Soil & Groundwater Sampling Program

Property Adjacent to 1740 St. Laurent Boulevard, Ottawa, Ontario

Client:
11421247 Canada Inc.

Type of Document:
Draft

Project Name:
Soil & Groundwater Sampling Program

Project Number:
OTT-00260579-A0

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Date Submitted:
2020-10-09

Legal Notification

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Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. EXP Services Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this project.

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Executive Summary

EXP Services Inc. (EXP) was retained by 11421247 Canada Inc. to complete a soil and groundwater sampling program adjacent to 1740 St. Laurent Boulevard, Ottawa, Ontario. An operating gas station is present on the property located at 1740 St. Laurent Boulevard. The objective of this investigation is to gain an understanding of current environmental conditions adjacent to the gas station.

This report has been prepared in accordance with general requirements outlined in CSA Standard Z769-00 (2013) and in accordance with generally accepted professional practices. Subject to this standard of care, EXP makes no express or implied warranties regarding its services and no third-party beneficiaries are intended. Limitation of liability, scope of report and third-party reliance are outlined in Section 6 of this report.

The gas station property is located approximately 130 metres (m) south of the intersection of Industrial Avenue and St. Laurent Boulevard. A gas station has been in operation at 1740 St. Laurent Boulevard since the 1980s. 11421247 Canada Inc. owns the property south and west of the gas station (hereafter referred to as the subject site) and is proposing to redevelop the property for residential purposes. The soil and groundwater sampling program was designed to gain an understanding of site conditions adjacent to the gas station.

It is understood that 11421247 Canada Inc. intends to redevelop the property located at 1740 to 1760 St. Laurent Boulevard. Current use is commercial and future use will be mixed commercial and residential. As such, a Record of Site Condition must be filed prior to re-development. EXP identified the gas station as an area of potential environmental concern (APEC). Based on the nature of the APEC, petroleum hydrocarbons (PHC), polycyclic aromatic hydrocarbons (PAH), metals and volatile organic compounds (VOC) were identified as contaminants of concern on the property.

A total of four boreholes were drilled, three of which were completed as monitoring wells.

A summary of the findings from the delineation soil and groundwater sampling program is as follows:

- Three soil samples and one field duplicate were submitted for chemical analysis of BTEX and PHC, metals, and VOC. All of the soil samples were within the MECP Table 3 SCS;
- Three groundwater samples were submitted for chemical analysis of BTEX and PHC, metals, and VOC. All of the samples within the MECP Table 3 standards;
- Bedrock was encountered at depths ranging from 5.9 to 7.6 mbgs; and
- The groundwater flow direction is easterly.

Based on the results of the soil and groundwater sampling program, it does not appear that the subject site south and west of the gas station have been adversely affected by the operation of the gas station.

This executive summary is a brief synopsis of the report and should not be read in lieu of reading the report in its entirety.

1.0 Introduction

EXP Services Inc. (EXP) was retained by 11421247 Canada Inc. to complete a soil and groundwater sampling program adjacent to 1740 St. Laurent Boulevard, Ottawa, Ontario. An operating gas station is present on the property located at 1740 St. Laurent Boulevard. The objective of this investigation is to gain an understanding of current environmental conditions adjacent to the gas station.

This report has been prepared in accordance with general requirements outlined in CSA Standard Z769-00 (2013) and in accordance with generally accepted professional practices. Subject to this standard of care, EXP makes no express or implied warranties regarding its services and no third-party beneficiaries are intended. Limitation of liability, scope of report and third-party reliance are outlined in Section 6 of this report.

Mark Devlin, B.Sc. conducted field assessment work and Leah Wells, E.I.T, was the report author for this project. Both were supervised by Patricia Stelmack, M.Sc., P.Eng.

1.1 Site Description

The gas station property is located approximately 130 metres (m) south of the intersection of Industrial Avenue and St. Laurent Boulevard on the west side of St. Laurent Boulevard, as shown on Figure 1 in Appendix A. A gas station has been in operation at 1740 St. Laurent Boulevard since the 1980s.

11421247 Canada Inc. owns the property south and west of the gas station (hereafter referred to as the subject site) and is proposing to redevelop the property for residential purposes. The soil and groundwater sampling program was designed to gain an understanding of site conditions adjacent to the gas station.

The property south adjacent to 1740 St. Laurent Boulevard includes a driveway that provides access to a St. Hubert's restaurant and the gas station. The land west of the gas station property is part of a vacant lot that is currently used by St. Hubert's to park delivery vehicles.

The site plan is shown on Figure 2 in Appendix A.

1.2 Applicable Site Condition Standards

Analytical results obtained for soil and groundwater samples were compared to Site Condition Standards (SCS) established under subsection 169.4(1) of the Environmental Protection Act, and presented in the document entitled *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*, 2011. This document provides tabulated background SCS (Table 1) applicable to environmentally sensitive sites and effects-based generic SCS (Tables 2 to 9) applicable to non-environmentally sensitive sites. The effects-based SCS (Tables 2 to 9) are protective of human health and the environment for different groundwater conditions (potable and non-potable), land use scenarios (residential, parkland, institutional, commercial, industrial, community and agricultural/other), soil texture (coarse or medium/fine) and restoration depth (full or stratified).

Table 1 to 9 SCS are summarized as follows:

- Table 1 – applicable to sites where background concentrations must be met (full depth), such as sensitive sites where site-specific criteria have not been derived
- Table 2 – applicable to sites with potable groundwater and full depth restoration
- Table 3 – applicable to sites with non-potable groundwater and full depth restoration
- Table 4 – applicable to sites with potable groundwater and stratified restoration
- Table 5 – applicable to sites with non-potable groundwater and stratified restoration

- Table 6 – applicable to sites with potable groundwater and shallow soils (bedrock encountered at depths of 2 metres or less across one-third or more of the site)
- Table 7 – applicable to sites with non-potable groundwater and shallow soils (bedrock encountered at depths of 2 metres or less across one-third or more of the site)
- Table 8 – applicable to sites with potable groundwater and that are within 30 m of a water body
- Table 9 – applicable to sites with non-potable groundwater and that are within 30 m of a water body

Application of the generic or background SCS to a specific site is based on a consideration of site conditions related to soil pH, thickness and extent of overburden material, and proximity to an area of environmental sensitivity or of natural significance. For some chemical parameters, consideration is also given to soil textural classification with SCS having been derived for both coarse and medium-fine textured soil conditions.

For assessment purposes, EXP selected the 2011 Table 3 SCS in a non-potable groundwater condition for residential/ parkland/institutional property use and medium and fine textured soils. The selection of this category was based on the following factors:

- Bedrock is greater than 2 metres below grade across the subject property;
- There are no surface water bodies within 30 metres of the subject property;
- The property is not located within an area of natural significance, does not include nor is adjacent to an area of natural significance, and does not include land that is within 30 metres of an area of natural significance;
- Potable water for the property is provided by the City of Ottawa through its water distribution system and no potable water wells were identified to be within 250 metres of the property;
- The property is not located in an area designated in a municipal official plan as a well-head protection area;
- Based on the results of an investigation elsewhere on the subject site, soil is considered to be medium and fine textured; and
- The ground floor of the future development is planned for commercial use and the upper floors are planned for residential use.

2.0 Background Information

2.1 Physical Setting

The subject site includes land south and west of 1740 St. Laurent Boulevard in Ottawa, Ontario. The property is located in a mixed commercial/residential area. Potable water is available from the City of Ottawa, and there are no potable water wells nearby.

A site plan is presented as Figure 2 in Appendix A.

The closest body of water is Greens Creek. The creek is approximately 1.7 km northeast of the gas station and flows in a northeasterly direction toward the Ottawa River, which is more than 6 km north of the gas station. The subject site is not a shallow soil property as defined in Section 43.1 of the regulation. It does not include all or part of a water body or is adjacent to a water body or includes land that is within 30 metres of a water body. In addition, the subject site is not located within an area of natural significance and it does not include land that is within 30 metres of an area of natural significance.

Bedrock in the general area of the subject site consists of shale, limestone, dolostone, and siltstone. Native surficial soil consists of fine-textured glaciomarine deposits of silt and clay with minor sand and gravel. Bedrock is approximately 6 meters below ground surface (mbgs) at the property. The local topography slopes to the northeast.

2.2 Background

It is understood that 11421247 Canada Inc. intends to redevelop the property located at 1740 to 1760 St. Laurent Boulevard. Current use is commercial and future use will be mixed commercial and residential. As such, a Record of Site Condition must be filed prior to re-development. EXP identified the gas station as an area of potential environmental concern (APEC).

Previous Phase II sampling programs have been undertaken at the gas station property by other companies.

AMEC Earth & Environmental Ltd. prepared a report entitled *Phase II Environmental Site Assessment (ESA), 1740-1760 St. Laurent Boulevard & 1757 Russell Road, Ottawa, Ontario*, January 2002. Nine boreholes were advanced across the gas station property, and three monitoring wells were installed. Groundwater samples were submitted for analysis of BTEX, TPH (gas/diesel), TPH (heavy oil), VOCs, and metals. Low level PHC concentrations were identified in the groundwater regime in the vicinity of the Petro Canada, however all concentrations were below their respective Table B criteria.

Terrapex Environmental Ltd. prepared a report entitled *Petro Canada, Phase II Environmental Site Assessment (ESA), 1740 St. Laurent Boulevard, Ottawa, Ontario*, June 2009. Ten boreholes were advanced across the site, five of which were completed as monitoring wells. No liquid phase petroleum product was observed during the drilling program. One soil sample from each of the boreholes and a groundwater sample from each of the monitoring wells were submitted for analysis of BTEX and PHC. All of the soil and groundwater samples submitted were less than the Table 3 SCS for commercial land use and fine-grained soil.

The current investigation was being done to gain an understanding of current environmental conditions adjacent to the gas station property. Based on the nature of the APEC, petroleum hydrocarbons (PHC), polycyclic aromatic hydrocarbons (PAH), metals and volatile organic compounds (VOC) were identified as contaminants of concern on the property.

The location of the APEC is shown in Figure 2 in Appendix A.

3.0 Investigation Methodology

3.1 General

The soil and groundwater sampling program investigation consisted of the drilling of boreholes to facilitate the installation of monitoring wells for geological characterization and the collection of soil and groundwater samples for chemical analysis.

3.2 Borehole Drilling

The site investigative activities consisted of the drilling of boreholes to facilitate the collection of soil samples for chemical analysis, to record relevant geotechnical information and the installation of monitoring wells for hydrogeological property characterization and the collection of groundwater samples for chemical analysis.

Prior to the commencement of drilling, the locations of underground public utilities including telephone, natural gas and electrical lines were marked at the subject property by public locating companies. A private utility locating contractor was also retained to clear the individual borehole locations.

From August 20th to 25th, 2020, four boreholes (BH20-09, BH20-10, BH20-11 and BH20-13) were drilled on the subject site adjacent to the gas station. The boreholes were completed by George Downing Estate Drilling Ltd (Downing), a licensed well contractor, using a CME 75 truck-mounted drill rig.

Bedrock was encountered between 5.9 and 7.6 metres below ground surface (mbgs) in all four boreholes. EXP staff continuously monitored the drilling activities to log the stratigraphy observed from the recovered samples, to record the depth of the samples, and to record total depths of borings. Field observations are documented on the borehole logs provided in Appendix B.

The locations of the boreholes and monitoring wells are presented on Figure 2 in Appendix A.

3.3 Soil Sampling

Soil samples for geologic characterization were collected on a continuous basis in the overburden materials using 5 cm diameter, 61 cm long, split spoon samplers advanced into the subsurface using the drill rig. A split spoon sample was collected approximately every 80 cm as drilling progressed. The split spoon samplers were decontaminated between sampling intervals by EXP staff using a potable water/phosphate-free detergent solution followed by rinses with potable water. The soil cores were removed from the samplers upon retrieval by drilling personnel. Geologic details of the recovered cores were logged by EXP field staff. EXP staff continuously monitored the drilling activities to log the stratigraphy observed from the recovered soil cores, to record the depth of soil sample collection, to record total depths of borings, and to record visual or olfactory observations of potential impacts. Field observations are summarized on the borehole logs provided in Appendix B.

Soil samples identified for possible laboratory analysis were collected from the split spoon sampler and placed directly into pre-cleaned, laboratory-supplied glass sample jars/vials. Samples to be analysed for PHC fraction F1 and BTEX were collected using a soil core sampler and placed into vials containing methanol as a preservative. The jars and vials were sealed with Teflon-lined lids to minimize head-space and reduce the potential for induced volatilization during storage/transport prior to analysis. All soil samples were placed in clean coolers containing ice prior to and during transportation to the subcontract laboratory, Bureau Veritas Laboratories (BV Labs) of Ottawa, Ontario.

3.4 Monitoring Well Development and Groundwater Monitoring and Sampling

Groundwater monitoring wells were installed in three of the boreholes (BH20-10, BH20-11 and BH20-13). The monitoring wells were installed in general accordance with the Ontario Water Resources Act - R.R.O. 1990, Regulation 903 (as amended) and were installed by Downing, a licensed well contractor, using a CME 75 truck-mounted drill rig.

The monitoring wells consisted of a 51 mm diameter Schedule 40 PVC screen that was no more than 3.0 m long and a 51 mm diameter Schedule 40 PVC riser pipe. The annular space around the wells was backfilled with sand to an average height of 0.3 m above the top of the screen. A bentonite seal was added from the top of the sand pack to approximately 0.3 m below ground surface. The monitoring wells were completed with flushmount casings. Details of the monitoring well installations are shown on the borehole logs provided in Appendix B.

Groundwater samples from all three monitoring wells were collected via a low flow sampling technique using a YSI 550 multi probe water quality meter. The YSI probe was calibrated using in-house reference standards. Prior to collecting the groundwater samples, water quality field parameters (turbidity, dissolved oxygen, conductivity, temperature, pH, and oxidation reduction potential) were monitored until stable readings were achieved. These parameters are considered to be stable when three consecutive readings meet the following conditions:

- Turbidity: within 10% for values greater than 5 nephelometric turbidity units (NTU), or three values less than 5 NTU;
- Dissolved oxygen: within 10% for values greater than 0.5 mg/L, or three values less than 0.5 mg/L;
- Conductivity: within 3%;
- Temperature: ± 1°C;
- pH: ± 0.1 unit; and,
- Oxidation reduction potential: ±10 millivolts.

When stabilization occurs, equilibrium between groundwater within a monitor and the surrounding formation water is attained. As such, samples collected when stabilization occurs are considered to be representative of formation water.

Three groundwater samples and one field duplicate were collected in laboratory provided sample bottles and submitted to BV Labs for analysis of BTEX, PHC, metals and VOC. The groundwater samples were placed in clean coolers containing ice packs prior to and during transportation to BV Labs. The samples were transported to BV Labs within 24 hours of collection with a chain of custody.

3.5 Quality Assurance and Quality Control Measures

All soil and groundwater samples were placed in coolers containing ice packs prior to and during transportation to the contract laboratory, Bureau Veritas Laboratories (BV Labs). Bureau Veritas Laboratories is accredited to the ISO/IEC 17025:2005 standard - *General Requirements for the Competence of Testing and Calibration Laboratories*.

A QA/QC program was also implemented to ensure that the analytical results received are accurate and dependable. A QA/QC program is a system of documented checks that validate the reliability of the data. Quality Assurance is a system that ensures that quality control procedures are correctly performed and documented. Quality Control refers to the established procedures observed both in the field and in the laboratory, designed to ensure that the resulting end data meet intended quality objectives. The QA/QC program implemented by EXP incorporated the following components:

- Collecting and analysing field duplicate groundwater samples to ensure analytical precision;
- Using dedicated and/or disposable sampling equipment;
- Following proper decontamination protocols to minimize cross-contamination;
- Maintaining field notes and completing field forms to document field activities; and
- Using only laboratory-supplied sample containers and following prescribed sample protocols, including using proper preservation techniques, meeting sample hold times, and documenting sample transmission on chains of custody, to ensure the integrity of the samples is maintained.

BV Labs QA/QC program involved the systematic analysis of control standards for the purpose of optimizing the measuring system as well as establishing system precision and accuracy and included calibration standards, method blanks, reference standards, spiked samples, surrogates and duplicates.

4.0 Results

4.1 Soil Quality

Chemical analyses were performed on selected soil samples recovered from BH20-09, BH20-10, BH20-11 and BH20-13.

Three soil samples and one field duplicate were submitted for chemical analysis of BTEX and PHC, metals and VOC. The results are presented in Tables 1 to 3 in Appendix C. All of the soil samples were within the MECP Table 3 SCS.

Copies of the laboratory Certificates of Analysis are provided in Appendix D.

4.2 Groundwater Quality

Chemical analyses were performed on groundwater samples collected from the monitoring wells using low flow sampling techniques.

Three groundwater samples, one field duplicate, and one field blank were collected from the monitoring wells and were submitted for chemical analysis of BTEX and PHC, metals, and VOC. The results are presented in Tables 4 to 6 in Appendix C. All of the groundwater samples were within the MECP Table 3 SCS.

Copies of the laboratory Certificates of Analysis are provided in Appendix D.

4.3 Groundwater Monitoring

On September 10, 2020, monitoring wells BH10, BH11, and BH14 were inspected for general physical condition, groundwater depth, and the presence of non-aqueous phase liquid. EXP used a Heron water level tape to measure the static water level in each monitoring well. The measuring tape was cleaned with phosphate-free soap and tap water, rinsed with distilled water after each measurement.

Groundwater monitoring and elevation data are provided below.

Table 4.1 – Monitoring and Elevation Data

Monitoring Well ID/ Installation ID	Grade Elevation (metres)	Top of Casing Elevation (mbTOC)	Screen Depth (mbgs)	Depth to LNAPL (mbgs)	Depth to Groundwater (mbTOC)	Groundwater Elevation(metres)
BH20-10	69.86	69.73	0.7-3.7	N/A	1.71	68.02
BH20-11	70.68	70.38	1.0-4.0	N/A	1.51	68.87
BH20-13	71.07	70.88	1.5-4.5	N/A	1.76	69.12

Notes: Elevations were measured to a relative datum.
LNAPL – light non-aqueous phase liquid
mbgs – metres below ground surface
mbTOC – metres below top of monitor casing

Based on the groundwater elevations for the shallow monitoring wells in the above table, a groundwater contour plan was prepared. The groundwater flow direction was determined to be easterly. The groundwater contour plan is provided as Figure 3 in Appendix A.

4.4 Quality Assurance and Quality Control Results

Quality assurance and quality control measures were taken during the field activities to meet the objectives of the sampling and quality assurance plan to collect unbiased and representative samples to characterize existing conditions in the fill materials and groundwater at the site. QA/QC measures, included:

- Collection and analysis of blind duplicate groundwater samples to ensure sample collection precision;
- Analysis of a groundwater field blank for all parameters that were analysed to assess potential impact during sampling;
- Using dedicated and/or disposable sampling equipment;
- Following proper decontamination protocols to minimize cross-contamination;
- Maintaining field notes and completing field forms to document on-site activities; and
- Using only laboratory supplied sample containers and following prescribed sample protocols, including proper preservation, meeting sample hold times, proper chain of custody documentation, to ensure integrity of the samples.

Bureau Veritas Laboratories' (BV Labs) QA/QC program consisted of the preparation and analysis of laboratory duplicate samples to assess precision and sample homogeneity, method blanks to assess analytical bias, spiked blanks and QC standards to evaluate analyte recovery, matrix spikes to evaluate matrix interferences and surrogate compound recoveries to evaluate extraction efficiency. The laboratory QA/QC results are presented in the Quality Assurance Report provided in the Certificates of Analysis prepared by BV Labs. The QA/QC results are reported as percent recoveries for matrix spikes, spiked blanks and QC standards, relative percent difference for laboratory duplicates and analyte concentrations for method blanks.

Review of the laboratory QA/QC results reported indicated that they were all within acceptable control limits or below applicable alert criteria for the sampled media and analytical test groups. Based on the assessment of the QA/QC, the analytical results reported by BV labs are of acceptable quality and further data qualifications are not required.

For QA/QC purposes, the analytical sample results are quantitatively evaluated by calculating the relative percent difference (RPD) between the samples and their duplicates. To accurately calculate a statistically valid RPD, the concentration of the analytes found in both the original and duplicate sample must be greater than five times the reporting detection limit (RDL).

The results of the RPD calculations are provided in Appendix C in Tables 7 to 12. All of the RPD for soil and groundwater were either not calculable or within the applicable alert limits.

A field blank was prepared and submitted for laboratory analysis of all parameters tested in groundwater. All parameters in the field blank were non-detectable.

5.0 Conclusion

A total of four boreholes were drilled three of which were completed as monitoring wells.

A summary of the findings from the delineation soil and groundwater sampling program is as follows:

- Three soil samples and one field duplicate were submitted for chemical analysis of BTEX and PHC, metals, and VOC. All of the soil samples were within the MECP Table 3 SCS;
- Three groundwater samples were submitted for chemical analysis of BTEX and PHC, metals, and VOC. All of the groundwater samples within the MECP Table 3 standards;
- Bedrock was encountered at depths ranging from 5.9 to 7.6 mbgs; and
- The groundwater flow direction is easterly.

Based on the results of the soil and groundwater sampling program, it does not appear that the subject site south and west of the gas station have been adversely affected by the operation of the gas station.

6.0 References

This study was conducted in accordance with the applicable Regulations, Guidelines, Policies, Standards, Protocols and Objectives. Specific reference is made to the following documents.

- AMEC Earth & Environmental Ltd. *Phase II Environmental Site Assessment (ESA), 1740-1760 St. Laurent Boulevard & 1757 Russell Road, Ottawa, Ontario*, January 2002.
- Canadian Standards Association, *CSA-Z769-00 (R2013), Phase II Environmental Assessment Standard*, 2013.
- EXP Services Inc. *Phase One Environmental Site Assessment, 1740-1760 St. Laurent Boulevard, Ottawa, Ontario*, October 2020.
- Ontario Ministry of the Environment, Conservation and Parks, *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*, April 15, 2011.
- Ontario Ministry of the Environment, Conservation and Parks, *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act,* July 1, 2011.
- Ontario Ministry of the Environment, Conservation and Parks, *Management of Excess Soil – A Guide for Best Management Practices,* January 2014.
- Ontario Regulation 153/04, made under the *Environmental Protection Act*, as amended.
- Ontario R.R.O. 1990, Regulation 347, made under the *Environmental Protection Act*, as amended.
- Ontario R.R.O. 1990, Regulation 903, made under the *Water Resources Act*, as amended.
- Terrapex Environmental Ltd. *Petro Canada, Phase II Environmental Site Assessment (ESA), 1740 St. Laurent Boulevard, Ottawa, Ontario*, June 2009.

7.0 General Limitations

Basis of Report

This report ("Report") is based on site conditions known or inferred by the investigation undertaken as of the date of the Report. Should changes occur which potentially impact the condition of the site the recommendations of EXP may require re-evaluation. Where special concerns exist, or 11421247 Canada Inc. ("the Client") has special considerations or requirements, these should be disclosed to EXP to allow for additional or special investigations to be undertaken not otherwise within the scope of investigation conducted for the purpose of the Report.

Reliance on Information Provided

The evaluation and conclusions contained in the Report are based on conditions in evidence at the time of site inspections and information provided to EXP by the Client and others. The Report has been prepared for the specific site, development, building, design or building assessment objectives and purpose as communicated by the Client. EXP has relied in good faith upon such representations, information and instructions and accepts no responsibility for any deficiency, misstatement or inaccuracy contained in the Report as a result of any misstatements, omissions, misrepresentation or fraudulent acts of persons providing information. Unless specifically stated otherwise, the applicability and reliability of the findings, recommendations, suggestions or opinions expressed in the Report are only valid to the extent that there has been no material alteration to or variation from any of the information provided to exp. If new information about the environmental conditions at the Site is found, the information should be provided to EXP so that it can be reviewed and revisions to the conclusions and/or recommendations can be made, if warranted.

