

Phase II – Environmental Site Investigation

3750 North Bowesville Road
Ottawa, Ontario

Prepared for Jennings Real Estate

Report: PE5280-2
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EXECUTIVE SUMMARY

Assessment

A Phase II ESA was conducted for the property addressed 3750 North Bowesville Road, in the City of Ottawa, Ontario. The purpose of the Phase II ESA was to address potentially contaminating activities (PCAs) that were identified during the Phase I ESA and considered to result in areas of potential environmental concern (APECs) on the Phase II Property.

The subsurface investigation was conducted on February 23 and 26, 2026, and involved the advancement of four boreholes on the Phase II Property. Boreholes BH1-26, BH2-26 and BH3-26 were completed with groundwater monitoring well installations to access the groundwater table. The boreholes were drilled to maximum depth of 9.75m below ground surface (bgs).

The soil stratigraphy generally consists of asphalt over engineered fill material over native brown silty sand. The engineered fill material primarily comprises crushed stones with brown silty sand, extending to depths ranging from approximately 0.18 to 0.33 mbgs. In BH1-26, additional fill material consisting of brown silty sand with trace clay and gravel was encountered from approximately 0.18 mbgs to 1.83 mbgs, situated below the engineered fill and above the native silty sand. No signs of any deleterious materials were identified at the borehole locations. Groundwater was encountered within the overburden at depths ranging from approximately 6.88 to 7.37m below the existing ground surface.

Soil

A total of 5 soil samples (including one duplicate) were submitted for analysis of metals (including As, Sb, Se), Hg, Cr VI, VOCs, BTEX, PAHs, PHCs (F1-F4), PCBs, EC, SAR and/or pH.

All parameters for soil samples analysed comply with the MECP Table 3 Residential Standards.

Groundwater

Three groundwater samples and one duplicate from monitoring wells installed in BH1-26, BH2-26 and BH3-26 were submitted for laboratory analysis of metals (including As, Sb, Se), Hg, Cr VI, VOCs, BTEX, PHCs (F1-F4) and/or PAHs.

All parameters for groundwater samples analysed comply with the MECP Table 3 Non-Potable Groundwater Standards.

Recommendations

Groundwater

It is recommended the monitoring wells be maintained for future sampling purposes. The monitoring wells will be registered with the MECP under Ontario Regulation 903 (Ontario Water Resources Act). At such a time that the monitoring wells are no longer required, they must be decommissioned in accordance with O.Reg. 903.

1.0 INTRODUCTION

At the request of Jennings Real Estate, Paterson Group (Paterson) conducted a Phase II Environmental Site Assessment for the property addressed 3750 North Bowesville Road, in the City of Ottawa, Ontario.

The purpose of this Phase II-ESA was to address areas of potential environmental concerns identified on the Phase II Property, during the Phase I ESA conducted by Paterson Group.

1.1 Site Description

Address:	3750 North Bowesville Road, Ottawa, Ontario
Legal Description:	Part of Lot 4, Concession 2 from Rideau Front (Gloucester), City of Ottawa.
Property Identification Number:	04056-0281
Location:	The Phase II Property is located on the west side of North Bowesville Road, approximately 90m south of Uplands Drive, in the City of Ottawa, Ontario. Refer to Figure 1 - Key Plan in the Figures section following the text.
Latitude and Longitude:	45° 20' 27.53" N, 75° 41' 21.92" W
Site Description:	
Configuration:	Irregular
Site Area:	0.68 ha (approximate)

1.2 Property Ownership

The Phase II Property is currently owned by Jennings Real Estate. Paterson was engaged to complete the Phase II-ESA at the Phase II property by Mr. Wayne Jennings with Jennings Real Estate. Mr. Wayne Jennings can be reached by telephone at (613) 914-6632 or via email at wjennings@wkjdevelopment.com.

1.3 Current and Proposed Future Uses

The Phase II Property is currently occupied by a two-storey banquet hall and associated parking areas. It is our understanding that the Phase II Property will be redeveloped with multi-storey residential buildings with multiple levels of underground parking.

1.4 Applicable Site Condition Standard

The site condition standards for the property were obtained from Table 3 of the document entitled “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act”, prepared by the Ontario Ministry of Environment, Conservation and Parks (MECP), April 2011. The MECP selected Table 3 Standards are based on the following considerations:

- ☐ Coarse-grained soil conditions
- ☐ Full depth generic site conditions
- ☐ Non-potable groundwater conditions
- ☐ Residential land use

Section 35 of O.Reg. 153/04 applies to the Phase II Property as the Phase II Property and neighbouring properties are all serviced by municipal water. No potable water wells are considered to be present within the Phase I ESA Study Area.

Section 41 of O.Reg. 153/04 does not apply to the Phase II Property, as the property is not within 30m of an environmentally sensitive area and the pH of the surface soil is between 5 and 9, while the pH of the subsurface soil is between 5 and 11.

Section 43.1 of O.Reg. 153/04 does not apply to the Phase II Property as the Phase II Property is not a Shallow Soil property.

Coarse-grained soil standards were chosen as a conservative approach based on the observed site conditions. Grain size analysis was not completed. The intended use of the Phase II Property is residential; therefore, the Residential Standards have been selected for the purpose of this Phase II ESA.

2.0 BACKGROUND INFORMATION

2.1 Physical Setting

The Phase II Property is located on the west side of North Bowesville Road, approximately 90m south of Uplands Drive, in the City of Ottawa, Ontario. The Phase II Property is surrounded by residential and commercial properties. The Phase II Property is relatively flat, and at the grade of the adjacent street. The regional topography in surrounding area slopes to the west/northwest towards Rideau River. The Phase II Property is situated in a municipally serviced area.

2.2 Past Investigations

The following reports were reviewed prior to conducting this assessment:

- ❑ “Phase I Environmental Site Assessment, 3750 Bowesville Road North, Ottawa, Ontario,” prepared by Paterson Group Inc. (Paterson), dated August 28, 2022.

The Phase I ESA was completed in general accordance with the Ontario Regulation (O.Reg.) 153/04, as amended. According to the historical research, the Phase I Property was initially developed circa 1945 for commercial purposes and redeveloped in the early 1980s with the present-day banquet hall. The historical use of the surrounding lands consisted primarily of residential developments, a golf course and some commercial operations. A retail fuel outlet located at 3705 Riverside Drive was identified approximately 150 m north of the Phase I Property. Based on the separation distance, this PCA is not considered to represent an area of potential environmental concern (APEC) on the Phase I Property. No other PCAs were identified with the former use of the neighbouring lands.

During the site visit, the Phase I Property was occupied by a 2-storey banquet hall surrounded by an asphaltic concrete parking lot. The neighbouring properties consisted of residential and commercial properties. No new PCAs were identified with the current use of the Phase I Property or surrounding lands.

- ❑ “Geotechnical Investigation, Proposed Multi-Storey Building, 3750 North Bowesville Road, Ottawa, Ontario,” prepared by Paterson Group Inc. (Paterson), dated May 27, 2021.

As part of the subsurface investigation, four boreholes were advanced on the subject site to a maximum depth of 9.75 m below ground surface (mbgs). The

subsurface stratigraphy generally consisted of an asphalt surface underlain by fill material comprising brown silty sand with crushed stone. Native silty sand was encountered beneath the fill layer. Bedrock was not encountered during the investigation. Dynamic Cone Penetration (DCP) testing was completed in two boreholes, with practical refusal recorded at depths of 13.41 m and 14.33 mbgs.

Groundwater levels were measured from the installed standpipes as part of the geotechnical investigation and were observed to range between 6.88 m and 7.25 m below ground surface.

- “Phase I Environmental Site Assessment Update, 3750 Bowesville Road North, Ottawa, Ontario,” prepared by Paterson Group Inc. (Paterson), dated March, 2026.

The Phase I ESA Update was completed in general accordance with the Ontario Regulation (O.Reg.) 153/04, as amended. Historical aerial photographs indicate that prior to development of the current building in the 1980s, the Phase I Property was occupied by two buildings on the southern portion and a racetrack in the northern portion. The historical building once located along the south property line was formerly a dance hall. A small utility building was located adjacent to the track. Given the small building’s direct connection to the race track, it was determined that the garage would have served to repair and maintain the rental go carts. No fuel tanks were identified on the property in any historical documents.

Land use within the Phase I Study Area is primarily used for residential and commercial purposes. One off-site PCA (a retail fuel outlet) was identified in the original Phase I ESA, and no new off-site PCAs were identified in the Phase I ESA Update. Based on the separation distance, this identified off-site PCA is not considered to represent areas of potential environmental concern (APEC) on the Phase I Property.

Based on the March 2026 Phase I ESA conducted by Paterson for the Phase II property, historical and existing on-site potentially contaminating activities (PCAs) were considered to result in five (5) areas of potential environmental concern (APECs) on the Phase I and Phase II Property, as presented in table below.

Areas of Potential Environmental Concern					
Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern with respect to Phase I Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil, and/or Sediment)
APEC 1 Former Go Cart Repair Shop	Southwestern portion of the Phase I Property	<i>"Item 52 – Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems"</i>	On-site	BTEX PHCs (F ₁ -F ₄) VOCs PAHs Metals Hg Cr VI	Soil Groundwater
APEC 2 Former Go Cart Track	Northern portion of the Phase I Property	<i>"Item N/A – Former Use of the Track for Go Cart Racing"</i>	On-site	BTEX PHCs (F ₁ -F ₄) Metals Hg Cr VI	Soil Groundwater
APEC 3 Existing Pad Mounted Transformer	Northeastern portion of the Phase I Property	<i>"Item 55 – Transformer Manufacturing, Processing and Use"</i>	On-site	BTEX PHCs (F ₁ -F ₄) PCBs	Soil
APEC 4 Fill Material of Unknown Quality	Throughout the Phase I Property	<i>"Item 30: Importation of Fill Material of Unknown Quality"</i>	On-site	PAHs Metals Hg Cr VI	Soil
APEC 5 ¹ Application of Road Salt	Throughout the parking areas on the Phase I Property	<i>"Item NA: Application of road salt for the safety of vehicular or pedestrian traffic under conditions of snow or ice"</i>	On-site	Electrical Conductivity (EC) Sodium Adsorption Ratio (SAR)	Soil
Note: 1 – In accordance with Section 49.1 of O. Reg 153/04 standards are deemed to be met if an applicable site condition standard is exceeded at a property solely because the qualified person has determined that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both. The exception outlined in Section 49.1 is being relied up with respect to the Phase I Property.					

3.0 SCOPE OF INVESTIGATION

3.1 Overview of Site Investigation

The subsurface investigation conducted as a component of this Phase II ESA consisted of 4 boreholes (BH1-26 to BH4-26) at the Phase II Property. The boreholes were drilled to maximum depth of 9.75m below ground surface (bgs). BH1-26, BH2-26 and BH3-26 were instrumented with monitoring wells. These boreholes were placed to address APECs identified during the Phase I ESA.

3.2 Media Investigated

During the subsurface investigation, soil samples and groundwater samples were obtained and submitted for laboratory analysis. The rationale for sampling and analyzing these media is based on the Contaminants of Potential Concern identified during the Phase I ESA.

The contaminants of potential concern for the soil and/or groundwater on the Phase II Property include the following:

- ☐ Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)
- ☐ Petroleum Hydrocarbons (PHCs)
- ☐ Metals (including arsenic (As), antimony (Sb), selenium (Se))
- ☐ Mercury (Hg)
- ☐ Hexavalent Chromium (Cr VI)
- ☐ Polycyclic Aromatic Hydrocarbons (PAHs)
- ☐ Volatile Organic Compounds (VOCs)
- ☐ Polychlorinated Biphenyls (PCBs)

In accordance with Section 49.1 of O.Reg.153/04, as amended, electrical conductivity (EC) and sodium adsorption ratio (SAR) are not considered to be CPCs. However, they were tested for future excess soil management purposes.

3.3 Phase I Conceptual Site Model

Geological and Hydrogeological Setting

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on this information, bedrock in the area of the site is reported to consist of interbedded shale and limestone of the Nepean Formation. Overburden on the site consists of

nearshore marine sediments with a drift thickness on the order of 10 to 15 metres.

The groundwater beneath the Phase I Property is anticipated to flow in a north-westerly direction.

The topographic maps indicate that the elevation of the Phase I Property is approximately 100m above sea level. The regional topography in the general area of the Phase I Property slightly slopes downward to the west, towards the Rideau River.

Existing Buildings and Structures

A 2-storey with basement commercial building constructed circa 1985 occupies the central portion of the Phase I Property. The building exterior is finished in brick with a flat tar and gravel style roof. The building is heated and cooled by a natural gas fired HVAC roof mounted units with electrical baseboard heaters for secondary heating.

Water Bodies and Areas of Natural and Scientific Interest

No areas of natural and scientific interest (ANSI) were identified on or within 250m of the Phase I Property. No water bodies are present on the Phase I Property. The nearest named water body with respect to the Phase I Property is Rideau River, located approximately 500m to the west.

Drinking Water Wells

There are no known potable water wells on the Phase I Property, nor are they expected to be present as the subject land is situated in a municipally serviced area.

Neighbouring Land Use

Neighbouring land use in the Phase I Study Area consists of commercial and residential properties. Surrounding land use is shown on Drawing PE5280-2R – Surrounding Land Use Plan.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

As per APEC Table in Section 2.2 of this report, PCAs identified on the Phase II property include former go cart repair shop, former go cart track, existing pad mounted transformer, fill material of unknown quality and use of de-icing salt for safety purposes.

Assessment of Uncertainty and/or Absence of Information

The information available for review as part of the preparation of the Phase I-ESA is considered to be sufficient to conclude that there are on-site PCAs that have resulted in APECs on the Phase I Property.

Off-site PCAs identified within the study area are not considered to represent APECs on the Phase I Property based on their separation distances and/or orientations relative to the Phase II property.

3.4 Deviations from Sampling and Analysis Plan

The Sampling and Analysis Plan for this project is included in Appendix 1 of this report. No deviations from the sampling and analysis plan were identified during the Phase II ESA.

3.5 Impediments

The borehole locations were constrained by the presence of underground services and the existing buildings and structures at the Phase II Property. No other physical impediments or denial of access were encountered during the Phase II ESA.

4.0 INVESTIGATION METHOD

4.1 Subsurface Investigation

The subsurface investigation was conducted on February 23 and 26, 2026, and involved the advancement of four (4) boreholes on the Phase II Property. Boreholes BH1-26, BH2-26 and BH3-26 were completed with groundwater monitoring well installations to access the groundwater table. The boreholes were drilled to maximum depth of 9.75m below ground surface (bgs). The bedrock was not identified in the current subsurface investigation.

The boreholes were drilled with truck mounted drill rig operated by George Downing Estate Drilling of Hawkesbury, Ontario, under full-time supervision of Paterson personnel. The borehole locations are indicated on the attached Drawing PE5280-3- Test Hole Location Plan.

Borehole locations from previous geotechnical investigation also presented on Drawing PE5280-3.

4.2 Soil Sampling

A total of 48 soil samples were obtained from the boreholes by means of grab sampling from auger flights/auger samples and split spoon sampling.

Split spoon samples were taken at approximate 0.76m intervals. Rock core samples were collected with the use of coring equipment.

The depths at which split spoon, auger flight and rock core samples were obtained from the boreholes are shown as “**SS**”, “**AU**” and “**RC**” respectively on the Soil Profile and Test Data Sheets provided in Appendix 2.

The soil stratigraphy generally consists of asphalt over engineered fill material over native brown silty sand. The engineered fill material primarily comprises crushed stones with brown silty sand, extending to depths ranging from approximately 0.18 to 0.33 mbgs. In BH1-26, additional fill material consisting of brown silty sand with trace clay and gravel was encountered from approximately 0.18 mbgs to 1.83 mbgs, situated below the engineered fill and above the native silty sand.

Borehole locations are shown on Drawing PE5280-3 – Test Hole Location Plan.

4.3 Field Screening Measurements

Soil samples recovered at the time of sampling were placed immediately into airtight plastic bags with nominal headspace. All lumps of soil inside the bags were broken by hand, and the soil was allowed to come to room temperature prior to conducting the vapour survey. Allowing the samples to stabilize to room temperature ensures consistency of readings between samples.

To measure the soil vapours, the analyser probe is inserted into the nominal headspace above the soil sample. A photo ionization detector (PID) was used to measure the vapour concentrations. The sample is agitated/manipulated gently as the measurement is taken. The peak reading registered within the first 15 seconds is recorded as the vapour measurement.

The measured vapour readings ranged from 0.2 to 1.6 ppm. These vapour readings are not considered to be indicative of potential volatile contamination. The vapour screening can not be relied upon to identify heavier petroleum products. Vapour readings are noted on the Soil Profile and Test Data Sheets in Appendix 1.

4.4 Groundwater Monitoring Well Installation

Three groundwater monitoring wells (BH1-26, BH2-26 and BH3-26) were installed on the Phase II Property as part of the current subsurface investigation.

The monitoring wells consisted of 32 mm Schedule 40 threaded PVC risers and screens. A summary of the monitoring well construction details are listed in Table 1: Test Hole Summary Details and in the Soil Profile and Test Data Sheets, appended to this report.

4.5 Field Measurement of Water Quality Parameters

A groundwater sampling event was conducted on March 4, 2026, involving sampling from all three monitoring well installed as part of the current investigation. Water quality parameters were measured in the field using a multi-parameter analyzer. Parameters measured in the field included temperature, pH, and electrical conductivity.

Field parameters were measured after each well volume purged. Wells were purged prior to sampling until at least three well volumes had been removed, the field parameters were relatively stable, or the well was dry. Stabilized field parameter values are summarized in Table 2: Stabilized Water Quality Parameters, appended to this report.

4.6 Groundwater Sampling

Groundwater sampling protocols were followed using the MECP document entitled “Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario”, dated May 1996. Groundwater samples were obtained from each monitoring well, using dedicated sampling equipment.

Standing water was purged from each well prior to sampling. Samples were stored in coolers to reduce analyte volatilization during transportation.

Details of our standard operating procedure for groundwater sampling are provided in the Sampling and Analysis Plan in Appendix 1.

4.7 Analytical Testing

Based on the guidelines outlined in the Sampling and Analysis Plan appended to this report, the soil and groundwater samples were submitted for analysis of the

parameters listed in Table 3: Soil Testing Summary and Table 4: Groundwater Testing Summary, appended to this report.

The submitted soil samples were selected for analysis based on vapour screening, sample depths and field observations, to assess APECs and associated CPCs identified in the Phase I – ESA.

Paracel Laboratories (Paracel), of Ottawa, Ontario, performed the laboratory analysis on the samples submitted for analytical testing. Paracel is a member of the Standards Council of Canada/Canadian Association for Laboratory Accreditation (SCC/CALA). Paracel is accredited and certified by SCC/CALA for specific tests registered with the association.

4.8 Residue Management

All soil cuttings, purge water and fluids from equipment cleaning were retained on-site.

4.9 Elevation Surveying

The ground surface elevations at each borehole location were surveyed by Paterson personnel with a high-precision GPS unit.

4.10 Quality Assurance and Quality Control Measures

A summary of quality assurance and quality control (QA/QC) measures, including sampling containers, preservation, labelling, handling, and custody, equipment cleaning procedures, and field quality control measurements is provided in the Sampling and Analysis Plan in Appendix 1.

5.0 REVIEW AND EVALUATION

5.1 Geology

The soil stratigraphy generally consists of asphalt over engineered fill material over native brown silty sand. The engineered fill material primarily comprises crushed stone with brown silty sand, extending to depths ranging from approximately 0.18 to 0.33 mbgs. In BH1-26, additional fill material consisting of brown silty sand with trace clay and gravel was encountered from approximately 0.18 mbgs to 1.83 mbgs, situated below the engineered fill and above the native silty sand.

Site geology details are provided in the Soil Profile and Test Data Sheets provided in Appendix 1.

5.2 Groundwater Elevations, Flow Direction, and Hydraulic Gradient

Groundwater levels were measured during the groundwater sampling event on March 4, 2026, using an electronic water level meter. Groundwater levels were recorded from three monitoring wells installed as part of the current investigation (BH1-26, BH2-26 and BH3-26). Groundwater levels are summarized in Table 5: Groundwater Levels, appended to this report.

The groundwater at the Phase II ESA Property was encountered within the overburden at depths ranging from approximately 6.88 to 7.37m below the existing ground surface.

Based on the groundwater elevations measured during the March 4, 2026, sampling event, groundwater contour mapping was completed. Groundwater contours are shown on Drawing PE5280-3 – Test Hole Location Plan. Based on the contour mapping, groundwater flow at the Phase II Property is in west direction. It should be noted that groundwater levels are expected to fluctuate throughout the year with seasonal variations.

A horizontal hydraulic gradient of approximately 0.005 m/m was calculated.

5.3 Fine-Coarse Soil Texture

Grain size analysis was not completed as part of this investigation. Coarse grained soil standards were chosen based on the site observations and as a conservative approach.

5.4 Soil: Field Screening

Field screening of the soil samples collected during drilling resulted in vapour readings ranging generally from 0.2 to 1.6 ppm. No visual or olfactory indications of contaminants, or visual indications of deleterious fill material were identified in the soil samples.

The field screening results of each individual soil sample are provided on the Soil Profile and Test Data Sheets appended to this report.

5.5 Soil Quality

Based on the findings of the field screening in combination with sample depth and location, a total of 5 soil samples (including one duplicate) were submitted for analysis of metals (including As, Sb, Se), Hg, Cr VI, PAHs, BTEX, PHCs (F1-F4), VOCs, PCBs and/or pH. The results of the analytical testing completed on the Phase II Property are presented in Table 6: Soil Analytical Test Results, appended to this report. The laboratory Certificates of Analysis are also provided in the Appendix.

Metals (including As, Sb, Se), Hg and Cr VI

All metal, mercury and hexavalent chromium parameters analyzed comply with the MECP Table 3 Residential Standards. The analytical results for metals (including As, Sb, Se), Hg and Cr VI tested in soil are shown on Drawing PE5280-4 – Analytical Testing Plan – Soil.

VOCs

All VOC parameters were non-detect in the soil sample analyzed as part of this Phase II-ESA and comply with the MECP Table 3 Residential Standards. The analytical results for VOCs tested in soil are shown on Drawing PE5280-4 – Analytical Testing Plan – Soil.

BTEX

All BTEX parameters were non-detect in the soil samples analyzed as part of this Phase II-ESA and comply with the MECP Table 3 Residential Standards. The analytical results for BTEX tested in soil are shown on Drawing PE5280-4 – Analytical Testing Plan – Soil.

PHCs (F1-F4)

All PHC parameters analyzed comply with the MECP Table 3 Residential Standards. The analytical results for PHCs tested in soil are shown on Drawing PE5280-4 – Analytical Testing Plan – Soil.

PAHs

All PAH parameters analyzed meet the MECP Table 3 Residential Standards. The analytical results for PAHs tested in soil are shown on Drawing PE5280-4 – Analytical Testing Plan – Soil.

PCBs

PCB parameter was non-detect in the soil sample analyzed as part of this Phase II-ESA and comply with the MECP Table 3 Residential Standards. The analytical results for PCBs tested in soil are shown on Drawing PE5280-4 – Analytical Testing Plan – Soil.

pH

Two soil samples were analyzed for pH, yielding results of 7.72 and 7.80. These values fall within the acceptable pH ranges for both surface soil (5.0 to 9.0) and subsurface soil (5.0 to 11.0).

The analytical results for samples tested in soil along with site stratigraphy are shown on Drawing PE5280-4A – Cross-Section A-A' – Soil & Drawing PE5280-4B – Cross-Section B-B' – Soil.

Maximum Soil Parameter Concentrations

The maximum concentrations of each parameter identified in soil samples analyzed on the Phase II Property are presented in Table 6A: Maximum Concentrations - Soil, appended to this report.

5.6 Groundwater Quality

Four groundwater samples (including one duplicate) from monitoring wells installed in BH1-26, BH2-26 and BH3-26 were submitted for laboratory analysis of metals, Hg, Cr VI, PHCs (F1-F4), BTEX, VOCs and/or PAHs.

The results of all the analytical testing completed on the Phase II Property are presented in Table 7: Groundwater Analytical Test Results, appended to this report. The laboratory Certificates of Analysis are also provided in the Appendix.

Metals (including As, Sb, Se), Hg and Cr VI

All metal, mercury and hexavalent chromium parameters analyzed comply with the MECP Table 3 Non-Potable Groundwater Standards. The analytical results for metals (including As, Sb, Se), Hg and Cr VI tested in groundwater are shown on Drawing PE5280-5 – Analytical Testing Plan – Groundwater.

VOCs

All VOC parameters were non-detect in the groundwater sample analyzed as part of this Phase II-ESA and comply with the MECP Table 3 Non-Potable

Groundwater Standards. The analytical results for VOCs tested in groundwater are shown on Drawing PE5280-5 – Analytical Testing Plan – Groundwater.

BTEX

All BTEX parameters were non-detect in the groundwater samples analyzed as part of this Phase II-ESA and comply with the MECP Table 3 Non-Potable Groundwater Standards. The analytical results for BTEX tested in groundwater are shown on Drawing PE5280-5 – Analytical Testing Plan – Groundwater.

PHCs (F₁-F₄)

All PHC parameters were non-detect in the groundwater samples analyzed as part of this Phase II-ESA and comply with the MECP Table 3 Non-Potable Groundwater Standards. The analytical results for PHC tested in groundwater are shown on Drawing PE5280-5 – Analytical Testing Plan – Groundwater.

PAHs

All PAH parameters were non-detect in the groundwater sample analyzed as part of this Phase II-ESA and comply with the MECP Table 3 Non-Potable Groundwater Standards. The analytical results for PAHs tested in groundwater are shown on Drawing PE5280-5 – Analytical Testing Plan – Groundwater.

The analytical results for samples tested in groundwater along with site stratigraphy are shown on Drawing PE5280-5A – Cross-Section A-A' – Groundwater & Drawing PE5280-5B – Cross-Section B-B' – Groundwater.

Maximum Groundwater Parameter Concentrations

The maximum concentrations of each parameter identified in groundwater samples analyzed on the Phase II Property are presented in Table 7A: Maximum Concentrations - Groundwater, appended to this report.

5.7 Quality Assurance and Quality Control Results

All samples submitted as part of the current sampling event were handled in accordance with the Analytical Protocol with respect to preservation method, storage requirement, and container type. As per Subsection 47(3) of O.Reg. 153/04, as amended, under the Environmental Protection Act, a Certificate of Analysis has been received for each sample submitted for analysis and all Certificates of Analysis are appended to this report.

A duplicate soil sample of BH2-26-SS4 (DUP-1) was submitted for analysis of PHCs and BTEX. A duplicate groundwater sample of BH2-26-GW1 (DUP-1) was submitted for analysis of PHCs and BTEX. The duplicates were collected with the intent of calculating the relative percent difference (RPD) between duplicate sample values, as a way of assessing the quality of the analytical test results. Typically, RPD values below 20% indicate satisfactory quality.

All of the analyzed concentrations of PHC and BTEX in soil sample BH2-26-SS4 and groundwater sample BH2-26-GW1 and their duplicate samples, were not detected above the laboratory method detection limit; as such no RPD value was calculated.

The quality of the field data collected during the Phase II ESA is considered to be sufficient to meet the overall objectives of the assessment.

5.8 Phase II Conceptual Site Model

The following section has been prepared in accordance with the requirements of O.Reg. 153/04, as amended by the Environmental Protection Act. Conclusions and recommendations are discussed in a subsequent section.

Site Description

Potentially Contaminating Activity and Areas of Potential Environmental Concern

Based on the results of the Phase I ESA completed for the Phase II property, five (5) PCAs were considered to result in APECs on the Phase II Property. The identified APECs on the Phase II Property are presented in the table below.

Areas of Potential Environmental Concern					
Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern with respect to Phase I Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil, and/or Sediment)
APEC 1 Former Go Cart Repair Shop	Southwestern portion of the Phase II Property	<i>"Item 52 – Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems"</i>	On-site	BTEX PHCs (F ₁ -F ₄) VOCs PAHs Metals Hg Cr VI	Soil Groundwater
APEC 2 Former Go Cart Track	Northern portion of the Phase II Property	<i>"Item N/A – Former Use of the Track for Go Cart Racing"</i>	On-site	BTEX PHCs (F ₁ -F ₄) Metals Hg Cr VI	Soil Groundwater
APEC 3 Existing Pad Mounted Transformer	Northeastern portion of the Phase II Property	<i>"Item 55 – Transformer Manufacturing, Processing and Use"</i>	On-site	BTEX PHCs (F ₁ -F ₄) PCBs	Soil
APEC 4 Fill Material of Unknown Quality	Throughout the Phase II Property	<i>"Item 30: Importation of Fill Material of Unknown Quality"</i>	On-site	PAHs Metals Hg Cr VI	Soil

Areas of Potential Environmental Concern					
Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern with respect to Phase I Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil, and/or Sediment)
APEC 5 ¹ Application of Road Salt	Throughout the parking areas on the Phase II Property	<i>"Item NA: Application of road salt for the safety of vehicular or pedestrian traffic under conditions of snow or ice"</i>	On-site	Electrical Conductivity (EC) Sodium Adsorption Ratio (SAR)	Soil
Note: 1 – In accordance with Section 49.1 of O. Reg. 153/04 standards are deemed to be met if an applicable site condition standard is exceeded at a property solely because the qualified person has determined that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both. The exception outlined in Section 49.1 is being relied up with respect to the Phase II Property.					

The off-site PCAs identified are not considered to result in APECs on the Phase II Property, due to their separation distances and/or cross/down-gradient orientations with respect to the Phase II Property.

