g		0.08	02-JUN-22
trans-1,2-Dichloroethylene			<0.050		ug/g		0.05	02-JUN-22
trans-1,3-Dichloropropene			<0.030		ug/g		0.03	02-JUN-22
Trichloroethylene			<0.010		ug/g		0.01	02-JUN-22
Trichlorofluoromethane			<0.050		ug/g		0.05	02-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R5791997								
WG3733738-1 MB								
Vinyl chloride			<0.020		ug/g		0.02	02-JUN-22
Surrogate: 1,4-Difluorobenzene			97.9		%		50-140	02-JUN-22
Surrogate: 4-Bromofluorobenzene			94.8		%		50-140	02-JUN-22
WG3733738-5 MS		**WG3733738-3**						
1,1,1,2-Tetrachloroethane			110.5		%		50-140	02-JUN-22
1,1,2,2-Tetrachloroethane			110.7		%		50-140	02-JUN-22
1,1,1-Trichloroethane			108.2		%		50-140	02-JUN-22
1,1,2-Trichloroethane			110.9		%		50-140	02-JUN-22
1,1-Dichloroethane			112.4		%		50-140	02-JUN-22
1,1-Dichloroethylene			106.2		%		50-140	02-JUN-22
1,2-Dibromoethane			115.7		%		50-140	02-JUN-22
1,2-Dichlorobenzene			106.5		%		50-140	02-JUN-22
1,2-Dichloroethane			115.7		%		50-140	02-JUN-22
1,2-Dichloropropane			114.1		%		50-140	02-JUN-22
1,3-Dichlorobenzene			100.4		%		50-140	02-JUN-22
1,4-Dichlorobenzene			101.7		%		50-140	02-JUN-22
Acetone			121.6		%		50-140	02-JUN-22
Benzene			112.6		%		50-140	02-JUN-22
Bromodichloromethane			120.8		%		50-140	02-JUN-22
Bromoform			115.5		%		50-140	02-JUN-22
Bromomethane			117.6		%		50-140	02-JUN-22
Carbon tetrachloride			109.2		%		50-140	02-JUN-22
Chlorobenzene			106.5		%		50-140	02-JUN-22
Chloroform			113.5		%		50-140	02-JUN-22
cis-1,2-Dichloroethylene			109.2		%		50-140	02-JUN-22
cis-1,3-Dichloropropene			107.6		%		50-140	02-JUN-22
Dibromochloromethane			116.1		%		50-140	02-JUN-22
Dichlorodifluoromethane			119.4		%		50-140	02-JUN-22
Ethylbenzene			96.2		%		50-140	02-JUN-22
n-Hexane			106.5		%		50-140	02-JUN-22
Methylene Chloride			121.2		%		50-140	02-JUN-22
MTBE			109.2		%		50-140	02-JUN-22
m+p-Xylenes			98.0		%		50-140	02-JUN-22
Methyl Ethyl Ketone			113.4		%		50-140	02-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R5791997								
WG3733738-5 MS		**WG3733738-3**						
Methyl Isobutyl Ketone			96.8		%		50-140	02-JUN-22
o-Xylene			95.7		%		50-140	02-JUN-22
Styrene			98.9		%		50-140	02-JUN-22
Tetrachloroethylene			105.3		%		50-140	02-JUN-22
Toluene			102.2		%		50-140	02-JUN-22
trans-1,2-Dichloroethylene			109.5		%		50-140	02-JUN-22
trans-1,3-Dichloropropene			104.0		%		50-140	02-JUN-22
Trichloroethylene			108.2		%		50-140	02-JUN-22
Trichlorofluoromethane			111.5		%		50-140	02-JUN-22
Vinyl chloride			103.6		%		50-140	02-JUN-22
Batch R5794818								
WG3734267-4 DUP		**WG3734267-3**						
1,1,1,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
1,1,2,2-Tetrachloroethane		<0.13	<0.15	RPD-NA	ug/g	N/A	40	06-JUN-22
1,1,1-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
1,1,2-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
1,1-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
1,1-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
1,2-Dibromoethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
1,2-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
1,2-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
1,2-Dichloropropane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
1,3-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
1,4-Dichlorobenzene		0.065	0.098	J	ug/g	0.033	0.1	06-JUN-22
Acetone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	06-JUN-22
Benzene		0.0314	0.0299		ug/g	5.0	40	06-JUN-22
Bromodichloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
Bromoform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
Bromomethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
Carbon tetrachloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
Chlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
Chloroform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
cis-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R5794818								
WG3734267-4 DUP		**WG3734267-3**						
cis-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	06-JUN-22
Dibromochloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
Dichlorodifluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
Ethylbenzene		0.032	0.031		ug/g	1.9	40	06-JUN-22
n-Hexane		0.054	0.054		ug/g	1.1	40	06-JUN-22
Methylene Chloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
MTBE		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
m+p-Xylenes		0.095	0.094		ug/g	0.6	40	06-JUN-22
Methyl Ethyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	06-JUN-22
Methyl Isobutyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	06-JUN-22
o-Xylene		0.049	0.039		ug/g	23	40	06-JUN-22
Styrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
Tetrachloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
Toluene		<0.080	<0.080	RPD-NA	ug/g	N/A	40	06-JUN-22
trans-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
trans-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	06-JUN-22
Trichloroethylene		<0.010	<0.010	RPD-NA	ug/g	N/A	40	06-JUN-22
Trichlorofluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	06-JUN-22
Vinyl chloride		<0.020	<0.020	RPD-NA	ug/g	N/A	40	06-JUN-22
WG3734267-2 LCS								
1,1,1,2-Tetrachloroethane			104.8		%		60-130	06-JUN-22
1,1,2,2-Tetrachloroethane			91.5		%		60-130	06-JUN-22
1,1,1-Trichloroethane			108.0		%		60-130	06-JUN-22
1,1,2-Trichloroethane			95.5		%		60-130	06-JUN-22
1,1-Dichloroethane			100.7		%		60-130	06-JUN-22
1,1-Dichloroethylene			97.2		%		60-130	06-JUN-22
1,2-Dibromoethane			92.4		%		70-130	06-JUN-22
1,2-Dichlorobenzene			105.9		%		70-130	06-JUN-22
1,2-Dichloroethane			97.1		%		60-130	06-JUN-22
1,2-Dichloropropane			100.6		%		70-130	06-JUN-22
1,3-Dichlorobenzene			109.4		%		70-130	06-JUN-22
1,4-Dichlorobenzene			110.9		%		70-130	06-JUN-22
Acetone			91.0		%		60-140	06-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R5794818								
WG3734267-2 LCS								
Benzene			103.2		%		70-130	06-JUN-22
Bromodichloromethane			108.8		%		50-140	06-JUN-22
Bromoform			82.2		%		70-130	06-JUN-22
Bromomethane			87.1		%		50-140	06-JUN-22
Carbon tetrachloride			111.6		%		70-130	06-JUN-22
Chlorobenzene			102.5		%		70-130	06-JUN-22
Chloroform			103.6		%		70-130	06-JUN-22
cis-1,2-Dichloroethylene			99.9		%		70-130	06-JUN-22
cis-1,3-Dichloropropene			92.4		%		70-130	06-JUN-22
Dibromochloromethane			101.6		%		60-130	06-JUN-22
Dichlorodifluoromethane			60.6		%		50-140	06-JUN-22
Ethylbenzene			106.7		%		70-130	06-JUN-22
n-Hexane			97.0		%		70-130	06-JUN-22
Methylene Chloride			96.7		%		70-130	06-JUN-22
MTBE			101.3		%		70-130	06-JUN-22
m+p-Xylenes			107.6		%		70-130	06-JUN-22
Methyl Ethyl Ketone			72.3		%		60-140	06-JUN-22
Methyl Isobutyl Ketone			81.6		%		60-140	06-JUN-22
o-Xylene			104.5		%		70-130	06-JUN-22
Styrene			101.7		%		70-130	06-JUN-22
Tetrachloroethylene			112.3		%		60-130	06-JUN-22
Toluene			105.1		%		70-130	06-JUN-22
trans-1,2-Dichloroethylene			101.5		%		60-130	06-JUN-22
trans-1,3-Dichloropropene			81.1		%		70-130	06-JUN-22
Trichloroethylene			107.8		%		60-130	06-JUN-22
Trichlorofluoromethane			98.4		%		50-140	06-JUN-22
Vinyl chloride			77.2		%		60-140	06-JUN-22
WG3734267-1 MB								
1,1,1,2-Tetrachloroethane			<0.050		ug/g		0.05	06-JUN-22
1,1,2,2-Tetrachloroethane			<0.050		ug/g		0.05	06-JUN-22
1,1,1-Trichloroethane			<0.050		ug/g		0.05	06-JUN-22
1,1,2-Trichloroethane			<0.050		ug/g		0.05	06-JUN-22
1,1-Dichloroethane			<0.050		ug/g		0.05	06-JUN-22
1,1-Dichloroethylene			<0.050		ug/g		0.05	06-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R5794818								
WG3734267-1 MB								
1,2-Dibromoethane			<0.050		ug/g		0.05	06-JUN-22
1,2-Dichlorobenzene			<0.050		ug/g		0.05	06-JUN-22
1,2-Dichloroethane			<0.050		ug/g		0.05	06-JUN-22
1,2-Dichloropropane			<0.050		ug/g		0.05	06-JUN-22
1,3-Dichlorobenzene			<0.050		ug/g		0.05	06-JUN-22
1,4-Dichlorobenzene			<0.050		ug/g		0.05	06-JUN-22
Acetone			<0.50		ug/g		0.5	06-JUN-22
Benzene			<0.0068		ug/g		0.0068	06-JUN-22
Bromodichloromethane			<0.050		ug/g		0.05	06-JUN-22
Bromoform			<0.050		ug/g		0.05	06-JUN-22
Bromomethane			<0.050		ug/g		0.05	06-JUN-22
Carbon tetrachloride			<0.050		ug/g		0.05	06-JUN-22
Chlorobenzene			<0.050		ug/g		0.05	06-JUN-22
Chloroform			<0.050		ug/g		0.05	06-JUN-22
cis-1,2-Dichloroethylene			<0.050		ug/g		0.05	06-JUN-22
cis-1,3-Dichloropropene			<0.030		ug/g		0.03	06-JUN-22
Dibromochloromethane			<0.050		ug/g		0.05	06-JUN-22
Dichlorodifluoromethane			<0.050		ug/g		0.05	06-JUN-22
Ethylbenzene			<0.018		ug/g		0.018	06-JUN-22
n-Hexane			<0.050		ug/g		0.05	06-JUN-22
Methylene Chloride			<0.050		ug/g		0.05	06-JUN-22
MTBE			<0.050		ug/g		0.05	06-JUN-22
m+p-Xylenes			<0.030		ug/g		0.03	06-JUN-22
Methyl Ethyl Ketone			<0.50		ug/g		0.5	06-JUN-22
Methyl Isobutyl Ketone			<0.50		ug/g		0.5	06-JUN-22
o-Xylene			<0.020		ug/g		0.02	06-JUN-22
Styrene			<0.050		ug/g		0.05	06-JUN-22
Tetrachloroethylene			<0.050		ug/g		0.05	06-JUN-22
Toluene			<0.080		ug/g		0.08	06-JUN-22
trans-1,2-Dichloroethylene			<0.050		ug/g		0.05	06-JUN-22
trans-1,3-Dichloropropene			<0.030		ug/g		0.03	06-JUN-22
Trichloroethylene			<0.010		ug/g		0.01	06-JUN-22
Trichlorofluoromethane			<0.050		ug/g		0.05	06-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R5794818								
WG3734267-1 MB								
Vinyl chloride			<0.020		ug/g		0.02	06-JUN-22
Surrogate: 1,4-Difluorobenzene			103.9		%		50-140	06-JUN-22
Surrogate: 4-Bromofluorobenzene			99.6		%		50-140	06-JUN-22
WG3734267-5 MS		**WG3734267-3**						
1,1,1,2-Tetrachloroethane			113.4		%		50-140	06-JUN-22
1,1,2,2-Tetrachloroethane			105.0		%		50-140	06-JUN-22
1,1,1-Trichloroethane			113.6		%		50-140	06-JUN-22
1,1,2-Trichloroethane			110.2		%		50-140	06-JUN-22
1,1-Dichloroethane			105.5		%		50-140	06-JUN-22
1,1-Dichloroethylene			107.5		%		50-140	06-JUN-22
1,2-Dibromoethane			110.3		%		50-140	06-JUN-22
1,2-Dichlorobenzene			116.4		%		50-140	06-JUN-22
1,2-Dichloroethane			105.9		%		50-140	06-JUN-22
1,2-Dichloropropane			109.9		%		50-140	06-JUN-22
1,3-Dichlorobenzene			116.5		%		50-140	06-JUN-22
1,4-Dichlorobenzene			117.2		%		50-140	06-JUN-22
Acetone			104.3		%		50-140	06-JUN-22
Benzene			110.3		%		50-140	06-JUN-22
Bromodichloromethane			118.1		%		50-140	06-JUN-22
Bromoform			93.8		%		50-140	06-JUN-22
Bromomethane			105.5		%		50-140	06-JUN-22
Carbon tetrachloride			115.3		%		50-140	06-JUN-22
Chlorobenzene			107.3		%		50-140	06-JUN-22
Chloroform			111.0		%		50-140	06-JUN-22
cis-1,2-Dichloroethylene			108.1		%		50-140	06-JUN-22
cis-1,3-Dichloropropene			85.0		%		50-140	06-JUN-22
Dibromochloromethane			113.8		%		50-140	06-JUN-22
Dichlorodifluoromethane			139.9		%		50-140	06-JUN-22
Ethylbenzene			108.3		%		50-140	06-JUN-22
n-Hexane			112.2		%		50-140	06-JUN-22
Methylene Chloride			109.4		%		50-140	06-JUN-22
MTBE			108.0		%		50-140	06-JUN-22
m+p-Xylenes			107.4		%		50-140	06-JUN-22
Methyl Ethyl Ketone			90.5		%		50-140	06-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R5794818								
WG3734267-5 MS		**WG3734267-3**						
Methyl Isobutyl Ketone			94.1		%		50-140	06-JUN-22
o-Xylene			107.6		%		50-140	06-JUN-22
Styrene			104.9		%		50-140	06-JUN-22
Tetrachloroethylene			110.6		%		50-140	06-JUN-22
Toluene			110.1		%		50-140	06-JUN-22
trans-1,2-Dichloroethylene			101.2		%		50-140	06-JUN-22
trans-1,3-Dichloropropene			74.0		%		50-140	06-JUN-22
Trichloroethylene			109.0		%		50-140	06-JUN-22
Trichlorofluoromethane			117.7		%		50-140	06-JUN-22
Vinyl chloride			104.9		%		50-140	06-JUN-22

Quality Control Report

Workorder: L2710246 Report Date: 17-JUN-22

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

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
DLQ	Detection Limit raised due to co-eluting interference. GCMS qualifier ion ratio did not meet acceptance criteria.
J	Duplicate results and limits are expressed in terms of absolute difference.
LCS-H	Lab Control Sample recovery was above ALS DQO. Non-detected sample results are considered reliable. Other results, if reported, have been qualified.
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Quality Control Report

Workorder: L2710246 Report Date: 17-JUN-22

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5
Contact: Felipe Solano

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Polycyclic Aromatic Hydrocarbons							
Benzo(a)pyrene							
	35	24-MAY-22 16:05	16-JUN-22 13:00	14	23	days	EHT

Legend & Qualifier Definitions:

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

Notes*:
Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L2710246 were received on 27-MAY-22 13:10.

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.

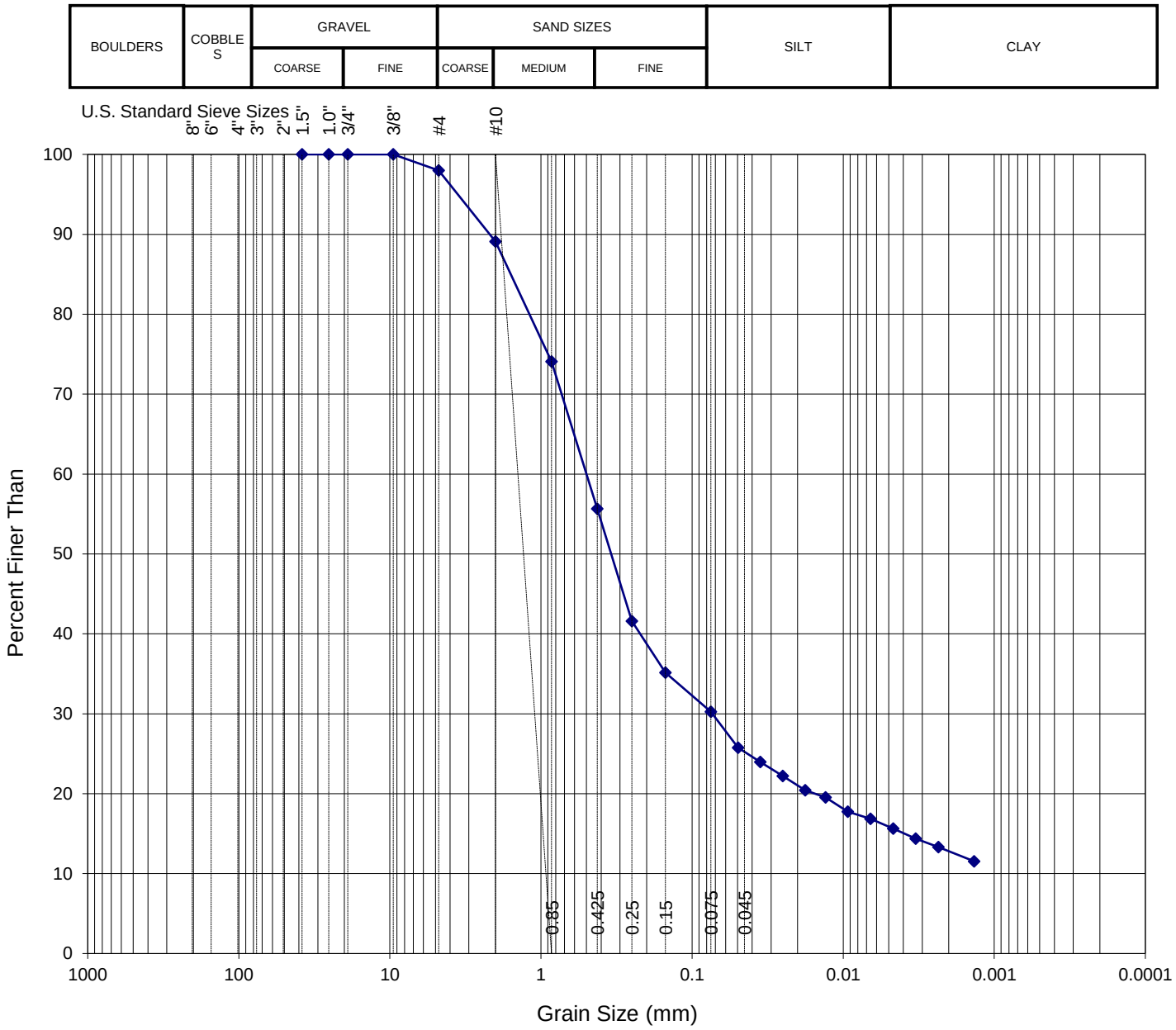
Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

ALS Laboratory Group

819-58th Street, Saskatoon,SK

PARTICLE SIZE DISTRIBUTION CURVE

Client Name:	GEOSYNTEC CONSULTANTS INTERN
Project Number:	
Client Sample ID	MW22-5-4A_240522
Lab Sample ID	L2710246-19
Date Sample Received	27-May-22
Test Completion Date:	07-Jun-22
Analyst:	SHCH



METHOD DESCRIPTION

Method Reference: ASTM D6913 & D7928

Dispersion method: Mechanical

Dispesion period: 1 minute cm/s

DESCRIPTION OF SAND AND GRAVEL PARTICLES

Shape: Angular

Hardness: Hard

SUMMARY OF RESULTS

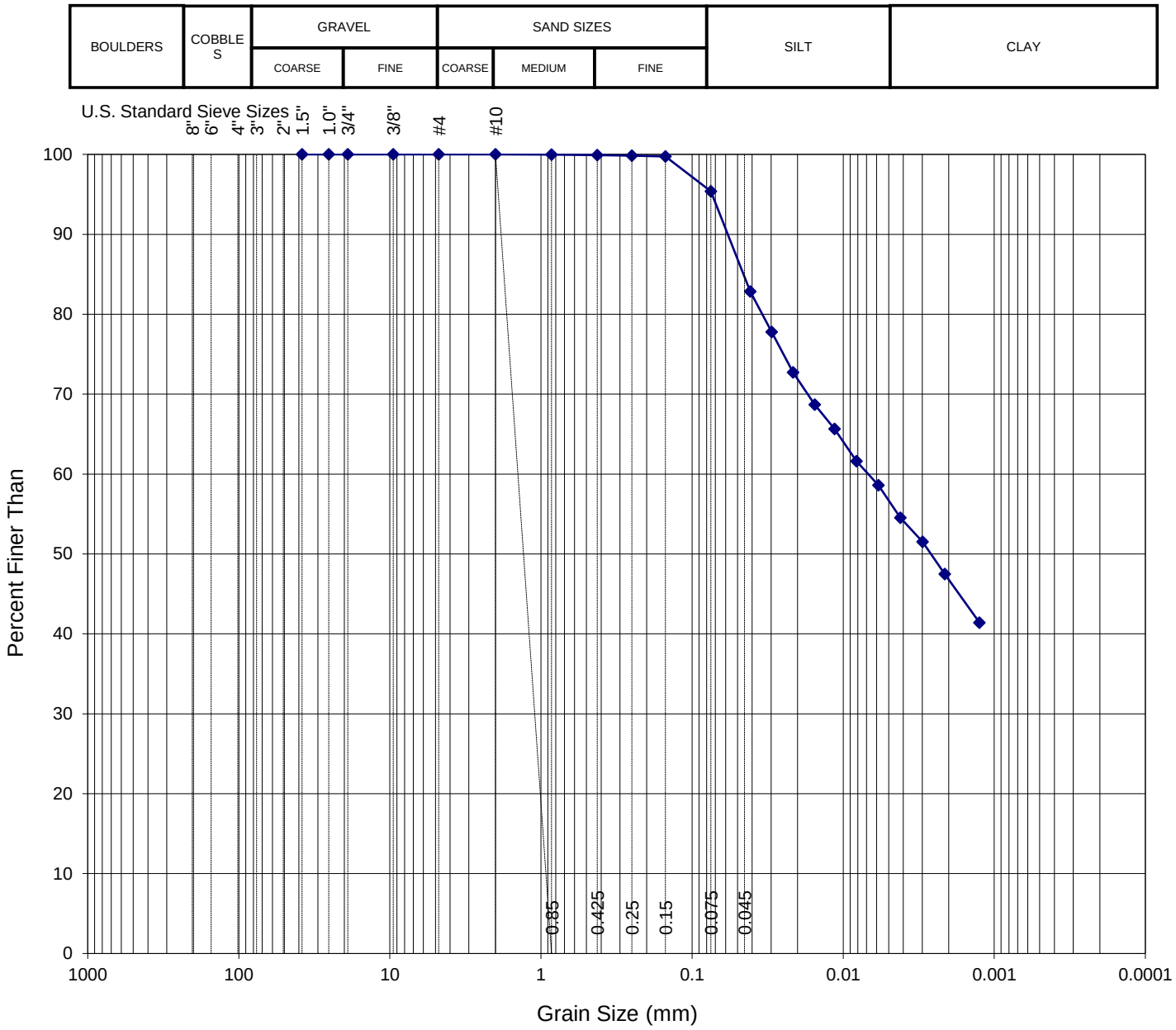
GRAIN SIZE	WT %	DIA. RANGE (mm)
% GRAVEL :	2.00	> 4.75
% COARSE SAND :	8.92	2.0 - 4.75
% MEDIUM SAND :	33.41	0.425 - 2.0
% FINE SAND :	25.43	0.075 - 0.425
% SILT :	14.37	0.075 - 0.005
% CLAY :	15.87	< 0.005

ALS Laboratory Group

819-58th Street, Saskatoon,SK

PARTICLE SIZE DISTRIBUTION CURVE

Client Name:	GEOSYNTEC CONSULTANTS INTERN
Project Number:	
Client Sample ID	BH22-10-2B_25052022
Lab Sample ID	L2710246-31
Date Sample Received	27-May-22
Test Completion Date:	07-Jun-22
Analyst:	SHCH



METHOD DESCRIPTION

Method Reference: ASTM D6913 & D7928

Dispersion method: Mechanical

Dispesion period: 1 minute cm/s

DESCRIPTION OF SAND AND GRAVEL PARTICLES

Shape: Angular

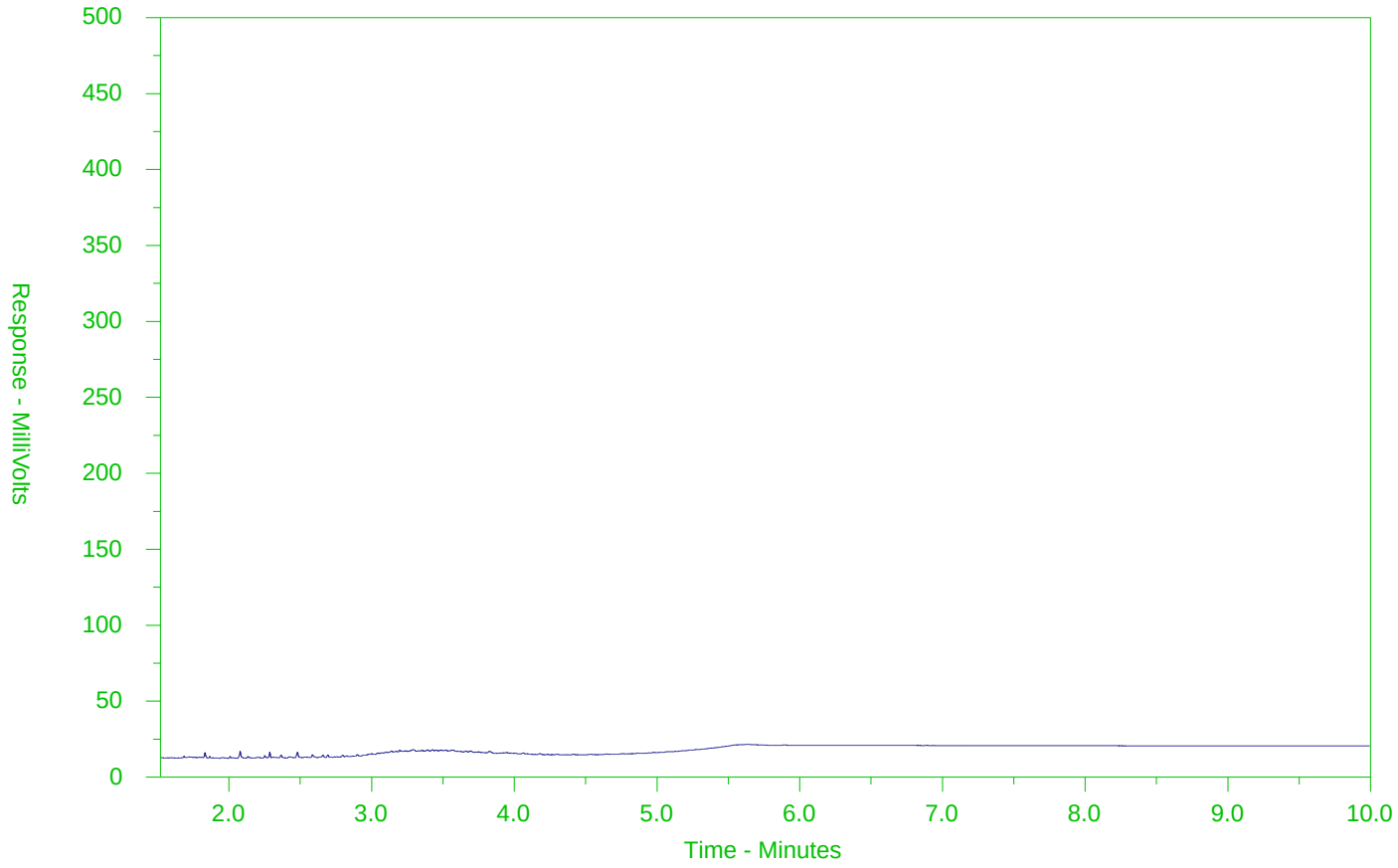
Hardness: Hard

SUMMARY OF RESULTS

GRAIN SIZE	WT %	DIA. RANGE (mm)
% GRAVEL :	<1	> 4.75
% COARSE SAND :	<1	2.0 - 4.75
% MEDIUM SAND :	<1	0.425 - 2.0
% FINE SAND :	4.54	0.075 - 0.425
% SILT :	38.65	0.075 - 0.005
% CLAY :	56.71	< 0.005

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2710246-1
Client Sample ID: MW22-1-1B_260522



←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.

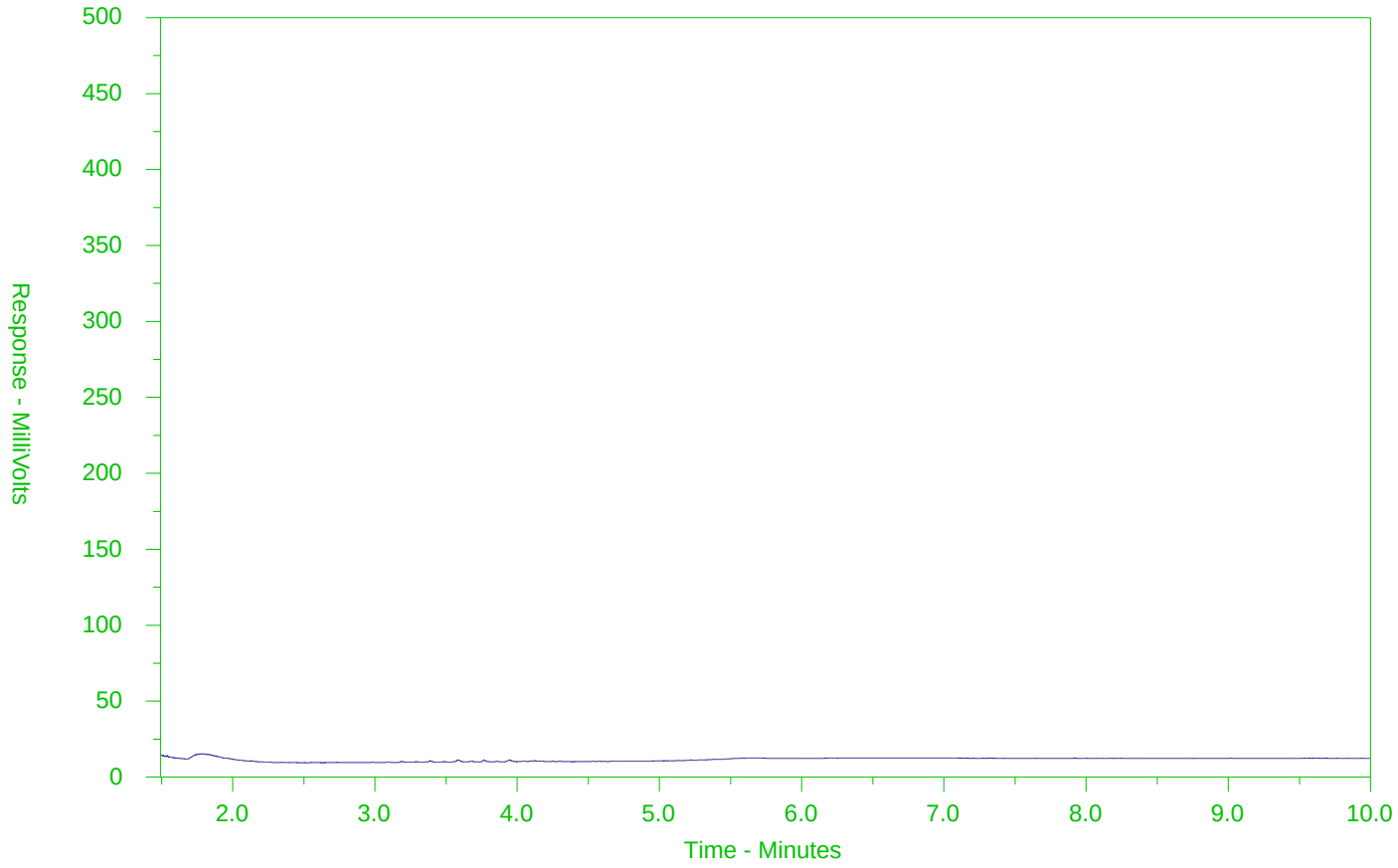
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2710246-3
Client Sample ID: MW22-1-3B_260522



←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.

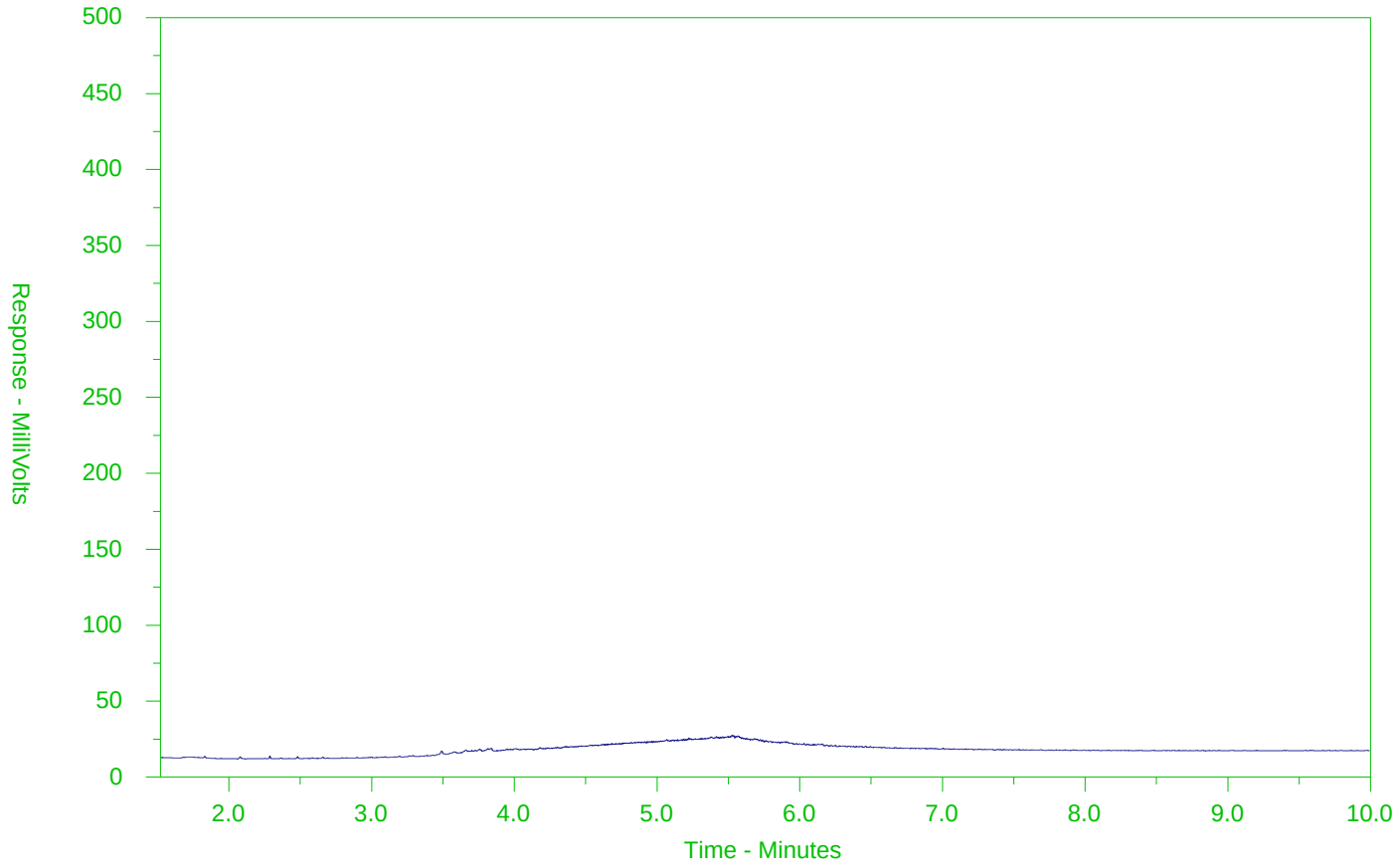
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2710246-5
Client Sample ID: MW22-2-1B_260522



←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.

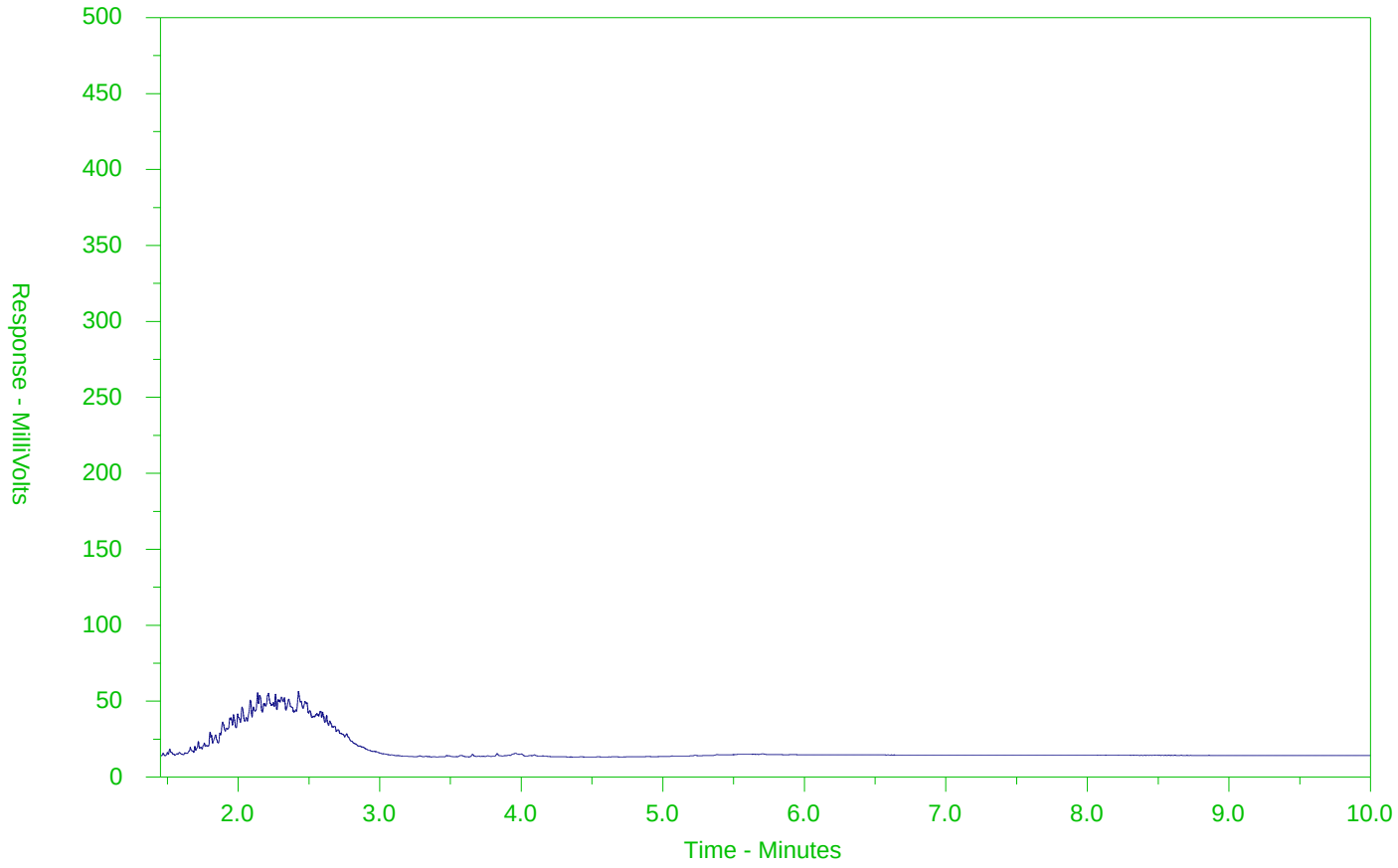
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2710246-6
Client Sample ID: MW22-2-3A_260522



←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.

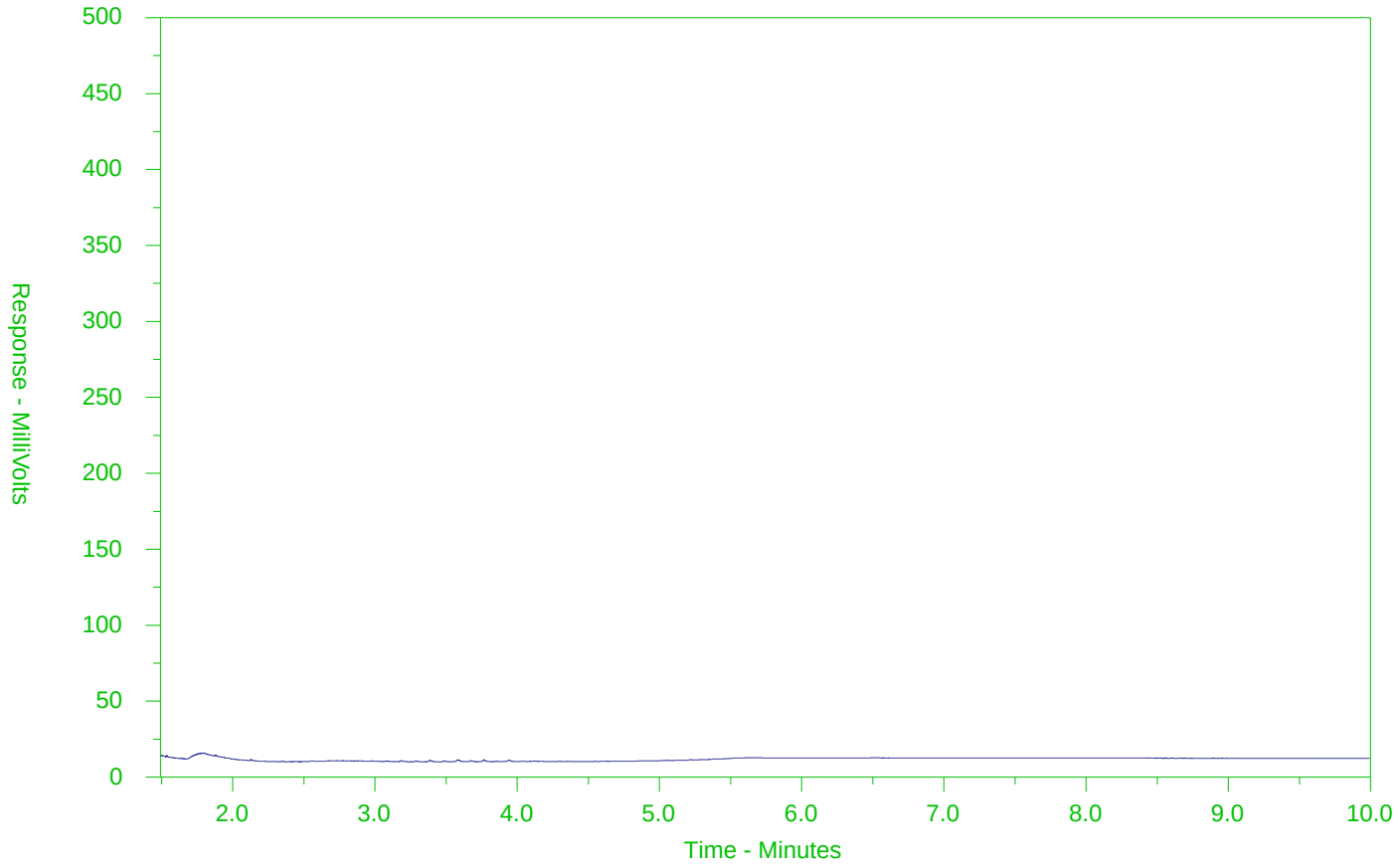
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2710246-9
Client Sample ID: BH22-3-1_260522



←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.

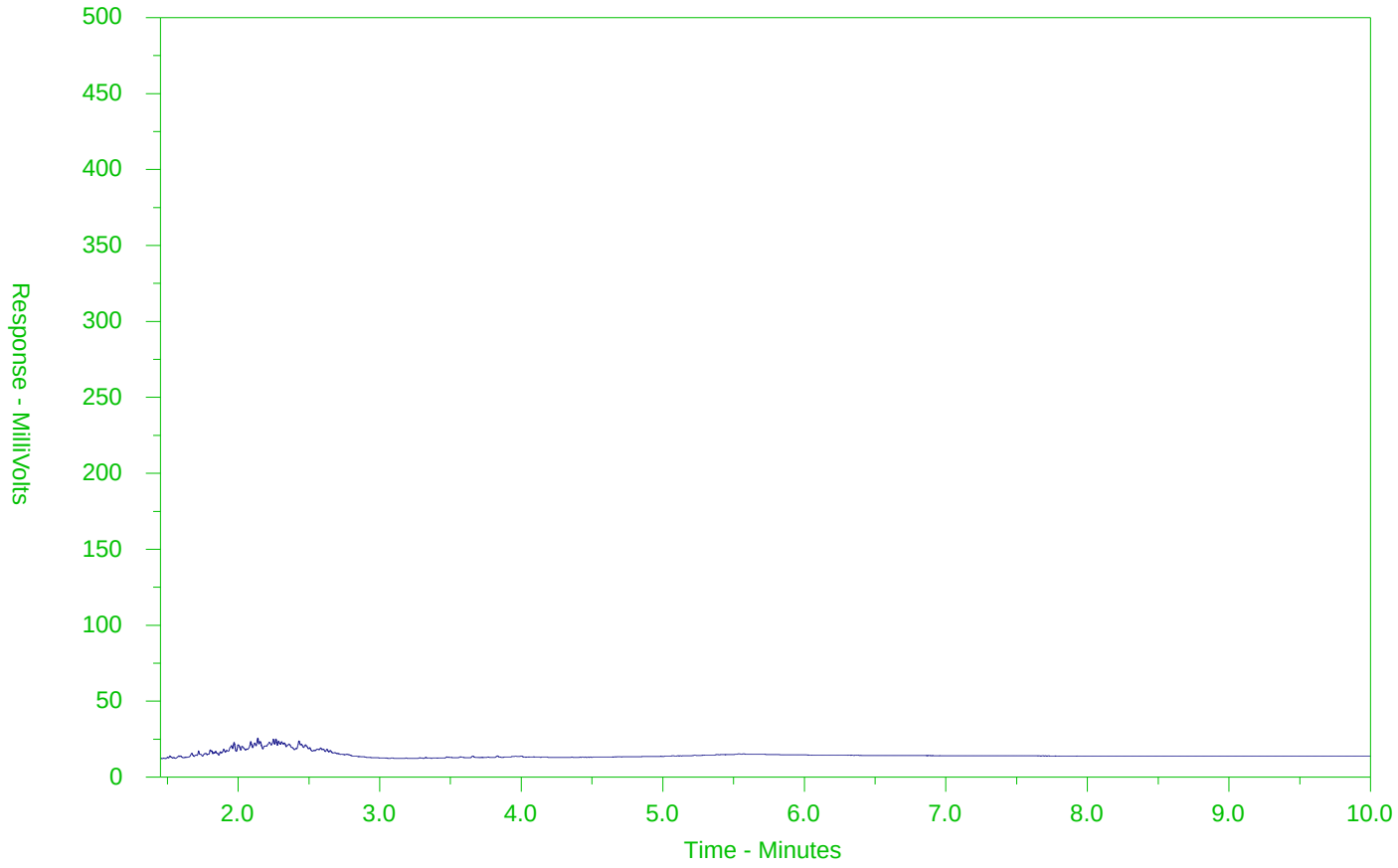
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2710246-11
Client Sample ID: DUP03



←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.

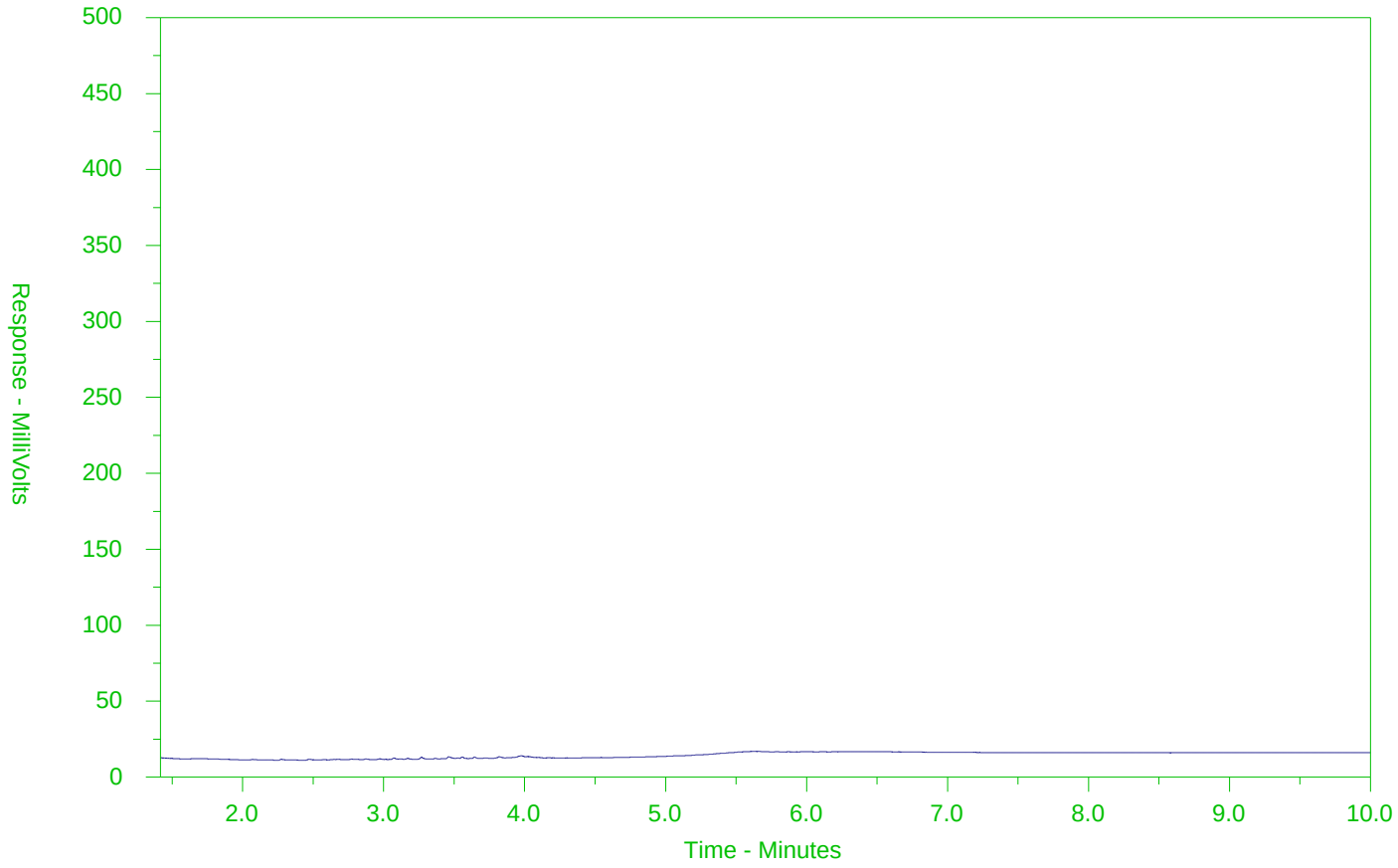
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2710246-13
Client Sample ID: DUP05



←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.

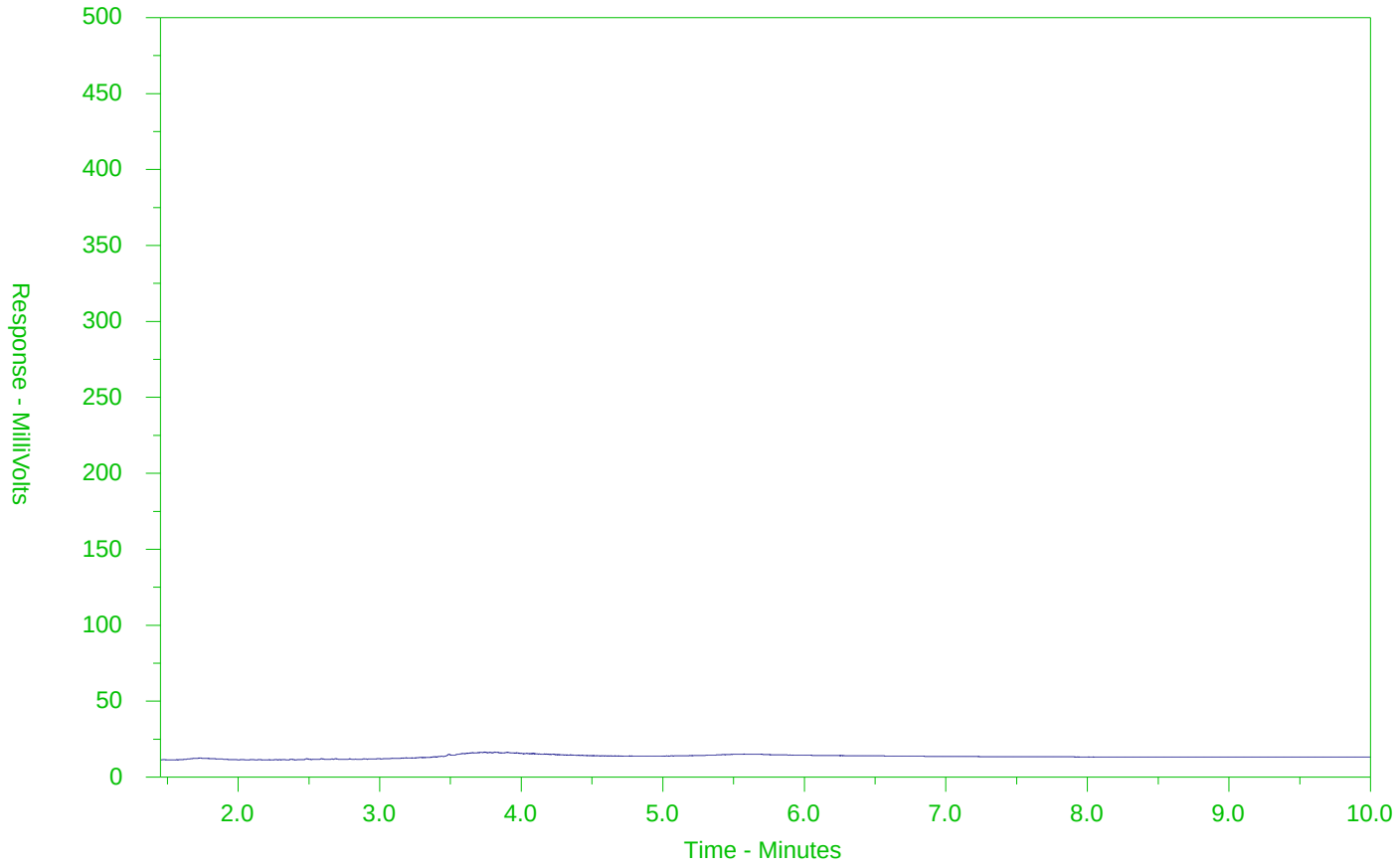
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2710246-15
Client Sample ID: MW22-4-1B_240522



←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.

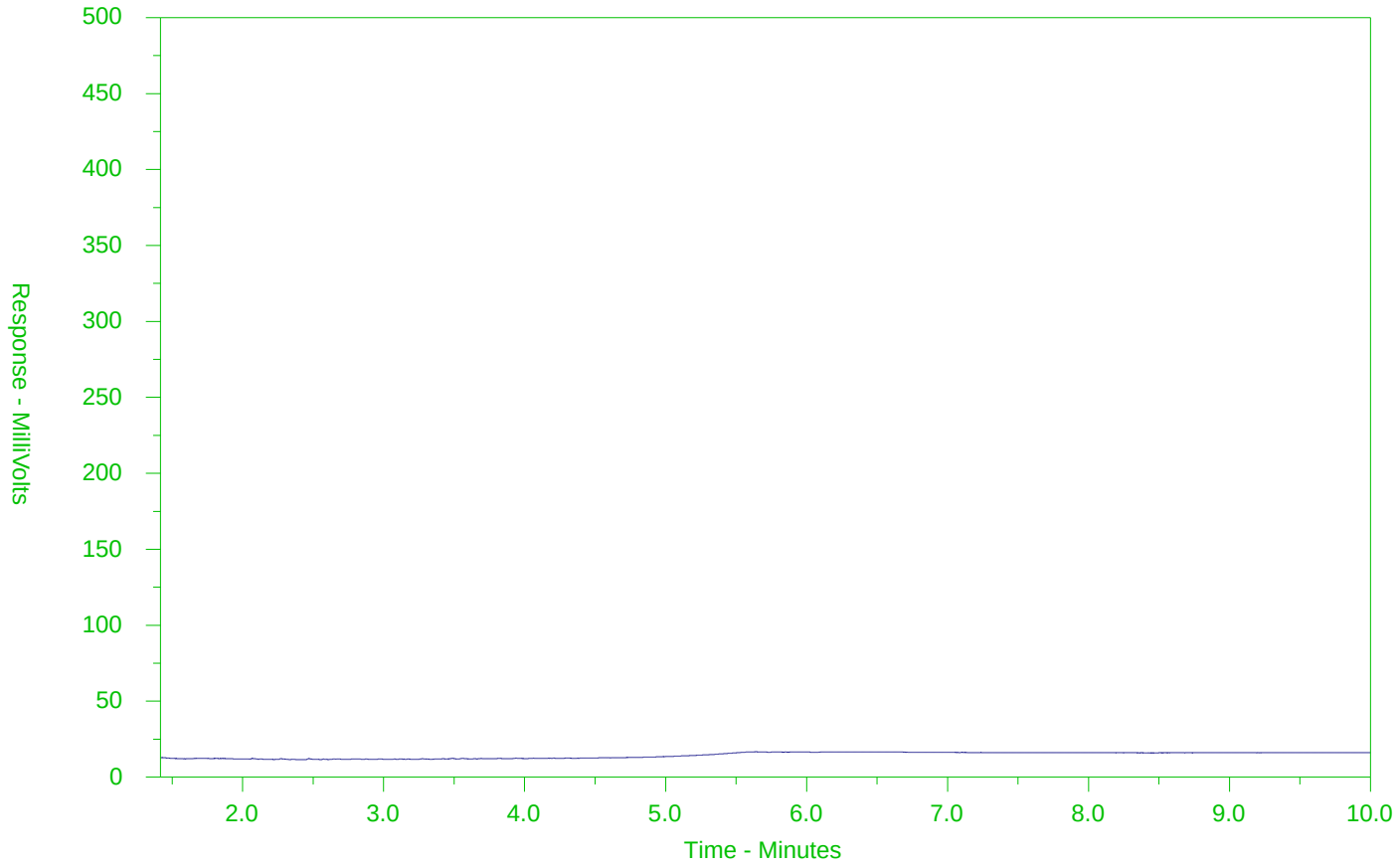
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2710246-17
Client Sample ID: MW22-5-1B_240522



←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.

