Phase Two Environmental Site Assessment

500 & 508 Edgeworth Avenue, Ottawa, Ontario

Client:
Edgeworth Development Lands Corp

Type of Document:
Final

Project Name:
Phase Two Environmental Site Assessment

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Legal Notification

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Executive Summary

EXP Services Inc. (EXP) was retained by Edgeworth Development Lands Corp to conduct a Phase Two Environmental Site Assessment (ESA) at 500 & 508 Edgeworth Avenue in Ottawa, Ontario (hereinafter referred to as the 'Phase Two property'). At the time of the investigation, the Phase Two property was occupied by two detached single storey residences.

The objective of the Phase Two ESA investigation was to assess the quality of the soil and groundwater conditions within the areas of potential environmental concern (APEC) identified in a Phase One ESA prepared by EXP. It is understood that the report will be used to support a zoning by-law amendment application and a site plan application with the City of Ottawa.

This report has been prepared in accordance with the Phase Two ESA standard as defined by Ontario Regulation 153/04 (as amended), 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 8 of this report.

EXP understands that the existing residences will be demolished, and the Phase Two property will be re-developed with a 24-storey residential apartment building with two levels of underground parking. As there is no proposed change in land use, a Record of Site Condition (RSC) is not required.

The Phase Two property has the municipal address 500 & 508 Edgeworth Avenue. The Phase Two property is located approximately 80 m north of the intersection of Carling Avenue and Edgeworth Avenue in Ottawa, Ontario. The Phase Two property is rectangular in shape with an area of approximately 0.28 hectares.

The legal description of the Phase Two property is Part Lots 108 and 109, Plan 305, as in N664363, NP48759 & NP54784, City of Ottawa. The property identification numbers (PIN) are 039630033 and 039630034.

EXP prepared a report entitled *Phase One Environmental Site Assessment, 500 & 508 Edgeworth Avenue, Ottawa, Ontario,* dated July 3, 2025. The Phase One study area included the entire Phase Two property as well properties within 250 m of the Phase Two property. Based on the results of the Phase One ESA, EXP identified two areas of potential environmental concern (APEC) within the Phase One study area.

Table EX-1: Areas of Potential Environmental Concern

Area of Potential Environmental Concern (APEC)	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA)	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
APEC #1	Southeast corner of Phase One property	PCA#10 – Commercial autobody shops PCA #28 – Gasoline and associated products storage in fixed tanks (PCA 1)	Off-Site	Petroleum hydrocarbons (PHC), benzene, toluene, ethylbenzene, xylene (BTEX)	Soil and groundwater
APEC #2	Southeast corner of Phase One property	PCA #37 – Operation of dry-cleaning equipment (where chemicals are used) (PCA 2)	Off-site	Volatile organic compounds (VOC)	Soil and groundwater

In conjunction with a geotechnical investigation, a total of six boreholes were advanced on the Phase Two property. Four od the boreholes were completed as monitoring wells, three of which (MW25-01, MW25-02, MW25-03), were completed to address PCAs identified to the southeast of the Phase Two property. Three soils samples and three groundwater samples

(plus duplicates) were submitted for analysis of VOC and PHC. All of the soil and groundwater samples were below the laboratory detection limits and within the Table 3 RPI SCS for all parameters analysed.

No additional environmental work is recommended at this time. Additional soil characterization will be required prior to the construction phase to comply with Ontario Regulation 406/19.

The Qualified Person can confirm that the Phase Two Environmental Site Assessment was conducted per the requirements of Ontario Regulation 153/04, as amended, and in accordance with generally accepted professional practices.

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

Table of Contents

List of Figures

List of Appendices

1.0 Introduction

EXP Services Inc. (EXP) was retained by Edgeworth Development Lands Corp to conduct a Phase Two Environmental Site Assessment (ESA) at 500 & 508 Edgeworth Avenue in Ottawa, Ontario (hereinafter referred to as the 'Phase Two property'). At the time of the investigation, the Phase Two property was occupied by two detached single storey residences.

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1.1 Site Description

The Phase Two property has the municipal address 500 & 508 Edgeworth Avenue. The Phase Two property is located approximately 80 m north of the intersection of Carling Avenue and Edgeworth Avenue in Ottawa, Ontario. The Phase Two property is rectangular in shape with an area of approximately 0.28 hectares.

The legal description of the Phase Two property is Part Lots 108 and 109, Plan 305, as in N664363, NP48759 & NP54784, City of Ottawa. The property identification numbers (PIN) are 039630033 and 039630034.

The approximate Universal Transverse Mercator (UTM) coordinates for the Phase Two property are Zone 18438909m E and 5024070 m N. The UTM coordinates are based on measurements from Google Earth Pro, published by the Google Limited Liability Company (LLC). The accuracy of the centroid is estimated to be less than 10 m.

Refer to Table 1.1 for the Site identification information.

Table 1.1: Site Identification Details

Civic Address	500 & 508 Edgeworth Avenue, Ottawa, Ontario
Current Land Use	Residential
Proposed Future Land Use	Residential
Property Identification Number	039630033 and 039630034
UTM Coordinates	438909m E and 5024070 m N
Site Area	0.28 hectares
Property Owner	Edgeworth Development Lands Corp

1.2 Property Ownership

The registered owner of the Phase Two property is Edgeworth Development Lands Corp. Authorization to proceed with this investigation on behalf of the property owner was provided by Mr. Ravi Shanghavi of Edgeworth Developments Land Corp. Contact information for Mr. Shanghavi is 451 Daly Avenue, 2nd Floor, Ottawa, Ontario, K1N 6H6.

1.3 Current and Proposed Future Use

The property is currently occupied by two single storey, detached residences. The proposed future use of the property is also residential. As the proposed land use is not more sensitive than the future land use, a Record of Site Condition (RSC) is not required.

1.4 Applicable Site Condition Standards

Analytical results obtained for soil 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. Analytical results were also compared to Table 1 background SCS.

The selection of these categories was based on the following factors:

- Bedrock is greater than 2 metres below grade across the Phase II property;

- The Phase Two property is not located within 30 metres of a waterbody;
- The Phase Two 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 Phase Two property is provided by the City of Ottawa through its water distribution system;
- The Phase Two property is not located in an area designated in a municipal official plan as a well-head protection area;
- The proposed building is planned for residential use; and
- It is the opinion of the Qualified Person who oversaw this work that the Phase Two property is not a sensitive site.

2.0 Background Information

2.1 Physical Setting

The Phase Two property has the municipal address 500 & 508 Edgeworth Avenue in Ottawa. The Phase Two property is located approximately 80 m north of the intersection of Carling Avenue and Edgeworth Avenue in Ottawa, Ontario. The Phase Two property is rectangular in shape with an area of approximately 0.28 hectares. At the time of the current investigation, the Phase Two property was occupied by two single storey detached residences.

A site plan showing the Phase Two property is presented as Figure 2 in Appendix A.

The Phase Two property, and all other properties located, in whole or in part, within 250 metres of the boundaries of the Phase Two property, are supplied by a municipal drinking water system provided by the City of Ottawa. Further, the Phase Two property is not located in an area designated in the municipal official plan as a well-head protection area and no properties within the Phase Two study area have a well that is being used or is intended for use as a source of potable water. Thus, in accordance with Section 35 of Ontario Regulation 153/04, non-potable water standards apply to the Phase Two property.

In accordance with Section 41 of Ontario Regulation 153/04, the Phase Two property is not an environmentally sensitive area. In addition, the Phase Two property 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.

The Phase Two property 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.

The surficial geology of the subject site is characterised by glacial deposits of plain till. The bedrock geology underlying the site consists of limestone with some shaley partings of the Ottawa Formation. The depth to rock in the area is typically 4 m below surface grade. Topographically, the Phase One study area slopes towards the north.

Based on the above, the groundwater flow direction was anticipated to be north-northeast, towards the Ottawa River.

2.2 Past Investigations

EXP prepared a report entitled *Phase One Environmental Site Assessment, 500 & 508 Edgeworth Avenue, Ottawa, Ontario,* dated July 3, 2025. The Phase One study area included the entire Phase Two property as well properties within 250 m of the Phase Two property. Based on the results of the Phase One ESA, EXP identified two areas of potential environmental concern (APEC) within the Phase One study area. A summary is provided in Table 2.1.

Table 2.1: Findings of Phase One ESA

Area of Potential Environmental Concern (APEC)	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA)	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
APEC #1	Southeast corner of Phase One property	PCA#10 – Commercial autobody shops PCA #28 – Gasoline and associated products storage in fixed tanks (PCA 1)	Off-Site	Petroleum hydrocarbons (PHC), benzene, toluene, ethylbenzene, xylene (BTEX)	Soil and groundwater
APEC #2	Southeast corner of Phase One property	PCA #37 – Operation of dry-cleaning equipment (where chemicals are used) (PCA 2)	Off-site	Volatile organic compounds (VOC)	Soil and groundwater

The Phase One ESA was conducted per the requirements of Ontario Regulation 153/04, as amended, and in accordance with generally accepted professional practices.

A copy of the Phase One conceptual site model is provided as Figure 3 in Appendix A.

3.0 Scope of the Investigation

3.1 Overview of Site Investigation

The objective of the Phase Two ESA was to assess the quality of soil and groundwater on the Phase Two property.

3.2 Scope of Work

The scope of work for the Phase Two ESA was as follows:

- Request local utility locating companies (e.g., cable, telephone, gas, hydro) to mark any underground utilities present at the Phase Two property;
- Retain a private utility locating company to mark any underground utilities present in the vicinity of the borehole locations and to clear the borehole locations;
- Drill six boreholes on the Phase Two property in conjunction with a preliminary geotechnical investigation. Install monitoring wells in three of the boreholes;
- Submit three soil samples and a duplicate sample for analysis of VOC and PHC;
- Submit three groundwater samples and a duplicate sample for analysis of VOC and PHC;
- Compare the results of the soil and groundwater chemical analyses to applicable criteria, as set out by the Ontario Ministry of the Environment, Conservation and Parks (MECP);
- Conduct an elevation survey of the boreholes to determine groundwater flow direction;
- Prepare a report summarizing the results of the assessment activities.

This report has been prepared in accordance with the Phase Two ESA standard as defined by Ontario Regulation 153/04 (as amended), 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 8 of this report.

3.3 Media Investigated

The Phase Two ESA included the investigation of soil and groundwater on the Phase Two property. As there are no water bodies on the Phase Two property, no surface water or sediment sampling was required.

The contaminants of potential concern (COPC) identified in the Phase One ESA were identified as target parameters for this Phase Two ESA. The APEC and COPC identified in the Phase One ESA are outlined in Section 2.2.

3.4 Phase One Conceptual Site Model

The Phase One conceptual site model (CSM) was developed by considering the following physical characteristics and pathways. The CSM showing the topography of the site, inferred groundwater flow, general site features, APEC, and PCA is shown in Figures 2 and 3 in Appendix A.

3.4.1 Buildings and Structures

The Phase One property is occupied by two single storey detached residences.

3.4.2 Water Bodies and Groundwater Flow Direction

There are no water bodies on the subject site. The nearest water body is the Ottawa River is located approximately 880 m north of the Phase One property. The inferred groundwater flow direction is to the north-northeast towards the Ottawa River.

Topographically, the Phase One property is relatively flat. The surrounding area slopes down to the north towards the Ottawa River.

3.4.3 Areas of Natural Significance

There are no ANSI within the Phase Two study area.

3.4.4 Water Wells

No wells used as a source of potable water or for agricultural purposes were observed on the Phase One property or on any property within 250 metres of the Phase Two property.

3.4.5 Potentially Contaminating Activity

The following PCAs were identified:

EXP PCA #	Location of PCA	Potentially Contaminating Activity (PCA)	Description	Rationale
PCA 1	2353 Carling Avenue (65 m southeast)	PCA #10 – Commercial autobody shops PCA #28 – Gasoline and associated products storage in fixed tanks,	Former gas/station service garage with USTs from the 1960s to the 1990s.	Due to the inferred upgradient location and proximity to the Phase One property, this PCA contributes to an APEC.
PCA 2	2353 Carling Avenue (45 m southeast)	PCA #37 – Operation of dry cleaning equipment (where chemicals are used)	Dry cleaner since the 1980s.	Due to the inferred upgradient location and proximity to the Phase One property, this PCA contributes to an APEC.
PCA 3	810 Edgeworth Avenue (120 m south)	PCA #28 – Gasoline and associated products storage in fixed tanks	Fuel oil UST for apartment building	Due to the large distance from the site, the separation from the site by Carling Avenue and associated subsurface infrastructure, this PCA does not contribute to an APEC.

Due to the proximity and the potential upgradient location, the PCAs at 2353 Carling Avenue were determined to contribute to APECs. As the UST at 810 Edgeworth Avenue was located over 100 m from the Phase Two property, and due to the separation from the site by Carling Avenue and associated infrastructure, this PCA was no considered to contribute to an APEC.

The PCAs are shown in Figure 3.

3.4.6 Areas of Potential Environmental Concern

The APEC identified are summarized in Table 3.1.

Table 3.1: Areas of Potential Environmental Concern

Area of Potential Environmental Concern (APEC)	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA)	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
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APEC #2	Southeast corner of Phase One property	PCA #37 – Operation of dry-cleaning equipment (where chemicals are used) (PCA 2)	Off-site	Volatile organic compounds (VOC)	Soil and groundwater

3.4.7 Underground Utilities

The residences are serviced by municipal water and sewer, natural gas and overhead hydro.

3.4.8 Subsurface Stratigraphy

The surficial geology of the subject site is characterised by glacial deposits of plain till. The bedrock geology underlying the site consists of limestone with some shaley partings of the Ottawa Formation. The depth to rock in the area is typically 4 m below surface grade. Topographically, the Phase One study area slopes towards the north.

3.4.9 Uncertainty Analysis

The CSM is a simplification of reality, which aims to provide a description and assessment of any areas where potentially contaminating activity that occurred within the Phase Two study area may have adversely affected the Phase Two property. All information collected during this investigation, including records, interviews, and site reconnaissance, has contributed to the formulation of the CSM.

Information was assessed for consistency, however EXP has confirmed neither the completeness nor the accuracy of any of the records that were obtained or of any of the statements made by others. All reasonable inquiries to obtain accessible information were made, as required by Schedule D, Table 1, Mandatory Requirements for Phase Two Environmental Site Assessment Reports. The CSM reflects our best interpretation of the information that was available during this investigation.

3.5 Deviations from Sampling and Analysis Plan

The field investigative and sampling program was carried out following the requirements of the Phase Two property, as described in Section 4.

No significant deviations from the SAAP, as provided in Appendix C, were reported that affected the sampling and data quality objectives for the Phase Two property.

3.6 Impediments

No impediments were encountered during this investigation.

4.0 Investigation Method

4.1 General

The current investigation was performed following requirements given under Ontario Regulation 153/04 and in accordance with generally accepted professional practices.

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.

4.2 Investigation

The site investigative activities consisted of the drilling of boreholes to facilitate the collection of soil samples for visual inspection and chemical analysis. Monitoring wells were installed at the Phase Two property to characterize groundwater conditions and collect groundwater samples for chemical analysis.

EXP staff continuously monitored the excavating activities to log the stratigraphy observed from the pits, to record the depth of the samples, to record total depths of excavation, and to screen the samples by recording visual or olfactory observations of potential impacts and measuring petroleum vapours.

4.2.1 Borehole Drilling Program

On June 19 and 20, 2025, six boreholes (MW25-01 to BH25-06) were advanced at the Phase Two property by George Downing Estate Drilling (Downing) under the full-time supervision of EXP staff using an LC track drill. Boreholes were terminated between 3.3 and 5.1 m bgs on inferred bedrock, with the exception of BH25-04 which was cored to 9.1 m bgs.

EXP staff continuously monitored the drilling activities to log the stratigraphy observed, to record the depth of soil sample collection, to record total depths of excavation, and to record visual or olfactory observations of potential impacts. Field observations are summarized on the borehole logs provided in Appendix C. Nitrile gloves (i.e., one pair per sample) were used during sample handling. No petroleum-based greases or solvents were used during drilling activities.

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

4.3 Soil Sampling

The soil sampling during the completion of this Phase Two ESA was undertaken in general accordance with the SAAP presented in Appendix C.

Soil samples were selected for laboratory analysis based on combustible vapour measurements and visual and olfactory evidence of impacts, where observed. Soil samples identified for possible laboratory analysis were 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 headspace 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. The samples were transported/submitted within 24 hours of collection to the laboratory following chain of custody protocols for chemical analysis. Soil samples were submitted for laboratory analysis of PHC and VOC.

4.4 Field Screening Measurements

Soil samples were placed in a sealed Ziploc plastic bag and allowed to reach ambient temperature prior to field screening with a combustible vapour meter calibrated to hexane gas prior to use. The field screening measurements were made by inserting the instrument's probe into the plastic bag while manipulating the sample to ensure volatilization of the soil gases. These 'headspace' readings provide a real-time indication of the relative concentration of combustible vapours encountered in the subsurface during drilling and are used to aid in the assessment of the vertical and horizontal extent of potential impacts and the selection of soil samples for analysis.

Readings of combustible vapour concentrations in the soil samples collected during the drilling investigation were recorded using an RKI Eagle 2, where there was sufficient recovery. This instrument is designed to detect and measure concentrations of combustible gas in the atmosphere to within 5 parts per million by volume (ppmv) from 0 ppmv to 200 ppmv, 10 ppmv increments from 200 ppmv to 1,000 ppmv, 50 ppmv increments from 1,000 ppmv to 10,000 ppmv, and 250 ppmv increments above 10,000 ppmv. It is equipped with two ranges of measurement, reading concentrations in ppmv or in percentage lower explosive limit (% LEL). The RKI Eagle 2 instrument can determine combustible vapour concentrations in the range equivalent to 0 to 11,000 ppmv of hexane.

The instrument was configured to eliminate any response from methane for all sampling conducted at the subject property. Instrument calibration is checked on a daily basis in both the ppmv range and % LEL range using standard gases comprised of known concentrations of hexane (400 ppmv, 40% LEL) in air. If the instrument readings are within ±10% of the standard gas value, then the instrument is deemed to be calibrated, however if the readings are greater than ±10% of the standard gas value then the instrument is re-calibrated prior to use.

The field screening measurements, in parts per million by volume (ppmv), are presented in the borehole logs provided in Appendix C.

4.5 Groundwater: Monitoring Well Installation

Monitoring wells were installed in general accordance with the Ontario Water Resources Act - R.R.O. 1990, Regulation 903 (as amended). The monitoring wells consisted of a 52 mm diameter Schedule 40 PVC screen that was no more than 3.0 m long and a 52-mm diameter Schedule 40 PVC riser pipe that was at least 0.8 m long. 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 flush mount protective well casings.

Measures taken to minimize the potential for cross contamination or the introduction of contaminants during well construction included:

- The use of well pipe components (e.g. riser pipe and well screens) with factory machined threaded flush coupling joints;
- Construction of wells without the use of glues or adhesives;
- Removing the protective plastic wraps from well components at the time of borehole insertion to prevent contact with the ground and other surfaces; and,
- Cleaning or disposal of drilling equipment between sampling locations.

Details of the monitoring well installations are shown on the borehole logs provided in Appendix C.

4.6 Groundwater: Sampling

All groundwater samples were collected via a low flow sampling technique using a Horiba U-52 multi probe water quality meter. The U-52 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 to ensure that the samples collected were representative of actual groundwater conditions. 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.

The groundwater sampling during the completion of this Phase Two ESA was undertaken in general accordance with industry standards. The groundwater samples were placed in clean coolers containing ice packs prior to and during transportation to the laboratory. The samples were transported to the laboratory within 24 hours of collection with a chain of custody.

4.7 Residue Management

The soil cuttings from monitoring well installations and purged water from groundwater development and sampling were stored on site in drums until field work was completed.

Fluids from cleaning drilling equipment were disposed of by the driller at their facility.

4.8 Analytical Testing

The contracted laboratory selected to perform chemical analysis on the soil samples from the delineation investigation and remediation was Bureau Veritas Laboratories (BVL). BVL is an accredited laboratory under the Standards Council of Canada/Canadian Association for Laboratory Accreditation in accordance with ISO/IEC 17025:1999- General Requirements for the Competence of Testing and Calibration Laboratories.

4.9 Elevation Surveying

An elevation survey was conducted by EXP. The ground surface elevation of each borehole/monitoring well location was surveyed relative to a geodetic reference. The Universal Transverse Mercator (UTM) coordinates of each monitoring well were also recorded so that their locations could be plotted accurately.

4.10 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, BVL. BVL 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 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.

The laboratories' 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.

5.0 Review and Evaluation

5.1 Geology

A surficial topsoil layer was encountered in all boreholes with a thickness ranging from 75 mm to 124 mm thick. Fill was encountered beneath the topsoil layer in all boreholes and extends to depths of 0.8 m to 1.5 m. The fill consists of sand and gravel to silty sand and gravel and containing brick fragments, topsoil inclusions, possible cobbles and boulders or large debris. The fill is underlain by glacial till in all boreholes and extends to auger refusal depths of 3.3 m to 5.1 m in all boreholes. The glacial till consists of sandy silt with gravel and trace clay to silty sand with gravel and possible cobbles and boulders.

Auger refusal was met in all boreholes at 3.3 m to 5.1 m depths. Refusal may have occurred on inferred cobbles or boulders within the glacial till or on bedrock. Sound shale bedrock was contacted in BH25-04 at a 5.1 m depth (Approximate Elevation 62.0 m). The bedrock was confirmed to be Rockcliffe formation shale with minor sandstone.

A plan view showing cross-sections is provided as Figure 5 in Appendix A, while the Phase Two property geology is depicted in cross-sections on Figure 6 in Appendix A.

5.2 Groundwater: Elevations and Flow Direction

On July 4, 2025 the monitoring wells were inspected for general physical condition, groundwater depth, the presence of light non-aqueous phase liquid (LNAPL). Bedrock groundwater monitoring and elevation data are provided below.

Table 5.1: Monitoring and Elevation Data

Monitoring Well ID	Grade Elevation (masl)	Top of Casing Elevation (masl)	Screen Depth (mbgs)	Depth to LNAPL (mbgs)	Depth to Groundwater (mbgs)	Groundwater Elevation (masl)
MW25-01	67.61	67.54	1.8 to 4.8	N/O	3.02	64.59
MW25-02	67.69	67.53	2.1 to 5.1	N/O	3.04	64.65
MW25-03	67.57	67.42	2.0 to 5.0	N/O	3.37	64.20

Notes: Elevations were measured to a geodetic datum
mbgs – metres below ground surface
masl – metres above sea level
mbTOC – metres below top of monitor casing
- - Not monitored
N/O – not observed

The depth to groundwater was measured to range from 3.02 to 3.37 m below ground surface in the monitoring wells. Based on the groundwater level measurements, groundwater contours were plotted, as shown on Figure 4. The groundwater flow direction was determined to be to the west-northwest.

5.3 Soil: Field Screening

The methodology for the collection of soil vapour concentration measurements is described in Section 4.4.

Petroleum vapours ranged from non-detectable to 20 ppm in samples collected from the boreholes. Field screening data is presented in the borehole logs in Appendix C.

5.4 Soil: Quality

In accordance with the scope of work, chemical analyses were performed on selected soil samples recovered from the test pits. Summaries of the soil analytical results are found in Appendix E. Copies of the laboratory Certificates of Analysis for the tested soil samples are provided in Appendix E.

The MECP Table 3 SCS are applicable if soil pH is in the range of 5 to 11 for subsurface soil. The results of pH analysis in the soil samples ranged from 7.02 to 7.80. These pH values are within the acceptable range for the application of MECP Table 3 SCS.

A total of three soil samples and one duplicate were submitted for chemical analysis of PHC and VOC. All of the soil samples were within the Table 3 SCS, and below the laboratory detection limits, for all parameters analyzed.

The analytical results are shown in Table 1 in Appendix F. They are shown in plan view on Figure 7 in Appendix A. The Certificates of Analysis are provided in Appendix G.

