Phase Two Environmental Site Assessment
Part of 780 Baseline Road, Ottawa, Ontario

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780 Baseline Inc.

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Phase Two Environmental Site Assessment

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Legal Notification

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Executive Summary

EXP Services Inc. (EXP) was retained by 780 Baseline Road Inc. to conduct a Phase Two Environmental Site Assessment (ESA) at 780 Baseline Road in Ottawa, Ontario (hereinafter referred to as the 'Phase Two property'). At the time of the investigation, the Phase Two property was occupied by a paved parking lot.

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. The most recent use of the property was commercial, and the proposed future property use will be residential and commercial. The proposed development will consist of a twenty-five storey multi-use building, with two levels of underground parking. Consequently, in accordance with Regulation 153/04, as amended, a Record of Site Condition (RSC) must be filed.

The Phase Two property is located on the west side of Fisher Avenue, approximately 100 m south of Baseline Road in Ottawa. The Phase Two property is rectangular in shape and has an approximate area of 0.3 hectares. The approximate centroid coordinates are NAD83 18T 443905 m E and 5024307 m N.

At the time of the investigation, the Phase Two property was occupied by an asphalt parking for the north adjacent commercial strip mall. The Phase Two property is part of a larger property parcel legally described as Part of Lots 6 to 12 inclusive, Plan 310501, City of Ottawa, and Lots 8, 9 and Part Lots 6 and 7 Plan 310509; City of Nepean. The property identification numbers (PIN) are 040460029 and 040460037.

In August 2021, Paterson Group conducted a Phase Two ESA based on the results of a previous Phase One ESA for the entire property at 780 Baseline Road conducted by EXP in 2021. Three exterior boreholes (MW-1 to MW-3) were advanced north, east, and south of the unit that formerly contained the dry cleaner on the north adjacent property. The boreholes were advanced to a maximum depth of 6.7 meters below ground surface (m bgs) and monitoring wells were installed in each of the boreholes. Three native soil samples and three groundwater samples were submitted for analysis of volatile organic compounds (VOC). There were no exceedances of the Table 3 residential site condition standards (SCS), and all parameters analyzed were below the detection limits. Based on the results of the Phase Two ESA, no further environmental investigation was recommended by Paterson.

As the Paterson Phase Two investigation did not address drilling within the footprint of the building, EXP completed an additional Phase Two investigation on the north adjacent part of 780 Baseline Road. The drilling program was conducted in conjunction with a geotechnical investigation and included the entire 780 Baseline Road property. One monitoring well was drilled inside the former dry cleaner's unit. The groundwater samples collected from this monitoring well exceeded the applicable standards for tetrachloroethylene (PCE). Based on groundwater samples obtained from other monitoring wells, the contaminant plume was determined to be delineated to the east and west. The plume was not considered to be delineated to the south (towards the Phase One property).

Two of the boreholes (BH-5 and BH-6) drilled as part of the 2022 geotechnical investigation were located on the Phase Two property, both of which were completed as piezometers.

Most recently, EXP prepared a report entitled *Phase One Environmental Site Assessment, Part of 780 Baseline Road, Ottawa, Ontario,* dated June 8, 2023. The Phase One study area included properties within 250 m of the Phase Two property. Based on the results of the Phase One ESA, EXP identified two APEC within the Phase One study area. A summary is provided in Table 2.1.

Table EX.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	Entire Phase Two property	PCA#30 – Importation of Fill Material of Unknown Quality	On-site	Metals, petroleum hydrocarbons (PHC), polycyclic aromatic hydrocarbons (PAH)	Soil
APEC #2	North part of Phase Two property	PCA#37 – Operation of Dry-Cleaning Equipment (where chemicals are used)	Off-site	Volatile organic compounds (VOC)	Groundwater
APEC #3	Southwest corner of Phase Two Property	PCA #28 – Gasoline and associated products storage in fixed tanks	On-site	BTEX, PHC	Soil and groundwater

The current site investigative activities consisted of the drilling of boreholes to facilitate the collection of soil samples for visual inspection and chemical analysis. The boreholes were instrumented with monitoring wells to facilitate the collection of groundwater samples.

On May 29, 2023, three boreholes (MW-1, BH-2 and BH-3) were advanced at the Phase Two property by Strata Drilling (Strata). The boreholes were advanced to termination depths ranging from 4.6 m to 6.1 m below existing grade. On October 5, 2023, one borehole (MW-2) was advanced on the Phase Two property by George Downing Estate Drilling (Downing). This borehole was drilled in the same location as BH-2 but was completed as a monitoring well.

Three soil samples were collected from the fill material and submitted for analysis of BTEX, PHC, PAH, and metals. Three native samples and one duplicate sample were collected from the native material and submitted for analysis of PHC, VOC, PAH, and metals. Four groundwater samples and one field duplicate were submitted for analysis of VOC, PHC, PAH, and metals.

All of the samples were within the Table 3 SCS for all parameters analysed with the exception of PHC F3 in a fill sample collected from BH-2, and barium, cobalt, and/or vanadium in two of the soil samples collected from BH-2 (and the duplicate sample). Based on the geology of the site, it appears that the fill layer consists of granular fill overlying re-worked native material. The measured concentrations of barium, cobalt and vanadium in the native silty clay at the Phase Two property are within the typical range of concentrations in the Ottawa area and are not indicative of anthropogenic impact.

There were no exceedances of the MECP 3 SCS for any of the parameters analysed in the groundwater samples.

On November 17, 2023, a total of approximately 52.56 metric tonnes of impacted soil that exceeded the MECP Table 3 SCS were excavated and disposed of off-site to the Waste Management Carp Road landfill in Ottawa, Ontario. The excavation was 5 m x 5 m and had a depth of 1.2 m. Two floor samples and four wall samples were collected from the boundaries of the excavation and submitted for analysis of BTEX, PHC and metals. Based on the results confirmatory samples collected from the excavation, all soil samples met the applicable Table 3 SCS. Granular A crushed stone was imported to the property to backfill the excavation.

Based on the analytical results of the soil excavation oversight program, the impacted soil identified in during the investigation has been removed from the Phase Two property and the remaining soil on the Phase Two property complies with the applicable MECP Table 3 SCS for a residential property use and fine textured soil.

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.

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1.0 Introduction

EXP Services Inc. (EXP) was retained by 780 Baseline Road Inc. to conduct a Phase Two Environmental Site Assessment (ESA) for part of the property located at 780 Baseline Road in Ottawa, Ontario (hereinafter referred to as the 'Phase Two property'). At the time of the investigation, the Phase Two property was occupied by a parking lot.

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. The most recent use of the property was commercial, and the proposed future property use will be residential. Consequently, in accordance with Regulation 153/04, as amended, a Record of Site Condition (RSC) must be filed.

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.

1.1 Site Description

The Phase Two property is located on the west side of Fisher Avenue, approximately 100 m south of Baseline Road in Ottawa, Ontario as shown on Figure 1 in Appendix A. The Phase Two property is rectangular in shape and has an approximate area of 0.3 hectares (0.74 acres). The approximate centroid coordinates are NAD83 18T 443905 m E and 5024307 m N.

At the time of the investigation, the Phase Two property was occupied by an asphalt parking lot for the north adjacent commercial strip mall. The site layout is shown on Figure 2 in Appendix A.

The Phase Two property is part of a larger property parcel legally described as Part of Lots 6 to 12 inclusive, Plan 310501, City of Ottawa, and Lots 8, 9 and Part Lots 6 and 7 Plan 310509; City of Nepean. The property identification numbers (PIN) are 040460029 and 040460037.

Refer to Table 1.1 for the Site identification information.

Table 1.1: Site Identification Details

Civic Address	780 Baseline Road, Ottawa, Ontario
Current Land Use	Commercial
Proposed Future Land Use	Residential
Property Identification Number	040460029, 04060037
UTM Coordinates	Zone 18, 443905 m E and 5024307 m N
Site Area	0.3 hectares
Property Owner	780 Baseline Inc.

A survey plan of the Phase Two property was completed by Farley, Smith & Denis Surveying Ltd. in August 2023. A copy of the survey plan is provided in Appendix B.

1.2 Property Ownership

The registered owner of the Phase Two property is 780 Baseline Inc. Authorization to proceed with this investigation was provided by Mr. Jeremy Silburt on behalf of 780 Baseline Inc. Contact information for Mr. Silburt is 1600 Lapierre Avenue, Suite 205, Ottawa, Ontario, K1Z 1B7.

1.3 Current and Proposed Future Use

The most recent use of the property was commercial. The proposed future use of the property is residential. The proposed development will consist of one twenty-five storey residential building with two levels of underground parking. Since the past use of the property was commercial land use, an RSC must be filed, per Ontario Regulation 153/04.

1.4 Applicable Site Condition Standards

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

Table 1 to 9 SCS are summarized as follows:

- Table 1 – applicable to sites where background concentrations must be met (full depth), such as sensitive sites where site-specific criteria have not been derived
- Table 2 – applicable to sites with potable groundwater and full depth restoration
- Table 3 – applicable to sites with non-potable groundwater and full depth restoration
- Table 4 – applicable to sites with potable groundwater and stratified restoration
- Table 5 – applicable to sites with non-potable groundwater and stratified restoration
- Table 6 – applicable to sites with potable groundwater and shallow soils (bedrock encountered at depths of 2 metres or less across one-third or more of the site)
- Table 7 – applicable to sites with non-potable groundwater and shallow soils (bedrock encountered at depths of 2 metres or less across one-third or more of the site)
- Table 8 – applicable to sites with potable groundwater and that are within 30 m of a water body
- Table 9 – applicable to sites with non-potable groundwater and that are within 30 m of a water body

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

For assessment purposes, EXP selected the 2011 Table 3 SCS in a non-potable groundwater condition for residential/parkland/institutional property use and fine textured soil.

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

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

- The Phase Two property is not located within 30 metres of a waterbody;
- The stratigraphy of the Site predominantly consists of fine-medium textured soil, as per the grain size analysis. Results are included in Appendix A;
- 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 primarily 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 is part of a larger property with the municipal address 780 Baseline Road in Ottawa, Ontario and is located on the west side of Fisher Avenue, approximately 100 m south of Baseline Road. The Phase Two property is rectangular in shape and has an approximate area of 0.3 hectares (0.74 acres). The Phase Two property is currently occupied by an asphalt parking lot for the north adjacent commercial strip mall.

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.

Bedrock in the general area of the Phase Two property consists of limestone of the Ottawa Formation. The bedrock elevation is approximately 75 metres above sea level (masl). The overburden at the Phase Two property, beneath any fill material, consists of clay and silty underlying erosional terraces.

The groundwater flow direction is anticipated to be northeast, towards the Rideau River.

2.2 Past Investigations

In August 2021, Paterson Group conducted a Phase Two ESA based on the results of a previous Phase One ESA for the entire property at 780 Baseline Road conducted by EXP in 2021. Three exterior boreholes (MW-1 to MW-3) were advanced north, east, and south of the unit that formerly contained the dry cleaner on the north adjacent property. The boreholes were advanced to a maximum depth of 6.7 meters below ground surface (m bgs) and monitoring wells were installed in each of the boreholes. Three native soil samples and three groundwater samples were submitted for analysis of volatile organics compounds (VOC). There were no exceedances of the Table 3 residential SCS, and all parameters analyzed were below the detection limits. Based on the results of the Phase Two ESA, no further environmental investigation was recommended by Paterson.

As the Paterson Phase Two investigation did not address drilling within the footprint of the building, EXP completed an additional Phase Two investigation. The drilling program was conducted in conjunction with a geotechnical investigation and included the entire 780 Baseline Road property. One monitoring well was drilled inside the former dry cleaner's unit. The groundwater samples collected from this monitoring well exceeded the applicable standards for tetrachloroethylene (PCE). Based on groundwater samples obtained for other monitoring wells, the contaminant plume was determined to be delineated to the east and west. The plume was not considered to be delineated to the south (towards the Phase One property).

Two of the boreholes (BH-5 and BH-6) drilled as part of the 2022 geotechnical investigation were located on the Phase Two property, both of which were completed as piezometers.

Most recently, EXP prepared a report entitled *Phase One Environmental Site Assessment, Part of 780 Baseline Road, Ottawa, Ontario,* dated June 8, 2023. The Phase One study area included properties within 250 m of the Phase Two property. Based on the results of the Phase One ESA, EXP identified two 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	Entire Phase Two property	PCA#30 – Importation of Fill Material of Unknown Quality	On-site	Metals, petroleum hydrocarbons (PHC), polycyclic aromatic hydrocarbons (PAH)	Soil
APEC #2	North part of Phase Two property	PCA#37 – Operation of Dry-Cleaning Equipment (where chemicals are used)	Off-site	Volatile organic compounds (VOC)	Groundwater
APEC #3	Southwest corner of Phase Two Property	PCA #28 – Gasoline and associated products storage in fixed tanks	On-site	BTEX, PHC	Soil and groundwater

The locations of the APEC are shown on Figure 3 in Appendix A.

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.

The most recent use of the property was commercial. The proposed future use of the property is residential. Since the past use of the property was more sensitive than the proposed property use, a Record of Site Condition (RSC) must be filed, per Ontario Regulation 153/04.

3.2 Scope of Work

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

- Drilling three boreholes on the subject property and completing two of them as a monitoring well;
- Submitting soil samples for laboratory analysis of benzene, toluene, ethylbenzene, xylenes (BTEX), petroleum hydrocarbon (PHC) fractions F1 to F4, volatile organic compounds (VOC), polycyclic aromatic hydrocarbons (PAH), and/or metals;
- Collecting groundwater samples from the new and existing monitoring wells and submitting them for analysis of BTEX, PHC, VOC, PAH, and/or metals;
- Comparing 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);
- Conducting an elevation survey of the boreholes;
- Monitoring groundwater levels in the new monitors to determine groundwater elevations; and,
- Preparing 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. There are no waterbodies on the Phase Two property, therefore sediment sampling was not 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 Figure 3 in Appendix A.

3.4.1 Buildings and Structures

There are no buildings or structures on the Phase Two property. Historically a residence was present on the south corner of the Phase Two property (formerly 5 Hillard Avenue).

3.4.2 Water Bodies and Groundwater Flow Direction

There are no water bodies on the Phase Two property. The closest body of water is the Rideau River approximately 1.4 km to the southeast of the site. Previous site investigations have determined that the groundwater flow direction is to the northeast, 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

Thirty-three well records were identified within the Phase One study area. All of the well records were for water supply wells. As this area is now serviced by municipal water, it is likely these wells are no longer in use. Well records indicate surficial soil consists of silty clay.

3.4.5 Potentially Contaminating Activity

The following on-site PCA were identified:

- PCA # 28 – Gasoline and Associated Products Storage in Fixed Tanks
- PCA #30 – Importation of Fill Material of Unknown Quality

The following off-site PCA were identified:

- PCA #37 – Operation of Dry Cleaning Equipment (where chemicals are used)

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)
APEC #1	Entire Phase Two property	PCA#30 – Importation of Fill Material of Unknown Quality	On-site	Metals, PHC, PAH	Soil
APEC #2	North part of Phase Two property	PCA#37 – Operation of Dry-Cleaning Equipment (where chemicals are used)	Off-site	VOC	Groundwater
APEC #3	Southwest corner of Phase Two Property	PCA #28 – Gasoline and associated products storage in fixed tanks	On-site	BTEX, PHC	Soil and groundwater

3.4.7 Underground Utilities

Utilities, including underground hydro, natural gas, water, and sewers, are present on the Phase Two property. There are no utilities present in the vicinity of the contaminant plume on the north adjacent property, and therefore the presence of utilities is not expected to affect possible migration of contaminants.

3.4.8 Subsurface Stratigraphy

Bedrock in the general area of the Phase Two property consists of limestone and dolostone of the Oxford Formation. Native surficial soil consists of fine textured glaciomarine deposits of silt and clay. The ground surface is approximately 84 metres above sea level (masl). Previous investigations indicate that bedrock is present approximately 12.2 to 13.7 m below grade.

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.

4.2 Drilling Program

The site investigative activities consisted of the drilling of boreholes to facilitate the collection of soil samples for visual inspection and chemical analysis. The boreholes were instrumented with monitoring wells to facilitate the collection of groundwater samples.

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.

On May 29, 2023, three boreholes (MW-1, BH-2 and BH-3) were advanced at the Phase Two property by Strata Drilling (Strata). The boreholes were advanced to termination depths ranging from 4.6 m to 6.1 m below existing grade. On October 5, 2023, one borehole (MW-2) was advanced on the Phase Two property by George Downing Estate Drilling (Downing). This borehole was drilled in the same location as BH-2 but was completed as a monitoring well.

The boreholes were drilled with a Geoprobe drill rig equipped with continuous flight hollow-stem auger equipment. All soil samples were visually examined in the field for textural classification, logged, preserved in plastic bags and identified.

EXP staff continuously monitored the drilling activities to log the stratigraphy observed from the recovered soil cores, to record the depth of soil sample collection, to record total depths of borings/excavation, and to record visual or olfactory observations of potential impacts. Field observations are summarized on the borehole logs provided in Appendix D.

The locations of the 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 for geologic characterization were collected on a continuous basis in the overburden materials using 5 cm diameter, 61 cm long, director push samplers advanced into the subsurface using the drill rig.

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, AGAT Laboratories (AGAT) of Ottawa, Ontario. 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 BTEX, PHC, VOC, PAH, and/or metals.

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 and organic 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 and organic 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 D.

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 38 mm or 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 flushmount casings. Details of the monitoring well installations are shown on the borehole logs provided in Appendix D.

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
- Cleaning or disposal of drilling equipment between sampling locations

4.6 Groundwater: Field Measurement and Water Quality Parameters

Field measurement of water quality parameters is described in Section 4.7.

All measurements of petroleum vapours in the monitor riser were made with an RKI Eagle 2 in methane elimination mode. Immediately after removing the well cap, the collection tube of the Eagle was inserted into the riser and the peak instrument

reading was recorded. EXP used a Heron water level tape to measure the static water level in each monitoring well. The measuring tape was cleaned with phosphate-free soap and tap water, rinsed with distilled water after each measurement.

4.7 Groundwater: Sampling

All groundwater samples were collected via a low flow sampling technique using a Horiba U-52 multi probe water quality meter. The Horiba 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 the SAAP presented in Appendix C. 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.

On June 13, 2023, groundwater samples were collected from the three monitoring wells/piezometers (MW-1, BH-5, and BH-6) using the low flow sampling method described above. On October 10, 2023, a groundwater sample was collected from MW-2.

Four groundwater samples, a blind duplicate, and a field blank were submitted for chemical analysis of PHC, VOC, PAH, and metals parameters.

4.8 Sediment: Sampling

There are no waterbodies present on the Phase Two property, therefore sediment sampling was not required.

4.9 Analytical Testing

The contracted laboratory selected to perform chemical analysis on all soil samples was AGAT Laboratories (AGAT). AGAT 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.

4.10 Residue Management

The drill cuttings from drilling activities and purged water from groundwater development and sampling were stored in on site drums until work was completed and were disposed of off site by a licenced contractor. Fluids from cleaning drilling equipment were disposed of by the driller at their facility.

4.11 Elevation Surveying

An elevation survey was conducted by EXP. The top of casing and ground surface elevation of each 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.

4.12 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, AGAT. AGAT 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.

AGAT's 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 60 to 80 mm layer of asphalt was contacted at the surface in all boreholes. The asphalt was underlain by fill that extends to a depth of 0.6 to 1.4 m below the existing ground surface. The fill layer consisted of granular fill overlying re-worked native material.

Native silty clay was encountered below the fill in all boreholes. The silty clay is underlain by a layer of clayey silt. The clayey silt is underlain by a glacial till deposit contacted at 8.6 to 10.2 m depth (in BH-5 and BH-6).

MW-1, MW-2, and BH-3 were advanced to termination depths of 4.6 to 6.1 m bgs. As part of the 2022 geotechnical in investigation, augur refusal was met in BH-5 and BH-6 at 12.2 m bgs. Bedrock was cored in BH-6 to a termination depth of 16.6 m bgs.

A plan view showing cross-sections is provided as Figure 4 in Appendix A, while the Phase Two property geology is depicted in cross-sections on Figure 5 in Appendix A.

5.2 Groundwater: Elevations and Flow Direction

On October 10, 2023, the monitoring wells were inspected for general physical condition, groundwater depth, the presence of light non-aqueous phase liquid (LNAPL).

Groundwater monitoring and elevation data are provided below.

Table 5.1: Monitoring and Elevation Data

Monitoring Well ID	Screen Location	Grade Elevation (masl)	Top of Casing Elevation (masl)	Screen Depth (mbgs)	Depth to LNAPL (mbgs)	Depth to Groundwater (mbTOC)	Groundwater Elevation (masl)
MW-1	Overburden	84.05	83.98	2.8 to 5.9	N/A	2.26	81.72
MW-2	Overburden	84.18	84.06	1.5 to 4.5	N/A	2.13	81.93
BH-5	Overburden	83.99	83.89	10.7 to 12.2	N/A	4.98	78.91
BH-6	Bedrock	84.18	84.10	15.1 to 16.6	N/A	4.88	79.22

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
N/A – not applicable

Previous investigations on the Phase Two property and the greater property at 780 Baseline Road, indicate that both the overburden and bedrock groundwater flow direction was determined to be to the northeast. The groundwater contour plan is provided as Figure 4 in Appendix A.

It is noted that groundwater levels can also be influenced by seasonal changes, the presence of subsurface structures, or fill material.

5.3 Groundwater: Hydraulic Gradients

On September 8, 2022, and August 14, 2023, rising head tests were conducted on two of the monitoring wells (MW-1 and BH-6). The rising head test requires that the static water level be measured in each monitoring well prior to the removal of

groundwater. Groundwater is removed from the monitoring well using a bailer. After the water level has been sufficiently lowered, an interface probe is lowered into the monitor as quickly as possible to measure the new water level. The time at which the new water level is measured is noted as time equal zero. Water level readings are subsequently taken at frequent intervals. Both the water levels and the time they were taken are recorded.

The frequency of the time measurement is determined by the rate the water level recovers to the static water level. Measurements are taken until at least 70% recovery has been achieved or, in cases where recovery is extremely slow, until it is deemed that a sufficient amount of time has elapsed. Using the Hvorslev model, the hydraulic conductivity for the monitoring well was calculated.

All water level measurements were made with a Heron oil/water interface probe. Both the probe and the measuring tape that come into contact with liquids within a monitor are cleaned with phosphate-free soap and tap water, rinsed with distilled water and then finally rinsed with methanol after each hydraulic conductivity test is concluded.

Table 5.2: Rising Head Tests

Monitoring Well ID/ Installation ID	Horizon	Screen Depth (mbgs)	Initial Static Water Level (mbToC)	Water Level after Purging (mbToC)	Recovery (%)	Hydraulic Conductivity (m/s)
MW-1	Overburden	2.8 to 5.9	1.69	2.62	78	3.78×10^{-6}
BH-6	Bedrock	15.1 to 16.6	4.92	4.93	100	6.51×10^{-5}

Notes: mbTOC – metres below top of monitor casing

The data and the calculations for the hydraulic conductivity testing are provided in Appendix G.

5.4 Soil: Field Screening

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

Petroleum vapours ranged from 20 ppm to 35 ppm in samples collected from the boreholes. Field screening data is presented in the borehole logs in Appendix D.

5.5 Soil: Quality

In accordance with the scope of work, chemical analyses were performed on selected soil samples recovered from the boreholes. The selection of representative “worst case” soil samples from each borehole was based on field visual or olfactory evidence of impacts and/or presence of potential water bearing zones.

5.5.1 Pre-Remediation Soil Quality

Three soil samples were collected from the fill material and submitted for analysis of BTEX, PHC, PAH, and metals. Three native samples and one duplicate sample were collected from the native material and submitted for analysis of PHC, VOC, PAH, and metals.

All of the samples were within the Table 3 SCS for all parameters analysed with the exception of PHC F3 in a fill sample collected from BH-2, and barium, cobalt, and/or vanadium in two of the soil samples collected from BH-2 (and the duplicate sample).

Based on the geology of the site, it appears that the fill layer consists of granular fill overlying re-worked native material. It is probable that the exceedances of barium, cobalt and vanadium are naturally elevated in the native silty clays in the Ottawa area and are not due to anthropogenic impact. A technical paper entitled “Elevated Background Metals Concentrations in Champlain Sea Clay – Ottawa Region” written by two engineering firms and the City of Ottawa was presented at GEO Ottawa in 2017. The paper presented results from several studies in the Ottawa area that showed that the concentrations of several

metals including cobalt and vanadium in the native silty clay are elevated above the MECP Table SCS. New background concentrations that are higher than the MECP Table 3 SCS were proposed for five metals for eastern Ontario.

Based on the above technical paper, the range of barium in 271 native soil samples in the Ottawa area ranged from 32.0 to 544 ug/g with a 98th percentile of 460 ug/g. The measured concentration of barium in the silty clay at the subject site ranged from 139 to 482 ug/g. The range of concentrations of cobalt in 271 native soil samples in the Ottawa area ranged from 3.0 to 30.5 ug/g with a 98th percentile of 27.9 ug/g. The measured concentrations of cobalt in the silty clay at the Phase Two property ranged from 8.8 to 26.2 ug/g. The range of concentrations of vanadium in 267 native soil samples in the Ottawa area ranged from 10.0 to 136 ug/g with a 98th percentile of 123 ug/g. The measured concentrations of vanadium in the silty clay at the subject site ranged from 36.2 to 124 ug/g. This indicates that the measured concentrations of barium, cobalt and vanadium in the native silty clay at the Phase Two property are within the typical range of concentrations cited in the above technical paper and are not indicative of anthropogenic impact.

The soil results are provided in Tables 1 to 3 in Appendix E. They are shown in plan view on Figures 6 to 8 and on cross-sections on Figures 9 to 11 in Appendix A. Copies of the laboratory Certificates of Analysis are provided in Appendix F.

5.5.2 Post-Remediation Soil Quality

The soil remediation program was completed on November 17, 2023. The Client retained a contractor to provide the necessary services for the remedial excavation. The remedial excavation was completed based on the analytical results from the drilling program, starting at MW-2. The final excavation measured approximately 5 m wide and 5 m long, with an average depth of approximately 1.2 mbsg. A total of approximately 52.56 metric tonnes (26 m^3) of soil was excavated and transported off-site to the Waste Management Carp Road landfill. The excavation was backfilled with imported crushed stone. The Remediation Report is provided in Appendix H.

The remediation program was completed in accordance with Regulation 153/04. No soil was brought to the property for backfill purposes, only crushed stone. The lateral and vertical extent of the excavation and results of the confirmatory sampling program along with the results of the pre-remediation drilling investigations are shown in plan view on Figures 19 and 20 and on cross-sections on Figures 21 and 22.

5.6 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.

Four groundwater samples, one field duplicate, and one trip blank were submitted for chemical analysis of PHC, VOC, PAH, and metals. There were no exceedances of the MECP 3 SCS for any of the groundwater samples.

The analytical results are included in Tables 4 to 6 in Appendix E and are shown in plan view on Figures 12 to 14 and on cross-sections on Figures 15 to 17 in Appendix A.

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

5.6.1 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.

All soil samples met the applicable Table 3 residential SCS for all parameters that were analyzed with the exception of the samples from BH-2 and the duplicate sample, which exceeded the Table 3 residential SCS for PHC F3, barium, cobalt and/or vanadium. Chemical transformations of contaminants in soil are not a significant concern at the Phase Two property.

Following remediation, no soil or groundwater exceedances were present on the Phase Two property.

Cross-sections that depict the geological, hydrogeological, and groundwater chemical data for the Phase Two property are provided as Figures 15 to 17 in Appendix A.

5.6.2 Evidence of Non-Aqueous Phase Liquid

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

5.6.3 Maximum Concentrations

Contaminants that exceeded the applicable Table 3 residential standards included:

Soil: Barium, cobalt, and vanadium.

Groundwater: None.

Maximum soil and groundwater concentrations are provided in Tables 7 and 8 in Appendix E.

Following remediation, no soil or groundwater exceedances were present on the Phase Two property.

5.7 Sediment: Quality

There are no water bodies on the Phase Two property, therefore sediment sampling was not required.

5.8 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.

AGAT's 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. 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 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 for soil are provided in Appendix E in Tables 9 to 11. All of the RPD for soil 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 780 Baseline Road Inc. to conduct a Phase Two Environmental Site Assessment (ESA) for part of the property located at 780 Baseline Road in Ottawa, Ontario (hereinafter referred to as the 'Phase Two property'). At the time of the investigation, the Phase Two property was occupied by a parking lot.

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. The most recent use of the property was commercial, and the proposed future property use will be residential. Consequently, in accordance with Regulation 153/04, as amended, a Record of Site Condition (RSC) must be filed.

6.1.2 Current and Future Use

The most recent use of the property was commercial. The proposed future use of the property is residential. The proposed development will consist of a twenty-five storey multi-use building with two levels of underground parking.

6.1.3 Physical Site Description

The Phase Two property is located on the southwest corner of the intersection of Baseline Road and Fisher Avenue, as shown on Figure 1 in Appendix A. The Phase Two property is irregular in shape and has an area of approximately 0.3 hectares. The approximate centroid coordinates are NAD83 18T 443905 m E and 5024307 m N.

At the time of the investigation, the Phase Two property was occupied by an asphalt parking lot for the north adjacent commercial strip mall. The site layout is shown on Figure 2 in Appendix A.

The Phase Two property is part of a larger property parcel legally described as Part of Lots 6 to 12 inclusive, Plan 310501, City of Ottawa, and Lots 8, 9 and Part Lots 6 and 7 Plan 310509; City of Nepean. The property identification numbers (PIN) are 040460029 and 040460037.

Refer to Table 5.4 for the Site identification information.

Table 6.1: Site Identification Details

Civic Address	780 Baseline Road, Ottawa, Ontario
Current Land Use	Commercial
Proposed Future Land Use	Residential and Commercial
Property Identification Number	040460029, 04060037
UTM Coordinates	Zone 18, 443905 m E and 5024307 m N
Site Area	0.3 hectares
Property Owner	780 Baseline Inc.

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

6.1.4 Buildings and Structures

There are no buildings or structures on the Phase Two property. Historically a residence was present on the south corner of the Phase Two property (formerly 5 Hillard Avenue).

6.1.5 Utilities

Utilities, including underground hydro, natural gas, water, and sewers, are present on the Phase Two property. There are no utilities present in the vicinity of the contaminant plume on the north adjacent property, and therefore the presence of utilities is not expected to affect possible migration of contaminants.

6.1.6 Geological and Hydrogeological Setting

A summary of factors that apply to the Phase Two property is provided in Table 5.5.

Table 6.2: Site Characteristics

Characteristic	Description
Minimum Depth to Bedrock	9.6 metres below ground surface
Minimum Depth to Groundwater	82.73 masl (April 18, 2022)
Shallow Soil Property	No, bedrock is greater than 2.0 mbgs
Proximity to water body or ANSI	Approximately 1.2 km east – Rideau River
Soil pH	Glacial till – 8.70
Soil Texture	Fine
Current Property Use	Commercial
Future Property Use	Residential
Proposed Future Building	25-storey residential tower, commercial on ground level with two levels of underground parking
Areas Containing Suspected Fill	Entire Phase Two property

6.1.6.1 Site Stratigraphy

Bedrock in the general area of the Phase Two property consists of limestone and dolostone of the Oxford Formation. Native surficial soil consists of fine textured glaciomarine deposits of silt and clay. The ground surface is approximately 84 metres above sea level (masl).

A 60 to 80 mm layer of asphalt was contacted at the surface in all boreholes. The asphalt was underlain by fill that extends to a depth of 0.6 to 1.4 m below the existing ground surface. The fill layer consisted of granular fill overlying re-worked native material. Native silty clay was encountered below the fill. The silty clay is underlain by a layer of clayey silt. The clayey silt is underlain by a glacial till deposit contacted at 8.6 to 10.2 m depth (in BH-5 and BH-6). As part of the 2022 geotechnical in investigation, augur refusal was met in BH-5 and BH-6 at 12.2 m bgs.

A plan view showing cross-sections is provided as Figure 4, while the Phase Two property geology is depicted in cross-sections on Figure 5.

6.1.6.2 Approximate Depth to Water Table

In June 2023, groundwater was encountered at a depth of 2.26 m bgs in MW-2 to 4.98 m bgs in BH-5. No petroleum sheens were observed in the monitoring wells during the sampling event. Previous investigations on the Phase Two property and the greater property at 780 Baseline Road, indicate that both the overburden and bedrock groundwater flow direction was determined to be to the northeast.

EXP notes that groundwater levels can be influenced by seasonal changes, the presence of subsurface structures, or fill, however, it is unlikely that any of these factors will affect the groundwater flow direction at the RSC property.

6.1.6.3 Hydrogeological Conditions

There are no water bodies on the Phase Two property. The closest body of water is the Rideau River approximately 1.4 km to the southeast of the site. Previous site investigations have determined that the groundwater flow direction is to the northeast, towards the Ottawa River.

The groundwater flow direction is anticipated to be northeast, towards the Rideau River. On September 8, 2022, and August 14, 2023, rising head tests were conducted on two of the monitoring wells (MW-1 and BH-6). The hydraulic conductivity in monitoring well MW-1 was 3.78×10^{-6} m/s and the hydraulic conductivity in BH-6 was 6.51×10^{-5}.

6.1.6.4 Approximate depth to Bedrock

As part of the 2022 geotechnical in investigation, auger refusal was met in BH-5 and BH-6 at 12.2 m bgs.

6.1.7 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 has 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.

6.1.8 Fine-Medium Soil Texture

Based on field observations and laboratory analysis of four samples for grain size conducted in conjunction with the Phase Two ESA, the soil texture was determined to be medium and fine. Grain size results are shown below.

Sample Location	Depth (m bgs)	Predominant Soil Type	Particle Smaller than 75 micron by Mean Diameter	Ontario Regulation 153/04 Classification
BH-5 SS-7	7.6 to 8.2	Silt	98%	Fine-Medium
BH-6 SS-9	10.7 to 11.3	Silty Sand with Gravel	29%	Coarse

The silt unit is the dominant type of soil on the Phase Two property. Since more than 1/3 of the soil on the Phase Two property consisted of medium and fine textured soil, soil and groundwater results were compared to medium and fine textured SCS.

6.1.9 Applicable Site Condition Standards

For assessment purposes, EXP selected the 2011 Table 3 SCS in a non-potable groundwater condition for residential/parkland/institutional property use.

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

- Bedrock is greater than 2 metres below grade across the subject property;
- The Phase Two property is not located within 30 metres of a waterbody;
- The stratigraphy of the Site predominantly consists of fine-medium textured soil, as per the grain size analysis. Results are included in Appendix A;
- 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.

6.1.10 Previous Investigations

A Phase I ESA was completed by Patterson in 2005 to determine if any past or present activities has resulted in potential contamination on the site. This investigation was conducted on the entire property at 780 Baseline Road (including the Phase Two property). The presence of a former dry cleaner in Unit 17, now part of the Lonestar restaurant, was identified in the late 1980s and early 1990s. According to a member of the Leiken Group (the property owner at the time), the dry cleaner was a depot only and no chemicals were used on the Site. Therefore, the presence of a former drycleaner was not considered an environmental concern and no additional environmental investigation was recommended. However, during a Phase I ESA conducted by EXP in 2021, it was confirmed that the primary use of the unit was a depot, some chemical containing dry cleaning equipment was used on the property. A Phase II ESA was recommended to assess the environmental conditions of the site.

In August 2021, Paterson Group conducted a Phase Two ESA based on the results of a previous Phase One ESA for the entire property at 780 Baseline Road conducted by EXP in 2021. Three exterior boreholes (MW-1 to MW-3) were advanced north, east, and south of the unit that formerly contained the dry cleaner on the north adjacent property. The boreholes were advanced to a maximum depth of 6.7 meters below ground surface (m bgs) and monitoring wells were installed in each of the boreholes. Three native soil samples and three groundwater samples were submitted for analysis of VOC. There were no exceedances of the Table 3 residential SCS, and all parameters analyzed were below the detection limits. Based on the results of the Phase Two ESA, no further environmental investigation was recommended by Paterson.

As the Paterson Phase Two investigation did not address drilling within the footprint of the building, EXP completed an additional Phase Two investigation on the north adjacent part of 780 Baseline Road. The drilling program was conducted in conjunction with a geotechnical investigation and included the entire 780 Baseline Road property. One monitoring well was drilled inside the former dry cleaner's unit. The groundwater samples collected from this monitoring well exceeded the applicable standards for tetrachloroethylene (PCE). Based on groundwater samples obtained for other monitoring wells, the

contaminant plume was determined to be delineated to the east and west. The plume was not considered to be delineated to the south (towards the Phase One property).

Two of the boreholes (BH-5 and BH-6) drilled as part of the 2022 geotechnical investigation were located on the Phase Two property, both of which were completed as piezometers.

6.1.11 Potentially Contaminating Activities

The following on-site PCA were identified:

- PCA # 28 – Gasoline and Associated Products Storage in Fixed Tanks
- PCA #30 – Importation of Fill Material of Unknown Quality

The following off-site PCA were identified:

- PCA #37 – Operation of Dry Cleaning Equipment (where chemicals are used)

6.1.12 Areas of Potential Environmental Concern/Potential Contaminates of 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 5.6 below:

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	Entire Phase Two property	PCA#30 – Importation of Fill Material of Unknown Quality	On-site	Metals, petroleum hydrocarbons (PHC), polycyclic aromatic hydrocarbons (PAH)	Soil
APEC #2	North part of Phase Two property	PCA#37 – Operation of Dry-Cleaning Equipment (where chemicals are used)	Off-site	Volatile organic compounds (VOC)	Groundwater
APEC #3	Southwest corner of Phase Two Property	PCA #28 – Gasoline and associated products storage in fixed tanks	On-site	BTEX, PHC	Soil and groundwater

6.1.13 Scope of the Investigation

The Phase Two ESA was conducted to assess the soil quality at APEC 1, the groundwater quality at APEC 2, and the soil and groundwater quality at APEC 3 at the RSC property. The following table summarizes the soil and groundwater locations on the RSC property, and the APECs each sample location addresses.

Area of Potential Environmental Concern (APEC)	Contaminants of Potential Concern	Media Potentially Impacted	Addressed by BH/MW/sample #	Summary of Exceedances Pre-Remediation	Summary of Exceedances Post-Remediation
APEC #1	Metals, PHC, PAH, BTEX	Soil	MW-1, BH-2, BH-3	Barium and PHC F3 exceedance noted at 0.1 to 0.75 m in BH-2. Barium, cobalt and vanadium exceedance noted at 1.5 to 2.3 m in BH-2. As per Section 49.1.3, metals exceedances were determined to fall within the naturally occurring range of concentrations for soil in the Ottawa area.	Chromium, cobalt, and vanadium exceeded in the confirmatory samples for the remedial excavation. As per Section 49.1.3, metals exceedances were determined to fall within the naturally occurring range of concentrations for soil in the Ottawa area.
APEC #2	VOC	Groundwater	MW-1	No groundwater exceedances were identified.	No groundwater exceedances were identified.
APEC #3	BTEX, PHC	Soil and Groundwater	BH-2	No soil or groundwater exceedances were identified.	No soil or groundwater exceedances were identified.

6.1.14 Investigation

The site investigative activities consisted of the drilling of boreholes to facilitate the collection of soil samples for visual inspection and chemical analysis. The boreholes were instrumented with monitoring wells to facilitate the collection of groundwater samples.

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.

On May 29, 2023, three boreholes (MW-1, BH-2 and BH-3) were advanced at the Phase Two property by Strata Drilling (Strata). The boreholes were advanced to termination depths ranging from 4.6 m to 6.1 m below existing grade. On October 5, 2023, one borehole (MW-2) was advanced on the Phase Two property by George Downing Estate Drilling (Downing). This borehole was drilled in the same location as BH-2 but was completed as a monitoring well. All soil samples were visually examined in the field for textural classification, logged, preserved in plastic bags and identified.

6.1.15 Soil Sampling – Pre-Remediation

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, Caduceon of Ottawa, Ontario.

Three soil samples were collected from the fill material and submitted for analysis of BTEX, PHC, PAH, and metals. Three native samples and one duplicate sample were collected from the native material and submitted for analysis of PHC, VOC, PAH, and metals.

All of the samples were within the Table 3 SCS for all parameters analysed with the exception of PHC F3 in a fill sample collected from BH-2 and barium, cobalt, and/or vanadium in two of the soil samples collected from BH-2 (and the duplicate sample).

Based on the geology of the site, it appears that the fill layer consists of granular fill overlying re-worked native material. It is probable that the exceedances of barium, cobalt and vanadium are naturally elevated in the native silty clays in the Ottawa area and are not due to anthropogenic impact. A technical paper entitled "Elevated Background Metals Concentrations in Champlain Sea Clay – Ottawa Region" written by two engineering firms and the City of Ottawa was presented at GEO Ottawa in 2017. The paper presented results from several studies in the Ottawa area that showed that the concentrations of several metals including cobalt and vanadium in the native silty clay are elevated above the MECP Table SCS. New background concentrations that are higher than the MECP Table 3 SCS were proposed for five metals for eastern Ontario.

Based on the above technical paper, the range of barium in 271 native soil samples in the Ottawa area ranged from 32.0 to 544 ug/g with a 98th percentile of 460 ug/g. The measured concentration of barium in the silty clay at the subject site ranged from 139 to 482 ug/g. The range of concentrations of cobalt in 271 native soil samples in the Ottawa area ranged from 3.0 to 30.5 ug/g with a 98th percentile of 27.9 ug/g. The measured concentrations of cobalt in the silty clay at the Phase Two property ranged from 8.8 to 26.2 ug/g. The range of concentrations of vanadium in 267 native soil samples in the Ottawa area ranged from 10.0 to 136 ug/g with a 98th percentile of 123 ug/g. The measured concentrations of vanadium in the silty clay at the subject site ranged from 36.2 to124 ug/g. This indicates that the measured concentrations of barium, cobalt and vanadium in the native silty clay at the Phase Two property are within the typical range of concentrations cited in the above technical paper and are not indicative of anthropogenic impact. Therefore, as per Section 49.1.3 of O.Reg. 153/04, the qualified person has determined that these exceedances do not exceed the naturally occurring range of concentrations typically found within the area of the RSC property.

The soil results are provided in Tables 1 to 3 in Appendix E. They are shown in plan view on Figures 6 to 8 and on cross-sections on Figures 9 to 11 in Appendix A.

6.1.16 Soil Sampling – Post-Remediation

The soil remediation program was completed on November 17, 2023. The Client retained a contractor to provide the necessary services for the remedial excavation. The remedial excavation was completed based on the analytical results from the drilling program, starting at MW-2. The final excavation measured approximately 5 m wide and 5 m long, with an average depth of approximately 1.2 mbsg. A total of approximately 52.56 metric tonnes (26 m^3) of soil was excavated and transported off-site to the Waste Management Carp Road landfill. The excavation was backfilled with imported crushed stone. The Remediation Report is provided in Appendix H.

The remediation program was completed in accordance with Regulation 153/04. No soil was brought to the property for backfill purposes, only crushed stone. The lateral and vertical extent of the excavation and results of the confirmatory sampling program along with the results of the pre-remediation drilling investigations are shown in plan view on Figures 19 and 20 and on cross-sections on Figures 21 and 22.

6.1.17 Groundwater Sampling

All groundwater samples were collected via a low flow sampling technique using a 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.

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.

Four groundwater samples, one field duplicate, and one trip blank were submitted for chemical analysis of PHC, VOC, PAH, and metals. There were no exceedances of the MECP 3 SCS for any of the groundwater samples.

Analytical results are included in Tables 4 to 6 in Appendix E and are shown in plan view on Figures 12 to 14 and on cross-sections on Figures 15 to 17 in Appendix A.

6.1.18 Contaminants of Concern

Prior to remediation, contaminants that exceeded the Table 3 residential standards included:

Soil: Barium, cobalt, vanadium and petroleum hydrocarbons F3

Groundwater: None

Post remediation, no soil samples exceeded the Table 3 SCS with the exception of chromium, cobalt, and vanadium which exceeded in the confirmatory samples for the remedial excavation. As per Section 49.1.3, both pre- and post-remediation metals exceedances were determined to fall within the naturally occurring range of concentrations for soil in the Ottawa area.

6.1.19 Contaminant Fate and Transport

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.

Following remediation, all contaminated soil been removed from the Phase Two property. As no groundwater impacts were identified on the site, migration of impacted groundwater is not considered a concern at the Phase Two property. Since there are no volatile COCs on the Phase Two Property, soil vapour migration is not considered an issue.

6.1.20 Preferential Pathways

The preferential pathways for contaminants present in soil and groundwater include underground utilities and surface features. Storm and sanitary sewers are present across the property.

As no soil or groundwater impacts were identified on the site, migration of impacted groundwater is not considered a concern at the Phase Two property.

6.1.21 Climatic Conditions

It is noted that climatic or meteorological conditions may influence the distribution and migration of COCs at the Phase Two property. 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.

However, based on the conditions observed at the Phase Two property and the fact that acceptable soil concentrations were noted in the soil horizon above the water table, it is not anticipated that the climatic or meteorological changes have had any impact on the distribution of contaminants.

6.1.22 Human Health Receptors and Exposure Pathways

Residential apartments with underground parking are currently proposed for the Phase Two property. The potential on-site human receptors are identified as property residents (adult, teen, child, toddler and infant), property visitors (adult, teen, child, toddler and infant), indoor and outdoor long-term workers, indoor and outdoor short-term workers, and construction workers.

Possible routes of exposure for human receptors include the following: incidental soil ingestion, soil particulate inhalation, soil dermal contact.

A diagram identifying the release mechanisms, contaminant transport pathway, human receptors, exposure points and routes of exposure are shown on Figure 23.

Following the conclusion of the remediation program, all impacted soil was removed from the Phase Two property. Therefore, none of the identified exposure pathways are considered to potentially pose a concern to human health, as the contaminants of concern are no longer present on the Phase Two property.

6.1.23 Ecological Receptors and Exposure Pathways

While the footprint of the building and underground parking lot will occupy most of the property, there will be some landscaped areas on the RSC property. Therefore, the RSC property is capable of supporting some ecological receptors. Relevant ecological receptors include terrestrial vegetation (bushes, grasses and weeds); soil invertebrates (earthworms, millipedes and beetles); birds (seagulls, pigeons, sparrows and robins); and small terrestrial mammals (moles, voles, and mice).

Possible routes of exposure for ecological receptors are root uptake of soil (terrestrial vegetation), and soil particulate inhalation, soil dermal contact, and soil ingestion (soil invertebrates, mammals, and birds).

A diagram identifying the release mechanisms, contaminant transport pathway, ecological receptors, exposure points and routes of exposure are shown on Figure 24.

Following the conclusion of the remediation program, all impacted soil was removed from the Phase Two property. Therefore, none of the identified exposure pathways are considered to potentially pose a concern to ecological receptors, as the contaminants of concern are no longer present on the Phase Two property.

7.0 Conclusion

During the current investigation, the soil and groundwater quality at the Phase Two property were investigated. Results were compared to Regulation 153/04 Table 3 SCS for residential/parkland/institutional property use and fine textured soils in a non-potable groundwater condition.

All soil samples met the applicable Table 3 residential SCS for all parameters that were analyzed with the exception of the sample from BH-2, which exceeded the Table 3 residential SCS for barium, cobalt, vanadium and petroleum hydrocarbons F3. However, the measured concentrations of barium, cobalt and vanadium in the native silty clay at the Phase Two property are within the typical range of concentrations in the Ottawa area and are not indicative of anthropogenic impact.

There were no exceedances of the MECP 3 SCS for any of the parameters analysed in the groundwater samples.

On November 17, 2023, a total of approximately 152.56 metric tonnes (26 m^3) soil that exceeded the MECP Table 3 SCS were excavated and disposed of off-site to the Waste Management Carp Road landfill in Ottawa, Ontario. The excavation was 5 m x 5 m and had a depth of 1.2 m. Two floor samples and four wall samples were collected from the boundaries of the excavation and submitted for analysis of BTEX, PHC and metals. Based on the results confirmatory samples collected from the excavation, all soil samples met the applicable Table 3 SCS. Granular A crushed stone was imported to the property to backfill the excavation.