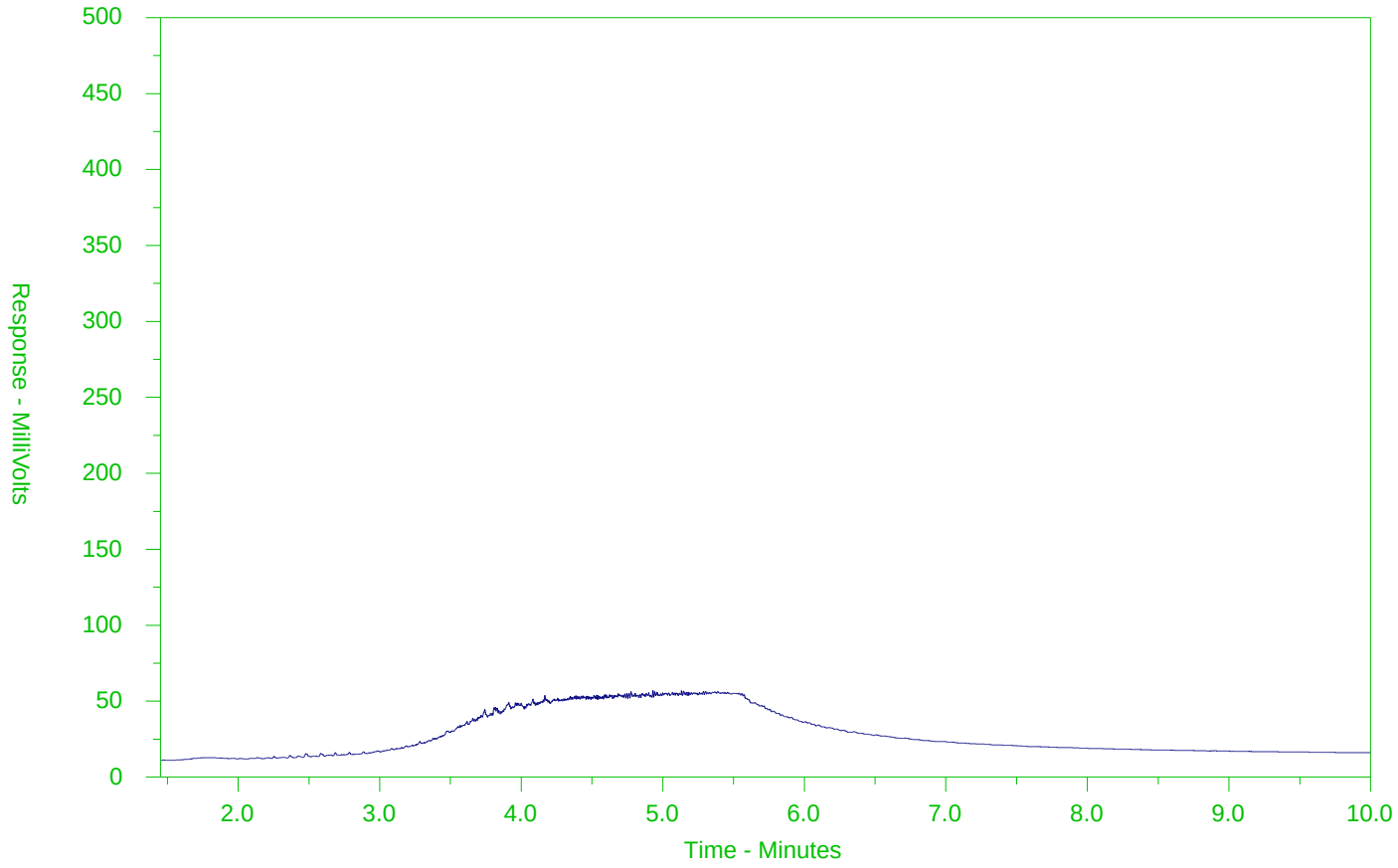
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2710246-20
Client Sample ID: BH22-6-1A_260522



←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.

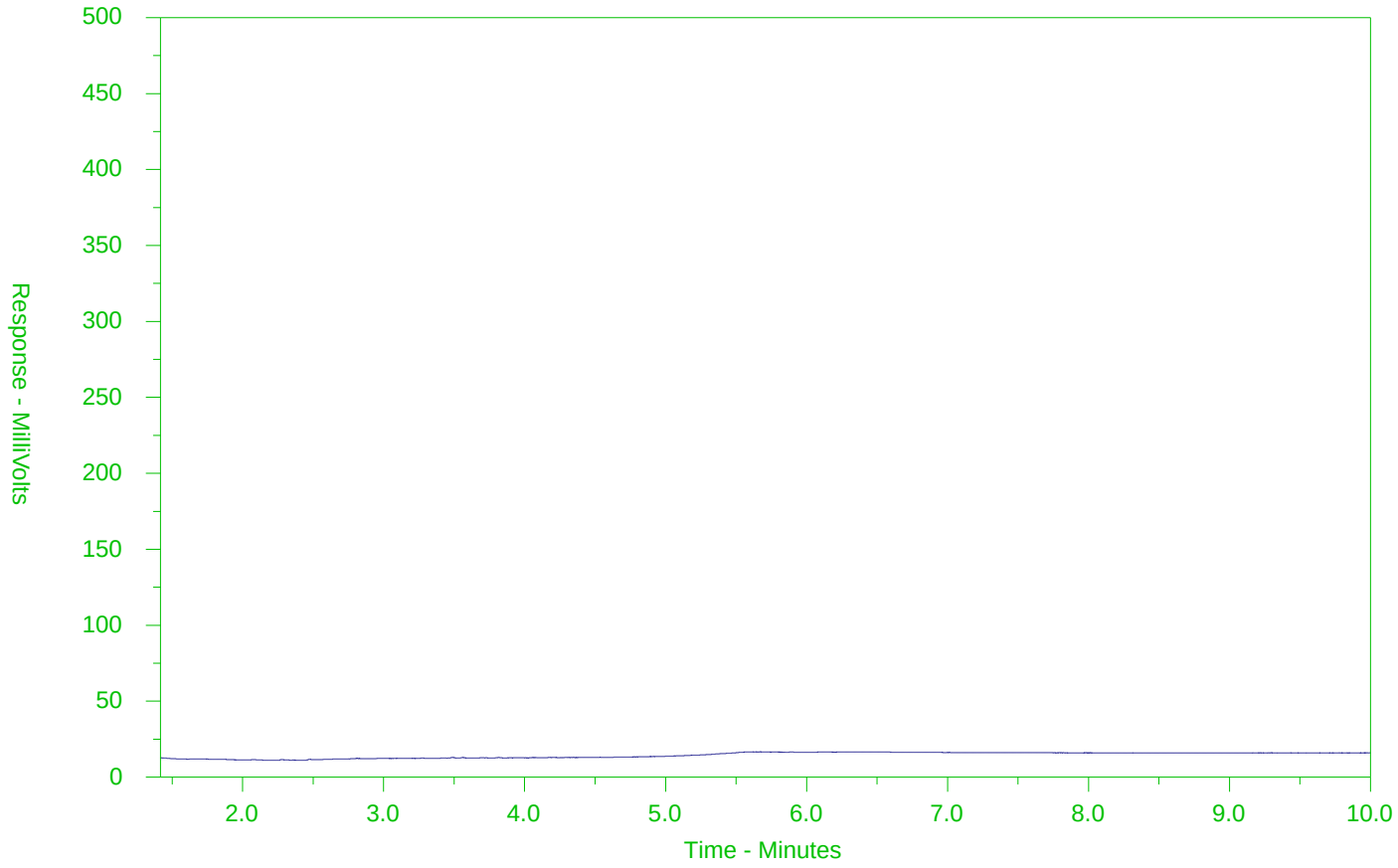
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2710246-22
Client Sample ID: BH22-7-1_250522



←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.

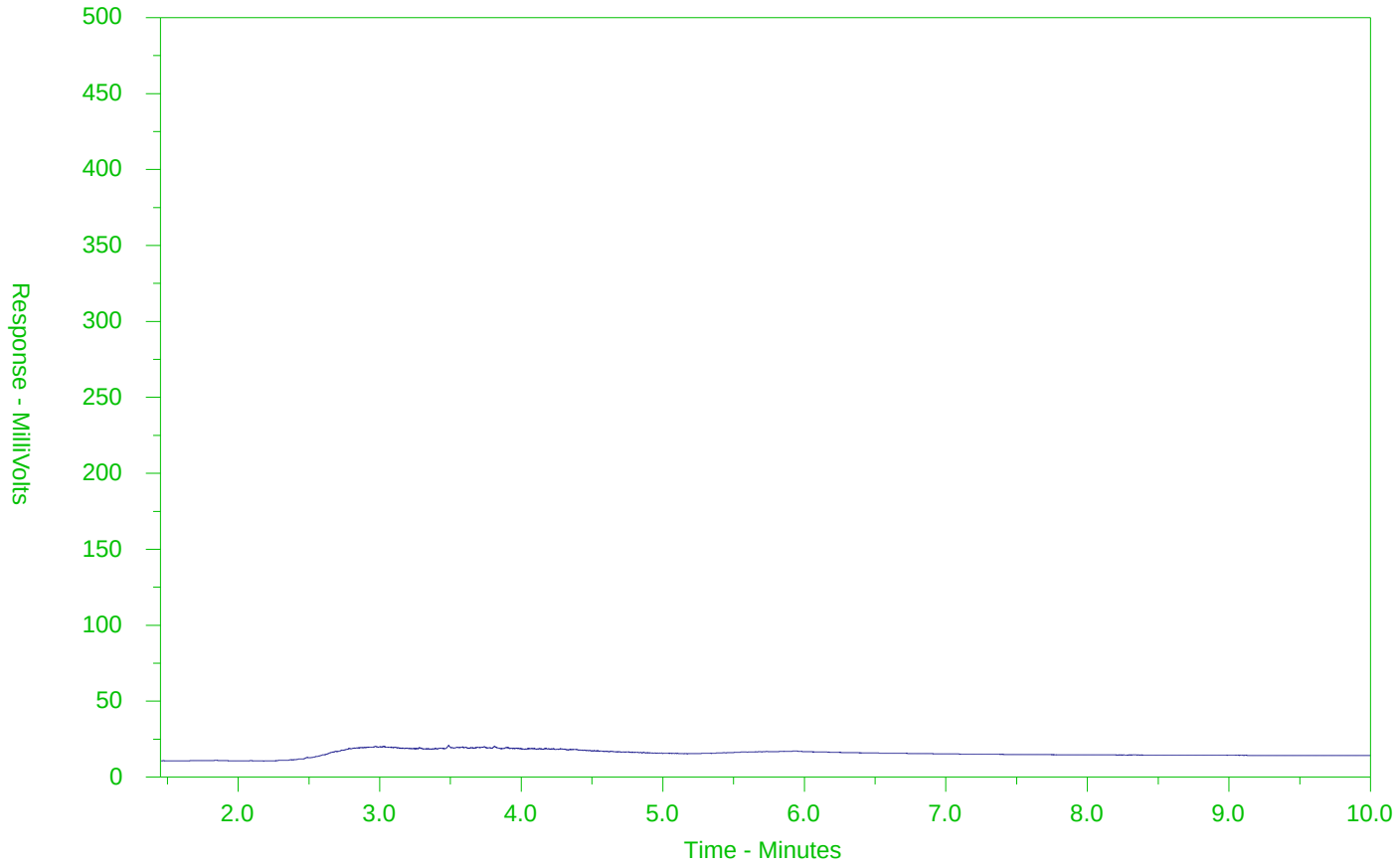
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2710246-24
Client Sample ID: BH22-8-1_250522



←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.

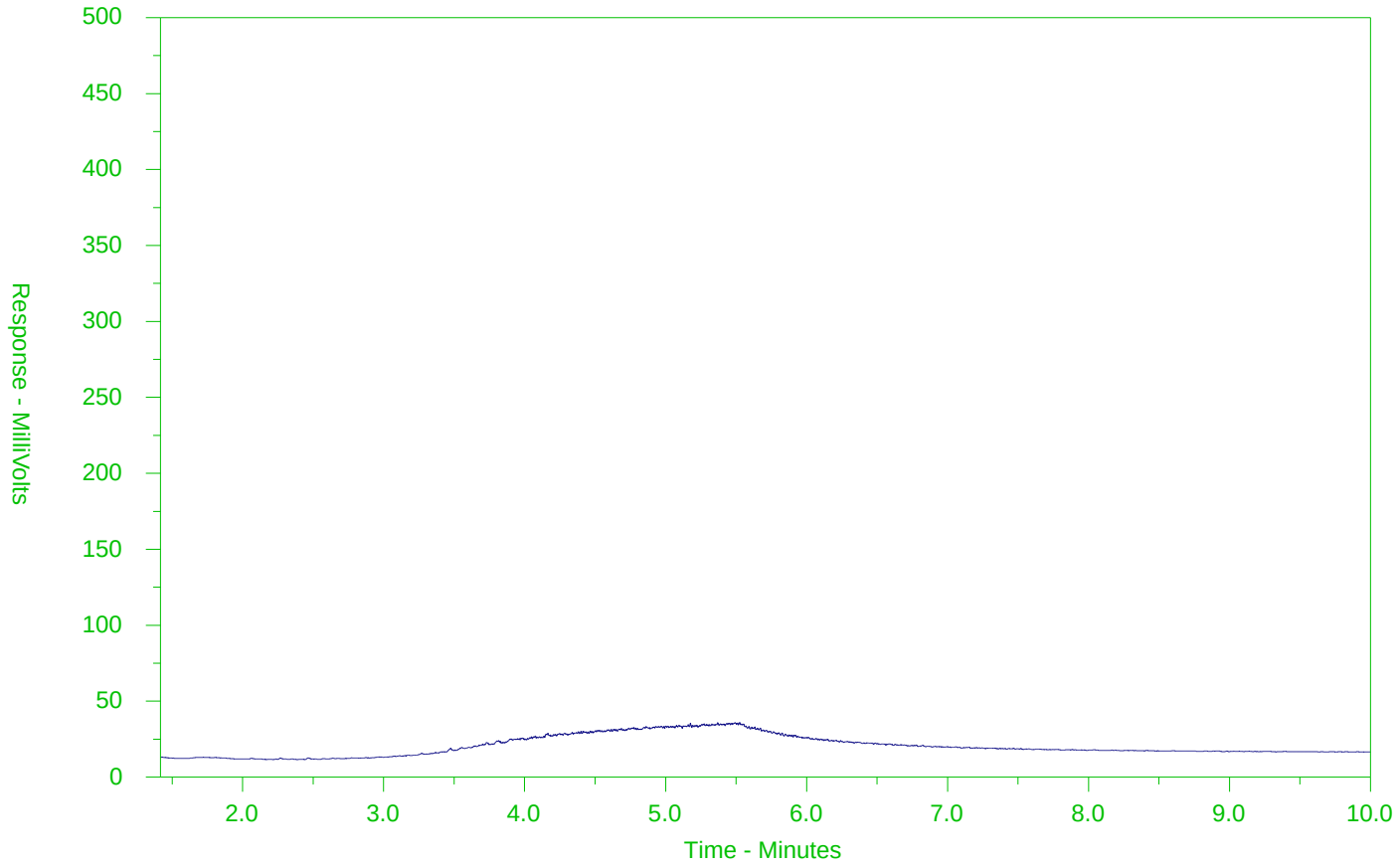
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2710246-26
Client Sample ID: BH22-9-1A_240522



←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.

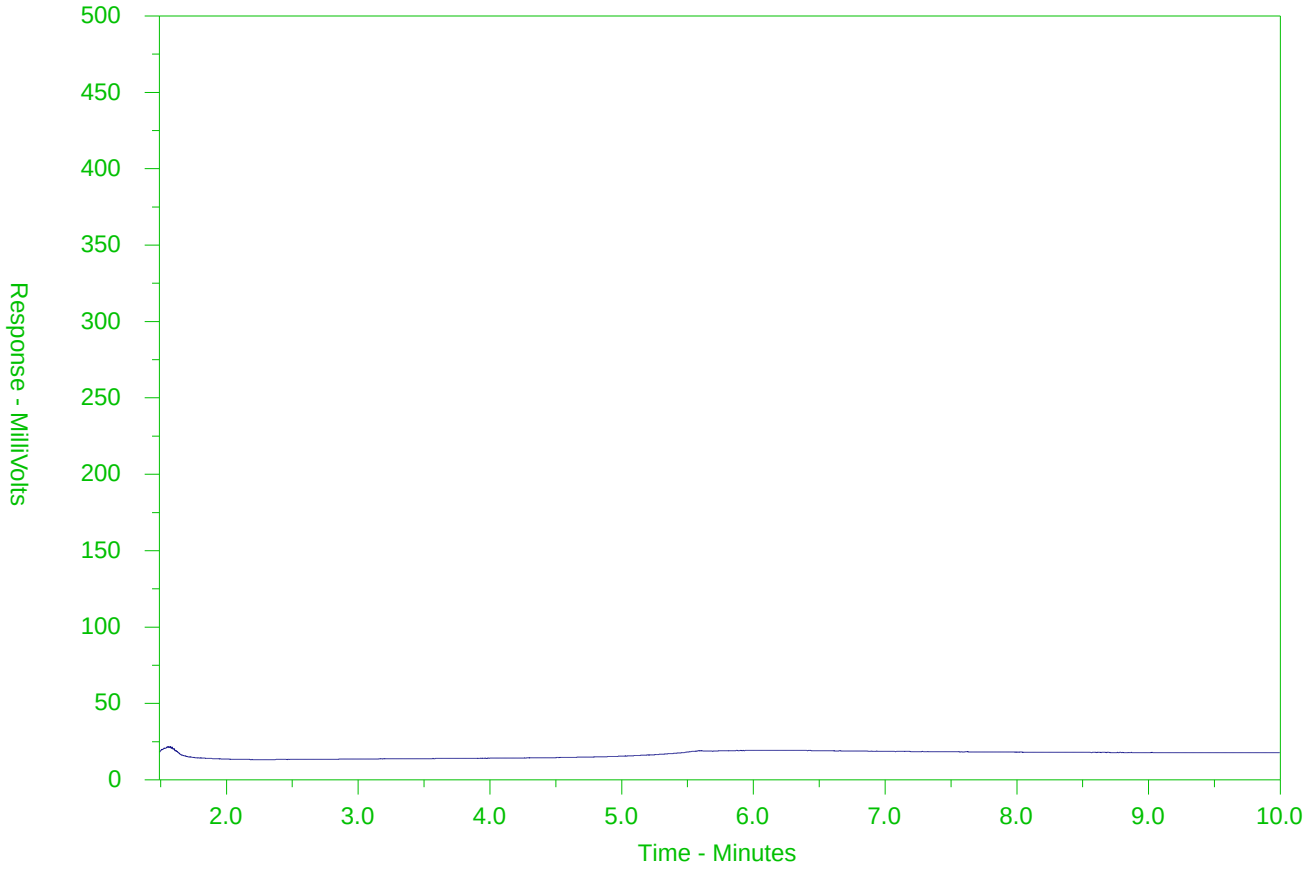
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2710246-29
Client Sample ID: BH22-10-1B_25052022



←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 characterizin hydrocarbon products that may be present in your sample.

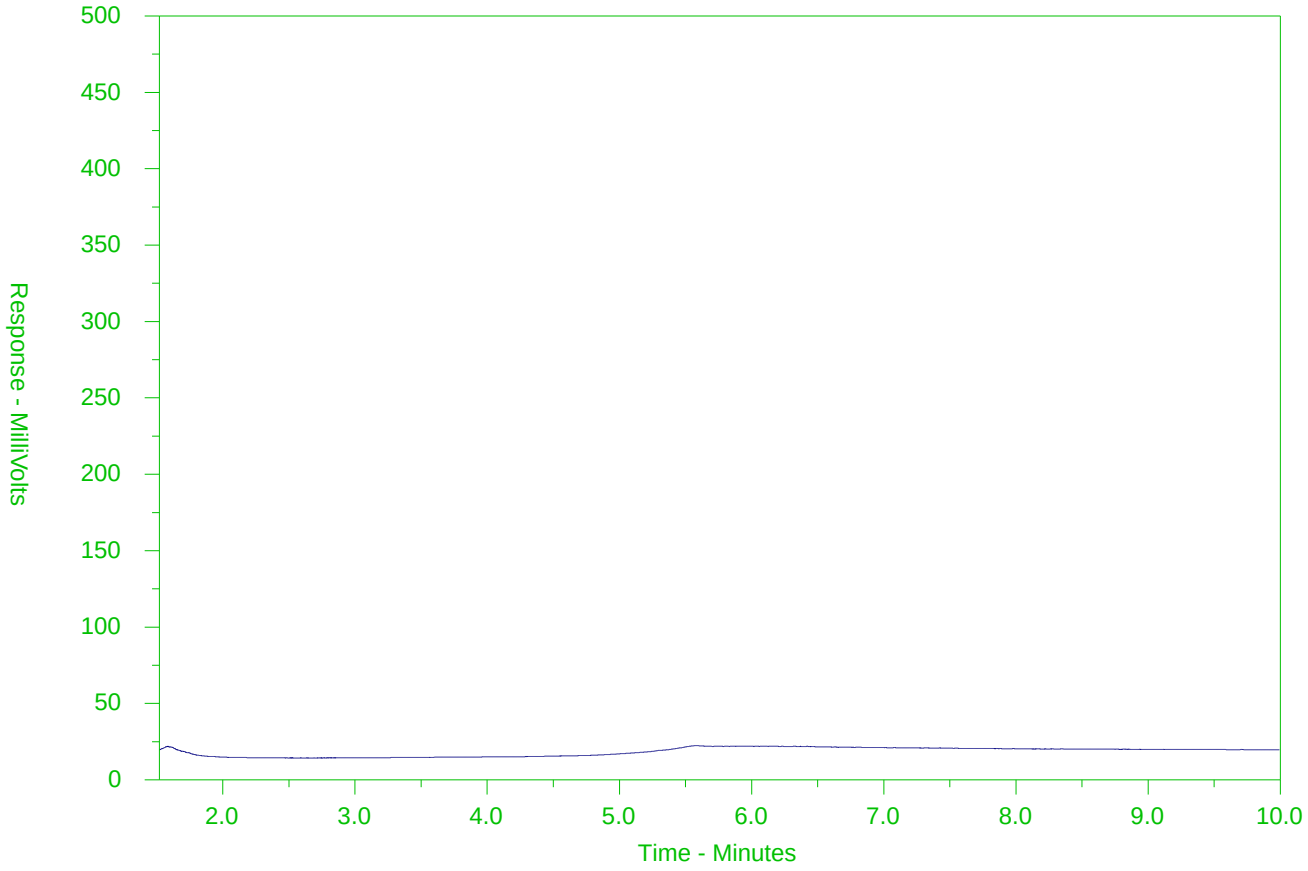
The scale at the bottom of the chromatogram indicates the approximate retention times of commo petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary betwee samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, th 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-F method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms fro 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: L2710246-32
Client Sample ID: DUP01



←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 characterizin hydrocarbon products that may be present in your sample.

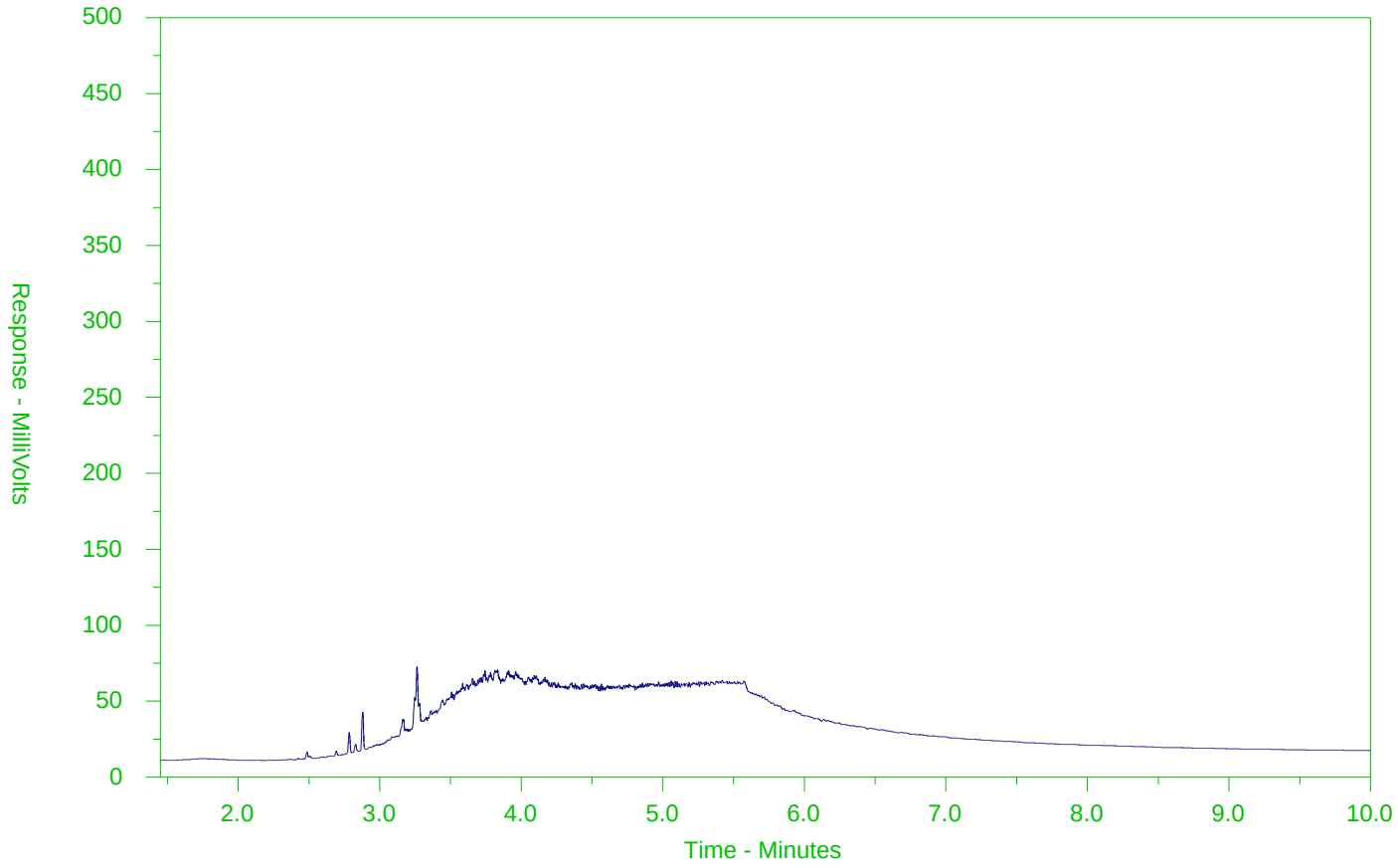
The scale at the bottom of the chromatogram indicates the approximate retention times of commo petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary betwee samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, th 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-F method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms fro 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: L2710246-34
Client Sample ID: BH22-11-1A_24052022



←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.

L2710246-COFC

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 - 945422

Canada Toll Free: 1 800 668 9878

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www

Report To	Contact and company name below will appear on the final report
Company:	Geosyntec Consultants Int'l
Contact:	~~Paula Hutchison~~ Felipe Solano
Phone:	519-514-2248
	Company address below will appear on the final report
Street:	295 Hagey Blvd, Suite 290
City/Province:	Waterloo, ON
Postal Code:	N2L 6R5
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	
Contact:	

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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	fsolano@geosyntec.com
Email 2	bwallace@geosyntec.com
Email 3	phutchison@geosyntec.com
Invoice Recipients	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	accountspayable@geosyntec.com
Email 2	fsolano@geosyntec.com

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: dd-mmm-yy hh:mm (24 hr)
For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	Q88227	AFE/Cost Center:	PO#:
Job #:	TRB41(8D)	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (ALS use only):	L2710246	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	PHC F1-F4	VOC	PAH	O.Reg. 153/04 Metals & Inorgs	PFAS	pH	Grain Size	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	MW22-1-1B_260522	26-May-22	14:30	Soil	4	✓	✓	✓	✓						
	MW22-1-3A_260522		14:45		1							✓			
	MW22-1-3B_260522		14:50		4	✓	✓	✓	✓						
	MW22-1-4B_260522		15:00		4	✓	✓	✓	✓				✓		
	MW22-2-1B_260522		10:50		4	✓	✓	✓	✓						
	MW22-2-3A_260522		11:00		3	✓	✓								
	MW22-2-3B_260522		11:05		1			✓	✓						
	MW22-2-4B_260522		11:15		4	✓	✓	✓	✓				✓		
	BH22-3-1_260522		9:15		4	✓	✓	✓	✓						
	BH22-3-2_260522		9:30		4	✓	✓	✓	✓						
	DUP03		12:00		3	✓	✓								
	DUP04		12:05		1			✓	✓						

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	Please compare to O.Reg. 153/04 Table 3 SCS ICC coarse
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			
7.3				8.4			

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:
Brooke Wallace	May 27/22	13:10	[illegible]	5/27/22	13:10	HDJ	MAY 30 2022	10:50

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.

L2710246-COFC

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 - 945419

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Report To	Contact and company name below will appear on the final report
Company:	Geosyntec Consultants Int'l
Contact:	Felipe Solano
Phone:	519-514-2248
	Company address below will appear on the final report
Street:	295 Hagey Blvd, Suite 210
City/Province:	Waterloo, ON
Postal Code:	N2L 6R5
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: fsolano@geosyntec.com

Email 2: bwallace@geosyntec.com

Email 3: phutchison@geosyntec.com

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: accountspayablecan@geosyntec.com

Email 2: fsolano@geosyntec.com

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 #: G88227

Job #: TR841C8D1

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): L2710246

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	PHC F1-F4	VOC	PAH	O. Reg. 153/04 Metals & Inorg.	PFAS	pH	Grain Size	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	DUP05	26-May-22	15:50	Soil	4	✓	✓	✓	✓						
	MW22-4-1A_240522	24-May-22	13:05		1			✓	✓						
	MW22-4-1B_240522		13:10		3	✓	✓								
	MW22-4-2B_240522		13:20		4	✓	✓	✓	✓				✓		
	MW22-5-1B_240522		10:10		4	✓	✓	✓	✓						
	MW22-5-2B_240522		10:20		4	✓	✓	✓	✓				✓		
	MW22-5-4A_240522		10:35		1							✓			
	BH22-6-1A_260522	26-May-22	14:15		4	✓	✓	✓	✓						
	BH22-6-2A_260522		14:25		4	✓	✓	✓	✓				✓		
	BH22-7-1_250522	25-May-22	16:30		4	✓	✓	✓	✓						
	BH22-7-2_250522		16:45		4	✓	✓	✓	✓				✓		
	BH22-8-1_250522		14:00		4	✓	✓	✓	✓						

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)

Please compare to O. Reg. 153/04 Table 3 SCS KC course

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			
7.3				8.4			

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
Brooke Wallace	May 27/22	15:00

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
COSTAS F	5/27/22	13:10

FINAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
HD	MAY 30 2022	10:30

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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

L2710246-COFC

n of Custody (COC) / Analytical Request Form

COC Number: 20 - 945420

Canada Toll Free: 1 800 668 9878

www.alsg.

Report To	Contact and company name below will appear on the final report
Company:	Geosyntec Consultants Int'l
Contact:	Felipe Solano
Phone:	519-514-2248
Company address below will appear on the final report	
Street:	295 Hagey Blvd, Suite 290
City/Province:	Waterloo, ON
Postal Code:	N2L 6R5
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: fsolano@geosyntec.com

Email 2: bwallace@geosyntec.com

Email 3: phutchison@geosyntec.com

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 #: Q88227

Job #: TR841CBD1

PO / AFE:

LSD:

ALS Lab Work Order # (ALS use only): L2710246

Oil and Gas Required Fields (client use)

AFE/Cost Center: PO#

Major/Minor Code: Routing Code:

Requisitioner:

Location:

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	PHC F1-F4	VOC	PAH	O. Reg 153/04 Metals & Hydrides	PFAS	PH	Grain Size	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	BH22-8-2_250522	25-May-22	14:15	Soil	4	✓	✓	✓	✓				✓		
	BH22-9-1A_240522	24-May-22	14:50		4	✓	✓	✓	✓						
	BH22-9-2A_240522	↓	15:00		4	✓	✓	✓	✓				✓		
	BH22-10-1A_25052022	25-May-22	8:45		1			✓	✓						
	BH22-10-1B_25052022		8:50		4	✓	✓			✓					
	BH22-10-2A_25052022		9:00		4	✓	✓	✓	✓				✓		
	BH22-10-2B_25052022		9:10		2					✓		✓	* PFAS on hold *		
	DUP01		9:50		3	✓	✓			✓					
	DUP02		9:45	↓	1			✓	✓						
	EQ BLANK-LINER		9:15	Water	1					✓					
	EQ BLANK-GLOVE	↓	9:20	Water	1					✓					
	BH22-11-1A_24052022	24-May-22	15:55	Soil	4	✓	✓	✓	✓						

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)

Please compare to O.Reg. 153/04 Table 3 SCS ICC Coarse

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			
7.3				8.4			

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
Brooke Wallace	May 27/22	~~15:00~~ 15:10

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
Caitlyn F	5/27/22	13:10

FINAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
HDJ	MAY 30 2022	1030

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.**

L2710246-COFC

Custody (COC) / Analytical Request Form

COC Number: 20 - 945421

Canada Toll Free: 1 800 668 9878

Page 4 of 4

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Report To	Contact and company name below will appear on the final report
Company:	Geosyntec Consultants Int'l
Contact:	Felipe Solano
Phone:	519-514-2248
	Company address below will appear on the final report
Street:	295 Hagey Blvd, Suite 210
City/Province:	Waterloo, ON
Postal Code:	N2L 6R5
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 fsolano@geosyntec.com

Email 2 bwallace@geosyntec.com

Email 3 phutchison@geosyntec.com

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax accountspayable.can@geosyntec.com

Email 2 fsolano@geosyntec.com

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: dd-mmm-yy hh:mm

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

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	Q88227	AFE/Cost Center:	PO#
Job #:	TR84HC8D1	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (ALS use only):	L2710246	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	PHC F1-F4	VOC	PAH	O. Reg 153/04 Metals & mercury	PFAS	pH	Grain Size	TCLP Cleanup + VOCs + PAHs + Leachable Metals							SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	BH22-11-2A_24052022	24-May-22	16:05	SOIL	4	✓	✓	✓	✓												✓	
	TCLP	26-May-22	PM	↓	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)

Please compare to O. Reg 153/04 Table 3 SCS ICC coarse

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		
7.3			8.4		

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
Brodie Wallace	May 27/22	~~13:10~~ 13:10

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
[illegible]	5/27/22	13:10

FINAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
[illegible]	MAY 30 2022	10:30

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

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

GEOSYNTEC CONSULTANTS
INTERNATIONAL INC
ATTN: FELIPE SOLANO
130 STONE ROAD WEST
GUELPH ON N1G 3Z2

Date Received: 30-MAY-22
Report Date: 07-JUN-22 16:19 (MT)
Version: FINAL

Client Phone: 519-822-2230

Certificate of Analysis

Lab Work Order #: L2710532

Project P.O. #: NOT SUBMITTED
Job Reference: TR841C8D1
C of C Numbers: 20-1000612
Legal Site Desc:

Gayle Braun
Senior Account Manager

Sample Details Grouping / Analyte	Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits #1	Guideline Limits #2
L2710532-1 MW102-270522							
Sampled By: CLIENT on 27-MAY-22 @ 11:55							
Matrix: WATER							
Volatile Organic Compounds							
Acetone	<30		30	ug/L	06-JUN-22	130000	130000
Benzene	<0.50		0.50	ug/L	06-JUN-22	44	430
Bromodichloromethane	<2.0		2.0	ug/L	06-JUN-22	85000	85000
Bromoform	<5.0		5.0	ug/L	06-JUN-22	380	770
Bromomethane	<0.50		0.50	ug/L	06-JUN-22	5.6	56
Carbon tetrachloride	<0.20		0.20	ug/L	06-JUN-22	0.79	8.4
Chlorobenzene	<0.50		0.50	ug/L	06-JUN-22	630	630
Dibromochloromethane	<2.0		2.0	ug/L	06-JUN-22	82000	82000
Chloroform	<1.0		1.0	ug/L	06-JUN-22	2.4	22
1,2-Dibromoethane	<0.20		0.20	ug/L	06-JUN-22	0.25	0.83
1,2-Dichlorobenzene	<0.50		0.50	ug/L	06-JUN-22	4600	9600
1,3-Dichlorobenzene	<0.50		0.50	ug/L	06-JUN-22	9600	9600
1,4-Dichlorobenzene	<0.50		0.50	ug/L	06-JUN-22	8	67
Dichlorodifluoromethane	<2.0		2.0	ug/L	06-JUN-22	4400	4400
1,1-Dichloroethane	<0.50		0.50	ug/L	06-JUN-22	320	3100
1,2-Dichloroethane	<0.50		0.50	ug/L	06-JUN-22	1.6	12
1,1-Dichloroethylene	<0.50		0.50	ug/L	06-JUN-22	1.6	17
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L	06-JUN-22	1.6	17
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L	06-JUN-22	1.6	17
Methylene Chloride	<5.0		5.0	ug/L	06-JUN-22	610	5500
1,2-Dichloropropane	<0.50		0.50	ug/L	06-JUN-22	16	140
cis-1,3-Dichloropropene	<0.30		0.30	ug/L	06-JUN-22		
trans-1,3-Dichloropropene	<0.30		0.30	ug/L	06-JUN-22		
1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L	06-JUN-22	5.2	45
Ethylbenzene	<0.50		0.50	ug/L	06-JUN-22	2300	2300
n-Hexane	<0.50		0.50	ug/L	06-JUN-22	51	520
Methyl Ethyl Ketone	<20		20	ug/L	06-JUN-22	470000	1500000
Methyl Isobutyl Ketone	<20		20	ug/L	06-JUN-22	140000	580000
MTBE	<2.0		2.0	ug/L	06-JUN-22	190	1400
Styrene	<0.50		0.50	ug/L	06-JUN-22	1300	9100
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L	06-JUN-22	3.3	28
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L	06-JUN-22	3.2	15
Tetrachloroethylene	<0.50		0.50	ug/L	06-JUN-22	1.6	17
Toluene	<0.50		0.50	ug/L	06-JUN-22	18000	18000
1,1,1-Trichloroethane	<0.50		0.50	ug/L	06-JUN-22	640	6700
1,1,2-Trichloroethane	<0.50		0.50	ug/L	06-JUN-22	4.7	30
Trichloroethylene	<0.50		0.50	ug/L	06-JUN-22	1.6	17
Trichlorofluoromethane	<5.0		5.0	ug/L	06-JUN-22	2500	2500
Vinyl chloride	<0.50		0.50	ug/L	06-JUN-22	0.5	1.7
o-Xylene	<0.30		0.30	ug/L	06-JUN-22		
m+p-Xylenes	<0.40		0.40	ug/L	06-JUN-22		
Xylenes (Total)	<0.50		0.50	ug/L	06-JUN-22	4200	4200
Surrogate: 4-Bromofluorobenzene	90.8		70-130	%	06-JUN-22		
Surrogate: 1,4-Difluorobenzene	101.4		70-130	%	06-JUN-22		
Hydrocarbons							
F1 (C6-C10)	<25		25	ug/L	06-JUN-22	750	750

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T3 Non-Potable Ground Water (Coarse and Fine)

#1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse) **#2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)**

Sample Details Grouping / Analyte	Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits #1	Guideline Limits #2
L2710532-1 MW102-270522							
Sampled By: CLIENT on 27-MAY-22 @ 11:55							
Matrix: WATER							
Hydrocarbons							
F1-BTEX	<25		25	ug/L	07-JUN-22	750	750
F2 (C10-C16)	<100		100	ug/L	07-JUN-22	150	150
F3 (C16-C34)	<250		250	ug/L	07-JUN-22	500	500
F4 (C34-C50)	<250		250	ug/L	07-JUN-22	500	500
Total Hydrocarbons (C6-C50)	<370		370	ug/L	07-JUN-22		
Chrom. to baseline at nC50	YES			No Unit	07-JUN-22		
Surrogate: 2-Bromobenzotrifluoride	83.3		60-140	%	07-JUN-22		
Surrogate: 3,4-Dichlorotoluene	92.7		60-140	%	06-JUN-22		
L2710532-2 MW103-270522							
Sampled By: CLIENT on 27-MAY-22 @ 12:30							
Matrix: WATER							
Volatile Organic Compounds							
Acetone	<30	OWP	30	ug/L	06-JUN-22	130000	130000
Benzene	<0.50	OWP	0.50	ug/L	06-JUN-22	44	430
Bromodichloromethane	<2.0	OWP	2.0	ug/L	06-JUN-22	85000	85000
Bromoform	<5.0	OWP	5.0	ug/L	06-JUN-22	380	770
Bromomethane	<0.50	OWP	0.50	ug/L	06-JUN-22	5.6	56
Carbon tetrachloride	<0.20	OWP	0.20	ug/L	06-JUN-22	0.79	8.4
Chlorobenzene	<0.50	OWP	0.50	ug/L	06-JUN-22	630	630
Dibromochloromethane	<2.0	OWP	2.0	ug/L	06-JUN-22	82000	82000
Chloroform	<1.0	OWP	1.0	ug/L	06-JUN-22	2.4	22
1,2-Dibromoethane	<0.20	OWP	0.20	ug/L	06-JUN-22	0.25	0.83
1,2-Dichlorobenzene	<0.50	OWP	0.50	ug/L	06-JUN-22	4600	9600
1,3-Dichlorobenzene	<0.50	OWP	0.50	ug/L	06-JUN-22	9600	9600
1,4-Dichlorobenzene	<0.50	OWP	0.50	ug/L	06-JUN-22	8	67
Dichlorodifluoromethane	<2.0	OWP	2.0	ug/L	06-JUN-22	4400	4400
1,1-Dichloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	320	3100
1,2-Dichloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	12
1,1-Dichloroethylene	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	17
cis-1,2-Dichloroethylene	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	17
trans-1,2-Dichloroethylene	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	17
Methylene Chloride	<5.0	OWP	5.0	ug/L	06-JUN-22	610	5500
1,2-Dichloropropane	<0.50	OWP	0.50	ug/L	06-JUN-22	16	140
cis-1,3-Dichloropropene	<0.30	OWP	0.30	ug/L	06-JUN-22		
trans-1,3-Dichloropropene	<0.30	OWP	0.30	ug/L	06-JUN-22		
1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L	06-JUN-22	5.2	45
Ethylbenzene	<0.50	OWP	0.50	ug/L	06-JUN-22	2300	2300
n-Hexane	<0.50	OWP	0.50	ug/L	06-JUN-22	51	520
Methyl Ethyl Ketone	<20	OWP	20	ug/L	06-JUN-22	470000	1500000
Methyl Isobutyl Ketone	<20	OWP	20	ug/L	06-JUN-22	140000	580000
MTBE	<2.0	OWP	2.0	ug/L	06-JUN-22	190	1400
Styrene	<0.50	OWP	0.50	ug/L	06-JUN-22	1300	9100
1,1,1,2-Tetrachloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	3.3	28
1,1,2,2-Tetrachloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	3.2	15
Tetrachloroethylene	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	17

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T3 Non-Potable Ground Water (Coarse and Fine)

#1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse) **#2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)**

Sample Details Grouping	Analyte	Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits #1	#2		
L2710532-2	MW103-270522									
Sampled By:	CLIENT on 27-MAY-22 @ 12:30									
Matrix:	WATER									
Volatile Organic Compounds										
	Toluene	<0.50	OWP	0.50	ug/L	06-JUN-22	18000	18000		
	1,1,1-Trichloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	640	6700		
	1,1,2-Trichloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	4.7	30		
	Trichloroethylene	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	17		
	Trichlorofluoromethane	<5.0	OWP	5.0	ug/L	06-JUN-22	2500	2500		
	Vinyl chloride	<0.50	OWP	0.50	ug/L	06-JUN-22	0.5	1.7		
	o-Xylene	<0.30	OWP	0.30	ug/L	06-JUN-22				
	m+p-Xylenes	<0.40	OWP	0.40	ug/L	06-JUN-22				
	Xylenes (Total)	<0.50		0.50	ug/L	06-JUN-22	4200	4200		
	Surrogate: 4-Bromofluorobenzene	82.8		70-130	%	06-JUN-22				
	Surrogate: 1,4-Difluorobenzene	104.5		70-130	%	06-JUN-22				
Hydrocarbons										
	F1 (C6-C10)	<25	OWP	25	ug/L	06-JUN-22	750	750		
	F1-BTEX	<25		25	ug/L	07-JUN-22	750	750		
	F2 (C10-C16)	<100		100	ug/L	07-JUN-22	150	150		
	F3 (C16-C34)	<250		250	ug/L	07-JUN-22	500	500		
	F4 (C34-C50)	<250		250	ug/L	07-JUN-22	500	500		
	Total Hydrocarbons (C6-C50)	<370		370	ug/L	07-JUN-22				
	Chrom. to baseline at nC50	YES			No Unit	07-JUN-22				
	Surrogate: 2-Bromobenzotrifluoride	81.9		60-140	%	07-JUN-22				
	Surrogate: 3,4-Dichlorotoluene	88.6		60-140	%	06-JUN-22				
L2710532-3	MW10-3-270522									
Sampled By:	CLIENT on 27-MAY-22 @ 13:20									
Matrix:	WATER						#1	#2		
Physical Tests										
	Conductivity	6.89		0.0030	mS/cm	31-MAY-22				
	pH	7.72		0.10	pH units	31-MAY-22				
Anions and Nutrients										
	Chloride (Cl)	2070	DLDS	5.0	mg/L	31-MAY-22	2300	2300		
Cyanides										
	Cyanide, Weak Acid Diss	<2.0		2.0	ug/L	06-JUN-22	66	66		
Dissolved Metals										
	Dissolved Mercury Filtration Location	FIELD			No Unit	01-JUN-22				
	Dissolved Metals Filtration Location	FIELD			No Unit	31-MAY-22				
	Antimony (Sb)-Dissolved	<1.0	DLHC	1.0	ug/L	01-JUN-22	20000	20000		
	Arsenic (As)-Dissolved	<1.0	DLHC	1.0	ug/L	01-JUN-22	1900	1900		
	Barium (Ba)-Dissolved	125	DLHC	1.0	ug/L	01-JUN-22	29000	29000		
	Beryllium (Be)-Dissolved	<1.0	DLHC	1.0	ug/L	01-JUN-22	67	67		
	Boron (B)-Dissolved	<100	DLHC	100	ug/L	01-JUN-22	45000	45000		
	Cadmium (Cd)-Dissolved	1.30	DLHC	0.050	ug/L	01-JUN-22	2.7	2.7		
	Chromium (Cr)-Dissolved	<5.0	DLHC	5.0	ug/L	01-JUN-22	810	810		
	Cobalt (Co)-Dissolved	2.9	DLHC	1.0	ug/L	01-JUN-22	66	66		
	Copper (Cu)-Dissolved	3.3	DLHC	2.0	ug/L	01-JUN-22	87	87		
	Lead (Pb)-Dissolved	<0.50	DLHC	0.50	ug/L	01-JUN-22	25	25		
	Mercury (Hg)-Dissolved	<0.0050		0.0050	ug/L	01-JUN-22	0.29	2.8		

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T3 Non-Potable Ground Water (Coarse and Fine)

#1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse) **#2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)**

Sample Details Grouping / Analyte	Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits #1	Guideline Limits #2
L2710532-3 MW10-3-270522							
Sampled By: CLIENT on 27-MAY-22 @ 13:20							
Matrix: WATER							
Dissolved Metals							
Molybdenum (Mo)-Dissolved	2.85	DLHC	0.50	ug/L	01-JUN-22	9200	9200
Nickel (Ni)-Dissolved	31.8	DLHC	5.0	ug/L	01-JUN-22	490	490
Selenium (Se)-Dissolved	<0.50	DLHC	0.50	ug/L	01-JUN-22	63	63
Silver (Ag)-Dissolved	<0.50	DLHC	0.50	ug/L	01-JUN-22	1.5	1.5
Sodium (Na)-Dissolved	862000	DLHC	500	ug/L	01-JUN-22	2300000	2300000
Thallium (Tl)-Dissolved	<0.10	DLHC	0.10	ug/L	01-JUN-22	510	510
Uranium (U)-Dissolved	1.49	DLHC	0.10	ug/L	01-JUN-22	420	420
Vanadium (V)-Dissolved	5.1	DLHC	5.0	ug/L	01-JUN-22	250	250
Zinc (Zn)-Dissolved	<10	DLHC	10	ug/L	01-JUN-22	1100	1100
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L	31-MAY-22	140	140
Volatile Organic Compounds							
Acetone	<30	OWP	30	ug/L	06-JUN-22	130000	130000
Benzene	<0.50	OWP	0.50	ug/L	06-JUN-22	44	430
Bromodichloromethane	<2.0	OWP	2.0	ug/L	06-JUN-22	85000	85000
Bromoform	<5.0	OWP	5.0	ug/L	06-JUN-22	380	770
Bromomethane	<0.50	OWP	0.50	ug/L	06-JUN-22	5.6	56
Carbon tetrachloride	<0.20	OWP	0.20	ug/L	06-JUN-22	0.79	8.4
Chlorobenzene	<0.50	OWP	0.50	ug/L	06-JUN-22	630	630
Dibromochloromethane	<2.0	OWP	2.0	ug/L	06-JUN-22	82000	82000
Chloroform	<1.0	OWP	1.0	ug/L	06-JUN-22	2.4	22
1,2-Dibromoethane	<0.20	OWP	0.20	ug/L	06-JUN-22	0.25	0.83
1,2-Dichlorobenzene	<0.50	OWP	0.50	ug/L	06-JUN-22	4600	9600
1,3-Dichlorobenzene	<0.50	OWP	0.50	ug/L	06-JUN-22	9600	9600
1,4-Dichlorobenzene	<0.50	OWP	0.50	ug/L	06-JUN-22	8	67
Dichlorodifluoromethane	<2.0	OWP	2.0	ug/L	06-JUN-22	4400	4400
1,1-Dichloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	320	3100
1,2-Dichloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	12
1,1-Dichloroethylene	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	17
cis-1,2-Dichloroethylene	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	17
trans-1,2-Dichloroethylene	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	17
Methylene Chloride	<5.0	OWP	5.0	ug/L	06-JUN-22	610	5500
1,2-Dichloropropane	<0.50	OWP	0.50	ug/L	06-JUN-22	16	140
cis-1,3-Dichloropropene	<0.30	OWP	0.30	ug/L	06-JUN-22		
trans-1,3-Dichloropropene	<0.30	OWP	0.30	ug/L	06-JUN-22		
1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L	06-JUN-22	5.2	45
Ethylbenzene	<0.50	OWP	0.50	ug/L	06-JUN-22	2300	2300
n-Hexane	<0.50	OWP	0.50	ug/L	06-JUN-22	51	520
Methyl Ethyl Ketone	<20	OWP	20	ug/L	06-JUN-22	470000	1500000
Methyl Isobutyl Ketone	<20	OWP	20	ug/L	06-JUN-22	140000	580000
MTBE	<2.0	OWP	2.0	ug/L	06-JUN-22	190	1400
Styrene	<0.50	OWP	0.50	ug/L	06-JUN-22	1300	9100
1,1,1,2-Tetrachloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	3.3	28
1,1,2,2-Tetrachloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	3.2	15
Tetrachloroethylene	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	17

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T3 Non-Potable Ground Water (Coarse and Fine)

#1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse) **#2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)**

Sample Details Grouping / Analyte	Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits #1	Guideline Limits #2
L2710532-3 MW10-3-270522							
Sampled By: CLIENT on 27-MAY-22 @ 13:20							
Matrix: WATER							
Volatile Organic Compounds							
Toluene	<0.50	OWP	0.50	ug/L	06-JUN-22	18000	18000
1,1,1-Trichloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	640	6700
1,1,2-Trichloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	4.7	30
Trichloroethylene	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	17
Trichlorofluoromethane	<5.0	OWP	5.0	ug/L	06-JUN-22	2500	2500
Vinyl chloride	<0.50	OWP	0.50	ug/L	06-JUN-22	0.5	1.7
o-Xylene	<0.30	OWP	0.30	ug/L	06-JUN-22		
m+p-Xylenes	<0.40	OWP	0.40	ug/L	06-JUN-22		
Xylenes (Total)	<0.50		0.50	ug/L	06-JUN-22	4200	4200
Surrogate: 4-Bromofluorobenzene	78.5		70-130	%	06-JUN-22		
Surrogate: 1,4-Difluorobenzene	103.3		70-130	%	06-JUN-22		
Hydrocarbons							
F1 (C6-C10)	<25	OWP	25	ug/L	06-JUN-22	750	750
F1-BTEX	<25		25	ug/L	07-JUN-22	750	750
F2 (C10-C16)	<100		100	ug/L	07-JUN-22	150	150
F2-Naphth	<100		100	ug/L	07-JUN-22		
F3 (C16-C34)	<250		250	ug/L	07-JUN-22	500	500
F3-PAH	<250		250	ug/L	07-JUN-22		
F4 (C34-C50)	<250		250	ug/L	07-JUN-22	500	500
Total Hydrocarbons (C6-C50)	<370		370	ug/L	07-JUN-22		
Chrom. to baseline at nC50	YES			No Unit	07-JUN-22		
Surrogate: 2-Bromobenzotrifluoride	80.2		60-140	%	07-JUN-22		
Surrogate: 3,4-Dichlorotoluene	96.1		60-140	%	06-JUN-22		
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.020		0.020	ug/L	06-JUN-22	600	1700
Acenaphthylene	<0.020		0.020	ug/L	06-JUN-22	1.8	1.8
Anthracene	<0.020		0.020	ug/L	06-JUN-22	2.4	2.4
Benzo(a)anthracene	<0.020		0.020	ug/L	06-JUN-22	4.7	4.7
Benzo(a)pyrene	<0.010		0.010	ug/L	06-JUN-22	0.81	0.81
Benzo(b&j)fluoranthene	<0.020		0.020	ug/L	06-JUN-22	0.75	0.75
Benzo(g,h,i)perylene	<0.020		0.020	ug/L	06-JUN-22	0.2	0.2
Benzo(k)fluoranthene	<0.020		0.020	ug/L	06-JUN-22	0.4	0.4
Chrysene	<0.020		0.020	ug/L	06-JUN-22	1	1
Dibenz(a,h)anthracene	<0.020		0.020	ug/L	06-JUN-22	0.52	0.52
Fluoranthene	<0.020		0.020	ug/L	06-JUN-22	130	130
Fluorene	<0.020		0.020	ug/L	06-JUN-22	400	400
Indeno(1,2,3-cd)pyrene	<0.020		0.020	ug/L	06-JUN-22	0.2	0.2
1+2-Methylnaphthalenes	<0.028		0.028	ug/L	06-JUN-22	1800	1800
1-Methylnaphthalene	<0.020		0.020	ug/L	06-JUN-22	1800	1800
2-Methylnaphthalene	<0.020		0.020	ug/L	06-JUN-22	1800	1800
Naphthalene	<0.050		0.050	ug/L	06-JUN-22	1400	6400
Phenanthrene	<0.020		0.020	ug/L	06-JUN-22	580	580
Pyrene	<0.020		0.020	ug/L	06-JUN-22	68	68
Surrogate: Chrysene d12	91.8		50-150	%	06-JUN-22		
Surrogate: Naphthalene d8	96.1		60-140	%	06-JUN-22		
Surrogate: Phenanthrene d10	103.3		60-140	%	06-JUN-22		

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T3 Non-Potable Ground Water (Coarse and Fine)

#1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse) **#2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)**

Sample Details Grouping / Analyte	Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits #1	Guideline Limits #2
L2710532-4 DUP01-270522							
Sampled By: CLIENT on 27-MAY-22 @ 16:00							
Matrix: WATER							
Physical Tests							
Conductivity	3.85		0.0030	mS/cm	01-JUN-22		
pH	7.30	PEHT	0.10	pH units	01-JUN-22		
Anions and Nutrients							
Chloride (Cl)	1020	DLDS	5.0	mg/L	01-JUN-22	2300	2300
Cyanides							
Cyanide, Weak Acid Diss	<2.0		2.0	ug/L	06-JUN-22	66	66
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD			No Unit	01-JUN-22		
Dissolved Metals Filtration Location	FIELD			No Unit	31-MAY-22		
Antimony (Sb)-Dissolved	<1.0	DLHC	1.0	ug/L	01-JUN-22	20000	20000
Arsenic (As)-Dissolved	<1.0	DLHC	1.0	ug/L	01-JUN-22	1900	1900
Barium (Ba)-Dissolved	306	DLHC	1.0	ug/L	01-JUN-22	29000	29000
Beryllium (Be)-Dissolved	<1.0	DLHC	1.0	ug/L	01-JUN-22	67	67
Boron (B)-Dissolved	<100	DLHC	100	ug/L	01-JUN-22	45000	45000
Cadmium (Cd)-Dissolved	0.067	DLHC	0.050	ug/L	01-JUN-22	2.7	2.7
Chromium (Cr)-Dissolved	<5.0	DLHC	5.0	ug/L	01-JUN-22	810	810
Cobalt (Co)-Dissolved	5.3	DLHC	1.0	ug/L	01-JUN-22	66	66
Copper (Cu)-Dissolved	<2.0	DLHC	2.0	ug/L	01-JUN-22	87	87
Lead (Pb)-Dissolved	<0.50	DLHC	0.50	ug/L	01-JUN-22	25	25
Mercury (Hg)-Dissolved	<0.0050		0.0050	ug/L	01-JUN-22	0.29	2.8
Molybdenum (Mo)-Dissolved	1.29	DLHC	0.50	ug/L	01-JUN-22	9200	9200
Nickel (Ni)-Dissolved	11.2	DLHC	5.0	ug/L	01-JUN-22	490	490
Selenium (Se)-Dissolved	<0.50	DLHC	0.50	ug/L	01-JUN-22	63	63
Silver (Ag)-Dissolved	<0.50	DLHC	0.50	ug/L	01-JUN-22	1.5	1.5
Sodium (Na)-Dissolved	258000	DLHC	500	ug/L	01-JUN-22	2300000	2300000
Thallium (Tl)-Dissolved	<0.10	DLHC	0.10	ug/L	01-JUN-22	510	510
Uranium (U)-Dissolved	3.13	DLHC	0.10	ug/L	01-JUN-22	420	420
Vanadium (V)-Dissolved	<5.0	DLHC	5.0	ug/L	01-JUN-22	250	250
Zinc (Zn)-Dissolved	<10	DLHC	10	ug/L	01-JUN-22	1100	1100
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L	31-MAY-22	140	140
Volatile Organic Compounds							
Acetone	<30		30	ug/L	06-JUN-22	130000	130000
Benzene	<0.50		0.50	ug/L	06-JUN-22	44	430
Bromodichloromethane	<2.0		2.0	ug/L	06-JUN-22	85000	85000
Bromoform	<5.0		5.0	ug/L	06-JUN-22	380	770
Bromomethane	<0.50		0.50	ug/L	06-JUN-22	5.6	56
Carbon tetrachloride	<0.20		0.20	ug/L	06-JUN-22	0.79	8.4
Chlorobenzene	<0.50		0.50	ug/L	06-JUN-22	630	630
Dibromochloromethane	<2.0		2.0	ug/L	06-JUN-22	82000	82000
Chloroform	<1.0		1.0	ug/L	06-JUN-22	2.4	22
1,2-Dibromoethane	<0.20		0.20	ug/L	06-JUN-22	0.25	0.83
1,2-Dichlorobenzene	<0.50		0.50	ug/L	06-JUN-22	4600	9600
1,3-Dichlorobenzene	<0.50		0.50	ug/L	06-JUN-22	9600	9600
1,4-Dichlorobenzene	<0.50		0.50	ug/L	06-JUN-22	8	67

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T3 Non-Potable Ground Water (Coarse and Fine)

#1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse) **#2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)**

