PATERSON GROUP

Phase II – Environmental Site Assessment

260 MacLaren Street

Ottawa, Ontario

Prepared for: Claridge Homes

Report: PE7414-2

July 27, 2026

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EXECUTIVE SUMMARY

Assessment

A Phase II ESA was carried out for the property addressed 260 MacLaren Street in the City of Ottawa, Ontario. The purpose of the Phase II ESA was to address the potentially contaminating activities (PCAs) that were identified during the Phase I ESA and were considered to result in areas of potential environmental concern (APECs) on the Phase II Property.

The subsurface investigation for this assessment was conducted on May 13, 2026, and consisted of drilling four boreholes (BH1-26 to BH4-26) across the Phase II Property. The boreholes were advanced to a depth of approximately 7.3 m below the existing ground surface and terminated within the overburden. Upon completion, boreholes BH1-26, BH2-26, and BH3-26 were instrumented with groundwater monitoring wells in order to access the water table.

In general, the subsurface soil profile encountered at the borehole locations consists of a surficial layer of asphalt over top of fill material (brown silty sand with some gravel and crushed stone), underlain by native layers of brown silty sand followed by brown silty clay which was noted to transition to grey at approximately 3.5 m below ground surface. Bedrock was not encountered in any of the boreholes at the time of the field drilling program. The groundwater beneath the Phase II Property was encountered within the overburden at depths ranging from approximately 3.5 m to 3.6 m below ground surface.

Eight soil samples, including fill material and underlying native soil, were submitted for laboratory analysis of PHCs, PAHs, Metals, EC, SAR, and/or pH parameters. The analytical results indicate that the fill material underlying the surficial asphalt layer throughout the Phase II Property contains elevated concentrations of petroleum hydrocarbons (PHCs), polycyclic aromatic hydrocarbons (PAHs), and/or Metals.

The concentrations of some metals (barium, cobalt, and vanadium) in Sample BH1-26-SS4 were also found to exceed the selected Standards. Given that this sample was collected from the underlying native silty clay layer, these concentrations are considered to be representative of naturally occurring elevated levels commonly encountered in clay soils within Eastern Ontario. As such, the concentrations of these parameters are not considered to represent a contaminant issue.

The electrical conductivity level detected in BH3-26-SS1 was found to be in excess of the selected Standards. This elevated level is considered to be the result of the application of road salt on the Phase II Property during snow and ice conditions and thus, as per Section 49.1 of O. Reg 153/04, does not represent a contaminant issue.

Three groundwater samples were submitted for laboratory analysis of VOCs and PHC parameters. All detected parameter concentrations in the groundwater samples analyzed complied with the selected MECP Table 3 Non-Potable Groundwater Standards.

Recommendations

Impacted Soil

The analytical results from this assessment indicate that the fill material underlying the surficial asphalt layer throughout the Phase II Property contains elevated concentrations of petroleum hydrocarbons (PHCs), polycyclic aromatic hydrocarbons (PAHs), and metals.

As the Phase II Property is to be redeveloped in the future, it is our recommendation that the contaminated soil be remediated in conjunction with site excavation activities. At such a time, the contaminated soil will be excavated from the site and transported to a licensed waste disposal facility.

It is recommended that Paterson personnel be present on-site at the time of remedial activities to assist with the segregation of contaminated soil from clean soils, as well as to fulfill the confirmatory soil sampling requirements in accordance with Table 2 of O. Reg. 153/04.

Prior to the off-site disposal of impacted soil at a licensed waste disposal facility, a leachate analysis of a representative sample of contaminated soil must be conducted in accordance with O. Reg. 347/90 and O. Reg. 558/00.

Excess Soil

All excess soil generated during the proposed redevelopment of the Phase II Property must be handed in accordance with the requirements of O. Reg. 406/19: On-Site and Excess Soil Management. Additional excess soil testing and reporting requirements may be required prior to the commencement of future site excavation activities, in accordance with this regulation.

Monitoring Wells

If the groundwater monitoring wells installed on-site are not going to be used in the future, or will be destroyed during future construction activities, then they must be decommissioned in accordance with O. Reg. 903/90 (Ontario Water Resources Act). Further information can be provided upon request in this regard. It is recommended that the monitoring wells be maintained for future sampling purposes. The monitoring wells will be registered with the MECP under this regulation.

1.0 INTRODUCTION

At the request of Claridge Homes, Paterson Group (Paterson) carried out a Phase II – Environmental Site Assessment (Phase II ESA) for the property addressed 260 MacLaren Street, in the City of Ottawa, Ontario (the Phase II Property). The purpose of this Phase II ESA has been to address the areas of potential environmental concern (APECs) identified on the Phase II Property as a result of the findings of the Phase I ESA.

1.1 Site Description

Address:	260 MacLaren Street, Ottawa, Ontario.
Location:	The Phase II Property is located on the south side of MacLaren Street, approximately 40 m west of the MacLaren Street and Metcalfe Street intersection, in the City of Ottawa, Ontario. Refer to Figure 1 - Key Plan in the Figures section following the text.
Latitude and Longitude:	45° 24’ 57.114" N, 75° 41’ 32.442" W.

Site Description:

Configuration:	Rectangular.
Area:	1,189 m^2 (approximately).
Zoning:	R5B – Residential Fifth Density Zone.
Current Use:	The Phase II Property is currently vacant and utilized as a parking lot.
Services:	The Phase II Property is situated in a municipally serviced area.

1.2 Property Ownership

The Phase II Property is currently owned by Claridge Homes. Paterson was retained to complete this Phase II ESA by Ms. Victoria St. Pierre of Claridge Homes, whose office can be contacted via email at info@claridgehomes.com.

1.3 Applicable Site Condition Standards

The site condition standards for the Phase II 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 Ministry of the Environment, Conservation and Parks (MECP), and dated April 15, 2011. The selected MECP standards are based on the following considerations:

- ❒ Full-Depth Soil Conditions.
- ❒ Coarse-Grained Soil Conditions.
- ❒ Non-Potable Groundwater Conditions.
- ❒ Residential Land Use.

The residential standards were selected based on the proposed future land use of the Phase II Property.

Grain size analysis was not conducted as part of this assessment, and as such, the coarse-grained soil standards were selected as a conservative approach.

2.0 BACKGROUND INFORMATION

2.1 Physical Setting

The Phase II Property is currently vacant and is being utilized as an asphalt-covered vehicle parking lot.

The site and regional topography slope downward to the east towards the Rideau Canal. The subject site is considered to be mostly elevated with respect to the adjacent roads and the neighbouring properties.

Water drainage on the Phase II Property occurs primarily via surface runoff towards catch basins present on MacLaren Street. No ponded water, stressed vegetation, surficial staining, or any other indications of potential sub-surface contamination were observed on the Phase II Property at time of the site inspection.

A depiction of the Phase II Property is illustrated on Drawing PE7414-1 – Site Plan, in the Figures section of this report.

3.0 SCOPE OF INVESTIGATION

3.1 Overview of Site Investigation

The subsurface investigation for this assessment was conducted on May 13, 2026, and consisted of drilling four boreholes (BH1-26 to BH4-26) across the Phase II Property. The boreholes were advanced to a depth of approximately 7.3 m below the existing ground surface and terminated within the overburden. Upon completion, boreholes BH1-26, BH2-26, and BH3-26 were instrumented with groundwater monitoring wells in order to access the water table.

3.2 Media Investigated

During the course of this subsurface investigation, soil and groundwater samples were obtained from the Phase II Property and submitted for laboratory analysis. The rationale for sampling and analyzing these media is based on the contaminants of potential concern identified in the Phase I ESA. The contaminants of potential concern for the soil and groundwater on the Phase II Property include the following:

- ❒ Petroleum Hydrocarbons, fractions 1 – 4 (PHCs F_1-F_4)
- ❒ Polycyclic Aromatic Hydrocarbons (PAHs)
- ❒ Metals (including arsenic, antimony, and selenium)
- ❒ Mercury (Hg)
- ❒ Hexavalent Chromium (Cr(VI))
- ❒ Electrical Conductivity (EC)
- ❒ Sodium Adsorption Ratio (SAR)

These CoPCs have the potential to be present in the soil matrix and/or the groundwater situated beneath the Phase II Property.