According to Section 49.1 of O.Reg. 153/04, if an applicable site condition standard is exceeded at a property solely because of the following reason, the applicable site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act: "The qualified person has determined, based on a phase one environmental site assessment or a phase two environmental site assessment, that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both."

In accordance with Section 49.1 of O.Reg. 153/04, any EC and SAR concentrations on the Phase II Property that exceed the MECP Table 3 Standards for a residential/institutional land use are deemed not to be exceeded for the purpose of Part XV.1 of the Act. This exemption is being relied on for APEC 5.

All APECs are outlined on Drawing PE5280-1R – Site Plan, while all PCAs identified within the Phase I Study Area are presented on Drawing PE5280-2R – Surrounding Land Use Plan in the figures section of this report, following the text.

Contaminants of Potential Concern

The following CPCs are identified with respect to the Phase II Property:

- ☐ Petroleum Hydrocarbons, Fractions 1 – 4 (PHCs F₁-F₄);
- ☐ Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX);
- ☐ Volatile Organic Compounds (VOCs);
- ☐ Polycyclic Aromatic Hydrocarbons (PAHs);
- ☐ Polychlorinated Biphenyls (PCBs);
- ☐ Metals (including arsenic (As), antimony (Sb) and selenium (Se));
- ☐ Mercury (Hg);
- ☐ Hexavalent Chromium (Cr VI);
- ☐ Electrical Conductivity (EC);
- ☐ Sodium Adsorption Ratio (SAR).

In accordance with Section 49.1 of O.Reg.153/04, as amended, electrical conductivity (EC) and sodium adsorption ratio (SAR) are not considered to be CPCs.

Subsurface Structures and Utilities

Underground service locates were completed prior to the subsurface investigation. Underground utilities on the Phase II Property include electrical, water, sewer, telecommunication lines and natural gas. Multiple catch basins were identified on the Phase II Property. No other utilities or subsurface structures are present on the Phase II Property.

Physical Setting

Site Stratigraphy

The stratigraphy of the Phase II Property generally consists of:

- ☐ **Asphalt** was identified at ground surface and extended to a maximum depth of 0.05 mbgs.
- ☐ **Engineered fill material** consisting of crushed stone with sand and gravel; extending to a maximum depth of approximately 0.33 mbgs in all test holes.
- ☐ **Fill material** consisting of brown silty sand with gravel and clay; extending to a maximum depth of approximately 1.83 mbgs in BH1-26.
- ☐ **Native brown silty sand** was identified beneath the fill material at BH1-26 and beneath the engineered fill at remaining test holes. All boreholes were terminated in native silty sand layer.

Site geology details are provided in the Soil Profile and Test Data Sheets provided in Appendix 1.

Hydrogeological Characteristics

The groundwater at the Phase II ESA Property was encountered within the overburden at depths ranging from approximately 6.88 to 7.37m below the existing ground surface.

Based on the groundwater elevations measured during the March 4, 2026, sampling event, groundwater contour mapping was completed. Groundwater contours are shown on Drawing PE5280-3 – Test Hole Location Plan. Based on the contour mapping, groundwater flow at the Phase II Property is in west direction. It should be noted that groundwater levels are expected to fluctuate throughout the year with seasonal variations.

A horizontal hydraulic gradient of approximately 0.005 m/m was calculated.

Approximate Depth to Bedrock

Bedrock was not encountered during the current Phase II ESA investigation. Based on the 2021 geotechnical investigation, Dynamic Cone Penetration (DCP) testing was completed in two boreholes, with practical refusal recorded at depths of 13.41 m and 14.33 m below ground surface (mbgs). Accordingly, the approximate depth to bedrock at the Phase II Property is estimated to range between 13.41 m and 14.33 mbgs.

Approximate Depth to Water Table

Depth to water table at the Phase II property varies between approximately 36.88 to 7.37m below existing grade.

Sections 41 and 43.1 of the Regulation

Section 41 of the Regulation does not apply to the Phase II Property, in that the Phase II property is not within 30m of an environmentally sensitive area and the pH of the surface soil is between 5 and 9 while the pH of the subsurface soil is between 5 and 11.

Section 43.1 of the Regulation does not apply to the Phase II Property, in that the Phase II Property is not shallow soil property.

Fill Placement

Fill material generally consisting of brown silty sand with gravel and clay was identified in BH1-26 on the Phase II Property, ranging from 0.18 to 1.83m below ground surface.

Existing Buildings and Structures

A 2-storey with basement commercial building constructed circa 1985 occupies the central portion of the Phase I Property. The building exterior is finished in brick with a flat tar and gravel style roof. The building is heated and cooled by a natural gas fired HVAC roof mounted units with electrical baseboard heaters for secondary heating.

Proposed Buildings and Other Structures

The Phase II Property will be redeveloped with a multi-storey residential building with multiple levels of underground parking.

Environmental Condition

Areas Where Contaminants are Present

Based on the findings of the Phase II ESA, no impacted soil was identified on the Phase II Property.

Based on the findings of the Phase II ESA, no impacted groundwater was identified on the Phase II Property.

6.0 CONCLUSIONS

Assessment

A Phase II ESA was conducted for the property addressed 3750 North Bowesville Road, in the City of Ottawa, Ontario. The purpose of the Phase II ESA was to address potentially contaminating activities (PCAs) that were identified during the Phase I ESA and considered to result in areas of potential environmental concern (APECs) on the Phase II Property.

The subsurface investigation was conducted on February 23 and 26, 2026, and involved the advancement of four boreholes on the Phase II Property. Boreholes BH1-26, BH2-26 and BH3-26 were completed with groundwater monitoring well installations to access the groundwater table. The boreholes were drilled to maximum depth of 9.75m below ground surface (bgs).

The soil stratigraphy generally consists of asphalt over engineered fill material over native brown silty sand. The engineered fill material primarily comprises crushed stones with brown silty sand, extending to depths ranging from approximately 0.18 to 0.33 mbgs. In BH1-26, additional fill material consisting of brown silty sand with trace clay and gravel was encountered from approximately 0.18 mbgs to 1.83 mbgs, situated below the engineered fill and above the native silty sand. No signs of any deleterious materials were identified at the borehole locations. Groundwater was encountered within the overburden at depths ranging from approximately 6.88 to 7.37m below the existing ground surface.

Soil

A total of 5 soil samples (including one duplicate) were submitted for analysis of metals (including As, Sb, Se), Hg, Cr VI, VOCs, BTEX, PAHs, PHCs (F1-F4), PCBs, EC, SAR and/or pH.

All parameters for soil samples analysed comply with the MECP Table 3 Residential Standards.

Groundwater

Three groundwater samples and one duplicate from monitoring wells installed in BH1-26, BH2-26 and BH3-26 were submitted for laboratory analysis of metals (including As, Sb, Se), Hg, Cr VI, VOCs, BTEX, PHCs (F1-F4) and/or PAHs.

All parameters for groundwater samples analysed comply with the MECP Table 3 Non-Potable Groundwater Standards.

Recommendations

Groundwater

It is recommended the monitoring wells be maintained for future sampling purposes. The monitoring wells will be registered with the MECP under Ontario Regulation 903 (Ontario Water Resources Act). At such a time that the monitoring wells are no longer required, they must be decommissioned in accordance with O.Reg. 903.

7.0 STATEMENT OF LIMITATIONS

This Phase II - Environmental Site Assessment report has been prepared under the supervision of a Qualified Person, in general accordance with O. Reg 153/04. The conclusions presented herein are based on information gathered from a limited sampling and testing program. The test results represent conditions at specific test locations at the time of the field program.

The client should be aware that any information pertaining to soils and all test hole logs are furnished as a matter of general information only and test hole descriptions or logs are not to be interpreted as descriptive of conditions at locations other than those of the test holes themselves.

Should any conditions be encountered at the Phase II property and/or historical information that differ from our findings, we request that we be notified immediately in order to allow for a reassessment.

This report was prepared for the sole use of Jennings Real Estate. Notification from Jennings Real Estate and Paterson Group will be required to release this report to any other party.

Paterson Group Inc.



Kuldeep Panchal, M. Eng.



Adrian Menyhart, P.Eng., Q.P.ESA



Report Distribution:

- ☐ Jennings Real Estate
- ☐ Paterson Group

FIGURES

FIGURE 1 – KEY PLAN

DRAWING PE5280-1R – SITE PLAN

DRAWING PE5280-2R – SURROUNDING LAND USE PLAN

DRAWING PE5280-3 – TEST HOLE LOCATION PLAN

DRAWING PE5280-4 – ANALYTICAL TESTING PLAN – SOIL

DRAWING PE5280-4A – CROSS-SECTION A-A' – SOIL

DRAWING PE5280-4B – CROSS-SECTION B-B' – SOIL

**DRAWING PE5280-5 – ANALYTICAL TESTING PLAN –
GROUNDWATER**

DRAWING PE5280-5A – CROSS-SECTION A-A' – GROUNDWATER

DRAWING PE5280-5B – CROSS-SECTION B-B' – GROUNDWATER

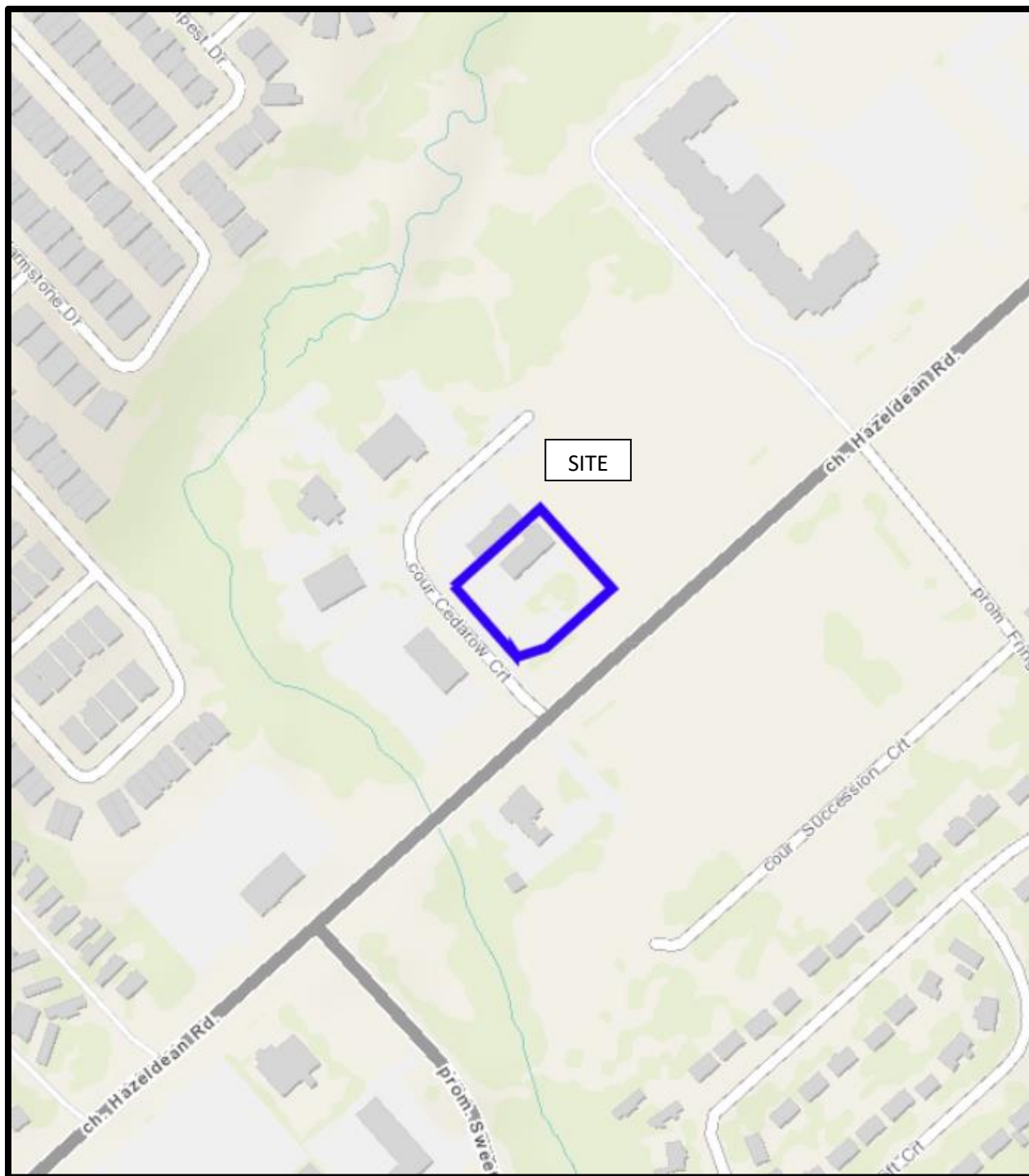
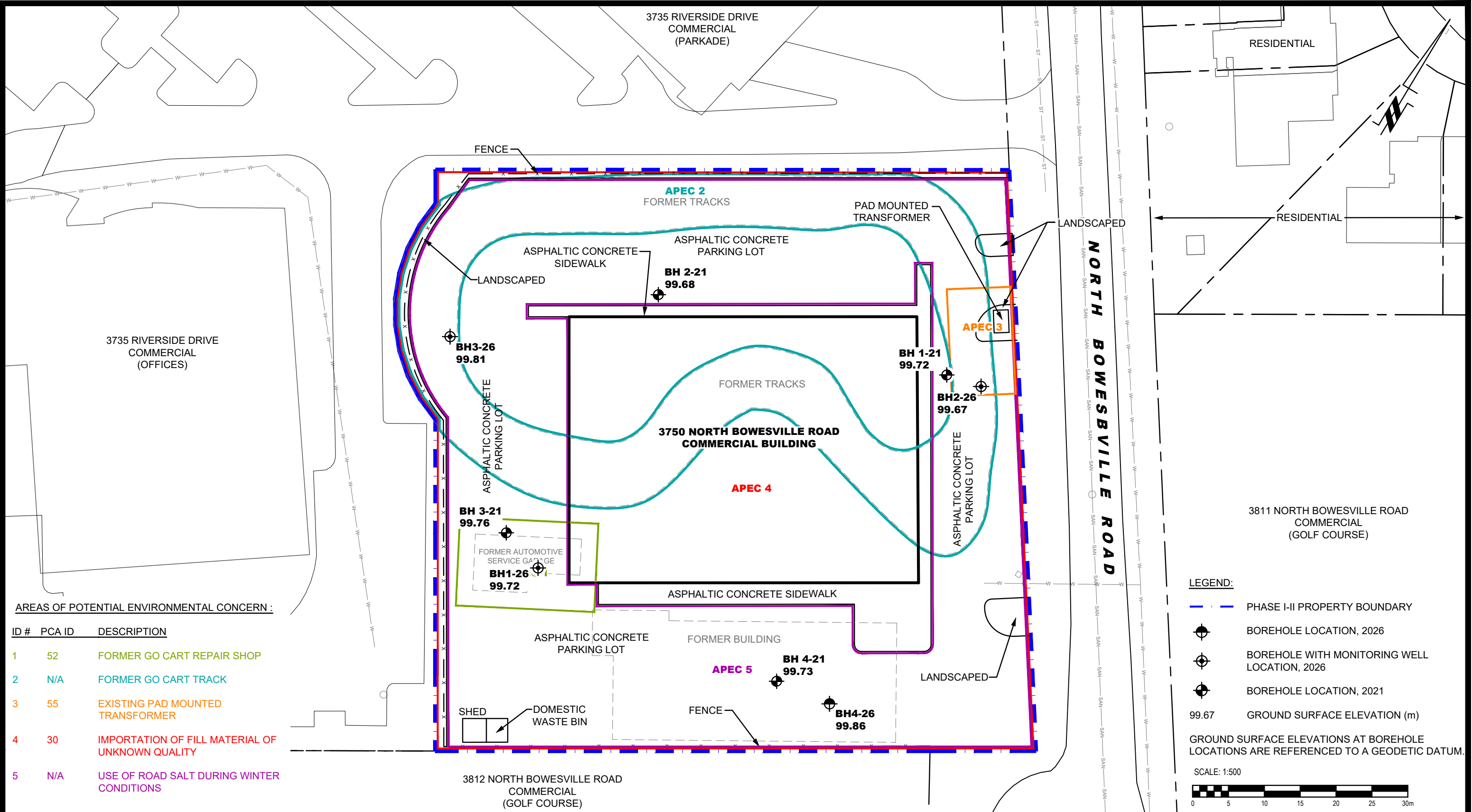


FIGURE 1
KEY PLAN



AREAS OF POTENTIAL ENVIRONMENTAL CONCERN :

ID #	PCA ID	DESCRIPTION
1	52	FORMER GO CART REPAIR SHOP
2	N/A	FORMER GO CART TRACK
3	55	EXISTING PAD MOUNTED TRANSFORMER
4	30	IMPORTATION OF FILL MATERIAL OF UNKNOWN QUALITY
5	N/A	USE OF ROAD SALT DURING WINTER CONDITIONS



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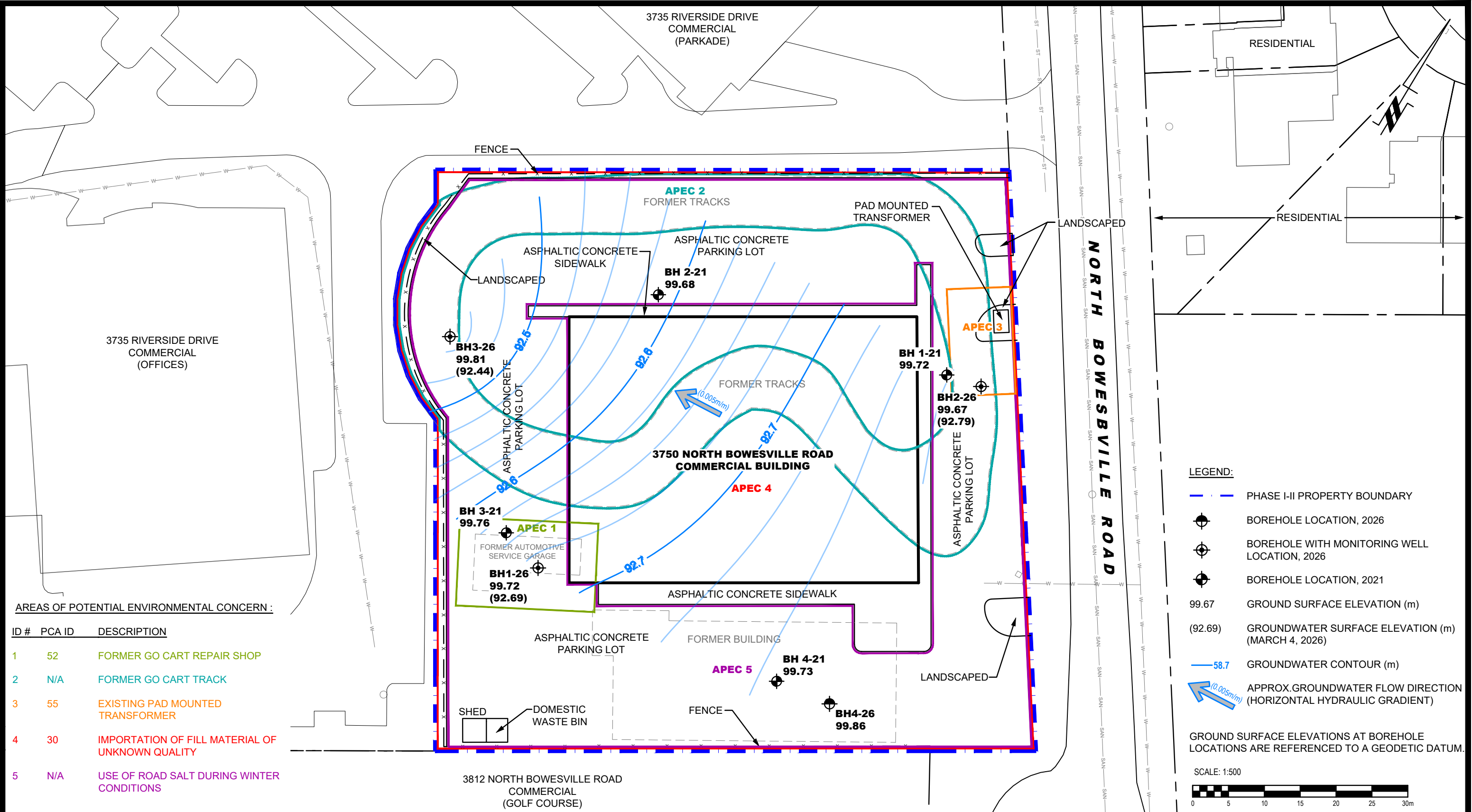
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PHASE I - ENVIRONMENTAL SITE ASSESSMENT UPDATE
3750 NORTH BOWESVILLE ROAD

OTTAWA, ONTARIO

Title: SITE PLAN

Scale:	1:500	Date:	03/2026
Drawn by:	ZS	Report No.:	PE5280-LET.03
Checked by:	KMP	Dwg. No.:	PE5280-1R
Approved by:	AM	Revision No.:	



AREAS OF POTENTIAL ENVIRONMENTAL CONCERN :

ID #	PCA ID	DESCRIPTION
1	52	FORMER GO CART REPAIR SHOP
2	N/A	FORMER GO CART TRACK
3	55	EXISTING PAD MOUNTED TRANSFORMER
4	30	IMPORTATION OF FILL MATERIAL OF UNKNOWN QUALITY
5	N/A	USE OF ROAD SALT DURING WINTER CONDITIONS



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PHASE II - ENVIRONMENTAL SITE ASSESSMENT
3750 NORTH BOWESVILLE ROAD

OTTAWA, ONTARIO

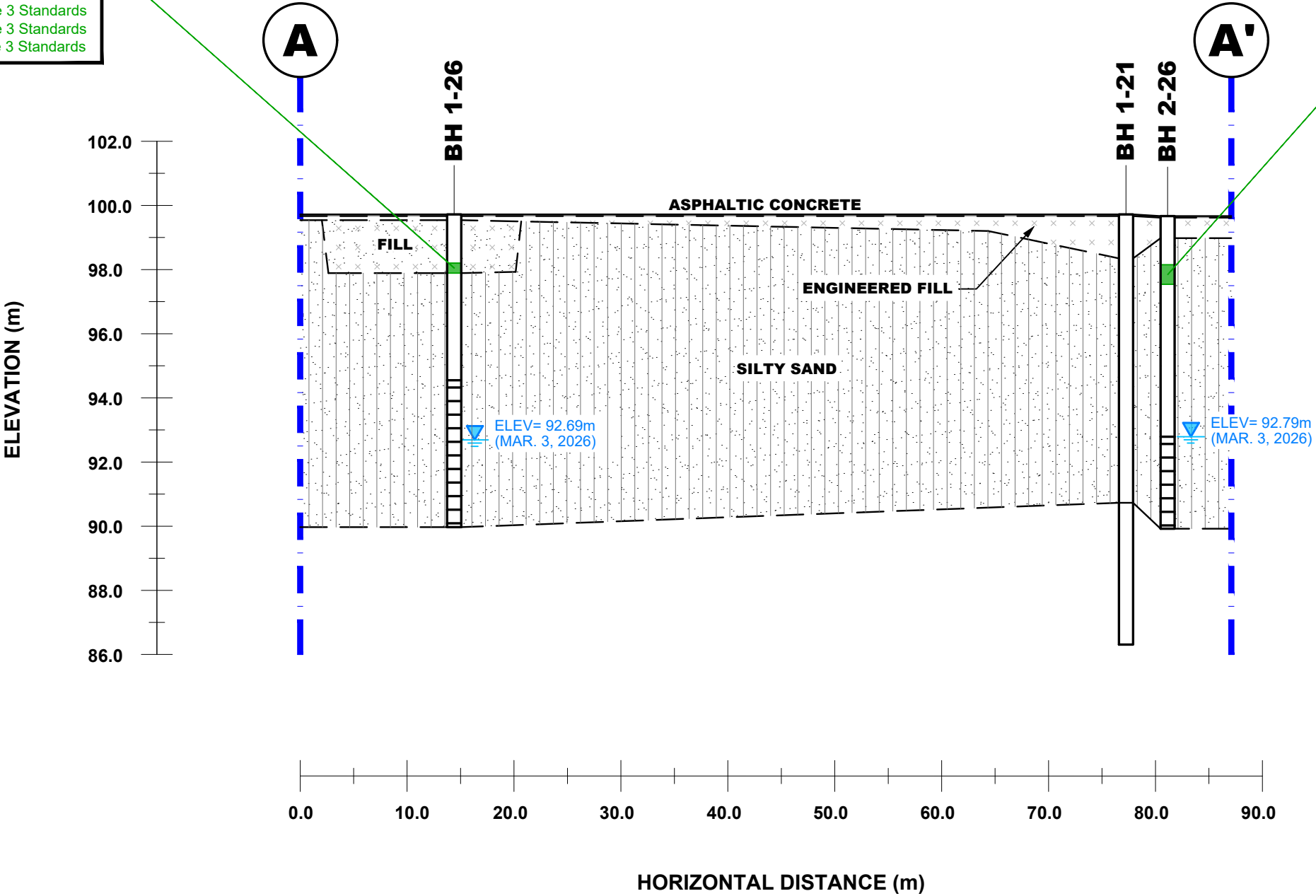
Title:

TEST HOLE LOCATION PLAN

Scale:	1:500	Date:	03/2026
Drawn by:	ZS	Report No.:	PE5280-2
Checked by:	KMP	Dwg. No.:	PE5280-3
Approved by:	AM	Revision No.:	

BH1-26-SS4(A) 1.52-1.83m 23-Feb-2026
Metals (including As, Sb and Se), Hg, Cr VI
comply with MECP Table 3 Standards
VOCs comply with MECP Table 3 Standards
BTEX comply with MECP Table 3 Standards
PHCs comply with MECP Table 3 Standards
PAHs comply with MECP Table 3 Standards

BH2-26-SS4 1.52-2.13m 23-Feb-2026
Metals (including As, Sb and Se), Hg, Cr VI
comply with MECP Table 3 Standards
BTEX comply with MECP Table 3 Standards
PHCs comply with MECP Table 3 Standards
PCBs comply with MECP Table 3 Standards
BH2-26-SS4(DUP-1) 1.52-2.13m 23-Feb-2026
BTEX comply with MECP Table 3 Standards
PHCs comply with MECP Table 3 Standards



LEGEND:
SOIL RESULT COMPLIES WITH THE MECP TABLE 3 STANDARDS
- - - PHASE I-II PROPERTY BOUNDARY



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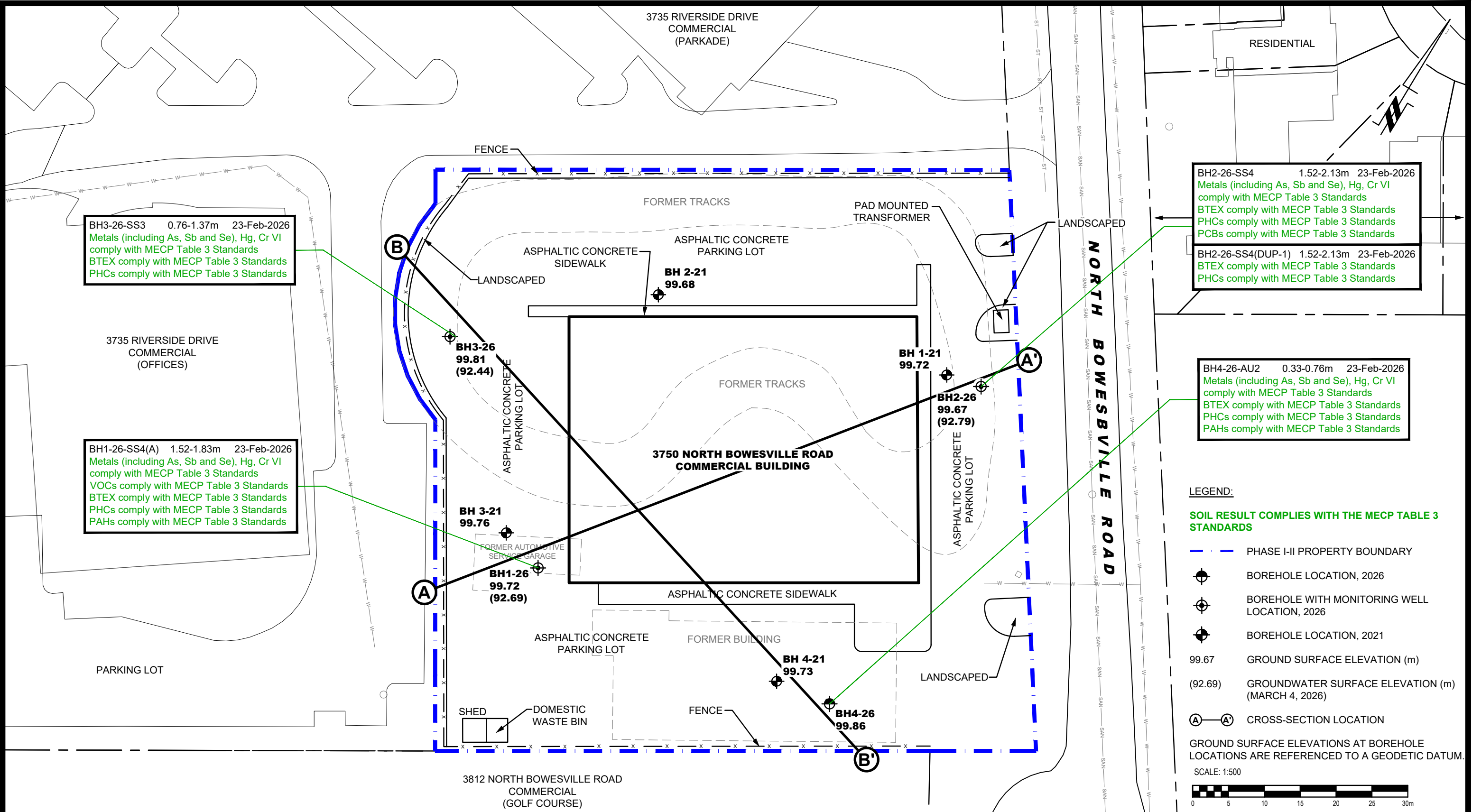
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PHASE II - ENVIRONMENTAL SITE ASSESSMENT
3750 NORTH BOWESVILLE ROAD
OTTAWA, ONTARIO