5.5 Groundwater: Quality

All groundwater samples were collected via a low-flow sampling technique. EXP monitored several water quality parameters (such as water level, temperature, dissolved oxygen, conductivity, salinity, pH, oxygen reduction potential and turbidity) in order to ensure that the samples collected were representative of actual groundwater conditions.

Three groundwater samples and a duplicate sample were submitted for chemical analysis of VOC and PHC. All of the groundwater samples were below the detection limits for all of the parameters analyzed.

The groundwater results are provided in Table 2 in Appendix F and shown on Figure 8 in Appendix A. Copies of the laboratory Certificates of Analysis are provided in Appendix G.

5.6 Chemical Transformation and Contaminant Sources

A variety of physical, chemical and biochemical mechanisms affect the fate and transport of the potential COC in soil and groundwater, the contribution of which is dependent on the soil and groundwater conditions at the Phase Two property, as well as the chemical/physical properties of the COC. Relevant fate and transport mechanisms are natural attenuation mechanisms, including advection mixing, mechanical dispersion/molecular diffusion, phase partitions (i.e. sorption and volatilization), and possibly abiotic or biotic chemical reactions, which effectively reduce COC concentrations.

No soil or groundwater impact was identified at the Phase Two property.

5.6.1 Evidence of Non-Aqueous Phase Liquid

Inspection of the groundwater monitoring wells did not indicate the presence of non-aqueous phase liquid (NAPL).

5.6.2 Maximum Concentrations

Contaminants that exceeded the Table 3 SCS for residential land use were:

Soil: None.

Groundwater: None.

Maximum soil and groundwater concentrations are provided in Tables 3 and 4 in Appendix D.

5.7 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 soil and 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.

The laboratories' 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 Caduceon/BVL. 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 mostly within acceptable control limits or below applicable alert criteria for the sampled media and analytical test groups.

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 D in Tables 5 and 6. All of the RPD for soil and groundwater were either not calculable or within the applicable alert limits.

6.0 Phase Two Conceptual Site Model

A Conceptual Site Model (CSM) provides a narrative, graphical and tabulated description integrating information related to the Phase Two property's geologic and hydrogeological conditions, areas of potential environmental concern/potential contaminating activities, the presence and distribution of contaminants of concern, contaminant fate and transport, and potential exposure pathways.

6.1.1 Introduction

EXP Services Inc. (EXP) was retained by Edgeworth Development Lands Corp to conduct a Phase Two Environmental Site Assessment (ESA) at 500 & 508 Edgeworth Avenue in Ottawa, Ontario (hereinafter referred to as the 'Phase Two property'). At the time of the investigation, the Phase Two property was occupied by two detached single storey residences.

The objective of the Phase Two ESA investigation was to assess the quality of the soil conditions within the area of potential environmental concern (APEC) identified in a Phase One ESA prepared by EXP.

6.1.2 Current and Future Use

The property is currently occupied by two single storey, detached residences. The proposed future use of the property is also residential. As the proposed land use is not more sensitive than the future land use, a Record of Site Condition (RSC) is not required.

6.1.3 Physical Site Description

The Phase Two property has the municipal address 500 & 508 Edgeworth Avenue. The Phase Two property is located approximately 80 m north of the intersection of Carling Avenue and Edgeworth Avenue in Ottawa, Ontario. The Phase Two property is rectangular in shape with an area of approximately 0.28 hectares.

The legal description of the Phase Two property is Part Lots 108 and 109, Plan 305, as in N664363, NP48759 & NP54784, City of Ottawa. The property identification numbers (PIN) are 039630033 and 039630034.

Refer to Table 5.7 for the Site identification information.

Table 5.7: Site Identification Details

Civic Address	500 & 508 Edgeworth Avenue, Ottawa, Ontario
Current Land Use	Residential
Proposed Future Land Use	Residential
Property Identification Number	039630033 and 039630034
UTM Coordinates	438909m E and 5024070 m N
Site Area	0.28 hectares
Property Owner	Edgeworth Development Lands Corp

The Phase One Conceptual Site Model is provided as Figure 3.

6.1.4 Existing Buildings and Structures

The Phase Two property is currently occupied by two single storey detached residences with full basements.

6.1.5 Proposed Buildings and Structures

It is proposed that a 24-storey residential building with two levels of underground parking be constructed on the Phase Two property.

6.1.6 Utilities

The Phase Two property is serviced with municipal water and sewer, natural gas, and overhead hydro.

6.1.7 Geological and Hydrogeological Setting

A summary of factors that apply to the Phase Two property is provided in Table 5.8.

Table 5.8: Site Characteristics

Characteristic	Description
Minimum Depth to Bedrock	3.3 mbgs
Minimum Depth to Groundwater	3.02 m bgs (July 4, 2025)
Shallow Soil Property	No, bedrock is greater than 2.0 mbgs
Proximity to water body or ANSI	Approximately 880 m – Ottawa River
Soil pH	8.67
Soil Texture	Coarse
Current Property Use	Residential
Future Property Use	Residential

6.1.7.1 Site Stratigraphy

The surficial geology of the subject site is characterised by glacial deposits of plain till. The bedrock geology underlying the site consists of limestone with some shaley partings of the Ottawa Formation. The depth to rock in the area is typically 4 m below surface grade. Topographically, the Phase One study area slopes towards the north.

A surficial topsoil layer was encountered in all boreholes with a thickness ranging from 75 mm to 124 mm thick. Fill was encountered beneath the topsoil layer in all boreholes and extends to depths of 0.8 m to 1.5 m. The fill consists of sand and gravel to silty sand and gravel and containing brick fragments, topsoil inclusions, possible cobbles and boulders or large debris. The fill is underlain by glacial till in all boreholes and extends to depths of 3.3 m to 5.1 m in all boreholes. The glacial till consists of sandy silt with gravel and trace clay to silty sand with gravel and possible cobbles and boulders.

Auger refusal was met in all boreholes at 3.3 m to 5.1 m depths. Refusal may have occurred on inferred cobbles or boulders within the glacial till or on bedrock. Sound shale bedrock was contacted in BH25-04 at a 5.1 m depth (Approximate Elevation 62.0 m). The bedrock was confirmed to be Rockcliffe formation shale with minor sandstone.

A plan view showing cross-sections is provided as Figure 5, while the Phase Two property geology is depicted in cross-sections on Figure 6.

6.1.7.2 Approximate Depth to Water Table

The depth to groundwater table was 3.02 to 3.37 meters below ground surface on July 4, 2025. The groundwater table was present in the overburden.

6.1.7.3 Hydrogeological Conditions

There are no water bodies on the subject site. The nearest water body is the Ottawa River is located approximately 880 m north of the Phase One property. Regionally, the inferred groundwater flow direction is to the north towards the Ottawa River.

Groundwater elevations ranged from 64.20 to 64.65 masl on July 4, 2025. Based on the interpreted groundwater elevation contours in Figure 4, the inferred groundwater flow direction on the Phase Two property is to the west-northwest.

6.1.7.4 Approximate Depth to Bedrock

Investigations at the Phase Two property have identified limestone bedrock present between 3.3 to 5.1 m bgs across the site.

6.1.8 Site Sensitivity

The Phase Two property, and all other properties located, in whole or in part, within 250 metres of the boundaries of the Phase Two property, are supplied by a municipal drinking water system provided by the City of Ottawa. Further, the Phase Two property is not located in an area designated in the municipal official plan as a well-head protection area and no properties within the Phase Two study area have a well that is being used or is intended for use as a source of potable water. Thus, in accordance with Section 35 of Ontario Regulation 153/04, non-potable water standards apply to the Phase Two property.

In accordance with Section 41 of Ontario Regulation 153/04, the Phase Two property is not an environmentally sensitive area. In addition, the Phase Two property 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.

The Phase Two property 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.

6.1.9 Applicable Site Condition Standards

For assessment purposes, EXP selected the 2011 Table 3 Site Condition Standards (SCS) in a non-potable groundwater condition for residential/parkland/institutional property use and coarse textured soil. The selection of this category was based on the following factors:

- Bedrock is greater than 2 metres below grade across the Phase II property;
- The Phase Two property is not located within 30 metres of a waterbody;
- The Phase Two 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 Phase Two property is provided by the City of Ottawa through its water distribution system;
- The Phase Two property is not located in an area designated in a municipal official plan as a well-head protection area;
- The proposed building is planned for residential use; and

- It is the opinion of the Qualified Person who oversaw this work that the Phase Two property is not a sensitive site.

Based on the above factors, including the provisions in Sections 35, 41, and 43.1, the Table 3 SCS for a residential/parkland/institutional property use and coarse textured soils were selected for assessment purposes.

6.1.10 Potentially Contaminating Activities

Ontario Regulation 153/04 defines a potentially contaminating activity (PCA) as one of 59 operations set out in Table 2 of Schedule D that occurs or has occurred in a property study area. If an activity is not listed in Table 2, the PCA is to be identified as "not applicable" and described. Potentially contaminating activities were identified on-Site and within 250 m from the Phase Two property site boundaries (Figure 3). Each PCA was further evaluated to determine if the activity may be contributing to an area of potential environmental concern (APEC) at the Phase Two property or if they are considered de-minimis and not contributing to an APEC.

The following potentially contaminating activities (PCA) were identified:

EXP PCA #	Location of PCA	Potentially Contaminating Activity (PCA)	Description	Rationale
PCA 1	2353 Carling Avenue (65 m southeast)	PCA #10 – Commercial autobody shops PCA #28 – Gasoline and associated products storage in fixed tanks,	Former gas/station service garage with USTs from the 1960s to the 1990s.	Due to the inferred upgradient location and proximity to the Phase One property, this PCA contributes to an APEC.
PCA 2	2353 Carling Avenue (45 m southeast)	PCA #37 – Operation of dry cleaning equipment (where chemicals are used)	Dry cleaner since the 1980s.	Due to the inferred upgradient location and proximity to the Phase One property, this PCA contributes to an APEC.
PCA 3	810 Edgeworth Avenue (120 m south)	PCA #28 – Gasoline and associated products storage in fixed tanks	Fuel oil UST for apartment building	Due to the large distance from the site, the separation from the site by Carling Avenue and associated subsurface infrastructure, this PCA does not contribute to an APEC.

Due to the proximity and the potential upgradient location, the PCAs at 2353 Carling Avenue were determined to contribute to APECs. As the UST at 810 Edgeworth Avenue was located over 100 m from the Phase Two property, and due to the separation from the site by Carling Avenue and associated infrastructure, this PCA was no considered to contribute to an APEC.

6.1.11 Areas of Potential Environmental Concern

Ontario Regulation 153/04 defines an APEC as an area on a property where one or more contaminants are potentially present. The following APEC were identified on the Phase Two property, as shown on Figure 2 and Table 5.9 below:

Table 5.9: Areas of Potential Environmental Concern

Area of Potential Environmental Concern (APEC)	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA)	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
APEC #1	Southeast corner of Phase One property	PCA#10 – Commercial autobody shops PCA #28 – Gasoline and associated products storage in fixed tanks (PCA 1)	Off-Site	Petroleum hydrocarbons (PHC), benzene, toluene, ethylbenzene, xylene (BTEX)	Soil and groundwater
APEC #2	Southeast corner of Phase One property	PCA #37 – Operation of dry-cleaning equipment (where chemicals are used) (PCA 2)	Off-site	Volatile organic compounds (VOC)	Soil and groundwater

6.1.12 Contaminants of Concern

The following contaminants of potential concern were identified with respect to soil on the Phase Two property:

- VOC
- PHC F_1-F_4

The following contaminants of potential concern were identified with respect to groundwater on the Phase Two property:

- BTEX
- PHC F_1-F_4

6.1.13 Investigation

The site investigative activities consisted of a drilling program to facilitate the collection of soil samples for visual inspection and chemical analysis. Monitoring wells were installed at the Phase Two property to characterize groundwater conditions and collect groundwater samples for chemical analysis. The investigation was conducted in conjunction with a geotechnical investigation.

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 test pit locations.

On June 19 and 20, 2025, six boreholes (MW25-01 to BH25-06) were advanced at the Phase Two property by George Downing Estate Drilling (Downing) under the full-time supervision of EXP staff using an LC track drill. Boreholes were terminated between 3.3 and 5.1 m bgs on inferred bedrock, with the exception of BH25-04 which was cored to 9.1 m bgs.

EXP staff continuously monitored the drilling activities to log the stratigraphy observed, to record the depth of soil sample collection, to record total depths of excavation, and to record visual or olfactory observations of potential impacts. Field observations are summarized on the borehole logs provided in Appendix C. Nitrile gloves (i.e., one pair per sample) were used during sample handling. No petroleum-based greases or solvents were used during drilling activities.

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

6.1.14 Soil Sampling

Soil samples were selected for laboratory analysis based on combustible vapour measurements and visual and olfactory evidence of impacts, where observed. Soil samples identified for possible laboratory analysis were placed directly into pre-cleaned, laboratory-supplied glass sample jars. The jars were sealed with Teflon-lined lids to minimize headspace 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. The samples were transported/submitted within 24 hours of collection to the laboratory following chain of custody protocols for chemical analysis.

Three soil samples and a duplicate sample were submitted for analysis of VOC and PHC. All of the soil samples met the Table SCS for the parameters analyzed.

The results of the soil sampling are show in plan view on Figure 7.

6.1.14.1 Groundwater Sampling

Three groundwater samples and a duplicate sample were submitted for analysis of VOC and PHC. All of the groundwater samples were below the Table 3 SCS for the parameters analysed.

The results of the groundwater sampling are show in plan view on Figure 8.

6.1.15 Summary of Investigation

The following table summarizes the soil sampling locations on the Phase Two property, and the APECs each sample location addresses.

Area of Potential Environmental Concern (APEC)	Contaminants of Potential Concern	Media Potentially Impacted	Addressed by sample #	Summary of Soil and Groundwater Exceedances
APEC #1	BTEX, PHC	Soil and groundwater	MW25-01, MW25-01, MW25-03	None
APEC #2	VOC	Soil and groundwater	MW25-01, MW25-01, MW25-03	None

6.1.16 Distribution and Migration of Contaminants

Based on the results of the investigation, no soil or groundwater exceeded the applicable SCS for any of the contaminants analysed.

6.1.17 Climatic Conditions

It is noted that climatic or meteorological conditions may influence the distribution and migration of COCs at the Site. Seasonal fluctuations in groundwater due to cyclical increases and decreases in precipitation can affect groundwater recharge and hence flow direction. Groundwater levels may be elevated in the spring and fall due to snow melt and/or increases in precipitation; and groundwater levels may be lowered in the winter and summer due to snow storage and/or increased evaporation. Such fluctuations have the potential to increase the vertical distribution of COCs in the capillary zone, as well as alter the direction of groundwater flow paths based on changes in infiltration rates.

No contaminants were identified on the Phase Two property.

7.0 Conclusion

The objective of the Phase Two ESA investigation was to assess the quality of the soil and groundwater conditions within the APEC identified in a Phase One ESA prepared by EXP. It is understood that the report will be used to support a zoning by law amendment application and a site plan application with the City of Ottawa. The Phase Two investigation was completed in conjunction with a geotechnical investigation.

EXP understands that the existing residences on the Phase Two property will be demolished, and the site will be re-developed with a 24-storey residential apartment building with two levels of underground parking. As there is no proposed change in land use, an RSC is not required.

A total of six boreholes were advanced on the Phase Two property, three of which (MW25-01, MW25-02, MW25-03) were completed to address PCAs identified to the southeast of the Phase Two property. Three soils samples and three groundwater samples (plus duplicates) were submitted for analysis of VOC and PHC. All of the soil and groundwater samples were below the detection limits and within the Table 3 RPI SCS for all parameters analysed.

No additional environmental work is recommended at this time. Additional soil characterization will be required prior to the construction phase to comply with Ontario Regulation 406/19.

The Qualified Person can confirm that the Phase Two Environmental Site Assessment was conducted per the requirements of Ontario Regulation 153/04, as amended, and in accordance with generally accepted professional practices.

Leah Wells, P.Eng.
Environmental Engineer
Earth and Environment

Scott Lessard, B.Sc.
Senior Scientist / Project Manager
Earth and Environment

8.0 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.

- EXP Services Inc., *Phase One Environmental Site Assessment, 500 & 508 Edgeworth Avenue, Ottawa, Ontario,* July 2, 2025.
- Freeze and Cherry, *Groundwater*, Prentice Hall, 1979.
- Ontario Ministry of the Environment, Conservation and Parks, *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*, December 1996.
- 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, *Guide for Completing Phase Two Environmental Site Assessments under Ontario Regulation 153/04,* June 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.

9.0 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 Edgeworth Development Lands Corp ("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.

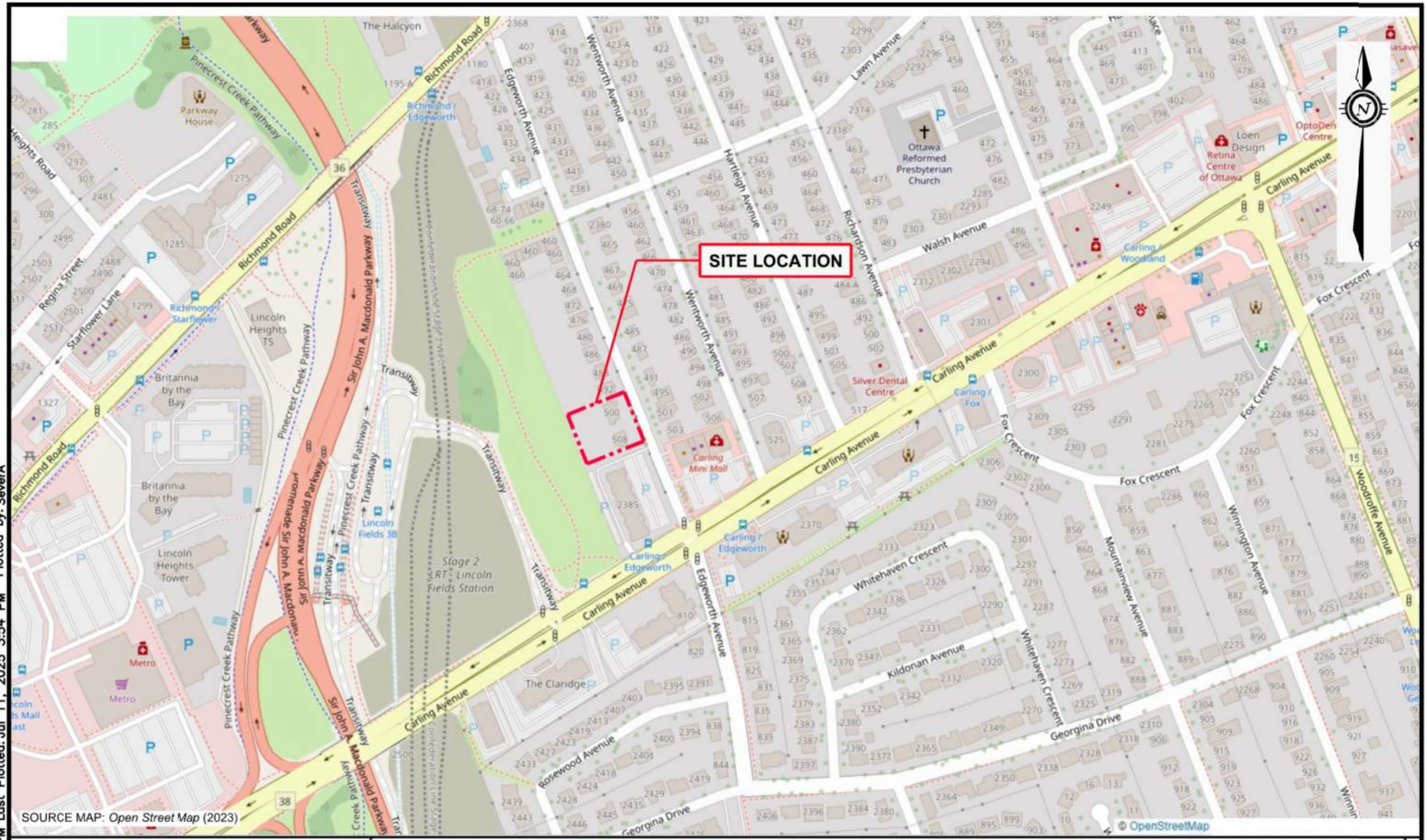
Use of Report

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.

Appendix A: Figures



LEGEND

APPROXIMATE PROPERTY BOUNDARY

0 50m 100m 200m

HORIZONTAL 1:5,000

EXP Services Inc. www.exp.com
t: +1.613.688.1899 | f: +1.613.225.7337
2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: JULY 2025	PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 500 & 508 EDGEWORTH AVENUE, OTTAWA, ONTARIO		project no. OTT-23002437-B0
DESIGN: LW / CHECKED: CK			scale 1:5,000
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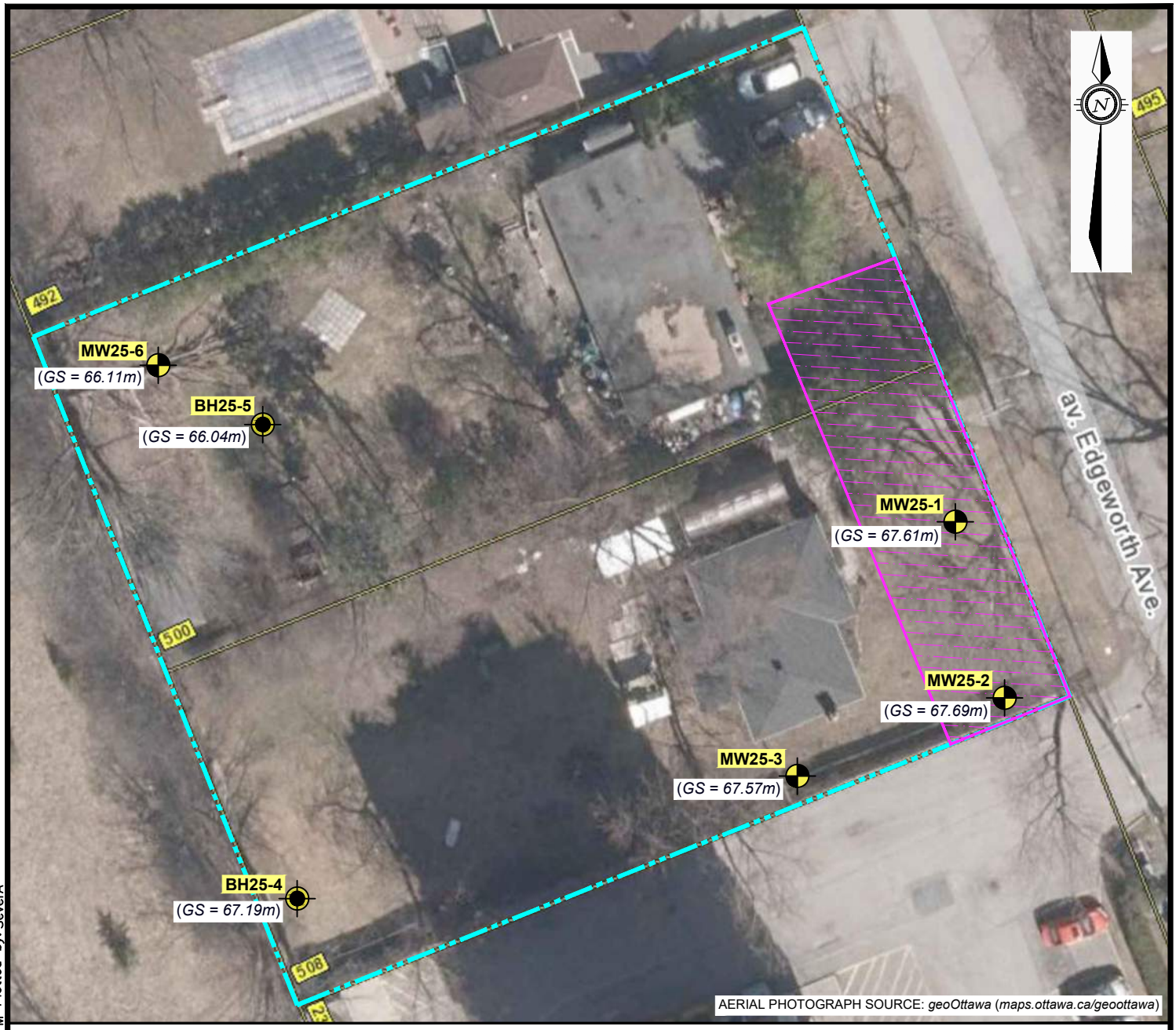