Standard of Care

The Report has been prepared in a manner consistent with the degree of care and skill exercised by engineering consultants currently practicing under similar circumstances and locale. No other warranty, expressed or implied, is made. Unless specifically stated otherwise, the Report does not contain environmental consulting advice.

Complete Report

All documents, records, data and files, whether electronic or otherwise, generated as part of this assignment form part of the Report. This material includes, but is not limited to, the terms of reference given to EXP by the Client, communications between EXP and the Client, other reports, proposals or documents prepared by EXP for the Client in connection with the site described in the Report. In order to properly understand the suggestions, recommendations and opinions expressed in the Report, reference must be made to the Report in its entirety. EXP is not responsible for use by any party of portions of the Report.

Use of Report

The information and opinions expressed in the Report, or any document forming part of the Report, are for the sole benefit of the Client. No other party may use or rely upon the Report in whole or in part without the written consent of EXP. Any use of the Report, or any portion of the Report, by a third party are the sole responsibility of such third party. EXP is not responsible for damages suffered by any third party resulting from unauthorised use of the Report.

Report Format

Where EXP has submitted both electronic file and a hard copy of the Report, or any document forming part of the Report, only the signed and sealed hard copy shall be the original documents for record and working purposes. In the event of a dispute or discrepancy, the hard copy shall govern. Electronic files transmitted by EXP utilize specific software and hardware systems. EXP makes no representation about the compatibility of these files with the Client's current or future software and

hardware systems. Regardless of format, the documents described herein are EXP's instruments of professional service and shall not be altered without the written consent of EXP.

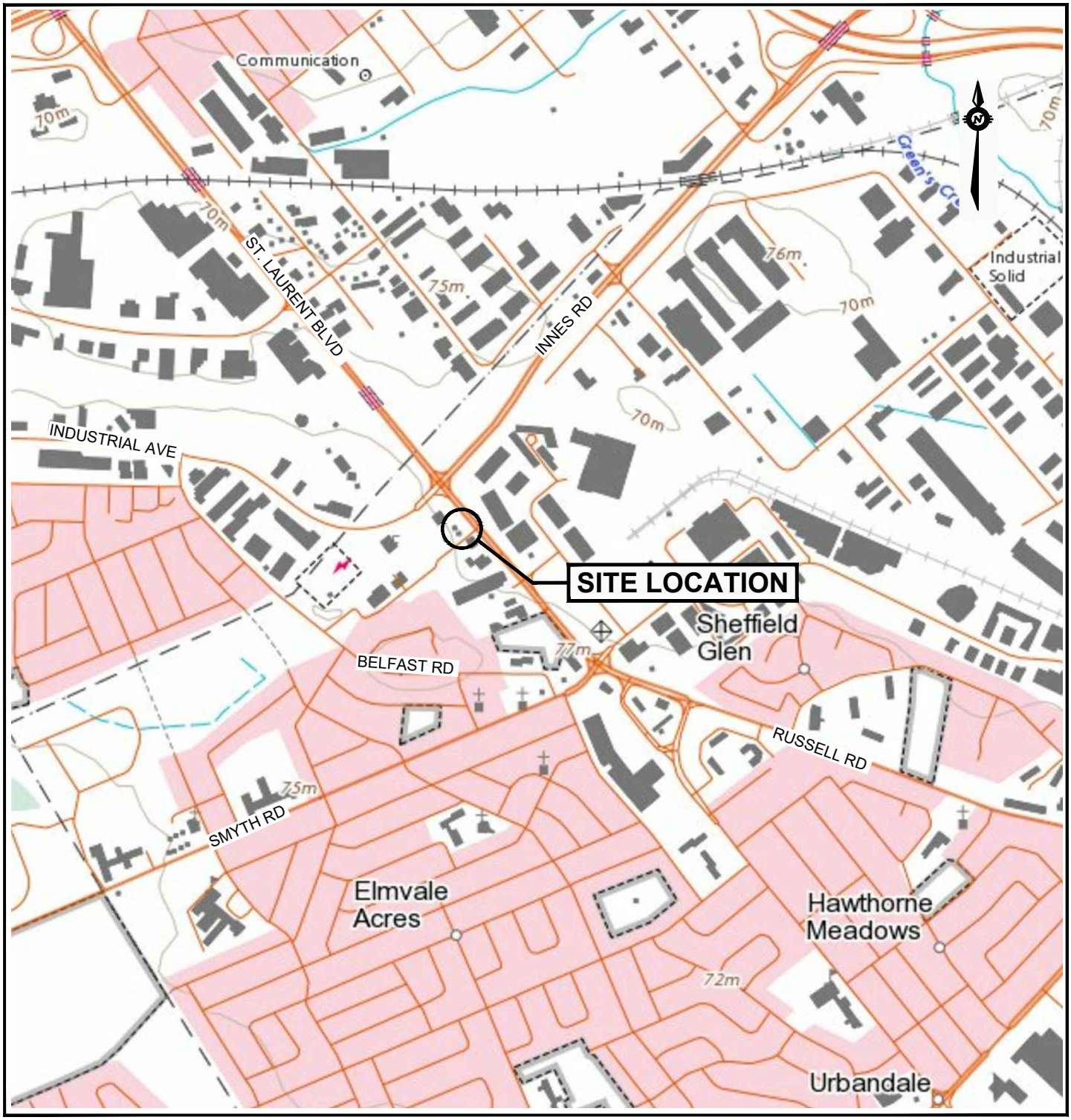
8.0 Signatures

We trust this report meets your current needs. If you have any questions pertaining to the investigation undertaken by EXP, please do not hesitate to contact the undersigned.

Leah Wells, B.A.Sc., EIT
Environmental Engineer-in-Training
Earth and Environment

Patricia Stelmack, M.Sc., P.Eng.
Team Lead/Senior Project Manager
Earth and Environment

Appendix A: Figures



0 150m 300m 600m

HORIZONTAL 1:15,000

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Ottawa, ON K2B 8H6
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DESIGN	P.S.
DRAWN	G.C.
DATE	SEPT 2020
FILE NO	OTT-00260579-B0

11421247 CANADA INC
PROPOSED RESIDENTIAL DEVELOPMENT

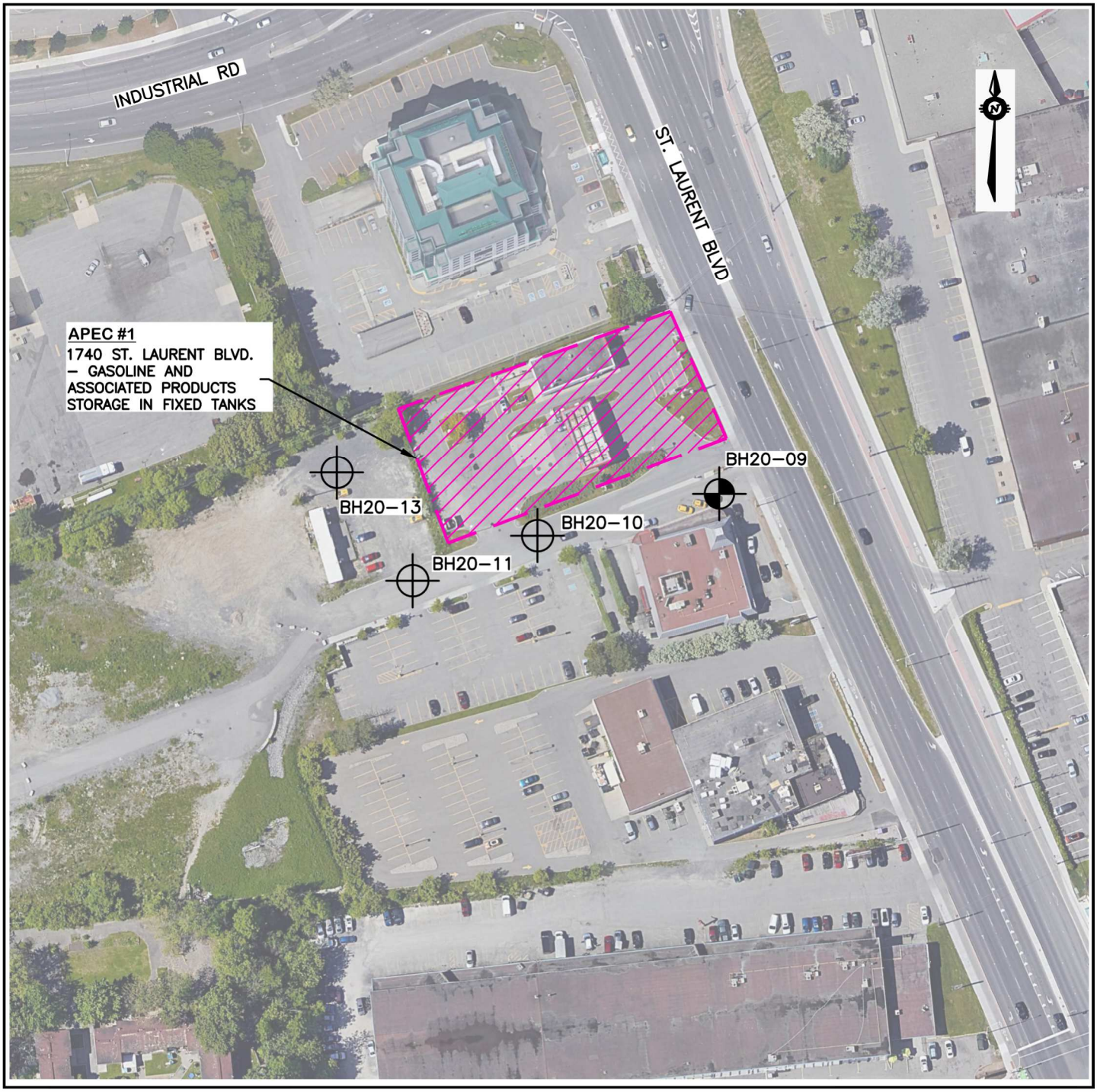
SITE LOCATION PLAN

ADJACENT TO 1740 ST LAURENT BLVD, OTTAWA, ON

SCALE 1:15,000

SKETCH NO FIG 1

Filename: E:\OTT\OTT-00260579-B0\60 Execution\65 Drawings\260579-B0 Fig 1.dwg
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LEGEND:

BH20–09 — BOREHOLE LOCATION AND NUMBER

BH20–11 — MONITORING WELL LOCATION AND NUMBER

0 15m 30m 60m

HORIZONTAL 1:1500

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Ottawa, ON K2B 8H6
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DESIGN	L.W.
DRAWN	G.C.
DATE	SEPT. 2020
FILE NO	OTT–00260579–B0

11421247 CANADA INC
PROPOSED RESIDENTIAL DEVELOPMENT

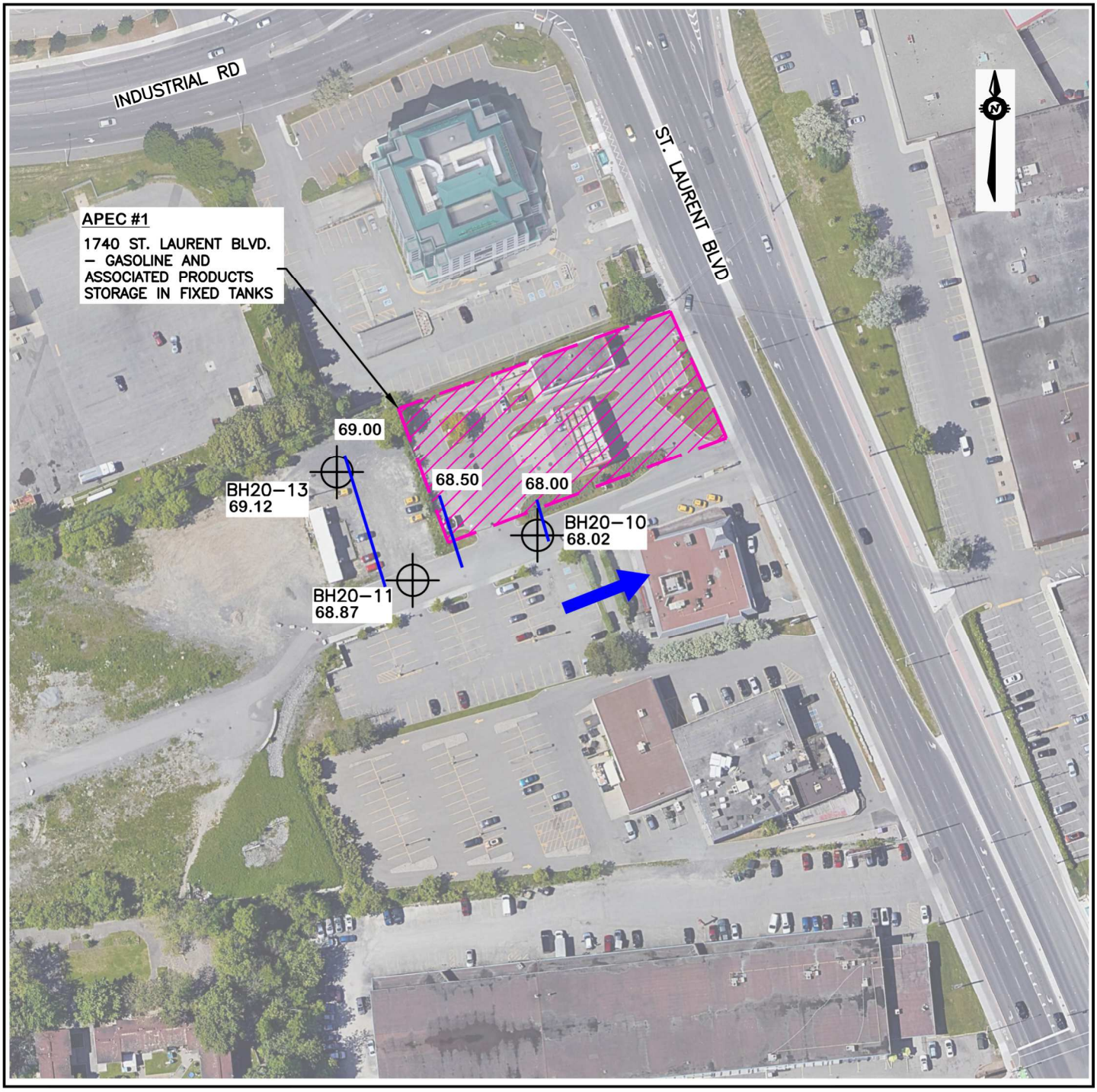
SITE PLAN
PHASE II ESA

ADJACENT TO 1740 ST LAURENT BLVD, OTTAWA, ON

SCALE 1:1,250

SKETCH NO **FIG 2**

Filename: E:\OTT\OTT-00260579-B0\60 Execution\65 Drawings\260579-B0 Fig 2 (Petro-Canada).dwg
Last Saved: Oct 2, 2020 9:35 AM Last Plotted: Oct 2, 2020 9:37 AM Plotted by: CuiG



LEGEND:

BH20–11
68.99

MONITORING WELL LOCATION, NUMBER AND GROUNDWATER ELEVATION

0 15m 30m 60m

HORIZONTAL 1:1500

exp Services Inc.
100-2650 Queensview Drive
Ottawa, ON K2B 8H6
www.exp.com

DESIGN	L.W.
DRAWN	G.C.
DATE	SEPT. 2020
FILE NO	OTT–00260579–B0

11421247 CANADA INC

PROPOSED RESIDENTIAL DEVELOPMENT

GROUNDWATER CONTOUR PLAN PHASE II ESA

ADJACENT TO 1740 ST LAURENT BLVD, OTTAWA, ON

SCALE 1:1,250

SKETCH NO FIG 3

Filename: E:\OTT\OTT-00260579-B0\60 Execution\65 Drawings\260579-B0 Fig 3 (Petro-Canada).dwg
Last Saved: Oct 2, 2020 9:34 AM Last Plotted: Oct 2, 2020 9:44 AM Plotted by: CuiG

Appendix B: Borehole Logs

Explanation of Terms Used on Borehole Records

SOIL DESCRIPTION

Terminology describing common soil genesis:

Topsoil: mixture of soil and humus capable of supporting good vegetative growth.

Peat: fibrous fragments of visible and invisible decayed organic matter.

Fill: where fill is designated on the borehole log it is defined as indicated by the sample recovered during the boring process. The reader is cautioned that fills are heterogeneous in nature and variable in density or degree of compaction. The borehole description may therefore not be applicable as a general description of site fill materials. All fills should be expected to contain obstruction such as wood, large concrete pieces or subsurface basements, floors, tanks, etc.; none of these may have been encountered in the boreholes. Since boreholes cannot accurately define the contents of the fill, test pits are recommended to provide supplementary information. Despite the use of test pits, the heterogeneous nature of fill will leave some ambiguity as to the exact composition of the fill. Most fills contain pockets, seams, or layers of organically contaminated soil. This organic material can result in the generation of methane gas and/or significant ongoing and future settlements. Fill at this site may have been monitored for the presence of methane gas and, if so, the results are given on the borehole logs. The monitoring process does not indicate the volume of gas that can be potentially generated nor does it pinpoint the source of the gas. These readings are to advise of the presence of gas only, and a detailed study is recommended for sites where any explosive gas/methane is detected. Some fill material may be contaminated by toxic/hazardous waste that renders it unacceptable for deposition in any but designated land fill sites; unless specifically stated the fill on this site has not been tested for contaminants that may be considered toxic or hazardous. This testing and a potential hazard study can be undertaken if requested. In most residential/commercial areas undergoing reconstruction, buried oil tanks are common and are generally not detected in a conventional geotechnical site investigation.

Till: the term till on the borehole logs indicates that the material originates from a geological process associated with glaciation. Because of this geological process the till must be considered heterogeneous in composition and as such may contain pockets and/or seams of material such as sand, gravel, silt or clay. Till often contains cobbles (60 to 200 mm) or boulders (over 200 mm). Contractors may therefore encounter cobbles and boulders during excavation, even if they are not indicated by the borings. It should be appreciated that normal sampling equipment cannot differentiate the size or type of any obstruction. Because of the horizontal and vertical variability of till, the sample description may be applicable to a very limited zone; caution is therefore essential when dealing with sensitive excavations or dewatering programs in till materials.

Terminology describing soil structure:

Desiccated: having visible signs of weathering by oxidization of clay minerals, shrinkage cracks, etc.

Stratified: alternating layers of varying material or color with the layers greater than 6 mm thick.

Laminated: alternating layers of varying material or color with the layers less than 6 mm thick.

Fissured: material breaks along plane of fracture.

Varved: composed of regular alternating layers of silt and clay.

Slickensided: fracture planes appear polished or glossy, sometimes striated.

Blocky: cohesive soil that can be broken down into small angular lumps which resist further breakdown.

Lensed: inclusion of small pockets of different soil, such as small lenses of sand scattered through a mass of clay; not thickness.

Seam: a thin, confined layer of soil having different particle size, texture, or color from materials above and below.

Homogeneous: same color and appearance throughout.

Well Graded: having wide range in grain sized and substantial amounts of all predominantly on grain size.

Uniformly Graded: predominantly on grain size.

All soil sample descriptions included in this report follow the ASTM D2487-11 Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System). The system divides soils into three major categories: (1) coarse grained, (2) fine-grained, and (3) highly organic. The soil is then subdivided based on either gradation or plasticity characteristics. The system provides a group symbol (e.g. SM) and group name (e.g. silty sand) for identification. The classification excludes particles larger than 76 mm. Please note that, with the exception of those samples where a grain size analysis has been made, all samples are classified visually in accordance with ASTM D2488-09a Standard Practice for Description and Identification of Soils (Visual-Manual Procedure). Visual classification is not sufficiently accurate to provide exact grain sizing or precise differentiation between size classification systems. Others may use different classification systems; one such system is the ISSMFE Soil Classification.

ISSMFE SOIL CLASSIFICATION

CLAY	SILT			SAND			GRAVEL			COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE		

0.002	0.006	0.02	0.06	0.2	0.6	2.0	6.0	20	60	200

EQUIVALENT GRAIN DIAMETER IN MILLIMETRES

CLAY (PLASTIC) TO	FINE	MEDIUM	CRS.	FINE	COARSE
SILT (NONPLASTIC)	SAND			GRAVEL	

UNIFIED SOIL CLASSIFICATION

Terminology describing materials outside the USCS, (e.g. particles larger than 76 mm, visible organic matter, construction debris) is based upon the proportion of these materials present and as described below in accordance with Note 16 in ASTM D2488-09a:

Table a: Percent or Proportion of Soil, Pp

	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5≤Pp≤10%
Little	15≤Pp≤25%
Some	30≤Pp≤45%
Mostly	50≤Pp≤100%

The standard terminology to describe cohesionless soils includes the compactness as determined by the Standard Penetration Test 'N' value:

Table b: Apparent Density of Cohesionless Soil

	'N' Value (blows/0.3 m)
Very Loose	N<5
Loose	5≤N<10
Compact	10≤N<30
Dense	30≤N<50
Very Dense	50≤N

The standard terminology to describe cohesive soils includes consistency, which is based on undrained shear strength as measured by insitu vane tests, penetrometer tests, unconfined compression tests or similar field and laboratory analysis, Standard Penetration Test 'N' values can also be used to provide an approximate indication of the consistency and shear strength of fine grained, cohesive soils:

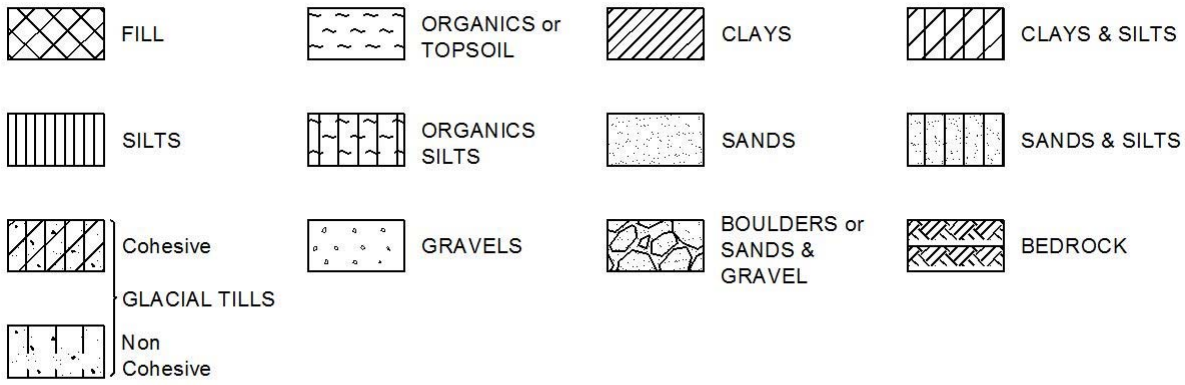
Table c: Consistency of Cohesive Soil

Consistency	Vane Shear Measurement (kPa)	'N' Value
Very Soft	<12.5	<2
Soft	12.5-25	2-4
Firm	25-50	4-8
Stiff	50-100	8-15
Very Stiff	100-200	15-30
Hard	>200	>30

Note: 'N' Value - The Standard Penetration Test records the number of blows of a 140 pound (64kg) hammer falling 30 inches (760mm), required to drive a 2 inch (50.8mm) O.D. split spoon sampler 1 foot (305mm). For split spoon samples where full penetration is not achieved, the number of blows is reported over the sampler penetration in meters (e.g. 50/0.15).