Title:
CROSS-SECTION A-A' - SOIL

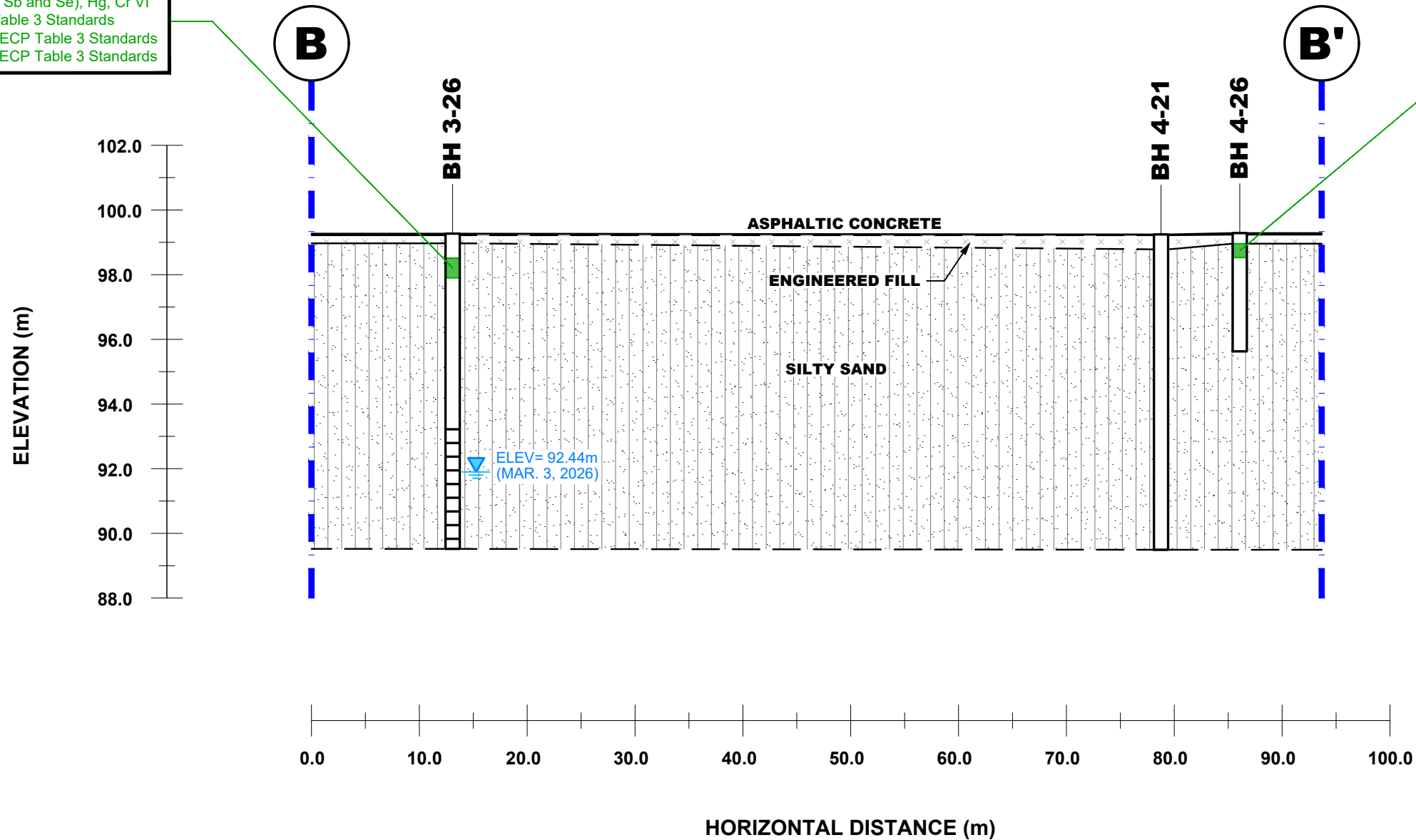
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Drawn by:	ZS	Report No.:	PE5280-2
Checked by:	KMP	Dwg. No.:	PE5280-4A
Approved by:	AM	Revision No.:	



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					PHASE II - ENVIRONMENTAL SITE ASSESSMENT		Drawn by: ZS	Report No.: PE5280-2
					3750 NORTH BOWESVILLE ROAD			Checked by: KMP
					OTTAWA,	ONTARIO	Approved by: AM	Revision No.:
					Title:			
					ANALYTICAL TESTING PLAN - SOIL			
NO.	REVISIONS	DD/MM/YYYY	INITIAL					

BH3-26-SS3 0.76-1.37m 23-Feb-2026
Metals (including As, Sb and Se), Hg, Cr VI
comply with MECP Table 3 Standards
BTEX comply with MECP Table 3 Standards
PHCs comply with MECP Table 3 Standards

BH4-26-AU2 0.33-0.76m 23-Feb-2026
Metals (including As, Sb and Se), Hg, Cr VI
comply with MECP Table 3 Standards
BTEX comply with MECP Table 3 Standards
PHCs comply with MECP Table 3 Standards
PAHs comply with MECP Table 3 Standards



LEGEND:

SOIL RESULT COMPLIES WITH THE MECP TABLE 3 STANDARDS

— — — — — PHASE I-II PROPERTY BOUNDARY



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PHASE II - ENVIRONMENTAL SITE ASSESSMENT

3750 NORTH BOWESVILLE ROAD

OTTAWA, ONTARIO

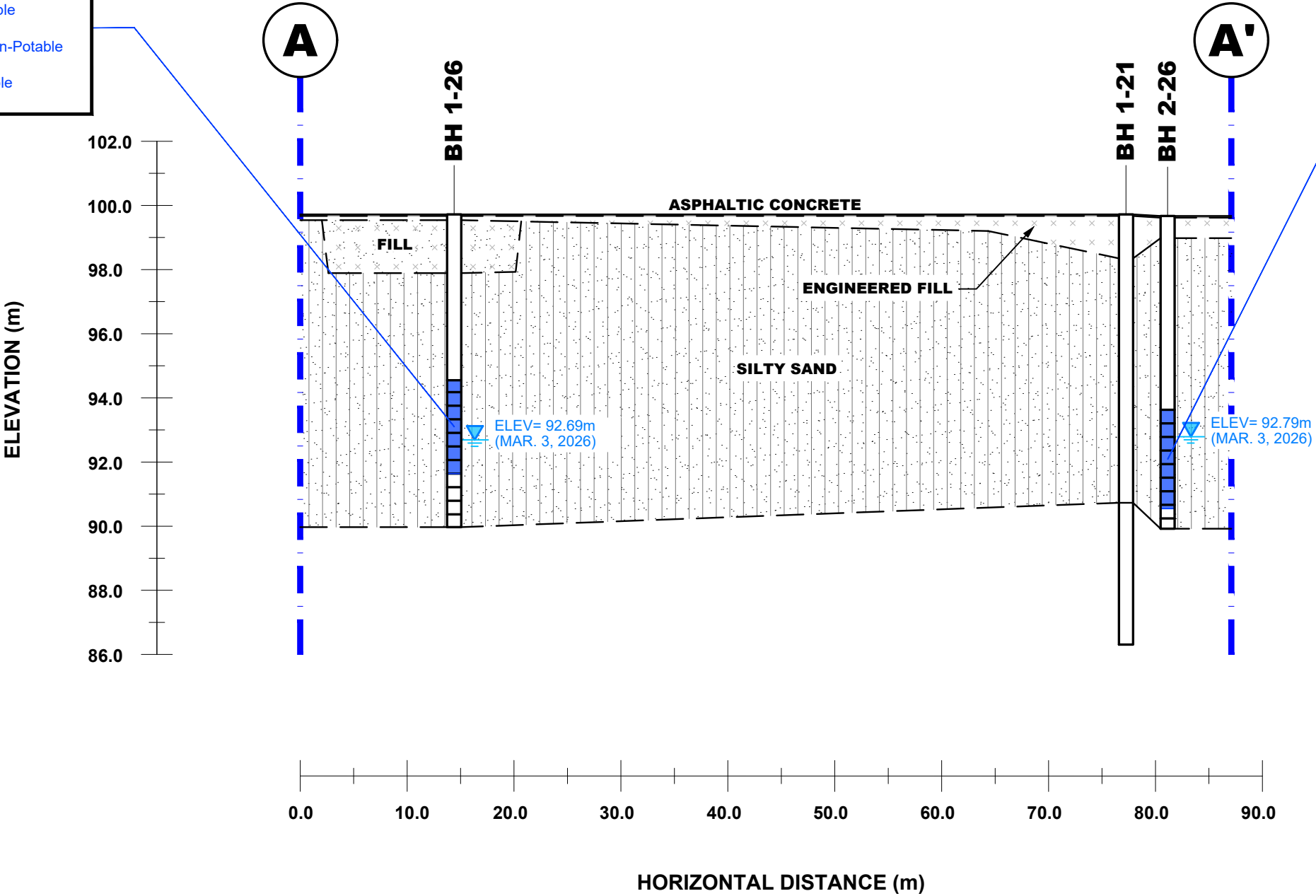
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CROSS-SECTION B-B' - SOIL

Scale:	AS SHOWN	Date:	03/2026
Drawn by:	ZS	Report No.:	PE5280-2
Checked by:	KMP	Dwg. No.:	PE5280-4B
Approved by:	AM	Revision No.:	

BH1-26-GW1 5.75-8.80m 4-Mar-2026
Metals (including As, Sb and Se), Hg, Cr VI comply with
MECP Table 3 Non-Potable Groundwater Standards
VOCs comply with MECP Table 3 Non-Potable
Groundwater Standards
PHCs(F1-F4) comply with MECP Table 3 Non-Potable
Groundwater Standards
PAHs comply with MECP Table 3 Non-Potable
Groundwater Standards

BH2-26-GW1 6.07-9.12m 4-Mar-2026
Metals (including As, Sb and Se), Hg, Cr VI comply with
MECP Table 3 Non-Potable Groundwater Standards
BTEX comply with MECP Table 3 Non-Potable
Groundwater Standards
PHCs(F1-F4) comply with MECP Table 3 Non-Potable
Groundwater Standards
BH2-26-GW1(DUP-1) 6.07-9.12m 4-Mar-2026
BTEX comply with MECP Table 3 Non-Potable
Groundwater Standards
PHCs(F1-F4) comply with MECP Table 3 Non-Potable
Groundwater Standards



LEGEND:
GROUNDWATER RESULT COMPLIES WITH THE MECP
TABLE 3 NON-POTABLE GROUNDWATER STANDARDS
— PHASE I-II PROPERTY BOUNDARY



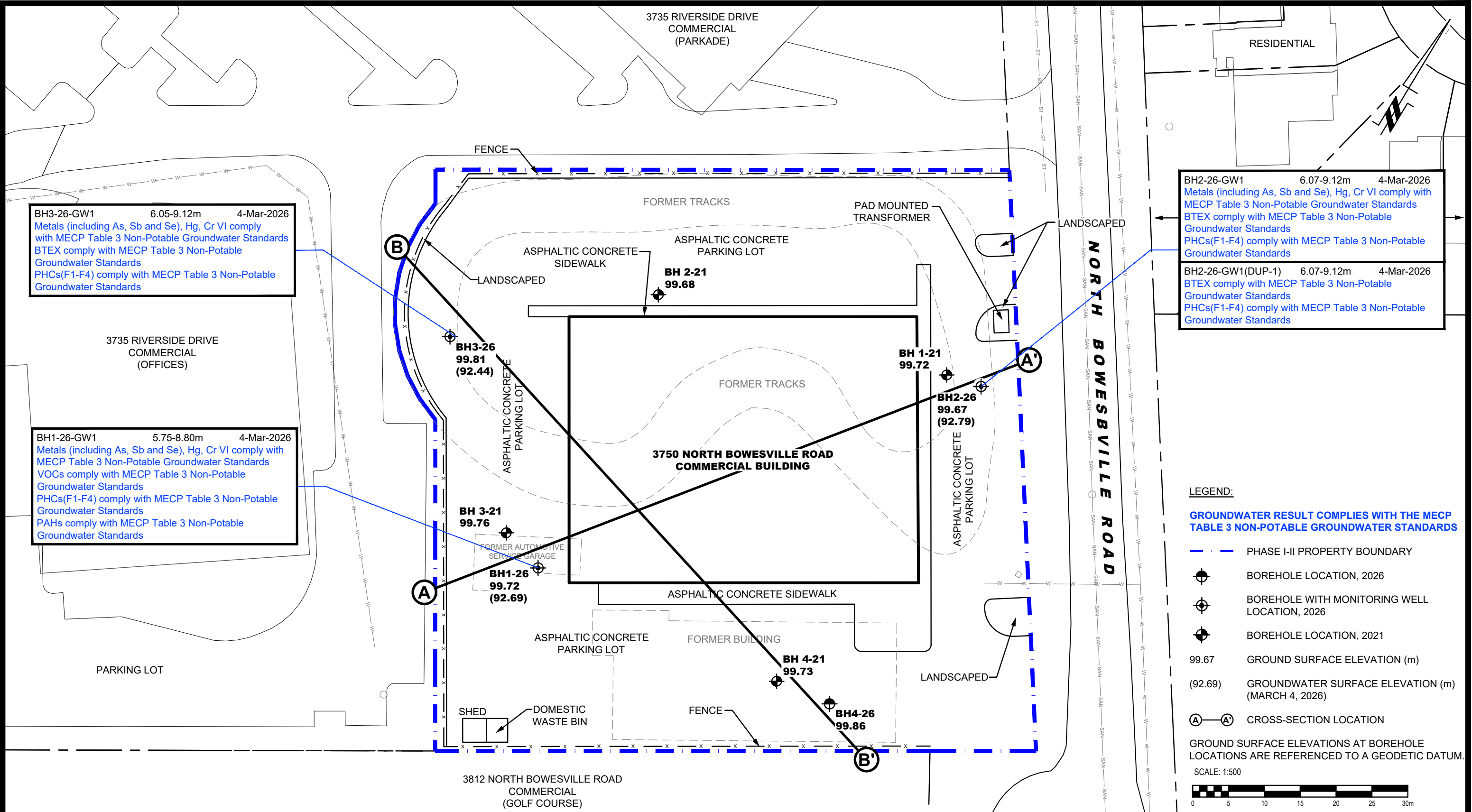
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PHASE II - ENVIRONMENTAL SITE ASSESSMENT
3750 NORTH BOWESVILLE ROAD
OTTAWA, ONTARIO

Title:
CROSS-SECTION A-A' - GROUNDWATER

Scale:	AS SHOWN	Date:	03/2026
Drawn by:	ZS	Report No.:	PE5280-2
Checked by:	KMP	Dwg. No.:	PE5280-5A
Approved by:	AM	Revision No.:	





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PHASE II - ENVIRONMENTAL SITE ASSESSMENT

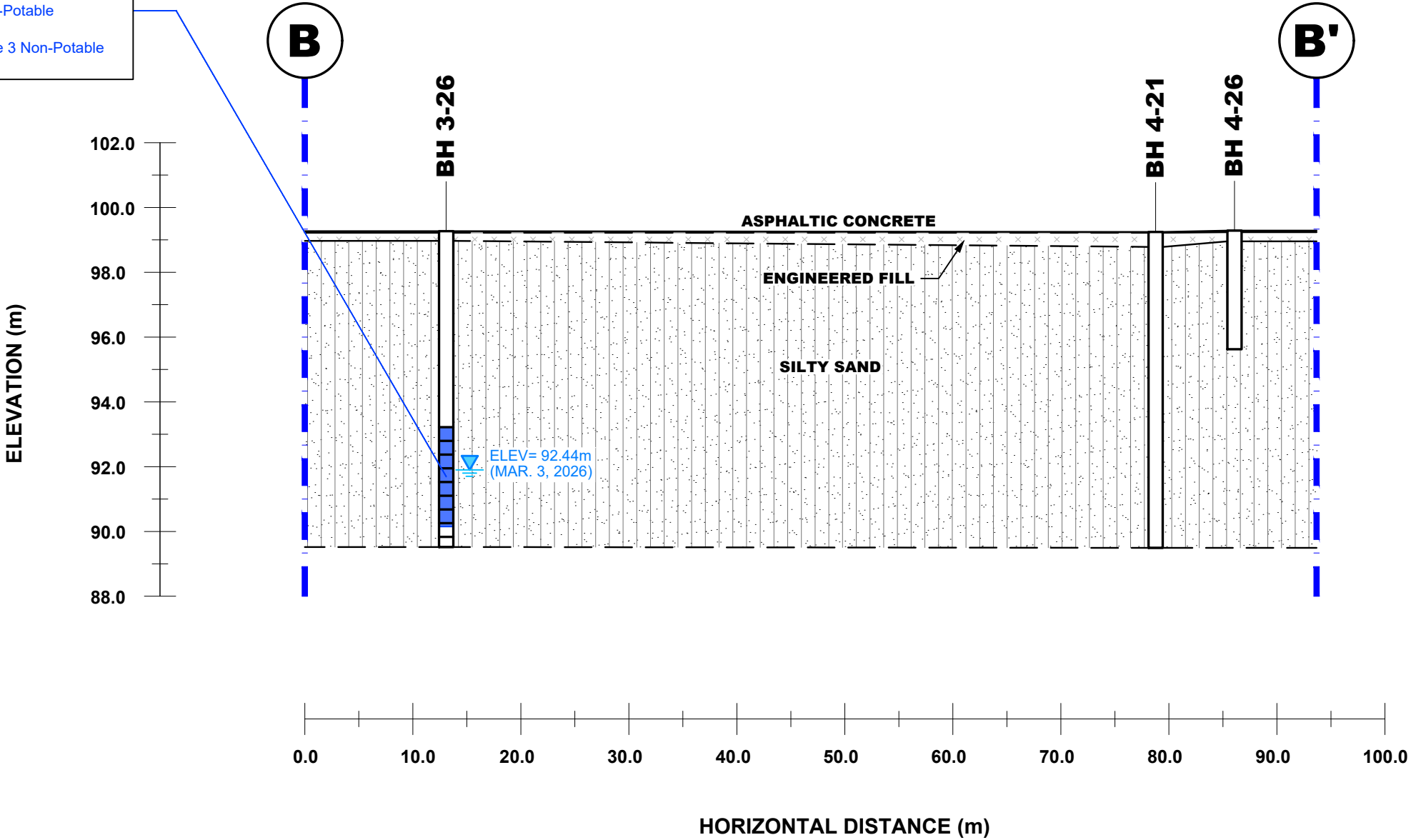
3750 NORTH BOWESVILLE ROAD

OTTAWA, ONTARIO

Title:ANALYTICAL TESTING PLAN - GROUNDWATER

Scale:	1:500	Date:	03/2026
Drawn by:	ZS	Report No.:	PE5280-2
Checked by:	KMP	Dwg. No.:	PE5280-5
Approved by:	AM	Revision No.:	

BH3-26-GW1 6.05-9.12m 4-Mar-2026
Metals (including As, Sb and Se), Hg, Cr VI comply
with MECP Table 3 Non-Potable Groundwater Standards
BTEX comply with MECP Table 3 Non-Potable
Groundwater Standards
PHCs(F1-F4) comply with MECP Table 3 Non-Potable
Groundwater Standards



LEGEND:

GROUNDWATER RESULT COMPLIES WITH THE MECP
TABLE 3 NON-POTABLE GROUNDWATER STANDARDS

- - - PHASE I-II PROPERTY BOUNDARY



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PHASE II - ENVIRONMENTAL SITE ASSESSMENT
3750 NORTH BOWESVILLE ROAD

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Title:

ONTARIO

CROSS-SECTION B-B' - GROUNDWATER

Scale:	AS SHOWN	Date:	03/2026
Drawn by:	ZS	Report No.:	PE5280-2
Checked by:	KMP	Dwg. No.:	PE5280-5B
Approved by:	AM	Revision No.:	

APPENDIX 1

SAMPLING AND ANALYSIS PLAN

SOIL PROFILE AND TEST DATA SHEETS

SYMBOLS AND TERMS

ANALYTICAL TEST RESULTS TABLES

LABORATORY CERTIFICATES OF ANALYSIS

Sampling and Analysis Plan

3750 North Bowesville Road
Ottawa, Ontario

Prepared for Jennings Real Estate

Report: PE5280-SAP

Date: February 20, 2026

TABLE OF CONTENTS

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1.0 SAMPLING PROGRAM

Paterson Group Inc. (Paterson) was commissioned by Jennings Real Estate, to conduct a Phase II – Environmental Site Assessment (Phase II ESA) at 3750 North Bowesville Road, in the City of Ottawa, Ontario.

Based on the findings of the Phase I ESA, the following subsurface investigation program was developed.

Borehole	Location & Rationale	Proposed Depth & Rationale
BH1-25	Placed on the southwestern portion of the Phase II Property to assess for potential soil and groundwater impacts resulting from the identified APECs and for horizontal and/or vertical delineation purposes.	9m to 10m; Drill to intercept water table for monitoring well installation.
BH2-25	Placed on the central-eastern portion of the Phase II Property to assess for potential soil and groundwater impacts resulting from the identified APECs and for horizontal and/or vertical delineation purposes.	9m to 10m; Drill to intercept water table for monitoring well installation.
BH3-25	Placed on the northwestern portion of the Phase II Property to assess for potential soil and groundwater impacts resulting from the identified APECs and for horizontal and/or vertical delineation purposes.	9m to 10m; Drill to intercept water table for monitoring well installation.
BH4-25	Placed on the southeastern portion of the Phase II Property to assess for potential soil impacts resulting from the identified APECs and for horizontal and/or vertical delineation purposes.	3m to 4m; Collect shallow soil samples until native soil layer.

Borehole locations are shown on Drawing PE5280-3 – Test Hole Location Plan, appended to the main report.

At each borehole, split-spoon samples of the overburden soils will be obtained at 0.76 m (2'6") intervals until practical refusal to augering.

All soil samples will be retained, and samples will be selected for submission following a preliminary screening analysis.

Following the borehole drilling, groundwater monitoring wells will be installed in three boreholes (BH1-26, BH2-26 and BH3-26) for the collection of groundwater samples.

2.0 ANALYTICAL TESTING PROGRAM

The analytical testing program for soil at the subject site is based on the following general considerations:

- ☐ At least one sample from each borehole should be submitted, in order to delineate the horizontal extent of contamination across the site.
- ☐ At least one sample from each stratigraphic unit should be submitted, in order to delineate the vertical extent of contamination at the site.
- ☐ In boreholes where there is visual or olfactory evidence of contamination, or where organic vapour meter or photoionization detector readings indicate the presence of contamination, the 'worst-case' sample from each borehole should be submitted for comparison with MECP site condition standards.
- ☐ In boreholes with evidence of contamination as described above, a sample should be submitted from the stratigraphic unit below the 'worst-case' sample to determine whether the contaminant(s) have migrated downward.
- ☐ Parameters analyzed should be consistent with the Contaminants of Potential Concern identified in the Phase I ESA.

The analytical testing program for groundwater at the subject site is based on the following general considerations:

- ☐ Groundwater monitoring wells should be installed in all boreholes with visual or olfactory evidence of soil contamination, in stratigraphic units where soil contamination was encountered, where those stratigraphic units are at or below the water table (i.e. a water sample can be obtained).
- ☐ Groundwater monitoring well screens should straddle the water table at sites where the contaminants of concern are suspected to be LNAPLs.
- ☐ At least one groundwater monitoring well should be installed in a stratigraphic unit below the suspected contamination, where said stratigraphic unit is water-bearing.
- ☐ Parameters analyzed should be consistent with the Contaminants of Concern identified in the Phase I ESA and with the contaminants identified in the soil samples.

3.0 STANDARD OPERATING PROCEDURES

3.1 Environmental Drilling Procedure

Purpose

The purpose of environmental boreholes is to identify and/or delineate contamination within the soil and/or to install groundwater monitoring wells in order to identify contamination within the groundwater.

Equipment

The following is a list of equipment that is in addition to regular drilling equipment stated in the geotechnical drilling SOP:

- ☐ Glass soil sample jars
- ☐ two buckets
- ☐ cleaning brush (toilet brush works well)
- ☐ dish detergent
- ☐ methyl hydrate
- ☐ water (if not available on site - water jugs available in trailer)
- ☐ latex or nitrile gloves (depending on suspected contaminant)
- ☐ RKL Eagle organic vapour meter or MiniRae photoionization detector (depending on contamination suspected)

Determining Borehole Locations

If conditions on site are not as suspected, and planned borehole locations cannot be drilled, **call the office to discuss**. Alternative borehole locations will be determined in conversation with the field technician and supervising engineer.

After drilling is completed a plan with the borehole locations must be provided. Distances and orientations of boreholes with respect to site features (buildings, roadways, etc.) must be provided. Distances should be measured using a measuring tape or wheel rather than paced off. Ground surface elevations at each borehole should be surveyed relative to a geodetic benchmark, if one is available, or a temporary site benchmark which can be tied in at a later date if necessary.

Drilling Procedure

The actual drilling procedure for environmental boreholes is the same as geotechnical boreholes (see SOP for drilling and sampling) with a few exceptions as follows:

- ☐ Continuous split spoon samples (every 0.6 m or 2') or semi-continuous (every 0.76 m or 2'6") are required.
- ☐ Make sure samples are well sealed in plastic bags with no holes prior to screening and are kept cool but unfrozen.
- ☐ If sampling for VOCs, BTEX, or PHCs F₁, a soil core from each soil sample, which may be analyzed, must be taken and placed in the laboratory-provided methanol vial.
- ☐ Note all and any odours or discolouration of samples.
- ☐ Split spoon samplers must be washed between samples.
- ☐ If obvious contamination is encountered, continue sampling until vertical extent of contamination is delineated.
- ☐ As a general rule, environmental boreholes should be deep enough to intercept the groundwater table (unless this is impossible/impractical - call project manager to discuss).
- ☐ If at all possible, soil samples should be submitted to a preliminary screening procedure on site, either using a RKI Eagle, PID, etc. depending on type of suspected contamination.

Spoon Washing Procedure

All sampling equipment (spilt spoons, etc.) must be washed between samples in order to prevent cross contamination of soil samples.

- ☐ Obtain two buckets of water (preferably hot if available)
- ☐ Add a small amount of dish soap to one bucket
- ☐ Scrub spoons with brush in soapy water, inside and out, including tip
- ☐ Rinse in clean water
- ☐ Apply a small amount of methyl hydrate to the inside of the spoon. (A spray bottle or water bottle with a small hole in the cap works well)
- ☐ Allow to dry (takes seconds)
- ☐ Rinse with distilled water, a spray bottle works well.

The methyl hydrate eliminates any soap residue that may be on the spoon and is especially important when dealing with suspected VOCs.

Screening Procedure

The RKI Eagle is used to screen most soil samples, particularly where petroleum hydrocarbon contamination is suspected. The MiniRae is used when VOCs are suspected, however it also can be useful for detecting petroleum. These tools are for screening purposes only and cannot be used in place of laboratory testing. Vapour results obtained from the RKI Eagle and the PID are relative and must be interpreted.

Screening equipment should be calibrated on an approximately monthly basis, more frequently if heavily used.

- ☐ Samples should be brought to room temperature; this is specifically important in colder weather. Soil must not be frozen.
- ☐ Turn instrument on and allow to come to zero - calibrate if necessary
- ☐ If using RKI Eagle, ensure instrument is in methane elimination mode unless otherwise directed.
- ☐ Ensure measurement units are ppm (parts per million) initially. RKI Eagle will automatically switch to %LEL (lower explosive limit) if higher concentrations are encountered.
- ☐ Break up large lumps of soil in the sample bag, taking care not to puncture bag.
- ☐ Insert probe into soil bag, creating a seal with your hand around the opening.
- ☐ Gently manipulate soil in bag while observing instrument readings.
- ☐ Record the highest value obtained in the first 15 to 25 seconds
- ☐ Make sure to indicate scale (ppm or LEL); also note which instrument was used (RKI Eagle 1 or 2, or MiniRae).
- ☐ Jar samples and refrigerate as per Sampling and Analysis Plan.

3.2 Monitoring Well Installation Procedure

Equipment

- ☐ 5' x 2" threaded sections of Schedule 40 PVC slotted well screen (5' x 1 ¼" if installing in cored hole in bedrock)
- ☐ 5' x 2" threaded sections of Schedule 40 PVC riser pipe (5' x 1 ¼" if installing in cored hole in bedrock)
- ☐ Threaded end-cap
- ☐ Slip-cap or J-plug
- ☐ Asphalt cold patch or concrete
- ☐ Silica Sand
- ☐ Bentonite chips (Holeplug)
- ☐ Steel flushmount casing

Procedure

- ☐ Drill borehole to required depth, using drilling and sampling procedures described above.
- ☐ If borehole is deeper than required monitoring well, backfill with bentonite chips to required depth. This should only be done on wells where contamination is not suspected, in order to prevent downward migration of contamination.
- ☐ Only one monitoring well should be installed per borehole.
- ☐ Monitoring wells should not be screened across more than one stratigraphic unit to prevent potential migration of contaminants between units.
- ☐ Where LNAPLs are the suspected contaminants of concern, monitoring wells should be screened straddling the water table in order to capture any free product floating on top of the water table.
- ☐ Thread the end cap onto a section of screen. Thread second section of screen if required. Thread risers onto screen. Lower into borehole to required depth. Ensure slip-cap or J-plug is inserted to prevent backfill materials entering well.
- ☐ As drillers remove augers, backfill borehole annulus with silica sand until the level of sand is approximately 0.3 m above the top of the screen.
- ☐ Backfill with holeplug until at least 0.3 m of holeplug is present above the top of the silica sand.
- ☐ Backfill remainder of borehole with holeplug or with auger cuttings (if contamination is not suspected).
- ☐ Install flushmount casing. Seal space between flushmount and borehole annulus with concrete, cold patch, or holeplug to match surrounding ground surface.