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- MW25-1 — MONITORING WELL NUMBER AND LOCATION (2025)
- BH25-5 — BOREHOLE NUMBER AND LOCATION (2025)
- (GS = 67.61m) — GROUND SURFACE ELEVATION (m)

AREA OF POTENTIAL ENVIRONMENTAL CONCERN

APEC #1 - PCA #10, PCA #28, PCA #37

0 4m 8m 16m

HORIZONTAL 1:400

EXP Services Inc. **www.exp.com**
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2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: JULY 2025	PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 500 & 508 EDGEWORTH AVENUE, OTTAWA, ONTARIO	project no.: OTT-23002437-B0
DESIGN: LW / CHECKED: CK		scale: 1:400
DRAWN BY: AS	TITLE: BOREHOLE LOCATION PLAN	FIG 2

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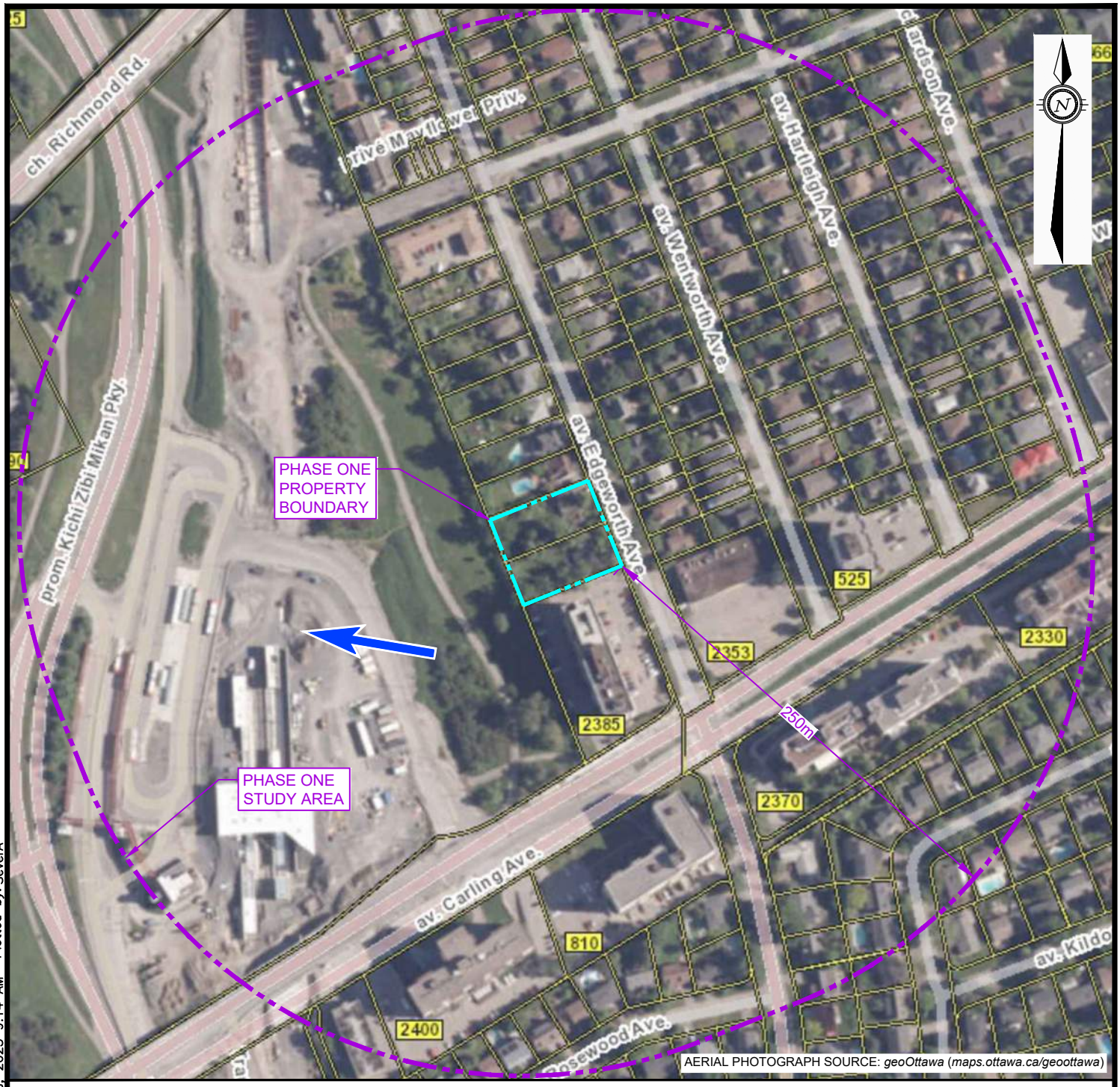

LEGEND

- PROPERTY BOUNDARY
- STUDY AREA (250m)
- INFERRED GROUNDWATER FLOW DIRECTION
- 1 — POTENTIALLY CONTAMINATING ACTIVITY (PCA) RESULTING IN APECS
- 2 — POTENTIALLY CONTAMINATING ACTIVITY (PCA) NOT RESULTING IN APECS

0 30m 60m 120m

HORIZONTAL 1:3,000

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Ottawa, ON K2B 8H6, Canada

DATE: JULY 2025	PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 500 & 508 EDGEWORTH AVENUE, OTTAWA, ONTARIO	project no. OTT-23002437-B0
DESIGN: LW / CHECKED: CK		scale: 1:3,000
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LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- MW25-1 — MONITORING WELL NUMBER AND LOCATION (2025)
- BH25-5 — BOREHOLE NUMBER AND LOCATION (2025)
- INFERRED GROUNDWATER FLOW DIRECTION
- 64.6m — GROUNDWATER CONTOUR
- (64.61m) — GROUNDWATER ELEVATION (m) (2025)

0 4m 8m 16m

HORIZONTAL 1:400

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DATE: JULY 2025	PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 500 & 508 EDGEWORTH AVENUE, OTTAWA, ONTARIO	project no.: OTT-23002437-B0
DESIGN: LW / CHECKED: CK		scale: 1:400
DRAWN BY: AS	TITLE: GROUNDWATER CONTOUR PLAN	FIG 4

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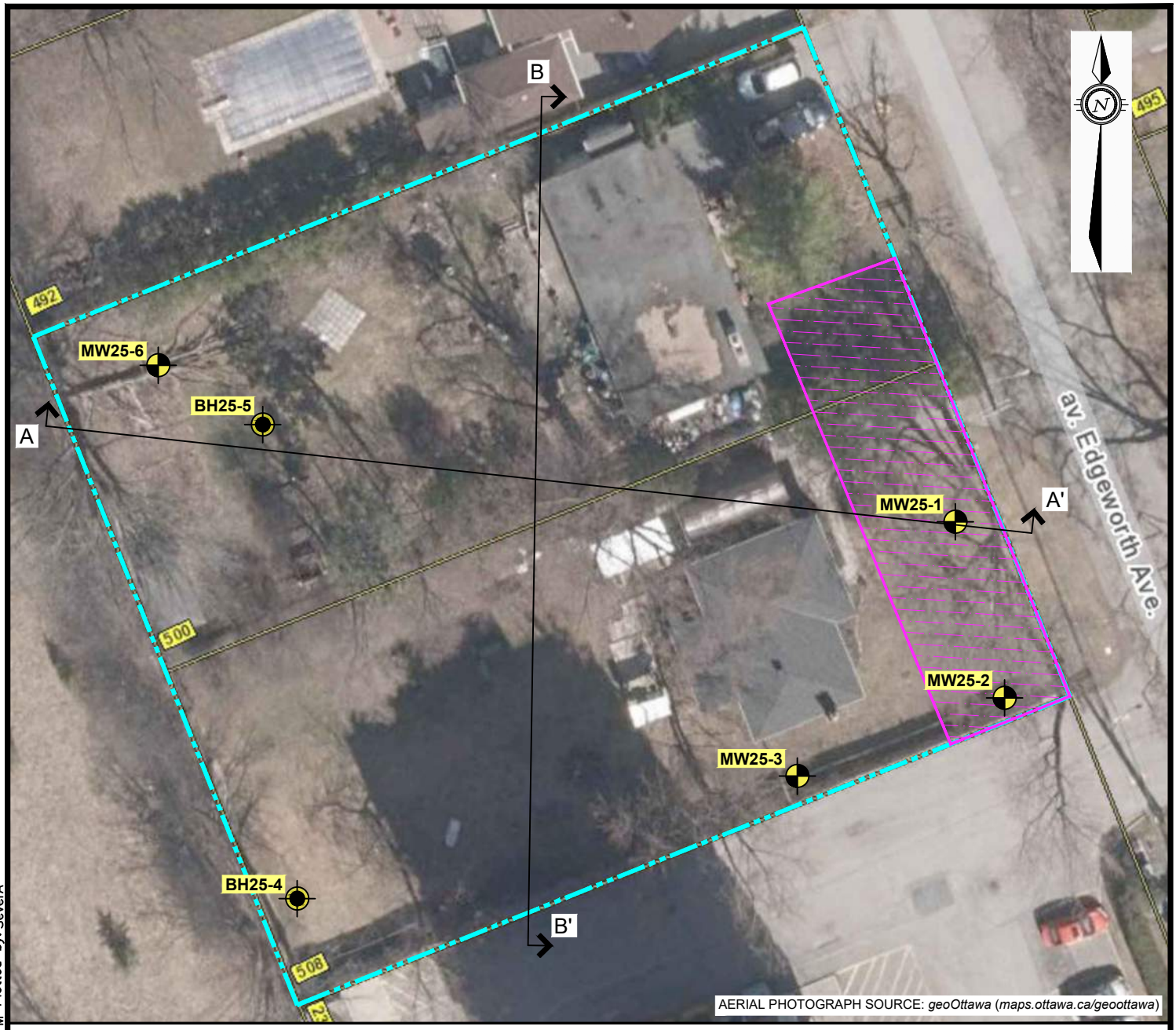
Last Saved: Jul 18, 2025 11:58 AM Last Plotted: Jul 18, 2025 12:09 PM Plotted by: SeverA



LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- MW25-1 — PROPOSED MONITORING WELL NUMBER AND LOCATION (2025)
- BH25-5 — PROPOSED BOREHOLE NUMBER AND LOCATION (2025)
- A — CROSS-SECTION MARK

AREA OF POTENTIAL ENVIRONMENTAL CONCERN

APEC #1 - PCA #10, PCA #28, PCA #37

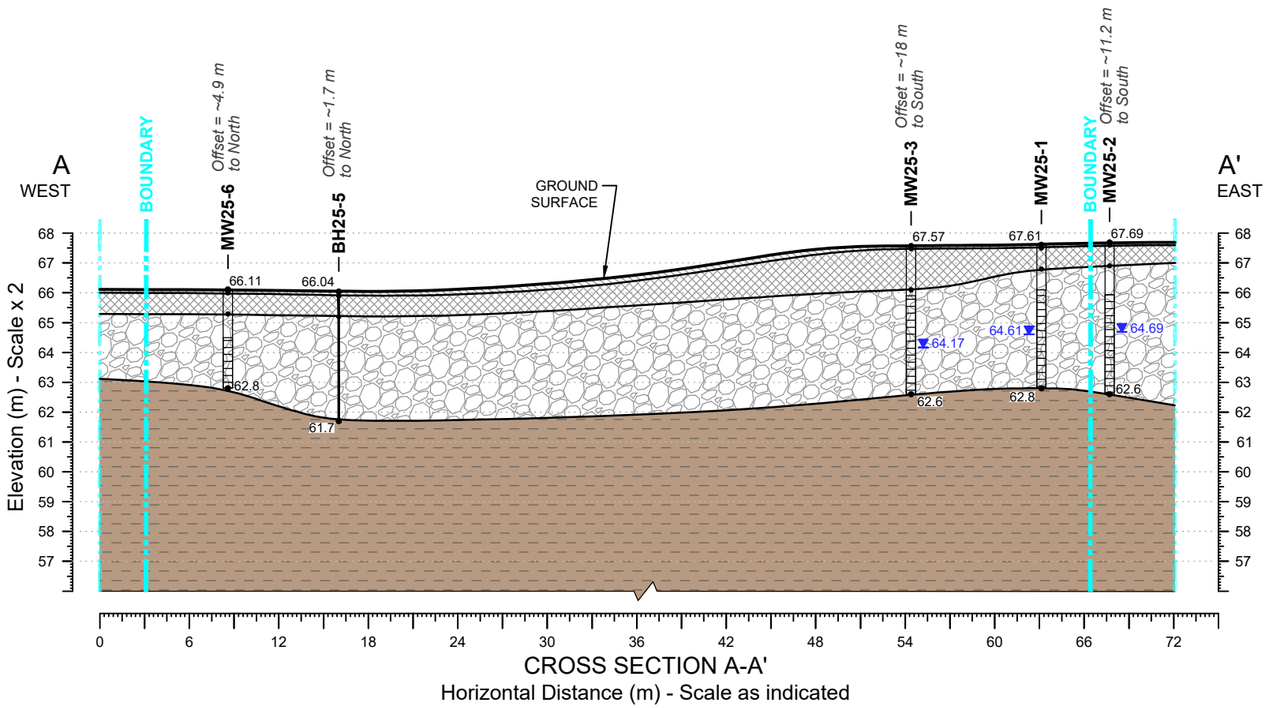
0 4m 8m 16m

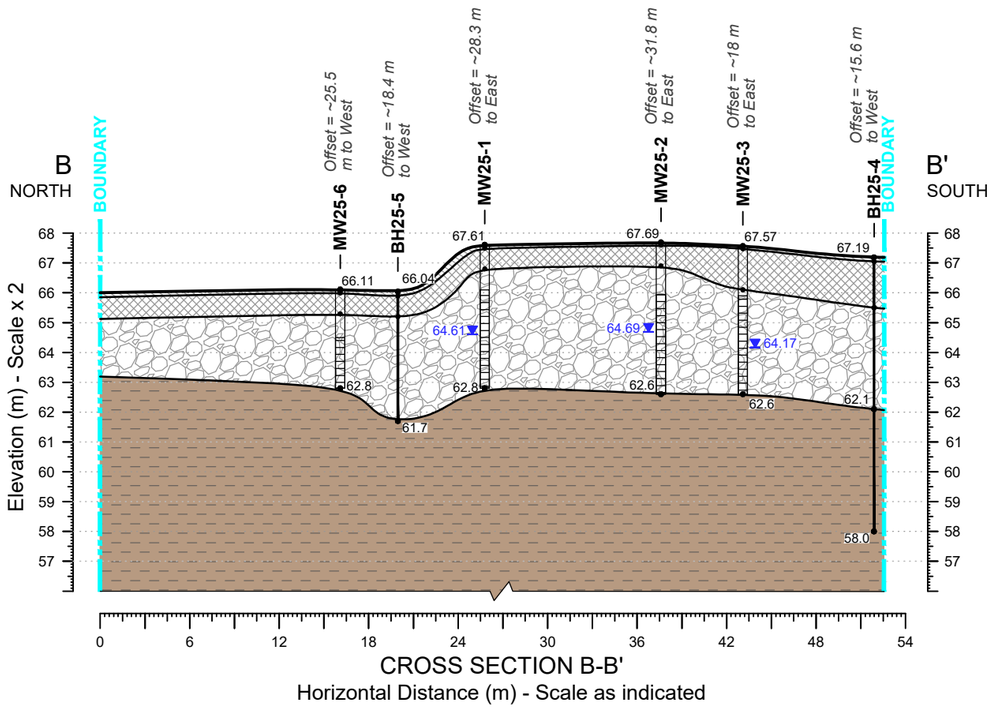
HORIZONTAL 1:400

EXP Services Inc. **www.exp.com**
t: +1.613.688.1899 | f: +1.613.225.7337
2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: JULY 2025	PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 500 & 508 EDGEWORTH AVENUE, OTTAWA, ONTARIO	project no.: OTT-23002437-B0
DESIGN: LW / CHECKED: CK		scale: 1:400
DRAWN BY: AS	TITLE: CROSS SECTION PLAN	FIG 5

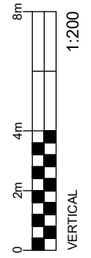
Filename: E:\OTT\OTT-23002437-B0\60 Execution\65 Drawings\Environmental\OTT-23002437-B0_Ph-2_July-2025.dwg
Last Saved: Jul 18, 2025 11:58 AM Last Plotted: Jul 18, 2025 12:09 PM Plotted by: SeverA



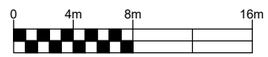


LEGEND

- TOPSOIL
- FILL
- GLACIAL TILL
- SHALE BEDROCK
- BOREHOLE
- BOREHOLE / MONITORING WELL
- ← SCREEN
- 64.0 ▼ GROUNDWATER LEVEL (2025)



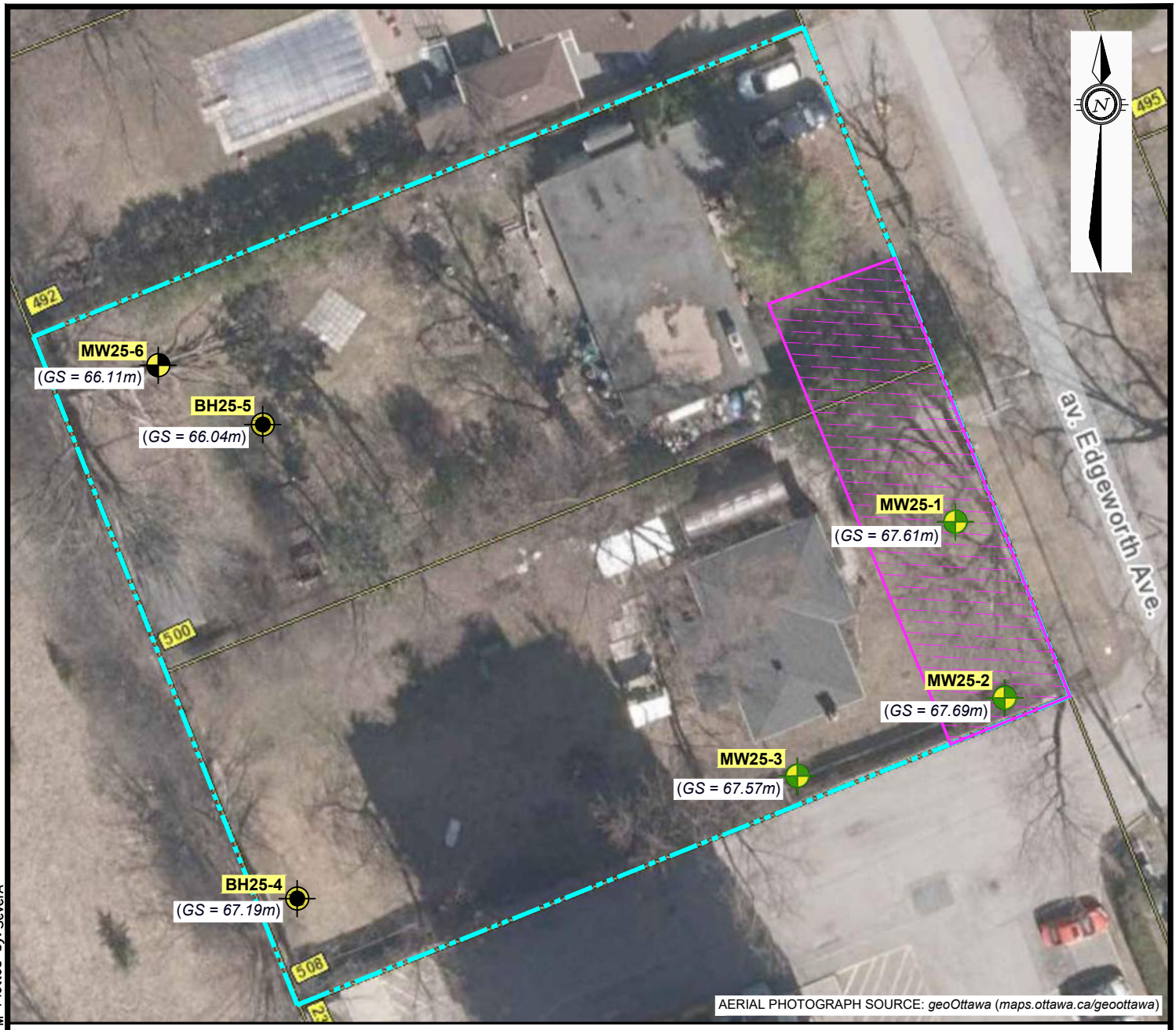
ORIGINAL SHEET SIZE = 17" X 11"



EXP Services Inc. www.exp.com
t: +1.613.688.1899 | f: +1.613.225.7337
2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: JULY 2025	PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 500 & 508 EDGEWORTH AVENUE, OTTAWA, ONTARIO	project no.: OTT-23002437-B0
DESIGN: LW / CHECKED: CK		scale: H = 1:400 | V = 1:200
DRAWN BY: AS	TITLE: CROSS SECTIONS: A-A' AND B-B'	FIG 6

Filename: E:\OTT\OTT-23002437-B0\60 Execution\65 Drawings\Environmental\OTT-23002437-B0_Ph-2_July-2025.dwg
Last Saved: Jul 18, 2025 11:58 AM Last Plotted: Jul 18, 2025 11:59 AM Plotted by: SeverA



LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- MW25-1 — MONITORING WELL NUMBER AND LOCATION (2025)
- BH25-5 — BOREHOLE NUMBER AND LOCATION (2025)
- (GS = 67.61m) — GROUND SURFACE ELEVATION (m)

AREA OF POTENTIAL ENVIRONMENTAL CONCERN

- **APEC #1** - PCA #10, PCA #28, PCA #37
- SAMPLE EXCEEDS TABLE 2 SCS STANDARDS
- SAMPLE MEETS TABLE 2 SCS STANDARDS

0 4m 8m 16m

HORIZONTAL 1:400

EXP Services Inc. www.exp.com
t: +1.613.688.1899 | f: +1.613.225.7337
2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: JULY 2025	PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 500 & 508 EDGEWORTH AVENUE, OTTAWA, ONTARIO	project no. OTT-23002437-B0
DESIGN: LW / CHECKED: CK		scale: 1:400
DRAWN BY: AS	TITLE: SOIL ANALYTICAL RESULTS	FIG 7

Filename: E:\OTT\OTT-23002437-B0\60 Execution\65 Drawings\Environmental\OTT-23002437-B0_Ph-2_July-2025.dwg
Last Saved: Jul 18, 2025 12:11 PM Last Plotted: Jul 18, 2025 12:12 PM Plotted by: SeverA

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- MW25-1 — MONITORING WELL NUMBER AND LOCATION (2025)
- BH25-5 — BOREHOLE NUMBER AND LOCATION (2025)
- (64.61m) — GROUNDWATER ELEVATION (m) (2025)