3.3 Phase I ESA Conceptual Site Model

Geological and Hydrogeological Setting

According to available mapping information, the bedrock underlying the Phase II Property consists of shale of the Billings Formation, whereas the surficial geology is largely comprised of offshore marine sediments (clay and silt), with an overburden thickness ranging from approximately 15 m to 25 m.

Water Bodies and Areas of Natural and Scientific Interest

No water bodies are present on the Phase II Property.

The nearest water body with respect to the Phase II Property is the Rideau Canal, situated approximately 760 m to the east.

Drinking Water Wells

Given the widespread presence of municipal services, no potable drinking water wells are anticipated to exist within the Phase I Study Area.

Existing Buildings and Structures

The Phase II Property is vacant of any buildings or structures.

Neighbouring Land Use

The surrounding lands consist largely of residential and commercial properties.

Current and Future Property Use

The Phase II Property is currently utilized for commercial land use purposes.

It is our understanding that the Phase II Property may be redeveloped for residential land use purposes in the future.

Given the change in land use to a more sensitive type, a record of site condition will be required to be filed with the MECP.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

As per the Phase I ESA report, one potentially contaminating activity (PCA), considered to result in an area of potential environmental concern (APEC), was identified on the Phase II Property.

APEC #1 – The presence of fill material of unknown quality situated throughout the Phase II Property.

Other off-site PCAs were identified on properties situated within the Phase I Study Area, however, due to their separation distances, none of these off-site activities are considered to have the potential to impact the Phase II Property.

Contaminants of Potential Concern

The contaminants of potential concern (CoPCs) associated with the aforementioned APECs are considered to be:

- ❒ Petroleum Hydrocarbons, fractions 2 – 4 (PHCs F_2-F_4)
- ❒ Polycyclic Aromatic Hydrocarbons (PAHs)
- ❒ Metals (including arsenic, antimony, and selenium)
- ❒ Mercury (Hg)
- ❒ Hexavalent Chromium (Cr(VI))
- ❒ Electrical Conductivity (EC)
- ❒ Sodium Adsorption Ratio (SAR)

These CoPCs have the potential to be present in the soil matrix and/or the groundwater situated beneath the Phase II Property.

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 is an APEC associated with the Phase II Property.

The presence of this APEC was confirmed by a variety of independent sources, and as such, the conclusions of this report are not affected by uncertainty which may be present with respect to the individual sources.

3.4 Deviations from the Sampling and Analysis Plan

No deviations from the Sampling and Analysis Plan were made during the course of this Phase II ESA.

3.5 Physical Impediments

No physical impediments were encountered during the course of the field drilling program, aside from underground utility services.

4.0 INVESTIGATION METHOD

4.1 Subsurface Investigation

The subsurface investigation for this assessment was conducted on May 13, 2026, and consisted of drilling four boreholes (BH1-26 to BH4-26) across the Phase II Property. The boreholes were advanced to a depth of approximately 7.3 m below the existing ground surface and terminated within the overburden. Upon completion, boreholes BH1-26, BH2-26, and BH3-26 were instrumented with groundwater monitoring wells in order to access the water table.

Under the full-time supervision of Paterson personnel, the boreholes were drilled using a geoprobe drill rig provided by George Downing Estate Drilling of Hawkesbury, Ontario. The locations of the boreholes are illustrated on "Drawing PE7414-3 – Test Hole Location Plan", appended to this report.

4.2 Soil Sampling

Soil 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.

The samples were recovered using a stainless-steel split spoon, while wearing protective gloves (changed after each sample), and immediately placed into plastic bags. If significant contamination was encountered, the samples were instead placed into glass jars. Sampling equipment was routinely washed in soapy water and rinsed with clean water after each split spoon to prevent any cross contamination of the samples. The samples were also stored in coolers to reduce analyte volatilization during transportation.

A total of 48 soil samples were obtained from the boreholes by means of auger and split spoon sampling. The depths at which auger and split spoon samples were obtained from the boreholes are shown as "**AU**" and "**SS**" respectively, on the Soil Profile and Test Data Sheets, appended to this report.

4.3 Field Screening Measurements

All soil samples collected were subjected to a preliminary screening procedure, which included visual screening for colour and evidence of metals, as well as soil vapour screening with a Photo Ionization Detector.

The recovered soil samples 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, ensuring consistency of readings between samples. To measure the soil vapours, the analyzer probe was inserted into the nominal headspace above the sample. The sample was then agitated and manipulated gently by hand as the measurement was taken. The peak reading registered within the first 15 seconds was recorded as the vapour measurement. The parts per million (ppm) scale was used to measure concentrations of organic vapours.

The results of the vapour survey are presented on the Soil Profile and Test Data Sheets, appended to this report.

4.4 Groundwater Monitoring Well Installation

Three (3) groundwater monitoring wells were installed on the Phase II Property as part of this assessment. These monitoring wells were constructed using 50 mm diameter Schedule 40 threaded PVC risers and screens. A sand pack consisting of silica sand was placed around the screen with a bentonite seal placed above to minimize cross-contamination. A summary of the monitoring well construction details are listed below in Table 1 as well as on the Soil Profile and Test Data Sheets provided in Appendix 1.

Upon completion, the groundwater monitoring wells were developed using a dedicated inertial lift pump, with a minimum of three well volumes being purged from the wells at the time of installation, until the appearance of the water was noted to have stabilized. In addition, the ground surface elevations of each borehole were subsequently surveyed with respect to a known geodetic elevation using GPS equipment.

Table 1
Monitoring Well Construction Details

Well ID	Ground Surface Elevation (m ASL)	Total Depth (m BGS)	Screened Interval (m BGS)	Sand Pack (m BGS)	Bentonite Seal (m BGS)	Casing Type
BH1-26	71.70	6.71	3.66 – 6.71	3.35 – 6.71	0.00 – 3.66	Flushmount
BH2-26	71.88	7.32	4.27 – 7.32	3.86 – 7.32	0.00 – 3.86	Flushmount
BH3-26	71.87	7.01	3.96 – 7.01	3.66 – 7.01	0.00 – 3.35	Flushmount

4.5 Field Measurement of Water Quality Parameters

Groundwater depth measurements and field sampling were conducted on-site on June 12, 2026. During this site visit, water quality parameters were measured in situ using a multi-parameter analyzer, including temperature, pH, and electrical conductivity.

Prior to sampling, the wells were purged until at least three well volumes had been removed, or until the field parameters were relatively stable. Field parameters were recorded after the removal of each well volume. Stabilized field parameter values are summarized below in Table 2.

Table 2
Monitoring Well Construction Details

Well ID	Temperature (˚C)	Conductivity (µS)	pH (Units)
BH1-26	13.0	2,337	7.91
BH2-26	14.0	1,603	7.68
BH3-26	14.3	2,454	7.81

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.

Standing water was purged from each monitoring well prior to the recovery of the groundwater samples using dedicated sampling equipment. The samples were then stored in coolers to reduce possible analyte volatilization during their transportation. Further details of our standard operating procedure for groundwater sampling are provided in the Sampling and Analysis Plan, appended to this report.

4.7 Analytical Testing

The following soil and groundwater samples were submitted for laboratory analysis:

Table 3
Testing Parameters for Submitted Soil Samples

Sample ID	Sample Depth & Stratigraphic Unit	Parameters Analyzed						Rationale
		PHCs	PAHs	Metals[1]	EC	SAR	pH	
BH1-26-SS1	0.31 – 0.76 m Fill Material	X	X	X	X	X	X	To assess for potential soil impacts resulting from the presence of fill material of unknown quality.
BH1-26-SS4	1.63 – 2.44 m Silty Clay			X				For vertical delineation purposes.
BH2-26-AU1	0.05-0.31 m Fill Material	X	X	X	X	X		To assess for potential soil impacts resulting from the presence of fill material of unknown quality.
BH2-26-SS2	0.71-1.22 m Silty Sand	X						For vertical delineation purposes.
BH3-26-SS1	0.31-0.81 m Fill Material	X	X	X	X	X		To assess for potential soil impacts resulting from the presence of fill material of unknown quality.
BH3-26-SS2	0.81 – 1.22 m Silty Sand				X	X		For vertical delineation purposes.
BH4-26-AU1	0.10 – 0.15 m Fill Material	X	X	X	X	X	X	To assess for potential soil impacts resulting from the presence of fill material of unknown quality.
BH4-26-SS2	0.81 – 1.22 m Silty Sand	X	X					For vertical delineation purposes.
DUP1[2]	0.05-0.31 m Fill Material	X	X	X				For laboratory QA/QC purposes.