STRATA PLOT

Strata plots symbolize the soil or bedrock description. They are combinations of the following basic symbols:



WATER LEVEL MEASUREMENT



Log of Borehole BH9

Project No: OTT-00260579-A0

Project: Geotechnical Investigation and PI/II ESA

Location: 1740&1760 St Laurent Boulevard, Ottawa, ON

Figure No. 7

Page. 1 of 2

Date Drilled: 8/25/20

Drill Type: CME 75 (truck mount)

Datum: Geodetic

Logged by: ML Checked by: SP

Split Spoon Sample ⊠
Auger Sample ◧
SPT (N) Value ○
Dynamic Cone Test ——
Shelby Tube ■
Shear Strength by Vane Test +S

Combustible Vapour Reading □
Natural Moisture Content ×
Atterberg Limits |—○
Undrained Triaxial at % Strain at Failure ⊕
Shear Strength by Penetrometer Test ▲

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic m	Depth	Standard Penetration Test N Value / Shear Strength kPa	Combustible Vapour Reading (ppm) / Natural Moisture Content % / Atterberg Limits (% Dry Weight)	SAMPLES	Natural Unit Wt. kN/m³
		ASPHALT PAVEMENT 60 mm	69.3 / 69.2	0				
		GRANULAR FILL	68.9					
		FILL Sandy gravel, brown, moist	68.5					
		SILTY CLAY TO SILTY SAND Brown to grey, moist, (firm to stiff)	67.8	1	8	×	SS1	
		SILTY SANDY CLAY Grey, moist to wet, (very soft to firm)		2	6	×	SS2	
				3	7	×	SS3	
				4	5	×	SS4	
					2	×	SS5	
		TILL Silty sand, some clay and gravel, grey, wet, (compact)	64.7	5	13	×	SS6	
			63.4					
		Borehole Terminated at 5.9 m Depth at Auger Refusal						

Continued Next Page

NOTES:

1. Borehole data requires interpretation by EXP before use by others
2.
3.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report OTT-00260579-A0

WATER LEVEL RECORDS

Date	Water Level (m)	Hole Open To (m)
completion	2.5	5.8

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

LOG OF BOREHOLE LOGS OF BOREHOLES - 1740&1760 ST LAURENT.GPJ TROW OTTAWA.GDT 8/31/20

Log of Borehole BH9

Project No: OTT-00260579-A0

Project: Geotechnical Investigation and PI/II ESA

Figure No. 7

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic m	Depth	Standard Penetration Test N Value (20 40 60 80) / Shear Strength kPa (50 100 150 200)	Combustible Vapour Reading (ppm) (250 500 750) / Natural Moisture Content % Atterberg Limits (% Dry Weight) (20 40 60)	SAMPLES	Natural Unit Wt. kN/m^3
			59.3					

NOTES:

1. Borehole data requires interpretation by EXP before use by others
2.
3.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report OTT-00260579-A0

WATER LEVEL RECORDS

Date	Water Level (m)	Hole Open To (m)
completion	2.5	5.8

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

LOG OF BOREHOLE LOGS OF BOREHOLES - 1740&1760 ST LAURENT.GPJ TROW OTTAWA.GDT 8/31/20

Log of Borehole BH10

Project No: OTT-00260579-A0

Project: Geotechnical Investigation and PI/II ESA

Location: 1740&1760 St Laurent Boulevard, Ottawa, ON

Figure No. 8

Page. 1 of 2

Date Drilled: 8/24/20

Drill Type: CME 75 (truck mount)

Datum: Geodetic

Logged by: ML Checked by: SP

Split Spoon Sample
Auger Sample
SPT (N) Value
Dynamic Cone Test
Shelby Tube
Shear Strength by Vane Test

Combustible Vapour Reading
Natural Moisture Content
Atterberg Limits
Undrained Triaxial at % Strain at Failure
Shear Strength by Penetrometer Test

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic m	Depth	Standard Penetration Test N Value / Shear Strength kPa	Combustible Vapour Reading (ppm) / Natural Moisture Content % / Atterberg Limits (% Dry Weight)	SAMPLES	Natural Unit Wt. kN/m³
		ASPHALT PAVEMENT 150 mm	69.9	0				
		GRANULAR FILL	69.8					
		FILL Sandy gravel, brown, moist	69.5					
		FILL Silty clay, brown, moist, (stiff)	69.1	1	11		SS1	
		FILL Silty sand to silty clay, brown to dark grey, moist to wet	68.2	2	8		SS2	
				3	28		SS3	
				4	5		SS4	
					9		SS5	
		FILL Silty sand, clay, trace to some gravel, dark brown, (compact)	65.3	5	13		SS6	
		BEDROCK Shale, occassional fractured with (cobbles?), (poor to excellent quality)	63.7	6	50 for 50 mm		SS7	
				7			RUN1	
				8			RUN2	
				9			RUN3	
				10				

Continued Next Page

NOTES:

1. Borehole data requires interpretation by EXP before use by others
2.
3.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report OTT-00260579-A0

WATER LEVEL RECORDS

Date	Water Level (m)	Hole Open To (m)

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %
1	6.2 - 7.2	100	36
2	7.2 - 8.7	100	68
3	8.7 - 10.2	98	98
4	10.2 - 11.4	100	95
5	11.4 - 13.2	100	92
6	13.2 - 14.7	100	96

LOG OF BOREHOLE LOGS OF BOREHOLES - 1740&1760 ST LAURENT.GPJ TROW OTTAWA.GDT 8/31/20

Log of Borehole BH10

Project No: OTT-00260579-A0

Project: Geotechnical Investigation and PI/II ESA

Figure No. 8

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic m	Depth	Standard Penetration Test N Value / Shear Strength kPa (20 40 60 80 / 50 100 150 200)	Combustible Vapour Reading (ppm) 250 500 750 / Natural Moisture Content % Atterberg Limits (% Dry Weight) 20 40 60	SAMPLES	Natural Unit Wt. kN/m³
		BEDROCK Shale, occassional fractured with (cobbles?), (poor to excellent quality) *(continued)*	59.9	10			RUN4	
				11				
				12			RUN5	
				13				
				14			RUN6	
			55.2					
		Borehole Terminated at 14.7 m Depth						

LOG OF BOREHOLE LOGS OF BOREHOLES - 1740&1760 ST LAURENT.GPJ TROW OTTAWA.GDT 8/31/20

NOTES:

1. Borehole data requires interpretation by EXP before use by others
2.
3.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report OTT-00260579-A0

WATER LEVEL RECORDS		
Date	Water Level (m)	Hole Open To (m)

CORE DRILLING RECORD			
Run No.	Depth (m)	% Rec.	RQD %
1	6.2 - 7.2	100	36
2	7.2 - 8.7	100	68
3	8.7 - 10.2	98	98
4	10.2 - 11.4	100	95
5	11.4 - 13.2	100	92
6	13.2 - 14.7	100	96

Log of Borehole BH11

Project No: OTT-00260579-A0

Project: Geotechnical Investigation and PI/II ESA

Location: 1740&1760 St Laurent Boulevard, Ottawa, ON

Figure No. 9

Page. 1 of 1

Date Drilled: 8/25/20

Drill Type: CME 75 (truck mount)

Datum: Geodetic

Logged by: ML Checked by: SP

Split Spoon Sample
Auger Sample
SPT (N) Value
Dynamic Cone Test
Shelby Tube
Shear Strength by Vane Test (S)

Combustible Vapour Reading
Natural Moisture Content
Atterberg Limits
Undrained Triaxial at % Strain at Failure
Shear Strength by Penetrometer Test

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic m	Depth	Standard Penetration Test N Value (20 40 60 80) / Shear Strength kPa (50 100 150 200)	Combustible Vapour Reading (ppm) (250 500 750) / Natural Moisture Content % Atterberg Limits (% Dry Weight) (20 40 60)	SAMPLES	Natural Unit Wt. kN/m³
		FILL Gravelly sand to sandy gravel	70.7	0				
		FILL Silty sand to silty clay, some gravel, brown, moist	69.9	1	6		SS1	
		FILL Sand, trace silt and gravel, moist to wet (loose)	69.2	2	4		SS2	
		Sand, some silt and gravel, Brown, wet, (loose)	68.4	2	4		SS3	
				3	9		SS4	
		TILL Silty sand to gravelly sand, some clay and gravel, dark brown to grey, wet, (compact to dense)	66.9	4	15		SS5	
				5	13		SS6	
				6	41		SS7	
				6	48		SS8	
		Borehole Terminated at 7.2 m Depth at Auger Refusal	63.5	7				

LOG OF BOREHOLE LOGS OF BOREHOLES - 1740&1760 ST LAURENT.GPJ TROW OTTAWA.GDT 8/31/20

NOTES:
1. Borehole data requires interpretation by EXP before use by others
2.
3.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report OTT-00260579-A0

WATER LEVEL RECORDS

Date	Water Level (m)	Hole Open To (m)
completion	3.0	No

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

Log of Borehole BH13

Project No: OTT-00260579-A0

Project: Geotechnical Investigation and PI/II ESA

Location: 1740&1760 St Laurent Boulevard, Ottawa, ON

Figure No. 11

Page. 1 of 1

Date Drilled: 8/25/20

Drill Type: CME 75 (truck mount)

Datum: Geodetic

Logged by: ML Checked by: SP

Split Spoon Sample
Auger Sample
SPT (N) Value
Dynamic Cone Test
Shelby Tube
Shear Strength by Vane Test (S)
Combustible Vapour Reading
Natural Moisture Content
Atterberg Limits
Undrained Triaxial at % Strain at Failure
Shear Strength by Penetrometer Test

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic m	Depth	Standard Penetration Test N Value / Shear Strength kPa	Combustible Vapour Reading (ppm) / Natural Moisture Content % / Atterberg Limits (% Dry Weight)	SAMPLES	Natural Unit Wt. kN/m³
		FILL Sandy gravel, grey, moist, (compact)	72	0	28		SS1	
		FILL Gravelly sand, some silt, brown, moist, (compact)	71.2	1	14		SS2	
		SILTY CLAY TO CLAYEY SILT Grey to brown, moist to wet, (very soft to very stiff)	70.5	2	16		SS3	
				3	7		SS4	
				4	2		SS5	
					1		SS6	
		TILL Silty sand, some clay and gravel, dark grey, wet, (compact to dense)	67.4	5	11		SS7	
				6	43		SS8	
			65.2		37		SS9	
		Borehole Terminated at 6.8 m Depth at Auger Refusal						

LOG OF BOREHOLE LOGS OF BOREHOLES - 1740&1760 ST LAURENT.GPJ TROW OTTAWA.GDT 8/31/20

NOTES:
1. Borehole data requires interpretation by EXP before use by others
2.
3.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report OTT-00260579-A0

WATER LEVEL RECORDS		
Date	Water Level (m)	Hole Open To (m)
completion	3.0	No

CORE DRILLING RECORD			
Run No.	Depth (m)	% Rec.	RQD %

Appendix C: Analytical Summary Tables

Table 1 - Petroleum Hydrocarbons in Soil
Property Adjacent to 1740 St. Laurent Boulevard, Ottawa, Ontario
OTT-00260579-A0

Sample ID	MECP Table 3 SCS [1]	BH9-SS3	Dup (Field Duplicate of BH9-SS3)	BH10-SS4	BH11-SS3
Sampling Date		**25-Aug-2020**	**25-Aug-2020**	**25-Aug-2020**	**25-Aug-2020**
Sample Depth (mbgs)		**2.3 to 2.9**	**2.3 to 2.9**	**3.0 to 3.6**	**2.3 to 2.9**
Bureau Veritas (BV) ID		**NMB843**	**NMB844**	**NMB842**	**NMB845**
Date of Analysis		**29-Aug-2020**	**29-Aug-2020**	**29-Aug-2020**	**29-Aug-2020**
BV Certificate of Analysis		**C0M0429**	**C0M0429**	**C0M0429**	**C0M0429**
Benzene	0.17	<0.020	<0.020	<0.020	<0.020
Toluene	6	<0.020	<0.020	<0.020	<0.020
Ethylbenzene	15	<0.020	<0.020	<0.020	<0.020
Total Xylenes	25	<0.020	<0.020	<0.020	<0.020
F1 (C6-C10) - BTEX*	65	<10	<10	<10	<10
F2 (C10-C16)	150	<10	<10	<10	<10
F3 (C16-C34)	1300	<50	<50	<50	<50
F4 (C34-C50)**	5600	<50	<50	<50	<50

NOTES:

1	Ontario Ministry of Environment, Conservation and Parks (MECP), Soil, Groundwater and Sediment Standards for use under Part XV.1 of the Environmental Protection Act, April 2011, Table 3 Full Depth Generic Site Condition Standards (SCS) in a Non- Potable Ground Water Condition for Residential/Parkland/Institutional property use and medium and fine textured soils. All results are reported in ppm (ug/g) unless otherwise indicated.
2	Trip blank provided by laboratory was for water analysis. Therefore, results are reported in ug/L.
*	F1 fraction does not include BTEX.
**	In instances where the PHC F2 to F4 chromatogram did not reach baseline, the F4 fraction result shown is the highest value obtained via the gas chromatograph/flame ionization detection method or the gravimetric
<(RDL)	Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.
NV	No Value
N/A	Not Applicable
-	Parameter not analyzed
m bgs	Metres below ground surface
	Indicates soil exceedance of MECP Table 3 SCS

Table 2 - Inorganic Parameters in Soil
Property Adjacent to 1740 St. Laurent Boulevard, Ottawa, Ontario
OTT-00260579-A0

Sample ID	MECP Table 3 SCS [1]	BH9-SS3	Dup (Field Duplicate of BH9-SS3)	BH10-SS4	BH11-SS3
Sampling Date		**25-Aug-2020**	**25-Aug-2020**	**25-Aug-2020**	**25-Aug-2020**
Sample Depth (mbgs)		**2.3 to 2.9**	**2.3 to 2.9**	**3.0 to 3.6**	**2.3 to 2.9**
Bureau Veritas (BV) ID		**NMB844**	**NMB844**	**NMB842**	**NMB845**
Date of Analysis		**31-Aug-2020**	**31-Aug-2020**	**31-Aug-2020**	**31-Aug-2020**
BV Certificate of Analysis		**C0M0429**	**C0M0429**	**C0M0429**	**C0M0429**
Antimony	7.5	<0.20	<0.20	<0.20	<0.20
Arsenic	18	1.3	<1.0	1.6	1.3
Barium	390	89	150	150	24
Beryllium	5	0.31	0.44	0.43	0.23
Boron (Total)	120	<5.0	<5.0	<5.0	<5.0
Cadmium	1.2	<0.10	<0.10	<0.10	<0.10
Chromium	160	20	29	23	8.8
Cobalt	22	5.6	8.1	8	3.8
Copper	180	15	19	17	12
Lead	120	3.5	5.5	6.9	3.9
Molybdenum	6.9	<0.50	<0.50	0.97	<0.50
Nickel	130	12	18	18	9.2
Selenium	2.4	<0.50	<0.50	<0.50	<0.50
Silver	25	<0.20	<0.20	<0.20	<0.20
Thallium	1	0.12	0.2	0.15	0.078
Uranium	23	0.58	0.62	1	0.35
Vanadium	86	38	47	38	16
Zinc	340	30	43	35	18

NOTES:

1	Ontario Ministry of Environment, Conservation and Parks (MECP), Soil, Groundwater and Sediment Standards for use under Part XV.1 of the Environmental Protection Act, April 2011, Table 3 Full Depth Generic Site Condition Standards (SCS) in a Non- Potable Ground Water Condition for Residential/Parkland/Institutional property use and medium and fine textured soils.
	All results are reported in ppm (ug/g) unless otherwise indicated.
<(RDL)	Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.
NV	No Value
N/A	Not Applicable
-	Parameter not analyzed
m bgs	Metres below ground surface
	Indicates soil exceedance of MECP Table 3 SCS

Table 3 - Volatile Organic Compounds in Soil
Property Adjacent to 1740 St. Laurent Boulevard, Ottawa, Ontario
OTT-00260579-A0

Sample ID	MECP Table 3 SCS [1]	BH9-SS3	Dup (Field Duplicate of BH9-SS3)	BH10-SS4	BH11-SS3
Sampling Date		**25-Aug-2020**	**25-Aug-2020**	**25-Aug-2020**	**25-Aug-2020**
Sample Depth (mbgs)		**2.3 to 2.9**	**2.3 to 2.9**	**3.0 to 3.6**	**2.3 to 2.9**
Bureau Veritas (BV) ID		**NMB844**	**NMB844**	**NMB842**	**NMB845**
Date of Analysis		**28-Aug-2020**	**28-Aug-2020**	**28-Aug-2020**	**28-Aug-2020**
BV Certificate of Analysis		**C0M0429**	**C0M0429**	**C0M0429**	**C0M0429**
Acetone	28	<0.50	<0.50	<0.50	<0.50
Benzene	0.17	<0.020	<0.020	<0.020	<0.020
Bromodichloromethane	13	<0.050	<0.050	<0.050	<0.050
Bromoform	0.26	<0.050	<0.050	<0.050	<0.050
Bromomethane	0.05	<0.050	<0.050	<0.050	<0.050
Carbon Tetrachloride	0.12	<0.050	<0.050	<0.050	<0.050
Chlorobenzene	2.7	<0.050	<0.050	<0.050	<0.050
Chloroform	0.18	<0.050	<0.050	<0.050	<0.050
Dibromochloromethane	9.4	<0.050	<0.050	<0.050	<0.050
1,2-Dichlorobenzene	4.3	<0.050	<0.050	<0.050	<0.050
1,3-Dichlorobenzene	6	<0.050	<0.050	<0.050	<0.050
1,4-Dichlorobenzene	0.097	<0.050	<0.050	<0.050	<0.050
Dichlorodifluoromethane	25	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethane	11	<0.050	<0.050	<0.050	<0.050
1,2-Dichloroethane	0.05	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethylene	0.05	<0.050	<0.050	<0.050	<0.050
Cis-1,2-Dichloroethylene	30	<0.050	<0.050	<0.050	<0.050
Trans-1,2-Dichloroethylene	0.75	<0.050	<0.050	<0.050	<0.050
1,2-Dichloropropane	0.085	<0.050	<0.050	<0.050	<0.050
Cis-1,3-Dichloropropylene	NV	<0.030	<0.030	<0.030	<0.030
Trans-1,3-Dichloropropylene	NV	<0.040	<0.040	<0.040	<0.040
1,3-Dichloropropene (cis + trans)	0.083	<0.050	<0.050	<0.050	<0.050
Ethylbenzene	15	<0.020	<0.020	<0.020	<0.020
Ethylene Dibromide	0.05	<0.050	<0.050	<0.050	<0.050
Hexane(n)	34	<0.050	<0.050	<0.050	<0.050
Methyl Ethyl Ketone	44	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	0.96	<0.050	<0.050	<0.050	<0.050
Methyl Isobutyl Ketone	4.3	<0.50	<0.50	<0.50	<0.50
Methyl-t-Butyl Ether	1.4	<0.050	<0.050	<0.050	<0.050
Styrene	2.2	<0.050	<0.050	<0.050	<0.050
1,1,1,2-Tetrachloroethane	0.05	<0.050	<0.050	<0.050	<0.050
1,1,2,2-Tetrachloroethane	0.05	<0.050	<0.050	<0.050	<0.050
Toluene	6	<0.020	<0.020	<0.020	<0.020
Tetrachloroethylene	2.3	<0.050	<0.050	<0.050	<0.050
1,1,1-Trichloroethane	3.4	<0.050	<0.050	<0.050	<0.050
1,1,2-Trichloroethane	0.05	<0.050	<0.050	<0.050	<0.050
Trichloroethylene	0.52	<0.050	<0.050	<0.050	<0.050
Trichlorofluoromethane	5.8	<0.050	<0.050	<0.050	<0.050
Vinyl Chloride	0.022	<0.020	<0.020	<0.020	<0.020
Total Xylenes	25	<0.020	<0.020	<0.020	<0.020

NOTES:

1	Ontario Ministry of Environment, Conservation and Parks (MECP), Soil, Groundwater and Sediment Standards for use under Part XV.1 of the Environmental Protection Act, April 2011, Table 3 Full Depth Generic Site Condition Standards (SCS) in a Non- Potable Ground Water Condition for Residential/Parkland/Institutional property use and medium and finetextured soils.
	All results are reported in ppm (ug/g) unless otherwise indicated.
<(RDL)	Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit
NV	No Value
N/A	Not Applicable
-	Parameter not analyzed
m bgs	Metres below ground surface
	Indicates soil exceedance of MECP Table 3 SCS

Table 4 - Petroleum Hydrocarbons in Groundwater
Property Adjacent to 1740 St. Laurent Boulevard, Ottawa, Ontario
OTT-00260579-A0

Sample ID	MECP Table 3 SCS [1]	BH10	DUP (Field Duplicate of BH10)	BH11	BH14	Field Blank	Trip Blank
Sampling Date		**10-Sep-2020**	**10-Sep-2020**	**10-Sep-2020**	**10-Sep-2020**	**10-Sep-2020**	**10-Sep-2020**
Screen Interval (mbgs)		**0.7 to 3.7**	**0.7 to 3.7**	**1.0 to 4.0**	**1.5 to 4.5**	**NA**	**NA**
Bureau Veritas (BV) ID		**NPL781**	**NPL786**	**NPL782**	**NPL783**	**NPL784**	**NPL785**
Date of Analysis		**17-Sep-20**	**17-Sep-20**	**17-Sep-20**	**17-Sep-20**	**17-Sep-20**	**17-Sep-20**
BV Certificate of Analysis		**C0N6285**	**C0N6285**	**C0N6285**	**C0N6285**	**C0N6285**	**C0N6285**
Benzene	430	0.27	0.25	<0.20	<0.20	<0.20	<0.20
Toluene	18000	0.47	0.49	<0.20	<0.20	<0.20	<0.20
Ethylbenzene	2300	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Total Xylenes	4200	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
F1 (C6-C10) - BTEX	750	<25	<25	<25	<25	<25	<25
F2 (C10-C16)	150	<100	<100	<100	<100	<100	-
F3 (C16-C34)	500	<200	<200	<200	<200	<200	-
F4 (C34-C50)	500	<200	<200	<200	<200	<200	-

NOTES:

1	Ontario Ministry of Environment, Conservation and Parks (MECP), Soil, Groundwater and Sediment Standards for use under Part XV.1 of the Environmental Protection Act, April 2011, Table 3 Full Depth Generic Site Condition Standards (SCS) in a Non-Potable Ground Water Condition for all types of property use and medium and fine textured soils.
	All results are reported in ppb (ug/L) unless otherwise indicated.
<(RDL)	Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.
NV	No Value
N/A	Not Applicable
-	Parameter not analyzed
m bgs	Metres below ground surface
	Indicates groundwater exceedance of MECP Table 3 SCS

Table 5 - Inorganic Paramters in Groundwater
Property Adjacent to 1740 St. Laurent Boulevard, Ottawa, Ontario
OTT-00260579-A0

Sample ID	MECP Table 3 SCS [1]	BH10	DUP (Field Duplicate of BH10)	BH11	BH14	Field Blank
Sampling Date		**10-Sep-2020**	**10-Sep-2020**	**10-Sep-2020**	**10-Sep-2020**	**10-Sep-2020**
Screen Interval (mbgs)		**0.7 to 3.7**	**0.7 to 3.7**	**1.0 to 4.0**	**1.5 to 4.5**	**NA**
Bureau Veritas (BV) ID		**NPL781**	**NPL786**	**NPL782**	**NPL783**	**NPL784**
Date of Analysis		**16-Sep-20**	**16-Sep-20**	**16-Sep-20**	**16-Sep-20**	**16-Sep-20**
BV Certificate of Analysis		**C0N6285**	**C0N6285**	**C0N6285**	**C0N6285**	**C0N6285**
Antimony	20000	<0.50	<0.50	<0.50	0.85	<0.50
Arsenic	1900	<1.0	<1.0	<1.0	1.8	<1.0
Barium	29000	190	190	75	100	<2.0
Beryllium	67	<0.40	<0.40	<0.40	<0.40	<0.40
Boron	45000	250	270	72	190	<10
Cadmium	2.7	<0.090	<0.090	<0.090	<0.090	<0.090
Chromium	810	<5.0	<5.0	<5.0	<5.0	<5.0
Cobalt	66	0.51	0.51	1.6	1.3	<0.50
Copper	87	<0.90	<0.90	1.8	2.9	<0.90
Lead	25	<0.50	<0.50	<0.50	<0.50	<0.50
Molybdenum	9200	17	17	2.4	36	<0.50
Nickel	490	1.3	1.3	2.2	4.3	<1.0
Sodium	NV	560000	560000	220000	410000	<100
Selenium	63	<2.0	<2.0	<2.0	<2.0	<2.0
Silver	1.5	<0.090	<0.090	<0.090	<0.090	<0.090
Thallium	510	<0.050	<0.050	<0.050	0.063	<0.050
Uranium	420	0.76	0.81	1.1	11	<0.10
Vanadium	250	<0.50	<0.50	<0.50	0.86	<0.50
Zinc	1100	<5.0	<5.0	<5.0	<5.0	<5.0