AREA OF POTENTIAL ENVIRONMENTAL CONCERN

- **APEC #1** - PCA #10, PCA #28, PCA #37
- SAMPLE EXCEEDS TABLE 2 SCS STANDARDS
- SAMPLE MEETS TABLE 2 SCS STANDARDS

0 4m 8m 16m

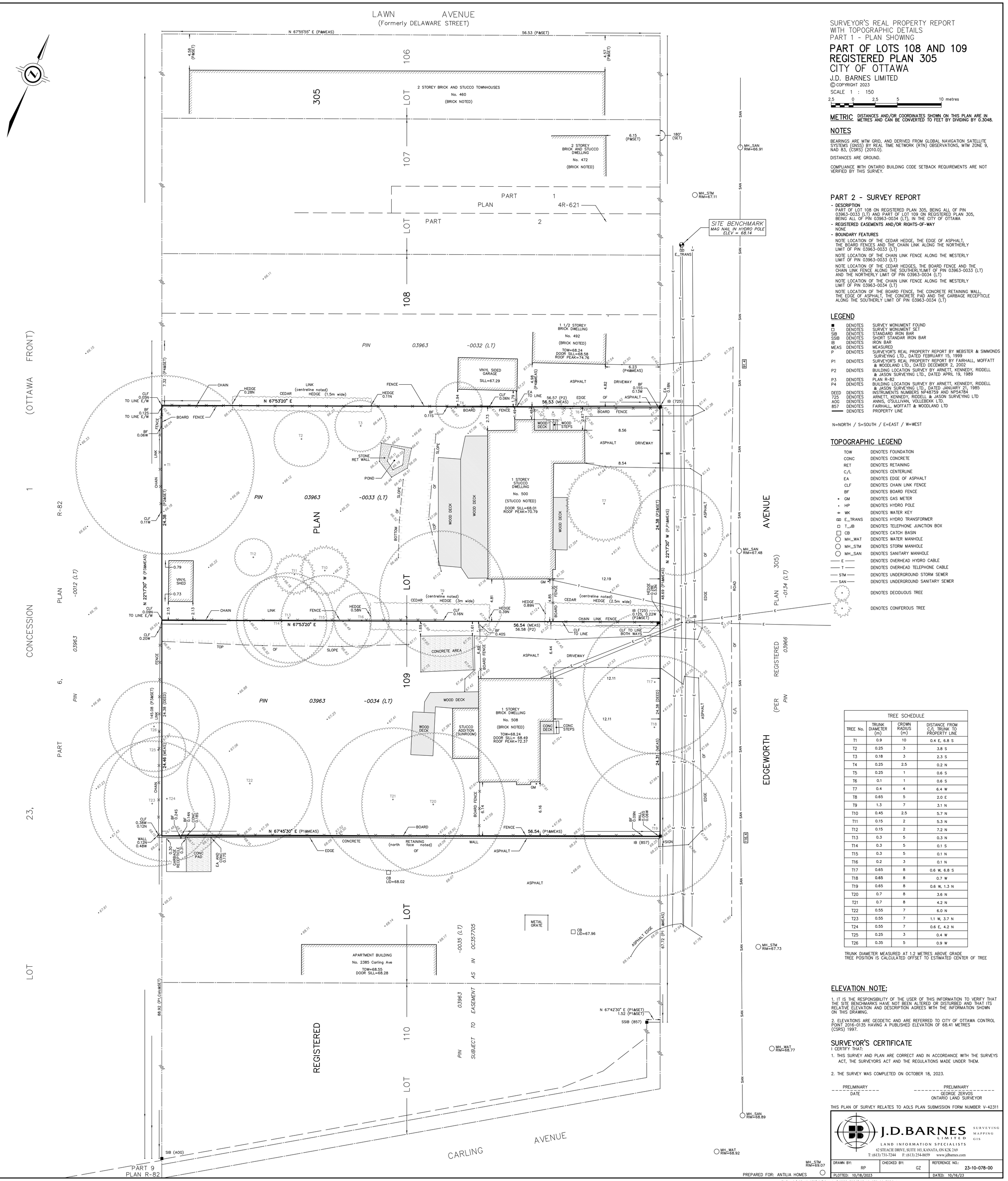
HORIZONTAL 1:400

EXP Services Inc. **www.exp.com**
t: +1.613.688.1899 | f: +1.613.225.7337
2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: JULY 2025	PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 500 & 508 EDGEWORTH AVENUE, OTTAWA, ONTARIO	project no. OTT-23002437-B0
DESIGN: LW / CHECKED: CK		scale: 1:400
DRAWN BY: AS	TITLE: GROUNDWATER ANALYTICAL RESULTS	FIG 8

Filename: E:\OTT\OTT-23002437-B0\60 Execution\65 Drawings\Environmental\OTT-23002437-B0_Ph-2_July-2025.dwg
Last Saved: Jul 18, 2025 12:14 PM Last Plotted: Jul 18, 2025 12:14 PM Plotted by: SeverA

Appendix B: Survey



SURVEYOR'S REAL PROPERTY REPORT
WITH TOPOGRAPHIC DETAILS
PART 1 - PLAN SHOWING

PART OF LOTS 108 AND 109 REGISTERED PLAN 305 CITY OF OTTAWA

J.D. BARNES LIMITED

SCALE 1 : 150

2.5 0 2.5 5 10 metres

METRIC DISTANCES AND/OR COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

NOTES

BEARINGS ARE MTM GRID, AND DERIVED FROM GLOBAL NAVIGATION SATELLITE SYSTEMS (GNSS) BY REAL TIME NETWORK (RTN) OBSERVATIONS, MTM ZONE 9, NAD 83, (CSRS) (2010.0).

DISTANCES ARE GROUND.

COMPLIANCE WITH ONTARIO BUILDING CODE SETBACK REQUIREMENTS ARE NOT VERIFIED BY THIS SURVEY.

PART 2 - SURVEY REPORT

- **DESCRIPTION**
  PART OF LOT 108 ON REGISTERED PLAN 305, BEING ALL OF PIN 03963-0033 (LT) AND PART OF LOT 109 ON REGISTERED PLAN 305, BEING ALL OF PIN 03963-0034 (LT), IN THE CITY OF OTTAWA
- **REGISTERED EASEMENTS AND/OR RIGHTS-OF-WAY**
  NONE
- **BOUNDARY FEATURES**
  NOTE LOCATION OF THE CEDAR HEDGE, THE EDGE OF ASPHALT, THE BOARD FENCES AND THE CHAIN LINK ALONG THE NORTHERLY LIMIT OF PIN 03963-0033 (LT)
  NOTE LOCATION OF THE CHAIN LINK FENCE ALONG THE WESTERLY LIMIT OF PIN 03963-0033 (LT)
  NOTE LOCATION OF THE CEDAR HEDGES, THE BOARD FENCE AND THE CHAIN LINK FENCE ALONG THE SOUTHERLYLIMIT OF PIN 03963-0033 (LT) AND THE NORTHERLY LIMIT OF PIN 03963-0034 (LT)
  NOTE LOCATION OF THE CHAIN LINK FENCE ALONG THE WESTERLY LIMIT OF PIN 03963-0034 (LT)
  NOTE LOCATION OF THE BOARD FENCE, THE CONCRETE RETAINING WALL, THE EDGE OF ASPHALT, THE CONCRETE PAD AND THE GARBAGE RECEPTICLE ALONG THE SOUTHERLY LIMIT OF PIN 03963-0034 (LT)

LEGEND

■	DENOTES	SURVEY MONUMENT FOUND
□	DENOTES	SURVEY MONUMENT SET
SIB	DENOTES	STANDARD IRON BAR
SSIB	DENOTES	SHORT STANDAR IRON BAR
IB	DENOTES	IRON BAR
MEAS	DENOTES	MEASURED
P	DENOTES	SURVEYOR'S REAL PROPERTY REPORT BY WEBSTER & SIMMONDS SURVEYING LTD., DATED FEBRUARY 15, 1999
P1	DENOTES	SURVEYOR'S REAL PROPERTY REPORT BY FAIRHALL, MOFFATT & WOODLAND LTD., DATED DECEMBER 2, 2002
P2	DENOTES	BUILDING LOCATION SURVEY BY ARNETT, KENNEDY, RIDDELL & JASON SURVEYING LTD., DATED APRIL 19, 1989
P3	DENOTES	PLAN R-82
P4	DENOTES	BUILDING LOCATION SURVEY BY ARNETT, KENNEDY, RIDDELL & JASON SURVEYING LTD., DATED JANUARY 21, 1985
DEED	DENOTES	INSTRUMENTS NUMBERS NP48759 AND NP54784
725	DENOTES	ARNETT, KENNEDY, RIDDELL & JASON SURVEYING LTD
AOG	DENOTES	ANNIS, O'SULLIVAN, VOLLEBEKK LTD.
857	DENOTES	FAIRHALL, MOFFATT & WOODLAND LTD
———	DENOTES	PROPERTY LINE

N=NORTH / S=SOUTH / E=EAST / W=WEST

TOPOGRAPHIC LEGEND

TOW	DENOTES FOUNDATION
CONC	DENOTES CONCRETE
RET	DENOTES RETAINING
C/L	DENOTES CENTERLINE
EA	DENOTES EDGE OF ASPHALT
CLF	DENOTES CHAIN LINK FENCE
BF	DENOTES BOARD FENCE
* GM	DENOTES GAS METER
• HP	DENOTES HYDRO POLE
WK	DENOTES WATER KEY
E_TRANS	DENOTES HYDRO TRANSFORMER
T_JB	DENOTES TELEPHONE JUNCTION BOX
CB	DENOTES CATCH BASIN
MH_WAT	DENOTES WATER MANHOLE
MH_STM	DENOTES STORM MANHOLE
MH_SAN	DENOTES SANITARY MANHOLE
—— E ——	DENOTES OVERHEAD HYDRO CABLE
—— T ——	DENOTES OVERHEAD TELEPHONE CABLE
—— STM ——	DENOTES UNDERGROUND STORM SEWER
—— SAN ——	DENOTES UNDERGROUND SANITARY SEWER
	DENOTES DECIDUOUS TREE
	DENOTES CONIFEROUS TREE

TREE SCHEDULE

TREE No.	TRUNK DIAMETER (m)	CROWN RADIUS (m)	DISTANCE FROM C/L TRUNK TO PROPERTY LINE
T1	0.9	10	0.4 E, 6.8 S
T2	0.25	3	3.8 S
T3	0.18	3	2.3 S
T4	0.25	2.5	0.2 N
T5	0.25	1	0.6 S
T6	0.1	1	0.6 S
T7	0.4	4	6.4 W
T8	0.65	5	2.0 E
T9	1.3	7	3.1 N
T10	0.45	2.5	5.7 N
T11	0.15	2	5.3 N
T12	0.15	2	7.2 N
T13	0.3	5	0.3 N
T14	0.3	5	0.1 S
T15	0.3	5	0.1 N
T16	0.2	3	0.1 N
T17	0.65	8	0.6 W, 6.8 S
T18	0.65	8	0.7 W
T19	0.65	8	0.6 W, 1.3 N
T20	0.7	8	3.6 N
T21	0.7	8	4.2 N
T22	0.55	7	6.0 N
T23	0.55	7	1.1 W, 3.7 N
T24	0.55	7	0.6 E, 4.2 N
T25	0.25	3	0.4 W
T26	0.35	5	0.9 W

TRUNK DIAMETER MEASURED AT 1.2 METRES ABOVE GRADE
TREE POSITION IS CALCULATED OFFSET TO ESTIMATED CENTER OF TREE

ELEVATION NOTE:

1. IT IS THE RESPONSIBILITY OF THE USER OF THIS INFORMATION TO VERIFY THAT THE SITE BENCHMARKS HAVE NOT BEEN ALTERED OR DISTURBED AND THAT ITS RELATIVE ELEVATION AND DESCRIPTION AGREES WITH THE INFORMATION SHOWN ON THIS DRAWING.

2. ELEVATIONS ARE GEODETIC AND ARE REFERRED TO CITY OF OTTAWA CONTROL POINT 2016-0135 HAVING A PUBLISHED ELEVATION OF 68.41 METRES (CSRS) 1997.

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE REGULATIONS MADE UNDER THEM.

2. THE SURVEY WAS COMPLETED ON OCTOBER 18, 2023.

PRELIMINARY
DATE

PRELIMINARY
GEORGE ZERVOS
ONTARIO LAND SURVEYOR

THIS PLAN OF SURVEY RELATES TO AOLS PLAN SUBMISSION FORM NUMBER V-42311

J.D.BARNES LIMITED
LAND INFORMATION SPECIALISTS
SURVEYING MAPPING GIS
62 STEACIE DRIVE, SUITE 103, KANATA, ON K2K 2A9
T: (613) 731-7244 F: (613) 254-8659 www.jdbarnes.com

DRAWN BY:	CHECKED BY:	REFERENCE NO.:
RP	GZ	23-10-078-00
PLOTTED: 10/18/2023		DATED: 10/16/23

FILE: G:\23-10-078\00\Drawing\SRPR-TOPO\23-10-078-00-TOPO.dgn

Appendix C: Sampling and Analysis Plan

OTT-23002437-B0
Phase Two ESA – 500 & 508 Edgeworth Avenue, Ottawa, Ontario

Sampling and Analysis Plan

Objectives

- Address the areas of potential environmental concern (APEC) that were identified in the Phase One ESA. The Phase One & Two ESAs will be used to support a zoning by-law amendment and a site plan application with the City of Ottawa.
- The field program will be conducted in conjunction with a geotechnical investigation.

Areas of Potential Environmental Concern

Based on the results of our Phase One ESA, potentially contaminating activities (PCA) and areas of potential environmental concern (APEC) were identified. Potential contaminants of concern were identified to be benzene, toluene, ethylbenzene, xylenes (BTEX), volatile organic compounds (VOC), and petroleum hydrocarbon fractions (PHC) F1 to F4. A summary of the PCA, APEC, and potential contaminants of concern is provided in Table 1:

Table 1: Areas of Potential Environmental Concern

Area of Potential Environmental Concern (APEC)	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA)	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
APEC #1	Southeast corner of Phase One property	PCA #10 – Commercial autobody shops PCA #28 – Gasoline and associated products storage in fixed tanks	Off-site	BTEX, PHC	Soil and groundwater
APEC #2	Southeast corner of Phase One property	PCA #37 – Operation of dry cleaning equipment (where chemicals are used))	Off-site	VOC	Soil and groundwater

The environmental work will be undertaken in accordance with Ontario Regulation 153/04.

Scope of Work

- Drill six boreholes (MW25-1 to BH25-6 on Figure 1) to a depth of between 6-10 m or refusal, whichever comes first (note: based on well records, depth will most likely be in around 6m; native soil appears to be clay or silty clay).

- Complete three of the boreholes (MW25-1 to MW25-3) as monitoring wells. The wells will be screened across the water table.
- The monitoring wells should have a 3 metre PVC screened interval with an appropriate length of PVC riser pipe. The entire screen should be within a stratigraphic unit (i.e. all in fill or all in native sand or all in native clay, with minor transitions permitted).
- Equip the monitoring wells with flushmount casings.
- As drilling progresses, collect soil samples from spoons.
- For each soil sample, log colour, grain size, moisture content, density, structures, texture, staining, odour, and field vapour readings.

Soil Sampling

Soil samples should be collected as follows:

Table 2: Soil Sampling Plan

APEC	Field Program	Soil Analysis
APEC #1	MW25-1, MW25-2S, MW25-3	1 “worst case” soil sample per borehole – PHC, VOC
APEC #2	MW25-1, MW25-2, MW25-3	1 “worst case” soil sample per borehole – PHC, VOC

- There should be one field duplicate for each parameter.

Soil samples should be submitted to Bureau Veritas for analysis. On the chains of custody, use EXP project number OTT-23002437-B0 in the Project Refence section. Select O.Reg. 153/04 Table 3 Residential SCS.

Soil cuttings should be placed in drums in an accessible location for future removal.

Groundwater Monitoring and Sampling

Following drilling, development is to occur by purging approximately three well volumes of groundwater, until the purged water becomes clear, or the monitoring well becomes dry.

Survey all boreholes/monitoring wells (ground and top of pipe) relative to a geodetic benchmark. Prior to sampling, measure water levels in all monitoring wells/standpipes so that a groundwater contour plan can be prepared. Also, record OVM using RKI Eagle II (or equivalent).

Using low-flow sampling equipment, monitor water quality field parameters until stable readings are achieved. Stability is deemed to be achieved 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.
- Use low-flow sampling techniques to collect groundwater samples from all eight MW.

Samples should be submitted for analysis in accordance with the table below:

Table 3: Groundwater Sampling Plan

APEC	Field Program	Groundwater Analysis
APEC #1	MW25-1, MW25-2S, MW25-3	1 groundwater sample per borehole – VOC, PHC
APEC #2	MW25-1, MW25-2S, MW25-3	1 groundwater sample per borehole – VOC

There should be one field duplicate for each parameter.

Groundwater samples should be submitted to Bureau Veritas for analysis. On the chains of custody, use EXP project number OTT-23002437-B0 in the Project Refence section. Select O.Reg. 153/04 Table 3 Residential SCS.

Appendix D: Borehole Logs

Log of Borehole BH25-01

Project No: OTT-23002437-B0

Project: Proposed Residential Development

Location: 500 and 508 Edgeworth Avenue, Ottawa, Ontario

Figure No. 3

Page. 1 of 1

Date Drilled: 'June 20, 2025

Drill Type: CME 55 LC - Track Mounted Drill Rig

Datum: Geodetic Elevation

Logged by: JE Checked by: MZ

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 Elevation 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
		TOPSOIL ~ 125 mm thick	67.61	0				
		FILL	67.5					
		Sand and gravel, brown, damp, no odours, no stains, (compact)	66.8					
		GLACIAL TILL						
		Silty sand, gravelly, trace to some clay, cobbles and boulders, brown to grey, moist, no odours, no stains (compact to very dense)		1	11		SS1	
					34		SS2	
				2	15		SS3	
					4, 12, 50 / 75 mm		SS4	
			64.61	3				
		grey below 3.3 m depth			49		SS5	
				4	18, 42, 50 / 125 mm		SS6	
			62.8		27, 50 / 50 mm		SS7	
		Auger Refusal at 4.8 m Depth						

LOG OF BOREHOLE 500 EDGEWORTH LOGS - JULY 17, 2025.GPJ TROW OTTAWA.GDT 7/21/25

NOTES:

1. Borehole data requires interpretation by EXP before use by others
2. A 50 mm diameter monitoring well was installed as shown.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report OTT-23002437-B0

WATER LEVEL RECORDS

Date	Water Level (m)	Hole Open To (m)
July 4, 2025	3.0	

CORE DRILLING RECORD

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

Log of Borehole BH25-02

Project No: OTT-23002437-B0

Project: Proposed Residential Development

Location: 500 and 508 Edgeworth Avenue, Ottawa, Ontario

Figure No. 4

Page. 1 of 1

Date Drilled: 'June 20, 2025

Drill Type: CME 55 LC - Track Mounted Drill Rig

Datum: Geodetic Elevation

Logged by: JE Checked by: MZ

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 Elevation 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
		TOPSOIL ~ 125 mm thick	67.69	0				
		FILL	67.6					
		Sand and gravel, brown, damp, no odours, no stains, (compact)	66.9					
		GLACIAL TILL						
		Silty sand with gravel, cobbles and boulders, brown to grey, moist to wet, no odours, no stains (compact to very dense)		1	10		SS1	
					17		SS2	
				2	18		SS3	
					29		SS4	
			64.69	3				
		grey below 3.3 m depth			51		SS5	
				4	24, 50, 50 / 75 mm		SS6	
				5	11, 31, 50 / 100 mm		SS7	
			62.6					
		Auger Refusal at 5.1 m Depth						

NOTES:

1. Borehole data requires interpretation by EXP before use by others
2. A 50 mm diameter monitoring well was installed as shown.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report OTT-23002437-B0

WATER LEVEL RECORDS		
Date	Water Level (m)	Hole Open To (m)
July 4, 2025	3.0	

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

LOG OF BOREHOLE 500 EDGEWORTH LOGS - JULY 17, 2025.GPJ TROW OTTAWA.GDT 7/21/25

Log of Borehole BH25-03

Project No: OTT-23002437-B0

Project: Proposed Residential Development

Location: 500 and 508 Edgeworth Avenue, Ottawa, Ontario

Figure No. 5

Page. 1 of 1

Date Drilled: 'June 19, 2025

Drill Type: CME 55 LC - Track Mounted Drill Rig

Datum: Geodetic Elevation

Logged by: JE Checked by: MZ

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 Elevation 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
		TOPSOIL ~ 100 mm thick	67.57	0	7	×	SS1	
		FILL Silty sand and gravel, with topsoil inclusions, possible cobbles and boulders or large debris, brown, damp, no odours, no stains, (loose to compact)	67.5	1	18	×	SS2	
		GLACIAL TILL Sandy silt, trace clay, with gravel, brown, moist to wet, no odours, no stains (very loose to loose)	66.1	2	7	×	SS3	
					2	×	SS4	
▼		**GLACIAL TILL** Silty sand with gravel, possible cobbles and boulders, grey, moist, no odours, no stains, (very dense)	64.6	3	51	×	SS5	
			64.17	4	92	×	SS6	
				5	29, 50 / 75 mm	×	SS7	
		Auger Refusal at 5.0 m Depth	62.6					

NOTES:

1. Borehole data requires interpretation by EXP before use by others
2. A 50 mm diameter monitoring well was installed as shown.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report OTT-23002437-B0

WATER LEVEL RECORDS

Date	Water Level (m)	Hole Open To (m)
July 4, 2025	3.4	

CORE DRILLING RECORD

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

LOG OF BOREHOLE 500 EDGEWORTH LOGS - JULY 17, 2025.GPJ TROW OTTAWA.GDT 7/21/25

Log of Borehole BH25-04

Project No: OTT-23002437-B0

Project: Proposed Residential Development

Location: 500 and 508 Edgeworth Avenue, Ottawa, Ontario

Figure No. 6

Page. 1 of 1

Date Drilled: 'June 19, 2025

Drill Type: CME 55 LC - Track Mounted Drill Rig

Datum: Geodetic Elevation

Logged by: JE Checked by: MZ

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 Elevation 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
		TOPSOIL ~ 100 mm thick	67.19	0				
		FILL Sand and gravel, brown, moist, no odours, no stains, (compact)	67.1		23		SS1	
				1	12		SS2	
			65.7					
		TOPSOIL ~ 180 mm thick	65.5					
		GLACIAL TILL Sandy silt, trace clay, with gravel, brown, moist to wet, no odours, no stains (loose)	64.9	2	7		SS3	
		GLACIAL TILL Silty sand with gravel, possible cobbles and boulders, brown to grey, moist, no odours, no stains, (dense to very dense) grey below 3 m depth		3	15		SS4	
					57		SS5	
				4	43		SS6	
					7, 25, 50 / 125 mm		SS7	
			62.1	5				
		SHALE BEDROCK With frequent limestone seams and layers, greenish grey, (fair to excellent quality)		6			Run 1	27.1
				7			Run 2	25.8
				8			Run 3	26.0
			58.0	9				
		Borehole Terminated at 9.2 m Depth						

LOG OF BOREHOLE 500 EDGEWORTH LOGS - JULY 17, 2025.GPJ TROW OTTAWA.GDT 7/21/25

NOTES:

1. Borehole data requires interpretation by EXP before use by others
2. Borehole backfilled upon completion of drilling.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report OTT-23002437-B0

WATER LEVEL RECORDS

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

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %
1	5.1 - 6.2	100	63
2	6.2 - 7.7	100	66
3	7.7 - 9.2	100	97

Log of Borehole BH25-05

Project No: OTT-23002437-B0

Project: Proposed Residential Development

Location: 500 and 508 Edgeworth Avenue, Ottawa, Ontario

Figure No. 7

Page. 1 of 1

Date Drilled: 'June 19, 2025

Drill Type: CME 55 LC - Track Mounted Drill Rig

Datum: Geodetic Elevation

Logged by: JE Checked by: MZ

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 Elevation 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
			66.04	0	20 40 60 80 / 50 100 150 200	250 500 750 / 20 40 60		
		TOPSOIL ~ 100 mm thick	65.9					
		FILL Silty sand and gravel, brown, damp, no odours, no stains, (compact)	65.2		13	×	SS1	
		GLACIAL TILL Silty sand with gravel, cobbles and boulders, brown to grey, moist to wet, no odours, no stains (loose to very dense)		1	13	×	SS2	
				2	5	×	SS3	
		grey below 2.3 m depth			60	×	SS4	
				3	25, 24, 50 / 125 mm	×	SS5	
				4	28, 50 / 75 mm	×	SS6	
			61.7					
		Auger Refusal at 4.3 m Depth						