1 – Includes Mercury and Hexavalent Chromium
2 – Duplicate sample of BH2-26-AU1

Table 4
Testing Parameters for Submitted Groundwater Samples

Sample ID	Screened Interval & Stratigraphic Unit	Parameters Analyzed		Rationale
		PHCs	VOCs	
BH1-26-GW1	3.35 – 6.71 m Silty Clay	X	X	To assess for potential groundwater impacts resulting from the presence of fill material of unknown quality.
BH2-26-GW1	3.86 – 7.32 m Clayey Silt	X	X	
BH3-26-GW1	3.66 – 7.01 m Silty Clay	X	X	
DUP-1[1]	3.66 – 6.71 m Silty Clay	X	X	For laboratory QA/QC purposes.

1 – Duplicate sample of BH1-26-GW1

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) and is accredited and certified by the SCC/CALA for specific tests registered with the association.

4.8 Residue Management

All soil cuttings were removed from the site following the field program, while all purge water and equipment cleaning fluids were retained on-site.

4.9 Elevation Surveying

The ground surface elevation at the borehole locations were surveyed using a GPS device by Paterson personnel and referenced to a geodetic datum.

4.10 Quality Assurance and Quality Control Measures

A summary of the quality assurance and quality control (QA/QC) measures, undertaken as part of this assessment, is provided in the Sampling and Analysis Plan in Appendix 1.

5.0 REVIEW AND EVALUATION

5.1 Geology

In general, the subsurface soil profile encountered at the borehole locations consists of a surficial layer of asphalt over top of fill material (brown silty sand with some gravel and crushed stone), underlain by native layers of brown silty sand followed by brown silty clay which was noted to transition to grey at approximately 3.5 m below ground surface. Bedrock was not encountered in any of the boreholes at the time of the field drilling program.

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

5.2 Groundwater Elevations, Flow Direction, and Hydraulic Gradient

Groundwater levels beneath the Phase II Property were measured using an electronic water level meter on June 12, 2026. The groundwater levels are summarized below in Table 5.

Table 5
Groundwater Level Measurements

Borehole Location	Ground Surface Elevation (m)	Water Level Depth (m below grade)	Water Level Elevation (m ASL)	Date of Measurement
BH1-26	71.70	3.46	68.24	June 12, 2026
BH2-26	71.88	3.58	68.30	
BH3-26	71.87	3.48	68.39	

The groundwater beneath the Phase II Property was encountered within the overburden soils at depths ranging from approximately 3.5 m to 3.6 m below ground surface. No unusual visual or olfactory observations were identified within the recovered groundwater samples at the time of the field sampling event.

Utilizing the groundwater elevations recorded during the sampling event, groundwater contour mapping was completed as part of this assessment. According to the mapped contour data, illustrated on Drawing PE7414-3 – Test Hole Location Plan in the appendix, the groundwater flow was calculated to be in a northwestern direction, with a horizontal hydraulic gradient measured to be approximately 0.006 m/m.

It should be noted that groundwater levels are expected to fluctuate throughout the year with seasonal variations.

5.3 Fine/Coarse Soil Texture

Grain size analysis was not completed as part of this investigation. As a result, the coarse-grained soil standards were chosen as a conservative approach.

5.4 Field Screening

Field screening of the soil samples collected during the drilling program resulted in organic vapour readings ranging from 0.0 ppm to 1.7 ppm, indicating that there is a low potential for the presence of volatile substances.

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

As part of this assessment, eight (8) soil samples were submitted for laboratory analysis of PHCs, PAHs, Metals, EC, SAR and/or pH parameters. The results of the analytical testing are presented below in Tables 6 to 9, as well as on the laboratory certificate of analysis included in Appendix 1.

Table 6
Analytical Test Results – Soil
PHCs

Parameter	MDL (µg/g)	Soil Samples (ug/g)						MECP Table 3 Coarse-Grained Residential Soil Standards (µg/g)
		May 13, 2026						
		BH1-26-SS1	BH2-26-AU1	BH2-26-SS2	BH3-26-SS1	BH4-26-AU1	BH4-26-SS2	
		Depth Interval (m bgs)						
		0.31-0.76 m	0.05-0.31 m	0.71-1.22 m	0.31-0.81 m	0.10-0.15 m	0.81-1.22 m	
PHCs F_1	7	-	-	nd	-	-	nd	
PHCs F_2	4	nd	nd	nd	nd	nd	nd	98
PHCs F_3	8	250	243	nd	244	**730**	nd	300
PHCs F_4	6	1,210	2,590	nd	2,470	**5,540**	21	2,800
PHCs F_4 gravimetric	50	1,030	**2,980**	7	2,060	**4,660**	13	2,800

Notes:
- MDL – Method Detection Limit
- nd – not detected above the MDL
- **Bold and Underlined** – value exceeds selected MECP standards

The concentrations of PHC fractions 3 and/or 4 detected in samples BH2-26-AU1 and BH4-26-AU1 exceed the selected MECP Table 3 Coarse-Grained Residential Soil Standards.

All remaining PHC concentrations detected in the soil samples analyzed comply with the selected Standards.

Table 7
Analytical Test Results – Soil
PAHs

Parameter	MDL (µg/g)	Soil Samples (ug/g)					MECP Table 3 Coarse-Grained Residential Soil Standards (µg/g)
		May 13, 2026					
		BH1-26-SS1	BH2-26-AU1	BH3-26-SS1	BH4-26-AU1	BH4-26-SS2	
		Depth Interval (m BGS)					
		0.31-0.76 m	0.05-0.31 m	0.31-0.81 m	0.10-0.15 m	0.81-1.22 m	
Acenaphthene	0.02	nd (0.10)	nd (0.10)	nd (0.10)	nd (0.20)	nd	7.9
Acenaphthylene	0.02	nd (0.10)	nd (0.10)	nd (0.10)	[nd (0.20)]	nd	0.15
Anthracene	0.02	nd (0.10)	nd (0.10)	nd (0.10)	nd (0.20)	nd	0.67
Benzo[a]anthracene	0.02	nd (0.10)	0.24	0.28	**0.55**	0.16	0.5
Benzo[a]pyrene	0.02	nd (0.10)	0.25	0.27	**0.52**	0.26	0.3
Benzo[b]fluoranthene	0.02	nd (0.10)	0.20	0.22	0.45	0.15	0.78
Benzo[g,h,i]perylene	0.02	nd (0.10)	0.15	0.13	0.24	0.15	6.6
Benzo[k]fluoranthene	0.02	nd (0.10)	0.11	0.12	0.25	0.09	0.78
Chrysene	0.02	nd (0.10)	0.33	0.35	0.74	0.18	7
Dibenzo[a,h]anthracene	0.02	nd (0.10)	nd (0.10)	nd (0.10)	[nd (0.20)]	0.04	0.1
Fluoranthene	0.02	nd (0.10)	0.46	0.48	**1.02**	0.11	0.69
Fluorene	0.02	nd (0.10)	nd (0.10)	nd (0.10)	nd (0.20)	nd	62
Indeno [1,2,3-cd] pyrene	0.02	nd (0.10)	nd (0.10)	0.11	nd (0.20)	0.13	0.38
1-Methylnaphthalene	0.02	nd (0.10)	nd (0.10)	nd (0.10)	nd (0.20)	nd	0.99
2-Methylnaphthalene	0.02	nd (0.10)	nd (0.10)	nd (0.10)	nd (0.20)	nd	0.99
Methylnaphthalene (1&2)	0.04	nd (0.20)	nd (0.20)	nd (0.20)	nd (0.40)	nd	0.99
Naphthalene	0.01	nd (0.05)	nd (0.05)	nd (0.05)	nd (0.10)	nd	0.6
Phenanthrene	0.02	nd (0.10)	0.40	0.36	0.80	0.08	6.2
Pyrene	0.02	nd (0.10)	0.38	0.41	0.86	0.12	78

Notes:
- MDL – Method Detection Limit
- nd – not detected above the MDL
- [Bracketed] – elevated method detection limit exceeds selected MECP standards
- **Bold and Underlined** – value exceeds selected MECP standards

The concentration of benzo[a]anthracene, benzo[a]pyrene, and fluoranthene in Sample BH4-26-AU1 exceed the selected MECP Table 3 Coarse-Grained Residential Soil Standards.