3.3 Monitoring Well Sampling Procedure

Equipment

- ☐ Water level metre or interface probe on hydrocarbon/LNAPL sites
- ☐ Spray bottles containing water and methanol to clean water level tape or interface probe
- ☐ Peristaltic pump
- ☐ Polyethylene tubing for peristaltic pump
- ☐ Flexible tubing for peristaltic pump
- ☐ Latex or nitrile gloves (depending on suspected contaminant)
- ☐ Allen keys and/or 9/16" socket wrench to remove well caps
- ☐ Graduated bucket with volume measurements
- ☐ pH/Temperature/Conductivity combo pen
- ☐ Laboratory-supplied sample bottles

Sampling Procedure

- ☐ Locate well and use socket wrench or Allan key to open metal flush mount protector cap. Remove plastic well cap.
- ☐ Measure water level, with respect to existing ground surface, using water level meter or interface probe. If using interface probe on suspected NAPL site, measure the thickness of free product.
- ☐ Measure total depth of well.
- ☐ Clean water level tape or interface probe using methanol and water. Change gloves between wells.
- ☐ Calculate volume of standing water within well and record.
- ☐ Insert polyethylene tubing into well and attach to peristaltic pump. Turn on peristaltic pump and purge into graduated bucket. Purge at least three well volumes of water from the well. Measure and record field chemistry. Continue to purge, measuring field chemistry after every well volume purged, until appearance or field chemistry stabilizes.
- ☐ Note appearance of purge water, including colour, opacity (clear, cloudy, silty), sheen, presence of LNAPL, and odour. Note any other unusual features (particulate matter, effervescence (bubbling) of dissolved gas, etc.).
- ☐ Fill required sample bottles. If sampling for metals, attach 75-micron filter to discharge tube and filter metals sample. If sampling for VOCs, use low flow rate to ensure continuous stream of non-turbulent flow into sample bottles. Ensure no headspace is present in VOC vials.
- ☐ Replace well cap and flushmount casing cap.

4.0 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

The QA/QC program for this Phase II-ESA is as follows:

- ☐ All non-dedicated sampling equipment (split spoons) will be decontaminated according to the SOPs listed above.
- ☐ All groundwater sampling equipment is dedicated (polyethylene and flexible peristaltic tubing is replaced for each well).
- ☐ Where groundwater samples are to be analyzed for VOCs, one laboratory-provided trip blank will be submitted for analysis with every laboratory submission.
- ☐ Approximately one (1) field duplicate will be submitted for every ten (10) samples submitted for laboratory analysis. A minimum of one (1) field duplicate per project will be submitted. Field duplicates will be submitted for soil and groundwater samples.
- ☐ Where combo pens are used to measure field chemistry, they will be calibrated on an approximately monthly basis, according to frequency of use.

5.0 DATA QUALITY OBJECTIVES

The purpose of setting data quality objectives (DQOs) is to ensure that the level of uncertainty in data collected during the Phase II ESA is low enough that decision-making is not affected, and that the overall objectives of the investigation are met.

The quality of data is assessed by comparing field duplicates with original samples. If the relative percent difference (RPD) between the duplicate and the sample is within 20%, the data are considered to be of sufficient quality so as not to affect decision-making. The RPD is calculated as follows:

$$RPD = \left| \frac{x_1 - x_2}{(x_1 + x_2)/2} \right| \times 100\%$$

Where x_1 is the concentration of a given parameter in an original sample and x_2 is the concentration of that same parameter in the field duplicate sample.

For the purpose of calculating the RPD, it is desirable to select field duplicates from samples for which parameters are present in concentrations above laboratory detection limits, i.e. samples which are expected to be contaminated. If parameters are below laboratory detection limits for selected samples or duplicates, the RPD may be calculated using a concentration equal to one half the laboratory detection limit.

It is also important to consider data quality in the overall context of the project. For example, if the DQOs are not met for a given sample, yet the concentrations of contaminants in both the sample and the duplicate exceed the MOE site remediation standards by a large margin, the decision-making usefulness of the sample may not be considered to be impaired. The proximity of other samples which meet the DQOs must also be considered in developing the Phase II Conceptual Site Model; often there are enough data available to produce a reliable Phase II Conceptual Site Model even if DQOs are not met for certain individual samples.

These considerations are discussed in the body of the report.

6.0 PHYSICAL IMPEDIMENTS TO SAMPLING & ANALYSIS PLAN

Physical impediments to the Sampling and Analysis plan may include:

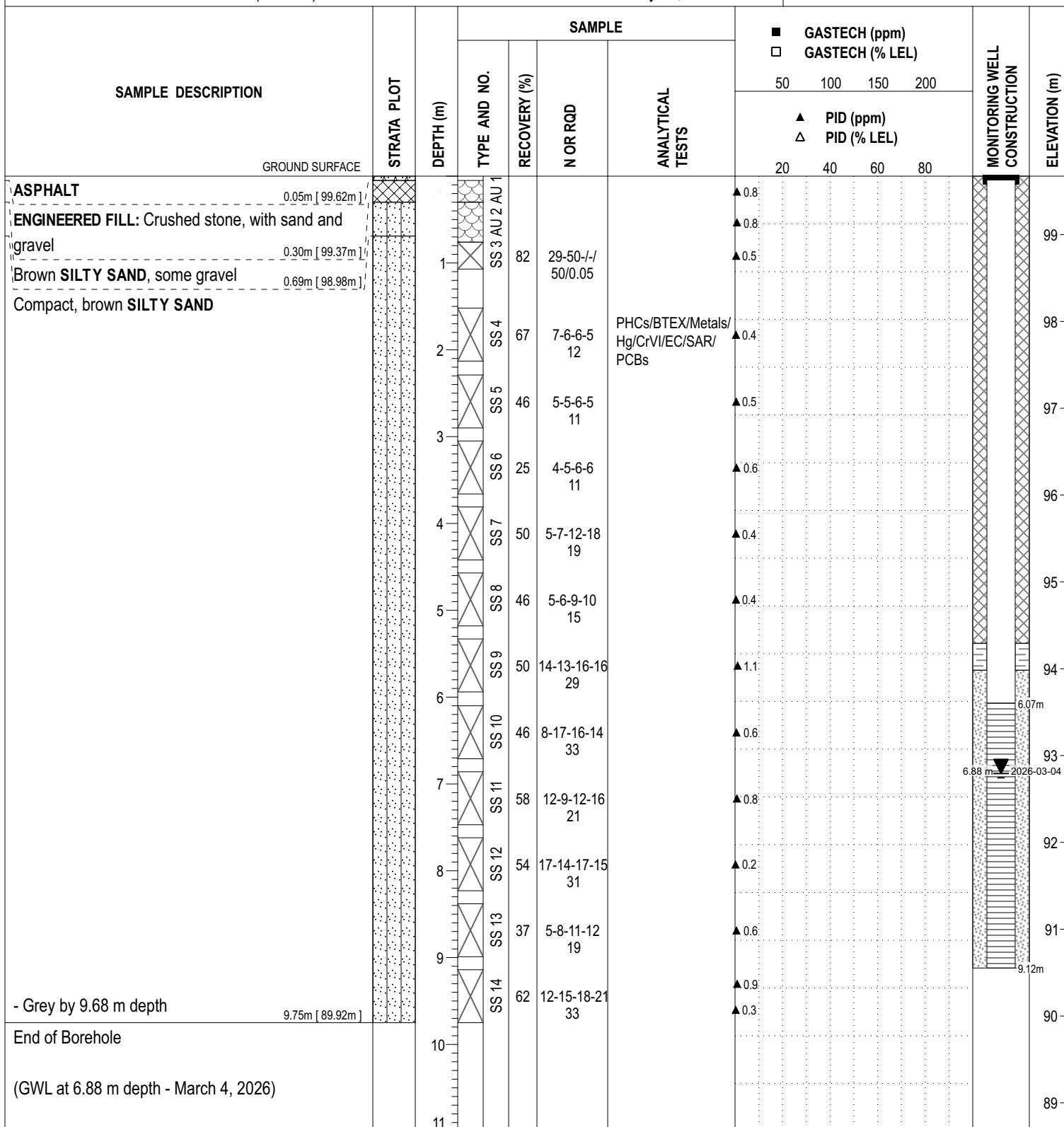
- ☐ The location of underground utilities
- ☐ Poor recovery of split-spoon soil samples
- ☐ Insufficient groundwater volume for groundwater samples
- ☐ Breakage of sampling containers following sampling or while in transit to the laboratory
- ☐ Elevated detection limits due to matrix interference (generally related to soil colour or presence of organic material)
- ☐ Elevated detection limits due to high concentrations of certain parameters, necessitating dilution of samples in laboratory
- ☐ Drill rig breakdowns
- ☐ Winter conditions
- ☐ Other site-specific impediments

Site-specific impediments to the Sampling and Analysis plan are discussed in the body of the Phase II-ESA report.

[illegible]

PAGE: 1 / 1

COORD. SYS.: MTM ZONE 9	EASTING: 368354.62	NORTHING: 5022680.20	ELEVATION: 99.67
PROJECT: Phase II Environmental Site Assessment			FILE NO. : PE5280
ADVANCED BY: Truck Mounted Drill Rig			HOLE NO. : BH2-26
REMARKS: Datum: NAD1983 (Canada) Geoid: HT2-2010 DATE: February 23, 2026			



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COORD. SYS.: MTM ZONE 9 **EASTING:** 368288.22 **NORTHING:** 5022648.42 **ELEVATION:** 99.81

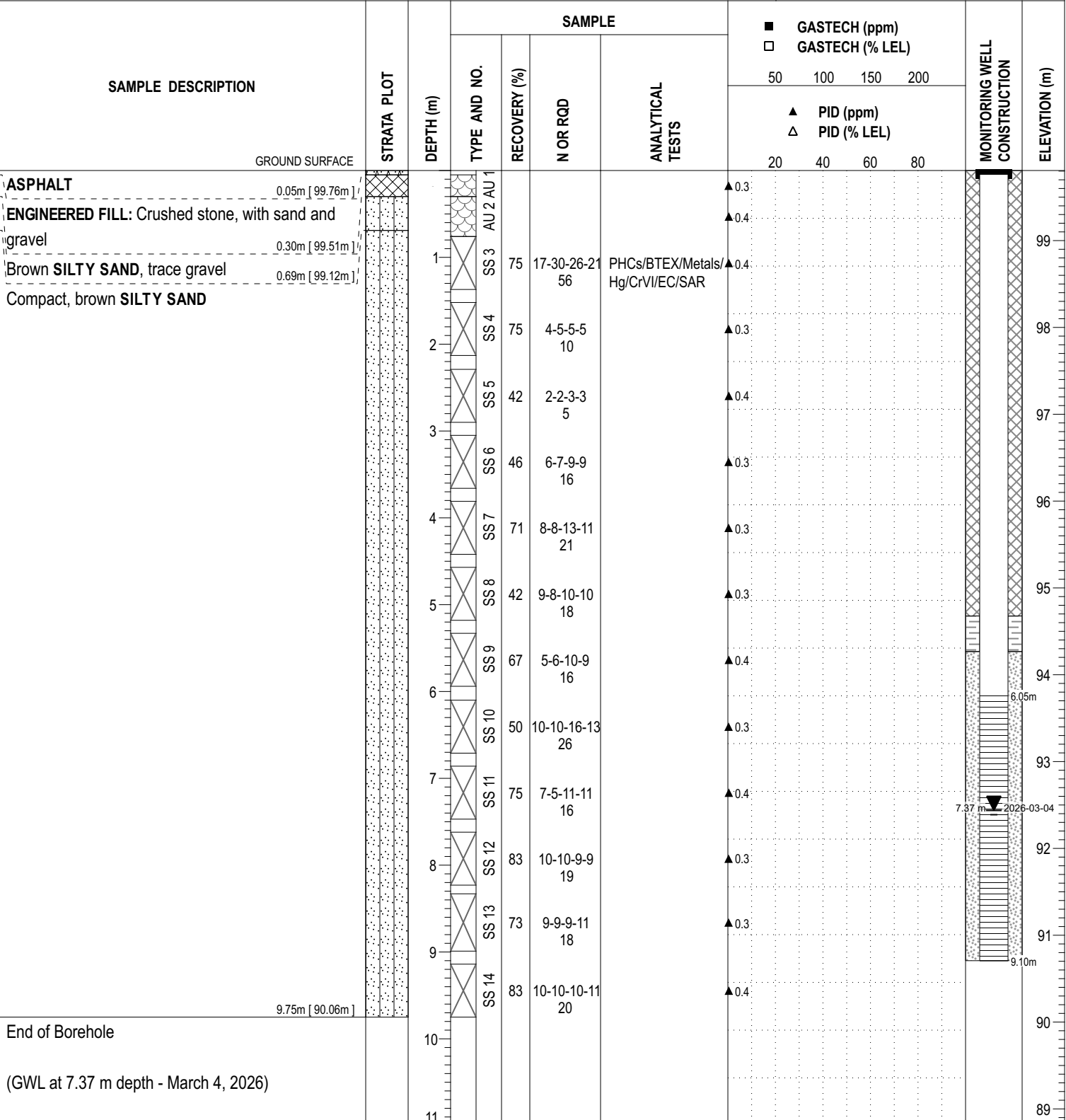
PROJECT: Phase II Environmental Site Assessment

FILE NO. : PE5280

ADVANCED BY: Truck Mounted Drill Rig

REMARKS: Datum: NAD1983 (Canada) Geoid: HT2-2010

DATE: February 26, 2026

HOLE NO. : BH3-26


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COORD. SYS.: MTM ZONE 9 **EASTING:** 368359.30 **NORTHING:** 5022631.38 **ELEVATION:** 99.86

PROJECT: Phase II Environmental Site Assessment **FILE NO. :** PE5280

ADVANCED BY: Truck Mounted Drill Rig

REMARKS: Datum: NAD1983 (Canada) Geoid: HT2-2010 **DATE:** February 26, 2026 **HOLE NO. :** BH4-26

SAMPLE DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLE				GASTECH (ppm) GASTECH (% LEL)				PIEZOMETER CONSTRUCTION	ELEVATION (m)
			TYPE AND NO.	RECOVERY (%)	N OR RQD	ANALYTICAL TESTS	50	100	150	200		
							PID (ppm) PID (% LEL)					
GROUND SURFACE							20	40	60	80		
ASPHALT												
ENGINEERED FILL: Crushed stone, with sand and gravel												
Brown SILTY SAND, trace gravel		1	SS 3	75	18-22-18-17	PHCs/BTEX/PAHs/ Metals/Hg/CrVI/EC/ SAR/pH	▲ 1.6					99
Loose, brown SILTY SAND		2	SS 4	46	5-5-4-3		▲ 0.5					98
		3	SS 5	58	3-3-3-4		▲ 0.4					97
		4	SS 6	50	3-3-3-4		▲ 0.3					96
End of Borehole		5										95
		6										94
		7										93
		8										92
		9										91
		10										90
		11										89

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SYMBOLS AND TERMS

SOIL DESCRIPTION

Behavioural properties, such as structure and strength, take precedence over particle gradation in describing soils. Terminology describing soil structure are as follows:

Desiccated	-	having visible signs of weathering by oxidation of clay minerals, shrinkage cracks, etc.
Fissured	-	having cracks, and hence a blocky structure.
Varved	-	composed of regular alternating layers of silt and clay.
Stratified	-	composed of alternating layers of different soil types, e.g. silt and sand or silt and clay.
Well-Graded	-	Having wide range in grain sizes and substantial amounts of all intermediate particle sizes (see Grain Size Distribution).
Uniformly-Graded	-	Predominantly of one grain size (see Grain Size Distribution).

The standard terminology to describe the relative strength of cohesionless soils is the compactness condition, usually inferred from the results of the Standard Penetration Test (SPT) 'N' value. The SPT N value is the number of blows of a 63.5 kg hammer, falling 760 mm, required to drive a 51 mm O.D. split spoon sampler 300 mm into the soil after an initial penetration of 150 mm. An SPT N value of "P" denotes that the split-spoon sampler was pushed 300 mm into the soil without the use of a falling hammer.

Compactness Condition	'N' Value	Relative Density %
Very Loose	<4	<15
Loose	4-10	15-35
Compact	10-30	35-65
Dense	30-50	65-85
Very Dense	>50	>85

The standard terminology to describe the strength of cohesive soils is the consistency, which is based on the undisturbed undrained shear strength as measured by the in situ or laboratory shear vane tests, unconfined compression tests, or occasionally by the Standard Penetration Test (SPT). Note that the typical correlations of undrained shear strength to SPT N value (tabulated below) tend to underestimate the consistency for sensitive silty clays, so Paterson reviews the applicable split spoon samples in the laboratory to provide a more representative consistency value based on tactile examination.

Consistency	Undrained Shear Strength (kPa)	'N' Value
Very Soft	<12	<2
Soft	12-25	2-4
Firm	25-50	4-8
Stiff	50-100	8-15
Very Stiff	100-200	15-30
Hard	>200	>30

SYMBOLS AND TERMS (continued)

SOIL DESCRIPTION (continued)

Cohesive soils can also be classified according to their “sensitivity”. The sensitivity, S_t , is the ratio between the undisturbed undrained shear strength and the remoulded undrained shear strength of the soil. The classes of sensitivity may be defined as follows:

Low Sensitivity:	$S_t < 2$
Medium Sensitivity:	$2 < S_t < 4$
Sensitive:	$4 < S_t < 8$
Extra Sensitive:	$8 < S_t < 16$
Quick Clay:	$S_t > 16$

ROCK DESCRIPTION

The structural description of the bedrock mass is based on the Rock Quality Designation (RQD).

The RQD classification is based on a modified core recovery percentage in which all pieces of sound core over 100 mm long are counted as recovery. The smaller pieces are considered to be a result of closely-spaced discontinuities (resulting from shearing, jointing, faulting, or weathering) in the rock mass and are not counted. RQD is ideally determined from NQ or larger size core. However, it can be used on smaller core sizes, such as BQ, if the bulk of the fractures caused by drilling stresses (called “mechanical breaks”) are easily distinguishable from the normal in situ fractures.

RQD %	ROCK QUALITY
90-100	Excellent, intact, very sound
75-90	Good, massive, moderately jointed or sound
50-75	Fair, blocky and seamy, fractured
25-50	Poor, shattered and very seamy or blocky, severely fractured
0-25	Very poor, crushed, very severely fractured

SAMPLE TYPES

SS	-	Split spoon sample (obtained in conjunction with the performing of the Standard Penetration Test (SPT))
TW	-	Thin wall tube or Shelby tube, generally recovered using a piston sampler
G	-	"Grab" sample from test pit or surface materials
AU	-	Auger sample or bulk sample
WS	-	Wash sample
RC	-	Rock core sample (Core bit size BQ, NQ, HQ, etc.). Rock core samples are obtained with the use of standard diamond drilling bits.

SYMBOLS AND TERMS (continued)

PLASTICITY LIMITS AND GRAIN SIZE DISTRIBUTION

WC%	-	Natural water content or water content of sample, %
LL	-	Liquid Limit, % (water content above which soil behaves as a liquid)
PL	-	Plastic Limit, % (water content above which soil behaves plastically)
PI	-	Plasticity Index, % (difference between LL and PL)
D _{xx}	-	Grain size at which xx% of the soil, by weight, is of finer grain sizes These grain size descriptions are not used below 0.075 mm grain size
D ₁₀	-	Grain size at which 10% of the soil is finer (effective grain size)
D ₆₀	-	Grain size at which 60% of the soil is finer
C _c	-	Concavity coefficient = $(D_{30})^2 / (D_{10} \times D_{60})$
C _u	-	Uniformity coefficient = D_{60} / D_{10}

C_c and C_u are used to assess the grading of sands and gravels:

Well-graded gravels have: $1 < C_c < 3$ and $C_u > 4$

Well-graded sands have: $1 < C_c < 3$ and $C_u > 6$

Sands and gravels not meeting the above requirements are poorly-graded or uniformly-graded.

C_c and C_u are not applicable for the description of soils with more than 10% silt and clay
(more than 10% finer than 0.075 mm or the #200 sieve)

CONSOLIDATION TEST

p' _o	-	Present effective overburden pressure at sample depth
p' _c	-	Preconsolidation pressure of (maximum past pressure on) sample
C _{cr}	-	Recompression index (in effect at pressures below p' _c)
C _c	-	Compression index (in effect at pressures above p' _c)
OC Ratio		Overconsolidation ratio = p'_c / p'_o
Void Ratio		Initial sample void ratio = volume of voids / volume of solids
W _o	-	Initial water content (at start of consolidation test)

PERMEABILITY TEST

k	-	Coefficient of permeability or hydraulic conductivity is a measure of the ability of water to flow through the sample. The value of k is measured at a specified unit weight for (remoulded) cohesionless soil samples, because its value will vary with the unit weight or density of the sample during the test.
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SYMBOLS AND TERMS (continued)

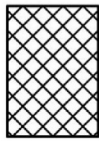
STRATA PLOT



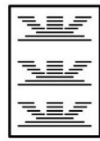
Topsoil



Asphalt



Fill



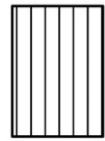
Peat



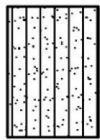
Sand



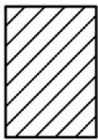
Silty Sand



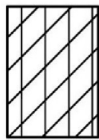
Silt



Sandy Silt



Clay



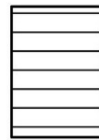
Silty Clay



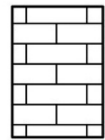
Clayey Silty Sand



Glacial Till



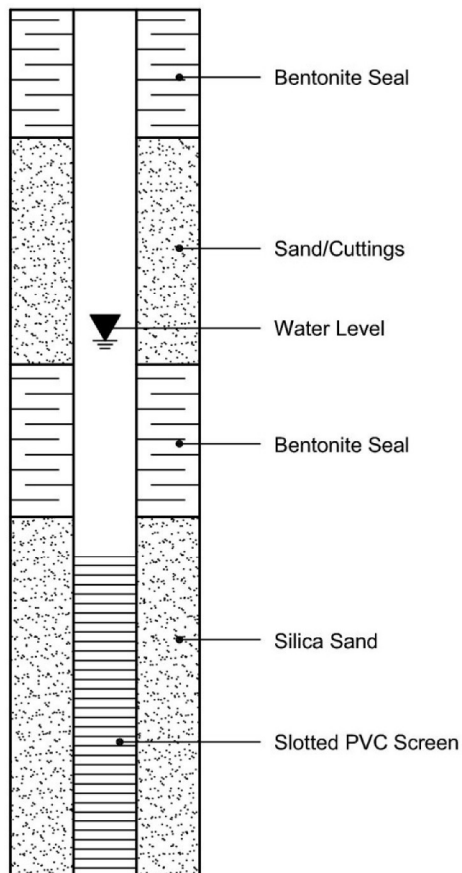
Shale



Bedrock

MONITORING WELL AND PIEZOMETER CONSTRUCTION

MONITORING WELL CONSTRUCTION



PIEZOMETER CONSTRUCTION

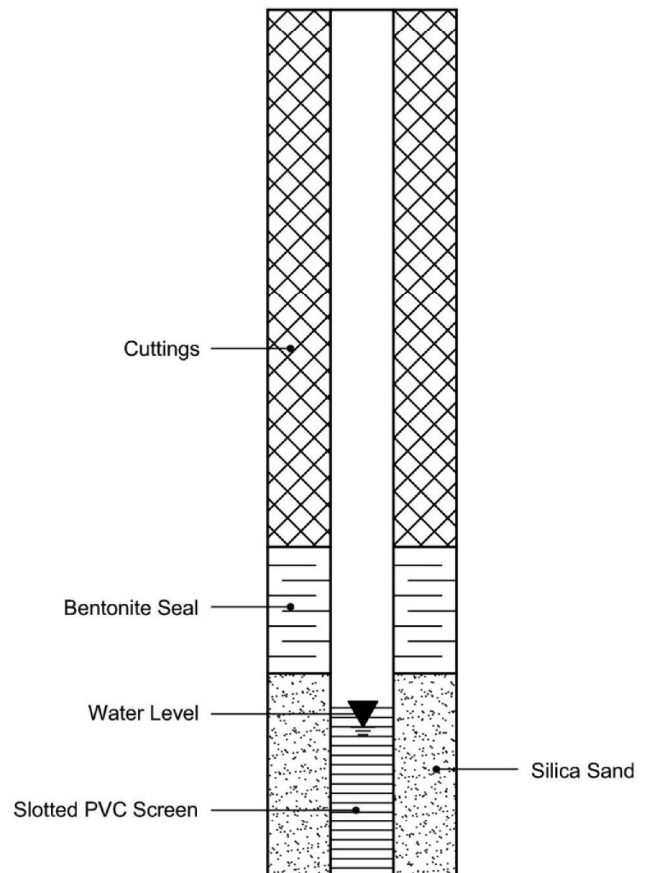


Table 1: Test Hole Summary Details

Test Hole ID	Date of Construction	Well Diameter (mm)	Ground Surface Elevation (masl)	Test Hole Depth (m)	Test Hole Bottom Elevation (masl)	Well Screen Length (m)	Well Screen Interval (mbgs)	Well Screen Interval (masl)	Geologic Media Intercepted by Well Screen
BH1-26	23-Feb-2026	32	99.72	9.75	89.968	3.05	5.75 - 8.80	87.87 - 90.92	Overburden
BH2-26	23-Feb-2026	32	99.67	9.75	89.923	3.05	6.07 - 9.12	87.50 - 90.55	Overburden
BH3-26	26-Feb-2026	32	99.81	9.75	90.057	3.05	6.05 - 9.10	87.66 - 90.71	Overburden
BH4-26	26-Feb-2026	-	99.86	3.66	96.2	-	-	-	-

Table 2: Stabilized Water Quality Parameters

Phase II ESA
3750 North Bowesville Road
Ottawa, Ontario

Test Hole ID	Temperature (°C)	Conductivity (µS)	pH	Date of Measurement
BH1-26	6.7	862	4.3	4-Mar-2026
BH2-26	8.9	585	4.2	4-Mar-2026
BH3-26	9.5	1199	4.8	4-Mar-2026

Table 3: Soil Testing Summary

Sample ID and Laboratory ID	Sample Depth (mbgs)	Sampling Date	Rationale	PID Vapour Reading (ppm)	Parameter Groups Analyzed										
					PHCs	BTEX	VOCs	PAHs	PCBs	Metals	Hg	Cr ^{VI}	EC	SAR	pH
BH1-26-SS4 (A) 2609205-01	1.52 - 1.83	23-Feb-2026	To assess former automotive service garage (APEC 1), fill material of unknown quality (APEC 4) and use of salt during water conditions (APEC 5)	0.6	✓		✓	✓		✓	✓	✓	✓	✓	✓
BH2-26-SS4 2609205-02	1.52 - 2.13	23-Feb-2026	To assess former track (APEC 2), existing pad mounted transformer (APEC 3) and use of salt during water conditions (APEC 5)	0.4	✓	✓			✓	✓	✓	✓	✓	✓	
DUP-1 2609205-03	1.52 - 2.13	23-Feb-2026	Duplicate sample for QA/QC purposes	0.4	✓	✓									
BH3-26-SS3 2609530-01	0.76 - 1.37	26-Feb-2026	To assess former track (APEC 2) and use of salt during water conditions (APEC 5)	0.4	✓	✓				✓	✓	✓	✓	✓	
BH4-26-AU2 2609530-02	0.33 - 0.76	26-Feb-2026	To assess fill material of unknown quality (APEC 4) and use of salt during water conditions (APEC 5)	0.5	✓	✓		✓		✓	✓	✓	✓	✓	✓

Table 4: Groundwater Testing Summary

Sample ID and Laboratory ID	Sample Depth (mbgs)	Sampling Date	Rationale	Parameter Groups Analyzed						
				PHCs	BTEX	VOCs	PAHs	Metals	Hg	Cr ^{VI}
BH1-26-GW1 2610301-01	5.75 - 8.80	4-Mar-2026	To assess groundwater beneath the former go cart repair shop (APEC 1)	✓	✓	✓	✓	✓	✓	✓
BH2-26-GW1 2610301-02	6.07 - 9.12	4-Mar-2026	To assess groundwater beneath the former go cart track (APEC 2)	✓	✓			✓	✓	✓
BH3-26-GW1 2610301-03	6.05 - 9.10	4-Mar-2026	To assess groundwater beneath the former go cart track (APEC 2)	✓	✓			✓	✓	✓
DUP-1 2610301-04	6.07 - 9.12	4-Mar-2026	Duplicate sample for QA/QC purposes	✓	✓					

Table 5: Groundwater Levels

Test Hole ID	Ground Surface Elevation (masl)	Water Level Depth (mbgs)	Water Level Elevation (masl)	Date of Measurement
BH1-26	99.72	7.03	92.69	4-Mar-2026
BH2-26	99.67	6.88	92.79	4-Mar-2026
BH3-26	99.81	7.37	92.44	4-Mar-2026