NOTES:

1	Ontario Ministry of Environment, Conservation and Parks (MECP), Soil, Groundwater and Sediment Standards for use under Part XV.1 of the Environmental Protection Act, April 2011, Table 3 Full Depth Generic Site Condition Standards (SCS) in a Non- Potable Ground Water Condition for all types of property All results are reported in ppb (ug/L) unless otherwise indicated.
<(RDL)	Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.
NV	No Value
N/A	Not Applicable
-	Parameter not analyzed
m bgs	Metres below ground surface
	Indicates groundwater exceedance of MECP Table 3 SCS

Table 6 - Volatile Organic Compounds in Groundwater
1740-1760 St. Laurent Boulevard, Ottawa, Ontario
OTT-00260579-A0

Sample ID	MECP Table 3 SCS [1]	BH10	DUP (Field Duplicate of BH10)	BH11	BH14	Field Blank	Trip Blank
Sampling Date		**10-Sep-2020**	**10-Sep-2020**	**10-Sep-2020**	**10-Sep-2020**	**10-Sep-2020**	**10-Sep-2020**
Screen Interval (mbgs)		**0.7 to 3.7**	**0.7 to 3.7**	**1.0 to 4.0**	**1.5 to 4.5**	**NA**	**NA**
Bureau Veritas (BV) ID		**NPL781**	**NPL786**	**NPL782**	**NPL783**	**NPL784**	**NPL785**
Date of Analysis		**15-Sep-20**	**15-Sep-20**	**15-Sep-20**	**15-Sep-20**	**15-Sep-20**	**15-Sep-20**
BV Certificate of Analysis		**C0N6285**	**C0N6285**	**C0N6285**	**C0N6285**	**C0N6285**	**C0N6285**
Acetone	130000	<10	12	<10	<10	<10	<10
Benzene	430	0.27	0.25	<0.20	<0.20	<0.20	<0.20
Bromodichloromethane	85000	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Bromoform	770	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	56	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	8.4	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chlorobenzene	630	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chloroform	22	0.42	0.42	<0.20	<0.20	<0.20	<0.20
Dibromochloromethane	82000	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	9600	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	9600	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	67	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dichlorodifluoromethane	4400	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	3100	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloroethane	12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	17	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cis-1,2-Dichloroethylene	17	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trans-1,2-Dichloroethylene	17	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloropropane	140	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cis-1,3-Dichloropropylene	NV	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Trans-1,3-Dichloropropylene	NV	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
1,3-Dichloropropene (cis + trans)	45	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	2300	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylene Dibromide	0.83	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Hexane(n)	520	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone	1500000	<10	<10	<10	<10	<10	<10
Methylene Chloride	5500	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Methyl Isobutyl Ketone	580000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl-t-Butyl Ether	1400	<0.50	<0.50	2.4	<0.50	<0.50	<0.50
Styrene	9100	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	28	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	15	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	18000	0.47	0.49	<0.20	<0.20	<0.20	<0.20
Tetrachloroethylene	17	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	6700	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,2-Trichloroethane	30	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichlorofluoromethane	2500	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethylene	17	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl Chloride	1.7	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
m-Xylene & p-Xylene	NV	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
o-Xylene	NV	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Total Xylenes	4200	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20

NOTES:

1	Ontario Ministry of Environment, Conservation and Parks (MECP), Soil, Groundwater and Sediment Standards for use under Part XV.1 of the Environmental Protection Act, April 2011, Table 3 Full Depth Generic Site Condition Standards (SCS) in a Non-Potable Ground Water Condition for all types of property use and medium and fine textured soils. All results are reported in ppb (ug/L) unless otherwise indicated.
<(RDL)	Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.
NV	No Value
N/A	Not Applicable
-	Parameter not analyzed
m bgs	Metres below ground surface
	Indicates groundwater exceedance of MECP Table 3 SCS

Table 7 - Relative Percent Differences - Petroleum Hydrocarbons in Soil
Adjacent to 1740 St. Laurent Boulevard, Ottawa, Ontario
OTT-00260579-A0

Parameter	Units	RDL	BH9-SS3	Dup	RPD (%)	Alert Limit (%)
			25-Aug-2020	25-Aug-2020		
Petroleum Hydrocarbons						
F1 PHCs (C6-C10) - BTEX	ug/g	10	<10	<10	nc	60
F2 PHCs (C10-C16)	ug/g	10	<10	<10	nc	60
F3 PHCs (C16-C34)	ug/g	50	<50	<50	nc	60
F4 PHCs (C34-C50)	ug/g	50	<50	<50	nc	60
Volatiles						
Benzene	ug/g	0.020	<0.020	<0.020	nc	100
Toluene	ug/g	0.020	<0.020	<0.020	nc	100
Ethylbenzene	ug/g	0.020	<0.020	<0.020	nc	100
Total Xylenes	ug/g	0.020	<0.020	<0.020	nc	100

NOTES:

Analysis by Bureau Veritas Laboratories
All results on dry weight basis; <RDL means not detected at reporting detection limit (RDL)
- means "not analysed"
nc means "not calculable" - one (or both) of the results are <5x RDL
Exceedances of alert limits are shown in **bold**

Table 8 - Relative Percent Differences - Inorganic Parameters in Soil
Adjacent to 1740 St. Laurent Boulevard, Ottawa, Ontario
OTT-00260579-A0

Parameter	Units	RDL	BH9-SS3	Dup	RPD (%)	Alert Limit (%)
			25-Aug-2020	25-Aug-2020		
Inorganic Parameters						
Antimony	ug/g	0.20	<0.20	<0.20	nc	60
Arsenic	ug/g	1.0	1.3	<1.0	nc	60
Barium	ug/g	0.50	89	150	51	60
Beryllium	ug/g	0.20	0.31	0.44	35	60
Boron	ug/g	5.0	<5.0	<5.0	nc	60
Cadmium	ug/g	0.10	<0.10	<0.10	nc	60
Chromium	ug/g	1.0	20	29	37	60
Cobalt	ug/g	0.10	5.6	8.1	36	60
Copper	ug/g	0.50	15	19	24	60
Lead	ug/g	1.0	3.5	5.5	44	60
Molybdenum	ug/g	0.50	<0.50	<0.50	nc	60
Nickel	ug/g	0.50	12	18	40	60
Selenium	ug/g	0.20	<0.50	<0.50	nc	60
Silver	ug/g	0.50	<0.20	<0.20	nc	60
Thallium	ug/g	0.050	0.12	0.2	50	60
Uranium	ug/g	0.050	0.58	0.62	7	60
Vanadium	ug/g	5.0	38	47	21	60
Zinc	ug/g	5.0	30	43	36	60

NOTES:

Analysis by Bureau Veritas Laboratories
All results on dry weight basis; <RDL means not detected at reporting detection limit (RDL)
- means "not analysed"
nc means "not calculable" - one (or both) of the results are <5x RDL
Exceedances of alert limits are shown in **bold**

Table 9 - Relative Percent Differences - Volatile Organic Compounds in Soil
Adjacent to 1740 St. Laurent Boulevard, Ottawa, Ontario
OTT-00260579-A0

Parameter	Units	RDL	BH9-SS3	Dup	RPD (%)	Alert Limit (%)
			25-Aug-2020	25-Aug-2020		
Volatile Organic Parameters						
Acetone	ug/g dry	0.50	<0.50	<0.50	nc	100
Benzene	ug/g dry	0.020	<0.020	<0.020	nc	100
Bromodichloromethane	ug/g dry	0.050	<0.050	<0.050	nc	100
Bromoform	ug/g dry	0.050	<0.050	<0.050	nc	100
Bromomethane	ug/g dry	0.050	<0.050	<0.050	nc	100
Carbon Tetrachloride	ug/g dry	0.050	<0.050	<0.050	nc	100
Chlorobenzene	ug/g dry	0.050	<0.050	<0.050	nc	100
Chloroform	ug/g dry	0.050	<0.050	<0.050	nc	100
Dibromochloromethane	ug/g dry	0.050	<0.050	<0.050	nc	100
1,2-Dichlorobenzene	ug/g dry	0.050	<0.050	<0.050	nc	100
1,3-Dichlorobenzene	ug/g dry	0.050	<0.050	<0.050	nc	100
1,4-Dichlorobenzene	ug/g dry	0.050	<0.050	<0.050	nc	100
Dichlorodifluoromethane	ug/g dry	0.050	<0.050	<0.050	nc	100
1,1-Dichloroethane	ug/g dry	0.050	<0.050	<0.050	nc	100
1,2-Dichloroethane	ug/g dry	0.050	<0.050	<0.050	nc	100
1,1-Dichloroethylene	ug/g dry	0.050	<0.050	<0.050	nc	100
Cis-1,2-Dichloroethylene	ug/g dry	0.050	<0.050	<0.050	nc	100
Trans-1,2-Dichloroethylene	ug/g dry	0.050	<0.050	<0.050	nc	100
1,2-Dichloropropane	ug/g dry	0.050	<0.050	<0.050	nc	100
Cis-1,3-Dichloropropylene	ug/g dry	0.030	<0.030	<0.030	nc	100
Trans-1,3-Dichloropropylene	ug/g dry	0.040	<0.040	<0.040	nc	100
1,3-Dichloropropene (cis + trans)	ug/g dry	0.050	<0.050	<0.050	nc	100
Ethylbenzene	ug/g dry	0.020	<0.020	<0.020	nc	100
Ethylene Dibromide	ug/g dry	0.050	<0.050	<0.050	nc	100
Hexane(n)	ug/g dry	0.050	<0.050	<0.050	nc	100
Methyl Ethyl Ketone	ug/g dry	0.50	<0.50	<0.50	nc	100
Methylene Chloride	ug/g dry	0.050	<0.050	<0.050	nc	100
Methyl Isobutyl Ketone	ug/g dry	0.50	<0.50	<0.50	nc	100
Methyl-t-Butyl Ether	ug/g dry	0.050	<0.050	<0.050	nc	100
Styrene	ug/g dry	0.050	<0.050	<0.050	nc	100
1,1,1,2-Tetrachloroethane	ug/g dry	0.050	<0.050	<0.050	nc	100
1,1,2,2-Tetrachloroethane	ug/g dry	0.050	<0.050	<0.050	nc	100
Toluene	ug/g dry	0.020	<0.020	<0.020	nc	100
Tetrachloroethylene	ug/g dry	0.050	<0.050	<0.050	nc	100
1,1,1-Trichloroethane	ug/g dry	0.050	<0.050	<0.050	nc	100
1,1,2-Trichloroethane	ug/g dry	0.050	<0.050	<0.050	nc	100
Trichloroethylene	ug/g dry	0.050	<0.050	<0.050	nc	100
Trichlorofluoromethane	ug/g dry	0.050	<0.050	<0.050	nc	100
Vinyl Chloride	ug/g dry	0.020	<0.020	<0.020	nc	100
Total Xylenes	ug/g dry	0.020	<0.020	<0.020	nc	100

NOTES:

Analysis by Bureau Veritas Laboratories
All results on dry weight basis; <RDL means not detected at reporting detection limit (RDL)
- means "not analysed"
nc means "not calculable" - one (or both) of the results are <5x RDL
Exceedances of alert limits are shown in **bold**

Table 10 - Relative Percent Differences - Petroleum Hydrocarbons in Groundwater
Adjacent to 1740 St. Laurent Boulevard, Ottawa, Ontario
OTT-00260579-A0

Parameter	Units	RDL	BH10	DUP	RPD (%)	Alert Limit (%)
			10-Sep-2020	10-Sep-2020		
Petroleum Hydrocarbons						
F1 PHCs (C6-C10) - BTEX	ug/L	25	<25	<25	nc	60
F2 PHCs (C10-C16)	ug/L	100	<100	<100	nc	60
F3 PHCs (C16-C34)	ug/L	200	<200	<200	nc	60
F4 PHCs (C34-C50)	ug/L	200	<200	<200	nc	60
Volatiles						
Benzene	ug/L	0.20	0.27	0.25	8	60
Toluene	ug/L	0.20	0.47	0.49	4	60
Ethylbenzene	ug/L	0.20	<0.20	<0.20	nc	60
Total Xylenes	ug/L	0.20	<0.20	<0.20	nc	60

NOTES:

Analysis by Bureau Veritas Laboratories
All results on dry weight basis; <RDL means not detected at reporting detection limit (RDL)
- means "not analysed"
nc means "not calculable" - one (or both) of the results are <5x RDL
Exceedances of alert limits are shown in **bold**

Table 11 - Relative Percent Differences - Inorganic Parameters in Soil
Adjacent to 1740 St. Laurent Boulevard, Ottawa, Ontario
OTT-00260579-A0

Parameter	Units	RDL	BH10	DUP	RPD (%)	Alert Limit (%)
			10-Sep-2020	10-Sep-2020		
Inorganic Parameters						
Antimony	ug/L	0.50	<0.50	<0.50	nc	40
Arsenic	ug/L	1.0	<1.0	<1.0	nc	40
Barium	ug/L	2.0	190	190	0	40
Beryllium	ug/L	0.40	<0.40	<0.40	nc	40
Boron	ug/L	10	250	270	8	40
Cadmium	ug/L	0.090	<0.090	<0.090	nc	40
Chromium	ug/L	5.0	<5.0	<5.0	nc	40
Cobalt	ug/L	0.50	0.51	0.51	0	40
Copper	ug/L	0.90	<0.90	<0.90	nc	40
Lead	ug/L	0.50	<0.50	<0.50	nc	40
Molybdenum	ug/L	0.50	17	17	0	40
Nickel	ug/L	1.0	1.3	1.3	0	40
Sodium	ug/L	100	560000	560000	0	40
Selenium	ug/L	2.0	<2.0	<2.0	nc	40
Silver	ug/L	0.090	<0.090	<0.090	nc	40
Thallium	ug/L	0.050	<0.050	<0.050	nc	40
Uranium	ug/L	0.10	0.76	0.81	6	40
Vanadium	ug/L	0.50	<0.50	<0.50	nc	40
Zinc	ug/L	5.0	<5.0	<5.0	nc	40

NOTES:

Analysis by Bureau Veritas Laboratories
All results on dry weight basis; <RDL means not detected at reporting detection limit (RDL)
- means "not analysed"
nc means "not calculable" - one (or both) of the results are <5x RDL
Exceedances of alert limits are shown in **bold**

Table 12 - Relative Percent Differences - Volatile Organic Compounds in Groundwater
Adjacent to 1740 St. Laurent Boulevard, Ottawa, Ontario
OTT-00260579-A0

Parameter	Units	RDL	BH10	DUP	RPD (%)	Alert Limit (%)
			10-Sep-2020	10-Sep-2020		
Acetone	ug/L	10	<10	12	nc	60
Benzene	ug/L	0.20	0.27	0.25	nc	60
Bromodichloromethane	ug/L	0.50	<0.50	<0.50	nc	60
Bromoform	ug/L	1.0	<1.0	<1.0	nc	60
Bromomethane	ug/L	0.50	<0.50	<0.50	nc	60
Carbon Tetrachloride	ug/L	0.20	<0.20	<0.20	nc	60
Chlorobenzene	ug/L	0.20	<0.20	<0.20	nc	60
Chloroform	ug/L	0.20	0.42	0.42	nc	60
Dibromochloromethane	ug/L	0.50	<0.50	<0.50	nc	60
1,2-Dichlorobenzene	ug/L	0.50	<0.50	<0.50	nc	60
1,3-Dichlorobenzene	ug/L	0.50	<0.50	<0.50	nc	60
1,4-Dichlorobenzene	ug/L	0.50	<0.50	<0.50	nc	60
1,1-Dichloroethane	ug/L	0.20	<1.0	<1.0	nc	60
1,2-Dichloroethane	ug/L	0.50	<0.20	<0.20	nc	60
1,1-Dichloroethylene	ug/L	0.20	<0.50	<0.50	nc	60
Dichlorodifluoromethane	ug/L	1.0	<0.20	<0.20	nc	60
Cis-1,2-Dichloroethylene	ug/L	0.50	<0.50	<0.50	nc	60
Trans-1,2-Dichloroethylene	ug/L	0.50	<0.50	<0.50	nc	60
1,2-Dichloropropane	ug/L	0.20	<0.20	<0.20	nc	60
Cis-1,3-Dichloropropylene	ug/L	0.30	<0.30	<0.30	nc	60
Trans-1,3-Dichloropropylene	ug/L	0.40	<0.40	<0.40	nc	60
1,3-Dichloropropene (cis + trans)	ug/L	0.50	<0.50	<0.50	nc	60
Ethylbenzene	ug/L	0.20	<0.20	<0.20	nc	60
Ethylene Dibromide	ug/L	0.20	<0.20	<0.20	nc	60
Hexane(n)	ug/L	1.0	<1.0	<1.0	nc	60
Methyl Ethyl Ketone	ug/L	10	<10	<10	nc	60
Methylene Chloride	ug/L	2.0	<2.0	<2.0	nc	60
Methyl Isobutyl Ketone	ug/L	5.0	<5.0	<5.0	nc	60
Methyl-t-Butyl Ether	ug/L	0.50	<0.50	<0.50	nc	60
Styrene	ug/L	0.50	<0.50	<0.50	nc	60
1,1,1,2-Tetrachloroethane	ug/L	0.50	<0.50	<0.50	nc	60
1,1,2,2-Tetrachloroethane	ug/L	0.50	<0.50	<0.50	nc	60
Toluene	ug/L	0.20	0.47	0.49	nc	60
Tetrachloroethylene	ug/L	0.20	<0.20	<0.20	nc	60
1,1,1-Trichloroethane	ug/L	0.20	<0.20	<0.20	nc	60
1,1,2-Trichloroethane	ug/L	0.50	<0.50	<0.50	nc	60
Trichloroethylene	ug/L	0.20	<0.50	<0.50	nc	60
Trichlorofluoromethane	ug/L	0.50	<0.20	<0.20	nc	60
Vinyl Chloride	ug/L	0.20	<0.20	<0.20	nc	60
m-Xylene & p-Xylene	ug/L	0.20	<0.20	<0.20	nc	60
o-Xylene	ug/L	0.20	<0.20	<0.20	nc	60
Total Xylenes	ug/L	0.20	<0.20	<0.20	nc	60

NOTES:

Analysis by Bureau Veritas Laboratories
<RDL means not detected at reporting detection limit (RDL)
- means "not analysed"
nc means "not calculable" - one (or both) of the results are <5x RDL
Exceedances of alert limits are shown in **bold**

Appendix D: Laboratory Certificates of Analysis

Your Project #: OTT-00260579-A0
Your C.O.C. #: 788417-01-01

Attention: Patricia Stelmack

exp Services Inc
Ottawa Branch
100-2650 Queensview Drive
Ottawa, ON
CANADA K2B 8H6

Report Date: 2020/09/02
Report #: R6316053
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BV LABS JOB #: C0M0429
Received: 2020/08/26, 15:33

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
1,3-Dichloropropene Sum (1)	3	N/A	2020/08/30		EPA 8260C m
1,3-Dichloropropene Sum (1)	1	N/A	2020/08/31		EPA 8260C m
1,3-Dichloropropene Sum (1)	1	N/A	2020/09/01		EPA 8260C m
Petroleum Hydrocarbons F2-F4 in Soil (1, 2)	4	2020/08/28	2020/08/29	CAM SOP-00316	CCME CWS m
Petroleum Hydrocarbons F2-F4 in Soil (1, 2)	1	2020/08/31	2020/09/01	CAM SOP-00316	CCME CWS m
Strong Acid Leachable Metals by ICPMS (1)	5	2020/08/31	2020/08/31	CAM SOP-00447	EPA 6020B m
Moisture (1)	4	N/A	2020/08/27	CAM SOP-00445	Carter 2nd ed 51.2 m
Moisture (1)	1	N/A	2020/08/31	CAM SOP-00445	Carter 2nd ed 51.2 m
Volatile Organic Compounds and F1 PHCs (1)	4	N/A	2020/08/28	CAM SOP-00230	EPA 8260C m
Volatile Organic Compounds and F1 PHCs (1)	1	N/A	2020/08/31	CAM SOP-00230	EPA 8260C m

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by BV Labs, unless otherwise agreed in writing. BV Labs is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by BV Labs, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Laboratories Mississauga
(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories conform to all prescribed

Your Project #: OTT-00260579-A0
Your C.O.C. #: 788417-01-01

Attention: Patricia Stelmack

exp Services Inc
Ottawa Branch
100-2650 Queensview Drive
Ottawa, ON
CANADA K2B 8H6

Report Date: 2020/09/02
Report #: R6316053
Version: 2 - Revision

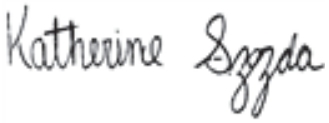
CERTIFICATE OF ANALYSIS – REVISED REPORT

BV LABS JOB #: C0M0429

Received: 2020/08/26, 15:33

elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key



Katherine Szozda
Project Manager
02 Sep 2020 10:20:40

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bvlabs.com
Phone# (613) 274-0573

==========

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

O.REG 153 ICPMS METALS (SOIL)

BV Labs ID			NMB842	NMB843	NMB843	NMB844	NMB845		
Sampling Date			2020/08/24 12:00	2020/08/25 08:00	2020/08/25 08:00	2020/08/25 08:00	2020/08/25 10:00		
COC Number			788417-01-01	788417-01-01	788417-01-01	788417-01-01	788417-01-01		
	UNITS	**Criteria**	**BH10-SS4**	**BH9-SS3**	**BH9-SS3 Lab-Dup**	**DUP**	**BH11-SS3**	**RDL**	**QC Batch**
Metals									
Acid Extractable Antimony (Sb)	ug/g	**7.5**	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6918411
Acid Extractable Arsenic (As)	ug/g	**18**	1.6	1.3	1.3	<1.0	1.3	1.0	6918411
Acid Extractable Barium (Ba)	ug/g	**390**	150	89	80	150	24	0.50	6918411
Acid Extractable Beryllium (Be)	ug/g	**5**	0.43	0.31	0.27	0.44	0.23	0.20	6918411
Acid Extractable Boron (B)	ug/g	**120**	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	6918411
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	6918411
Acid Extractable Chromium (Cr)	ug/g	**160**	23	20	19	29	8.8	1.0	6918411
Acid Extractable Cobalt (Co)	ug/g	**22**	8.0	5.6	5.4	8.1	3.8	0.10	6918411
Acid Extractable Copper (Cu)	ug/g	**180**	17	15	14	19	12	0.50	6918411
Acid Extractable Lead (Pb)	ug/g	**120**	6.9	3.5	3.4	5.5	3.9	1.0	6918411
Acid Extractable Molybdenum (Mo)	ug/g	**6.9**	0.97	<0.50	<0.50	<0.50	<0.50	0.50	6918411
Acid Extractable Nickel (Ni)	ug/g	**130**	18	12	11	18	9.2	0.50	6918411
Acid Extractable Selenium (Se)	ug/g	**2.4**	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6918411
Acid Extractable Silver (Ag)	ug/g	**25**	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6918411
Acid Extractable Thallium (Tl)	ug/g	**1**	0.15	0.12	0.13	0.20	0.078	0.050	6918411
Acid Extractable Uranium (U)	ug/g	**23**	1.0	0.58	0.59	0.62	0.35	0.050	6918411
Acid Extractable Vanadium (V)	ug/g	**86**	38	38	37	47	16	5.0	6918411
Acid Extractable Zinc (Zn)	ug/g	**340**	35	30	29	43	18	5.0	6918411