It should also be noted that most of the samples were required to be subjected to dilution at the laboratory due to high analyte concentration and/or matrix interference. As a consequence, the method detection limits for the above list of PAH parameters were required to be elevated for samples BH1-26-SS1, BH2-26-AU1, BH3-26-SS1, and BH4-26-AU1. In two instances, the MDLs for acenaphthylene and dibenzo[a,h]anthracene were elevated above the MECP Standards with respect to Sample BH4-26-AU1. While both of these parameters were reported as non-detect, it is not known if their concentrations comply with the Standards.

All remaining PAH concentrations detected in the soil samples analyzed comply with the selected Standards.

Table 8
Analytical Test Results – Soil
Metals

Parameter	MDL (µg/g)	Soil Samples (µg/g)					MECP Table 3 Coarse-Grained Residential Soil Standards (µg/g)
		May 13, 2026					
		BH1-26-SS1	BH1-26-SS4	BH2-26-AU1	BH3-26-SS1	BH4-26-AU1	
		Depth Interval (m BGS)					
		0.31-0.76 m	1.63-2.44 m	0.05-0.31 m	0.31-0.81 m	0.10-0.15 m	
Antimony	1.0	nd	nd	nd	nd	nd	7.5
Arsenic	1.0	5.0	3.1	2.7	3.5	1.0	18
Barium	1.0	190	**417**	83.9	72.6	45.6	390
Beryllium	0.5	nd	0.9	nd	nd	nd	4
Boron	5.0	nd	nd	nd	nd	nd	120
Cadmium	0.5	nd	nd	nd	nd	nd	1.2
Chromium VI	0.2	0.2	-	nd	nd	nd	8
Chromium	5.0	24.6	134	16.4	17.8	12.1	160
Cobalt	1.0	5.6	**29.1**	3.9	4.0	4.5	22
Copper	5.0	21.5	59.6	11.3	12.6	8.1	140
Lead	1.0	**301**	8.9	94.9	49.1	11.3	120
Mercury	0.1	0.1	-	nd	0.1	nd	0.27
Molybdenum	1.0	1.8	nd	nd	nd	nd	6.9
Nickel	5.0	14.9	73.8	9.5	10.4	15.1	100
Selenium	1.0	nd	nd	nd	nd	nd	2.4
Silver	0.3	nd	nd	nd	nd	nd	20
Thallium	1.0	nd	nd	nd	nd	nd	1
Uranium	1.0	nd	nd	nd	nd	nd	23
Vanadium	10.0	29.9	**119**	27.0	24.2	32.7	86
Zinc	20.0	179	140	105	53.7	nd	340

Notes:
- MDL – Method Detection Limit
- nd – not detected above the MDL
- **Bold and Underlined** – value exceeds selected MECP standards

The concentration of lead in Sample BH1-26-SS1 exceeds the selected MECP Table 3 Coarse-Grained Residential Soil Standards.

The concentrations of barium, cobalt, and vanadium in Sample BH1-26-SS4 were also found to exceed the selected Standards. Given that this sample was collected from the native silty clay layer, these concentrations are considered to be representative of naturally occurring elevated levels commonly encountered in clay soils within Eastern Ontario. As such, the concentrations of these parameters are not considered to represent a contaminant issue.

All remaining metal concentrations detected in the soil samples analyzed comply with the selected Standards.

Table 9
Analytical Test Results – Soil
Inorganic Parameters

Parameter	MDL	Soil Samples					MECP Table 3 Coarse-Grained Com/Ind Soil Standards (µg/g)
		May 13, 2026					
		BH1-26-SS1	BH2-26-AU1	BH3-26-SS1	BH3-26-SS2	BH4-26-AU1	
		Depth Interval (m BGS)					
		0.31-0.76 m	0.05-0.31 m	0.31-0.81 m	0.81-1.22 m	0.10-0.15 m	
EC	5 uS/cm	340	543	**1,250**	534	306	700 uS/cm
SAR	0.01	2.12	4.32	1.54	0.98	0.95	5.00
pH	0.05 Units	7.77	-	-	-	8.19	5.00 – 11.00 Units

Notes:
- MDL – Method Detection Limit
- n/a – Sample not tested for this parameter
- **Bold and Underlined** – value exceeds selected MECP standards

The electrical conductivity level detected in Sample BH3-26-SS1 exceeds the selected MECP Table 3 Coarse-Grained Residential Soil Standards. This elevated level is considered to be the result of the application of road salt on the Phase II Property during snow and ice conditions and thus, as per Section 49.1 of O. Reg 153/04, does not represent a contaminant issue.

All remaining EC, SAR, and/or pH levels detected in the soil samples analyzed comply with the selected Standards.

Table 10
Maximum Concentrations – Soil

Parameter	Maximum Concentration (ug/g)	Sample ID	Depth Interval (m BGS)
PHCs F_3	**730**	BH4-26-AU1	0.10-0.15 m
PHCs F_4	**5,540**	BH4-26-AU1	0.10-0.15 m
PHCs F_4 gravimetric	**4,660**	BH4-26-AU1	0.10-0.15 m
Benzo[a]anthracene	**0.55**	BH4-26-AU1	0.10-0.15 m
Benzo[a]pyrene	**0.52**	BH4-26-AU1	0.10-0.15 m
Benzo[b]fluoranthene	0.45	BH4-26-AU1	0.10-0.15 m
Benzo[g,h,i]perylene	0.24	BH4-26-AU1	0.10-0.15 m
Benzo[k]fluoranthene	0.25	BH4-26-AU1	0.10-0.15 m
Chrysene	0.74	BH4-26-AU1	0.10-0.15 m
Fluoranthene	**1.02**	BH4-26-AU1	0.10-0.15 m
Indeno [1,2,3-cd] pyrene	0.11	BH3-26-SS1	0.31-0.81 m
Phenanthrene	0.80	BH4-26-AU1	0.10-0.15 m
Pyrene	0.86	BH4-26-AU1	0.10-0.15 m
Arsenic	5.0	BH1-26-SS1	0.31-0.76 m
Barium	**417**	BH1-26-SS4	1.63-2.44 m
Beryllium	0.9	BH1-26-SS4	1.63-2.44 m
Chromium VI	0.2	BH1-26-SS1	0.31-0.76 m
Chromium	134	BH1-26-SS4	1.63-2.44 m
Cobalt	**29.1**	BH1-26-SS4	1.63-2.44 m
Copper	59.6	BH1-26-SS4	1.63-2.44 m

Notes:
- **Bold and Underlined** – value exceeds selected MECP standards

Table 10 (Continued)
Maximum Concentrations – Soil

Parameter	Maximum Concentration (ug/g)	Sample ID	Depth Interval (m BGS)
Lead	**301**	BH1-26-SS1	0.31-0.76 m
Mercury	0.1	BH1-26-SS1 / BH3-26-SS1	0.31-0.76 m / 0.31-0.81 m
Molybdenum	1.8	BH1-26-SS1	0.31-0.76 m
Nickel	73.8	BH1-26-SS4	1.63-2.44 m
Vanadium	**119**	BH1-26-SS4	1.63-2.44 m
Zinc	179	BH1-26-SS1	0.31-0.76 m
EC	**1,250**	BH3-26-SS1	0.31-0.81 m
SAR	4.32	BH2-26-AU1	0.05-0.31 m
pH	8.19	BH4-26-AU1	0.10-0.15 m

Notes:
- **Bold and Underlined** – value exceeds selected MECP standards

All other parameter concentrations analyzed were below the laboratory method detection limits.

5.6 Groundwater Quality

As part of this assessment, three groundwater samples were submitted for laboratory analysis of PHC and VOC parameters. The results of the analytical testing are presented below in Tables 11 and 12, as well as on the laboratory certificate of analysis included in Appendix 1.