NOTES:

1. Borehole data requires interpretation by EXP before use by others
2. Borehole backfilled upon completion of drilling.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report OTT-23002437-B0

WATER LEVEL RECORDS

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

CORE DRILLING RECORD

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

LOG OF BOREHOLE 500 EDGEWORTH LOGS - JULY 17, 2025.GPJ TROW OTTAWA.GDT 7/21/25

Log of Borehole BH25-06

Project No: OTT-23002437-B0

Project: Proposed Residential Development

Location: 500 and 508 Edgeworth Avenue, Ottawa, Ontario

Figure No. 8

Page. 1 of 1

Date Drilled: 'June 19, 2025

Drill Type: CME 55 LC - Track Mounted Drill Rig

Datum: Geodetic Elevation

Logged by: JE Checked by: MZ

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 Elevation 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
		TOPSOIL ~ 75 mm thick	66.11	0	3	×	SS1	
		FILL	66.0					
		Sand and gravel, with brick fragments, brown, moist, no odours, no stains, (very loose)	65.3	1	10	×	SS2	
		GLACIAL TILL						
		Silty sand, some gravel and clay, cobbles and boulders, brown to grey, moist to wet, no odours, no stains (loose to very dense)	64.61	2	8	×	SS3	
		grey below 2.3 m depth			39	×	SS4	
				3	16, 50 / 125 mm	×	SS5	
			62.8					
		Auger Refusal at 3.3 m Depth						

NOTES:

1. Borehole data requires interpretation by EXP before use by others
2. A 50 mm diameter monitoring well was installed as shown.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report OTT-23002437-B0

WATER LEVEL RECORDS

Date	Water Level (m)	Hole Open To (m)
July 4, 2025	1.5	

CORE DRILLING RECORD

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

LOG OF BOREHOLE 500 EDGEWORTH LOGS - JULY 17, 2025.GPJ TROW OTTAWA.GDT 7/21/25

Appendix E: Analytical Summary Tables

Table 1 - Analytical Results in Soil - PHC and VOC
500 & 508 Edgeworth Avenue, Ottawa, ON
OTT-23002437-B0

Sample ID	UNITS	MECP Table 3 Residential [1]	MW25-1-SS3	MW25-2-SS3	DUP	MW25-3-SS5
Sampling Date			**20-Jun-25**	**20-Jun-25**	**20-Jun-25**	**19-Jun-25**
Sampling Depth (mbgs)			1.5 to 2.1	1.5 to 2.1	1.5 to 2.4	3.0 to 3.6
Petroleum Hydrocarbons						
F1 PHC (C6-C10)	µg/g	55	<10	<10	<10	<10
F2 PHC (C10-C16)	µg/g	98	<7.0	<7.0	<7.0	<7.0
F3 PHC (C16-C34)	µg/g	300	<50	<50	<50	<50
F4 PHC (C34-C50)	µg/g	2800	<50	<50	<50	<50
Volatile Organic Compounds						
Acetone	µg/g	16	<0.49	<0.49	<0.49	<0.49
Benzene	µg/g	0.21	<0.0060	<0.0060	<0.0060	<0.0060
Bromodichloromethane	µg/g	13	<0.040	<0.040	<0.040	<0.040
Bromoform	µg/g	0.27	<0.040	<0.040	<0.040	<0.040
Bromomethane	µg/g	0.05	<0.040	<0.040	<0.040	<0.040
Carbon Tetrachloride	µg/g	0.05	<0.040	<0.040	<0.040	<0.040
Chlorobenzene	µg/g	2.4	<0.040	<0.040	<0.040	<0.040
Chloroform	µg/g	0.05	<0.040	<0.040	<0.040	<0.040
Dibromochloromethane	µg/g	9.4	<0.040	<0.040	<0.040	<0.040
Dichlorodifluoromethane	µg/g	16	<0.040	<0.040	<0.040	<0.040
1,2-Dichlorobenzene	µg/g	3.4	<0.040	<0.040	<0.040	<0.040
1,3-Dichlorobenzene	µg/g	4.8	<0.040	<0.040	<0.040	<0.040
1,4-Dichlorobenzene	µg/g	0.083	<0.040	<0.040	<0.040	<0.040
1,1-Dichloroethane	µg/g	3.5	<0.040	<0.040	<0.040	<0.040
1,2-Dichloroethane	µg/g	0.05	<0.049	<0.049	<0.049	<0.049
1,1-Dichloroethylene	µg/g	0.05	<0.040	<0.040	<0.040	<0.040
Cis-1,2-Dichloroethylene	µg/g	3.4	<0.040	<0.040	<0.040	<0.040
Trans-1,2-Dichloroethylene	µg/g	0.084	<0.040	<0.040	<0.040	<0.040
1,2-Dichloropropane	µg/g	0.05	<0.040	<0.040	<0.040	<0.040
1,3-Dichloropropene (cis + trans)	µg/g	0.05	<0.050	<0.050	<0.050	<0.050
Cis-1,3-Dichloropropylene	µg/g	NV	<0.030	<0.030	<0.030	<0.030
Trans-1,3-Dichloropropylene	µg/g	NV	<0.040	<0.040	<0.040	<0.040
Ethylbenzene	µg/g	2	<0.010	<0.010	<0.010	<0.010
Ethylene Dibromide	µg/g	0.05	<0.040	<0.040	<0.040	<0.040
Hexane(n)	µg/g	2.8	<0.040	<0.040	<0.040	<0.040
Methyl Ethyl Ketone	µg/g	16	<0.40	<0.40	<0.40	<0.40
Methylene Chloride	µg/g	0.1	<0.049	<0.049	<0.049	<0.049
Methyl Isobutyl Ketone	µg/g	1.7	<0.40	<0.40	<0.40	<0.40
Methyl-t-Butyl Ether	µg/g	0.75	<0.040	<0.040	<0.040	<0.040
Styrene	µg/g	0.7	<0.040	<0.040	<0.040	<0.040
1,1,1,2-Tetrachloroethane	µg/g	0.058	<0.040	<0.040	<0.040	<0.040
1,1,2,2-Tetrachloroethane	µg/g	0.05	<0.040	<0.040	<0.040	<0.040
Toluene	µg/g	2.3	<0.020	<0.020	<0.020	<0.020
Tetrachloroethylene	µg/g	0.28	<0.040	<0.040	<0.040	<0.040
1,1,1-Trichloroethane	µg/g	0.38	<0.040	<0.040	<0.040	<0.040
1,1,2-Trichloroethane	µg/g	0.05	<0.040	<0.040	<0.040	<0.040
Trichloroethylene	µg/g	0.061	<0.010	<0.010	<0.010	<0.010
Trichlorofluoromethane	µg/g	4	<0.040	<0.040	<0.040	<0.040
Vinyl Chloride	µg/g	0.02	<0.019	<0.019	<0.019	<0.019
m-Xylene & p-Xylene	µg/g	NV	<0.020	<0.020	<0.020	<0.020
o-Xylene	µg/g	NV	<0.020	<0.020	<0.020	<0.020
Total Xylenes	µg/g	3.1	<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) for use in a Non-Potable Ground Water Condition for Residential/Parkland/Institutional Property use (coarse textured soils)
<RDL	Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.
NV	No Value
-	Parameter not analyzed
	Indicates soil exceedance of MECP Table 3 SCS

Table 2 - Analytical Results in Groundwater - PHC and VOC
500 & 508 Edgeworth Avenue, Ottawa, ON
OTT-23002437-B0

Parameter	Units	MECP Table 3 Residential[1]	MW25-1	MW25-2	MW25-3	DUP
Sampling Date			**04-July-2025**	**04-July-2025**	**04-July-2025**	**04-July-2025**
Screen Depth (mbgs)			1.8 to 4.8	2.1 to 5.1	2.0 to 5.0	2.0 to 5.0
Petroleum Hydrocarbons						
F1 PHC (C6 - C10) - BTEX*	ug/L	750	<25	<25	<25	<25
F2 PHC (C10-C16)	ug/L	150	<90	<90	<90	<90
F3 PHC (C16-C34)	ug/L	500	<200	<200	<200	<200
F4 PHC (C34-C50)**	ug/L	500	<200	<200	<200	<200
Volatile Organic Compounds						
Acetone	ug/L	130000	<10	<10	<10	<10
Benzene	ug/L	44	<0.17	<0.17	<0.17	<0.17
Bromodichloromethane	ug/L	85000	<0.50	<0.50	<0.50	<0.50
Bromoform	ug/L	380	<1.0	<1.0	<1.0	<1.0
Bromomethane	ug/L	5.6	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	ug/L	0.79	<0.20	<0.20	<0.20	<0.20
Chlorobenzene	ug/L	630	<0.20	<0.20	<0.20	<0.20
Chloroform	ug/L	2.4	<0.20	<0.20	<0.20	<0.20
Dibromochloromethane	ug/L	82000	<0.50	<0.50	<0.50	<0.50
Dichlorodifluoromethane	ug/L	4400	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	ug/L	4600	<0.50	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	ug/L	9600	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	ug/L	8	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethane	ug/L	320	<0.20	<0.20	<0.20	<0.20
1,2-Dichloroethane	ug/L	1.6	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/L	1.6	<0.20	<0.20	<0.20	<0.20
cis-1,2-Dichloroethylene	ug/L	1.6	<0.50	<0.50	<0.50	<0.50
trans-1,2-Dichloroethylene	ug/L	1.6	<0.50	<0.50	<0.50	<0.50
1,2-Dichloropropane	ug/L	16	<0.20	<0.20	<0.20	<0.20
1,3-Dichloropropene, total	ug/L	5	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	ug/L	2300	<0.20	<0.20	<0.20	<0.20
Ethylene dibromide (dibromoethane, 1,2-)	ug/L	0.25	<0.20	<0.20	<0.20	<0.20
Hexane	ug/L	51	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	ug/L	470000	<10	<10	<10	<10
Methyl Isobutyl Ketone	ug/L	140000	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	ug/L	190	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	ug/L	610	<2.0	<2.0	<2.0	<2.0
Styrene	ug/L	1300	<0.50	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	ug/L	3.3	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	ug/L	3.2	<0.50	<0.50	<0.50	<0.50
Tetrachloroethylene	ug/L	1.6	<0.20	<0.20	<0.20	<0.20
Toluene	ug/L	18000	<0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	ug/L	640	<0.20	<0.20	<0.20	<0.20
1,1,2-Trichloroethane	ug/L	4.7	<0.50	<0.50	<0.50	<0.50
Trichloroethylene	ug/L	1.6	<0.20	<0.20	<0.20	<0.20
Trichlorofluoromethane	ug/L	2500	<0.50	<0.50	<0.50	<0.50
Vinyl Chloride	ug/L	0.5	<0.20	<0.20	<0.20	<0.20
Xylenes, total	ug/L	4200	<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 Ful Depth Generic Site Condition Standards (SCS) for use in a Non-Potable Ground Water Condition for Residential/Parkland/Institutional Property use (coarse textured soils)

* F1 fraction does not include BTEX.
< 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 3 - Maximum Concentrations in Soil
500 & 508 Edgeworth Avenue, Ottawa, ON
OTT-23002437-B0

Parameter	Sample Location	Sampling Date	Sampling Depth (mbgs)	Maximum Concentration	MECP Table 3 Residential [1]
Petroleum Hydrocarbons					
F1 PHC (C6-C10)	All sample locations	19/20-Jun-25	1.5 to 3.6	<10	55
F2 PHC (C10-C16)	All sample locations	19/20-Jun-25	1.5 to 3.6	<7.0	98
F3 PHC (C16-C34)	All sample locations	19/20-Jun-25	1.5 to 3.6	<50	300
F4 PHC (C34-C50)	All sample locations	19/20-Jun-25	1.5 to 3.6	<50	2800
Volatile Organic Compounds					
Acetone	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.49	16
Benzene	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.0060	0.21
Bromodichloromethane	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	13
Bromoform	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	0.27
Bromomethane	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	0.05
Carbon Tetrachloride	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	0.05
Chlorobenzene	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	2.4
Chloroform	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	0.05
Dibromochloromethane	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	9.4
Dichlorodifluoromethane	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	16
1,2-Dichlorobenzene	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	3.4
1,3-Dichlorobenzene	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	5
1,4-Dichlorobenzene	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	0.083
1,1-Dichloroethane	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	4
1,2-Dichloroethane	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.049	0.05
1,1-Dichloroethylene	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	0.05
Cis-1,2-Dichloroethylene	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	3
Trans-1,2-Dichloroethylene	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	0.08
1,2-Dichloropropane	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	0.050
1,3-Dichloropropene (cis + trans)	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.050	0.050
Cis-1,3-Dichloropropylene	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.030	NV
Trans-1,3-Dichloropropylene	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	NV
Ethylbenzene	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.010	2
Ethylene Dibromide	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	0
Hexane(n)	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	2.8
Methyl Ethyl Ketone	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.40	16.0
Methylene Chloride	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.049	0.10
Methyl Isobutyl Ketone	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.40	1.7
Methyl-t-Butyl Ether	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	0.75
Styrene	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	0.70
1,1,1,2-Tetrachloroethane	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	0.1
1,1,2,2-Tetrachloroethane	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	0
Toluene	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.020	2.3
Tetrachloroethylene	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	0.28
1,1,1-Trichloroethane	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	0.38
1,1,2-Trichloroethane	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	0.1
Trichloroethylene	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.010	0.061
Trichlorofluoromethane	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.040	4.000
Vinyl Chloride	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.019	0.020
m-Xylene & p-Xylene	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.020	NV
o-Xylene	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.020	NV
Total Xylenes	All sample locations	19/20-Jun-25	1.5 to 3.6	<0.020	3.1

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 (coarse textured soils)

NV No Value

- Parameter not analyzed

Table 4 - Maximum Concentrations in Groundwater
500 & 508 Edgeworth Avenue, Ottawa, ON
OTT-23002437-B0

Parameter	Sample Location	Sampling Date	Screen Depth (mbgs)	Maximum Concentration	MECP Table 3 Residential [1]
Petroleum Hydrocarbons					
F1 PHC (C6-C10)	All sample locations	4-Jul-25	1.8 to 5.0	<25	750
F2 PHC (C10-C16)	All sample locations	4-Jul-25	1.8 to 5.0	<90	150
F3 PHC (C16-C34)	All sample locations	4-Jul-25	1.8 to 5.0	<200	500
F4 PHC (C34-C50)	All sample locations	4-Jul-25	1.8 to 5.0	<200	500
Volatile Organic Compounds					
Acetone	All sample locations	4-Jul-25	1.8 to 5.0	<10	130000
Benzene	All sample locations	4-Jul-25	1.8 to 5.0	<0.17	44
Bromodichloromethane	All sample locations	4-Jul-25	1.8 to 5.0	<0.50	85000
Bromoform	All sample locations	4-Jul-25	1.8 to 5.0	<1.0	380
Bromomethane	All sample locations	4-Jul-25	1.8 to 5.0	<0.50	5.6
Carbon Tetrachloride	All sample locations	4-Jul-25	1.8 to 5.0	<0.20	0.79
Chlorobenzene	All sample locations	4-Jul-25	1.8 to 5.0	<0.20	630
Chloroform	All sample locations	4-Jul-25	1.8 to 5.0	<0.20	2.4
Dibromochloromethane	All sample locations	4-Jul-25	1.8 to 5.0	<0.50	82000
Dichlorodifluoromethane	All sample locations	4-Jul-25	1.8 to 5.0	<1.0	4400
1,2-Dichlorobenzene	All sample locations	4-Jul-25	1.8 to 5.0	<0.50	4600
1,3-Dichlorobenzene	All sample locations	4-Jul-25	1.8 to 5.0	<0.50	9600
1,4-Dichlorobenzene	All sample locations	4-Jul-25	1.8 to 5.0	<0.50	8
1,1-Dichloroethane	All sample locations	4-Jul-25	1.8 to 5.0	<0.20	320
1,2-Dichloroethane	All sample locations	4-Jul-25	1.8 to 5.0	<0.50	1.6
1,1-Dichloroethylene	All sample locations	4-Jul-25	1.8 to 5.0	<0.20	1.6
cis-1,2-Dichloroethylene	All sample locations	4-Jul-25	1.8 to 5.0	<0.50	1.6
trans-1,2-Dichloroethylene	All sample locations	4-Jul-25	1.8 to 5.0	<0.50	1.6
1,2-Dichloropropane	All sample locations	4-Jul-25	1.8 to 5.0	<0.20	16
1,3-Dichloropropene, total	All sample locations	4-Jul-25	1.8 to 5.0	<0.50	5.2
Ethylbenzene	All sample locations	4-Jul-25	1.8 to 5.0	<0.20	2300
Ethylene dibromide (dibromoethane, 1,2-)	All sample locations	4-Jul-25	1.8 to 5.0	<0.20	0.25
Hexane	All sample locations	4-Jul-25	1.8 to 5.0	<1.0	51
Methyl Ethyl Ketone (2-Butanone)	All sample locations	4-Jul-25	1.8 to 5.0	<10	470000
Methyl Isobutyl Ketone	All sample locations	4-Jul-25	1.8 to 5.0	<5.0	140000
Methyl tert-butyl ether	All sample locations	4-Jul-25	1.8 to 5.0	<0.50	190
Methylene Chloride	All sample locations	4-Jul-25	1.8 to 5.0	<2.0	610
Styrene	All sample locations	4-Jul-25	1.8 to 5.0	<0.50	1300
1,1,1,2-Tetrachloroethane	All sample locations	4-Jul-25	1.8 to 5.0	<0.50	3.3
1,1,2,2-Tetrachloroethane	All sample locations	4-Jul-25	1.8 to 5.0	<0.50	3.2
Tetrachloroethylene	All sample locations	4-Jul-25	1.8 to 5.0	<0.20	1.6
Toluene	All sample locations	4-Jul-25	1.8 to 5.0	<0.20	18000
1,1,1-Trichloroethane	All sample locations	4-Jul-25	1.8 to 5.0	<0.20	640
1,1,2-Trichloroethane	All sample locations	4-Jul-25	1.8 to 5.0	<0.50	4.7
Trichloroethylene	All sample locations	4-Jul-25	1.8 to 5.0	<0.20	1.6
Trichlorofluoromethane	All sample locations	4-Jul-25	1.8 to 5.0	<0.50	2500
Vinyl Chloride	All sample locations	4-Jul-25	1.8 to 5.0	<0.20	0.5
Xylenes, total	All sample locations	4-Jul-25	1.8 to 5.0	<0.20	4200

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 (coarse textured soils)

NV No Value

- Parameter not analyzed

Table 5 - Relative Percent Differences - PHC and VOC in Soil
500 & 508 Edgeworth Avenue, Ottawa, ON
OTT-23002437-B0

Parameter	Units	RDL	MW25-2 SS3	DUP 1	RPD (%)	Alert Limit (%)
Sampling Date			20-Jun-25	20-Jun-25		
Petroleum Hydrocarbons						
F1 PHC (C6 - C10) - BTEX	ug/g dry	10	<10	<10	nc	60
F2 PHC (C10-C16)	ug/g dry	10	<7.0	<7.0	nc	60
F3 PHC (C16-C34)	ug/g dry	50	<50	<50	nc	60
F4 PHC (C34-C50)	ug/g dry	50	<50	<50	nc	60
Volatiles						
Acetone	ug/g dry	0.5	<0.49	<0.49	nc	100
Benzene	ug/g dry	0.02	<0.0060	<0.0060	nc	100
Bromodichloromethane	ug/g dry	0.05	<0.040	<0.040	nc	100
Bromoform	ug/g dry	0.05	<0.040	<0.040	nc	100
Bromomethane	ug/g dry	0.05	<0.040	<0.040	nc	100
Carbon Tetrachloride	ug/g dry	0.05	<0.040	<0.040	nc	100
Chlorobenzene	ug/g dry	0.05	<0.040	<0.040	nc	100
Chloroform	ug/g dry	0.05	<0.040	<0.040	nc	100
Dibromochloromethane	ug/g dry	0.05	<0.040	<0.040	nc	100
Dichlorodifluoromethane	ug/g dry	0.05	<0.040	<0.040	nc	100
1,2-Dichlorobenzene	ug/g dry	0.05	<0.040	<0.040	nc	100
1,3-Dichlorobenzene	ug/g dry	0.05	<0.040	<0.040	nc	100
1,4-Dichlorobenzene	ug/g dry	0.05	<0.040	<0.040	nc	100
1,1-Dichloroethane	ug/g dry	0.05	<0.040	<0.040	nc	100
1,2-Dichloroethane	ug/g dry	0.05	<0.049	<0.049	nc	100
1,1-Dichloroethylene	ug/g dry	0.05	<0.040	<0.040	nc	100
cis-1,2-Dichloroethylene	ug/g dry	0.05	<0.040	<0.040	nc	100
trans-1,2-Dichloroethylene	ug/g dry	0.05	<0.040	<0.040	nc	100
1,2-Dichloropropane	ug/g dry	0.05	<0.040	<0.040	nc	100
1,3-Dichloropropene, total	ug/g dry	0.05	<0.050	<0.050	nc	100
Ethylbenzene	ug/g dry	0.05	<0.030	<0.030	nc	100
Ethylene dibromide (dibromoethane, 1,2-)	ug/g dry	0.05	<0.040	<0.040	nc	100
Hexane	ug/g dry	0.05	<0.010	<0.010	nc	100
Methyl Ethyl Ketone (2-Butanone)	ug/g dry	0.5	<0.040	<0.040	nc	100
Methyl Isobutyl Ketone	ug/g dry	0.5	<0.040	<0.040	nc	100
Methyl tert-butyl ether	ug/g dry	0.05	<0.40	<0.40	nc	100
Methylene Chloride	ug/g dry	0.05	<0.049	<0.049	nc	100
Styrene	ug/g dry	0.05	<0.40	<0.40	nc	100
1,1,1,2-Tetrachloroethane	ug/g dry	0.05	<0.040	<0.040	nc	100
1,1,2,2-Tetrachloroethane	ug/g dry	0.05	<0.040	<0.040	nc	100
Tetrachloroethylene	ug/g dry	0.05	<0.040	<0.040	nc	100
Toluene	ug/g dry	0.05	<0.040	<0.040	nc	100
1,1,1-Trichloroethane	ug/g dry	0.05	<0.020	<0.020	nc	100
1,1,2-Trichloroethane	ug/g dry	0.05	<0.040	<0.040	nc	100
Trichloroethylene	ug/g dry	0.05	<0.040	<0.040	nc	100
Trichlorofluoromethane	ug/g dry	0.05	<0.040	<0.040	nc	100
Vinyl Chloride	ug/g dry	0.02	<0.010	<0.010	nc	100
Xylenes, total	ug/g dry	0.05	<0.040	<0.040	nc	100

NOTES:

Analysis by Bureau Veritas Laboratories

All results on dry weight basis; Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.