Sample Details Grouping / Analyte	Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits #1	Guideline Limits #2
L2710532-4 DUP01-270522							
Sampled By: CLIENT on 27-MAY-22 @ 16:00							
Matrix: WATER							
Volatile Organic Compounds							
Dichlorodifluoromethane	<2.0		2.0	ug/L	06-JUN-22	4400	4400
1,1-Dichloroethane	<0.50		0.50	ug/L	06-JUN-22	320	3100
1,2-Dichloroethane	<0.50		0.50	ug/L	06-JUN-22	1.6	12
1,1-Dichloroethylene	<0.50		0.50	ug/L	06-JUN-22	1.6	17
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L	06-JUN-22	1.6	17
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L	06-JUN-22	1.6	17
Methylene Chloride	<5.0		5.0	ug/L	06-JUN-22	610	5500
1,2-Dichloropropane	<0.50		0.50	ug/L	06-JUN-22	16	140
cis-1,3-Dichloropropene	<0.30		0.30	ug/L	06-JUN-22		
trans-1,3-Dichloropropene	<0.30		0.30	ug/L	06-JUN-22		
1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L	06-JUN-22	5.2	45
Ethylbenzene	<0.50		0.50	ug/L	06-JUN-22	2300	2300
n-Hexane	<0.50		0.50	ug/L	06-JUN-22	51	520
Methyl Ethyl Ketone	<20		20	ug/L	06-JUN-22	470000	1500000
Methyl Isobutyl Ketone	<20		20	ug/L	06-JUN-22	140000	580000
MTBE	<2.0		2.0	ug/L	06-JUN-22	190	1400
Styrene	<0.50		0.50	ug/L	06-JUN-22	1300	9100
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L	06-JUN-22	3.3	28
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L	06-JUN-22	3.2	15
Tetrachloroethylene	<0.50		0.50	ug/L	06-JUN-22	1.6	17
Toluene	<0.50		0.50	ug/L	06-JUN-22	18000	18000
1,1,1-Trichloroethane	<0.50		0.50	ug/L	06-JUN-22	640	6700
1,1,2-Trichloroethane	<0.50		0.50	ug/L	06-JUN-22	4.7	30
Trichloroethylene	<0.50		0.50	ug/L	06-JUN-22	1.6	17
Trichlorofluoromethane	<5.0		5.0	ug/L	06-JUN-22	2500	2500
Vinyl chloride	<0.50		0.50	ug/L	06-JUN-22	0.5	1.7
o-Xylene	<0.30		0.30	ug/L	06-JUN-22		
m+p-Xylenes	<0.40		0.40	ug/L	06-JUN-22		
Xylenes (Total)	<0.50		0.50	ug/L	06-JUN-22	4200	4200
Surrogate: 4-Bromofluorobenzene	76.6		70-130	%	06-JUN-22		
Surrogate: 1,4-Difluorobenzene	100.7		70-130	%	06-JUN-22		
Hydrocarbons							
F1 (C6-C10)	<25		25	ug/L	06-JUN-22	750	750
F1-BTEX	<25		25	ug/L	07-JUN-22	750	750
F2 (C10-C16)	<100		100	ug/L	07-JUN-22	150	150
F2-Naphth	<100		100	ug/L	07-JUN-22		
F3 (C16-C34)	<250		250	ug/L	07-JUN-22	500	500
F3-PAH	<250		250	ug/L	07-JUN-22		
F4 (C34-C50)	<250		250	ug/L	07-JUN-22	500	500
Total Hydrocarbons (C6-C50)	<370		370	ug/L	07-JUN-22		
Chrom. to baseline at nC50	YES			No Unit	07-JUN-22		
Surrogate: 2-Bromobenzotrifluoride	85.6		60-140	%	07-JUN-22		
Surrogate: 3,4-Dichlorotoluene	93.9		60-140	%	06-JUN-22		
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.020		0.020	ug/L	06-JUN-22	600	1700
Acenaphthylene	<0.020		0.020	ug/L	06-JUN-22	1.8	1.8

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T3 Non-Potable Ground Water (Coarse and Fine)

#1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse) **#2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)**

Sample Details Grouping / Analyte	Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits #1	Guideline Limits #2
L2710532-4 DUP01-270522 Sampled By: CLIENT on 27-MAY-22 @ 16:00 Matrix: WATER							
Polycyclic Aromatic Hydrocarbons							
Anthracene	<0.020		0.020	ug/L	06-JUN-22	2.4	2.4
Benzo(a)anthracene	<0.020		0.020	ug/L	06-JUN-22	4.7	4.7
Benzo(a)pyrene	<0.010		0.010	ug/L	06-JUN-22	0.81	0.81
Benzo(b&j)fluoranthene	<0.020		0.020	ug/L	06-JUN-22	0.75	0.75
Benzo(g,h,i)perylene	<0.020		0.020	ug/L	06-JUN-22	0.2	0.2
Benzo(k)fluoranthene	<0.020		0.020	ug/L	06-JUN-22	0.4	0.4
Chrysene	<0.020		0.020	ug/L	06-JUN-22	1	1
Dibenz(a,h)anthracene	<0.020		0.020	ug/L	06-JUN-22	0.52	0.52
Fluoranthene	<0.020		0.020	ug/L	06-JUN-22	130	130
Fluorene	<0.020		0.020	ug/L	06-JUN-22	400	400
Indeno(1,2,3-cd)pyrene	<0.020		0.020	ug/L	06-JUN-22	0.2	0.2
1+2-Methylnaphthalenes	0.174		0.028	ug/L	06-JUN-22	1800	1800
1-Methylnaphthalene	0.065		0.020	ug/L	06-JUN-22	1800	1800
2-Methylnaphthalene	0.109		0.020	ug/L	06-JUN-22	1800	1800
Naphthalene	0.070		0.050	ug/L	06-JUN-22	1400	6400
Phenanthrene	0.086		0.020	ug/L	06-JUN-22	580	580
Pyrene	<0.020		0.020	ug/L	06-JUN-22	68	68
Surrogate: Chrysene d12	95.5		50-150	%	06-JUN-22		
Surrogate: Naphthalene d8	101.3		60-140	%	06-JUN-22		
Surrogate: Phenanthrene d10	106.6		60-140	%	06-JUN-22		
L2710532-5 TRIP BLANK Sampled By: CLIENT on 27-MAY-22 Matrix: WATER						#1	#2
Volatile Organic Compounds							
Acetone	<30		30	ug/L	06-JUN-22	130000	130000
Benzene	<0.50		0.50	ug/L	06-JUN-22	44	430
Bromodichloromethane	<2.0		2.0	ug/L	06-JUN-22	85000	85000
Bromoform	<5.0		5.0	ug/L	06-JUN-22	380	770
Bromomethane	<0.50		0.50	ug/L	06-JUN-22	5.6	56
Carbon tetrachloride	<0.20		0.20	ug/L	06-JUN-22	0.79	8.4
Chlorobenzene	<0.50		0.50	ug/L	06-JUN-22	630	630
Dibromochloromethane	<2.0		2.0	ug/L	06-JUN-22	82000	82000
Chloroform	<1.0		1.0	ug/L	06-JUN-22	2.4	22
1,2-Dibromoethane	<0.20		0.20	ug/L	06-JUN-22	0.25	0.83
1,2-Dichlorobenzene	<0.50		0.50	ug/L	06-JUN-22	4600	9600
1,3-Dichlorobenzene	<0.50		0.50	ug/L	06-JUN-22	9600	9600
1,4-Dichlorobenzene	<0.50		0.50	ug/L	06-JUN-22	8	67
Dichlorodifluoromethane	<2.0		2.0	ug/L	06-JUN-22	4400	4400
1,1-Dichloroethane	<0.50		0.50	ug/L	06-JUN-22	320	3100
1,2-Dichloroethane	<0.50		0.50	ug/L	06-JUN-22	1.6	12
1,1-Dichloroethylene	<0.50		0.50	ug/L	06-JUN-22	1.6	17
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L	06-JUN-22	1.6	17
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L	06-JUN-22	1.6	17
Methylene Chloride	<5.0		5.0	ug/L	06-JUN-22	610	5500
1,2-Dichloropropane	<0.50		0.50	ug/L	06-JUN-22	16	140

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T3 Non-Potable Ground Water (Coarse and Fine)

#1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse) **#2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)**

Sample Details Grouping / Analyte	Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits #1	#2		
L2710532-5 TRIP BLANK Sampled By: CLIENT on 27-MAY-22 Matrix: WATER									
Volatile Organic Compounds									
cis-1,3-Dichloropropene	<0.30		0.30	ug/L	06-JUN-22				
trans-1,3-Dichloropropene	<0.30		0.30	ug/L	06-JUN-22				
1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L	06-JUN-22	5.2	45		
Ethylbenzene	<0.50		0.50	ug/L	06-JUN-22	2300	2300		
n-Hexane	<0.50		0.50	ug/L	06-JUN-22	51	520		
Methyl Ethyl Ketone	<20		20	ug/L	06-JUN-22	470000	1500000		
Methyl Isobutyl Ketone	<20		20	ug/L	06-JUN-22	140000	580000		
MTBE	<2.0		2.0	ug/L	06-JUN-22	190	1400		
Styrene	<0.50		0.50	ug/L	06-JUN-22	1300	9100		
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L	06-JUN-22	3.3	28		
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L	06-JUN-22	3.2	15		
Tetrachloroethylene	<0.50		0.50	ug/L	06-JUN-22	1.6	17		
Toluene	<0.50		0.50	ug/L	06-JUN-22	18000	18000		
1,1,1-Trichloroethane	<0.50		0.50	ug/L	06-JUN-22	640	6700		
1,1,2-Trichloroethane	<0.50		0.50	ug/L	06-JUN-22	4.7	30		
Trichloroethylene	<0.50		0.50	ug/L	06-JUN-22	1.6	17		
Trichlorofluoromethane	<5.0		5.0	ug/L	06-JUN-22	2500	2500		
Vinyl chloride	<0.50		0.50	ug/L	06-JUN-22	0.5	1.7		
o-Xylene	<0.30		0.30	ug/L	06-JUN-22				
m+p-Xylenes	<0.40		0.40	ug/L	06-JUN-22				
Xylenes (Total)	<0.50		0.50	ug/L	06-JUN-22	4200	4200		
Surrogate: 4-Bromofluorobenzene	76.0		70-130	%	06-JUN-22				
Surrogate: 1,4-Difluorobenzene	100.4		70-130	%	06-JUN-22				
Hydrocarbons									
F1 (C6-C10)	<25		25	ug/L	06-JUN-22	750	750		
F1-BTEX	<25		25	ug/L	06-JUN-22	750	750		
Surrogate: 3,4-Dichlorotoluene	92.8		60-140	%	06-JUN-22				
L2710532-6 MW22-5-270522 Sampled By: CLIENT on 27-MAY-22 @ 15:00 Matrix: WATER						#1	#2		
Physical Tests									
Conductivity	3.84		0.0030	mS/cm	01-JUN-22				
pH	7.21	PEHT	0.10	pH units	01-JUN-22				
Anions and Nutrients									
Chloride (Cl)	965	DLDS	5.0	mg/L	01-JUN-22	2300	2300		
Cyanides									
Cyanide, Weak Acid Diss	<2.0		2.0	ug/L	06-JUN-22	66	66		
Dissolved Metals									
Dissolved Mercury Filtration Location	FIELD			No Unit	01-JUN-22				
Dissolved Metals Filtration Location	FIELD			No Unit	31-MAY-22				
Antimony (Sb)-Dissolved	<1.0	DLHC	1.0	ug/L	01-JUN-22	20000	20000		
Arsenic (As)-Dissolved	<1.0	DLHC	1.0	ug/L	01-JUN-22	1900	1900		
Barium (Ba)-Dissolved	292	DLHC	1.0	ug/L	01-JUN-22	29000	29000		
Beryllium (Be)-Dissolved	<1.0	DLHC	1.0	ug/L	01-JUN-22	67	67		
Boron (B)-Dissolved	<100	DLHC	100	ug/L	01-JUN-22	45000	45000		

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T3 Non-Potable Ground Water (Coarse and Fine)

#1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse) **#2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)**

Sample Details Grouping / Analyte	Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits #1	Guideline Limits #2
L2710532-6 MW22-5-270522 Sampled By: CLIENT on 27-MAY-22 @ 15:00 Matrix: WATER							
Dissolved Metals							
Cadmium (Cd)-Dissolved	0.094	DLHC	0.050	ug/L	01-JUN-22	2.7	2.7
Chromium (Cr)-Dissolved	<5.0	DLHC	5.0	ug/L	01-JUN-22	810	810
Cobalt (Co)-Dissolved	4.8	DLHC	1.0	ug/L	01-JUN-22	66	66
Copper (Cu)-Dissolved	<2.0	DLHC	2.0	ug/L	01-JUN-22	87	87
Lead (Pb)-Dissolved	<0.50	DLHC	0.50	ug/L	01-JUN-22	25	25
Mercury (Hg)-Dissolved	<0.0050		0.0050	ug/L	01-JUN-22	0.29	2.8
Molybdenum (Mo)-Dissolved	1.28	DLHC	0.50	ug/L	01-JUN-22	9200	9200
Nickel (Ni)-Dissolved	11.1	DLHC	5.0	ug/L	01-JUN-22	490	490
Selenium (Se)-Dissolved	<0.50	DLHC	0.50	ug/L	01-JUN-22	63	63
Silver (Ag)-Dissolved	<0.50	DLHC	0.50	ug/L	01-JUN-22	1.5	1.5
Sodium (Na)-Dissolved	246000	DLHC	500	ug/L	01-JUN-22	2300000	2300000
Thallium (Tl)-Dissolved	<0.10	DLHC	0.10	ug/L	01-JUN-22	510	510
Uranium (U)-Dissolved	2.89	DLHC	0.10	ug/L	01-JUN-22	420	420
Vanadium (V)-Dissolved	<5.0	DLHC	5.0	ug/L	01-JUN-22	250	250
Zinc (Zn)-Dissolved	<10	DLHC	10	ug/L	01-JUN-22	1100	1100
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L	31-MAY-22	140	140
Volatile Organic Compounds							
Acetone	<30	OWP	30	ug/L	06-JUN-22	130000	130000
Benzene	<0.50	OWP	0.50	ug/L	06-JUN-22	44	430
Bromodichloromethane	<2.0	OWP	2.0	ug/L	06-JUN-22	85000	85000
Bromoform	<5.0	OWP	5.0	ug/L	06-JUN-22	380	770
Bromomethane	<0.50	OWP	0.50	ug/L	06-JUN-22	5.6	56
Carbon tetrachloride	<0.20	OWP	0.20	ug/L	06-JUN-22	0.79	8.4
Chlorobenzene	<0.50	OWP	0.50	ug/L	06-JUN-22	630	630
Dibromochloromethane	<2.0	OWP	2.0	ug/L	06-JUN-22	82000	82000
Chloroform	<1.0	OWP	1.0	ug/L	06-JUN-22	2.4	22
1,2-Dibromoethane	<0.20	OWP	0.20	ug/L	06-JUN-22	0.25	0.83
1,2-Dichlorobenzene	<0.50	OWP	0.50	ug/L	06-JUN-22	4600	9600
1,3-Dichlorobenzene	<0.50	OWP	0.50	ug/L	06-JUN-22	9600	9600
1,4-Dichlorobenzene	<0.50	OWP	0.50	ug/L	06-JUN-22	8	67
Dichlorodifluoromethane	<2.0	OWP	2.0	ug/L	06-JUN-22	4400	4400
1,1-Dichloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	320	3100
1,2-Dichloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	12
1,1-Dichloroethylene	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	17
cis-1,2-Dichloroethylene	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	17
trans-1,2-Dichloroethylene	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	17
Methylene Chloride	<5.0	OWP	5.0	ug/L	06-JUN-22	610	5500
1,2-Dichloropropane	<0.50	OWP	0.50	ug/L	06-JUN-22	16	140
cis-1,3-Dichloropropene	<0.30	OWP	0.30	ug/L	06-JUN-22		
trans-1,3-Dichloropropene	<0.30	OWP	0.30	ug/L	06-JUN-22		
1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L	06-JUN-22	5.2	45
Ethylbenzene	<0.50	OWP	0.50	ug/L	06-JUN-22	2300	2300
n-Hexane	<0.50	OWP	0.50	ug/L	06-JUN-22	51	520
Methyl Ethyl Ketone	<20	OWP	20	ug/L	06-JUN-22	470000	1500000

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T3 Non-Potable Ground Water (Coarse and Fine)

#1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse) **#2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)**

Sample Details Grouping / Analyte	Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits #1	Guideline Limits #2
L2710532-6 MW22-5-270522 Sampled By: CLIENT on 27-MAY-22 @ 15:00 Matrix: WATER							
Volatile Organic Compounds							
Methyl Isobutyl Ketone	<20	OWP	20	ug/L	06-JUN-22	140000	580000
MTBE	<2.0	OWP	2.0	ug/L	06-JUN-22	190	1400
Styrene	<0.50	OWP	0.50	ug/L	06-JUN-22	1300	9100
1,1,1,2-Tetrachloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	3.3	28
1,1,2,2-Tetrachloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	3.2	15
Tetrachloroethylene	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	17
Toluene	<0.50	OWP	0.50	ug/L	06-JUN-22	18000	18000
1,1,1-Trichloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	640	6700
1,1,2-Trichloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	4.7	30
Trichloroethylene	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	17
Trichlorofluoromethane	<5.0	OWP	5.0	ug/L	06-JUN-22	2500	2500
Vinyl chloride	<0.50	OWP	0.50	ug/L	06-JUN-22	0.5	1.7
o-Xylene	<0.30	OWP	0.30	ug/L	06-JUN-22		
m+p-Xylenes	<0.40	OWP	0.40	ug/L	06-JUN-22		
Xylenes (Total)	<0.50		0.50	ug/L	06-JUN-22	4200	4200
Surrogate: 4-Bromofluorobenzene	77.0		70-130	%	06-JUN-22		
Surrogate: 1,4-Difluorobenzene	101.6		70-130	%	06-JUN-22		
Hydrocarbons							
F1 (C6-C10)	<25	OWP	25	ug/L	06-JUN-22	750	750
F1-BTEX	<25		25	ug/L	07-JUN-22	750	750
F2 (C10-C16)	<100		100	ug/L	07-JUN-22	150	150
F2-Naphth	<100		100	ug/L	07-JUN-22		
F3 (C16-C34)	<250		250	ug/L	07-JUN-22	500	500
F3-PAH	<250		250	ug/L	07-JUN-22		
F4 (C34-C50)	<250		250	ug/L	07-JUN-22	500	500
Total Hydrocarbons (C6-C50)	<370		370	ug/L	07-JUN-22		
Chrom. to baseline at nC50	YES			No Unit	07-JUN-22		
Surrogate: 2-Bromobenzotrifluoride	83.0		60-140	%	07-JUN-22		
Surrogate: 3,4-Dichlorotoluene	92.4		60-140	%	06-JUN-22		
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.020		0.020	ug/L	06-JUN-22	600	1700
Acenaphthylene	<0.020		0.020	ug/L	06-JUN-22	1.8	1.8
Anthracene	<0.020		0.020	ug/L	06-JUN-22	2.4	2.4
Benzo(a)anthracene	<0.020		0.020	ug/L	06-JUN-22	4.7	4.7
Benzo(a)pyrene	<0.010		0.010	ug/L	06-JUN-22	0.81	0.81
Benzo(b&j)fluoranthene	<0.020		0.020	ug/L	06-JUN-22	0.75	0.75
Benzo(g,h,i)perylene	<0.020		0.020	ug/L	06-JUN-22	0.2	0.2
Benzo(k)fluoranthene	<0.020		0.020	ug/L	06-JUN-22	0.4	0.4
Chrysene	<0.020		0.020	ug/L	06-JUN-22	1	1
Dibenz(a,h)anthracene	<0.020		0.020	ug/L	06-JUN-22	0.52	0.52
Fluoranthene	<0.020		0.020	ug/L	06-JUN-22	130	130
Fluorene	<0.020		0.020	ug/L	06-JUN-22	400	400
Indeno(1,2,3-cd)pyrene	<0.020		0.020	ug/L	06-JUN-22	0.2	0.2
1+2-Methylnaphthalenes	0.173		0.028	ug/L	06-JUN-22	1800	1800
1-Methylnaphthalene	0.066		0.020	ug/L	06-JUN-22	1800	1800
2-Methylnaphthalene	0.107		0.020	ug/L	06-JUN-22	1800	1800

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T3 Non-Potable Ground Water (Coarse and Fine)

#1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse) **#2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)**

Sample Details Grouping / Analyte	Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits #1	Guideline Limits #2		
L2710532-6 MW22-5-270522 Sampled By: CLIENT on 27-MAY-22 @ 15:00 Matrix: WATER									
Polycyclic Aromatic Hydrocarbons									
Naphthalene	0.074		0.050	ug/L	06-JUN-22	1400	6400		
Phenanthrene	0.085		0.020	ug/L	06-JUN-22	580	580		
Pyrene	<0.020		0.020	ug/L	06-JUN-22	68	68		
Surrogate: Chrysene d12	96.1		50-150	%	06-JUN-22				
Surrogate: Naphthalene d8	100.7		60-140	%	06-JUN-22				
Surrogate: Phenanthrene d10	106.0		60-140	%	06-JUN-22				
L2710532-7 MW106-270522 Sampled By: CLIENT on 27-MAY-22 @ 16:30 Matrix: WATER						#1	#2		
Physical Tests									
Conductivity	4.38		0.0030	mS/cm	01-JUN-22				
pH	7.83	PEHT	0.10	pH units	01-JUN-22				
Anions and Nutrients									
Chloride (Cl)	1080	DLDS	5.0	mg/L	01-JUN-22	2300	2300		
Cyanides									
Cyanide, Weak Acid Diss	<2.0		2.0	ug/L	06-JUN-22	66	66		
Dissolved Metals									
Dissolved Mercury Filtration Location	FIELD			No Unit	01-JUN-22				
Dissolved Metals Filtration Location	FIELD			No Unit	31-MAY-22				
Antimony (Sb)-Dissolved	<1.0	DLHC	1.0	ug/L	01-JUN-22	20000	20000		
Arsenic (As)-Dissolved	1.3	DLHC	1.0	ug/L	01-JUN-22	1900	1900		
Barium (Ba)-Dissolved	101	DLHC	1.0	ug/L	01-JUN-22	29000	29000		
Beryllium (Be)-Dissolved	<1.0	DLHC	1.0	ug/L	01-JUN-22	67	67		
Boron (B)-Dissolved	<100	DLHC	100	ug/L	01-JUN-22	45000	45000		
Cadmium (Cd)-Dissolved	<0.050	DLHC	0.050	ug/L	01-JUN-22	2.7	2.7		
Chromium (Cr)-Dissolved	<5.0	DLHC	5.0	ug/L	01-JUN-22	810	810		
Cobalt (Co)-Dissolved	<1.0	DLHC	1.0	ug/L	01-JUN-22	66	66		
Copper (Cu)-Dissolved	2.9	DLHC	2.0	ug/L	01-JUN-22	87	87		
Lead (Pb)-Dissolved	<0.50	DLHC	0.50	ug/L	01-JUN-22	25	25		
Mercury (Hg)-Dissolved	<0.0050		0.0050	ug/L	01-JUN-22	0.29	2.8		
Molybdenum (Mo)-Dissolved	2.35	DLHC	0.50	ug/L	01-JUN-22	9200	9200		
Nickel (Ni)-Dissolved	6.2	DLHC	5.0	ug/L	01-JUN-22	490	490		
Selenium (Se)-Dissolved	<0.50	DLHC	0.50	ug/L	01-JUN-22	63	63		
Silver (Ag)-Dissolved	<0.50	DLHC	0.50	ug/L	01-JUN-22	1.5	1.5		
Sodium (Na)-Dissolved	421000	DLHC	500	ug/L	01-JUN-22	2300000	2300000		
Thallium (Tl)-Dissolved	<0.10	DLHC	0.10	ug/L	01-JUN-22	510	510		
Uranium (U)-Dissolved	0.58	DLHC	0.10	ug/L	01-JUN-22	420	420		
Vanadium (V)-Dissolved	<5.0	DLHC	5.0	ug/L	01-JUN-22	250	250		
Zinc (Zn)-Dissolved	<10	DLHC	10	ug/L	01-JUN-22	1100	1100		
Speciated Metals									
Chromium, Hexavalent	<0.50		0.50	ug/L	31-MAY-22	140	140		
Volatile Organic Compounds									
Acetone	<30		30	ug/L	06-JUN-22	130000	130000		
Benzene	<0.50		0.50	ug/L	06-JUN-22	44	430		

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T3 Non-Potable Ground Water (Coarse and Fine)

#1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse) **#2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)**

Sample Details Grouping / Analyte	Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits #1	Guideline Limits #2
L2710532-7 MW106-270522							
Sampled By: CLIENT on 27-MAY-22 @ 16:30							
Matrix: WATER							
Volatile Organic Compounds							
Bromodichloromethane	<2.0		2.0	ug/L	06-JUN-22	85000	85000
Bromoform	<5.0		5.0	ug/L	06-JUN-22	380	770
Bromomethane	<0.50		0.50	ug/L	06-JUN-22	5.6	56
Carbon tetrachloride	<0.20		0.20	ug/L	06-JUN-22	0.79	8.4
Chlorobenzene	<0.50		0.50	ug/L	06-JUN-22	630	630
Dibromochloromethane	<2.0		2.0	ug/L	06-JUN-22	82000	82000
Chloroform	<1.0		1.0	ug/L	06-JUN-22	2.4	22
1,2-Dibromoethane	<0.20		0.20	ug/L	06-JUN-22	0.25	0.83
1,2-Dichlorobenzene	<0.50		0.50	ug/L	06-JUN-22	4600	9600
1,3-Dichlorobenzene	<0.50		0.50	ug/L	06-JUN-22	9600	9600
1,4-Dichlorobenzene	<0.50		0.50	ug/L	06-JUN-22	8	67
Dichlorodifluoromethane	<2.0		2.0	ug/L	06-JUN-22	4400	4400
1,1-Dichloroethane	<0.50		0.50	ug/L	06-JUN-22	320	3100
1,2-Dichloroethane	<0.50		0.50	ug/L	06-JUN-22	1.6	12
1,1-Dichloroethylene	<0.50		0.50	ug/L	06-JUN-22	1.6	17
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L	06-JUN-22	1.6	17
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L	06-JUN-22	1.6	17
Methylene Chloride	<5.0		5.0	ug/L	06-JUN-22	610	5500
1,2-Dichloropropane	<0.50		0.50	ug/L	06-JUN-22	16	140
cis-1,3-Dichloropropene	<0.30		0.30	ug/L	06-JUN-22		
trans-1,3-Dichloropropene	<0.30		0.30	ug/L	06-JUN-22		
1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L	06-JUN-22	5.2	45
Ethylbenzene	<0.50		0.50	ug/L	06-JUN-22	2300	2300
n-Hexane	<0.50		0.50	ug/L	06-JUN-22	51	520
Methyl Ethyl Ketone	<20		20	ug/L	06-JUN-22	470000	1500000
Methyl Isobutyl Ketone	<20		20	ug/L	06-JUN-22	140000	580000
MTBE	<2.0		2.0	ug/L	06-JUN-22	190	1400
Styrene	<0.50		0.50	ug/L	06-JUN-22	1300	9100
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L	06-JUN-22	3.3	28
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L	06-JUN-22	3.2	15
Tetrachloroethylene	<0.50		0.50	ug/L	06-JUN-22	1.6	17
Toluene	<0.50		0.50	ug/L	06-JUN-22	18000	18000
1,1,1-Trichloroethane	<0.50		0.50	ug/L	06-JUN-22	640	6700
1,1,2-Trichloroethane	<0.50		0.50	ug/L	06-JUN-22	4.7	30
Trichloroethylene	<0.50		0.50	ug/L	06-JUN-22	1.6	17
Trichlorofluoromethane	<5.0		5.0	ug/L	06-JUN-22	2500	2500
Vinyl chloride	<0.50		0.50	ug/L	06-JUN-22	0.5	1.7
o-Xylene	<0.30		0.30	ug/L	06-JUN-22		
m+p-Xylenes	<0.40		0.40	ug/L	06-JUN-22		
Xylenes (Total)	<0.50		0.50	ug/L	06-JUN-22	4200	4200
Surrogate: 4-Bromofluorobenzene	76.2		70-130	%	06-JUN-22		
Surrogate: 1,4-Difluorobenzene	101.2		70-130	%	06-JUN-22		
Hydrocarbons							
F1 (C6-C10)	<25		25	ug/L	06-JUN-22	750	750
F1-BTEX	<25		25	ug/L	07-JUN-22	750	750
F2 (C10-C16)	<100		100	ug/L	07-JUN-22	150	150

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T3 Non-Potable Ground Water (Coarse and Fine)

#1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse) **#2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)**

Sample Details Grouping / Analyte	Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits #1	#2		
L2710532-7 MW106-270522									
Sampled By: CLIENT on 27-MAY-22 @ 16:30									
Matrix: WATER									
Hydrocarbons									
F2-Naphth	<100		100	ug/L	07-JUN-22				
F3 (C16-C34)	<250		250	ug/L	07-JUN-22	500	500		
F3-PAH	<250		250	ug/L	07-JUN-22				
F4 (C34-C50)	<250		250	ug/L	07-JUN-22	500	500		
Total Hydrocarbons (C6-C50)	<370		370	ug/L	07-JUN-22				
Chrom. to baseline at nC50	YES			No Unit	07-JUN-22				
Surrogate: 2-Bromobenzotrifluoride	85.3		60-140	%	07-JUN-22				
Surrogate: 3,4-Dichlorotoluene	99.9		60-140	%	06-JUN-22				
Polycyclic Aromatic Hydrocarbons									
Acenaphthene	<0.020		0.020	ug/L	06-JUN-22	600	1700		
Acenaphthylene	<0.020		0.020	ug/L	06-JUN-22	1.8	1.8		
Anthracene	<0.020		0.020	ug/L	06-JUN-22	2.4	2.4		
Benzo(a)anthracene	<0.020		0.020	ug/L	06-JUN-22	4.7	4.7		
Benzo(a)pyrene	<0.010		0.010	ug/L	06-JUN-22	0.81	0.81		
Benzo(b&j)fluoranthene	<0.020		0.020	ug/L	06-JUN-22	0.75	0.75		
Benzo(g,h,i)perylene	<0.020		0.020	ug/L	06-JUN-22	0.2	0.2		
Benzo(k)fluoranthene	<0.020		0.020	ug/L	06-JUN-22	0.4	0.4		
Chrysene	<0.020		0.020	ug/L	06-JUN-22	1	1		
Dibenz(a,h)anthracene	<0.020		0.020	ug/L	06-JUN-22	0.52	0.52		
Fluoranthene	<0.020		0.020	ug/L	06-JUN-22	130	130		
Fluorene	<0.020		0.020	ug/L	06-JUN-22	400	400		
Indeno(1,2,3-cd)pyrene	<0.020		0.020	ug/L	06-JUN-22	0.2	0.2		
1+2-Methylnaphthalenes	<0.028		0.028	ug/L	06-JUN-22	1800	1800		
1-Methylnaphthalene	<0.020		0.020	ug/L	06-JUN-22	1800	1800		
2-Methylnaphthalene	<0.020		0.020	ug/L	06-JUN-22	1800	1800		
Naphthalene	<0.050		0.050	ug/L	06-JUN-22	1400	6400		
Phenanthrene	<0.020		0.020	ug/L	06-JUN-22	580	580		
Pyrene	<0.020		0.020	ug/L	06-JUN-22	68	68		
Surrogate: Chrysene d12	98.2		50-150	%	06-JUN-22				
Surrogate: Naphthalene d8	99.6		60-140	%	06-JUN-22				
Surrogate: Phenanthrene d10	106.2		60-140	%	06-JUN-22				
L2710532-8 MW22-4-270522									
Sampled By: CLIENT on 27-MAY-22 @ 17:01									
Matrix: WATER									
Physical Tests									
Conductivity	5.35		0.0030	mS/cm	01-JUN-22				
pH	7.14	PEHT	0.10	pH units	01-JUN-22				
Anions and Nutrients									
Chloride (Cl)	1210	DLDS	5.0	mg/L	01-JUN-22	2300	2300		
Cyanides									
Cyanide, Weak Acid Diss	<2.0		2.0	ug/L	06-JUN-22	66	66		
Dissolved Metals									
Dissolved Mercury Filtration Location	FIELD			No Unit	01-JUN-22				
Dissolved Metals Filtration Location	FIELD			No Unit	31-MAY-22				
Antimony (Sb)-Dissolved	<1.0	DLHC	1.0	ug/L	01-JUN-22	20000	20000		

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T3 Non-Potable Ground Water (Coarse and Fine)

#1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse) **#2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)**

Sample Details Grouping / Analyte	Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits #1	Guideline Limits #2
L2710532-8 MW22-4-270522							
Sampled By: CLIENT on 27-MAY-22 @ 17:01							
Matrix: WATER							
Dissolved Metals							
Arsenic (As)-Dissolved	<1.0	DLHC	1.0	ug/L	01-JUN-22	1900	1900
Barium (Ba)-Dissolved	82.6	DLHC	1.0	ug/L	01-JUN-22	29000	29000
Beryllium (Be)-Dissolved	<1.0	DLHC	1.0	ug/L	01-JUN-22	67	67
Boron (B)-Dissolved	<100	DLHC	100	ug/L	01-JUN-22	45000	45000
Cadmium (Cd)-Dissolved	0.084	DLHC	0.050	ug/L	01-JUN-22	2.7	2.7
Chromium (Cr)-Dissolved	<5.0	DLHC	5.0	ug/L	01-JUN-22	810	810
Cobalt (Co)-Dissolved	8.6	DLHC	1.0	ug/L	01-JUN-22	66	66
Copper (Cu)-Dissolved	<2.0	DLHC	2.0	ug/L	01-JUN-22	87	87
Lead (Pb)-Dissolved	<0.50	DLHC	0.50	ug/L	01-JUN-22	25	25
Mercury (Hg)-Dissolved	<0.0050		0.0050	ug/L	01-JUN-22	0.29	2.8
Molybdenum (Mo)-Dissolved	3.07	DLHC	0.50	ug/L	01-JUN-22	9200	9200
Nickel (Ni)-Dissolved	25.2	DLHC	5.0	ug/L	01-JUN-22	490	490
Selenium (Se)-Dissolved	<0.50	DLHC	0.50	ug/L	01-JUN-22	63	63
Silver (Ag)-Dissolved	<0.50	DLHC	0.50	ug/L	01-JUN-22	1.5	1.5
Sodium (Na)-Dissolved	590000	DLHC	500	ug/L	01-JUN-22	2300000	2300000
Thallium (Tl)-Dissolved	<0.10	DLHC	0.10	ug/L	01-JUN-22	510	510
Uranium (U)-Dissolved	4.44	DLHC	0.10	ug/L	01-JUN-22	420	420
Vanadium (V)-Dissolved	<5.0	DLHC	5.0	ug/L	01-JUN-22	250	250
Zinc (Zn)-Dissolved	<10	DLHC	10	ug/L	01-JUN-22	1100	1100
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L	31-MAY-22	140	140
Volatile Organic Compounds							
Acetone	<30	OWP	30	ug/L	06-JUN-22	130000	130000
Benzene	<0.50	OWP	0.50	ug/L	06-JUN-22	44	430
Bromodichloromethane	<2.0	OWP	2.0	ug/L	06-JUN-22	85000	85000
Bromoform	<5.0	OWP	5.0	ug/L	06-JUN-22	380	770
Bromomethane	<0.50	OWP	0.50	ug/L	06-JUN-22	5.6	56
Carbon tetrachloride	<0.20	OWP	0.20	ug/L	06-JUN-22	0.79	8.4
Chlorobenzene	<0.50	OWP	0.50	ug/L	06-JUN-22	630	630
Dibromochloromethane	<2.0	OWP	2.0	ug/L	06-JUN-22	82000	82000
Chloroform	<1.0	OWP	1.0	ug/L	06-JUN-22	2.4	22
1,2-Dibromoethane	<0.20	OWP	0.20	ug/L	06-JUN-22	0.25	0.83
1,2-Dichlorobenzene	<0.50	OWP	0.50	ug/L	06-JUN-22	4600	9600
1,3-Dichlorobenzene	<0.50	OWP	0.50	ug/L	06-JUN-22	9600	9600
1,4-Dichlorobenzene	<0.50	OWP	0.50	ug/L	06-JUN-22	8	67
Dichlorodifluoromethane	<2.0	OWP	2.0	ug/L	06-JUN-22	4400	4400
1,1-Dichloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	320	3100
1,2-Dichloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	12
1,1-Dichloroethylene	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	17
cis-1,2-Dichloroethylene	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	17
trans-1,2-Dichloroethylene	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	17
Methylene Chloride	<5.0	OWP	5.0	ug/L	06-JUN-22	610	5500
1,2-Dichloropropane	<0.50	OWP	0.50	ug/L	06-JUN-22	16	140
cis-1,3-Dichloropropene	<0.30	OWP	0.30	ug/L	06-JUN-22		
trans-1,3-Dichloropropene	<0.30	OWP	0.30	ug/L	06-JUN-22		

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T3 Non-Potable Ground Water (Coarse and Fine)

#1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse) **#2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)**

Sample Details Grouping / Analyte	Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits #1	Guideline Limits #2
L2710532-8 MW22-4-270522							
Sampled By: CLIENT on 27-MAY-22 @ 17:01							
Matrix: WATER							
Volatile Organic Compounds							
1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L	06-JUN-22	5.2	45
Ethylbenzene	<0.50	OWP	0.50	ug/L	06-JUN-22	2300	2300
n-Hexane	<0.50	OWP	0.50	ug/L	06-JUN-22	51	520
Methyl Ethyl Ketone	<20	OWP	20	ug/L	06-JUN-22	470000	1500000
Methyl Isobutyl Ketone	<20	OWP	20	ug/L	06-JUN-22	140000	580000
MTBE	<2.0	OWP	2.0	ug/L	06-JUN-22	190	1400
Styrene	<0.50	OWP	0.50	ug/L	06-JUN-22	1300	9100
1,1,1,2-Tetrachloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	3.3	28
1,1,2,2-Tetrachloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	3.2	15
Tetrachloroethylene	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	17
Toluene	<0.50	OWP	0.50	ug/L	06-JUN-22	18000	18000
1,1,1-Trichloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	640	6700
1,1,2-Trichloroethane	<0.50	OWP	0.50	ug/L	06-JUN-22	4.7	30
Trichloroethylene	<0.50	OWP	0.50	ug/L	06-JUN-22	1.6	17
Trichlorofluoromethane	<5.0	OWP	5.0	ug/L	06-JUN-22	2500	2500
Vinyl chloride	<0.50	OWP	0.50	ug/L	06-JUN-22	0.5	1.7
o-Xylene	<0.30	OWP	0.30	ug/L	06-JUN-22		
m+p-Xylenes	<0.40	OWP	0.40	ug/L	06-JUN-22		
Xylenes (Total)	<0.50		0.50	ug/L	06-JUN-22	4200	4200
Surrogate: 4-Bromofluorobenzene	76.5		70-130	%	06-JUN-22		
Surrogate: 1,4-Difluorobenzene	98.9		70-130	%	06-JUN-22		
Hydrocarbons							
F1 (C6-C10)	<25	OWP	25	ug/L	06-JUN-22	750	750
F1-BTEX	<25		25	ug/L	07-JUN-22	750	750
F2 (C10-C16)	<100		100	ug/L	07-JUN-22	150	150
F2-Naphth	<100		100	ug/L	07-JUN-22		
F3 (C16-C34)	<250		250	ug/L	07-JUN-22	500	500
F3-PAH	<250		250	ug/L	07-JUN-22		
F4 (C34-C50)	<250		250	ug/L	07-JUN-22	500	500
Total Hydrocarbons (C6-C50)	<370		370	ug/L	07-JUN-22		
Chrom. to baseline at nC50	YES			No Unit	07-JUN-22		
Surrogate: 2-Bromobenzotrifluoride	77.7		60-140	%	07-JUN-22		
Surrogate: 3,4-Dichlorotoluene	91.5		60-140	%	06-JUN-22		
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.020		0.020	ug/L	06-JUN-22	600	1700
Acenaphthylene	<0.020		0.020	ug/L	06-JUN-22	1.8	1.8
Anthracene	<0.020		0.020	ug/L	06-JUN-22	2.4	2.4
Benzo(a)anthracene	<0.020		0.020	ug/L	06-JUN-22	4.7	4.7
Benzo(a)pyrene	<0.010		0.010	ug/L	06-JUN-22	0.81	0.81
Benzo(b&j)fluoranthene	<0.020		0.020	ug/L	06-JUN-22	0.75	0.75
Benzo(g,h,i)perylene	<0.020		0.020	ug/L	06-JUN-22	0.2	0.2
Benzo(k)fluoranthene	<0.020		0.020	ug/L	06-JUN-22	0.4	0.4
Chrysene	<0.020		0.020	ug/L	06-JUN-22	1	1
Dibenz(a,h)anthracene	<0.020		0.020	ug/L	06-JUN-22	0.52	0.52
Fluoranthene	<0.020		0.020	ug/L	06-JUN-22	130	130
Fluorene	<0.020		0.020	ug/L	06-JUN-22	400	400

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T3 Non-Potable Ground Water (Coarse and Fine)

#1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse) **#2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)**

Sample Details Grouping	Analyte	Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits #1	#2		
L2710532-8	MW22-4-270522									
Sampled By:	CLIENT on 27-MAY-22 @ 17:01									
Matrix:	WATER									
Polycyclic Aromatic Hydrocarbons										
	Indeno(1,2,3-cd)pyrene	<0.020		0.020	ug/L	06-JUN-22	0.2	0.2		
	1+2-Methylnaphthalenes	<0.028		0.028	ug/L	06-JUN-22	1800	1800		
	1-Methylnaphthalene	<0.020		0.020	ug/L	06-JUN-22	1800	1800		
	2-Methylnaphthalene	<0.020		0.020	ug/L	06-JUN-22	1800	1800		
	Naphthalene	<0.050		0.050	ug/L	06-JUN-22	1400	6400		
	Phenanthrene	<0.020		0.020	ug/L	06-JUN-22	580	580		
	Pyrene	<0.020		0.020	ug/L	06-JUN-22	68	68		
	Surrogate: Chrysene d12	91.4		50-150	%	06-JUN-22				
	Surrogate: Naphthalene d8	98.7		60-140	%	06-JUN-22				
	Surrogate: Phenanthrene d10	103.8		60-140	%	06-JUN-22				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T3 Non-Potable Ground Water (Coarse and Fine)

#1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse) **#2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)**

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
PEHT	Parameter Exceeded Recommended Holding Time Prior to Analysis
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 sediment.
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).

Methods Listed (if applicable):

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

CR-CR6-IC-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 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

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

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.

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.

Reference Information

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

F2-F4-511-WT	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 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

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

PH-WT	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

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

XYLENES-SUM-CALC-WT	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:

20-1000612

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:

Reference Information

Laboratory Definition Code	Laboratory Location	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: L2710532 Report Date: 07-JUN-22

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CL-IC-N-WT	**Water**							
Batch R5791394								
WG3733689-15 DUP		**WG3733689-13**						
Chloride (Cl)		9.72	9.73		mg/L	0.1	20	31-MAY-22
WG3733689-12 LCS								
Chloride (Cl)			99.7		%		90-110	31-MAY-22
WG3733689-11 MB								
Chloride (Cl)			<0.50		mg/L		0.5	31-MAY-22
WG3733689-14 MS		**WG3733689-13**						
Chloride (Cl)			103.2		%		75-125	31-MAY-22
Batch R5792196								
WG3734138-10 DUP		**WG3734138-8**						
Chloride (Cl)		1.80	1.79		mg/L	0.8	20	01-JUN-22
WG3734138-7 LCS								
Chloride (Cl)			99.9		%		90-110	01-JUN-22
WG3734138-6 MB								
Chloride (Cl)			<0.50		mg/L		0.5	01-JUN-22
WG3734138-9 MS		**WG3734138-8**						
Chloride (Cl)			99.3		%		75-125	01-JUN-22
CN-WAD-R511-WT	**Water**							
Batch R5795012								
WG3735900-25 DUP		**WG3735900-23**						
Cyanide, Weak Acid Diss		<2.0	<2.0	RPD-NA	ug/L	N/A	20	06-JUN-22
WG3735900-22 LCS								
Cyanide, Weak Acid Diss			103.9		%		80-120	06-JUN-22
WG3735900-21 MB								
Cyanide, Weak Acid Diss			<2.0		ug/L		2	06-JUN-22
WG3735900-24 MS		**WG3735900-23**						
Cyanide, Weak Acid Diss			113.3		%		75-125	06-JUN-22
CR-CR6-IC-R511-WT	**Water**							
Batch R5791416								
WG3733713-4 DUP		**WG3733713-3**						
Chromium, Hexavalent		3.09	3.32		ug/L	7.1	20	31-MAY-22
WG3733713-2 LCS								
Chromium, Hexavalent			104.7		%		80-120	31-MAY-22
WG3733713-1 MB								
Chromium, Hexavalent			<0.50		ug/L		0.5	31-MAY-22
WG3733713-5 MS		**WG3733713-3**						
Chromium, Hexavalent			105.9		%		70-130	31-MAY-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
EC-R511-WT	**Water**							
Batch R5791314								
WG3733538-4 DUP		**WG3733538-3**						
Conductivity		0.590	0.581		mS/cm	1.5	10	31-MAY-22
WG3733538-2 LCS								
Conductivity			101.4		%		90-110	31-MAY-22
WG3733538-1 MB								
Conductivity			<0.0030		mS/cm		0.003	31-MAY-22
Batch R5791956								
WG3734018-4 DUP		**WG3734018-3**						
Conductivity		3.84	3.85		mS/cm	0.3	10	01-JUN-22
WG3734018-2 LCS								
Conductivity			105.0		%		90-110	01-JUN-22
WG3734018-1 MB								
Conductivity			<0.0030		mS/cm		0.003	01-JUN-22
F1-HS-511-WT	**Water**							
Batch R5794453								
WG3735615-4 DUP		**WG3735615-3**						
F1 (C6-C10)		1200	1140		ug/L	5.1	30	06-JUN-22
WG3735615-1 LCS								
F1 (C6-C10)			101.0		%		80-120	06-JUN-22
WG3735615-2 MB								
F1 (C6-C10)			<25		ug/L		25	06-JUN-22
Surrogate: 3,4-Dichlorotoluene			100.2		%		60-140	06-JUN-22
WG3735615-5 MS		**WG3735615-3**						
F1 (C6-C10)			75.7		%		60-140	06-JUN-22
F2-F4-511-WT	**Water**							
Batch R5795244								
WG3734531-2 LCS								
F2 (C10-C16)			101.6		%		70-130	07-JUN-22
F3 (C16-C34)			108.5		%		70-130	07-JUN-22
F4 (C34-C50)			109.9		%		70-130	07-JUN-22
WG3734531-1 MB								
F2 (C10-C16)			<100		ug/L		100	07-JUN-22
F3 (C16-C34)			<250		ug/L		250	07-JUN-22
F4 (C34-C50)			<250		ug/L		250	07-JUN-22
Surrogate: 2-Bromobenzotrifluoride			81.5		%		60-140	07-JUN-22
HG-D-UG/L-CVAA-WT	**Water**							

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-D-UG/L-CVAA-WT	**Water**							
Batch R5791675								
WG3734121-4 DUP		**WG3734121-3**						
Mercury (Hg)-Dissolved		<0.0050	<0.0050	RPD-NA	ug/L	N/A	20	01-JUN-22
WG3734121-2 LCS								
Mercury (Hg)-Dissolved			97.4		%		80-120	01-JUN-22
WG3734121-1 MB								
Mercury (Hg)-Dissolved			<0.0050		ug/L		0.005	01-JUN-22
WG3734121-6 MS		**WG3734121-5**						
Mercury (Hg)-Dissolved			88.5		%		70-130	01-JUN-22
MET-D-UG/L-MS-WT	**Water**							
Batch R5791957								
WG3733819-4 DUP		**WG3733819-3**						
Antimony (Sb)-Dissolved		<1.0	<1.0	RPD-NA	ug/L	N/A	20	01-JUN-22
Arsenic (As)-Dissolved		12.5	12.8		ug/L	2.6	20	01-JUN-22
Barium (Ba)-Dissolved		975	959		ug/L	1.7	20	01-JUN-22
Beryllium (Be)-Dissolved		<1.0	<1.0	RPD-NA	ug/L	N/A	20	01-JUN-22
Boron (B)-Dissolved		320	310		ug/L	1.4	20	01-JUN-22
Cadmium (Cd)-Dissolved		<0.050	<0.050	RPD-NA	ug/L	N/A	20	01-JUN-22
Chromium (Cr)-Dissolved		<5.0	<5.0	RPD-NA	ug/L	N/A	20	01-JUN-22
Cobalt (Co)-Dissolved		1.4	1.5		ug/L	3.8	20	01-JUN-22
Copper (Cu)-Dissolved		<2.0	<2.0	RPD-NA	ug/L	N/A	20	01-JUN-22
Lead (Pb)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	01-JUN-22
Molybdenum (Mo)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	01-JUN-22
Nickel (Ni)-Dissolved		<5.0	<5.0	RPD-NA	ug/L	N/A	20	01-JUN-22
Selenium (Se)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	01-JUN-22
Silver (Ag)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	01-JUN-22
Sodium (Na)-Dissolved		20600	21900		ug/L	6.1	20	01-JUN-22
Thallium (Tl)-Dissolved		<0.10	<0.10	RPD-NA	ug/L	N/A	20	01-JUN-22
Uranium (U)-Dissolved		0.12	0.13		ug/L	8.1	20	01-JUN-22
Vanadium (V)-Dissolved		<5.0	<5.0	RPD-NA	ug/L	N/A	20	01-JUN-22
Zinc (Zn)-Dissolved		<10	<10	RPD-NA	ug/L	N/A	20	01-JUN-22
WG3733819-2 LCS								
Antimony (Sb)-Dissolved			101.2		%		80-120	01-JUN-22
Arsenic (As)-Dissolved			99.2		%		80-120	01-JUN-22
Barium (Ba)-Dissolved			104.0		%		80-120	01-JUN-22
Beryllium (Be)-Dissolved			102.1		%		80-120	01-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT	**Water**							
Batch R5791957								
WG3733819-2 LCS								
Boron (B)-Dissolved			96.7		%		80-120	01-JUN-22
Cadmium (Cd)-Dissolved			98.9		%		80-120	01-JUN-22
Chromium (Cr)-Dissolved			100.7		%		80-120	01-JUN-22
Cobalt (Co)-Dissolved			97.8		%		80-120	01-JUN-22
Copper (Cu)-Dissolved			96.8		%		80-120	01-JUN-22
Lead (Pb)-Dissolved			96.7		%		80-120	01-JUN-22
Molybdenum (Mo)-Dissolved			101.1		%		80-120	01-JUN-22
Nickel (Ni)-Dissolved			99.2		%		80-120	01-JUN-22
Selenium (Se)-Dissolved			95.9		%		80-120	01-JUN-22
Silver (Ag)-Dissolved			97.0		%		80-120	01-JUN-22
Sodium (Na)-Dissolved			106.2		%		80-120	01-JUN-22
Thallium (Tl)-Dissolved			96.5		%		80-120	01-JUN-22
Uranium (U)-Dissolved			95.4		%		80-120	01-JUN-22
Vanadium (V)-Dissolved			100.5		%		80-120	01-JUN-22
Zinc (Zn)-Dissolved			97.4		%		80-120	01-JUN-22
WG3733819-1 MB								
Antimony (Sb)-Dissolved			<0.10		ug/L		0.1	01-JUN-22
Arsenic (As)-Dissolved			<0.10		ug/L		0.1	01-JUN-22
Barium (Ba)-Dissolved			<0.10		ug/L		0.1	01-JUN-22
Beryllium (Be)-Dissolved			<0.10		ug/L		0.1	01-JUN-22
Boron (B)-Dissolved			<10		ug/L		10	01-JUN-22
Cadmium (Cd)-Dissolved			<0.0050		ug/L		0.005	01-JUN-22
Chromium (Cr)-Dissolved			<0.50		ug/L		0.5	01-JUN-22
Cobalt (Co)-Dissolved			<0.10		ug/L		0.1	01-JUN-22
Copper (Cu)-Dissolved			<0.20		ug/L		0.2	01-JUN-22
Lead (Pb)-Dissolved			<0.050		ug/L		0.05	01-JUN-22
Molybdenum (Mo)-Dissolved			<0.050		ug/L		0.05	01-JUN-22
Nickel (Ni)-Dissolved			<0.50		ug/L		0.5	01-JUN-22
Selenium (Se)-Dissolved			<0.050		ug/L		0.05	01-JUN-22
Silver (Ag)-Dissolved			<0.050		ug/L		0.05	01-JUN-22
Sodium (Na)-Dissolved			<50		ug/L		50	01-JUN-22
Thallium (Tl)-Dissolved			<0.010		ug/L		0.01	01-JUN-22
Uranium (U)-Dissolved			<0.010		ug/L		0.01	01-JUN-22
Vanadium (V)-Dissolved			<0.50		ug/L		0.5	01-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT	**Water**							
Batch R5791957								
WG3733819-1 MB								
Zinc (Zn)-Dissolved			<1.0		ug/L		1	01-JUN-22
WG3733819-5 MS		**WG3733819-6**						
Antimony (Sb)-Dissolved			100.3		%		70-130	01-JUN-22
Arsenic (As)-Dissolved			88.2		%		70-130	01-JUN-22
Barium (Ba)-Dissolved			N/A	MS-B	%		-	01-JUN-22
Beryllium (Be)-Dissolved			99.9		%		70-130	01-JUN-22
Boron (B)-Dissolved			N/A	MS-B	%		-	01-JUN-22
Cadmium (Cd)-Dissolved			97.1		%		70-130	01-JUN-22
Chromium (Cr)-Dissolved			89.6		%		70-130	01-JUN-22
Copper (Cu)-Dissolved			90.0		%		70-130	01-JUN-22
Lead (Pb)-Dissolved			92.0		%		70-130	01-JUN-22
Molybdenum (Mo)-Dissolved			89.7		%		70-130	01-JUN-22
Selenium (Se)-Dissolved			95.0		%		70-130	01-JUN-22
Silver (Ag)-Dissolved			89.4		%		70-130	01-JUN-22
Sodium (Na)-Dissolved			N/A	MS-B	%		-	01-JUN-22
Thallium (Tl)-Dissolved			92.7		%		70-130	01-JUN-22
Uranium (U)-Dissolved			N/A	MS-B	%		-	01-JUN-22
Vanadium (V)-Dissolved			95.9		%		70-130	01-JUN-22
Zinc (Zn)-Dissolved			86.2		%		70-130	01-JUN-22
PAH-511-WT	**Water**							
Batch R5792581								
WG3734531-2 LCS								
1-Methylnaphthalene			91.4		%		50-140	02-JUN-22
2-Methylnaphthalene			78.2		%		50-140	02-JUN-22
Acenaphthene			99.2		%		60-130	02-JUN-22
Acenaphthylene			98.0		%		60-130	02-JUN-22
Anthracene			102.2		%		50-140	02-JUN-22
Benzo(a)anthracene			99.8		%		60-140	02-JUN-22
Benzo(a)pyrene			92.0		%		50-140	02-JUN-22
Benzo(b&j)fluoranthene			104.0		%		60-130	02-JUN-22
Benzo(g,h,i)perylene			88.3		%		50-140	02-JUN-22
Benzo(k)fluoranthene			100.2		%		50-140	02-JUN-22
Chrysene			104.3		%		60-140	02-JUN-22
Dibenz(a,h)anthracene			112.2		%		50-140	02-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	**Water**							
Batch R5792581								
WG3734531-2 LCS								
Fluoranthene			109.9		%		60-140	02-JUN-22
Fluorene			103.5		%		60-130	02-JUN-22
Indeno(1,2,3-cd)pyrene			109.0		%		50-140	02-JUN-22
Naphthalene			95.9		%		50-130	02-JUN-22
Phenanthrene			107.8		%		60-140	02-JUN-22
Pyrene			105.1		%		60-140	02-JUN-22
WG3734531-1 MB								
1-Methylnaphthalene			<0.020		ug/L		0.02	02-JUN-22
2-Methylnaphthalene			<0.020		ug/L		0.02	02-JUN-22
Acenaphthene			<0.020		ug/L		0.02	02-JUN-22
Acenaphthylene			<0.020		ug/L		0.02	02-JUN-22
Anthracene			<0.020		ug/L		0.02	02-JUN-22
Benzo(a)anthracene			<0.020		ug/L		0.02	02-JUN-22
Benzo(a)pyrene			<0.010		ug/L		0.01	02-JUN-22
Benzo(b&j)fluoranthene			<0.020		ug/L		0.02	02-JUN-22
Benzo(g,h,i)perylene			<0.020		ug/L		0.02	02-JUN-22
Benzo(k)fluoranthene			<0.020		ug/L		0.02	02-JUN-22
Chrysene			<0.020		ug/L		0.02	02-JUN-22
Dibenz(a,h)anthracene			<0.020		ug/L		0.02	02-JUN-22
Fluoranthene			<0.020		ug/L		0.02	02-JUN-22
Fluorene			<0.020		ug/L		0.02	02-JUN-22
Indeno(1,2,3-cd)pyrene			<0.020		ug/L		0.02	02-JUN-22
Naphthalene			<0.050		ug/L		0.05	02-JUN-22
Phenanthrene			<0.020		ug/L		0.02	02-JUN-22
Pyrene			<0.020		ug/L		0.02	02-JUN-22
Surrogate: Naphthalene d8			103.2		%		60-140	02-JUN-22
Surrogate: Phenanthrene d10			90.8		%		60-140	02-JUN-22
Surrogate: Chrysene d12			86.8		%		50-150	02-JUN-22
PH-WT	**Water**							
Batch R5791314								
WG3733538-4 DUP		**WG3733538-3**						
pH		8.35	8.30	J	pH units	0.05	0.2	31-MAY-22
WG3733538-2 LCS								
pH			7.04		pH units		6.9-7.1	31-MAY-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PH-WT	**Water**							
Batch R5791956								
WG3734018-4 DUP		**WG3734018-3**						
pH		7.21	7.31	J	pH units	0.10	0.2	01-JUN-22
WG3734018-2 LCS								
pH			7.04		pH units		6.9-7.1	01-JUN-22
VOC-511-HS-WT	**Water**							
Batch R5794453								
WG3735615-4 DUP		**WG3735615-3**						
1,1,1,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	06-JUN-22
1,1,2,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	06-JUN-22
1,1,1-Trichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	06-JUN-22
1,1,2-Trichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	06-JUN-22
1,1-Dichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	06-JUN-22
1,1-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	06-JUN-22
1,2-Dibromoethane		<0.20	<0.20	RPD-NA	ug/L	N/A	30	06-JUN-22
1,2-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	06-JUN-22
1,2-Dichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	06-JUN-22
1,2-Dichloropropane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	06-JUN-22
1,3-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	06-JUN-22
1,4-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	06-JUN-22
Acetone		<30	<30	RPD-NA	ug/L	N/A	30	06-JUN-22
Benzene		458	434		ug/L	5.4	30	06-JUN-22
Bromodichloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	06-JUN-22
Bromoform		<5.0	<5.0	RPD-NA	ug/L	N/A	30	06-JUN-22
Bromomethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	06-JUN-22
Carbon tetrachloride		<0.20	<0.20	RPD-NA	ug/L	N/A	30	06-JUN-22
Chlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	06-JUN-22
Chloroform		<1.0	<1.0	RPD-NA	ug/L	N/A	30	06-JUN-22
cis-1,2-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	06-JUN-22
cis-1,3-Dichloropropene		<1.2	<1.2	RPD-NA	ug/L	N/A	30	06-JUN-22
Dibromochloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	06-JUN-22
Dichlorodifluoromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	06-JUN-22
Ethylbenzene		215	210		ug/L	2.4	30	06-JUN-22
n-Hexane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	06-JUN-22
m+p-Xylenes		242	235		ug/L	2.9	30	06-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R5794453								
WG3735615-4 DUP		**WG3735615-3**						
Methyl Ethyl Ketone		<20	<20	RPD-NA	ug/L	N/A	30	06-JUN-22
Methyl Isobutyl Ketone		<20	<20	RPD-NA	ug/L	N/A	30	06-JUN-22
Methylene Chloride		<5.0	<5.0	RPD-NA	ug/L	N/A	30	06-JUN-22
MTBE		<2.0	<2.0	RPD-NA	ug/L	N/A	30	06-JUN-22
o-Xylene		131	128		ug/L	2.8	30	06-JUN-22
Styrene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	06-JUN-22
Tetrachloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	06-JUN-22
Toluene		174	171		ug/L	1.9	30	06-JUN-22
trans-1,2-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	06-JUN-22
trans-1,3-Dichloropropene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	06-JUN-22
Trichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	06-JUN-22
Trichlorofluoromethane		<5.0	<5.0	RPD-NA	ug/L	N/A	30	06-JUN-22
Vinyl chloride		<0.50	<0.50	RPD-NA	ug/L	N/A	30	06-JUN-22
WG3735615-1 LCS								
1,1,1,2-Tetrachloroethane			95.1		%		70-130	06-JUN-22
1,1,2,2-Tetrachloroethane			96.9		%		70-130	06-JUN-22
1,1,1-Trichloroethane			98.7		%		70-130	06-JUN-22
1,1,2-Trichloroethane			86.5		%		70-130	06-JUN-22
1,1-Dichloroethane			102.8		%		70-130	06-JUN-22
1,1-Dichloroethylene			93.1		%		70-130	06-JUN-22
1,2-Dibromoethane			85.9		%		70-130	06-JUN-22
1,2-Dichlorobenzene			99.96		%		70-130	06-JUN-22
1,2-Dichloroethane			101.0		%		70-130	06-JUN-22
1,2-Dichloropropane			108.0		%		70-130	06-JUN-22
1,3-Dichlorobenzene			97.6		%		70-130	06-JUN-22
1,4-Dichlorobenzene			99.3		%		70-130	06-JUN-22
Acetone			109.1		%		60-140	06-JUN-22
Benzene			103.5		%		70-130	06-JUN-22
Bromodichloromethane			108.7		%		70-130	06-JUN-22
Bromoform			92.3		%		70-130	06-JUN-22
Bromomethane			82.4		%		60-140	06-JUN-22
Carbon tetrachloride			114.6		%		70-130	06-JUN-22
Chlorobenzene			91.3		%		70-130	06-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R5794453								
WG3735615-1 LCS								
Chloroform			104.6		%		70-130	06-JUN-22
cis-1,2-Dichloroethylene			91.3		%		70-130	06-JUN-22
cis-1,3-Dichloropropene			97.6		%		70-130	06-JUN-22
Dibromochloromethane			103.3		%		70-130	06-JUN-22
Dichlorodifluoromethane			74.7		%		50-140	06-JUN-22
Ethylbenzene			107.5		%		70-130	06-JUN-22
n-Hexane			99.2		%		70-130	06-JUN-22
m+p-Xylenes			99.5		%		70-130	06-JUN-22
Methyl Ethyl Ketone			108.5		%		60-140	06-JUN-22
Methyl Isobutyl Ketone			109.2		%		60-140	06-JUN-22
Methylene Chloride			107.4		%		70-130	06-JUN-22
MTBE			101.4		%		70-130	06-JUN-22
o-Xylene			95.7		%		70-130	06-JUN-22
Styrene			95.8		%		70-130	06-JUN-22
Tetrachloroethylene			97.1		%		70-130	06-JUN-22
Toluene			99.1		%		70-130	06-JUN-22
trans-1,2-Dichloroethylene			102.3		%		70-130	06-JUN-22
trans-1,3-Dichloropropene			79.5		%		70-130	06-JUN-22
Trichloroethylene			106.4		%		70-130	06-JUN-22
Trichlorofluoromethane			88.4		%		60-140	06-JUN-22
Vinyl chloride			69.1		%		60-140	06-JUN-22
WG3735615-2 MB								
1,1,1,2-Tetrachloroethane			<0.50		ug/L		0.5	06-JUN-22
1,1,2,2-Tetrachloroethane			<0.50		ug/L		0.5	06-JUN-22
1,1,1-Trichloroethane			<0.50		ug/L		0.5	06-JUN-22
1,1,2-Trichloroethane			<0.50		ug/L		0.5	06-JUN-22
1,1-Dichloroethane			<0.50		ug/L		0.5	06-JUN-22
1,1-Dichloroethylene			<0.50		ug/L		0.5	06-JUN-22
1,2-Dibromoethane			<0.20		ug/L		0.2	06-JUN-22
1,2-Dichlorobenzene			<0.50		ug/L		0.5	06-JUN-22
1,2-Dichloroethane			<0.50		ug/L		0.5	06-JUN-22
1,2-Dichloropropane			<0.50		ug/L		0.5	06-JUN-22
1,3-Dichlorobenzene			<0.50		ug/L		0.5	06-JUN-22
1,4-Dichlorobenzene			<0.50		ug/L		0.5	06-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R5794453								
WG3735615-2 MB								
Acetone			<30		ug/L		30	06-JUN-22
Benzene			<0.50		ug/L		0.5	06-JUN-22
Bromodichloromethane			<2.0		ug/L		2	06-JUN-22
Bromoform			<5.0		ug/L		5	06-JUN-22
Bromomethane			<0.50		ug/L		0.5	06-JUN-22
Carbon tetrachloride			<0.20		ug/L		0.2	06-JUN-22
Chlorobenzene			<0.50		ug/L		0.5	06-JUN-22
Chloroform			<1.0		ug/L		1	06-JUN-22
cis-1,2-Dichloroethylene			<0.50		ug/L		0.5	06-JUN-22
cis-1,3-Dichloropropene			<0.30		ug/L		0.3	06-JUN-22
Dibromochloromethane			<2.0		ug/L		2	06-JUN-22
Dichlorodifluoromethane			<2.0		ug/L		2	06-JUN-22
Ethylbenzene			<0.50		ug/L		0.5	06-JUN-22
n-Hexane			<0.50		ug/L		0.5	06-JUN-22
m+p-Xylenes			<0.40		ug/L		0.4	06-JUN-22
Methyl Ethyl Ketone			<20		ug/L		20	06-JUN-22
Methyl Isobutyl Ketone			<20		ug/L		20	06-JUN-22
Methylene Chloride			<5.0		ug/L		5	06-JUN-22
MTBE			<2.0		ug/L		2	06-JUN-22
o-Xylene			<0.30		ug/L		0.3	06-JUN-22
Styrene			<0.50		ug/L		0.5	06-JUN-22
Tetrachloroethylene			<0.50		ug/L		0.5	06-JUN-22
Toluene			<0.50		ug/L		0.5	06-JUN-22
trans-1,2-Dichloroethylene			<0.50		ug/L		0.5	06-JUN-22
trans-1,3-Dichloropropene			<0.30		ug/L		0.3	06-JUN-22
Trichloroethylene			<0.50		ug/L		0.5	06-JUN-22
Trichlorofluoromethane			<5.0		ug/L		5	06-JUN-22
Vinyl chloride			<0.50		ug/L		0.5	06-JUN-22
Surrogate: 1,4-Difluorobenzene			98.6		%		70-130	06-JUN-22
Surrogate: 4-Bromofluorobenzene			81.5		%		70-130	06-JUN-22
WG3735615-5 MS		**WG3735615-3**						
1,1,1,2-Tetrachloroethane			90.7		%		50-140	06-JUN-22
1,1,2,2-Tetrachloroethane			95.2		%		50-140	06-JUN-22
1,1,1-Trichloroethane			91.1		%		50-140	06-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R5794453								
WG3735615-5 MS		**WG3735615-3**						
1,1,2-Trichloroethane			87.9		%		50-140	06-JUN-22
1,1-Dichloroethane			93.3		%		50-140	06-JUN-22
1,1-Dichloroethylene			83.1		%		50-140	06-JUN-22
1,2-Dibromoethane			84.4		%		50-140	06-JUN-22
1,2-Dichlorobenzene			84.8		%		50-140	06-JUN-22
1,2-Dichloroethane			88.5		%		50-140	06-JUN-22
1,2-Dichloropropane			98.9		%		50-140	06-JUN-22
1,3-Dichlorobenzene			85.4		%		50-140	06-JUN-22
1,4-Dichlorobenzene			82.3		%		50-140	06-JUN-22
Acetone			94.9		%		50-140	06-JUN-22
Benzene			N/A	MS-B	%		-	06-JUN-22
Bromodichloromethane			100.5		%		50-140	06-JUN-22
Bromoform			89.7		%		50-140	06-JUN-22
Bromomethane			76.2		%		50-140	06-JUN-22
Carbon tetrachloride			101.0		%		50-140	06-JUN-22
Chlorobenzene			94.2		%		50-140	06-JUN-22
Chloroform			98.3		%		50-140	06-JUN-22
cis-1,2-Dichloroethylene			84.9		%		50-140	06-JUN-22
cis-1,3-Dichloropropene			87.9		%		50-140	06-JUN-22
Dibromochloromethane			95.5		%		50-140	06-JUN-22
Dichlorodifluoromethane			74.9		%		50-140	06-JUN-22
Ethylbenzene			N/A	MS-B	%		-	06-JUN-22
n-Hexane			90.3		%		50-140	06-JUN-22
m+p-Xylenes			N/A	MS-B	%		-	06-JUN-22
Methyl Ethyl Ketone			93.4		%		50-140	06-JUN-22
Methyl Isobutyl Ketone			94.4		%		50-140	06-JUN-22
Methylene Chloride			93.4		%		50-140	06-JUN-22
MTBE			90.9		%		50-140	06-JUN-22
o-Xylene			N/A	MS-B	%		-	06-JUN-22
Styrene			95.9		%		50-140	06-JUN-22
Tetrachloroethylene			100.3		%		50-140	06-JUN-22
Toluene			N/A	MS-B	%		-	06-JUN-22
trans-1,2-Dichloroethylene			91.3		%		50-140	06-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R5794453								
WG3735615-5 MS		**WG3735615-3**						
trans-1,3-Dichloropropene			75.1		%		50-140	06-JUN-22
Trichloroethylene			94.0		%		50-140	06-JUN-22
Trichlorofluoromethane			81.5		%		50-140	06-JUN-22
Vinyl chloride			66.9		%		50-140	06-JUN-22

Quality Control Report

Workorder: L2710532 Report Date: 07-JUN-22

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

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.