Table 11
Analytical Test Results – Groundwater
PHCs

Parameter	MDL (µg/L)	Groundwater Samples (ug/L)			MECP Table 3 Non-Potable Groundwater Standards (µg/L)
		June 12, 2026			
		BH1-26-GW1	BH2-26-GW1	BH3-26-GW1	
		Screening Interval (m bgs)			
		3.35-6.71 m	3.86-7.32 m	3.66-7.01 m	
PHCs F_1	25	nd	nd	nd	750
PHCs F_2	100	nd	nd	nd	150
PHCs F_3	100	nd	nd	nd	500
PHCs F_4	100	nd	nd	nd	500

Notes:
- MDL – Method Detection Limit
- nd – not detected above the MDL
- **Bold and Underlined** – value exceeds selected MECP standards

No PHC parameter concentrations were detected above the laboratory method detection limits in any of the groundwater samples analyzed. The results comply with the MECP Table 3 Non-Potable Groundwater Standards.

Table 12
Analytical Test Results – Groundwater
VOCs

Parameter	MDL (µg/L)	Groundwater Samples (ug/L)			MECP Table 3 Non-Potable Groundwater Standards (µg/L)
		June 12, 2026			
		BH1-26-GW1	BH2-26-GW1	BH3-26-GW1	
		Screening Interval (m bgs)			
		3.35-6.71 m	3.86-7.32 m	3.66-7.01 m	
Acetone	5.0	nd	nd	nd	130,000
Benzene	0.5	nd	nd	nd	44
Bromodichloromethane	0.5	nd	nd	nd	85,000
Bromoform	0.5	nd	nd	nd	380
Bromomethane	0.5	nd	nd	nd	5.6
Carbon Tetrachloride	0.2	nd	nd	nd	0.79
Chlorobenzene	0.5	nd	nd	nd	630
Chloroform	0.5	nd	nd	nd	2.4
Dibromochloromethane	0.5	nd	nd	nd	82,000
Dichlorodifluoromethane	1.0	nd	nd	nd	4,400
1,2-Dichlorobenzene	0.5	nd	nd	nd	4,600
1,3-Dichlorobenzene	0.5	nd	nd	nd	9,600
1,4-Dichlorobenzene	0.5	nd	nd	nd	8
1,1-Dichloroethane	0.5	nd	nd	nd	320
1,2-Dichloroethane	0.5	nd	nd	nd	1.6
1,1-Dichloroethylene	0.5	nd	nd	nd	1.6
cis-1,2-Dichloroethylene	0.5	nd	nd	nd	1.6
trans-1,2-Dichloroethylene	0.5	nd	nd	nd	1.6
1,2-Dichloropropane	0.5	nd	nd	nd	16
1,3-Dichloropropene, total	0.5	nd	nd	nd	5.2
Ethylbenzene	0.5	nd	nd	nd	2,300
Ethylene dibromide	0.2	nd	nd	nd	0.25
Hexane	1.0	nd	nd	nd	51
Methyl Ethyl Ketone	5.0	nd	nd	nd	470,000
Methyl Isobutyl Ketone	5.0	nd	nd	nd	140,000
Methyl tert-butyl ether	2.0	nd	nd	nd	190
Methylene Chloride	5.0	nd	nd	nd	610
Styrene	0.5	nd	nd	nd	1,300
1,1,1,2-Tetrachloroethane	0.5	nd	nd	nd	3.3
1,1,2,2-Tetrachloroethane	0.5	nd	nd	nd	3.2
Tetrachloroethylene	0.5	nd	nd	nd	1.6
Toluene	0.5	nd	nd	nd	18,000
1,1,1-Trichloroethane	0.5	nd	nd	nd	640
1,1,2-Trichloroethane	0.5	nd	nd	nd	4.7
Trichloroethylene	0.5	nd	nd	nd	1.6
Trichlorofluoromethane	1.0	nd	nd	nd	2,500
Vinyl Chloride	0.5	nd	nd	nd	0.5
Xylenes	0.5	nd	nd	nd	4,200

Notes:
- MDL – Method Detection Limit
- nd – not detected above the MDL
- **Bold and Underlined** – value exceeds selected MECP standards

No VOC parameter concentrations were detected above the laboratory method detection limits in any of the groundwater samples analyzed. The results comply with the MECP Table 3 Non-Potable Groundwater Standards.

5.7 Quality Assurance and Quality Control Results

All samples submitted as part of this Phase II ESA were handled in accordance with the analytical protocols with respect to holding time, preservation method, storage requirement, and container type.

As per Subsection 47(3) of O. Reg. 153/04, as amended by the Environmental Protection Act, the certificates of analysis have been received for each sample submitted for laboratory analysis and have been appended to this report.

As per the Sampling and Analysis Plan, a duplicate soil sample was obtained from BH2-26-AU1 and submitted for laboratory analysis of PHCs, Metals, and PAH parameters. The relative percentage difference (RPD) calculations for the original and duplicate samples are provided below in Table 13.

Table 13
QA/QC Calculations – Soil

Parameter	MDL (µg/g)	BH2-26-AU1	DUP-1	RPD (%)	QA/QC Result (Target: <20% RPD)
PHCs F_2	4	nd	nd	0	Meets Target
PHCs F_3	8	243	220	9.9	Meets Target
PHCs F_4	6	2,590	**2,830**	8.9	Meets Target
PHCs $F_{4\ gravimetric}$	50	**2,980**	**2,960**	0.7	Meets Target
Antimony	1.0	nd	nd	0	Meets Target
Arsenic	1.0	2.7	2.9	7.1	Meets Target
Barium	1.0	83.9	87.1	3.7	Meets Target
Beryllium	0.5	nd	nd	0	Meets Target
Boron	5.0	nd	nd	0	Meets Target
Cadmium	0.5	nd	nd	0	Meets Target
Chromium VI	0.2	nd	nd	0	Meets Target
Chromium	5.0	16.4	17.2	4.8	Meets Target
Cobalt	1.0	3.9	4.3	9.8	Meets Target
Copper	5.0	11.3	11.6	2.6	Meets Target
Lead	1.0	94.9	102	7.2	Meets Target
Mercury	0.1	nd	nd	0	Meets Target
Molybdenum	1.0	nd	nd	0	Meets Target
Nickel	5.0	9.5	9.9	4.1	Meets Target
Selenium	1.0	nd	nd	0	Meets Target
Silver	0.3	nd	nd	0	Meets Target
Thallium	1.0	nd	nd	0	Meets Target
Uranium	1.0	nd	nd	0	Meets Target
Vanadium	10.0	27.0	27.2	0.7	Meets Target
Zinc	20.0	105	119	12.5	Meets Target
Acenaphthene	0.02	nd (0.10)	nd (0.10)	0	Meets Target
Acenaphthylene	0.02	nd (0.10)	nd (0.10)	0	Meets Target
Anthracene	0.02	nd (0.10)	nd (0.10)	0	Meets Target

Notes:
- MDL – Method Detection Limit
- nd – not detected above the MDL

Table 13 (Continued)
QA/QC Calculations – Soil

Parameter	MDL (µg/g)	BH2-26-AU1	DUP-1	RPD (%)	QA/QC Result (Target: <20% RPD)
Benzo[a]anthracene	0.02	0.24	nd (0.10)	N/A	N/A
Benzo[a]pyrene	0.02	0.25	nd (0.10)	N/A	N/A
Benzo[b]fluoranthene	0.02	0.20	nd (0.10)	N/A	N/A
Benzo[g,h,i]perylene	0.02	0.15	nd (0.10)	N/A	N/A
Benzo[k]fluoranthene	0.02	0.11	nd (0.10)	N/A	N/A
Chrysene	0.02	0.33	nd (0.10)	N/A	N/A
Dibenzo[a,h]anthracene	0.02	nd (0.10)	nd (0.10)	0	Meets Target
Fluoranthene	0.02	0.46	nd (0.10)	N/A	N/A
Fluorene	0.02	nd (0.10)	nd (0.10)	0	Meets Target
Indeno [1,2,3-cd] pyrene	0.02	nd (0.10)	nd (0.10)	0	Meets Target
1-Methylnaphthalene	0.02	nd (0.10)	nd (0.10)	0	Meets Target
2-Methylnaphthalene	0.02	nd (0.10)	nd (0.10)	0	Meets Target
Methylnaphthalene (1&2)	0.04	nd (0.20)	nd (0.20)	0	Meets Target
Naphthalene	0.01	nd (0.05)	nd (0.05)	0	Meets Target
Phenanthrene	0.02	0.40	nd (0.10)	N/A	N/A
Pyrene	0.02	0.38	nd (0.10)	N/A	N/A

Notes:
- MDL – Method Detection Limit
- nd – not detected above the MDL

It should be noted that some discrepancies were apparent with respect to the RPD values of select PAH parameters. This may be attributed to the sensitivity of relatively low levels of PAHs detected between the original and duplicate samples, in addition to the requirement for elevated method detection limits due to high analyte concentrations and/or matrix interference. Since the majority of the RPD calculations between the original and duplicate samples fell within of the acceptable range of 20%, the data quality objectives outlined in the Sampling and Analysis Plan, appended to this report, are considered to have been met.