Table 6: Soil Analytical Test Results

Parameter	Units	MDL	Regulation	BH1-26-SS4 (A) 2609205-01	BH2-26-SS4 2609205-02	DUP-1 2609205-03	BH3-26-SS3 2609530-01	BH4-26-AU2 2609530-02
Sample Depth (m)			Reg 153/04 - Table 3 Residential, coarse	1.52 - 1.83	1.52 - 2.13	1.52 - 2.13	0.76 - 1.37	0.33 - 0.76
Sample Date				23-Feb-2026	23-Feb-2026	23-Feb-2026	26-Feb-2026	26-Feb-2026
Physical Characteristics								
% Solids	% by Wt.	0.1		85.5	95.7	95.6	95.6	91.3
General Inorganics								
SAR	N/A	0.01	5.0	3.71	9.55	-	0.89	3.65
Conductivity	uS/cm	5	700	499	665	-	219	1370
pH	pH Units	0.05	5-9 (surf); 5-11 (subsurf)	7.8	-	-	-	7.72
Metals								
Antimony	ug/g dry	1.0	7.5	ND (1.0)	ND (1.0)	-	ND (1.0)	ND (1.0)
Arsenic	ug/g dry	1.0	18	3.3	3.2	-	1.5	1.6
Barium	ug/g dry	1.0	390	135	36.3	-	19.4	30.4
Beryllium	ug/g dry	0.5	4.0	0.5	ND (0.5)	-	ND (0.5)	ND (0.5)
Boron	ug/g dry	5.0	120	8.7	ND (5.0)	-	ND (5.0)	ND (5.0)
Cadmium	ug/g dry	0.5	1.2	ND (0.5)	ND (0.5)	-	ND (0.5)	ND (0.5)
Chromium (VI)	ug/g dry	0.2	8.0	ND (0.2)	0.2	-	ND (0.2)	ND (0.2)
Chromium	ug/g dry	5.0	160	21.1	11.2	-	6.1	30.4
Cobalt	ug/g dry	1.0	22	6.7	4.1	-	2.2	3.1
Copper	ug/g dry	5.0	140	15.8	10.3	-	ND (5.0)	ND (5.0)
Lead	ug/g dry	1.0	120	50.1	6	-	2.1	3.8
Mercury	ug/g dry	0.1	0.27	ND (0.1)	ND (0.1)	-	ND (0.1)	ND (0.1)
Molybdenum	ug/g dry	1.0	6.9	ND (1.0)	ND (1.0)	-	ND (1.0)	ND (1.0)
Nickel	ug/g dry	5.0	100	13.3	7.2	-	ND (5.0)	6.6
Selenium	ug/g dry	1.0	2.4	ND (1.0)	ND (1.0)	-	ND (1.0)	ND (1.0)
Silver	ug/g dry	0.3	20	ND (0.3)	ND (0.3)	-	ND (0.3)	ND (0.3)
Thallium	ug/g dry	1.0	1.0	ND (1.0)	ND (1.0)	-	ND (1.0)	ND (1.0)
Uranium	ug/g dry	1.0	23	ND (1.0)	ND (1.0)	-	ND (1.0)	ND (1.0)
Vanadium	ug/g dry	10.0	86	29.7	21.7	-	10.8	18.6
Zinc	ug/g dry	20.0	340	58.8	ND (20.0)	-	ND (20.0)	21.8
VOCs								
Acetone	ug/g dry	0.50	16	ND (0.50)	-	-	-	-
Benzene	ug/g dry	0.02	0.21	ND (0.02)	-	-	-	-
Bromodichloromethane	ug/g dry	0.05	13	ND (0.05)	-	-	-	-
Bromoform	ug/g dry	0.05	0.27	ND (0.05)	-	-	-	-
Bromomethane	ug/g dry	0.05	0.05	ND (0.05)	-	-	-	-
Carbon Tetrachloride	ug/g dry	0.05	0.05	ND (0.05)	-	-	-	-
Chlorobenzene	ug/g dry	0.05	2.4	ND (0.05)	-	-	-	-
Chloroform	ug/g dry	0.05	0.05	ND (0.05)	-	-	-	-
Dibromochloromethane	ug/g dry	0.05	9.4	ND (0.05)	-	-	-	-
Dichlorodifluoromethane	ug/g dry	0.05	16	ND (0.05)	-	-	-	-
1,2-Dichlorobenzene	ug/g dry	0.05	3.4	ND (0.05)	-	-	-	-
1,3-Dichlorobenzene	ug/g dry	0.05	4.8	ND (0.05)	-	-	-	-
1,4-Dichlorobenzene	ug/g dry	0.05	0.083	ND (0.05)	-	-	-	-
1,1-Dichloroethane	ug/g dry	0.05	3.5	ND (0.05)	-	-	-	-
1,2-Dichloroethane	ug/g dry	0.05	0.05	ND (0.05)	-	-	-	-
1,1-Dichloroethylene	ug/g dry	0.05	0.05	ND (0.05)	-	-	-	-
cis-1,2-Dichloroethylene	ug/g dry	0.05	3.4	ND (0.05)	-	-	-	-
trans-1,2-Dichloroethylene	ug/g dry	0.05	0.084	ND (0.05)	-	-	-	-
1,2-Dichloropropane	ug/g dry	0.05	0.05	ND (0.05)	-	-	-	-
cis-1,3-Dichloropropylene	ug/g dry	0.05	0.05	ND (0.05)	-	-	-	-
trans-1,3-Dichloropropylene	ug/g dry	0.05	0.05	ND (0.05)	-	-	-	-
1,3-Dichloropropene, total	ug/g dry	0.05	0.05	ND (0.05)	-	-	-	-
Ethylbenzene	ug/g dry	0.05	2.0	ND (0.05)	-	-	-	-
Ethylene dibromide (dibromoethane, 1,2-dibromoethane)	ug/g dry	0.05	0.05	ND (0.05)	-	-	-	-
Hexane	ug/g dry	0.05	2.8	ND (0.05)	-	-	-	-
Methyl Ethyl Ketone (2-Butanone)	ug/g dry	0.50	16	ND (0.50)	-	-	-	-
Methyl Isobutyl Ketone	ug/g dry	0.50	1.7	ND (0.50)	-	-	-	-
Methyl tert-butyl ether	ug/g dry	0.05	0.75	ND (0.05)	-	-	-	-
Methylene Chloride	ug/g dry	0.05	0.1	ND (0.05)	-	-	-	-
Styrene	ug/g dry	0.05	0.7	ND (0.05)	-	-	-	-
1,1,1,2-Tetrachloroethane	ug/g dry	0.05	0.058	ND (0.05)	-	-	-	-
1,1,2,2-Tetrachloroethane	ug/g dry	0.05	0.05	ND (0.05)	-	-	-	-
Tetrachloroethylene	ug/g dry	0.05	0.28	ND (0.05)	-	-	-	-
Toluene	ug/g dry	0.05	2.3	ND (0.05)	-	-	-	-
1,1,1-Trichloroethane	ug/g dry	0.05	0.38	ND (0.05)	-	-	-	-
1,1,2-Trichloroethane	ug/g dry	0.05	0.05	ND (0.05)	-	-	-	-
Trichloroethylene	ug/g dry	0.05	0.061	ND (0.05)	-	-	-	-
Trichlorofluoromethane	ug/g dry	0.05	4.0	ND (0.05)	-	-	-	-
Vinyl Chloride	ug/g dry	0.02	0.02	ND (0.02)	-	-	-	-
m/p-Xylene	ug/g dry	0.05	3.1	ND (0.05)	-	-	-	-
o-Xylene	ug/g dry	0.05	3.1	ND (0.05)	-	-	-	-
Xylenes, total	ug/g dry	0.05	3.1	ND (0.05)	-	-	-	-
BTEX								
Benzene	ug/g dry	0.02	0.21	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Ethylbenzene	ug/g dry	0.05	2.0	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)
Toluene	ug/g dry	0.05	2.3	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)
m/p-Xylene	ug/g dry	0.05	3.1	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)
o-Xylene	ug/g dry	0.05	3.1	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)
Xylenes, total	ug/g dry	0.05	3.1	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)
PHCs								
F1 PHCs (C6-C10)	ug/g dry	7	55	ND (7)	ND (7)	ND (7)	ND (7)	ND (7)
F2 PHCs (C10-C16)	ug/g dry	4	98	ND (4)	ND (4)	ND (4)	ND (4)	ND (4)
F3 PHCs (C16-C34)	ug/g dry	8	300	38	ND (8)	ND (8)	ND (8)	ND (8)
F4 PHCs (C34-C50)	ug/g dry	6	2800	15	ND (6)	ND (6)	ND (6)	ND (6)
PAHs								
Acenaphthene	ug/g dry	0.02	7.9	ND (0.02)	-	-	-	ND (0.02)
Acenaphthylene	ug/g dry	0.02	0.15	ND (0.02)	-	-	-	ND (0.02)
Anthracene	ug/g dry	0.02	0.67	ND (0.02)	-	-	-	ND (0.02)
Benzo[a]anthracene	ug/g dry	0.02	0.5	ND (0.02)	-	-	-	ND (0.02)
Benzo[a]pyrene	ug/g dry	0.02	0.3	ND (0.02)	-	-	-	ND (0.02)
Benzo[b]fluoranthene	ug/g dry	0.02	0.78	ND (0.02)	-	-	-	ND (0.02)
Benzo[g,h,i]perylene	ug/g dry	0.02	6.6	ND (0.02)	-	-	-	ND (0.02)
Benzo[k]fluoranthene	ug/g dry	0.02	0.78	ND (0.02)	-	-	-	ND (0.02)
Chrysene	ug/g dry	0.02	7.0	ND (0.02)	-	-	-	ND (0.02)
Dibenzo[a,h]anthracene	ug/g dry	0.02	0.1	ND (0.02)	-	-	-	ND (0.02)
Fluoranthene	ug/g dry	0.02	0.69	ND (0.02)	-	-	-	ND (0.02)
Fluorene	ug/g dry	0.02	62	ND (0.02)	-	-	-	ND (0.02)
Indeno [1,2,3-cd] pyrene	ug/g dry	0.02	0.38	ND (0.02)	-	-	-	ND (0.02)
1-Methylnaphthalene	ug/g dry	0.02	0.99	ND (0.02)	-	-	-	ND (0.02)
2-Methylnaphthalene	ug/g dry	0.02	0.99	ND (0.02)	-	-	-	ND (0.02)
Methylnaphthalene (1&2)	ug/g dry	0.04	0.99	ND (0.04)	-	-	-	ND (0.04)
Naphthalene	ug/g dry	0.01	0.6	ND (0.01)	-	-	-	ND (0.01)
Phenanthrene	ug/g dry	0.02	6.2	ND (0.02)	-	-	-	ND (0.02)
Pyrene	ug/g dry	0.02	78	ND (0.02)	-	-	-	ND (0.02)
PCBs								
PCBs, total	ug/g dry	0.05	0.35	-	ND (0.05)	-	-	-

2.00 Result exceeds Reg 153/04 - Table 3 Residential, coarse Standards

ND (0.2) MDL exceeds Reg 153/04 - Table 3 Residential, coarse Standards

ND (0.2) No concentrations identified above the MDL

- Parameter not analysed

NV No value given for indicated parameter

Table 6A: Maximum Concentrations Soil

Phase II ESA
3750 North Bowesville Road
Ottawa, Ontario

Parameter	Sample ID / Depth (m)	Units	Reg 153/04 - Table 3 Residential, coarse Standards	Concentration
SAR	BH2-26-SS4 2609205-02 - 1.52 - 2.13	N/A	5.0	9.55
Conductivity	BH4-26-AU2 2609530-02 - 0.33 - 0.76	uS/cm	700	1370
pH	BH1-26-SS4 (A) 2609205-01 - 1.52 - 1.83	pH Units	5-9 (surf); 5-11 (subsurf)	7.8
Arsenic	BH1-26-SS4 (A) 2609205-01 - 1.52 - 1.83	ug/g dry	18	3.3
Barium	BH1-26-SS4 (A) 2609205-01 - 1.52 - 1.83	ug/g dry	390	135
Beryllium	BH1-26-SS4 (A) 2609205-01 - 1.52 - 1.83	ug/g dry	4.0	0.5
Boron	BH1-26-SS4 (A) 2609205-01 - 1.52 - 1.83	ug/g dry	120	8.7
Chromium	BH4-26-AU2 2609530-02 - 0.33 - 0.76	ug/g dry	160	30.4
Cobalt	BH1-26-SS4 (A) 2609205-01 - 1.52 - 1.83	ug/g dry	22	6.7
Copper	BH1-26-SS4 (A) 2609205-01 - 1.52 - 1.83	ug/g dry	140	15.8
Lead	BH1-26-SS4 (A) 2609205-01 - 1.52 - 1.83	ug/g dry	120	50.1
Nickel	BH1-26-SS4 (A) 2609205-01 - 1.52 - 1.83	ug/g dry	100	13.3
Vanadium	BH1-26-SS4 (A) 2609205-01 - 1.52 - 1.83	ug/g dry	86	29.7
Zinc	BH1-26-SS4 (A) 2609205-01 - 1.52 - 1.83	ug/g dry	340	58.8
F3 PHCs (C16-C34)	BH1-26-SS4 (A) 2609205-01 - 1.52 - 1.83	ug/g dry	300	38
F4 PHCs (C34-C50)	BH1-26-SS4 (A) 2609205-01 - 1.52 - 1.83	ug/g dry	2800	15
All remaining parameters analysed were reported non-detect in all samples.				

Table 7: Groundwater Analytical Test Results

Parameter	Units	MDL	Regulation	BH1-26-GW1 2610301-01	BH2-26-GW1 2610301-02	BH3-26-GW1 2610301-03	DUP-1 2610301-04
Sample Depth (m)			Reg 153/04 - Table 3 Non-Potable Groundwater, coarse	5.75 - 8.80	6.07 - 9.12	6.05 - 9.10	6.07 - 9.12
Sample Date				4-Mar-2026	4-Mar-2026	4-Mar-2026	4-Mar-2026
Metals							
Mercury	ug/L	0.1	0.29	ND (0.1)	ND (0.1)	ND (0.1)	-
Antimony	ug/L	0.5	20000	ND (0.5)	ND (0.5)	ND (0.5)	-
Arsenic	ug/L	1	1900	ND (1)	ND (1)	ND (1)	-
Barium	ug/L	1	29000	49	41	88	-
Beryllium	ug/L	0.5	67	ND (0.5)	ND (0.5)	ND (0.5)	-
Boron	ug/L	10	45000	19	15	27	-
Cadmium	ug/L	0.1	2.7	ND (0.1)	ND (0.1)	ND (0.1)	-
Chromium	ug/L	1	810	ND (1)	ND (1)	ND (1)	-
Chromium (VI)	ug/L	10	140	ND (10)	ND (10)	ND (10)	-
Cobalt	ug/L	0.5	66	ND (0.5)	0.9	1.8	-
Copper	ug/L	0.5	87	1.9	6.1	3.3	-
Lead	ug/L	0.1	25	ND (0.1)	ND (0.1)	ND (0.1)	-
Molybdenum	ug/L	0.5	9200	ND (0.5)	ND (0.5)	1	-
Nickel	ug/L	1	490	2	1	1	-
Selenium	ug/L	1	63	ND (1)	ND (1)	ND (1)	-
Silver	ug/L	0.1	1.5	ND (0.1)	ND (0.1)	ND (0.1)	-
Sodium	ug/L	200	2300000	39600	12900	98300	-
Thallium	ug/L	0.1	510	ND (0.1)	ND (0.1)	ND (0.1)	-
Uranium	ug/L	0.1	420	0.2	0.2	0.5	-
Vanadium	ug/L	0.5	250	ND (0.5)	ND (0.5)	ND (0.5)	-
Zinc	ug/L	5	1100	ND (5)	12	7	-
Volatiles							
Acetone	ug/L	5.0	130000	ND (5.0)	-	-	-
Benzene	ug/L	0.5	44	ND (0.5)	-	-	-
Bromodichloromethane	ug/L	0.5	85000	ND (0.5)	-	-	-
Bromoform	ug/L	0.5	380	ND (0.5)	-	-	-
Bromomethane	ug/L	0.5	5.6	ND (0.5)	-	-	-
Carbon Tetrachloride	ug/L	0.2	0.79	ND (0.2)	-	-	-
Chlorobenzene	ug/L	0.5	630	ND (0.5)	-	-	-
Chloroform	ug/L	0.5	2.4	ND (0.5)	-	-	-
Dibromochloromethane	ug/L	0.5	82000	ND (0.5)	-	-	-
Dichlorodifluoromethane	ug/L	1.0	4400	ND (1.0)	-	-	-
1,2-Dichlorobenzene	ug/L	0.5	4600	ND (0.5)	-	-	-
1,3-Dichlorobenzene	ug/L	0.5	9600	ND (0.5)	-	-	-
1,4-Dichlorobenzene	ug/L	0.5	8.0	ND (0.5)	-	-	-
1,1-Dichloroethane	ug/L	0.5	320	ND (0.5)	-	-	-
1,2-Dichloroethane	ug/L	0.5	1.6	ND (0.5)	-	-	-
1,1-Dichloroethylene	ug/L	0.5	1.6	ND (0.5)	-	-	-
cis-1,2-Dichloroethylene	ug/L	0.5	1.6	ND (0.5)	-	-	-
trans-1,2-Dichloroethylene	ug/L	0.5	1.6	ND (0.5)	-	-	-
1,2-Dichloropropane	ug/L	0.5	16	ND (0.5)	-	-	-
cis-1,3-Dichloropropylene	ug/L	0.5	5.2	ND (0.5)	-	-	-
trans-1,3-Dichloropropylene	ug/L	0.5	5.2	ND (0.5)	-	-	-
1,3-Dichloropropene, total	ug/L	0.5	5.2	ND (0.5)	-	-	-
Ethylbenzene	ug/L	0.5	2300	ND (0.5)	-	-	-
Ethylene dibromide (dibromoethane, 1,2-)	ug/L	0.2	0.25	ND (0.2)	-	-	-
Hexane	ug/L	1.0	51	ND (1.0)	-	-	-
Methyl Ethyl Ketone (2-Butanone)	ug/L	5.0	470000	ND (5.0)	-	-	-
Methyl Isobutyl Ketone	ug/L	5.0	140000	ND (5.0)	-	-	-
Methyl tert-butyl ether	ug/L	2.0	190	ND (2.0)	-	-	-
Methylene Chloride	ug/L	5.0	610	ND (5.0)	-	-	-
Styrene	ug/L	0.5	1300	ND (0.5)	-	-	-
1,1,1,2-Tetrachloroethane	ug/L	0.5	3.3	ND (0.5)	-	-	-
1,1,2,2-Tetrachloroethane	ug/L	0.5	3.2	ND (0.5)	-	-	-
Tetrachloroethylene	ug/L	0.5	1.6	ND (0.5)	-	-	-
Toluene	ug/L	0.5	18000	ND (0.5)	-	-	-
1,1,1-Trichloroethane	ug/L	0.5	640	ND (0.5)	-	-	-
1,1,2-Trichloroethane	ug/L	0.5	4.7	ND (0.5)	-	-	-
Trichloroethylene	ug/L	0.5	1.6	ND (0.5)	-	-	-
Trichlorofluoromethane	ug/L	1.0	2500	ND (1.0)	-	-	-
Vinyl Chloride	ug/L	0.5	0.5	ND (0.5)	-	-	-
m/p-Xylene	ug/L	0.5	4200	ND (0.5)	-	-	-
o-Xylene	ug/L	0.5	4200	ND (0.5)	-	-	-
Xylenes, total	ug/L	0.5	4200	ND (0.5)	-	-	-
BTEX							
Benzene	ug/L	0.5	44	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ug/L	0.5	2300	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Toluene	ug/L	0.5	18000	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
m/p-Xylene	ug/L	0.5	4200	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
o-Xylene	ug/L	0.5	4200	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Xylenes, total	ug/L	0.5	4200	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Hydrocarbons							
F1 PHCs (C6-C10)	ug/L	25	750	ND (25)	ND (25)	ND (25)	ND (25)
F2 PHCs (C10-C16)	ug/L	100	150	ND (100)	ND (100)	ND (100)	ND (100)
F3 PHCs (C16-C34)	ug/L	100	500	ND (100)	ND (100)	ND (100)	ND (100)
F4 PHCs (C34-C50)	ug/L	100	500	ND (100)	ND (100)	ND (100)	ND (100)
Semi-Volatiles							
Acenaphthene	ug/L	0.05	600	ND (0.05)	-	-	-
Acenaphthylene	ug/L	0.05	1.8	ND (0.05)	-	-	-
Anthracene	ug/L	0.01	2.4	ND (0.01)	-	-	-
Benzo[a]anthracene	ug/L	0.01	4.7	ND (0.01)	-	-	-
Benzo[a]pyrene	ug/L	0.01	0.81	ND (0.01)	-	-	-
Benzo[b]fluoranthene	ug/L	0.05	0.75	ND (0.05)	-	-	-
Benzo[g,h,i]perylene	ug/L	0.05	0.2	ND (0.05)	-	-	-
Benzo[k]fluoranthene	ug/L	0.05	0.4	ND (0.05)	-	-	-
Chrysene	ug/L	0.05	1.0	ND (0.05)	-	-	-
Dibenzo[a,h]anthracene	ug/L	0.05	0.52	ND (0.05)	-	-	-
Fluoranthene	ug/L	0.01	130	ND (0.01)	-	-	-
Fluorene	ug/L	0.05	400	ND (0.05)	-	-	-
Indeno [1,2,3-cd] pyrene	ug/L	0.05	0.2	ND (0.05)	-	-	-
1-Methylnaphthalene	ug/L	0.05	1800	ND (0.05)	-	-	-
2-Methylnaphthalene	ug/L	0.05	1800	ND (0.05)	-	-	-
Methylnaphthalene (1&2)	ug/L	0.10	1800	ND (0.10)	-	-	-
Naphthalene	ug/L	0.05	1400	ND (0.05)	-	-	-
Phenanthrene	ug/L	0.05	580	ND (0.05)	-	-	-
Pyrene	ug/L	0.01	68	ND (0.01)	-	-	-

2.00Result exceeds Reg 153/04 - Table 3 Non-Potable Groundwater, coarse Standards

ND (0.2)MDL exceeds Reg 153/04 - Table 3 Non-Potable Groundwater, coarse Standards

ND (0.2)No concentrations identified above the MDL

-Parameter not analysed

NVNo value given for indicated parameter

Table 7A: Maximum Concentrations Groundwater

Parameter	Sample ID / Screen Interval (m)	Units	Reg 153/04 - Table 3 Non-Potable Groundwater, coarse Standards	Concentration
Barium	BH3-26-GW1 2610301-03 - 6.05 - 9.10	ug/L	29000	88
Boron	BH3-26-GW1 2610301-03 - 6.05 - 9.10	ug/L	45000	27
Cobalt	BH3-26-GW1 2610301-03 - 6.05 - 9.10	ug/L	66	1.8
Copper	BH2-26-GW1 2610301-02 - 6.07 - 9.12	ug/L	87	6.1
Molybdenum	BH3-26-GW1 2610301-03 - 6.05 - 9.10	ug/L	9200	1
Nickel	BH1-26-GW1 2610301-01 - 5.75 - 8.80	ug/L	490	2
Sodium	BH3-26-GW1 2610301-03 - 6.05 - 9.10	ug/L	2300000	98300
Uranium	BH3-26-GW1 2610301-03 - 6.05 - 9.10	ug/L	420	0.5
Zinc	BH2-26-GW1 2610301-02 - 6.07 - 9.12	ug/L	1100	12
All remaining parameters analysed were reported non-detect in all samples.				

Certificate of Analysis

Paterson Group Consulting Engineers (Ottawa)

9 Auriga Drive
Ottawa, ON K2E 7T9
Attn: Adrian Menyhart

Client PO: 65213
Project: PE5280
Custody:

Report Date: 2-Mar-2026
Order Date: 24-Feb-2026

Order #: 2609205

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
2609205-01	BH1-26-SS4 (A)
2609205-02	BH2-26-SS4
2609205-03	DUP-1

Approved By:



Mark Foto, M.Sc.
Laboratory Director

Certificate of Analysis

Report Date: 02-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 24-Feb-2026

Client PO: 65213

Project Description: PE5280

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	Extraction Date	Analysis Date
BTEX by P&T GC-MS	EPA 8260 - P&T GC-MS	Ottawa	25-Feb-26	26-Feb-26
Chromium, hexavalent - soil	MOE E3056 - Extraction, colourimetric	Ottawa	27-Feb-26	27-Feb-26
Conductivity	MOE E3138 - probe @25 °C, water ext	Ottawa	26-Feb-26	27-Feb-26
Mercury by CVAA	EPA 7471B - CVAA, digestion	Ottawa	26-Feb-26	27-Feb-26
PCBs, total	SW846 8082A - GC-ECD	Ottawa	27-Feb-26	27-Feb-26
pH, soil	MOE E3137 - probe @25 °C, CaCl2 ext	Ottawa	27-Feb-26	27-Feb-26
PHC F1	CWS Tier 1 - P&T GC-FID	Ottawa	25-Feb-26	26-Feb-26
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	Ottawa	25-Feb-26	26-Feb-26
REG 153: Metals by ICP/MS, soil	EPA 6020 - Digestion - ICP-MS	Ottawa	26-Feb-26	26-Feb-26
REG 153: PAHs by GC-MS	EPA 8270 - GC-MS, extraction	Ottawa	26-Feb-26	27-Feb-26
REG 153: VOCs by P&T GC/MS	EPA 8260 - P&T GC-MS	Ottawa	25-Feb-26	26-Feb-26
SAR	Calculated	Ottawa	26-Feb-26	26-Feb-26
Solids, %	CWS Tier 1 - Gravimetric		25-Feb-26	26-Feb-26

Certificate of Analysis

Report Date: 02-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 24-Feb-2026

Client PO: 65213

Project Description: PE5280

Client ID:	BH1-26-SS4 (A)	BH2-26-SS4	DUP-1	-	-
Sample Date:	23-Feb-26 09:00	23-Feb-26 09:00	23-Feb-26 09:00	-	-
Sample ID:	2609205-01	2609205-02	2609205-03	-	-
Matrix:	Soil	Soil	Soil	-	-
MDL/Units					

Physical Characteristics

% Solids	0.1 % by Wt.	85.5	95.7	95.6	-	-	-
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General Inorganics

SAR	0.01 N/A	3.71	9.55	-	-	-	-
Conductivity	5 uS/cm	499	665	-	-	-	-
pH	0.05 pH Units	7.80	-	-	-	-	-

Metals

Antimony	1.0 ug/g	<1.0	<1.0	-	-	-	-
Arsenic	1.0 ug/g	3.3	3.2	-	-	-	-
Barium	1.0 ug/g	135	36.3	-	-	-	-
Beryllium	0.5 ug/g	0.5	<0.5	-	-	-	-
Boron	5.0 ug/g	8.7	<5.0	-	-	-	-
Cadmium	0.5 ug/g	<0.5	<0.5	-	-	-	-
Chromium (VI)	0.2 ug/g	<0.2	0.2	-	-	-	-
Chromium	5.0 ug/g	21.1	11.2	-	-	-	-
Cobalt	1.0 ug/g	6.7	4.1	-	-	-	-
Copper	5.0 ug/g	15.8	10.3	-	-	-	-
Lead	1.0 ug/g	50.1	6.0	-	-	-	-
Mercury	0.1 ug/g	<0.1	<0.1	-	-	-	-
Molybdenum	1.0 ug/g	<1.0	<1.0	-	-	-	-
Nickel	5.0 ug/g	13.3	7.2	-	-	-	-
Selenium	1.0 ug/g	<1.0	<1.0	-	-	-	-
Silver	0.3 ug/g	<0.3	<0.3	-	-	-	-
Thallium	1.0 ug/g	<1.0	<1.0	-	-	-	-
Uranium	1.0 ug/g	<1.0	<1.0	-	-	-	-
Vanadium	10.0 ug/g	29.7	21.7	-	-	-	-

Certificate of Analysis

Report Date: 02-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 24-Feb-2026

Client PO: 65213

Project Description: PE5280

Client ID:	BH1-26-SS4 (A)	BH2-26-SS4	DUP-1	-	-
Sample Date:	23-Feb-26 09:00	23-Feb-26 09:00	23-Feb-26 09:00	-	-
Sample ID:	2609205-01	2609205-02	2609205-03	-	-
Matrix:	Soil	Soil	Soil	-	-
MDL/Units					

Metals

Zinc	20.0 ug/g	58.8	<20.0	-	-	-	-
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Volatiles