Based on the analytical results of the soil excavation oversight program, the impacted soil identified in Phase Two ESA has been removed from the Phase Two property and the remaining soil in the area of the excavation complies with the applicable MECP Table 3 SCS for a residential property use with fine textured soil.

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, B.A.Sc., P.Eng.
Environmental Engineer
Earth and Environment

Mark McCalla, B.Sc., P.Geo.
Team Lead/Senior Project Manager
Earth and Environment

PROFESSIONAL GEOSCIENTIST
MARK G. McCALLA
PRACTICING MEMBER
0451
Dec 13/23
ONTARIO

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, 780 Baseline Road, Ottawa, Ontario,* October 27, 2021.
- 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.
- Paterson Group Inc., *Phase II Environmental Site Assessment, 780 Baseline Road, Ottawa, Ontario,* August 27, 2021.

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 780 Baseline Inc. ("the Client") has special considerations or requirements, these should be disclosed to EXP to allow for additional or special investigations to be undertaken not otherwise within the scope of investigation conducted for the purpose of the Report.

Reliance on Information Provided

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

Standard of Care

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

Complete Report

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

Use of Report

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

Report Format

Where EXP has submitted both electronic file and a hard copy of the Report, or any document forming part of the Report, only the signed and sealed hard copy shall be the original documents for record and working purposes. In the event of a dispute or discrepancy, the hard copy shall govern. Electronic files transmitted by EXP utilize specific software and hardware systems. EXP makes no representation about the compatibility of these files with the Client's current or future software and hardware systems. Regardless of format, the documents described herein are EXP's instruments of professional service and shall not be altered without the written consent of EXP.

Appendix A: Figures

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Ottawa, ON K2B 8H6, Canada

DATE: OCTOBER 2023	PROPOSED MULTI-USE TOWERS SOUTH PART OF 780 BASELINE ROAD, OTTAWA, ONTARIO	project no.: OTT-21011499-E0
DESIGN: LW / CHECKED: MM		scale: 1:7,500
DRAWN BY: AS	PHASE TWO ENVIRONMENTAL SITE ASSESSMENT SITE LOCATION PLAN	FIG 1

0 50m 100m 300m
HORIZONTAL 1:7,500

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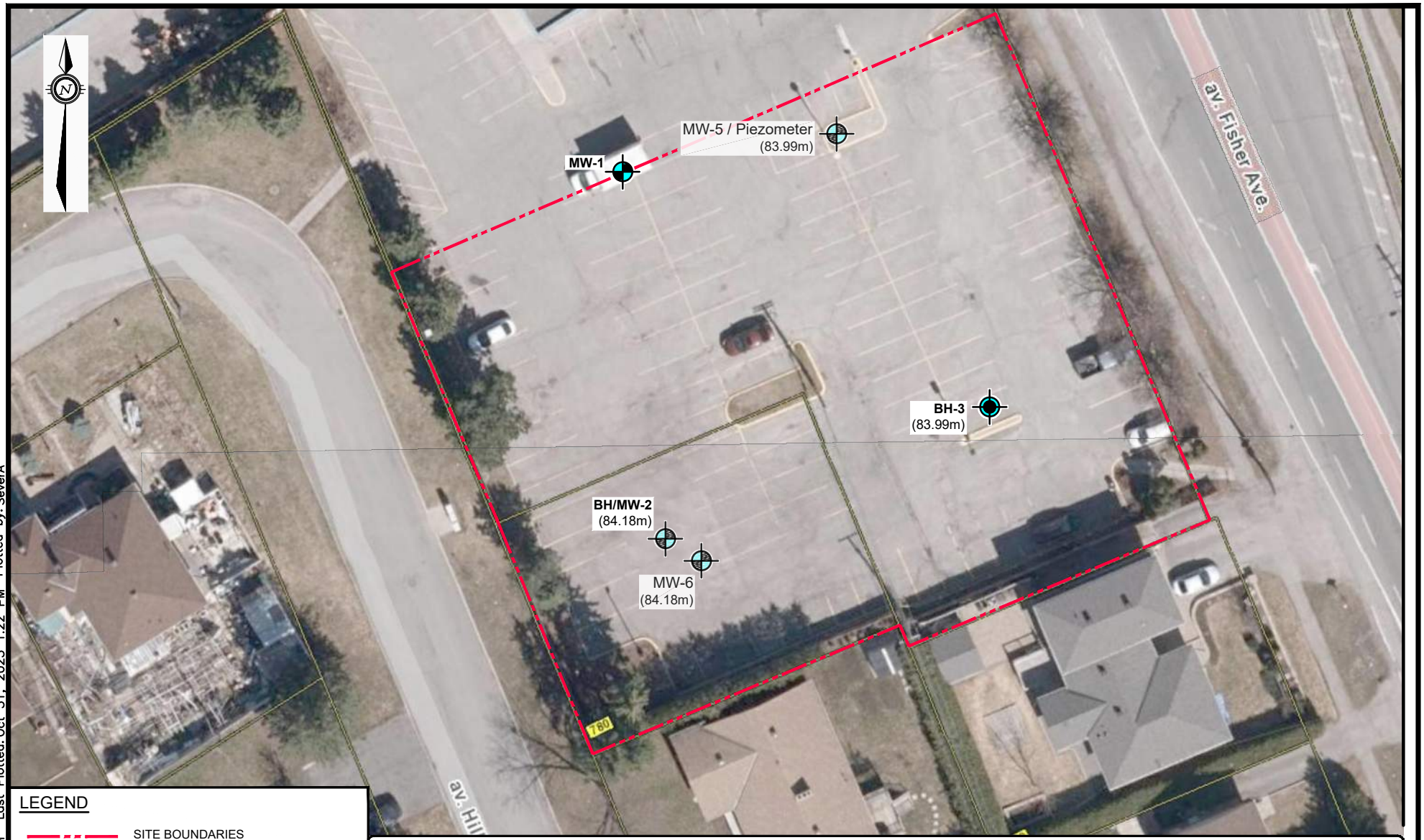

LEGEND

- SITE BOUNDARIES
- MW-5 (83.99m) — MONITORING WELL (*EXP*, 2022) GROUND ELEVATION (m)
- BH-3 — BOREHOLE (*EXP*, 2023)
- MW-1 — MONITORING WELL (*EXP*, 2023)

0 5m 10m 20m

HORIZONTAL 1:500

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DESIGN: LW / CHECKED: MM		scale: 1:500
DRAWN BY: AS	PHASE TWO ENVIRONMENTAL SITE ASSESSMENT BOREHOLE / MONITORING WELL LOCATION PLAN	FIG 2

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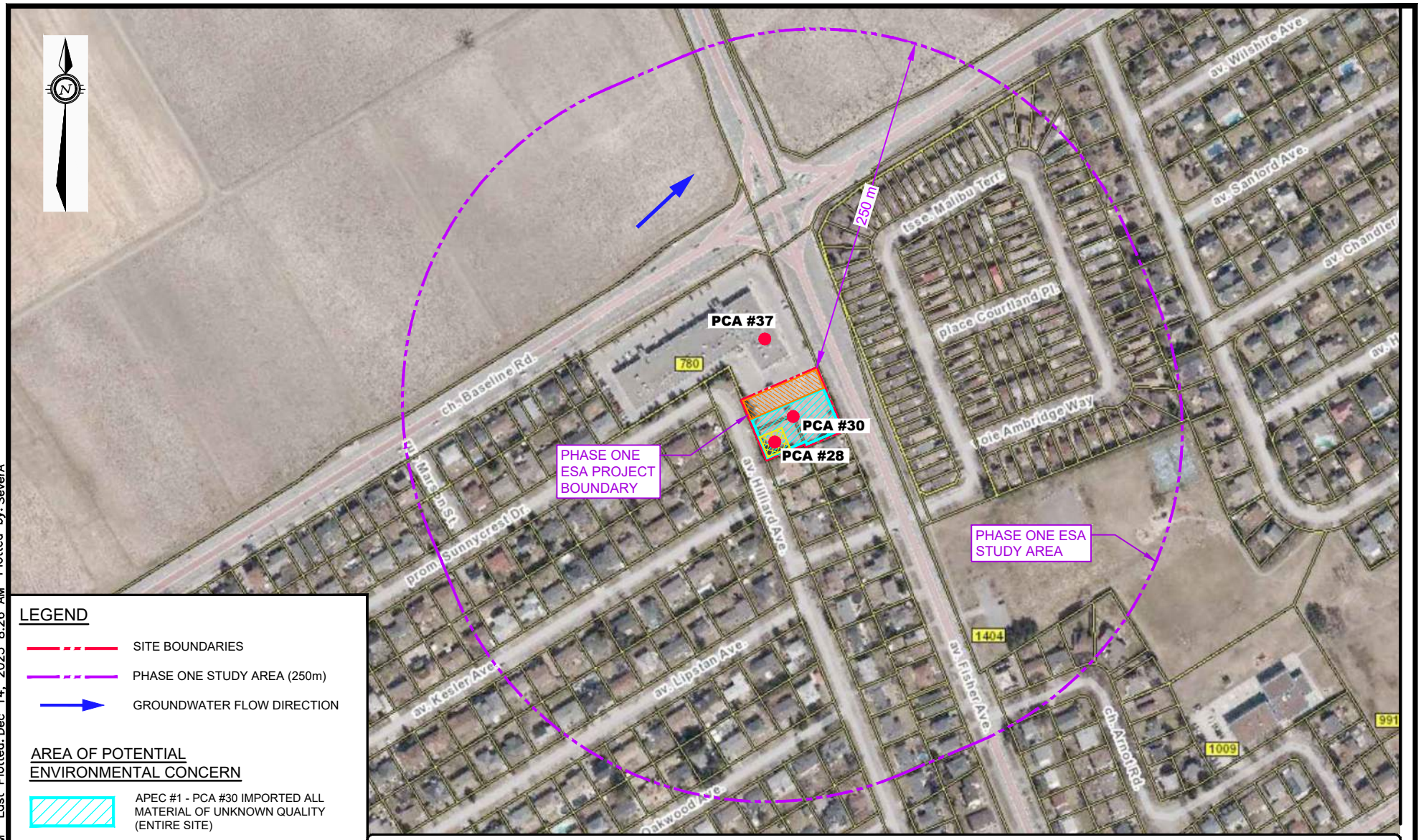

LEGEND

- SITE BOUNDARIES
- PHASE ONE STUDY AREA (250m)
- GROUNDWATER FLOW DIRECTION

AREA OF POTENTIAL ENVIRONMENTAL CONCERN

- APEC #1 - PCA #30 IMPORTED ALL MATERIAL OF UNKNOWN QUALITY (ENTIRE SITE)
- APEC #2 - PCA #37 OPERATION OF DRY CLEANING EQUIPMENT
- APEC #3 - PCA #28 GASOLINE AND ASSOCIATED PRODUCTS STORAGE IN FIXED TANKS
- **PCA #30** POTENTIALLY CONTAMINATING ACTIVITY (PCA)

0 40m 80m 160m

HORIZONTAL 1:4,000

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DESIGN: LW / CHECKED: MM		scale: 1:4,000
DRAWN BY: AS	PHASE TWO ENVIRONMENTAL SITE ASSESSMENT PHASE ONE ESA CONCEPTUAL SITE MODEL	FIG 3

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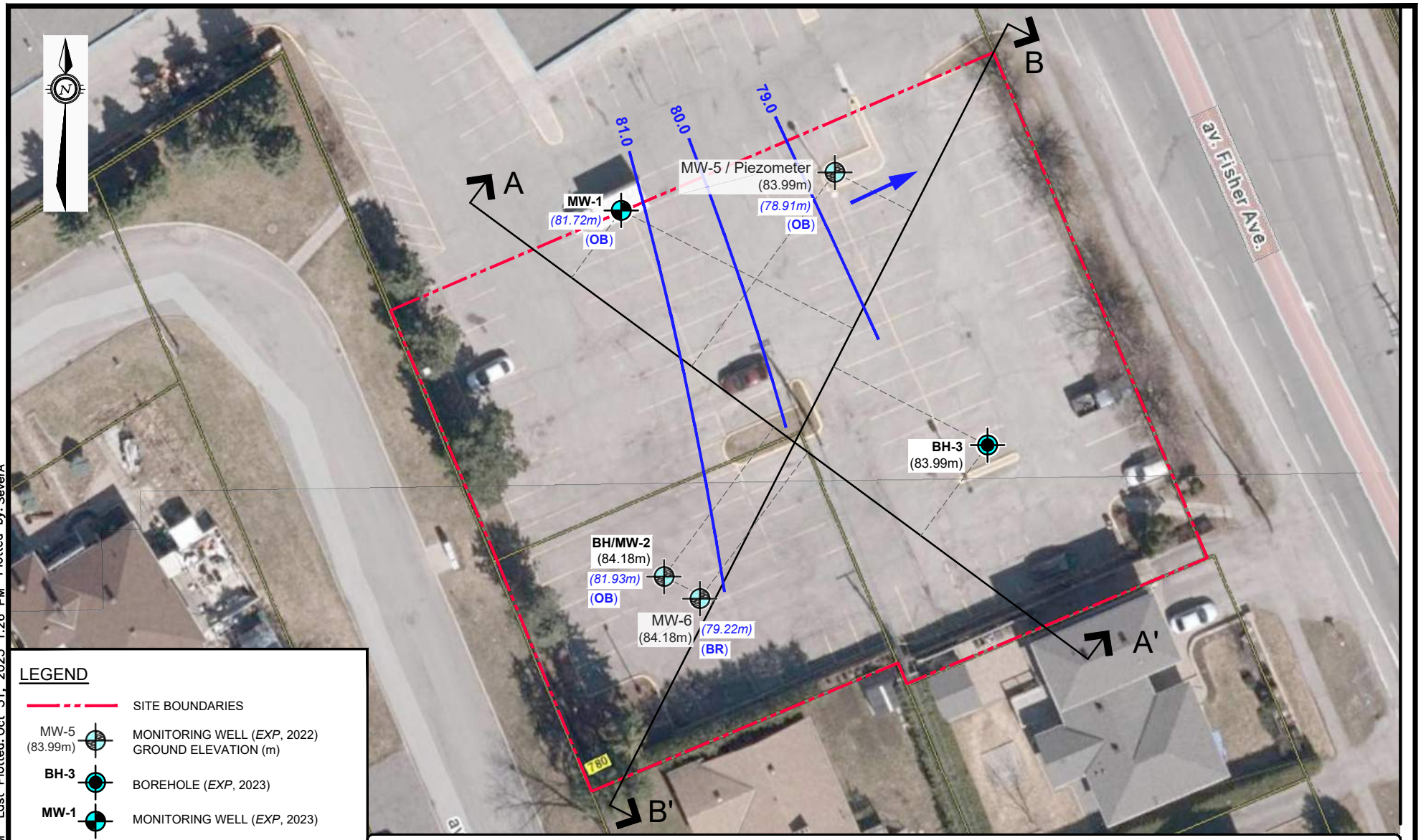

LEGEND

- SITE BOUNDARIES
- MW-5 (83.99m) — MONITORING WELL (*EXP*, 2022) GROUND ELEVATION (m)
- BH-3 — BOREHOLE (*EXP*, 2023)
- MW-1 — MONITORING WELL (*EXP*, 2023)
- (81.72m) — GROUND WATER ELEVATION (masl)
- GROUNDWATER FLOW DIRECTION
- 81.0 — GROUNDWATER CONTOURS
- A — SECTION MARK

0 5m 10m 20m

HORIZONTAL 1:500

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DESIGN: LW / CHECKED: MM		scale: 1:500
DRAWN BY: AS	PHASE TWO ENVIRONMENTAL SITE ASSESSMENT GROUNDWATER ELEVATIONS & CROSS SECTION PLAN	FIG 4

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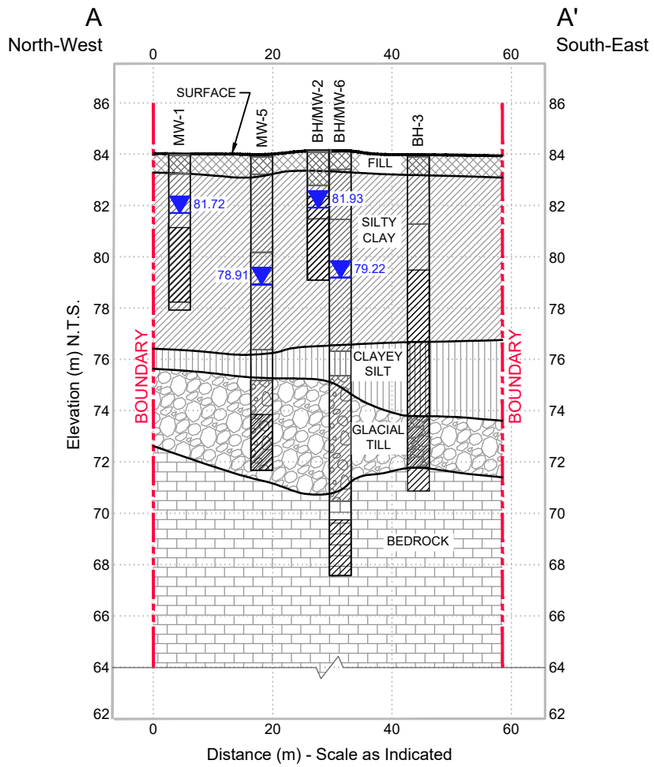
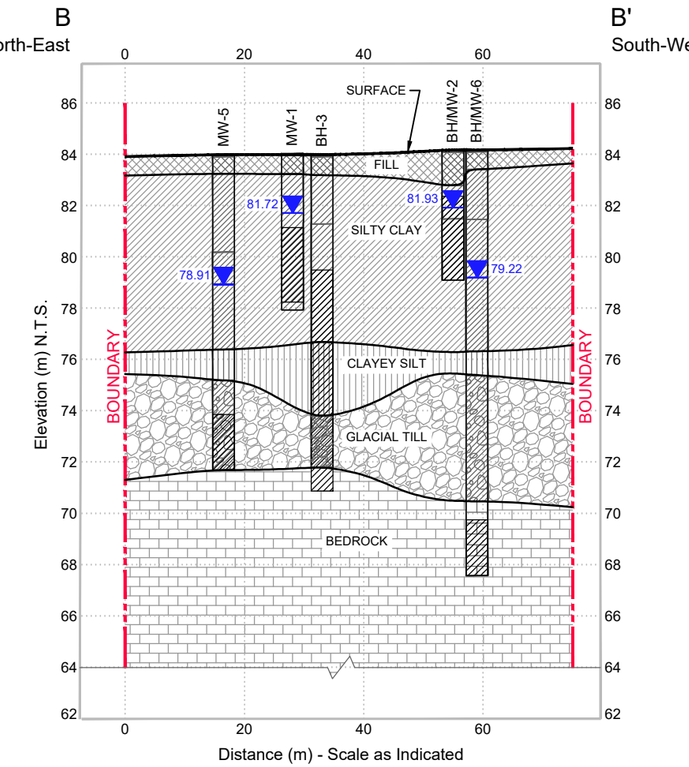


CROSS SECTION A-A'



CROSS SECTION B-B'

LEGEND

- FILL
- SILTY CLAY
- CLAYEY SILT
- GLACIAL TILL
- BEDROCK
- WELL SCREEN
- BEDROCK GROUNDWATER ELEVATION (masl) AS MEASURED ON APRIL 27, 2022
- OVERBURDEN GROUNDWATER ELEVATION (masl) AS MEASURED ON APRIL 18, 2022

0 10m 20m 40m

HORIZONTAL 1:1000

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DRAWN BY: AS

PROPOSED MULTI-USE TOWERS
SOUTH PART OF 780 BASELINE ROAD, OTTAWA, ONTARIO

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
CROSS-SECTIONS A-A' AND B-B'

project no. OTT-21011499-E0
scale 1:1,000
FIG 5

Filename: E:\OTT\OTT-21011499-E0\60 Execution\65 Drawings\OTT-21011499-E0_Env_780-Baseline_10-2023.dwg
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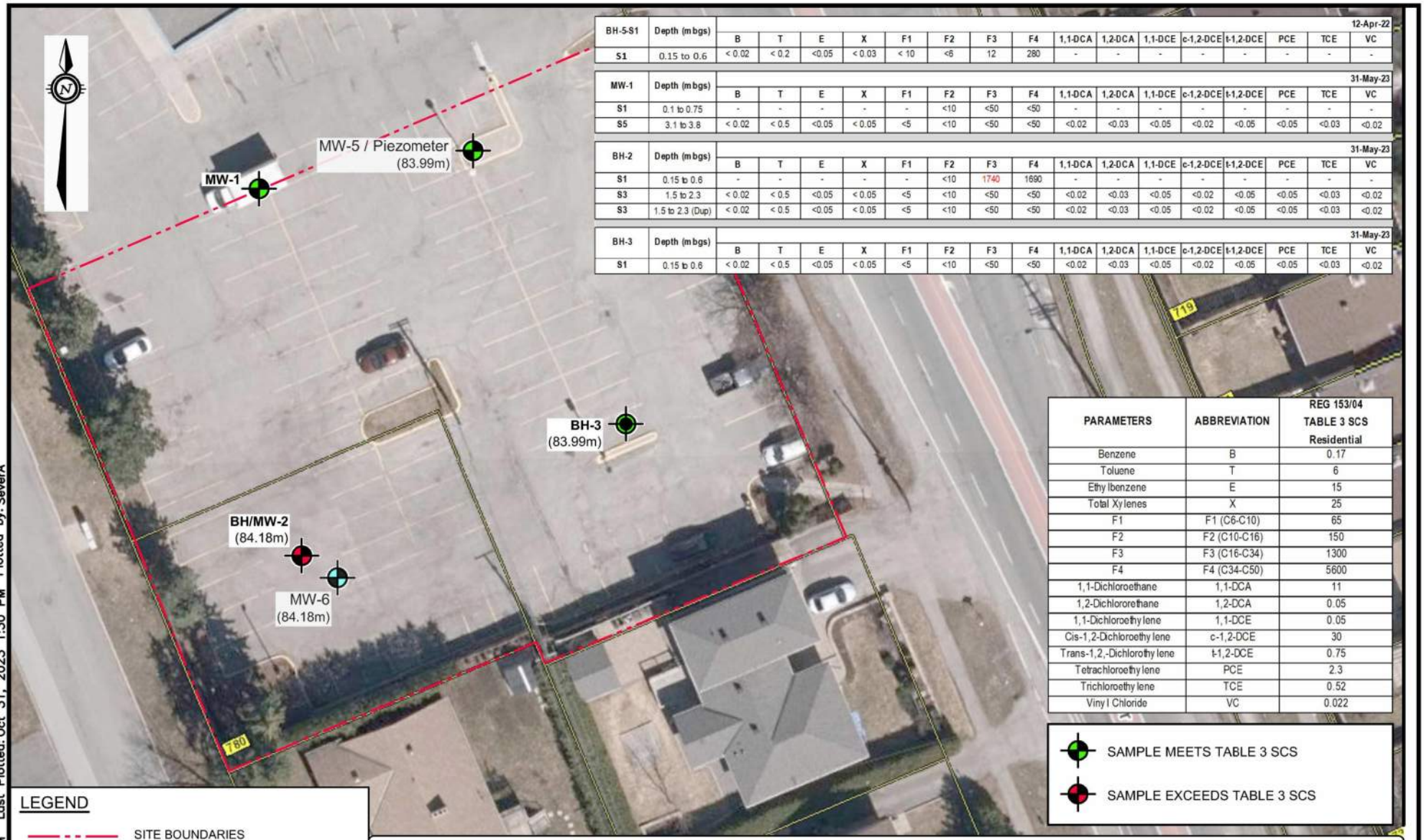

BH-5-S1	Depth (mbgs)	12-Apr-22															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
S1	0.15 to 0.6	< 0.02	< 0.2	<0.05	< 0.03	< 10	<6	12	280	-	-	-	-	-	-	-	-

MW-1	Depth (mbgs)	31-May-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
S1	0.1 to 0.75	-	-	-	-	-	<10	<50	<50	-	-	-	-	-	-	-	-
S5	3.1 to 3.8	< 0.02	< 0.5	<0.05	< 0.05	<5	<10	<50	<50	<0.02	<0.03	<0.05	<0.02	<0.05	<0.05	<0.03	<0.02

BH-2	Depth (mbgs)	31-May-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
S1	0.15 to 0.6	-	-	-	-	-	<10	1740	1690	-	-	-	-	-	-	-	-
S3	1.5 to 2.3	< 0.02	< 0.5	<0.05	< 0.05	<5	<10	<50	<50	<0.02	<0.03	<0.05	<0.02	<0.05	<0.05	<0.03	<0.02
S3	1.5 to 2.3 (Dup)	< 0.02	< 0.5	<0.05	< 0.05	<5	<10	<50	<50	<0.02	<0.03	<0.05	<0.02	<0.05	<0.05	<0.03	<0.02

BH-3	Depth (mbgs)	31-May-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
S1	0.15 to 0.6	< 0.02	< 0.5	<0.05	< 0.05	<5	<10	<50	<50	<0.02	<0.03	<0.05	<0.02	<0.05	<0.05	<0.03	<0.02

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 3 SCS Residential
Benzene	B	0.17
Toluene	T	6
Ethylbenzene	E	15
Total Xylenes	X	25
F1	F1 (C6-C10)	65
F2	F2 (C10-C16)	150
F3	F3 (C16-C34)	1300
F4	F4 (C34-C50)	5600
1,1-Dichloroethane	1,1-DCA	11
1,2-Dichlororethane	1,2-DCA	0.05
1,1-Dichloroethylene	1,1-DCE	0.05
Cis-1,2-Dichloroethylene	c-1,2-DCE	30
Trans-1,2,-Dichlorothylene	t-1,2-DCE	0.75
Tetrachloroethylene	PCE	2.3
Trichloroethylene	TCE	0.52
Vinyl Chloride	VC	0.022

SAMPLE MEETS TABLE 3 SCS

SAMPLE EXCEEDS TABLE 3 SCS

LEGEND

- SITE BOUNDARIES
- MW-5 (83.99m) — MONITORING WELL (*EXP*, 2022) GROUND ELEVATION (m)
- BH-3 — BOREHOLE (*EXP*, 2023)
- MW-1 — MONITORING WELL (*EXP*, 2023)

0 5m 10m 20m

HORIZONTAL 1:500

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Ottawa, ON K2B 8H6, Canada

DATE: OCTOBER 2023
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DRAWN BY: AS

PROPOSED MULTI-USE TOWERS
SOUTH PART OF 780 BASELINE ROAD, OTTAWA, ONTARIO
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
SOIL ANALYTICAL RESULTS – PHC & VOC

project no. OTT-21011499-E0
scale 1:500
FIG 6

Filename: E:\OTT\OTT-21011499-E0\60 Execution\65 Drawings\OTT-21011499-E0_Env_780-Baseline_10-2023.dwg
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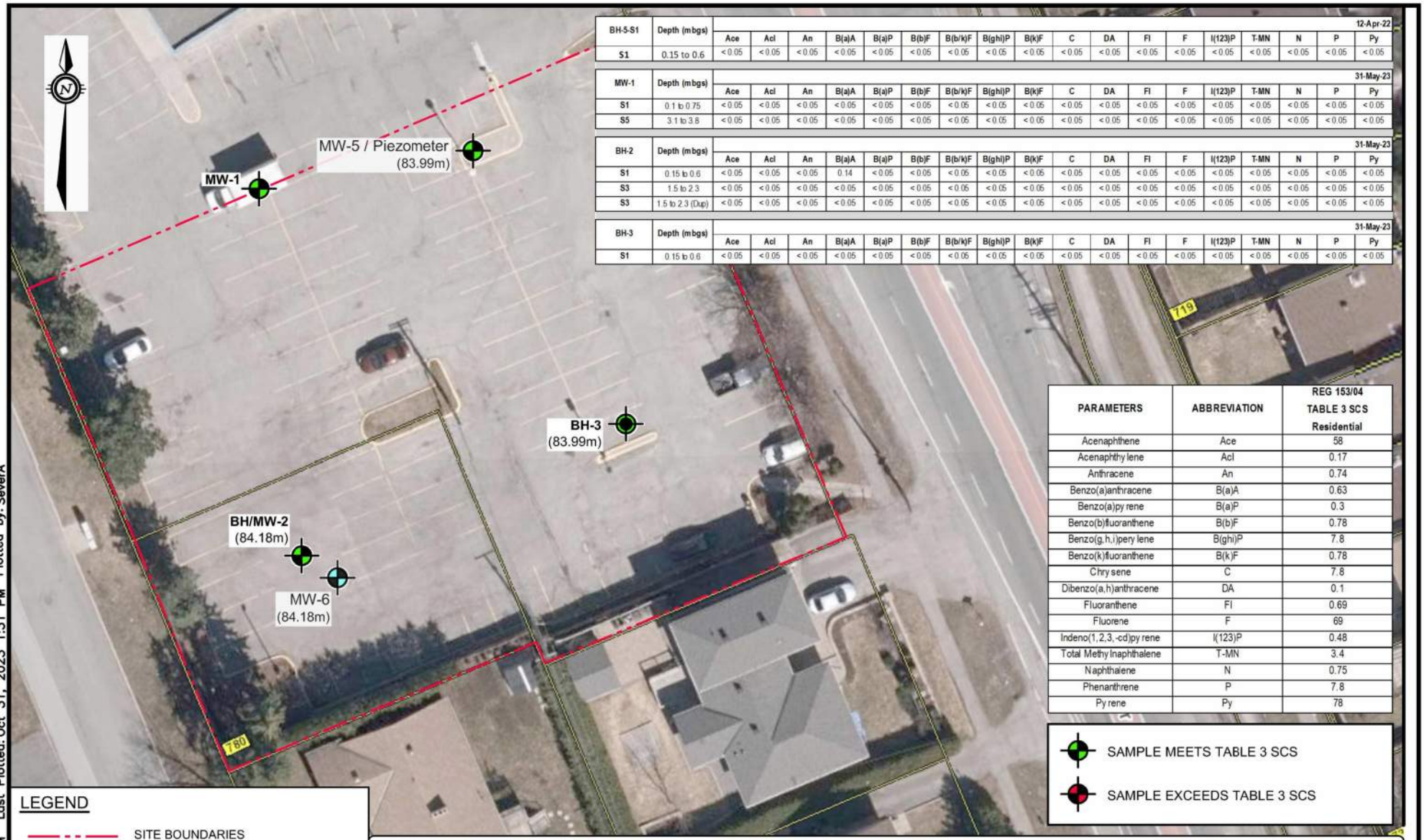

BH-5-S1	Depth (mbgs)	12-Apr-22																
		Ace	Acl	An	B(a)A	B(a)P	B(b)F	B(b/k)F	B(ghi)P	B(k)F	C	DA	FI	F	I(123)P	T-MN	N	P	Py
S1	0.15 to 0.6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

MW-1	Depth (mbgs)	31-May-23																	
		Ace	Acl	An	B(a)A	B(a)P	B(b)F	B(b/k)F	B(ghi)P	B(k)F	C	DA	FI	F	I(123)P	T-MN	N	P	Py
S1	0.1 to 0.75	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
S5	3.1 to 3.8	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

BH-2	Depth (mbgs)	31-May-23																	
		Ace	Acl	An	B(a)A	B(a)P	B(b)F	B(b/k)F	B(ghi)P	B(k)F	C	DA	FI	F	I(123)P	T-MN	N	P	Py
S1	0.15 to 0.6	< 0.05	< 0.05	< 0.05	0.14	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
S3	1.5 to 2.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
S3	1.5 to 2.3 (Dup)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

BH-3	Depth (mbgs)	31-May-23																	
		Ace	Acl	An	B(a)A	B(a)P	B(b)F	B(b/k)F	B(ghi)P	B(k)F	C	DA	FI	F	I(123)P	T-MN	N	P	Py
S1	0.15 to 0.6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 3 SCS Residential
Acenaphthene	Ace	58
Acenaphthy lene	Acl	0.17
Anthracene	An	0.74
Benzo(a)anthracene	B(a)A	0.63
Benzo(a)py rene	B(a)P	0.3
Benzo(b)fluoranthene	B(b)F	0.78
Benzo(g,h,i)pery lene	B(ghi)P	7.8
Benzo(k)fluoranthene	B(k)F	0.78
Chry sene	C	7.8
Dibenzo(a,h)anthracene	DA	0.1
Fluoranthene	FI	0.69
Fluorene	F	69
Indeno(1,2,3,-cd)py rene	I(123)P	0.48
Total Methy lnaphthalene	T-MN	3.4
Naphthalene	N	0.75
Phenanthrene	P	7.8
Py rene	Py	78

SAMPLE MEETS TABLE 3 SCS

SAMPLE EXCEEDS TABLE 3 SCS

LEGEND

SITE BOUNDARIES

MW-5 (83.99m) MONITORING WELL (*EXP*, 2022) GROUND ELEVATION (m)

BH-3 BOREHOLE (*EXP*, 2023)

MW-1 MONITORING WELL (*EXP*, 2023)

0 5m 10m 20m

HORIZONTAL 1:500

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2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE OCTOBER 2023
DESIGN LW CHECKED MM
DRAWN BY AS

PROPOSED MULTI-USE TOWERS
SOUTH PART OF 780 BASELINE ROAD, OTTAWA, ONTARIO
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
SOIL ANALYTICAL RESULTS – PAH

project no. OTT-21011499-E0
scale 1:500
FIG 7

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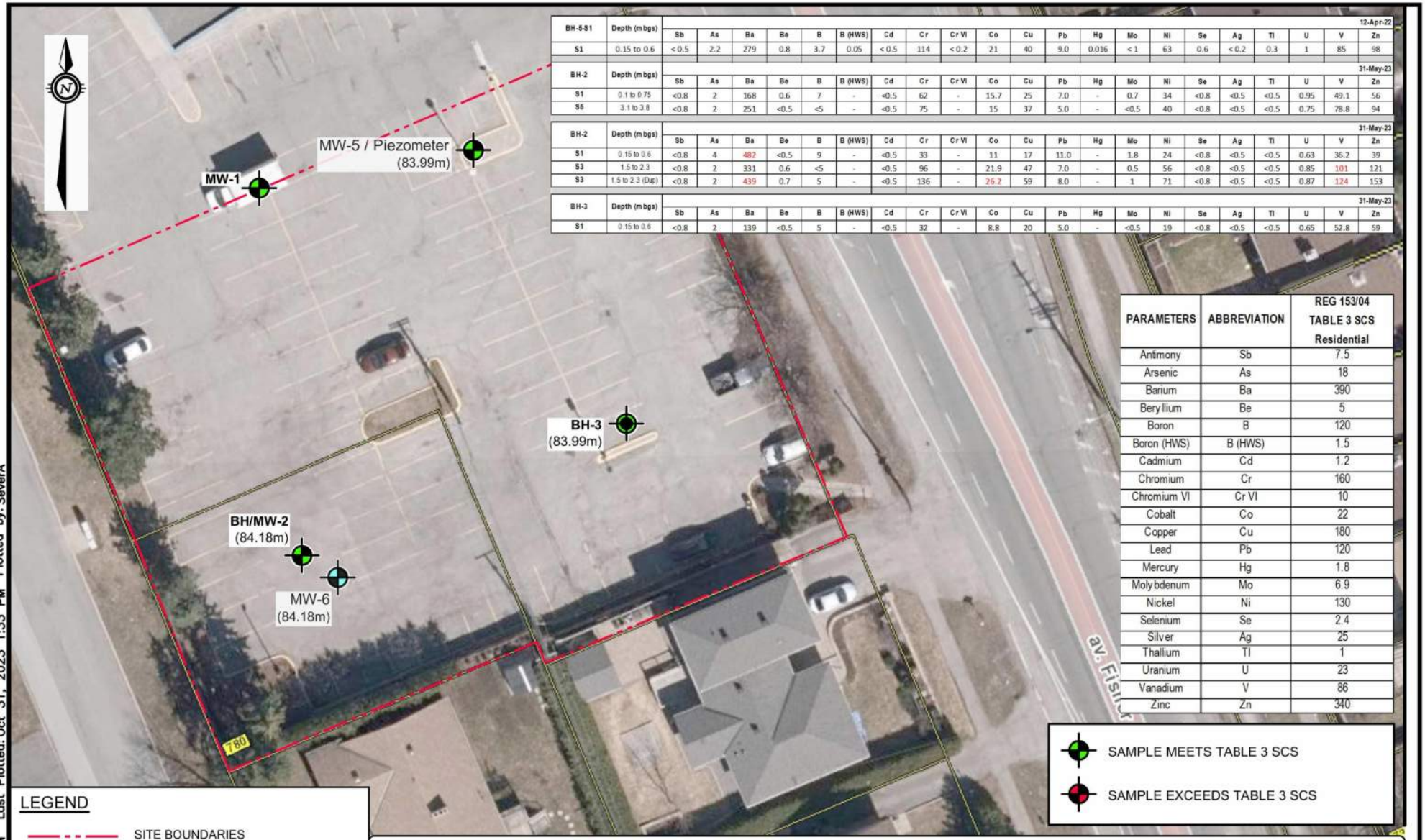

BH-5-S1	Depth (m bgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	Zn
																						12-Apr-22
S1	0.15 to 0.6	< 0.5	2.2	279	0.8	3.7	0.05	< 0.5	114	< 0.2	21	40	9.0	0.016	< 1	63	0.6	< 0.2	0.3	1	85	98

BH-2	Depth (m bgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	Zn
																						31-May-23
S1	0.1 to 0.75	<0.8	2	168	0.6	7	-	<0.5	62	-	15.7	25	7.0	-	0.7	34	<0.8	<0.5	<0.5	0.95	49.1	56
S5	3.1 to 3.8	<0.8	2	251	<0.5	<5	-	<0.5	75	-	15	37	5.0	-	<0.5	40	<0.8	<0.5	<0.5	0.75	78.8	94

BH-2	Depth (m bgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	Zn
																						31-May-23
S1	0.15 to 0.6	<0.8	4	482	<0.5	9	-	<0.5	33	-	11	17	11.0	-	1.8	24	<0.8	<0.5	<0.5	0.63	36.2	39
S3	1.5 to 2.3	<0.8	2	331	0.6	<5	-	<0.5	96	-	21.9	47	7.0	-	0.5	56	<0.8	<0.5	<0.5	0.85	101	121
S3	1.5 to 2.3 (Dup)	<0.8	2	439	0.7	5	-	<0.5	136	-	26.2	59	8.0	-	1	71	<0.8	<0.5	<0.5	0.87	124	153

BH-3	Depth (m bgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	Zn
																						31-May-23
S1	0.15 to 0.6	<0.8	2	139	<0.5	5	-	<0.5	32	-	8.8	20	5.0	-	<0.5	19	<0.8	<0.5	<0.5	0.65	52.8	59

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 3 SCS Residential
Antimony	Sb	7.5
Arsenic	As	18
Barium	Ba	390
Beryllium	Be	5
Boron	B	120
Boron (HWS)	B (HWS)	1.5
Cadmium	Cd	1.2
Chromium	Cr	160
Chromium VI	Cr VI	10
Cobalt	Co	22
Copper	Cu	180
Lead	Pb	120
Mercury	Hg	1.8
Molybdenum	Mo	6.9
Nickel	Ni	130
Selenium	Se	2.4
Silver	Ag	25
Thallium	Tl	1
Uranium	U	23
Vanadium	V	86
Zinc	Zn	340

SAMPLE MEETS TABLE 3 SCS

SAMPLE EXCEEDS TABLE 3 SCS

LEGEND

SITE BOUNDARIES

MW-5 (83.99m) MONITORING WELL (*EXP*, 2022) GROUND ELEVATION (m)

BH-3 BOREHOLE (*EXP*, 2023)

MW-1 MONITORING WELL (*EXP*, 2023)

0 5m 10m 20m

HORIZONTAL 1:500

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Ottawa, ON K2B 8H6, Canada

DATE OCTOBER 2023

DESIGN LW | CHECKED MM

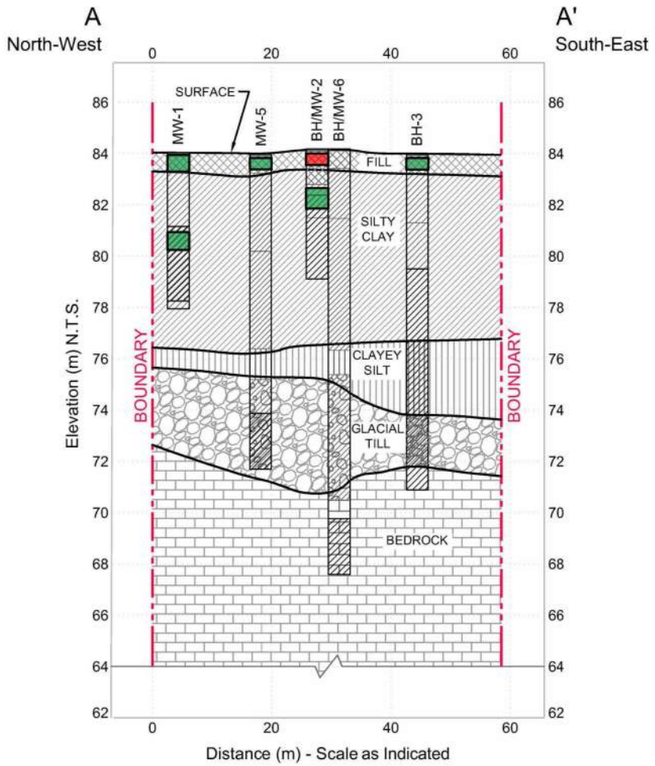
DRAWN BY AS

PROPOSED MULTI-USE TOWERS
SOUTH PART OF 780 BASELINE ROAD, OTTAWA, ONTARIO
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
SOIL ANALYTICAL RESULTS – METALS

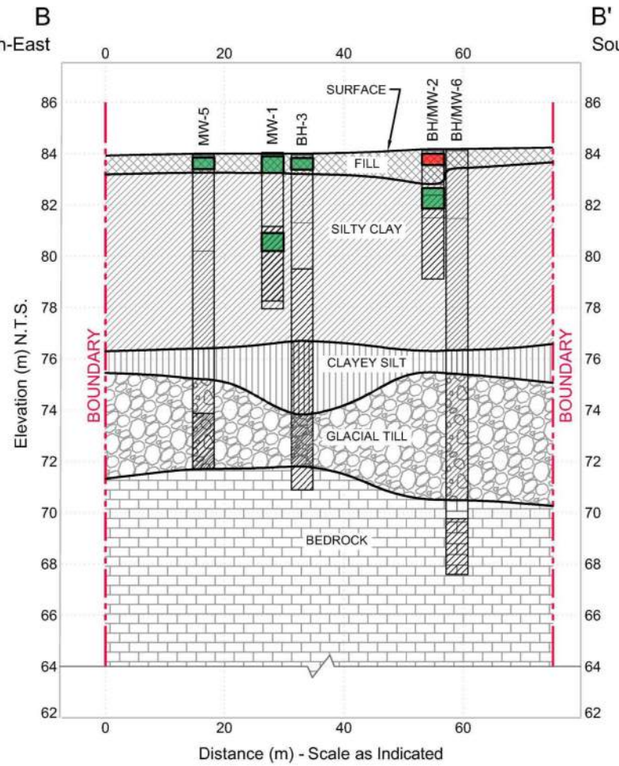
project no. OTT-21011499-E0

scale 1:500

FIG 8



CROSS SECTION A-A'



CROSS SECTION B-B'

BH-5-S1	Depth (mbgs)	12-Apr-22															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
S1	0.15 to 0.6	< 0.02	< 0.2	<0.05	< 0.03	< 10	<6	12	280	-	-	-	-	-	-	-	-

MW-1	Depth (mbgs)	31-May-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
S1	0.1 to 0.75	-	-	-	-	-	<10	<50	<50	-	-	-	-	-	-	-	-
S5	3.1 to 3.8	< 0.02	< 0.5	<0.05	< 0.05	<5	<10	<50	<50	<0.02	<0.03	<0.05	<0.02	<0.05	<0.05	<0.03	<0.02

BH-2	Depth (mbgs)	31-May-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
S1	0.15 to 0.6	-	-	-	-	-	<10	1740	1690	-	-	-	-	-	-	-	-
S3	1.5 to 2.3	< 0.02	< 0.5	<0.05	< 0.05	<5	<10	<50	<50	<0.02	<0.03	<0.05	<0.02	<0.05	<0.05	<0.03	<0.02
S3	1.5 to 2.3 (Dup)	< 0.02	< 0.5	<0.05	< 0.05	<5	<10	<50	<50	<0.02	<0.03	<0.05	<0.02	<0.05	<0.05	<0.03	<0.02

BH-3	Depth (mbgs)	31-May-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
S1	0.15 to 0.6	< 0.02	< 0.5	<0.05	< 0.05	<5	<10	<50	<50	<0.02	<0.03	<0.05	<0.02	<0.05	<0.05	<0.03	<0.02

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 3 SCS Residential
Benzene	B	0.17
Toluene	T	6
Ethylbenzene	E	15
Total Xylenes	X	25
F1	F1 (C6-C10)	65
F2	F2 (C10-C16)	150
F3	F3 (C16-C34)	1300
F4	F4 (C34-C50)	5600
1,1-Dichloroethane	1,1-DCA	11
1,2-Dichloroethane	1,2-DCA	0.05
1,1-Dichloroethylene	1,1-DCE	0.05
Cis-1,2-Dichloroethylene	c-1,2-DCE	30
Trans-1,2,-Dichlorothylene	t-1,2-DCE	0.75
Tetrachloroethylene	PCE	2.3
Trichloroethylene	TCE	0.52
Vinyl Chloride	VC	0.022

LEGEND

- FILL
- SILTY CLAY
- CLAYEY SILT
- GLACIAL TILL
- BEDROCK
- SAMPLE EXCEEDS TABLE 3 SCS
- SAMPLE MEETS TABLE 3 SCS
- WELL SCREEN

0 10m 20m 40m

HORIZONTAL 1:1000

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Ottawa, ON K2B 8H6, Canada

DATE: OCTOBER 2023
DESIGN: LW
CHECKED: MM
DRAWN BY: AS

PROPOSED MULTI-USE TOWERS
SOUTH PART OF 780 BASELINE ROAD, OTTAWA, ONTARIO

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
SOIL CROSS-SECTIONS A-A' AND B-B' – PHC & VOC

project no. OTT-21011499-E0
scale 1:1,000
FIG 9

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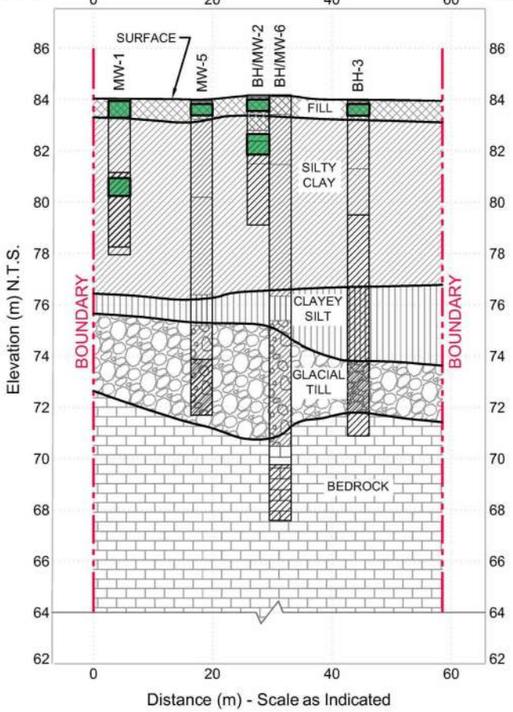
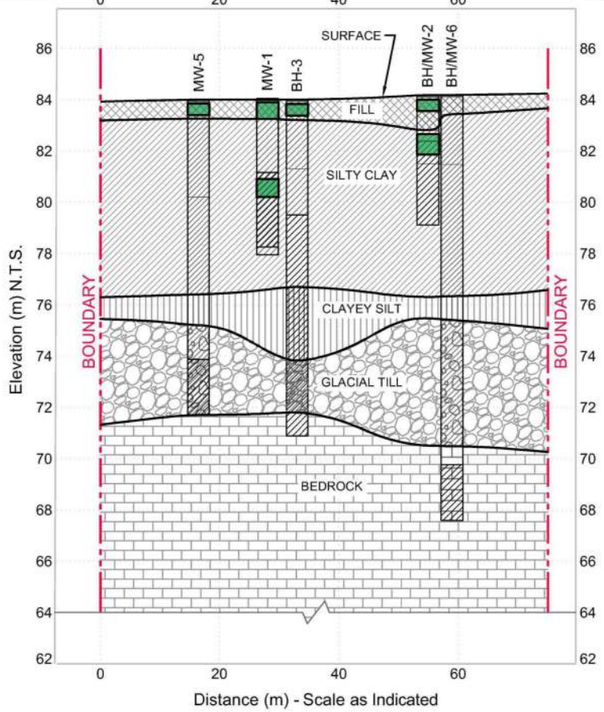