Similarly, a duplicate groundwater sample was obtained from sample BH2-26-GW1 and submitted for laboratory analysis of VOC and PHC parameters. No parameter concentrations were identified in either the original or duplicate samples, and as a result, the data quality objectives outlined in the Sampling and Analysis Plan, appended to this report, are considered to have been met.

Based on the results of the QA/QC analysis, the quality of the field data collected during this Phase II ESA is considered to be sufficient to meet the overall objectives of this assessment.

5.8 Phase II Conceptual Site Model

The following section has been prepared in accordance with the requirements of O. Reg. 153/04 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

As described in Section 2.2 of this report, the following PCAs, as defined by Table 2 of O. Reg. 153/04, are considered to result in APECs on the Phase II Property:

Table 14
Areas of Potential Environmental Concern

Area of Potential Environmental Concern	Location of APEC on Phase II Property	Potentially Contaminating Activity (Table 2 – O. Reg. 153/04)	Location of PCA (On-Site or Off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil, and/or Sediment)
APEC 1 Fill Material of Unknown Quality	Entirety of Phase II Property	*"Item 30: Importation of Fill Material of Unknown Quality"*	On-Site	PHCs PAHs Metals[1] EC SAR	Soil and Groundwater

1 – Includes Mercury and Hexavalent Chromium

Contaminants of Potential Concern (CPCs)

The contaminants of potential concern (CPCs) associated with the aforementioned APECs are considered to be:

- ❒ Petroleum Hydrocarbons, fractions 1 – 4 (PHCs F_2-F_4)
- ❒ Polycyclic Aromatic Hydrocarbons (PAHs)
- ❒ Metals (including arsenic, antimony, and selenium)
- ❒ Mercury (Hg)
- ❒ Hexavalent Chromium (Cr(VI))
- ❒ Electrical Conductivity (EC)
- ❒ Sodium Adsorption Ratio (SAR)

These CPCs have the potential to be present in the soil matrix (and/or the groundwater situated beneath the Phase II Property.

Subsurface Structures and Utilities

Underground service locates were completed prior to the subsurface investigation, which identified underground sewer, hydro, and telecommunication lines beneath the Phase II Property.

Physical Setting

Site Stratigraphy

The stratigraphy of the Phase II Property generally consists of:

- ❒ Pavement Structure; consisting of a thin layer of asphalt over top of brown silty sand with gravel and crushed stone, extending to depths ranging from approximately 0.7 m to 0.8 m below ground surface.
- ❒ Native Silty Sand; extending to a depth of approximately 1.4 m to 1.8 m below ground surface.
- ❒ Native Silty Clay; extending to a depth of approximately 7.3 m below ground surface (bottom of boreholes).

The site stratigraphy, from ground surface to the deepest aquifer or aquitard investigated, is provided in the Soil Profile and Test Data Sheets in Appendix 1.

Hydrogeological Characteristics

The groundwater beneath the Phase II Property was encountered within the overburden at depths ranging from approximately 3.5 m to 3.6 m below ground surface.

Based on the measured groundwater levels, the groundwater was calculated to flow in a northwestern direction.

Approximate Depth to Bedrock

Bedrock was not encountered in any of the boreholes at the time of the field drilling program.

Approximate Depth to Water Table

The groundwater beneath the Phase II Property was encountered within the overburden at depths ranging from approximately 3.5 m to 3.6 m below ground surface.

Existing Buildings and Structures

The Phase II Property is currently vacant of any buildings or structures.

Sections 41 and 43.1 of Ontario Regulation 153/04

Section 41 of the Regulation does not apply to the Phase II Property, as there are no bodies of water or areas of natural significance situated on or within 30 m of the Phase II Property. The Phase II Property is not considered to be environmentally sensitive.

Section 43.1 of the Regulation is not considered to apply to the Phase II Property since the bedrock is situated at depths greater than 2 m below ground surface. The Phase II Property is therefore not considered to be a shallow soil property.

Environmental Condition

Areas Where Contaminants are Present

The analytical results from this assessment indicate that the fill material underlying the surficial asphalt layer throughout the Phase II Property contains elevated concentrations of petroleum hydrocarbons (PHCs), polycyclic aromatic hydrocarbons (PAHs), and metals.

The concentrations of some metals (barium, cobalt, and vanadium) in Sample BH1-26-SS4 were also found to exceed the selected Standards. Given that this sample was collected from the underlying native silty clay layer, these concentrations are considered to be representative of naturally occurring elevated levels commonly encountered in clay soils within Eastern Ontario. As such, the concentrations of these parameters are not considered to represent a contaminant issue.

The electrical conductivity level detected in BH3-26-SS1 was found to be in excess of the selected Standards. This elevated level is considered to be the result of the application of road salt on the Phase II Property during snow and ice conditions and thus, as per Section 49.1 of O. Reg 153/04, does not represent a contaminant issue.

Types of Contaminants

The analytical results from this assessment indicate that the fill material underlying the surficial asphalt layer throughout the Phase II Property is impacted by petroleum hydrocarbons (PHCs), polycyclic aromatic hydrocarbons (PAHs), and metals at concentrations exceeding the applicable site condition standards.

Contaminated Media

Based on the findings of this assessment, the fill material across the entirety of the Phase II Property is considered to be contaminated.

Based on the clean analytical test results obtained, the underlying native soils as well as the groundwater are not considered to be contaminated.

What Is Known About Areas Where Contaminants Are Present

Based on what is known about the history of the Phase II Property, these contaminants are suspected to be the result of building demolition debris present in the fill layer.

Distribution and Migration of Contaminants

Given the suspected source of the contaminants, which is believed to be the result of building demolition debris, the contamination is expected to be confined to the fill layer.

Furthermore, given the relatively low mobility of metals and PAHs, combined with the analytical test results indicating that the underlying native soils and groundwater are unaffected, the contaminants are not considered to have migrated into deeper soil strata or the groundwater table.

Discharge of Contaminants

Based on the type of contaminants identified on the Phase II Property, it is likely that the contamination encountered is the result of building demolition debris present in the fill layer.

Climatic and Meteorological Conditions

In general, climatic and meteorological conditions have the potential to affect contaminant distribution. Two ways by which climatic and meteorological conditions may affect contaminant distribution include the downward leaching of contaminants via the infiltration of precipitation, and the migration of contaminants via groundwater levels and/or flow, which may fluctuate seasonally.

Given the analytical test results indicating that the underlying native soils and groundwater are unaffected, no downward migration of contaminants is suspected to have occurred on the Phase II Property.

Potential for Vapour Intrusion

Given that the Phase II Property will be redeveloped in the near future, all contaminated soil will be removed from the site in tandem with future excavation works. As a result, there is no potential for any future vapour intrusion on the Phase II Property.

6.0 CONCLUSIONS

Assessment

A Phase II ESA was carried out for the property addressed 260 MacLaren Street in the City of Ottawa, Ontario. The purpose of the Phase II ESA was to address the potentially contaminating activities (PCAs) that were identified during the Phase I ESA and were considered to result in areas of potential environmental concern (APECs) on the Phase II Property.

The subsurface investigation for this assessment was conducted on May 13, 2026, and consisted of drilling four boreholes (BH1-26 to BH4-26) across the Phase II Property. The boreholes were advanced to a depth of approximately 7.3 m below the existing ground surface and terminated within the overburden. Upon completion, boreholes BH1-26, BH2-26, and BH3-26 were instrumented with groundwater monitoring wells in order to access the water table.