Acetone	0.50 ug/g	<0.50	-	-	-	-	-
Benzene	0.02 ug/g	<0.02	-	-	-	-	-
Bromodichloromethane	0.05 ug/g	<0.05	-	-	-	-	-
Bromoform	0.05 ug/g	<0.05	-	-	-	-	-
Bromomethane	0.05 ug/g	<0.05	-	-	-	-	-
Carbon Tetrachloride	0.05 ug/g	<0.05	-	-	-	-	-
Chlorobenzene	0.05 ug/g	<0.05	-	-	-	-	-
Chloroform	0.05 ug/g	<0.05	-	-	-	-	-
Dibromochloromethane	0.05 ug/g	<0.05	-	-	-	-	-
Dichlorodifluoromethane	0.05 ug/g	<0.05	-	-	-	-	-
1,2-Dichlorobenzene	0.05 ug/g	<0.05	-	-	-	-	-
1,3-Dichlorobenzene	0.05 ug/g	<0.05	-	-	-	-	-
1,4-Dichlorobenzene	0.05 ug/g	<0.05	-	-	-	-	-
1,1-Dichloroethane	0.05 ug/g	<0.05	-	-	-	-	-
1,2-Dichloroethane	0.05 ug/g	<0.05	-	-	-	-	-
1,1-Dichloroethylene	0.05 ug/g	<0.05	-	-	-	-	-
cis-1,2-Dichloroethylene	0.05 ug/g	<0.05	-	-	-	-	-
trans-1,2-Dichloroethylene	0.05 ug/g	<0.05	-	-	-	-	-
1,2-Dichloropropane	0.05 ug/g	<0.05	-	-	-	-	-
cis-1,3-Dichloropropylene	0.05 ug/g	<0.05	-	-	-	-	-
trans-1,3-Dichloropropylene	0.05 ug/g	<0.05	-	-	-	-	-
1,3-Dichloropropene, total	0.05 ug/g	<0.05	-	-	-	-	-
Ethylbenzene	0.05 ug/g	<0.05	-	-	-	-	-

Certificate of Analysis

Report Date: 02-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 24-Feb-2026

Client PO: 65213

Project Description: PE5280

Client ID:	BH1-26-SS4 (A)	BH2-26-SS4	DUP-1	-	-
Sample Date:	23-Feb-26 09:00	23-Feb-26 09:00	23-Feb-26 09:00	-	-
Sample ID:	2609205-01	2609205-02	2609205-03	-	-
Matrix:	Soil	Soil	Soil	-	-
MDL/Units					

Volatiles

Ethylene dibromide (dibromoethane,	0.05 ug/g	<0.05	-	-	-	-
Hexane	0.05 ug/g	<0.05	-	-	-	-
Methyl Ethyl Ketone (2-Butanone)	0.50 ug/g	<0.50	-	-	-	-
Methyl Isobutyl Ketone	0.50 ug/g	<0.50	-	-	-	-
Methyl tert-butyl ether	0.05 ug/g	<0.05	-	-	-	-
Methylene Chloride	0.05 ug/g	<0.05	-	-	-	-
Styrene	0.05 ug/g	<0.05	-	-	-	-
1,1,1,2-Tetrachloroethane	0.05 ug/g	<0.05	-	-	-	-
1,1,2,2-Tetrachloroethane	0.05 ug/g	<0.05	-	-	-	-
Tetrachloroethylene	0.05 ug/g	<0.05	-	-	-	-
Toluene	0.05 ug/g	<0.05	-	-	-	-
1,1,1-Trichloroethane	0.05 ug/g	<0.05	-	-	-	-
1,1,2-Trichloroethane	0.05 ug/g	<0.05	-	-	-	-
Trichloroethylene	0.05 ug/g	<0.05	-	-	-	-
Trichlorofluoromethane	0.05 ug/g	<0.05	-	-	-	-
Vinyl chloride	0.02 ug/g	<0.02	-	-	-	-
m,p-Xylenes	0.05 ug/g	<0.05	-	-	-	-
o-Xylene	0.05 ug/g	<0.05	-	-	-	-
Xylenes, total	0.05 ug/g	<0.05	-	-	-	-
4-Bromofluorobenzene	Surrogate	127%	-	-	-	-
Toluene-d8	Surrogate	107%	-	-	-	-
Dibromofluoromethane	Surrogate	82.7%	-	-	-	-
Benzene	0.02 ug/g	-	<0.02	<0.02	-	-
Ethylbenzene	0.05 ug/g	-	<0.05	<0.05	-	-
Toluene	0.05 ug/g	-	<0.05	<0.05	-	-

Certificate of Analysis

Report Date: 02-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 24-Feb-2026

Client PO: 65213

Project Description: PE5280

Client ID:	BH1-26-SS4 (A)	BH2-26-SS4	DUP-1	-	-
Sample Date:	23-Feb-26 09:00	23-Feb-26 09:00	23-Feb-26 09:00	-	-
Sample ID:	2609205-01	2609205-02	2609205-03	-	-
Matrix:	Soil	Soil	Soil	-	-
MDL/Units					

Volatiles

m,p-Xylenes	0.05 ug/g	-	<0.05	<0.05	-	-
o-Xylene	0.05 ug/g	-	<0.05	<0.05	-	-
Xylenes, total	0.05 ug/g	-	<0.05	<0.05	-	-
Toluene-d8	Surrogate	-	98.3%	97.8%	-	-

Hydrocarbons

F1 PHCs (C6-C10)	7 ug/g	<7	<7	<7	-	-
F2 PHCs (C10-C16)	4 ug/g	<4	<4	<4	-	-
F3 PHCs (C16-C34)	8 ug/g	38	<8	<8	-	-
F4 PHCs (C34-C50)	6 ug/g	15	<6	<6	-	-

Semi-Volatiles

Acenaphthene	0.02 ug/g	<0.02	-	-	-	-
Acenaphthylene	0.02 ug/g	<0.02	-	-	-	-
Anthracene	0.02 ug/g	<0.02	-	-	-	-
Benzo [a] anthracene	0.02 ug/g	<0.02	-	-	-	-
Benzo [a] pyrene	0.02 ug/g	<0.02	-	-	-	-
Benzo [b] fluoranthene	0.02 ug/g	<0.02	-	-	-	-
Benzo [g,h,i] perylene	0.02 ug/g	<0.02	-	-	-	-
Benzo [k] fluoranthene	0.02 ug/g	<0.02	-	-	-	-
Chrysene	0.02 ug/g	<0.02	-	-	-	-
Dibenzo [a,h] anthracene	0.02 ug/g	<0.02	-	-	-	-
Fluoranthene	0.02 ug/g	<0.02	-	-	-	-
Fluorene	0.02 ug/g	<0.02	-	-	-	-
Indeno [1,2,3-cd] pyrene	0.02 ug/g	<0.02	-	-	-	-
1-Methylnaphthalene	0.02 ug/g	<0.02	-	-	-	-
2-Methylnaphthalene	0.02 ug/g	<0.02	-	-	-	-

Certificate of Analysis

Report Date: 02-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 24-Feb-2026

Client PO: 65213

Project Description: PE5280

Client ID:	BH1-26-SS4 (A)	BH2-26-SS4	DUP-1	-	
Sample Date:	23-Feb-26 09:00	23-Feb-26 09:00	23-Feb-26 09:00	-	-
Sample ID:	2609205-01	2609205-02	2609205-03	-	
Matrix:	Soil	Soil	Soil	-	
MDL/Units					

Semi-Volatiles

Methylnaphthalene (1&2)	0.04 ug/g	<0.04	-	-	-	-
Naphthalene	0.01 ug/g	<0.01	-	-	-	-
Phenanthrene	0.02 ug/g	<0.02	-	-	-	-
Pyrene	0.02 ug/g	<0.02	-	-	-	-
2-Fluorobiphenyl	Surrogate	53.8%	-	-	-	-
Terphenyl-d14	Surrogate	75.5%	-	-	-	-

PCBs

PCBs, total	0.05 ug/g	-	<0.05	-	-	-
Decachlorobiphenyl	Surrogate	-	104%	-	-	-

Certificate of Analysis

Report Date: 02-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 24-Feb-2026

Client PO: 65213

Project Description: PE5280

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
General Inorganics								
Conductivity	ND	5	uS/cm					
Hydrocarbons								
F1 PHCs (C6-C10)	ND	7	ug/g					
F2 PHCs (C10-C16)	ND	4	ug/g					
F3 PHCs (C16-C34)	ND	8	ug/g					
F4 PHCs (C34-C50)	ND	6	ug/g					
Metals								
Chromium (VI)	ND	0.2	ug/g					
Mercury	ND	0.1	ug/g					
Antimony	ND	1.0	ug/g					
Arsenic	ND	1.0	ug/g					
Barium	ND	1.0	ug/g					
Beryllium	ND	0.5	ug/g					
Boron	ND	5.0	ug/g					
Cadmium	ND	0.5	ug/g					
Chromium	ND	5.0	ug/g					
Cobalt	ND	1.0	ug/g					
Copper	ND	5.0	ug/g					
Lead	ND	1.0	ug/g					
Molybdenum	ND	1.0	ug/g					
Nickel	ND	5.0	ug/g					
Selenium	ND	1.0	ug/g					
Silver	ND	0.3	ug/g					
Thallium	ND	1.0	ug/g					
Uranium	ND	1.0	ug/g					
Vanadium	ND	10.0	ug/g					
Zinc	ND	20.0	ug/g					
PCBs								
PCBs, total	ND	0.05	ug/g					
Surrogate: Decachlorobiphenyl	0.0615		%	123	60-140			
Semi-Volatiles								
Acenaphthene	ND	0.02	ug/g					

Certificate of Analysis

Report Date: 02-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 24-Feb-2026

Client PO: 65213

Project Description: PE5280

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Acenaphthylene	ND	0.02	ug/g					
Anthracene	ND	0.02	ug/g					
Benzo [a] anthracene	ND	0.02	ug/g					
Benzo [a] pyrene	ND	0.02	ug/g					
Benzo [b] fluoranthene	ND	0.02	ug/g					
Benzo [g,h,i] perylene	ND	0.02	ug/g					
Benzo [k] fluoranthene	ND	0.02	ug/g					
Chrysene	ND	0.02	ug/g					
Dibenzo [a,h] anthracene	ND	0.02	ug/g					
Fluoranthene	ND	0.02	ug/g					
Fluorene	ND	0.02	ug/g					
Indeno [1,2,3-cd] pyrene	ND	0.02	ug/g					
1-Methylnaphthalene	ND	0.02	ug/g					
2-Methylnaphthalene	ND	0.02	ug/g					
Methylnaphthalene (1&2)	ND	0.04	ug/g					
Naphthalene	ND	0.01	ug/g					
Phenanthrene	ND	0.02	ug/g					
Pyrene	ND	0.02	ug/g					
Surrogate: 2-Fluorobiphenyl	0.988		%	74.1	50-140			
Surrogate: Terphenyl-d14	1.21		%	90.8	50-140			
Volatiles								
Benzene	ND	0.02	ug/g					
Ethylbenzene	ND	0.05	ug/g					
Toluene	ND	0.05	ug/g					
m,p-Xylenes	ND	0.05	ug/g					
o-Xylene	ND	0.05	ug/g					
Xylenes, total	ND	0.05	ug/g					
Surrogate: Toluene-d8	8.18		%	102	50-140			
Acetone	ND	0.50	ug/g					
Benzene	ND	0.02	ug/g					
Bromodichloromethane	ND	0.05	ug/g					
Bromoform	ND	0.05	ug/g					

Certificate of Analysis

Report Date: 02-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 24-Feb-2026

Client PO: 65213

Project Description: PE5280

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Bromomethane	ND	0.05	ug/g					
Carbon Tetrachloride	ND	0.05	ug/g					
Chlorobenzene	ND	0.05	ug/g					
Chloroform	ND	0.05	ug/g					
Dibromochloromethane	ND	0.05	ug/g					
Dichlorodifluoromethane	ND	0.05	ug/g					
1,2-Dichlorobenzene	ND	0.05	ug/g					
1,3-Dichlorobenzene	ND	0.05	ug/g					
1,4-Dichlorobenzene	ND	0.05	ug/g					
1,1-Dichloroethane	ND	0.05	ug/g					
1,2-Dichloroethane	ND	0.05	ug/g					
1,1-Dichloroethylene	ND	0.05	ug/g					
cis-1,2-Dichloroethylene	ND	0.05	ug/g					
trans-1,2-Dichloroethylene	ND	0.05	ug/g					
1,2-Dichloropropane	ND	0.05	ug/g					
cis-1,3-Dichloropropylene	ND	0.05	ug/g					
trans-1,3-Dichloropropylene	ND	0.05	ug/g					
1,3-Dichloropropene, total	ND	0.05	ug/g					
Ethylbenzene	ND	0.05	ug/g					
Ethylene dibromide (dibromoethane, 1,2-)	ND	0.05	ug/g					
Hexane	ND	0.05	ug/g					
Methyl Ethyl Ketone (2-Butanone)	ND	0.50	ug/g					
Methyl Isobutyl Ketone	ND	0.50	ug/g					
Methyl tert-butyl ether	ND	0.05	ug/g					
Methylene Chloride	ND	0.05	ug/g					
Styrene	ND	0.05	ug/g					
1,1,1,2-Tetrachloroethane	ND	0.05	ug/g					
1,1,2,2-Tetrachloroethane	ND	0.05	ug/g					
Tetrachloroethylene	ND	0.05	ug/g					
Toluene	ND	0.05	ug/g					
1,1,1-Trichloroethane	ND	0.05	ug/g					
1,1,2-Trichloroethane	ND	0.05	ug/g					
Trichloroethylene	ND	0.05	ug/g					

Certificate of Analysis

Report Date: 02-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 24-Feb-2026

Client PO: 65213

Project Description: PE5280

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Trichlorofluoromethane	ND	0.05	ug/g					
Vinyl chloride	ND	0.02	ug/g					
m,p-Xylenes	ND	0.05	ug/g					
o-Xylene	ND	0.05	ug/g					
Xylenes, total	ND	0.05	ug/g					
Surrogate: 4-Bromofluorobenzene	9.08		%	114	50-140			
Surrogate: Dibromofluoromethane	5.53		%	69.2	50-140			
Surrogate: Toluene-d8	8.18		%	102	50-140			

Certificate of Analysis

Report Date: 02-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 24-Feb-2026

Client PO: 65213

Project Description: PE5280

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
General Inorganics									
SAR	0.89	0.01	N/A	0.90			1.1	30	
Conductivity	812	5	uS/cm	803			1.1	5	
pH	7.57	0.05	pH Units	7.58			0.1	2.3	
Hydrocarbons									
F1 PHCs (C6-C10)	ND	7	ug/g	ND			NC	40	
F2 PHCs (C10-C16)	ND	4	ug/g	ND			NC	30	
F3 PHCs (C16-C34)	ND	8	ug/g	ND			NC	30	
F4 PHCs (C34-C50)	ND	6	ug/g	ND			NC	30	
Metals									
Antimony	ND	1.0	ug/g	ND			NC	30	
Arsenic	3.0	1.0	ug/g	3.3			8.0	30	
Barium	129	1.0	ug/g	135			4.3	30	
Beryllium	0.5	0.5	ug/g	0.5			1.1	30	
Boron	10.6	5.0	ug/g	8.7			19.9	30	
Cadmium	ND	0.5	ug/g	ND			NC	30	
Chromium (VI)	ND	0.2	ug/g	ND			NC	35	
Chromium	20.2	5.0	ug/g	21.1			4.4	30	
Cobalt	6.5	1.0	ug/g	6.7			3.6	30	
Copper	14.3	5.0	ug/g	15.8			9.5	30	
Lead	50.8	1.0	ug/g	50.1			1.4	30	
Mercury	ND	0.1	ug/g	0.397			NC	30	
Molybdenum	ND	1.0	ug/g	ND			NC	30	
Nickel	12.4	5.0	ug/g	13.3			7.5	30	
Selenium	ND	1.0	ug/g	ND			NC	30	
Silver	ND	0.3	ug/g	ND			NC	30	
Thallium	ND	1.0	ug/g	ND			NC	30	
Uranium	ND	1.0	ug/g	ND			NC	30	
Vanadium	28.0	10.0	ug/g	29.7			5.8	30	
Zinc	56.2	20.0	ug/g	58.8			4.5	30	

PCBs

Certificate of Analysis

Report Date: 02-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 24-Feb-2026

Client PO: 65213

Project Description: PE5280

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
PCBs, total	ND	0.05	ug/g	ND			NC	40	
Surrogate: Decachlorobiphenyl	0.0764		%		122	60-140			
Physical Characteristics									
% Solids	95.0	0.1	% by Wt.	94.9			0.2	25	
Semi-Volatiles									
Acenaphthene	ND	0.02	ug/g	ND			NC	40	
Acenaphthylene	ND	0.02	ug/g	ND			NC	40	
Anthracene	ND	0.02	ug/g	0.029			NC	40	
Benzo [a] anthracene	0.078	0.02	ug/g	0.153			NC	40	
Benzo [a] pyrene	0.090	0.02	ug/g	0.187			NC	40	
Benzo [b] fluoranthene	0.070	0.02	ug/g	0.139			NC	40	
Benzo [g,h,i] perylene	0.053	0.02	ug/g	0.108			NC	40	
Benzo [k] fluoranthene	0.037	0.02	ug/g	0.080			NC	40	
Chrysene	0.093	0.02	ug/g	0.132			34.4	40	
Dibenzo [a,h] anthracene	ND	0.02	ug/g	0.030			NC	40	
Fluoranthene	0.172	0.02	ug/g	0.271			NC	40	
Fluorene	ND	0.02	ug/g	ND			NC	40	
Indeno [1,2,3-cd] pyrene	0.046	0.02	ug/g	0.098			NC	40	
1-Methylnaphthalene	ND	0.02	ug/g	ND			NC	40	
2-Methylnaphthalene	ND	0.02	ug/g	ND			NC	40	
Naphthalene	ND	0.01	ug/g	ND			NC	40	
Phenanthrene	0.066	0.02	ug/g	0.077			15.8	40	
Pyrene	0.150	0.02	ug/g	0.230			NC	40	
Surrogate: 2-Fluorobiphenyl	0.954		%		59.1	50-140			
Surrogate: Terphenyl-d14	1.33		%		82.4	50-140			
Volatiles									
Acetone	ND	0.50	ug/g	ND			NC	50	
Benzene	ND	0.02	ug/g	ND			NC	50	
Bromodichloromethane	ND	0.05	ug/g	ND			NC	50	
Bromoform	ND	0.05	ug/g	ND			NC	50	
Bromomethane	ND	0.05	ug/g	ND			NC	50	

Certificate of Analysis

Report Date: 02-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 24-Feb-2026

Client PO: 65213

Project Description: PE5280

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Carbon Tetrachloride	ND	0.05	ug/g	ND			NC	50	
Chlorobenzene	ND	0.05	ug/g	ND			NC	50	
Chloroform	ND	0.05	ug/g	ND			NC	50	
Dibromochloromethane	ND	0.05	ug/g	ND			NC	50	
Dichlorodifluoromethane	ND	0.05	ug/g	ND			NC	50	
1,2-Dichlorobenzene	ND	0.05	ug/g	ND			NC	50	
1,3-Dichlorobenzene	ND	0.05	ug/g	ND			NC	50	
1,4-Dichlorobenzene	ND	0.05	ug/g	ND			NC	50	
1,1-Dichloroethane	ND	0.05	ug/g	ND			NC	50	
1,2-Dichloroethane	ND	0.05	ug/g	ND			NC	50	
1,1-Dichloroethylene	ND	0.05	ug/g	ND			NC	50	
cis-1,2-Dichloroethylene	ND	0.05	ug/g	ND			NC	50	
trans-1,2-Dichloroethylene	ND	0.05	ug/g	ND			NC	50	
1,2-Dichloropropane	ND	0.05	ug/g	ND			NC	50	
cis-1,3-Dichloropropylene	ND	0.05	ug/g	ND			NC	50	
trans-1,3-Dichloropropylene	ND	0.05	ug/g	ND			NC	50	
Ethylbenzene	ND	0.05	ug/g	ND			NC	50	
Ethylene dibromide (dibromoethane, 1,2-)	ND	0.05	ug/g	ND			NC	50	
Hexane	ND	0.05	ug/g	ND			NC	50	
Methyl Ethyl Ketone (2-Butanone)	ND	0.50	ug/g	ND			NC	50	
Methyl Isobutyl Ketone	ND	0.50	ug/g	ND			NC	50	
Methyl tert-butyl ether	ND	0.05	ug/g	ND			NC	50	
Methylene Chloride	ND	0.05	ug/g	ND			NC	50	
Styrene	ND	0.05	ug/g	ND			NC	50	
1,1,1,2-Tetrachloroethane	ND	0.05	ug/g	ND			NC	50	
1,1,2,2-Tetrachloroethane	ND	0.05	ug/g	ND			NC	50	
Tetrachloroethylene	ND	0.05	ug/g	ND			NC	50	
Toluene	ND	0.05	ug/g	ND			NC	50	
1,1,1-Trichloroethane	ND	0.05	ug/g	ND			NC	50	
1,1,2-Trichloroethane	ND	0.05	ug/g	ND			NC	50	
Trichloroethylene	ND	0.05	ug/g	ND			NC	50	

Certificate of Analysis

Report Date: 02-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 24-Feb-2026

Client PO: 65213

Project Description: PE5280

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Trichlorofluoromethane	ND	0.05	ug/g	ND			NC	50	
Vinyl chloride	ND	0.02	ug/g	ND			NC	50	
m,p-Xylenes	ND	0.05	ug/g	ND			NC	50	
o-Xylene	ND	0.05	ug/g	ND			NC	50	
Surrogate: 4-Bromofluorobenzene	12.1		%		123	50-140			
Surrogate: Dibromofluoromethane	7.96		%		81.0	50-140			
Surrogate: Toluene-d8	10.7		%		109	50-140			
Benzene	ND	0.02	ug/g	ND			NC	50	
Ethylbenzene	ND	0.05	ug/g	ND			NC	50	
Toluene	ND	0.05	ug/g	ND			NC	50	
m,p-Xylenes	ND	0.05	ug/g	ND			NC	50	
o-Xylene	ND	0.05	ug/g	ND			NC	50	
Surrogate: Toluene-d8	10.7		%		109	50-140			

Certificate of Analysis

Report Date: 02-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 24-Feb-2026

Client PO: 65213

Project Description: PE5280

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	172	7	ug/g	ND	99.7	85-115			
F2 PHCs (C10-C16)	82	4	ug/g	ND	97.4	60-140			
F3 PHCs (C16-C34)	233	8	ug/g	ND	114	60-140			
F4 PHCs (C34-C50)	153	6	ug/g	ND	118	60-140			
Metals									
Antimony	36.1	1.0	ug/g	ND	72.1	70-130			
Arsenic	48.9	1.0	ug/g	1.3	95.1	70-130			
Barium	94.0	1.0	ug/g	53.9	80.2	70-130			
Beryllium	50.6	0.5	ug/g	ND	101	70-130			
Boron	54.7	5.0	ug/g	ND	102	70-130			
Cadmium	46.2	0.5	ug/g	ND	92.1	70-130			
Chromium (VI)	3.9	0.2	ug/g	ND	66.0	48-112			
Chromium	57.4	5.0	ug/g	8.4	98.0	70-130			
Cobalt	50.7	1.0	ug/g	2.7	96.0	70-130			
Copper	51.3	5.0	ug/g	6.3	90.1	70-130			
Lead	63.2	1.0	ug/g	20.0	86.3	70-130			
Mercury	1.55	0.1	ug/g	ND	77.1	70-130			
Molybdenum	49.1	1.0	ug/g	ND	97.6	70-130			
Nickel	52.4	5.0	ug/g	5.3	94.2	70-130			
Selenium	49.5	1.0	ug/g	ND	98.7	70-130			
Silver	44.3	0.3	ug/g	ND	88.6	70-130			
Thallium	44.3	1.0	ug/g	ND	88.5	70-130			
Uranium	48.0	1.0	ug/g	ND	95.4	70-130			
Vanadium	59.2	10.0	ug/g	11.9	94.7	70-130			
Zinc	66.0	20.0	ug/g	23.5	85.0	70-130			
PCBs									
PCBs, total	0.426	0.05	ug/g	ND	84.7	60-140			
Surrogate: Decachlorobiphenyl	0.0792		%		126	60-140			
Semi-Volatiles									
Acenaphthene	0.195	0.02	ug/g	ND	96.9	50-140			

Certificate of Analysis

Report Date: 02-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 24-Feb-2026

Client PO: 65213

Project Description: PE5280

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Acenaphthylene	0.189	0.02	ug/g	ND	93.7	50-140			
Anthracene	0.208	0.02	ug/g	0.029	89.0	50-140			
Benzo [a] anthracene	0.261	0.02	ug/g	0.153	53.6	50-140			
Benzo [a] pyrene	0.291	0.02	ug/g	0.187	51.2	50-140			
Benzo [b] fluoranthene	0.264	0.02	ug/g	0.139	62.4	50-140			
Benzo [g,h,i] perylene	0.264	0.02	ug/g	0.108	77.3	50-140			
Benzo [k] fluoranthene	0.215	0.02	ug/g	0.080	67.0	50-140			
Chrysene	0.269	0.02	ug/g	0.132	67.9	50-140			
Dibenzo [a,h] anthracene	0.214	0.02	ug/g	0.030	91.4	50-140			
Fluoranthene	0.379	0.02	ug/g	0.271	53.6	50-140			
Fluorene	0.176	0.02	ug/g	ND	87.2	50-140			
Indeno [1,2,3-cd] pyrene	0.249	0.02	ug/g	0.098	74.7	50-140			
1-Methylnaphthalene	0.169	0.02	ug/g	ND	83.6	50-140			
2-Methylnaphthalene	0.165	0.02	ug/g	ND	82.0	50-140			
Naphthalene	0.152	0.01	ug/g	ND	75.2	50-140			
Phenanthrene	0.240	0.02	ug/g	0.077	81.0	50-140			
Pyrene	0.362	0.02	ug/g	0.230	65.5	50-140			
Surrogate: 2-Fluorobiphenyl	1.22		%		75.5	50-140			
Surrogate: Terphenyl-d14	1.45		%		89.6	50-140			
Volatiles									
Acetone	9.65	0.50	ug/g	ND	96.5	50-140			
Benzene	4.57	0.02	ug/g	ND	114	60-130			
Bromodichloromethane	4.48	0.05	ug/g	ND	112	60-130			
Bromoform	4.27	0.05	ug/g	ND	107	60-130			
Bromomethane	4.71	0.05	ug/g	ND	118	50-140			
Carbon Tetrachloride	3.97	0.05	ug/g	ND	99.1	60-130			
Chlorobenzene	4.52	0.05	ug/g	ND	113	60-130			
Chloroform	4.30	0.05	ug/g	ND	107	60-130			
Dibromochloromethane	3.86	0.05	ug/g	ND	96.6	60-130			
Dichlorodifluoromethane	4.10	0.05	ug/g	ND	103	50-140			
1,2-Dichlorobenzene	4.63	0.05	ug/g	ND	116	60-130			

Certificate of Analysis

Report Date: 02-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 24-Feb-2026

Client PO: 65213

Project Description: PE5280

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
1,3-Dichlorobenzene	4.71	0.05	ug/g	ND	118	60-130			
1,4-Dichlorobenzene	4.62	0.05	ug/g	ND	116	60-130			
1,1-Dichloroethane	4.05	0.05	ug/g	ND	101	60-130			
1,2-Dichloroethane	4.13	0.05	ug/g	ND	103	60-130			
1,1-Dichloroethylene	4.85	0.05	ug/g	ND	121	60-130			
cis-1,2-Dichloroethylene	4.67	0.05	ug/g	ND	117	60-130			
trans-1,2-Dichloroethylene	4.73	0.05	ug/g	ND	118	60-130			
1,2-Dichloropropane	4.25	0.05	ug/g	ND	106	60-130			
cis-1,3-Dichloropropylene	4.47	0.05	ug/g	ND	112	60-130			
trans-1,3-Dichloropropylene	4.49	0.05	ug/g	ND	112	60-130			
Ethylbenzene	4.75	0.05	ug/g	ND	119	60-130			
Ethylene dibromide (dibromoethane, 1,2-)	3.85	0.05	ug/g	ND	96.4	60-130			
Hexane	4.45	0.05	ug/g	ND	111	60-130			
Methyl Ethyl Ketone (2-Butanone)	11.0	0.50	ug/g	ND	110	50-140			
Methyl Isobutyl Ketone	11.0	0.50	ug/g	ND	110	50-140			
Methyl tert-butyl ether	11.0	0.05	ug/g	ND	110	50-140			
Methylene Chloride	4.93	0.05	ug/g	ND	123	60-130			
Styrene	5.09	0.05	ug/g	ND	127	60-130			
1,1,1,2-Tetrachloroethane	4.04	0.05	ug/g	ND	101	60-130			
1,1,2,2-Tetrachloroethane	3.75	0.05	ug/g	ND	93.8	60-130			
Tetrachloroethylene	3.77	0.05	ug/g	ND	94.1	60-130			
Toluene	4.65	0.05	ug/g	ND	116	60-130			
1,1,1-Trichloroethane	4.33	0.05	ug/g	ND	108	60-130			
1,1,2-Trichloroethane	4.70	0.05	ug/g	ND	118	60-130			
Trichloroethylene	4.31	0.05	ug/g	ND	108	60-130			
Trichlorofluoromethane	4.90	0.05	ug/g	ND	122	50-140			
Vinyl chloride	4.63	0.02	ug/g	ND	116	50-140			
m,p-Xylenes	10.2	0.05	ug/g	ND	127	60-130			
o-Xylene	5.13	0.05	ug/g	ND	128	60-130			
Surrogate: 4-Bromofluorobenzene	8.97		%		112	50-140			
Surrogate: Dibromofluoromethane	5.78		%		72.2	50-140			

Certificate of Analysis

Report Date: 02-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 24-Feb-2026

Client PO: 65213

Project Description: PE5280

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<i>Surrogate: Toluene-d8</i>	7.89		%		98.6	50-140			
Benzene	4.57	0.02	ug/g	ND	114	60-130			
Ethylbenzene	4.75	0.05	ug/g	ND	119	60-130			
Toluene	4.65	0.05	ug/g	ND	116	60-130			
m,p-Xylenes	10.2	0.05	ug/g	ND	127	60-130			
o-Xylene	5.13	0.05	ug/g	ND	128	60-130			
<i>Surrogate: Toluene-d8</i>	7.89		%		98.6	50-140			

Certificate of Analysis

Client: Paterson Group Consulting Engineers (Ottawa)

Client PO: 65213

Report Date: 02-Mar-2026

Order Date: 24-Feb-2026

Project Description: PE5280

Qualifier Notes:**QC Qualifiers:**Sample Data Revisions:

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

Source Result: Data used as source for matrix and duplicate samples

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

Soil results are reported on a dry weight basis unless otherwise noted.