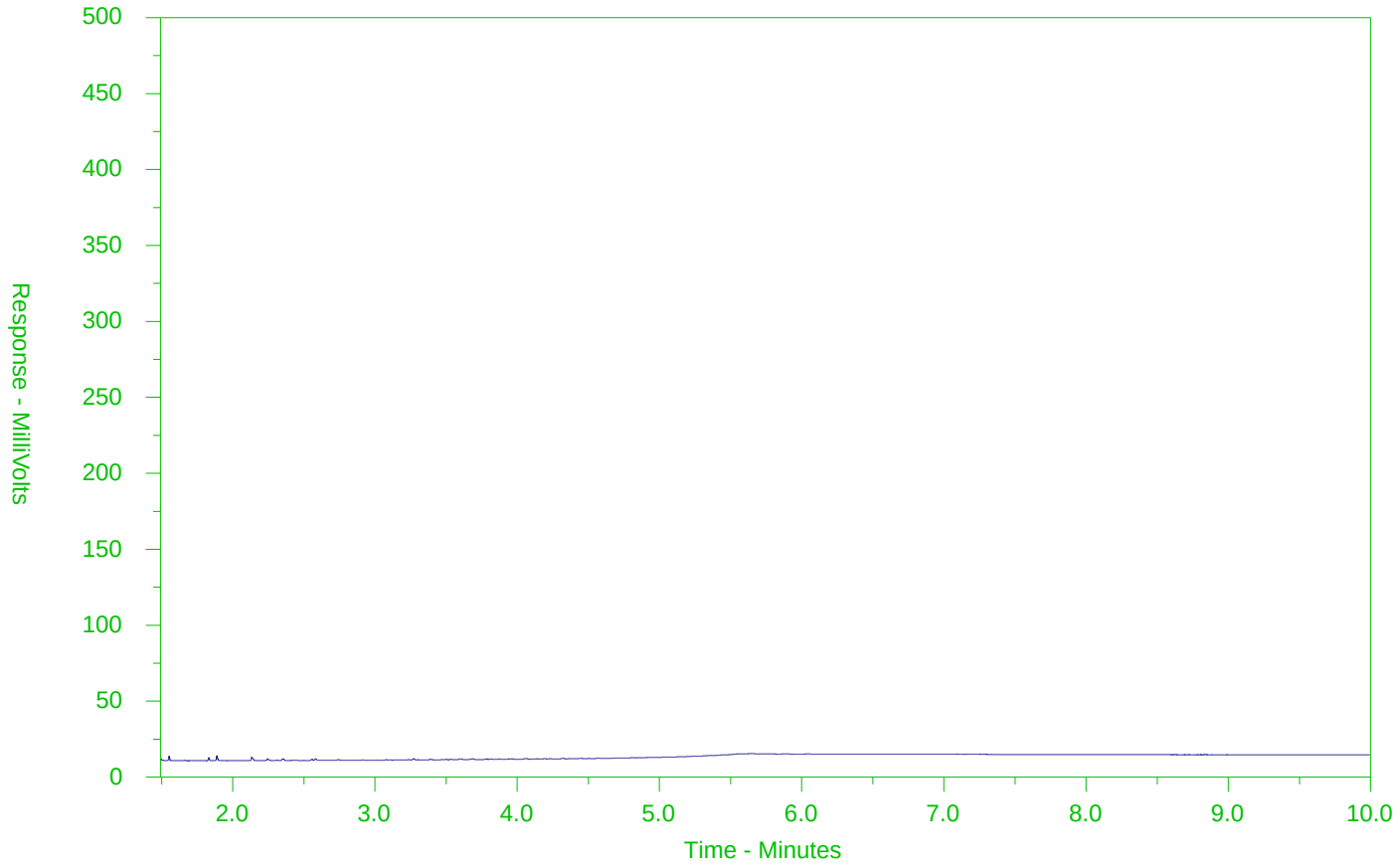
ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where 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: L2710532-1
Client Sample ID: MW102-270522



←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.

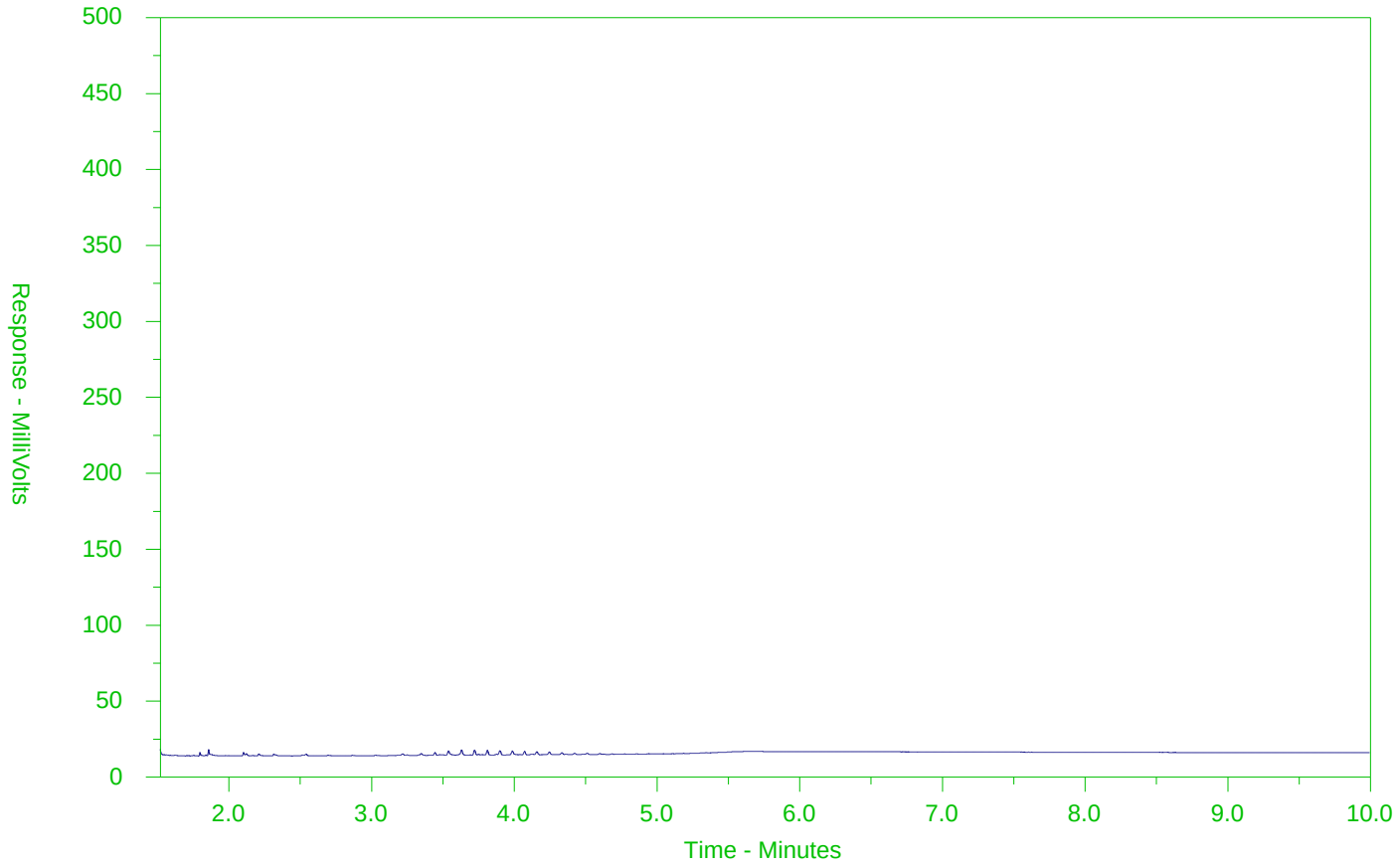
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2710532-2
Client Sample ID: MW103-270522



←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.

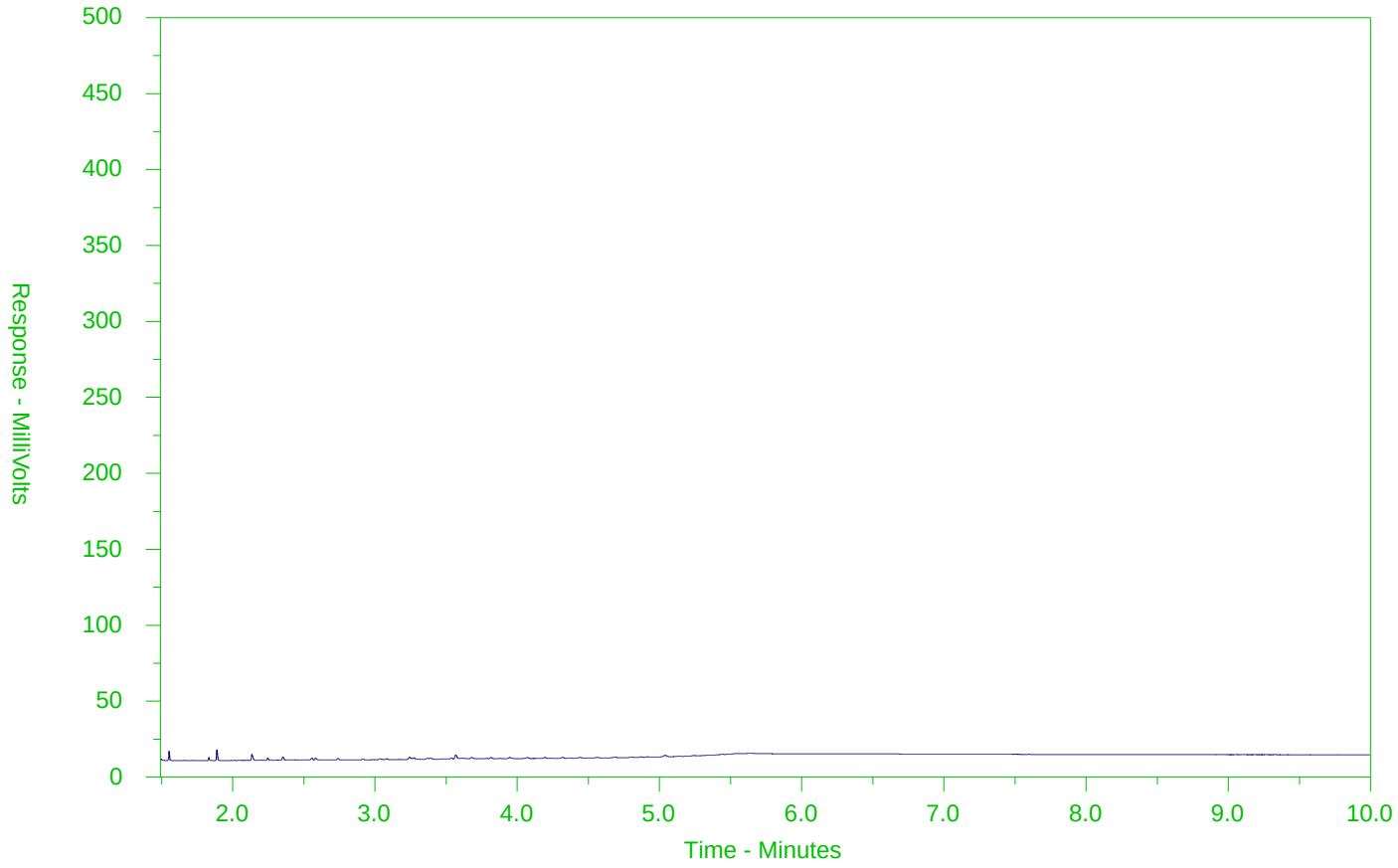
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2710532-3
Client Sample ID: MW10-3-270522



←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.

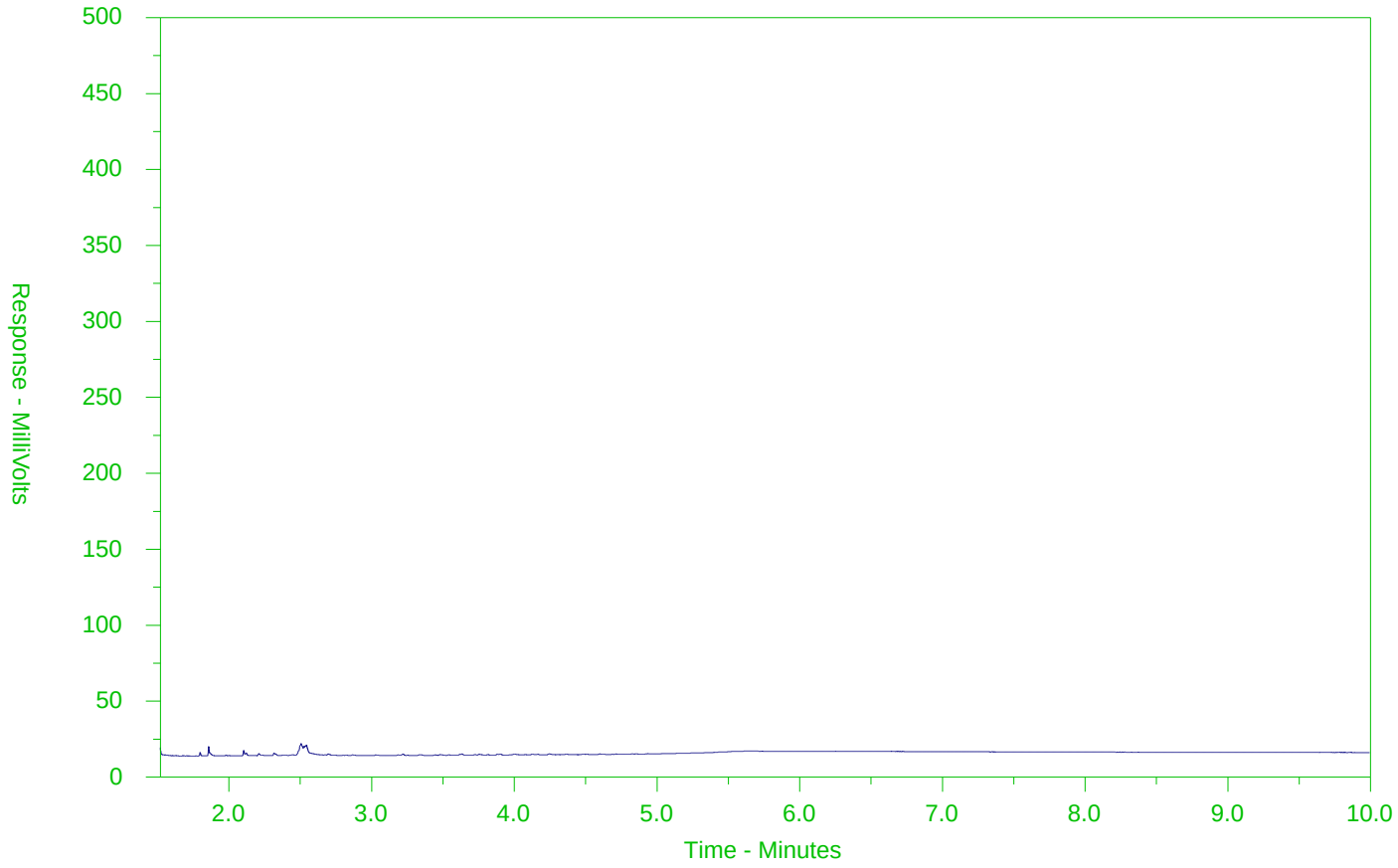
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2710532-4
Client Sample ID: DUP01-270522



←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.

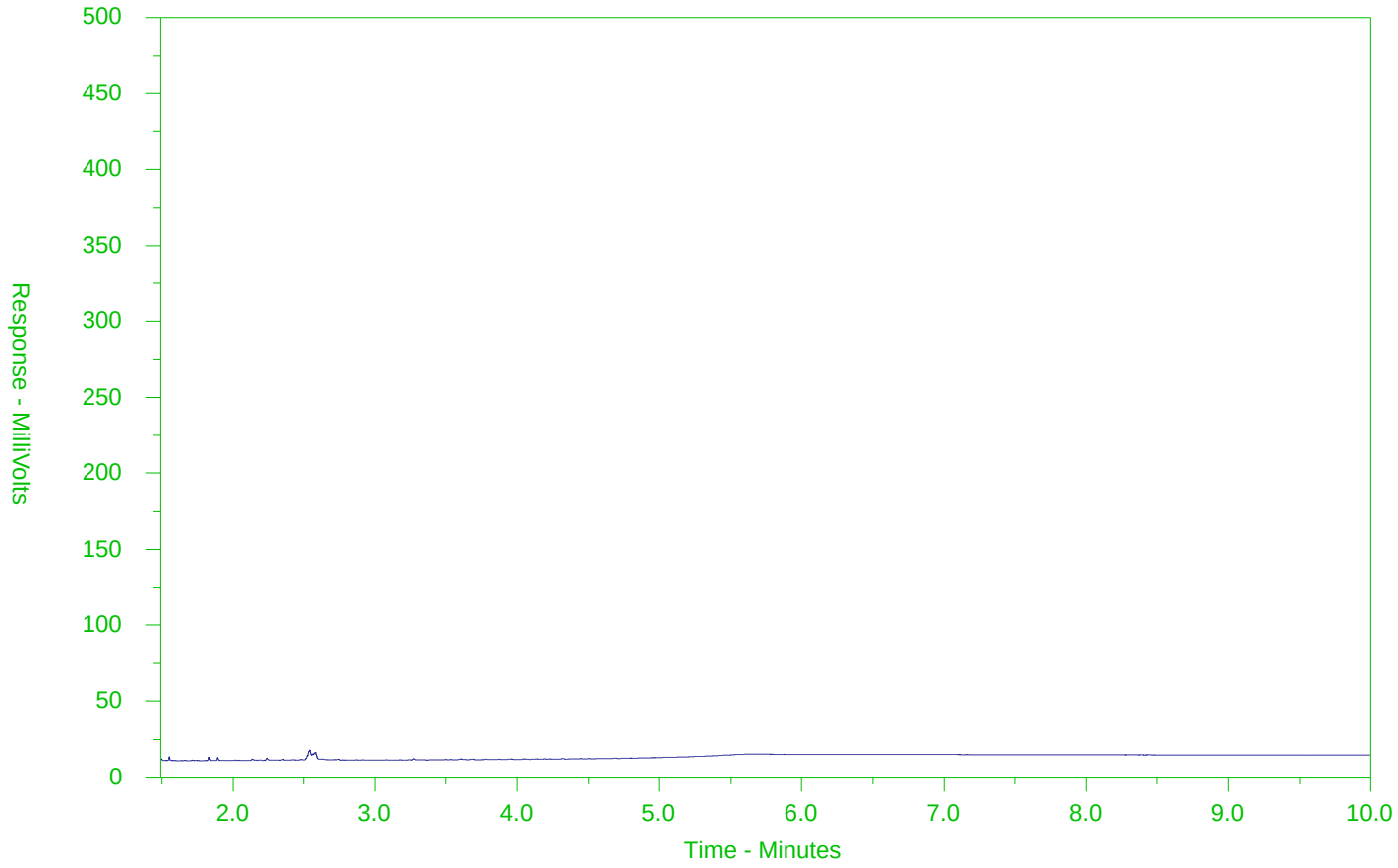
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2710532-6
Client Sample ID: MW22-5-270522



←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.

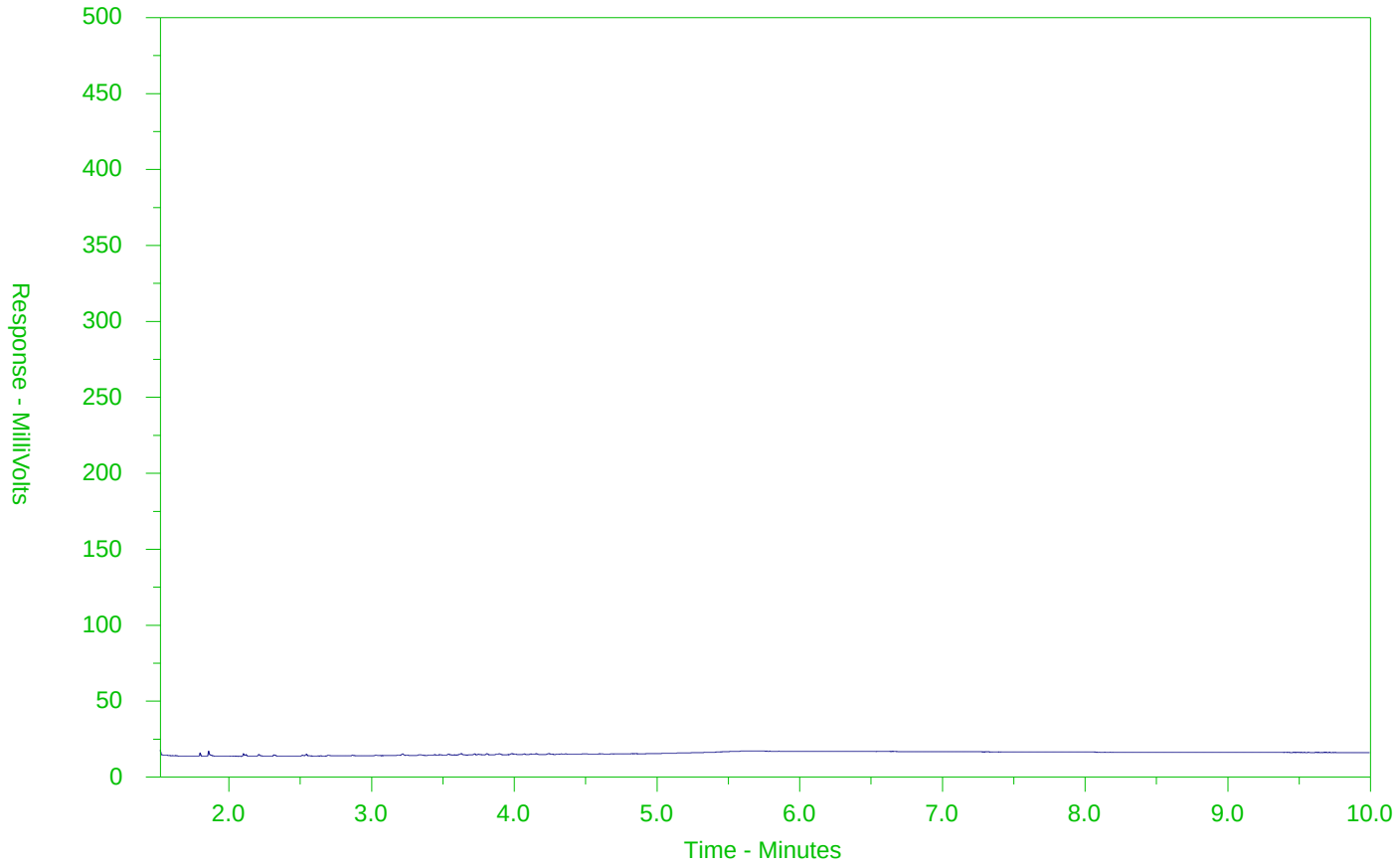
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2710532-7
Client Sample ID: MW106-270522



←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.

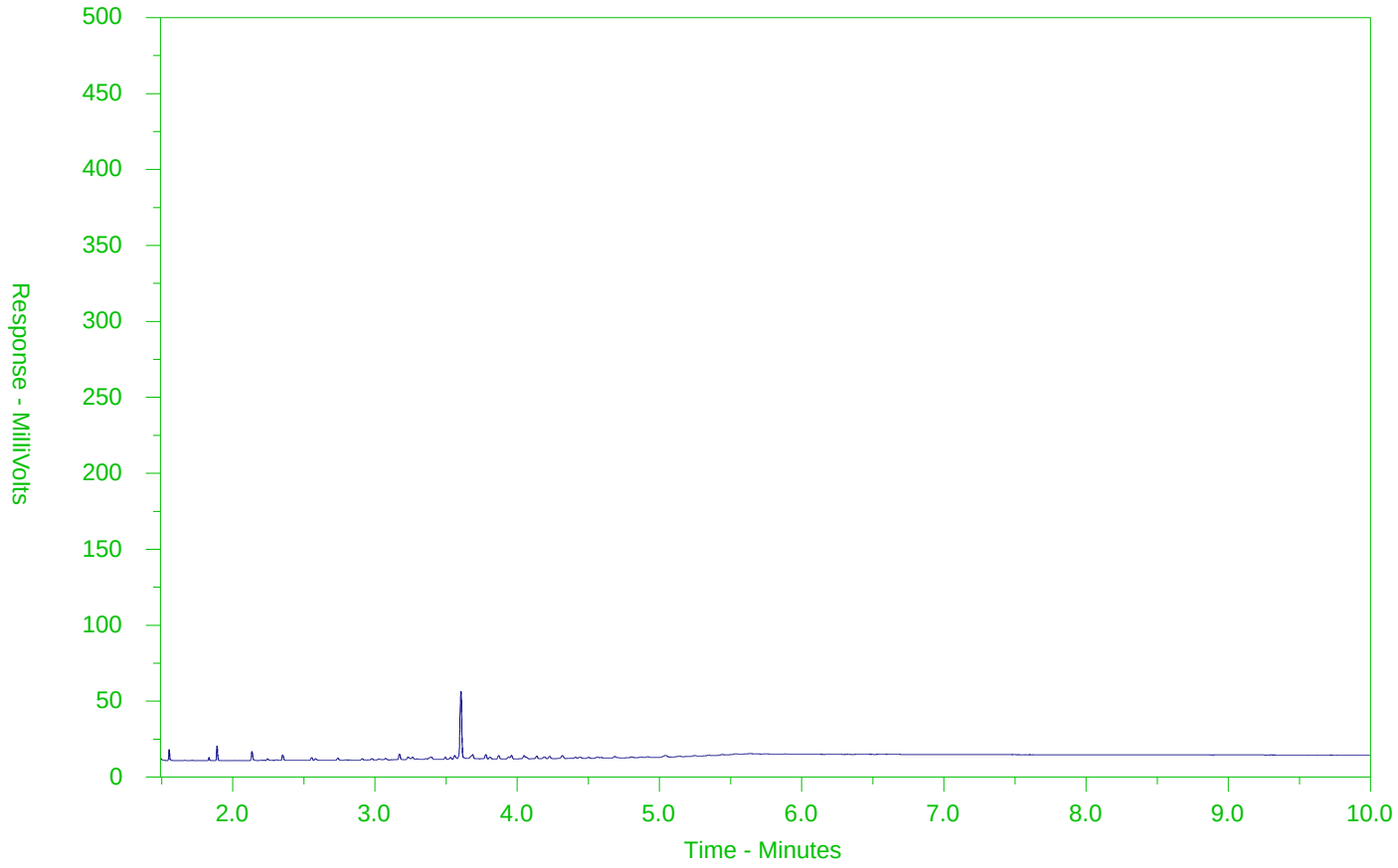
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2710532-8
Client Sample ID: MW22-4-270522



←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.

L2710532-COFC

ALS Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

COC Number: 20 - 1000612

Page 1 of 1

Report To	Contact and company name below will appear on the final report	Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Geosyntec Consultants Int'l	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Felipe Solano	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	519 514-2248	☑ 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:	295 Hagey Blvd, Suite 290	Email 1 or Fax fsolano@geosyntec.com	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Waterloo, ON	Email 2 bwallace@geosyntec.com	☐ 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:	N2L 6R5	Email 3 phutchinson@geosyntec.com	
Invoice To	Same as Report To ☑ YES ☐ NO	Invoice Recipients	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☐ YES ☐ NO	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	For all tests with rush TATs requested, please contact your AM to confirm availability.
Company:		Email 1 or Fax accountspayable.canada@geosyntec.com	
Contact:		Email 2 fsolano@geosyntec.com	

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	Q88227	AFE/Cost Center:	PO#
Job #:	TRIBAL CBD1	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (ALS use only):	L2710532R	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	PHC F2 - F4	VOC / F1 / BTEX	Metals & Inorganics	PAH	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	MW102_270522	27-May-22	11:55	GW	4	✓	✓					
	MW103_270522	↓	12:30	↓	4	✓	✓					
	MW10-3_270522		13:20		9	✓	✓	✓	✓			
	DUP01_270522		16:00		9	✓	✓	✓	✓			
	TRIP BLANK	–	–	water	2		✓					
	MW22-5_270522	27-May-22	15:00	GW	9	✓	✓	✓	✓			
	MW106_270522	↓	16:30	↓	9	✓	✓	✓	✓			
	MW22-4_270522		17:01		9	✓	✓	✓	✓			

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	Please compare to O. Reg. 153/04 Table 3 SCS ICC coarse
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			
			5.9			

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:
Brooke Wallace	May 30 /22	8:45					May 30 /22	9:00

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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

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

GEOSYNTEC CONSULTANTS
INTERNATIONAL INC
ATTN: FELIPE SOLANO
130 STONE ROAD WEST
GUELPH ON N1G 3Z2

Date Received: 03-JUN-22
Report Date: 15-JUN-22 15:49 (MT)
Version: FINAL

Client Phone: 519-822-2230

Certificate of Analysis

Lab Work Order #: L2712428

Project P.O. #: NOT SUBMITTED
Job Reference: TR841C8D1
C of C Numbers:
Legal Site Desc:

Gayle Braun
Senior Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2712428-1 MW101 Sampled By: CLIENT on 03-JUN-22 @ 09:30 Matrix: WATER							
Physical Tests							
Conductivity	11.5		0.0030	mS/cm		08-JUN-22	R5795895
pH	7.73	HTD	0.10	pH units		08-JUN-22	R5795895
Anions and Nutrients							
Chloride (Cl)	4340	DLDS	10	mg/L		07-JUN-22	R5795526
Cyanides							
Cyanide, Weak Acid Diss	<2.0		2.0	ug/L		09-JUN-22	R5796119
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					07-JUN-22	R5794960
Dissolved Metals Filtration Location	FIELD					07-JUN-22	R5794923
Antimony (Sb)-Dissolved	<1.0	DLHC	1.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Arsenic (As)-Dissolved	<1.0	DLHC	1.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Barium (Ba)-Dissolved	254	DLHC	1.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Beryllium (Be)-Dissolved	<1.0	DLHC	1.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Boron (B)-Dissolved	<100	DLHC	100	ug/L	07-JUN-22	07-JUN-22	R5795060
Cadmium (Cd)-Dissolved	0.869	DLHC	0.050	ug/L	07-JUN-22	07-JUN-22	R5795060
Chromium (Cr)-Dissolved	<5.0	DLHC	5.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Cobalt (Co)-Dissolved	16.8	DLHC	1.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Copper (Cu)-Dissolved	49.2	DLHC	2.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Lead (Pb)-Dissolved	0.77	DLHC	0.50	ug/L	07-JUN-22	07-JUN-22	R5795060
Mercury (Hg)-Dissolved	<0.0050		0.0050	ug/L	07-JUN-22	07-JUN-22	R5795186
Molybdenum (Mo)-Dissolved	7.06	DLHC	0.50	ug/L	07-JUN-22	07-JUN-22	R5795060
Nickel (Ni)-Dissolved	176	DLHC	5.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Selenium (Se)-Dissolved	<0.50	DLHC	0.50	ug/L	07-JUN-22	07-JUN-22	R5795060
Silver (Ag)-Dissolved	<0.50	DLHC	0.50	ug/L	07-JUN-22	07-JUN-22	R5795060
Sodium (Na)-Dissolved	2110000	DLHC	5000	ug/L	07-JUN-22	07-JUN-22	R5795060
Thallium (Tl)-Dissolved	<0.10	DLHC	0.10	ug/L	07-JUN-22	07-JUN-22	R5795060
Uranium (U)-Dissolved	2.91	DLHC	0.10	ug/L	07-JUN-22	07-JUN-22	R5795060
Vanadium (V)-Dissolved	5.3	DLHC	5.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Zinc (Zn)-Dissolved	<10	DLHC	10	ug/L	07-JUN-22	07-JUN-22	R5795060
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		06-JUN-22	R5794987
Volatile Organic Compounds							
Acetone	<30		30	ug/L		10-JUN-22	R5796368
Benzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Bromodichloromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
Bromoform	<5.0		5.0	ug/L		10-JUN-22	R5796368
Bromomethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Carbon tetrachloride	<0.20		0.20	ug/L		10-JUN-22	R5796368
Chlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Dibromochloromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
Chloroform	<1.0		1.0	ug/L		10-JUN-22	R5796368
1,2-Dibromoethane	<0.20		0.20	ug/L		10-JUN-22	R5796368

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2712428-1 MW101 Sampled By: CLIENT on 03-JUN-22 @ 09:30 Matrix: WATER							
Volatile Organic Compounds							
1,2-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,3-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,4-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Dichlorodifluoromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
1,1-Dichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,2-Dichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Methylene Chloride	<5.0		5.0	ug/L		10-JUN-22	R5796368
1,2-Dichloropropane	<0.50		0.50	ug/L		10-JUN-22	R5796368
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		10-JUN-22	R5796368
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		10-JUN-22	R5796368
1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L		10-JUN-22	
Ethylbenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
n-Hexane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Methyl Ethyl Ketone	<20		20	ug/L		10-JUN-22	R5796368
Methyl Isobutyl Ketone	<20		20	ug/L		10-JUN-22	R5796368
MTBE	<2.0		2.0	ug/L		10-JUN-22	R5796368
Styrene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Tetrachloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Toluene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,1-Trichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,2-Trichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Trichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Trichlorofluoromethane	<5.0		5.0	ug/L		10-JUN-22	R5796368
Vinyl chloride	<0.50		0.50	ug/L		10-JUN-22	R5796368
o-Xylene	<0.30		0.30	ug/L		10-JUN-22	R5796368
m+p-Xylenes	<0.40		0.40	ug/L		10-JUN-22	R5796368
Xylenes (Total)	<0.50		0.50	ug/L		10-JUN-22	
Surrogate: 4-Bromofluorobenzene	76.8		70-130	%		10-JUN-22	R5796368
Surrogate: 1,4-Difluorobenzene	94.1		70-130	%		10-JUN-22	R5796368
Hydrocarbons							
F1 (C6-C10)	<25		25	ug/L		10-JUN-22	R5796368
F1-BTEX	<25		25	ug/L		10-JUN-22	
F2 (C10-C16)	<100		100	ug/L	07-JUN-22	10-JUN-22	R5796678
F2-Naphth	<100		100	ug/L		10-JUN-22	
F3 (C16-C34)	<250		250	ug/L	07-JUN-22	10-JUN-22	R5796678
F3-PAH	<250		250	ug/L		10-JUN-22	

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2712428-1 MW101 Sampled By: CLIENT on 03-JUN-22 @ 09:30 Matrix: WATER							
Hydrocarbons							
F4 (C34-C50)	<250		250	ug/L	07-JUN-22	10-JUN-22	R5796678
Total Hydrocarbons (C6-C50)	<370		370	ug/L		10-JUN-22	
Chrom. to baseline at nC50	YES				07-JUN-22	10-JUN-22	R5796678
Surrogate: 2-Bromobenzotrifluoride	96.4		60-140	%	07-JUN-22	10-JUN-22	R5796678
Surrogate: 3,4-Dichlorotoluene	91.8		60-140	%		10-JUN-22	R5796368
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Acenaphthylene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Anthracene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Benzo(a)anthracene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Benzo(a)pyrene	<0.010		0.010	ug/L	07-JUN-22	08-JUN-22	R5795539
Benzo(b&j)fluoranthene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Benzo(g,h,i)perylene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Benzo(k)fluoranthene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Chrysene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Dibenz(a,h)anthracene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Fluoranthene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Fluorene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Indeno(1,2,3-cd)pyrene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
1+2-Methylnaphthalenes	<0.028		0.028	ug/L		08-JUN-22	
1-Methylnaphthalene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
2-Methylnaphthalene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Naphthalene	<0.050		0.050	ug/L	07-JUN-22	08-JUN-22	R5795539
Phenanthrene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Pyrene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Surrogate: Chrysene d12	103.6		50-150	%	07-JUN-22	08-JUN-22	R5795539
Surrogate: Naphthalene d8	107.5		60-140	%	07-JUN-22	08-JUN-22	R5795539
Surrogate: Phenanthrene d10	113.3		60-140	%	07-JUN-22	08-JUN-22	R5795539
L2712428-2 MW22-1 Sampled By: CLIENT on 03-JUN-22 @ 08:40 Matrix: WATER							
Volatile Organic Compounds							
Acetone	<30		30	ug/L		10-JUN-22	R5796368
Benzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Bromodichloromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
Bromoform	<5.0		5.0	ug/L		10-JUN-22	R5796368
Bromomethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Carbon tetrachloride	<0.20		0.20	ug/L		10-JUN-22	R5796368
Chlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Dibromochloromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
Chloroform	<1.0		1.0	ug/L		10-JUN-22	R5796368
1,2-Dibromoethane	<0.20		0.20	ug/L		10-JUN-22	R5796368

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2712428-2 MW22-1 Sampled By: CLIENT on 03-JUN-22 @ 08:40 Matrix: WATER							
Volatile Organic Compounds							
1,2-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,3-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,4-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Dichlorodifluoromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
1,1-Dichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,2-Dichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Methylene Chloride	<5.0		5.0	ug/L		10-JUN-22	R5796368
1,2-Dichloropropane	<0.50		0.50	ug/L		10-JUN-22	R5796368
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		10-JUN-22	R5796368
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		10-JUN-22	R5796368
1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L		10-JUN-22	
Ethylbenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
n-Hexane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Methyl Ethyl Ketone	<20		20	ug/L		10-JUN-22	R5796368
Methyl Isobutyl Ketone	<20		20	ug/L		10-JUN-22	R5796368
MTBE	<2.0		2.0	ug/L		10-JUN-22	R5796368
Styrene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Tetrachloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Toluene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,1-Trichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,2-Trichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Trichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Trichlorofluoromethane	<5.0		5.0	ug/L		10-JUN-22	R5796368
Vinyl chloride	<0.50		0.50	ug/L		10-JUN-22	R5796368
o-Xylene	<0.30		0.30	ug/L		10-JUN-22	R5796368
m+p-Xylenes	<0.40		0.40	ug/L		10-JUN-22	R5796368
Xylenes (Total)	<0.50		0.50	ug/L		10-JUN-22	
Surrogate: 4-Bromofluorobenzene	75.2		70-130	%		10-JUN-22	R5796368
Surrogate: 1,4-Difluorobenzene	93.5		70-130	%		10-JUN-22	R5796368
Hydrocarbons							
F1 (C6-C10)	<25		25	ug/L		10-JUN-22	R5796368
F1-BTEX	<25		25	ug/L		10-JUN-22	
F2 (C10-C16)	<100		100	ug/L	07-JUN-22	10-JUN-22	R5796678
F3 (C16-C34)	<250		250	ug/L	07-JUN-22	10-JUN-22	R5796678
F4 (C34-C50)	<250		250	ug/L	07-JUN-22	10-JUN-22	R5796678
Total Hydrocarbons (C6-C50)	<370		370	ug/L		10-JUN-22	

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2712428-2 MW22-1 Sampled By: CLIENT on 03-JUN-22 @ 08:40 Matrix: WATER							
Hydrocarbons							
Chrom. to baseline at nC50	YES				07-JUN-22	10-JUN-22	R5796678
Surrogate: 2-Bromobenzotrifluoride	91.3		60-140	%	07-JUN-22	10-JUN-22	R5796678
Surrogate: 3,4-Dichlorotoluene	88.7		60-140	%		10-JUN-22	R5796368
L2712428-3 MW22-2 Sampled By: CLIENT on 03-JUN-22 @ 13:10 Matrix: WATER							
Volatile Organic Compounds							
Acetone	<30		30	ug/L		10-JUN-22	R5796368
Benzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Bromodichloromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
Bromoform	<5.0		5.0	ug/L		10-JUN-22	R5796368
Bromomethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Carbon tetrachloride	<0.20		0.20	ug/L		10-JUN-22	R5796368
Chlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Dibromochloromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
Chloroform	<1.0		1.0	ug/L		10-JUN-22	R5796368
1,2-Dibromoethane	<0.20		0.20	ug/L		10-JUN-22	R5796368
1,2-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,3-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,4-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Dichlorodifluoromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
1,1-Dichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,2-Dichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Methylene Chloride	<5.0		5.0	ug/L		10-JUN-22	R5796368
1,2-Dichloropropane	<0.50		0.50	ug/L		10-JUN-22	R5796368
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		10-JUN-22	R5796368
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		10-JUN-22	R5796368
1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L		10-JUN-22	
Ethylbenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
n-Hexane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Methyl Ethyl Ketone	<20		20	ug/L		10-JUN-22	R5796368
Methyl Isobutyl Ketone	<20		20	ug/L		10-JUN-22	R5796368
MTBE	<2.0		2.0	ug/L		10-JUN-22	R5796368
Styrene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Tetrachloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Toluene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,1-Trichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2712428-3 MW22-2 Sampled By: CLIENT on 03-JUN-22 @ 13:10 Matrix: WATER							
Volatile Organic Compounds							
1,1,2-Trichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Trichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Trichlorofluoromethane	<5.0		5.0	ug/L		10-JUN-22	R5796368
Vinyl chloride	<0.50		0.50	ug/L		10-JUN-22	R5796368
o-Xylene	<0.30		0.30	ug/L		10-JUN-22	R5796368
m+p-Xylenes	<0.40		0.40	ug/L		10-JUN-22	R5796368
Xylenes (Total)	<0.50		0.50	ug/L		10-JUN-22	
Surrogate: 4-Bromofluorobenzene	75.0		70-130	%		10-JUN-22	R5796368
Surrogate: 1,4-Difluorobenzene	93.5		70-130	%		10-JUN-22	R5796368
Hydrocarbons							
F1 (C6-C10)	<25		25	ug/L		10-JUN-22	R5796368
F1-BTEX	<25		25	ug/L		10-JUN-22	
F2 (C10-C16)	<100		100	ug/L	07-JUN-22	10-JUN-22	R5796678
F3 (C16-C34)	<250		250	ug/L	07-JUN-22	10-JUN-22	R5796678
F4 (C34-C50)	<250		250	ug/L	07-JUN-22	10-JUN-22	R5796678
Total Hydrocarbons (C6-C50)	<370		370	ug/L		10-JUN-22	
Chrom. to baseline at nC50	YES				07-JUN-22	10-JUN-22	R5796678
Surrogate: 2-Bromobenzotrifluoride	91.4		60-140	%	07-JUN-22	10-JUN-22	R5796678
Surrogate: 3,4-Dichlorotoluene	88.6		60-140	%		10-JUN-22	R5796368
L2712428-4 MW22-11 Sampled By: CLIENT on 03-JUN-22 @ 10:45 Matrix: WATER							
Physical Tests							
Conductivity	4.88		0.0030	mS/cm		08-JUN-22	R5795895
pH	7.29	HTD	0.10	pH units		08-JUN-22	R5795895
Anions and Nutrients							
Chloride (Cl)	1120	DLDS	5.0	mg/L		07-JUN-22	R5795526
Cyanides							
Cyanide, Weak Acid Diss	<2.0		2.0	ug/L		09-JUN-22	R5796119
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					07-JUN-22	R5794960
Dissolved Metals Filtration Location	FIELD					07-JUN-22	R5794923
Antimony (Sb)-Dissolved	<1.0	DLHC	1.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Arsenic (As)-Dissolved	<1.0	DLHC	1.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Barium (Ba)-Dissolved	237	DLHC	1.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Beryllium (Be)-Dissolved	<1.0	DLHC	1.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Boron (B)-Dissolved	<100	DLHC	100	ug/L	07-JUN-22	07-JUN-22	R5795060
Cadmium (Cd)-Dissolved	0.320	DLHC	0.050	ug/L	07-JUN-22	07-JUN-22	R5795060
Chromium (Cr)-Dissolved	<5.0	DLHC	5.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Cobalt (Co)-Dissolved	2.2	DLHC	1.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Copper (Cu)-Dissolved	15.9	DLHC	2.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Lead (Pb)-Dissolved	<0.50	DLHC	0.50	ug/L	07-JUN-22	07-JUN-22	R5795060

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2712428-4 MW22-11 Sampled By: CLIENT on 03-JUN-22 @ 10:45 Matrix: WATER							
Dissolved Metals							
Mercury (Hg)-Dissolved	<0.0050		0.0050	ug/L	07-JUN-22	07-JUN-22	R5795186
Molybdenum (Mo)-Dissolved	4.65	DLHC	0.50	ug/L	07-JUN-22	07-JUN-22	R5795060
Nickel (Ni)-Dissolved	37.0	DLHC	5.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Selenium (Se)-Dissolved	<0.50	DLHC	0.50	ug/L	07-JUN-22	07-JUN-22	R5795060
Silver (Ag)-Dissolved	<0.50	DLHC	0.50	ug/L	07-JUN-22	07-JUN-22	R5795060
Sodium (Na)-Dissolved	978000	DLHC	500	ug/L	07-JUN-22	07-JUN-22	R5795060
Thallium (Tl)-Dissolved	<0.10	DLHC	0.10	ug/L	07-JUN-22	07-JUN-22	R5795060
Uranium (U)-Dissolved	6.46	DLHC	0.10	ug/L	07-JUN-22	07-JUN-22	R5795060
Vanadium (V)-Dissolved	<5.0	DLHC	5.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Zinc (Zn)-Dissolved	<10	DLHC	10	ug/L	07-JUN-22	07-JUN-22	R5795060
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		06-JUN-22	R5794987
Volatile Organic Compounds							
Acetone	<30		30	ug/L		10-JUN-22	R5796368
Benzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Bromodichloromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
Bromoform	<5.0		5.0	ug/L		10-JUN-22	R5796368
Bromomethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Carbon tetrachloride	<0.20		0.20	ug/L		10-JUN-22	R5796368
Chlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Dibromochloromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
Chloroform	<1.0		1.0	ug/L		10-JUN-22	R5796368
1,2-Dibromoethane	<0.20		0.20	ug/L		10-JUN-22	R5796368
1,2-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,3-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,4-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Dichlorodifluoromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
1,1-Dichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,2-Dichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Methylene Chloride	<5.0		5.0	ug/L		10-JUN-22	R5796368
1,2-Dichloropropane	<0.50		0.50	ug/L		10-JUN-22	R5796368
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		10-JUN-22	R5796368
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		10-JUN-22	R5796368
1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L		10-JUN-22	
Ethylbenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
n-Hexane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Methyl Ethyl Ketone	<20		20	ug/L		10-JUN-22	R5796368
Methyl Isobutyl Ketone	<20		20	ug/L		10-JUN-22	R5796368

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2712428-4 MW22-11 Sampled By: CLIENT on 03-JUN-22 @ 10:45 Matrix: WATER							
Volatile Organic Compounds							
MTBE	<2.0		2.0	ug/L		10-JUN-22	R5796368
Styrene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Tetrachloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Toluene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,1-Trichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,2-Trichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Trichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Trichlorofluoromethane	<5.0		5.0	ug/L		10-JUN-22	R5796368
Vinyl chloride	<0.50		0.50	ug/L		10-JUN-22	R5796368
o-Xylene	<0.30		0.30	ug/L		10-JUN-22	R5796368
m+p-Xylenes	<0.40		0.40	ug/L		10-JUN-22	R5796368
Xylenes (Total)	<0.50		0.50	ug/L		10-JUN-22	
Surrogate: 4-Bromofluorobenzene	75.2		70-130	%		10-JUN-22	R5796368
Surrogate: 1,4-Difluorobenzene	93.4		70-130	%		10-JUN-22	R5796368
Hydrocarbons							
F1 (C6-C10)	<25		25	ug/L		10-JUN-22	R5796368
F1-BTEX	<25		25	ug/L		10-JUN-22	
F2 (C10-C16)	<100		100	ug/L	07-JUN-22	10-JUN-22	R5796678
F2-Naphth	<100		100	ug/L		10-JUN-22	
F3 (C16-C34)	<250		250	ug/L	07-JUN-22	10-JUN-22	R5796678
F3-PAH	<250		250	ug/L		10-JUN-22	
F4 (C34-C50)	<250		250	ug/L	07-JUN-22	10-JUN-22	R5796678
Total Hydrocarbons (C6-C50)	<370		370	ug/L		10-JUN-22	
Chrom. to baseline at nC50	YES				07-JUN-22	10-JUN-22	R5796678
Surrogate: 2-Bromobenzotrifluoride	88.5		60-140	%	07-JUN-22	10-JUN-22	R5796678
Surrogate: 3,4-Dichlorotoluene	85.1		60-140	%		10-JUN-22	R5796368
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Acenaphthylene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Anthracene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Benzo(a)anthracene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Benzo(a)pyrene	<0.010		0.010	ug/L	07-JUN-22	08-JUN-22	R5795539
Benzo(b&j)fluoranthene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Benzo(g,h,i)perylene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Benzo(k)fluoranthene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Chrysene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Dibenz(a,h)anthracene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Fluoranthene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Fluorene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2712428-4 MW22-11 Sampled By: CLIENT on 03-JUN-22 @ 10:45 Matrix: WATER							
Polycyclic Aromatic Hydrocarbons							
Indeno(1,2,3-cd)pyrene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
1+2-Methylnaphthalenes	<0.028		0.028	ug/L		08-JUN-22	
1-Methylnaphthalene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
2-Methylnaphthalene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Naphthalene	<0.050		0.050	ug/L	07-JUN-22	08-JUN-22	R5795539
Phenanthrene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Pyrene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Surrogate: Chrysene d12	106.6		50-150	%	07-JUN-22	08-JUN-22	R5795539
Surrogate: Naphthalene d8	109.2		60-140	%	07-JUN-22	08-JUN-22	R5795539
Surrogate: Phenanthrene d10	115.5		60-140	%	07-JUN-22	08-JUN-22	R5795539
Polychlorinated Biphenyls							
Aroclor 1242	<0.020		0.020	ug/L	08-JUN-22	08-JUN-22	R5795434
Aroclor 1248	<0.020		0.020	ug/L	08-JUN-22	08-JUN-22	R5795434
Aroclor 1254	<0.020		0.020	ug/L	08-JUN-22	08-JUN-22	R5795434
Aroclor 1260	<0.020		0.020	ug/L	08-JUN-22	08-JUN-22	R5795434
Surrogate: Decachlorobiphenyl	92.7		50-150	%	08-JUN-22	08-JUN-22	R5795434
Total PCBs	<0.040		0.040	ug/L	08-JUN-22	08-JUN-22	R5795434
Surrogate: Tetrachloro-m-xylene	93.0		50-150	%	08-JUN-22	08-JUN-22	R5795434
L2712428-5 DUP02 Sampled By: CLIENT on 03-JUN-22 Matrix: WATER							
Volatile Organic Compounds							
Acetone	<30		30	ug/L		10-JUN-22	R5796368
Benzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Bromodichloromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
Bromoform	<5.0		5.0	ug/L		10-JUN-22	R5796368
Bromomethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Carbon tetrachloride	<0.20		0.20	ug/L		10-JUN-22	R5796368
Chlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Dibromochloromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
Chloroform	<1.0		1.0	ug/L		10-JUN-22	R5796368
1,2-Dibromoethane	<0.20		0.20	ug/L		10-JUN-22	R5796368
1,2-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,3-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,4-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Dichlorodifluoromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
1,1-Dichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,2-Dichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Methylene Chloride	<5.0		5.0	ug/L		10-JUN-22	R5796368