In general, the subsurface soil profile encountered at the borehole locations consists of a surficial layer of asphalt over top of fill material (brown silty sand with some gravel and crushed stone), underlain by native layers of brown silty sand followed by brown silty clay which was noted to transition to grey at approximately 3.5 m below ground surface. Bedrock was not encountered in any of the boreholes at the time of the field drilling program. The groundwater beneath the Phase II Property was encountered within the overburden at depths ranging from approximately 3.5 m to 3.6 m below ground surface.

Eight soil samples, including fill material and underlying native soil, were submitted for laboratory analysis of PHCs, PAHs, Metals, EC, SAR, and/or pH parameters. The analytical results indicate that the fill material underlying the surficial asphalt layer throughout the Phase II Property contains elevated concentrations of petroleum hydrocarbons (PHCs), polycyclic aromatic hydrocarbons (PAHs), and/or Metals.

The concentrations of some metals (barium, cobalt, and vanadium) in Sample BH1-26-SS4 were also found to exceed the selected Standards. Given that this sample was collected from the underlying native silty clay layer, these concentrations are considered to be representative of naturally occurring elevated levels commonly encountered in clay soils within Eastern Ontario. As such, the concentrations of these parameters are not considered to represent a contaminant issue.

The electrical conductivity level detected in BH3-26-SS1 was found to be in excess of the selected Standards. This elevated level is considered to be the result of the application of road salt on the Phase II Property during snow and ice conditions and thus, as per Section 49.1 of O. Reg 153/04, does not represent a contaminant issue.

Three groundwater samples were submitted for laboratory analysis of VOCs and PHC parameters. All detected parameter concentrations in the groundwater samples analyzed complied with the selected MECP Table 3 Non-Potable Groundwater Standards.

Recommendations

Impacted Soil

The analytical results from this assessment indicate that the fill material underlying the surficial asphalt layer throughout the Phase II Property contains elevated concentrations of petroleum hydrocarbons (PHCs), polycyclic aromatic hydrocarbons (PAHs), and metals.

As the Phase II Property is to be redeveloped in the future, it is our recommendation that the contaminated soil be remediated in conjunction with site excavation activities. At such a time, the contaminated soil will be excavated from the site and transported to a licensed waste disposal facility.

It is recommended that Paterson personnel be present on-site at the time of remedial activities to assist with the segregation of contaminated soil from clean soils, as well as to fulfill the confirmatory soil sampling requirements in accordance with Table 2 of O. Reg. 153/04.

Prior to the off-site disposal of impacted soil at a licensed waste disposal facility, a leachate analysis of a representative sample of contaminated soil must be conducted in accordance with O. Reg. 347/90 and O. Reg. 558/00.

Excess Soil

All excess soil generated during the proposed redevelopment of the Phase II Property must be handed in accordance with the requirements of O. Reg. 406/19: On-Site and Excess Soil Management. Additional excess soil testing and reporting requirements may be required prior to the commencement of future site excavation activities, in accordance with this regulation.

Monitoring Wells

If the groundwater monitoring wells installed on-site are not going to be used in the future, or will be destroyed during future construction activities, then they must be decommissioned in accordance with O. Reg. 903/90 (Ontario Water Resources Act). Further information can be provided upon request in this regard. It is recommended that the monitoring wells be maintained for future sampling purposes. The monitoring wells will be registered with the MECP under this regulation.

7.0 STATEMENT OF LIMITATIONS

This Phase II – Environmental Site Assessment report has been prepared in general accordance with O.Reg. 153/04, as amended, and CSA Z769-00. 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 Claridge Homes. Permission and notification from Claridge Homes and Paterson Group will be required prior to the release of this report to any other party.

Paterson Group Inc.

Nick Sullivan, B.Sc.

LICENSED PROFESSIONAL ENGINEER
July 27, 2026
M.S. D'ARCY
90377839
PROVINCE OF ONTARIO

Mark D'Arcy, P.Eng., QP_{ESA}

Report Distribution:

- Claridge Homes
- Paterson Group Inc.

FIGURES

FIGURE 1 – KEY PLAN

DRAWING PE7414-1 – SITE PLAN

DRAWING PE7414-2 – SURROUNDING LAND USE PLAN

DRAWING PE7414-3 – TEST HOLE LOCATION PLAN

DRAWING PE7414-4 – ANALYTICAL TESTING PLAN – SOIL (PHCs)

DRAWING PE7414-4A – CROSS SECTION A-A' – SOIL (PHCs)

DRAWING PE7414-4B – CROSS SECTION B-B' – SOIL (PHCs)

DRAWING PE7414-5 – ANALYTICAL TESTING PLAN – SOIL (PAHs)

DRAWING PE7414-5A – CROSS SECTION A-A' – SOIL (PAHs)

DRAWING PE7414-5B – CROSS SECTION B-B' – SOIL (PAHs)

DRAWING PE7414-6 – ANALYTICAL TESTING PLAN – SOIL (METALS)

DRAWING PE7414-6A – CROSS SECTION A-A' – SOIL (METALS)

DRAWING PE7414-6B – CROSS SECTION B-B' – SOIL (METALS)

DRAWING PE7414-7 – ANALYTICAL TESTING PLAN – SOIL (EC, SAR, pH)

DRAWING PE7414-7A – CROSS SECTION A-A' – SOIL (EC, SAR, pH)

DRAWING PE7414-7B – CROSS SECTION B-B' – SOIL (EC, SAR, pH)