CROSS SECTION A-A'



CROSS SECTION B-B'

BH-5-S1	Depth (mbgs)	12-Apr-22																
		Ace	Acl	An	B(a)A	B(a)P	B(b)F	B(b/k)F	B(ghi)P	B(k)F	C	DA	FI	F	I(123)P	T-MN	N	P	Py
S1	0.15 to 0.6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

MW-1	Depth (mbgs)	31-May-23																	
		Ace	Acl	An	B(a)A	B(a)P	B(b)F	B(b/k)F	B(ghi)P	B(k)F	C	DA	FI	F	I(123)P	T-MN	N	P	Py
S1	0.1 to 0.75	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
S5	3.1 to 3.8	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

BH-2	Depth (mbgs)	31-May-23																	
		Ace	Acl	An	B(a)A	B(a)P	B(b)F	B(b/k)F	B(ghi)P	B(k)F	C	DA	FI	F	I(123)P	T-MN	N	P	Py
S1	0.15 to 0.6	< 0.05	< 0.05	< 0.05	0.14	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
S3	1.5 to 2.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
S3	1.5 to 2.3 (Dup)	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

BH-3	Depth (mbgs)	31-May-23																	
		Ace	Acl	An	B(a)A	B(a)P	B(b)F	B(b/k)F	B(ghi)P	B(k)F	C	DA	FI	F	I(123)P	T-MN	N	P	Py
S1	0.15 to 0.6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 3 SCS Residential
Acenaphthene	Ace	58
Acenaphthy lene	Acl	0.17
Anthracene	An	0.74
Benzo(a)anthracene	B(a)A	0.63
Benzo(a)py rene	B(a)P	0.3
Benzo(b)fluoranthene	B(b)F	0.78
Benzo(g,h,i)pery lene	B(ghi)P	7.8
Benzo(k)fluoranthene	B(k)F	0.78
Chry sene	C	7.8
Dibenzo(a,h)anthracene	DA	0.1
Fluoranthene	FI	0.69
Fluorene	F	69
Indeno(1,2,3,-cd)py rene	I(123)P	0.48
Total Methy lnaphthalene	T-MN	3.4
N aphthalene	N	0.75
Phenanthrene	P	7.8
Py rene	Py	78

LEGEND

- FILL
- SILTY CLAY
- CLAYEY SILT
- GLACIAL TILL
- BEDROCK
- SAMPLE EXCEEDS TABLE 3 SCS
- SAMPLE MEETS TABLE 3 SCS
- WELL SCREEN

0 10m 20m 40m

HORIZONTAL 1:1000

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DATE: OCTOBER 2023
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PROPOSED MULTI-USE TOWERS
SOUTH PART OF 780 BASELINE ROAD, OTTAWA, ONTARIO

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
SOIL CROSS-SECTIONS A-A' AND B-B' – PAH

project no. OTT-21011499-E0
scale 1:1,000
FIG 10

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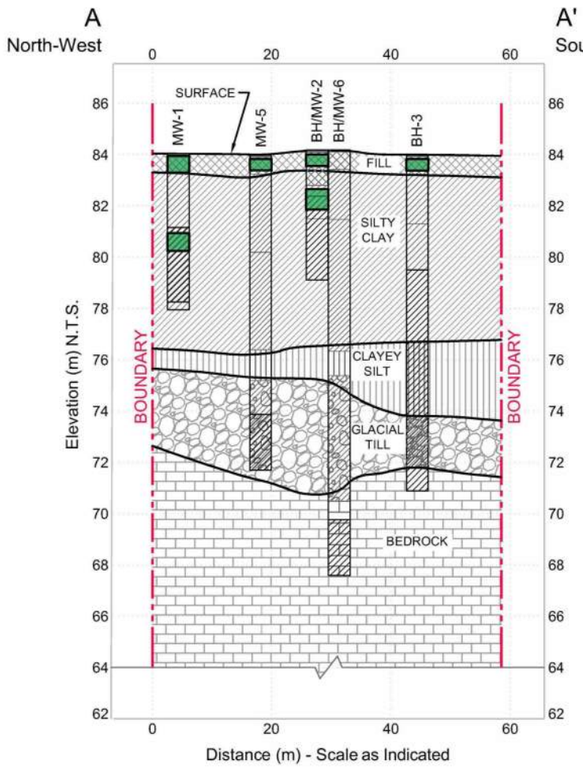
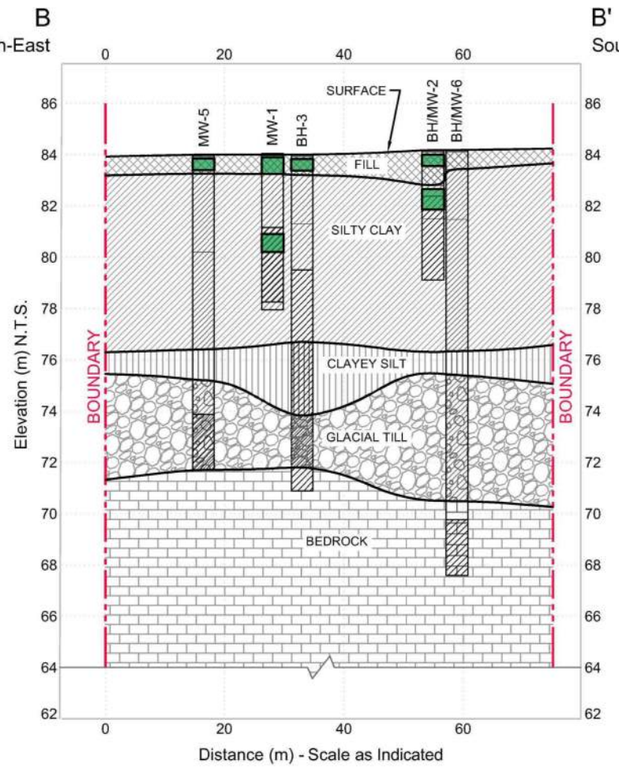


CROSS SECTION A-A'



CROSS SECTION B-B'

BH-5-S1	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	Zn
																						12-Apr-22
S1	0.15 to 0.6	< 0.5	2.2	279	0.8	3.7	0.05	< 0.5	114	< 0.2	21	40	9.0	0.016	< 1	63	0.6	< 0.2	0.3	1	85	98

BH-2	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	Zn
																						31-May-23
S1	0.1 to 0.75	<0.8	2	168	0.6	7	-	<0.5	62	-	15.7	25	7.0	-	0.7	34	<0.8	<0.5	<0.5	0.95	49.1	56
S5	3.1 to 3.8	<0.8	2	251	<0.5	<5	-	<0.5	75	-	15	37	5.0	-	<0.5	40	<0.8	<0.5	<0.5	0.75	78.8	94

BH-2	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	Zn
																						31-May-23
S1	0.15 to 0.6	<0.8	4	482	<0.5	9	-	<0.5	33	-	11	17	11.0	-	1.8	24	<0.8	<0.5	<0.5	0.63	36.2	39
S3	1.5 to 2.3	<0.8	2	331	0.6	<5	-	<0.5	96	-	21.9	47	7.0	-	0.5	56	<0.8	<0.5	<0.5	0.85	101	121
S3	1.5 to 2.3 (Dup)	<0.8	2	439	0.7	5	-	<0.5	136	-	26.2	59	8.0	-	1	71	<0.8	<0.5	<0.5	0.87	124	153

BH-3	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	Zn
																						31-May-23
S1	0.15 to 0.6	<0.8	2	139	<0.5	5	-	<0.5	32	-	8.8	20	5.0	-	<0.5	19	<0.8	<0.5	<0.5	0.65	52.8	59

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 3 SCS Residential
Antimony	Sb	7.5
Arsenic	As	18
Barium	Ba	390
Beryllium	Be	5
Boron	B	120
Boron (HWS)	B (HWS)	1.5
Cadmium	Cd	1.2
Chromium	Cr	160
Chromium VI	Cr VI	10
Cobalt	Co	22
Copper	Cu	180
Lead	Pb	120
Mercury	Hg	1.8
Molybdenum	Mo	6.9
Nickel	Ni	130
Selenium	Se	2.4
Silver	Ag	25
Thallium	Tl	1
Uranium	U	23
Vanadium	V	86
Zinc	Zn	340

LEGEND

- FILL
- SILTY CLAY
- CLAYEY SILT
- GLACIAL TILL
- BEDROCK
- SAMPLE EXCEEDS TABLE 3 SCS
- SAMPLE MEETS TABLE 3 SCS
- WELL SCREEN

0 10m 20m 40m

HORIZONTAL 1:1000

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

DATE: OCTOBER 2023
DESIGN: LW
CHECKED: MM
DRAWN BY: AS

PROPOSED MULTI-USE TOWERS
SOUTH PART OF 780 BASELINE ROAD, OTTAWA, ONTARIO
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
SOIL CROSS-SECTIONS A-A' AND B-B' – METALS

project no. OTT-21011499-E0
scale 1:1,000
FIG 11

Filename: E:\OTT\OTT-21011499-E0\60 Execution\65 Drawings\OTT-21011499-E0_Env_780-Baseline_10-2023.dwg
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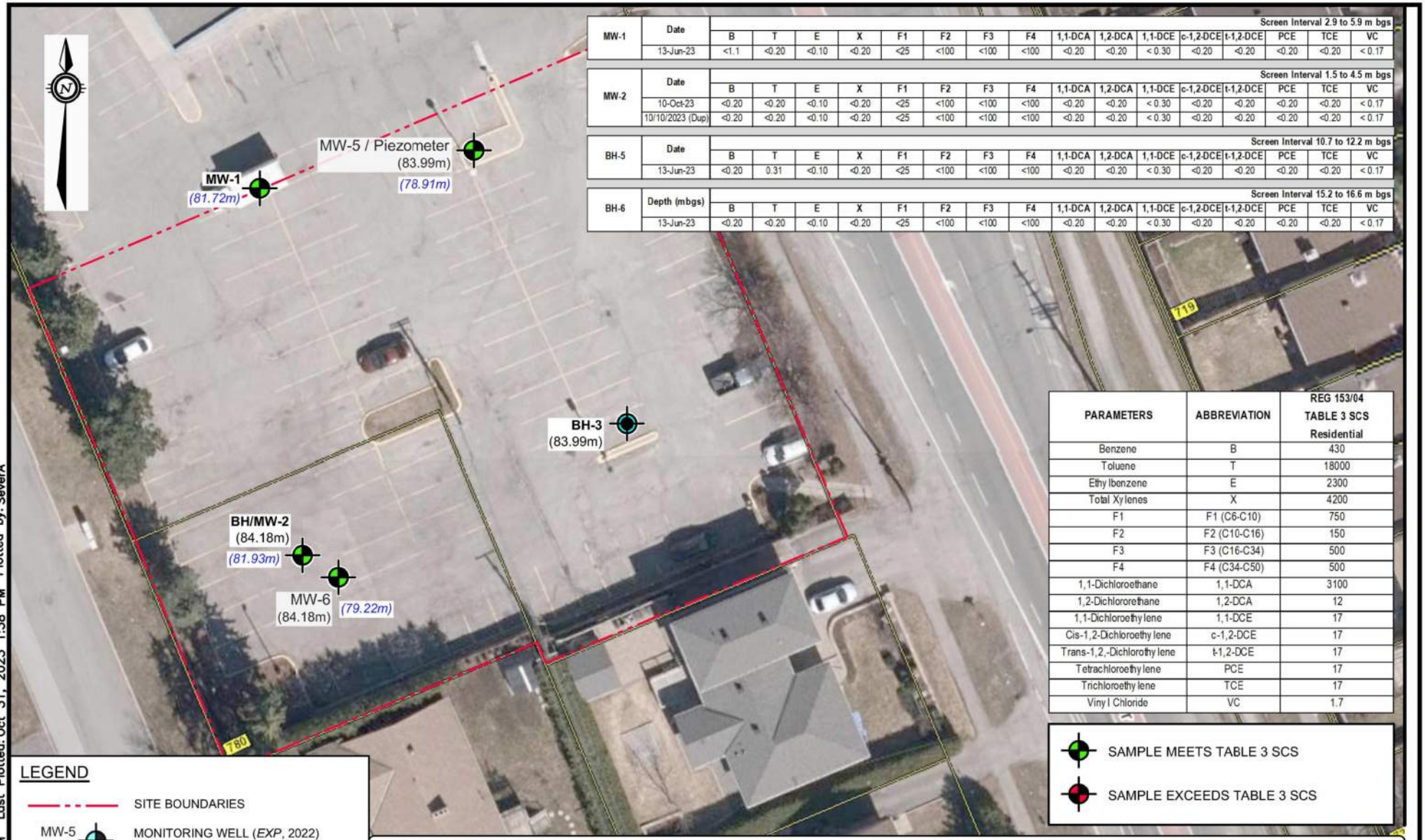

MW-1	Date	Screen Interval 2.9 to 5.9 m bgs															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
	13-Jun-23	<1.1	<0.20	<0.10	<0.20	<25	<100	<100	<100	<0.20	<0.20	< 0.30	<0.20	<0.20	<0.20	<0.20	< 0.17

MW-2	Date	Screen Interval 1.5 to 4.5 m bgs															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
	10-Oct-23	<0.20	<0.20	<0.10	<0.20	<25	<100	<100	<100	<0.20	<0.20	< 0.30	<0.20	<0.20	<0.20	<0.20	< 0.17
	10/10/2023 (Dup)	<0.20	<0.20	<0.10	<0.20	<25	<100	<100	<100	<0.20	<0.20	< 0.30	<0.20	<0.20	<0.20	<0.20	< 0.17

BH-5	Date	Screen Interval 10.7 to 12.2 m bgs															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
	13-Jun-23	<0.20	0.31	<0.10	<0.20	<25	<100	<100	<100	<0.20	<0.20	< 0.30	<0.20	<0.20	<0.20	<0.20	< 0.17

BH-6	Depth (mbgs)	Screen Interval 15.2 to 16.6 m bgs															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
	13-Jun-23	<0.20	<0.20	<0.10	<0.20	<25	<100	<100	<100	<0.20	<0.20	< 0.30	<0.20	<0.20	<0.20	<0.20	< 0.17

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 3 SCS Residential
Benzene	B	430
Toluene	T	18000
Ethylbenzene	E	2300
Total Xylenes	X	4200
F1	F1 (C6-C10)	750
F2	F2 (C10-C16)	150
F3	F3 (C16-C34)	500
F4	F4 (C34-C50)	500
1,1-Dichloroethane	1,1-DCA	3100
1,2-Dichlororethane	1,2-DCA	12
1,1-Dichloroethylene	1,1-DCE	17
Cis-1,2-Dichloroethylene	c-1,2-DCE	17
Trans-1,2,-Dichlorothylene	t-1,2-DCE	17
Tetrachloroethylene	PCE	17
Trichloroethylene	TCE	17
Vinyl Chloride	VC	1.7

SAMPLE MEETS TABLE 3 SCS

SAMPLE EXCEEDS TABLE 3 SCS

LEGEND

- SITE BOUNDARIES
- MW-5 (83.99m) — MONITORING WELL (*EXP*, 2022) GROUND ELEVATION (m)
- BH-3 — BOREHOLE (*EXP*, 2023)
- MW-1 — MONITORING WELL (*EXP*, 2023)
- (81.72m) — GROUND WATER ELEVATION (masl)

0 5m 10m 20m

HORIZONTAL 1:500

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DATE: OCTOBER 2023
DESIGN: LW | CHECKED: MM
DRAWN BY: AS

PROPOSED MULTI-USE TOWERS
SOUTH PART OF 780 BASELINE ROAD, OTTAWA, ONTARIO
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
GROUNDWATER ANALYTICAL RESULTS – PHC & VOC

project no. OTT-21011499-E0
scale 1:500
FIG 12

Filename: E:\OTT\OTT-21011499-E0\60 Execution\65 Drawings\OTT-21011499-E0_Env_780-Baseline_10-2023.dwg
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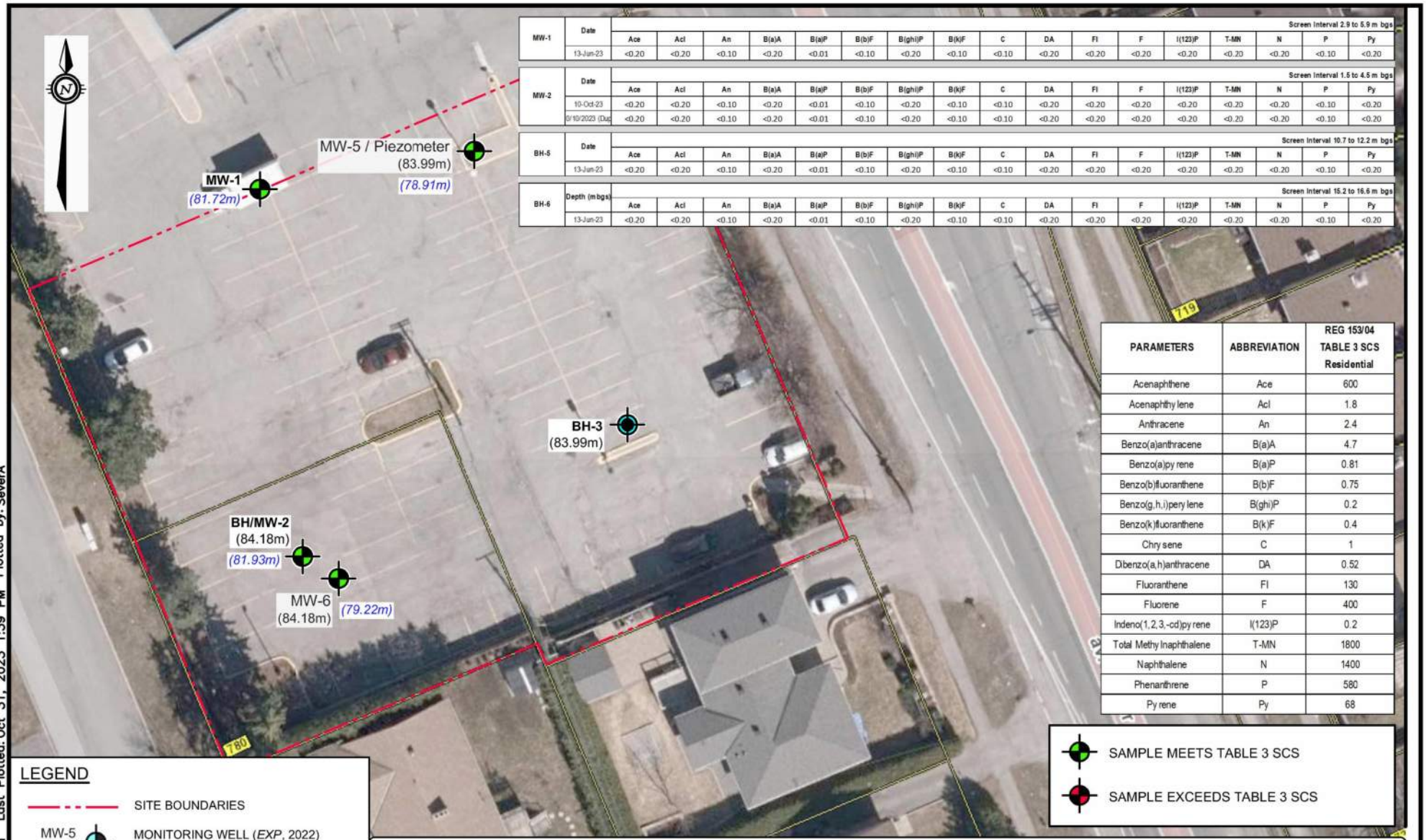

MW-1	Date	Screen Interval 2.9 to 5.9 m bgs															
		Ace	Acl	An	B(a)A	B(a)P	B(b)F	B(ghi)P	B(k)F	C	DA	Fl	F	I(123)P	T-MN	N	P	Py
	13-Jun-23	<0.20	<0.20	<0.10	<0.20	<0.01	<0.10	<0.20	<0.10	<0.10	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20

MW-2	Date	Screen Interval 1.5 to 4.5 m bgs															
		Ace	Acl	An	B(a)A	B(a)P	B(b)F	B(ghi)P	B(k)F	C	DA	Fl	F	I(123)P	T-MN	N	P	Py
	10-Oct-23	<0.20	<0.20	<0.10	<0.20	<0.01	<0.10	<0.20	<0.10	<0.10	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20
	9/10/2023 (Dup	<0.20	<0.20	<0.10	<0.20	<0.01	<0.10	<0.20	<0.10	<0.10	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20

BH-5	Date	Screen Interval 10.7 to 12.2 m bgs															
		Ace	Acl	An	B(a)A	B(a)P	B(b)F	B(ghi)P	B(k)F	C	DA	Fl	F	I(123)P	T-MN	N	P	Py
	13-Jun-23	<0.20	<0.20	<0.10	<0.20	<0.01	<0.10	<0.20	<0.10	<0.10	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20

BH-6	Depth (mbgs)	Screen Interval 15.2 to 16.6 m bgs															
		Ace	Acl	An	B(a)A	B(a)P	B(b)F	B(ghi)P	B(k)F	C	DA	Fl	F	I(123)P	T-MN	N	P	Py
	13-Jun-23	<0.20	<0.20	<0.10	<0.20	<0.01	<0.10	<0.20	<0.10	<0.10	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 3 SCS Residential
Acenaphthene	Ace	600
Acenaphthy lene	Acl	1.8
Anthracene	An	2.4
Benzo(a)anthracene	B(a)A	4.7
Benzo(a)py rene	B(a)P	0.81
Benzo(b)fluoranthene	B(b)F	0.75
Benzo(g,h,i)pery lene	B(ghi)P	0.2
Benzo(k)fluoranthene	B(k)F	0.4
Chry sene	C	1
Dibenzo(a,h)anthracene	DA	0.52
Fluoranthene	Fl	130
Fluorene	F	400
Indeno(1,2,3,-cd)py rene	I(123)P	0.2
Total Methy lnaphthalene	T-MN	1800
Naphthalene	N	1400
Phenanthrene	P	580
Py rene	Py	68

SAMPLE MEETS TABLE 3 SCS

SAMPLE EXCEEDS TABLE 3 SCS

LEGEND

- SITE BOUNDARIES
- MW-5 (83.99m) — MONITORING WELL (*EXP*, 2022) GROUND ELEVATION (m)
- BH-3 — BOREHOLE (*EXP*, 2023)
- MW-1 — MONITORING WELL (*EXP*, 2023)
- (81.72m) — GROUND WATER ELEVATION (masl)

0 5m 10m 20m

HORIZONTAL 1:500

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DATE OCTOBER 2023
DESIGN LW | CHECKED MM
DRAWN BY AS

PROPOSED MULTI-USE TOWERS
SOUTH PART OF 780 BASELINE ROAD, OTTAWA, ONTARIO
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
GROUNDWATER ANALYTICAL RESULTS – PAH

project no. OTT-21011499-E0
scale 1:500
FIG 13

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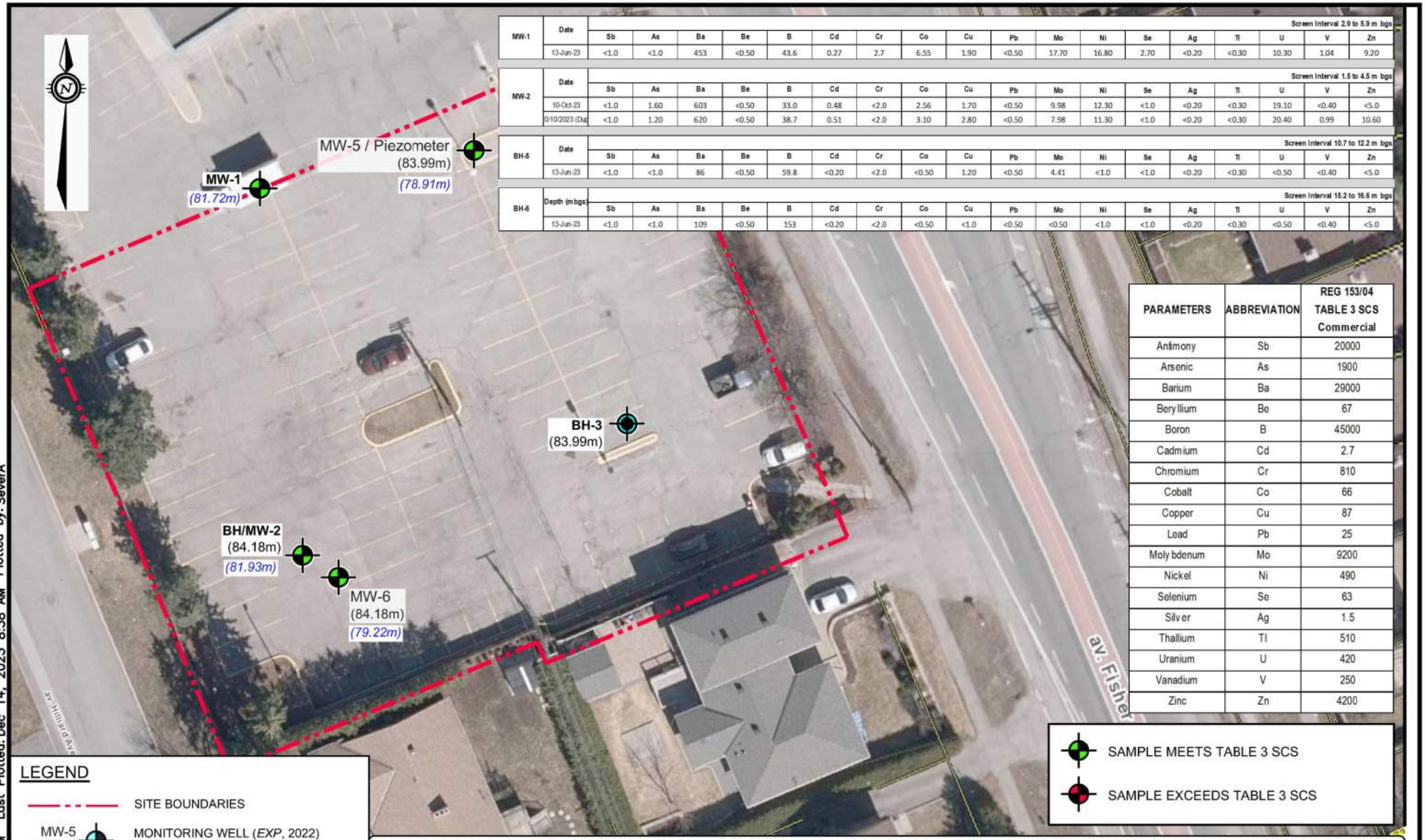

MW-1	Date	Screen Interval 2.9 to 5.9 m bgs																
		Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	Ag	Tl	U	V	Zn
	13-Jun-23	<1.0	<1.0	453	<0.50	43.6	0.27	2.7	6.55	1.90	<0.50	17.70	16.80	2.70	<0.20	<0.30	10.30	1.04	9.20

MW-2	Date	Screen Interval 1.5 to 4.5 m bgs																
		Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	Ag	Tl	U	V	Zn
	10-Oct-23	<1.0	1.60	603	<0.50	33.0	0.48	<2.0	2.56	1.70	<0.50	9.98	12.30	<1.0	<0.20	<0.30	19.10	<0.40	<5.0
	0/10/2023 (Du	<1.0	1.20	620	<0.50	38.7	0.51	<2.0	3.10	2.80	<0.50	7.98	11.30	<1.0	<0.20	<0.30	20.40	0.99	10.60

BH-5	Date	Screen Interval 10.7 to 12.2 m bgs																
		Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	Ag	Tl	U	V	Zn
	13-Jun-23	<1.0	<1.0	86	<0.50	59.8	<0.20	<2.0	<0.50	1.20	<0.50	4.41	<1.0	<1.0	<0.20	<0.30	<0.50	<0.40	<5.0

BH-6	Depth (mbgs)	Screen Interval 15.2 to 16.6 m bgs																
		Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	Ag	Tl	U	V	Zn
	13-Jun-23	<1.0	<1.0	109	<0.50	153	<0.20	<2.0	<0.50	<1.0	<0.50	<0.50	<1.0	<1.0	<0.20	<0.30	<0.50	<0.40	<5.0

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 3 SCS Commercial
Antimony	Sb	20000
Arsenic	As	1900
Barium	Ba	29000
Beryllium	Be	67
Boron	B	45000
Cadmium	Cd	2.7
Chromium	Cr	810
Cobalt	Co	66
Copper	Cu	87
Lead	Pb	25
Molybdenum	Mo	9200
Nickel	Ni	490
Selenium	Se	63
Silver	Ag	1.5
Thallium	Tl	510
Uranium	U	420
Vanadium	V	250
Zinc	Zn	4200

SAMPLE MEETS TABLE 3 SCS

SAMPLE EXCEEDS TABLE 3 SCS

LEGEND

- SITE BOUNDARIES
- MW-5 (83.99m) — MONITORING WELL (*EXP*, 2022) GROUND ELEVATION (m)
- BH-3 — BOREHOLE (*EXP*, 2023)
- MW-1 — MONITORING WELL (*EXP*, 2023)
- (81.72m) — GROUND WATER ELEVATION (masl)

0 5m 10m 20m

HORIZONTAL 1:500

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DATE DECEMBER 2023
DESIGN LW | CHECKED MM
DRAWN BY AS

PROPOSED MULTI-USE TOWERS
SOUTH PART OF 780 BASELINE ROAD, OTTAWA, ONTARIO
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
GROUNDWATER ANALYTICAL RESULTS – METALS

project no. OTT-21011499-E0
scale 1:500
FIG 14

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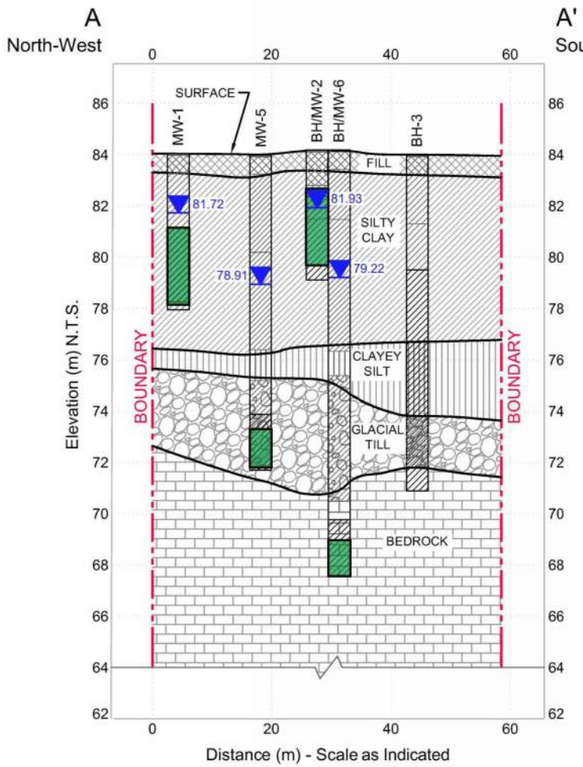
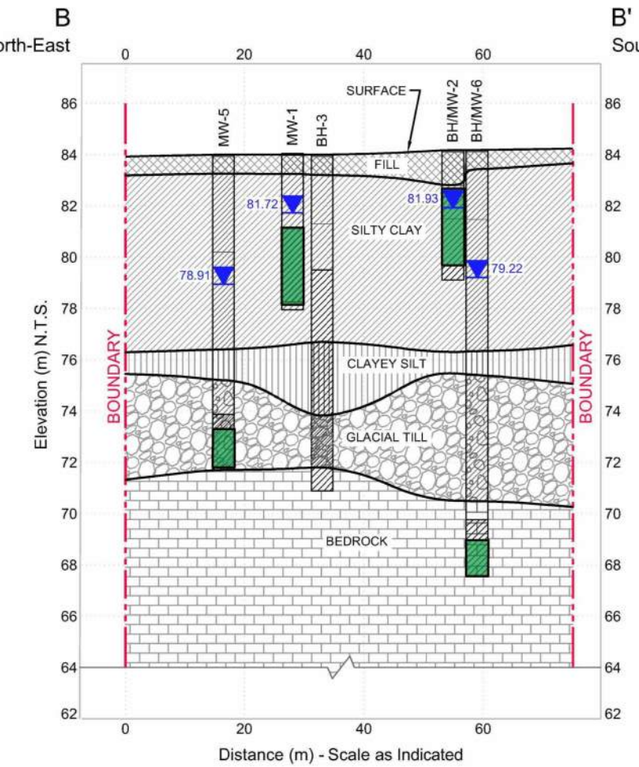


CROSS SECTION A-A'



CROSS SECTION B-B'

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 3 SCS Residential
Benzene	B	430
Toluene	T	18000
Ethy lbenzene	E	2300
Total Xy lenes	X	4200
F1	F1 (C6-C10)	750
F2	F2 (C10-C16)	150
F3	F3 (C16-C34)	500
F4	F4 (C34-C50)	500
1,1-Dichloroethane	1,1-DCA	3100
1,2-Dichloroethane	1,2-DCA	12
1,1-Dichloroethy lene	1,1-DCE	17
Cis-1,2-Dichloroethy lene	c-1,2-DCE	17
Trans-1,2,-Dichlorothy lene	t-1,2-DCE	17
Tetrachloroethy lene	PCE	17
Trichloroethy lene	TCE	17
Viny l Chloride	VC	1.7

		Screen Interval 2.9 to 5.9 m bgs															
MW-1	Date	B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
	13-Jun-23	<1.1	<0.20	<0.10	<0.20	<25	<100	<100	<100	<0.20	<0.20	< 0.30	<0.20	<0.20	<0.20	<0.20	< 0.17

		Screen Interval 1.5 to 4.5 m bgs															
MW-2	Date	B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
	10-Oct-23	<0.20	<0.20	<0.10	<0.20	<25	<100	<100	<100	<0.20	<0.20	< 0.30	<0.20	<0.20	<0.20	<0.20	< 0.17
	10/10/2023 (Dup)	<0.20	<0.20	<0.10	<0.20	<25	<100	<100	<100	<0.20	<0.20	< 0.30	<0.20	<0.20	<0.20	<0.20	< 0.17

		Screen Interval 10.7 to 12.2 m bgs															
BH-5	Date	B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
	13-Jun-23	<0.20	0.31	<0.10	<0.20	<25	<100	<100	<100	<0.20	<0.20	< 0.30	<0.20	<0.20	<0.20	<0.20	< 0.17

		Screen Interval 15.2 to 16.6 m bgs															
BH-6	Depth (mbgs)	B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
	13-Jun-23	<0.20	<0.20	<0.10	<0.20	<25	<100	<100	<100	<0.20	<0.20	< 0.30	<0.20	<0.20	<0.20	<0.20	< 0.17

LEGEND

- FILL
- SILTY CLAY
- CLAYEY SILT
- GLACIAL TILL
- BEDROCK
- BEDROCK GROUNDWATER ELEVATION (masl) AS MEASURED ON APRIL 27, 2022
- OVERBURDEN GROUNDWATER ELEVATION (masl) AS MEASURED ON APRIL 18, 2022
- SAMPLE EXCEEDS TABLE 3 SCS
- SAMPLE MEETS TABLE 3 SCS
- WELL SCREEN

0 10m 20m 40m

HORIZONTAL 1:1000

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DATE OCTOBER 2023
DESIGN LW
CHECKED MM
DRAWN BY AS

PROPOSED MULTI-USE TOWERS
SOUTH PART OF 780 BASELINE ROAD, OTTAWA, ONTARIO

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
GROUNDWATER CROSS-SECTIONS A-A' AND B-B' – PHC & VOC

project no. OTT-21011499-E0
scale 1:1,000
FIG 15

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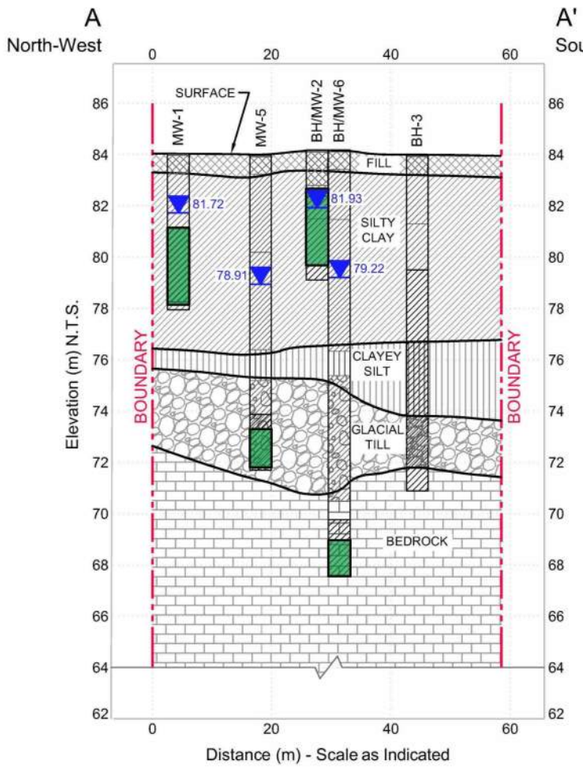
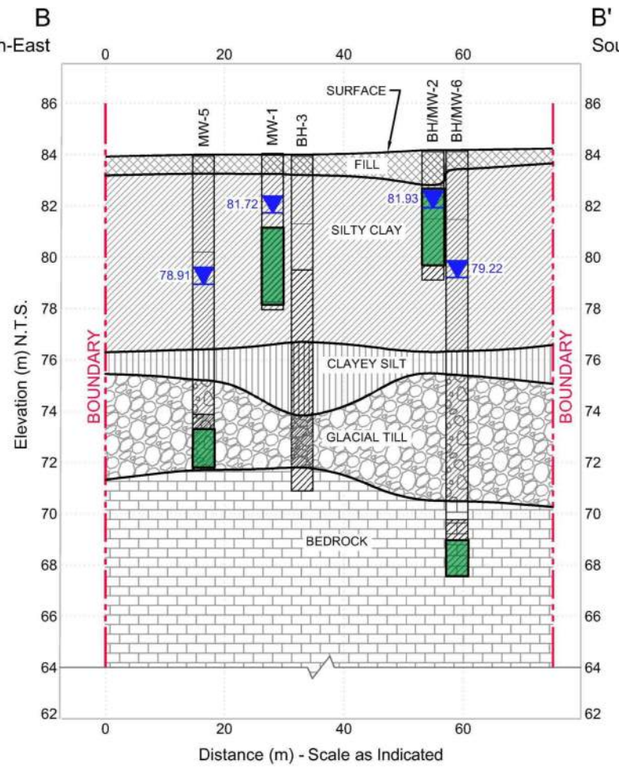


CROSS SECTION A-A'



CROSS SECTION B-B'

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 3 SCS Residential
Acenaphthene	Ace	600
Acenaphthylene	Acl	1.8
Anthracene	An	2.4
Benzo(a)anthracene	B(a)A	4.7
Benzo(a)pyrene	B(a)P	0.81
Benzo(b)fluoranthene	B(b)F	0.75
Benzo(g,h,i)perylene	B(ghi)P	0.2
Benzo(k)fluoranthene	B(k)F	0.4
Chrysene	C	1
Dibenzo(a,h)anthracene	DA	0.52
Fluoranthene	Fl	130
Fluorene	F	400
Indeno(1,2,3,-cd)pyrene	I(123)P	0.2
Total Methylnaphthalene	T-MN	1800
Naphthalene	N	1400
Phenanthrene	P	580
Pyrene	Py	68

	Date	Screen Interval 2.9 to 5.9 m bgs																
MW-1		Ace	Acl	An	B(a)A	B(a)P	B(b)F	B(ghi)P	B(k)F	C	DA	Fl	F	I(123)P	T-MN	N	P	Py
	13-Jun-23	<0.20	<0.20	<0.10	<0.20	<0.01	<0.10	<0.20	<0.10	<0.10	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20
	Date	Screen Interval 1.5 to 4.5 m bgs																
MW-2		Ace	Acl	An	B(a)A	B(a)P	B(b)F	B(ghi)P	B(k)F	C	DA	Fl	F	I(123)P	T-MN	N	P	Py
	10-Oct-23	<0.20	<0.20	<0.10	<0.20	<0.01	<0.10	<0.20	<0.10	<0.10	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20
	0/10/2023 (Dup	<0.20	<0.20	<0.10	<0.20	<0.01	<0.10	<0.20	<0.10	<0.10	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20
	Date	Screen Interval 10.7 to 12.2 m bgs																
BH-5		Ace	Acl	An	B(a)A	B(a)P	B(b)F	B(ghi)P	B(k)F	C	DA	Fl	F	I(123)P	T-MN	N	P	Py
	13-Jun-23	<0.20	<0.20	<0.10	<0.20	<0.01	<0.10	<0.20	<0.10	<0.10	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20
	Depth (mbgs)	Screen Interval 15.2 to 16.6 m bgs																
BH-6		Ace	Acl	An	B(a)A	B(a)P	B(b)F	B(ghi)P	B(k)F	C	DA	Fl	F	I(123)P	T-MN	N	P	Py
	13-Jun-23	<0.20	<0.20	<0.10	<0.20	<0.01	<0.10	<0.20	<0.10	<0.10	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20

LEGEND

- FILL
- SILTY CLAY
- CLAYEY SILT
- GLACIAL TILL
- BEDROCK
- BEDROCK GROUNDWATER ELEVATION (masl) AS MEASURED ON APRIL 27, 2022
- OVERBURDEN GROUNDWATER ELEVATION (masl) AS MEASURED ON APRIL 18, 2022
- SAMPLE EXCEEDS TABLE 3 SCS
- SAMPLE MEETS TABLE 3 SCS
- WELL SCREEN

0 10m 20m 40m

HORIZONTAL 1:1000

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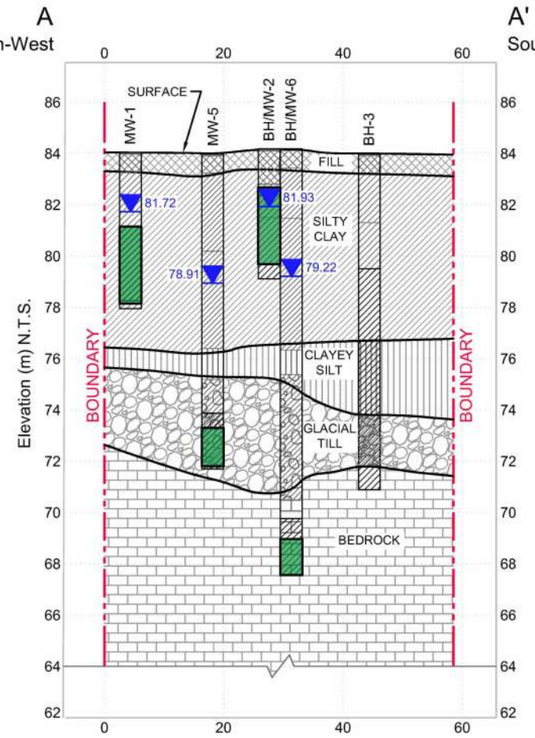
DATE: OCTOBER 2023
DESIGN: LW
CHECKED: MM
DRAWN BY: AS

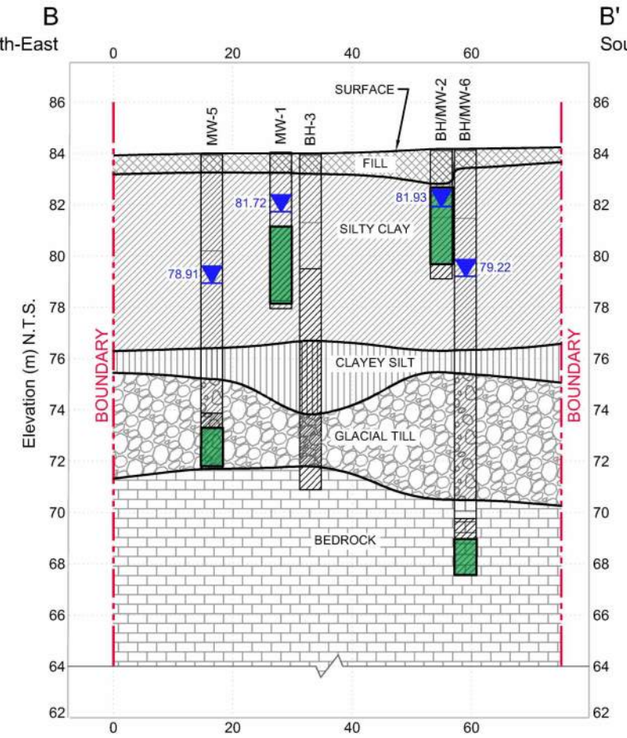
PROPOSED MULTI-USE TOWERS
SOUTH PART OF 780 BASELINE ROAD, OTTAWA, ONTARIO

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
GROUNDWATER CROSS-SECTIONS A-A' AND B-B' – PAH

project no. OTT-21011499-E0
scale 1:1,000
FIG 16



CROSS SECTION A-A'



CROSS SECTION B-B'

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 3 SCS Commercial
Antimony	Sb	20000
Arsenic	As	1900
Barium	Ba	29000
Beryllium	Be	67
Boron	B	45000
Cadmium	Cd	2.7
Chromium	Cr	810
Cobalt	Co	66
Copper	Cu	87
Lead	Pb	25
Molybdenum	Mo	9200
Nickel	Ni	490
Selenium	Se	63
Silver	Ag	1.5
Thallium	Tl	510
Uranium	U	420
Vanadium	V	250
Zinc	Zn	4200

MW-1	Date	Screen Interval 2.9 to 5.9 m bgs																	
		Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	Ag	Tl	U	V	Zn
	13-Jun-23	<1.0	<1.0	453	<0.50	43.6	0.27	2.7	6.55	1.90	<0.50	17.70	16.80	2.70	<0.20	<0.30	10.30	1.04	9.20

MW-2	Date	Screen Interval 1.5 to 4.5 m bgs																	
		Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	Ag	Tl	U	V	Zn
	10-Oct-23	<1.0	1.60	603	<0.50	33.0	0.48	<2.0	2.56	1.70	<0.50	9.98	12.30	<1.0	<0.20	<0.30	19.10	<0.40	<5.0
	0/10/2023 (Dup	<1.0	1.20	620	<0.50	38.7	0.51	<2.0	3.10	2.80	<0.50	7.98	11.30	<1.0	<0.20	<0.30	20.40	0.99	10.60

BH-5	Date	Screen Interval 10.7 to 12.2 m bgs																	
		Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	Ag	Tl	U	V	Zn
	13-Jun-23	<1.0	<1.0	86	<0.50	59.8	<0.20	<2.0	<0.50	1.20	<0.50	4.41	<1.0	<1.0	<0.20	<0.30	<0.50	<0.40	<5.0

BH-6	Depth (mbgs)	Screen Interval 15.2 to 16.6 m bgs																	
		Sb	As	Ba	Be	B	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	Ag	Tl	U	V	Zn
	13-Jun-23	<1.0	<1.0	109	<0.50	153	<0.20	<2.0	<0.50	<1.0	<0.50	<0.50	<1.0	<1.0	<0.20	<0.30	<0.50	<0.40	<5.0