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2712428-5 DUP02 Sampled By: CLIENT on 03-JUN-22 Matrix: WATER							
Volatile Organic Compounds							
1,2-Dichloropropane	<0.50		0.50	ug/L		10-JUN-22	R5796368
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		10-JUN-22	R5796368
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		10-JUN-22	R5796368
1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L		10-JUN-22	
Ethylbenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
n-Hexane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Methyl Ethyl Ketone	<20		20	ug/L		10-JUN-22	R5796368
Methyl Isobutyl Ketone	<20		20	ug/L		10-JUN-22	R5796368
MTBE	<2.0		2.0	ug/L		10-JUN-22	R5796368
Styrene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Tetrachloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Toluene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,1-Trichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,2-Trichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Trichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Trichlorofluoromethane	<5.0		5.0	ug/L		10-JUN-22	R5796368
Vinyl chloride	<0.50		0.50	ug/L		10-JUN-22	R5796368
o-Xylene	<0.30		0.30	ug/L		10-JUN-22	R5796368
m+p-Xylenes	<0.40		0.40	ug/L		10-JUN-22	R5796368
Xylenes (Total)	<0.50		0.50	ug/L		10-JUN-22	
Surrogate: 4-Bromofluorobenzene	75.5		70-130	%		10-JUN-22	R5796368
Surrogate: 1,4-Difluorobenzene	92.9		70-130	%		10-JUN-22	R5796368
Hydrocarbons							
F1 (C6-C10)	<25		25	ug/L		10-JUN-22	R5796368
F1-BTEX	<25		25	ug/L		10-JUN-22	
F2 (C10-C16)	<100		100	ug/L	07-JUN-22	10-JUN-22	R5796678
F3 (C16-C34)	<250		250	ug/L	07-JUN-22	10-JUN-22	R5796678
F4 (C34-C50)	<250		250	ug/L	07-JUN-22	10-JUN-22	R5796678
Total Hydrocarbons (C6-C50)	<370		370	ug/L		10-JUN-22	
Chrom. to baseline at nC50	YES				07-JUN-22	10-JUN-22	R5796678
Surrogate: 2-Bromobenzotrifluoride	89.9		60-140	%	07-JUN-22	10-JUN-22	R5796678
Surrogate: 3,4-Dichlorotoluene	90.6		60-140	%		10-JUN-22	R5796368
L2712428-6 DUP03 Sampled By: CLIENT on 03-JUN-22 Matrix: WATER							
Physical Tests							
Conductivity	5.40		0.0030	mS/cm		08-JUN-22	R5795895
pH	7.12	HTD	0.10	pH units		08-JUN-22	R5795895
Anions and Nutrients							
Chloride (Cl)	1280	DLDS	5.0	mg/L		07-JUN-22	R5795526

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2712428-6 DUP03 Sampled By: CLIENT on 03-JUN-22 Matrix: WATER							
Anions and Nutrients							
Cyanides							
Cyanide, Weak Acid Diss	<2.0		2.0	ug/L		09-JUN-22	R5796119
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					07-JUN-22	R5794960
Dissolved Metals Filtration Location	FIELD					07-JUN-22	R5794923
Antimony (Sb)-Dissolved	<1.0	DLHC	1.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Arsenic (As)-Dissolved	<1.0	DLHC	1.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Barium (Ba)-Dissolved	235	DLHC	1.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Beryllium (Be)-Dissolved	<1.0	DLHC	1.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Boron (B)-Dissolved	<100	DLHC	100	ug/L	07-JUN-22	07-JUN-22	R5795060
Cadmium (Cd)-Dissolved	0.331	DLHC	0.050	ug/L	07-JUN-22	07-JUN-22	R5795060
Chromium (Cr)-Dissolved	<5.0	DLHC	5.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Cobalt (Co)-Dissolved	2.6	DLHC	1.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Copper (Cu)-Dissolved	14.7	DLHC	2.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Lead (Pb)-Dissolved	<0.50	DLHC	0.50	ug/L	07-JUN-22	07-JUN-22	R5795060
Mercury (Hg)-Dissolved	<0.0050		0.0050	ug/L	07-JUN-22	07-JUN-22	R5795186
Molybdenum (Mo)-Dissolved	3.86	DLHC	0.50	ug/L	07-JUN-22	07-JUN-22	R5795060
Nickel (Ni)-Dissolved	41.3	DLHC	5.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Selenium (Se)-Dissolved	<0.50	DLHC	0.50	ug/L	07-JUN-22	07-JUN-22	R5795060
Silver (Ag)-Dissolved	<0.50	DLHC	0.50	ug/L	07-JUN-22	07-JUN-22	R5795060
Sodium (Na)-Dissolved	1020000	DLHC	500	ug/L	07-JUN-22	07-JUN-22	R5795060
Thallium (Tl)-Dissolved	<0.10	DLHC	0.10	ug/L	07-JUN-22	07-JUN-22	R5795060
Uranium (U)-Dissolved	6.60	DLHC	0.10	ug/L	07-JUN-22	07-JUN-22	R5795060
Vanadium (V)-Dissolved	<5.0	DLHC	5.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Zinc (Zn)-Dissolved	<10	DLHC	10	ug/L	07-JUN-22	07-JUN-22	R5795060
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		06-JUN-22	R5794987
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Acenaphthylene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Anthracene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Benzo(a)anthracene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Benzo(a)pyrene	<0.010		0.010	ug/L	07-JUN-22	08-JUN-22	R5795539
Benzo(b&j)fluoranthene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Benzo(g,h,i)perylene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Benzo(k)fluoranthene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Chrysene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Dibenz(a,h)anthracene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Fluoranthene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Fluorene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Indeno(1,2,3-cd)pyrene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
1+2-Methylnaphthalenes	<0.028		0.028	ug/L		08-JUN-22	

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2712428-6 DUP03 Sampled By: CLIENT on 03-JUN-22 Matrix: WATER							
Polycyclic Aromatic Hydrocarbons							
1-Methylnaphthalene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
2-Methylnaphthalene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Naphthalene	<0.050		0.050	ug/L	07-JUN-22	08-JUN-22	R5795539
Phenanthrene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Pyrene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Surrogate: Chrysene d12	108.8		50-150	%	07-JUN-22	08-JUN-22	R5795539
Surrogate: Naphthalene d8	109.4		60-140	%	07-JUN-22	08-JUN-22	R5795539
Surrogate: Phenanthrene d10	107.3		60-140	%	07-JUN-22	08-JUN-22	R5795539
Polychlorinated Biphenyls							
Aroclor 1242	<0.020		0.020	ug/L	08-JUN-22	08-JUN-22	R5795434
Aroclor 1248	<0.020		0.020	ug/L	08-JUN-22	08-JUN-22	R5795434
Aroclor 1254	<0.020		0.020	ug/L	08-JUN-22	08-JUN-22	R5795434
Aroclor 1260	<0.020		0.020	ug/L	08-JUN-22	08-JUN-22	R5795434
Surrogate: Decachlorobiphenyl	95.1		50-150	%	08-JUN-22	08-JUN-22	R5795434
Total PCBs	<0.040		0.040	ug/L	08-JUN-22	08-JUN-22	R5795434
Surrogate: Tetrachloro-m-xylene	92.9		50-150	%	08-JUN-22	08-JUN-22	R5795434
L2712428-7 TRIP BLANK Sampled By: CLIENT on 03-JUN-22 Matrix: WATER							
Volatile Organic Compounds							
Acetone	<30		30	ug/L		10-JUN-22	R5796368
Benzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Bromodichloromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
Bromoform	<5.0		5.0	ug/L		10-JUN-22	R5796368
Bromomethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Carbon tetrachloride	<0.20		0.20	ug/L		10-JUN-22	R5796368
Chlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Dibromochloromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
Chloroform	<1.0		1.0	ug/L		10-JUN-22	R5796368
1,2-Dibromoethane	<0.20		0.20	ug/L		10-JUN-22	R5796368
1,2-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,3-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,4-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Dichlorodifluoromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
1,1-Dichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,2-Dichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Methylene Chloride	<5.0		5.0	ug/L		10-JUN-22	R5796368
1,2-Dichloropropane	<0.50		0.50	ug/L		10-JUN-22	R5796368
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		10-JUN-22	R5796368

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2712428-7 TRIP BLANK Sampled By: CLIENT on 03-JUN-22 Matrix: WATER							
Volatile Organic Compounds							
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		10-JUN-22	R5796368
1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L		10-JUN-22	
Ethylbenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
n-Hexane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Methyl Ethyl Ketone	<20		20	ug/L		10-JUN-22	R5796368
Methyl Isobutyl Ketone	<20		20	ug/L		10-JUN-22	R5796368
MTBE	<2.0		2.0	ug/L		10-JUN-22	R5796368
Styrene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Tetrachloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Toluene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,1-Trichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,2-Trichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Trichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Trichlorofluoromethane	<5.0		5.0	ug/L		10-JUN-22	R5796368
Vinyl chloride	<0.50		0.50	ug/L		10-JUN-22	R5796368
o-Xylene	<0.30		0.30	ug/L		10-JUN-22	R5796368
m+p-Xylenes	<0.40		0.40	ug/L		10-JUN-22	R5796368
Xylenes (Total)	<0.50		0.50	ug/L		10-JUN-22	
Surrogate: 4-Bromofluorobenzene	75.3		70-130	%		10-JUN-22	R5796368
Surrogate: 1,4-Difluorobenzene	93.2		70-130	%		10-JUN-22	R5796368
Hydrocarbons							
F1 (C6-C10)	<25		25	ug/L		10-JUN-22	R5796368
F1-BTEX	<25		25	ug/L		10-JUN-22	
Surrogate: 3,4-Dichlorotoluene	103.0		60-140	%		10-JUN-22	R5796368
L2712428-8 MW104 Sampled By: CLIENT on 03-JUN-22 @ 12:00 Matrix: WATER							
Physical Tests							
Conductivity	1.14		0.0030	mS/cm		08-JUN-22	R5795895
pH	7.61	HTD	0.10	pH units		08-JUN-22	R5795895
Anions and Nutrients							
Chloride (Cl)	8.82		0.50	mg/L		07-JUN-22	R5795526
Cyanides							
Cyanide, Weak Acid Diss	<2.0		2.0	ug/L		09-JUN-22	R5796119
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					07-JUN-22	R5794960
Dissolved Metals Filtration Location	FIELD					07-JUN-22	R5794923
Antimony (Sb)-Dissolved	<0.10		0.10	ug/L	07-JUN-22	07-JUN-22	R5795060
Arsenic (As)-Dissolved	1.64		0.10	ug/L	07-JUN-22	07-JUN-22	R5795060
Barium (Ba)-Dissolved	84.5		0.10	ug/L	07-JUN-22	07-JUN-22	R5795060

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2712428-8 MW104 Sampled By: CLIENT on 03-JUN-22 @ 12:00 Matrix: WATER							
Dissolved Metals							
Beryllium (Be)-Dissolved	<0.10		0.10	ug/L	07-JUN-22	07-JUN-22	R5795060
Boron (B)-Dissolved	71		10	ug/L	07-JUN-22	07-JUN-22	R5795060
Cadmium (Cd)-Dissolved	<0.010		0.010	ug/L	07-JUN-22	07-JUN-22	R5795060
Chromium (Cr)-Dissolved	<0.50		0.50	ug/L	07-JUN-22	07-JUN-22	R5795060
Cobalt (Co)-Dissolved	<0.10		0.10	ug/L	07-JUN-22	07-JUN-22	R5795060
Copper (Cu)-Dissolved	3.23		0.20	ug/L	07-JUN-22	07-JUN-22	R5795060
Lead (Pb)-Dissolved	<0.050		0.050	ug/L	07-JUN-22	07-JUN-22	R5795060
Mercury (Hg)-Dissolved	<0.0050		0.0050	ug/L	07-JUN-22	07-JUN-22	R5795186
Molybdenum (Mo)-Dissolved	2.63		0.050	ug/L	07-JUN-22	07-JUN-22	R5795060
Nickel (Ni)-Dissolved	1.48		0.50	ug/L	07-JUN-22	07-JUN-22	R5795060
Selenium (Se)-Dissolved	0.382		0.050	ug/L	07-JUN-22	07-JUN-22	R5795060
Silver (Ag)-Dissolved	<0.050		0.050	ug/L	07-JUN-22	07-JUN-22	R5795060
Sodium (Na)-Dissolved	28900		500	ug/L	07-JUN-22	07-JUN-22	R5795060
Thallium (Tl)-Dissolved	<0.010		0.010	ug/L	07-JUN-22	07-JUN-22	R5795060
Uranium (U)-Dissolved	1.41		0.010	ug/L	07-JUN-22	07-JUN-22	R5795060
Vanadium (V)-Dissolved	4.26		0.50	ug/L	07-JUN-22	07-JUN-22	R5795060
Zinc (Zn)-Dissolved	1.2		1.0	ug/L	07-JUN-22	07-JUN-22	R5795060
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		07-JUN-22	R5795492
Volatile Organic Compounds							
Acetone	<30		30	ug/L		10-JUN-22	R5796368
Benzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Bromodichloromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
Bromoform	<5.0		5.0	ug/L		10-JUN-22	R5796368
Bromomethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Carbon tetrachloride	<0.20		0.20	ug/L		10-JUN-22	R5796368
Chlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Dibromochloromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
Chloroform	<1.0		1.0	ug/L		10-JUN-22	R5796368
1,2-Dibromoethane	<0.20		0.20	ug/L		10-JUN-22	R5796368
1,2-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,3-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,4-Dichlorobenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Dichlorodifluoromethane	<2.0		2.0	ug/L		10-JUN-22	R5796368
1,1-Dichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,2-Dichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Methylene Chloride	<5.0		5.0	ug/L		10-JUN-22	R5796368
1,2-Dichloropropane	<0.50		0.50	ug/L		10-JUN-22	R5796368

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2712428-8 MW104 Sampled By: CLIENT on 03-JUN-22 @ 12:00 Matrix: WATER							
Volatile Organic Compounds							
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		10-JUN-22	R5796368
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		10-JUN-22	R5796368
1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L		10-JUN-22	
Ethylbenzene	<0.50		0.50	ug/L		10-JUN-22	R5796368
n-Hexane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Methyl Ethyl Ketone	<20		20	ug/L		10-JUN-22	R5796368
Methyl Isobutyl Ketone	<20		20	ug/L		10-JUN-22	R5796368
MTBE	<2.0		2.0	ug/L		10-JUN-22	R5796368
Styrene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Tetrachloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Toluene	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,1-Trichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
1,1,2-Trichloroethane	<0.50		0.50	ug/L		10-JUN-22	R5796368
Trichloroethylene	<0.50		0.50	ug/L		10-JUN-22	R5796368
Trichlorofluoromethane	<5.0		5.0	ug/L		10-JUN-22	R5796368
Vinyl chloride	<0.50		0.50	ug/L		10-JUN-22	R5796368
o-Xylene	<0.30		0.30	ug/L		10-JUN-22	R5796368
m+p-Xylenes	<0.40		0.40	ug/L		10-JUN-22	R5796368
Xylenes (Total)	<0.50		0.50	ug/L		10-JUN-22	
Surrogate: 4-Bromofluorobenzene	74.6		70-130	%		10-JUN-22	R5796368
Surrogate: 1,4-Difluorobenzene	93.0		70-130	%		10-JUN-22	R5796368
Hydrocarbons							
F1 (C6-C10)	<25		25	ug/L		10-JUN-22	R5796368
F1-BTEX	<25		25	ug/L		10-JUN-22	
F2 (C10-C16)	<100		100	ug/L	07-JUN-22	10-JUN-22	R5796678
F2-Naphth	<100		100	ug/L		10-JUN-22	
F3 (C16-C34)	<250		250	ug/L	07-JUN-22	10-JUN-22	R5796678
F3-PAH	<250		250	ug/L		10-JUN-22	
F4 (C34-C50)	<250		250	ug/L	07-JUN-22	10-JUN-22	R5796678
Total Hydrocarbons (C6-C50)	<370		370	ug/L		10-JUN-22	
Chrom. to baseline at nC50	YES				07-JUN-22	10-JUN-22	R5796678
Surrogate: 2-Bromobenzotrifluoride	88.1		60-140	%	07-JUN-22	10-JUN-22	R5796678
Surrogate: 3,4-Dichlorotoluene	86.2		60-140	%		10-JUN-22	R5796368
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Acenaphthylene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Anthracene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Benzo(a)anthracene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Benzo(a)pyrene	<0.010		0.010	ug/L	07-JUN-22	08-JUN-22	R5795539

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2712428-8 MW104 Sampled By: CLIENT on 03-JUN-22 @ 12:00 Matrix: WATER							
Polycyclic Aromatic Hydrocarbons							
Benzo(b&j)fluoranthene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Benzo(g,h,i)perylene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Benzo(k)fluoranthene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Chrysene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Dibenz(a,h)anthracene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Fluoranthene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Fluorene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Indeno(1,2,3-cd)pyrene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
1+2-Methylnaphthalenes	<0.028		0.028	ug/L		08-JUN-22	
1-Methylnaphthalene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
2-Methylnaphthalene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Naphthalene	<0.050		0.050	ug/L	07-JUN-22	08-JUN-22	R5795539
Phenanthrene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Pyrene	<0.020		0.020	ug/L	07-JUN-22	08-JUN-22	R5795539
Surrogate: Chrysene d12	101.1		50-150	%	07-JUN-22	08-JUN-22	R5795539
Surrogate: Naphthalene d8	109.2		60-140	%	07-JUN-22	08-JUN-22	R5795539
Surrogate: Phenanthrene d10	113.9		60-140	%	07-JUN-22	08-JUN-22	R5795539

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

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
HTD	Hold time exceeded for re-analysis or dilution, but initial testing was conducted within hold time.

Test Method References:

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

CR-CR6-IC-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 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

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

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.

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.

Reference Information

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

F2-F4-511-WT	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 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

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

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

PH-WT	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

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

Reference Information

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

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

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

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

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

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid weight of sample
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L2712428 Report Date: 15-JUN-22

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CL-IC-N-WT	**Water**							
Batch R5795526								
WG3736662-10 DUP		**L2712261-6**						
Chloride (Cl)		4.84	4.84		mg/L	0.0	20	07-JUN-22
WG3736662-7 LCS								
Chloride (Cl)			100.2		%		90-110	07-JUN-22
WG3736662-6 MB								
Chloride (Cl)			<0.50		mg/L		0.5	07-JUN-22
WG3736662-9 MS		**L2712261-6**						
Chloride (Cl)			99.0		%		75-125	07-JUN-22
CN-WAD-R511-WT	**Water**							
Batch R5796119								
WG3737706-10 DUP		**WG3737706-8**						
Cyanide, Weak Acid Diss		<2.0	<2.0	RPD-NA	ug/L	N/A	20	09-JUN-22
WG3737706-7 LCS								
Cyanide, Weak Acid Diss			107.8		%		80-120	09-JUN-22
WG3737706-6 MB								
Cyanide, Weak Acid Diss			<2.0		ug/L		2	09-JUN-22
WG3737706-9 MS		**WG3737706-8**						
Cyanide, Weak Acid Diss			117.6		%		75-125	09-JUN-22
CR-CR6-IC-R511-WT	**Water**							
Batch R5794987								
WG3736071-4 DUP		**WG3736071-3**						
Chromium, Hexavalent		<0.50	<0.50	RPD-NA	ug/L	N/A	20	06-JUN-22
WG3736071-2 LCS								
Chromium, Hexavalent			101.2		%		80-120	06-JUN-22
WG3736071-1 MB								
Chromium, Hexavalent			<0.50		ug/L		0.5	06-JUN-22
WG3736071-5 MS		**WG3736071-3**						
Chromium, Hexavalent			99.2		%		70-130	06-JUN-22
Batch R5795492								
WG3736494-4 DUP		**WG3736494-3**						
Chromium, Hexavalent		<0.50	<0.50	RPD-NA	ug/L	N/A	20	07-JUN-22
WG3736494-2 LCS								
Chromium, Hexavalent			101.8		%		80-120	07-JUN-22
WG3736494-1 MB								
Chromium, Hexavalent			<0.50		ug/L		0.5	07-JUN-22
WG3736494-5 MS		**WG3736494-3**						
Chromium, Hexavalent			99.3		%		70-130	07-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
EC-R511-WT	**Water**							
Batch R5795895								
WG3736882-4 DUP		**WG3736882-3**						
Conductivity		0.839	0.846		mS/cm	0.8	10	08-JUN-22
WG3736882-2 LCS								
Conductivity			99.8		%		90-110	08-JUN-22
WG3736882-1 MB								
Conductivity			<0.0030		mS/cm		0.003	08-JUN-22
F1-HS-511-WT	**Water**							
Batch R5796368								
WG3737568-4 DUP		**WG3737568-3**						
F1 (C6-C10)		<25	<25	RPD-NA	ug/L	N/A	30	10-JUN-22
WG3737568-2 MB								
F1 (C6-C10)			<25		ug/L		25	10-JUN-22
Surrogate: 3,4-Dichlorotoluene			97.5		%		60-140	10-JUN-22
WG3737568-5 MS		**WG3737568-3**						
F1 (C6-C10)			80.4		%		60-140	10-JUN-22
F2-F4-511-WT	**Water**							
Batch R5796678								
WG3736272-2 LCS								
F2 (C10-C16)			107.9		%		70-130	10-JUN-22
F3 (C16-C34)			114.0		%		70-130	10-JUN-22
F4 (C34-C50)			121.9		%		70-130	10-JUN-22
WG3736272-1 MB								
F2 (C10-C16)			<100		ug/L		100	10-JUN-22
F3 (C16-C34)			<250		ug/L		250	10-JUN-22
F4 (C34-C50)			<250		ug/L		250	10-JUN-22
Surrogate: 2-Bromobenzotrifluoride			79.7		%		60-140	10-JUN-22
HG-D-UG/L-CVAA-WT	**Water**							
Batch R5795186								
WG3736322-4 DUP		**WG3736322-3**						
Mercury (Hg)-Dissolved		<0.0050	<0.0050	RPD-NA	ug/L	N/A	20	07-JUN-22
WG3736322-2 LCS								
Mercury (Hg)-Dissolved			102.0		%		80-120	07-JUN-22
WG3736322-1 MB								
Mercury (Hg)-Dissolved			<0.0050		ug/L		0.005	07-JUN-22
WG3736322-6 MS		**WG3736322-5**						
Mercury (Hg)-Dissolved			99.4		%		70-130	07-JUN-22
	Water							

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT	**Water**							
Batch R5795060								
WG3736185-4 DUP		**WG3736185-3**						
Antimony (Sb)-Dissolved		<0.10	<0.10	RPD-NA	ug/L	N/A	20	07-JUN-22
Arsenic (As)-Dissolved		<0.10	<0.10	RPD-NA	ug/L	N/A	20	07-JUN-22
Barium (Ba)-Dissolved		<0.10	<0.10	RPD-NA	ug/L	N/A	20	07-JUN-22
Beryllium (Be)-Dissolved		<0.10	<0.10	RPD-NA	ug/L	N/A	20	07-JUN-22
Boron (B)-Dissolved		<10	<10	RPD-NA	ug/L	N/A	20	07-JUN-22
Cadmium (Cd)-Dissolved		<0.0050	<0.0050	RPD-NA	ug/L	N/A	20	07-JUN-22
Chromium (Cr)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	07-JUN-22
Cobalt (Co)-Dissolved		<0.10	<0.10	RPD-NA	ug/L	N/A	20	07-JUN-22
Copper (Cu)-Dissolved		<0.20	<0.20	RPD-NA	ug/L	N/A	20	07-JUN-22
Lead (Pb)-Dissolved		<0.050	<0.050	RPD-NA	ug/L	N/A	20	07-JUN-22
Molybdenum (Mo)-Dissolved		<0.050	<0.050	RPD-NA	ug/L	N/A	20	07-JUN-22
Nickel (Ni)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	07-JUN-22
Selenium (Se)-Dissolved		<0.050	<0.050	RPD-NA	ug/L	N/A	20	07-JUN-22
Silver (Ag)-Dissolved		<0.050	<0.050	RPD-NA	ug/L	N/A	20	07-JUN-22
Sodium (Na)-Dissolved		<50	<50	RPD-NA	ug/L	N/A	20	07-JUN-22
Thallium (Tl)-Dissolved		<0.010	<0.010	RPD-NA	ug/L	N/A	20	07-JUN-22
Uranium (U)-Dissolved		<0.010	<0.010	RPD-NA	ug/L	N/A	20	07-JUN-22
Vanadium (V)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	07-JUN-22
Zinc (Zn)-Dissolved		<1.0	<1.0	RPD-NA	ug/L	N/A	20	07-JUN-22
WG3736185-2 LCS								
Antimony (Sb)-Dissolved			102.9		%		80-120	07-JUN-22
Arsenic (As)-Dissolved			96.3		%		80-120	07-JUN-22
Barium (Ba)-Dissolved			99.2		%		80-120	07-JUN-22
Beryllium (Be)-Dissolved			100.5		%		80-120	07-JUN-22
Boron (B)-Dissolved			102.0		%		80-120	07-JUN-22
Cadmium (Cd)-Dissolved			99.9		%		80-120	07-JUN-22
Chromium (Cr)-Dissolved			101.9		%		80-120	07-JUN-22
Cobalt (Co)-Dissolved			98.6		%		80-120	07-JUN-22
Copper (Cu)-Dissolved			100.2		%		80-120	07-JUN-22
Lead (Pb)-Dissolved			104.0		%		80-120	07-JUN-22
Molybdenum (Mo)-Dissolved			101.0		%		80-120	07-JUN-22
Nickel (Ni)-Dissolved			100.7		%		80-120	07-JUN-22
Selenium (Se)-Dissolved			92.7		%		80-120	07-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT	**Water**							
Batch R5795060								
WG3736185-2 LCS								
Silver (Ag)-Dissolved			98.3		%		80-120	07-JUN-22
Sodium (Na)-Dissolved			111.3		%		80-120	07-JUN-22
Thallium (Tl)-Dissolved			102.7		%		80-120	07-JUN-22
Uranium (U)-Dissolved			103.1		%		80-120	07-JUN-22
Vanadium (V)-Dissolved			104.5		%		80-120	07-JUN-22
Zinc (Zn)-Dissolved			97.2		%		80-120	07-JUN-22
WG3736185-1 MB								
Antimony (Sb)-Dissolved			<0.10		ug/L		0.1	07-JUN-22
Arsenic (As)-Dissolved			<0.10		ug/L		0.1	07-JUN-22
Barium (Ba)-Dissolved			<0.10		ug/L		0.1	07-JUN-22
Beryllium (Be)-Dissolved			<0.10		ug/L		0.1	07-JUN-22
Boron (B)-Dissolved			<10		ug/L		10	07-JUN-22
Cadmium (Cd)-Dissolved			<0.0050		ug/L		0.005	07-JUN-22
Chromium (Cr)-Dissolved			<0.50		ug/L		0.5	07-JUN-22
Cobalt (Co)-Dissolved			<0.10		ug/L		0.1	07-JUN-22
Copper (Cu)-Dissolved			<0.20		ug/L		0.2	07-JUN-22
Lead (Pb)-Dissolved			<0.050		ug/L		0.05	07-JUN-22
Molybdenum (Mo)-Dissolved			<0.050		ug/L		0.05	07-JUN-22
Nickel (Ni)-Dissolved			<0.50		ug/L		0.5	07-JUN-22
Selenium (Se)-Dissolved			<0.050		ug/L		0.05	07-JUN-22
Silver (Ag)-Dissolved			<0.050		ug/L		0.05	07-JUN-22
Sodium (Na)-Dissolved			<50		ug/L		50	07-JUN-22
Thallium (Tl)-Dissolved			<0.010		ug/L		0.01	07-JUN-22
Uranium (U)-Dissolved			<0.010		ug/L		0.01	07-JUN-22
Vanadium (V)-Dissolved			<0.50		ug/L		0.5	07-JUN-22
Zinc (Zn)-Dissolved			<1.0		ug/L		1	07-JUN-22
WG3736185-5 MS		**WG3736185-3**						
Antimony (Sb)-Dissolved			100.8		%		70-130	07-JUN-22
Arsenic (As)-Dissolved			104.6		%		70-130	07-JUN-22
Barium (Ba)-Dissolved			100.3		%		70-130	07-JUN-22
Beryllium (Be)-Dissolved			102.7		%		70-130	07-JUN-22
Boron (B)-Dissolved			93.5		%		70-130	07-JUN-22
Cadmium (Cd)-Dissolved			107.0		%		70-130	07-JUN-22
Chromium (Cr)-Dissolved			98.6		%		70-130	07-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT	**Water**							
Batch R5795060								
WG3736185-5 MS		**WG3736185-3**						
Cobalt (Co)-Dissolved			96.5		%		70-130	07-JUN-22
Copper (Cu)-Dissolved			99.0		%		70-130	07-JUN-22
Lead (Pb)-Dissolved			103.2		%		70-130	07-JUN-22
Molybdenum (Mo)-Dissolved			93.4		%		70-130	07-JUN-22
Nickel (Ni)-Dissolved			99.3		%		70-130	07-JUN-22
Selenium (Se)-Dissolved			115.9		%		70-130	07-JUN-22
Silver (Ag)-Dissolved			90.5		%		70-130	07-JUN-22
Sodium (Na)-Dissolved			106.5		%		70-130	07-JUN-22
Thallium (Tl)-Dissolved			101.4		%		70-130	07-JUN-22
Uranium (U)-Dissolved			99.9		%		70-130	07-JUN-22
Vanadium (V)-Dissolved			100.5		%		70-130	07-JUN-22
Zinc (Zn)-Dissolved			107.1		%		70-130	07-JUN-22
PAH-511-WT	**Water**							
Batch R5795539								
WG3736272-2 LCS								
1-Methylnaphthalene			107.6		%		50-140	08-JUN-22
2-Methylnaphthalene			102.5		%		50-140	08-JUN-22
Acenaphthene			115.7		%		60-130	08-JUN-22
Acenaphthylene			100.8		%		60-130	08-JUN-22
Anthracene			97.0		%		50-140	08-JUN-22
Benzo(a)anthracene			109.2		%		60-140	08-JUN-22
Benzo(a)pyrene			99.5		%		50-140	08-JUN-22
Benzo(b&j)fluoranthene			91.4		%		60-130	08-JUN-22
Benzo(g,h,i)perylene			111.6		%		50-140	08-JUN-22
Benzo(k)fluoranthene			104.8		%		50-140	08-JUN-22
Chrysene			113.7		%		60-140	08-JUN-22
Dibenz(a,h)anthracene			121.2		%		50-140	08-JUN-22
Fluoranthene			114.0		%		60-140	08-JUN-22
Fluorene			110.1		%		60-130	08-JUN-22
Indeno(1,2,3-cd)pyrene			120.8		%		50-140	08-JUN-22
Naphthalene			104.2		%		50-130	08-JUN-22
Phenanthrene			113.0		%		60-140	08-JUN-22
Pyrene			120.2		%		60-140	08-JUN-22
WG3736272-1 MB								

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	**Water**							
Batch R5795539								
WG3736272-1 MB								
1-Methylnaphthalene			<0.020		ug/L		0.02	08-JUN-22
2-Methylnaphthalene			<0.020		ug/L		0.02	08-JUN-22
Acenaphthene			<0.020		ug/L		0.02	08-JUN-22
Acenaphthylene			<0.020		ug/L		0.02	08-JUN-22
Anthracene			<0.020		ug/L		0.02	08-JUN-22
Benzo(a)anthracene			<0.020		ug/L		0.02	08-JUN-22
Benzo(a)pyrene			<0.010		ug/L		0.01	08-JUN-22
Benzo(b&j)fluoranthene			<0.020		ug/L		0.02	08-JUN-22
Benzo(g,h,i)perylene			<0.020		ug/L		0.02	08-JUN-22
Benzo(k)fluoranthene			<0.020		ug/L		0.02	08-JUN-22
Chrysene			<0.020		ug/L		0.02	08-JUN-22
Dibenz(a,h)anthracene			<0.020		ug/L		0.02	08-JUN-22
Fluoranthene			<0.020		ug/L		0.02	08-JUN-22
Fluorene			<0.020		ug/L		0.02	08-JUN-22
Indeno(1,2,3-cd)pyrene			<0.020		ug/L		0.02	08-JUN-22
Naphthalene			<0.050		ug/L		0.05	08-JUN-22
Phenanthrene			<0.020		ug/L		0.02	08-JUN-22
Pyrene			<0.020		ug/L		0.02	08-JUN-22
Surrogate: Naphthalene d8			111.1		%		60-140	08-JUN-22
Surrogate: Phenanthrene d10			115.1		%		60-140	08-JUN-22
Surrogate: Chrysene d12			109.4		%		50-150	08-JUN-22
PCB-511-WT	**Water**							
Batch R5795434								
WG3736345-2 LCS								
Aroclor 1242			105.9		%		60-140	08-JUN-22
Aroclor 1248			102.3		%		60-140	08-JUN-22
Aroclor 1254			104.0		%		60-140	08-JUN-22
Aroclor 1260			103.8		%		60-140	08-JUN-22
WG3736345-1 MB								
Aroclor 1242			<0.020		ug/L		0.02	08-JUN-22
Aroclor 1248			<0.020		ug/L		0.02	08-JUN-22
Aroclor 1254			<0.020		ug/L		0.02	08-JUN-22
Aroclor 1260			<0.020		ug/L		0.02	08-JUN-22
Surrogate: Decachlorobiphenyl			95.1		%		50-150	08-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-511-WT	**Water**							
Batch R5795434								
WG3736345-1 MB								
Surrogate: Tetrachloro-m-xylene			83.9		%		50-150	08-JUN-22
PH-WT	**Water**							
Batch R5795895								
WG3736882-4 DUP		**WG3736882-3**						
pH		7.46	7.46	J	pH units	0.00	0.2	08-JUN-22
WG3736882-2 LCS								
pH			7.04		pH units		6.9-7.1	08-JUN-22
VOC-511-HS-WT	**Water**							
Batch R5796368								
WG3737568-4 DUP		**WG3737568-3**						
1,1,1,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
1,1,2,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
1,1,1-Trichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
1,1,2-Trichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
1,1-Dichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
1,1-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
1,2-Dibromoethane		<0.20	<0.20	RPD-NA	ug/L	N/A	30	10-JUN-22
1,2-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
1,2-Dichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
1,2-Dichloropropane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
1,3-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
1,4-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
Acetone		<30	<30	RPD-NA	ug/L	N/A	30	10-JUN-22
Benzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
Bromodichloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	10-JUN-22
Bromoform		<5.0	<5.0	RPD-NA	ug/L	N/A	30	10-JUN-22
Bromomethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
Carbon tetrachloride		<0.20	<0.20	RPD-NA	ug/L	N/A	30	10-JUN-22
Chlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
Chloroform		<1.0	<1.0	RPD-NA	ug/L	N/A	30	10-JUN-22
cis-1,2-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
cis-1,3-Dichloropropene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	10-JUN-22
Dibromochloromethane		<2.0	<2.0		ug/L			10-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R5796368								
WG3737568-4 DUP		**WG3737568-3**						
Dibromochloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	10-JUN-22
Dichlorodifluoromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	10-JUN-22
Ethylbenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
n-Hexane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
m+p-Xylenes		<0.40	<0.40	RPD-NA	ug/L	N/A	30	10-JUN-22
Methyl Ethyl Ketone		<20	<20	RPD-NA	ug/L	N/A	30	10-JUN-22
Methyl Isobutyl Ketone		<20	<20	RPD-NA	ug/L	N/A	30	10-JUN-22
Methylene Chloride		<5.0	<5.0	RPD-NA	ug/L	N/A	30	10-JUN-22
MTBE		<2.0	<2.0	RPD-NA	ug/L	N/A	30	10-JUN-22
o-Xylene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	10-JUN-22
Styrene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
Tetrachloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
Toluene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
trans-1,2-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
trans-1,3-Dichloropropene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	10-JUN-22
Trichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
Trichlorofluoromethane		<5.0	<5.0	RPD-NA	ug/L	N/A	30	10-JUN-22
Vinyl chloride		<0.50	<0.50	RPD-NA	ug/L	N/A	30	10-JUN-22
WG3737568-2 MB								
1,1,1,2-Tetrachloroethane			<0.50		ug/L		0.5	10-JUN-22
1,1,2,2-Tetrachloroethane			<0.50		ug/L		0.5	10-JUN-22
1,1,1-Trichloroethane			<0.50		ug/L		0.5	10-JUN-22
1,1,2-Trichloroethane			<0.50		ug/L		0.5	10-JUN-22
1,1-Dichloroethane			<0.50		ug/L		0.5	10-JUN-22
1,1-Dichloroethylene			<0.50		ug/L		0.5	10-JUN-22
1,2-Dibromoethane			<0.20		ug/L		0.2	10-JUN-22
1,2-Dichlorobenzene			<0.50		ug/L		0.5	10-JUN-22
1,2-Dichloroethane			<0.50		ug/L		0.5	10-JUN-22
1,2-Dichloropropane			<0.50		ug/L		0.5	10-JUN-22
1,3-Dichlorobenzene			<0.50		ug/L		0.5	10-JUN-22
1,4-Dichlorobenzene			<0.50		ug/L		0.5	10-JUN-22
Acetone			<30		ug/L		30	10-JUN-22
Benzene			<0.50		ug/L		0.5	10-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R5796368								
WG3737568-2 MB								
Bromodichloromethane			<2.0		ug/L		2	10-JUN-22
Bromoform			<5.0		ug/L		5	10-JUN-22
Bromomethane			<0.50		ug/L		0.5	10-JUN-22
Carbon tetrachloride			<0.20		ug/L		0.2	10-JUN-22
Chlorobenzene			<0.50		ug/L		0.5	10-JUN-22
Chloroform			<1.0		ug/L		1	10-JUN-22
cis-1,2-Dichloroethylene			<0.50		ug/L		0.5	10-JUN-22
cis-1,3-Dichloropropene			<0.30		ug/L		0.3	10-JUN-22
Dibromochloromethane			<2.0		ug/L		2	10-JUN-22
Dichlorodifluoromethane			<2.0		ug/L		2	10-JUN-22
Ethylbenzene			<0.50		ug/L		0.5	10-JUN-22
n-Hexane			<0.50		ug/L		0.5	10-JUN-22
m+p-Xylenes			<0.40		ug/L		0.4	10-JUN-22
Methyl Ethyl Ketone			<20		ug/L		20	10-JUN-22
Methyl Isobutyl Ketone			<20		ug/L		20	10-JUN-22
Methylene Chloride			<5.0		ug/L		5	10-JUN-22
MTBE			<2.0		ug/L		2	10-JUN-22
o-Xylene			<0.30		ug/L		0.3	10-JUN-22
Styrene			<0.50		ug/L		0.5	10-JUN-22
Tetrachloroethylene			<0.50		ug/L		0.5	10-JUN-22
Toluene			<0.50		ug/L		0.5	10-JUN-22
trans-1,2-Dichloroethylene			<0.50		ug/L		0.5	10-JUN-22
trans-1,3-Dichloropropene			<0.30		ug/L		0.3	10-JUN-22
Trichloroethylene			<0.50		ug/L		0.5	10-JUN-22
Trichlorofluoromethane			<5.0		ug/L		5	10-JUN-22
Vinyl chloride			<0.50		ug/L		0.5	10-JUN-22
Surrogate: 1,4-Difluorobenzene			94.2		%		70-130	10-JUN-22
Surrogate: 4-Bromofluorobenzene			77.4		%		70-130	10-JUN-22
WG3737568-5 MS		**WG3737568-3**						
1,1,1,2-Tetrachloroethane			85.7		%		50-140	10-JUN-22
1,1,2,2-Tetrachloroethane			95.9		%		50-140	10-JUN-22
1,1,1-Trichloroethane			107.0		%		50-140	10-JUN-22
1,1,2-Trichloroethane			87.0		%		50-140	10-JUN-22
1,1-Dichloroethane			117.3		%		50-140	10-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R5796368								
WG3737568-5 MS		**WG3737568-3**						
1,1-Dichloroethylene			99.0		%		50-140	10-JUN-22
1,2-Dibromoethane			87.1		%		50-140	10-JUN-22
1,2-Dichlorobenzene			88.8		%		50-140	10-JUN-22
1,2-Dichloroethane			120.2		%		50-140	10-JUN-22
1,2-Dichloropropane			102.1		%		50-140	10-JUN-22
1,3-Dichlorobenzene			87.3		%		50-140	10-JUN-22
1,4-Dichlorobenzene			94.4		%		50-140	10-JUN-22
Acetone			123.8		%		50-140	10-JUN-22
Benzene			111.3		%		50-140	10-JUN-22
Bromodichloromethane			111.5		%		50-140	10-JUN-22
Bromoform			93.0		%		50-140	10-JUN-22
Bromomethane			78.7		%		50-140	10-JUN-22
Carbon tetrachloride			107.0		%		50-140	10-JUN-22
Chlorobenzene			90.1		%		50-140	10-JUN-22
Chloroform			106.9		%		50-140	10-JUN-22
cis-1,2-Dichloroethylene			90.2		%		50-140	10-JUN-22
cis-1,3-Dichloropropene			101.8		%		50-140	10-JUN-22
Dibromochloromethane			92.3		%		50-140	10-JUN-22
Dichlorodifluoromethane			96.6		%		50-140	10-JUN-22
Ethylbenzene			97.3		%		50-140	10-JUN-22
n-Hexane			91.6		%		50-140	10-JUN-22
m+p-Xylenes			92.8		%		50-140	10-JUN-22
Methyl Ethyl Ketone			105.6		%		50-140	10-JUN-22
Methyl Isobutyl Ketone			107.4		%		50-140	10-JUN-22
Methylene Chloride			98.5		%		50-140	10-JUN-22
MTBE			99.5		%		50-140	10-JUN-22
o-Xylene			88.6		%		50-140	10-JUN-22
Styrene			85.4		%		50-140	10-JUN-22
Tetrachloroethylene			83.2		%		50-140	10-JUN-22
Toluene			97.9		%		50-140	10-JUN-22
trans-1,2-Dichloroethylene			114.4		%		50-140	10-JUN-22
trans-1,3-Dichloropropene			89.6		%		50-140	10-JUN-22
Trichloroethylene			90.2		%		50-140	10-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R5796368								
WG3737568-5 MS		**WG3737568-3**						
Trichlorofluoromethane			93.9		%		50-140	10-JUN-22
Vinyl chloride			76.2		%		50-140	10-JUN-22

Quality Control Report

Workorder: L2712428 Report Date: 15-JUN-22

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

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.

Quality Control Report

Workorder: L2712428 Report Date: 15-JUN-22

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: FELIPE SOLANO

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Physical Tests							
pH							
	1	03-JUN-22 09:30	08-JUN-22 00:00	4	5	days	EHT
	4	03-JUN-22 10:45	08-JUN-22 00:00	4	5	days	EHT
	6	03-JUN-22	08-JUN-22 00:00	4	5	days	EHT
	8	03-JUN-22 12:00	08-JUN-22 00:00	4	5	days	EHT

Legend & Qualifier Definitions:

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

Notes*:
Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L2712428 were received on 03-JUN-22 14:45.

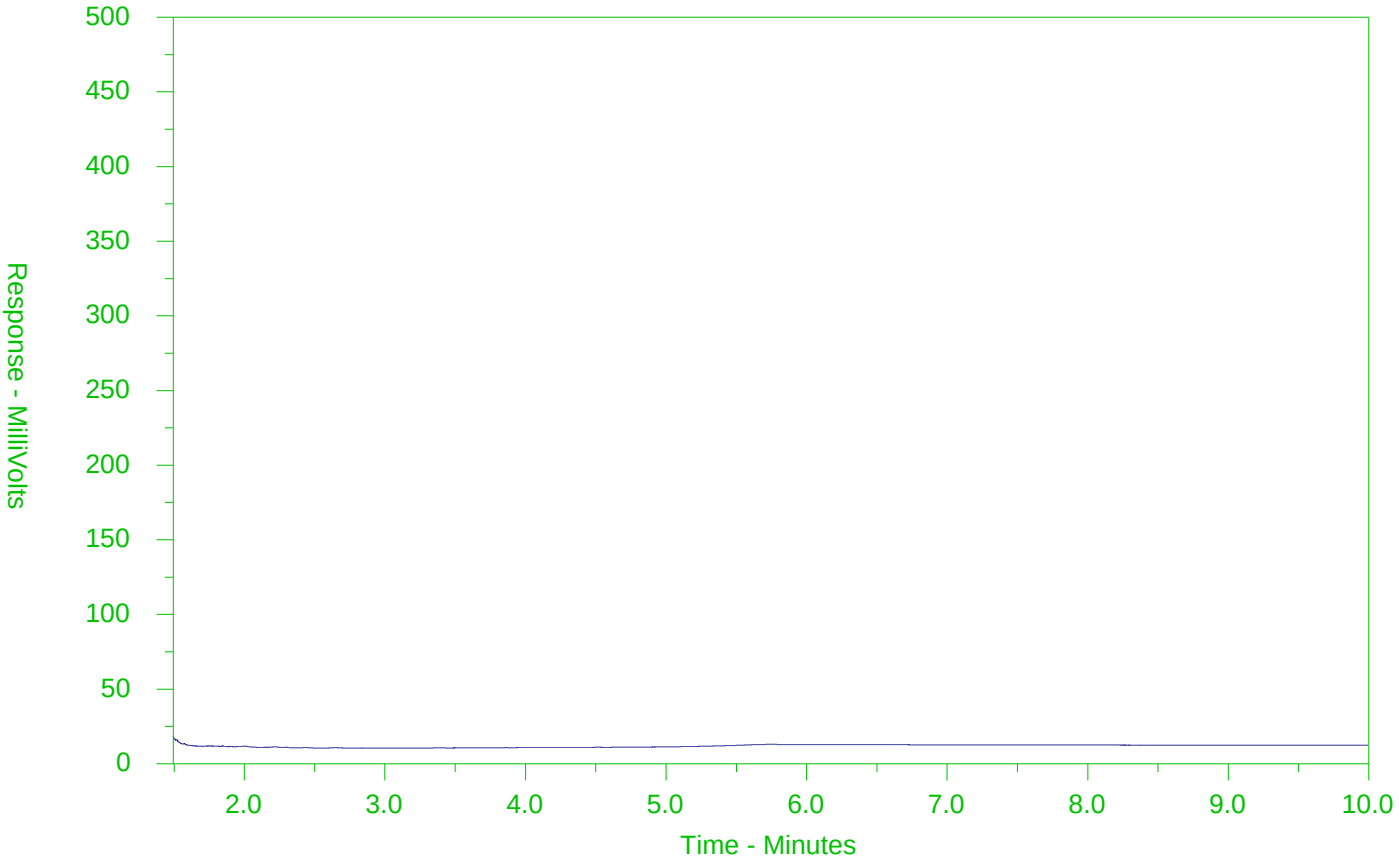
ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where 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: L2712428-1
Client Sample ID: MW101



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

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

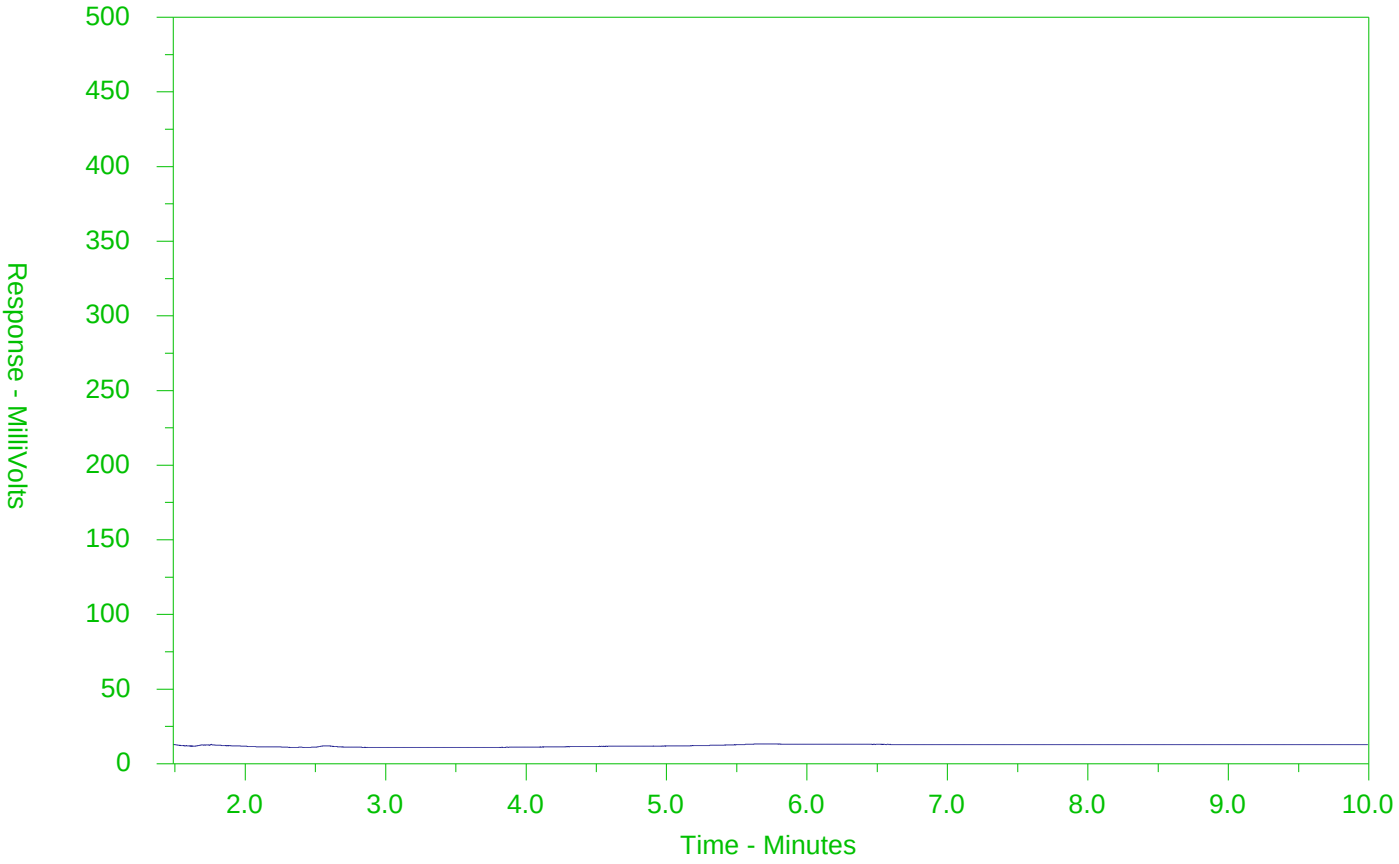
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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

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

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2712428-2
Client Sample ID: MW22-1



←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.

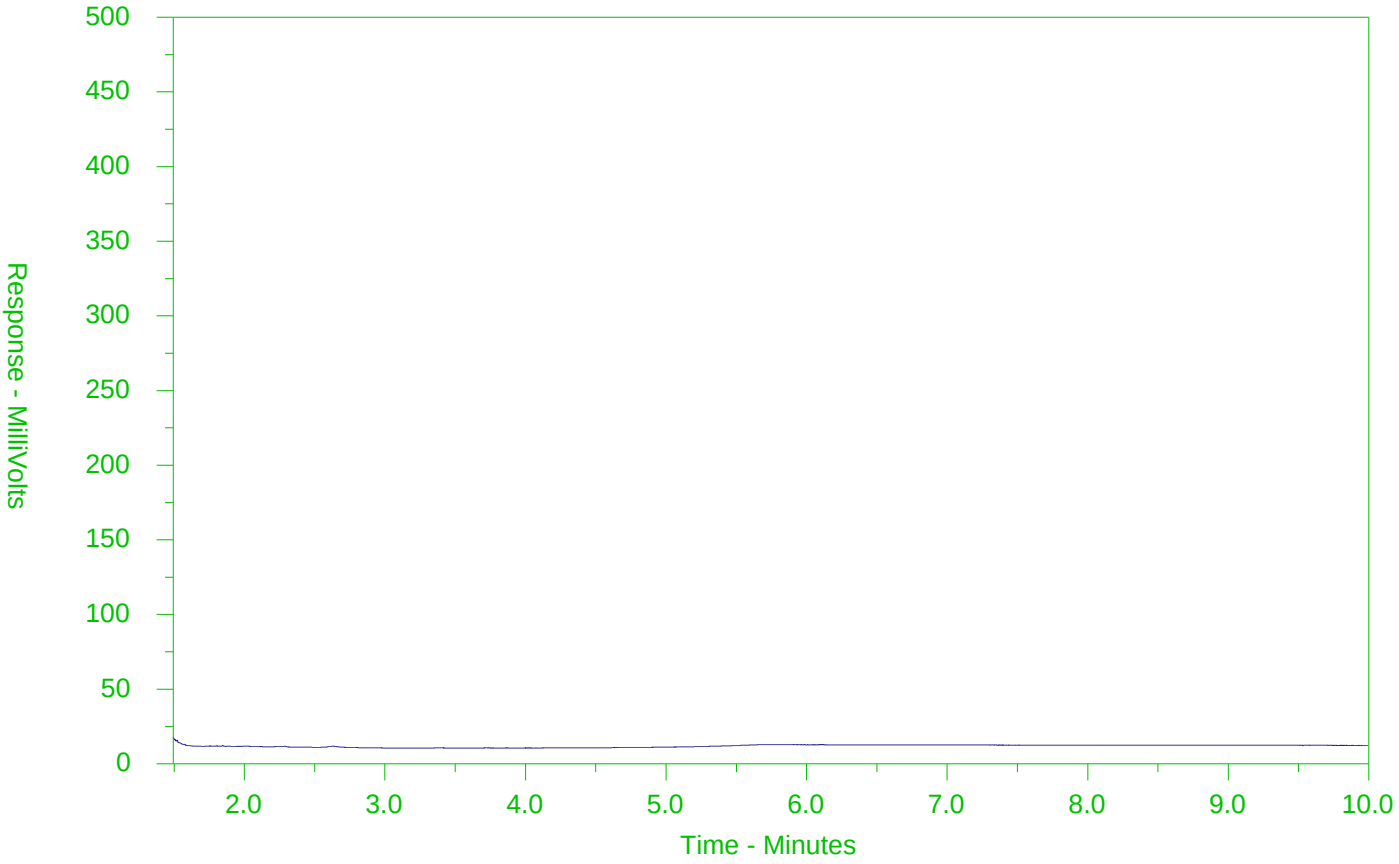
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2712428-3
Client Sample ID: MW22-2



←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.

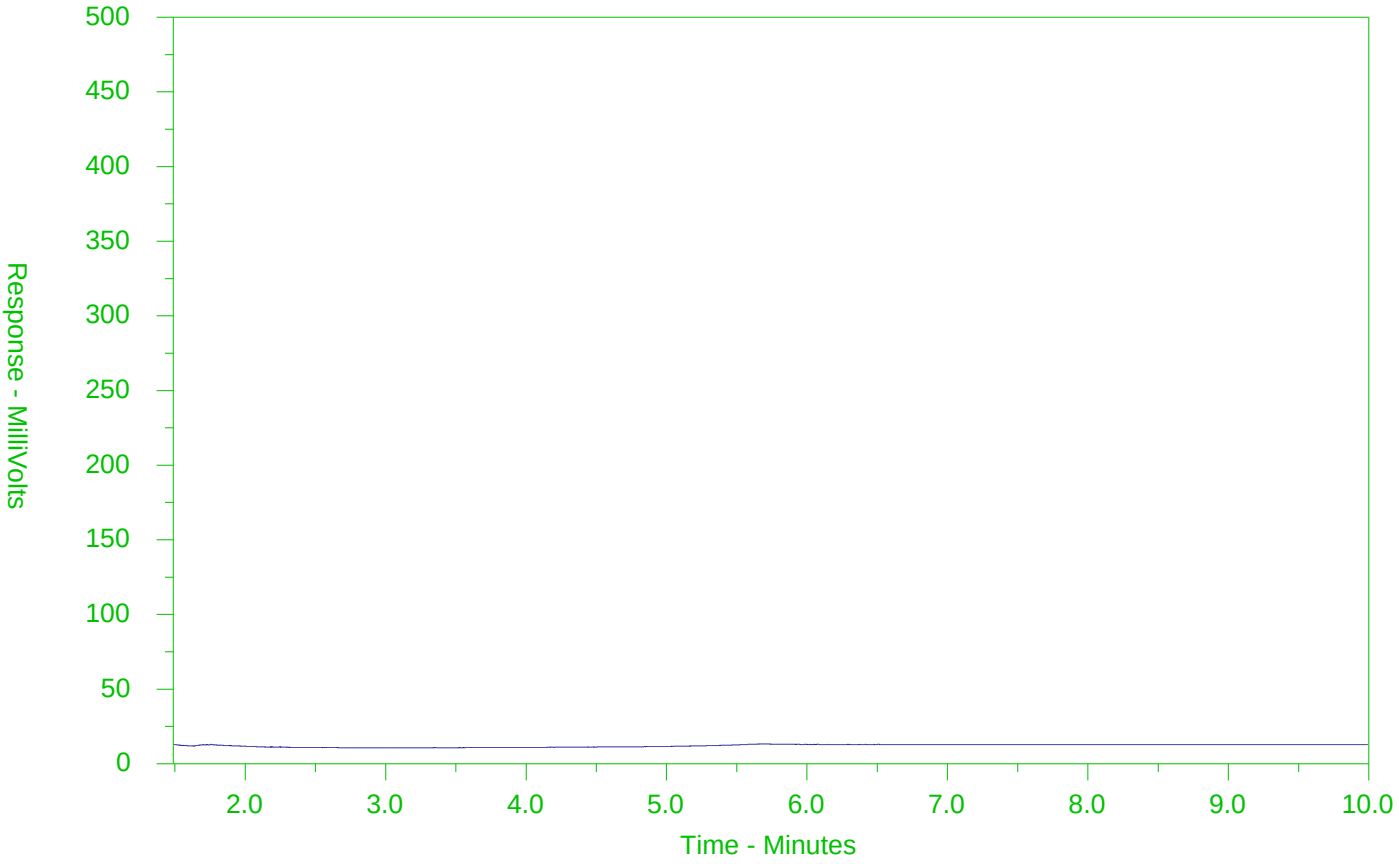
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2712428-4
Client Sample ID: MW22-11



←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.

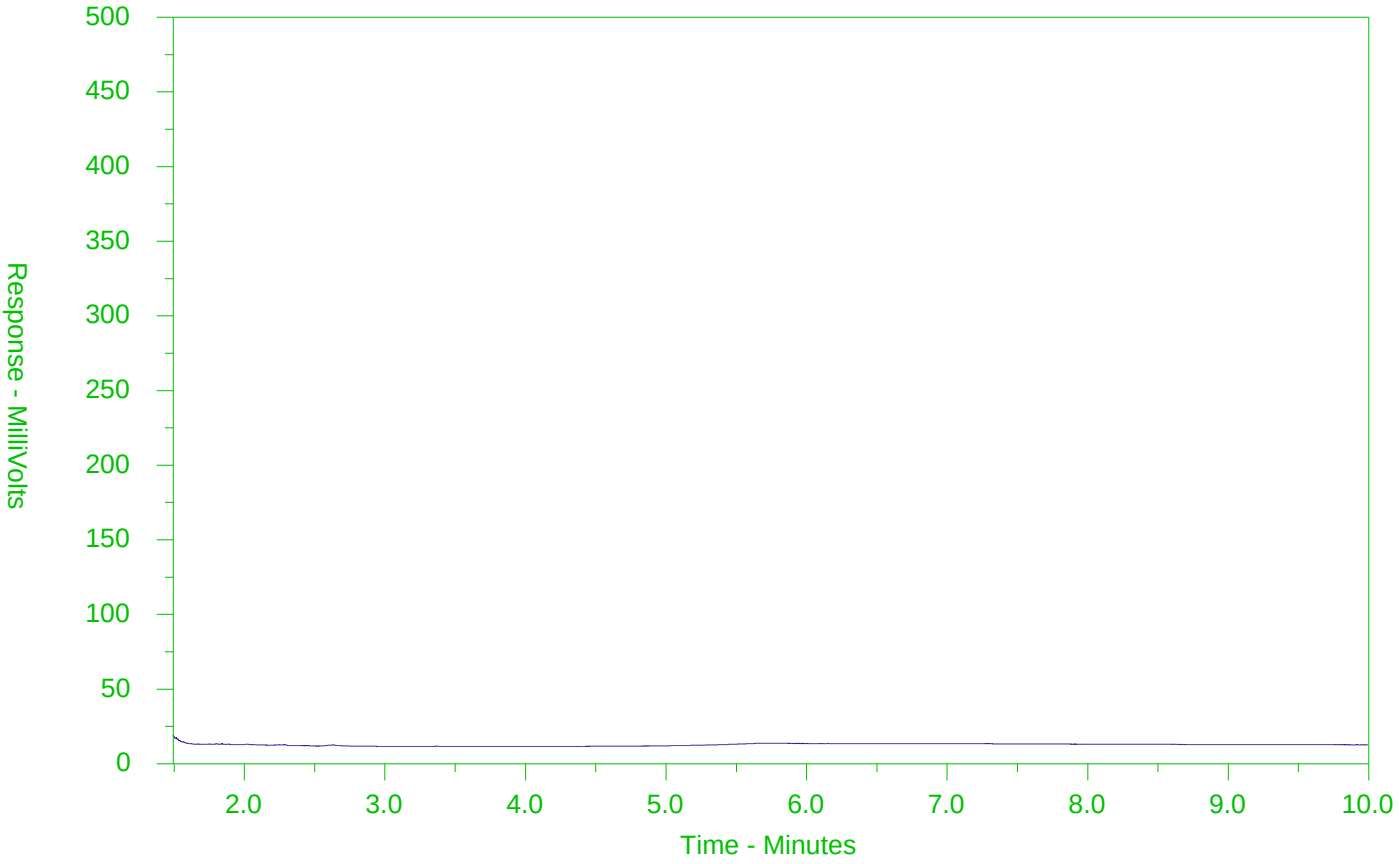
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2712428-5
Client Sample ID: DUP02



←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.