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Textured Soil

O.REG 153 ICPMS METALS (SOIL)

BV Labs ID			NMB846		
Sampling Date			2020/08/25 12:00		
COC Number			788417-01-01		
	UNITS	**Criteria**	**BH13-SS4**	**RDL**	**QC Batch**
Metals					
Acid Extractable Antimony (Sb)	ug/g	**7.5**	<0.20	0.20	6918411
Acid Extractable Arsenic (As)	ug/g	**18**	<1.0	1.0	6918411
Acid Extractable Barium (Ba)	ug/g	**390**	380	0.50	6918411
Acid Extractable Beryllium (Be)	ug/g	**5**	0.78	0.20	6918411
Acid Extractable Boron (B)	ug/g	**120**	6.6	5.0	6918411
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	<0.10	0.10	6918411
Acid Extractable Chromium (Cr)	ug/g	**160**	62	1.0	6918411
Acid Extractable Cobalt (Co)	ug/g	**22**	15	0.10	6918411
Acid Extractable Copper (Cu)	ug/g	**180**	33	0.50	6918411
Acid Extractable Lead (Pb)	ug/g	**120**	6.1	1.0	6918411
Acid Extractable Molybdenum (Mo)	ug/g	**6.9**	0.50	0.50	6918411
Acid Extractable Nickel (Ni)	ug/g	**130**	34	0.50	6918411
Acid Extractable Selenium (Se)	ug/g	**2.4**	<0.50	0.50	6918411
Acid Extractable Silver (Ag)	ug/g	**25**	<0.20	0.20	6918411
Acid Extractable Thallium (Tl)	ug/g	**1**	0.34	0.050	6918411
Acid Extractable Uranium (U)	ug/g	**23**	0.61	0.050	6918411
Acid Extractable Vanadium (V)	ug/g	**86**	84	5.0	6918411
Acid Extractable Zinc (Zn)	ug/g	**340**	100	5.0	6918411

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Textured Soil

O.REG 153 VOCS BY HS & F1-F4 (SOIL)

BV Labs ID			NMB842	NMB843		NMB844		
Sampling Date			2020/08/24 12:00	2020/08/25 08:00		2020/08/25 08:00		
COC Number			788417-01-01	788417-01-01		788417-01-01		
	UNITS	**Criteria**	**BH10-SS4**	**BH9-SS3**	**QC Batch**	**DUP**	**RDL**	**QC Batch**
Inorganics								
Moisture	%	-	21	25	6913534	24	1.0	6919049
Calculated Parameters								
1,3-Dichloropropene (cis+trans)	ug/g	**0.083**	<0.050	<0.050	6912678	<0.050	0.050	6912678
Volatile Organics								
Acetone (2-Propanone)	ug/g	**28**	<0.50	<0.50	6915170	<0.50	0.50	6915170
Benzene	ug/g	**0.17**	<0.020	<0.020	6915170	<0.020	0.020	6915170
Bromodichloromethane	ug/g	**13**	<0.050	<0.050	6915170	<0.050	0.050	6915170
Bromoform	ug/g	**0.26**	<0.050	<0.050	6915170	<0.050	0.050	6915170
Bromomethane	ug/g	**0.05**	<0.050	<0.050	6915170	<0.050	0.050	6915170
Carbon Tetrachloride	ug/g	**0.12**	<0.050	<0.050	6915170	<0.050	0.050	6915170
Chlorobenzene	ug/g	**2.7**	<0.050	<0.050	6915170	<0.050	0.050	6915170
Chloroform	ug/g	**0.17**	<0.050	<0.050	6915170	<0.050	0.050	6915170
Dibromochloromethane	ug/g	**9.4**	<0.050	<0.050	6915170	<0.050	0.050	6915170
1,2-Dichlorobenzene	ug/g	**4.3**	<0.050	<0.050	6915170	<0.050	0.050	6915170
1,3-Dichlorobenzene	ug/g	**6**	<0.050	<0.050	6915170	<0.050	0.050	6915170
1,4-Dichlorobenzene	ug/g	**0.097**	<0.050	<0.050	6915170	<0.050	0.050	6915170
Dichlorodifluoromethane (FREON 12)	ug/g	**25**	<0.050	<0.050	6915170	<0.050	0.050	6915170
1,1-Dichloroethane	ug/g	**11**	<0.050	<0.050	6915170	<0.050	0.050	6915170
1,2-Dichloroethane	ug/g	**0.05**	<0.050	<0.050	6915170	<0.050	0.050	6915170
1,1-Dichloroethylene	ug/g	**0.05**	<0.050	<0.050	6915170	<0.050	0.050	6915170
cis-1,2-Dichloroethylene	ug/g	**30**	<0.050	<0.050	6915170	<0.050	0.050	6915170
trans-1,2-Dichloroethylene	ug/g	**0.75**	<0.050	<0.050	6915170	<0.050	0.050	6915170
1,2-Dichloropropane	ug/g	**0.085**	<0.050	<0.050	6915170	<0.050	0.050	6915170
cis-1,3-Dichloropropene	ug/g	**0.083**	<0.030	<0.030	6915170	<0.030	0.030	6915170
trans-1,3-Dichloropropene	ug/g	**0.083**	<0.040	<0.040	6915170	<0.040	0.040	6915170
Ethylbenzene	ug/g	**15**	<0.020	<0.020	6915170	<0.020	0.020	6915170
Ethylene Dibromide	ug/g	**0.05**	<0.050	<0.050	6915170	<0.050	0.050	6915170
Hexane	ug/g	**34**	<0.050	<0.050	6915170	<0.050	0.050	6915170
Methylene Chloride(Dichloromethane)	ug/g	**0.96**	<0.050	<0.050	6915170	<0.050	0.050	6915170
Methyl Ethyl Ketone (2-Butanone)	ug/g	**44**	<0.50	<0.50	6915170	<0.50	0.50	6915170
Methyl Isobutyl Ketone	ug/g	**4.3**	<0.50	<0.50	6915170	<0.50	0.50	6915170
Methyl t-butyl ether (MTBE)	ug/g	**1.4**	<0.050	<0.050	6915170	<0.050	0.050	6915170

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Textured Soil

O.REG 153 VOCS BY HS & F1-F4 (SOIL)

BV Labs ID			NMB842	NMB843		NMB844		
Sampling Date			2020/08/24 12:00	2020/08/25 08:00		2020/08/25 08:00		
COC Number			788417-01-01	788417-01-01		788417-01-01		
	UNITS	**Criteria**	**BH10-SS4**	**BH9-SS3**	**QC Batch**	**DUP**	**RDL**	**QC Batch**
Styrene	ug/g	**2.2**	<0.050	<0.050	6915170	<0.050	0.050	6915170
1,1,1,2-Tetrachloroethane	ug/g	**0.05**	<0.050	<0.050	6915170	<0.050	0.050	6915170
1,1,2,2-Tetrachloroethane	ug/g	**0.05**	<0.050	<0.050	6915170	<0.050	0.050	6915170
Tetrachloroethylene	ug/g	**2.3**	<0.050	<0.050	6915170	<0.050	0.050	6915170
Toluene	ug/g	**6**	<0.020	<0.020	6915170	<0.020	0.020	6915170
1,1,1-Trichloroethane	ug/g	**3.4**	<0.050	<0.050	6915170	<0.050	0.050	6915170
1,1,2-Trichloroethane	ug/g	**0.05**	<0.050	<0.050	6915170	<0.050	0.050	6915170
Trichloroethylene	ug/g	**0.52**	<0.050	<0.050	6915170	<0.050	0.050	6915170
Trichlorofluoromethane (FREON 11)	ug/g	**5.8**	<0.050	<0.050	6915170	<0.050	0.050	6915170
Vinyl Chloride	ug/g	**0.022**	<0.020	<0.020	6915170	<0.020	0.020	6915170
p+m-Xylene	ug/g	**-**	<0.020	<0.020	6915170	<0.020	0.020	6915170
o-Xylene	ug/g	-	<0.020	<0.020	6915170	<0.020	0.020	6915170
Total Xylenes	ug/g	**25**	<0.020	<0.020	6915170	<0.020	0.020	6915170
F1 (C6-C10)	ug/g	**65**	<10	<10	6915170	<10	10	6915170
F1 (C6-C10) - BTEX	ug/g	**65**	<10	<10	6915170	<10	10	6915170
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/g	**150**	<10	<10	6914834	<10	10	6919212
F3 (C16-C34 Hydrocarbons)	ug/g	**1300**	<50	<50	6914834	<50	50	6919212
F4 (C34-C50 Hydrocarbons)	ug/g	**5600**	<50	<50	6914834	<50	50	6919212
Reached Baseline at C50	ug/g	**-**	Yes	Yes	6914834	Yes		6919212
Surrogate Recovery (%)								
o-Terphenyl	%	**-**	98	98	6914834	82		6919212
4-Bromofluorobenzene	%	**-**	85	81	6915170	83		6915170
D10-o-Xylene	%	**-**	87	85	6915170	86		6915170
D4-1,2-Dichloroethane	%	**-**	122	122	6915170	123		6915170
D8-Toluene	%	**-**	88	88	6915170	86		6915170

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Textured Soil

O.REG 153 VOCS BY HS & F1-F4 (SOIL)

BV Labs ID			NMB845	NMB846		
Sampling Date			2020/08/25 10:00	2020/08/25 12:00		
COC Number			788417-01-01	788417-01-01		
	UNITS	**Criteria**	**BH11-SS3**	**BH13-SS4**	**RDL**	**QC Batch**
Inorganics						
Moisture	%	-	19	29	1.0	6913534
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/g	**0.083**	<0.050	<0.050	0.050	6912678
Volatile Organics						
Acetone (2-Propanone)	ug/g	**28**	<0.50	<0.50	0.50	6915170
Benzene	ug/g	**0.17**	<0.020	<0.020	0.020	6915170
Bromodichloromethane	ug/g	**13**	<0.050	<0.050	0.050	6915170
Bromoform	ug/g	**0.26**	<0.050	<0.050	0.050	6915170
Bromomethane	ug/g	**0.05**	<0.050	<0.050	0.050	6915170
Carbon Tetrachloride	ug/g	**0.12**	<0.050	<0.050	0.050	6915170
Chlorobenzene	ug/g	**2.7**	<0.050	<0.050	0.050	6915170
Chloroform	ug/g	**0.17**	<0.050	<0.050	0.050	6915170
Dibromochloromethane	ug/g	**9.4**	<0.050	<0.050	0.050	6915170
1,2-Dichlorobenzene	ug/g	**4.3**	<0.050	<0.050	0.050	6915170
1,3-Dichlorobenzene	ug/g	**6**	<0.050	<0.050	0.050	6915170
1,4-Dichlorobenzene	ug/g	**0.097**	<0.050	<0.050	0.050	6915170
Dichlorodifluoromethane (FREON 12)	ug/g	**25**	<0.050	<0.050	0.050	6915170
1,1-Dichloroethane	ug/g	**11**	<0.050	<0.050	0.050	6915170
1,2-Dichloroethane	ug/g	**0.05**	<0.050	<0.050	0.050	6915170
1,1-Dichloroethylene	ug/g	**0.05**	<0.050	<0.050	0.050	6915170
cis-1,2-Dichloroethylene	ug/g	**30**	<0.050	<0.050	0.050	6915170
trans-1,2-Dichloroethylene	ug/g	**0.75**	<0.050	<0.050	0.050	6915170
1,2-Dichloropropane	ug/g	**0.085**	<0.050	<0.050	0.050	6915170
cis-1,3-Dichloropropene	ug/g	**0.083**	<0.030	<0.030	0.030	6915170
trans-1,3-Dichloropropene	ug/g	**0.083**	<0.040	<0.040	0.040	6915170
Ethylbenzene	ug/g	**15**	<0.020	<0.020	0.020	6915170
Ethylene Dibromide	ug/g	**0.05**	<0.050	<0.050	0.050	6915170
Hexane	ug/g	**34**	<0.050	<0.050	0.050	6915170
Methylene Chloride(Dichloromethane)	ug/g	**0.96**	<0.050	<0.050	0.050	6915170
Methyl Ethyl Ketone (2-Butanone)	ug/g	**44**	<0.50	<0.50	0.50	6915170
Methyl Isobutyl Ketone	ug/g	**4.3**	<0.50	<0.50	0.50	6915170

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Textured Soil

O.REG 153 VOCS BY HS & F1-F4 (SOIL)

BV Labs ID			NMB845	NMB846		
Sampling Date			2020/08/25 10:00	2020/08/25 12:00		
COC Number			788417-01-01	788417-01-01		
	UNITS	**Criteria**	**BH11-SS3**	**BH13-SS4**	**RDL**	**QC Batch**
Methyl t-butyl ether (MTBE)	ug/g	**1.4**	<0.050	<0.050	0.050	6915170
Styrene	ug/g	**2.2**	<0.050	<0.050	0.050	6915170
1,1,1,2-Tetrachloroethane	ug/g	**0.05**	<0.050	<0.050	0.050	6915170
1,1,2,2-Tetrachloroethane	ug/g	**0.05**	<0.050	<0.050	0.050	6915170
Tetrachloroethylene	ug/g	**2.3**	<0.050	<0.050	0.050	6915170
Toluene	ug/g	**6**	<0.020	<0.020	0.020	6915170
1,1,1-Trichloroethane	ug/g	**3.4**	<0.050	<0.050	0.050	6915170
1,1,2-Trichloroethane	ug/g	**0.05**	<0.050	<0.050	0.050	6915170
Trichloroethylene	ug/g	**0.52**	<0.050	<0.050	0.050	6915170
Trichlorofluoromethane (FREON 11)	ug/g	**5.8**	<0.050	<0.050	0.050	6915170
Vinyl Chloride	ug/g	**0.022**	<0.020	<0.020	0.020	6915170
p+m-Xylene	ug/g	**-**	<0.020	<0.020	0.020	6915170
o-Xylene	ug/g	**-**	<0.020	<0.020	0.020	6915170
Total Xylenes	ug/g	**25**	<0.020	<0.020	0.020	6915170
F1 (C6-C10)	ug/g	**65**	<10	<10	10	6915170
F1 (C6-C10) - BTEX	ug/g	**65**	<10	<10	10	6915170
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/g	**150**	<10	<10	10	6914834
F3 (C16-C34 Hydrocarbons)	ug/g	**1300**	<50	<50	50	6914834
F4 (C34-C50 Hydrocarbons)	ug/g	**5600**	<50	<50	50	6914834
Reached Baseline at C50	ug/g	**-**	Yes	Yes		6914834
Surrogate Recovery (%)						
o-Terphenyl	%	**-**	98	96		6914834
4-Bromofluorobenzene	%	**-**	91	80		6915170
D10-o-Xylene	%	**-**	91	82		6915170
D4-1,2-Dichloroethane	%	**-**	117	123		6915170
D8-Toluene	%	**-**	85	88		6915170

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Textured Soil

TEST SUMMARY

BV Labs ID: NMB842
Sample ID: BH10-SS4
Matrix: Soil

Collected: 2020/08/24
Shipped:
Received: 2020/08/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	6912678	N/A	2020/08/30	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	6914834	2020/08/28	2020/08/29	Jeevaraj Jeevaratrnam
Strong Acid Leachable Metals by ICPMS	ICP/MS	6918411	2020/08/31	2020/08/31	Viviana Canzonieri
Moisture	BAL	6913534	N/A	2020/08/27	Prgya Panchal
Volatile Organic Compounds and F1 PHCs	GC/MSFD	6915170	N/A	2020/08/28	Denis Reid

BV Labs ID: NMB843
Sample ID: BH9-SS3
Matrix: Soil

Collected: 2020/08/25
Shipped:
Received: 2020/08/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	6912678	N/A	2020/08/30	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	6914834	2020/08/28	2020/08/29	Jeevaraj Jeevaratrnam
Strong Acid Leachable Metals by ICPMS	ICP/MS	6918411	2020/08/31	2020/08/31	Viviana Canzonieri
Moisture	BAL	6913534	N/A	2020/08/27	Prgya Panchal
Volatile Organic Compounds and F1 PHCs	GC/MSFD	6915170	N/A	2020/08/28	Denis Reid

BV Labs ID: NMB843 Dup
Sample ID: BH9-SS3
Matrix: Soil

Collected: 2020/08/25
Shipped:
Received: 2020/08/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6918411	2020/08/31	2020/08/31	Viviana Canzonieri

BV Labs ID: NMB844
Sample ID: DUP
Matrix: Soil

Collected: 2020/08/25
Shipped:
Received: 2020/08/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	6912678	N/A	2020/09/01	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	6919212	2020/08/31	2020/09/01	Prabhjot Gulati
Strong Acid Leachable Metals by ICPMS	ICP/MS	6918411	2020/08/31	2020/08/31	Viviana Canzonieri
Moisture	BAL	6919049	N/A	2020/08/31	Kruti Jitesh Patel
Volatile Organic Compounds and F1 PHCs	GC/MSFD	6915170	N/A	2020/08/28	Denis Reid

BV Labs ID: NMB845
Sample ID: BH11-SS3
Matrix: Soil

Collected: 2020/08/25
Shipped:
Received: 2020/08/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	6912678	N/A	2020/08/31	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	6914834	2020/08/28	2020/08/29	Jeevaraj Jeevaratrnam
Strong Acid Leachable Metals by ICPMS	ICP/MS	6918411	2020/08/31	2020/08/31	Viviana Canzonieri
Moisture	BAL	6913534	N/A	2020/08/27	Prgya Panchal
Volatile Organic Compounds and F1 PHCs	GC/MSFD	6915170	N/A	2020/08/31	Denis Reid

BV Labs Job #: C0M0429
Report Date: 2020/09/02

exp Services Inc
Client Project #: OTT-00260579-A0
Sampler Initials: PS

TEST SUMMARY

BV Labs ID: NMB846
Sample ID: BH13-SS4
Matrix: Soil

Collected: 2020/08/25
Shipped:
Received: 2020/08/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	6912678	N/A	2020/08/30	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	6914834	2020/08/28	2020/08/29	Jeevaraj Jeevaratrnam
Strong Acid Leachable Metals by ICPMS	ICP/MS	6918411	2020/08/31	2020/08/31	Viviana Canzonieri
Moisture	BAL	6913534	N/A	2020/08/27	Prgya Panchal
Volatile Organic Compounds and F1 PHCs	GC/MSFD	6915170	N/A	2020/08/28	Denis Reid

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	7.3°C

Revised Report (2020/09/02): Table 3 criteria changed per client request

Results relate only to the items tested.

Bureau Veritas Laboratories 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvlabs.com

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
6914834	o-Terphenyl	2020/08/28	92	60 - 130	92	60 - 130	98	%		
6915170	4-Bromofluorobenzene	2020/08/28	100	60 - 140	99	60 - 140	84	%		
6915170	D10-o-Xylene	2020/08/28	91	60 - 130	99	60 - 130	84	%		
6915170	D4-1,2-Dichloroethane	2020/08/28	110	60 - 140	111	60 - 140	110	%		
6915170	D8-Toluene	2020/08/28	103	60 - 140	108	60 - 140	90	%		
6919212	o-Terphenyl	2020/08/31	82	60 - 130	84	60 - 130	86	%		
6913534	Moisture	2020/08/27							0	20
6914834	F2 (C10-C16 Hydrocarbons)	2020/08/28	92	50 - 130	92	80 - 120	<10	ug/g	NC	30
6914834	F3 (C16-C34 Hydrocarbons)	2020/08/28	100	50 - 130	100	80 - 120	<50	ug/g	NC	30
6914834	F4 (C34-C50 Hydrocarbons)	2020/08/28	97	50 - 130	96	80 - 120	<50	ug/g	NC	30
6915170	1,1,1,2-Tetrachloroethane	2020/08/28	93	60 - 140	109	60 - 130	<0.050	ug/g	NC	50
6915170	1,1,1-Trichloroethane	2020/08/28	95	60 - 140	106	60 - 130	<0.050	ug/g	NC	50
6915170	1,1,2,2-Tetrachloroethane	2020/08/28	93	60 - 140	108	60 - 130	<0.050	ug/g	NC	50
6915170	1,1,2-Trichloroethane	2020/08/28	97	60 - 140	111	60 - 130	<0.050	ug/g	NC	50
6915170	1,1-Dichloroethane	2020/08/28	97	60 - 140	106	60 - 130	<0.050	ug/g	NC	50
6915170	1,1-Dichloroethylene	2020/08/28	99	60 - 140	107	60 - 130	<0.050	ug/g	NC	50
6915170	1,2-Dichlorobenzene	2020/08/28	79	60 - 140	90	60 - 130	<0.050	ug/g	NC	50
6915170	1,2-Dichloroethane	2020/08/28	97	60 - 140	105	60 - 130	<0.050	ug/g	NC	50
6915170	1,2-Dichloropropane	2020/08/28	93	60 - 140	101	60 - 130	<0.050	ug/g	NC	50
6915170	1,3-Dichlorobenzene	2020/08/28	80	60 - 140	92	60 - 130	<0.050	ug/g	NC	50
6915170	1,4-Dichlorobenzene	2020/08/28	87	60 - 140	100	60 - 130	<0.050	ug/g	NC	50
6915170	Acetone (2-Propanone)	2020/08/28	109	60 - 140	112	60 - 140	<0.50	ug/g	NC	50
6915170	Benzene	2020/08/28	96	60 - 140	105	60 - 130	<0.020	ug/g	NC	50
6915170	Bromodichloromethane	2020/08/28	88	60 - 140	97	60 - 130	<0.050	ug/g	NC	50
6915170	Bromoform	2020/08/28	89	60 - 140	104	60 - 130	<0.050	ug/g	NC	50
6915170	Bromomethane	2020/08/28	102	60 - 140	115	60 - 140	<0.050	ug/g	NC	50
6915170	Carbon Tetrachloride	2020/08/28	96	60 - 140	107	60 - 130	<0.050	ug/g	NC	50
6915170	Chlorobenzene	2020/08/28	81	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
6915170	Chloroform	2020/08/28	93	60 - 140	103	60 - 130	<0.050	ug/g	NC	50
6915170	cis-1,2-Dichloroethylene	2020/08/28	89	60 - 140	97	60 - 130	<0.050	ug/g	NC	50
6915170	cis-1,3-Dichloropropene	2020/08/28	86	60 - 140	93	60 - 130	<0.030	ug/g	NC	50
6915170	Dibromochloromethane	2020/08/28	91	60 - 140	106	60 - 130	<0.050	ug/g	NC	50