\- 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 6 - Relative Percent Differences - PHC and VOC in Groundwater
500 & 508 Edgeworth Avenue, Ottawa, ON
OTT-23002437-B0

Parameter	Units	RDL	MW25-3	DUP	RPD (%)	Alert Limit (%)
Sampling Date			**04-July-2025**	**04-July-2025**		
Petroleum Hydrocarbons						
F1 PHC (C6 - C10) - BTEX	ug/L	25	<25	<25	nc	60
F2 PHC (C10-C16)	ug/L	100	<90	<90	nc	60
F3 PHC (C16-C34)	ug/L	100	<200	<200	nc	60
F4 PHC (C34-C50)	ug/L	100	<200	<200	nc	60
Volatiles						
Acetone	ug/L	5	<10	<10	nc	100
Benzene	ug/L	0.5	<0.17	<0.17	nc	100
Bromodichloromethane	ug/L	0.5	<0.50	<0.50	nc	100
Bromoform	ug/L	0.5	<1.0	<1.0	nc	100
Bromomethane	ug/L	0.5	<0.50	<0.50	nc	100
Carbon Tetrachloride	ug/L	0.2	<0.20	<0.20	nc	100
Chlorobenzene	ug/L	0.5	<0.20	<0.20	nc	100
Chloroform	ug/L	0.5	<0.20	<0.20	nc	100
Dibromochloromethane	ug/L	0.5	<0.50	<0.50	nc	100
Dichlorodifluoromethane	ug/L	1	<1.0	<1.0	nc	100
1,2-Dichlorobenzene	ug/L	0.5	<0.50	<0.50	nc	100
1,3-Dichlorobenzene	ug/L	0.5	<0.50	<0.50	nc	100
1,4-Dichlorobenzene	ug/L	0.5	<0.50	<0.50	nc	100
1,1-Dichloroethane	ug/L	0.5	<0.20	<0.20	nc	100
1,2-Dichloroethane	ug/L	0.5	<0.50	<0.50	nc	100
1,1-Dichloroethylene	ug/L	0.5	<0.20	<0.20	nc	100
cis-1,2-Dichloroethylene	ug/L	0.5	<0.50	<0.50	nc	100
trans-1,2-Dichloroethylene	ug/L	0.5	<0.50	<0.50	nc	100
1,2-Dichloropropane	ug/L	0.5	<0.20	<0.20	nc	100
1,3-Dichloropropene, total	ug/L	0.5	<0.50	<0.50	nc	100
Ethylbenzene	ug/L	0.5	<0.20	<0.20	nc	100
Ethylene dibromide (dibromoethane, 1,2-)	ug/L	0.2	<0.20	<0.20	nc	100
Hexane	ug/L	1	<1.0	<1.0	nc	100
Methyl Ethyl Ketone (2-Butanone)	ug/L	5	<10	<10	nc	100
Methyl Isobutyl Ketone	ug/L	5	<5.0	<5.0	nc	100
Methyl tert-butyl ether	ug/L	2	<0.50	<0.50	nc	100
Methylene Chloride	ug/L	5	<2.0	<2.0	nc	100
Styrene	ug/L	0.5	<0.50	<0.50	nc	100
1,1,1,2-Tetrachloroethane	ug/L	0.5	<0.50	<0.50	nc	100
1,1,2,2-Tetrachloroethane	ug/L	0.5	<0.50	<0.50	nc	100
Tetrachloroethylene	ug/L	0.5	<0.20	<0.20	nc	100
Toluene	ug/L	0.5	<0.20	<0.20	nc	100
1,1,1-Trichloroethane	ug/L	0.5	<0.20	<0.20	nc	100
1,1,2-Trichloroethane	ug/L	0.5	<0.50	<0.50	nc	100
Trichloroethylene	ug/L	0.5	<0.20	<0.20	nc	100
Trichlorofluoromethane	ug/L	1	<0.50	<0.50	nc	100
Vinyl Chloride	ug/L	0.5	<0.20	<0.20	nc	100
Xylenes, total	ug/L	0.5	<0.20	<0.20	nc	100

NOTES:

Analysis by Bureau Veritas Laboratories

All results on dry weight basis; Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.

- 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 F: Laboratory Certificates of Analysis

Your Project #: OTT-23002437-B0
Your C.O.C. #: C#1050125-01-01

Attention: Leah Wells

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

Report Date: 2025/06/26
Report #: R8565632
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C573992
Received: 2025/06/20, 16:30

Sample Matrix: Soil
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
1,3-Dichloropropene Sum (1)	1	N/A	2025/06/24		EPA 8260C m
1,3-Dichloropropene Sum (1)	3	N/A	2025/06/25		EPA 8260C m
Petroleum Hydrocarbons F2-F4 in Soil (1, 2)	4	2025/06/25	2025/06/26	CAM SOP-00316	CCME CWS m
Moisture (1)	4	N/A	2025/06/23	CAM SOP-00445	Carter 2nd ed 70.2 m
pH CaCl2 EXTRACT (1)	2	2025/06/25	2025/06/25	CAM SOP-00413	EPA 9045 D m
Sieve, 75um (1)	2	N/A	2025/06/25	CAM SOP-00467	ASTM D1140 -17 m
Volatile Organic Compounds and F1 PHCs (1)	4	N/A	2025/06/24	CAM SOP-00230	EPA 8260C m

Remarks:

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

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas 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.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas 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 Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas 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 Bureau Veritas, results relate to the supplied samples tested.

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 Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas 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

Your Project #: OTT-23002437-B0
Your C.O.C. #: C#1050125-01-01

Attention: Leah Wells

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

Report Date: 2025/06/26
Report #: R8565632
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C573992

Received: 2025/06/20, 16:30

reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Bureau Veritas
26 Jun 2025 16:53:45

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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This report has been generated and distributed using a secure automated process.
Bureau Veritas 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 Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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

Bureau Veritas ID		ASEZ02	ASEZ03	ASEZ04		
Sampling Date		2025/06/20 11:00	2025/06/20 09:55	2025/06/20 09:55		
COC Number		C#1050125-01-01	C#1050125-01-01	C#1050125-01-01		
	UNITS	**MW25-1-SS3**	**MW25-2-SS3**	**DUP**	**RDL**	**QC Batch**
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	<0.050	<0.050	0.050	9955403
Volatile Organics						
Acetone (2-Propanone)	ug/g	<0.49	<0.49	<0.49	0.49	9956004
Benzene	ug/g	<0.0060	<0.0060	<0.0060	0.0060	9956004
Bromodichloromethane	ug/g	<0.040	<0.040	<0.040	0.040	9956004
Bromoform	ug/g	<0.040	<0.040	<0.040	0.040	9956004
Bromomethane	ug/g	<0.040	<0.040	<0.040	0.040	9956004
Carbon Tetrachloride	ug/g	<0.040	<0.040	<0.040	0.040	9956004
Chlorobenzene	ug/g	<0.040	<0.040	<0.040	0.040	9956004
Chloroform	ug/g	<0.040	<0.040	<0.040	0.040	9956004
Dibromochloromethane	ug/g	<0.040	<0.040	<0.040	0.040	9956004
1,2-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	0.040	9956004
1,3-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	0.040	9956004
1,4-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	0.040	9956004
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	<0.040	<0.040	0.040	9956004
1,1-Dichloroethane	ug/g	<0.040	<0.040	<0.040	0.040	9956004
1,2-Dichloroethane	ug/g	<0.049	<0.049	<0.049	0.049	9956004
1,1-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	0.040	9956004
cis-1,2-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	0.040	9956004
trans-1,2-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	0.040	9956004
1,2-Dichloropropane	ug/g	<0.040	<0.040	<0.040	0.040	9956004
cis-1,3-Dichloropropene	ug/g	<0.030	<0.030	<0.030	0.030	9956004
trans-1,3-Dichloropropene	ug/g	<0.040	<0.040	<0.040	0.040	9956004
Ethylbenzene	ug/g	<0.010	<0.010	<0.010	0.010	9956004
Ethylene Dibromide	ug/g	<0.040	<0.040	<0.040	0.040	9956004
Hexane	ug/g	<0.040	<0.040	<0.040	0.040	9956004
Methylene Chloride(Dichloromethane)	ug/g	<0.049	<0.049	<0.049	0.049	9956004
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	<0.40	<0.40	0.40	9956004
Methyl Isobutyl Ketone	ug/g	<0.40	<0.40	<0.40	0.40	9956004
Methyl t-butyl ether (MTBE)	ug/g	<0.040	<0.040	<0.040	0.040	9956004
Styrene	ug/g	<0.040	<0.040	<0.040	0.040	9956004
1,1,1,2-Tetrachloroethane	ug/g	<0.040	<0.040	<0.040	0.040	9956004
1,1,2,2-Tetrachloroethane	ug/g	<0.040	<0.040	<0.040	0.040	9956004
Tetrachloroethylene	ug/g	<0.040	<0.040	<0.040	0.040	9956004
Toluene	ug/g	<0.020	<0.020	<0.020	0.020	9956004

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas ID		ASEZ02	ASEZ03	ASEZ04		
Sampling Date		2025/06/20 11:00	2025/06/20 09:55	2025/06/20 09:55		
COC Number		C#1050125-01-01	C#1050125-01-01	C#1050125-01-01		
	UNITS	**MW25-1-SS3**	**MW25-2-SS3**	**DUP**	**RDL**	**QC Batch**
1,1,1-Trichloroethane	ug/g	<0.040	<0.040	<0.040	0.040	9956004
1,1,2-Trichloroethane	ug/g	<0.040	<0.040	<0.040	0.040	9956004
Trichloroethylene	ug/g	<0.010	<0.010	<0.010	0.010	9956004
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	<0.040	<0.040	0.040	9956004
Vinyl Chloride	ug/g	<0.019	<0.019	<0.019	0.019	9956004
p+m-Xylene	ug/g	<0.020	<0.020	<0.020	0.020	9956004
o-Xylene	ug/g	<0.020	<0.020	<0.020	0.020	9956004
Total Xylenes	ug/g	<0.020	<0.020	<0.020	0.020	9956004
F1 (C6-C10)	ug/g	<10	<10	<10	10	9956004
F1 (C6-C10) - BTEX	ug/g	<10	<10	<10	10	9956004
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/g	<7.0	<7.0	<7.0	7.0	9957766
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	<50	50	9957766
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	<50	50	9957766
Reached Baseline at C50	ug/g	Yes	Yes	Yes		9957766
Surrogate Recovery (%)						
o-Terphenyl	%	89	87	90		9957766
4-Bromofluorobenzene	%	98	97	97		9956004
D10-o-Xylene	%	124	125	114		9956004
D4-1,2-Dichloroethane	%	97	96	91		9956004
D8-Toluene	%	102	101	102		9956004

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas ID		ASEZ04			ASEZ05		
Sampling Date		2025/06/20 09:55			2025/06/19 16:00		
COC Number		C#1050125-01-01			C#1050125-01-01		
	UNITS	**DUP Lab-Dup**	**RDL**	**QC Batch**	**MW25-3-SS5**	**RDL**	**QC Batch**
Calculated Parameters							
1,3-Dichloropropene (cis+trans)	ug/g				<0.050	0.050	9955403
Volatile Organics							
Acetone (2-Propanone)	ug/g	<0.49	0.49	9956004	<0.49	0.49	9956004
Benzene	ug/g	<0.0060	0.0060	9956004	<0.0060	0.0060	9956004
Bromodichloromethane	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
Bromoform	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
Bromomethane	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
Carbon Tetrachloride	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
Chlorobenzene	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
Chloroform	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
Dibromochloromethane	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
1,2-Dichlorobenzene	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
1,3-Dichlorobenzene	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
1,4-Dichlorobenzene	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
1,1-Dichloroethane	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
1,2-Dichloroethane	ug/g	<0.049	0.049	9956004	<0.049	0.049	9956004
1,1-Dichloroethylene	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
cis-1,2-Dichloroethylene	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
trans-1,2-Dichloroethylene	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
1,2-Dichloropropane	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
cis-1,3-Dichloropropene	ug/g	<0.030	0.030	9956004	<0.030	0.030	9956004
trans-1,3-Dichloropropene	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
Ethylbenzene	ug/g	<0.010	0.010	9956004	<0.010	0.010	9956004
Ethylene Dibromide	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
Hexane	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
Methylene Chloride(Dichloromethane)	ug/g	<0.049	0.049	9956004	<0.049	0.049	9956004
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	0.40	9956004	<0.40	0.40	9956004
Methyl Isobutyl Ketone	ug/g	<0.40	0.40	9956004	<0.40	0.40	9956004
Methyl t-butyl ether (MTBE)	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
Styrene	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
1,1,1,2-Tetrachloroethane	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
1,1,2,2-Tetrachloroethane	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
Tetrachloroethylene	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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

Bureau Veritas ID		ASEZ04			ASEZ05		
Sampling Date		2025/06/20 09:55			2025/06/19 16:00		
COC Number		C#1050125-01-01			C#1050125-01-01		
	UNITS	**DUP Lab-Dup**	**RDL**	**QC Batch**	**MW25-3-SS5**	**RDL**	**QC Batch**
Toluene	ug/g	<0.020	0.020	9956004	<0.020	0.020	9956004
1,1,1-Trichloroethane	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
1,1,2-Trichloroethane	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
Trichloroethylene	ug/g	<0.010	0.010	9956004	<0.010	0.010	9956004
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	0.040	9956004	<0.040	0.040	9956004
Vinyl Chloride	ug/g	<0.019	0.019	9956004	<0.019	0.019	9956004
p+m-Xylene	ug/g	<0.020	0.020	9956004	<0.020	0.020	9956004
o-Xylene	ug/g	<0.020	0.020	9956004	<0.020	0.020	9956004
Total Xylenes	ug/g	<0.020	0.020	9956004	<0.020	0.020	9956004
F1 (C6-C10)	ug/g	<10	10	9956004	<10	10	9956004
F1 (C6-C10) - BTEX	ug/g	<10	10	9956004	<10	10	9956004
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/g				<7.0	7.0	9957766
F3 (C16-C34 Hydrocarbons)	ug/g				<50	50	9957766
F4 (C34-C50 Hydrocarbons)	ug/g				<50	50	9957766
Reached Baseline at C50	ug/g				Yes		9957766
Surrogate Recovery (%)							
o-Terphenyl	%				85		9957766
4-Bromofluorobenzene	%	98		9956004	98		9956004
D10-o-Xylene	%	118		9956004	128		9956004
D4-1,2-Dichloroethane	%	96		9956004	97		9956004
D8-Toluene	%	101		9956004	103		9956004

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas Job #: C573992
Report Date: 2025/06/26

exp Services Inc
Client Project #: OTT-23002437-B0
Sampler Initials: JE

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		ASEZ02	ASEZ03	ASEZ04	ASEZ05		
Sampling Date		2025/06/20 11:00	2025/06/20 09:55	2025/06/20 09:55	2025/06/19 16:00		
COC Number		C#1050125-01-01	C#1050125-01-01	C#1050125-01-01	C#1050125-01-01		
	UNITS	**MW25-1-SS3**	**MW25-2-SS3**	**DUP**	**MW25-3-SS5**	**RDL**	**QC Batch**
Inorganics							
Moisture	%	8.4	9.5	9.7	9.7	1.0	9955925

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		ASEZ06		ASEZ06		ASEZ07		
Sampling Date		2025/06/20 10:10		2025/06/20 10:10		2025/06/20 09:45		
COC Number		C#1050125-01-01		C#1050125-01-01		C#1050125-01-01		
	UNITS	**MW25-2-SS5**	**QC Batch**	**MW25-2-SS5 Lab-Dup**	**QC Batch**	**MW25-2-SS2**	**RDL**	**QC Batch**
Inorganics								
Available (CaCl2) pH	pH	7.93	9957195			7.69		9957195
Miscellaneous Parameters								
Grain Size	%	COARSE	9956636	COARSE	9956636	FINE	N/A	9956636
Sieve - #200 (<0.075mm)	%	47	9956636	48	9956636	68	1	9956636
Sieve - #200 (>0.075mm)	%	53	9956636	52	9956636	32	1	9956636

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable

TEST SUMMARY

Bureau Veritas ID: ASEZ02 **Collected:** 2025/06/20
Sample ID: MW25-1-SS3 **Shipped:**
Matrix: Soil **Received:** 2025/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9955403	N/A	2025/06/25	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9957766	2025/06/25	2025/06/26	Mohammed Abdul Nafay Shoeb
Moisture	BAL	9955925	N/A	2025/06/23	Joe Thomas
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9956004	N/A	2025/06/24	Dina Wang

Bureau Veritas ID: ASEZ03 **Collected:** 2025/06/20
Sample ID: MW25-2-SS3 **Shipped:**
Matrix: Soil **Received:** 2025/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9955403	N/A	2025/06/25	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9957766	2025/06/25	2025/06/26	Mohammed Abdul Nafay Shoeb
Moisture	BAL	9955925	N/A	2025/06/23	Joe Thomas
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9956004	N/A	2025/06/24	Dina Wang

Bureau Veritas ID: ASEZ04 **Collected:** 2025/06/20
Sample ID: DUP **Shipped:**
Matrix: Soil **Received:** 2025/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9955403	N/A	2025/06/24	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9957766	2025/06/25	2025/06/26	Mohammed Abdul Nafay Shoeb
Moisture	BAL	9955925	N/A	2025/06/23	Joe Thomas
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9956004	N/A	2025/06/24	Dina Wang

Bureau Veritas ID: ASEZ04 Dup **Collected:** 2025/06/20
Sample ID: DUP **Shipped:**
Matrix: Soil **Received:** 2025/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9956004	N/A	2025/06/24	Dina Wang

Bureau Veritas ID: ASEZ05 **Collected:** 2025/06/19
Sample ID: MW25-3-SS5 **Shipped:**
Matrix: Soil **Received:** 2025/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9955403	N/A	2025/06/25	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9957766	2025/06/25	2025/06/26	Mohammed Abdul Nafay Shoeb
Moisture	BAL	9955925	N/A	2025/06/23	Joe Thomas
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9956004	N/A	2025/06/24	Dina Wang

Bureau Veritas Job #: C573992
Report Date: 2025/06/26

exp Services Inc
Client Project #: OTT-23002437-B0
Sampler Initials: JE

TEST SUMMARY

Bureau Veritas ID: ASEZ06
Sample ID: MW25-2-SS5
Matrix: Soil

Collected: 2025/06/20
Shipped:
Received: 2025/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH CaCl2 EXTRACT	AT	9957195	2025/06/25	2025/06/25	Sreena Thekkoot
Sieve, 75um	SIEV	9956636	N/A	2025/06/25	Joe Thomas

Bureau Veritas ID: ASEZ06 Dup
Sample ID: MW25-2-SS5
Matrix: Soil

Collected: 2025/06/20
Shipped:
Received: 2025/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Sieve, 75um	SIEV	9956636	N/A	2025/06/25	Joe Thomas

Bureau Veritas ID: ASEZ07
Sample ID: MW25-2-SS2
Matrix: Soil

Collected: 2025/06/20
Shipped:
Received: 2025/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH CaCl2 EXTRACT	AT	9957195	2025/06/25	2025/06/25	Sreena Thekkoot
Sieve, 75um	SIEV	9956636	N/A	2025/06/25	Joe Thomas

GENERAL COMMENTS

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

Package 1	19.0°C

Results relate only to the items tested.

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

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9956004	4-Bromofluorobenzene	2025/06/24	99	60 - 140	100	60 - 140	100	%				
9956004	D10-o-Xylene	2025/06/24	125	60 - 130	109	60 - 130	117	%				
9956004	D4-1,2-Dichloroethane	2025/06/24	96	60 - 140	98	60 - 140	94	%				
9956004	D8-Toluene	2025/06/24	102	60 - 140	102	60 - 140	102	%				
9957766	o-Terphenyl	2025/06/26	89	60 - 140	87	60 - 140	92	%				
9955925	Moisture	2025/06/23							2.7	20		
9956004	1,1,1,2-Tetrachloroethane	2025/06/24	104	60 - 140	110	60 - 130	<0.040	ug/g	NC	50		
9956004	1,1,1-Trichloroethane	2025/06/24	98	60 - 140	105	60 - 130	<0.040	ug/g	NC	50		
9956004	1,1,2,2-Tetrachloroethane	2025/06/24	86	60 - 140	89	60 - 130	<0.040	ug/g	NC	50		
9956004	1,1,2-Trichloroethane	2025/06/24	94	60 - 140	99	60 - 130	<0.040	ug/g	NC	50		
9956004	1,1-Dichloroethane	2025/06/24	96	60 - 140	103	60 - 130	<0.040	ug/g	NC	50		
9956004	1,1-Dichloroethylene	2025/06/24	106	60 - 140	116	60 - 130	<0.040	ug/g	NC	50		
9956004	1,2-Dichlorobenzene	2025/06/24	98	60 - 140	103	60 - 130	<0.040	ug/g	NC	50		
9956004	1,2-Dichloroethane	2025/06/24	99	60 - 140	106	60 - 130	<0.049	ug/g	NC	50		
9956004	1,2-Dichloropropane	2025/06/24	98	60 - 140	104	60 - 130	<0.040	ug/g	NC	50		
9956004	1,3-Dichlorobenzene	2025/06/24	101	60 - 140	106	60 - 130	<0.040	ug/g	NC	50		
9956004	1,4-Dichlorobenzene	2025/06/24	101	60 - 140	107	60 - 130	<0.040	ug/g	NC	50		
9956004	Acetone (2-Propanone)	2025/06/24	93	60 - 140	100	60 - 140	<0.49	ug/g	NC	50		
9956004	Benzene	2025/06/24	101	60 - 140	109	60 - 130	<0.0060	ug/g	NC	50		
9956004	Bromodichloromethane	2025/06/24	92	60 - 140	98	60 - 130	<0.040	ug/g	NC	50		
9956004	Bromoform	2025/06/24	94	60 - 140	98	60 - 130	<0.040	ug/g	NC	50		
9956004	Bromomethane	2025/06/24	94	60 - 140	104	60 - 140	<0.040	ug/g	NC	50		
9956004	Carbon Tetrachloride	2025/06/24	104	60 - 140	113	60 - 130	<0.040	ug/g	NC	50		
9956004	Chlorobenzene	2025/06/24	93	60 - 140	100	60 - 130	<0.040	ug/g	NC	50		
9956004	Chloroform	2025/06/24	96	60 - 140	103	60 - 130	<0.040	ug/g	NC	50		
9956004	cis-1,2-Dichloroethylene	2025/06/24	104	60 - 140	112	60 - 130	<0.040	ug/g	NC	50		
9956004	cis-1,3-Dichloropropene	2025/06/24	98	60 - 140	107	60 - 130	<0.030	ug/g	NC	50		
9956004	Dibromochloromethane	2025/06/24	96	60 - 140	101	60 - 130	<0.040	ug/g	NC	50		
9956004	Dichlorodifluoromethane (FREON 12)	2025/06/24	111	60 - 140	126	60 - 140	<0.040	ug/g	NC	50		
9956004	Ethylbenzene	2025/06/24	103	60 - 140	111	60 - 130	<0.010	ug/g	NC	50		
9956004	Ethylene Dibromide	2025/06/24	93	60 - 140	97	60 - 130	<0.040	ug/g	NC	50		
9956004	F1 (C6-C10) - BTEX	2025/06/24					<10	ug/g	NC	30		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9956004	F1 (C6-C10)	2025/06/24	96	60 - 140	90	80 - 120	<10	ug/g	NC	30		
9956004	Hexane	2025/06/24	120	60 - 140	131 (1)	60 - 130	<0.040	ug/g	NC	50		
9956004	Methyl Ethyl Ketone (2-Butanone)	2025/06/24	92	60 - 140	99	60 - 140	<0.40	ug/g	NC	50		
9956004	Methyl Isobutyl Ketone	2025/06/24	93	60 - 140	100	60 - 130	<0.40	ug/g	NC	50		
9956004	Methyl t-butyl ether (MTBE)	2025/06/24	103	60 - 140	112	60 - 130	<0.040	ug/g	NC	50		
9956004	Methylene Chloride(Dichloromethane)	2025/06/24	92	60 - 140	99	60 - 130	<0.049	ug/g	NC	50		
9956004	o-Xylene	2025/06/24	108	60 - 140	117	60 - 130	<0.020	ug/g	NC	50		
9956004	p+m-Xylene	2025/06/24	101	60 - 140	109	60 - 130	<0.020	ug/g	NC	50		
9956004	Styrene	2025/06/24	97	60 - 140	104	60 - 130	<0.040	ug/g	NC	50		
9956004	Tetrachloroethylene	2025/06/24	98	60 - 140	105	60 - 130	<0.040	ug/g	NC	50		
9956004	Toluene	2025/06/24	99	60 - 140	107	60 - 130	<0.020	ug/g	NC	50		
9956004	Total Xylenes	2025/06/24					<0.020	ug/g	NC	50		
9956004	trans-1,2-Dichloroethylene	2025/06/24	107	60 - 140	116	60 - 130	<0.040	ug/g	NC	50		
9956004	trans-1,3-Dichloropropene	2025/06/24	105	60 - 140	114	60 - 130	<0.040	ug/g	NC	50		
9956004	Trichloroethylene	2025/06/24	101	60 - 140	109	60 - 130	<0.010	ug/g	NC	50		
9956004	Trichlorofluoromethane (FREON 11)	2025/06/24	99	60 - 140	108	60 - 130	<0.040	ug/g	NC	50		
9956004	Vinyl Chloride	2025/06/24	102	60 - 140	114	60 - 130	<0.019	ug/g	NC	50		
9956636	Sieve - #200 (<0.075mm)	2025/06/25							2.3	20	56	53 - 58
9956636	Sieve - #200 (>0.075mm)	2025/06/25							2.0	20	44	42 - 47
9957195	Available (CaCl2) pH	2025/06/25			100	97 - 103			0.38	N/A		
9957766	F2 (C10-C16 Hydrocarbons)	2025/06/26	85	60 - 140	86	80 - 120	<7.0	ug/g	NC	30		
9957766	F3 (C16-C34 Hydrocarbons)	2025/06/26	87	60 - 140	87	80 - 120	<50	ug/g	NC	30		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9957766	F4 (C34-C50 Hydrocarbons)	2025/06/26	86	60 - 140	86	80 - 120	<50	ug/g	NC	30		

N/A = Not Applicable

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.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

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 (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 above the upper control limit. This may represent a high bias in some results for this specific analyte. For results that were not detected (ND), this potential bias has no impact.