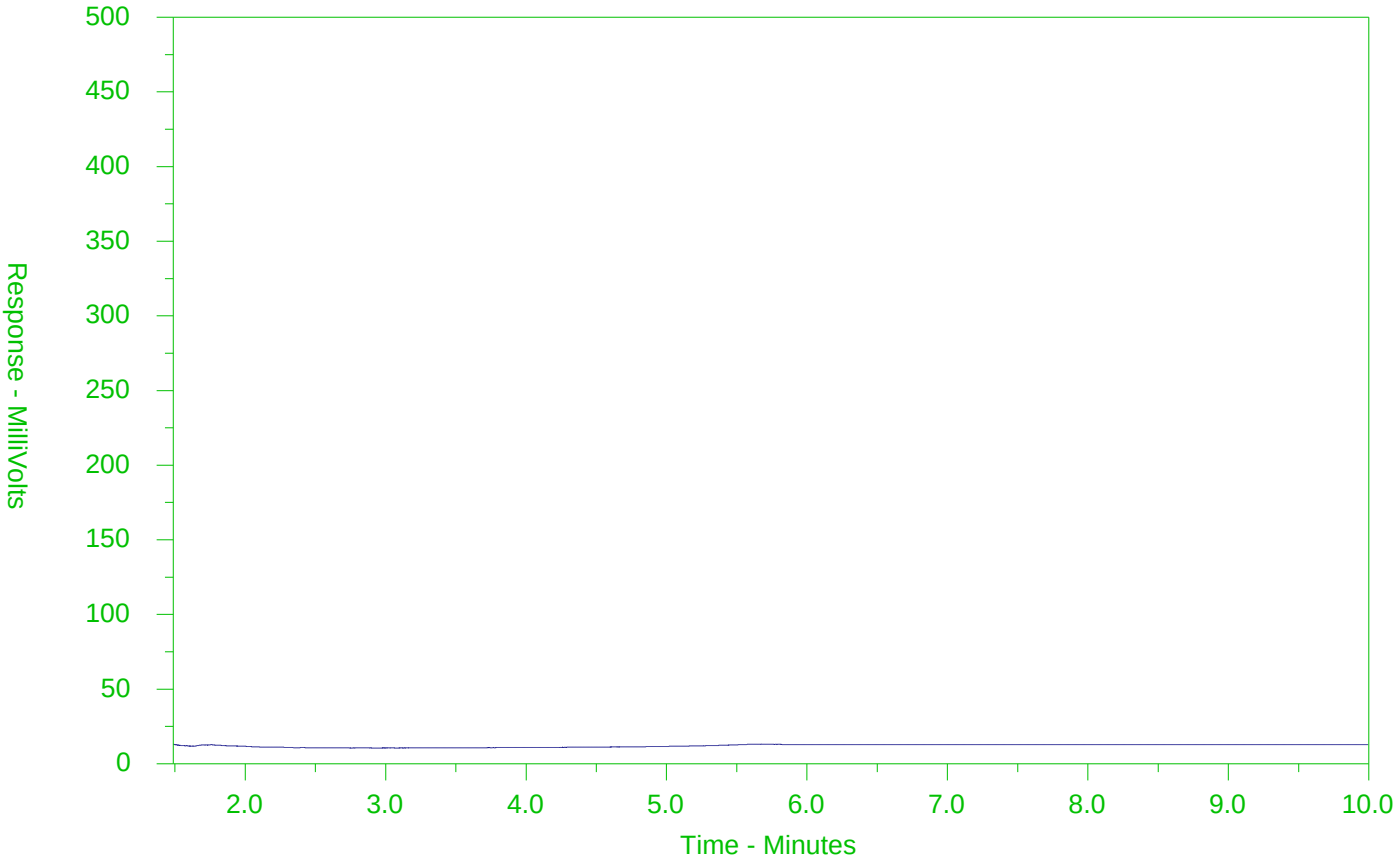
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2712428-8
Client Sample ID: MW104



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

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

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

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

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

Chain of Custody (COC) / Analytical Request Form

ALS Environmental
www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2712428-COFC

COC Number: 15 -

Page 1 of 1

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	
Company:	Geosyntec Consultants International, Inc.	Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Contact:	Felipe Solano	Quality Control (QC) Report with Report	☑ YES ☐ NO
Phone:	519-514-2248	☑ Compare Results to Criteria on Report - provide details below if box checked	
	Company address below will appear on the final report	Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Street:	295 Hagey Blvd, Suite 290	Email 1 or Fax	fsolano@geosyntec.com
City/Province:	Waterloo, Ontario	Email 2	bwallace@geosyntec.com
Postal Code:	N2L 6R5	Email 3	phutchison@geosyntec.com
Invoice To	Same as Report To ☑ YES ☐ NO	Invoice Distribution	
	Copy of Invoice with Report ☐ YES ☐ NO	Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Company:		Email 1 or Fax	accountspayablecan@geosyntec.com
Contact:		Email 2	fsolano@geosyntec.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	Q88227	AFE/Cost Center:	PO#
Job #:	TR841C8D1	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only)	L2712428	ALS Contact: Gayle Braun	Sampler:

nfirm all E&P TATs with your AM - surcharges will apply

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days)		EMERGENCY	
4 day [P4]	☐	1 Business day [E1]	☐
3 day [P3]	☐	Same Day, Weekend or Statutory holiday [E0]	☐
2 day [P2]	☐		

Date and Time Required for all E&P TATs:

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

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	PHC F2-F4	VOC/ F1	O. Reg. 153/04 Metals + Inorganics	PAHs	PCBs	Number of Containers
	MW101	3/6/22	7:30	Groundwater	X	X	X	X		
	MW22-1	3/6/22	8:40	Groundwater	X	X				
	MW22-2	3/6/22	13:10	Groundwater	X	X				
	MW22-11	3/6/22	10:45	Groundwater	X	X	X	X	X	
	DUP02	3/6/22	—	Groundwater	X	X				
	DUP03	3/6/22	—	Groundwater			X	X	X	
	TRIP BLANK	3/6/22	—	Water		X				
	MW104	3/6/22	12:00	Groundwater	X	X	X	X		

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☒ NO	Please compare to O. Reg 153/04 Table 3 SCS ICC coarse
Are samples for human drinking water use? ☐ YES ☒ NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☑ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
17.7			11.9	5.6	

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: Eleanor Rinaldo	Date: 3/6/22	Time: 10:43	Received by:	Date: 3 JUN	Time: 245	Received by: MA	Date: 2022-06-04	Time: 11:10

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

OCTOBER 2015 FRONT

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

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

GEOSYNTEC CONSULTANTS
INTERNATIONAL INC
ATTN: PAULA HUTCHISON
130 STONE ROAD WEST
GUELPH ON N1G 3Z2

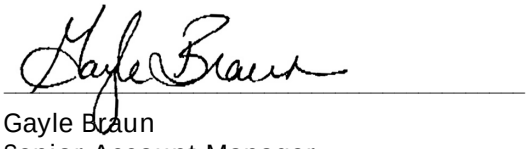
Date Received: 30-MAY-22
Report Date: 13-JUN-22 14:07 (MT)
Version: FINAL

Client Phone: 519-822-2230

Certificate of Analysis

Lab Work Order #: L2710626

Project P.O. #: 800005029
Job Reference: TR841C8D1
C of C Numbers:
Legal Site Desc:



Gayle Braun
Senior Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710626-1 SSV-09-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 15:15 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
Acetone	94		12	ug/m3		09-JUN-22	R5795938
Acetone	39.7		5.0	ppb(V)		09-JUN-22	R5795938
Allyl chloride	<0.63		0.63	ug/m3		08-JUN-22	R5795938
Allyl chloride	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Benzene	4.64		0.32	ug/m3		08-JUN-22	R5795938
Benzene	1.45		0.10	ppb(V)		08-JUN-22	R5795938
Benzyl chloride	<1.0		1.0	ug/m3		08-JUN-22	R5795938
Benzyl chloride	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Bromodichloromethane	<1.3		1.3	ug/m3		08-JUN-22	R5795938
Bromodichloromethane	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Bromoform	<2.1		2.1	ug/m3		08-JUN-22	R5795938
Bromoform	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Bromomethane	<0.78		0.78	ug/m3		08-JUN-22	R5795938
Bromomethane	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
1,3-Butadiene	<0.44		0.44	ug/m3		08-JUN-22	R5795938
1,3-Butadiene	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Carbon Disulfide	6.4		1.6	ug/m3		08-JUN-22	R5795938
Carbon Disulfide	2.06		0.50	ppb(V)		08-JUN-22	R5795938
Carbon Tetrachloride	<1.3		1.3	ug/m3		08-JUN-22	R5795938
Carbon Tetrachloride	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Chlorobenzene	<0.92		0.92	ug/m3		08-JUN-22	R5795938
Chlorobenzene	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Dibromochloromethane	<1.7		1.7	ug/m3		08-JUN-22	R5795938
Dibromochloromethane	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Chloroethane	<0.53		0.53	ug/m3		08-JUN-22	R5795938
Chloroethane	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Chloroform	<0.98		0.98	ug/m3		08-JUN-22	R5795938
Chloroform	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Chloromethane	<0.41		0.41	ug/m3		08-JUN-22	R5795938
Chloromethane	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Cyclohexane	4.10		0.69	ug/m3		08-JUN-22	R5795938
Cyclohexane	1.19		0.20	ppb(V)		08-JUN-22	R5795938
1,2-Dibromoethane	<1.5		1.5	ug/m3		08-JUN-22	R5795938
1,2-Dibromoethane	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
1,2-Dichlorobenzene	<1.2		1.2	ug/m3		08-JUN-22	R5795938
1,2-Dichlorobenzene	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
1,3-Dichlorobenzene	<1.2		1.2	ug/m3		08-JUN-22	R5795938
1,3-Dichlorobenzene	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
1,4-Dichlorobenzene	<1.2		1.2	ug/m3		08-JUN-22	R5795938
1,4-Dichlorobenzene	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Dichlorodifluoromethane	2.70		0.99	ug/m3		08-JUN-22	R5795938
Dichlorodifluoromethane	0.55		0.20	ppb(V)		08-JUN-22	R5795938
1,1-Dichloroethane	<0.81		0.81	ug/m3		08-JUN-22	R5795938
1,1-Dichloroethane	<0.20		0.20	ppb(V)		08-JUN-22	R5795938

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710626-1 SSV-09-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 15:15 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
1,2-Dichloroethane	<0.81		0.81	ug/m3		08-JUN-22	R5795938
1,2-Dichloroethane	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
1,1-Dichloroethene	<0.79		0.79	ug/m3		08-JUN-22	R5795938
1,1-Dichloroethene	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
cis-1,2-Dichloroethene	<0.79		0.79	ug/m3		08-JUN-22	R5795938
cis-1,2-Dichloroethene	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
trans-1,2-Dichloroethene	<0.79		0.79	ug/m3		08-JUN-22	R5795938
trans-1,2-Dichloroethene	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Methylene chloride	<0.69		0.69	ug/m3		08-JUN-22	R5795938
Methylene chloride	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
1,2-Dichloropropane	<0.92		0.92	ug/m3		08-JUN-22	R5795938
1,2-Dichloropropane	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
cis-1,3-Dichloropropene	<0.91		0.91	ug/m3		08-JUN-22	R5795938
cis-1,3-Dichloropropene	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
trans-1,3-Dichloropropene	<0.91		0.91	ug/m3		08-JUN-22	R5795938
trans-1,3-Dichloropropene	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
1,4-Dioxane	<0.72		0.72	ug/m3		08-JUN-22	R5795938
1,4-Dioxane	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Ethyl acetate	<0.72		0.72	ug/m3		08-JUN-22	R5795938
Ethyl acetate	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Ethylbenzene	1.23		0.87	ug/m3		08-JUN-22	R5795938
Ethylbenzene	0.28		0.20	ppb(V)		08-JUN-22	R5795938
4-Ethyltoluene	<0.98		0.98	ug/m3		08-JUN-22	R5795938
4-Ethyltoluene	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
n-Heptane	5.05		0.82	ug/m3		08-JUN-22	R5795938
n-Heptane	1.23		0.20	ppb(V)		08-JUN-22	R5795938
Hexachlorobutadiene	<2.1		2.1	ug/m3		08-JUN-22	R5795938
Hexachlorobutadiene	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
n-Hexane	8.97		0.70	ug/m3		08-JUN-22	R5795938
n-Hexane	2.54		0.20	ppb(V)		08-JUN-22	R5795938
2-Hexanone	<4.1		4.1	ug/m3		08-JUN-22	R5795938
2-Hexanone	<1.0		1.0	ppb(V)		08-JUN-22	R5795938
Isooctane	1.41	AI	0.93	ug/m3		08-JUN-22	R5795938
Isooctane	0.30	AI	0.20	ppb(V)		08-JUN-22	R5795938
Isopropylbenzene	<0.98		0.98	ug/m3		08-JUN-22	R5795938
Isopropylbenzene	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Methyl ethyl ketone	17.0		2.9	ug/m3		09-JUN-22	R5795938
Methyl ethyl ketone	5.8		1.0	ppb(V)		09-JUN-22	R5795938
Methyl isobutyl ketone	<0.82		0.82	ug/m3		08-JUN-22	R5795938
Methyl isobutyl ketone	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
MTBE	<0.72		0.72	ug/m3		08-JUN-22	R5795938
MTBE	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Naphthalene	<1.0		1.0	ug/m3		08-JUN-22	R5795938
Naphthalene	<0.20		0.20	ppb(V)		08-JUN-22	R5795938

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710626-1 SSV-09-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 15:15 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
Propylene	<16	DLQ	16	ug/m3		09-JUN-22	R5795938
Propylene	<9.5	DLQ	9.5	ppb(V)		09-JUN-22	R5795938
Styrene	<0.85		0.85	ug/m3		08-JUN-22	R5795938
Styrene	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
1,1,2,2-Tetrachloroethane	<1.4		1.4	ug/m3		08-JUN-22	R5795938
1,1,2,2-Tetrachloroethane	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Tetrachloroethylene	170		6.8	ug/m3		09-JUN-22	R5795938
Tetrachloroethylene	25.1		1.0	ppb(V)		09-JUN-22	R5795938
Tetrahydrofuran	<0.59		0.59	ug/m3		08-JUN-22	R5795938
Tetrahydrofuran	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Toluene	13.1		0.75	ug/m3		08-JUN-22	R5795938
Toluene	3.47		0.20	ppb(V)		08-JUN-22	R5795938
Freon 113	<1.5		1.5	ug/m3		08-JUN-22	R5795938
Freon 113	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
1,2,4-Trichlorobenzene	<1.5		1.5	ug/m3		08-JUN-22	R5795938
1,2,4-Trichlorobenzene	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
1,1,1-Trichloroethane	<1.1		1.1	ug/m3		08-JUN-22	R5795938
1,1,1-Trichloroethane	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
1,1,2-Trichloroethane	<1.1		1.1	ug/m3		08-JUN-22	R5795938
1,1,2-Trichloroethane	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Trichloroethylene	<1.1		1.1	ug/m3		08-JUN-22	R5795938
Trichloroethylene	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Trichlorofluoromethane	8.1		1.1	ug/m3		08-JUN-22	R5795938
Trichlorofluoromethane	1.43		0.20	ppb(V)		08-JUN-22	R5795938
Freon 114	<1.4		1.4	ug/m3		08-JUN-22	R5795938
Freon 114	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
1,2,4-Trimethylbenzene	1.29		0.98	ug/m3		08-JUN-22	R5795938
1,2,4-Trimethylbenzene	0.26		0.20	ppb(V)		08-JUN-22	R5795938
1,3,5-Trimethylbenzene	<0.98		0.98	ug/m3		08-JUN-22	R5795938
1,3,5-Trimethylbenzene	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Vinyl acetate	2.7		1.8	ug/m3		08-JUN-22	R5795938
Vinyl acetate	0.77		0.50	ppb(V)		08-JUN-22	R5795938
Vinyl bromide	<0.87		0.87	ug/m3		08-JUN-22	R5795938
Vinyl bromide	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
Vinyl chloride	<0.51		0.51	ug/m3		08-JUN-22	R5795938
Vinyl chloride	<0.20		0.20	ppb(V)		08-JUN-22	R5795938
o-Xylene	1.32		0.87	ug/m3		08-JUN-22	R5795938
o-Xylene	0.30		0.20	ppb(V)		08-JUN-22	R5795938
m&p-Xylene	5.1		1.7	ug/m3		08-JUN-22	R5795938
m&p-Xylene	1.17		0.40	ppb(V)		08-JUN-22	R5795938
Xylenes (Total)	1.47		0.45	ppb(V)		09-JUN-22	
Xylenes (Total)	6.4		2.0	ug/m3		09-JUN-22	
Aliphatic C6-C8	134		15	ug/m3		09-JUN-22	R5795938
Aliphatic C>8-C10	221		15	ug/m3		09-JUN-22	R5795938
Aliphatic C>10-C12	71		15	ug/m3		09-JUN-22	R5795938

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710626-1 SSV-09-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 15:15 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
Aliphatic C>12-C16	90		30	ug/m3		09-JUN-22	R5795938
Aromatic C>8-C10	<15		15	ug/m3		09-JUN-22	R5795938
Aromatic C>10-C12	<15		15	ug/m3		09-JUN-22	R5795938
Aromatic C>12-C16	<30		30	ug/m3		09-JUN-22	R5795938
F1 (C6-C10)	347		15	ug/m3		09-JUN-22	R5795938
F1-BTEX	322		15	ug/m3		09-JUN-22	
F2 (C10-C16)	201		15	ug/m3		09-JUN-22	R5795938
F2-Naphth	201		15	ug/m3		09-JUN-22	
Surrogate: 4-Bromofluorobenzene	100.1		50-150	%		09-JUN-22	R5795938
Surrogate: 4-Bromofluorobenzene	94.5		50-150	%		08-JUN-22	R5795938
Miscellaneous							
Batch Proof ID	220505.119				01-JUN-22	01-JUN-22	R5791528
Canister ID	01400-0544				01-JUN-22	01-JUN-22	R5791528
Pressure on Receipt	-4.5		-30	in Hg	01-JUN-22	01-JUN-22	R5791528
Regulator ID	G36				01-JUN-22	01-JUN-22	R5791528
L2710626-2 SSV-10-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 15:53 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
Acetone	73		59	ug/m3		09-JUN-22	R5795938
Acetone	31		25	ppb(V)		09-JUN-22	R5795938
Allyl chloride	<0.63		0.63	ug/m3		09-JUN-22	R5795938
Allyl chloride	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Benzene	2.61		0.32	ug/m3		09-JUN-22	R5795938
Benzene	0.82		0.10	ppb(V)		09-JUN-22	R5795938
Benzyl chloride	<1.0		1.0	ug/m3		09-JUN-22	R5795938
Benzyl chloride	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Bromodichloromethane	<1.3		1.3	ug/m3		09-JUN-22	R5795938
Bromodichloromethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Bromoform	<2.1		2.1	ug/m3		09-JUN-22	R5795938
Bromoform	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Bromomethane	<0.78		0.78	ug/m3		09-JUN-22	R5795938
Bromomethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,3-Butadiene	<0.44		0.44	ug/m3		09-JUN-22	R5795938
1,3-Butadiene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Carbon Disulfide	3.7		1.6	ug/m3		09-JUN-22	R5795938
Carbon Disulfide	1.19		0.50	ppb(V)		09-JUN-22	R5795938
Carbon Tetrachloride	<1.3		1.3	ug/m3		09-JUN-22	R5795938
Carbon Tetrachloride	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Chlorobenzene	<0.92		0.92	ug/m3		09-JUN-22	R5795938
Chlorobenzene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Dibromochloromethane	<1.7		1.7	ug/m3		09-JUN-22	R5795938
Dibromochloromethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710626-2 SSV-10-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 15:53 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
Chloroethane	<0.53		0.53	ug/m3		09-JUN-22	R5795938
Chloroethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Chloroform	<0.98		0.98	ug/m3		09-JUN-22	R5795938
Chloroform	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Chloromethane	<0.41		0.41	ug/m3		09-JUN-22	R5795938
Chloromethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Cyclohexane	2.60		0.69	ug/m3		09-JUN-22	R5795938
Cyclohexane	0.76		0.20	ppb(V)		09-JUN-22	R5795938
1,2-Dibromoethane	<1.5		1.5	ug/m3		09-JUN-22	R5795938
1,2-Dibromoethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,2-Dichlorobenzene	<1.2		1.2	ug/m3		09-JUN-22	R5795938
1,2-Dichlorobenzene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,3-Dichlorobenzene	<1.2		1.2	ug/m3		09-JUN-22	R5795938
1,3-Dichlorobenzene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,4-Dichlorobenzene	<1.2		1.2	ug/m3		09-JUN-22	R5795938
1,4-Dichlorobenzene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Dichlorodifluoromethane	3.05		0.99	ug/m3		09-JUN-22	R5795938
Dichlorodifluoromethane	0.62		0.20	ppb(V)		09-JUN-22	R5795938
1,1-Dichloroethane	<0.81		0.81	ug/m3		09-JUN-22	R5795938
1,1-Dichloroethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,2-Dichloroethane	<0.81		0.81	ug/m3		09-JUN-22	R5795938
1,2-Dichloroethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,1-Dichloroethene	<0.79		0.79	ug/m3		09-JUN-22	R5795938
1,1-Dichloroethene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
cis-1,2-Dichloroethene	<0.79		0.79	ug/m3		09-JUN-22	R5795938
cis-1,2-Dichloroethene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
trans-1,2-Dichloroethene	<0.79		0.79	ug/m3		09-JUN-22	R5795938
trans-1,2-Dichloroethene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Methylene chloride	<0.69		0.69	ug/m3		09-JUN-22	R5795938
Methylene chloride	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,2-Dichloropropane	<0.92		0.92	ug/m3		09-JUN-22	R5795938
1,2-Dichloropropane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
cis-1,3-Dichloropropene	<0.91		0.91	ug/m3		09-JUN-22	R5795938
cis-1,3-Dichloropropene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
trans-1,3-Dichloropropene	<0.91		0.91	ug/m3		09-JUN-22	R5795938
trans-1,3-Dichloropropene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,4-Dioxane	5.88		0.72	ug/m3		09-JUN-22	R5795938
1,4-Dioxane	1.63		0.20	ppb(V)		09-JUN-22	R5795938
Ethyl acetate	<0.72		0.72	ug/m3		09-JUN-22	R5795938
Ethyl acetate	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Ethylbenzene	0.95		0.87	ug/m3		09-JUN-22	R5795938
Ethylbenzene	0.22		0.20	ppb(V)		09-JUN-22	R5795938
4-Ethyltoluene	<0.98		0.98	ug/m3		09-JUN-22	R5795938
4-Ethyltoluene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710626-2 SSV-10-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 15:53 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
n-Heptane	3.75		0.82	ug/m3		09-JUN-22	R5795938
n-Heptane	0.91		0.20	ppb(V)		09-JUN-22	R5795938
Hexachlorobutadiene	<2.1		2.1	ug/m3		09-JUN-22	R5795938
Hexachlorobutadiene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
n-Hexane	8.27		0.70	ug/m3		09-JUN-22	R5795938
n-Hexane	2.35		0.20	ppb(V)		09-JUN-22	R5795938
2-Hexanone	<4.1		4.1	ug/m3		09-JUN-22	R5795938
2-Hexanone	<1.0		1.0	ppb(V)		09-JUN-22	R5795938
Isooctane	<0.93		0.93	ug/m3		09-JUN-22	R5795938
Isooctane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Isopropylbenzene	<0.98		0.98	ug/m3		09-JUN-22	R5795938
Isopropylbenzene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Methyl ethyl ketone	7.57		0.59	ug/m3		09-JUN-22	R5795938
Methyl ethyl ketone	2.57		0.20	ppb(V)		09-JUN-22	R5795938
Methyl isobutyl ketone	<0.82		0.82	ug/m3		09-JUN-22	R5795938
Methyl isobutyl ketone	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
MTBE	<0.72		0.72	ug/m3		09-JUN-22	R5795938
MTBE	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Naphthalene	<1.0		1.0	ug/m3		09-JUN-22	R5795938
Naphthalene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Propylene	<5.9	DLQ	5.9	ug/m3		09-JUN-22	R5795938
Propylene	<3.4	DLQ	3.4	ppb(V)		09-JUN-22	R5795938
Styrene	<0.85		0.85	ug/m3		09-JUN-22	R5795938
Styrene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,1,2,2-Tetrachloroethane	<1.4		1.4	ug/m3		09-JUN-22	R5795938
1,1,2,2-Tetrachloroethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Tetrachloroethylene	17.4		1.4	ug/m3		09-JUN-22	R5795938
Tetrachloroethylene	2.57		0.20	ppb(V)		09-JUN-22	R5795938
Tetrahydrofuran	<0.59		0.59	ug/m3		09-JUN-22	R5795938
Tetrahydrofuran	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Toluene	13.2		0.75	ug/m3		09-JUN-22	R5795938
Toluene	3.50		0.20	ppb(V)		09-JUN-22	R5795938
Freon 113	<1.5		1.5	ug/m3		09-JUN-22	R5795938
Freon 113	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,2,4-Trichlorobenzene	<1.5		1.5	ug/m3		09-JUN-22	R5795938
1,2,4-Trichlorobenzene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,1,1-Trichloroethane	3.1		1.1	ug/m3		09-JUN-22	R5795938
1,1,1-Trichloroethane	0.58		0.20	ppb(V)		09-JUN-22	R5795938
1,1,2-Trichloroethane	<1.1		1.1	ug/m3		09-JUN-22	R5795938
1,1,2-Trichloroethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Trichloroethylene	<1.1		1.1	ug/m3		09-JUN-22	R5795938
Trichloroethylene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Trichlorofluoromethane	11.0		1.1	ug/m3		09-JUN-22	R5795938
Trichlorofluoromethane	1.95		0.20	ppb(V)		09-JUN-22	R5795938

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710626-2 SSV-10-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 15:53 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
Freon 114	<1.4		1.4	ug/m3		09-JUN-22	R5795938
Freon 114	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,2,4-Trimethylbenzene	1.08		0.98	ug/m3		09-JUN-22	R5795938
1,2,4-Trimethylbenzene	0.22		0.20	ppb(V)		09-JUN-22	R5795938
1,3,5-Trimethylbenzene	<0.98		0.98	ug/m3		09-JUN-22	R5795938
1,3,5-Trimethylbenzene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Vinyl acetate	<1.8		1.8	ug/m3		09-JUN-22	R5795938
Vinyl acetate	<0.50		0.50	ppb(V)		09-JUN-22	R5795938
Vinyl bromide	<0.87		0.87	ug/m3		09-JUN-22	R5795938
Vinyl bromide	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Vinyl chloride	<0.51		0.51	ug/m3		09-JUN-22	R5795938
Vinyl chloride	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
o-Xylene	1.30		0.87	ug/m3		09-JUN-22	R5795938
o-Xylene	0.30		0.20	ppb(V)		09-JUN-22	R5795938
m&p-Xylene	4.5		1.7	ug/m3		09-JUN-22	R5795938
m&p-Xylene	1.03		0.40	ppb(V)		09-JUN-22	R5795938
Xylenes (Total)	1.33		0.45	ppb(V)		09-JUN-22	
Xylenes (Total)	5.8		2.0	ug/m3		09-JUN-22	
Aliphatic C6-C8	128		15	ug/m3		09-JUN-22	R5795938
Aliphatic C>8-C10	74		15	ug/m3		09-JUN-22	R5795938
Aliphatic C>10-C12	128		15	ug/m3		09-JUN-22	R5795938
Aliphatic C>12-C16	418		30	ug/m3		09-JUN-22	R5795938
Aromatic C>8-C10	<15		15	ug/m3		09-JUN-22	R5795938
Aromatic C>10-C12	<15		15	ug/m3		09-JUN-22	R5795938
Aromatic C>12-C16	<30		30	ug/m3		09-JUN-22	R5795938
F1 (C6-C10)	198		15	ug/m3		09-JUN-22	R5795938
F1-BTEX	175		15	ug/m3		09-JUN-22	
F2 (C10-C16)	648		15	ug/m3		09-JUN-22	R5795938
F2-Naphth	648		15	ug/m3		09-JUN-22	
Surrogate: 4-Bromofluorobenzene	100.5		50-150	%		09-JUN-22	R5795938
Surrogate: 4-Bromofluorobenzene	94.9		50-150	%		09-JUN-22	R5795938
Miscellaneous							
Batch Proof ID	220505.11				01-JUN-22	01-JUN-22	R5791528
Canister ID	01400-0426				01-JUN-22	01-JUN-22	R5791528
Pressure on Receipt	-5.5		-30	in Hg	01-JUN-22	01-JUN-22	R5791528
Regulator ID	G232				01-JUN-22	01-JUN-22	R5791528
L2710626-3 SSV-11-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 14:01 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
Acetone	39		12	ug/m3		09-JUN-22	R5795938
Acetone	16.3		5.0	ppb(V)		09-JUN-22	R5795938
Allyl chloride	<0.63		0.63	ug/m3		09-JUN-22	R5795938
Allyl chloride	<0.20		0.20	ppb(V)		09-JUN-22	R5795938

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710626-3 SSV-11-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 14:01 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
Benzene	4.26		0.32	ug/m3		09-JUN-22	R5795938
Benzene	1.33		0.10	ppb(V)		09-JUN-22	R5795938
Benzyl chloride	<1.0		1.0	ug/m3		09-JUN-22	R5795938
Benzyl chloride	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Bromodichloromethane	<1.3		1.3	ug/m3		09-JUN-22	R5795938
Bromodichloromethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Bromoform	<2.1		2.1	ug/m3		09-JUN-22	R5795938
Bromoform	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Bromomethane	<0.78		0.78	ug/m3		09-JUN-22	R5795938
Bromomethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,3-Butadiene	<0.44		0.44	ug/m3		09-JUN-22	R5795938
1,3-Butadiene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Carbon Disulfide	1.8		1.6	ug/m3		09-JUN-22	R5795938
Carbon Disulfide	0.58		0.50	ppb(V)		09-JUN-22	R5795938
Carbon Tetrachloride	<1.3		1.3	ug/m3		09-JUN-22	R5795938
Carbon Tetrachloride	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Chlorobenzene	<0.92		0.92	ug/m3		09-JUN-22	R5795938
Chlorobenzene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Dibromochloromethane	<1.7		1.7	ug/m3		09-JUN-22	R5795938
Dibromochloromethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Chloroethane	<0.53		0.53	ug/m3		09-JUN-22	R5795938
Chloroethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Chloroform	<0.98		0.98	ug/m3		09-JUN-22	R5795938
Chloroform	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Chloromethane	<0.41		0.41	ug/m3		09-JUN-22	R5795938
Chloromethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Cyclohexane	2.05		0.69	ug/m3		09-JUN-22	R5795938
Cyclohexane	0.60		0.20	ppb(V)		09-JUN-22	R5795938
1,2-Dibromoethane	<1.5		1.5	ug/m3		09-JUN-22	R5795938
1,2-Dibromoethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,2-Dichlorobenzene	<1.2		1.2	ug/m3		09-JUN-22	R5795938
1,2-Dichlorobenzene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,3-Dichlorobenzene	<1.2		1.2	ug/m3		09-JUN-22	R5795938
1,3-Dichlorobenzene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,4-Dichlorobenzene	<1.2		1.2	ug/m3		09-JUN-22	R5795938
1,4-Dichlorobenzene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Dichlorodifluoromethane	3.34		0.99	ug/m3		09-JUN-22	R5795938
Dichlorodifluoromethane	0.68		0.20	ppb(V)		09-JUN-22	R5795938
1,1-Dichloroethane	<0.81		0.81	ug/m3		09-JUN-22	R5795938
1,1-Dichloroethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,2-Dichloroethane	<0.81		0.81	ug/m3		09-JUN-22	R5795938
1,2-Dichloroethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,1-Dichloroethene	<0.79		0.79	ug/m3		09-JUN-22	R5795938
1,1-Dichloroethene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710626-3 SSV-11-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 14:01 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
cis-1,2-Dichloroethene	<0.79		0.79	ug/m3		09-JUN-22	R5795938
cis-1,2-Dichloroethene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
trans-1,2-Dichloroethene	<0.79		0.79	ug/m3		09-JUN-22	R5795938
trans-1,2-Dichloroethene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Methylene chloride	<0.69		0.69	ug/m3		09-JUN-22	R5795938
Methylene chloride	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,2-Dichloropropane	<0.92		0.92	ug/m3		09-JUN-22	R5795938
1,2-Dichloropropane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
cis-1,3-Dichloropropene	<0.91		0.91	ug/m3		09-JUN-22	R5795938
cis-1,3-Dichloropropene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
trans-1,3-Dichloropropene	<0.91		0.91	ug/m3		09-JUN-22	R5795938
trans-1,3-Dichloropropene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,4-Dioxane	<0.72		0.72	ug/m3		09-JUN-22	R5795938
1,4-Dioxane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Ethyl acetate	<0.72		0.72	ug/m3		09-JUN-22	R5795938
Ethyl acetate	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Ethylbenzene	1.21		0.87	ug/m3		09-JUN-22	R5795938
Ethylbenzene	0.28		0.20	ppb(V)		09-JUN-22	R5795938
4-Ethyltoluene	<0.98		0.98	ug/m3		09-JUN-22	R5795938
4-Ethyltoluene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
n-Heptane	5.71		0.82	ug/m3		09-JUN-22	R5795938
n-Heptane	1.39		0.20	ppb(V)		09-JUN-22	R5795938
Hexachlorobutadiene	<2.1		2.1	ug/m3		09-JUN-22	R5795938
Hexachlorobutadiene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
n-Hexane	5.89		0.70	ug/m3		09-JUN-22	R5795938
n-Hexane	1.67		0.20	ppb(V)		09-JUN-22	R5795938
2-Hexanone	<4.1		4.1	ug/m3		09-JUN-22	R5795938
2-Hexanone	<1.0		1.0	ppb(V)		09-JUN-22	R5795938
Isooctane	1.39	AI	0.93	ug/m3		09-JUN-22	R5795938
Isooctane	0.30	AI	0.20	ppb(V)		09-JUN-22	R5795938
Isopropylbenzene	<0.98		0.98	ug/m3		09-JUN-22	R5795938
Isopropylbenzene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Methyl ethyl ketone	8.56		0.59	ug/m3		09-JUN-22	R5795938
Methyl ethyl ketone	2.90		0.20	ppb(V)		09-JUN-22	R5795938
Methyl isobutyl ketone	<0.82		0.82	ug/m3		09-JUN-22	R5795938
Methyl isobutyl ketone	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
MTBE	<0.72		0.72	ug/m3		09-JUN-22	R5795938
MTBE	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Naphthalene	<1.0		1.0	ug/m3		09-JUN-22	R5795938
Naphthalene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Propylene	<2.4	DLQ	2.4	ug/m3		09-JUN-22	R5795938
Propylene	<1.4	DLQ	1.4	ppb(V)		09-JUN-22	R5795938
Styrene	<0.85		0.85	ug/m3		09-JUN-22	R5795938
Styrene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710626-3 SSV-11-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 14:01 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
1,1,2,2-Tetrachloroethane	<1.4		1.4	ug/m3		09-JUN-22	R5795938
1,1,2,2-Tetrachloroethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Tetrachloroethylene	15.0		1.4	ug/m3		09-JUN-22	R5795938
Tetrachloroethylene	2.21		0.20	ppb(V)		09-JUN-22	R5795938
Tetrahydrofuran	<0.59		0.59	ug/m3		09-JUN-22	R5795938
Tetrahydrofuran	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Toluene	15.0		0.75	ug/m3		09-JUN-22	R5795938
Toluene	3.98		0.20	ppb(V)		09-JUN-22	R5795938
Freon 113	<1.5		1.5	ug/m3		09-JUN-22	R5795938
Freon 113	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,2,4-Trichlorobenzene	<1.5		1.5	ug/m3		09-JUN-22	R5795938
1,2,4-Trichlorobenzene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,1,1-Trichloroethane	<1.1		1.1	ug/m3		09-JUN-22	R5795938
1,1,1-Trichloroethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,1,2-Trichloroethane	<1.1		1.1	ug/m3		09-JUN-22	R5795938
1,1,2-Trichloroethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Trichloroethylene	<1.1		1.1	ug/m3		09-JUN-22	R5795938
Trichloroethylene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Trichlorofluoromethane	5.4		1.1	ug/m3		09-JUN-22	R5795938
Trichlorofluoromethane	0.95		0.20	ppb(V)		09-JUN-22	R5795938
Freon 114	<1.4		1.4	ug/m3		09-JUN-22	R5795938
Freon 114	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,2,4-Trimethylbenzene	1.86		0.98	ug/m3		09-JUN-22	R5795938
1,2,4-Trimethylbenzene	0.38		0.20	ppb(V)		09-JUN-22	R5795938
1,3,5-Trimethylbenzene	<0.98		0.98	ug/m3		09-JUN-22	R5795938
1,3,5-Trimethylbenzene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Vinyl acetate	<1.8		1.8	ug/m3		09-JUN-22	R5795938
Vinyl acetate	<0.50		0.50	ppb(V)		09-JUN-22	R5795938
Vinyl bromide	<0.87		0.87	ug/m3		09-JUN-22	R5795938
Vinyl bromide	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Vinyl chloride	<0.51		0.51	ug/m3		09-JUN-22	R5795938
Vinyl chloride	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
o-Xylene	1.47		0.87	ug/m3		09-JUN-22	R5795938
o-Xylene	0.34		0.20	ppb(V)		09-JUN-22	R5795938
m&p-Xylene	5.2		1.7	ug/m3		09-JUN-22	R5795938
m&p-Xylene	1.19		0.40	ppb(V)		09-JUN-22	R5795938
Xylenes (Total)	1.53		0.45	ppb(V)		09-JUN-22	
Xylenes (Total)	6.7		2.0	ug/m3		09-JUN-22	
Aliphatic C6-C8	156		15	ug/m3		09-JUN-22	R5795938
Aliphatic C>8-C10	90		15	ug/m3		09-JUN-22	R5795938
Aliphatic C>10-C12	109		15	ug/m3		09-JUN-22	R5795938
Aliphatic C>12-C16	130		30	ug/m3		09-JUN-22	R5795938
Aromatic C>8-C10	<15		15	ug/m3		09-JUN-22	R5795938
Aromatic C>10-C12	<15		15	ug/m3		09-JUN-22	R5795938
Aromatic C>12-C16	<30		30	ug/m3		09-JUN-22	R5795938

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710626-3 SSV-11-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 14:01 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
F1 (C6-C10)	244		15	ug/m3		09-JUN-22	R5795938
F1-BTEX	217		15	ug/m3		09-JUN-22	
F2 (C10-C16)	299		15	ug/m3		09-JUN-22	R5795938
F2-Naphth	299		15	ug/m3		09-JUN-22	
Surrogate: 4-Bromofluorobenzene	99.6		50-150	%		09-JUN-22	R5795938
Surrogate: 4-Bromofluorobenzene	99.7		50-150	%		09-JUN-22	R5795938
Miscellaneous							
Batch Proof ID	220504.103				01-JUN-22	01-JUN-22	R5791528
Canister ID	01400-0404				01-JUN-22	01-JUN-22	R5791528
Pressure on Receipt	-5.3		-30	in Hg	01-JUN-22	01-JUN-22	R5791528
Regulator ID	G343				01-JUN-22	01-JUN-22	R5791528
L2710626-4 SSV-12-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 13:20 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
Acetone	96		12	ug/m3		09-JUN-22	R5795938
Acetone	40.5		5.0	ppb(V)		09-JUN-22	R5795938
Allyl chloride	<0.63		0.63	ug/m3		09-JUN-22	R5795938
Allyl chloride	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Benzene	1.99		0.32	ug/m3		09-JUN-22	R5795938
Benzene	0.62		0.10	ppb(V)		09-JUN-22	R5795938
Benzyl chloride	<1.0		1.0	ug/m3		09-JUN-22	R5795938
Benzyl chloride	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Bromodichloromethane	<1.3		1.3	ug/m3		09-JUN-22	R5795938
Bromodichloromethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Bromoform	<2.1		2.1	ug/m3		09-JUN-22	R5795938
Bromoform	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Bromomethane	<0.78		0.78	ug/m3		09-JUN-22	R5795938
Bromomethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,3-Butadiene	<0.44		0.44	ug/m3		09-JUN-22	R5795938
1,3-Butadiene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Carbon Disulfide	<1.6		1.6	ug/m3		09-JUN-22	R5795938
Carbon Disulfide	<0.50		0.50	ppb(V)		09-JUN-22	R5795938
Carbon Tetrachloride	<1.3		1.3	ug/m3		09-JUN-22	R5795938
Carbon Tetrachloride	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Chlorobenzene	<0.92		0.92	ug/m3		09-JUN-22	R5795938
Chlorobenzene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Dibromochloromethane	<1.7		1.7	ug/m3		09-JUN-22	R5795938
Dibromochloromethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Chloroethane	<0.53		0.53	ug/m3		09-JUN-22	R5795938
Chloroethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Chloroform	<0.98		0.98	ug/m3		09-JUN-22	R5795938
Chloroform	<0.20		0.20	ppb(V)		09-JUN-22	R5795938

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710626-4 SSV-12-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 13:20 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
Chloromethane	<0.41		0.41	ug/m3		09-JUN-22	R5795938
Chloromethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Cyclohexane	3.79		0.69	ug/m3		09-JUN-22	R5795938
Cyclohexane	1.10		0.20	ppb(V)		09-JUN-22	R5795938
1,2-Dibromoethane	<1.5		1.5	ug/m3		09-JUN-22	R5795938
1,2-Dibromoethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,2-Dichlorobenzene	<1.2		1.2	ug/m3		09-JUN-22	R5795938
1,2-Dichlorobenzene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,3-Dichlorobenzene	<1.2		1.2	ug/m3		09-JUN-22	R5795938
1,3-Dichlorobenzene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,4-Dichlorobenzene	<1.2		1.2	ug/m3		09-JUN-22	R5795938
1,4-Dichlorobenzene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Dichlorodifluoromethane	4.83		0.99	ug/m3		09-JUN-22	R5795938
Dichlorodifluoromethane	0.98		0.20	ppb(V)		09-JUN-22	R5795938
1,1-Dichloroethane	<0.81		0.81	ug/m3		09-JUN-22	R5795938
1,1-Dichloroethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,2-Dichloroethane	<0.81		0.81	ug/m3		09-JUN-22	R5795938
1,2-Dichloroethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,1-Dichloroethene	<0.79		0.79	ug/m3		09-JUN-22	R5795938
1,1-Dichloroethene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
cis-1,2-Dichloroethene	<0.79		0.79	ug/m3		09-JUN-22	R5795938
cis-1,2-Dichloroethene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
trans-1,2-Dichloroethene	<0.79		0.79	ug/m3		09-JUN-22	R5795938
trans-1,2-Dichloroethene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Methylene chloride	<0.69		0.69	ug/m3		09-JUN-22	R5795938
Methylene chloride	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,2-Dichloropropane	<0.92		0.92	ug/m3		09-JUN-22	R5795938
1,2-Dichloropropane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
cis-1,3-Dichloropropene	<0.91		0.91	ug/m3		09-JUN-22	R5795938
cis-1,3-Dichloropropene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
trans-1,3-Dichloropropene	<0.91		0.91	ug/m3		09-JUN-22	R5795938
trans-1,3-Dichloropropene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,4-Dioxane	<0.72		0.72	ug/m3		09-JUN-22	R5795938
1,4-Dioxane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Ethyl acetate	0.82		0.72	ug/m3		09-JUN-22	R5795938
Ethyl acetate	0.23		0.20	ppb(V)		09-JUN-22	R5795938
Ethylbenzene	1.26		0.87	ug/m3		09-JUN-22	R5795938
Ethylbenzene	0.29		0.20	ppb(V)		09-JUN-22	R5795938
4-Ethyltoluene	1.02		0.98	ug/m3		09-JUN-22	R5795938
4-Ethyltoluene	0.21		0.20	ppb(V)		09-JUN-22	R5795938
n-Heptane	12.6		0.82	ug/m3		09-JUN-22	R5795938
n-Heptane	3.08		0.20	ppb(V)		09-JUN-22	R5795938
Hexachlorobutadiene	<2.1		2.1	ug/m3		09-JUN-22	R5795938
Hexachlorobutadiene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710626-4 SSV-12-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 13:20 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
n-Hexane	12.9		0.70	ug/m3		09-JUN-22	R5795938
n-Hexane	3.66		0.20	ppb(V)		09-JUN-22	R5795938
2-Hexanone	<4.1		4.1	ug/m3		09-JUN-22	R5795938
2-Hexanone	<1.0		1.0	ppb(V)		09-JUN-22	R5795938
Isooctane	<0.93		0.93	ug/m3		09-JUN-22	R5795938
Isooctane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Isopropylbenzene	<0.98		0.98	ug/m3		09-JUN-22	R5795938
Isopropylbenzene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Methyl ethyl ketone	5.33		0.59	ug/m3		09-JUN-22	R5795938
Methyl ethyl ketone	1.81		0.20	ppb(V)		09-JUN-22	R5795938
Methyl isobutyl ketone	<0.82		0.82	ug/m3		09-JUN-22	R5795938
Methyl isobutyl ketone	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
MTBE	<0.72		0.72	ug/m3		09-JUN-22	R5795938
MTBE	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Naphthalene	<1.0		1.0	ug/m3		09-JUN-22	R5795938
Naphthalene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Propylene	<7.1	DLQ	7.1	ug/m3		09-JUN-22	R5795938
Propylene	<4.1	DLQ	4.1	ppb(V)		09-JUN-22	R5795938
Styrene	<0.85		0.85	ug/m3		09-JUN-22	R5795938
Styrene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,1,2,2-Tetrachloroethane	<1.4		1.4	ug/m3		09-JUN-22	R5795938
1,1,2,2-Tetrachloroethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Tetrachloroethylene	14.0		1.4	ug/m3		09-JUN-22	R5795938
Tetrachloroethylene	2.06		0.20	ppb(V)		09-JUN-22	R5795938
Tetrahydrofuran	<0.59		0.59	ug/m3		09-JUN-22	R5795938
Tetrahydrofuran	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Toluene	9.40		0.75	ug/m3		09-JUN-22	R5795938
Toluene	2.49		0.20	ppb(V)		09-JUN-22	R5795938
Freon 113	<1.5		1.5	ug/m3		09-JUN-22	R5795938
Freon 113	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,2,4-Trichlorobenzene	<1.5		1.5	ug/m3		09-JUN-22	R5795938
1,2,4-Trichlorobenzene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,1,1-Trichloroethane	<1.1		1.1	ug/m3		09-JUN-22	R5795938
1,1,1-Trichloroethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
1,1,2-Trichloroethane	<1.1		1.1	ug/m3		09-JUN-22	R5795938
1,1,2-Trichloroethane	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Trichloroethylene	<1.1		1.1	ug/m3		09-JUN-22	R5795938
Trichloroethylene	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Trichlorofluoromethane	29.7		5.6	ug/m3		09-JUN-22	R5795938
Trichlorofluoromethane	5.3		1.0	ppb(V)		09-JUN-22	R5795938
Freon 114	3.1		1.4	ug/m3		09-JUN-22	R5795938
Freon 114	0.44		0.20	ppb(V)		09-JUN-22	R5795938
1,2,4-Trimethylbenzene	3.68		0.98	ug/m3		09-JUN-22	R5795938
1,2,4-Trimethylbenzene	0.75		0.20	ppb(V)		09-JUN-22	R5795938

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710626-4 SSV-12-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 13:20 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
1,3,5-Trimethylbenzene	1.23		0.98	ug/m3		09-JUN-22	R5795938
1,3,5-Trimethylbenzene	0.25		0.20	ppb(V)		09-JUN-22	R5795938
Vinyl acetate	<1.8		1.8	ug/m3		09-JUN-22	R5795938
Vinyl acetate	<0.50		0.50	ppb(V)		09-JUN-22	R5795938
Vinyl bromide	<0.87		0.87	ug/m3		09-JUN-22	R5795938
Vinyl bromide	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
Vinyl chloride	<0.51		0.51	ug/m3		09-JUN-22	R5795938
Vinyl chloride	<0.20		0.20	ppb(V)		09-JUN-22	R5795938
o-Xylene	1.35		0.87	ug/m3		09-JUN-22	R5795938
o-Xylene	0.31		0.20	ppb(V)		09-JUN-22	R5795938
m&p-Xylene	5.4		1.7	ug/m3		09-JUN-22	R5795938
m&p-Xylene	1.25		0.40	ppb(V)		09-JUN-22	R5795938
Xylenes (Total)	1.56		0.45	ppb(V)		09-JUN-22	
Xylenes (Total)	6.8		2.0	ug/m3		09-JUN-22	
Aliphatic C6-C8	199		15	ug/m3		09-JUN-22	R5795938
Aliphatic C>8-C10	172		15	ug/m3		09-JUN-22	R5795938
Aliphatic C>10-C12	139		15	ug/m3		09-JUN-22	R5795938
Aliphatic C>12-C16	95		30	ug/m3		09-JUN-22	R5795938
Aromatic C>8-C10	20		15	ug/m3		09-JUN-22	R5795938
Aromatic C>10-C12	<15		15	ug/m3		09-JUN-22	R5795938
Aromatic C>12-C16	<30		30	ug/m3		09-JUN-22	R5795938
F1 (C6-C10)	362		15	ug/m3		09-JUN-22	R5795938
F1-BTEX	343		15	ug/m3		09-JUN-22	
F2 (C10-C16)	311		15	ug/m3		09-JUN-22	R5795938
F2-Naphth	311		15	ug/m3		09-JUN-22	
Surrogate: 4-Bromofluorobenzene	100.0		50-150	%		09-JUN-22	R5795938
Surrogate: 4-Bromofluorobenzene	97.8		50-150	%		09-JUN-22	R5795938
Miscellaneous							
Batch Proof ID	220505.124				01-JUN-22	01-JUN-22	R5791528
Canister ID	01400-0200				01-JUN-22	01-JUN-22	R5791528
Pressure on Receipt	-3.1		-30	in Hg	01-JUN-22	01-JUN-22	R5791528
Regulator ID	G302				01-JUN-22	01-JUN-22	R5791528
L2710626-5 SSV-13-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 12:07 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
Acetone	2100		1000	ug/m3		13-JUN-22	R5795938
Acetone	870		430	ppb(V)		13-JUN-22	R5795938
Allyl chloride	<16	DLHC	16	ug/m3		10-JUN-22	R5795938
Allyl chloride	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Benzene	94.2	DLHC	7.9	ug/m3		10-JUN-22	R5795938
Benzene	29.5	DLHC	2.5	ppb(V)		10-JUN-22	R5795938
Benzyl chloride	<26	DLHC	26	ug/m3		10-JUN-22	R5795938
Benzyl chloride	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710626-5 SSV-13-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 12:07 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
Bromodichloromethane	<33	DLHC	33	ug/m3		10-JUN-22	R5795938
Bromodichloromethane	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Bromoform	<51	DLHC	51	ug/m3		10-JUN-22	R5795938
Bromoform	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Bromomethane	<19	DLHC	19	ug/m3		10-JUN-22	R5795938
Bromomethane	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
1,3-Butadiene	<21	DLQ	21	ug/m3		10-JUN-22	R5795938
1,3-Butadiene	<9.5	DLQ	9.5	ppb(V)		10-JUN-22	R5795938
Carbon Disulfide	<39	DLHC	39	ug/m3		10-JUN-22	R5795938
Carbon Disulfide	<12	DLHC	12	ppb(V)		10-JUN-22	R5795938
Carbon Tetrachloride	<31	DLHC	31	ug/m3		10-JUN-22	R5795938
Carbon Tetrachloride	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Chlorobenzene	<23	DLHC	23	ug/m3		10-JUN-22	R5795938
Chlorobenzene	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Dibromochloromethane	<42	DLHC	42	ug/m3		10-JUN-22	R5795938
Dibromochloromethane	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Chloroethane	<2900	DLQ	2900	ug/m3		13-JUN-22	R5795938
Chloroethane	<1100	DLQ	1100	ppb(V)		13-JUN-22	R5795938
Chloroform	<24	DLHC	24	ug/m3		10-JUN-22	R5795938
Chloroform	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Chloromethane	<740000	DLQ	740000	ug/m3		13-JUN-22	R5795938
Chloromethane	<360000	DLQ	360000	ppb(V)		13-JUN-22	R5795938
Cyclohexane	52	DLHC	17	ug/m3		10-JUN-22	R5795938
Cyclohexane	15.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
1,2-Dibromoethane	<38	DLHC	38	ug/m3		10-JUN-22	R5795938
1,2-Dibromoethane	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
1,2-Dichlorobenzene	<30	DLHC	30	ug/m3		10-JUN-22	R5795938
1,2-Dichlorobenzene	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
1,3-Dichlorobenzene	<30	DLHC	30	ug/m3		10-JUN-22	R5795938
1,3-Dichlorobenzene	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
1,4-Dichlorobenzene	<30	DLHC	30	ug/m3		10-JUN-22	R5795938
1,4-Dichlorobenzene	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Dichlorodifluoromethane	47000		11000	ug/m3		13-JUN-22	R5795938
Dichlorodifluoromethane	9500		2100	ppb(V)		13-JUN-22	R5795938
1,1-Dichloroethane	<20	DLHC	20	ug/m3		10-JUN-22	R5795938
1,1-Dichloroethane	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
1,2-Dichloroethane	196	DLHC	20	ug/m3		10-JUN-22	R5795938
1,2-Dichloroethane	48.5	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
1,1-Dichloroethene	<20	DLHC	20	ug/m3		10-JUN-22	R5795938
1,1-Dichloroethene	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
cis-1,2-Dichloroethene	<20	DLHC	20	ug/m3		10-JUN-22	R5795938
cis-1,2-Dichloroethene	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
trans-1,2-Dichloroethene	<20	DLHC	20	ug/m3		10-JUN-22	R5795938
trans-1,2-Dichloroethene	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710626-5 SSV-13-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 12:07 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
Methylene chloride	<17	DLHC	17	ug/m3		10-JUN-22	R5795938
Methylene chloride	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
1,2-Dichloropropane	<23	DLHC	23	ug/m3		10-JUN-22	R5795938
1,2-Dichloropropane	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
cis-1,3-Dichloropropene	<23	DLHC	23	ug/m3		10-JUN-22	R5795938
cis-1,3-Dichloropropene	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
trans-1,3-Dichloropropene	<23	DLHC	23	ug/m3		10-JUN-22	R5795938
trans-1,3-Dichloropropene	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
1,4-Dioxane	<18	DLHC	18	ug/m3		10-JUN-22	R5795938
1,4-Dioxane	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Ethyl acetate	<18	DLHC	18	ug/m3		10-JUN-22	R5795938
Ethyl acetate	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Ethylbenzene	35	DLHC	22	ug/m3		10-JUN-22	R5795938
Ethylbenzene	8.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
4-Ethyltoluene	<24	DLHC	24	ug/m3		10-JUN-22	R5795938
4-Ethyltoluene	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
n-Heptane	<160	DLQ	160	ug/m3		10-JUN-22	R5795938
n-Heptane	<40	DLQ	40	ppb(V)		10-JUN-22	R5795938
Hexachlorobutadiene	<53	DLHC	53	ug/m3		10-JUN-22	R5795938
Hexachlorobutadiene	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
n-Hexane	224	DLHC	17	ug/m3		10-JUN-22	R5795938
n-Hexane	63.5	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
2-Hexanone	<100	DLHC	100	ug/m3		10-JUN-22	R5795938
2-Hexanone	<25	DLHC	25	ppb(V)		10-JUN-22	R5795938
Isooctane	37	DLHC	23	ug/m3		10-JUN-22	R5795938
Isooctane	8.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Isopropylbenzene	<24	DLHC	24	ug/m3		10-JUN-22	R5795938
Isopropylbenzene	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Methyl ethyl ketone	59	DLHC	15	ug/m3		10-JUN-22	R5795938
Methyl ethyl ketone	20.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Methyl isobutyl ketone	<20	DLHC	20	ug/m3		10-JUN-22	R5795938
Methyl isobutyl ketone	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
MTBE	<18	DLHC	18	ug/m3		10-JUN-22	R5795938
MTBE	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Naphthalene	<26	DLHC	26	ug/m3		10-JUN-22	R5795938
Naphthalene	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Propylene	<350	DLQ	350	ug/m3		13-JUN-22	R5795938
Propylene	<200	DLQ	200	ppb(V)		13-JUN-22	R5795938
Styrene	1110		370	ug/m3		13-JUN-22	R5795938
Styrene	262		86	ppb(V)		13-JUN-22	R5795938
1,1,2,2-Tetrachloroethane	<34	DLHC	34	ug/m3		10-JUN-22	R5795938
1,1,2,2-Tetrachloroethane	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Tetrachloroethylene	<34	DLHC	34	ug/m3		10-JUN-22	R5795938
Tetrachloroethylene	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710626-5 SSV-13-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 12:07 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
Tetrahydrofuran	<15	DLHC	15	ug/m3		10-JUN-22	R5795938
Tetrahydrofuran	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Toluene	277	DLHC	19	ug/m3		10-JUN-22	R5795938
Toluene	73.5	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Freon 113	<38	DLHC	38	ug/m3		10-JUN-22	R5795938
Freon 113	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
1,2,4-Trichlorobenzene	<37	DLHC	37	ug/m3		10-JUN-22	R5795938
1,2,4-Trichlorobenzene	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
1,1,1-Trichloroethane	<27	DLHC	27	ug/m3		10-JUN-22	R5795938
1,1,1-Trichloroethane	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
1,1,2-Trichloroethane	<27	DLHC	27	ug/m3		10-JUN-22	R5795938
1,1,2-Trichloroethane	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Trichloroethylene	<27	DLHC	27	ug/m3		10-JUN-22	R5795938
Trichloroethylene	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Trichlorofluoromethane	140	DLHC	28	ug/m3		10-JUN-22	R5795938
Trichlorofluoromethane	25.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Freon 114	<260000	DLQ	260000	ug/m3		13-JUN-22	R5795938
Freon 114	<37000	DLQ	37000	ppb(V)		13-JUN-22	R5795938
1,2,4-Trimethylbenzene	37	DLHC	24	ug/m3		10-JUN-22	R5795938
1,2,4-Trimethylbenzene	7.5	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
1,3,5-Trimethylbenzene	<24	DLHC	24	ug/m3		10-JUN-22	R5795938
1,3,5-Trimethylbenzene	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Vinyl acetate	<44	DLHC	44	ug/m3		10-JUN-22	R5795938
Vinyl acetate	<12	DLHC	12	ppb(V)		10-JUN-22	R5795938
Vinyl bromide	<22	DLHC	22	ug/m3		10-JUN-22	R5795938
Vinyl bromide	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
Vinyl chloride	<1600	DLQ	1600	ug/m3		13-JUN-22	R5795938
Vinyl chloride	<620	DLQ	620	ppb(V)		13-JUN-22	R5795938
o-Xylene	<22	DLHC	22	ug/m3		10-JUN-22	R5795938
o-Xylene	<5.0	DLHC	5.0	ppb(V)		10-JUN-22	R5795938
m&p-Xylene	54	DLHC	43	ug/m3		10-JUN-22	R5795938
m&p-Xylene	12.5	DLHC	9.9	ppb(V)		10-JUN-22	R5795938
Xylenes (Total)	13		11	ppb(V)		13-JUN-22	
Xylenes (Total)	54		48	ug/m3		13-JUN-22	
Aliphatic C6-C8	31500	DLHC	370	ug/m3		13-JUN-22	R5795938
Aliphatic C>8-C10	2910	DLHC	370	ug/m3		13-JUN-22	R5795938
Aliphatic C>10-C12	2380	DLHC	370	ug/m3		13-JUN-22	R5795938
Aliphatic C>12-C16	760	DLHC	740	ug/m3		13-JUN-22	R5795938
Aromatic C>8-C10	990	DLHC	370	ug/m3		13-JUN-22	R5795938
Aromatic C>10-C12	<370	DLHC	370	ug/m3		13-JUN-22	R5795938
Aromatic C>12-C16	<740	DLHC	740	ug/m3		13-JUN-22	R5795938
F1 (C6-C10)	31800	DLHC	370	ug/m3		13-JUN-22	R5795938
F1-BTEX	31400		370	ug/m3		13-JUN-22	
F2 (C10-C16)	3880	DLHC	370	ug/m3		13-JUN-22	R5795938

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710626-5 SSV-13-20220526 Sampled By: A. INGLIS on 26-MAY-22 @ 12:07 Matrix: SOIL GAS VAPOUR							
Volatile Organic Compounds							
F2-Naphth	3880		370	ug/m3		13-JUN-22	
Surrogate: 4-Bromofluorobenzene	100.3		50-150	%		13-JUN-22	R5795938
Surrogate: 4-Bromofluorobenzene	101.6		50-150	%		10-JUN-22	R5795938
Miscellaneous							
Batch Proof ID	220505.127				01-JUN-22	01-JUN-22	R5791528
Canister ID	01400-0076				01-JUN-22	01-JUN-22	R5791528
Pressure on Receipt	-4.5		-30	in Hg	01-JUN-22	01-JUN-22	R5791528
Regulator ID	G352				01-JUN-22	01-JUN-22	R5791528

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

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
AI	Analytical interferences may be present. Result may be biased high.
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
DLQ	Detection Limit raised due to co-eluting interference. GCMS qualifier ion ratio did not meet acceptance criteria.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ALIPH/AROM-GCMS-WT	Canister	Aliphatic/Aromatic PHC Sub-Fractionation	EPA TO-15, Atlantic RBCA

This analysis is performed using procedures adapted from EPA TO-15 & Atlantic RBCA. A volume of air is removed from a canister & injected into a GCMS with preconcentrator for analysis. The concentrations of the hydrocarbon aliphatic & aromatic sub-fractions are calculated using gas standards. The canister samples will be retained for 7 calendar days after final report.