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
6915170	Dichlorodifluoromethane (FREON 12)	2020/08/28	80	60 - 140	100	60 - 140	<0.050	ug/g	NC	50
6915170	Ethylbenzene	2020/08/28	73	60 - 140	84	60 - 130	<0.020	ug/g	NC	50
6915170	Ethylene Dibromide	2020/08/28	92	60 - 140	105	60 - 130	<0.050	ug/g	NC	50
6915170	F1 (C6-C10) - BTEX	2020/08/28					<10	ug/g	NC	30
6915170	F1 (C6-C10)	2020/08/28	101	60 - 140	97	80 - 120	<10	ug/g	NC	30
6915170	Hexane	2020/08/28	98	60 - 140	108	60 - 130	<0.050	ug/g	NC	50
6915170	Methyl Ethyl Ketone (2-Butanone)	2020/08/28	89	60 - 140	92	60 - 140	<0.50	ug/g	NC	50
6915170	Methyl Isobutyl Ketone	2020/08/28	77	60 - 140	81	60 - 130	<0.50	ug/g	NC	50
6915170	Methyl t-butyl ether (MTBE)	2020/08/28	81	60 - 140	84	60 - 130	<0.050	ug/g	NC	50
6915170	Methylene Chloride(Dichloromethane)	2020/08/28	106	60 - 140	116	60 - 130	<0.050	ug/g	NC	50
6915170	o-Xylene	2020/08/28	76	60 - 140	88	60 - 130	<0.020	ug/g	NC	50
6915170	p+m-Xylene	2020/08/28	78	60 - 140	89	60 - 130	<0.020	ug/g	NC	50
6915170	Styrene	2020/08/28	58 (1)	60 - 140	67	60 - 130	<0.050	ug/g	NC	50
6915170	Tetrachloroethylene	2020/08/28	81	60 - 140	95	60 - 130	<0.050	ug/g	3.1	50
6915170	Toluene	2020/08/28	81	60 - 140	94	60 - 130	<0.020	ug/g	NC	50
6915170	Total Xylenes	2020/08/28					<0.020	ug/g	NC	50
6915170	trans-1,2-Dichloroethylene	2020/08/28	95	60 - 140	105	60 - 130	<0.050	ug/g	NC	50
6915170	trans-1,3-Dichloropropene	2020/08/28	85	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
6915170	Trichloroethylene	2020/08/28	95	60 - 140	104	60 - 130	<0.050	ug/g	NC	50
6915170	Trichlorofluoromethane (FREON 11)	2020/08/28	97	60 - 140	109	60 - 130	<0.050	ug/g	NC	50
6915170	Vinyl Chloride	2020/08/28	106	60 - 140	122	60 - 130	<0.020	ug/g	NC	50
6918411	Acid Extractable Antimony (Sb)	2020/08/31	98	75 - 125	103	80 - 120	<0.20	ug/g	NC	30
6918411	Acid Extractable Arsenic (As)	2020/08/31	98	75 - 125	104	80 - 120	<1.0	ug/g	2.1	30
6918411	Acid Extractable Barium (Ba)	2020/08/31	NC	75 - 125	102	80 - 120	<0.50	ug/g	9.8	30
6918411	Acid Extractable Beryllium (Be)	2020/08/31	96	75 - 125	98	80 - 120	<0.20	ug/g	14	30
6918411	Acid Extractable Boron (B)	2020/08/31	95	75 - 125	97	80 - 120	<5.0	ug/g	NC	30
6918411	Acid Extractable Cadmium (Cd)	2020/08/31	100	75 - 125	100	80 - 120	<0.10	ug/g	NC	30
6918411	Acid Extractable Chromium (Cr)	2020/08/31	91	75 - 125	103	80 - 120	<1.0	ug/g	4.7	30
6918411	Acid Extractable Cobalt (Co)	2020/08/31	95	75 - 125	101	80 - 120	<0.10	ug/g	3.6	30
6918411	Acid Extractable Copper (Cu)	2020/08/31	90	75 - 125	101	80 - 120	<0.50	ug/g	5.5	30
6918411	Acid Extractable Lead (Pb)	2020/08/31	93	75 - 125	100	80 - 120	<1.0	ug/g	3.6	30
6918411	Acid Extractable Molybdenum (Mo)	2020/08/31	98	75 - 125	100	80 - 120	<0.50	ug/g	NC	30

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
6918411	Acid Extractable Nickel (Ni)	2020/08/31	92	75 - 125	104	80 - 120	<0.50	ug/g	13	30
6918411	Acid Extractable Selenium (Se)	2020/08/31	101	75 - 125	106	80 - 120	<0.50	ug/g	NC	30
6918411	Acid Extractable Silver (Ag)	2020/08/31	97	75 - 125	102	80 - 120	<0.20	ug/g	NC	30
6918411	Acid Extractable Thallium (Tl)	2020/08/31	94	75 - 125	98	80 - 120	<0.050	ug/g	14	30
6918411	Acid Extractable Uranium (U)	2020/08/31	94	75 - 125	98	80 - 120	<0.050	ug/g	2.4	30
6918411	Acid Extractable Vanadium (V)	2020/08/31	NC	75 - 125	104	80 - 120	<5.0	ug/g	3.5	30
6918411	Acid Extractable Zinc (Zn)	2020/08/31	NC	75 - 125	105	80 - 120	<5.0	ug/g	3.2	30
6919049	Moisture	2020/08/31							0	20
6919212	F2 (C10-C16 Hydrocarbons)	2020/09/01	81	50 - 130	80	80 - 120	<10	ug/g	NC	30
6919212	F3 (C16-C34 Hydrocarbons)	2020/09/01	90	50 - 130	89	80 - 120	<50	ug/g	NC	30
6919212	F4 (C34-C50 Hydrocarbons)	2020/09/01	90	50 - 130	89	80 - 120	<50	ug/g	NC	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

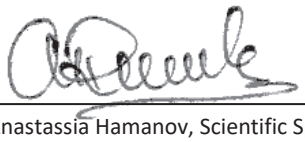
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) The recovery was below the lower control limit. This may represent a low bias in some results for this specific analyte.

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Laboratories 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvlabs.com

Bureau Veritas Laboratories
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6266 Fax:(905) 817-5777 www.bvlabs.com

CHAIN OF CUSTODY RECORD

Page of

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#17498 exp Services Inc	Company Name:		Quotation #:	B91718	BV Labs Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Patricia Stelmack	P.O. #:			788417
Address:	100-2650 Queensview Drive Ottawa ON K2B 8H6	Address:		Project:	OTT-00260579-A0	COC #:	Project Manager:
Tel:	(613) 688-1899 Fax: (613) 225-7337	Tel:	Fax:	Project Name:		C#788417-01-01	Katherine Szozda
Email:	accounting.ottawa@exp.com; Karen.Burke@exp.com;	Email:	patricia.stelmack@exp.com	Site #:			
				Sampled By:			

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
☐ Table 1 ☐ Res/Park ☐ Medium/Fine
☐ Table 2 ☐ Ind/Comm ☐ Coarse
☐ Table ☐ Agri/Other ☐ For RSC
☐ Table ___

Other Regulations
☐ CCME ☐ Sanitary Sewer Bylaw
☐ Reg 558. ☐ Storm Sewer Bylaw
☐ MISA Municipality ___
☐ PWQO ☐ Reg 406 Table ___
☐ Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? ___

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O.Reg 153 VOCs by HS & F1-F4 (Soil)	O.Reg 153 ICPMS Metals (Soil)	# of Bottles	Comments
1	BH10-SS4		Aug 24	12pm	S		✓	✓		
2	BH9-SS3		Aug 25	8am	S		✓	✓		
3	Dup		Aug 25	8am	S		✓	✓		
4	BH11-SS3		Aug 25	10am	S		✓	✓		
5	BH13-SS3		Aug 25	12pm	S		✓	✓		
6										
7										
8										
9										
10										

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☐
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

26-Aug-20 15:33
Katherine Szozda
C0M0429
HGR ENV-410

RECEIVED IN OTTAWA

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
				20/08/26	15:33	
				20/08/27	08:30	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	5.6, 11	Present	✓	
		Intact	✓	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

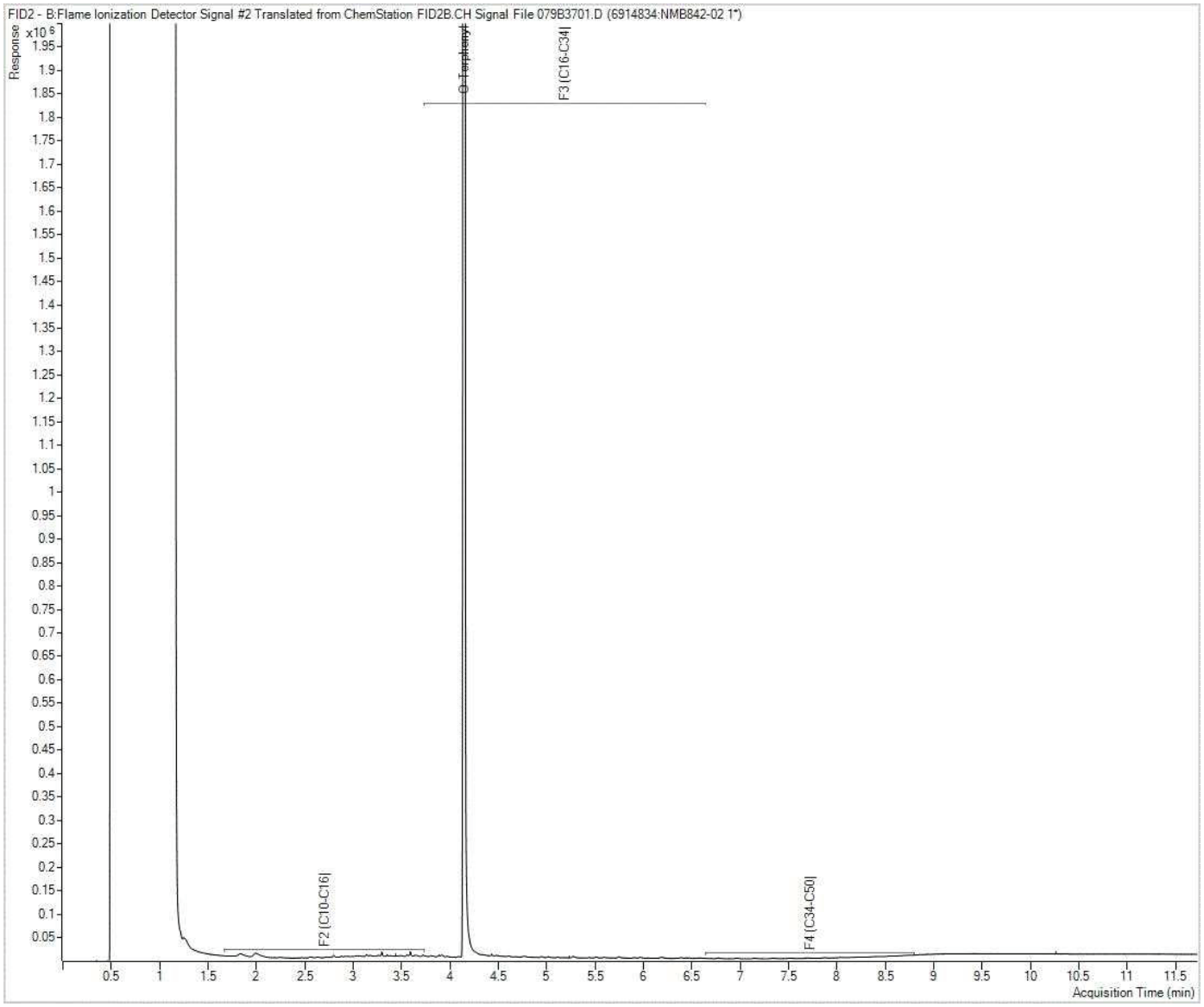
White: BV Labs Yellow: Client

Bureau Veritas Canada (2019) Inc.

BV Labs Job #: C0M0429
Report Date: 2020/09/02
BV Labs Sample: NMB842

exp Services Inc
Client Project #: OTT-00260579-A0
Client ID: BH10-SS4

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

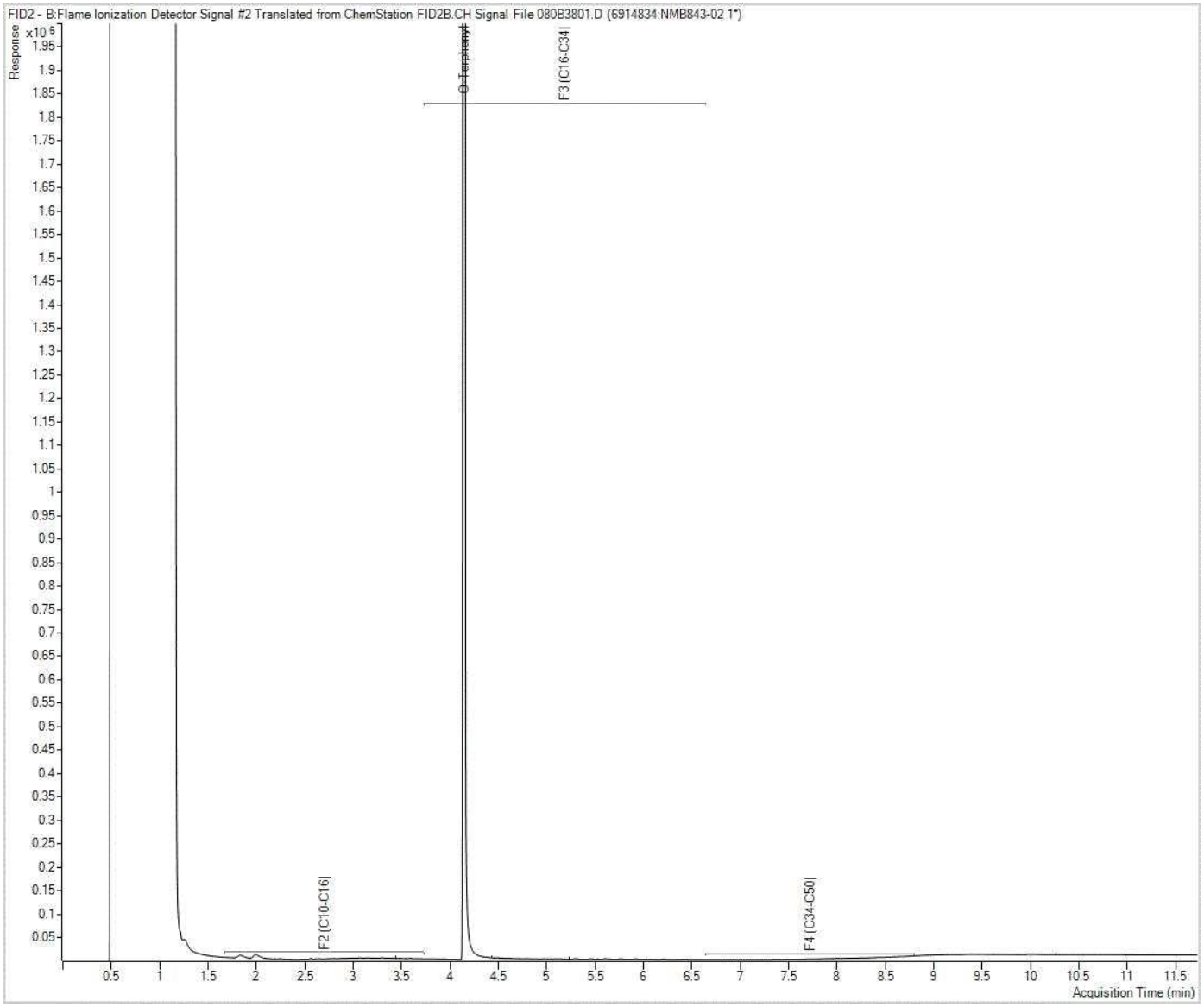


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C0M0429
Report Date: 2020/09/02
BV Labs Sample: NMB843

exp Services Inc
Client Project #: OTT-00260579-A0
Client ID: BH9-SS3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

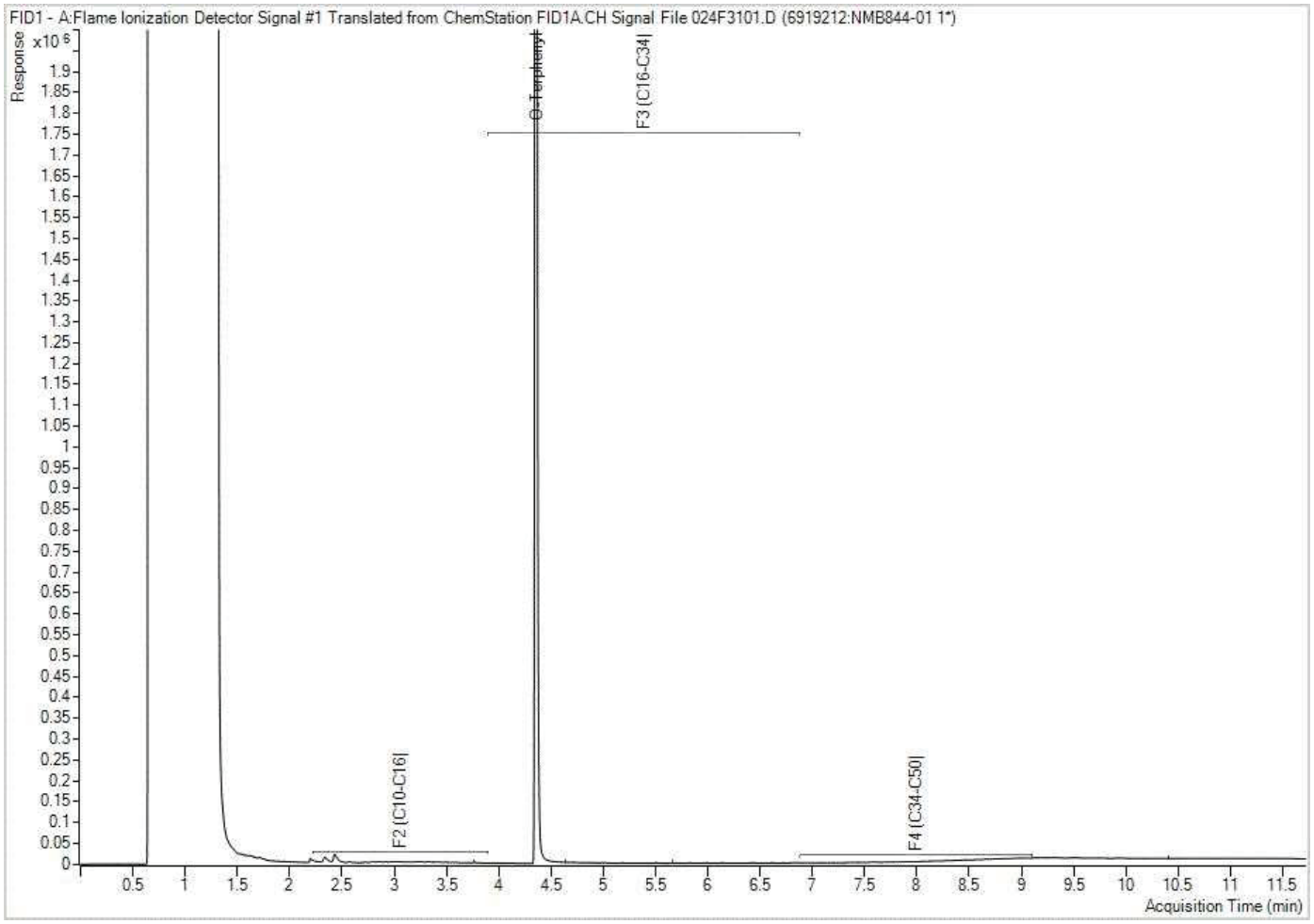


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C0M0429
Report Date: 2020/09/02
BV Labs Sample: NMB844

exp Services Inc
Client Project #: OTT-00260579-A0
Client ID: DUP

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

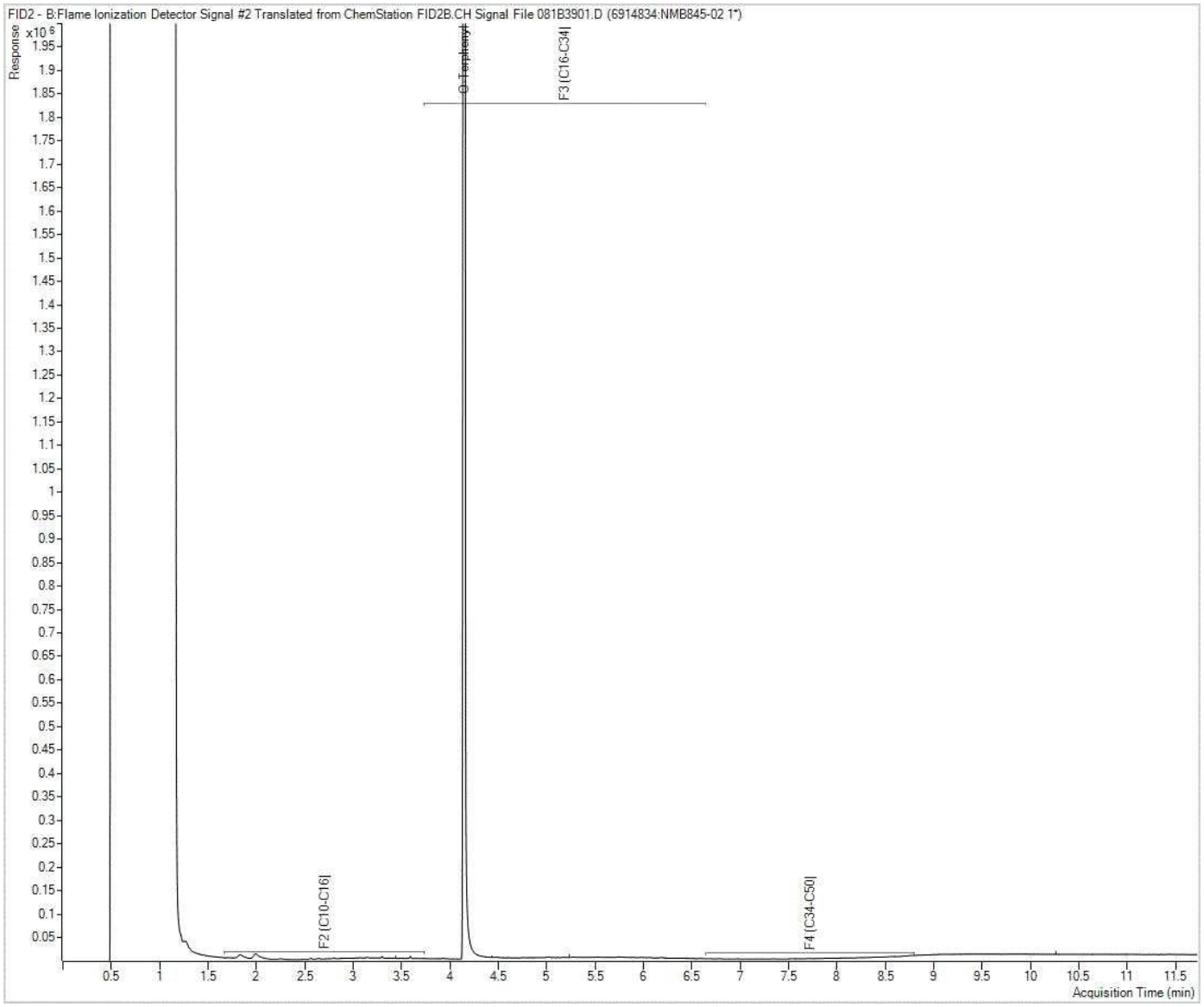


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C0M0429
Report Date: 2020/09/02
BV Labs Sample: NMB845

exp Services Inc
Client Project #: OTT-00260579-A0
Client ID: BH11-SS3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