LEGEND

- FILL
- SILTY CLAY
- CLAYEY SILT
- GLACIAL TILL
- BEDROCK
- BEDROCK GROUNDWATER ELEVATION (masl) AS MEASURED ON APRIL 27, 2022
- OVERBURDEN GROUNDWATER ELEVATION (masl) AS MEASURED ON APRIL 18, 2022
- SAMPLE EXCEEDS TABLE 3 SCS
- SAMPLE MEETS TABLE 3 SCS
- WELL SCREEN

0 10m 20m 40m

HORIZONTAL 1:1000

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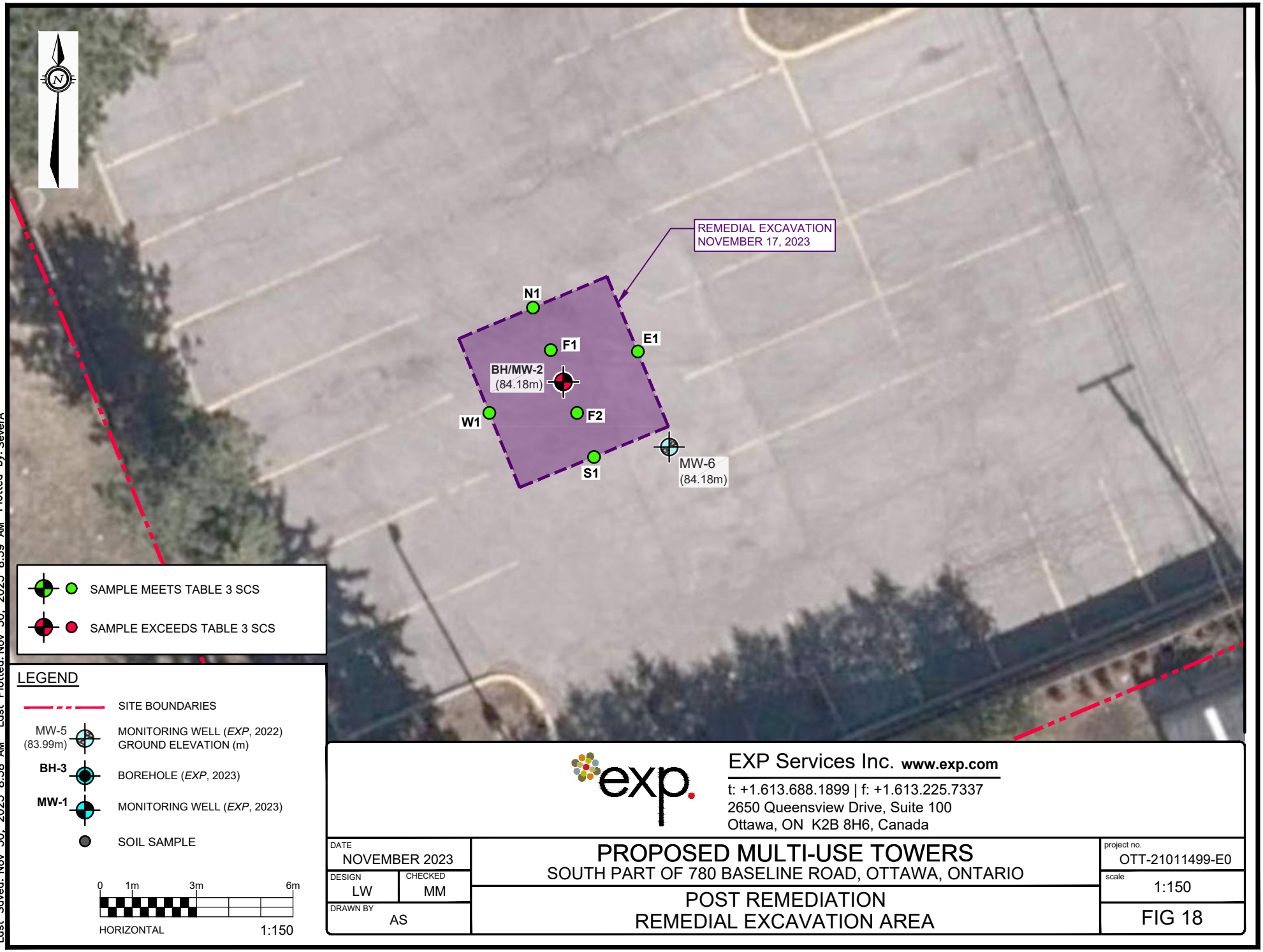
DATE DECEMBER 2023
DESIGN LW
CHECKED MM
DRAWN BY AS

PROPOSED MULTI-USE TOWERS
SOUTH PART OF 780 BASELINE ROAD, OTTAWA, ONTARIO

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
GROUNDWATER CROSS-SECTIONS A-A' AND B-B' – METALS

project no. OTT-21011499-E0
scale 1:1,000
FIG 17

Filename: E:\OTT\OTT-21011499-E0\60 Execution\65 Drawings\OTT-21011499-E0_Env_780-Baseline_12-2023.dwg
Last Saved: Dec 14, 2023 8:35 AM Last Plotted: Dec 14, 2023 8:52 AM Plotted by: SeverA



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Ottawa, ON K2B 8H6, Canada

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DESIGN: LW
CHECKED: MM
DRAWN BY: AS

PROPOSED MULTI-USE TOWERS
SOUTH PART OF 780 BASELINE ROAD, OTTAWA, ONTARIO

POST REMEDIATION
REMEDIAL EXCAVATION AREA

project no. OTT-21011499-E0
scale 1:150
FIG 18

Filename: E:\OTT\OTT-21011499-E0\60 Execution\65 Drawings\OTT-21011499-E0_Env_780-Baseline_11-2023.dwg
Last Saved: Nov 30, 2023 8:58 AM Last Plotted: Nov 30, 2023 8:59 AM Plotted by: SeverA

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 3 SCS Residential
Benzene	B	0.17
Toluene	T	6
Ethylbenzene	E	15
Total Xylenes	X	25
F1	F1 (C6-C10)	65
F2	F2 (C10-C16)	150
F3	F3 (C16-C34)	1300
F4	F4 (C34-C50)	5600
1,1-Dichloroethane	1,1-DCA	11
1,2-Dichlororethane	1,2-DCA	0.05
1,1-Dichloroethylene	1,1-DCE	0.05
Cis-1,2-Dichloroethylene	c-1,2-DCE	30
Trans-1,2,-Dichlorothylene	t-1,2-DCE	0.75
Tetrachloroethylene	PCE	2.3
Trichloroethylene	TCE	0.52
Vinyl Chloride	VC	0.022

BH-5-S1	Depth (mbgs)	12-Apr-22															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
S1	0.15 to 0.6	< 0.02	< 0.2	<0.05	< 0.03	< 10	<6	12	280	-	-	-	-	-	-	-	-

MW-1	Depth (mbgs)	31-May-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
S1	0.1 to 0.75	-	-	-	-	-	<10	<50	<50	-	-	-	-	-	-	-	-
S5	3.1 to 3.8	< 0.02	< 0.5	<0.05	< 0.05	<5	<10	<50	<50	<0.02	<0.03	<0.05	<0.02	<0.05	<0.05	<0.03	<0.02

BH-2	Depth (mbgs)	31-May-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
S1	0.15 to 0.6	-	-	-	-	-	<10	1740	1690	-	-	-	-	-	-	-	-
S3	1.5 to 2.3	< 0.02	< 0.5	<0.05	< 0.05	<5	<10	<50	<50	<0.02	<0.03	<0.05	<0.02	<0.05	<0.05	<0.03	<0.02
S3	1.5 to 2.3 (Dup)	< 0.02	< 0.5	<0.05	< 0.05	<5	<10	<50	<50	<0.02	<0.03	<0.05	<0.02	<0.05	<0.05	<0.03	<0.02

BH-3	Depth (mbgs)	31-May-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
S1	0.15 to 0.6	< 0.02	< 0.5	<0.05	< 0.05	<5	<10	<50	<50	<0.02	<0.03	<0.05	<0.02	<0.05	<0.05	<0.03	<0.02

W1	Depth (mbgs)	17-Nov-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
W1	0.7 - 1.0	< 0.02	< 0.05	<0.05	< 0.05	<5	<10	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA

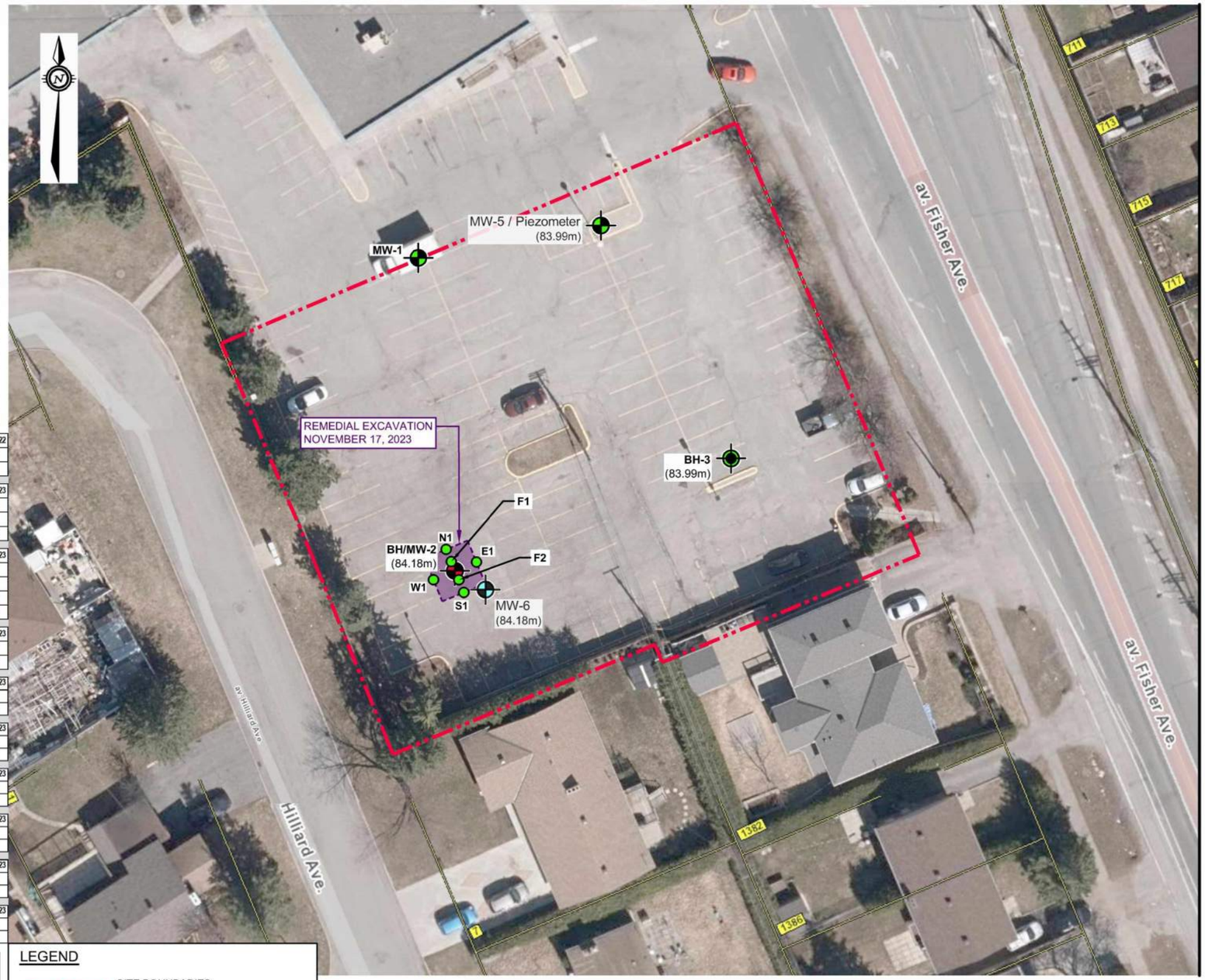
E1	Depth (mbgs)	17-Nov-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
E1	0.7 - 1.0	< 0.02	< 0.05	<0.05	< 0.05	<5	<10	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA

N1	Depth (mbgs)	17-Nov-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
N1	0.7 - 1.0	< 0.02	< 0.05	<0.05	< 0.05	<5	<10	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA

S1	Depth (mbgs)	17-Nov-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
S1	0.7 - 1.0	< 0.02	< 0.05	<0.05	< 0.05	<5	<10	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA

F1	Depth (mbgs)	17-Nov-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
F1	1.2	< 0.02	< 0.05	<0.05	< 0.05	<5	<10	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA

F2	Depth (mbgs)	17-Nov-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
F2	1.2	< 0.02	< 0.05	<0.05	< 0.05	<5	<10	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA



SAMPLE MEETS TABLE 3 SCS

SAMPLE EXCEEDS TABLE 3 SCS

LEGEND

SITE BOUNDARIES

MW-5 (83.99m) MONITORING WELL (*EXP*, 2022) GROUND ELEVATION (m)

BH-3 BOREHOLE (*EXP*, 2023)

MW-1 MONITORING WELL (*EXP*, 2023)

0 5m 10m 20m

HORIZONTAL 1:500

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DATE NOVEMBER 2023
DESIGN LW
CHECKED MM
DRAWN BY AS

PROPOSED MULTI-USE TOWERS
SOUTH PART OF 780 BASELINE ROAD, OTTAWA, ONTARIO

POST REMEDIATION
SOIL ANALYTICAL RESULTS – PHC & BTEX

project no. OTT-21011499-E0
scale 1:500
FIG 19

Filename: E:\OTT\OTT-21011499-E0\60 Execution\65 Drawings\OTT-21011499-E0_Env_780-Baseline_11-2023.dwg
Last Saved: Nov 30, 2023 8:58 AM Last Plotted: Nov 30, 2023 9:04 AM Plotted by: SeverA

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 3 SCS Residential
Antimony	Sb	7.5
Arsenic	As	18
Barium	Ba	390
Beryllium	Be	5
Boron	B	120
Boron (HWS)	B (HWS)	1.5
Cadmium	Cd	1.2
Chromium	Cr	160
Chromium VI	Cr VI	10
Cobalt	Co	22
Copper	Cu	180
Lead	Pb	120
Mercury	Hg	1.8
Molybdenum	Mo	6.9
Nickel	Ni	130
Selenium	Se	2.4
Silver	Ag	25
Thallium	Tl	1
Uranium	U	23
Vanadium	V	86
Zinc	Zn	340

BH-5-S1	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	Zn
																						12-Apr-22
S1	0.15 to 0.6	< 0.5	2.2	279	0.8	3.7	0.05	< 0.5	114	< 0.2	21	40	9.0	0.016	< 1	63	0.6	< 0.2	0.3	1	85	98

BH-2	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	Zn
																						31-May-23
S1	0.1 to 0.75	<0.8	2	168	0.6	7	-	<0.5	62	-	15.7	25	7.0	-	0.7	34	<0.8	<0.5	<0.5	0.95	49.1	56
S5	3.1 to 3.8	<0.8	2	251	<0.5	<5	-	<0.5	75	-	15	37	5.0	-	<0.5	40	<0.8	<0.5	<0.5	0.75	78.8	94

BH-2	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	Zn
																						31-May-23
S1	0.15 to 0.6	<0.8	4	482	<0.5	9	-	<0.5	33	-	11	17	11.0	-	1.8	24	<0.8	<0.5	<0.5	0.63	36.2	39
S3	1.5 to 2.3	<0.8	2	331	0.6	<5	-	<0.5	96	-	21.9	47	7.0	-	0.5	56	<0.8	<0.5	<0.5	0.85	101	121
S3	1.5 to 2.3 (Dup)	<0.8	2	439	0.7	5	-	<0.5	136	-	26.2	59	8.0	-	1	71	<0.8	<0.5	<0.5	0.87	124	153

BH-3	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	Zn
																						31-May-23
S1	0.15 to 0.6	<0.8	2	139	<0.5	5	-	<0.5	32	-	8.8	20	5.0	-	<0.5	19	<0.8	<0.5	<0.5	0.65	52.8	59

W1	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	Zn
																						17-Nov-23
W1	0.7 - 1.0	<0.8	2	95	<0.5	9	-	<0.5	12	-	5.2	10	20.0	-	0.6	9	<0.8	<0.5	<0.5	<0.50	17.2	27

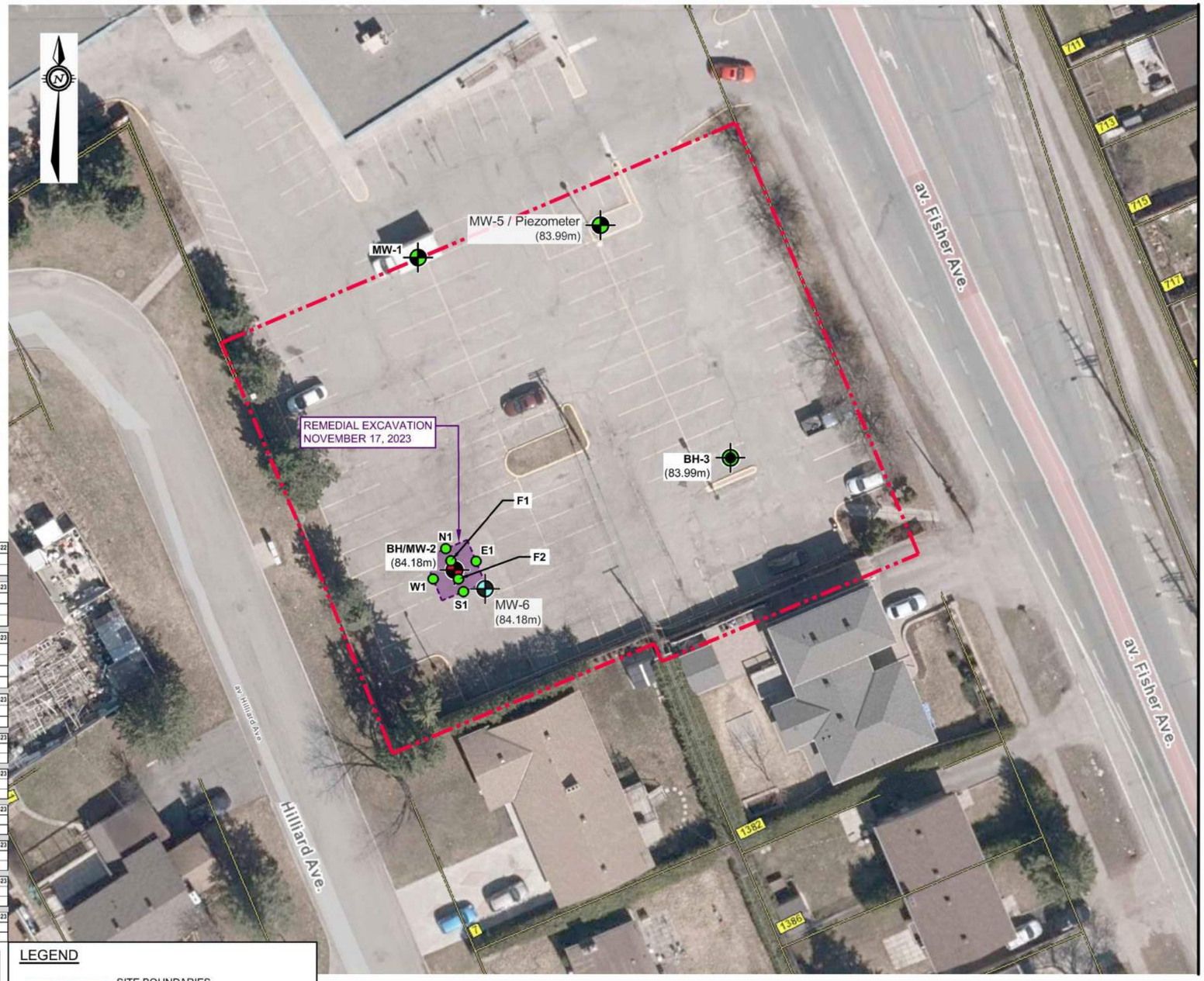
E1	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	Zn
																						17-Nov-23
E1	0.7 - 1.0	<0.8	2	360	1.2	8	-	<0.5	173	-	29.3	56	9.0	-	<0.5	83	<0.8	<0.5	<0.5	1.39	124	139

N1	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	Zn
																						17-Nov-23
N1	0.7 - 1.0	<0.8	2	296	1	7	-	<0.5	136	-	22.9	39	11.0	-	2.4	60	<0.8	<0.5	<0.5	1.66	120	128

S1	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	Zn
																						17-Nov-23
S1	0.7 - 1.0	<0.8	2	310	1	7	-	<0.5	130	-	23.1	41	10.0	-	1.3	63	<0.8	<0.5	<0.5	1.16	113	128

F1	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	Zn
																						17-Nov-23
F1	1.2	<0.8	2	306	0.9	7	-	<0.5	125	-	21.8	40	10.0	-	0.7	59	<0.8	<0.5	<0.5	1.05	111	120

F2	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	Zn
																						17-Nov-23
F2	1.2	<0.8	3	240	0.9	8	-	<0.5	117	-	21.8	41	15.0	-	0.9	59	<0.8	<0.5	<0.5	0.79	101	136



SAMPLE MEETS TABLE 3 SCS

SAMPLE EXCEEDS TABLE 3 SCS

LEGEND

SITE BOUNDARIES

MW-5 (83.99m) — MONITORING WELL (*EXP*, 2022) GROUND ELEVATION (m)

BH-3 — BOREHOLE (*EXP*, 2023)

MW-1 — MONITORING WELL (*EXP*, 2023)

0 5m 10m 20m

HORIZONTAL 1:500

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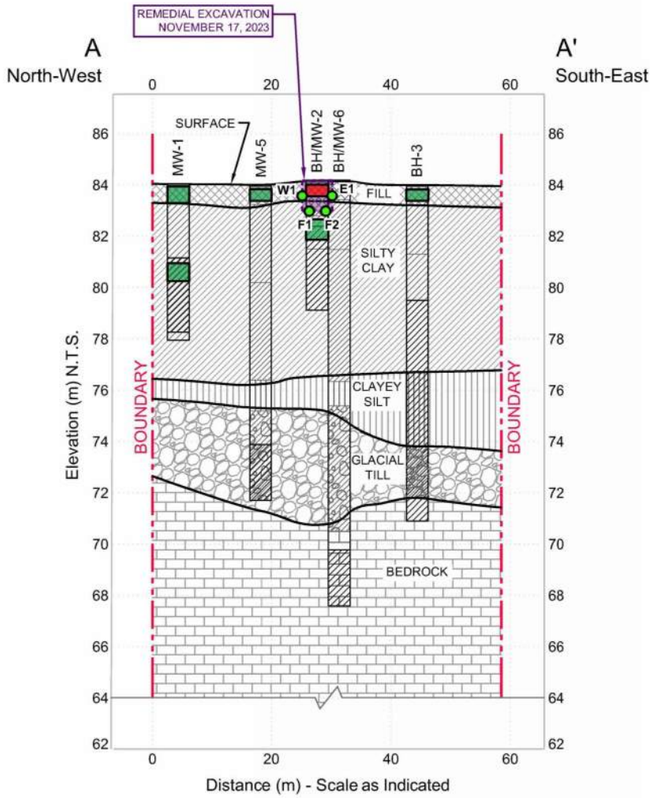
DATE NOVEMBER 2023
DESIGN LW
CHECKED MM
DRAWN BY AS

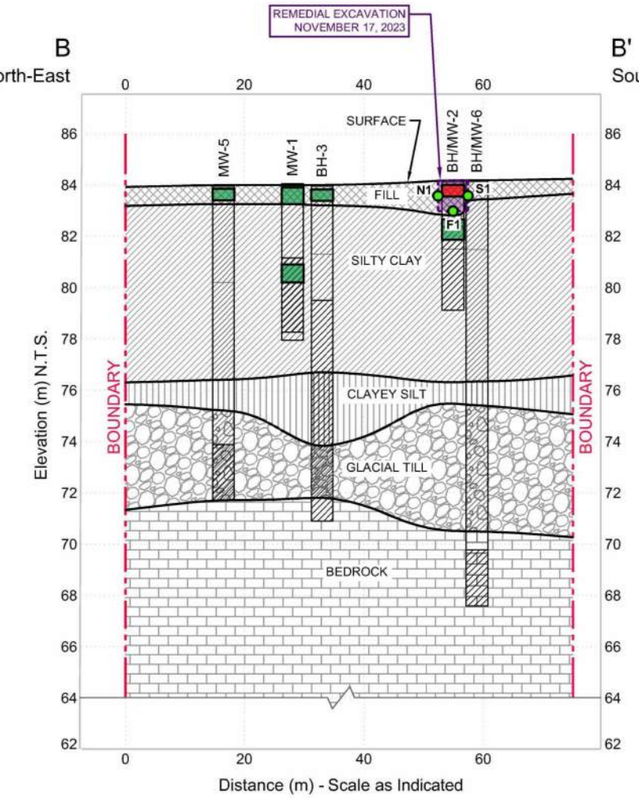
PROPOSED MULTI-USE TOWERS
SOUTH PART OF 780 BASELINE ROAD, OTTAWA, ONTARIO
POST REMEDIATION SOIL ANALYTICAL RESULTS – METALS

project no. OTT-21011499-E0
scale 1:500
FIG 20

Filename: E:\OTT\OTT-21011499-E0\60 Execution\65 Drawings\OTT-21011499-E0_Env_780-Baseline_11-2023.dwg
Last Saved: Nov 30, 2023 9:05 AM Last Plotted: Nov 30, 2023 9:05 AM Plotted by: SeverA



CROSS SECTION A-A'



CROSS SECTION B-B'

BH-5-S1	Depth (mbgs)	12-Apr-22															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
S1	0.15 to 0.6	< 0.02	< 0.2	<0.05	< 0.03	< 10	<6	12	280	-	-	-	-	-	-	-	-

MW-1	Depth (mbgs)	31-May-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
S1	0.1 to 0.75	-	-	-	-	-	<10	<50	<50	-	-	-	-	-	-	-	-
S5	3.1 to 3.8	< 0.02	< 0.5	<0.05	< 0.05	<5	<10	<50	<50	<0.02	<0.03	<0.05	<0.02	<0.05	<0.05	<0.03	<0.02

BH-2	Depth (mbgs)	31-May-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
S1	0.15 to 0.6	-	-	-	-	-	<10	1740	1690	-	-	-	-	-	-	-	-
S3	1.5 to 2.3	< 0.02	< 0.5	<0.05	< 0.05	<5	<10	<50	<50	<0.02	<0.03	<0.05	<0.02	<0.05	<0.05	<0.03	<0.02
S3	1.5 to 2.3 (Dup)	< 0.02	< 0.5	<0.05	< 0.05	<5	<10	<50	<50	<0.02	<0.03	<0.05	<0.02	<0.05	<0.05	<0.03	<0.02

BH-3	Depth (mbgs)	31-May-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
S1	0.15 to 0.6	< 0.02	< 0.5	<0.05	< 0.05	<5	<10	<50	<50	<0.02	<0.03	<0.05	<0.02	<0.05	<0.05	<0.03	<0.02

W1	Depth (mbgs)	17-Nov-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
W1	0.7 - 1.0	< 0.02	< 0.05	<0.05	< 0.05	<5	<10	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA

E1	Depth (mbgs)	17-Nov-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
E1	0.7 - 1.0	< 0.02	< 0.05	<0.05	< 0.05	<5	<10	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA

N1	Depth (mbgs)	17-Nov-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
N1	0.7 - 1.0	< 0.02	< 0.05	<0.05	< 0.05	<5	<10	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA

S1	Depth (mbgs)	17-Nov-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
S1	0.7 - 1.0	< 0.02	< 0.05	<0.05	< 0.05	<5	<10	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA

F1	Depth (mbgs)	17-Nov-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
F1	1.2	< 0.02	< 0.05	<0.05	< 0.05	<5	<10	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA

F2	Depth (mbgs)	17-Nov-23															
		B	T	E	X	F1	F2	F3	F4	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	VC
F2	1.2	< 0.02	< 0.05	<0.05	< 0.05	<5	<10	<50	<50	NA	NA	NA	NA	NA	NA	NA	NA

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 3 SCS Residential
Benzene	B	0.17
Toluene	T	6
Ethylbenzene	E	15
Total Xylenes	X	25
F1	F1 (C6-C10)	65
F2	F2 (C10-C16)	150
F3	F3 (C16-C34)	1300
F4	F4 (C34-C50)	5600
1,1-Dichloroethane	1,1-DCA	11
1,2-Dichlororethane	1,2-DCA	0.05
1,1-Dichloroethylene	1,1-DCE	0.05
Cis-1,2-Dichloroethylene	c-1,2-DCE	30
Trans-1,2,-Dichlorothylene	t-1,2-DCE	0.75
Tetrachloroethylene	PCE	2.3
Trichloroethylene	TCE	0.52
Vinyl Chloride	VC	0.022

LEGEND

FILL
SILTY CLAY
CLAYEY SILT
GLACIAL TILL
BEDROCK
SAMPLE EXCEEDS TABLE 3 SCS
SAMPLE MEETS TABLE 3 SCS
WELL SCREEN

0 10m 20m 40m
HORIZONTAL 1:1000

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DATE NOVEMBER 2023
DESIGN LW
CHECKED MM
DRAWN BY AS

PROPOSED MULTI-USE TOWERS
SOUTH PART OF 780 BASELINE ROAD, OTTAWA, ONTARIO

POST REMEDIATION
SOIL CROSS-SECTIONS A-A' AND B-B' – PHC & BTEX

project no. OTT-21011499-E0
scale 1:1,000
FIG 21

Filename: E:\OTT\OTT-21011499-E0\60 Execution\65 Drawings\OTT-21011499-E0_Env_780-Baseline_11-2023.dwg
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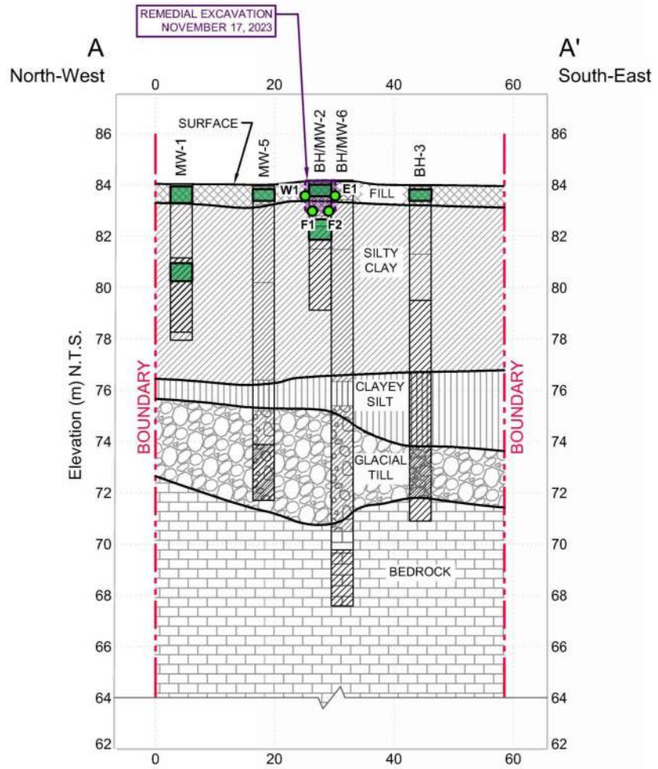
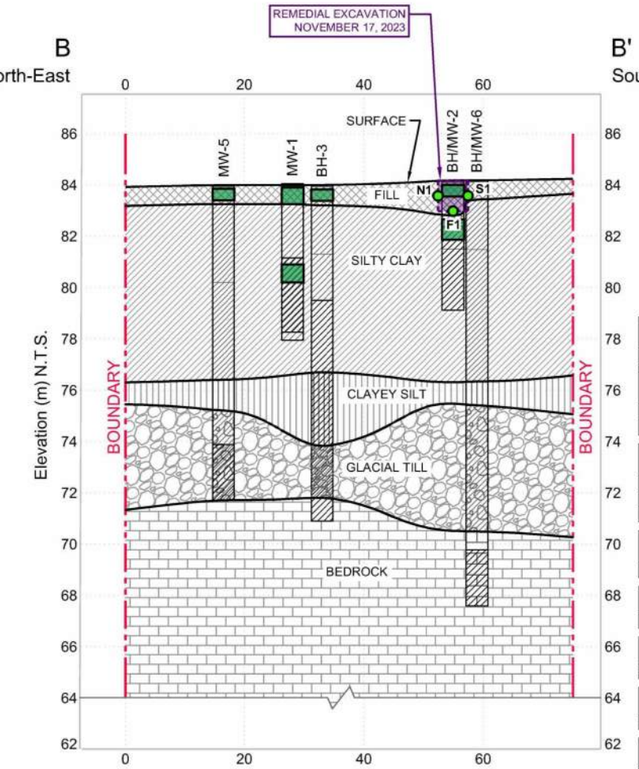


CROSS SECTION A-A'



CROSS SECTION B-B'

BH-5-S1	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	12-Apr-22 Zn
S1	0.15 to 0.6	< 0.5	2.2	279	0.8	3.7	0.05	< 0.5	114	< 0.2	21	40	9.0	0.016	< 1	63	0.5	< 0.2	0.3	1	85	98

BH-2	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	31-May-23 Zn
S1	0.1 to 0.75	<0.8	2	168	0.6	7	-	<0.5	62	-	15.7	25	7.0	-	0.7	34	<0.8	<0.5	<0.5	0.95	49.1	56
S5	3.1 to 3.8	<0.8	2	251	<0.5	<5	-	<0.5	75	-	15	37	5.0	-	<0.5	40	<0.8	<0.5	<0.5	0.75	78.8	94

BH-2	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	31-May-23 Zn
S1	0.15 to 0.6	<0.8	4	482	<0.5	9	-	<0.5	33	-	11	17	11.0	-	1.8	24	<0.8	<0.5	<0.5	0.63	36.2	39
S3	1.5 to 2.3	<0.8	2	331	0.6	<5	-	<0.5	96	-	21.9	47	7.0	-	0.5	56	<0.8	<0.5	<0.5	0.85	101	121
S3	1.5 to 2.3 (Dup)	<0.8	2	439	0.7	5	-	<0.5	136	-	26.2	59	8.0	-	1	71	<0.8	<0.5	<0.5	0.87	124	153

BH-3	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	31-May-23 Zn
S1	0.15 to 0.6	<0.8	2	139	<0.5	5	-	<0.5	32	-	8.8	20	5.0	-	<0.5	19	<0.8	<0.5	<0.5	0.65	52.8	59

W1	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	17-Nov-23 Zn
W1	0.7 - 1.0	<0.8	2	95	<0.5	9	-	<0.5	12	-	5.2	10	20.0	-	0.6	9	<0.8	<0.5	<0.5	<0.50	17.2	27

E1	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	17-Nov-23 Zn
E1	0.7 - 1.0	<0.8	2	360	1.2	8	-	<0.5	173	-	29.3	56	9.0	-	<0.5	83	<0.8	<0.5	<0.5	1.39	124	139

N1	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	17-Nov-23 Zn
N1	0.7 - 1.0	<0.8	2	296	1	7	-	<0.5	136	-	22.9	39	11.0	-	2.4	60	<0.8	<0.5	<0.5	1.66	120	128

S1	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	17-Nov-23 Zn
S1	0.7 - 1.0	<0.8	2	310	1	7	-	<0.5	130	-	23.1	41	10.0	-	1.3	63	<0.8	<0.5	<0.5	1.16	113	128

F1	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	17-Nov-23 Zn
F1	1.2	<0.8	2	306	0.9	7	-	<0.5	125	-	21.8	40	10.0	-	0.7	59	<0.8	<0.5	<0.5	1.05	111	120

F2	Depth (mbgs)	Sb	As	Ba	Be	B	B (HWS)	Cd	Cr	Cr VI	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	U	V	17-Nov-23 Zn
F2	1.2	<0.8	3	240	0.9	8	-	<0.5	117	-	21.8	41	15.0	-	0.9	59	<0.8	<0.5	<0.5	0.79	101	136

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 3 SCS Residential
Antimony	Sb	7.5
Arsenic	As	18
Barium	Ba	390
Beryllium	Be	5
Boron	B	120
Boron (HWS)	B (HWS)	1.5
Cadmium	Cd	1.2
Chromium	Cr	160
Chromium VI	Cr VI	10
Cobalt	Co	22
Copper	Cu	180
Lead	Pb	120
Mercury	Hg	1.8
Molybdenum	Mo	6.9
Nickel	Ni	130
Selenium	Se	2.4
Silver	Ag	25
Thallium	Tl	1
Uranium	U	23
Vanadium	V	86
Zinc	Zn	340

LEGEND

- FILL
- SILTY CLAY
- CLAYEY SILT
- GLACIAL TILL
- BEDROCK
- SAMPLE EXCEEDS TABLE 3 SCS
- SAMPLE MEETS TABLE 3 SCS
- WELL SCREEN

0 10m 20m 40m

HORIZONTAL 1:1000

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Ottawa, ON K2B 8H6, Canada

DATE NOVEMBER 2023
DESIGN LW
CHECKED MM
DRAWN BY AS

PROPOSED MULTI-USE TOWERS
SOUTH PART OF 780 BASELINE ROAD, OTTAWA, ONTARIO

POST REMEDIATION
SOIL CROSS-SECTIONS A-A' AND B-B' – METALS

project no. OTT-21011499-E0
scale 1:1,000
FIG 22

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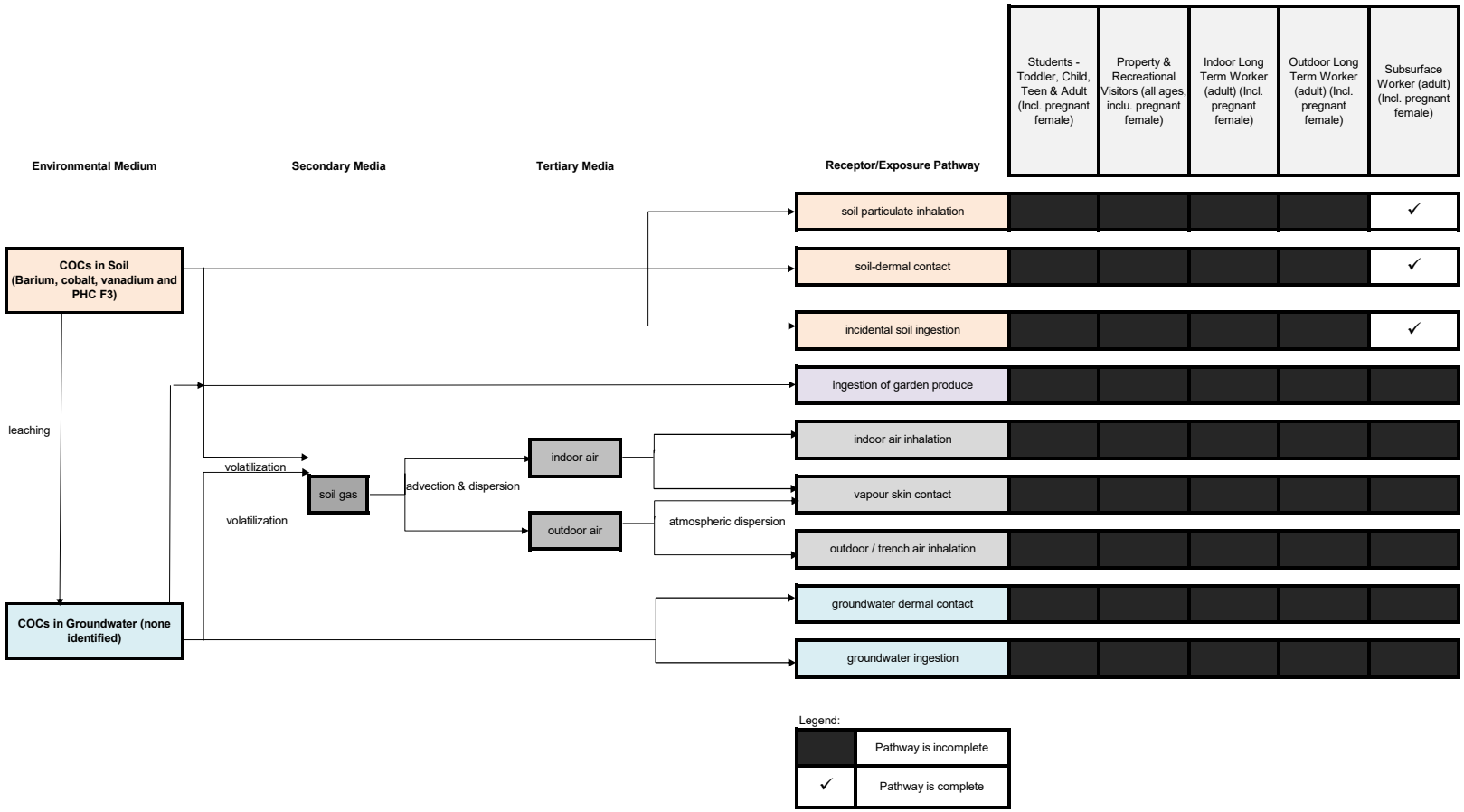
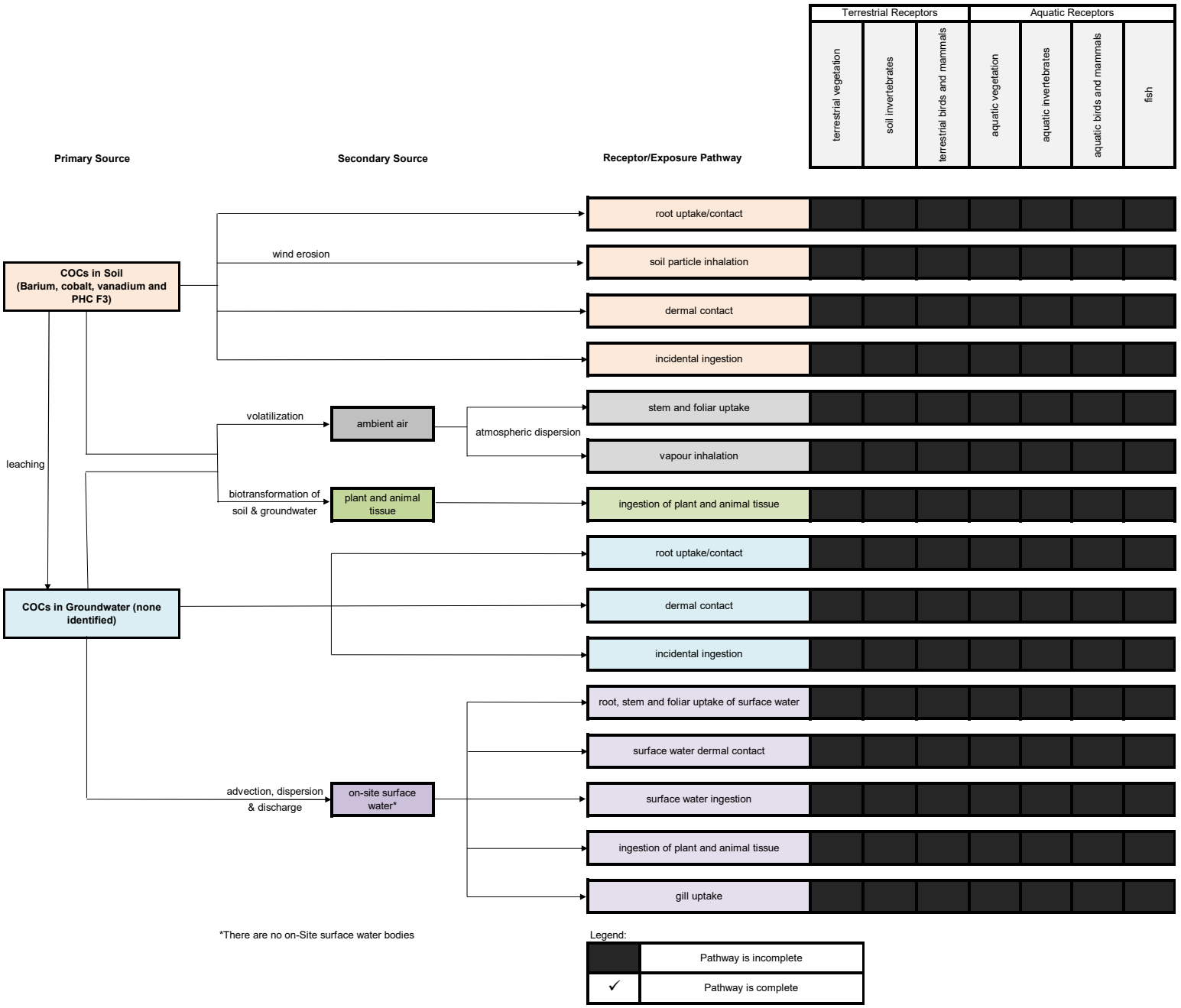

Environmental Medium
Secondary Media
Tertiary Media
Receptor/Exposure Pathway
Students - Toddler, Child, Teen & Adult (Incl. pregnant female)
Property & Recreational Visitors (all ages, inclu. pregnant female)
Indoor Long Term Worker (adult) (Incl. pregnant female)
Outdoor Long Term Worker (adult) (Incl. pregnant female)
Subsurface Worker (adult) (Incl. pregnant female)
COCs in Soil (Barium, cobalt, vanadium and PHC F3)
COCs in Groundwater (none identified)
leaching
volatilization
volatilization
soil gas
advection & dispersion
indoor air
outdoor air
atmospheric dispersion
soil particulate inhalation
soil-dermal contact
incidental soil ingestion
ingestion of garden produce
indoor air inhalation
vapour skin contact
outdoor / trench air inhalation
groundwater dermal contact
groundwater ingestion
✓
✓
✓
Legend:
Pathway is incomplete
✓
Pathway is complete


Terrestrial Receptors
Aquatic Receptors
terrestrial vegetation
soil invertebrates
terrestrial birds and mammals
aquatic vegetation
aquatic invertebrates
aquatic birds and mammals
fish
Primary Source
Secondary Source
Receptor/Exposure Pathway
COCs in Soil (Barium, cobalt, vanadium and PHC F3)
COCs in Groundwater (none identified)
wind erosion
volatilization
ambient air
atmospheric dispersion
leaching
biotransformation of soil & groundwater
plant and animal tissue
advection, dispersion & discharge
on-site surface water*
root uptake/contact
soil particle inhalation
dermal contact
incidental ingestion
stem and foliar uptake
vapour inhalation
ingestion of plant and animal tissue
root uptake/contact
dermal contact
incidental ingestion
root, stem and foliar uptake of surface water
surface water dermal contact
surface water ingestion
ingestion of plant and animal tissue
gill uptake
*There are no on-Site surface water bodies
Legend:
Pathway is incomplete
✓
Pathway is complete