Where %Solids is reported, moisture loss includes the loss of volatile hydrocarbons.

CCME PHC additional information:

- The method for the analysis of PHCs complies with the Reference Method for the CWS PHC and is validated for use in the laboratory. All prescribed quality criteria identified in the method has been met.
- F1 range corrected for BTEX.
- F2 to F3 ranges corrected for appropriate PAHs where available.
- The gravimetric heavy hydrocarbons (F4G) are not to be added to C6 to C50 hydrocarbons.
- In the case where F4 and F4G are both reported, the greater of the two results is to be used for comparison to CWS PHC criteria.
- When reported, data for F4G has been processed using a silica gel cleanup.

Any use of these results implies your agreement that our total liability in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Paracel ID: 2609205



Printed By:
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47
celabio.com
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Paracel Order Number
(Lab Use Only)

2609205

Chain Of Custody
(Lab Use Only)

Client Name: Paterson Group
Contact Name: Adrian Menhart
Address: 9 Auriga Drive
Telephone: (613) 226-7381

Project Ref: P95280
Quote #:
PO #: 65213
E-mail: K Panchal } @patersongroup.ca
A Menhart }

Page 1 of 1

Turnaround Time

☐ 1 day ☐ 3 day
☐ 2 day ☒ Regular

Date Required:

☒ REG 153/04 ☐ REG 406/19
Other Regulation
☐ Table 1 ☐ Res/Park ☐ Med/Fine ☐ REG 558 ☐ PWQO
☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ CCME ☐ MISA
☐ Table 3 ☐ Agri/Other ☐ SU - Sani ☐ SU - Storm
☐ Table _____
Mun: _____
For RSC: ☐ Yes ☐ No ☐ Other: _____

Matrix Type: S (Soil/Sed.) GW (Ground Water)
SW (Surface Water) SS (Storm/Sanitary Sewer)
P (Paint) A (Air) O (Other)

Required Analysis

Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken		PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	PHC (F1-F4)	PAHs	pH	EC/SAR	PCBs
				Date	Time												
1 BH1-26-SS4 (A)	S		2	02/23/2020			X		X	X	X		X	X	X	X	
2 BH2-26-SS4	S		2	↓		X			X	X	X					X	X
3 DUP-1	S		2	↓		X											
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Comments:

Method of Delivery:

Paracel Courier

Relinquished By (Sign): [Signature]
Relinquished By (Print): Chris Green
Date/Time: 02/24/2020

Received By Driver/Depot:
Date/Time:
Temperature: °C

Received at Lab: LTJ
Date/Time: 24/02/26 16:48
Temperature: 8.7°C

Verified By: LTJ
Date/Time: 25/02/26 09:30
pH Verified: ☐ By:

Certificate of Analysis

Paterson Group Consulting Engineers (Ottawa)

9 Auriga Drive
Ottawa, ON K2E 7T9
Attn: Adrian Menyhart

Client PO: 65236
Project: PE5280
Custody:

Report Date: 9-Mar-2026

Order Date: 27-Feb-2026

Order #: 2609530

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
2609530-01	BH3-26-SS3
2609530-02	BH4-26-AU2

Approved By:

A. Tirca

Adriana Tirca, B.Eng (Chem)

Supervisor

Certificate of Analysis

Report Date: 09-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 27-Feb-2026

Client PO: 65236

Project Description: PE5280

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	Extraction Date	Analysis Date
BTEX by P&T GC-MS	EPA 8260 - P&T GC-MS	Ottawa	28-Feb-26	1-Mar-26
Chromium, hexavalent - soil	MOE E3056 - Extraction, colourimetric	Ottawa	3-Mar-26	3-Mar-26
Conductivity	MOE E3138 - probe @25 °C, water ext	Ottawa	3-Mar-26	4-Mar-26
Mercury by CVAA	EPA 7471B - CVAA, digestion	Ottawa	3-Mar-26	3-Mar-26
pH, soil	MOE E3137 - probe @25 °C, CaCl2 ext	Ottawa	3-Mar-26	3-Mar-26
PHC F1	CWS Tier 1 - P&T GC-FID	Ottawa	28-Feb-26	1-Mar-26
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	Ottawa	2-Mar-26	3-Mar-26
REG 153: Metals by ICP/MS, soil	EPA 6020 - Digestion - ICP-MS	Ottawa	3-Mar-26	3-Mar-26
REG 153: PAHs by GC-MS	EPA 8270 - GC-MS, extraction	Ottawa	2-Mar-26	7-Mar-26
SAR	Calculated	Ottawa	3-Mar-26	3-Mar-26
Solids, %	CWS Tier 1 - Gravimetric		2-Mar-26	3-Mar-26

Certificate of Analysis

Report Date: 09-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 27-Feb-2026

Client PO: 65236

Project Description: PE5280

Client ID:	BH3-26-SS3	BH4-26-AU2	-	-	
Sample Date:	26-Feb-26 09:00	26-Feb-26 09:00	-	-	-
Sample ID:	2609530-01	2609530-02	-	-	
Matrix:	Soil	Soil	-	-	
MDL/Units					

Physical Characteristics

% Solids	0.1 % by Wt.	95.6	91.3	-	-	-
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General Inorganics

SAR	0.01 N/A	0.89	3.65	-	-	-
Conductivity	5 uS/cm	219	1370	-	-	-
pH	0.05 pH Units	-	7.72	-	-	-

Metals

Antimony	1.0 ug/g	<1.0	<1.0	-	-	-
Arsenic	1.0 ug/g	1.5	1.6	-	-	-
Barium	1.0 ug/g	19.4	30.4	-	-	-
Beryllium	0.5 ug/g	<0.5	<0.5	-	-	-
Boron	5.0 ug/g	<5.0	<5.0	-	-	-
Cadmium	0.5 ug/g	<0.5	<0.5	-	-	-
Chromium (VI)	0.2 ug/g	<0.2	<0.2	-	-	-
Chromium	5.0 ug/g	6.1	30.4	-	-	-
Cobalt	1.0 ug/g	2.2	3.1	-	-	-
Copper	5.0 ug/g	<5.0	<5.0	-	-	-
Lead	1.0 ug/g	2.1	3.8	-	-	-
Mercury	0.1 ug/g	<0.1	<0.1	-	-	-
Molybdenum	1.0 ug/g	<1.0	<1.0	-	-	-
Nickel	5.0 ug/g	<5.0	6.6	-	-	-
Selenium	1.0 ug/g	<1.0	<1.0	-	-	-
Silver	0.3 ug/g	<0.3	<0.3	-	-	-
Thallium	1.0 ug/g	<1.0	<1.0	-	-	-
Uranium	1.0 ug/g	<1.0	<1.0	-	-	-
Vanadium	10.0 ug/g	10.8	18.6	-	-	-

Certificate of Analysis

Report Date: 09-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 27-Feb-2026

Client PO: 65236

Project Description: PE5280

Client ID:	BH3-26-SS3	BH4-26-AU2	-	-	
Sample Date:	26-Feb-26 09:00	26-Feb-26 09:00	-	-	-
Sample ID:	2609530-01	2609530-02	-	-	
Matrix:	Soil	Soil	-	-	
MDL/Units					

Metals

Zinc	20.0 ug/g	<20.0	21.8	-	-	-
------	-----------	-------	------	---	---	---

Volatiles

Benzene	0.02 ug/g	<0.02	<0.02	-	-	-
Ethylbenzene	0.05 ug/g	<0.05	<0.05	-	-	-
Toluene	0.05 ug/g	<0.05	<0.05	-	-	-
m,p-Xylenes	0.05 ug/g	<0.05	<0.05	-	-	-
o-Xylene	0.05 ug/g	<0.05	<0.05	-	-	-
Xylenes, total	0.05 ug/g	<0.05	<0.05	-	-	-
Toluene-d8	Surrogate	100%	104%	-	-	-

Hydrocarbons

F1 PHCs (C6-C10)	7 ug/g	<7	<7	-	-	-
F2 PHCs (C10-C16)	4 ug/g	<4	<4	-	-	-
F3 PHCs (C16-C34)	8 ug/g	<8	<8	-	-	-
F4 PHCs (C34-C50)	6 ug/g	<6	<6	-	-	-

Semi-Volatiles

Acenaphthene	0.02 ug/g	-	<0.02	-	-	-
Acenaphthylene	0.02 ug/g	-	<0.02	-	-	-
Anthracene	0.02 ug/g	-	<0.02	-	-	-
Benzo [a] anthracene	0.02 ug/g	-	<0.02	-	-	-
Benzo [a] pyrene	0.02 ug/g	-	<0.02	-	-	-
Benzo [b] fluoranthene	0.02 ug/g	-	<0.02	-	-	-
Benzo [g,h,i] perylene	0.02 ug/g	-	<0.02	-	-	-
Benzo [k] fluoranthene	0.02 ug/g	-	<0.02	-	-	-
Chrysene	0.02 ug/g	-	<0.02	-	-	-
Dibenzo [a,h] anthracene	0.02 ug/g	-	<0.02	-	-	-

Certificate of Analysis

Report Date: 09-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 27-Feb-2026

Client PO: 65236

Project Description: PE5280

Client ID:	BH3-26-SS3	BH4-26-AU2	-	-	
Sample Date:	26-Feb-26 09:00	26-Feb-26 09:00	-	-	-
Sample ID:	2609530-01	2609530-02	-	-	
Matrix:	Soil	Soil	-	-	
MDL/Units					

Semi-Volatiles

Fluoranthene	0.02 ug/g	-	<0.02	-	-	-
Fluorene	0.02 ug/g	-	<0.02	-	-	-
Indeno [1,2,3-cd] pyrene	0.02 ug/g	-	<0.02	-	-	-
1-Methylnaphthalene	0.02 ug/g	-	<0.02	-	-	-
2-Methylnaphthalene	0.02 ug/g	-	<0.02	-	-	-
Methylnaphthalene (1&2)	0.04 ug/g	-	<0.04	-	-	-
Naphthalene	0.01 ug/g	-	<0.01	-	-	-
Phenanthrene	0.02 ug/g	-	<0.02	-	-	-
Pyrene	0.02 ug/g	-	<0.02	-	-	-
2-Fluorobiphenyl	Surrogate	-	88.7%	-	-	-
Terphenyl-d14	Surrogate	-	87.0%	-	-	-

Certificate of Analysis

Report Date: 09-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 27-Feb-2026

Client PO: 65236

Project Description: PE5280

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
General Inorganics								
Conductivity	ND	5	uS/cm					
Hydrocarbons								
F1 PHCs (C6-C10)	ND	7	ug/g					
F2 PHCs (C10-C16)	ND	4	ug/g					
F3 PHCs (C16-C34)	ND	8	ug/g					
F4 PHCs (C34-C50)	ND	6	ug/g					
Metals								
Chromium (VI)	ND	0.2	ug/g					
Mercury	ND	0.1	ug/g					
Antimony	ND	1.0	ug/g					
Arsenic	ND	1.0	ug/g					
Barium	ND	1.0	ug/g					
Beryllium	ND	0.5	ug/g					
Boron	ND	5.0	ug/g					
Cadmium	ND	0.5	ug/g					
Chromium	ND	5.0	ug/g					
Cobalt	ND	1.0	ug/g					
Copper	ND	5.0	ug/g					
Lead	ND	1.0	ug/g					
Molybdenum	ND	1.0	ug/g					
Nickel	ND	5.0	ug/g					
Selenium	ND	1.0	ug/g					
Silver	ND	0.3	ug/g					
Thallium	ND	1.0	ug/g					
Uranium	ND	1.0	ug/g					
Vanadium	ND	10.0	ug/g					
Zinc	ND	20.0	ug/g					
Semi-Volatiles								
Acenaphthene	ND	0.02	ug/g					
Acenaphthylene	ND	0.02	ug/g					
Anthracene	ND	0.02	ug/g					
Benzo [a] anthracene	ND	0.02	ug/g					

Certificate of Analysis

Report Date: 09-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 27-Feb-2026

Client PO: 65236

Project Description: PE5280

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Benzo [a] pyrene	ND	0.02	ug/g					
Benzo [b] fluoranthene	ND	0.02	ug/g					
Benzo [g,h,i] perylene	ND	0.02	ug/g					
Benzo [k] fluoranthene	ND	0.02	ug/g					
Chrysene	ND	0.02	ug/g					
Dibenzo [a,h] anthracene	ND	0.02	ug/g					
Fluoranthene	ND	0.02	ug/g					
Fluorene	ND	0.02	ug/g					
Indeno [1,2,3-cd] pyrene	ND	0.02	ug/g					
1-Methylnaphthalene	ND	0.02	ug/g					
2-Methylnaphthalene	ND	0.02	ug/g					
Methylnaphthalene (1&2)	ND	0.04	ug/g					
Naphthalene	ND	0.01	ug/g					
Phenanthrene	ND	0.02	ug/g					
Pyrene	ND	0.02	ug/g					
Surrogate: 2-Fluorobiphenyl	1.04		%	78.1	50-140			
Surrogate: Terphenyl-d14	1.41		%	106	50-140			
Volatiles								
Benzene	ND	0.02	ug/g					
Ethylbenzene	ND	0.05	ug/g					
Toluene	ND	0.05	ug/g					
m,p-Xylenes	ND	0.05	ug/g					
o-Xylene	ND	0.05	ug/g					
Xylenes, total	ND	0.05	ug/g					
Surrogate: Toluene-d8	7.93		%	99.1	50-140			

Certificate of Analysis

Report Date: 09-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 27-Feb-2026

Client PO: 65236

Project Description: PE5280

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
General Inorganics									
SAR	0.17	0.01	N/A	0.16			6.1	30	
Conductivity	170	5	uS/cm	166			2.2	5	
pH	7.54	0.05	pH Units	7.56			0.3	2.3	
Hydrocarbons									
F1 PHCs (C6-C10)	ND	7	ug/g	ND			NC	40	
F2 PHCs (C10-C16)	ND	4	ug/g	ND			NC	30	
F3 PHCs (C16-C34)	ND	8	ug/g	ND			NC	30	
F4 PHCs (C34-C50)	ND	6	ug/g	ND			NC	30	
Metals									
Antimony	ND	1.0	ug/g	ND			NC	30	
Arsenic	2.8	1.0	ug/g	3.0			6.4	30	
Barium	85.3	1.0	ug/g	94.3			10.0	30	
Beryllium	ND	0.5	ug/g	ND			NC	30	
Boron	8.6	5.0	ug/g	8.5			0.4	30	
Cadmium	ND	0.5	ug/g	ND			NC	30	
Chromium (VI)	ND	0.2	ug/g	ND			NC	35	
Chromium	10.2	5.0	ug/g	10.8			6.2	30	
Cobalt	1.9	1.0	ug/g	2.0			4.9	30	
Copper	20.9	5.0	ug/g	23.3			10.9	30	
Lead	27.1	1.0	ug/g	28.0			3.2	30	
Mercury	ND	0.1	ug/g	ND			NC	30	
Molybdenum	1.8	1.0	ug/g	1.7			2.8	30	
Nickel	10.2	5.0	ug/g	11.2			9.7	30	
Selenium	ND	1.0	ug/g	ND			NC	30	
Silver	ND	0.3	ug/g	ND			NC	30	
Thallium	ND	1.0	ug/g	ND			NC	30	
Uranium	ND	1.0	ug/g	ND			NC	30	
Vanadium	22.8	10.0	ug/g	23.2			1.7	30	
Zinc	40.7	20.0	ug/g	43.0			5.3	30	

Physical Characteristics

Certificate of Analysis

Report Date: 09-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 27-Feb-2026

Client PO: 65236

Project Description: PE5280

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
% Solids	93.8	0.1	% by Wt.	93.6			0.2	25	
Semi-Volatiles									
Acenaphthene	0.089	0.02	ug/g	0.135			41.0	40	QR-04
Acenaphthylene	ND	0.02	ug/g	ND			NC	40	
Anthracene	0.151	0.02	ug/g	0.240			45.2	40	QR-04
Benzo [a] anthracene	0.287	0.02	ug/g	0.461			46.6	40	QR-04
Benzo [a] pyrene	0.233	0.02	ug/g	0.368			44.8	40	QR-04
Benzo [b] fluoranthene	0.269	0.02	ug/g	0.428			45.8	40	QR-04
Benzo [g,h,i] perylene	0.115	0.02	ug/g	0.177			42.1	40	QR-04
Benzo [k] fluoranthene	0.100	0.02	ug/g	0.147			37.9	40	
Chrysene	0.275	0.02	ug/g	0.431			44.1	40	QR-04
Dibenzo [a,h] anthracene	ND	0.02	ug/g	ND			NC	40	
Fluoranthene	0.827	0.02	ug/g	1.33			46.6	40	QR-04
Fluorene	0.084	0.02	ug/g	0.127			41.2	40	QR-04
Indeno [1,2,3-cd] pyrene	0.151	0.02	ug/g	0.236			43.6	40	QR-04
1-Methylnaphthalene	ND	0.02	ug/g	ND			NC	40	
2-Methylnaphthalene	ND	0.02	ug/g	ND			NC	40	
Naphthalene	0.012	0.01	ug/g	0.017			30.8	40	
Phenanthrene	0.723	0.02	ug/g	1.12			43.1	40	QR-04
Pyrene	0.499	0.02	ug/g	0.785			44.6	40	QR-04
Surrogate: 2-Fluorobiphenyl	1.12		%		69.5	50-140			
Surrogate: Terphenyl-d14	1.30		%		81.3	50-140			
Volatiles									
Benzene	ND	0.02	ug/g	ND			NC	50	
Ethylbenzene	ND	0.05	ug/g	ND			NC	50	
Toluene	ND	0.05	ug/g	ND			NC	50	
m,p-Xylenes	ND	0.05	ug/g	ND			NC	50	
o-Xylene	ND	0.05	ug/g	ND			NC	50	
Surrogate: Toluene-d8	13.7		%		114	50-140			

Certificate of Analysis

Report Date: 09-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 27-Feb-2026

Client PO: 65236

Project Description: PE5280

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	173	7	ug/g	ND	101	85-115			
F2 PHCs (C10-C16)	83	4	ug/g	ND	96.6	60-140			
F3 PHCs (C16-C34)	230	8	ug/g	ND	110	60-140			
F4 PHCs (C34-C50)	147	6	ug/g	ND	111	60-140			
Metals									
Antimony	36.3	1.0	ug/g	ND	71.9	70-130			
Arsenic	52.6	1.0	ug/g	1.2	103	70-130			
Barium	85.6	1.0	ug/g	37.7	95.8	70-130			
Beryllium	51.2	0.5	ug/g	ND	102	70-130			
Boron	54.7	5.0	ug/g	ND	103	70-130			
Cadmium	48.5	0.5	ug/g	ND	96.9	70-130			
Chromium (VI)	4.7	0.2	ug/g	ND	90.5	48-112			
Chromium	56.6	5.0	ug/g	ND	105	70-130			
Cobalt	51.0	1.0	ug/g	ND	100	70-130			
Copper	57.1	5.0	ug/g	9.3	95.6	70-130			
Lead	56.8	1.0	ug/g	11.2	91.2	70-130			
Mercury	1.45	0.1	ug/g	ND	96.4	70-130			
Molybdenum	51.6	1.0	ug/g	ND	102	70-130			
Nickel	54.1	5.0	ug/g	ND	99.3	70-130			
Selenium	49.4	1.0	ug/g	ND	98.5	70-130			
Silver	47.3	0.3	ug/g	ND	94.6	70-130			
Thallium	48.2	1.0	ug/g	ND	96.4	70-130			
Uranium	51.0	1.0	ug/g	ND	101	70-130			
Vanadium	62.3	10.0	ug/g	ND	106	70-130			
Zinc	61.9	20.0	ug/g	ND	89.4	70-130			
Semi-Volatiles									
Acenaphthene	0.303	0.02	ug/g	ND	91.0	50-140			
Acenaphthylene	0.280	0.02	ug/g	ND	84.0	50-140			
Anthracene	0.251	0.02	ug/g	ND	75.3	50-140			
Benzo [a] anthracene	0.295	0.02	ug/g	ND	88.4	50-140			

Certificate of Analysis

Report Date: 09-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 27-Feb-2026

Client PO: 65236

Project Description: PE5280

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Benzo [a] pyrene	0.346	0.02	ug/g	ND	104	50-140			
Benzo [b] fluoranthene	0.290	0.02	ug/g	ND	87.0	50-140			
Benzo [g,h,i] perylene	0.314	0.02	ug/g	ND	94.2	50-140			
Benzo [k] fluoranthene	0.281	0.02	ug/g	ND	84.4	50-140			
Chrysene	0.266	0.02	ug/g	ND	79.7	50-140			
Dibenzo [a,h] anthracene	0.168	0.02	ug/g	ND	50.3	50-140			
Fluoranthene	0.319	0.02	ug/g	ND	95.8	50-140			
Fluorene	0.294	0.02	ug/g	ND	88.3	50-140			
Indeno [1,2,3-cd] pyrene	0.303	0.02	ug/g	ND	91.0	50-140			
1-Methylnaphthalene	0.291	0.02	ug/g	ND	87.4	50-140			
2-Methylnaphthalene	0.344	0.02	ug/g	ND	103	50-140			
Naphthalene	0.264	0.01	ug/g	ND	79.1	50-140			
Phenanthrene	0.315	0.02	ug/g	ND	94.6	50-140			
Pyrene	0.321	0.02	ug/g	ND	96.4	50-140			
Surrogate: 2-Fluorobiphenyl	1.11		%		83.4	50-140			
Surrogate: Terphenyl-d14	1.29		%		96.5	50-140			
Volatiles									
Benzene	3.89	0.02	ug/g	ND	97.2	60-130			
Ethylbenzene	4.18	0.05	ug/g	ND	105	60-130			
Toluene	4.03	0.05	ug/g	ND	101	60-130			
m,p-Xylenes	8.69	0.05	ug/g	ND	109	60-130			
o-Xylene	4.40	0.05	ug/g	ND	110	60-130			
Surrogate: Toluene-d8	7.71		%		96.4	50-140			

Certificate of Analysis

Client: Paterson Group Consulting Engineers (Ottawa)

Client PO: 65236

Report Date: 09-Mar-2026

Order Date: 27-Feb-2026

Project Description: PE5280

Qualifier Notes:**QC Qualifiers:**

QR-04 Duplicate results exceeds RPD limits due to non-homogeneous matrix.

Sample Data Revisions:

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

Source Result: Data used as source for matrix and duplicate samples

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

Soil results are reported on a dry weight basis unless otherwise noted.

Where %Solids is reported, moisture loss includes the loss of volatile hydrocarbons.

CCME PHC additional information:

- The method for the analysis of PHCs complies with the Reference Method for the CWS PHC and is validated for use in the laboratory. All prescribed quality criteria identified in the method has been met.
- F1 range corrected for BTEX.
- F2 to F3 ranges corrected for appropriate PAHs where available.
- The gravimetric heavy hydrocarbons (F4G) are not to be added to C6 to C50 hydrocarbons.
- In the case where F4 and F4G are both reported, the greater of the two results is to be used for comparison to CWS PHC criteria.
- When reported, data for F4G has been processed using a silica gel cleanup.

Any use of these results implies your agreement that our total liability in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.



2609530

Client Name: Paterson Group

Project Ref: PE5280

Page 1 of 1

Contact Name: Adrian Menyhart

Quote #:

Turnaround Time

Address: 9 Auriga Drive

PO #: 65236

☐ 1 day

☐ 3 day

Telephone: (613) 226-7381

E-mail: AMenyhart } @patersongroup.ca
KPanchar

☐ 2 day

☒ Regular

Date Required:

☒ REG 153/04 ☐ REG 406/19

Other Regulation

☐ Table 1 ☐ Res/Park ☐ Med/Fine ☐ REG 558 ☐ PWQO

☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ CCME ☐ MISA

☐ Table 3 ☐ Agri/Other ☐ SU - Sani ☐ SU - Storm

☐ Table ☐ Mun: _____

For RSC: ☐ Yes ☐ No ☐ Other: _____

Matrix Type: S (Soil/Sed.) GW (Ground Water)
SW (Surface Water) SS (Storm/Sanitary Sewer)
P (Paint) A (Air) O (Other)

Required Analysis

Sample ID/Location Name	Matrix	Air Volume	# of Containers	Sample Taken		PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWS)	EC/SAR	pH		
				Date	Time											
1 BH3-26-SS3	S		2	02/26/2026		X			X	X	X		X			
2 BH4-26-AU2	S		2	02/26/2026		X		X	X	X	X		X	X		
3																
4																
5																
6																
7																
8																
9																
10																

Comments:

Method of Delivery:

Relinquished By (Sign): *Chris Green*

Received By Driver/Depot:

Received at Lab:

Verified By:

Relinquished By (Print): Chris Green

Date/Time:

Date/Time:

Date/Time:

Date/Time: 02/27/2026

Temperature:

°C

Temperature:

8.0°

pH Verified: ☐

By:

Certificate of Analysis

Paterson Group Consulting Engineers (Ottawa)

9 Auriga Drive
Ottawa, ON K2E 7T9
Attn: Adrian Menyhart

Client PO: 65267
Project: PE5280
Custody:

Report Date: 10-Mar-2026
Order Date: 4-Mar-2026

Order #: 2610301

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
2610301-01	BH1-26-GW1
2610301-02	BH2-26-GW1
2610301-03	BH3-26-GW1
2610301-04	DUP-1

Approved By:

A. Tirca

Adriana Tirca, B.Eng (Chem)

Supervisor

Certificate of Analysis

Report Date: 10-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 4-Mar-2026

Client PO: 65267

Project Description: PE5280

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	Extraction Date	Analysis Date
BTEX by P&T GC-MS	EPA 624 - P&T GC-MS	Ottawa	7-Mar-26	7-Mar-26
Chromium, hexavalent - water	MOE E3056 - colourimetric	Ottawa	5-Mar-26	5-Mar-26
Mercury by CVAA	EPA 245.2 - Cold Vapour AA	Ottawa	5-Mar-26	5-Mar-26
Metals, ICP-MS	EPA 200.8 - ICP-MS	Ottawa	5-Mar-26	6-Mar-26
PHC F1	CWS Tier 1 - P&T GC-FID	Ottawa	6-Mar-26	7-Mar-26
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	Ottawa	6-Mar-26	7-Mar-26
REG 153: PAHs by GC-MS	EPA 625 - GC-MS, extraction	Ottawa	9-Mar-26	10-Mar-26
REG 153: VOCs by P&T GC/MS	EPA 624 - P&T GC-MS	Ottawa	6-Mar-26	7-Mar-26

Certificate of Analysis

Report Date: 10-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 4-Mar-2026

Client PO: 65267

Project Description: PE5280

Client ID:	BH1-26-GW1	BH2-26-GW1	BH3-26-GW1	DUP-1		
Sample Date:	04-Mar-26 09:00	04-Mar-26 09:00	04-Mar-26 09:00	04-Mar-26 09:00	-	-
Sample ID:	2610301-01	2610301-02	2610301-03	2610301-04		
Matrix:	Ground Water	Ground Water	Ground Water	Ground Water		
MDL/Units						

Metals

Mercury	0.1 ug/L	<0.1	<0.1	<0.1	-	-	-
Antimony	0.5 ug/L	<0.5	<0.5	<0.5	-	-	-
Arsenic	1 ug/L	<1	<1	<1	-	-	-
Barium	1 ug/L	49	41	88	-	-	-
Beryllium	0.5 ug/L	<0.5	<0.5	<0.5	-	-	-
Boron	10 ug/L	19	15	27	-	-	-
Cadmium	0.1 ug/L	<0.1	<0.1	<0.1	-	-	-
Chromium (VI)	10 ug/L	<10	<10	<10	-	-	-
Chromium	1 ug/L	<1	<1	<1	-	-	-
Cobalt	0.5 ug/L	<0.5	0.9	1.8	-	-	-
Copper	0.5 ug/L	1.9	6.1	3.3	-	-	-
Lead	0.1 ug/L	<0.1	<0.1	<0.1	-	-	-
Molybdenum	0.5 ug/L	<0.5	<0.5	1.0	-	-	-
Nickel	1 ug/L	2	1	1	-	-	-
Selenium	1 ug/L	<1	<1	<1	-	-	-
Silver	0.1 ug/L	<0.1	<0.1	<0.1	-	-	-
Sodium	200 ug/L	39600	12900	98300	-	-	-
Thallium	0.1 ug/L	<0.1	<0.1	<0.1	-	-	-
Uranium	0.1 ug/L	0.2	0.2	0.5	-	-	-
Vanadium	0.5 ug/L	<0.5	<0.5	<0.5	-	-	-
Zinc	5 ug/L	<5	12	7	-	-	-

Volatiles

Acetone	5.0 ug/L	<5.0	-	-	-	-	-
Benzene	0.5 ug/L	<0.5	-	-	-	-	-
Bromodichloromethane	0.5 ug/L	<0.5	-	-	-	-	-

Certificate of Analysis

Report Date: 10-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 4-Mar-2026

Client PO: 65267

Project Description: PE5280

Client ID:	BH1-26-GW1	BH2-26-GW1	BH3-26-GW1	DUP-1		
Sample Date:	04-Mar-26 09:00	04-Mar-26 09:00	04-Mar-26 09:00	04-Mar-26 09:00	-	-
Sample ID:	2610301-01	2610301-02	2610301-03	2610301-04		
Matrix:	Ground Water	Ground Water	Ground Water	Ground Water		
MDL/Units						