CAN-DATA-WT	Canister	Canister Information	EPA TO-15

Batch Proof ID, Canister ID, Pressure on Receipt, Regulator ID.

F1-F2-GCMS-WT	Canister	Total F1and F2 fractions (not corrected)	EPATO-15

This analysis is performed using procedures adapted from EPA Method TO-15. Air samples are collected into cleaned evacuated canisters. A volume of air sample is transferred from the canister to a preconcentrator system where the analytes are trapped & focused. The analytes are then thermally desorbed into a GC-MSD for analysis. Test results are not blank corrected unless indicated by a qualifier.

Canister samples will be retained for 7 calendar days after final report. If you require a longer canister storage time, please contact your account manager.

F1-F4-CALC-WT	Canister	Hydrocarbons	CALCULATION
TO15-GCMS-WT	Canister	Canister EPA TO-15	EPA TO-15

This analysis is performed using procedures adapted from EPA Method TO-15. Air samples are collected into cleaned evacuated canisters. A volume of air sample is transferred from the canister to a preconcentrator system where the analytes are trapped & focused. The analytes are then thermally desorbed into a GC-MSD for analysis. Test results are not blank corrected unless indicated by a qualifier.

Canister samples will be retained for 7 calendar days after final report. If you require a longer canister storage time, please contact your account manager.

"Due to elevated laboratory background levels of IPA resulting from COVID-19 cleaning protocols, ALS is unable to report IPA results until further notice."

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

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

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

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

Chain of Custody Numbers:

Reference Information

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid weight of sample
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L2710626 Report Date: 13-JUN-22

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: PAULA HUTCHISON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALIPH/AROM-GCMS-WT	**Canister**							
Batch R5795938								
WG3737513-3 DUP		**L2710626-1**						
Aliphatic C6-C8		134	141		ug/m3	5.0	50	09-JUN-22
Aliphatic C>8-C10		221	224		ug/m3	1.4	50	09-JUN-22
Aliphatic C>10-C12		71	75		ug/m3	5.5	50	09-JUN-22
Aliphatic C>12-C16		90	93		ug/m3	3.9	50	09-JUN-22
Aromatic C>8-C10		<15	15	RPD-NA	ug/m3	N/A	50	09-JUN-22
Aromatic C>10-C12		<15	<15	RPD-NA	ug/m3	N/A	50	09-JUN-22
Aromatic C>12-C16		<30	<30	RPD-NA	ug/m3	N/A	50	09-JUN-22
WG3737513-2 LCS								
Aliphatic C6-C8			113.6		%		50-150	07-JUN-22
Aliphatic C>8-C10			118.8		%		50-150	07-JUN-22
Aliphatic C>10-C12			114.8		%		50-150	07-JUN-22
Aliphatic C>12-C16			131.5		%		50-150	07-JUN-22
Aromatic C>8-C10			106.5		%		50-150	07-JUN-22
Aromatic C>10-C12			105.6		%		50-150	07-JUN-22
Aromatic C>12-C16			109.1		%		50-150	07-JUN-22
WG3737513-1 MB								
Aliphatic C6-C8			<15		ug/m3		15	09-JUN-22
Aliphatic C>8-C10			<15		ug/m3		15	09-JUN-22
Aliphatic C>10-C12			<15		ug/m3		15	09-JUN-22
Aliphatic C>12-C16			<30		ug/m3		30	09-JUN-22
Aromatic C>8-C10			<15		ug/m3		15	09-JUN-22
Aromatic C>10-C12			<15		ug/m3		15	09-JUN-22
Aromatic C>12-C16			<30		ug/m3		30	09-JUN-22
CAN-DATA-WT	**Canister**							
Batch R5791528								
WG3733867-1 MB								
Pressure on Receipt			-29.8		in Hg			01-JUN-22
F1-F2-GCMS-WT	**Canister**							
Batch R5795938								
WG3737513-3 DUP		**L2710626-1**						
F1 (C6-C10)		347	372		ug/m3	6.8	50	09-JUN-22
F2 (C10-C16)		201	212		ug/m3	5.1	50	09-JUN-22
WG3737513-2 LCS								

Quality Control Report

Workorder: L2710626 Report Date: 13-JUN-22

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: PAULA HUTCHISON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F1-F2-GCMS-WT	**Canister**							
Batch R5795938								
WG3737513-2 LCS								
F1 (C6-C10)			130.3		%		50-150	07-JUN-22
WG3737513-1 MB								
F1 (C6-C10)			<15		ug/m3		15	09-JUN-22
F2 (C10-C16)			<15		ug/m3		15	09-JUN-22
Surrogate: 4-Bromofluorobenzene			100.4		%		50-150	09-JUN-22
TO15-GCMS-WT	**Canister**							
Batch R5795938								
WG3737513-3 DUP		**L2710626-1**						
1,1,1-Trichloroethane		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
1,1,2,2-Tetrachloroethane		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
1,1,2-Trichloroethane		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
1,1-Dichloroethane		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
1,1-Dichloroethene		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
1,2,4-Trichlorobenzene		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
1,2,4-Trimethylbenzene		0.26	0.28		ppb(V)	7.4	30	08-JUN-22
1,2-Dibromoethane		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
1,2-Dichlorobenzene		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
1,2-Dichloroethane		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
1,2-Dichloropropane		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
1,3,5-Trimethylbenzene		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
1,3-Butadiene		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
1,3-Dichlorobenzene		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
1,4-Dichlorobenzene		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
1,4-Dioxane		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
2-Hexanone		<1.0	<1.0	RPD-NA	ppb(V)	N/A	30	08-JUN-22
4-Ethyltoluene		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Acetone		39.7	39.2		ppb(V)	1.2	30	09-JUN-22
Allyl chloride		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Benzene		1.45	1.51		ppb(V)	4.1	30	08-JUN-22
Benzyl chloride		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Bromodichloromethane		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Bromoform		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Bromomethane		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: PAULA HUTCHISON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TO15-GCMS-WT	**Canister**							
Batch R5795938								
WG3737513-3 DUP		**L2710626-1**						
Carbon Disulfide		2.06	2.18		ppb(V)	5.7	30	08-JUN-22
Carbon Tetrachloride		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Chlorobenzene		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Chloroethane		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Chloroform		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Chloromethane		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
cis-1,2-Dichloroethene		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
cis-1,3-Dichloropropene		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Cyclohexane		1.19	1.31		ppb(V)	9.7	30	08-JUN-22
Dibromochloromethane		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Dichlorodifluoromethane		0.55	0.55		ppb(V)	0.0	30	08-JUN-22
Ethyl acetate		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Ethylbenzene		0.28	0.32		ppb(V)	13	30	08-JUN-22
Freon 113		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Freon 114		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Hexachlorobutadiene		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Isooctane		0.30	0.32		ppb(V)	6.5	30	08-JUN-22
Isopropylbenzene		<0.20	0.20	RPD-NA	ppb(V)	N/A	50	08-JUN-22
m&p-Xylene		1.17	1.27		ppb(V)	8.3	30	08-JUN-22
Methyl ethyl ketone		5.8	5.8		ppb(V)	0.4	30	09-JUN-22
Methyl isobutyl ketone		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Methylene chloride		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
MTBE		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
n-Heptane		1.23	1.31		ppb(V)	6.3	30	08-JUN-22
n-Hexane		2.54	2.67		ppb(V)	4.7	30	08-JUN-22
Naphthalene		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
o-Xylene		0.30	0.32		ppb(V)	6.5	30	08-JUN-22
Propylene		<9.5	<9.8	RPD-NA	ppb(V)	N/A	30	09-JUN-22
Styrene		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Tetrachloroethylene		25.1	26.1		ppb(V)	4.1	30	09-JUN-22
Tetrahydrofuran		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Toluene		3.47	3.59		ppb(V)	3.4	30	08-JUN-22
trans-1,2-Dichloroethene		<0.20	<0.20		ppb(V)			08-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: PAULA HUTCHISON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TO15-GCMS-WT	**Canister**							
Batch R5795938								
WG3737513-3 DUP		**L2710626-1**						
trans-1,2-Dichloroethene		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
trans-1,3-Dichloropropene		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Trichloroethylene		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Trichlorofluoromethane		1.43	1.49		ppb(V)	4.1	30	08-JUN-22
Vinyl acetate		0.77	0.52	J	ppb(V)	0.24	1	08-JUN-22
Vinyl bromide		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
Vinyl chloride		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	08-JUN-22
WG3737513-2 LCS								
1,1,1-Trichloroethane			104.8		%		70-130	06-JUN-22
1,1,2,2-Tetrachloroethane			94.4		%		70-130	06-JUN-22
1,1,2-Trichloroethane			107.4		%		70-130	06-JUN-22
1,1-Dichloroethane			106.9		%		70-130	06-JUN-22
1,1-Dichloroethene			102.9		%		70-130	06-JUN-22
1,2,4-Trichlorobenzene			83.3		%		70-130	06-JUN-22
1,2,4-Trimethylbenzene			94.4		%		70-130	06-JUN-22
1,2-Dibromoethane			107.4		%		70-130	06-JUN-22
1,2-Dichlorobenzene			79.6		%		70-130	06-JUN-22
1,2-Dichloroethane			107.7		%		70-130	06-JUN-22
1,2-Dichloropropane			108.6		%		70-130	06-JUN-22
1,3,5-Trimethylbenzene			83.2		%		70-130	06-JUN-22
1,3-Butadiene			112.3		%		70-130	06-JUN-22
1,3-Dichlorobenzene			81.1		%		70-130	06-JUN-22
1,4-Dichlorobenzene			81.6		%		70-130	06-JUN-22
1,4-Dioxane			103.8		%		70-130	06-JUN-22
2-Hexanone			110.1		%		70-130	06-JUN-22
4-Ethyltoluene			86.8		%		70-130	06-JUN-22
Acetone			111.8		%		70-130	06-JUN-22
Allyl chloride			112.0		%		70-130	06-JUN-22
Benzene			106.6		%		70-130	06-JUN-22
Benzyl chloride			98.1		%		70-130	06-JUN-22
Bromodichloromethane			109.7		%		70-130	06-JUN-22
Bromoform			97.2		%		70-130	06-JUN-22
Bromomethane			98.0		%		70-130	06-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: PAULA HUTCHISON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TO15-GCMS-WT	**Canister**							
Batch R5795938								
WG3737513-2 LCS								
Carbon Disulfide			107.8		%		70-130	06-JUN-22
Carbon Tetrachloride			105.6		%		70-130	06-JUN-22
Chlorobenzene			92.6		%		70-130	06-JUN-22
Chloroethane			109.0		%		70-130	06-JUN-22
Chloroform			103.8		%		70-130	06-JUN-22
Chloromethane			105.0		%		70-130	06-JUN-22
cis-1,2-Dichloroethene			105.7		%		70-130	06-JUN-22
cis-1,3-Dichloropropene			110.5		%		70-130	06-JUN-22
Cyclohexane			113.2		%		70-130	06-JUN-22
Dibromochloromethane			110.2		%		70-130	06-JUN-22
Dichlorodifluoromethane			99.0		%		70-130	06-JUN-22
Ethyl acetate			102.9		%		70-130	06-JUN-22
Ethylbenzene			97.2		%		70-130	06-JUN-22
Freon 113			98.0		%		70-130	06-JUN-22
Freon 114			101.1		%		70-130	06-JUN-22
Hexachlorobutadiene			83.0		%		70-130	06-JUN-22
Isooctane			107.6		%		70-130	06-JUN-22
Isopropylbenzene			92.2		%		50-150	06-JUN-22
m&p-Xylene			93.4		%		70-130	06-JUN-22
Methyl ethyl ketone			103.7		%		70-130	06-JUN-22
Methyl isobutyl ketone			112.1		%		70-130	06-JUN-22
Methylene chloride			107.0		%		70-130	06-JUN-22
MTBE			103.7		%		70-130	06-JUN-22
n-Heptane			110.4		%		70-130	06-JUN-22
n-Hexane			116.0		%		70-130	06-JUN-22
Naphthalene			91.9		%		70-130	06-JUN-22
o-Xylene			92.5		%		70-130	06-JUN-22
Propylene			111.4		%		70-130	06-JUN-22
Styrene			94.2		%		70-130	06-JUN-22
Tetrachloroethylene			96.2		%		70-130	06-JUN-22
Tetrahydrofuran			115.5		%		70-130	06-JUN-22
Toluene			116.7		%		70-130	06-JUN-22
trans-1,2-Dichloroethene			106.9		%		70-130	06-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: PAULA HUTCHISON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TO15-GCMS-WT	**Canister**							
Batch R5795938								
WG3737513-2 LCS								
trans-1,3-Dichloropropene			109.3		%		70-130	06-JUN-22
Trichloroethylene			100.9		%		70-130	06-JUN-22
Trichlorofluoromethane			101.9		%		70-130	06-JUN-22
Vinyl acetate			100.0		%		70-130	06-JUN-22
Vinyl bromide			103.8		%		70-130	06-JUN-22
Vinyl chloride			107.0		%		70-130	06-JUN-22
WG3737513-1 MB								
1,1,1-Trichloroethane			<0.20		ppb(V)		0.2	08-JUN-22
1,1,2,2-Tetrachloroethane			<0.20		ppb(V)		0.2	08-JUN-22
1,1,2-Trichloroethane			<0.20		ppb(V)		0.2	08-JUN-22
1,1-Dichloroethane			<0.20		ppb(V)		0.2	08-JUN-22
1,1-Dichloroethene			<0.20		ppb(V)		0.2	08-JUN-22
1,2,4-Trichlorobenzene			<0.20		ppb(V)		0.2	08-JUN-22
1,2,4-Trimethylbenzene			<0.20		ppb(V)		0.2	08-JUN-22
1,2-Dibromoethane			<0.20		ppb(V)		0.2	08-JUN-22
1,2-Dichlorobenzene			<0.20		ppb(V)		0.2	08-JUN-22
1,2-Dichloroethane			<0.20		ppb(V)		0.2	08-JUN-22
1,2-Dichloropropane			<0.20		ppb(V)		0.2	08-JUN-22
1,3,5-Trimethylbenzene			<0.20		ppb(V)		0.2	08-JUN-22
1,3-Butadiene			<0.20		ppb(V)		0.2	08-JUN-22
1,3-Dichlorobenzene			<0.20		ppb(V)		0.2	08-JUN-22
1,4-Dichlorobenzene			<0.20		ppb(V)		0.2	08-JUN-22
1,4-Dioxane			<0.20		ppb(V)		0.2	08-JUN-22
2-Hexanone			<1.0		ppb(V)		1	08-JUN-22
4-Ethyltoluene			<0.20		ppb(V)		0.2	08-JUN-22
Acetone			<1.0		ppb(V)		1	08-JUN-22
Allyl chloride			<0.20		ppb(V)		0.2	08-JUN-22
Benzene			<0.10		ppb(V)		0.1	08-JUN-22
Benzyl chloride			<0.20		ppb(V)		0.2	08-JUN-22
Bromodichloromethane			<0.20		ppb(V)		0.2	08-JUN-22
Bromoform			<0.20		ppb(V)		0.2	08-JUN-22
Bromomethane			<0.20		ppb(V)		0.2	08-JUN-22
Carbon Disulfide			<0.50		ppb(V)		0.5	08-JUN-22
Carbon Tetrachloride			<0.20		ppb(V)		0.2	08-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: PAULA HUTCHISON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TO15-GCMS-WT	**Canister**							
Batch R5795938								
WG3737513-1 MB								
Chlorobenzene			<0.20		ppb(V)		0.2	08-JUN-22
Chloroethane			<0.20		ppb(V)		0.2	08-JUN-22
Chloroform			<0.20		ppb(V)		0.2	08-JUN-22
Chloromethane			<0.20		ppb(V)		0.2	08-JUN-22
cis-1,2-Dichloroethene			<0.20		ppb(V)		0.2	08-JUN-22
cis-1,3-Dichloropropene			<0.20		ppb(V)		0.2	08-JUN-22
Cyclohexane			<0.20		ppb(V)		0.2	08-JUN-22
Dibromochloromethane			<0.20		ppb(V)		0.2	08-JUN-22
Dichlorodifluoromethane			<0.20		ppb(V)		0.2	08-JUN-22
Ethyl acetate			<0.20		ppb(V)		0.2	08-JUN-22
Ethylbenzene			<0.20		ppb(V)		0.2	08-JUN-22
Freon 113			<0.20		ppb(V)		0.2	08-JUN-22
Freon 114			<0.20		ppb(V)		0.2	08-JUN-22
Hexachlorobutadiene			<0.20		ppb(V)		0.2	08-JUN-22
Isooctane			<0.20		ppb(V)		0.2	08-JUN-22
Isopropylbenzene			<0.20		ppb(V)		0.2	08-JUN-22
m&p-Xylene			<0.40		ppb(V)		0.4	08-JUN-22
Methyl ethyl ketone			<0.20		ppb(V)		0.2	08-JUN-22
Methyl isobutyl ketone			<0.20		ppb(V)		0.2	08-JUN-22
Methylene chloride			<0.20		ppb(V)		0.2	08-JUN-22
MTBE			<0.20		ppb(V)		0.2	08-JUN-22
n-Heptane			<0.20		ppb(V)		0.2	08-JUN-22
n-Hexane			<0.20		ppb(V)		0.2	08-JUN-22
Naphthalene			<0.20		ppb(V)		0.2	08-JUN-22
o-Xylene			<0.20		ppb(V)		0.2	08-JUN-22
Propylene			<0.20		ppb(V)		0.2	08-JUN-22
Styrene			<0.20		ppb(V)		0.2	08-JUN-22
Tetrachloroethylene			<0.20		ppb(V)		0.2	08-JUN-22
Tetrahydrofuran			<0.20		ppb(V)		0.2	08-JUN-22
Toluene			<0.20		ppb(V)		0.2	08-JUN-22
trans-1,2-Dichloroethene			<0.20		ppb(V)		0.2	08-JUN-22
trans-1,3-Dichloropropene			<0.20		ppb(V)		0.2	08-JUN-22
Trichloroethylene			<0.20		ppb(V)		0.2	08-JUN-22

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: PAULA HUTCHISON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TO15-GCMS-WT	**Canister**							
Batch R5795938								
WG3737513-1 MB								
Trichlorofluoromethane			<0.20		ppb(V)		0.2	08-JUN-22
Vinyl acetate			<0.50		ppb(V)		0.5	08-JUN-22
Vinyl bromide			<0.20		ppb(V)		0.2	08-JUN-22
Vinyl chloride			<0.20		ppb(V)		0.2	08-JUN-22
Surrogate: 4-Bromofluorobenzene			94.7		%		50-150	08-JUN-22

Quality Control Report

Workorder: L2710626 Report Date: 13-JUN-22

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
130 STONE ROAD WEST
GUELPH ON N1G 3Z2
Contact: PAULA HUTCHISON

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.

Batch Proof Report

Batch ID	Canister ID	Parameters	Value	Units	Date	Analyst
220504.1	01400-0309	1,1,1-Trichloroethane	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	1,1,1,2-Tetrachloroethane	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	1,1,2,2-Tetrachloroethane	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	1,1,2-Trichloroethane	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	1,1-Dichloroethane	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	1,1-Dichloroethene	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	1,2,4-Trichlorobenzene	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	1,2,4-Trimethylbenzene	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	1,2-Dibromoethane	<0.01	ppb(V)	16-May-22	SA10
220504.1	01400-0309	1,2-Dichlorobenzene	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	1,2-Dichloroethane	<0.01	ppb(V)	16-May-22	SA10
220504.1	01400-0309	1,2-Dichloropropane	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	1,3,5-Trimethylbenzene	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	1,3-Butadiene	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	1,3-Dichlorobenzene	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	1,4-Dichlorobenzene	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	1,4-Dioxane	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	2-Chlorophenol	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	2-Hexanone	<1.0	ppb(V)	16-May-22	SA10
220504.1	01400-0309	4-Ethyltoluene	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Acetone	<0.50	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Acrolein	<0.10	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Allyl Chloride	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Benzene	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Benzyl Chloride	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Bromodichloromethane	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Bromobenzene	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Bromoform	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Bromomethane	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Carbon Disulfide	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Carbon Tetrachloride	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Chlorobenzene	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Chloroethane	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Chloroform	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Chloromethane	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	cis-1,2-Dichloroethene	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	cis-1,3-Dichloropropene	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Cyclohexane	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Dibromochloromethane	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Dichlorodifluoromethane	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Ethyl Acetate	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Ethyl Benzene	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Freon 113	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Freon 114	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Hexachlorobutadiene	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Isooctane	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Isopropyl Alcohol	<1.0	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Isopropylbenzene	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	m&p-Xylene	<0.04	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Methyl Ethyl Ketone	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Methylcyclohexane	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Methyl Isobutyl Ketone	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Methylene Chloride	0.0275	ppb(V)	16-May-22	SA10
220504.1	01400-0309	MTBE	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Naphthalene	<0.05	ppb(V)	16-May-22	SA10
220504.1	01400-0309	n-Decane	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	n-Heptane	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	n-Hexane	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	o-Xylene	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Propylene	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Styrene	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Tetrachloroethylene	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Tetrahydrofuran	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Toluene	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	trans-1,2-Dichloroethene	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	trans-1,3-Dichloropropene	<0.02	ppb(V)	16-May-22	SA10

220504.1	01400-0309	Trichloroethylene	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Trichlorofluoromethane	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Vinyl Acetate	<0.50	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Vinyl Bromide	<0.20	ppb(V)	16-May-22	SA10
220504.1	01400-0309	Vinyl Chloride	<0.02	ppb(V)	16-May-22	SA10
220504.1	01400-0309	4-Bromofluorobenzene	101.6	%	16-May-22	SA10

Batch Proof Report

Batch ID	Canister ID	Parameters	Value	Units	Date	Analyst
220505.12	01400-0200	1,1,1-Trichloroethane	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	1,1,1,2-Tetrachloroethane	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	1,1,2,2-Tetrachloroethane	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	1,1,2-Trichloroethane	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	1,1-Dichloroethane	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	1,1-Dichloroethene	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	1,2,4-Trichlorobenzene	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	1,2,4-Trimethylbenzene	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	1,2-Dibromoethane	<0.01	ppb(V)	16-May-22	SA10
220505.12	01400-0200	1,2-Dichlorobenzene	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	1,2-Dichloroethane	<0.01	ppb(V)	16-May-22	SA10
220505.12	01400-0200	1,2-Dichloropropane	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	1,3,5-Trimethylbenzene	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	1,3-Butadiene	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	1,3-Dichlorobenzene	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	1,4-Dichlorobenzene	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	1,4-Dioxane	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	2-Chlorophenol	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	2-Hexanone	<1.0	ppb(V)	16-May-22	SA10
220505.12	01400-0200	4-Ethyltoluene	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Acetone	<0.50	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Acrolein	<0.10	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Allyl Chloride	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Benzene	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Benzyl Chloride	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Bromodichloromethane	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Bromobenzene	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Bromoform	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Bromomethane	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Carbon Disulfide	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Carbon Tetrachloride	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Chlorobenzene	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Chloroethane	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Chloroform	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Chloromethane	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	cis-1,2-Dichloroethene	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	cis-1,3-Dichloropropene	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Cyclohexane	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Dibromochloromethane	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Dichlorodifluoromethane	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Ethyl Acetate	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Ethyl Benzene	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Freon 113	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Freon 114	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Hexachlorobutadiene	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Isooctane	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Isopropyl Alcohol	<1.0	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Isopropylbenzene	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	m&p-Xylene	<0.04	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Methyl Ethyl Ketone	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Methylcyclohexane	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Methyl Isobutyl Ketone	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Methylene Chloride	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	MTBE	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Naphthalene	<0.05	ppb(V)	16-May-22	SA10
220505.12	01400-0200	n-Decane	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	n-Heptane	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	n-Hexane	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	o-Xylene	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Propylene	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Styrene	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Tetrachloroethylene	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Tetrahydrofuran	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Toluene	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	trans-1,2-Dichloroethene	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	trans-1,3-Dichloropropene	<0.02	ppb(V)	16-May-22	SA10

220505.12	01400-0200	Trichloroethylene	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Trichlorofluoromethane	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Vinyl Acetate	<0.50	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Vinyl Bromide	<0.20	ppb(V)	16-May-22	SA10
220505.12	01400-0200	Vinyl Chloride	<0.02	ppb(V)	16-May-22	SA10
220505.12	01400-0200	4-Bromofluorobenzene	97.2	%	16-May-22	SA10

60 NORTHLAND ROAD, UNIT 1
WATERLOO, ON N2V 2B8
Phone: (519) 886-6910
Fax: (519) 886-9047
Toll Free: 1-800-668-9878

AIR QUALITY CHAIN OF CUSTODY FORM - Canister/Tube/Gas Bag

Note: All TAT Quoted is in business days which exclude statutory holidays and weekends. TAT of samples received past 3:00 pm or Saturday / Sunday begin the next day.

DATE REQUIRED — SERVICE REQUESTED: 10 day (regular) ☑ | Rush 5 day (50%) ☐ | Rush 3 day (100%) ☐ | Rush 2 day (200%) ☐ | Rush 1 day (300%) - Enquire ☐

COMPANY NAME	GeoSyntec Consultants
OFFICE	130 Stone Rd Guelph
PROJECT MANAGER	Paula Hutchison
PROJECT #	TR841 C8D1
PHONE ~~519~~	FAX
ACCOUNT #	
QUOTATION #	488227
PO #	80005029

REGULATION: O Reg 153/04
CRITERIA:
OTHER INFORMATION:

REPORT FORMAT/DISTRIBUTION
EMAIL X FAX ____ BOTH ____
SELECT: PDF ____ DIGITAL ____ BOTH X
EMAIL 1 phutchison@geosyntec.com
EMAIL 2 fsolgio@geosyntec.com
aingis@geosyntec.com

ANALYSIS REQUEST

All rush work requires lab approval before sample submission

SUBMISSION # L2710626
ENTERED BY: AP
DATE/TIME ENTERED:
BIN #:

SAMPLING INFORMATION

Sample Date/Time: Date (dd-mmm-yy)	Time (24hr) (hh:mm)	Canister or Tube ID# (e.g. 060000-XXXX or G0XXXXXSVI)	Regulator Serial # CS1200-XXXX or GXX	Matrix Type	SAMPLE DESCRIPTION TO APPEAR ON REPORT	TUBE AIR VOLUME - L ☐ or m³ ☒	VOCs by TO-15	Aliphatic/aromatic fractionation (PHC subtractions)	STARTING PRESSURE - Pre-Sampling ("Hg)	ENDING PRESSURE - Post Sampling ("Hg)	COLLECTION TIME (HRS) / MINS	Field Conditions (Rain/Wind/Dust/Odour) Field PID Reading	LAB ID
26-May-22	15:15	01400-0544	G36	SG	SSV-09-20220526	1.4	X	X	-30	-5	5	1200 ppm	
	15:53	01400-0426	G232		SSV-10-20220526		X	X	-30	-4.5	4		
	14:01	01400-0404	G343		SSV-11-20220526		X	X	-30	-4	5		
	13:20	01400-0200	G302		SSV-12-20220526		X	X	-30	-4	5		
	12:07	01400-0076	G352		SSV-13-20220526		X	X	-30	-4	5		

L2710626-COFC

SPECIAL INSTRUCTIONS/COMMENTS

This Chain of Custody Form is only to be used for Air Quali...

Matrix Type: Soil Gas Vapour = SG | Indoor Air = IA | Ambient Air = AA | Industrial Hygiene = IH

RECEIVED: FROZEN ☐ COLD ☐ COOLING INITIATED ☐ AMBIENT ☐ | MEAN TEMP

SAMPLED BY: A. Inglis	DATE & TIME 26-May-22 17:00	RECEIVED BY: BB	MAY 31/22	DATE & TIME 2:00 pm	OBSERVATIONS Yes ☐ No ☐ If yes add SIF
RELINQUISHED BY: A. Inglis	DATE & TIME 27-May-22	RECEIVED AT LAB BY:		DATE & TIME	INIT

Notes

1. Quote number must be provided to ensure proper pricing

2. TAT may vary dependent on complexity of analysis and lab workload at time of submission. Please contact the lab to confirm TATs.

3. Any known or suspected hazards relating to a sample must be noted on the chain of custody in comments section.

REV6-2015

GEOSYNTEC CONSULTANTS
INTERNATIONAL INC
ATTN: Felipe Solano
295 Hagey Blvd
Suite 290
WATERLOO ON N2L 6R5

Date Received: 27-MAY-22
Report Date: 06-JUN-22 14:34 (MT)
Version: FINAL

Client Phone: 519-822-2230

Certificate of Analysis

Lab Work Order #: L2710263

Project P.O. #: NOT SUBMITTED
Job Reference: TR841C8D1
C of C Numbers: 20-945421
Legal Site Desc:

Gayle Braun
Senior Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710263-1 TCLP Sampled By: CLIENT on 26-MAY-22 Matrix: SOIL							
Sample Preparation							
Initial pH	8.91		0.10	pH units		01-JUN-22	R5791305
Final pH	5.29		0.10	pH units		01-JUN-22	R5791305
Physical Tests							
Air Velocity Of Fume Hood	0.21		0.10	m/sec		31-MAY-22	R5790971
Burning Rate	NA		0.010	mm/sec		31-MAY-22	R5790971
Ignitability-Class	NON-FLAMMABLE					31-MAY-22	R5790971
Samp Comment	BROWN CLAYEY SOIL					31-MAY-22	R5790971
Temperature Of Test Material	20.0		1.0	Deg. C		31-MAY-22	R5790971
Time To Ignition	NA		1.0	sec		31-MAY-22	R5790971
TCLP Extractables							
Acenaphthene	<0.0050		0.0050	mg/L	02-JUN-22	06-JUN-22	R5794557
Acenaphthylene	<0.0050		0.0050	mg/L	02-JUN-22	06-JUN-22	R5794557
Aldrin	<0.00020		0.00020	mg/L	02-JUN-22	03-JUN-22	R5793740
Aldrin + Dieldrin	<0.00040		0.00040	mg/L	02-JUN-22	03-JUN-22	R5793740
alpha-Chlordane	<0.0010		0.0010	mg/L	02-JUN-22	03-JUN-22	R5793740
Anthracene	<0.0050		0.0050	mg/L	02-JUN-22	06-JUN-22	R5794557
Aroclor 1242	<0.00020		0.00020	mg/L	03-JUN-22	03-JUN-22	R5793456
Aroclor 1248	<0.00020		0.00020	mg/L	03-JUN-22	03-JUN-22	R5793456
Aroclor 1254	<0.00020		0.00020	mg/L	03-JUN-22	03-JUN-22	R5793456
Aroclor 1260	<0.00020		0.00020	mg/L	03-JUN-22	03-JUN-22	R5793456
Benzo(a)anthracene	<0.0050		0.0050	mg/L	02-JUN-22	06-JUN-22	R5794557
Benzo(a)pyrene	<0.0010		0.0010	mg/L	02-JUN-22	06-JUN-22	R5794557
Benzo(b&j)fluoranthene	<0.0050		0.0050	mg/L	02-JUN-22	06-JUN-22	R5794557
Benzo(g,h,i)perylene	<0.0050		0.0050	mg/L	02-JUN-22	06-JUN-22	R5794557
Benzo(k)fluoranthene	<0.0050		0.0050	mg/L	02-JUN-22	06-JUN-22	R5794557
Chlordane (Total)	<0.0030		0.0030	mg/L	02-JUN-22	03-JUN-22	R5793740
Chrysene	<0.0050		0.0050	mg/L	02-JUN-22	06-JUN-22	R5794557
pp-DDD	<0.0010		0.0010	mg/L	02-JUN-22	03-JUN-22	R5793740
pp-DDE	<0.0010		0.0010	mg/L	02-JUN-22	03-JUN-22	R5793740
op-DDT	<0.0010		0.0010	mg/L	02-JUN-22	03-JUN-22	R5793740
pp-DDT	<0.0010		0.0010	mg/L	02-JUN-22	03-JUN-22	R5793740
DDT + metabolites	<0.0040		0.0040	mg/L	02-JUN-22	03-JUN-22	R5793740
Dibenz(a,h)anthracene	<0.0050		0.0050	mg/L	02-JUN-22	06-JUN-22	R5794557
Dieldrin	<0.00020		0.00020	mg/L	02-JUN-22	03-JUN-22	R5793740
Endrin	<0.0010		0.0010	mg/L	02-JUN-22	03-JUN-22	R5793740
Fluoranthene	<0.0050		0.0050	mg/L	02-JUN-22	06-JUN-22	R5794557
Fluorene	<0.0050		0.0050	mg/L	02-JUN-22	06-JUN-22	R5794557
gamma-BHC	<0.0010		0.0010	mg/L	02-JUN-22	03-JUN-22	R5793740
gamma-Chlordane	<0.0010		0.0010	mg/L	02-JUN-22	03-JUN-22	R5793740
Heptachlor	<0.0010		0.0010	mg/L	02-JUN-22	03-JUN-22	R5793740
Heptachlor + Heptachlor Epoxide	<0.0020		0.0020	mg/L	02-JUN-22	03-JUN-22	R5793740

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710263-1 TCLP Sampled By: CLIENT on 26-MAY-22 Matrix: SOIL							
TCLP Extractables							
Heptachlor epoxide	<0.0010		0.0010	mg/L	02-JUN-22	03-JUN-22	R5793740
Indeno(1,2,3-cd)pyrene	<0.0050		0.0050	mg/L	02-JUN-22	06-JUN-22	R5794557
Methoxychlor	<0.0010		0.0010	mg/L	02-JUN-22	03-JUN-22	R5793740
Naphthalene	<0.0050		0.0050	mg/L	02-JUN-22	06-JUN-22	R5794557
Oxychlordane	<0.0010		0.0010	mg/L	02-JUN-22	03-JUN-22	R5793740
Total PCBs	<0.00040		0.00040	mg/L	03-JUN-22	03-JUN-22	R5793456
Phenanthrene	<0.0050		0.0050	mg/L	02-JUN-22	06-JUN-22	R5794557
Pyrene	<0.0050		0.0050	mg/L	02-JUN-22	06-JUN-22	R5794557
Surrogate: Tetrachloro-m-xylene	103.7		50-150	%	02-JUN-22	03-JUN-22	R5793740
Surrogate: Chrysene d12	94.4		60-130	%	02-JUN-22	06-JUN-22	R5794557
Surrogate: Decachlorobiphenyl	104.9		50-150	%	02-JUN-22	03-JUN-22	R5793740
Surrogate: Naphthalene d8	94.2		50-130	%	02-JUN-22	06-JUN-22	R5794557
Surrogate: Phenanthrene d10	102.6		60-130	%	02-JUN-22	06-JUN-22	R5794557
Quinoline	<0.0050		0.0050	mg/L	02-JUN-22	06-JUN-22	R5794557
TCLP Metals							
Arsenic (As)	<0.050		0.050	mg/L		02-JUN-22	R5791759
Barium (Ba)	<0.50		0.50	mg/L		02-JUN-22	R5791759
Boron (B)	<2.5		2.5	mg/L		02-JUN-22	R5791759
Cadmium (Cd)	<0.0050		0.0050	mg/L		02-JUN-22	R5791759
Chromium (Cr)	<0.050		0.050	mg/L		02-JUN-22	R5791759
Lead (Pb)	<0.025		0.025	mg/L		02-JUN-22	R5791759
Mercury (Hg)	<0.00010		0.00010	mg/L		01-JUN-22	R5791461
Selenium (Se)	<0.025		0.025	mg/L		02-JUN-22	R5791759
Silver (Ag)	<0.0050		0.0050	mg/L		02-JUN-22	R5791759
Uranium (U)	<0.25		0.25	mg/L		02-JUN-22	R5791759
TCLP VOCs							
1,1-Dichloroethylene	<0.025		0.025	mg/L		06-JUN-22	R5794468
1,2-Dichlorobenzene	<0.025		0.025	mg/L		06-JUN-22	R5794468
1,2-Dichloroethane	<0.025		0.025	mg/L		06-JUN-22	R5794468
1,4-Dichlorobenzene	<0.025		0.025	mg/L		06-JUN-22	R5794468
Benzene	<0.025		0.025	mg/L		06-JUN-22	R5794468
Carbon tetrachloride	<0.025		0.025	mg/L		06-JUN-22	R5794468
Chlorobenzene	<0.025		0.025	mg/L		06-JUN-22	R5794468
Chloroform	<0.10		0.10	mg/L		06-JUN-22	R5794468
Dichloromethane	<0.50		0.50	mg/L		06-JUN-22	R5794468
Methyl Ethyl Ketone	<1.0		1.0	mg/L		06-JUN-22	R5794468
Tetrachloroethylene	<0.025		0.025	mg/L		06-JUN-22	R5794468
Trichloroethylene	<0.025		0.025	mg/L		06-JUN-22	R5794468
Vinyl chloride	<0.050		0.050	mg/L		06-JUN-22	R5794468
Surrogate: 4-Bromofluorobenzene	83.7		70-130	%		06-JUN-22	R5794468
Volatile Organic Compounds							
Surrogate: 1,4-Difluorobenzene	111.4		70-130	%		06-JUN-22	R5794468

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710263-1 TCLP Sampled By: CLIENT on 26-MAY-22 Matrix: SOIL							
Volatile Organic Compounds Polychlorinated Biphenyls							
Surrogate: Decachlorobiphenyl	137.1		50-150	%	03-JUN-22	03-JUN-22	R5793456
Surrogate: Tetrachloro-m-xylene	90.8		50-150	%	03-JUN-22	03-JUN-22	R5793456

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

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
HG-TCLP-WT	Waste	Mercury (CVAA) for O.Reg 347	EPA 1631E

This analysis is carried out in accordance with the extraction procedure outlined in "Test Methods for Evaluating Solid Waste - Physical/Chemical Methods Volume 1C" SW-846 EPA Method 1311, published by the United States Environmental Protection Agency (EPA). In summary, the sample is extracted at a 20:1 liquid to solids ratio for 16 to 20 hours using either extraction fluid #1 (glacial acetic acid, water and sodium hydroxide) or extraction fluid #2 (glacial acetic acid), depending on the pH of the original sample. The extract is then filtered through a 0.6 to 0.8 micron glass fibre filter and analysed using atomic absorption spectrophotometry (EPA 1631E).

IGNITABILITY-WT	Waste	O. Reg 347 Ignitability	EPA SW846, Method 1030, 1996

Preliminary Screening Test:
Prepare a sample "as received" 250 mm long by 20 mm wide by 10 mm high. Apply the tip of the flame to the end of the sample strip.
If the sample is non-metallic, hold the flame tip on the sample until the sample ignites or for a maximum of 2 minutes. If combustion occurs, begin timing with a stop watch and note whether the sample propagates up to the 200 mm mark within the 2 minute test period.
If the sample is metal or metal alloy powder, hold the flame tip on the sample until the sample ignites or for a maximum of 5 minutes. If combusiton occurs, begin timing with a stop watch and note whether the sample propagates up to the 200 mm mark within the 20 minute test period.
Note: If the waste propagates burning of 200 mm of the test strip within 2 minutes (20 minutes for metals), the material must be evaluated by the burning rate test.
Burning Rate Test:
Refer to section 7.2 of EPA Method 1030. Samples that have a burning rate of greater than 2.2 mm/s are considered to have a positive result for ignitability according to DOT regulations. For metallic samples , the burning rate must be greater than 0.17 mm/s.

LEACH-TCLP-WT	Waste	Leachate Procedure for Reg 347	EPA 1311

Inorganic and Semi-Volatile Organic contaminants are leached from waste samples in strict accordance with US EPA Method 1311, "Toxicity Characteristic Leaching Procedure" (TCLP). Test results are reported in leachate concentration units (normally mg/L).

MET-TCLP-WT	Waste	O.Reg 347 TCLP Leachable Metals	EPA 6020B

This analysis is carried out in accordance with the extraction procedure outlined in "Test Methods for Evaluating Solid Waste - Physical/Chemical Methods Volume 1C" SW-846 EPA Method 1311, published by the United States Environmental Protection Agency (EPA). In summary, the sample is extracted at a 20:1 liquid to solids ratio for 16 to 20 hours using either extraction fluid #1 (glacial acetic acid, water and sodium hydroxide) or extraction fluid #2 (glacial acetic acid), depending on the pH of the original sample. The extract is then filtered through a 0.6 to 0.8 micron glass fibre filter. Instrumental analysis of the digested extract is by collision cell inductively coupled plasma - mass spectrometry (modifed from EPA Method 6020B).

PAH-TCLP-WT	Waste	PAH for O. Reg 347	SW846 8270 (PAH)

Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD. Depending on the analytical GC/MS column used benzo(j)fluoranthene may chromatographically co-elute with benzo(b)fluoranthene or benzo(k)fluoranthene.

PCB-TCLP-WT	Waste	PCBs for O. Reg 347	SW846 8270
PEST-OC-TCLP-WT	Waste	O. Reg 347TCLP Organochlorine Pesticides	SW846 8270

Samples are leached according to TCLP protocol and then the aqueous leachate is extracted and the resulting extracts are analyzed on GC/MSD

VOC-TCLP-WT	Waste	VOC for O. Reg 347	SW846 8260

A sample of waste is leached in a zero headspace extractor at 30–2 rpm for 18–2.0 hours with the appropriate leaching solution. After tumbling the leachate is analyzed directly by headspace technology, followed by GC/MS using internal standard quantitation.

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

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

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

Chain of Custody Numbers:

20-945421

Reference Information

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid weight of sample
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L2710263 Report Date: 06-JUN-22

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd Suite 290
WATERLOO ON N2L 6R5

Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-TCLP-WT	**Waste**							
Batch R5791461								
WG3734010-3 DUP		**L2710263-1**						
Mercury (Hg)		<0.00010	<0.00010	RPD-NA	mg/L	N/A	50	01-JUN-22
WG3734010-2 LCS								
Mercury (Hg)			97.3		%		70-130	01-JUN-22
WG3734010-1 MB								
Mercury (Hg)			<0.00010		mg/L		0.0001	01-JUN-22
WG3734010-4 MS		**L2710263-1**						
Mercury (Hg)			96.0		%		50-140	01-JUN-22
MET-TCLP-WT	**Waste**							
Batch R5791759								
WG3733980-2 LCS								
Silver (Ag)			93.2		%		70-130	02-JUN-22
Arsenic (As)			98.8		%		70-130	02-JUN-22
Boron (B)			98.4		%		70-130	02-JUN-22
Barium (Ba)			103.0		%		70-130	02-JUN-22
Cadmium (Cd)			99.4		%		70-130	02-JUN-22
Chromium (Cr)			96.8		%		70-130	02-JUN-22
Lead (Pb)			96.2		%		70-130	02-JUN-22
Selenium (Se)			98.6		%		70-130	02-JUN-22
Uranium (U)			94.7		%		70-130	02-JUN-22
WG3733980-1 MB								
Silver (Ag)			<0.0050		mg/L		0.005	02-JUN-22
Arsenic (As)			<0.050		mg/L		0.05	02-JUN-22
Boron (B)			<2.5		mg/L		2.5	02-JUN-22
Barium (Ba)			<0.50		mg/L		0.5	02-JUN-22
Cadmium (Cd)			<0.0050		mg/L		0.005	02-JUN-22
Chromium (Cr)			<0.050		mg/L		0.05	02-JUN-22
Lead (Pb)			<0.025		mg/L		0.025	02-JUN-22
Selenium (Se)			<0.025		mg/L		0.025	02-JUN-22
Uranium (U)			<0.25		mg/L		0.25	02-JUN-22
PAH-TCLP-WT	**Waste**							
Batch R5794557								
WG3734648-2 LCS								
Acenaphthene			102.0		%		50-130	06-JUN-22
Acenaphthylene			97.4		%		50-130	06-JUN-22
Anthracene			103.8		%		50-130	06-JUN-22

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-TCLP-WT	**Waste**							
Batch R5794557								
WG3734648-2 LCS								
Benzo(a)anthracene			106.9		%		50-140	06-JUN-22
Benzo(a)pyrene			88.9		%		60-140	06-JUN-22
Benzo(b&j)fluoranthene			93.4		%		50-130	06-JUN-22
Benzo(g,h,i)perylene			118.3		%		50-140	06-JUN-22
Benzo(k)fluoranthene			100.9		%		50-150	06-JUN-22
Chrysene			108.1		%		50-140	06-JUN-22
Dibenz(a,h)anthracene			124.1		%		50-140	06-JUN-22
Fluoranthene			106.4		%		50-130	06-JUN-22
Fluorene			103.5		%		50-130	06-JUN-22
Indeno(1,2,3-cd)pyrene			122.4		%		50-140	06-JUN-22
Naphthalene			94.9		%		50-130	06-JUN-22
Phenanthrene			109.0		%		50-130	06-JUN-22
Pyrene			106.1		%		50-140	06-JUN-22
Quinoline			114.4		%		50-130	06-JUN-22
WG3734648-1 MB								
Acenaphthene			<0.0050		mg/L		0.005	06-JUN-22
Acenaphthylene			<0.0050		mg/L		0.005	06-JUN-22
Anthracene			<0.0050		mg/L		0.005	06-JUN-22
Benzo(a)anthracene			<0.0050		mg/L		0.005	06-JUN-22
Benzo(a)pyrene			<0.0010		mg/L		0.001	06-JUN-22
Benzo(b&j)fluoranthene			<0.0050		mg/L		0.005	06-JUN-22
Benzo(g,h,i)perylene			<0.0050		mg/L		0.005	06-JUN-22
Benzo(k)fluoranthene			<0.0050		mg/L		0.005	06-JUN-22
Chrysene			<0.0050		mg/L		0.005	06-JUN-22
Dibenz(a,h)anthracene			<0.0050		mg/L		0.005	06-JUN-22
Fluoranthene			<0.0050		mg/L		0.005	06-JUN-22
Fluorene			<0.0050		mg/L		0.005	06-JUN-22
Indeno(1,2,3-cd)pyrene			<0.0050		mg/L		0.005	06-JUN-22
Naphthalene			<0.0050		mg/L		0.005	06-JUN-22
Phenanthrene			<0.0050		mg/L		0.005	06-JUN-22
Pyrene			<0.0050		mg/L		0.005	06-JUN-22
Quinoline			<0.0050		mg/L		0.005	06-JUN-22
Surrogate: Naphthalene d8			119.7		%		50-130	06-JUN-22
Surrogate: Phenanthrene d10			103.5		%		60-130	06-JUN-22

Quality Control Report

Workorder: L2710263 Report Date: 06-JUN-22

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-TCLP-WT	**Waste**							
Batch R5794557								
WG3734648-1 MB								
Surrogate: Chrysene d12			103.5		%		60-130	06-JUN-22
WG3734648-6 MB								
Acenaphthene			<0.0050		mg/L		0.005	06-JUN-22
Acenaphthylene			<0.0050		mg/L		0.005	06-JUN-22
Anthracene			<0.0050		mg/L		0.005	06-JUN-22
Benzo(a)anthracene			<0.0050		mg/L		0.005	06-JUN-22
Benzo(a)pyrene			<0.0010		mg/L		0.001	06-JUN-22
Benzo(b&j)fluoranthene			<0.0050		mg/L		0.005	06-JUN-22
Benzo(g,h,i)perylene			<0.0050		mg/L		0.005	06-JUN-22
Benzo(k)fluoranthene			<0.0050		mg/L		0.005	06-JUN-22
Chrysene			<0.0050		mg/L		0.005	06-JUN-22
Dibenz(a,h)anthracene			<0.0050		mg/L		0.005	06-JUN-22
Fluoranthene			<0.0050		mg/L		0.005	06-JUN-22
Fluorene			<0.0050		mg/L		0.005	06-JUN-22
Indeno(1,2,3-cd)pyrene			<0.0050		mg/L		0.005	06-JUN-22
Naphthalene			<0.0050		mg/L		0.005	06-JUN-22
Phenanthrene			<0.0050		mg/L		0.005	06-JUN-22
Pyrene			<0.0050		mg/L		0.005	06-JUN-22
Quinoline			<0.0050		mg/L		0.005	06-JUN-22
Surrogate: Naphthalene d8			88.7		%		50-130	06-JUN-22
Surrogate: Phenanthrene d10			96.1		%		60-130	06-JUN-22
Surrogate: Chrysene d12			90.4		%		60-130	06-JUN-22
PCB-TCLP-WT	**Waste**							
Batch R5793456								
WG3734607-2 LCS								
Aroclor 1242			119.9		%		65-130	03-JUN-22
Aroclor 1248			88.8		%		65-130	03-JUN-22
Aroclor 1254			118.3		%		65-130	03-JUN-22
Aroclor 1260			120.2		%		65-130	03-JUN-22
WG3734607-1 MB								
Aroclor 1242			<0.00020		mg/L		0.0002	03-JUN-22
Aroclor 1248			<0.00020		mg/L		0.0002	03-JUN-22
Aroclor 1254			<0.00020		mg/L		0.0002	03-JUN-22
Aroclor 1260			<0.00020		mg/L		0.0002	03-JUN-22
Surrogate: Decachlorobiphenyl			132.6		%		50-150	03-JUN-22

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-TCLP-WT	**Waste**							
Batch R5793456								
WG3734607-1 MB								
Surrogate: Tetrachloro-m-xylene			109.5		%		50-150	03-JUN-22
WG3734607-6 MB								
Aroclor 1242			<0.00020		mg/L		0.0002	03-JUN-22
Aroclor 1248			<0.00020		mg/L		0.0002	03-JUN-22
Aroclor 1254			<0.00020		mg/L		0.0002	03-JUN-22
Aroclor 1260			<0.00020		mg/L		0.0002	03-JUN-22
Surrogate: Decachlorobiphenyl			136.8		%		50-150	03-JUN-22
Surrogate: Tetrachloro-m-xylene			99.7		%		50-150	03-JUN-22
PEST-OC-TCLP-WT	**Waste**							
Batch R5793740								
WG3734607-2 LCS								
gamma-BHC			121.6		%		50-150	03-JUN-22
Heptachlor			129.2		%		50-150	03-JUN-22
Heptachlor epoxide			126.9		%		50-150	03-JUN-22
Oxychlordane			110.8		%		50-150	03-JUN-22
gamma-Chlordane			130.9		%		50-150	03-JUN-22
alpha-Chlordane			117.3		%		50-150	03-JUN-22
Aldrin			131.7		%		50-150	03-JUN-22
Dieldrin			113.4		%		50-150	03-JUN-22
Endrin			119.1		%		50-150	03-JUN-22
pp-DDE			116.1		%		50-140	03-JUN-22
pp-DDD			103.1		%		25-175	03-JUN-22
pp-DDT			123.4		%		25-175	03-JUN-22
op-DDT			111.8		%		50-130	03-JUN-22
Methoxychlor			119.0		%		50-150	03-JUN-22
WG3734607-1 MB								
gamma-BHC			<0.0010		mg/L		0.001	03-JUN-22
Heptachlor			<0.0010		mg/L		0.001	03-JUN-22
Heptachlor epoxide			<0.0010		mg/L		0.001	03-JUN-22
Oxychlordane			<0.0010		mg/L		0.001	03-JUN-22
gamma-Chlordane			<0.0010		mg/L		0.001	03-JUN-22
alpha-Chlordane			<0.0010		mg/L		0.001	03-JUN-22
Aldrin			<0.00020		mg/L		0.0002	03-JUN-22
Dieldrin			<0.00020		mg/L		0.0002	03-JUN-22
Endrin			<0.0010		mg/L		0.001	03-JUN-22

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-TCLP-WT	**Waste**							
Batch R5793740								
WG3734607-1 MB								
pp-DDE			<0.0010		mg/L		0.001	03-JUN-22
pp-DDD			<0.0010		mg/L		0.001	03-JUN-22
pp-DDT			<0.0010		mg/L		0.001	03-JUN-22
op-DDT			<0.0010		mg/L		0.001	03-JUN-22
Methoxychlor			<0.0010		mg/L		0.001	03-JUN-22
Surrogate: Decachlorobiphenyl			99.8		%		50-150	03-JUN-22
Surrogate: Tetrachloro-m-xylene			97.7		%		50-150	03-JUN-22
WG3734607-6 MB								
gamma-BHC			<0.0010		mg/L		0.001	03-JUN-22
Heptachlor			<0.0010		mg/L		0.001	03-JUN-22
Heptachlor epoxide			<0.0010		mg/L		0.001	03-JUN-22
Oxychlordane			<0.0010		mg/L		0.001	03-JUN-22
gamma-Chlordane			<0.0010		mg/L		0.001	03-JUN-22
alpha-Chlordane			<0.0010		mg/L		0.001	03-JUN-22
Aldrin			<0.00020		mg/L		0.0002	03-JUN-22
Dieldrin			<0.00020		mg/L		0.0002	03-JUN-22
Endrin			<0.0010		mg/L		0.001	03-JUN-22
pp-DDE			<0.0010		mg/L		0.001	03-JUN-22
pp-DDD			<0.0010		mg/L		0.001	03-JUN-22
pp-DDT			<0.0010		mg/L		0.001	03-JUN-22
op-DDT			<0.0010		mg/L		0.001	03-JUN-22
Methoxychlor			<0.0010		mg/L		0.001	03-JUN-22
Surrogate: Decachlorobiphenyl			109.0		%		50-150	03-JUN-22
Surrogate: Tetrachloro-m-xylene			92.0		%		50-150	03-JUN-22
VOC-TCLP-WT	**Waste**							
Batch R5794468								
WG3735267-1 LCS								
1,1-Dichloroethylene			107.0		%		70-130	03-JUN-22
1,2-Dichlorobenzene			99.3		%		70-130	03-JUN-22
1,2-Dichloroethane			96.3		%		70-130	03-JUN-22
1,4-Dichlorobenzene			106.2		%		70-130	03-JUN-22
Benzene			113.2		%		70-130	03-JUN-22
Carbon tetrachloride			112.8		%		60-140	03-JUN-22
Chlorobenzene			95.7		%		70-130	03-JUN-22

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT	**Waste**							
Batch R5794468								
WG3735267-1 LCS								
Chloroform			99.2		%		70-130	03-JUN-22
Dichloromethane			101.3		%		70-130	03-JUN-22
Methyl Ethyl Ketone			93.8		%		50-150	03-JUN-22
Tetrachloroethylene			113.5		%		70-130	03-JUN-22
Trichloroethylene			105.0		%		70-130	03-JUN-22
Vinyl chloride			103.8		%		60-130	03-JUN-22
WG3735267-2 MB								
1,1-Dichloroethylene			<0.025		mg/L		0.025	06-JUN-22
1,2-Dichlorobenzene			<0.025		mg/L		0.025	06-JUN-22
1,2-Dichloroethane			<0.025		mg/L		0.025	06-JUN-22
1,4-Dichlorobenzene			<0.025		mg/L		0.025	06-JUN-22
Benzene			<0.025		mg/L		0.025	06-JUN-22
Carbon tetrachloride			<0.025		mg/L		0.025	06-JUN-22
Chlorobenzene			<0.025		mg/L		0.025	06-JUN-22
Chloroform			<0.10		mg/L		0.1	06-JUN-22
Dichloromethane			<0.50		mg/L		0.5	06-JUN-22
Methyl Ethyl Ketone			<1.0		mg/L		1	06-JUN-22
Tetrachloroethylene			<0.025		mg/L		0.025	06-JUN-22
Trichloroethylene			<0.025		mg/L		0.025	06-JUN-22
Vinyl chloride			<0.050		mg/L		0.05	06-JUN-22
Surrogate: 1,4-Difluorobenzene			112.3		%		70-130	06-JUN-22
Surrogate: 4-Bromofluorobenzene			84.3		%		70-130	06-JUN-22
WG3735267-5 MB								
1,1-Dichloroethylene			<0.025		mg/L		0.025	06-JUN-22
1,2-Dichlorobenzene			<0.025		mg/L		0.025	06-JUN-22
1,2-Dichloroethane			<0.025		mg/L		0.025	06-JUN-22
1,4-Dichlorobenzene			<0.025		mg/L		0.025	06-JUN-22
Benzene			<0.025		mg/L		0.025	06-JUN-22
Carbon tetrachloride			<0.025		mg/L		0.025	06-JUN-22
Chlorobenzene			<0.025		mg/L		0.025	06-JUN-22
Chloroform			<0.10		mg/L		0.1	06-JUN-22
Dichloromethane			<0.50		mg/L		0.5	06-JUN-22
Methyl Ethyl Ketone			<1.0		mg/L		1	06-JUN-22
Tetrachloroethylene			<0.025		mg/L		0.025	06-JUN-22
Trichloroethylene			<0.025		mg/L		0.025	06-JUN-22

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT	**Waste**							
Batch R5794468								
WG3735267-5 MB								
Vinyl chloride			<0.050		mg/L		0.05	06-JUN-22
Surrogate: 1,4-Difluorobenzene			110.8		%		70-130	06-JUN-22
Surrogate: 4-Bromofluorobenzene			85.1		%		70-130	06-JUN-22
WG3735267-6 MB								
1,1-Dichloroethylene			<0.025		mg/L		0.025	06-JUN-22
1,2-Dichlorobenzene			<0.025		mg/L		0.025	06-JUN-22
1,2-Dichloroethane			<0.025		mg/L		0.025	06-JUN-22
1,4-Dichlorobenzene			<0.025		mg/L		0.025	06-JUN-22
Benzene			<0.025		mg/L		0.025	06-JUN-22
Carbon tetrachloride			<0.025		mg/L		0.025	06-JUN-22
Chlorobenzene			<0.025		mg/L		0.025	06-JUN-22
Chloroform			<0.10		mg/L		0.1	06-JUN-22
Dichloromethane			<0.50		mg/L		0.5	06-JUN-22
Methyl Ethyl Ketone			<1.0		mg/L		1	06-JUN-22
Tetrachloroethylene			<0.025		mg/L		0.025	06-JUN-22
Trichloroethylene			<0.025		mg/L		0.025	06-JUN-22
Vinyl chloride			<0.050		mg/L		0.05	06-JUN-22
Surrogate: 1,4-Difluorobenzene			113.3		%		70-130	06-JUN-22
Surrogate: 4-Bromofluorobenzene			84.3		%		70-130	06-JUN-22

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
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.