EXP Services Inc.
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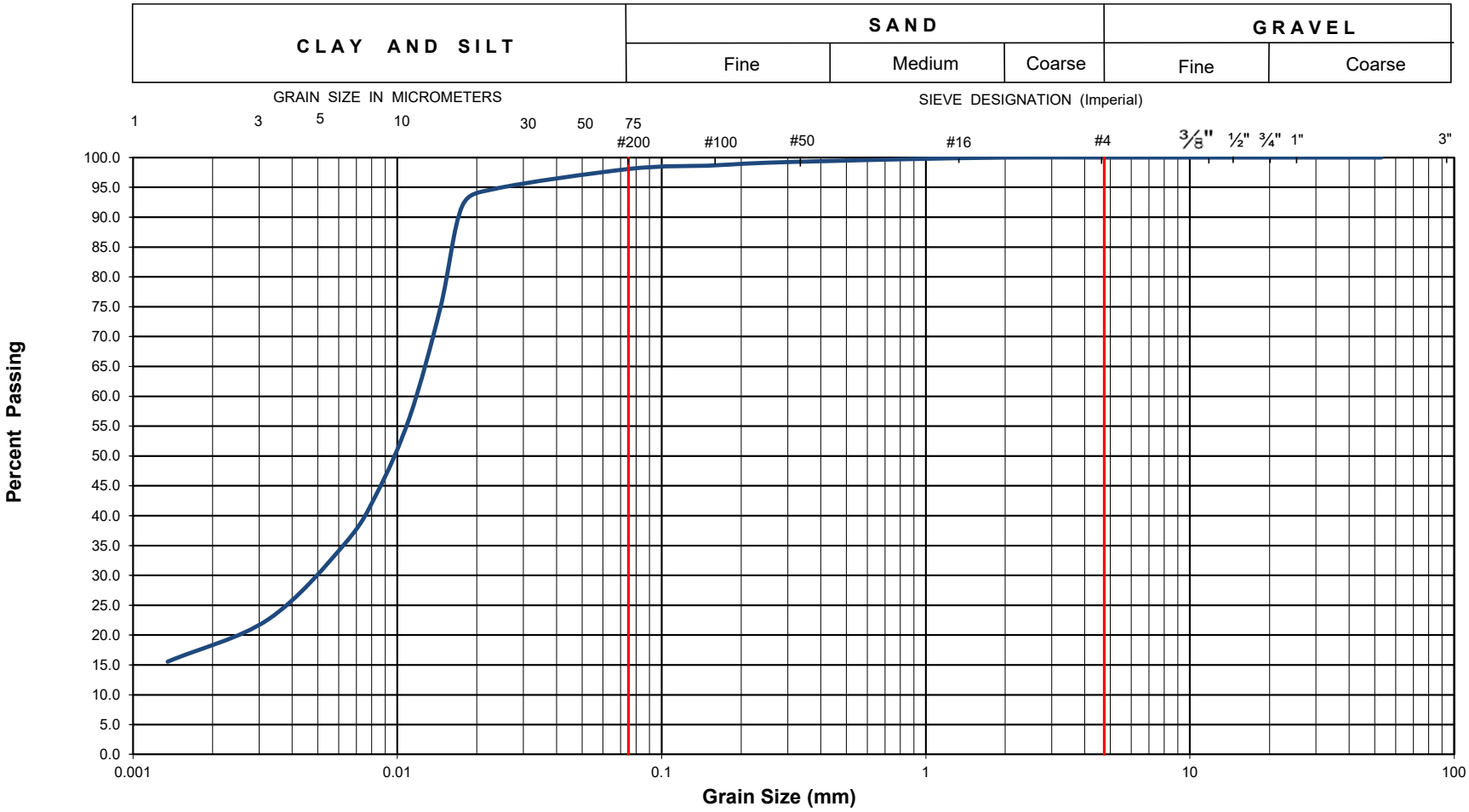
Ottawa, ON K2B 8H6

Grain-Size Distribution Curve
Method of Test For Particle Size Analysis of Soil
ASTM C-136/ASTM D422

Unified Soil Classification System



EXP Project No.:	**OTT-21011499-C0**	**Project Name :**	**Proposed Multi-Use Towers**						
Client :	**780 Baseline Inc.**	**Project Location :**	**780 Baseline Road, Ottawa, ON**						
Date Sampled :	**April 12, 2022**	**Borehole No:**	**BH 5**		**Sample No.:**	**SS7**		**Depth (m) :**	**7.6-8.2**
Sample Description :		**% Silt and Clay**	**98**	**% Sand**	**2**	**% Gravel**	**0**	**Figure :**	**15**
Sample Description :		**Silt (ML)**							

EXP Services Inc.
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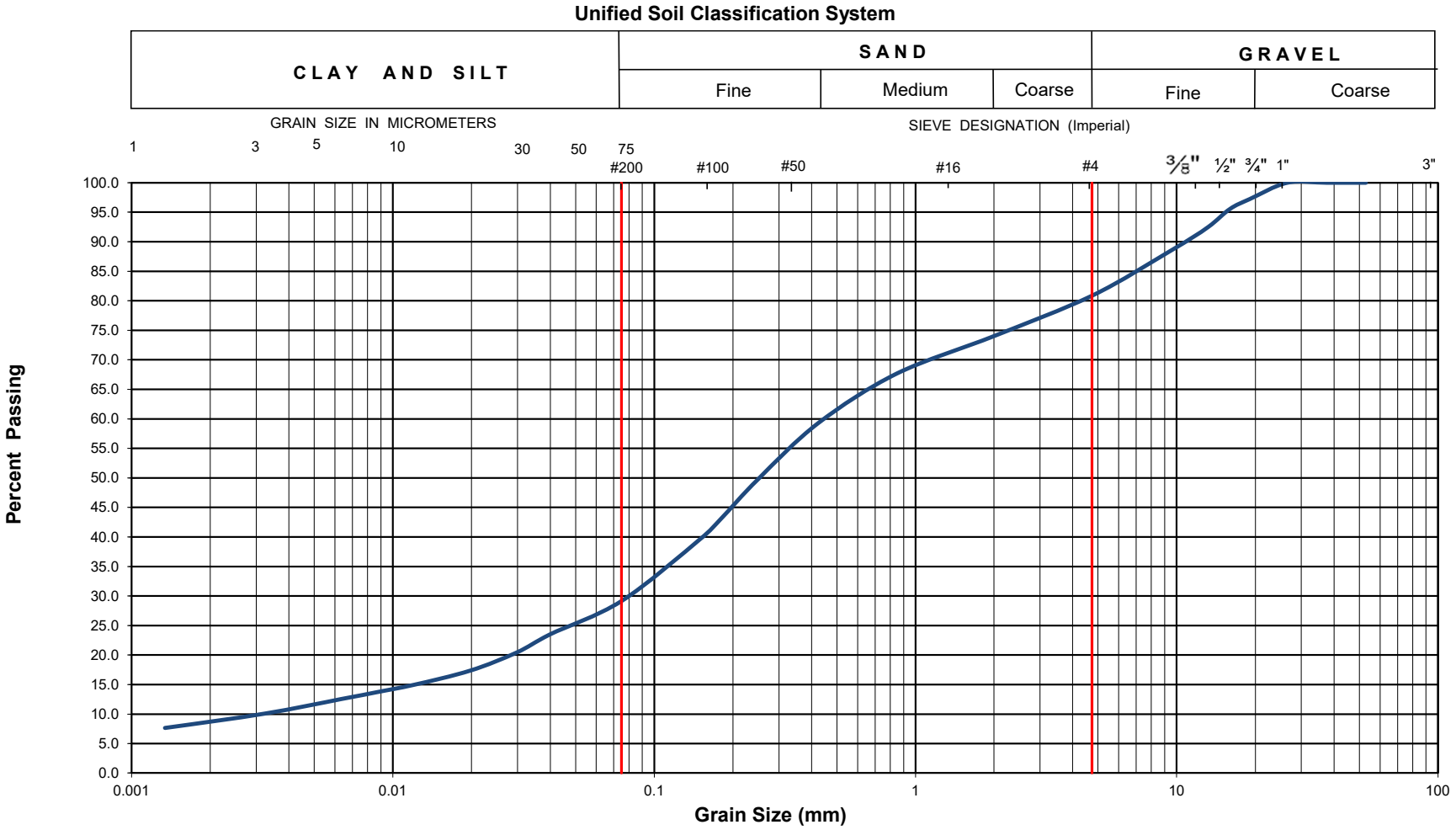
Grain-Size Distribution Curve
Method of Test For Particle Size Analysis of Soil
ASTM C-136/ASTM D422



EXP Project No.:	**OTT-21011499-C0**	**Project Name :**	**Proposed Multi-Use Towers**						
Client :	**780 Baseline Inc.**	**Project Location :**	**780 Baseline Road, Ottawa, ON**						
Date Sampled :	**April 18, 2022**	**Borehole No:**	**BH 6**		**Sample No.:**	**SS9**		**Depth (m) :**	**10.7-11.3**
Sample Description :		**% Silt and Clay**	**29**	**% Sand**	**52**	**% Gravel**	**19**	**Figure :**	**16**
Sample Description :		**Glacial Till: Silty Sand with Gravel (SM)**							

Appendix B: Survey Plan

366089, 5025950

Plan of Survey of

LOT 6 AND PART OF LOTS 5, 7, 8, 9, 10, 11 & 12 REGISTERED PLAN 310501 & PART OF LOTS 5, 6, 7, 8 & 9 REGISTERED PLAN 310509 CITY OF OTTAWA

FARLEY, SMITH & DENIS SURVEYING LTD. 2023

Scale 1: 400

0 5 10 15 20 30 40 metres

Metric Note

Distances and/or coordinates on this plan are in metres and can be converted to feet by dividing by 0.3048.

Distance Note

Distances shown on this plan are ground distances and can be converted to grid distances by multiplying by the combined scale factor of 0.99994.

Bearing Note

Bearings hereon are grid bearings derived from the Can-Net Real Time Network and are referred to the Central Meridian of MTM Zone 9 (76°30' West Longitude) Nad-83 (Original).

For bearing comparisons, a rotation of 0°32'15" counter-clockwise was applied to bearings on P1, P2, P3, P4, P6, P7 & P9.

Notes & Legend

Denotes

○—	=	Survey Monument Planted
—■	=	Survey Monument Found
SIB	=	Standard Iron Bar
SSIB	=	Short Standard Iron Bar
IB	=	Iron Bar
IB0	=	Round Iron Bar
CP	=	Concrete Pin
(Wit)	=	Witness
Meas	=	Measured
(P1)	=	Plan 5R-7986
(P2)	=	Plan 5R-9968
(P3)	=	Plan by (AOG) dated April 22, 1986
(P4)	=	Plan by (AOG) dated May 28, 1993 (Ref. No. 0-132-93)
(P5)	=	Plan by (671) dated April 26, 1963 (Ref. No. OT310501-3)
(P6)	=	Records of (1692) (Ref. No. 151-13)
(P7)	=	Registered Plan 310509
(P8)	=	Plan by (725) dated June 2, 1965 (Ref. No. 284-65)
(P9)	=	Registered Plan 310501
(P10)	=	Plan 4R-1123
(N1)	=	Notes by (1287) dated August 30, 2002
(N2)	=	Notes by (647) Reference 15-310509
(N3)	=	Notes by (647) dated May 21, 1963
—UP— —OHW—	=	Overhead Wires
○ UP	=	Utility Pole
○ AN	=	Anchor
○ LS	=	Light Standard
▭ GM	=	Gas Meter
▫ TB-B	=	Bell Terminal Box
○ B	=	Bollard
△ S	=	Sign
▭ AC	=	Air Conditioner
◯	=	Refuse Container
Ø	=	Diameter
BF	=	Board Fence
GR	=	Guard Rail
CF	=	Concrete Fence
CRW	=	Concrete Retaining Wall
C/L	=	Centreline
NTS	=	Not To Scale
———	=	Property Line
	=	Deciduous Tree
	=	Coniferous Tree

The Symbol shown denotes location and trunk diameter only. Size of its' root system/overhead canopy may be smaller/larger than the symbol size depicted on this plan.

Site Area=15688.6 sq.m.

Detail A Scale 1:150

Detail B Scale 1:150

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 the 25th day of August, 2023.

Aug.30/23
Date

Daniel Robinson
Ontario Land Surveyor

This plan of survey relates to AOLS Plan Submission Form Number V-56791

FARLEY, SMITH & DENIS SURVEYING LTD.

ONTARIO LAND SURVEYORS
CANADA LAND SURVEYORS

Unit 275, 30 COLONNADE ROAD, OTTAWA, ONTARIO K2E 7J6
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FILE No. : 502-22

SRPR 24(3)6

J:\2022\502-22_780 Baseline Rd_Rplan\Final\502-22_780 Baseline Rd_Pt16-12 RP310501 PI15-9 RP310509_POS_F.dwg

Appendix C: Sampling and Analysis Plan

OTT-2101499-C0
780 Baseline Road, Ottawa, ON – Pre-Remediation

Objectives:

The objectives of this project are as follows to file a Record of Site Condition (RSC), supported by the completion of Phase One and Phase Two Environmental Site Assessment (ESA) reports, after assessment and remediation activities occur.

Drilling:

A total of 7 BH will be drilled and a monitoring will be installed in each.

- All monitoring wells to be screened across water table.
- Make sure that no screens straddle bedrock-soil interface. In other words, MW must be installed completely within bedrock or completely within overburden (most, if not all, will be in bedrock).
- As drilling progresses, log each sample, describing soil type, colour, staining, odour, petroleum vapour.

Soil Sampling:

- Soil samples should be submitted to Paracel as follows:

BH ID	Sample Depth	Parameters	Other
BH-1	Surficial	BTEX, PHC, PAH, metals	One field duplicate should be submitted.
BH-2	Surficial		
BH-3	Surficial		
BH-4	Surficial		
BH-5	Surficial		
MW-7	Worst Case	VOC, PHC	

- "Surficial samples" are samples that are within 0.6 metres of ground surface.
- "Worst case samples" are determined in the field, based on the following considerations: (1) presence of staining; (2) presence of odours; (3) petroleum vapour concentration. If the worst-case sample cannot be identified based on those factors, submit the sample at water table depth or the sample immediately above bedrock surface.
- Samples should be submitted to Caduceon within 48 hours of sample collection.

Monitor Development:

- Develop wells at least 3 x well volumes or until clear
- Do not purge if monitor contains LNAPL.
- Purged water to be stored in a drum to be collected by CWW

Low Flow Groundwater Sampling

- Monitor the three existing Paterson monitoring wells and interior monitoring well (MW-7) and record organic vapours, depth to water, and depth to LNAPL, if any

- Four groundwater samples and a duplicate should be submitted to Caduceon for analysis of VOC and PHC.
- Be careful to sample from near top of water table and use low flow rate to avoid collecting any fine sediment
- Prior to sampling, ensure the following field parameters are stable (per the field measurement table): pH, conductivity, turbidity, DO, temperature and ORP
- EXP will survey ground elevations and top of pipe elevations, as well as UTM coordinates

Appendix D: Borehole Logs

Explanation of Terms Used on Borehole Records

SOIL DESCRIPTION

Terminology describing common soil genesis:

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

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

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

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

Terminology describing soil structure:

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

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

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

Fissured: material breaks along plane of fracture.

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

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

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

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

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

Homogeneous: same color and appearance throughout.

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

Uniformly Graded: predominantly on grain size.

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

ISSMFE SOIL CLASSIFICATION

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

0.002	0.006	0.02	0.06	0.2	0.6	2.0	6.0	20	60	200

EQUIVALENT GRAIN DIAMETER IN MILLIMETRES

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

UNIFIED SOIL CLASSIFICATION

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

Table a: Percent or Proportion of Soil, Pp

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

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

Table b: Apparent Density of Cohesionless Soil

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

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

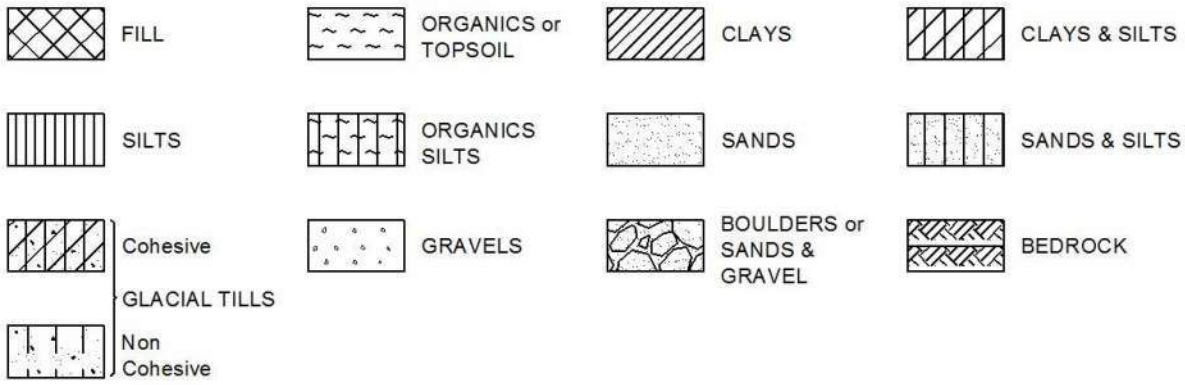
Table c: Consistency of Cohesive Soil

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

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

STRATA PLOT

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



WATER LEVEL MEASUREMENT

Log of Borehole MW-1

Project No: OTT-21011499-E0

Project: Phase Two ESA

Location: 780 Baseline Road, Ottawa, Ontario

Figure No. _____

Page. 1 of 1

Date Drilled: 'May 31, 2023

Drill Type: CME 55 Truck-Mounted Drill Rig

Datum: Geodetic Elevation

Logged by: PO Checked by: MM

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
		ASPHALTIC CONCRETE - 80 mm thick	84.01	0
		FILL	83.9	
		Silty gravel with sand, grey, wet, (compact)	83.4	
		CLAY		
		Brown, moist, (very stiff)		1
▽			82.28	
				2
			81.3	
		SILTY CLAY		
		With sand seams, low plasticity, grey, wet, (firm to stiff)		3
				4
				5
			77.9	6
		Borehole Terminated at 6.1 m Depth		

Standard Penetration Test N Value: 20 40 60 80
Shear Strength: 50 100 150 200 kPa

Combustible Vapour Reading (ppm): 250 500 750
Natural Moisture Content % Atterberg Limits (% Dry Weight): 20 40 60

Depth	SPT N Value
0	30
1	20
2	25
3	20
4	35
5	30
6	35
	35

SAMPLES

Natural Unit Wt. kN/m³

NOTES:
1. Borehole data requires interpretation by EXP before use by others
2. A 50 mm diameter monitoring well installed as shown.
3. Field work was supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report No. OTT-21011499-E0

WATER LEVEL RECORDS

Date	Water Level (m)	Hole Open To (m)
'Aug 14, 2013	1.7	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %
1	14.3 - 15.7	29	0
2	15.7 - 16.3	100	0
3	16.3 - 17.7	100	27
4	17.7 - 19.2	100	61

LOG OF BOREHOLE OTT-21011499-E0 GINT LOGS.GPJ TROW OTTAWA.GDT 10/3/23

Log of Borehole MW-2

Project No: OTT-21011499-E0

Project: Phase Two ESA

Location: 780 Baseline Road, Ottawa, Ontario

Figure No. _____

Page. 1 of 1

Date Drilled: 'May 31, 2023

Drill Type: CME 55 Truck-Mounted Drill Rig

Datum: Geodetic Elevation

Logged by: PO Checked by: MM

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
			84.18	0
		ASPHALTIC CONCRETE - 80 mm thick	84.1	
		FILL Silty gravel with sand, grey, wet, (compact)	83.4	
		CLAY Brown, moist, (very stiff)		1
				2
			81.5	
		SILTY CLAY With sand seams, low plasticity, grey, wet, (firm to stiff)		3
				4
			79.6	
		Borehole Terminated at 4.56 m Depth		

Standard Penetration Test N Value: 20 40 60 80
Shear Strength: 50 100 150 200 kPa

Combustible Vapour Reading (ppm): 250 500 750
Natural Moisture Content % Atterberg Limits (% Dry Weight): 20 40 60

SAMPLES

Natural Unit Wt. kN/m³

20
20
35
25
30
30

NOTES:
1. Borehole data requires interpretation by EXP before use by others
2. A 50 mm diameter monitoring well installed as shown.
3. Field work was supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report No. OTT-21011499-E0

WATER LEVEL RECORDS

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

CORE DRILLING RECORD

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

LOG OF BOREHOLE OTT-21011499-E0 GINT LOGS.GPJ TROW OTTAWA.GDT 10/3/23

Log of Borehole BH-3

Project No: OTT-21011499-E0

Project: Phase Two ESA

Location: 780 Baseline Road, Ottawa, Ontario

Figure No. _____

Page. 1 of 1

Date Drilled: 'May 31, 2023

Drill Type: CME 55 Truck-Mounted Drill Rig

Datum: Geodetic Elevation

Logged by: PO Checked by: MM

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
			84.1	0
		ASPHALTIC CONCRETE - 80 mm thick	84.0	
		FILL Silty gravel with sand, grey, wet, (compact)	83.5	
		CLAY Brown, moist, (very stiff)		1
				2
			81.4	
		SILTY CLAY With sand seams, low plasticity, grey, wet, (firm to stiff)		3
				4
			79.5	
		Borehole Terminated at 4.56 m Depth		

Standard Penetration Test N Value: 20 40 60 80
Shear Strength: 50 100 150 200 kPa
Combustible Vapour Reading (ppm): 250 500 750
Natural Moisture Content % Atterberg Limits (% Dry Weight): 20 40 60
SAMPLES
Natural Unit Wt. kN/m³

0 at 0.0 m
0 at 1.0 m
0 at 2.0 m
5 at 3.0 m
15 at 3.5 m
10 at 4.0 m

NOTES:
1. Borehole data requires interpretation by EXP before use by others
2.
3. Field work was supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report No. OTT-21011499-E0

WATER LEVEL RECORDS

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

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %
1	10.8 - 11.6	100	47
2	11.6 - 13.2	80	42

LOG OF BOREHOLE OTT-21011499-E0 GINT LOGS.GPJ TROW OTTAWA.GDT 10/3/23

Log of Borehole BH-5

Project No: OTT-21011499-E0
Project: Phase Two ESA
Location: 780 Baseline Road, Ottawa, Ontario
Date Drilled: 'April 12, 2022
Drill Type: CME 55 Truck-Mounted Drill Rig
Datum: Geodetic Elevation
Logged by: MZ Checked by: DW

Figure No. ____
Page. 1 of 2

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
		ASPHALTIC CONCRETE - 80 mm thick	83.99	0				
		FILL Silty sand and crushed gravel, grey, moist, (loose)	83.9		7		SS1	
			83.2	1	6		SS2	
		CLAY Brown, moist, (hard)			7		SS3	
				2	220 s=4.0			
			81.3	3	3		SS4	
		SILTY CLAY With sand seams, grey, wet, (firm to stiff)			53 s=4.4			
▽			79.58	4				
				5	Hammer Weight		SS5	
					43 s=6.1			
				6	Hammer Weight		SS6	
				7	53 s=10.6			
		SILT Some clay, non-plastic, grey, wet, (very loose)	76.7		Hammer Weight		SS7	
				8				
				9	1		SS8	
				10				

Continued Next Page

NOTES:
1. Borehole data requires interpretation by EXP before use by others
2. A 38 mm diameter monitoring well installed as shown.
3. Field work was supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report No. OTT-21011499-E0

WATER LEVEL RECORDS

Date	Water Level (m)	Hole Open To (m)
June 23, 2022	4.9	
'Aug 14, 2013	4.4	

CORE DRILLING RECORD

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

LOG OF BOREHOLE OTT-21011499-E0 GINT LOGS.GPJ TROW OTTAWA.GDT 10/3/23

Log of Borehole BH-5

Project No: OTT-21011499-E0

Project: Phase Two ESA

Figure No. _____

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
			73.99		20 40 60 80 / 50 100 150 200	250 500 750 / 20 40 60		
			73.8	10				
		GLACIAL TILL Silty sand with gravel, trace clay, with boulders and cobbles, grey, wet, (very loose to very dense) With shale fragments below 10.7 m in depth		11	77	×	SS9	
		Augers grinding on boulders and cobbles from 10.2 m depth to 12.2 m auger refusal depth.	71.8	12	50/100 mm		SS10	
		Auger Refusal at 12.2 m Depth						

NOTES:

1. Borehole data requires interpretation by EXP before use by others
2. A 38 mm diameter monitoring well installed as shown.
3. Field work was supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report No. OTT-21011499-E0

WATER LEVEL RECORDS

Date	Water Level (m)	Hole Open To (m)
June 23, 2022	4.9	
'Aug 14, 2013	4.4	

CORE DRILLING RECORD

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

LOG OF BOREHOLE OTT-21011499-E0 GINT LOGS.GPJ TROW OTTAWA.GDT 10/3/23

Log of Borehole BH-6

Project No: OTT-21011499-E0
Project: Phase Two ESA
Location: 780 Baseline Road, Ottawa, Ontario
Date Drilled: 'April 18, 2022
Drill Type: CME 55 Truck-Mounted Drill Rig
Datum: Geodetic Elevation
Logged by: MZ Checked by: DW

Figure No. ____
Page. 1 of 2

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
		ASPHALTIC CONCRETE - 70 mm thick	84.18	0				
		FILL Silty sand and crushed gravel, grey, wet, (compact)	84.1		16		SS1	
				1	7		SS2	
			82.8					
		CLAY Brown, moist, (hard)		2	8; 200 s=4.0		SS3	18.1
			81.5					
		SILTY CLAY With sand seams, grey, wet, (firm)		3	3		SS4	20.7
				4	34 s=5.7			
			79.86					
				5	Hammer Weight		SS5	
					48 s=8.0			
				6				
					Hammer Weight		SS6	
				7	48 s=9.6			
			76.3		Hammer Weight		SS7	
		SILT Some clay, slight plasticity, grey, wet, (very stiff)		8	>120			
			75.5					
		GLACIAL TILL Silty sand with gravel, trace clay, with boulders and cobbles, grey, wet, (loose to very dense)		9	8		SS8	
				10				

Continued Next Page

NOTES:
1. Borehole data requires interpretation by EXP before use by others
2. A 38 mm diameter monitoring well installed as shown.
3. Field work was supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report No. OTT-21011499-E0

WATER LEVEL RECORDS

Date	Water Level (m)	Hole Open To (m)
June 23, 2022	4.8	
'Aug 14, 2013	4.3	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %
1	12.2 - 13.7	37	0
2	13.7 - 15.2	80	23
3	15.2 - 16.6	91	44

Log of Borehole BH-6

Project No: OTT-21011499-E0

Project: Phase Two ESA

Figure No. _____

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
		GLACIAL TILL Silty sand with gravel, trace clay, with boulders and cobbles, grey, wet, (loose to very dense) *(continued)* WIth shale fragments below 10.7 m in depth	74.18	10				
				11	58	×	SS9	
		Augers grinding on boulders and cobbles from 9.1 m depth to 12.2 m depth.		12	50/100 mm	×	SS10	
		Borehole advanced by casing and rock coring method from 12.2 m to 16.6 m termination depth		13			Run 1 (Boulders)	
		LIMESTONE BEDROCK With shale partings, grey, (poor quality)	70.5	14			Run 2	
				15				
				16			Run 3	
			67.6					
		Borehole Terminated at 16.6 m Depth						

Standard Penetration Test N Value: 20 40 60 80
Shear Strength kPa: 50 100 150 200
Combustible Vapour Reading (ppm): 250 500 750
Natural Moisture Content % / Atterberg Limits (% Dry Weight): 20 40 60

NOTES:

1. Borehole data requires interpretation by EXP before use by others
2. A 38 mm diameter monitoring well installed as shown.
3. Field work was supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report No. OTT-21011499-E0

WATER LEVEL RECORDS

Date	Water Level (m)	Hole Open To (m)
June 23, 2022	4.8	
'Aug 14, 2013	4.3	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %
1	12.2 - 13.7	37	0
2	13.7 - 15.2	80	23
3	15.2 - 16.6	91	44

LOG OF BOREHOLE OTT-21011499-E0 GINT LOGS.GPJ TROW OTTAWA.GDT 10/3/23

Appendix E: Analytical Summary Tables

Table 1 - Analytical Results in Soil - PHC and VOC
Part of 780 Baseline Road, Ottawa, Ontario
OTT-21011499-E0

Parameter	Units	MECP Table 3 Residential [1]	BH-5-S1	MW-1 S1	MW-1	BH-2 S1	BH-2	Dup 1	BH-3	TRIP BLANK
Sampling Date			**12-Apr-2022**	**31-May-2023**	**31-May-2023**	**31-May-2023**	**31-May-2023**	**Duplicate of**	**31-May-2023**	**31-May-2023**
Sample Depth (mbgs)			0.15 to 0.6	0.1 to 0.75	3.1 to 3.8	0.1 to 0.75	1.5 to 2.3	BH-2	2.3 to 3.5	NA
Paracel ID		**Bold**	B22-10444-1	5120912	5032385	5120913	5032588	5032589	5032587	5032587
Certificate of Analysis			B22-104444	23Z043506	23Z030525	23Z043506	23Z030525	23Z030525	23Z030525	23Z030525
Volatile Organic Compounds										
Acetone	ug/g dry	28	-	-	<0.50	-	<0.50	<0.50	<0.50	<0.50
Benzene	ug/g dry	0.17	< 0.02	-	<0.02	-	<0.02	<0.02	<0.02	<0.02
Bromodichloromethane	ug/g dry	13	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
Bromoform	ug/g dry	0.26	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
Bromomethane	ug/g dry	0.05	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g dry	2.7	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
Chlorobenzene	ug/g dry	2.7	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
Chloroform	ug/g dry	0.18	-	-	<0.04	-	<0.04	<0.04	<0.04	<0.04
Dibromochloromethane	ug/g dry	9.4	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
Dichlorodifluoromethane	ug/g dry	25	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g dry	4.3	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g dry	6	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g dry	0.097	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g dry	11	-	-	<0.02	-	<0.02	<0.02	<0.02	<0.02
1,2-Dichloroethane	ug/g dry	0.05	-	-	<0.03	-	<0.03	<0.03	<0.03	<0.03
1,1-Dichloroethylene	ug/g dry	0.05	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
cis-1,2-Dichloroethylene	ug/g dry	30	-	-	<0.02	-	<0.02	<0.02	<0.02	<0.02
trans-1,2-Dichloroethylene	ug/g dry	0.75	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
1,2-Dichloropropane	ug/g dry	0.085	-	-	<0.03	-	<0.03	<0.03	<0.03	<0.03
1,3-Dichloropropene, total	ug/g dry	0.083	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	ug/g dry	15	< 0.05	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
Ethylene dibromide (dibromoethane, 1,2-)	ug/g dry	0.05	-	-	<0.04	-	<0.04	<0.04	<0.04	<0.04
Hexane	ug/g dry	34	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
Methyl Ethyl Ketone (2-Butanone)	ug/g dry	44	-	-	<0.50	-	<0.50	<0.50	<0.50	<0.50
Methyl Isobutyl Ketone	ug/g dry	4.3	-	-	<0.50	-	<0.50	<0.50	<0.50	<0.50
Methyl tert-butyl ether	ug/g dry	1.4	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
Methylene Chloride	ug/g dry	0.96	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
Styrene	ug/g dry	2.2	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g dry	0.05	-	-	<0.04	-	<0.04	<0.04	<0.04	<0.04
1,1,2,2-Tetrachloroethane	ug/g dry	0.05	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
Tetrachloroethylene	ug/g dry	2.3	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
Toluene	ug/g dry	6	< 0.2	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
1,1,1-Trichloroethane	ug/g dry	3.4	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
1,1,2-Trichloroethane	ug/g dry	0.05	-	-	<0.04	-	<0.04	<0.04	<0.04	<0.04
Trichloroethylene	ug/g dry	0.52	-	-	<0.03	-	<0.03	<0.03	<0.03	<0.03
Trichlorofluoromethane	ug/g dry	5.8	-	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
Vinyl Chloride	ug/g dry	0.022	-	-	<0.02	-	<0.02	<0.02	<0.02	<0.02
Xylenes, total	ug/g dry	25	< 0.03	-	<0.05	-	<0.05	<0.05	<0.05	<0.05
Petroleum Hydrocarbons										
F1 PHC (C6 - C10) - BTEX*	ug/g dry	65	< 10	-	<5	-	<5	<5	<5	-
F2 PHC (C10-C16)	ug/g dry	150	< 6	<10	<10	<10	<10	<10	<10	-
F3 PHC (C16-C34)	ug/g dry	1300	12	<50	<50	**1740**	<50	<50	<50	-
F4 PHC (C34-C50)**	ug/g dry	5600	28	<50	<50	1690	<50	<50	<50	-
F4 PHC (C34-C50) - Gravimetric	ug/g dry	5600	280	-	-	-	-	-	-	-

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 Generic Site Condition Standards for a Non-Potable Ground Water Condition for Residential/Parkland/Institutional Property Use (fine textured soils).
*	F1 fraction does not include BTEX.
**	In instances where the PHC F2 to F4 chromatogram did not reach baseline, the F4 fraction result shown is the highest value obtained via the gas chromatograph/flame ionization detection method or the gravimetric method.
ND	Non-detectable results are shown as "ND (RDL)" where RDL represents the reporting detection limit.
NV	No Value
N/A	Not Applicable
-	Parameter not analyzed
m bgs	Metres below ground surface
	Indicates soil exceedance of MECP Table 3 SCS for residential/parkland/institutional property use

Table 1 - Analytical Results in Soil - PHC and VOC
Part of 780 Baseline Road, Ottawa, Ontario
OTT-21011499-E0

Parameter	Units	MECP Table 3 Residential [1]	W1	E1	N1	S1	F1	F2
Sampling Date			**17-Nov-2023**	**17-Nov-2023**	**17-Nov-2023**	**17-Nov-2023**	**17-Nov-2023**	**17-Nov-2023**
Sample Depth (mbgs)		**Bold**	0.7 - 1.0	0.7 - 1.0	0.7 - 1.0	0.7 - 1.0	1.2	1.2
Paracel ID			5470959	5470960	5470960	5470961	5470963	5470964
Certificate of Analysis			23Z094381	23Z078621	23Z078621	23Z036854	23Z036854	23Z036854
Volatile Organic Compounds								
Benzene	ug/g dry	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Ethylbenzene	ug/g dry	15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Toluene	ug/g dry	6	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylenes	ug/g dry	25	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Petroleum Hydrocarbons								
F1 PHC (C6 - C10) - BTEX*	ug/g dry	65	<5	<5	<5	<5	<5	<5
F2 PHC (C10-C16)	ug/g dry	150	<10	<10	<10	<10	<10	<10
F3 PHC (C16-C34)	ug/g dry	1300	<50	<50	<50	<50	<50	<50
F4 PHC (C34-C50)**	ug/g dry	5600	<50	<50	<50	<50	<50	<50
F4 PHC (C34-C50) - Gravimetric	ug/g dry	5600	280	-	-	-	-	-

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 Generic Site Condition Standards for a Non-Potable Ground Water Condition for Residential/Parkland/Institutional Property Use (fine textured soils).
*	F1 fraction does not include BTEX.
**	In instances where the PHC F2 to F4 chromatogram did not reach baseline, the F4 fraction result shown is the highest value obtained via the gas chromatograph/flame ionization detection method or the gravimetric method.
ND	Non-detectable results are shown as "ND (RDL)" where RDL represents the reporting detection limit.
NV	No Value
N/A	Not Applicable
-	Parameter not analyzed
m bgs	Metres below ground surface
	Indicates soil exceedance of MECP Table 3 SCS for residential/parkland/institutional property use

Table 2 - Analytical Results in Soil - PAH
Part of 780 Baseline Road, Ottawa, Ontario
OTT-21011499-E0

Parameter	Units	MECP Table 3 Residential [1]	BH-5-S1	MW-1 S1	MW-1	BH-2 S1	BH-2	Dup 1	BH-3
Sampling Date			**12-Apr-2022**	**31-May-2023**	**31-May-2023**	**31-May-2023**	**31-May-2023**	**Duplicate of BH-2**	**31-May-2023**
Sample Depth (mbgs)			0.15 to 0.6	0.1 - 0.75	3.05 to 3.81	0.1 - 0.75	1.5 to 2.3		2.3 to 3.05
Paracel ID		**Bold**	B22-10444-1	5120912	5032385	5120913	5032588	5032589	5032587
Paracel Certificate of Analysis			B22-104444	23Z043506	23Z030525	23Z043506	23Z030525	23Z030525	23Z030525
Semi-Volatiles									
Acenaphthene	ug/g dry	58	< 0.05	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	ug/g dry	0.17	< 0.05	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05
Anthracene	ug/g dry	0.74	< 0.05	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	ug/g dry	0.63	< 0.05	< 0.05	< 0.05	0.14	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	ug/g dry	0.3	< 0.05	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	ug/g dry	0.78	< 0.05	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05
Benzo(g,h,i)perylene	ug/g dry	7.8	< 0.05	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	ug/g dry	0.78	< 0.05	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05
Chrysene	ug/g dry	7.8	< 0.05	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05
Dibenzo(a,h)anthracene	ug/g dry	0.1	< 0.05	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	ug/g dry	0.69	< 0.05	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05
Fluorene	ug/g dry	69	< 0.05	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3,-cd)pyrene	ug/g dry	0.48	< 0.05	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05
Methylnaphthalene 2-(1-)	ug/g dry	3.4	< 0.05	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05
Naphthalene	ug/g dry	0.75	< 0.05	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	ug/g dry	7.8	< 0.05	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05
Pyrene	ug/g dry	78	< 0.05	< 0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05

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 Generic Site Condition Standards for a Non-Potable Ground Water Condition for Residential/Parkland/Institutional Property Use (fine textured soils)

ND	Non-detectable results are shown as "ND (RDL)" where RDL represents the reporting detection limit.
NV	No Value
N/A	Not Applicable
-	Parameter not analyzed
m bgs	Metres below ground surface
	Indicates soil exceedance of MECP Table 3 SCS for residential/parkland/institutional property use

Table 3 - Analytical Results in Soil - Inorganic Parameters
Part of 780 Baseline Road, Ottawa, Ontario
OTT-21011499-E0

Parameter	Units	MECP Table 3 Residential [1]	BH-5-S1	MW-1 S1	MW-1	BH-2 S1	BH-2	Dup 1	BH-3
Sampling Date			**12-Apr-2022**	**31-May-2023**	**31-May-2023**	**31-May-2023**	**31-May-2023**	**Duplicate of BH-2**	**31-May-2023**
Sample Depth (mbgs)		**Bold**	0.15 to 0.6	0.1 - 0.75	3.05 to 3.81	0.1 - 0.75	1.5 to 2.3		2.3 to 3.05
Laboratory ID			B22-10444-1	5120912	5032385	5120913	5032588	5032589	5032587
Certificate of Analysis			B22-104444	23Z043506	23Z030525	23Z043506	23Z030525	23Z030525	23Z030525
Metals									
Antimony	ug/g dry	7.5	< 0.5	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	ug/g dry	18	2.2	2	2	4	2	2	2
Barium	ug/g dry	390	279	168	251	**482**	331	**439**	139
Beryllium	ug/g dry	5	0.8	0.6	<0.5	<0.5	0.6	0.7	<0.5
Boron	ug/g dry	120	3.7	7	<5	9	<5	5	5
Boron (HWS)	ug/g dry	1.5	0.05	-	-	-	-	-	-
Cadmium	ug/g dry	1.2	< 0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	ug/g dry	160	114	62	75	33	96	136	32
Chromium (VI)	ug/g dry	10	< 0.2	-	-	-	-	-	-
Cobalt	ug/g dry	22	21	15.7	15	11	21.9	**26.2**	8.8
Copper	ug/g dry	180	40	25	37	17	47	59	20
Lead	ug/g dry	120	9.0	7.0	5.0	11.0	7.0	8.0	5.0
Mercury	ug/g dry	1.8	0.016	-	-	-	-	-	-
Molybdenum	ug/g dry	6.9	< 1	0.7	<0.5	1.8	0.5	1	<0.5
Nickel	ug/g dry	130	63	34	40	24	56	71	19
Selenium	ug/g dry	2.4	0.6	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Silver	ug/g dry	25	< 0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Thallium	ug/g dry	1	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Uranium	ug/g dry	23	1	0.95	0.75	0.63	0.85	0.87	0.65
Vanadium	ug/g dry	86	85	49.1	78.8	36.2	**101**	**124**	52.8
Zinc	ug/g dry	340	98	56	94	39	121	153	59

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 Generic Site Condition Standards for a Non-Potable Ground Water Condition for Residential/Parkland/Institutional Property Use (fine textured soils)
ND	Non-detectable results are shown as "ND (RDL)" where RDL represents the reporting detection limit.
NV	No Value
N/A	Not Applicable
-	Parameter not analyzed
m bgs	Metres below ground surface
	Indicates soil exceedance of MECP Table 3 SCS for residential/parkland/institutional property use

Parameter	Units	MECP Table 3 Residential [1]	W1	E1	N1	S1	F1	F2
Sampling Date			**17-Nov-2023**	**17-Nov-2023**	**17-Nov-2023**	**17-Nov-2023**	**17-Nov-2023**	**17-Nov-2023**
Sample Depth (mbgs)		**Bold**	0.7 - 1.0	0.7 - 1.0	0.7 - 1.0	0.7 - 1.0	1.2	1.2
Laboratory ID			5470959	5470960	5470960	5470961	5470963	5470964
Certificate of Analysis			23Z094381	23Z078621	23Z078621	23Z036854	23Z036854	23Z036854
Metals								
Antimony	ug/g dry	7.5	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	ug/g dry	18	2	2	2	2	2	3
Barium	ug/g dry	390	95	360	296	310	306	240
Beryllium	ug/g dry	5	<0.5	1.2	1	1	0.9	0.9
Boron	ug/g dry	120	9	8	7	7	7	8
Cadmium	ug/g dry	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	ug/g dry	160	12	**173**	136	130	125	117
Cobalt	ug/g dry	22	5.2	**29.3**	**22.9**	**23.1**	21.8	21.8
Copper	ug/g dry	180	10	56	39	41	40	41
Lead	ug/g dry	120	20.0	9.0	11.0	10.0	10.0	15.0
Molybdenum	ug/g dry	6.9	0.6	<0.5	2.4	1.3	0.7	0.9
Nickel	ug/g dry	130	9	83	60	63	59	59
Selenium	ug/g dry	2.4	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Silver	ug/g dry	25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 3 - Analytical Results in Soil - Inorganic Parameters
Part of 780 Baseline Road, Ottawa, Ontario
OTT-21011499-E0

Thallium	ug/g dry	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Uranium	ug/g dry	23	<0.50	1.39	1.66	1.16	1.05	0.79
Vanadium	ug/g dry	86	17.2	**124**	**120**	**113**	**111**	**101**
Zinc	ug/g dry	340	27	139	128	128	120	136

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 Generic Site Condition Standards for a Non-Potable Ground Water Condition for Residential/Parkland/Institutional Property Use (fine textured soils)
ND	Non-detectable results are shown as "ND (RDL)" where RDL represents the reporting detection limit.
NV	No Value
N/A	Not Applicable
-	Parameter not analyzed
m bgs	Metres below ground surface
	Indicates soil exceedance of MECP Table 3 SCS for residential/parkland/institutional property use

Table 4 - Analytical Results in Groundwater - PHC and VOC
Part of 780 Baseline Road, Ottawa, Ontario
OTT-21011499-E0

Parameter	Units	MECP Table 3 [1]	MW-1	MW-2	DUP	BH-5	BH-6	Field Blank
Sampling Date		Orange	13-Jun-2023	10/10/2023	10/10/2023	13-Jun-2023	13-Jun-2023	13-Jun-2023
Screen Depth (mbgs)			2.9 to 5.9	1.5 to 4.5	1.5 to 4.5	10.7- 12.2	15.2 - 16.6	NA
Lab ID			5076601	5354588	5354589	5076603	5076602	5076606
Certificate of Analysis			23Z036854	23Z078621	23Z078621	23Z036854	23Z036854	23Z036854
Volatile Organic Compounds								
Acetone	ug/L	130000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzene	ug/L	430	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Bromodichloromethane	ug/L	85000	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Bromoform	ug/L	770	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Bromomethane	ug/L	56.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Carbon Tetrachloride	ug/L	8.4	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chlorobenzene	ug/L	630	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Chloroform	ug/L	22	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dibromochloromethane	ug/L	82000	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dichlorodifluoromethane	ug/L	4600	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
1,2-Dichlorobenzene	ug/L	9600	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,3-Dichlorobenzene	ug/L	9600	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,4-Dichlorobenzene	ug/L	67	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,1-Dichloroethane	ug/L	3100	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
1,2-Dichloroethane	ug/L	12	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1-Dichloroethylene	ug/L	17	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
cis-1,2-Dichloroethylene	ug/L	17	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
trans-1,2-Dichloroethylene	ug/L	17	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloropropane	ug/L	140	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,3-Dichloropropene, total	ug/L	45	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Ethylbenzene	ug/L	2300	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Ethylene dibromide (dibromoethane, 1,2-)	ug/L	0.83	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Hexane	ug/L	520	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Methyl Ethyl Ketone (2-Butanone)	ug/L	1500000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Isobutyl Ketone	ug/L	580000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl tert-butyl ether	ug/L	1400	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Methylene Chloride	ug/L	5500	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Styrene	ug/L	9100	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,1,1,2-Tetrachloroethane	ug/L	28	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,1,2,2-Tetrachloroethane	ug/L	15	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Tetrachloroethylene	ug/L	17	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	ug/L	18000	<0.20	<0.20	<0.20	0.31	<0.20	<0.20
1,1,1-Trichloroethane	ug/L	6700	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
1,1,2-Trichloroethane	ug/L	30	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethylene	ug/L	17	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichlorofluoromethane	ug/L	2500	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Vinyl Chloride	ug/L	1.7	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Xylenes, total	ug/L	4200	< 1.1	<0.20	<0.20	<0.20	<0.20	<0.20
Petroleum Hydrocarbons								
F1 PHC (C6 - C10) - BTEX*	ug/L	750	< 25	< 25	< 25	< 25	< 25	< 25
F2 PHC (C10-C16)	ug/L	150	< 100	< 100	< 100	< 100	< 100	< 100
F3 PHC (C16-C34)	ug/L	500	< 100	< 100	< 100	< 100	< 100	< 100
F4 PHC (C34-C50)**	ug/L	500	< 100	< 100	< 100	< 100	< 100	< 100

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 Generic Site Condition Standards f in a Non-Potable Ground Water Condition for all types of Property Use (fine textured soils).
*	F1 fraction does not include BTEX.
**	In instances where the PHC F2 to F4 chromatogram did not reach baseline, the F4 fraction result shown is the highest value obtained via the gas chromatograph/flame ionization detection method or the gravimetric method.
ND	Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.
NV	No Value
N/A	Not Applicable
-	Parameter not analyzed
m bgs	Metres below ground surface
	Indicates groundwater exceedance of MECP Table 3 SCS

Table 5 - Analytical Results in Groundwater - PAH
780 Baseline Road, Ottawa, Ontario
OTT-21011499-C0

Parameter	Units	MECP Table 3 [1]	MW-1	MW-2	DUP	BH-5	BH-6	Field Blank
Sampling Date	**Units**	**Orange**	13-Jun-2023	10/10/2023	10/10/2023	13-Jun-2023	13-Jun-2023	13-Jun-2023
Screen Depth (mbgs)			2.9 to 5.9	1.5 to 4.5	1.5 to 4.5	10.7- 12.2	15.2 - 16.6	NA
Lab ID			5076601	5354588	5354589	5076603	5076602	5076606
Certificate of Analysis			23Z036854	23Z078621	23Z078621	23Z036854	23Z036854	23Z036854
Polycyclic Aromatic Hydrocarbons								
Acenaphthene	ug/L	600	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Acenaphthylene	ug/L	1.8	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Anthracene	ug/L	2.4	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo(a)anthracene	ug/L	4.7	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzo(a)pyrene	ug/L	0.81	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzo(b)fluoranthene	ug/L	0.75	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo(g,h,i)perylene	ug/L	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzo(k)fluoranthene	ug/L	0.4	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Chrysene	ug/L	1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Dibenz(a,h)anthracene	ug/L	0.52	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Fluoranthene	ug/L	130	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Fluorene	ug/L	400	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Indeno(1,2,3-cd)pyrene	ug/L	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Methylnaphthalene	ug/L	1800	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Naphthalene	ug/L	1400	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Phenanthrene	ug/L	580	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Pyrene	ug/L	68	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20

NOTES:

1	Ontario Ministry of Environment, Conservation and Parks (MECP), Soil, Groundwater and Sediment Standards for use under Part XV.1 of the Environmental Protection Act, April 2011, Table 3 Generic Site Condition Standards f in a Non-Potable Ground Water Condition for all types of Property Use (fine textured soils).
*	F1 fraction does not include BTEX.
**	In instances where the PHC F2 to F4 chromatogram did not reach baseline, the F4 fraction result shown is the highest value obtained via the gas chromatograph/flame ionization detection method or the gravimetric method.
ND	Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.
NV	No Value
N/A	Not Applicable
-	Parameter not analyzed
m bgs	Metres below ground surface
	Indicates groundwater exceedance of MECP Table 3 SCS