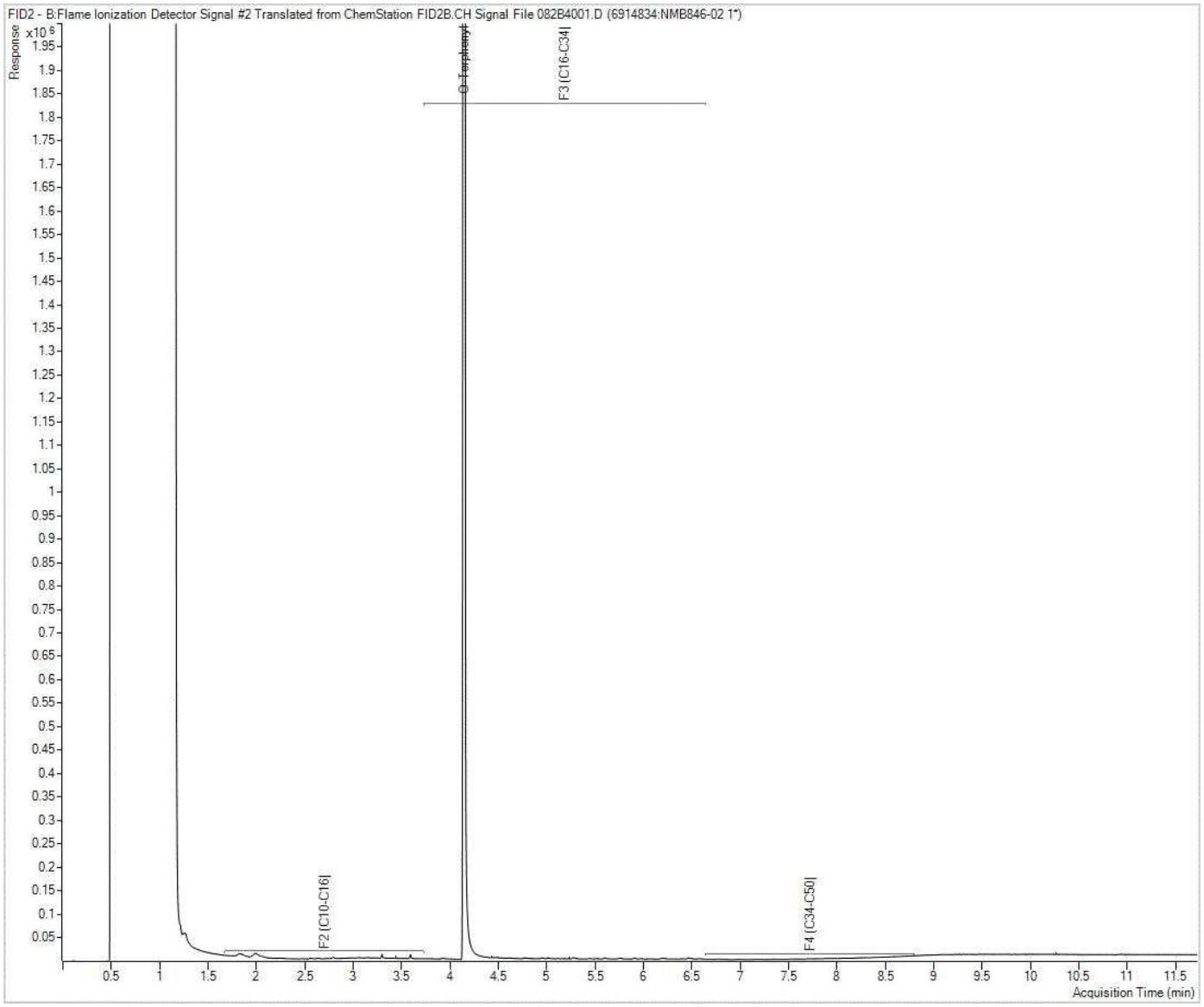


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C0M0429
Report Date: 2020/09/02
BV Labs Sample: NMB846

exp Services Inc
Client Project #: OTT-00260579-A0
Client ID: BH13-SS4

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Your Project #: OTT-00260579-A0
Your C.O.C. #: 791231-01-01

Attention: Patricia Stelmack

exp Services Inc
Ottawa Branch
100-2650 Queensview Drive
Ottawa, ON
CANADA K2B 8H6

Report Date: 2020/09/17
Report #: R6334979
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C0N6285
Received: 2020/09/11, 17:05

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
1,3-Dichloropropene Sum (1)	6	N/A	2020/09/16		EPA 8260C m
Petroleum Hydrocarbons F2-F4 in Water (1, 2)	5	2020/09/16	2020/09/17	CAM SOP-00316	CCME PHC-CWS m
Dissolved Metals by ICPMS (1)	5	N/A	2020/09/16	CAM SOP-00447	EPA 6020B m
Volatile Organic Compounds and F1 PHCs (1)	6	N/A	2020/09/15	CAM SOP-00230	EPA 8260C m

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by BV Labs, unless otherwise agreed in writing. BV Labs is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by BV Labs, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Laboratories Mississauga
(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Your Project #: OTT-00260579-A0
Your C.O.C. #: 791231-01-01

Attention: Patricia Stelmack

exp Services Inc
Ottawa Branch
100-2650 Queensview Drive
Ottawa, ON
CANADA K2B 8H6

Report Date: 2020/09/17
Report #: R6334979
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C0N6285
Received: 2020/09/11, 17:05

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas Laboratories
17 Sep 2020 16:22:16

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bvlabs.com
Phone# (613)274-0573 Ext:7063633
==========
This report has been generated and distributed using a secure automated process.
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

VOLATILE ORGANICS BY GC/MS (WATER)

BV Labs ID		NPL785		
Sampling Date		2020/09/10		
COC Number		791231-01-01		
	UNITS	**TRIP BLANK**	**RDL**	**QC Batch**
Calculated Parameters				
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	6940697
Volatile Organics				
Acetone (2-Propanone)	ug/L	<10	10	6938656
Benzene	ug/L	<0.20	0.20	6938656
Bromodichloromethane	ug/L	<0.50	0.50	6938656
Bromoform	ug/L	<1.0	1.0	6938656
Bromomethane	ug/L	<0.50	0.50	6938656
Carbon Tetrachloride	ug/L	<0.20	0.20	6938656
Chlorobenzene	ug/L	<0.20	0.20	6938656
Chloroform	ug/L	<0.20	0.20	6938656
Dibromochloromethane	ug/L	<0.50	0.50	6938656
1,2-Dichlorobenzene	ug/L	<0.50	0.50	6938656
1,3-Dichlorobenzene	ug/L	<0.50	0.50	6938656
1,4-Dichlorobenzene	ug/L	<0.50	0.50	6938656
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	6938656
1,1-Dichloroethane	ug/L	<0.20	0.20	6938656
1,2-Dichloroethane	ug/L	<0.50	0.50	6938656
1,1-Dichloroethylene	ug/L	<0.20	0.20	6938656
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	6938656
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	6938656
1,2-Dichloropropane	ug/L	<0.20	0.20	6938656
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	6938656
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	6938656
Ethylbenzene	ug/L	<0.20	0.20	6938656
Ethylene Dibromide	ug/L	<0.20	0.20	6938656
Hexane	ug/L	<1.0	1.0	6938656
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	6938656
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	6938656
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	6938656
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	6938656
Styrene	ug/L	<0.50	0.50	6938656
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	6938656
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	6938656
Tetrachloroethylene	ug/L	<0.20	0.20	6938656
Toluene	ug/L	<0.20	0.20	6938656
1,1,1-Trichloroethane	ug/L	<0.20	0.20	6938656

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

VOLATILE ORGANICS BY GC/MS (WATER)

BV Labs ID		NPL785		
Sampling Date		2020/09/10		
COC Number		791231-01-01		
	UNITS	**TRIP BLANK**	**RDL**	**QC Batch**
1,1,2-Trichloroethane	ug/L	<0.50	0.50	6938656
Trichloroethylene	ug/L	<0.20	0.20	6938656
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	6938656
Vinyl Chloride	ug/L	<0.20	0.20	6938656
p+m-Xylene	ug/L	<0.20	0.20	6938656
o-Xylene	ug/L	<0.20	0.20	6938656
Total Xylenes	ug/L	<0.20	0.20	6938656
F1 (C6-C10)	ug/L	<25	25	6938656
F1 (C6-C10) - BTEX	ug/L	<25	25	6938656
Surrogate Recovery (%)				
4-Bromofluorobenzene	%	101		6938656
D4-1,2-Dichloroethane	%	103		6938656
D8-Toluene	%	99		6938656

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

O.REG 153 DISSOLVED ICPMS METALS (WATER)

BV Labs ID		NPL781	NPL782	NPL783	NPL784	NPL786		
Sampling Date		2020/09/10 14:00	2020/09/10 16:00	2020/09/10 15:00	2020/09/10 14:00	2020/09/10 14:00		
COC Number		791231-01-01	791231-01-01	791231-01-01	791231-01-01	791231-01-01		
	UNITS	**BH10**	**BH11**	**BH14**	**FB**	**DUP**	**RDL**	**QC Batch**
Metals								
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	0.85	<0.50	<0.50	0.50	6942169
Dissolved Arsenic (As)	ug/L	<1.0	<1.0	1.8	<1.0	<1.0	1.0	6942169
Dissolved Barium (Ba)	ug/L	190	75	100	<2.0	190	2.0	6942169
Dissolved Beryllium (Be)	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	6942169
Dissolved Boron (B)	ug/L	250	72	190	<10	270	10	6942169
Dissolved Cadmium (Cd)	ug/L	<0.090	<0.090	<0.090	<0.090	<0.090	0.090	6942169
Dissolved Chromium (Cr)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	6942169
Dissolved Cobalt (Co)	ug/L	0.51	1.6	1.3	<0.50	0.51	0.50	6942169
Dissolved Copper (Cu)	ug/L	<0.90	1.8	2.9	<0.90	<0.90	0.90	6942169
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6942169
Dissolved Molybdenum (Mo)	ug/L	17	2.4	36	<0.50	17	0.50	6942169
Dissolved Nickel (Ni)	ug/L	1.3	2.2	4.3	<1.0	1.3	1.0	6942169
Dissolved Selenium (Se)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	6942169
Dissolved Silver (Ag)	ug/L	<0.090	<0.090	<0.090	<0.090	<0.090	0.090	6942169
Dissolved Sodium (Na)	ug/L	560000	220000	410000	<100	560000	100	6942169
Dissolved Thallium (Tl)	ug/L	<0.050	<0.050	0.063	<0.050	<0.050	0.050	6942169
Dissolved Uranium (U)	ug/L	0.76	1.1	11	<0.10	0.81	0.10	6942169
Dissolved Vanadium (V)	ug/L	<0.50	<0.50	0.86	<0.50	<0.50	0.50	6942169
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	6942169

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

O.REG 153 VOCS BY HS & F1-F4 (WATER)

BV Labs ID		NPL781	NPL782	NPL783	NPL784	NPL786		
Sampling Date		2020/09/10 14:00	2020/09/10 16:00	2020/09/10 15:00	2020/09/10 14:00	2020/09/10 14:00		
COC Number		791231-01-01	791231-01-01	791231-01-01	791231-01-01	791231-01-01		
	UNITS	**BH10**	**BH11**	**BH14**	**FB**	**DUP**	**RDL**	**QC Batch**
Calculated Parameters								
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6940697
Volatile Organics								
Acetone (2-Propanone)	ug/L	<10	<10	<10	<10	12	10	6938656
Benzene	ug/L	0.27	<0.20	<0.20	<0.20	0.25	0.20	6938656
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6938656
Bromoform	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	6938656
Bromomethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6938656
Carbon Tetrachloride	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6938656
Chlorobenzene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6938656
Chloroform	ug/L	0.42	<0.20	<0.20	<0.20	0.42	0.20	6938656
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6938656
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6938656
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6938656
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6938656
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	6938656
1,1-Dichloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6938656
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6938656
1,1-Dichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6938656
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6938656
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6938656
1,2-Dichloropropane	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6938656
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	<0.30	<0.30	<0.30	0.30	6938656
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	6938656
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6938656
Ethylene Dibromide	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6938656
Hexane	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	6938656
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	6938656
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	<10	<10	<10	10	6938656
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	6938656
Methyl t-butyl ether (MTBE)	ug/L	<0.50	2.4	<0.50	<0.50	<0.50	0.50	6938656
Styrene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6938656
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6938656
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6938656
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6938656
Toluene	ug/L	0.47	<0.20	<0.20	<0.20	0.49	0.20	6938656

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

O.REG 153 VOCS BY HS & F1-F4 (WATER)

BV Labs ID		NPL781	NPL782	NPL783	NPL784	NPL786		
Sampling Date		2020/09/10 14:00	2020/09/10 16:00	2020/09/10 15:00	2020/09/10 14:00	2020/09/10 14:00		
COC Number		791231-01-01	791231-01-01	791231-01-01	791231-01-01	791231-01-01		
	UNITS	**BH10**	**BH11**	**BH14**	**FB**	**DUP**	**RDL**	**QC Batch**
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6938656
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6938656
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6938656
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6938656
Vinyl Chloride	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6938656
p+m-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6938656
o-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6938656
Total Xylenes	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6938656
F1 (C6-C10)	ug/L	<25	<25	<25	<25	<25	25	6938656
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	<25	<25	25	6938656
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	<100	<100	100	6947971
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	<200	<200	200	6947971
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	<200	<200	200	6947971
Reached Baseline at C50	ug/L	Yes	Yes	Yes	Yes	Yes		6947971
Surrogate Recovery (%)								
o-Terphenyl	%	100	100	101	100	102		6947971
4-Bromofluorobenzene	%	103	104	103	102	103		6938656
D4-1,2-Dichloroethane	%	100	103	103	103	101		6938656
D8-Toluene	%	98	96	97	98	96		6938656

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

TEST SUMMARY

BV Labs ID: NPL781
Sample ID: BH10
Matrix: Water

Collected: 2020/09/10
Shipped:
Received: 2020/09/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	6940697	N/A	2020/09/16	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	6947971	2020/09/16	2020/09/17	Margaret Kulczyk-Stanko
Dissolved Metals by ICPMS	ICP/MS	6942169	N/A	2020/09/16	Arefa Dabhad
Volatile Organic Compounds and F1 PHCs	GC/MSFD	6938656	N/A	2020/09/15	Denis Reid

BV Labs ID: NPL782
Sample ID: BH11
Matrix: Water

Collected: 2020/09/10
Shipped:
Received: 2020/09/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	6940697	N/A	2020/09/16	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	6947971	2020/09/16	2020/09/17	Margaret Kulczyk-Stanko
Dissolved Metals by ICPMS	ICP/MS	6942169	N/A	2020/09/16	Arefa Dabhad
Volatile Organic Compounds and F1 PHCs	GC/MSFD	6938656	N/A	2020/09/15	Denis Reid

BV Labs ID: NPL783
Sample ID: BH14
Matrix: Water

Collected: 2020/09/10
Shipped:
Received: 2020/09/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	6940697	N/A	2020/09/16	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	6947971	2020/09/16	2020/09/17	Margaret Kulczyk-Stanko
Dissolved Metals by ICPMS	ICP/MS	6942169	N/A	2020/09/16	Arefa Dabhad
Volatile Organic Compounds and F1 PHCs	GC/MSFD	6938656	N/A	2020/09/15	Denis Reid

BV Labs ID: NPL784
Sample ID: FB
Matrix: Water

Collected: 2020/09/10
Shipped:
Received: 2020/09/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	6940697	N/A	2020/09/16	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	6947971	2020/09/16	2020/09/17	Margaret Kulczyk-Stanko
Dissolved Metals by ICPMS	ICP/MS	6942169	N/A	2020/09/16	Arefa Dabhad
Volatile Organic Compounds and F1 PHCs	GC/MSFD	6938656	N/A	2020/09/15	Denis Reid

BV Labs ID: NPL785
Sample ID: TRIP BLANK
Matrix: Water

Collected: 2020/09/10
Shipped:
Received: 2020/09/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	6940697	N/A	2020/09/16	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	6938656	N/A	2020/09/15	Denis Reid

BV Labs Job #: C0N6285
Report Date: 2020/09/17

exp Services Inc
Client Project #: OTT-00260579-A0
Sampler Initials: MAD

TEST SUMMARY

BV Labs ID: NPL786
Sample ID: DUP
Matrix: Water

Collected: 2020/09/10
Shipped:
Received: 2020/09/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	6940697	N/A	2020/09/16	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	6947971	2020/09/16	2020/09/17	Margaret Kulczyk-Stanko
Dissolved Metals by ICPMS	ICP/MS	6942169	N/A	2020/09/16	Arefa Dabhad
Volatile Organic Compounds and F1 PHCs	GC/MSFD	6938656	N/A	2020/09/15	Denis Reid

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.7°C

Results relate only to the items tested.

Bureau Veritas Laboratories 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvlabs.com

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
6938656	4-Bromofluorobenzene	2020/09/15	101	70 - 130	104	70 - 130	100	%		
6938656	D4-1,2-Dichloroethane	2020/09/15	107	70 - 130	101	70 - 130	102	%		
6938656	D8-Toluene	2020/09/15	100	70 - 130	99	70 - 130	98	%		
6947971	o-Terphenyl	2020/09/17	105	60 - 130	106	60 - 130	103	%		
6938656	1,1,1,2-Tetrachloroethane	2020/09/15	99	70 - 130	102	70 - 130	<0.50	ug/L	NC	30
6938656	1,1,1-Trichloroethane	2020/09/15	92	70 - 130	94	70 - 130	<0.20	ug/L	2.3	30
6938656	1,1,2,2-Tetrachloroethane	2020/09/15	99	70 - 130	103	70 - 130	<0.50	ug/L	NC	30
6938656	1,1,2-Trichloroethane	2020/09/15	100	70 - 130	101	70 - 130	<0.50	ug/L	NC	30
6938656	1,1-Dichloroethane	2020/09/15	91	70 - 130	94	70 - 130	<0.20	ug/L	2.6	30
6938656	1,1-Dichloroethylene	2020/09/15	97	70 - 130	103	70 - 130	<0.20	ug/L	NC	30
6938656	1,2-Dichlorobenzene	2020/09/15	89	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
6938656	1,2-Dichloroethane	2020/09/15	102	70 - 130	101	70 - 130	<0.50	ug/L	NC	30
6938656	1,2-Dichloropropane	2020/09/15	90	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
6938656	1,3-Dichlorobenzene	2020/09/15	90	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
6938656	1,4-Dichlorobenzene	2020/09/15	97	70 - 130	99	70 - 130	<0.50	ug/L	NC	30
6938656	Acetone (2-Propanone)	2020/09/15	NC	60 - 140	99	60 - 140	<10	ug/L	10	30
6938656	Benzene	2020/09/15	95	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
6938656	Bromodichloromethane	2020/09/15	96	70 - 130	97	70 - 130	<0.50	ug/L	1.1	30
6938656	Bromoform	2020/09/15	108	70 - 130	108	70 - 130	<1.0	ug/L	NC	30
6938656	Bromomethane	2020/09/15	97	60 - 140	101	60 - 140	<0.50	ug/L	NC	30
6938656	Carbon Tetrachloride	2020/09/15	93	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
6938656	Chlorobenzene	2020/09/15	90	70 - 130	93	70 - 130	<0.20	ug/L	1.2	30
6938656	Chloroform	2020/09/15	89	70 - 130	91	70 - 130	<0.20	ug/L	4.5	30
6938656	cis-1,2-Dichloroethylene	2020/09/15	93	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
6938656	cis-1,3-Dichloropropene	2020/09/15	102	70 - 130	94	70 - 130	<0.30	ug/L	NC	30
6938656	Dibromochloromethane	2020/09/15	106	70 - 130	106	70 - 130	<0.50	ug/L	3.3	30
6938656	Dichlorodifluoromethane (FREON 12)	2020/09/15	71	60 - 140	91	60 - 140	<1.0	ug/L	NC	30
6938656	Ethylbenzene	2020/09/15	87	70 - 130	91	70 - 130	<0.20	ug/L	NC	30
6938656	Ethylene Dibromide	2020/09/15	106	70 - 130	103	70 - 130	<0.20	ug/L	NC	30
6938656	F1 (C6-C10) - BTEX	2020/09/15					<25	ug/L	7.6	30
6938656	F1 (C6-C10)	2020/09/15	87	60 - 140	96	60 - 140	<25	ug/L	7.6	30
6938656	Hexane	2020/09/15	92	70 - 130	97	70 - 130	<1.0	ug/L	NC	30

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
6938656	Methyl Ethyl Ketone (2-Butanone)	2020/09/15	109	60 - 140	102	60 - 140	<10	ug/L	12	30
6938656	Methyl Isobutyl Ketone	2020/09/15	98	70 - 130	96	70 - 130	<5.0	ug/L	NC	30
6938656	Methyl t-butyl ether (MTBE)	2020/09/15	89	70 - 130	91	70 - 130	<0.50	ug/L	NC	30
6938656	Methylene Chloride(Dichloromethane)	2020/09/15	96	70 - 130	98	70 - 130	<2.0	ug/L	NC	30
6938656	o-Xylene	2020/09/15	88	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
6938656	p+m-Xylene	2020/09/15	91	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
6938656	Styrene	2020/09/15	91	70 - 130	95	70 - 130	<0.50	ug/L	NC	30
6938656	Tetrachloroethylene	2020/09/15	90	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
6938656	Toluene	2020/09/15	87	70 - 130	88	70 - 130	<0.20	ug/L	NC	30
6938656	Total Xylenes	2020/09/15					<0.20	ug/L	NC	30
6938656	trans-1,2-Dichloroethylene	2020/09/15	94	70 - 130	99	70 - 130	<0.50	ug/L	NC	30
6938656	trans-1,3-Dichloropropene	2020/09/15	109	70 - 130	94	70 - 130	<0.40	ug/L	NC	30
6938656	Trichloroethylene	2020/09/15	98	70 - 130	100	70 - 130	<0.20	ug/L	NC	30
6938656	Trichlorofluoromethane (FREON 11)	2020/09/15	94	70 - 130	103	70 - 130	<0.50	ug/L	NC	30
6938656	Vinyl Chloride	2020/09/15	84	70 - 130	98	70 - 130	<0.20	ug/L	NC	30
6942169	Dissolved Antimony (Sb)	2020/09/16	101	80 - 120	99	80 - 120	<0.50	ug/L	NC	20
6942169	Dissolved Arsenic (As)	2020/09/16	97	80 - 120	97	80 - 120	<1.0	ug/L	NC	20
6942169	Dissolved Barium (Ba)	2020/09/16	97	80 - 120	97	80 - 120	<2.0	ug/L	0.32	20
6942169	Dissolved Beryllium (Be)	2020/09/16	92	80 - 120	93	80 - 120	<0.40	ug/L	NC	20
6942169	Dissolved Boron (B)	2020/09/16	99	80 - 120	98	80 - 120	<10	ug/L	2.0	20
6942169	Dissolved Cadmium (Cd)	2020/09/16	98	80 - 120	98	80 - 120	<0.090	ug/L	NC	20
6942169	Dissolved Chromium (Cr)	2020/09/16	91	80 - 120	92	80 - 120	<5.0	ug/L	NC	20
6942169	Dissolved Cobalt (Co)	2020/09/16	94	80 - 120	97	80 - 120	<0.50	ug/L	NC	20
6942169	Dissolved Copper (Cu)	2020/09/16	97	80 - 120	97	80 - 120	<0.90	ug/L	NC	20
6942169	Dissolved Lead (Pb)	2020/09/16	94	80 - 120	98	80 - 120	<0.50	ug/L	NC	20
6942169	Dissolved Molybdenum (Mo)	2020/09/16	95	80 - 120	95	80 - 120	<0.50	ug/L	NC	20
6942169	Dissolved Nickel (Ni)	2020/09/16	91	80 - 120	95	80 - 120	<1.0	ug/L	NC	20
6942169	Dissolved Selenium (Se)	2020/09/16	97	80 - 120	100	80 - 120	<2.0	ug/L	NC	20
6942169	Dissolved Silver (Ag)	2020/09/16	94	80 - 120	93	80 - 120	<0.090	ug/L	NC	20
6942169	Dissolved Sodium (Na)	2020/09/16	NC	80 - 120	94	80 - 120	<100	ug/L	0.55	20
6942169	Dissolved Thallium (Tl)	2020/09/16	97	80 - 120	98	80 - 120	<0.050	ug/L	NC	20
6942169	Dissolved Uranium (U)	2020/09/16	98	80 - 120	100	80 - 120	<0.10	ug/L	4.0	20

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
6942169	Dissolved Vanadium (V)	2020/09/16	92	80 - 120	93	80 - 120	<0.50	ug/L	NC	20
6942169	Dissolved Zinc (Zn)	2020/09/16	94	80 - 120	97	80 - 120	<5.0	ug/L	NC	20
6947971	F2 (C10-C16 Hydrocarbons)	2020/09/17	103	50 - 130	106	60 - 130	<100	ug/L	NC	30
6947971	F3 (C16-C34 Hydrocarbons)	2020/09/17	110	50 - 130	109	60 - 130	<200	ug/L	NC	30
6947971	F4 (C34-C50 Hydrocarbons)	2020/09/17	99	50 - 130	102	60 - 130	<200	ug/L	NC	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