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere

Cristina Carriere, Senior Scientific Specialist

Bureau Veritas 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 Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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

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2025/06/20 16:30

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Page 1 of 1

CHAIN OF CUSTODY RECORD

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#17498 exp Services Inc	Company Name:		Quotation #:	C41513	Bureau Veritas Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Leah Wells	P.O. #:			1050125
Address:	100-2650 Queensview Drive Ottawa ON K2B 8H6	Address:		Project:	OTT-23002437-B0	COC #:	Project Manager:
Tel:	(613) 688-1899 Fax: (613) 225-7337	Tel:	Fax:	Project Name:		C#1050125-01-01	Katherine Szozda
Email:	AP@exp.com;Karen.Burke@exp.com	Email:	leah.wells@exp.com	Site #:			
				Sampled By:	Jeremy Eckert		

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

Regulation 153 (2011)
- [X] Table 1 [ ] Res/Park [ ] Medium/Fine
- [ ] Table 2 [ ] Ind/Comm [ ] Coarse
- [ ] Table 3 [ ] 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)

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 ROD 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 (Soil)	Grain size, pH	# of Bottles	Comments
1		MW25-1-SS3	25/06/20	11:00	S		X		3	
2		MW25-2-SS3	25/06/20	9:55			X		3	
3		DUP	25/06/20	9:55			X		3	
4		MW25-3-SS5	25/06/19	16:00			X		3	
5		MW25-2-SS5	25/06/20	10:10			MW X	X	1	
6		MW25-2-SS2	25/06/20	9:45	↓			X	1	
7										
8										
9										
10										

OTT-2025-06-244

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
Jeremy Eckert	25/06/20	16:00	[illegible]	2025/06/20	16:30	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes	No
	20.1 9.1 8.1 °C	Intact		

2025/06/20

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S 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.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-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.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/CHAIN-CUSTODY-FORMS-COCS.

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

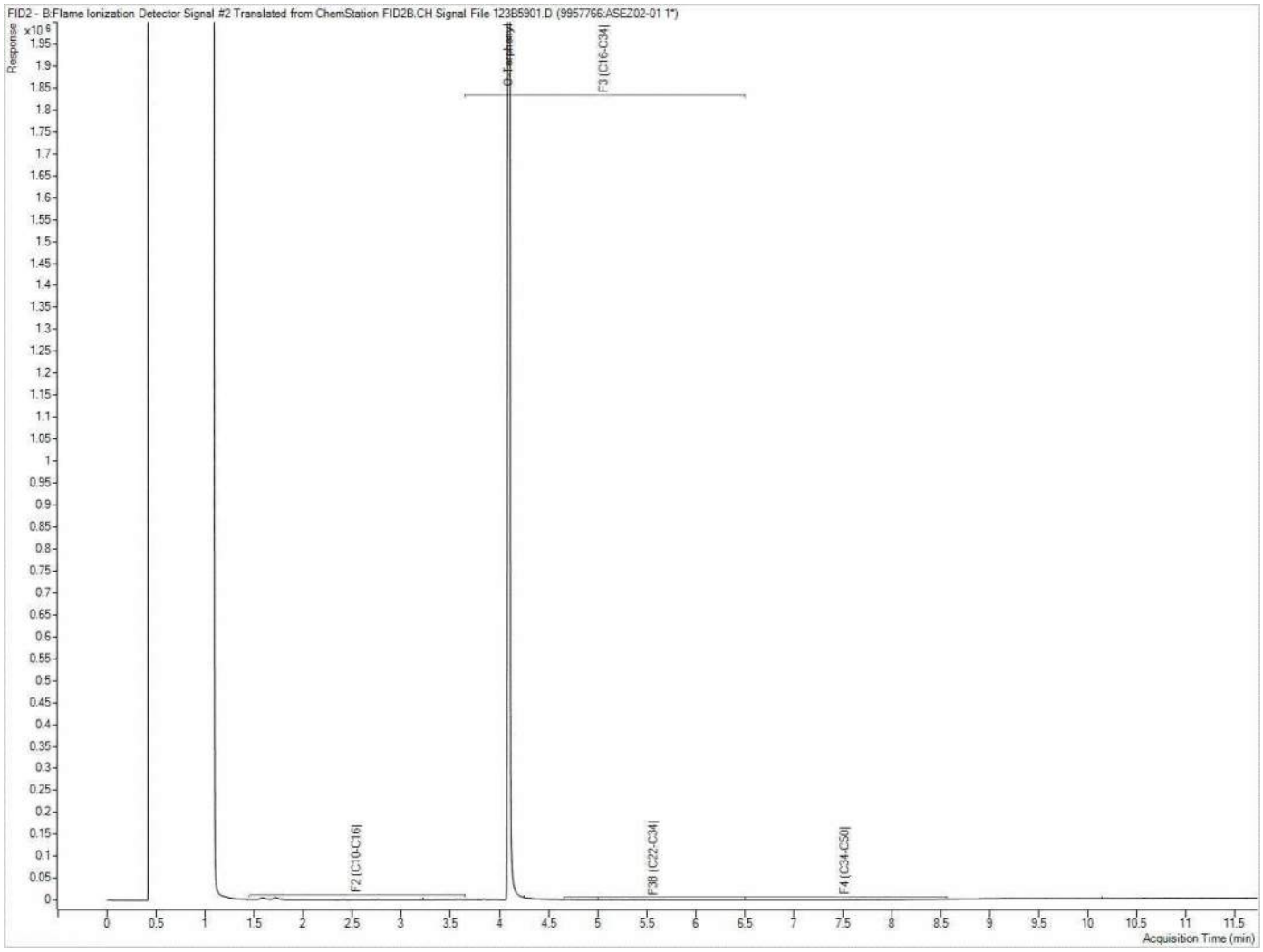
White: Bureau Veritas Yellow: Client

Bureau Veritas Canada (2019) Inc.

Bureau Veritas Job #: C573992
Report Date: 2025/06/26
Bureau Veritas Sample: ASEZ02

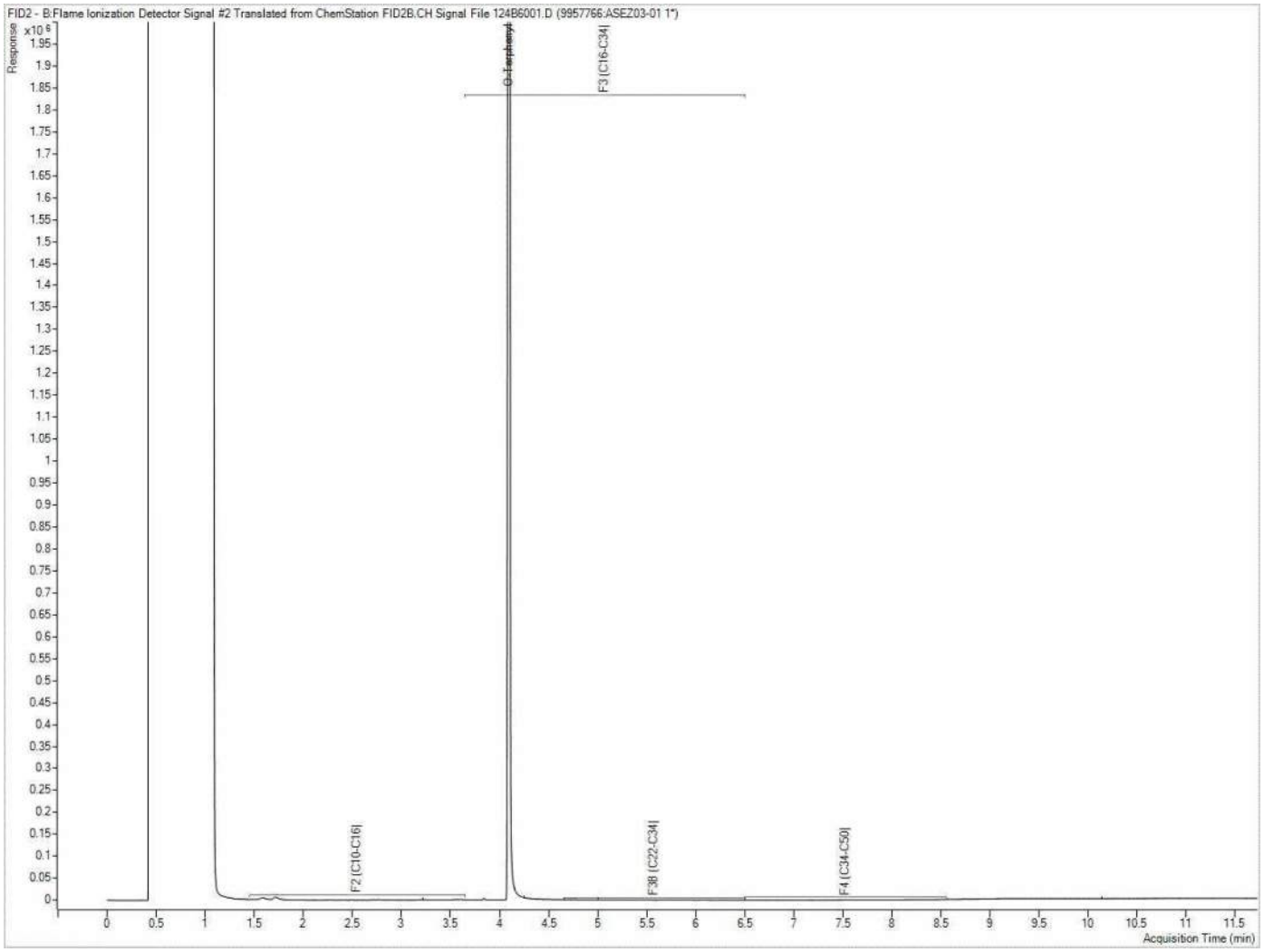
exp Services Inc
Client Project #: OTT-23002437-B0
Client ID: MW25-1-SS3

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.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

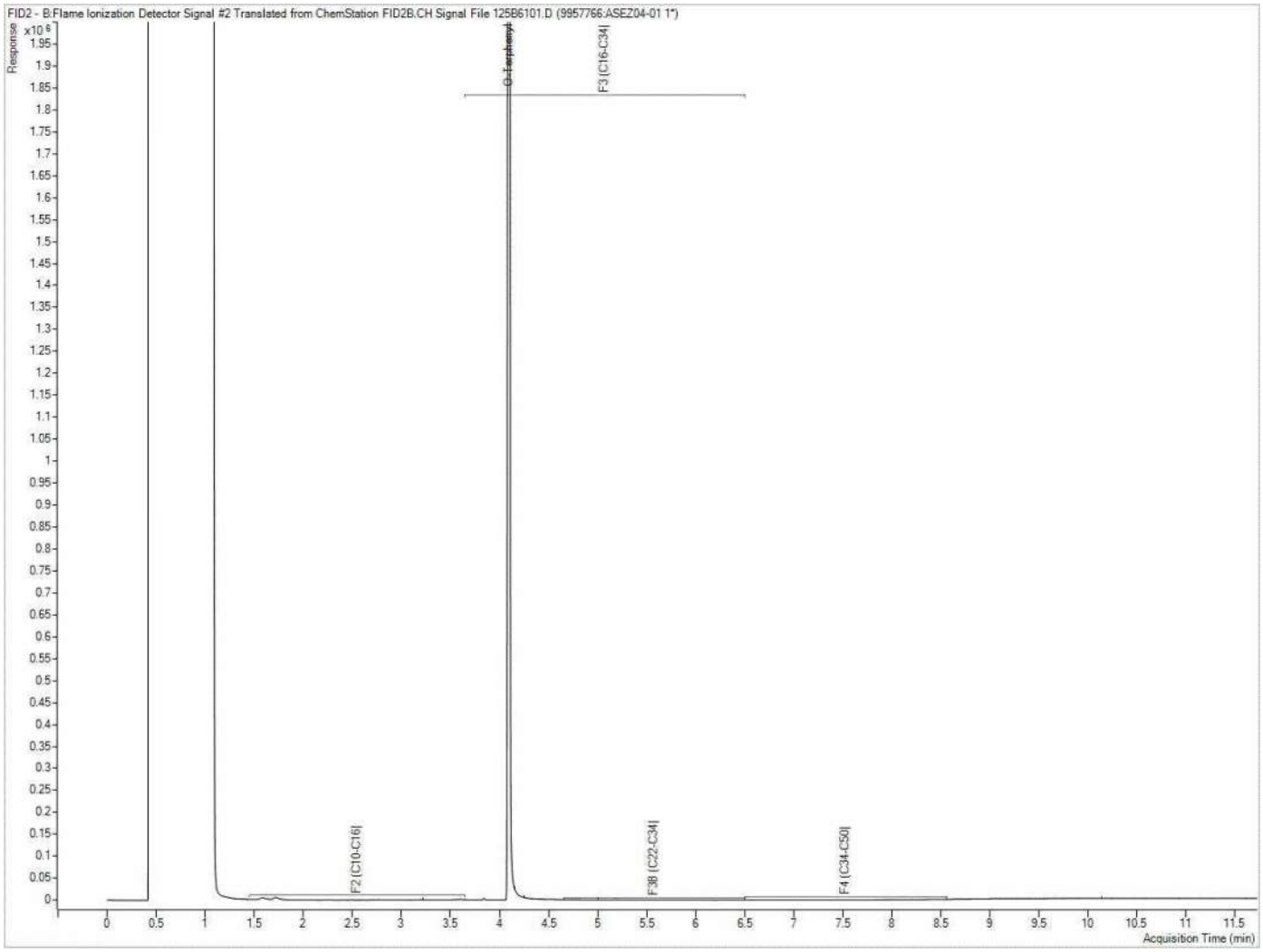


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C573992
Report Date: 2025/06/26
Bureau Veritas Sample: ASEZ04

exp Services Inc
Client Project #: OTT-23002437-B0
Client ID: DUP

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

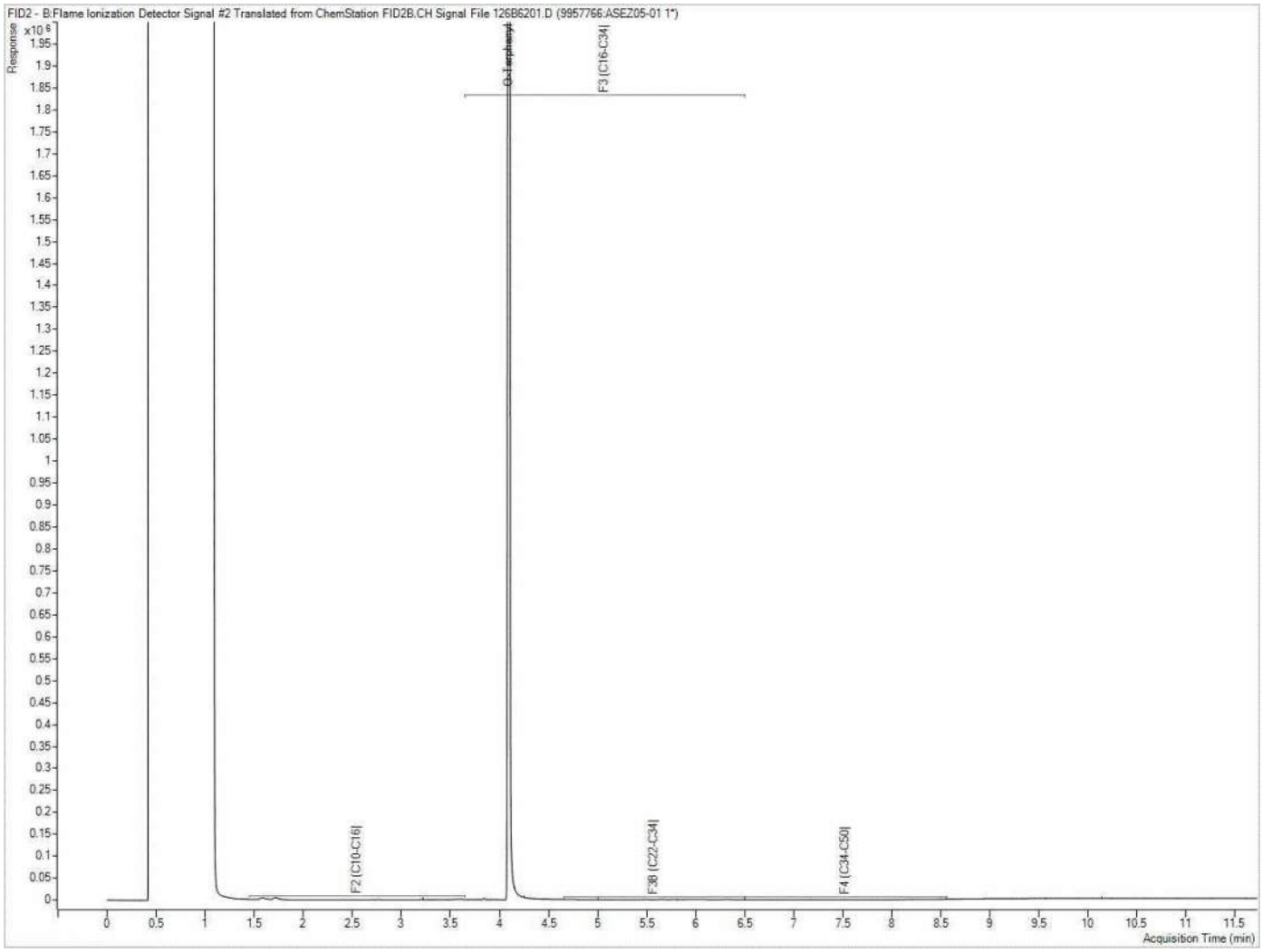


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C573992
Report Date: 2025/06/26
Bureau Veritas Sample: ASEZ05

exp Services Inc
Client Project #: OTT-23002437-B0
Client ID: MW25-3-SS5

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-23002437-B0
Your C.O.C. #: C#1051185-01-01

Attention: Leah Wells

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

Report Date: 2025/07/09
Report #: R8572678
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C580219
Received: 2025/07/04, 12:52

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
1,3-Dichloropropene Sum (1)	4	N/A	2025/07/09		EPA 8260C m
Petroleum Hydrocarbons F2-F4 in Water (1, 2)	4	2025/07/08	2025/07/09	CAM SOP-00316	CCME PHC-CWS m
Volatile Organic Compounds and F1 PHCs (1)	4	N/A	2025/07/08	CAM SOP-00230	EPA 8260C m

Remarks:

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

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas 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.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas 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 Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas 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 Bureau Veritas, results relate to the supplied samples tested.

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 Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas 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-23002437-B0
Your C.O.C. #: C#1051185-01-01

Attention: Leah Wells

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

Report Date: 2025/07/09
Report #: R8572678
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C580219
Received: 2025/07/04, 12:52

Encryption Key

Bureau Veritas
09 Jul 2025 16:19:40

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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This report has been generated and distributed using a secure automated process.
Bureau Veritas 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 Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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

Bureau Veritas ID		ASQT27	ASQT28	ASQT29	ASQT30		
Sampling Date		2025/07/04 11:45	2025/07/04 10:45	2025/07/04 11:20	2025/07/04 11:20		
COC Number		C#1051185-01-01	C#1051185-01-01	C#1051185-01-01	C#1051185-01-01		
	UNITS	**MW25-1**	**MW25-2**	**MW25-3**	**DUP**	**RDL**	**QC Batch**
Calculated Parameters							
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9963872
Volatile Organics							
Acetone (2-Propanone)	ug/L	<10	<10	<10	<10	10	9964438
Benzene	ug/L	<0.17	<0.17	<0.17	<0.17	0.17	9964438
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9964438
Bromoform	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	9964438
Bromomethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9964438
Carbon Tetrachloride	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9964438
Chlorobenzene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9964438
Chloroform	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9964438
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9964438
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9964438
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9964438
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9964438
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	9964438
1,1-Dichloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9964438
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9964438
1,1-Dichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9964438
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9964438
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9964438
1,2-Dichloropropane	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9964438
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	<0.30	<0.30	0.30	9964438
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	9964438
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9964438
Ethylene Dibromide	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9964438
Hexane	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	9964438
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	9964438
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	<10	<10	10	9964438
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	<5.0	<5.0	5.0	9964438
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9964438
Styrene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9964438
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9964438
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9964438
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9964438
Toluene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9964438

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas ID		ASQT27	ASQT28	ASQT29	ASQT30		
Sampling Date		2025/07/04 11:45	2025/07/04 10:45	2025/07/04 11:20	2025/07/04 11:20		
COC Number		C#1051185-01-01	C#1051185-01-01	C#1051185-01-01	C#1051185-01-01		
	UNITS	**MW25-1**	**MW25-2**	**MW25-3**	**DUP**	**RDL**	**QC Batch**
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9964438
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9964438
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9964438
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9964438
Vinyl Chloride	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9964438
p+m-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9964438
o-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9964438
Total Xylenes	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9964438
F1 (C6-C10)	ug/L	<25	<25	<25	<25	25	9964438
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	<25	25	9964438
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/L	<90	<90	<90	<90	90	9965405
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	<200	200	9965405
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	<200	200	9965405
Reached Baseline at C50	ug/L	Yes	Yes	Yes	Yes		9965405
Surrogate Recovery (%)							
o-Terphenyl	%	114	114	113	113		9965405
4-Bromofluorobenzene	%	105	103	104	103		9964438
D4-1,2-Dichloroethane	%	88	86	88	85		9964438
D8-Toluene	%	91	89	91	91		9964438

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

TEST SUMMARY

Bureau Veritas ID: ASQT27 **Collected:** 2025/07/04
Sample ID: MW25-1 **Shipped:**
Matrix: Water **Received:** 2025/07/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9963872	N/A	2025/07/09	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9965405	2025/07/08	2025/07/09	Mohammed Abdul Nafay Shoeb
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9964438	N/A	2025/07/08	Xueming Jiang

Bureau Veritas ID: ASQT28 **Collected:** 2025/07/04
Sample ID: MW25-2 **Shipped:**
Matrix: Water **Received:** 2025/07/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9963872	N/A	2025/07/09	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9965405	2025/07/08	2025/07/09	Mohammed Abdul Nafay Shoeb
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9964438	N/A	2025/07/08	Xueming Jiang

Bureau Veritas ID: ASQT29 **Collected:** 2025/07/04
Sample ID: MW25-3 **Shipped:**
Matrix: Water **Received:** 2025/07/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9963872	N/A	2025/07/09	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9965405	2025/07/08	2025/07/09	Mohammed Abdul Nafay Shoeb
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9964438	N/A	2025/07/08	Xueming Jiang

Bureau Veritas ID: ASQT30 **Collected:** 2025/07/04
Sample ID: DUP **Shipped:**
Matrix: Water **Received:** 2025/07/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9963872	N/A	2025/07/09	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9965405	2025/07/08	2025/07/09	Mohammed Abdul Nafay Shoeb
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9964438	N/A	2025/07/08	Xueming Jiang

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

GENERAL COMMENTS

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

Package 1	14.0°C

Results relate only to the items tested.