Volatiles

Bromoform	0.5 ug/L	<0.5	-	-	-	-
Bromomethane	0.5 ug/L	<0.5	-	-	-	-
Carbon Tetrachloride	0.2 ug/L	<0.2	-	-	-	-
Chlorobenzene	0.5 ug/L	<0.5	-	-	-	-
Chloroform	0.5 ug/L	<0.5	-	-	-	-
Dibromochloromethane	0.5 ug/L	<0.5	-	-	-	-
Dichlorodifluoromethane	1.0 ug/L	<1.0	-	-	-	-
1,2-Dichlorobenzene	0.5 ug/L	<0.5	-	-	-	-
1,3-Dichlorobenzene	0.5 ug/L	<0.5	-	-	-	-
1,4-Dichlorobenzene	0.5 ug/L	<0.5	-	-	-	-
1,1-Dichloroethane	0.5 ug/L	<0.5	-	-	-	-
1,2-Dichloroethane	0.5 ug/L	<0.5	-	-	-	-
1,1-Dichloroethylene	0.5 ug/L	<0.5	-	-	-	-
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	-	-	-	-
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	-	-	-	-
1,2-Dichloropropane	0.5 ug/L	<0.5	-	-	-	-
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	-	-	-	-
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	-	-	-	-
1,3-Dichloropropene, total	0.5 ug/L	<0.5	-	-	-	-
Ethylbenzene	0.5 ug/L	<0.5	-	-	-	-
Ethylene dibromide (dibromoethane,	0.2 ug/L	<0.2	-	-	-	-
Hexane	1.0 ug/L	<1.0	-	-	-	-
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	-	-	-	-
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	-	-	-	-
Methyl tert-butyl ether	2.0 ug/L	<2.0	-	-	-	-

Certificate of Analysis

Report Date: 10-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 4-Mar-2026

Client PO: 65267

Project Description: PE5280

Client ID:	BH1-26-GW1	BH2-26-GW1	BH3-26-GW1	DUP-1		
Sample Date:	04-Mar-26 09:00	04-Mar-26 09:00	04-Mar-26 09:00	04-Mar-26 09:00	-	-
Sample ID:	2610301-01	2610301-02	2610301-03	2610301-04		
Matrix:	Ground Water	Ground Water	Ground Water	Ground Water		
MDL/Units						

Volatiles

Methylene Chloride	5.0 ug/L	<5.0	-	-	-	-
Styrene	0.5 ug/L	<0.5	-	-	-	-
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	-	-	-	-
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	-	-	-	-
Tetrachloroethylene	0.5 ug/L	<0.5	-	-	-	-
Toluene	0.5 ug/L	<0.5	-	-	-	-
1,1,1-Trichloroethane	0.5 ug/L	<0.5	-	-	-	-
1,1,2-Trichloroethane	0.5 ug/L	<0.5	-	-	-	-
Trichloroethylene	0.5 ug/L	<0.5	-	-	-	-
Trichlorofluoromethane	1.0 ug/L	<1.0	-	-	-	-
Vinyl chloride	0.5 ug/L	<0.5	-	-	-	-
m,p-Xylenes	0.5 ug/L	<0.5	-	-	-	-
o-Xylene	0.5 ug/L	<0.5	-	-	-	-
Xylenes, total	0.5 ug/L	<0.5	-	-	-	-
Toluene-d8	Surrogate	102%	-	-	-	-
Dibromofluoromethane	Surrogate	105%	-	-	-	-
4-Bromofluorobenzene	Surrogate	106%	-	-	-	-
Benzene	0.5 ug/L	-	<0.5	<0.5	<0.5	-
Ethylbenzene	0.5 ug/L	-	<0.5	<0.5	<0.5	-
Toluene	0.5 ug/L	-	<0.5	<0.5	<0.5	-
m,p-Xylenes	0.5 ug/L	-	<0.5	<0.5	<0.5	-
o-Xylene	0.5 ug/L	-	<0.5	<0.5	<0.5	-
Xylenes, total	0.5 ug/L	-	<0.5	<0.5	<0.5	-
Toluene-d8	Surrogate	-	103%	104%	103%	-

Hydrocarbons

Certificate of Analysis

Report Date: 10-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 4-Mar-2026

Client PO: 65267

Project Description: PE5280

Client ID:	BH1-26-GW1	BH2-26-GW1	BH3-26-GW1	DUP-1		
Sample Date:	04-Mar-26 09:00	04-Mar-26 09:00	04-Mar-26 09:00	04-Mar-26 09:00	-	-
Sample ID:	2610301-01	2610301-02	2610301-03	2610301-04		
Matrix:	Ground Water	Ground Water	Ground Water	Ground Water		
MDL/Units						

Hydrocarbons

F1 PHCs (C6-C10)	25 ug/L	<25	<25	<25	<25	-	-
F2 PHCs (C10-C16)	100 ug/L	<100	<100	<100	<100	-	-
F3 PHCs (C16-C34)	100 ug/L	<100	<100	<100	<100	-	-
F4 PHCs (C34-C50)	100 ug/L	<100	<100	<100	<100	-	-

Semi-Volatiles

Acenaphthene	0.05 ug/L	<0.05	-	-	-	-	-
Acenaphthylene	0.05 ug/L	<0.05	-	-	-	-	-
Anthracene	0.01 ug/L	<0.01	-	-	-	-	-
Benzo [a] anthracene	0.01 ug/L	<0.01	-	-	-	-	-
Benzo [a] pyrene	0.01 ug/L	<0.01	-	-	-	-	-
Benzo [b] fluoranthene	0.05 ug/L	<0.05	-	-	-	-	-
Benzo [g,h,i] perylene	0.05 ug/L	<0.05	-	-	-	-	-
Benzo [k] fluoranthene	0.05 ug/L	<0.05	-	-	-	-	-
Chrysene	0.05 ug/L	<0.05	-	-	-	-	-
Dibenzo [a,h] anthracene	0.05 ug/L	<0.05	-	-	-	-	-
Fluoranthene	0.01 ug/L	<0.01	-	-	-	-	-
Fluorene	0.05 ug/L	<0.05	-	-	-	-	-
Indeno [1,2,3-cd] pyrene	0.05 ug/L	<0.05	-	-	-	-	-
1-Methylnaphthalene	0.05 ug/L	<0.05	-	-	-	-	-
2-Methylnaphthalene	0.05 ug/L	<0.05	-	-	-	-	-
Methylnaphthalene (1&2)	0.10 ug/L	<0.10	-	-	-	-	-
Naphthalene	0.05 ug/L	<0.05	-	-	-	-	-
Phenanthrene	0.05 ug/L	<0.05	-	-	-	-	-
Pyrene	0.01 ug/L	<0.01	-	-	-	-	-
2-Fluorobiphenyl	Surrogate	87.9%	-	-	-	-	-

Certificate of Analysis

Report Date: 10-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 4-Mar-2026

Client PO: 65267

Project Description: PE5280

Client ID:	BH1-26-GW1	BH2-26-GW1	BH3-26-GW1	DUP-1	
Sample Date:	04-Mar-26 09:00	04-Mar-26 09:00	04-Mar-26 09:00	04-Mar-26 09:00	-
Sample ID:	2610301-01	2610301-02	2610301-03	2610301-04	-
Matrix:	Ground Water	Ground Water	Ground Water	Ground Water	
MDL/Units					

Semi-Volatiles

Terphenyl-d14	Surrogate	93.9%	-	-	-	-
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Certificate of Analysis

Report Date: 10-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 4-Mar-2026

Client PO: 65267

Project Description: PE5280

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons								
F1 PHCs (C6-C10)	ND	25	ug/L					
F2 PHCs (C10-C16)	ND	100	ug/L					
F3 PHCs (C16-C34)	ND	100	ug/L					
F4 PHCs (C34-C50)	ND	100	ug/L					
Metals								
Antimony	ND	0.5	ug/L					
Arsenic	ND	1	ug/L					
Barium	ND	1	ug/L					
Beryllium	ND	0.5	ug/L					
Boron	ND	10	ug/L					
Cadmium	ND	0.1	ug/L					
Chromium	ND	1	ug/L					
Chromium (VI)	ND	10	ug/L					
Cobalt	ND	0.5	ug/L					
Copper	ND	0.5	ug/L					
Lead	ND	0.1	ug/L					
Mercury	ND	0.1	ug/L					
Molybdenum	ND	0.5	ug/L					
Nickel	ND	1	ug/L					
Selenium	ND	1	ug/L					
Silver	ND	0.1	ug/L					
Sodium	ND	200	ug/L					
Thallium	ND	0.1	ug/L					
Uranium	ND	0.1	ug/L					
Vanadium	ND	0.5	ug/L					
Zinc	ND	5	ug/L					
Semi-Volatiles								
Acenaphthene	ND	0.05	ug/L					
Acenaphthylene	ND	0.05	ug/L					
Anthracene	ND	0.01	ug/L					
Benzo [a] anthracene	ND	0.01	ug/L					
Benzo [a] pyrene	ND	0.01	ug/L					

Certificate of Analysis

Report Date: 10-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 4-Mar-2026

Client PO: 65267

Project Description: PE5280

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Benzo [b] fluoranthene	ND	0.05	ug/L					
Benzo [g,h,i] perylene	ND	0.05	ug/L					
Benzo [k] fluoranthene	ND	0.05	ug/L					
Chrysene	ND	0.05	ug/L					
Dibenzo [a,h] anthracene	ND	0.05	ug/L					
Fluoranthene	ND	0.01	ug/L					
Fluorene	ND	0.05	ug/L					
Indeno [1,2,3-cd] pyrene	ND	0.05	ug/L					
1-Methylnaphthalene	ND	0.05	ug/L					
2-Methylnaphthalene	ND	0.05	ug/L					
Methylnaphthalene (1&2)	ND	0.10	ug/L					
Naphthalene	ND	0.05	ug/L					
Phenanthrene	ND	0.05	ug/L					
Pyrene	ND	0.01	ug/L					
Surrogate: 2-Fluorobiphenyl	15.1		%	75.5	50-140			
Surrogate: Terphenyl-d14	16.7		%	83.4	50-140			
Volatiles								
Benzene	ND	0.5	ug/L					
Ethylbenzene	ND	0.5	ug/L					
Toluene	ND	0.5	ug/L					
m,p-Xylenes	ND	0.5	ug/L					
o-Xylene	ND	0.5	ug/L					
Xylenes, total	ND	0.5	ug/L					
Surrogate: Toluene-d8	82.2		%	103	50-140			
Acetone	ND	5.0	ug/L					
Benzene	ND	0.5	ug/L					
Bromodichloromethane	ND	0.5	ug/L					
Bromoform	ND	0.5	ug/L					
Bromomethane	ND	0.5	ug/L					
Carbon Tetrachloride	ND	0.2	ug/L					
Chlorobenzene	ND	0.5	ug/L					
Chloroform	ND	0.5	ug/L					

Certificate of Analysis

Report Date: 10-Mar-2026

Client: **Paterson Group Consulting Engineers (Ottawa)**

Order Date: 4-Mar-2026

Client PO: **65267**

Project Description: **PE5280**

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Dibromochloromethane	ND	0.5	ug/L					
Dichlorodifluoromethane	ND	1.0	ug/L					
1,2-Dichlorobenzene	ND	0.5	ug/L					
1,3-Dichlorobenzene	ND	0.5	ug/L					
1,4-Dichlorobenzene	ND	0.5	ug/L					
1,1-Dichloroethane	ND	0.5	ug/L					
1,2-Dichloroethane	ND	0.5	ug/L					
1,1-Dichloroethylene	ND	0.5	ug/L					
cis-1,2-Dichloroethylene	ND	0.5	ug/L					
trans-1,2-Dichloroethylene	ND	0.5	ug/L					
1,2-Dichloropropane	ND	0.5	ug/L					
cis-1,3-Dichloropropylene	ND	0.5	ug/L					
trans-1,3-Dichloropropylene	ND	0.5	ug/L					
1,3-Dichloropropene, total	ND	0.5	ug/L					
Ethylbenzene	ND	0.5	ug/L					
Ethylene dibromide (dibromoethane, 1,2-)	ND	0.2	ug/L					
Hexane	ND	1.0	ug/L					
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L					
Methyl Isobutyl Ketone	ND	5.0	ug/L					
Methyl tert-butyl ether	ND	2.0	ug/L					
Methylene Chloride	ND	5.0	ug/L					
Styrene	ND	0.5	ug/L					
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L					
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L					
Tetrachloroethylene	ND	0.5	ug/L					
Toluene	ND	0.5	ug/L					
1,1,1-Trichloroethane	ND	0.5	ug/L					
1,1,2-Trichloroethane	ND	0.5	ug/L					
Trichloroethylene	ND	0.5	ug/L					
Trichlorofluoromethane	ND	1.0	ug/L					
Vinyl chloride	ND	0.5	ug/L					
m,p-Xylenes	ND	0.5	ug/L					
o-Xylene	ND	0.5	ug/L					

Certificate of Analysis

Report Date: 10-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 4-Mar-2026

Client PO: 65267

Project Description: PE5280

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Xylenes, total	ND	0.5	ug/L					
Surrogate: 4-Bromofluorobenzene	85.7		%	107	50-140			
Surrogate: Dibromofluoromethane	80.5		%	101	50-140			
Surrogate: Toluene-d8	82.2		%	103	50-140			

Certificate of Analysis

Report Date: 10-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 4-Mar-2026

Client PO: 65267

Project Description: PE5280

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	ND	25	ug/L	ND			NC	30	
Metals									
Mercury	16.2	1.0	ug/L	15.7			3.1	20	
Antimony	ND	0.5	ug/L	ND			NC	20	
Arsenic	ND	1	ug/L	ND			NC	20	
Barium	50.4	1	ug/L	48.5			3.7	20	
Beryllium	ND	0.5	ug/L	ND			NC	20	
Boron	18	10	ug/L	19			4.6	20	
Cadmium	ND	0.1	ug/L	ND			NC	20	
Chromium (VI)	ND	10	ug/L	ND			NC	20	
Chromium	ND	1	ug/L	ND			NC	20	
Cobalt	ND	0.5	ug/L	ND			NC	20	
Copper	1.89	0.5	ug/L	1.90			0.8	20	
Lead	ND	0.1	ug/L	ND			NC	20	
Molybdenum	ND	0.5	ug/L	ND			NC	20	
Nickel	2.4	1	ug/L	2.5			2.1	20	
Selenium	ND	1	ug/L	ND			NC	20	
Silver	ND	0.1	ug/L	ND			NC	20	
Sodium	39300	200	ug/L	39600			0.9	20	
Thallium	ND	0.1	ug/L	ND			NC	20	
Uranium	0.2	0.1	ug/L	0.2			3.0	20	
Vanadium	ND	0.5	ug/L	ND			NC	20	
Zinc	ND	5	ug/L	ND			NC	20	
Volatiles									
Acetone	ND	5.0	ug/L	ND			NC	30	
Benzene	ND	0.5	ug/L	ND			NC	30	
Bromodichloromethane	ND	0.5	ug/L	ND			NC	30	
Bromoform	ND	0.5	ug/L	ND			NC	30	
Bromomethane	ND	0.5	ug/L	ND			NC	30	
Carbon Tetrachloride	ND	0.2	ug/L	ND			NC	30	

Certificate of Analysis

Report Date: 10-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 4-Mar-2026

Client PO: 65267

Project Description: PE5280

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Chlorobenzene	ND	0.5	ug/L	ND			NC	30	
Chloroform	ND	0.5	ug/L	ND			NC	30	
Dibromochloromethane	ND	0.5	ug/L	ND			NC	30	
Dichlorodifluoromethane	ND	1.0	ug/L	ND			NC	30	
1,2-Dichlorobenzene	ND	0.5	ug/L	ND			NC	30	
1,3-Dichlorobenzene	ND	0.5	ug/L	ND			NC	30	
1,4-Dichlorobenzene	ND	0.5	ug/L	ND			NC	30	
1,1-Dichloroethane	ND	0.5	ug/L	ND			NC	30	
1,2-Dichloroethane	ND	0.5	ug/L	ND			NC	30	
1,1-Dichloroethylene	ND	0.5	ug/L	ND			NC	30	
cis-1,2-Dichloroethylene	ND	0.5	ug/L	ND			NC	30	
trans-1,2-Dichloroethylene	ND	0.5	ug/L	ND			NC	30	
1,2-Dichloropropane	ND	0.5	ug/L	ND			NC	30	
cis-1,3-Dichloropropylene	ND	0.5	ug/L	ND			NC	30	
trans-1,3-Dichloropropylene	ND	0.5	ug/L	ND			NC	30	
Ethylbenzene	ND	0.5	ug/L	ND			NC	30	
Ethylene dibromide (dibromoethane, 1,2-)	ND	0.2	ug/L	ND			NC	30	
Hexane	ND	1.0	ug/L	ND			NC	30	
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L	ND			NC	30	
Methyl Isobutyl Ketone	ND	5.0	ug/L	ND			NC	30	
Methyl tert-butyl ether	ND	2.0	ug/L	ND			NC	30	
Methylene Chloride	ND	5.0	ug/L	ND			NC	30	
Styrene	ND	0.5	ug/L	ND			NC	30	
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	ND			NC	30	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	ND			NC	30	
Tetrachloroethylene	ND	0.5	ug/L	ND			NC	30	
Toluene	ND	0.5	ug/L	ND			NC	30	
1,1,1-Trichloroethane	ND	0.5	ug/L	ND			NC	30	
1,1,2-Trichloroethane	ND	0.5	ug/L	ND			NC	30	
Trichloroethylene	ND	0.5	ug/L	ND			NC	30	
Trichlorofluoromethane	ND	1.0	ug/L	ND			NC	30	

Certificate of Analysis

Report Date: 10-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 4-Mar-2026

Client PO: 65267

Project Description: PE5280

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Vinyl chloride	ND	0.5	ug/L	ND			NC	30	
m,p-Xylenes	ND	0.5	ug/L	ND			NC	30	
o-Xylene	ND	0.5	ug/L	ND			NC	30	
Surrogate: 4-Bromofluorobenzene	84.1		%		105	50-140			
Surrogate: Dibromofluoromethane	77.8		%		97.2	50-140			
Surrogate: Toluene-d8	82.5		%		103	50-140			
Benzene	ND	0.5	ug/L	ND			NC	30	
Ethylbenzene	ND	0.5	ug/L	ND			NC	30	
Toluene	ND	0.5	ug/L	ND			NC	30	
m,p-Xylenes	ND	0.5	ug/L	ND			NC	30	
o-Xylene	ND	0.5	ug/L	ND			NC	30	
Surrogate: Toluene-d8	82.5		%		103	50-140			

Certificate of Analysis

Report Date: 10-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 4-Mar-2026

Client PO: 65267

Project Description: PE5280

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	1880	25	ug/L	ND	109	85-115			
F2 PHCs (C10-C16)	1330	100	ug/L	ND	83.3	60-140			
F3 PHCs (C16-C34)	4010	100	ug/L	ND	102	60-140			
F4 PHCs (C34-C50)	2600	100	ug/L	ND	105	60-140			
Metals									
Mercury	18.2	1.0	ug/L	15.7	82.0	70-130			
Arsenic	52.3	1	ug/L	ND	104	80-120			
Barium	93.9	1	ug/L	48.5	90.8	80-120			
Beryllium	49.1	0.5	ug/L	ND	98.2	80-120			
Boron	65	10	ug/L	19	92.0	80-120			
Cadmium	48.2	0.1	ug/L	ND	96.3	80-120			
Chromium (VI)	200	10	ug/L	ND	100	75-115			
Chromium	50.5	1	ug/L	ND	99.1	80-120			
Cobalt	48.8	0.5	ug/L	ND	97.3	80-120			
Copper	47.7	0.5	ug/L	1.90	91.5	80-120			
Lead	41.6	0.1	ug/L	ND	83.2	80-120			
Molybdenum	49.3	0.5	ug/L	ND	97.8	80-120			
Nickel	49.2	1	ug/L	2.5	93.4	80-120			
Selenium	51.5	1	ug/L	ND	102	80-120			
Silver	44.8	0.1	ug/L	ND	89.6	80-120			
Sodium	47600	200	ug/L	39600	79.5	80-120			QM-07
Thallium	46.9	0.1	ug/L	ND	93.8	80-120			
Uranium	45.4	0.1	ug/L	0.2	90.4	80-120			
Vanadium	52.3	0.5	ug/L	ND	104	80-120			
Zinc	48	5	ug/L	ND	88.1	80-120			
Semi-Volatiles									
Acenaphthene	3.98	0.05	ug/L	ND	79.6	50-140			
Acenaphthylene	4.19	0.05	ug/L	ND	83.7	50-140			
Anthracene	4.49	0.01	ug/L	ND	89.9	50-140			
Benzo [a] anthracene	4.10	0.01	ug/L	ND	81.9	50-140			

Certificate of Analysis

Report Date: 10-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 4-Mar-2026

Client PO: 65267

Project Description: PE5280

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Benzo [a] pyrene	4.07	0.01	ug/L	ND	81.3	50-140			
Benzo [b] fluoranthene	4.01	0.05	ug/L	ND	80.2	50-140			
Benzo [g,h,i] perylene	3.53	0.05	ug/L	ND	70.6	50-140			
Benzo [k] fluoranthene	3.07	0.05	ug/L	ND	61.5	50-140			
Chrysene	4.06	0.05	ug/L	ND	81.1	50-140			
Dibenzo [a,h] anthracene	3.82	0.05	ug/L	ND	76.4	50-140			
Fluoranthene	4.42	0.01	ug/L	ND	88.5	50-140			
Fluorene	3.89	0.05	ug/L	ND	77.8	50-140			
Indeno [1,2,3-cd] pyrene	3.94	0.05	ug/L	ND	78.8	50-140			
1-Methylnaphthalene	4.59	0.05	ug/L	ND	91.9	50-140			
2-Methylnaphthalene	4.89	0.05	ug/L	ND	97.7	50-140			
Naphthalene	3.66	0.05	ug/L	ND	73.3	50-140			
Phenanthrene	4.17	0.05	ug/L	ND	83.5	50-140			
Pyrene	3.88	0.01	ug/L	ND	77.7	50-140			
Surrogate: 2-Fluorobiphenyl	15.3		%		76.4	50-140			
Surrogate: Terphenyl-d14	16.4		%		82.0	50-140			
Volatiles									
Acetone	93.7	5.0	ug/L	ND	93.7	50-140			
Benzene	37.7	0.5	ug/L	ND	94.2	60-130			
Bromodichloromethane	39.5	0.5	ug/L	ND	98.8	60-130			
Bromoform	33.0	0.5	ug/L	ND	82.5	60-130			
Bromomethane	40.4	0.5	ug/L	ND	101	50-140			
Carbon Tetrachloride	31.4	0.2	ug/L	ND	78.5	60-130			
Chlorobenzene	35.0	0.5	ug/L	ND	87.6	60-130			
Chloroform	37.6	0.5	ug/L	ND	94.0	60-130			
Dibromochloromethane	33.2	0.5	ug/L	ND	83.1	60-130			
Dichlorodifluoromethane	44.4	1.0	ug/L	ND	111	50-140			
1,2-Dichlorobenzene	32.5	0.5	ug/L	ND	81.2	60-130			
1,3-Dichlorobenzene	32.1	0.5	ug/L	ND	80.2	60-130			
1,4-Dichlorobenzene	31.4	0.5	ug/L	ND	78.5	60-130			
1,1-Dichloroethane	35.9	0.5	ug/L	ND	89.8	60-130			

Certificate of Analysis

Report Date: 10-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 4-Mar-2026

Client PO: 65267

Project Description: PE5280

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
1,2-Dichloroethane	34.9	0.5	ug/L	ND	87.2	60-130			
1,1-Dichloroethylene	40.5	0.5	ug/L	ND	101	60-130			
cis-1,2-Dichloroethylene	41.0	0.5	ug/L	ND	102	60-130			
trans-1,2-Dichloroethylene	39.5	0.5	ug/L	ND	98.8	60-130			
1,2-Dichloropropane	37.5	0.5	ug/L	ND	93.8	60-130			
cis-1,3-Dichloropropylene	35.7	0.5	ug/L	ND	89.3	60-130			
trans-1,3-Dichloropropylene	35.9	0.5	ug/L	ND	89.7	60-130			
Ethylbenzene	31.7	0.5	ug/L	ND	79.3	60-130			
Ethylene dibromide (dibromoethane, 1,2-)	33.6	0.2	ug/L	ND	84.1	60-130			
Hexane	37.4	1.0	ug/L	ND	93.6	60-130			
Methyl Ethyl Ketone (2-Butanone)	82.2	5.0	ug/L	ND	82.2	50-140			
Methyl Isobutyl Ketone	90.6	5.0	ug/L	ND	90.6	50-140			
Methyl tert-butyl ether	87.3	2.0	ug/L	ND	87.3	50-140			
Methylene Chloride	42.5	5.0	ug/L	ND	106	60-130			
Styrene	34.6	0.5	ug/L	ND	86.5	60-130			
1,1,1,2-Tetrachloroethane	36.2	0.5	ug/L	ND	90.4	60-130			
1,1,2,2-Tetrachloroethane	31.8	0.5	ug/L	ND	79.5	60-130			
Tetrachloroethylene	37.5	0.5	ug/L	ND	93.8	60-130			
Toluene	33.9	0.5	ug/L	ND	84.8	60-130			
1,1,1-Trichloroethane	37.1	0.5	ug/L	ND	92.7	60-130			
1,1,2-Trichloroethane	39.2	0.5	ug/L	ND	98.0	60-130			
Trichloroethylene	43.2	0.5	ug/L	ND	108	60-130			
Trichlorofluoromethane	38.1	1.0	ug/L	ND	95.4	60-130			
Vinyl chloride	42.6	0.5	ug/L	ND	106	50-140			
m,p-Xylenes	68.2	0.5	ug/L	ND	85.2	60-130			
o-Xylene	36.5	0.5	ug/L	ND	91.2	60-130			
Surrogate: 4-Bromofluorobenzene	84.1		%		105	50-140			
Surrogate: Dibromofluoromethane	79.0		%		98.7	50-140			
Surrogate: Toluene-d8	81.0		%		101	50-140			
Benzene	37.7	0.5	ug/L	ND	94.2	60-130			
Ethylbenzene	31.7	0.5	ug/L	ND	79.3	60-130			

Certificate of Analysis

Report Date: 10-Mar-2026

Client: Paterson Group Consulting Engineers (Ottawa)

Order Date: 4-Mar-2026

Client PO: 65267

Project Description: PE5280

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Toluene	33.9	0.5	ug/L	ND	84.8	60-130			
m,p-Xylenes	68.2	0.5	ug/L	ND	85.2	60-130			
o-Xylene	36.5	0.5	ug/L	ND	91.2	60-130			
Surrogate: Toluene-d8	81.0		%		101	50-140			

Certificate of Analysis

Client: Paterson Group Consulting Engineers (Ottawa)

Client PO: 65267

Report Date: 10-Mar-2026

Order Date: 4-Mar-2026

Project Description: PE5280

Qualifier Notes:**QC Qualifiers:**

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on other acceptable QC.

Sample Data Revisions:

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

Source Result: Data used as source for matrix and duplicate samples

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

CCME PHC additional information:

- The method for the analysis of PHCs complies with the Reference Method for the CWS PHC and is validated for use in the laboratory. All prescribed quality criteria identified in the method has been met.
- F1 range corrected for BTEX.
- F2 to F3 ranges corrected for appropriate PAHs where available.
- The gravimetric heavy hydrocarbons (F4G) are not to be added to C6 to C50 hydrocarbons.
- In the case where F4 and F4G are both reported, the greater of the two results is to be used for comparison to CWS PHC criteria.
- When reported, data for F4G has been processed using a silica gel cleanup.

Any use of these results implies your agreement that our total liability in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.



2610301

Client Name: Paterson Group	Project Ref: PE5280	Page 1 of 1 Turnaround Time ☐ 1 day ☐ 3 days ☐ 2 day ☒ Regular Date Required:
Contact Name: Adrian Menyhurt	Quote #:	
Address: 9 Auriga Dr, Ottawa, ON K2E 7T9	PO #: 65267	
	E-mail: amenyhurt@patersongroup.ca kpunchal@patersongroup.ca	
Telephone: (613) 226-7381		

☒ REG 153/04	☐ REG 406/19	Other Regulation	
☐ Table 1	☐ Agri/Other	☐ Med/Fine	☐ REG 558
☐ Table 2	☐ Res/Park	☐ Coarse	☐ CCME
☐ Table 3	☐ Ind/Comm		☐ SU - Sani
☐ Table _____			☐ SU - Storm
For RSC: ☐ Yes ☐ No		Mun: _____	
		☐ Other: _____	

Matrix Type: S (Soil/Sed.) GW (Ground Water)
SW (Surface Water) SS (Storm/Sanitary Sewer)
P (Paint) A (Air) O (Other)

Required Analysis

[illegible]

Comments:

Method of Delivery:

Relinquished By (Sign): <i>[Signature]</i>	Received at Depot:	Received at Lab: <i>98</i>	Verified By: <i>LJT</i>
Relinquished By (Print): <i>Kuldeep Parchal</i>	Date/Time:	Date/Time: <i>3/4/26 15:15</i>	Date/Time: <i>04/03/26; 16:42</i>
Date/Time: <i>03/04/2026</i>	Temperature: °C	Temperature: <i>13.5</i>	pH Verified: ☒ By: <i>ES</i>