Table 6 - Analytical Results in Groundwater - Inorganics
780 Baseline Road, Ottawa, Ontario
OTT-21011499-C0

Parameter	Units	MECP Table 3 [1]	MW-1	MW-2	DUP	BH-5	BH-6	Field Blank
Sampling Date	**Units**	**Orange**	13-Jun-2023	10/10/2023	10/10/2023	13-Jun-2023	13-Jun-2023	13-Jun-2023
Screen Depth (mbgs)			2.9 to 5.9	1.5 to 4.5	1.5 to 4.5	10.7- 12.2	15.2 - 16.6	NA
Lab ID			5076601	5354588	5354589	5076603	5076602	5076606
Certificate of Analysis			23Z036854	23Z078621	23Z078621	23Z036854	23Z036854	23Z036854
Metals								
Antimony	ug/L	20000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Arsenic	ug/L	1900	<1.0	1.60	1.20	<1.0	<1.0	<1.0
Barium	ug/L	29000	453	603	620	86	109	<2.0
Beryllium	ug/L	67	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Boron	ug/L	45000	43.6	33.0	38.7	59.8	153	<10.0
Cadmium	ug/L	2.7	0.27	0.48	0.51	<0.20	<0.20	<0.20
Chromium	ug/L	810	2.7	<2.0	<2.0	<2.0	<2.0	<2.0
Cobalt	ug/L	66	6.55	2.56	3.10	<0.50	<0.50	<0.50
Copper	ug/L	87	1.90	1.70	2.80	1.20	<1.0	1.40
Lead	ug/L	25	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Molybdenum	ug/L	9200	17.70	9.98	7.98	4.41	<0.50	<0.50
Nickel	ug/L	490	16.80	12.30	11.30	<1.0	<1.0	<1.0
Selenium	ug/L	63	2.70	<1.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/L	1.5	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	ug/L	510	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Uranium	ug/L	420	10.30	19.10	20.40	<0.50	<0.50	<0.50
Vanadium	ug/L	250	1.04	<0.40	0.99	<0.40	<0.40	<0.40
Zinc	ug/L	4200	9.20	<5.0	10.60	<5.0	<5.0	5.50

NOTES:

1	Ontario Ministry of Environment, Conservation and Parks (MECP), Soil, Groundwater and Sediment Standards for use under Part XV.1 of the Environmental Protection Act, April 2011, Table 3 Generic Site Condition Standards in a Non-Potable Ground Water Condition for all types of Property Use (fine textured soils).
*	F1 fraction does not include BTEX.
**	In instances where the PHC F2 to F4 chromatogram did not reach baseline, the F4 fraction result shown is the highest value obtained via the gas chromatograph/flame ionization detection method or the gravimetric method.
ND	Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.
NV	No Value
N/A	Not Applicable
-	Parameter not analyzed
m bgs	Metres below ground surface
	Indicates groundwater exceedance of MECP Table 3 SCS

Table 7 - Maximum Concentrations in Soil
Part of 780 Baseline Road, Ottawa, Ontario
OTT-21011499-E0

Parameter	Sample Location	Sample Depth (m bgs)	Sampling Date	Maximum Concentration	MECP Table 3 Residential
Petroleum Hydrocarbons					
F1 PHC (C6-C10)	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	<5	65
F2 PHC (C10-C16)	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	<10	150
F3 PHC (C16-C34)	BH-2-S1	0.7 to 0.75	31-May-23	1740	1300
F4 PHC (C34-C50)	BH-2-S1	0.7 to 0.75	31-May-23	1690	5600
Volatile Organic Compounds					
Acetone	All sample locations	0.1 to 3.8	31-May-23	< 0.5	28
Benzene	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.02	0.170
Bromodichloromethane	All sample locations	0.1 to 3.8	31-May-23	< 0.02	13
Bromoform	All sample locations	0.1 to 3.8	31-May-23	< 0.02	0.26
Bromomethane	All sample locations	0.1 to 3.8	31-May-23	< 0.05	0.05
Carbon Tetrachloride	All sample locations	0.1 to 3.8	31-May-23	< 0.05	2.7
Chlorobenzene	All sample locations	0.1 to 3.8	31-May-23	< 0.02	2.7
Chloroform	All sample locations	0.1 to 3.8	31-May-23	< 0.02	0.18
Dibromochloromethane	All sample locations	0.1 to 3.8	31-May-23	< 0.02	9.4
1,2-Dichlorobenzene	All sample locations	0.1 to 3.8	31-May-23	< 0.05	25
1,3-Dichlorobenzene	All sample locations	0.1 to 3.8	31-May-23	< 0.05	4.3
1,4-Dichlorobenzene	All sample locations	0.1 to 3.8	31-May-23	< 0.05	6
Dichlorodifluoromethane	All sample locations	0.1 to 3.8	31-May-23	< 0.05	0.097
1,1-Dichloroethane	All sample locations	0.1 to 3.8	31-May-23	< 0.02	11
1,2-Dichloroethane	All sample locations	0.1 to 3.8	31-May-23	< 0.02	0.05
1,1-Dichloroethylene	All sample locations	0.1 to 3.8	31-May-23	< 0.02	0.05
Cis-1,2-Dichloroethylene	All sample locations	0.1 to 3.8	31-May-23	< 0.02	30
Trans-1,2-Dichloroethylene	All sample locations	0.1 to 3.8	31-May-23	< 0.02	0.75
1,2-Dichloropropane	All sample locations	0.1 to 3.8	31-May-23	< 0.02	0.085
Cis-1,3-Dichloropropylene	All sample locations	0.1 to 3.8	31-May-23	< 0.02	NV
Trans-1,3-Dichloropropylene	All sample locations	0.1 to 3.8	31-May-23	< 0.02	NV
1,3-Dichloropropylene, Total	All sample locations	0.1 to 3.8	31-May-23	< 0.02	0.083
Ethylbenzene	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	15
Ethylene Dibromide	All sample locations	0.1 to 3.8	31-May-23	< 0.02	0.05
Hexane(n)	All sample locations	0.1 to 3.8	31-May-23	< 0.02	34
Methyl Ethyl Ketone	All sample locations	0.1 to 3.8	31-May-23	< 0.5	44
Methyl Isobutyl Ketone	All sample locations	0.1 to 3.8	31-May-23	< 0.5	4.3
Methyl-t-Butyl Ether	All sample locations	0.1 to 3.8	31-May-23	< 0.05	1.4
Methylene Chloride	All sample locations	0.1 to 3.8	31-May-23	< 0.05	0.96
Styrene	All sample locations	0.1 to 3.8	31-May-23	< 0.05	2.2
1,1,1,2-Tetrachloroethane	All sample locations	0.1 to 3.8	31-May-23	< 0.02	0.05
1,1,2,2-Tetrachloroethane	All sample locations	0.1 to 3.8	31-May-23	< 0.05	0.05
Tetrachloroethylene	All sample locations	0.1 to 3.8	31-May-23	< 0.05	2.3
Toluene	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.2	6
1,1,1-Trichloroethane	All sample locations	0.1 to 3.8	31-May-23	< 0.02	3.4
1,1,2-Trichloroethane	All sample locations	0.1 to 3.8	31-May-23	< 0.02	0.05
Trichloroethylene	All sample locations	0.1 to 3.8	31-May-23	< 0.05	0.52
Trichlorofluoromethane	All sample locations	0.1 to 3.8	31-May-23	< 0.02	5.8
Vinyl Chloride	All sample locations	0.1 to 3.8	31-May-23	< 0.02	0.022
Total Xylenes	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.03	25

Table 7 - Maximum Concentrations in Soil
Part of 780 Baseline Road, Ottawa, Ontario
OTT-21011499-E0

Parameter	Sample Location	Sample Depth (m bgs)	Sampling Date	Maximum Concentration	MECP Table 3 Residential
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	58
Acenaphthylene	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	0.17
Anthracene	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	0.74
Benzo(a)anthracene	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	0.63
Benzo(a)pyrene	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	0.3
Benzo(b)fluoranthene	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	0.78
Benzo(b+k)fluoranthene	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	NV
Benzo(g,h,i)perylene	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	7.8
Benzo(k)fluoranthene	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	0.78
Chrysene	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	7.8
Dibenzo(a,h)anthracene	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	0.1
Fluoranthene	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	0.69
Fluorene	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	69
Indeno(1,2,3,-cd)pyrene	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	0.48
Methylnaphthalene,1-	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	NV
Methylnaphthalene,2-	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	NV
Methylnaphthalene 2-(1-)	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	3.4
Naphthalene	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	0.75
Phenanthrene	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	7.8
Pyrene	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.05	78
Metals					
Antimony	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	<0.8	7.5
Arsenic	MW-1	3.05 to 3.81	31-May-23	4	18
Barium	BH-2-S1	0.1 to 0.75	31-May-23	482	390
Beryllium	BH-5-S1	0.15 to 0.6	12-Apr-22	0.8	5
Boron (Total)	BH-2-S1	0.1 to 0.75	31-May-23	9	120
Boron (Hot Water Soluble)	BH-5-S1	0.15 to 0.6	11-Apr-22	0.05	1.5
Cadmium	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.5	1.2
Chromium (Total)	Dup 1 (BH-2)	1.5 to 2.3	31-May-23	136	160
Chromium (VI)	BH-5-S1	0.15 to 0.6	11-Apr-22	< 0.2	10
Cobalt	Dup 1 (BH-2)	1.5 to 2.3	31-May-23	26.2	22
Copper	Dup 1 (BH-2)	1.5 to 2.3	31-May-23	59	180
Lead	BH-2-S1	0.1 to 0.75	31-May-23	11	120
Mercury	BH-5-S1	0.15 to 0.6	11-Apr-22	0.016	1.8
Molybdenum	MW-1-S1	0.1 to 0.75	31-May-23	0.7	6.9
Nickel	BH-5-S1	0.15 to 0.6	11-Apr-22	63	130
Selenium	BH-5-S1	0.15 to 0.6	11-Apr-22	0.6	2.4
Silver	All sample locations	0.1 to 3.8	31-May-23, 12-Apr-22	< 0.5	25
Thallium	BH-5-S1	0.15 to 0.6	11-Apr-22	0.3	1
Uranium	BH-5-S1	0.15 to 0.6	11-Apr-22	1	23
Vanadium	Dup 1 (BH-2)	1.5 to 2.3	31-May-23	124	86
Zinc	Dup 1 (BH-2)	1.5 to 2.3	31-May-23	153	340

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/Institutional/Parkland Property Use (fine textured soils)
NV	No Value
-	Parameter not analyzed
m bgs	Metres below ground surface

Table 8 - Maximum Concentrations in Groundwater
Part of 780 Baseline Road, Ottawa, Ontario
OTT-21011499-E0

Parameter	Sample Location	Sample Depth (m bgs)	Sampling Date	Maximum Concentration	MECP Table 3
Petroleum Hydrocarbons					
F1 PHC (C6-C10)	All sample locations	2.9 to 16.6	13-Jun-23	< 25	750
F2 PHC (C10-C16)	All sample locations	2.9 to 16.6	13-Jun-23	< 100	150
F3 PHC (C16-C34)	All sample locations	2.9 to 16.6	13-Jun-23	< 100	500
F4 PHC (C34-C50)	All sample locations	2.9 to 16.6	13-Jun-23	< 100	500
Volatile Organic Compounds					
Acetone	All sample locations	2.9 to 16.6	13-Jun-23	<1.0	130000
Benzene	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	430
Bromodichloromethane	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	85000
Bromoform	All sample locations	2.9 to 16.6	13-Jun-23	<0.10	770
Bromomethane	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	56.0
Carbon Tetrachloride	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	8.4
Chlorobenzene	All sample locations	2.9 to 16.6	13-Jun-23	<0.10	630
Chloroform	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	22
Dibromochloromethane	All sample locations	2.9 to 16.6	13-Jun-23	<0.10	82000
Dichlorodifluoromethane	All sample locations	2.9 to 16.6	13-Jun-23	<0.40	4600
1,2-Dichlorobenzene	All sample locations	2.9 to 16.6	13-Jun-23	<0.10	9600
1,3-Dichlorobenzene	All sample locations	2.9 to 16.6	13-Jun-23	<0.10	9600
1,4-Dichlorobenzene	All sample locations	2.9 to 16.6	13-Jun-23	<0.10	67
1,1-Dichloroethane	All sample locations	2.9 to 16.6	13-Jun-23	<0.30	3100
1,2-Dichloroethane	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	12
1,1-Dichloroethylene	All sample locations	2.9 to 16.6	13-Jun-23	<0.30	17
cis-1,2-Dichloroethylene	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	17
trans-1,2-Dichloroethylene	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	17
1,2-Dichloropropane	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	140
1,3-Dichloropropene, total	All sample locations	2.9 to 16.6	13-Jun-23	<0.30	45
Ethylbenzene	All sample locations	2.9 to 16.6	13-Jun-23	<0.10	2300
Ethylene dibromide (dibromoethane, 1	All sample locations	2.9 to 16.6	13-Jun-23	<0.10	0.83
Hexane	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	520
Methyl Ethyl Ketone (2-Butanone)	All sample locations	2.9 to 16.6	13-Jun-23	<1.0	1500000
Methyl Isobutyl Ketone	All sample locations	2.9 to 16.6	13-Jun-23	<1.0	580000
Methyl tert-butyl ether	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	1400
Methylene Chloride	All sample locations	2.9 to 16.6	13-Jun-23	<0.30	5500
Styrene	All sample locations	2.9 to 16.6	13-Jun-23	<0.10	9100
1,1,1,2-Tetrachloroethane	All sample locations	2.9 to 16.6	13-Jun-23	<0.10	28
1,1,2,2-Tetrachloroethane	All sample locations	2.9 to 16.6	13-Jun-23	<0.10	15
Tetrachloroethylene	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	17
Toluene	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	18000
1,1,1-Trichloroethane	All sample locations	2.9 to 16.6	13-Jun-23	<0.30	6700
1,1,2-Trichloroethane	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	30
Trichloroethylene	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	17
Trichlorofluoromethane	All sample locations	2.9 to 16.6	13-Jun-23	<0.40	2500
Vinyl Chloride	All sample locations	2.9 to 16.6	13-Jun-23	<0.17	1.7
Xylenes, total	All sample locations	2.9 to 16.6	13-Jun-23	< 1.1	4200

Table 8 - Maximum Concentrations in Groundwater
Part of 780 Baseline Road, Ottawa, Ontario
OTT-21011499-E0

Parameter	Sample Location	Sample Depth (m bgs)	Sampling Date	Maximum Concentration	MECP Table 3
Polycyclic Aromatic Hydrocarbons					
Acenaphthene	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	600
Acenaphthylene	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	2
Anthracene	All sample locations	2.9 to 16.6	13-Jun-23	<0.10	2
Benzo(a)anthracene	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	5
Benzo(a)pyrene	All sample locations	2.9 to 16.6	13-Jun-23	<0.01	1
Benzo(b)fluoranthene	All sample locations	2.9 to 16.6	13-Jun-23	<0.10	1
Benzo(g,h,i)perylene	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	0
Benzo(k)fluoranthene	All sample locations	2.9 to 16.6	13-Jun-23	<0.10	0
Chrysene	All sample locations	2.9 to 16.6	13-Jun-23	<0.10	1
Dibenz(a,h)anthracene	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	1
Fluoranthene	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	130
Fluorene	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	400
Indeno(1,2,3-cd)pyrene	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	0
Methylnaphthalene	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	1800
Naphthalene	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	1400
Phenanthrene	All sample locations	2.9 to 16.6	13-Jun-23	<0.10	580
Pyrene	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	68
Metals					
Antimony	All sample locations	2.9 to 16.6	13-Jun-23	<1.0	20000
Arsenic	All sample locations	2.9 to 16.6	13-Jun-23	<1.0	1900
Barium	MW-1	2.9 to 5.9	13-Jun-23	453	29000
Beryllium	All sample locations	2.9 to 16.6	13-Jun-23	<0.50	67
Boron	BH-6	15.2 to 16.6	13-Jun-23	153	45000
Cadmium	MW-1	2.9 to 5.9	13-Jun-23	0.27	2.7
Chromium	MW-1	2.9 to 5.9	13-Jun-23	2.7	810
Cobalt	MW-1	2.9 to 5.9	13-Jun-23	6.55	66
Copper	MW-1	2.9 to 5.9	13-Jun-23	1.9	87
Lead	All sample locations	2.9 to 16.6	13-Jun-23	<0.50	25
Molybdenum	MW-1	2.9 to 5.9	13-Jun-23	17.7	9200
Nickel	MW-1	2.9 to 5.9	13-Jun-23	16.8	490
Selenium	MW-1	2.9 to 5.9	13-Jun-23	2.7	63
Silver	All sample locations	2.9 to 16.6	13-Jun-23	<0.20	1.5
Thallium	All sample locations	2.9 to 16.6	13-Jun-23	<0.30	510
Uranium	MW-1	2.9 to 5.9	13-Jun-23	10.3	420
Vanadium	MW-1	2.9 to 5.9	13-Jun-23	1.04	250
Zinc	MW-1	2.9 to 5.9	13-Jun-23	9.2	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 (fine textured soils)
NV	No Value
-	Parameter not analyzed
m bgs	Metres below ground surface

Table 9 - Relative Percent Differences - PHC and VOC in Soil
Part of 780 Baseline Road, Ottawa, Ontario
OTT-21011499-E0

Parameter	Units	RDL	BH-2	DUP 1	RPD (%)	Alert Limit (%)
			31-May-2023	31-May-2023		
Petroleum Hydrocarbons						
F1 PHC (C6 - C10) - BTEX	ug/g dry	7	<5	<5	nc	60
F2 PHC (C10-C16)	ug/g dry	4	<10	<10	nc	60
F3 PHC (C16-C34)	ug/g dry	8	<50	<50	nc	60
F4 PHC (C34-C50)	ug/g dry	6	<50	<50	nc	60
Volatiles						
Acetone	ug/g dry	0.50	<0.50	<0.50	nc	100
Benzene	ug/g dry	0.02	<0.02	<0.02	nc	100
Bromodichloromethane	ug/g dry	0.05	<0.05	<0.05	nc	100
Bromoform	ug/g dry	0.05	<0.05	<0.05	nc	100
Bromomethane	ug/g dry	0.05	<0.05	<0.05	nc	100
Carbon Tetrachloride	ug/g dry	0.05	<0.05	<0.05	nc	100
Chlorobenzene	ug/g dry	0.05	<0.05	<0.05	nc	100
Chloroform	ug/g dry	0.05	<0.04	<0.04	nc	100
Dibromochloromethane	ug/g dry	0.05	<0.05	<0.05	nc	100
Dichlorodifluoromethane	ug/g dry	0.05	<0.05	<0.05	nc	100
1,2-Dichlorobenzene	ug/g dry	0.05	<0.05	<0.05	nc	100
1,3-Dichlorobenzene	ug/g dry	0.05	<0.05	<0.05	nc	100
1,4-Dichlorobenzene	ug/g dry	0.05	<0.05	<0.05	nc	100
1,1-Dichloroethane	ug/g dry	0.05	<0.02	<0.02	nc	100
1,2-Dichloroethane	ug/g dry	0.05	<0.03	<0.03	nc	100
1,1-Dichloroethylene	ug/g dry	0.05	<0.05	<0.05	nc	100
cis-1,2-Dichloroethylene	ug/g dry	0.05	<0.02	<0.02	nc	100
trans-1,2-Dichloroethylene	ug/g dry	0.05	<0.05	<0.05	nc	100
1,2-Dichloropropane	ug/g dry	0.05	<0.03	<0.03	nc	100
1,3-Dichloropropene, total	ug/g dry	0.05	<0.05	<0.05	nc	100
Ethylbenzene	ug/g dry	0.05	<0.05	<0.05	nc	100
Ethylene dibromide (dibromoethane, 1,2-	ug/g dry	0.05	<0.04	<0.04	nc	100
Hexane	ug/g dry	0.05	<0.05	<0.05	nc	100
Methyl Ethyl Ketone (2-Butanone)	ug/g dry	0.05	<0.50	<0.50	nc	100
Methyl Isobutyl Ketone	ug/g dry	0.05	<0.50	<0.50	nc	100
Methyl tert-butyl ether	ug/g dry	0.50	<0.05	<0.05	nc	100
Methylene Chloride	ug/g dry	0.50	<0.05	<0.05	nc	100
Styrene	ug/g dry	0.05	<0.05	<0.05	nc	100
1,1,1,2-Tetrachloroethane	ug/g dry	0.05	<0.04	<0.04	nc	100
1,1,2,2-Tetrachloroethane	ug/g dry	0.05	<0.05	<0.05	nc	100
Tetrachloroethylene	ug/g dry	0.05	<0.05	<0.05	nc	100
Toluene	ug/g dry	0.05	<0.05	<0.05	nc	100
1,1,1-Trichloroethane	ug/g dry	0.05	<0.05	<0.05	nc	100
1,1,2-Trichloroethane	ug/g dry	0.05	<0.04	<0.04	nc	100
Trichloroethylene	ug/g dry	0.05	<0.03	<0.03	nc	100
Trichlorofluoromethane	ug/g dry	0.05	<0.05	<0.05	nc	100
Vinyl Chloride	ug/g dry	0.05	<0.02	<0.02	nc	100
Xylenes, total	ug/g dry	0.05	<0.05	<0.05	nc	100

NOTES:

Analysis by Caduceon Labratories Ltd./AGAT Labatories
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 10 - Relative Percent Differences - PAH in Soil
Part of 780 Baseline Road, Ottawa, Ontario
OTT-21011499-E0

Parameter	Units	RDL	BH-2	DUP 1	RPD (%)	Alert Limit (%)
			31-May-2023	31-May-2023		
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	ug/g dry	0.05	< 0.05	< 0.05	nc	80
Acenaphthylene	ug/g dry	0.05	< 0.05	< 0.05	nc	80
Anthracene	ug/g dry	0.05	< 0.05	< 0.05	nc	80
Benzo(a)anthracene	ug/g dry	0.05	< 0.05	< 0.05	nc	80
Benzo(a)pyrene	ug/g dry	0.05	< 0.05	< 0.05	nc	80
Benzo(b)fluoranthene	ug/g dry	0.05	< 0.05	< 0.05	nc	80
Benzo(g,h,i)perylene	ug/g dry	0.05	< 0.05	< 0.05	nc	80
Benzo(k)fluoranthene	ug/g dry	0.05	< 0.05	< 0.05	nc	80
Chrysene	ug/g dry	0.05	< 0.05	< 0.05	nc	80
Dibenzo(a,h)anthracene	ug/g dry	0.05	< 0.05	< 0.05	nc	80
Fluoranthene	ug/g dry	0.05	< 0.05	< 0.05	nc	80
Fluorene	ug/g dry	0.05	< 0.05	< 0.05	nc	80
Indeno(1,2,3,-cd)pyrene	ug/g dry	0.05	< 0.05	< 0.05	nc	80
Methylnaphthalene 2-(1-)	ug/g dry	0.05	< 0.05	< 0.05	nc	80
Naphthalene	ug/g dry	0.05	< 0.05	< 0.05	nc	80
Phenanthrene	ug/g dry	0.05	< 0.05	< 0.05	nc	80
Pyrene	ug/g dry	0.05	< 0.05	< 0.05	nc	80

Notes:

Analysis by Caduceon Labratories Ltd./AGAT Labatories

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 11 - Relative Percent Differences - Inorganics in Soil
Part of 780 Baseline Road, Ottawa, Ontario
OTT-21011499-E0

Parameter	Units	RDL	BH-2	DUP 1	RPD (%)	Alert Limit (%)
			31-May-2023	31-May-2023		
Inorganic Parameters						
Antimony	ug/g dry	0.5	<0.8	<0.8	nc	60
Arsenic	ug/g dry	0.5	2	2	nc	60
Barium	ug/g dry	1	331	439	28	60
Beryllium	ug/g dry	0.2	0.6	0.7	nc	60
Boron	ug/g dry	0.5	<5	5	nc	60
Cadmium	ug/g dry	0.5	<0.5	<0.5	nc	60
Chromium	ug/g dry	1	96	136	34	60
Cobalt	ug/g dry	1	21.9	26.2	18	60
Copper	ug/g dry	1	47	59.1	23	60
Lead	ug/g dry	5	7.0	8.0	nc	60
Molybdenum	ug/g dry	1	0.5	1	nc	60
Nickel	ug/g dry	1	56	71	24	60
Selenium	ug/g dry	0.5	<0.8	<0.8	nc	60
Silver	ug/g dry	0.2	<0.5	<0.5	nc	60
Thallium	ug/g dry	0.1	<0.5	<0.5	nc	60
Vanadium	ug/g dry	1	0.85	0.87	nc	60
Zinc	ug/g dry	3	101	124	20	60
Uranium	ug/g dry	0.1	121	153	23	60

NOTES:

Analysis by Caduceon Environmental Labratories/AGAT Labratories

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

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

CLIENT NAME: EXP SERVICES INC
2650 QUEENSVIEW DRIVE, UNIT 100
OTTAWA, ON K2B8H6
(613) 688-1899
ATTENTION TO: Mark McCalla
PROJECT: OTT-21011499-E0
AGAT WORK ORDER: 23Z030525
SOIL ANALYSIS REVIEWED BY: Nivine Basily, Inorganics Report Writer
TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist
DATE REPORTED: Jun 08, 2023
PAGES (INCLUDING COVER): 17
VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

Notes

Disclaimer:

- *All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.*
- *All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.*
- *AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.*
- *This Certificate shall not be reproduced except in full, without the written approval of the laboratory.*
- *The test results reported herewith relate only to the samples as received by the laboratory.*
- *Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.*
- *All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.*
- *For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.*

AGAT Laboratories

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FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23Z030525

PROJECT: OTT-21011499-E0

CLIENT NAME: EXP SERVICES INC

SAMPLING SITE:

ATTENTION TO: Mark McCalla

SAMPLED BY:Philip Oliveira

O. Reg. 153(511) - Metals (Including Hydrides) (Soil)

DATE RECEIVED: 2023-05-31

DATE REPORTED: 2023-06-08

				SAMPLE DESCRIPTION:	MW-1	BH-3	BH-2	Dup 1
				SAMPLE TYPE:	Soil	Soil	Soil	Soil
				DATE SAMPLED:	2023-05-31 09:30	2023-05-31 10:30	2023-05-31 11:25	2023-05-31 09:00
Parameter	Unit	G / S	RDL		5032385	5032387	5032388	5032389
Antimony	µg/g		0.8		<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g		1		2	2	2	2
Barium	µg/g		2.0		251	139	331	439
Beryllium	µg/g		0.5		<0.5	<0.5	0.6	0.7
Boron	µg/g		5		<5	5	<5	5
Cadmium	µg/g		0.5		<0.5	<0.5	<0.5	<0.5
Chromium	µg/g		5		75	32	96	136
Cobalt	µg/g		0.8		15.0	8.8	21.9	26.2
Copper	µg/g		1.0		36.9	20.1	47.0	59.1
Lead	µg/g		1		5	5	7	8
Molybdenum	µg/g		0.5		<0.5	<0.5	0.5	1.0
Nickel	µg/g		1		40	19	56	71
Selenium	µg/g		0.8		<0.8	<0.8	<0.8	<0.8
Silver	µg/g		0.5		<0.5	<0.5	<0.5	<0.5
Thallium	µg/g		0.5		<0.5	<0.5	<0.5	<0.5
Uranium	µg/g		0.50		0.75	0.65	0.85	0.87
Vanadium	µg/g		2.0		78.8	52.8	101	124
Zinc	µg/g		5		94	59	121	153

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23Z030525

PROJECT: OTT-21011499-E0

CLIENT NAME: EXP SERVICES INC

SAMPLING SITE:

ATTENTION TO: Mark McCalla

SAMPLED BY:Philip Oliveira

O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2023-05-31

DATE REPORTED: 2023-06-08

		SAMPLE DESCRIPTION:		MW-1	BH-3	BH-2	Dup 1
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-05-31 09:30	2023-05-31 10:30	2023-05-31 11:25	2023-05-31 09:00
Parameter	**Unit**	**G / S**	**RDL**	**5032385**	**5032387**	**5032388**	**5032389**
Naphthalene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthylene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Fluorene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Phenanthrene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Anthracene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Fluoranthene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Pyrene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Benz(a)anthracene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Chrysene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
1 and 2 Methlynaphthalene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	22.4	29.8	32.3	30.6
Surrogate	**Unit**	**Acceptable Limits**					
Naphthalene-d8	%	50-140		85	90	100	75
Acridine-d9	%	50-140		100	100	90	110
Terphenyl-d14	%	50-140		75	75	85	70

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

5032385-5032389 Results are based on the dry weight of the soil.
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowich

AGAT Laboratories

5835 COOPERS AVENUE
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Certificate of Analysis

AGAT WORK ORDER: 23Z030525

PROJECT: OTT-21011499-E0

CLIENT NAME: EXP SERVICES INC

SAMPLING SITE:

ATTENTION TO: Mark McCalla

SAMPLED BY:Philip Oliveira

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Soil)

DATE RECEIVED: 2023-05-31 **DATE REPORTED: 2023-06-08**

				SAMPLE DESCRIPTION:	MW-1	BH-3	BH-2	Dup 1
				SAMPLE TYPE:	Soil	Soil	Soil	Soil
				DATE SAMPLED:	2023-05-31 09:30	2023-05-31 10:30	2023-05-31 11:25	2023-05-31 09:00
Parameter	**Unit**	**G / S**	**RDL**		**5032385**	**5032387**	**5032388**	**5032389**
F1 (C6 - C10)	µg/g		5		<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g		5		<5	<5	<5	<5
F2 (C10 to C16)	µg/g		10		<10	<10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10		<10	<10	<10	<10
F3 (C16 to C34)	µg/g		50		<50	<50	<50	<50
F3 (C16 to C34) minus PAHs	µg/g		50		<50	<50	<50	<50
F4 (C34 to C50)	µg/g		50		<50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g		50		NA	NA	NA	NA
Moisture Content	%		0.1		22.4	29.8	32.3	30.6
Surrogate	**Unit**	**Acceptable Limits**						
Toluene-d8	%	50-140			120	121	118	120
Terphenyl	%	60-140			78	115	105	110

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

5032385-5032389 Results are based on sample dry weight.
The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX and PAH contributions.
C>10 – C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popowich

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 23Z030525

PROJECT: OTT-21011499-E0

CLIENT NAME: EXP SERVICES INC

SAMPLING SITE:

ATTENTION TO: Mark McCalla

SAMPLED BY:Philip Oliveira

O. Reg. 153(511) - VOCs (MEOH)

DATE RECEIVED: 2023-05-31

DATE REPORTED: 2023-06-08

		SAMPLE DESCRIPTION:		Trip Blank
		SAMPLE TYPE:		MeOH
		DATE SAMPLED:		2023-05-31 10:30
Parameter	Unit	G / S	RDL	5032391
Dichlorodifluoromethane	µg/g		0.05	<0.05
Vinyl Chloride	ug/g		0.02	<0.02
Bromomethane	ug/g		0.05	<0.05
Trichlorofluoromethane	ug/g		0.05	<0.05
Acetone	ug/g		0.50	<0.50
1,1-Dichloroethylene	ug/g		0.05	<0.05
Methylene Chloride	ug/g		0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g		0.05	<0.05
Methyl tert-butyl Ether	ug/g		0.05	<0.05
1,1-Dichloroethane	ug/g		0.02	<0.02
Methyl Ethyl Ketone	ug/g		0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g		0.02	<0.02
Chloroform	ug/g		0.04	<0.04
1,2-Dichloroethane	ug/g		0.03	<0.03
1,1,1-Trichloroethane	ug/g		0.05	<0.05
Carbon Tetrachloride	ug/g		0.05	<0.05
Benzene	ug/g		0.02	<0.02
1,2-Dichloropropane	ug/g		0.03	<0.03
Trichloroethylene	ug/g		0.03	<0.03
Bromodichloromethane	ug/g		0.05	<0.05
Methyl Isobutyl Ketone	ug/g		0.50	<0.50
1,1,2-Trichloroethane	ug/g		0.04	<0.04
Toluene	ug/g		0.05	<0.05
Dibromochloromethane	ug/g		0.05	<0.05
Ethylene Dibromide	ug/g		0.04	<0.04
Tetrachloroethylene	ug/g		0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g		0.04	<0.04
Chlorobenzene	ug/g		0.05	<0.05
Ethylbenzene	ug/g		0.05	<0.05

Certified By: N Popowich

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Certificate of Analysis

AGAT WORK ORDER: 23Z030525

PROJECT: OTT-21011499-E0

CLIENT NAME: EXP SERVICES INC

SAMPLING SITE:

ATTENTION TO: Mark McCalla

SAMPLED BY:Philip Oliveira

O. Reg. 153(511) - VOCs (MEOH)

DATE RECEIVED: 2023-05-31 **DATE REPORTED: 2023-06-08**

		SAMPLE DESCRIPTION:		**Trip Blank**
		SAMPLE TYPE:		**MeOH**
		DATE SAMPLED:		**2023-05-31 10:30**
Parameter	**Unit**	**G / S**	**RDL**	**5032391**
m & p-Xylene	ug/g		0.05	<0.05
Bromoform	ug/g		0.05	<0.05
Styrene	ug/g		0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g		0.05	<0.05
o-Xylene	ug/g		0.05	<0.05
1,3-Dichlorobenzene	ug/g		0.05	<0.05
1,4-Dichlorobenzene	ug/g		0.05	<0.05
1,2-Dichlorobenzene	ug/g		0.05	<0.05
Xylenes (Total)	ug/g		0.05	<0.05
1,3-Dichloropropene (Cis + Trans)	µg/g		0.04	<0.04
n-Hexane	µg/g		0.05	<0.05
Surrogate	**Unit**	**Acceptable Limits**		
Toluene-d8	% Recovery	50-140		122
4-Bromofluorobenzene	% Recovery	50-140		78

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

5032391 A small amount of methanol extract was diluted in water and analyzed by purge & trap GC/MS.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popowich

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Certificate of Analysis

AGAT WORK ORDER: 23Z030525

PROJECT: OTT-21011499-E0

CLIENT NAME: EXP SERVICES INC

SAMPLING SITE:

ATTENTION TO: Mark McCalla

SAMPLED BY:Philip Oliveira

O. Reg. 153(511) - VOCs (with PHC) (Soil)

DATE RECEIVED: 2023-05-31

DATE REPORTED: 2023-06-08

		SAMPLE DESCRIPTION:		MW-1	BH-3	BH-2	Dup 1
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-05-31 09:30	2023-05-31 10:30	2023-05-31 11:25	2023-05-31 09:00
Parameter	Unit	G / S	RDL	5032385	5032387	5032388	5032389
Dichlorodifluoromethane	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Vinyl Chloride	ug/g		0.02	<0.02	<0.02	<0.02	<0.02
Bromomethane	ug/g		0.05	<0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g		0.05	<0.05	<0.05	<0.05	<0.05
Acetone	ug/g		0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g		0.05	<0.05	<0.05	<0.05	<0.05
Methylene Chloride	ug/g		0.05	<0.05	<0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g		0.05	<0.05	<0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g		0.05	<0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g		0.02	<0.02	<0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g		0.50	<0.50	<0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g		0.02	<0.02	<0.02	<0.02	<0.02
Chloroform	ug/g		0.04	<0.04	<0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g		0.03	<0.03	<0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g		0.05	<0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g		0.05	<0.05	<0.05	<0.05	<0.05
Benzene	ug/g		0.02	<0.02	<0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g		0.03	<0.03	<0.03	<0.03	<0.03
Trichloroethylene	ug/g		0.03	<0.03	<0.03	<0.03	<0.03
Bromodichloromethane	ug/g		0.05	<0.05	<0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g		0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g		0.04	<0.04	<0.04	<0.04	<0.04
Toluene	ug/g		0.05	<0.05	<0.05	<0.05	<0.05
Dibromochloromethane	ug/g		0.05	<0.05	<0.05	<0.05	<0.05
Ethylene Dibromide	ug/g		0.04	<0.04	<0.04	<0.04	<0.04
Tetrachloroethylene	ug/g		0.05	<0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g		0.04	<0.04	<0.04	<0.04	<0.04
Chlorobenzene	ug/g		0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	ug/g		0.05	<0.05	<0.05	<0.05	<0.05

Certified By: N Popowich

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Certificate of Analysis

AGAT WORK ORDER: 23Z030525

PROJECT: OTT-21011499-E0

CLIENT NAME: EXP SERVICES INC

SAMPLING SITE:

ATTENTION TO: Mark McCalla

SAMPLED BY:Philip Oliveira

O. Reg. 153(511) - VOCs (with PHC) (Soil)

DATE RECEIVED: 2023-05-31

DATE REPORTED: 2023-06-08

				SAMPLE DESCRIPTION:	MW-1	BH-3	BH-2	Dup 1
				SAMPLE TYPE:	Soil	Soil	Soil	Soil
				DATE SAMPLED:	2023-05-31 09:30	2023-05-31 10:30	2023-05-31 11:25	2023-05-31 09:00
Parameter	**Unit**	**G / S**	**RDL**		**5032385**	**5032387**	**5032388**	**5032389**
m & p-Xylene	ug/g		0.05		<0.05	<0.05	<0.05	<0.05
Bromoform	ug/g		0.05		<0.05	<0.05	<0.05	<0.05
Styrene	ug/g		0.05		<0.05	<0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g		0.05		<0.05	<0.05	<0.05	<0.05
o-Xylene	ug/g		0.05		<0.05	<0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g		0.05		<0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g		0.05		<0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g		0.05		<0.05	<0.05	<0.05	<0.05
Xylenes (Total)	ug/g		0.05		<0.05	<0.05	<0.05	<0.05
1,3-Dichloropropene (Cis + Trans)	µg/g		0.05		<0.05	<0.05	<0.05	<0.05
n-Hexane	µg/g		0.05		<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1		22.4	29.8	32.3	30.6
Surrogate	**Unit**	**Acceptable Limits**						
Toluene-d8	% Recovery	50-140			120	121	118	120
4-Bromofluorobenzene	% Recovery	50-140			79	80	84	78

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

5032385-5032389 The sample was analyzed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popowich

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Quality Assurance

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z030525

PROJECT: OTT-21011499-E0

ATTENTION TO: Mark McCalla

SAMPLING SITE:

SAMPLED BY:Philip Oliveira

Soil Analysis

RPT Date: Jun 08, 2023			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals (Including Hydrides) (Soil)															
Antimony	5032385	5032385	<0.8	<0.8	NA	< 0.8	128%	70%	130%	101%	80%	120%	72%	70%	130%
Arsenic	5032385	5032385	2	2	NA	< 1	127%	70%	130%	104%	80%	120%	100%	70%	130%
Barium	5032385	5032385	251	269	6.9%	< 2.0	115%	70%	130%	100%	80%	120%	98%	70%	130%
Beryllium	5032385	5032385	<0.5	<0.5	NA	< 0.5	98%	70%	130%	113%	80%	120%	87%	70%	130%
Boron	5032385	5032385	<5	<5	NA	< 5	98%	70%	130%	114%	80%	120%	97%	70%	130%
Cadmium	5032385	5032385	<0.5	<0.5	NA	< 0.5	106%	70%	130%	100%	80%	120%	105%	70%	130%
Chromium	5032385	5032385	75	80	6.5%	< 5	107%	70%	130%	107%	80%	120%	107%	70%	130%
Cobalt	5032385	5032385	15.0	15.8	5.2%	< 0.8	110%	70%	130%	100%	80%	120%	96%	70%	130%
Copper	5032385	5032385	36.9	38.2	3.5%	< 1.0	106%	70%	130%	107%	80%	120%	103%	70%	130%
Lead	5032385	5032385	5	6	18.2%	< 1	121%	70%	130%	111%	80%	120%	106%	70%	130%
Molybdenum	5032385	5032385	<0.5	<0.5	NA	< 0.5	116%	70%	130%	103%	80%	120%	101%	70%	130%
Nickel	5032385	5032385	40	42	4.9%	< 1	111%	70%	130%	101%	80%	120%	97%	70%	130%
Selenium	5032385	5032385	<0.8	<0.8	NA	< 0.8	101%	70%	130%	106%	80%	120%	101%	70%	130%
Silver	5032385	5032385	<0.5	<0.5	NA	< 0.5	121%	70%	130%	107%	80%	120%	98%	70%	130%
Thallium	5032385	5032385	<0.5	<0.5	NA	< 0.5	120%	70%	130%	98%	80%	120%	95%	70%	130%
Uranium	5032385	5032385	0.75	0.79	NA	< 0.50	129%	70%	130%	105%	80%	120%	105%	70%	130%
Vanadium	5032385	5032385	78.8	81.9	3.9%	< 2.0	117%	70%	130%	106%	80%	120%	102%	70%	130%
Zinc	5032385	5032385	94	97	3.1%	< 5	118%	70%	130%	105%	80%	120%	117%	70%	130%

Comments: NA Signifies Not Applicable.
Duplicate NA: results are under 5X the RDL and will not be calculated.

Certified By:

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Quality Assurance

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z030525

PROJECT: OTT-21011499-E0

ATTENTION TO: Mark McCalla

SAMPLING SITE:

SAMPLED BY:Philip Oliveira

Trace Organics Analysis

RPT Date: Jun 08, 2023			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Soil)															
F1 (C6 - C10)	5031119		<5	<5	NA	< 5	93%	60%	140%	84%	60%	140%	85%	60%	140%
F2 (C10 to C16)	5041642		< 10	< 10	NA	< 10	112%	60%	140%	103%	60%	140%	112%	60%	140%
F3 (C16 to C34)	5041642		< 50	< 50	NA	< 50	100%	60%	140%	110%	60%	140%	131%	60%	140%
F4 (C34 to C50)	5041642		< 50	< 50	NA	< 50	106%	60%	140%	81%	60%	140%	85%	60%	140%
O. Reg. 153(511) - VOCs (with PHC) (Soil)															
Dichlorodifluoromethane	5031119		<0.05	<0.05	NA	< 0.05	100%	50%	140%	86%	50%	140%	72%	50%	140%
Vinyl Chloride	5031119		<0.02	<0.02	NA	< 0.02	103%	50%	140%	90%	50%	140%	83%	50%	140%
Bromomethane	5031119		<0.05	<0.05	NA	< 0.05	115%	50%	140%	101%	50%	140%	81%	50%	140%
Trichlorofluoromethane	5031119		<0.05	<0.05	NA	< 0.05	95%	50%	140%	101%	50%	140%	86%	50%	140%
Acetone	5031119		<0.50	<0.50	NA	< 0.50	92%	50%	140%	72%	50%	140%	73%	50%	140%
1,1-Dichloroethylene	5031119		<0.05	<0.05	NA	< 0.05	102%	50%	140%	118%	60%	130%	88%	50%	140%
Methylene Chloride	5031119		<0.05	<0.05	NA	< 0.05	79%	50%	140%	98%	60%	130%	82%	50%	140%
Trans- 1,2-Dichloroethylene	5031119		<0.05	<0.05	NA	< 0.05	70%	50%	140%	102%	60%	130%	77%	50%	140%
Methyl tert-butyl Ether	5031119		<0.05	<0.05	NA	< 0.05	91%	50%	140%	73%	60%	130%	76%	50%	140%
1,1-Dichloroethane	5031119		<0.02	<0.02	NA	< 0.02	93%	50%	140%	95%	60%	130%	86%	50%	140%
Methyl Ethyl Ketone	5031119		<0.50	<0.50	NA	< 0.50	86%	50%	140%	92%	50%	140%	72%	50%	140%
Cis- 1,2-Dichloroethylene	5031119		<0.02	<0.02	NA	< 0.02	74%	50%	140%	78%	60%	130%	96%	50%	140%
Chloroform	5031119		<0.04	<0.04	NA	< 0.04	105%	50%	140%	73%	60%	130%	80%	50%	140%
1,2-Dichloroethane	5031119		<0.03	<0.03	NA	< 0.03	95%	50%	140%	93%	60%	130%	120%	50%	140%
1,1,1-Trichloroethane	5031119		<0.05	<0.05	NA	< 0.05	90%	50%	140%	75%	60%	130%	75%	50%	140%
Carbon Tetrachloride	5031119		<0.05	<0.05	NA	< 0.05	97%	50%	140%	87%	60%	130%	79%	50%	140%
Benzene	5031119		<0.02	<0.02	NA	< 0.02	84%	50%	140%	76%	60%	130%	117%	50%	140%
1,2-Dichloropropane	5031119		<0.03	<0.03	NA	< 0.03	113%	50%	140%	103%	60%	130%	80%	50%	140%
Trichloroethylene	5031119		<0.03	<0.03	NA	< 0.03	93%	50%	140%	72%	60%	130%	84%	50%	140%
Bromodichloromethane	5031119		<0.05	<0.05	NA	< 0.05	72%	50%	140%	76%	60%	130%	100%	50%	140%
Methyl Isobutyl Ketone	5031119		<0.50	<0.50	NA	< 0.50	117%	50%	140%	80%	50%	140%	104%	50%	140%
1,1,2-Trichloroethane	5031119		<0.04	<0.04	NA	< 0.04	115%	50%	140%	73%	60%	130%	71%	50%	140%
Toluene	5031119		<0.05	<0.05	NA	< 0.05	92%	50%	140%	101%	60%	130%	105%	50%	140%
Dibromochloromethane	5031119		<0.05	<0.05	NA	< 0.05	93%	50%	140%	87%	60%	130%	76%	50%	140%
Ethylene Dibromide	5031119		<0.04	<0.04	NA	< 0.04	89%	50%	140%	75%	60%	130%	98%	50%	140%
Tetrachloroethylene	5031119		<0.05	<0.05	NA	< 0.05	88%	50%	140%	91%	60%	130%	95%	50%	140%
1,1,1,2-Tetrachloroethane	5031119		<0.04	<0.04	NA	< 0.04	111%	50%	140%	79%	60%	130%	75%	50%	140%
Chlorobenzene	5031119		<0.05	<0.05	NA	< 0.05	87%	50%	140%	87%	60%	130%	93%	50%	140%
Ethylbenzene	5031119		<0.05	<0.05	NA	< 0.05	95%	50%	140%	86%	60%	130%	95%	50%	140%
m & p-Xylene	5031119		<0.05	<0.05	NA	< 0.05	110%	50%	140%	90%	60%	130%	97%	50%	140%
Bromoform	5031119		<0.05	<0.05	NA	< 0.05	74%	50%	140%	69%	60%	130%	106%	50%	140%
Styrene	5031119		<0.05	<0.05	NA	< 0.05	87%	50%	140%	75%	60%	130%	76%	50%	140%
1,1,2,2-Tetrachloroethane	5031119		<0.05	<0.05	NA	< 0.05	92%	50%	140%	72%	60%	130%	92%	50%	140%
o-Xylene	5031119		<0.05	<0.05	NA	< 0.05	111%	50%	140%	85%	60%	130%	91%	50%	140%

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Quality Assurance

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z030525

PROJECT: OTT-21011499-E0

ATTENTION TO: Mark McCalla

SAMPLING SITE:

SAMPLED BY:Philip Oliveira

Trace Organics Analysis (Continued)

RPT Date: Jun 08, 2023			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
1,3-Dichlorobenzene	5031119		<0.05	<0.05	NA	< 0.05	90%	50%	140%	84%	60%	130%	92%	50%	140%
1,4-Dichlorobenzene	5031119		<0.05	<0.05	NA	< 0.05	72%	50%	140%	81%	60%	130%	90%	50%	140%
1,2-Dichlorobenzene	5031119		<0.05	<0.05	NA	< 0.05	76%	50%	140%	74%	60%	130%	80%	50%	140%
n-Hexane	5031119		<0.05	<0.05	NA	< 0.05	103%	50%	140%	93%	60%	130%	97%	50%	140%
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	5027529		<0.05	<0.05	NA	< 0.05	90%	50%	140%	108%	50%	140%	88%	50%	140%
Acenaphthylene	5027529		<0.05	<0.05	NA	< 0.05	101%	50%	140%	110%	50%	140%	80%	50%	140%
Acenaphthene	5027529		<0.05	<0.05	NA	< 0.05	113%	50%	140%	105%	50%	140%	83%	50%	140%
Fluorene	5027529		<0.05	<0.05	NA	< 0.05	96%	50%	140%	105%	50%	140%	80%	50%	140%
Phenanthrene	5027529		<0.05	<0.05	NA	< 0.05	114%	50%	140%	85%	50%	140%	65%	50%	140%
Anthracene	5027529		<0.05	<0.05	NA	< 0.05	106%	50%	140%	108%	50%	140%	78%	50%	140%
Fluoranthene	5027529		<0.05	<0.05	NA	< 0.05	103%	50%	140%	100%	50%	140%	75%	50%	140%
Pyrene	5027529		<0.05	<0.05	NA	< 0.05	115%	50%	140%	105%	50%	140%	93%	50%	140%
Benz(a)anthracene	5027529		<0.05	<0.05	NA	< 0.05	88%	50%	140%	93%	50%	140%	63%	50%	140%
Chrysene	5027529		<0.05	<0.05	NA	< 0.05	112%	50%	140%	110%	50%	140%	68%	50%	140%
Benzo(b)fluoranthene	5027529		<0.05	<0.05	NA	< 0.05	114%	50%	140%	103%	50%	140%	83%	50%	140%
Benzo(k)fluoranthene	5027529		<0.05	<0.05	NA	< 0.05	118%	50%	140%	113%	50%	140%	75%	50%	140%
Benzo(a)pyrene	5027529		<0.05	<0.05	NA	< 0.05	112%	50%	140%	103%	50%	140%	80%	50%	140%
Indeno(1,2,3-cd)pyrene	5027529		<0.05	<0.05	NA	< 0.05	87%	50%	140%	98%	50%	140%	85%	50%	140%
Dibenz(a,h)anthracene	5027529		<0.05	<0.05	NA	< 0.05	95%	50%	140%	90%	50%	140%	78%	50%	140%
Benzo(g,h,i)perylene	5027529		<0.05	<0.05	NA	< 0.05	101%	50%	140%	95%	50%	140%	85%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: N Popnikolof

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http://www.agatlabs.com

Method Summary

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z030525

PROJECT: OTT-21011499-E0

ATTENTION TO: Mark McCalla

SAMPLING SITE:

SAMPLED BY:Philip Oliveira

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Arsenic	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Barium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Beryllium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Cadmium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Cobalt	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Copper	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Lead	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Molybdenum	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Nickel	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Selenium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Silver	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Thallium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Uranium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Vanadium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Zinc	MET 93 -6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS

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Method Summary

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z030525

PROJECT: OTT-21011499-E0

ATTENTION TO: Mark McCalla

SAMPLING SITE:

SAMPLED BY:Philip Oliveira

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluorene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Phenanthrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benz(a)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Chrysene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
1 and 2 Methlynaphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Naphthalene-d8	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acridine-d9	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Terphenyl-d14	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Moisture Content	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
F1 (C6 - C10)	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	modified from CCME Tier 1 Method	P&T GC/FID
Toluene-d8	VOL-91- 5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
F2 (C10 to C16)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
Dichlorodifluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS

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Method Summary

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z030525

PROJECT: OTT-21011499-E0

ATTENTION TO: Mark McCalla

SAMPLING SITE:

SAMPLED BY:Philip Oliveira

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Bromomethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Acetone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Chloroform	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Benzene	VOL-91-5002	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Toluene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Bromoform	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Styrene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
o-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Xylenes (Total)	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,3-Dichloropropene (Cis + Trans)	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
n-Hexane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Toluene-d8	VOL-91-5002	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Dichlorodifluoromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS

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Method Summary

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z030525

PROJECT: OTT-21011499-E0

ATTENTION TO: Mark McCalla

SAMPLING SITE:

SAMPLED BY:Philip Oliveira

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Acetone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Chloroform	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Benzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Toluene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Bromoform	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Styrene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS

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Method Summary

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AGAT WORK ORDER: 23Z030525

PROJECT: OTT-21011499-E0

ATTENTION TO: Mark McCalla

SAMPLING SITE:

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PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
1,1,2,2-Tetrachloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Xylenes (Total)	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,3-Dichloropropene (Cis + Trans)	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5002	modified from EPA 5035A & EPA 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	modified from EPA 5035A & EPA 8260D	(P&T)GC/MS

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Have feedback? Scan here for a quick survey!