Bureau Veritas 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.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
9964438	4-Bromofluorobenzene	2025/07/08	108	70 - 130	108	70 - 130	105	%		
9964438	D4-1,2-Dichloroethane	2025/07/08	83	70 - 130	90	70 - 130	82	%		
9964438	D8-Toluene	2025/07/08	99	70 - 130	100	70 - 130	93	%		
9965405	o-Terphenyl	2025/07/08	114	60 - 140	115	60 - 140	112	%		
9964438	1,1,1,2-Tetrachloroethane	2025/07/08	99	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
9964438	1,1,1-Trichloroethane	2025/07/08	85	70 - 130	91	70 - 130	<0.20	ug/L	NC	30
9964438	1,1,2,2-Tetrachloroethane	2025/07/08	87	70 - 130	81	70 - 130	<0.50	ug/L	NC	30
9964438	1,1,2-Trichloroethane	2025/07/08	81	70 - 130	77	70 - 130	<0.50	ug/L	NC	30
9964438	1,1-Dichloroethane	2025/07/08	82	70 - 130	87	70 - 130	<0.20	ug/L	NC	30
9964438	1,1-Dichloroethylene	2025/07/08	85	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
9964438	1,2-Dichlorobenzene	2025/07/08	98	70 - 130	95	70 - 130	<0.50	ug/L	NC	30
9964438	1,2-Dichloroethane	2025/07/08	83	70 - 130	88	70 - 130	<0.50	ug/L	NC	30
9964438	1,2-Dichloropropane	2025/07/08	88	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
9964438	1,3-Dichlorobenzene	2025/07/08	101	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
9964438	1,4-Dichlorobenzene	2025/07/08	101	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
9964438	Acetone (2-Propanone)	2025/07/08	87	60 - 140	89	60 - 140	<10	ug/L	14	30
9964438	Benzene	2025/07/08	90	70 - 130	96	70 - 130	<0.17	ug/L	NC	30
9964438	Bromodichloromethane	2025/07/08	84	70 - 130	87	70 - 130	<0.50	ug/L	NC	30
9964438	Bromoform	2025/07/08	103	70 - 130	96	70 - 130	<1.0	ug/L	NC	30
9964438	Bromomethane	2025/07/08	85	60 - 140	93	60 - 140	<0.50	ug/L	NC	30
9964438	Carbon Tetrachloride	2025/07/08	93	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
9964438	Chlorobenzene	2025/07/08	89	70 - 130	86	70 - 130	<0.20	ug/L	NC	30
9964438	Chloroform	2025/07/08	85	70 - 130	89	70 - 130	<0.20	ug/L	NC	30
9964438	cis-1,2-Dichloroethylene	2025/07/08	97	70 - 130	104	70 - 130	<0.50	ug/L	NC	30
9964438	cis-1,3-Dichloropropene	2025/07/08	88	70 - 130	94	70 - 130	<0.30	ug/L	NC	30
9964438	Dibromochloromethane	2025/07/08	93	70 - 130	88	70 - 130	<0.50	ug/L	NC	30
9964438	Dichlorodifluoromethane (FREON 12)	2025/07/08	80	60 - 140	94	60 - 140	<1.0	ug/L	NC	30
9964438	Ethylbenzene	2025/07/08	89	70 - 130	88	70 - 130	<0.20	ug/L	NC	30
9964438	Ethylene Dibromide	2025/07/08	93	70 - 130	88	70 - 130	<0.20	ug/L	NC	30
9964438	F1 (C6-C10) - BTEX	2025/07/08					<25	ug/L	NC	30
9964438	F1 (C6-C10)	2025/07/08	77	60 - 140	98	60 - 140	<25	ug/L	NC	30
9964438	Hexane	2025/07/08	93	70 - 130	107	70 - 130	<1.0	ug/L	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
9964438	Methyl Ethyl Ketone (2-Butanone)	2025/07/08	78	60 - 140	82	60 - 140	<10	ug/L	NC	30
9964438	Methyl Isobutyl Ketone	2025/07/08	83	70 - 130	89	70 - 130	<5.0	ug/L	NC	30
9964438	Methyl t-butyl ether (MTBE)	2025/07/08	89	70 - 130	96	70 - 130	<0.50	ug/L	NC	30
9964438	Methylene Chloride(Dichloromethane)	2025/07/08	102	70 - 130	108	70 - 130	<2.0	ug/L	NC	30
9964438	o-Xylene	2025/07/08	97	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
9964438	p+m-Xylene	2025/07/08	90	70 - 130	89	70 - 130	<0.20	ug/L	NC	30
9964438	Styrene	2025/07/08	93	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
9964438	Tetrachloroethylene	2025/07/08	95	70 - 130	91	70 - 130	<0.20	ug/L	NC	30
9964438	Toluene	2025/07/08	92	70 - 130	91	70 - 130	<0.20	ug/L	NC	30
9964438	Total Xylenes	2025/07/08					<0.20	ug/L	NC	30
9964438	trans-1,2-Dichloroethylene	2025/07/08	96	70 - 130	104	70 - 130	<0.50	ug/L	NC	30
9964438	trans-1,3-Dichloropropene	2025/07/08	98	70 - 130	96	70 - 130	<0.40	ug/L	NC	30
9964438	Trichloroethylene	2025/07/08	96	70 - 130	102	70 - 130	<0.20	ug/L	NC	30
9964438	Trichlorofluoromethane (FREON 11)	2025/07/08	81	70 - 130	88	70 - 130	<0.50	ug/L	NC	30
9964438	Vinyl Chloride	2025/07/08	85	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9965405	F2 (C10-C16 Hydrocarbons)	2025/07/08	108	60 - 140	110	60 - 140	<90	ug/L	NC	30
9965405	F3 (C16-C34 Hydrocarbons)	2025/07/08	116	60 - 140	122	60 - 140	<200	ug/L	NC	30
9965405	F4 (C34-C50 Hydrocarbons)	2025/07/08	111	60 - 140	114	60 - 140	<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 (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:

Cristina Carriere

Cristina Carriere, Senior Scientific Specialist

Bureau Veritas 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 Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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

C580219
2025/07/04 12:52

Affix Job Label Here

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

			Inorganics					Organics											Hydrocarbons							Volatiles				Other
	Sample ID	All	CrVI	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	MW25-1	TS																											
2	MW25-2	TS																											
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													

Comments:

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) KUNJKUMAR PATEL

C580219
2025/07/04 12:52

Page 1 of 1

Bureau Veritas
36 Antares Dr Unit 100, Nepean, Ontario Canada K2E 7W5 Tel:(613) 274-0573 Toll-free:800-563-6266 Fax:(613) 274-0574 www.bvna.com

CHAIN OF CUSTODY RECORD

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#17498 exp Services Inc	Company Name:		Quotation #:	C41513	Bureau Veritas Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Leah Wells	P.O. #:			1051185
Address:	100-2650 Queensview Drive Ottawa ON K2B 8H6	Address:		Project:	OTT-23002437-B0	COC #:	Project Manager:
Tel:	(613) 688-1899 Fax: (613) 225-7337	Tel:	Fax:	Project Name:		C#1051185-01-01	Katherine Szozda
Email:	AP@exp.com;Karen.Burke@exp.com	Email:	leah.wells@exp.com	Site #:			
				Sampled By:	Jeremy Eckert		

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

Regulation 153 (2011): [X] Table 1 [ ] Res/Park [ ] Medium/Fine; [ ] Table 2 [ ] Ind/Comm [ ] Coarse; [ ] Table 3 [ ] 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)

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	# of Bottles	Comments
1		MW25-1	25/07/04	11:45	GW		X	4	
2		MW25-2	↓	10:45	↓		↓	↓	
3		MW25-3		11:20					
4		DUP	↓	11:20	↓		↓	JF	
5									
6									
7									
8									
9									
10									

Received in Ottawa

OTT-2025-07-035

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Jeremy Eckert	25/07/04	12:00	[illegible] ABT	2025/07/04	12:52	

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	14.1, 14.1	Present		
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S 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.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-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.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/CHAIN-CUSTODY-FORMS-COCS.

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

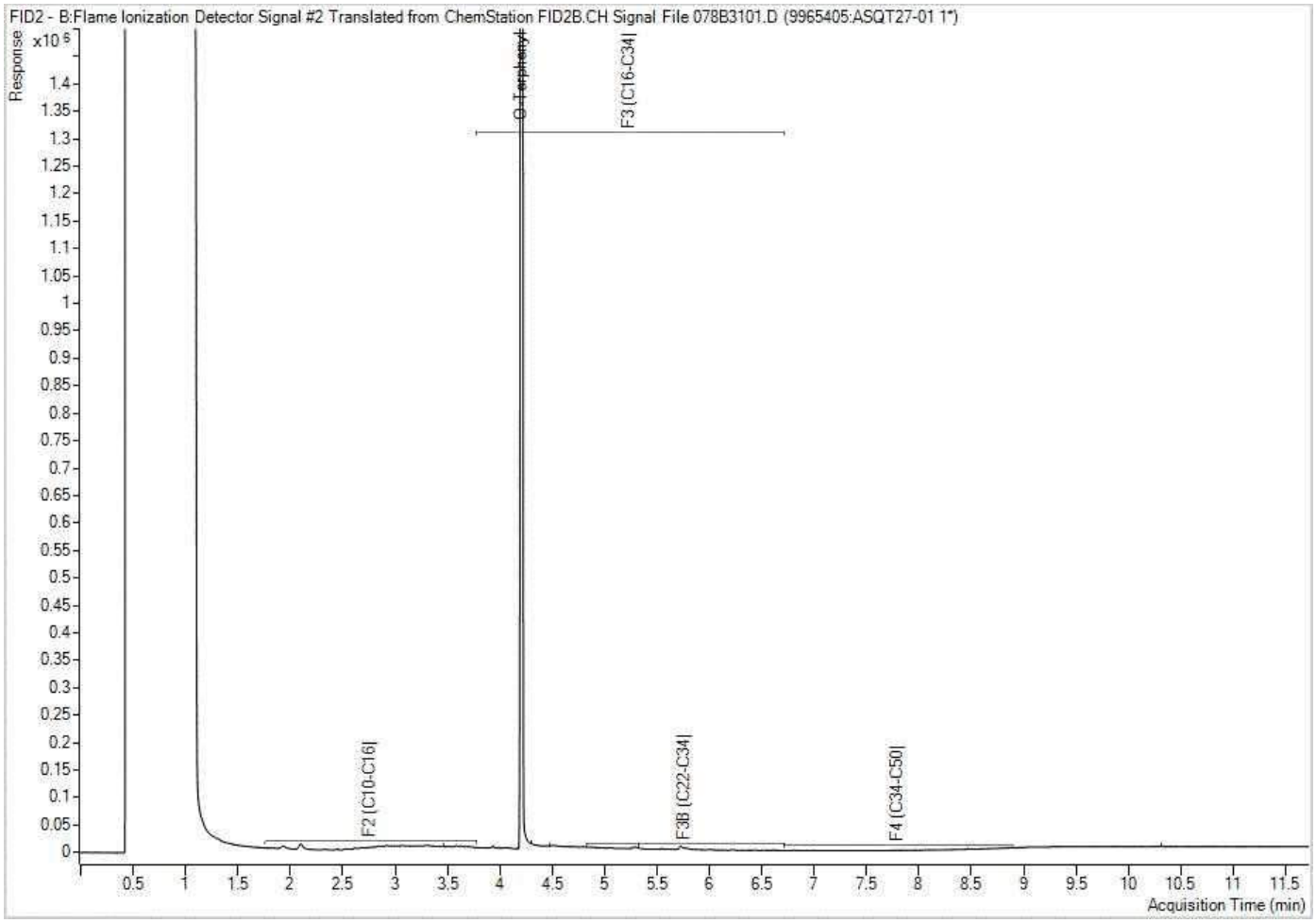
White: Bureau Veritas Yellow: Client

Bureau Veritas Canada (2019) Inc.

Bureau Veritas Job #: C580219
Report Date: 2025/07/09
Bureau Veritas Sample: ASQT27

exp Services Inc
Client Project #: OTT-23002437-B0
Client ID: MW25-1

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

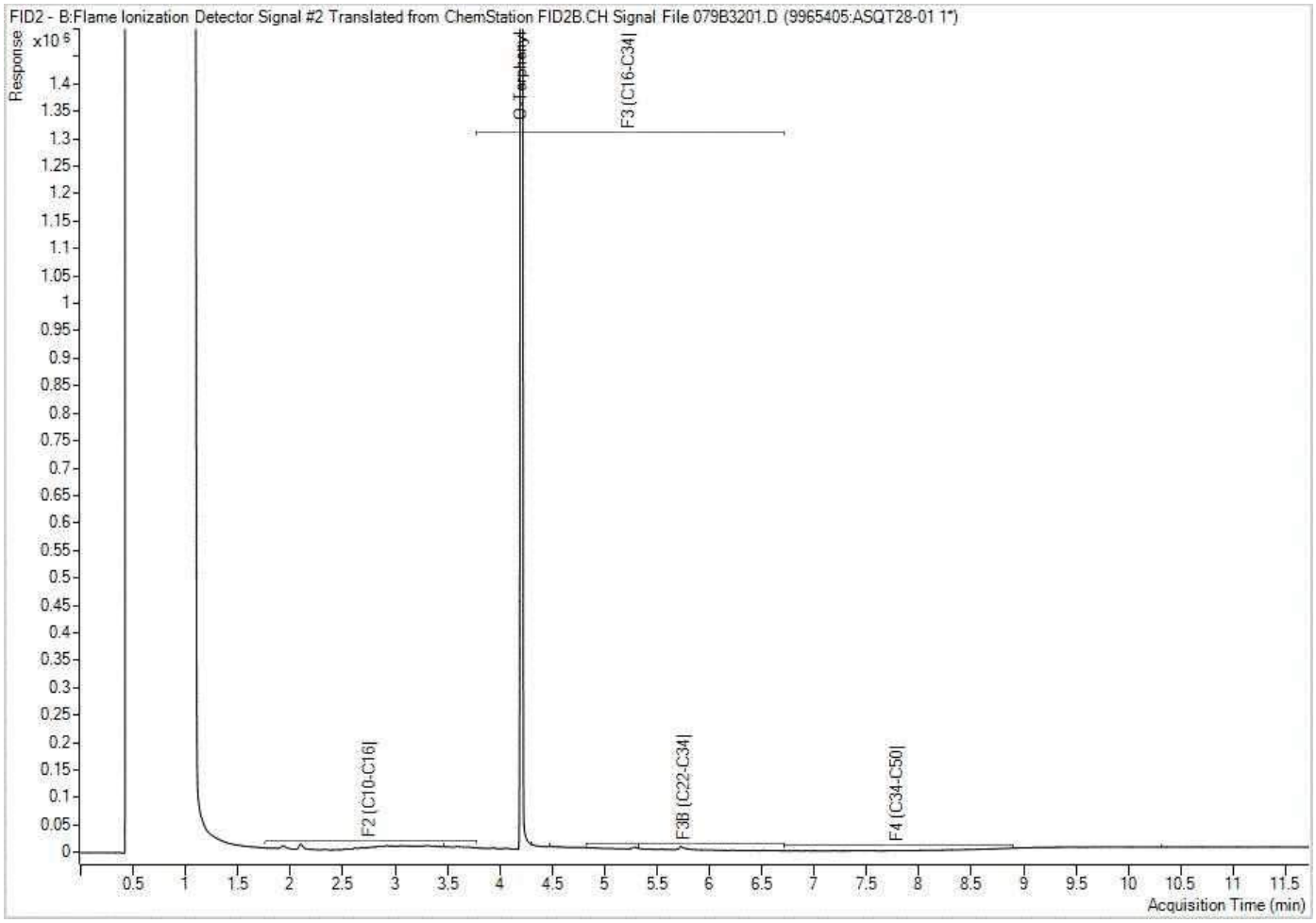


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C580219
Report Date: 2025/07/09
Bureau Veritas Sample: ASQT28

exp Services Inc
Client Project #: OTT-23002437-B0
Client ID: MW25-2

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

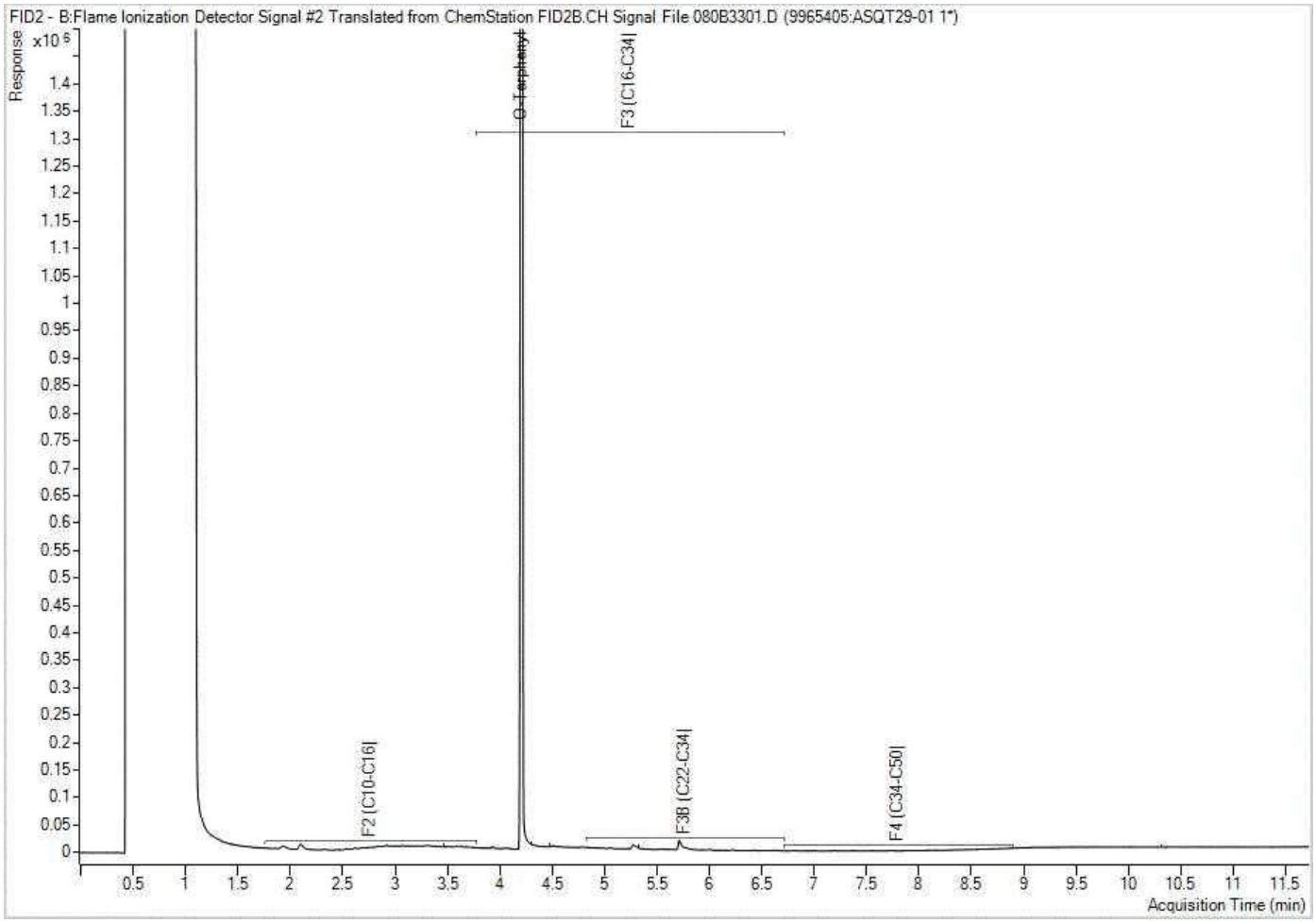


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C580219
Report Date: 2025/07/09
Bureau Veritas Sample: ASQT29

exp Services Inc
Client Project #: OTT-23002437-B0
Client ID: MW25-3

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

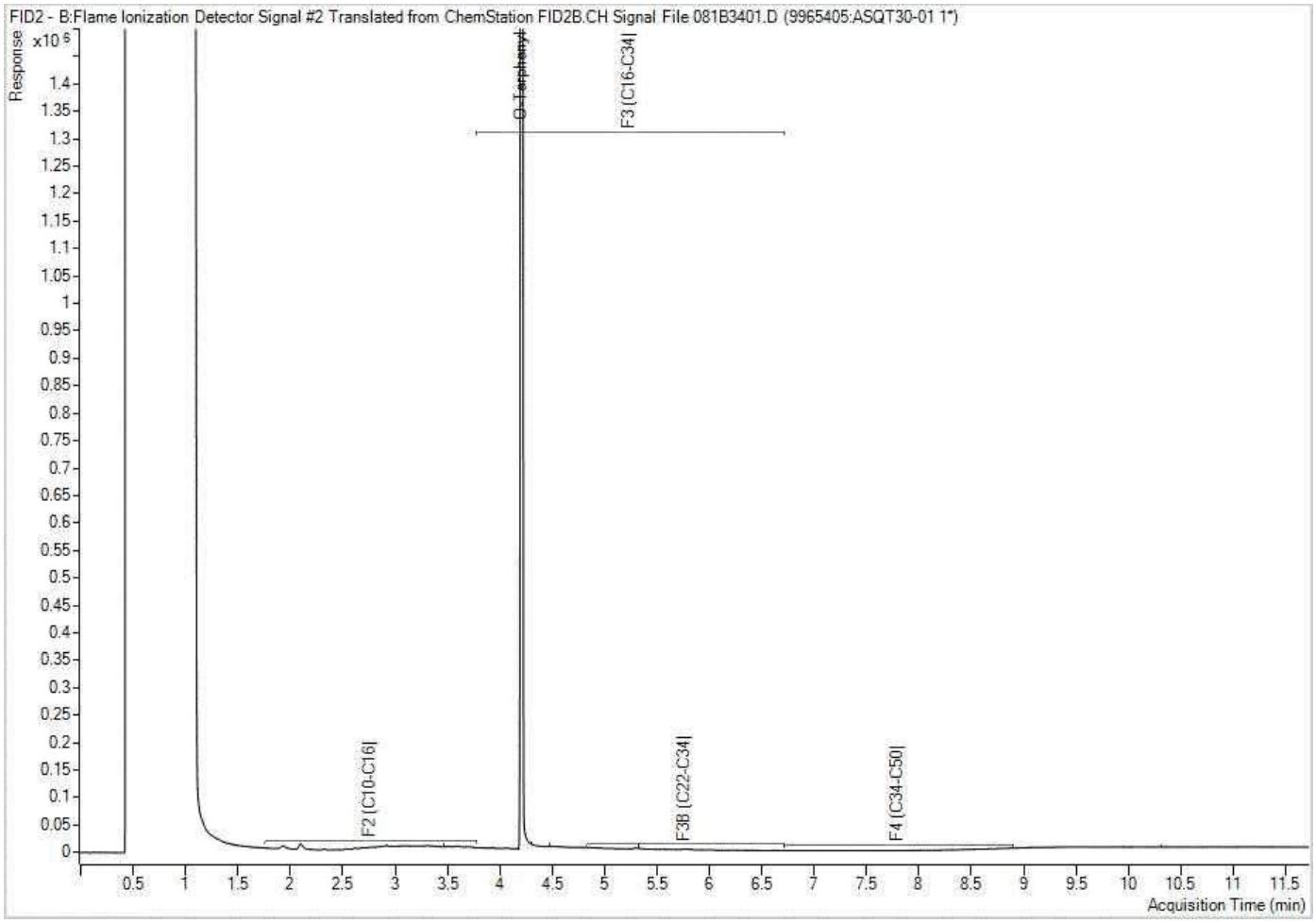


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C580219
Report Date: 2025/07/09
Bureau Veritas Sample: ASQT30

exp Services Inc
Client Project #: OTT-23002437-B0
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.