Chain of Custody (COC) / Analytical Request Form

ALS www.alsglc

L2710263-COFC

Canada Toll Free: 1 800 668 9878

COC Number: 20 - 945421

Page 4 of 4

Report To	Cc
Company:	Geosyntec Consultants
Contact:	Felipe Solano
Phone:	519-514-2248
Company address below will appear on the final report	
Street:	295 Hagey Blvd, Suite 210
City/Province:	Waterloo, ON
Postal Code:	N2L 6R5
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	
Contact:	

Project Information

ALS Account # / Quote #:	Q88227
Job #:	TRB41C8D1
PO / AFE:	
LSD:	
ALS Lab Work Order # (ALS use only):	L2710263

Reports / Recipients

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: fsolano@geosyntec.com

Email 2: bwallace@geosyntec.com

Email 3: phutchison@geosyntec.com

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: accountspayable.can@geosyntec.com

Email 2: fsolano@geosyntec.com

Oil and Gas Required Fields (client use)

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

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)

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	PHC F1-F4	VOC	PAH	O. Reg 153/04 Metals & Inorg	PFAS	pH	Grain Size	TCLP (Leaching + VOCs, PAHs, Ignitability, Metals)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	BH22-11-2A_24052022	24-May-22	11:05	Soil	4	✓	✓	✓	✓					✓		
	TCLP	26-May-22	PM	↓	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)

Please compare to O. Reg 153/04 Table 3 SCS ICC coarse

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
7.3	

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
Brooke Wallace	May 27/22	13:10

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
	5/27/22	13:10

FINAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

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

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

GEOSYNTEC CONSULTANTS
INTERNATIONAL INC
ATTN: Felipe Solano
295 Hagey Blvd
290
Waterloo ON N2L 6R5

Date Received: 27-MAY-22
Report Date: 06-JUN-22 14:33 (MT)
Version: FINAL

Client Phone: 519-822-2230

Certificate of Analysis

Lab Work Order #: L2710261

Project P.O. #: NOT SUBMITTED
Job Reference: TR841C8D1
C of C Numbers: 20-945420
Legal Site Desc:

Gayle Braun
Senior Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710261-1 EQ BLANK - LINER Sampled By: CLIENT on 25-MAY-22 @ 09:15 Matrix: WATER							
Perfluorinated Compounds							
HexaFl-propylene oxide DA (HFPO-DA/GenX)	<0.040		0.040	ug/L	03-JUN-22	03-JUN-22	R5794541
ADONA	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorononane sulfonic acid (PFNS)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
8:2 Fluorotelomer sulfonic acid(8:2 FTS)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
6:2 Fluorotelomer sulfonic acid(6:2 FTS)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
4:2 Fluorotelomer sulfonic acid(4:2 FTS)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
10:2 Fluorotelomer sulfonic acid(10:2 F)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorobutane sulfonic acid (PFBS)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorohexane sulfonic acid (PFHxS)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorotridecanoic acid (PFTrDA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorooctane sulfonic acid (PFOS)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluoropentane sulfonic acid (PFPeS)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
N-Et PFO sulfonamide (EtFOSA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
N-Et PFO sulfonamidoethanol (EtFOSE)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
N-Et PFO sulfonamidoacetic acid(EtFOSAA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
N-Me PFO sulfonamide (MeFOSA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
N-Me PFO sulfonamidoacetic acid(MeFOSAA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
N-Me PFO sulfonamidoethanol (MeFOSE)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluoroheptane sulfonic acid (PFHpS)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorooctane sulfonamide (FOSA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorodecane sulfonic acid (PFDS)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorobutanoic acid (PFBA)	<0.050		0.050	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorodecanoic acid (PFDA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorododecanoic acid (PFDoDA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluoroheptanoic acid (PFHpA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorohexanoic acid (PFHxA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorononanoic acid (PFNA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorooctanoic acid (PFOA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluoropentanoic acid (PFPeA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorotetradecanoic acid (PFTeDA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluoroundecanoic acid (PFUnDA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
9Cl-PF3ONS	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
11Cl-PF3OUdS	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
L2710261-2 EQ BLANK - GLOVE Sampled By: CLIENT on 25-MAY-22 @ 09:20 Matrix: WATER							
Perfluorinated Compounds							
HexaFl-propylene oxide DA (HFPO-DA/GenX)	<0.040		0.040	ug/L	03-JUN-22	03-JUN-22	R5794541
ADONA	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorononane sulfonic acid (PFNS)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
8:2 Fluorotelomer sulfonic acid(8:2 FTS)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
6:2 Fluorotelomer sulfonic acid(6:2 FTS)	<0.0020	DLB	0.0020	ug/L	03-JUN-22	03-JUN-22	R5794541

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2710261-2 EQ BLANK - GLOVE Sampled By: CLIENT on 25-MAY-22 @ 09:20 Matrix: WATER							
Perfluorinated Compounds							
4:2 Fluorotelomer sulfonic acid(4:2 FTS)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
10:2 Fluorotelomer sulfonic acid(10:2 F)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorobutane sulfonic acid (PFBS)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorohexane sulfonic acid (PFHxS)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorotridecanoic acid (PFTrDA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorooctane sulfonic acid (PFOS)	<0.0020	DLM	0.0020	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluoropentane sulfonic acid (PFPeS)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
N-Et PFO sulfonamide (EtFOSA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
N-Et PFO sulfonamidoethanol (EtFOSE)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
N-Et PFO sulfonamidoacetic acid(EtFOSAA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
N-Me PFO sulfonamide (MeFOSA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
N-Me PFO sulfonamidoacetic acid(MeFOSAA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
N-Me PFO sulfonamidoethanol (MeFOSE)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluoroheptane sulfonic acid (PFHpS)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorooctane sulfonamide (FOSA)	<0.0030	DLB	0.0030	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorodecane sulfonic acid (PFDS)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorobutanoic acid (PFBA)	<0.050		0.050	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorodecanoic acid (PFDA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorododecanoic acid (PFDoDA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluoroheptanoic acid (PFHpA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorohexanoic acid (PFHxA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorononanoic acid (PFNA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorooctanoic acid (PFOA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluoropentanoic acid (PFPeA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluorotetradecanoic acid (PFTeDA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
Perfluoroundecanoic acid (PFUnDA)	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
9Cl-PF3ONS	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541
11Cl-PF3OUdS	<0.0010		0.0010	ug/L	03-JUN-22	03-JUN-22	R5794541

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

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Method Blank	Perfluorooctane sulfonamide (FOSA)	MB-LOR	L2710261-1, -2

Sample Parameter Qualifier key listed:

Qualifier	Description
DLB	Detection Limit Raised. Analyte detected at comparable level in Method Blank.
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
MB-LOR	Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
PFAS-LL-EX-LCMS-WT	Water	PFC's Low Level by LC/MS-MS	MOECC E3533, E3457, Mod. EPA 537.1

Water sample passed through a solid phase extraction (SPE). Final extract of Perfluorinated compounds are analyzed by LC/MS-MS.

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

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

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

Chain of Custody Numbers:

20-945420

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid weight of sample
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Client: GEOSYNTEC CONSULTANTS INTERNATIONAL INC
295 Hagey Blvd 290
Waterloo ON N2L 6R5
Contact: Felipe Solano

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PFAS-LL-EX-LCMS-WT	**Water**							
Batch	**R5794541**							
WG3735108-2	**LCS**							
Perfluorobutane sulfonic acid (PFBS)			75.3		%		50-150	03-JUN-22
Perfluoropentane sulfonic acid (PFPeS)			95.3		%		50-150	03-JUN-22
Perfluorohexane sulfonic acid (PFHxS)			80.0		%		50-150	03-JUN-22
Perfluoroheptane sulfonic acid (PFHpS)			78.0		%		50-150	03-JUN-22
Perfluorooctane sulfonic acid (PFOS)			80.0		%		50-150	03-JUN-22
Perfluorodecane sulfonic acid (PFDS)			52.7		%		50-150	03-JUN-22
Perfluorobutanoic acid (PFBA)			97.6		%		50-150	03-JUN-22
Perfluoropentanoic acid (PFPeA)			91.3		%		50-150	03-JUN-22
Perfluorohexanoic acid (PFHxA)			112.0		%		50-150	03-JUN-22
Perfluoroheptanoic acid (PFHpA)			84.7		%		50-150	03-JUN-22
Perfluorooctanoic acid (PFOA)			87.3		%		50-150	03-JUN-22
Perfluorononanoic acid (PFNA)			87.3		%		50-150	03-JUN-22
Perfluorodecanoic acid (PFDA)			98.0		%		50-150	03-JUN-22
Perfluoroundecanoic acid (PFUnDA)			90.7		%		50-150	03-JUN-22
Perfluorododecanoic acid (PFDoDA)			99.3		%		50-150	03-JUN-22
Perfluorotridecanoic acid (PFTrDA)			74.0		%		50-150	03-JUN-22
Perfluorotetradecanoic acid (PFTeDA)			98.0		%		50-150	03-JUN-22
Perfluorooctane sulfonamide (FOSA)			91.3		%		50-150	03-JUN-22
N-Me PFO sulfonamide (MeFOSA)			92.0		%		50-150	03-JUN-22
N-Et PFO sulfonamide (EtFOSA)			87.3		%		50-150	03-JUN-22
N-Me PFO sulfonamidoethanol (MeFOSE)			90.7		%		50-150	03-JUN-22
N-Et PFO sulfonamidoethanol (EtFOSE)			88.7		%		50-150	03-JUN-22
N-Me PFO sulfonamidoacetic acid(MeFOS			88.0		%		50-150	03-JUN-22
N-Et PFO sulfonamidoacetic acid(EtFOSA			99.3		%		50-150	03-JUN-22
4:2 Fluorotelomer sulfonic acid(4:2 FTS)			81.3		%		50-150	03-JUN-22
6:2 Fluorotelomer sulfonic acid(6:2 FTS)			87.3		%		50-150	03-JUN-22
8:2 Fluorotelomer sulfonic acid(8:2 FTS)			79.3		%		50-150	03-JUN-22
10:2 Fluorotelomer sulfonic acid(10:2 F)			66.0		%		50-150	03-JUN-22
ADONA			91.8		%		50-150	03-JUN-22
9Cl-PF3ONS			85.8		%		50-150	03-JUN-22
11Cl-PF3OUdS			86.7		%		50-150	03-JUN-22
HexaFl-propylene oxide DA (HFPO-DA/Ge			91.9		%		50-150	03-JUN-22
Perfluorononane sulfonic acid (PFNS)			71.5		%		50-150	03-JUN-22
WG3735108-1	**MB**							

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PFAS-LL-EX-LCMS-WT	**Water**							
Batch	**R5794541**							
WG3735108-1	**MB**							
Perfluorobutane sulfonic acid (PFBS)			<0.0010		ug/L		0.001	03-JUN-22
Perfluoropentane sulfonic acid (PFPeS)			<0.0010		ug/L		0.001	03-JUN-22
Perfluorohexane sulfonic acid (PFHxS)			<0.0010		ug/L		0.001	03-JUN-22
Perfluoroheptane sulfonic acid (PFHpS)			<0.0010		ug/L		0.001	03-JUN-22
Perfluorooctane sulfonic acid (PFOS)			<0.0010		ug/L		0.001	03-JUN-22
Perfluorodecane sulfonic acid (PFDS)			<0.0010		ug/L		0.001	03-JUN-22
Perfluorobutanoic acid (PFBA)			<0.050		ug/L		0.05	03-JUN-22
Perfluoropentanoic acid (PFPeA)			<0.0010		ug/L		0.001	03-JUN-22
Perfluorohexanoic acid (PFHxA)			<0.0010		ug/L		0.001	03-JUN-22
Perfluoroheptanoic acid (PFHpA)			<0.0010		ug/L		0.001	03-JUN-22
Perfluorooctanoic acid (PFOA)			<0.0010		ug/L		0.001	03-JUN-22
Perfluorononanoic acid (PFNA)			<0.0010		ug/L		0.001	03-JUN-22
Perfluorodecanoic acid (PFDA)			<0.0010		ug/L		0.001	03-JUN-22
Perfluoroundecanoic acid (PFUnDA)			<0.0010		ug/L		0.001	03-JUN-22
Perfluorododecanoic acid (PFDoDA)			<0.0010		ug/L		0.001	03-JUN-22
Perfluorotridecanoic acid (PFTrDA)			<0.0010		ug/L		0.001	03-JUN-22
Perfluorotetradecanoic acid (PFTeDA)			<0.0010		ug/L		0.001	03-JUN-22
Perfluorooctane sulfonamide (FOSA)			<0.0020	MB-LOR	ug/L		0.001	03-JUN-22
N-Me PFO sulfonamide (MeFOSA)			<0.0010		ug/L		0.001	03-JUN-22
N-Et PFO sulfonamide (EtFOSA)			<0.0010		ug/L		0.001	03-JUN-22
N-Me PFO sulfonamidoethanol (MeFOSE)			<0.0010		ug/L		0.001	03-JUN-22
N-Et PFO sulfonamidoethanol (EtFOSE)			<0.0010		ug/L		0.001	03-JUN-22
N-Me PFO sulfonamidoacetic acid(MeFOS			<0.0010		ug/L		0.001	03-JUN-22
N-Et PFO sulfonamidoacetic acid(EtFOSA			<0.0010		ug/L		0.001	03-JUN-22
4:2 Fluorotelomer sulfonic acid(4:2 FTS)			<0.0010		ug/L		0.001	03-JUN-22
6:2 Fluorotelomer sulfonic acid(6:2 FTS)			<0.0010		ug/L		0.001	03-JUN-22
8:2 Fluorotelomer sulfonic acid(8:2 FTS)			<0.0010		ug/L		0.001	03-JUN-22
10:2 Fluorotelomer sulfonic acid(10:2 F)			<0.0010		ug/L		0.001	03-JUN-22
ADONA			<0.0010		ug/L		0.001	03-JUN-22
9Cl-PF3ONS			<0.0010		ug/L		0.001	03-JUN-22
11Cl-PF3OUdS			<0.0010		ug/L		0.001	03-JUN-22
HexaFl-propylene oxide DA (HFPO-DA/Ge			<0.040		ug/L		0.04	03-JUN-22
Perfluorononane sulfonic acid (PFNS)			<0.0010		ug/L		0.001	03-JUN-22

Quality Control Report

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
MB-LOR	Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level.

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.

L2710261-COFC

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 - 945420

Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report	Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Geosyntec Consultants Int'l	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	☑ Routine [R] If received by 3pm M-F - no surcharges apply
Contact:	Felipe Solano	Merge QC/QCI Reports with COA ☑ YES ☐ NO ☐ N/A	☐ 4 day [P4] If received by 3pm M-F - 20% rush surcharge minimum
Phone:	519-514-2248	☑ 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:	295 Hagey Blvd, Suite 290	Email 1 or Fax fsolano@geosyntec.com	☐ 1 day [E] If received by 3pm M-F - 100% rush surcharge minimum
City/Province:	Waterloo, ON	Email 2 bwallace@geosyntec.com	☐ 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:	N2L 6R5	Email 3 phutchison@geosyntec.com	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	

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	Q88227	AFE/Cost Center:	PO#:
Job #:	TR841CBD1	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (ALS use only):	L2710261	ALS Contact:	Sampler:

AFFIX ALS BARCODE LABEL HERE (ALS use only)

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	PHC Fr1-4	VOC	PAH	O. Reg 153/04 Metals (Incl. Hg)	PFAS	pH	Grain Size	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED
	BH22-8-2_250522	25-May-22	14:15	Soil	4	✓	✓	✓	✓				✓	
	BH22-9-1A_240522	24-May-22	14:50		4	✓	✓	✓	✓					
	BH22-9-2A_240522	↓	15:00		4	✓	✓	✓	✓				✓	
	BH22-10-1A_25052022	25-May-22	8:45		1			✓	✓					
	BH22-10-1B_25052022		8:50		4	✓	✓	✓	✓	✓				
	BH22-10-2A_25052022		9:00		4	✓	✓	✓	✓				✓	
	BH22-10-2B_25052022		9:10		2					✓		✓	*	PFAS only
	DUP01		9:50		3	✓	✓			✓				
	DUP02		9:45	↓	1			✓	✓					
	EQ BLANK-LINER		9:15	Water	1					✓				
	EQ BLANK-GLOVE	↓	9:20	Water	1					✓				
	BH22-11-1A_24052022	24-May-22	15:55	Soil	4	✓	✓	✓	✓					

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	Please compare to O. Reg. 153/04 Table 3 SCS ICC Coarse
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

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
7.3					

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:
Brooke Wallace	May 27/22	~~15:00~~ 15:10		5/27/22	15:10			

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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

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

APPENDIX D

PLAN OF SURVEY

5R-1419

I REQUIRE THIS PLAN TO BE DEPOSITED UNDER PART II OF THE REGISTRY ACT.

DATE 4th July 1974

Paul A. Riddell

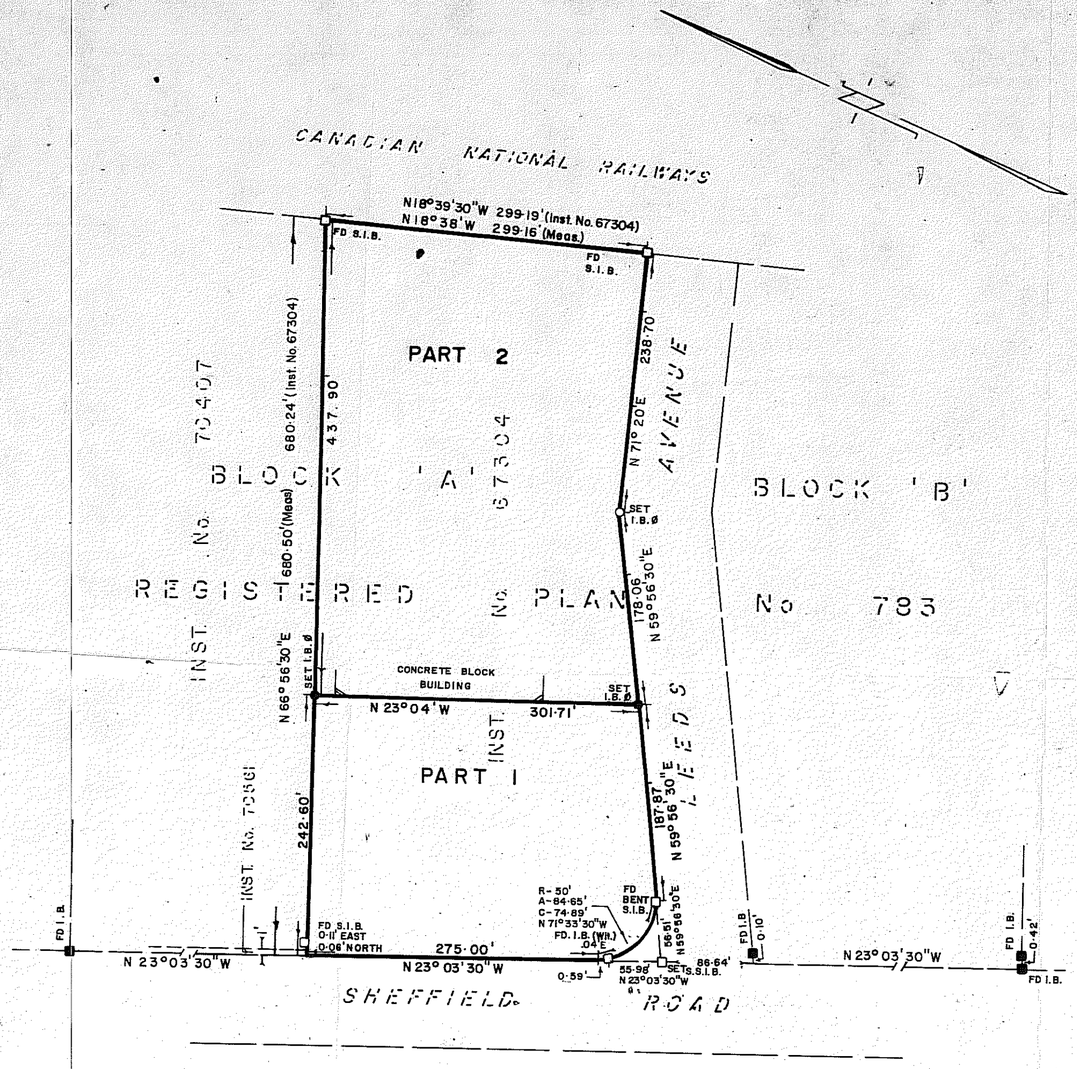
PAUL A. RIDDELL

RECEIVED AND DEPOSITED AS PLAN 5R-1419

DATE 4 July 1974

D. H. Wilson Jr. Dpr

LAND REGISTRAR FOR THE REGISTRY DIVISION OF CARLETON No. 5



PLAN
OF SURVEY OF

PART OF BLOCK 'A' REGISTERED PLAN No 783

TOWNSHIP OF GLOUCESTER
NOW IN THE CITY OF OTTAWA
REGIONAL MUNICIPALITY OF OTTAWA-CARLETON

SCALE: 1" = 100'

PAUL A. RIDDELL O.L.S.
1974

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY:

1. THAT THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT AND THE REGISTRY ACT AND THE REGULATIONS MADE THEREUNDER.
2. THAT THE SURVEY WAS COMPLETED ON THE 13th DAY OF JUNE, 1974

4th July 1974
DATE

Paul A. Riddell
PAUL A. RIDDELL
ONTARIO LAND SURVEYOR

NOTES

1. ALL HANGING LINES SHOWN ON THIS PLAN HAVE BEEN VERIFIED.
2. BEARINGS HEREON ARE ASTRONOMIC DERIVED FROM THE EAST LIMIT OF SHEFFIELD ROAD SHOWN AS N 23° 03' 30" W ON REGISTERED PLAN No. 783

LEGEND

S.I.B.	DENOTES STANDARD IRON BAR 1" Sq. X 4' LONG.
S.S.I.B.	DENOTES SHORT STANDARD IRON BAR 1" Sq. X 2' LONG.
I.B.	DENOTES IRON BAR 5/8" Sq. X 2' LONG.
R.I.B.	DENOTES ROUND IRON BAR.
C.C.	DENOTES CUT CROSS.
WIT.	DENOTES WITNESS.
C.N.	DENOTES CONCRETE NAIL

CAUTION

THIS PLAN IS NOT A PLAN OF SUBDIVISION WITHIN THE MEANING OF SECTIONS 29,32 OR 33 OF THE PLANNING ACT.

FAIRHALL & MOFFATT LIMITED
ONTARIO LAND SURVEYORS

FILE	JOB No	REF No.
	4195	4(B)-783 GR

CANADIAN NATIONAL RAILWAYS

FD. 1" SQ. I.B.

790.92' (MEAS.) 791.05' (DEED)

FD. 1" SQ. I.B. BENT 0.4' SOUTH

8.2'

52.40'

ASPHALT SURFACE

197.3'

51.67'

95.93'

4.7' Overhang

740.93' (DEED)

CHAIN LINK FENCE

CONCRETE PAD

CURBING

ASPHALT SURFACE

NATIONAL GROCERS

Nº 2625

AREA = 12.86 ACRES

ASPHALT SURFACE

680.24' (DEED)

PART OF BLOCK 'A', REGISTERED PLAN Nº 783 GR.

PART 1, 5R-1419

196.9'

20.04'

5' Overhang

162.10'

FENCE 0.1'S

5.25' Overhang

19.88'

GRASS

ASPHALT

62.28'

57.31'

WATER VALVE

57.25'

90°00'

90°00'

JOB BENCH MARK
TOP OF F.H.
ELEV. 220.33

788.72' (DEED) 788.59' (MEAS.)

F.H. H.P. OVERHEAD HYDRO H.P. H.P. 4" GAS MAIN H.P.

12" WATER

EDGE OF PAVEMENT

C/L 4' WIDE DITCH

12" WATER

M.H. 216.3
INV. 206.4

15" SANITARY SEWER

M.H. 217.28
INV. 207.6

M.H. 2185
INV. 208.1

15" SANITARY SEWER

EDGE OF PAVEMENT

SHEFFIELD ROAD

60" SANITARY SEWER

60" SANITARY SEWER

BURIED BELL CABLE

BURIED BELL CABLE

PLAN OF

PART OF BLOCK A

REGISTERED PLAN No. 783 GLOUCESTER
CITY OF OTTAWA
REGIONAL MUNICIPALITY OF OTTAWA-CARLETON

SCALE: 1" = 40'
PAUL A. RIDDELL O.L.S.
1974.

LEGEND

- S.I.B. DENOTES STANDARD IRON BAR 1"SQ. X 4' LONG.
- R.I.B. DENOTES ROUND IRON BAR.
- FD. DENOTES FOUND.
- H.P. DENOTES HYDRO POLE
- M.H. DENOTES MANHOLE
- INV. DENOTES INVERT
- F.H. DENOTES FIRE HYDRANT

NOTES

1) ELEVATIONS ARE DERIVED FROM GEODETIC DATUM.

2) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THE LOCAL BENCH MARKS HAVE NOT BEEN ALTERED OR DISTURBED AND THAT THEIR RELATIVE ELEVATION AND DESCRIPTIONS AGREE WITH THE INFORMATION SHOWN ON THIS PLAN.

3) LOCATIONS OF UNDERGROUND SERVICES WERE OBTAINED FROM THE CITY OF OTTAWA CENTRAL REGISTRY AND RELEVANT UTILITY COMPANIES AND WERE VERIFIED IN THE FIELD WHERE POSSIBLE. UNDERGROUND SERVICES SHOULD BE LOCATED IN THE FIELD BY RESPECTIVE COMPANIES PRIOR TO EXCAVATION.

4) PLAN AMENDED, OCTOBER 22, 1974.

PLAN UPDATED:

NOV. 10, 1976
DATE

NOV. 12, 1982.

CHARLES W. FAIRHALL
ONTARIO LAND SURVEYOR

FAIRHALL & MOFFATT LIMITED
ONTARIO LAND SURVEYORS

Scale: 1" = 40'	Signed:	Ref. No.
Date: 13 Sept 1974	ONTARIO LAND SURVEYOR	B-783 GR.

File: F-128

JOB No. 4347
B 5464

162.86
32.89
195.75

I REQUIRE THIS PLAN TO BE DEPOSITED UNDER PART II OF THE REGISTRY ACT

DATE FEBRUARY 14, 1977.

CHARLES W. FAIRHALL

RECEIVED AND DEPOSITED AS PLAN 5R-2860

DATE FEBRUARY 14 1977

E. L. Montgomery Dep

LAND REGISTRAR FOR THE REGISTRY DIVISION OF CARLETON No 5

INNES ROAD

ROAD ALLOWANCE BETWEEN CONCESSIONS 2 & 3

SHEFFIELD ROAD

BLACKWELL STREET

LEEDS AVENUE

(BY-LAW HS-66 INST. No. 70208)

(N 70° 29' 40" E 5R-2776)

N.W. ANGLE E 1/2 LOT 25

FD. S.I.B.

N 60°13' E 40.29'

CONCESSION N 22°56' W

LOT 25

PART OF LOT 25 CONCESSION 3 (OTTAWA FRONT)

PART OF CANADIAN NATIONAL RAILWAYS

PART 1 PLAN 5R-1226 INST. No. 196496

PART 2, PLAN 5R-1226 INST. No. 215853

PART 17, PLAN 5R-420

PART 6, PLAN 5R-2534

PART 7 INST. No. 77593

PART 8 INST. No. 78535

PART 9 OF REMAINDER INST. No. 66587

PART 6 INST. No. 70647

PART 4 INST. No. 70644

PART 5 PART OF REMAINDER OF INST. No. 66587

PART 3

PART 2 INST. No. 100152

PART 1

BELL TELEPHONE & OTTAWA HYDRO EASEMENTS INST. No. 101558

BELL TELEPHONE & OTTAWA HYDRO EASEMENTS INST. No. 101559

ACC. TIE 0.26' (REC.)

SET S.I.B.

SET S.S.I.B. (WIT.)

SET S.I.B. (WIT.)

FD. I.B. 0.06'W

FD. I.B. (WIT.) 0.10'N

R-330' A-52.80' C-47.93' N 66°16'45"W(M) (N 66°16'30"W DEED)

N 70°30'30"E 33.06'

N 70°30'E (211.34' DEED) 211.40'(M)

N 70°30'E 110.0'

N 70°30'E 120.0'

N 70°30'E 232.86'

N 70°30'30"E (N 70° 30' 30" E 288.78')

162.86'

32.89'

70.41'

SET S.I.B. (WIT.)

296.11' (MEAS.)

276.08'(M)

269.21'(M)

223.60'

963.60'

836.11' (MEAS.)

(193.67' DEED) 193.74'(M) 0.14'

110.21'

120.23'

212.16'(M)

(636.41' DEED)

N 66° 56' 30" E

FD. I.B. 636.34'(M) 0.10'N

SET S.I.B. (WIT.) 0.18'

CONCESSION 3 (O.F.)

PART 2, PLAN 5R-1226 INST. No. 215853

N 22° 56' W 836.05' (MEAS.)

250.00'

289.50'

289.90'

N 66° 56' 30" E 636.69'(M) (636.73' DEED)

SET S.S.I.B. (WIT.)

0.10'

N 66°56'30"E 33.00'

N 66°56'30"E 389.21'

637.10'

1057.35'

1057.36'

963.97'

N 66°56'30"E (291.67' 5R-2534') 291.72'(M)

670.30'(M) (670.20' 5R-2534)

FD. S.I.B. (WIT.)

N 23°03'30"W

192.00'

1630.63'

4.00'

N 45°00'W 100.00'

SET S.S.I.B. (WIT.) 0.10'

SET S.I.B. (WIT.) 2.16'

N 45°00'E 223.61'

N 45°00'E 223.51'

N 45°00'E 223.51'

N 45°00'E 223.51'

WEST HALF LOT 24 CONCESSION 3 (O.F.)

EAST HALF LOT 24 CONCESSION 3 (O.F.)

WEST HALF LOT 25 CONCESSION 3 (O.F.)

EAST HALF LOT 25 CONCESSION 3 (O.F.)

DIVISION LINE BETWEEN LOTS 24 & 25

DIVISION LINE BETWEEN WEST & EAST HALF LOT 24

DIVISION LINE BETWEEN WEST & EAST HALF LOT 25

BLOCK B, REGISTERED PLAN No 783

SHEFFIELD ROAD

S.E. CORNER WEST HALF LOT 24

WALKLEY ROAD

ROAD ALLOWANCE BETWEEN OTTAWA FRONT AND RIDEAU FRONT CONCESSIONS

CONCESSION 3, OTTAWA FRONT

PLAN OF SURVEY OF

PART OF LOTS 24 AND 25 CONCESSION 3 (OTTAWA FRONT) TOWNSHIP OF GLOUCESTER

NOW IN THE CITY OF OTTAWA

REGIONAL MUNICIPALITY OF OTTAWA-CARLETON

SCALE : 1" = 100'

CHARLES W. FAIRHALL, O.L.S.

1977.

SCHEDULE

PART	LOT	CON.	INST.	AREA	REMARKS
1	24 & 25	3	100152	0·088 Acs.	SUBJECT TO EASEMENT INST. No. 101558
2	24 & 25	3	100152	4·454 Acs.	
3	24 & 25	3	100152	0·097 Acs.	SUBJECT TO EASEMENT INST. No. 101558
4	24	3	70644	4·238 Acs.	
5	24	3	PT OF 66587	0·001 Acs.	
6	24	3	70647	3·653 Acs.	
7	24	3	77593	1·346 Acs.	
8	24	3	PT OF 66587	0·752 Acs.	
9	24	3	PT OF 66587	1·223 Acs.	

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY:

1. THAT THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT AND THE REGISTRY ACT AND THE REGULATIONS MADE THEREUNDER.
2. THAT THE SURVEY WAS COMPLETED ON THE 7th DAY OF FEBRUARY, 1977.

FEB. 10, 1977 DATE

CHARLES W. FAIRHALL ONTARIO LAND SURVEYOR

NOTES

1. ALL HANGING LINES SHOWN ON THIS PLAN HAVE BEEN VERIFIED.
2. BEARINGS HEREON ARE ASTRONOMIC DERIVED FROM THE WESTERLY LIMIT OF SHEFFIELD ROAD SHOWN AS N 23°03' 30" W ON REGISTERED PLAN No. 783.

LEGEND

- S.I.B. DENOTES STANDARD IRON BAR 1" Sq. X 4' LONG.
- S.S.I.B. DENOTES SHORT STANDARD IRON BAR 1" Sq. X 2' LONG.
- I.B. DENOTES IRON BAR 5/8" Sq. X 2' LONG.
- R.I.B. DENOTES ROUND IRON BAR.
- + C.C. DENOTES CUT CROSS
- WIT. DENOTES WITNESS.
- (M) DENOTES MEASURED

CAUTION

THIS PLAN IS NOT A PLAN OF SUBDIVISION WITHIN THE MEANING OF SECTIONS 29,32 OR 33 OF THE PLANNING ACT.

FAIRHALL & MOFFATT LIMITED
ONTARIO LAND SURVEYORS

FILE	JOB No 5452	REF No 90-24-3 (O.F.)GR.

1" = 100'

0 50 100 200 300 400 500

SCALE: 1 INCH = 100 FEET

Ministry of Consumer and Commercial Relations / Ministère de la Consommation et du Commerce / Registrar's Branch / Division de l'enregistrement / Land Registry Office

24x R 05R 02860 03377

FRAME 01 OF 01 PART 01 OF 01 SHEET 01 01

34 32 30 28 26 24 22 20 18 16 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34

2P=168.82' = 64.51M
2004.82 = 6.11M
70.18M

SCHEDULE			
PART	BLOCK	PLAN	INST. Nº
1	'B'	783	N 469497 (6thly)
2			

I REQUIRE THIS PLAN TO BE DEPOSITED UNDER THE REGISTRY ACT.

DATE MAY 25, 1989

CHARLES W. FAIRHALL

PLAN 5R-12728

RECEIVED AND DEPOSITED

DATE 25 MAY '89

LAND REGISTRAR FOR THE REGISTRY DIVISION OF OTTAWA-CARLETON Nº 5

LOT 23, CONCESSION 3 (OTTAWA FRONT)

CANADIAN NATIONAL RAILWAY COMPANY PART 4, PLAN R-40 INST. Nº

& CANADIAN PACIFIC LIMITED OT150977

0.30 RESERVE

REGISTERED PLAN Nº 783

AVENUE

SHEFFIELD

ROAD

BLOCK 'A'

BLOCK 'B'

PART 1 AREA = 5,586 m²

PART 2 AREA = 9,885 m²

(N 18° 39' 30" W Deed) N 18° 39' 00" W

87.01 Plan) 87.08 (Meas.)

SIB (R.P. Nº 783) ACC. TWO WAYS

Set 80.34 (Deed) (N 18° 39' 30" W Deed)

IB (S.U.) 10.70

IB (857)

SIB (R.P. Nº 783) ACC. EAST & WEST

(N 71° 20' E 70.14 Plan & Deed) 70.18 (Meas.)

WIT. IB (S.U.) ACC. 2 WAYS

0.43

SIB

N 22° 59' 30" W 85.42

SIB

(N 59° 56' 30" E 115.88 Plan & Deed) 115.84 (Meas.) 115.41

(N 59° 56' 30" E Deed) 192.18 (Deed & Meas.)

127.86

N 66° 56' 30" E

R = 15.24 A = 22.11 (Meas.) 22.08 Plan) C = 20.22 (C = 20.20 N 18° 26' 30" E, Deed) N 18° 27' E

Set 13.50 (Plan) IB (647) (WIT) 0.08 SOUTH 0.08 WEST ACC. TWO WAYS

N 59° 57' 00" E (Meas.)

IB (S.U.) (WIT) 0.01 WEST 0.03 SOUTH

SIB (857) (WIT) 0.03 WEST ACC. NORTH & SOUTH

SEWER EASEMENT INST. Nº 01 67820

INST. Nº NS 496659

INST. Nº NS 436845

PART 2, 5R-1532

SIB (857) 0.05 WEST

26.22 (Plan & Meas.)

Set 13.50 (Plan) IB (647) ACC. TWO WAYS

N 23° 03' 30" W HP.

56.23 (Deed & Meas.)

65.53 (Deed & Meas.)

(Reference Bearing)

137.16 (Deed & Meas.)

SIB (857) 0.01 WEST

SIB (857) 0.02 WEST

220.98

SIB (R.M.O.C) ACC. EAST & WEST

PLAN OF SURVEY OF

PART OF BLOCK 'B' REGISTERED PLAN Nº 783 TOWNSHIP OF GLOUCESTER Now in the CITY OF OTTAWA

REGIONAL MUNICIPALITY OF OTTAWA-CARLETON

SCALE: 1:1000

0 5 10 20 35 55 80 METRES

CHARLES W. FAIRHALL, O.L.S.
1989

METRIC

DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

SURVEYOR'S CERTIFICATE

I CERTIFY THAT :

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT AND THE REGISTRY ACT AND THE REGULATIONS MADE THEREUNDER.
2. THE SURVEY WAS COMPLETED ON THE 24th DAY OF MAY, 1989.

MAY 24, 1989
DATE

CHARLES W. FAIRHALL
ONTARIO LAND SURVEYOR

NOTES

BEARINGS ARE ASTRONOMIC AND ARE REFERRED TO THE EASTERLY LIMIT OF SHEFFIELD AVENUE SHOWN AS N 23° 03' 30" W ON REGISTERED PLAN Nº 783.

LEGEND

(WIT)	— DENOTES WITNESS
□	— DENOTES SURVEY MONUMENT SET
■	— DENOTES SURVEY MONUMENT FOUND
SIB	— DENOTES STANDARD IRON BAR
SSIB	— DENOTES SHORT STANDARD IRON BAR
IB	— DENOTES IRON BAR
(S.U.)	— DENOTES SOURCE UNKNOWN
ACC.	— DENOTES ACCEPTED
(R.M.O.C)	— DENOTES REGIONAL MUNICIPALITY OF OTTAWA-CARLETON
(Plan)	— DENOTES REGISTERED PLAN Nº 783
HP.	— DENOTES HYDRO POLE
(Deed)	— DENOTES INSTRUMENT Nº NS174105
R.P.	— DENOTES REGISTERED PLAN
C/L	— DENOTES CENTRELINE
(857)	— DENOTES FAIRHALL, MOFFATT & WOODLAND LTD., O.L.S.
(647)	— DENOTES H.R. FARLEY, O.L.S.
WIT.	— DENOTES WITNESS

CAUTION THIS PLAN IS NOT A PLAN OF SUBDIVISION WITHIN THE MEANING OF THE PLANNING ACT.

FAIRHALL, MOFFATT & WOODLAND LIMITED
ONTARIO LAND SURVEYORS
OTTAWA KANATA

FILE	JOB Nº	REF. Nº
CC-156	4963	15(b)-783 (GR.)

26R site file

SCALE : 1 INCH = 40 FEET

SCHEDULE					
PART	LOT	CONCESSION	INST N°	AREA	REMARKS
1	24	3(OTTAWA FRONT)	N451818	5397 sq.ft.	
2				27335 sq.ft.	

I REQUIRE THIS PLAN TO BE DEPOSITED UNDER THE REGISTRY ACT.

September 20, 1990
DATE

John H. Kennedy
JOHN H. KENNEDY
ONTARIO LAND SURVEYOR

PLAN 5R- 13954

RECEIVED AND DEPOSITED

Sept. 20, 1990
DATE

ASST DEP. J. Richards
LAND REGISTRAR FOR THE REGISTRY DIVISION OF OTTAWA-CARLETON N° 5.

PLAN OF SURVEY OF
PART OF LOT 24
CONCESSION 3 (OTTAWA FRONT)
TOWNSHIP OF GLOUCESTER NOW IN THE
CITY OF OTTAWA
REGIONAL MUNICIPALITY OF OTTAWA - CARLETON

JOHN H. KENNEDY, O.L.S.
1990

SCALE : 1" = 40'

NOTES

BEARINGS SHOWN HEREON ARE ASTRONOMIC, DERIVED FROM THE BEARING N 70° 30' E ON THE SOUTHERLY LIMIT OF LEEDS AVENUE AS SHOWN ON PLAN 5R-2860.

LEGEND

PLAN	DENOTES	PLAN 5R-2860
(857)	DENOTES	FAIRHALL, MOFFATT & WOODLAND, O.L.S.
(SU)	DENOTES	SOURCE UNKNOWN
⊕	DENOTES	SURVEY MONUMENT FOUND
○	DENOTES	SURVEY MONUMENT PLANTED
SIB	DENOTES	STANDARD IRON BAR
SSIB	DENOTES	SHORT STANDARD IRON BAR
IB	DENOTES	IRON BAR
●	DENOTES	RIBAUD
CC	DENOTES	CUT CROSS
WIT	DENOTES	WITNESS
Acc.	DENOTES	ACCEPTED
Meas.	DENOTES	MEASURED
INST.	DENOTES	INSTRUMENT
x—x	DENOTES	FENCE

SURVEYOR'S CERTIFICATE

I CERTIFY THAT :

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT AND THE REGISTRY ACT AND THE REGULATIONS MADE THEREUNDER
2. THE SURVEY WAS COMPLETED ON THE 16th DAY OF JULY, 1990

September 20, 1990
DATE

John H. Kennedy
JOHN H. KENNEDY
ONTARIO LAND SURVEYOR

CAUTION THIS PLAN IS NOT A PLAN OF SUBDIVISION WITHIN THE MEANING OF THE PLANNING ACT

Annett, Kennedy, Riddell & Jason Surveying Ltd.
OTTAWA — ONTARIO & CANADA LAND SURVEYORS — KEMPTVILLE — BROCKVILLE
Ref: 268-90

LEEDS AVENUE (BY-LAW 116-66 INST. N° OT7 0208)

WALKLEY ROAD (ROAD ALLOWANCE BETWEEN OTTAWA FRONT & RIDEAU FRONT CONCESSIONS)

REGISTERED PLAN N° 78.3 SHEFFIELD ROAD

DIVISION LINE BETWEEN EAST & WEST HALVES OF LOT 24

CONCESSION 3 (OTTAWA FRONT)

LOT 25

PART 1 PLAN 5R-1226

PART 2 PLAN 5R-2860

PART 1 PLAN 5R-2860

PART 9 PLAN 5R-2860

PART 6 PLAN 5R-2860

INST. N° OT78535

INST. N° N451818

INST. N° N476072

33.06' PLAN

SIB (857)

N 70° 30' E 321.40' PLAN & MEAS

REFERENCE BEARING

IB (857)

120.00' PLAN & MEAS

N.70°30'E. 195.75' PLAN

100.00'

20.00'

SIB (857) DISTURBED ACC STRAIGHT & REPLACED WITH SIB

276.66' PLAN & MEAS.

270.45' PLAN & MEAS.

269.21' PLAN & MEAS.

2627.12' PER PLAN

N 19° 29' 10" W

N. 23° 01' 30" W.

8.19' PLAN & SET

CENTRE LINE OF DITCH ± 3' NORTH

IB (857) WIT (CAP NORTH (SU) WIT PER PLAN)

SIB (857) WIT

303.95' PLAN & MEAS N. 66° 56' 30" E. PLAN & MEAS.

100.19'

120.23' PLAN & MEAS.

200'

CHAIN LINK FENCE 1.0' NORTH

CHAIN LINK FENCE 1.4' NORTH

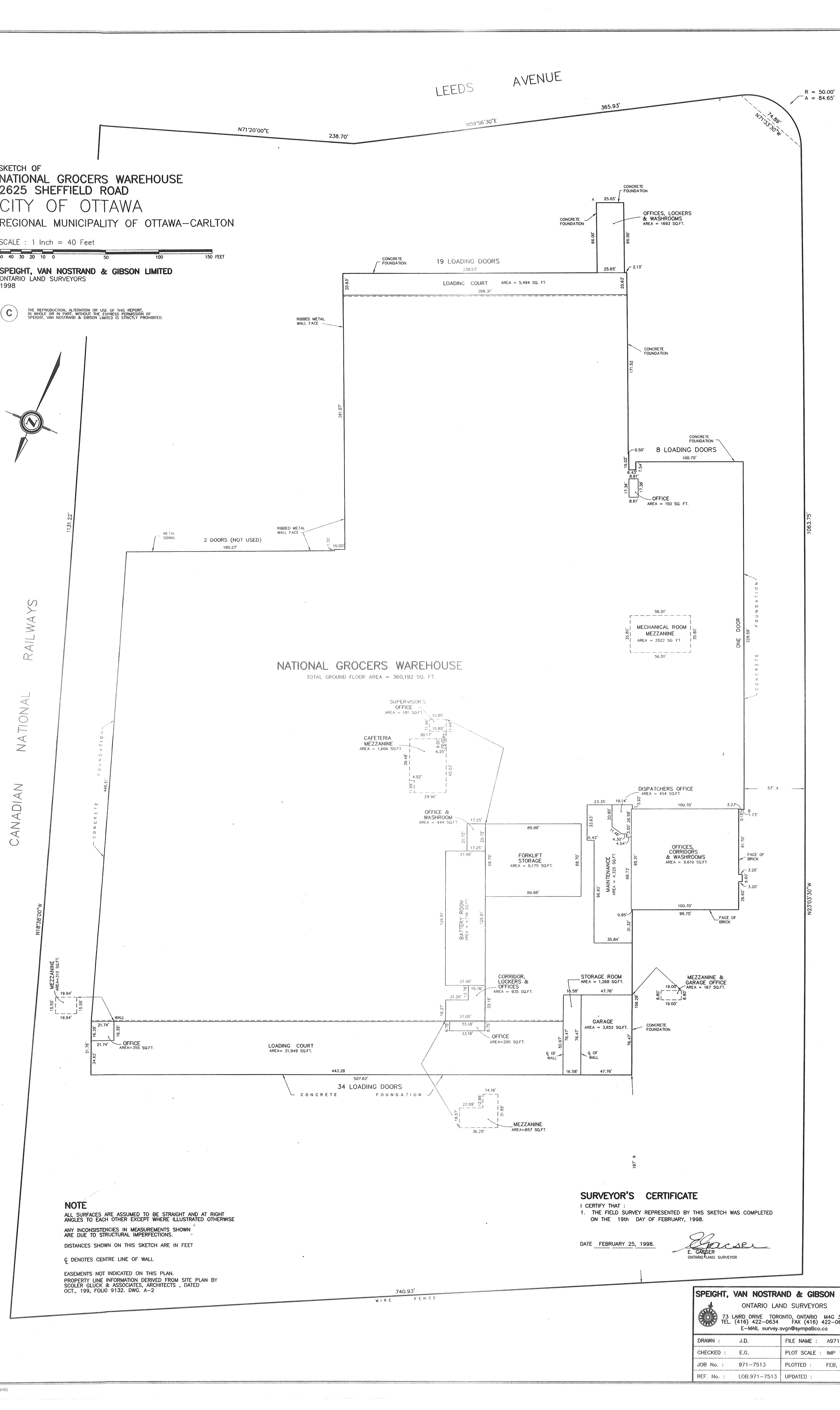
SOUTH EAST CORNER WEST HALF LOT 24

SKETCH OF
NATIONAL GROCERS WAREHOUSE
2625 SHEFFIELD ROAD
CITY OF OTTAWA
REGIONAL MUNICIPALITY OF OTTAWA–CARLTON

SCALE : 1 Inch = 40 Feet

50 40 30 20 10 0 50 100 150 FEET

SPEIGHT, VAN NOSTRAND & GIBSON LIMITED
ONTARIO LAND SURVEYORS
1998



NOTE

ALL SURFACES ARE ASSUMED TO BE STRAIGHT AND AT RIGHT ANGLES TO EACH OTHER EXCEPT WHERE ILLUSTRATED OTHERWISE

ANY INCONSISTENCIES IN MEASUREMENTS SHOWN ARE DUE TO STRUCTURAL IMPERFECTIONS.

DISTANCES SHOWN ON THIS SKETCH ARE IN FEET

℄ DENOTES CENTRE LINE OF WALL

EASEMENTS NOT INDICATED ON THIS PLAN.

PROPERTY LINE INFORMATION DERIVED FROM SITE PLAN BY SCOLER GLUCK & ASSOCIATES, ARCHITECTS , DATED OCT., 199, FOLIO 9132. DWG. A–2

SURVEYOR'S CERTIFICATE

I CERTIFY THAT :

1. THE FIELD SURVEY REPRESENTED BY THIS SKETCH WAS COMPLETED ON THE 19th DAY OF FEBRUARY, 1998.

DATE FEBRUARY 25, 1998.

E. GASSER
ONTARIO LAND SURVEYOR

SPEIGHT, VAN NOSTRAND & GIBSON LIMITED
ONTARIO LAND SURVEYORS
73 LAIRD DRIVE TORONTO, ONTARIO M4G 3T4
TEL. (416) 422–0634 FAX (416) 422–0635
E–MAIL survey.svgn@sympatico.ca

DRAWN :	J.D.	FILE NAME :	A9717513.DWG
CHECKED :	E.G.	PLOT SCALE :	IMP 1"=40'
JOB No. :	971–7513	PLOTTED :	FEB, 25, 1998
REF. No. :	LOB.971–7513	UPDATED :	

A1 (594x840)

CANADIAN NATIONAL RAILWAYS

FD. I" SQ. I.B.

241.072m

241.112m

790.92' (MEAS.) 791.05' (DEED)

ASPHALT SURFACE

FD. I" SQ. I.B. BENT 0.4' SOUTH

8.2'

52.40'

15.972m

197.3'

60.137m

15.749m

51.67'

95.93'

29.239m

225.835m

740.93' (DEED)

CURBING

4.7' Overhang

ASPHALT SURFACE

CHAIN LINK FENCE

CONCRETE PAD

NATIONAL GROCERS

Nº 2625

AREA = 12.86 ACRES

ASPHALT SURFACE

680.24' (DEED)

207.337m

PART OF BLOCK 'A', REGISTERED PLAN Nº 783 GR.

6.108m

20.04'

5R-1413

PART 1,

60.015m

196.9'

CURBING

5' Overhang

162.10'

49.408m

FENCE 0.1'

5.25' Overhang

19.88'

6.059m

GRASS

ASPHALT

62.28'

18.983m

WATER VALVE

57.31'

17.468m

17.450m

57.25'

240.402m

788.72' (DEED)

240.362m

788.59' (MEAS.)

JOB BENCH MARK
TOP OF F.H.
ELEV. 220.33

F.H.

H.P.

OVERHEAD HYDRO

4" GAS MAIN

12" WATER

EDGE OF PAVEMENT

C/L 4' WIDE DITCH

M.H. 216.3
INV. 206.4

15" SANITARY SEWER

M.H. 217.28
INV. 207.6

M.H. 2185
INV. 208.1

SHEFFIELD ROAD

60" SANITARY SEWER

BURIED BELL CABLE

15" SANITARY SEWER

60" SANITARY SEWER

BURIED BELL CABLE

PLAN OF
PART OF BLOCK A
REGISTERED PLAN No. 783 GLOUCESTER
CITY OF OTTAWA
REGIONAL MUNICIPALITY OF OTTAWA-CARLETON

SCALE: 1" = 40'
PAUL A. RIDDELL O.L.S.
1974.

LEGEND

- S.I.B. DENOTES STANDARD IRON BAR 1"SQ. X 4' LONG.
- R.I.B. DENOTES ROUND IRON BAR.
- FD. DENOTES FOUND.
- H.P. DENOTES HYDRO POLE
- M.H. DENOTES MANHOLE
- INV. DENOTES INVERT
- F.H. DENOTES FIRE HYDRANT

NOTES

1) ELEVATIONS ARE DERIVED FROM GEODETIC DATUM.

2) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THE LOCAL BENCH MARKS HAVE NOT BEEN ALTERED OR DISTURBED AND THAT THEIR RELATIVE ELEVATION AND DESCRIPTIONS AGREE WITH THE INFORMATION SHOWN ON THIS PLAN.

3) LOCATIONS OF UNDERGROUND SERVICES WERE OBTAINED FROM THE CITY OF OTTAWA CENTRAL REGISTRY AND RELEVANT UTILITY COMPANIES AND WERE VERIFIED IN THE FIELD WHERE POSSIBLE. UNDERGROUND SERVICES SHOULD BE LOCATED IN THE FIELD BY RESPECTIVE COMPANIES PRIOR TO EXCAVATION.

4) PLAN AMENDED, OCTOBER 22, 1974.

PLAN UPDATED:

NOV. 10, 1976
DATE

NOV. 12, 1982.

CHARLES W. FAIRHALL
ONTARIO LAND SURVEYOR

FAIRHALL & MOFFATT LIMITED
ONTARIO LAND SURVEYORS

Scale: 1" = 40'	Signed:	Ref. No.
Date: 13 Sept 1974	ONTARIO LAND SURVEYOR	B-783 GR.

File: F-128

JOB No. 4347
B 5464

TOPOGRAPHICAL PLAN OF SURVEY

PART OF BLOCK A
REGISTERED PLAN 783
CITY OF OTTAWA

Surveyed by Annis, O'Sullivan, Vollebekk Ltd.

Scale 1 : 400

16 12 8 4 0 8 16 Metres

Metric

DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

Surveyor's Certificate

I CERTIFY THAT :

1. This survey and plan are correct and in accordance with the Surveys Act, the Surveyors Act and the Land Titles Act and the regulations made under them.
2. The survey was completed on the 4th day of April, 2019.

April 4, 2019
Date

E. H. Herweyer
Ontario Land Surveyor

Notes & Legend

Denotes

—□—	=	Survey Monument Planted
—■—	=	Survey Monument Found
SIB	=	Standard Iron Bar
SSIB	=	Short Standard Iron Bar
IB	=	Iron Bar
CC	=	Cut Cross
CP	=	Concrete Pin
(WIT)	=	Witness
Meas.	=	Measured
(AOG)	=	Annis, O'Sullivan, Vollebekk Ltd.
(PI)	=	Registered Plan 783
(P2)	=	Plan 4R-25341
(P3)	=	Plan 4R-29467
(P4)	=	(AOG) Plan September 26, 1995
(P5)	=	(AOG) March 13, 2015
(P6)	=	Plan 5R-13626
(P7)	=	(1473) Plan Dated 1992
○FH	=	Fire Hydrant
⊗WV	=	Water Valve
○MH–ST	=	Maintenance Hole (Storm Sewer)
○MH–S	=	Maintenance Hole (Sanitary)
○MH	=	Maintenance Hole (Unidentified)
✥BH	=	Borehole
□CB	=	Catch Basin
—— OHW ——	=	Overhead Wires
○M–W	=	Monitoring Well
▭GM	=	Gas Meter
▫TB–C	=	Cable Terminal Box
○B	=	Bollard
△S	=	Sign
⊢▭	=	Gate
○UP	=	Utility Pole
✳AN	=	Anchor
CLF	=	Chain Link Fence
BF	=	Board Fence
○GV	=	Gas Valve
○PO–W	=	Wood Pole
⊠H–T	=	Hydro Transformer
Ø	=	Diameter
+ 65.00	=	Location of Elevations
+ 65.00*	=	Top of Concrete Curb / Retaining Wall Elevation
C/L	=	Centreline
CRW	=	Concrete Retaining Wall
CBL	=	Closest and Lowest
	=	Deciduous Tree
	=	Coniferous Tree
– – – – –	=	Feature Limits Obscured By Ice (Taken From City of Ottawa Mapping)

Bearings are grid bearings, derived from the easterly limit of Sheffield Road having a bearing of N 23°40'00" W as shown on Plan 4R-25341 and are referred to the Central Meridian of MTM Zone 9 (76°30' West Longitude) NAD-83 (original).
For bearing comparisons, a rotation of 0°36'30" counter-clockwise was applied to bearings on plan P3,P4 & P5

Topographic data was collected under Winter Conditions. Snow cover and ice preclude determining location and elevation of some topographical data that is otherwise visible.

ELEVATION NOTES

1. Elevations shown are geodetic and are referred to the CGVD28 geodetic datum.
2. It is the responsibility of the user of this information to verify that the job benchmark has not been altered or disturbed and that it's relative elevation and description agrees with the information shown on this drawing.

UTILITY NOTES

1. This drawing cannot be accepted as acknowledging all of the utilities and it will be the responsibility of the user to contact the respective utility authorities for confirmation.
2. Only visible surface utilities were located.
3. A field location of underground plant by the pertinent utility authority is mandatory before any work involving breaking ground, probing, excavating etc.

ANNIS, O'SULLIVAN, VOLLEBEKK LTD.
14 Concourse Gate, Suite 500
Nepean, Ont. K2E 7S6
Phone: (613) 727-0850 / Fax: (613) 727-1079
Email: nepean@aovl.com
Ontario Land Surveyors

Job No. 17714-19 Pl B&A PL 783 T F | FS

X:\2019\17714-19\FINAL\17714-19 Pl B&A PL 783 T F.dwg

APPENDIX E

GEOPHYSICAL SURVEY REPORT

UNDERGROUND SERVICE LOCATORS
ONE-CALL SYSTEMS INC.
100-1704 Carling Ave
OTTAWA, ON, K2A 1C7

DATE: May 26, 2022

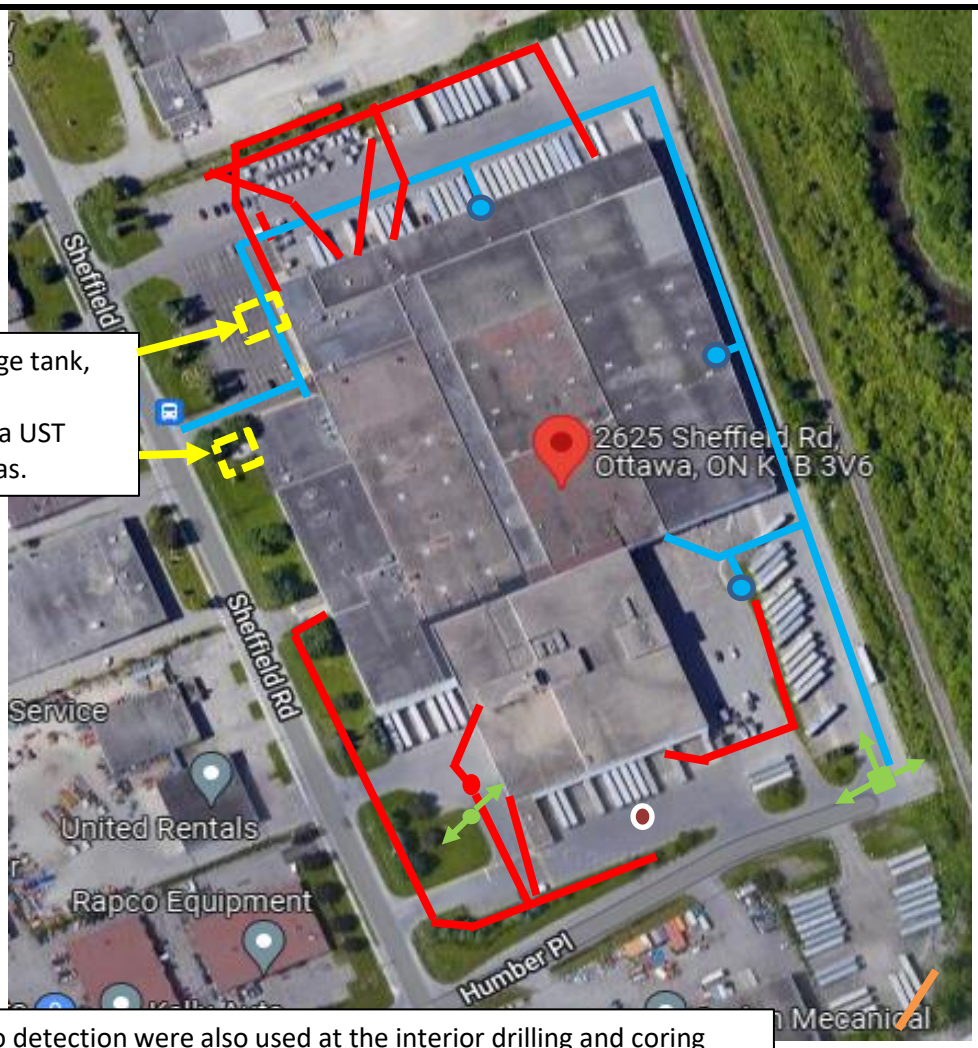
PHONE (613) 226-8750
FAX (613) 226-8677

CUSTOMER: Geosyntec	REQUESTED BY: Felipe Solano
LOCATION OF WORK: 2625 Sheffield Rd. Ottawa	LIMITS OF WORK: Boreholes, test wells and vapor probes

ELECTRICAL		FIRE HYDRANT	
WATER		SANITARY BASIN	
SEWER		STORM BASIN	
COMMUNICATION		UNKNOWN MANHOLE	

N

PRIVATE LOCATE REPORT - LOCATES VOID AFTER 60 DAYS!



Underground storage tank, (UST), scan area.
GPR did not detect a UST within the scan areas.

GPR and radio detection were also used at the interior drilling and coring locations to avoid electrical and steel reinforement in the floor.

SKETCH NOT TO SCALE

THIS SKETCH IS NOT A VALID PUBLIC UTILITY LOCATE. CONTRACTOR IS RESPONSIBLE TO ENSURE THEY HAVE PUBLIC LOCATES BEFORE COMMENCING WORK.

ASBUILTS OR PLANS PROVIDED: NO

LOCATORS NAME: Mike Thivierge

CAUTION: HAND DIG WITHIN 1.5 METERS OF MARKINGS