5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only

Work Order #: 23703052S

Cooler Quantity: ONE - ICE PACKS

Arrival Temperatures: 9.3 | 9.6 | 9.6 / 6.3 | 6.4 | 7.0

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes: ICE

Report Information:

Company: EXP SERVICES INC
Contact: Mark McCalla
Address: 2650 QUEENSVIEW DR. OTTAWA, ON.
Phone: 613-688-1899 Fax:
Reports to be sent to:
1. Email: Mark.McCalla@exp.com
2. Email:

Project Information:

Project: OTT-210 11499-E0
Site Location:
Sampled By: Philip Oliveira
AGAT Quote #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☒ No ☐

Company: EXP SERVICES INC
Contact: Accounts Payable
Address: 2650 QUEENSVIEW DR. OTTAWA
Email: Accounts_payable@exp.com

Regulatory Requirements:

(Please check all applicable boxes)

☒ Regulation 153/04
Table (Indicate One) ☐ Ind/Com ☐ Res/Park ☐ Agriculture
Soil Texture (Check One) ☐ Coarse ☐ Fine

☐ Regulation 406
Table (Indicate One)

☐ Regulation 558

☐ CCME

☐ Sewer Use ☐ Sanitary ☐ Storm
Region

☐ Prov. Water Quality Objectives (PWQO)

☐ Other
Indicate One

Is this submission for a Record of Site Condition? ☐ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☐ No

Turnaround Time (TAT) Required:

Regular TAT ☒ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Sample Matrix Legend

GW	Ground Water
O	Oil
P	Paint
(S)	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI, DOC (Y/N)	O. Reg 153: Metals & Inorganics	O. Reg 153: Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	O. Reg 153: BTEX, F1-F4 PHCs	O. Reg 153: VOC	O. Reg 153: PAHs	O. Reg 153: PCBs	O. Reg 153: PCBs: Arochlors ☐	O. Reg 558: Landfill Disposal Characterization TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 406: Regulation 406 SPLP Rainwater Leach SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	O. Reg 406: Regulation 406 Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Corrosivity: ☐ Moisture ☐ Sulphide	Potentially Hazardous or High Concentration (Y/N)
1. MW-1	2023-05-31	9h30 AM/PM	4	S	3 JARS + 1 Bag.			X	X	X	X							
2. BH-3	↓	10h30 AM/PM	↓	↓	↓			↓	↓	↓	↓							
3. BH-2		11h25 AM/PM																
4. Dup 1		9h00 AM/PM																
5.		AM/PM																
6.		AM/PM																
7. Trip Blank	2023-05-31	10h30 AM/PM	1		Trip Blank					X								
8.		AM/PM																
9.		AM/PM																
10.		AM/PM																
11.		AM/PM																

Samples Relinquished By (Print Name and Sign)	Date	Time	Samples Received By (Print Name and Sign)	Date	Time
Philip Oliveira			C. Gwatkin	MAY 31 2023	12h20
Philip Oliveira	2023-05-31	12h00	M. GRASIC	June 1	9:20
CC to Penso	MAY 31 2023	20h00			

Page 1 of 1

N°: T-144215

Pink Copy - Client | Yellow Copy - AGAT | White Copy - AGAT

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CLIENT NAME: EXP SERVICES INC
2650 QUEENSVIEW DRIVE, UNIT 100
OTTAWA, ON K2B8H6
(613) 688-1899
ATTENTION TO: Mark McCalla
PROJECT: OTT-21011499-E0
AGAT WORK ORDER: 23Z036854
TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist
WATER ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Lab Manager
DATE REPORTED: Jun 23, 2023
PAGES (INCLUDING COVER): 17
VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

Notes

Disclaimer:

- *All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.*
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- *All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.*
- *For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.*

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Certificate of Analysis

AGAT WORK ORDER: 23Z036854

PROJECT: OTT-21011499-E0

CLIENT NAME: EXP SERVICES INC

ATTENTION TO: Mark McCalla

SAMPLING SITE:780 Baseline Rd

SAMPLED BY:Mackenzie

O. Reg. 153(511) - PAHs (Water)

DATE RECEIVED: 2023-06-15

DATE REPORTED: 2023-06-23

		SAMPLE DESCRIPTION:		MW-1	BH-6	BH-5	Field Blank
		SAMPLE TYPE:		Water	Water	Water	Water
		DATE SAMPLED:		2023-06-13 11:30	2023-06-13 10:40	2023-06-13 12:40	2023-06-13
Parameter	**Unit**	**G / S**	**RDL**	5076601	5076602	5076603	5076606
Naphthalene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Acenaphthylene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Acenaphthene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Fluorene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Phenanthrene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10
Anthracene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10
Fluoranthene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Pyrene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Benzo(a)anthracene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Chrysene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10
Benzo(b)fluoranthene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10
Benzo(k)fluoranthene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10
Benzo(a)pyrene	µg/L		0.01	<0.01	<0.01	<0.01	<0.01
Indeno(1,2,3-cd)pyrene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Dibenz(a,h)anthracene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Benzo(g,h,i)perylene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
2-and 1-methyl Naphthalene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Sediment				1	1	2	1
Surrogate	**Unit**	**Acceptable Limits**					
Naphthalene-d8	%	50-140		106	97	105	85
Acridine-d9	%	50-140		81	86	68	71
Terphenyl-d14	%	50-140		68	88	97	95

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

5076601-5076606 Sediment parameter is comment only based on visual inspection of the sample prior to extraction and is not an accredited test.
Legend: 1 = no sediment present; 2 = sediment present; 3 = sediment present in trace amount
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&(j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popowich

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AGAT WORK ORDER: 23Z036854

PROJECT: OTT-21011499-E0

CLIENT NAME: EXP SERVICES INC

ATTENTION TO: Mark McCalla

SAMPLING SITE:780 Baseline Rd

SAMPLED BY:Mackenzie

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Water)

DATE RECEIVED: 2023-06-15 **DATE REPORTED: 2023-06-23**

				SAMPLE DESCRIPTION:	MW-1	BH-6	BH-5	Field Blank
				SAMPLE TYPE:	Water	Water	Water	Water
				DATE SAMPLED:	2023-06-13 11:30	2023-06-13 10:40	2023-06-13 12:40	2023-06-13
Parameter	**Unit**	**G / S**	**RDL**		**5076601**	**5076602**	**5076603**	**5076606**
F1 (C6-C10)	µg/L		25		<25	<25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L		25		<25	<25	<25	<25
F2 (C10 to C16)	µg/L		100		<100	<100	<100	<100
F2 (C10 to C16) minus Naphthalene	µg/L		100		<100	<100	<100	<100
F3 (C16 to C34)	µg/L		100		<100	<100	<100	<100
F3 (C16 to C34) minus PAHs	µg/L		100		<100	<100	<100	<100
F4 (C34 to C50)	µg/L		100		<100	<100	<100	<100
Gravimetric Heavy Hydrocarbons	µg/L		500		NA	NA	NA	NA
Sediment					1	1	2	1
Surrogate	**Unit**	**Acceptable Limits**						
Toluene-d8	%	50-140			104	106	105	108
Terphenyl	% Recovery	60-140			75	100	89	90

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

5076601-5076606 The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX and PAH contributions.
C>10 – C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.

Sediment parameter is comment only based on visual inspection of the sample prior to extraction and is not an accredited test.
Legend: 1 = no sediment present; 2 = sediment present; 3 = sediment present in trace amounts

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AGAT WORK ORDER: 23Z036854

PROJECT: OTT-21011499-E0

CLIENT NAME: EXP SERVICES INC

ATTENTION TO: Mark McCalla

SAMPLING SITE:780 Baseline Rd

SAMPLED BY:Mackenzie

O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2023-06-15 **DATE REPORTED: 2023-06-23**

		SAMPLE DESCRIPTION:		Trip Blank
		SAMPLE TYPE:		Water
		DATE SAMPLED:		2023-06-13
Parameter	Unit	G / S	RDL	5076604
Dichlorodifluoromethane	µg/L		0.40	<0.40
Vinyl Chloride	µg/L		0.17	<0.17
Bromomethane	µg/L		0.20	<0.20
Trichlorofluoromethane	µg/L		0.40	<0.40
Acetone	µg/L		1.0	<1.0
1,1-Dichloroethylene	µg/L		0.30	<0.30
Methylene Chloride	µg/L		0.30	<0.30
trans- 1,2-Dichloroethylene	µg/L		0.20	<0.20
Methyl tert-butyl ether	µg/L		0.20	<0.20
1,1-Dichloroethane	µg/L		0.30	<0.30
Methyl Ethyl Ketone	µg/L		1.0	<1.0
cis- 1,2-Dichloroethylene	µg/L		0.20	<0.20
Chloroform	µg/L		0.20	<0.20
1,2-Dichloroethane	µg/L		0.20	<0.20
1,1,1-Trichloroethane	µg/L		0.30	<0.30
Carbon Tetrachloride	µg/L		0.20	<0.20
Benzene	µg/L		0.20	<0.20
1,2-Dichloropropane	µg/L		0.20	<0.20
Trichloroethylene	µg/L		0.20	<0.20
Bromodichloromethane	µg/L		0.20	<0.20
Methyl Isobutyl Ketone	µg/L		1.0	<1.0
1,1,2-Trichloroethane	µg/L		0.20	<0.20
Toluene	µg/L		0.20	<0.20
Dibromochloromethane	µg/L		0.10	<0.10
Ethylene Dibromide	µg/L		0.10	<0.10
Tetrachloroethylene	µg/L		0.20	<0.20
1,1,1,2-Tetrachloroethane	µg/L		0.10	<0.10
Chlorobenzene	µg/L		0.10	<0.10
Ethylbenzene	µg/L		0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20

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AGAT WORK ORDER: 23Z036854

PROJECT: OTT-21011499-E0

CLIENT NAME: EXP SERVICES INC

ATTENTION TO: Mark McCalla

SAMPLING SITE:780 Baseline Rd

SAMPLED BY:Mackenzie

O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2023-06-15 **DATE REPORTED: 2023-06-23**

		SAMPLE DESCRIPTION:		Trip Blank
		SAMPLE TYPE:		Water
		DATE SAMPLED:		2023-06-13
Parameter	**Unit**	**G / S**	**RDL**	**5076604**
Bromoform	µg/L		0.10	<0.10
Styrene	µg/L		0.10	<0.10
1,1,2,2-Tetrachloroethane	µg/L		0.10	<0.10
o-Xylene	µg/L		0.10	<0.10
1,3-Dichlorobenzene	µg/L		0.10	<0.10
1,4-Dichlorobenzene	µg/L		0.10	<0.10
1,2-Dichlorobenzene	µg/L		0.10	<0.10
1,3-Dichloropropene	µg/L		0.30	<0.30
Xylenes (Total)	µg/L		0.20	<0.20
n-Hexane	µg/L		0.20	<0.20
Surrogate	**Unit**	**Acceptable Limits**		
Toluene-d8	% Recovery	50-140		106
4-Bromofluorobenzene	% Recovery	50-140		83

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

5076604 Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.
The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

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AGAT WORK ORDER: 23Z036854

PROJECT: OTT-21011499-E0

CLIENT NAME: EXP SERVICES INC

ATTENTION TO: Mark McCalla

SAMPLING SITE:780 Baseline Rd

SAMPLED BY:Mackenzie

O. Reg. 153(511) - VOCs (with PHC) (Water)

DATE RECEIVED: 2023-06-15

DATE REPORTED: 2023-06-23

		SAMPLE DESCRIPTION:		MW-1	BH-6	BH-5	Field Blank
		SAMPLE TYPE:		Water	Water	Water	Water
		DATE SAMPLED:		2023-06-13 11:30	2023-06-13 10:40	2023-06-13 12:40	2023-06-13
Parameter	Unit	G / S	RDL	5076601	5076602	5076603	5076606
Dichlorodifluoromethane	µg/L		0.40	<0.40	<0.40	<0.40	<0.40
Vinyl Chloride	µg/L		0.17	<0.17	<0.17	<0.17	<0.17
Bromomethane	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Trichlorofluoromethane	µg/L		0.40	<0.40	<0.40	<0.40	<0.40
Acetone	µg/L		1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethylene	µg/L		0.30	<0.30	<0.30	<0.30	<0.30
Methylene Chloride	µg/L		0.30	<0.30	<0.30	<0.30	<0.30
trans- 1,2-Dichloroethylene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Methyl tert-butyl ether	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
1,1-Dichloroethane	µg/L		0.30	<0.30	<0.30	<0.30	<0.30
Methyl Ethyl Ketone	µg/L		1.0	<1.0	<1.0	<1.0	<1.0
cis- 1,2-Dichloroethylene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Chloroform	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloroethane	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	µg/L		0.30	<0.30	<0.30	<0.30	<0.30
Carbon Tetrachloride	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Benzene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloropropane	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethylene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Bromodichloromethane	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Methyl Isobutyl Ketone	µg/L		1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Toluene	µg/L		0.20	<0.20	<0.20	0.31	<0.20
Dibromochloromethane	µg/L		0.10	<0.10	<0.10	<0.10	<0.10
Ethylene Dibromide	µg/L		0.10	<0.10	<0.10	<0.10	<0.10
Tetrachloroethylene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
1,1,1,2-Tetrachloroethane	µg/L		0.10	<0.10	<0.10	<0.10	<0.10
Chlorobenzene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10
Ethylbenzene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10

Certified By: N Popnikolof

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Certificate of Analysis

AGAT WORK ORDER: 23Z036854

PROJECT: OTT-21011499-E0

CLIENT NAME: EXP SERVICES INC

ATTENTION TO: Mark McCalla

SAMPLING SITE:780 Baseline Rd

SAMPLED BY:Mackenzie

O. Reg. 153(511) - VOCs (with PHC) (Water)

DATE RECEIVED: 2023-06-15 **DATE REPORTED: 2023-06-23**

				SAMPLE DESCRIPTION:	MW-1	BH-6	BH-5	Field Blank
				SAMPLE TYPE:	Water	Water	Water	Water
				DATE SAMPLED:	2023-06-13 11:30	2023-06-13 10:40	2023-06-13 12:40	2023-06-13
Parameter	**Unit**	**G / S**	**RDL**		**5076601**	**5076602**	**5076603**	**5076606**
m & p-Xylene	µg/L		0.20		<0.20	<0.20	<0.20	<0.20
Bromoform	µg/L		0.10		<0.10	<0.10	<0.10	<0.10
Styrene	µg/L		0.10		<0.10	<0.10	<0.10	<0.10
1,1,2,2-Tetrachloroethane	µg/L		0.10		<0.10	<0.10	<0.10	<0.10
o-Xylene	µg/L		0.10		<0.10	<0.10	<0.10	<0.10
1,3-Dichlorobenzene	µg/L		0.10		<0.10	<0.10	<0.10	<0.10
1,4-Dichlorobenzene	µg/L		0.10		<0.10	<0.10	<0.10	<0.10
1,2-Dichlorobenzene	µg/L		0.10		<0.10	<0.10	<0.10	<0.10
1,3-Dichloropropene	µg/L		0.30		<0.30	<0.30	<0.30	<0.30
Xylenes (Total)	µg/L		0.20		<0.20	<0.20	<0.20	<0.20
n-Hexane	µg/L		0.20		<0.20	<0.20	<0.20	<0.20
Surrogate	**Unit**	**Acceptable Limits**						
Toluene-d8	% Recovery	50-140			104	106	105	108
4-Bromofluorobenzene	% Recovery	50-140			106	102	104	98

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

5076601-5076606 Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.
The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popnikolof

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AGAT WORK ORDER: 23Z036854

PROJECT: OTT-21011499-E0

CLIENT NAME: EXP SERVICES INC

ATTENTION TO: Mark McCalla

SAMPLING SITE:780 Baseline Rd

SAMPLED BY:Mackenzie

O. Reg. 153(511) - Metals (Including Hydrides) (Water)

DATE RECEIVED: 2023-06-15

DATE REPORTED: 2023-06-23

		SAMPLE DESCRIPTION:		MW-1	BH-6	BH-5	Field Blank
		SAMPLE TYPE:		Water	Water	Water	Water
		DATE SAMPLED:		2023-06-13 11:30	2023-06-13 10:40	2023-06-13 12:40	2023-06-13
Parameter	Unit	G / S	RDL	5076601	5076602	5076603	5076606
Dissolved Antimony	µg/L		1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Arsenic	µg/L		1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Barium	µg/L		2.0	453	109	86.0	<2.0
Dissolved Beryllium	µg/L		0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Boron	µg/L		10.0	43.6	153	59.8	<10.0
Dissolved Cadmium	µg/L		0.20	0.27	<0.20	<0.20	<0.20
Dissolved Chromium	µg/L		2.0	2.7	<2.0	<2.0	<2.0
Dissolved Cobalt	µg/L		0.50	6.55	<0.50	<0.50	<0.50
Dissolved Copper	µg/L		1.0	1.9	<1.0	1.2	1.4
Dissolved Lead	µg/L		0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Molybdenum	µg/L		0.50	17.7	<0.50	4.41	<0.50
Dissolved Nickel	µg/L		1.0	16.8	<1.0	<1.0	<1.0
Dissolved Selenium	µg/L		1.0	2.7	<1.0	<1.0	<1.0
Dissolved Silver	µg/L		0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Thallium	µg/L		0.30	<0.30	<0.30	<0.30	<0.30
Dissolved Uranium	µg/L		0.50	10.3	<0.50	<0.50	<0.50
Dissolved Vanadium	µg/L		0.40	1.04	<0.40	<0.40	<0.40
Dissolved Zinc	µg/L		5.0	9.2	<5.0	<5.0	5.5

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

5076601-5076606 Metals analysis completed on a filtered sample.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 23Z036854

PROJECT: OTT-21011499-E0

CLIENT NAME: EXP SERVICES INC

ATTENTION TO: Mark McCalla

SAMPLING SITE:780 Baseline Rd

SAMPLED BY:Mackenzie

O. Reg. 153(511) - ORPs (Water)

DATE RECEIVED: 2023-06-15

DATE REPORTED: 2023-06-23

				SAMPLE DESCRIPTION:	MW-1	BH-6	BH-5	Field Blank
				SAMPLE TYPE:	Water	Water	Water	Water
				DATE SAMPLED:	2023-06-13 11:30	2023-06-13 10:40	2023-06-13 12:40	2023-06-13
Parameter	Unit	G / S	RDL		5076601	5076602	5076603	5076606
Mercury	µg/L		0.02		<0.02	<0.02	<0.02	<0.02
Chromium VI	µg/L		2.000		<2.000	<2.000	<2.000	<2.000

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

5076601-5076606 pH is a recommended field analysis taken within 15 minutes of sample collection. Due to the potential for rapid change in sample equilibrium chemistry laboratory results may differ from field measured results.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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Quality Assurance

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z036854

PROJECT: OTT-21011499-E0

ATTENTION TO: Mark McCalla

SAMPLING SITE:780 Baseline Rd

SAMPLED BY:Mackenzie

Trace Organics Analysis

RPT Date: Jun 23, 2023			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PAHs (Water)															
Naphthalene	5066778		<0.20	<0.20	NA	< 0.20	74%	50%	140%	108%	50%	140%	100%	50%	140%
Acenaphthylene	5066778		<0.20	<0.20	NA	< 0.20	103%	50%	140%	94%	50%	140%	85%	50%	140%
Acenaphthene	5066778		<0.20	<0.20	NA	< 0.20	113%	50%	140%	99%	50%	140%	85%	50%	140%
Fluorene	5066778		<0.20	<0.20	NA	< 0.20	112%	50%	140%	112%	50%	140%	98%	50%	140%
Phenanthrene	5066778		<0.10	<0.10	NA	< 0.10	111%	50%	140%	102%	50%	140%	94%	50%	140%
Anthracene	5066778		<0.10	<0.10	NA	< 0.10	114%	50%	140%	112%	50%	140%	84%	50%	140%
Fluoranthene	5066778		<0.20	<0.20	NA	< 0.20	95%	50%	140%	106%	50%	140%	84%	50%	140%
Pyrene	5066778		<0.20	<0.20	NA	< 0.20	106%	50%	140%	98%	50%	140%	75%	50%	140%
Benzo(a)anthracene	5066778		<0.20	<0.20	NA	< 0.20	64%	50%	140%	87%	50%	140%	82%	50%	140%
Chrysene	5066778		<0.10	<0.10	NA	< 0.10	110%	50%	140%	93%	50%	140%	105%	50%	140%
Benzo(b)fluoranthene	5066778		<0.10	<0.10	NA	< 0.10	69%	50%	140%	78%	50%	140%	84%	50%	140%
Benzo(k)fluoranthene	5066778		<0.10	<0.10	NA	< 0.10	116%	50%	140%	105%	50%	140%	110%	50%	140%
Benzo(a)pyrene	5066778		<0.01	<0.01	NA	< 0.01	81%	50%	140%	108%	50%	140%	93%	50%	140%
Indeno(1,2,3-cd)pyrene	5066778		<0.20	<0.20	NA	< 0.20	79%	50%	140%	80%	50%	140%	80%	50%	140%
Dibenz(a,h)anthracene	5066778		<0.20	<0.20	NA	< 0.20	84%	50%	140%	74%	50%	140%	74%	50%	140%
Benzo(g,h,i)perylene	5066778		<0.20	<0.20	NA	< 0.20	97%	50%	140%	89%	50%	140%	84%	50%	140%
O. Reg. 153(511) - VOCs (with PHC) (Water)															
Dichlorodifluoromethane	5076558		<0.40	<0.40	NA	< 0.40	104%	50%	140%	101%	50%	140%	89%	50%	140%
Vinyl Chloride	5076558		<0.17	<0.17	NA	< 0.17	91%	50%	140%	114%	50%	140%	87%	50%	140%
Bromomethane	5076558		<0.20	<0.20	NA	< 0.20	75%	50%	140%	79%	50%	140%	74%	50%	140%
Trichlorofluoromethane	5076558		<0.40	<0.40	NA	< 0.40	87%	50%	140%	92%	50%	140%	100%	50%	140%
Acetone	5076558		<1.0	<1.0	NA	< 1.0	89%	50%	140%	106%	50%	140%	82%	50%	140%
1,1-Dichloroethylene	5076558		<0.30	<0.30	NA	< 0.30	84%	50%	140%	102%	60%	130%	113%	50%	140%
Methylene Chloride	5076558		<0.30	<0.30	NA	< 0.30	97%	50%	140%	85%	60%	130%	81%	50%	140%
trans- 1,2-Dichloroethylene	5076558		<0.20	<0.20	NA	< 0.20	82%	50%	140%	91%	60%	130%	93%	50%	140%
Methyl tert-butyl ether	5076558		<0.20	<0.20	NA	< 0.20	110%	50%	140%	113%	60%	130%	93%	50%	140%
1,1-Dichloroethane	5076558		<0.30	<0.30	NA	< 0.30	74%	50%	140%	106%	60%	130%	98%	50%	140%
Methyl Ethyl Ketone	5076558		<1.0	<1.0	NA	< 1.0	103%	50%	140%	117%	50%	140%	114%	50%	140%
cis- 1,2-Dichloroethylene	5076558		<0.20	<0.20	NA	< 0.20	71%	50%	140%	101%	60%	130%	102%	50%	140%
Chloroform	5076558		<0.20	<0.20	NA	< 0.20	71%	50%	140%	99%	60%	130%	101%	50%	140%
1,2-Dichloroethane	5076558		<0.20	<0.20	NA	< 0.20	76%	50%	140%	93%	60%	130%	92%	50%	140%
1,1,1-Trichloroethane	5076558		<0.30	<0.30	NA	< 0.30	101%	50%	140%	113%	60%	130%	116%	50%	140%
Carbon Tetrachloride	5076558		<0.20	<0.20	NA	< 0.20	107%	50%	140%	80%	60%	130%	75%	50%	140%
Benzene	5076558		0.58	0.56	NA	< 0.20	78%	50%	140%	107%	60%	130%	116%	50%	140%
1,2-Dichloropropane	5076558		<0.20	<0.20	NA	< 0.20	101%	50%	140%	113%	60%	130%	106%	50%	140%
Trichloroethylene	5076558		<0.20	<0.20	NA	< 0.20	86%	50%	140%	114%	60%	130%	108%	50%	140%
Bromodichloromethane	5076558		<0.20	<0.20	NA	< 0.20	110%	50%	140%	85%	60%	130%	92%	50%	140%
Methyl Isobutyl Ketone	5076558		<1.0	<1.0	NA	< 1.0	99%	50%	140%	111%	50%	140%	118%	50%	140%

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Quality Assurance

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z036854

PROJECT: OTT-21011499-E0

ATTENTION TO: Mark McCalla

SAMPLING SITE:780 Baseline Rd

SAMPLED BY:Mackenzie

Trace Organics Analysis (Continued)

RPT Date: Jun 23, 2023			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
1,1,2-Trichloroethane	5076558		<0.20	<0.20	NA	< 0.20	83%	50%	140%	113%	60%	130%	99%	50%	140%
Toluene	5076558		0.72	0.67	NA	< 0.20	76%	50%	140%	105%	60%	130%	119%	50%	140%
Dibromochloromethane	5076558		<0.10	<0.10	NA	< 0.10	72%	50%	140%	91%	60%	130%	101%	50%	140%
Ethylene Dibromide	5076558		<0.10	<0.10	NA	< 0.10	91%	50%	140%	108%	60%	130%	109%	50%	140%
Tetrachloroethylene	5076558		<0.20	<0.20	NA	< 0.20	104%	50%	140%	111%	60%	130%	110%	50%	140%
1,1,1,2-Tetrachloroethane	5076558		<0.10	<0.10	NA	< 0.10	85%	50%	140%	85%	60%	130%	94%	50%	140%
Chlorobenzene	5076558		<0.10	<0.10	NA	< 0.10	75%	50%	140%	118%	60%	130%	117%	50%	140%
Ethylbenzene	5076558		<0.10	<0.10	NA	< 0.10	80%	50%	140%	117%	60%	130%	111%	50%	140%
m & p-Xylene	5076558		<0.20	<0.20	NA	< 0.20	74%	50%	140%	115%	60%	130%	109%	50%	140%
Bromoform	5076558		<0.10	<0.10	NA	< 0.10	114%	50%	140%	118%	60%	130%	109%	50%	140%
Styrene	5076558		<0.10	<0.10	NA	< 0.10	74%	50%	140%	114%	60%	130%	113%	50%	140%
1,1,2,2-Tetrachloroethane	5076558		<0.10	<0.10	NA	< 0.10	101%	50%	140%	102%	60%	130%	109%	50%	140%
o-Xylene	5076558		<0.10	<0.10	NA	< 0.10	85%	50%	140%	118%	60%	130%	112%	50%	140%
1,3-Dichlorobenzene	5076558		<0.10	<0.10	NA	< 0.10	72%	50%	140%	115%	60%	130%	113%	50%	140%
1,4-Dichlorobenzene	5076558		<0.10	<0.10	NA	< 0.10	78%	50%	140%	118%	60%	130%	114%	50%	140%
1,2-Dichlorobenzene	5076558		<0.10	<0.10	NA	< 0.10	81%	50%	140%	115%	60%	130%	115%	50%	140%
n-Hexane	5076558		<0.20	<0.20	NA	< 0.20	87%	50%	140%	110%	60%	130%	94%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Water)

F1 (C6-C10)	5076558	<25	<25	NA	< 25	114%	60%	140%	109%	60%	140%	97%	60%	140%
F2 (C10 to C16)	5069259	< 100	< 100	NA	< 100	125%	60%	140%	97%	60%	140%	89%	60%	140%
F3 (C16 to C34)	5069259	< 100	< 100	NA	< 100	124%	60%	140%	79%	60%	140%	81%	60%	140%
F4 (C34 to C50)	5069259	< 100	< 100	NA	< 100	98%	60%	140%	98%	60%	140%	69%	60%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: N Popowkolof

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Quality Assurance

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z036854

PROJECT: OTT-21011499-E0

ATTENTION TO: Mark McCalla

SAMPLING SITE:780 Baseline Rd

SAMPLED BY:Mackenzie

Water Analysis

RPT Date: Jun 23, 2023			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals (Including Hydrides) (Water)															
Dissolved Antimony	5076660		<1.0	<1.0	NA	< 1.0	105%	70%	130%	101%	80%	120%	103%	70%	130%
Dissolved Arsenic	5076660		<1.0	<1.0	NA	< 1.0	97%	70%	130%	100%	80%	120%	103%	70%	130%
Dissolved Barium	5076660		22.8	22.5	1.3%	< 2.0	101%	70%	130%	94%	80%	120%	99%	70%	130%
Dissolved Beryllium	5076660		<0.50	<0.50	NA	< 0.50	104%	70%	130%	109%	80%	120%	101%	70%	130%
Dissolved Boron	5076660		548	554	1.1%	< 10.0	107%	70%	130%	112%	80%	120%	107%	70%	130%
Dissolved Cadmium	5076660		<0.20	<0.20	NA	< 0.20	101%	70%	130%	101%	80%	120%	94%	70%	130%
Dissolved Chromium	5076660		3.3	2.2	NA	< 2.0	99%	70%	130%	101%	80%	120%	100%	70%	130%
Dissolved Cobalt	5076660		1.78	1.82	NA	< 0.50	100%	70%	130%	99%	80%	120%	98%	70%	130%
Dissolved Copper	5076660		<1.0	<1.0	NA	< 1.0	99%	70%	130%	99%	80%	120%	93%	70%	130%
Dissolved Lead	5076660		<0.50	<0.50	NA	< 0.50	104%	70%	130%	106%	80%	120%	102%	70%	130%
Dissolved Molybdenum	5076660		1.53	2.01	NA	< 0.50	99%	70%	130%	103%	80%	120%	105%	70%	130%
Dissolved Nickel	5076660		5.6	6.0	6.9%	< 1.0	98%	70%	130%	100%	80%	120%	93%	70%	130%
Dissolved Selenium	5076660		3.8	4.2	NA	< 1.0	98%	70%	130%	99%	80%	120%	104%	70%	130%
Dissolved Silver	5076660		<0.20	<0.20	NA	< 0.20	94%	70%	130%	94%	80%	120%	92%	70%	130%
Dissolved Thallium	5076660		<0.30	<0.30	NA	< 0.30	NA	70%	130%	113%	80%	120%	111%	70%	130%
Dissolved Uranium	5076660		<0.50	0.51	NA	< 0.50	96%	70%	130%	98%	80%	120%	107%	70%	130%
Dissolved Vanadium	5076660		<0.40	<0.40	NA	< 0.40	103%	70%	130%	104%	80%	120%	105%	70%	130%
Dissolved Zinc	5076660		<5.0	<5.0	NA	< 5.0	101%	70%	130%	100%	80%	120%	95%	70%	130%

Comments: NA signifies Not Applicable.
Duplicate NA: results are under 5X the RDL and will not be calculated.

O. Reg. 153(511) - ORPs (Water)															
Mercury	5076706		<0.02	<0.02	NA	< 0.02	100%	70%	130%	98%	80%	120%	94%	70%	130%
Chromium VI	5080539		<2.000	<2.000	NA	< 2	101%	70%	130%	102%	80%	120%	113%	70%	130%

Comments: NA signifies Not Applicable.
Duplicate NA: results are under 5X the RDL and will not be calculated.

Certified By:

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Method Summary

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z036854

PROJECT: OTT-21011499-E0

ATTENTION TO: Mark McCalla

SAMPLING SITE:780 Baseline Rd

SAMPLED BY:Mackenzie

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Acenaphthylene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Acenaphthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Fluorene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Phenanthrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Anthracene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Fluoranthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Pyrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(a)anthracene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Chrysene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Dibenz(a,h)anthracene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(g,h,i)perylene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Naphthalene-d8	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Acridine-d9	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Terphenyl-d14	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Sediment			N/A
F1 (C6-C10)	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	modified from MOE PHC-E3421	P&T GC/FID
Toluene-d8	VOL-91- 5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
F2 (C10 to C16)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F3 (C16 to C34)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F4 (C34 to C50)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5010	modified from MOE PHC-E3421	BALANCE
Terphenyl	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
Dichlorodifluoromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS

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Method Summary

CLIENT NAME: EXP SERVICES INC

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ATTENTION TO: Mark McCalla

SAMPLING SITE:780 Baseline Rd

SAMPLED BY:Mackenzie

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Vinyl Chloride	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Acetone	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
trans- 1,2-Dichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methyl tert-butyl ether	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
cis- 1,2-Dichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Chloroform	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Benzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Toluene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS

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MISSISSAUGA, ONTARIO
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Method Summary

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z036854

PROJECT: OTT-21011499-E0

ATTENTION TO: Mark McCalla

SAMPLING SITE:780 Baseline Rd

SAMPLED BY:Mackenzie

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
m & p-Xylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Bromoform	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Styrene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Xylenes (Total)	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS

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Method Summary

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z036854

PROJECT: OTT-21011499-E0

ATTENTION TO: Mark McCalla

SAMPLING SITE:780 Baseline Rd

SAMPLED BY:Mackenzie

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Dissolved Antimony	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Arsenic	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Barium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Beryllium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Boron	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Cadmium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Chromium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Cobalt	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Copper	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Lead	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Molybdenum	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Nickel	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Selenium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Silver	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Thallium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Uranium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Vanadium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Zinc	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Mercury	MET-93-6100	modified from EPA 245.2 and SM 3112 B	CVAAS
Chromium VI	INOR-93-6073	modified from SM 3500-CR B	LACHAT FIA

AGAT Laboratories

Have feedback? Scan here for a quick survey!

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Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Report Information:

Company: EXP Services Inc
Contact: Mark McCalla
Address: 2650 Queensview dr.
Phone: 613 688 1899 Fax:
Reports to be sent to:
1. Email: mark.mccalla@exp.com
2. Email:

Project Information:

Project: OTT-21011499-E0
Site Location: 780 Baseline rd
Sampled By: Mackenzie Russell
AGAT Quote #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☑ No ☐
Company:
Contact:
Address:
Email:

Regulatory Requirements:

(Please check all applicable boxes)

☑ Regulation 153/04
Table 3 (Indicate One)
☐ Ind/Com
☑ Res/Park
☐ Agriculture
Soil Texture (Check One)
☐ Coarse
☐ Fine

☐ Regulation 406
Table (Indicate One)

☐ Regulation 558

☐ CCME

☐ Sewer Use ☐ Sanitary ☐ Storm
(Region)

☐ Prov. Water Quality Objectives (PWQO)

☐ Other
(Indicate One)

Is this submission for a **Record of Site Condition?** ☐ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☐ No

Sample Matrix Legend

GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Laboratory Use Only

Work Order #: 23203685 4

Cooler Quantity: one - bagged ice.
Arrival Temperatures: 6.5 | 6.4 | 6.4 / 3.9 | 4.1 | 3.1
Custody Seal Intact: ☐ Yes ☐ No ☐ N/A
Notes: loose ice

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI, DOC (Y/N)	O. Reg 153: Metals & Inorganics	O. Reg 153: Metals - ☑ CrVI, ☑ Hg, ☐ HWSB	O. Reg 153: BTEX, F1-F4 PHCs	VOC	PAHs	PCBs	PCBs: Aroclors ☐	O. Reg 558: Landfill Disposal Characterization TCLP: ☐ MM ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 406: Regulation 406 SPLP Rainwater Leach SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	O. Reg 406: Regulation 406 Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Corrosivity: ☐ Moisture ☐ Sulphide	Potentially Hazardous or High Concentration (Y/N)
1. MW-1	06/13/23	11:30 AM/PM	11	GW		Y		✓	✓	✓	✓							
2. BH-6	"	10:40 AM/PM	11	"		Y		✓	✓	✓	✓							
3. BH-5	"	12:40 AM/PM	11	"	Yes metals	Y		✓	✓	✓	✓							
4. Trip Blank		/ AM/PM	3		Only VOC					✓								
5. Field Blank	↓	AM/PM	11	↓				✓	✓	✓	✓							
6.		AM/PM																
7.		AM/PM																
8.		AM/PM																
9.		AM/PM																
10.		AM/PM																
11.		AM/PM																

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Mackenzie Russell	June 15, 2023	16:50	C. Griffith	JUN 15 2023	16h55
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
	JUN 16 2023	15h30	GUNET V Guy	6/17/23	10:12AM
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

Page 1 of 1

N°: T - 144214

Pink Copy - Client | Yellow Copy - AGAT | White Copy - AGAT

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CLIENT NAME: EXP SERVICES INC
2650 QUEENSVIEW DRIVE, UNIT 100
OTTAWA, ON K2B8H6
(613) 688-1899
ATTENTION TO: Mark McCalla
PROJECT: OTT-21011499-CO
AGAT WORK ORDER: 23Z043506
SOIL ANALYSIS REVIEWED BY: Nivine Basily, Inorganics Report Writer
TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist
DATE REPORTED: Jul 12, 2023
PAGES (INCLUDING COVER): 10
VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

Notes

Disclaimer:

- *All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.*
- *All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.*
- *AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.*
- *This Certificate shall not be reproduced except in full, without the written approval of the laboratory.*
- *The test results reported herewith relate only to the samples as received by the laboratory.*
- *Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.*
- *All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.*
- *For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.*

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 23Z043506

PROJECT: OTT-21011499-CO

CLIENT NAME: EXP SERVICES INC

ATTENTION TO: Mark McCalla

SAMPLING SITE:

SAMPLED BY:P.O

O. Reg. 153(511) - Metals (Including Hydrides) (Soil)

DATE RECEIVED: 2023-07-05

DATE REPORTED: 2023-07-12

		SAMPLE DESCRIPTION:		MW1 S1	BH2 S1
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2023-05-31	2023-05-31
Parameter	Unit	G / S	RDL	5120912	5120913
Antimony	µg/g	7.5	0.8	<0.8	<0.8
Arsenic	µg/g	18	1	2	4
Barium	µg/g	390	2.0	168	**482**
Beryllium	µg/g	5	0.5	0.6	<0.5
Boron	µg/g	120	5	7	9
Cadmium	µg/g	1.2	0.5	<0.5	<0.5
Chromium	µg/g	160	5	62	33
Cobalt	µg/g	22	0.8	15.7	11.0
Copper	µg/g	180	1.0	25.3	16.5
Lead	µg/g	120	1	7	11
Molybdenum	µg/g	6.9	0.5	0.7	1.8
Nickel	µg/g	130	1	34	24
Selenium	µg/g	2.4	0.8	<0.8	<0.8
Silver	µg/g	25	0.5	<0.5	<0.5
Thallium	µg/g	1	0.5	<0.5	<0.5
Uranium	µg/g	23	0.50	0.95	0.63
Vanadium	µg/g	86	2.0	49.1	36.2
Zinc	µg/g	340	5	56	39

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Textured Soils
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 23Z043506

PROJECT: OTT-21011499-CO

CLIENT NAME: EXP SERVICES INC

ATTENTION TO: Mark McCalla

SAMPLING SITE:

SAMPLED BY:P.O

O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2023-07-05

DATE REPORTED: 2023-07-12

		SAMPLE DESCRIPTION:		MW1 S1	BH2 S1
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2023-05-31	2023-05-31
Parameter	Unit	G / S	RDL	5120912	5120913
Naphthalene	µg/g	0.75	0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.17	0.05	<0.05	<0.05
Acenaphthene	µg/g	58	0.05	<0.05	<0.05
Fluorene	µg/g	69	0.05	<0.05	<0.05
Phenanthrene	µg/g	7.8	0.05	<0.05	<0.05
Anthracene	µg/g	0.74	0.05	<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05	<0.05
Pyrene	µg/g	78	0.05	<0.05	<0.05
Benz(a)anthracene	µg/g	0.63	0.05	<0.05	0.14
Chrysene	µg/g	7.8	0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.48	0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	7.8	0.05	<0.05	<0.05
1 and 2 Methlynaphthalene	µg/g	3.4	0.05	<0.05	<0.05
Moisture Content	%		0.1	25.1	6.3
Surrogate	**Unit**	**Acceptable Limits**			
Naphthalene-d8	%	50-140		110	110
Acridine-d9	%	50-140		80	90
Terphenyl-d14	%	50-140		85	90

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Textured Soils
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

5120912-5120913 Results are based on the dry weight of the soil.
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popnikolof

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 23Z043506

PROJECT: OTT-21011499-CO

CLIENT NAME: EXP SERVICES INC

ATTENTION TO: Mark McCalla

SAMPLING SITE:

SAMPLED BY:P.O

O. Reg. 153(511) - PHCs F2 - F4 (with PAHs) (Soil)

DATE RECEIVED: 2023-07-05 **DATE REPORTED: 2023-07-12**

		SAMPLE DESCRIPTION:		MW1 S1	BH2 S1
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2023-05-31	2023-05-31
Parameter	Unit	G / S	RDL	5120912	5120913
F2 (C10 to C16)	µg/g	150	10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10	<10
F3 (C16 to C34)	µg/g	1300	50	<50	**1740**
F3 (C16 to C34) minus PAHs	µg/g		50	<50	1740
F4 (C34 to C50)	µg/g	5600	50	<50	1690
Gravimetric Heavy Hydrocarbons	µg/g	5600	50	NA	NA
Moisture Content	%		0.1	25.1	6.3
Surrogate	**Unit**	**Acceptable Limits**			
Terphenyl	%	60-140		75	85

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Medium and Fine Textured Soils
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

5120912-5120913 Results are based on sample dry weight.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C10 - C50 results are corrected for PAH contribution.
C>10 – C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popowich

AGAT Laboratories

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Exceedance Summary

AGAT WORK ORDER: 23Z043506

PROJECT: OTT-21011499-CO

CLIENT NAME: EXP SERVICES INC

ATTENTION TO: Mark McCalla

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	UNIT	GUIDEVALUE	RESULT
5120913	BH2 S1	ON T3 S RPI MFT	O. Reg. 153(511) - Metals (Including Hydrides) (Soil)	Barium	µg/g	390	482
5120913	BH2 S1	ON T3 S RPI MFT	O. Reg. 153(511) - PHCs F2 - F4 (with PAHs) (Soil)	F3 (C16 to C34)	µg/g	1300	1740

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Quality Assurance

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z043506

PROJECT: OTT-21011499-CO

ATTENTION TO: Mark McCalla

SAMPLING SITE:

SAMPLED BY:P.O

Soil Analysis

RPT Date: Jul 12, 2023			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals (Including Hydrides) (Soil)															
Antimony	5120954		<0.8	<0.8	NA	< 0.8	90%	70%	130%	94%	80%	120%	83%	70%	130%
Arsenic	5120954		2	2	NA	< 1	109%	70%	130%	98%	80%	120%	100%	70%	130%
Barium	5120954		41.0	40.4	1.5%	< 2.0	95%	70%	130%	99%	80%	120%	96%	70%	130%
Beryllium	5120954		<0.5	<0.5	NA	< 0.5	87%	70%	130%	97%	80%	120%	96%	70%	130%
Boron	5120954		<5	<5	NA	< 5	89%	70%	130%	103%	80%	120%	103%	70%	130%
Cadmium	5120954		<0.5	<0.5	NA	< 0.5	99%	70%	130%	99%	80%	120%	95%	70%	130%
Chromium	5120954		14	14	NA	< 5	93%	70%	130%	112%	80%	120%	111%	70%	130%
Cobalt	5120954		4.5	4.8	6.5%	< 0.8	99%	70%	130%	107%	80%	120%	107%	70%	130%
Copper	5120954		5.6	5.8	3.5%	< 1.0	90%	70%	130%	100%	80%	120%	97%	70%	130%
Lead	5120954		6	6	0.0%	< 1	102%	70%	130%	99%	80%	120%	100%	70%	130%
Molybdenum	5120954		1.3	1.3	NA	< 0.5	101%	70%	130%	104%	80%	120%	104%	70%	130%
Nickel	5120954		11	12	8.7%	< 1	96%	70%	130%	103%	80%	120%	98%	70%	130%
Selenium	5120954		<0.8	<0.8	NA	< 0.8	117%	70%	130%	101%	80%	120%	102%	70%	130%
Silver	5120954		<0.5	<0.5	NA	< 0.5	87%	70%	130%	97%	80%	120%	96%	70%	130%
Thallium	5120954		<0.5	<0.5	NA	< 0.5	99%	70%	130%	104%	80%	120%	106%	70%	130%
Uranium	5120954		0.63	0.59	NA	< 0.50	100%	70%	130%	102%	80%	120%	109%	70%	130%
Vanadium	5120954		22.4	22.4	0.0%	< 2.0	97%	70%	130%	102%	80%	120%	96%	70%	130%
Zinc	5120954		17	18	NA	< 5	98%	70%	130%	105%	80%	120%	110%	70%	130%

Comments: NA Signifies Not Applicable.
Duplicate NA: results are under 5X the RDL and will not be calculated.