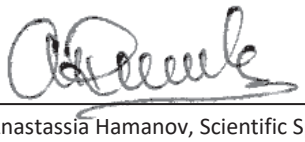
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Laboratories 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvlabs.com

11-Sep-20 17:05
Katherine Szozda
C0N6285

DSG ENV-618

Presence of Visible Particulate/Sediment

Maxxam Analytics
CAM FCD-01013/5

When there is >1cm of visible particulate/sediment, the amount will be recorded in the field below

Bottle Types

	Sample ID	All	CrVI	Inorganics				Organics										Hydrocarbons							Volatiles				Other
				CN	General	Hg	Metals (Diss.)	Organic 1 of 2	Organic 2 of 2	PCB 1 of 2	PCB 2 of 2	Pest/ Herb 1 of 2	Pest/ Herb 2 of 2	SVOC/ ABN 1 of 2	SVOC/ ABN 2 of 2	PAH 1 of 2	PAH 2 of 2	Dioxin /Furan	F1 Vial 1	F1 Vial 2	F1 Vial 3	F1 Vial 4	F2-F4 1 of 2	F2-F4 2 of 2	F4G	VOC Vial 1	VOC Vial 2	VOC Vial 3	VOC Vial 4	
1	BH 10	TS																											
2	BH 11	TS																											
3	BH 14	TS																											
4	DUP	TS																											
5																													
6																													
7																													
8																													
9																													
10																													

Comments: Except Metals

Legend:	
P	Suspended Particulate
TS	Trace Settled Sediment (just covers bottom of container or less)
S	Sediment greater than (>) Trace, but less than (<) 1 cm

Recorded By: (signature/print) DIPIKA SINGH

Bureau Veritas Laboratories
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6266 Fax:(905) 817-5777 www.bvlabs.com

11-Sep-20 17:05
Katherine Szozda
C0N6285

DSG ENV-618

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#17498 exp Services Inc	Company Name:		Quotation #:	B91718
Attention:	Accounts Payable	Attention:	Patricia Stelmack	P.O. #:	
Address:	100-2650 Queensview Drive Ottawa ON K2B 8H6	Address:		Project:	OTT-00260579-A0
Tel:	(613) 688-1899 Fax: (613) 225-7337	Tel:	Fax:	Project Name:	
Email:	accounting.ottawa@exp.com; Karen.Burke@exp.com;	Email:	patricia.stelmack@exp.com mark.devlin@exp.com	Site #:	
				Sampled By:	MAD

Lab Use Only: Bottle Order #: 791231 | COC #: C#791231-01-01 | Project Manager: Katherine Szozda

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): [X] Table 1 [X] Res/Park [ ] Medium/Fine [ ] Table 2 [ ] Ind/Comm [ ] Coarse [ ] Table 3 [ ] Agri/Other [X] For RSC [ ] Table ___

Other Regulations: [ ] CCME [ ] Sanitary Sewer Bylaw [ ] Reg 558 [ ] Storm Sewer Bylaw [ ] MISA Municipality ___ [ ] PWQO [ ] Reg 406 Table ___ [ ] Other ___

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? ___

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required: Please provide advance notice for rush projects

Regular (Standard) TAT: [X]
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests..
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ [ ]
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O.Reg 153 VOCs by HS & F1-F4	O.Reg 153 Dissolved ICPMS Metals (Water)	PAH F1 / VOC	# of Bottles	Comments
1		BH10	Sept 10 2020	2:00pm	GW	Y	X	X		6	
2		BH11		4:00pm	GW	Y				6	
3		BH14		3:00pm	GW	Y				6	
4		FB		2:00pm	DI					6	
5		Trip Blank			DI				X	3	
6		Dup		2:00pm	GW	Y	X	X		6	
7											
8											
9											
10											ON ICE

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Mark Devlin	20/09/11	14:34	Katie Szozda Katie Szozda	2020/09/11	17:05	
Mark Devlin			Tanzeer Hasan Hasan	20/09/12	09:22	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	4.1 7.1 3	Present	X	
		Intact	X	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

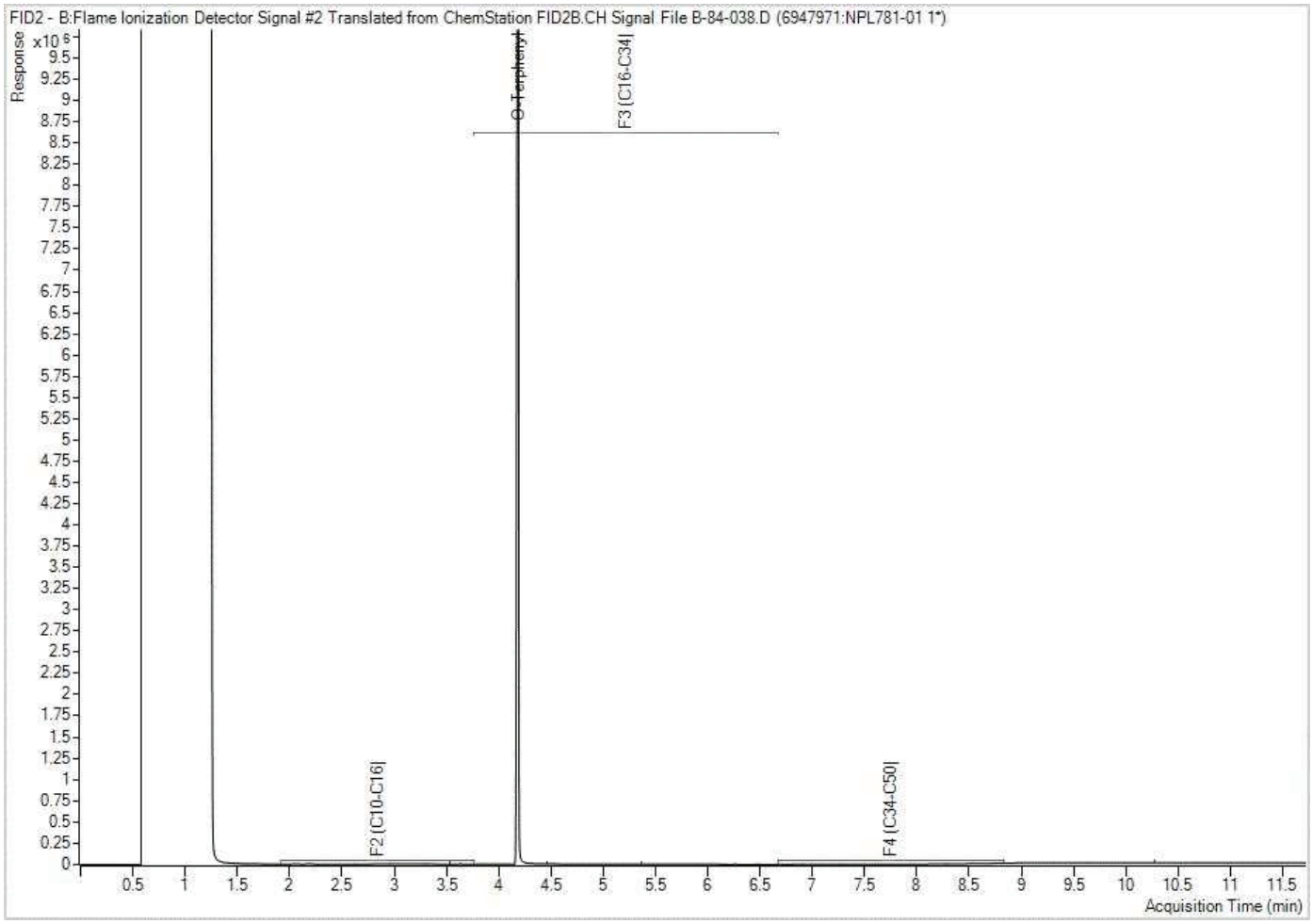
White: BV Labs Yellow: Client

Bureau Veritas Canada (2019) Inc.

BV Labs Job #: C0N6285
Report Date: 2020/09/17
BV Labs Sample: NPL781

exp Services Inc
Client Project #: OTT-00260579-A0
Client ID: BH10

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

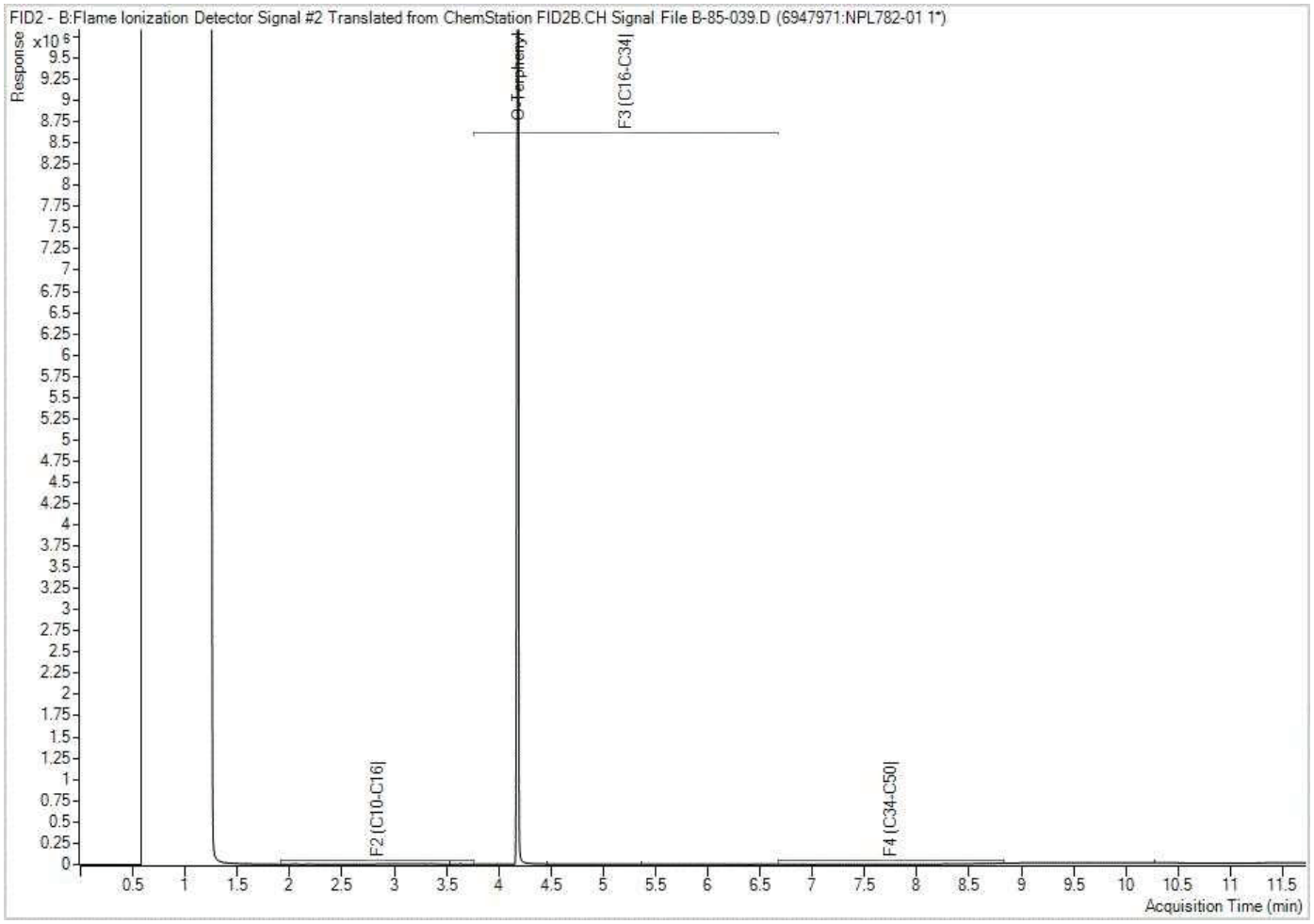


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C0N6285
Report Date: 2020/09/17
BV Labs Sample: NPL782

exp Services Inc
Client Project #: OTT-00260579-A0
Client ID: BH11

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

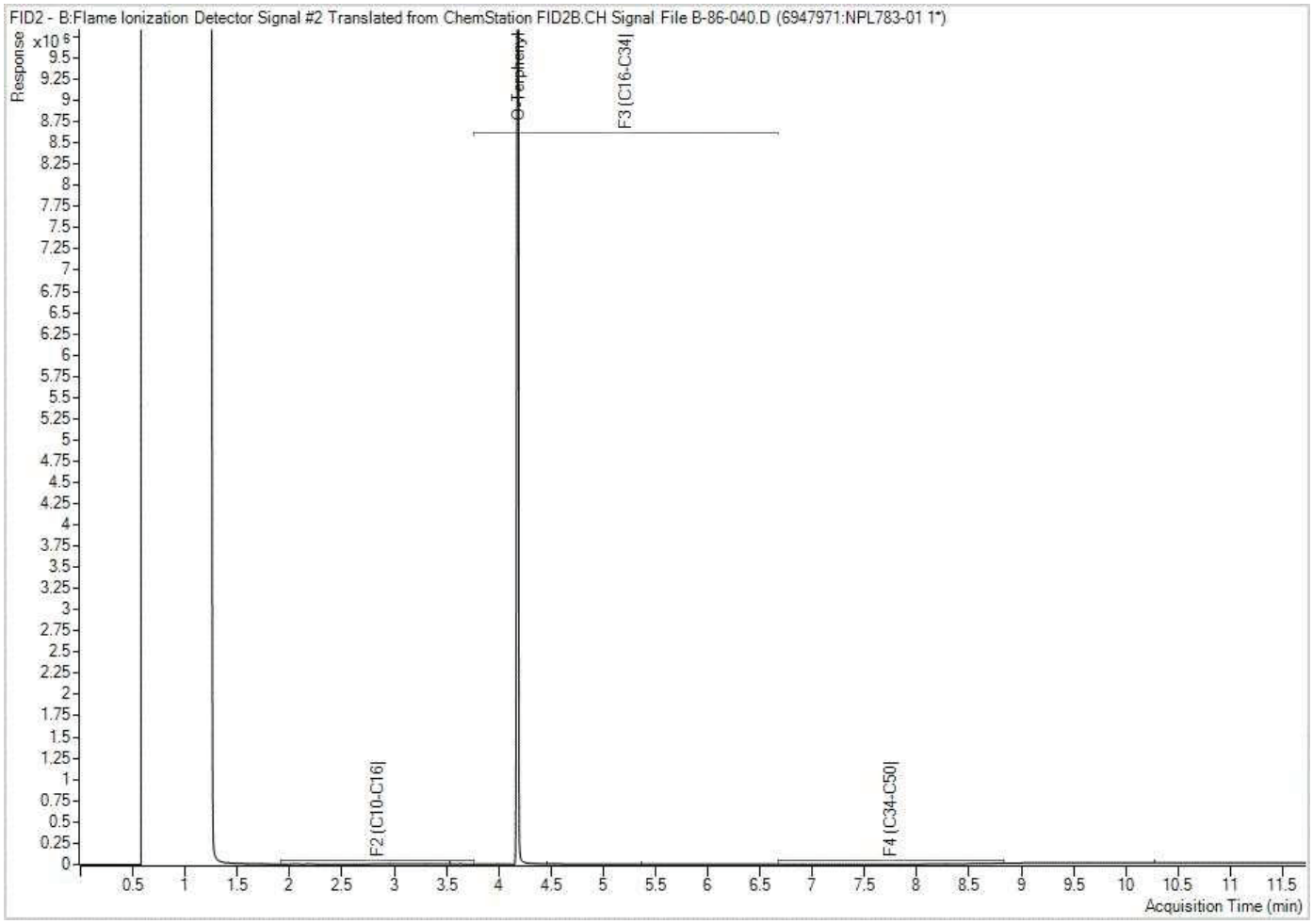


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C0N6285
Report Date: 2020/09/17
BV Labs Sample: NPL783

exp Services Inc
Client Project #: OTT-00260579-A0
Client ID: BH14

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

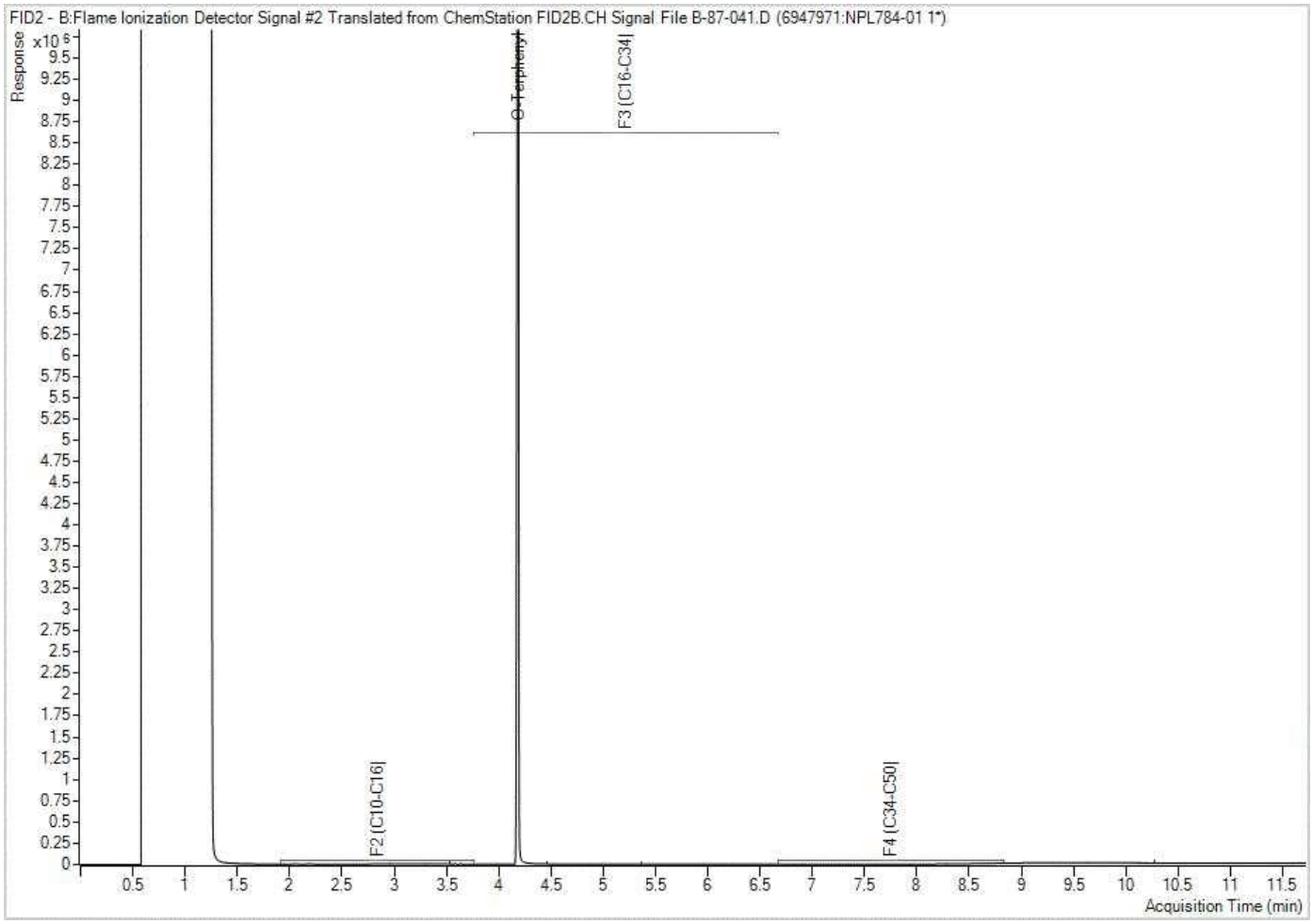


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C0N6285
Report Date: 2020/09/17
BV Labs Sample: NPL784

exp Services Inc
Client Project #: OTT-00260579-A0
Client ID: FB

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

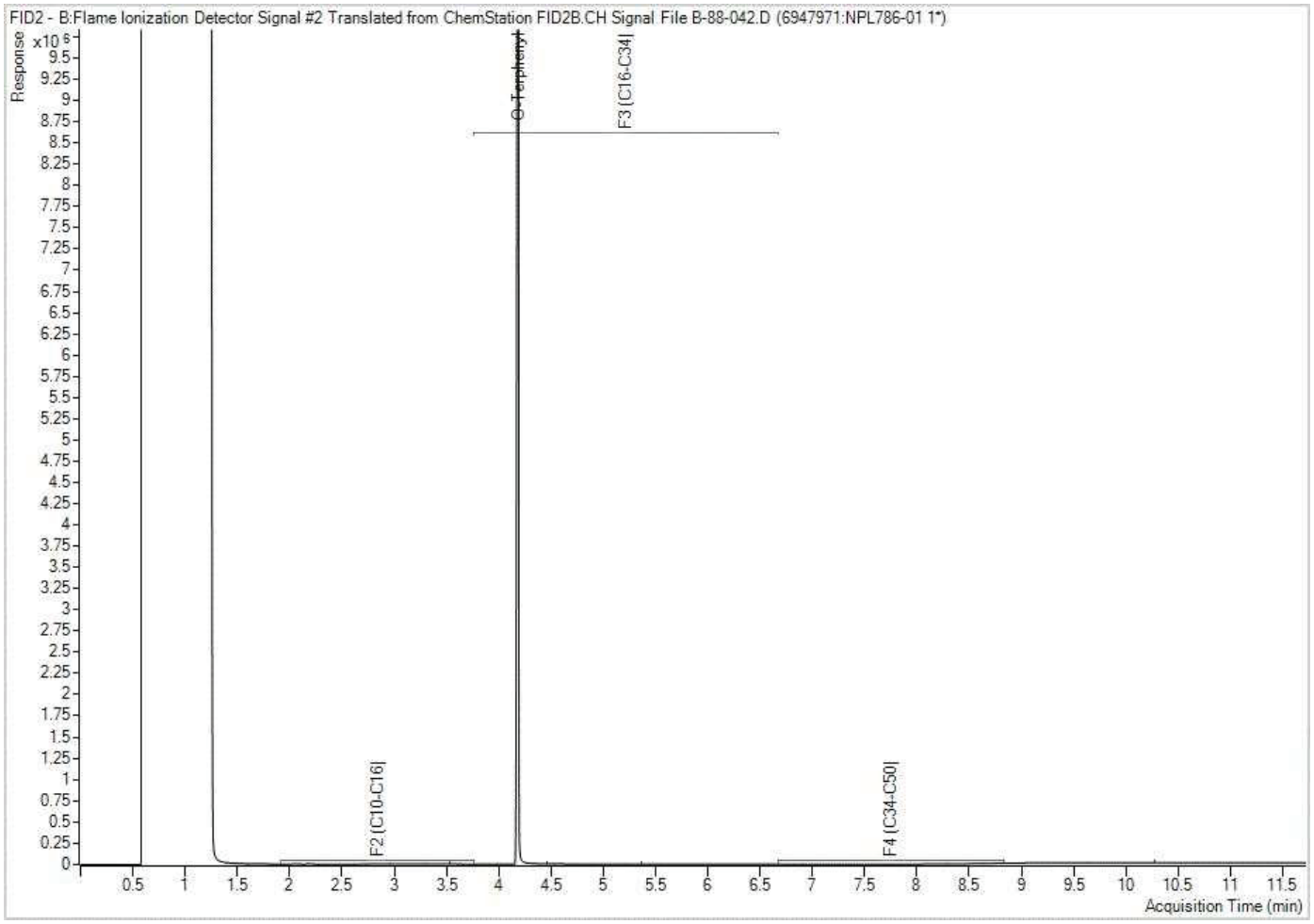


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C0N6285
Report Date: 2020/09/17
BV Labs Sample: NPL786

exp Services Inc
Client Project #: OTT-00260579-A0
Client ID: DUP

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.