Certified By:

AGAT Laboratories

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TEL (905)712-5100
FAX (905)712-5122
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Quality Assurance

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z043506

PROJECT: OTT-21011499-CO

ATTENTION TO: Mark McCalla

SAMPLING SITE:

SAMPLED BY:P.O

Trace Organics Analysis

RPT Date: Jul 12, 2023			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	5119819		<0.05	<0.05	NA	< 0.05	100%	50%	140%	95%	50%	140%	98%	50%	140%
Acenaphthylene	5119819		<0.05	<0.05	NA	< 0.05	103%	50%	140%	85%	50%	140%	95%	50%	140%
Acenaphthene	5119819		<0.05	<0.05	NA	< 0.05	103%	50%	140%	75%	50%	140%	80%	50%	140%
Fluorene	5119819		<0.05	<0.05	NA	< 0.05	113%	50%	140%	78%	50%	140%	88%	50%	140%
Phenanthrene	5119819		<0.05	<0.05	NA	< 0.05	111%	50%	140%	100%	50%	140%	98%	50%	140%
Anthracene	5119819		<0.05	<0.05	NA	< 0.05	106%	50%	140%	93%	50%	140%	100%	50%	140%
Fluoranthene	5119819		<0.05	<0.05	NA	< 0.05	111%	50%	140%	75%	50%	140%	80%	50%	140%
Pyrene	5119819		<0.05	<0.05	NA	< 0.05	104%	50%	140%	75%	50%	140%	73%	50%	140%
Benz(a)anthracene	5119819		<0.05	<0.05	NA	< 0.05	80%	50%	140%	75%	50%	140%	78%	50%	140%
Chrysene	5119819		<0.05	<0.05	NA	< 0.05	114%	50%	140%	110%	50%	140%	75%	50%	140%
Benzo(b)fluoranthene	5119819		<0.05	<0.05	NA	< 0.05	81%	50%	140%	115%	50%	140%	108%	50%	140%
Benzo(k)fluoranthene	5119819		<0.05	<0.05	NA	< 0.05	115%	50%	140%	113%	50%	140%	115%	50%	140%
Benzo(a)pyrene	5119819		<0.05	<0.05	NA	< 0.05	100%	50%	140%	85%	50%	140%	90%	50%	140%
Indeno(1,2,3-cd)pyrene	5119819		<0.05	<0.05	NA	< 0.05	69%	50%	140%	100%	50%	140%	90%	50%	140%
Dibenz(a,h)anthracene	5119819		<0.05	<0.05	NA	< 0.05	67%	50%	140%	103%	50%	140%	85%	50%	140%
Benzo(g,h,i)perylene	5119819		<0.05	<0.05	NA	< 0.05	75%	50%	140%	80%	50%	140%	93%	50%	140%
O. Reg. 153(511) - PHCs F2 - F4 (with PAHs) (Soil)															
F2 (C10 to C16)	5118929		<10	<10	NA	< 10	91%	60%	140%	104%	60%	140%	103%	60%	140%
F3 (C16 to C34)	5118929		<50	<50	NA	< 50	95%	60%	140%	93%	60%	140%	119%	60%	140%
F4 (C34 to C50)	5118929		<50	<50	NA	< 50	75%	60%	140%	95%	60%	140%	92%	60%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: N Popowkof

AGAT Laboratories

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http://www.agatlabs.com

Method Summary

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z043506

PROJECT: OTT-21011499-CO

ATTENTION TO: Mark McCalla

SAMPLING SITE:

SAMPLED BY:P.O

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Arsenic	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Barium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Beryllium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Cadmium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Cobalt	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Copper	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Lead	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Molybdenum	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Nickel	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Selenium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Silver	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Thallium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Uranium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Vanadium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Zinc	MET 93 -6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS

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Method Summary

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z043506

PROJECT: OTT-21011499-CO

ATTENTION TO: Mark McCalla

SAMPLING SITE:

SAMPLED BY:P.O

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluorene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Phenanthrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benz(a)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Chrysene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
1 and 2 Methlynaphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Naphthalene-d8	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acridine-d9	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Terphenyl-d14	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Moisture Content	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
F2 (C10 to C16)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID

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Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only

Work Order #: 2320435806

Cooler Quantity: n/a - no ice packs
Arrival Temperatures: 22.5 | 22.4 | 22.4 | 8.3 | 8.9 |
Custody Seal Intact: ☐ Yes ☐ No ☐ N/A
Notes:

Report Information:

Company: EXP Services Inc.
Contact: MARK MCCALLA
Address: 2650 QUEENSVIEW DR
OTTAWA
Phone: 613 688-1899 Fax:
Reports to be sent to:
1. Email: mark.mccalla@exp.com
2. Email:

Project Information:

Project: OTT-21011499-CO.
Site Location:
Sampled By: P.O.
AGAT Quote #: SOA, competitive PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☐ No ☐

Company:
Contact:
Address:
Email:

Regulatory Requirements:

(Please check all applicable boxes)

☒ Regulation 153/04
Table 3 (Indicate One)
☐ Ind/Com
☒ Res/Park
☐ Agriculture
Soil Texture (Check One)
☒ Coarse
☐ Fine

☐ Excess Soils R406
Table ____ (Indicate One)

☐ Regulation 558

☐ CCME

☐ Sewer Use
☐ Sanitary ☐ Storm
Region

☐ Prov. Water Quality Objectives (PWQO)

☐ Other
Indicate One

Is this submission for a **Record of Site Condition?** ☒ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☒ Yes ☐ No

Turnaround Time (TAT) Required:

Regular TAT ☒ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT
*TAT is exclusive of weekends and statutory holidays

For 'Same Day' analysis, please contact your AGAT CPM

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI, DOC Y/N	O. Reg 153: Metals & Inorganics	Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	BTEX, F1-F4 PHCs	Analyze F4G if required ☐ Yes ☐ No	PAHs	PCBs	VOC	O. Reg 558: Landfill Disposal Characterization TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 406: Excess Soils SPLP Rainwater Leach SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	Excess Soils Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Salt - EC/SAR	Reg. 153 metals	PHC F2-F4						Potentially Hazardous or High Concentration (Y/N)
MW1 S1	MAY 31/23	AM PM	1	S							X							X	X						
BH2 S1	"	AM PM	1	S							X							X	X						
		AM PM																							
		AM PM																							
		AM PM																							
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		AM PM																							
		AM PM																							

Samples Relinquished By (Print Name and Sign): Mark McCalla	Date: July 5/23	Time: 3:15	Samples Received By (Print Name and Sign): C. Cwitkowski	Date: JUL 05 2023	Time: 15h15
Samples Relinquished By (Print Name and Sign): C. to Penco	Date: JUL 05 2023	Time: 15h30	Samples Received By (Print Name and Sign): Michael Binito MB	Date: July 6/23	Time: 9:00am
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:

Page ____ of ____

Nº: T 129257

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CLIENT NAME: EXP SERVICES INC
2650 QUEENSVIEW DRIVE, UNIT 100
OTTAWA, ON K2B8H6
(613) 688-1899
ATTENTION TO: Mark McCalla
PROJECT: OTT-21011499-EO
AGAT WORK ORDER: 23Z078621
TRACE ORGANICS REVIEWED BY: Pinkal Patel, Report Reviewer
WATER ANALYSIS REVIEWED BY: Yris Verastegui, Inorganic Team Lead
DATE REPORTED: Oct 17, 2023
PAGES (INCLUDING COVER): 16
VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

Notes

Disclaimer:

- *All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.*
- *All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.*
- *AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.*
- *This Certificate shall not be reproduced except in full, without the written approval of the laboratory.*
- *The test results reported herewith relate only to the samples as received by the laboratory.*
- *Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.*
- *All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.*
- *For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.*

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Certificate of Analysis

AGAT WORK ORDER: 23Z078621

PROJECT: OTT-21011499-EO

CLIENT NAME: EXP SERVICES INC

ATTENTION TO: Mark McCalla

SAMPLING SITE:M.R.

SAMPLED BY:780 Bareline

O. Reg. 153(511) - PAHs (Water)

DATE RECEIVED: 2023-10-10

DATE REPORTED: 2023-10-17

		SAMPLE DESCRIPTION:		MW-2	DUP
		SAMPLE TYPE:		Water	Water
		DATE SAMPLED:		2023-10-10 11:30	2023-10-10 11:30
Parameter	**Unit**	**G / S**	**RDL**	**5354588**	**5354589**
Naphthalene	µg/L	1400	0.20	<0.20	<0.20
Acenaphthylene	µg/L	1.8	0.20	<0.20	<0.20
Acenaphthene	µg/L	600	0.20	<0.20	<0.20
Fluorene	µg/L	400	0.20	<0.20	<0.20
Phenanthrene	µg/L	580	0.10	<0.10	<0.10
Anthracene	µg/L	2.4	0.10	<0.10	<0.10
Fluoranthene	µg/L	130	0.20	<0.20	<0.20
Pyrene	µg/L	68	0.20	<0.20	<0.20
Benzo(a)anthracene	µg/L	4.7	0.20	<0.20	<0.20
Chrysene	µg/L	1	0.10	<0.10	<0.10
Benzo(b)fluoranthene	µg/L	0.75	0.10	<0.10	<0.10
Benzo(k)fluoranthene	µg/L	0.4	0.10	<0.10	<0.10
Benzo(a)pyrene	µg/L	0.81	0.01	<0.01	<0.01
Indeno(1,2,3-cd)pyrene	µg/L	0.2	0.20	<0.20	<0.20
Dibenz(a,h)anthracene	µg/L	0.52	0.20	<0.20	<0.20
Benzo(g,h,i)perylene	µg/L	0.2	0.20	<0.20	<0.20
2-and 1-methyl Naphthalene	µg/L	1800	0.20	<0.20	<0.20
Sediment				1	1
Surrogate	**Unit**	**Acceptable Limits**			
Naphthalene-d8	%	50-140		77	78
Acridine-d9	%	50-140		71	70
Terphenyl-d14	%	50-140		62	75

Certified By:

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AGAT WORK ORDER: 23Z078621

PROJECT: OTT-21011499-EO

CLIENT NAME: EXP SERVICES INC

ATTENTION TO: Mark McCalla

SAMPLING SITE:M.R.

SAMPLED BY:780 Bareline

O. Reg. 153(511) - PAHs (Water)

DATE RECEIVED: 2023-10-10 **DATE REPORTED: 2023-10-17**

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition - Non-Potable Ground Water - All Types of Property Uses - Coarse Textured Soils
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

5354588-5354589 Sediment parameter is comment only based on visual inspection of the sample prior to extraction and is not an accredited test.
Legend: 1 = no sediment present; 2 = sediment present; 3 = sediment present in trace amount
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&(j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 23Z078621

PROJECT: OTT-21011499-EO

CLIENT NAME: EXP SERVICES INC

ATTENTION TO: Mark McCalla

SAMPLING SITE:M.R.

SAMPLED BY:780 Bareline

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Water)

DATE RECEIVED: 2023-10-10

DATE REPORTED: 2023-10-17

				SAMPLE DESCRIPTION:	MW-2	DUP
				SAMPLE TYPE:	Water	Water
				DATE SAMPLED:	2023-10-10 11:30	2023-10-10 11:30
Parameter	**Unit**	**G / S**	**RDL**		**5354588**	**5354589**
F1 (C6-C10)	µg/L	750	25		<25	<25
F1 (C6 to C10) minus BTEX	µg/L	750	25		<25	<25
F2 (C10 to C16)	µg/L	150	100		<100	<100
F2 (C10 to C16) minus Naphthalene	µg/L		100		<100	<100
F3 (C16 to C34)	µg/L	500	100		<100	<100
F3 (C16 to C34) minus PAHs	µg/L		100		<100	<100
F4 (C34 to C50)	µg/L	500	100		<100	<100
Gravimetric Heavy Hydrocarbons	µg/L		500		NA	NA
Sediment					1	1
Surrogate	**Unit**	**Acceptable Limits**				
Toluene-d8	%	50-140			102	100
Terphenyl	% Recovery	60-140			74	86

Certified By:

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 23Z078621

PROJECT: OTT-21011499-EO

CLIENT NAME: EXP SERVICES INC

ATTENTION TO: Mark McCalla

SAMPLING SITE:M.R.

SAMPLED BY:780 Bareline

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Water)

DATE RECEIVED: 2023-10-10 **DATE REPORTED: 2023-10-17**

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Potable Ground Water - All Types of Property Uses - Coarse Textured Soils
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

5354588-5354589 The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX and PAH contributions.
C>10 – C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.

Sediment parameter is comment only based on visual inspection of the sample prior to extraction and is not an accredited test.
Legend: 1 = no sediment present; 2 = sediment present; 3 = sediment present in trace amounts

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 23Z078621

PROJECT: OTT-21011499-EO

CLIENT NAME: EXP SERVICES INC

SAMPLING SITE:M.R.

ATTENTION TO: Mark McCalla

SAMPLED BY:780 Bareline

O. Reg. 153(511) - VOCs (with PHC) (Water)

DATE RECEIVED: 2023-10-10 **DATE REPORTED: 2023-10-17**

		SAMPLE DESCRIPTION:		MW-2	DUP
		SAMPLE TYPE:		Water	Water
		DATE SAMPLED:		2023-10-10 11:30	2023-10-10 11:30
Parameter	Unit	G / S	RDL	5354588	5354589
Dichlorodifluoromethane	µg/L	590	0.40	<0.40	<0.40
Vinyl Chloride	µg/L	0.5	0.17	<0.17	<0.17
Bromomethane	µg/L	0.89	0.20	<0.20	<0.20
Trichlorofluoromethane	µg/L	150	0.40	<0.40	<0.40
Acetone	µg/L	2700	1.0	<1.0	<1.0
1,1-Dichloroethylene	µg/L	1.6	0.30	<0.30	<0.30
Methylene Chloride	µg/L	50	0.30	<0.30	<0.30
trans- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20
Methyl tert-butyl ether	µg/L	15	0.20	<0.20	<0.20
1,1-Dichloroethane	µg/L	5	0.30	<0.30	<0.30
Methyl Ethyl Ketone	µg/L	1800	1.0	<1.0	<1.0
cis- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20
Chloroform	µg/L	2.4	0.20	<0.20	<0.20
1,2-Dichloroethane	µg/L	1.6	0.20	<0.20	<0.20
1,1,1-Trichloroethane	µg/L	200	0.30	<0.30	<0.30
Carbon Tetrachloride	µg/L	0.79	0.20	<0.20	<0.20
Benzene	µg/L	5.0	0.20	<0.20	<0.20
1,2-Dichloropropane	µg/L	5	0.20	<0.20	<0.20
Trichloroethylene	µg/L	1.6	0.20	<0.20	<0.20
Bromodichloromethane	µg/L	16	0.20	<0.20	<0.20
Methyl Isobutyl Ketone	µg/L	640	1.0	<1.0	<1.0
1,1,2-Trichloroethane	µg/L	4.7	0.20	<0.20	<0.20
Toluene	µg/L	24	0.20	<0.20	<0.20
Dibromochloromethane	µg/L	25	0.10	<0.10	<0.10
Ethylene Dibromide	µg/L	0.2	0.10	<0.10	<0.10
Tetrachloroethylene	µg/L	1.6	0.20	<0.20	<0.20
1,1,1,2-Tetrachloroethane	µg/L	1.1	0.10	<0.10	<0.10
Chlorobenzene	µg/L	30	0.10	<0.10	<0.10
Ethylbenzene	µg/L	2.4	0.10	<0.10	<0.10

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 23Z078621

PROJECT: OTT-21011499-EO

CLIENT NAME: EXP SERVICES INC

ATTENTION TO: Mark McCalla

SAMPLING SITE:M.R.

SAMPLED BY:780 Bareline

O. Reg. 153(511) - VOCs (with PHC) (Water)

DATE RECEIVED: 2023-10-10 **DATE REPORTED: 2023-10-17**

				SAMPLE DESCRIPTION:	MW-2	DUP
				SAMPLE TYPE:	Water	Water
				DATE SAMPLED:	2023-10-10 11:30	2023-10-10 11:30
Parameter	**Unit**	**G / S**	**RDL**		**5354588**	**5354589**
m & p-Xylene	µg/L		0.20		<0.20	<0.20
Bromoform	µg/L	25	0.10		<0.10	<0.10
Styrene	µg/L	5.4	0.10		<0.10	<0.10
1,1,2,2-Tetrachloroethane	µg/L	1	0.10		<0.10	<0.10
o-Xylene	µg/L		0.10		<0.10	<0.10
1,3-Dichlorobenzene	µg/L	59	0.10		<0.10	<0.10
1,4-Dichlorobenzene	µg/L	1	0.10		<0.10	<0.10
1,2-Dichlorobenzene	µg/L	3	0.10		<0.10	<0.10
1,3-Dichloropropene	µg/L	0.5	0.30		<0.30	<0.30
Xylenes (Total)	µg/L	300	0.20		<0.20	<0.20
n-Hexane	µg/L	51	0.20		<0.20	<0.20
Surrogate	**Unit**	**Acceptable Limits**				
Toluene-d8	% Recovery	50-140			102	100
4-Bromofluorobenzene	% Recovery	50-140			74	76

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Potable Ground Water - All Types of Property Uses - Coarse Textured Soils
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

5354588-5354589 Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.
The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 23Z078621

PROJECT: OTT-21011499-EO

CLIENT NAME: EXP SERVICES INC

ATTENTION TO: Mark McCalla

SAMPLING SITE:M.R.

SAMPLED BY:780 Bareline

O. Reg. 153(511) - Metals (Including Hydrides) (Water) - Lab Filtered

DATE RECEIVED: 2023-10-10

DATE REPORTED: 2023-10-17

				SAMPLE DESCRIPTION:	MW-2	DUP
				SAMPLE TYPE:	Water	Water
				DATE SAMPLED:	2023-10-10 11:30	2023-10-10 11:30
Parameter	Unit	G / S	RDL		5354588	5354589
Dissolved Antimony	µg/L	20000	1.0		<1.0	<1.0
Dissolved Arsenic	µg/L	1900	1.0		1.6	1.2
Dissolved Barium	µg/L	29000	2.0		603	620
Dissolved Beryllium	µg/L	67	0.50		<0.50	<0.50
Dissolved Boron	µg/L	45000	10.0		33.0	38.7
Dissolved Cadmium	µg/L	2.7	0.20		0.48	0.51
Dissolved Chromium	µg/L	810	2.0		<2.0	<2.0
Dissolved Cobalt	µg/L	66	0.50		2.56	3.10
Dissolved Copper	µg/L	87	1.0		1.7	2.8
Dissolved Lead	µg/L	25	0.50		<0.50	<0.50
Dissolved Molybdenum	µg/L	9200	0.50		9.98	7.98
Dissolved Nickel	µg/L	490	1.0		12.3	11.3
Dissolved Selenium	µg/L	63	1.0		<1.0	<1.0
Dissolved Silver	µg/L	1.5	0.20		<0.20	<0.20
Dissolved Thallium	µg/L	510	0.30		<0.30	<0.30
Dissolved Uranium	µg/L	420	0.50		19.1	20.4
Dissolved Vanadium	µg/L	250	0.40		<0.40	0.99
Dissolved Zinc	µg/L	1100	5.0		<5.0	10.6
Lab Filtration Performed					10/13/2023	10/13/2023

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition - Non-Potable Ground Water - All Types of Property Uses - Coarse Textured Soils
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

5354588-5354589 Metals analysis completed on a lab filtered sample.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Iris Verástegui

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Quality Assurance

CLIENT NAME: EXP SERVICES INC
AGAT WORK ORDER: 23Z078621
PROJECT: OTT-21011499-EO
ATTENTION TO: Mark McCalla
SAMPLING SITE:M.R.
SAMPLED BY:780 Bareline

Trace Organics Analysis

RPT Date: Oct 17, 2023			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PAHs (Water)															
Naphthalene	5347716		<0.20	<0.20	NA	< 0.20	88%	50%	140%	72%	50%	140%	80%	50%	140%
Acenaphthylene	5347716		<0.20	<0.20	NA	< 0.20	100%	50%	140%	73%	50%	140%	84%	50%	140%
Acenaphthene	5347716		0.56	0.56	NA	< 0.20	119%	50%	140%	104%	50%	140%	112%	50%	140%
Fluorene	5347716		<0.20	<0.20	NA	< 0.20	107%	50%	140%	93%	50%	140%	105%	50%	140%
Phenanthrene	5347716		<0.10	<0.10	NA	< 0.10	114%	50%	140%	100%	50%	140%	109%	50%	140%
Anthracene	5347716		<0.10	<0.10	NA	< 0.10	112%	50%	140%	98%	50%	140%	112%	50%	140%
Fluoranthene	5347716		<0.20	<0.20	NA	< 0.20	110%	50%	140%	98%	50%	140%	111%	50%	140%
Pyrene	5347716		<0.20	<0.20	NA	< 0.20	107%	50%	140%	99%	50%	140%	109%	50%	140%
Benzo(a)anthracene	5347716		<0.20	<0.20	NA	< 0.20	74%	50%	140%	83%	50%	140%	97%	50%	140%
Chrysene	5347716		<0.10	<0.10	NA	< 0.10	116%	50%	140%	92%	50%	140%	98%	50%	140%
Benzo(b)fluoranthene	5347716		<0.10	<0.10	NA	< 0.10	72%	50%	140%	119%	50%	140%	75%	50%	140%
Benzo(k)fluoranthene	5347716		<0.10	<0.10	NA	< 0.10	100%	50%	140%	88%	50%	140%	101%	50%	140%
Benzo(a)pyrene	5347716		<0.01	<0.01	NA	< 0.01	71%	50%	140%	76%	50%	140%	84%	50%	140%
Indeno(1,2,3-cd)pyrene	5347716		<0.20	<0.20	NA	< 0.20	84%	50%	140%	110%	50%	140%	83%	50%	140%
Dibenz(a,h)anthracene	5347716		<0.20	<0.20	NA	< 0.20	119%	50%	140%	81%	50%	140%	72%	50%	140%
Benzo(g,h,i)perylene	5347716		<0.20	<0.20	NA	< 0.20	95%	50%	140%	101%	50%	140%	99%	50%	140%
O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Water)															
F1 (C6-C10)	5352944		<25	<25	NA	< 25	106%	60%	140%	90%	60%	140%	89%	60%	140%
F2 (C10 to C16)	5357202		< 100	< 100	NA	< 100	125%	60%	140%	76%	60%	140%	65%	60%	140%
F3 (C16 to C34)	5357202		< 100	< 100	NA	< 100	123%	60%	140%	68%	60%	140%	64%	60%	140%
F4 (C34 to C50)	5357202		< 100	< 100	NA	< 100	68%	60%	140%	76%	60%	140%	93%	60%	140%
O. Reg. 153(511) - VOCs (with PHC) (Water)															
Dichlorodifluoromethane	5352944		<0.40	<0.40	NA	< 0.40	105%	50%	140%	108%	50%	140%	76%	50%	140%
Vinyl Chloride	5352944		3.38	3.05	10.3%	< 0.17	101%	50%	140%	106%	50%	140%	58%	50%	140%
Bromomethane	5352944		<0.20	<0.20	NA	< 0.20	112%	50%	140%	83%	50%	140%	91%	50%	140%
Trichlorofluoromethane	5352944		<0.40	<0.40	NA	< 0.40	93%	50%	140%	91%	50%	140%	105%	50%	140%
Acetone	5352944		<1.0	<1.0	NA	< 1.0	96%	50%	140%	115%	50%	140%	106%	50%	140%
1,1-Dichloroethylene	5352944		<0.30	<0.30	NA	< 0.30	81%	50%	140%	112%	60%	130%	93%	50%	140%
Methylene Chloride	5352944		<0.30	<0.30	NA	< 0.30	114%	50%	140%	115%	60%	130%	95%	50%	140%
trans- 1,2-Dichloroethylene	5352944		2.11	2.02	4.4%	< 0.20	88%	50%	140%	103%	60%	130%	51%	50%	140%
Methyl tert-butyl ether	5352944		<0.20	<0.20	NA	< 0.20	74%	50%	140%	113%	60%	130%	89%	50%	140%
1,1-Dichloroethane	5352944		<0.30	<0.30	NA	< 0.30	74%	50%	140%	107%	60%	130%	94%	50%	140%
Methyl Ethyl Ketone	5352944		<1.0	<1.0	NA	< 1.0	98%	50%	140%	90%	50%	140%	93%	50%	140%
cis- 1,2-Dichloroethylene	5352944		13.4	13.1	2.3%	< 0.20	100%	50%	140%	118%	60%	130%	85%	50%	140%
Chloroform	5352944		1.33	1.33	0.0%	< 0.20	85%	50%	140%	95%	60%	130%	62%	50%	140%
1,2-Dichloroethane	5352944		<0.20	<0.20	NA	< 0.20	104%	50%	140%	115%	60%	130%	109%	50%	140%
1,1,1-Trichloroethane	5352944		<0.30	<0.30	NA	< 0.30	77%	50%	140%	106%	60%	130%	99%	50%	140%
Carbon Tetrachloride	5352944		<0.20	<0.20	NA	< 0.20	78%	50%	140%	102%	60%	130%	83%	50%	140%

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Quality Assurance

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z078621

PROJECT: OTT-21011499-EO

ATTENTION TO: Mark McCalla

SAMPLING SITE:M.R.

SAMPLED BY:780 Bareline

Trace Organics Analysis (Continued)

RPT Date: Oct 17, 2023			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Benzene	5352944		0.84	0.81	NA	< 0.20	91%	50%	140%	118%	60%	130%	74%	50%	140%
1,2-Dichloropropane	5352944		<0.20	<0.20	NA	< 0.20	78%	50%	140%	110%	60%	130%	109%	50%	140%
Trichloroethylene	5352944		2.19	2.21	0.9%	< 0.20	86%	50%	140%	93%	60%	130%	51%	50%	140%
Bromodichloromethane	5352944		<0.20	<0.20	NA	< 0.20	85%	50%	140%	95%	60%	130%	85%	50%	140%
Methyl Isobutyl Ketone	5352944		<1.0	<1.0	NA	< 1.0	86%	50%	140%	90%	50%	140%	90%	50%	140%
1,1,2-Trichloroethane	5352944		<0.20	<0.20	NA	< 0.20	119%	50%	140%	116%	60%	130%	109%	50%	140%
Toluene	5352944		0.33	0.33	NA	< 0.20	98%	50%	140%	117%	60%	130%	92%	50%	140%
Dibromochloromethane	5352944		<0.10	<0.10	NA	< 0.10	89%	50%	140%	97%	60%	130%	99%	50%	140%
Ethylene Dibromide	5352944		<0.10	<0.10	NA	< 0.10	107%	50%	140%	98%	60%	130%	109%	50%	140%
Tetrachloroethylene	5352944		<0.20	<0.20	NA	< 0.20	92%	50%	140%	110%	60%	130%	101%	50%	140%
1,1,1,2-Tetrachloroethane	5352944		<0.10	<0.10	NA	< 0.10	78%	50%	140%	96%	60%	130%	82%	50%	140%
Chlorobenzene	5352944		<0.10	<0.10	NA	< 0.10	106%	50%	140%	113%	60%	130%	98%	50%	140%
Ethylbenzene	5352944		<0.10	<0.10	NA	< 0.10	80%	50%	140%	92%	60%	130%	96%	50%	140%
m & p-Xylene	5352944		<0.20	<0.20	NA	< 0.20	87%	50%	140%	117%	60%	130%	98%	50%	140%
Bromoform	5352944		<0.10	<0.10	NA	< 0.10	71%	50%	140%	92%	60%	130%	79%	50%	140%
Styrene	5352944		<0.10	<0.10	NA	< 0.10	77%	50%	140%	119%	60%	130%	89%	50%	140%
1,1,2,2-Tetrachloroethane	5352944		<0.10	<0.10	NA	< 0.10	106%	50%	140%	109%	60%	130%	97%	50%	140%
o-Xylene	5352944		<0.10	<0.10	NA	< 0.10	94%	50%	140%	103%	60%	130%	114%	50%	140%
1,3-Dichlorobenzene	5352944		<0.10	<0.10	NA	< 0.10	115%	50%	140%	119%	60%	130%	105%	50%	140%
1,4-Dichlorobenzene	5352944		<0.10	<0.10	NA	< 0.10	118%	50%	140%	117%	60%	130%	105%	50%	140%
1,2-Dichlorobenzene	5352944		<0.10	<0.10	NA	< 0.10	116%	50%	140%	115%	60%	130%	97%	50%	140%
n-Hexane	5352944		<0.20	<0.20	NA	< 0.20	90%	50%	140%	97%	60%	130%	80%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By:

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Quality Assurance

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z078621

PROJECT: OTT-21011499-EO

ATTENTION TO: Mark McCalla

SAMPLING SITE:M.R.

SAMPLED BY:780 Bareline

Water Analysis

RPT Date: Oct 17, 2023			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals (Including Hydrides) (Water) - Lab Filtered															
Dissolved Antimony	5354588	5354588	<1.0	<1.0	NA	< 1.0	98%	70%	130%	100%	80%	120%	96%	70%	130%
Dissolved Arsenic	5354588	5354588	1.6	6.3	NA	< 1.0	91%	70%	130%	98%	80%	120%	103%	70%	130%
Dissolved Barium	5354588	5354588	603	622	3.1%	< 2.0	95%	70%	130%	99%	80%	120%	95%	70%	130%
Dissolved Beryllium	5354588	5354588	<0.50	<0.50	NA	< 0.50	98%	70%	130%	106%	80%	120%	85%	70%	130%
Dissolved Boron	5354588	5354588	33.0	35.7	NA	< 10.0	98%	70%	130%	101%	80%	120%	84%	70%	130%
Dissolved Cadmium	5354588	5354588	0.48	0.57	NA	< 0.20	98%	70%	130%	100%	80%	120%	88%	70%	130%
Dissolved Chromium	5354588	5354588	<2.0	<2.0	NA	< 2.0	101%	70%	130%	103%	80%	120%	106%	70%	130%
Dissolved Cobalt	5354588	5354588	2.56	3.03	16.8%	< 0.50	97%	70%	130%	101%	80%	120%	105%	70%	130%
Dissolved Copper	5354588	5354588	1.7	3.0	NA	< 1.0	98%	70%	130%	100%	80%	120%	93%	70%	130%
Dissolved Lead	5354588	5354588	<0.50	<0.50	NA	< 0.50	93%	70%	130%	96%	80%	120%	94%	70%	130%
Dissolved Molybdenum	5354588	5354588	9.98	9.91	0.7%	< 0.50	100%	70%	130%	104%	80%	120%	120%	70%	130%
Dissolved Nickel	5354588	5354588	12.3	12.3	0.0%	< 1.0	97%	70%	130%	95%	80%	120%	100%	70%	130%
Dissolved Selenium	5354588	5354588	<5.0	<5.0	NA	< 1.0	100%	70%	130%	100%	80%	120%	81%	70%	130%
Dissolved Silver	5354588	5354588	<0.20	<0.20	NA	< 0.20	96%	70%	130%	95%	80%	120%	89%	70%	130%
Dissolved Thallium	5354588	5354588	<0.30	<0.30	NA	< 0.30	95%	70%	130%	101%	80%	120%	97%	70%	130%
Dissolved Uranium	5354588	5354588	19.1	20.0	4.6%	< 0.50	91%	70%	130%	99%	80%	120%	110%	70%	130%
Dissolved Vanadium	5354588	5354588	<0.40	<0.40	NA	< 0.40	99%	70%	130%	102%	80%	120%	124%	70%	130%
Dissolved Zinc	5354588	5354588	<5.0	7.6	NA	< 5.0	100%	70%	130%	99%	80%	120%	97%	70%	130%

Comments: NA signifies Not Applicable.
Duplicate NA: results are under 5X the RDL and will not be calculated.
Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.

Certified By: Iris Verástegui

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Method Summary

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z078621

PROJECT: OTT-21011499-EO

ATTENTION TO: Mark McCalla

SAMPLING SITE:M.R.

SAMPLED BY:780 Bareline

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Acenaphthylene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Acenaphthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Fluorene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Phenanthrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Anthracene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Fluoranthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Pyrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(a)anthracene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Chrysene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Dibenz(a,h)anthracene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(g,h,i)perylene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Naphthalene-d8	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Acridine-d9	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Terphenyl-d14	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Sediment			N/A
F1 (C6-C10)	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	modified from MOE PHC-E3421	P&T GC/FID
Toluene-d8	VOL-91- 5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
F2 (C10 to C16)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F3 (C16 to C34)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F4 (C34 to C50)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5010	modified from MOE PHC-E3421	BALANCE
Terphenyl	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
Dichlorodifluoromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS

AGAT Laboratories

5835 COOPERS AVENUE
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CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Method Summary

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z078621

PROJECT: OTT-21011499-EO

ATTENTION TO: Mark McCalla

SAMPLING SITE:M.R.

SAMPLED BY:780 Bareline

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Vinyl Chloride	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Acetone	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
trans- 1,2-Dichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methyl tert-butyl ether	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
cis- 1,2-Dichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Chloroform	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Benzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Toluene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS

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Method Summary

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z078621

PROJECT: OTT-21011499-EO

ATTENTION TO: Mark McCalla

SAMPLING SITE:M.R.

SAMPLED BY:780 Bareline

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
m & p-Xylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Bromoform	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Styrene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Xylenes (Total)	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS

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Method Summary

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 23Z078621

PROJECT: OTT-21011499-EO

ATTENTION TO: Mark McCalla

SAMPLING SITE:M.R.

SAMPLED BY:780 Bareline

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Dissolved Antimony	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Arsenic	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Barium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Beryllium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Boron	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Cadmium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Chromium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Cobalt	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Copper	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Lead	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Molybdenum	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Nickel	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Selenium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Silver	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Thallium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Uranium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Vanadium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Zinc	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Lab Filtration Performed			FILTRATION

AGAT Laboratories

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Mississauga, Ontario L4Z 1Y2
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webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only

Work Order #: 23078621

Cooler Quantity: ONO - ICE

Arrival Temperatures: 14.1 | 14.9 | 14.7
2.3 | 2.2 | 2.1

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes: bassed in

Report Information:

Company: EXP Services Inc.
Contact: Mark McCalla
Address: 2650 Queensview dr
Ottawa ON
Phone: 613 688 1899 Fax:

Reports to be sent to:
1. Email: markmccalla@exp.com
2. Email: mackenzie.russell@exp.com

Regulatory Requirements:

(Please check all applicable boxes)

☑ Regulation 153/04
Table 3 *Indicate One*
☐ Ind/Com
☐ Res/Park
☐ Agriculture

Soil Texture *(Check One)*
☐ Coarse
☐ Fine

☐ Excess Soils R406
Table _____ *Indicate One*

☐ Regulation 558

☐ CCME

☐ Sewer Use ☐ Sanitary ☐ Storm
_____ *Region*

☐ Prov. Water Quality Objectives (PWQO)

☐ Other
_____ *Indicate One*

Is this submission for a **Record of Site Condition?** ☐ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☑ Yes ☐ No

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Project Information:

Project: OTT-21011499-E0
Site Location: 780 Baseline
Sampled By: Mackenzie Russell
AGAT Quote #: _____ PO: _____
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☑ No ☐

Company:
Contact:
Address:
Email:

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI, DOC Y/N	O. Reg 153: Metals & Inorganics	Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	BTEX, F1-F4 PHCs	Analyze F4G if required ☐ Yes ☐ No	PAHs	PCBs	VOC	O. Reg 558: Landfill Disposal Characterization TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 406: Excess Soils SPLP Rainwater Leach SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	Excess Soils Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Salt - EC/SAR	Potentially Hazardous or High Concentration (Y/N)
MW-2	10/10/2023	11:50 AM PM	8	GW		N		✓	✓		✓		✓					
DUP	↓	↓ AM PM	↓	↓		N		✓	✓		✓		✓					
		AM PM																
		AM PM																
		AM PM																
		AM PM																
		AM PM																
		AM PM																
		AM PM																
		AM PM																
		AM PM																
		AM PM																

Samples Relinquished By (Print Name and Sign)	Date	Time	Samples Received By (Print Name and Sign)	Date	Time
Mackenzie Russell	10/10/2023	12:30	Uber The left	2023/10/10	12:31
CB to Plug	2023/10/10	15:15	T2	Oct 11	8:45
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

Page 1 of 1

N°: T 129364

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MISSISSAUGA, ONTARIO
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TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

CLIENT NAME: EXP SERVICES INC
2650 QUEENSVIEW DRIVE, UNIT 100
OTTAWA, ON K2B8H6
(613) 688-1899
ATTENTION TO: Daniel Wall
PROJECT: OTT-21011499-CO
AGAT WORK ORDER: 22Z888170
SOIL ANALYSIS REVIEWED BY: Jacky Zhu, Spectroscopy Technician
DATE REPORTED: May 03, 2022
PAGES (INCLUDING COVER): 5
VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

Notes

Disclaimer:

- *All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.*
- *All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.*
- *AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.*
- *This Certificate shall not be reproduced except in full, without the written approval of the laboratory.*
- *The test results reported herewith relate only to the samples as received by the laboratory.*
- *Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.*
- *All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.*

AGAT Laboratories

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CANADA L4Z 1Y2
TEL (905)712-5100
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http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 22Z888170

PROJECT: OTT-21011499-CO

CLIENT NAME: EXP SERVICES INC

ATTENTION TO: Daniel Wall

SAMPLING SITE:780 Baseline Rd., Ottawa

SAMPLED BY:EXP

Inorganic Chemistry (Soil)

DATE RECEIVED: 2022-04-26 **DATE REPORTED: 2022-05-03**

Parameter	Unit	G / S	RDL	BH#1 SS11 45'-47' Soil 2022-04-14 3789955	BH#6 run 2 48'10"-49'4" Soil 2022-04-18 3789956
Chloride (2:1)	µg/g		2	49	19
Sulphate (2:1)	µg/g		2	125	101
pH (2:1)	pH Units		NA	8.04	8.70
Resistivity (2:1) (Calculated)	ohm.cm		1	3130	2910

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories
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MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 22Z888170

PROJECT: OTT-21011499-CO

ATTENTION TO: Daniel Wall

SAMPLING SITE:780 Baseline Rd., Ottawa

SAMPLED BY:EXP

Soil Analysis

RPT Date: May 03, 2022			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Inorganic Chemistry (Soil)															
Chloride (2:1)	3798056		180	179	0.6%	< 2	97%	70%	130%	99%	80%	120%	102%	70%	130%
Sulphate (2:1)	3798056		857	864	0.8%	< 2	103%	70%	130%	100%	80%	120%	NA	70%	130%
pH (2:1)	3801168		6.21	6.49	4.4%	NA	99%	80%	120%						

Comments: NA Signifies Not Applicable.
Duplicate NA: results are less than 5X the RDL and RPD will not be calculated.
Matrix spike: Spike level < native concentration. Matrix spike acceptance limits do not apply.

Certified By:

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Method Summary

CLIENT NAME: EXP SERVICES INC

AGAT WORK ORDER: 22Z888170

PROJECT: OTT-21011499-CO

ATTENTION TO: Daniel Wall

SAMPLING SITE:780 Baseline Rd., Ottawa

SAMPLED BY:EXP

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Chloride (2:1)	INOR-93-6004	modified from SM 4110 B	ION CHROMATOGRAPH
Sulphate (2:1)	INOR-93-6004	modified from SM 4110 B	ION CHROMATOGRAPH
pH (2:1)	INOR 93-6031	modified from EPA 9045D and MCKEAGUE 3.11	PH METER
Resistivity (2:1) (Calculated)	INOR-93-6036	McKeague 4.12, SM 2510 B,SSA #5 Part 3	CALCULATION

AGAT Laboratories

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webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only

Work Order #: 22788170

Cooler Quantity: 1 bag

Arrival Temperatures: 24.0 24.1 24.0 / 4.1 4.1 4.7

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes: Ice Packs

Report Information:

Company: EXP Services Inc. Ottawa
Contact: Daniel Wall
Address: 2650 Queensview dr. Unit 100
Ottawa, ON K2B 8H6
Phone: 613-688-1899 Fax:
Reports to be sent to:
1. Email: daniel.wall@exp.com
2. Email:

Regulatory Requirements:

(Please check all applicable boxes)

☐ Regulation 153/04
Table (Indicate One) ☐ Ind/Com ☐ Res/Park ☐ Agriculture
Soil Texture (Check One) ☐ Coarse ☐ Fine

☐ Excess Soils R406
Table (Indicate One)
☐ Regulation 558
☐ CCME

☐ Sewer Use ☐ Sanitary ☐ Storm
(Region)
☐ Prov. Water Quality Objectives (PWQO)
☐ Other
(Indicate One)

Is this submission for a **Record of Site Condition?** ☐ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☐ No

Turnaround Time (TAT) Required:

Regular TAT (Most Analysis) ☑ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Project Information:

Project: 077-2101499-00
Site Location: 780 Baseline rd. Ottawa
Sampled By: EXP
AGAT ID #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☑ No ☐

Company:
Contact:
Address:
Email:

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI, DOC Y/N	O. Reg 153: Metals & Inorganics	O. Reg 153: Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	O. Reg 153: BTEX, F1-F4 PHCs Analyze F4G if required ☐ Yes ☐ No	O. Reg 153: PAHs	O. Reg 153: Total PCBs ☐ Aroclor	O. Reg 153: VOC	O. Reg 558: Landfill Disposal Characterization TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 406: Excess Soils SPLP Rainwater Leach SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	O. Reg 406: Excess Soils Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Salt - EC/SAR	✓ pH	✓ Sulphate	✓ Electrical resistivity	✓ Chloride	Potentially Hazardous or High Concentration (Y/N)
BH #1 SS11 45'-47'	Apr. 14/22	AM/PM	1	S													✓	✓	✓	✓	
BH #6 run 2 48'10"-49'4"	Apr. 18/22	AM/PM	1	rock																	
		AM/PM																			
		AM/PM																			
		AM/PM																			
		AM/PM																			
		AM/PM																			
		AM/PM																			
		AM/PM																			
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		AM/PM																			
		AM/PM																			

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Jeff MacMillan	Apr. 26/22	1:30		26/04/22	13h35
CC to Purolator	26/04/22	16h00		Date	Time
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

Page 1 of 1

Nº: T114962

Document ID: DW78-1511-020

Pink Copy - Client | Yellow Copy - AGAT | White Copy- AGAT

Date Issued: December 9, 2020

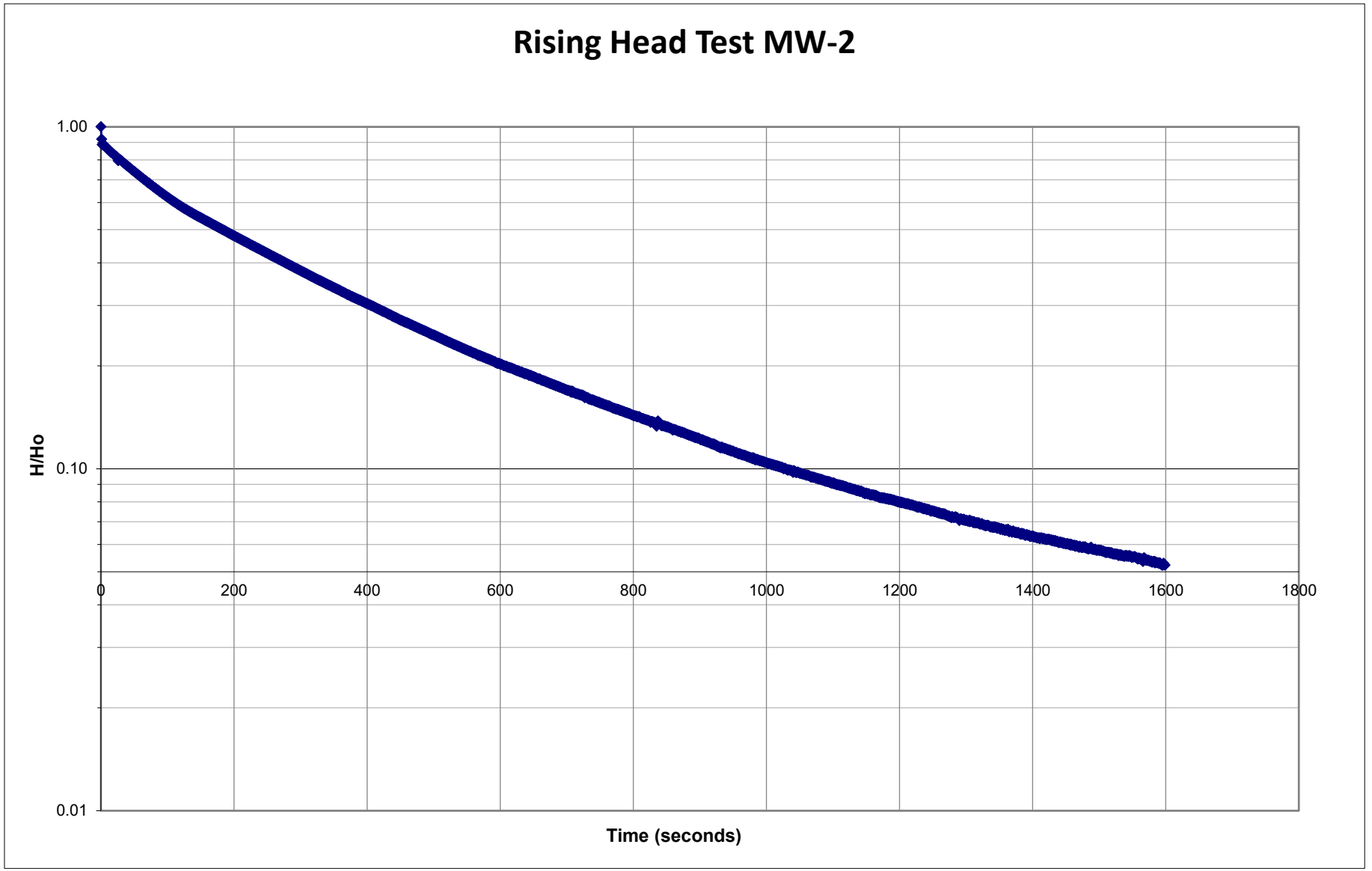
Appendix G: Hydraulic Conductivity

Rising Head Test - MW-2
Hvorslev Method (1951)
780 Baseline Road, Ottawa, Ontario
OTT-21011499-C0

Standpipe radius:	r =	0.025	
Borehole radius:	R =	0.102	
Length of gravel pack z	L_e =	3.05	m
Static water level:	H_0=	1.69	m
First water level reading:		2.62	m
Time for 37% change	t37	95	sec
Hydraulic Conductivity:	K =	$r^2\ln(L_e/R)/\ 2L_et_{37}$	
Hydraulic Conductivity:	K	3.78292E-06	(m/s)
Hydraulic Conductivity:	K	3.7829E-04	(cm/s)

Data Quality High: 70 to 100% recovery to original water level
Medium: 50 to 69% recovery to original water level
Low: Less than 50% recovery to original water level

Rising Head Test - MW-2
Hvorslev Method (1951)
780 Baseline Road, Ottawa, Ontario
OTT-21011499-C0



Appendix H: Remediation Report