DRAWING PE7414-8– ANALYTICAL TESTING PLAN – GROUNDWATER

DRAWING PE7414-8A – CROSS SECTION A-A' – GROUNDWATER

DRAWING PE7414-8B – CROSS SECTION B-B' – GROUNDWATER

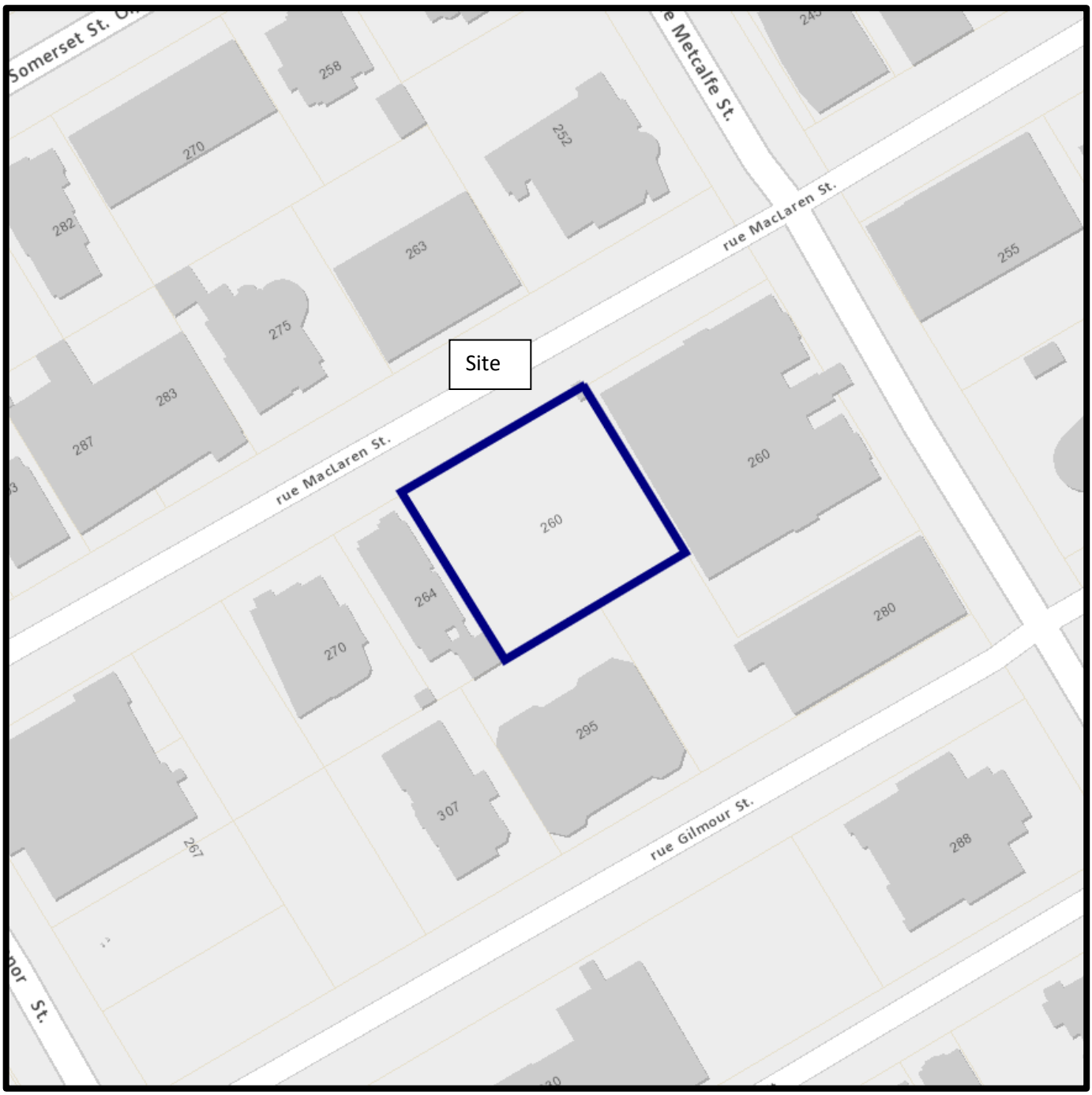
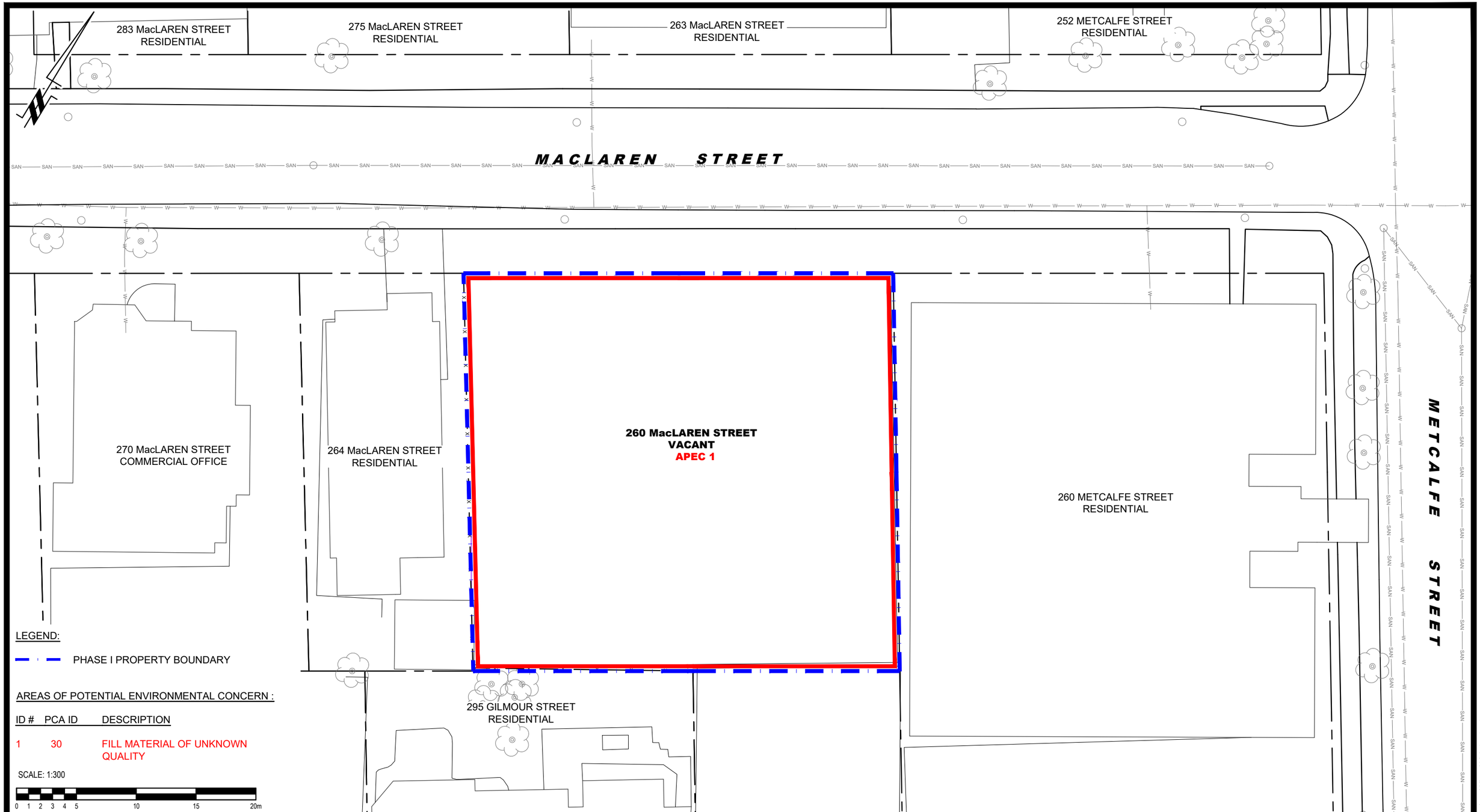


FIGURE 1

KEY PLAN

PATERSON GROUP



LEGEND:

PHASE I PROPERTY BOUNDARY

AREAS OF POTENTIAL ENVIRONMENTAL CONCERN :

ID #	PCA ID	DESCRIPTION
1	30	FILL MATERIAL OF UNKNOWN QUALITY

SCALE: 1:300

0 1 2 3 4 5 10 15 20m

PATERSON GROUP
9 AURIGA DRIVE
OTTAWA, ON
K2E 7T9
TEL: (613) 226-7381

NO.	REVISIONS	DATE	INITIAL

CLARIDGE HOMES

PHASE I - ENVIRONMENTAL SITE ASSESSMENT
260 MacLAREN STREET

OTTAWA, ONTARIO

Title:

SITE PLAN

Scale: 1:300	Date: 02/2026
Drawn by: GK	Report No.: PE7414-1
Checked by: MR	Dwg. No.: PE7414-1
Approved by: MSD	Revision No.:

p:\autocad drawings\environmental\pe74xx\pe7414\pe7414-1 site plan.dwg

11x17

POTENTIAL ENVIRONMENTAL CONCERN :

ID #	PCA ID	DESCRIPTION
1	30	FILL MATERIAL OF UNKNOWN QUALITY
2	31	FORMER PORTRAIT STUDIO AND PRINTER
3	N/A	FORMER COAL STORAGE
4	10	FORMER COMMERCIAL AUTOMOTIVE SERVICE GARAGE
5	N/A	FORMER PCB STORAGE SITE
6	N/A	PAPER BAG MANUFACTURER
7	N/A	FORMER HYDRAULIC OIL SPILL (VOLUME UNKNOWN)
8	28	UNDERGROUND STORAGE TANK LEAK (VOLUME UNKNOWN)
9	31	FORMER PUBLISHER
10	N/A	FORMER PCB STORAGE SITE
11	N/A	FORMER PCB STORAGE SITE
12	31	FORMER PUBLISHER
13	N/A	FORMER 180L FURNACE OIL SPILL
14	31	FORMER PRINTER/PUBLISHER
15	28	FORMER UNDERGROUND STORAGE TANK
16	31	FORMER PRINTING FACILITY
17	28	FORMER ABOVEGROUND STORAGE TANK
18	28	FORMER UNDERGROUND STORAGE TANK
19	28	FORMER UNDERGROUND STORAGE TANK
20	28	FORMER UNDERGROUND STORAGE TANK
21	28	FORMER UNDERGROUND STORAGE TANK
22	28	FORMER UNDERGROUND STORAGE TANK

PATERSON GROUP
9 AURIGA DRIVE
OTTAWA, ON
K2E 7T9
TEL: (613) 226-7381

NO.	REVISIONS	DATE	INITIAL

CLARIDGE HOMES

PHASE I - ENVIRONMENTAL SITE ASSESSMENT
260 MacLAREN STREET

OTTAWA, ONTARIO

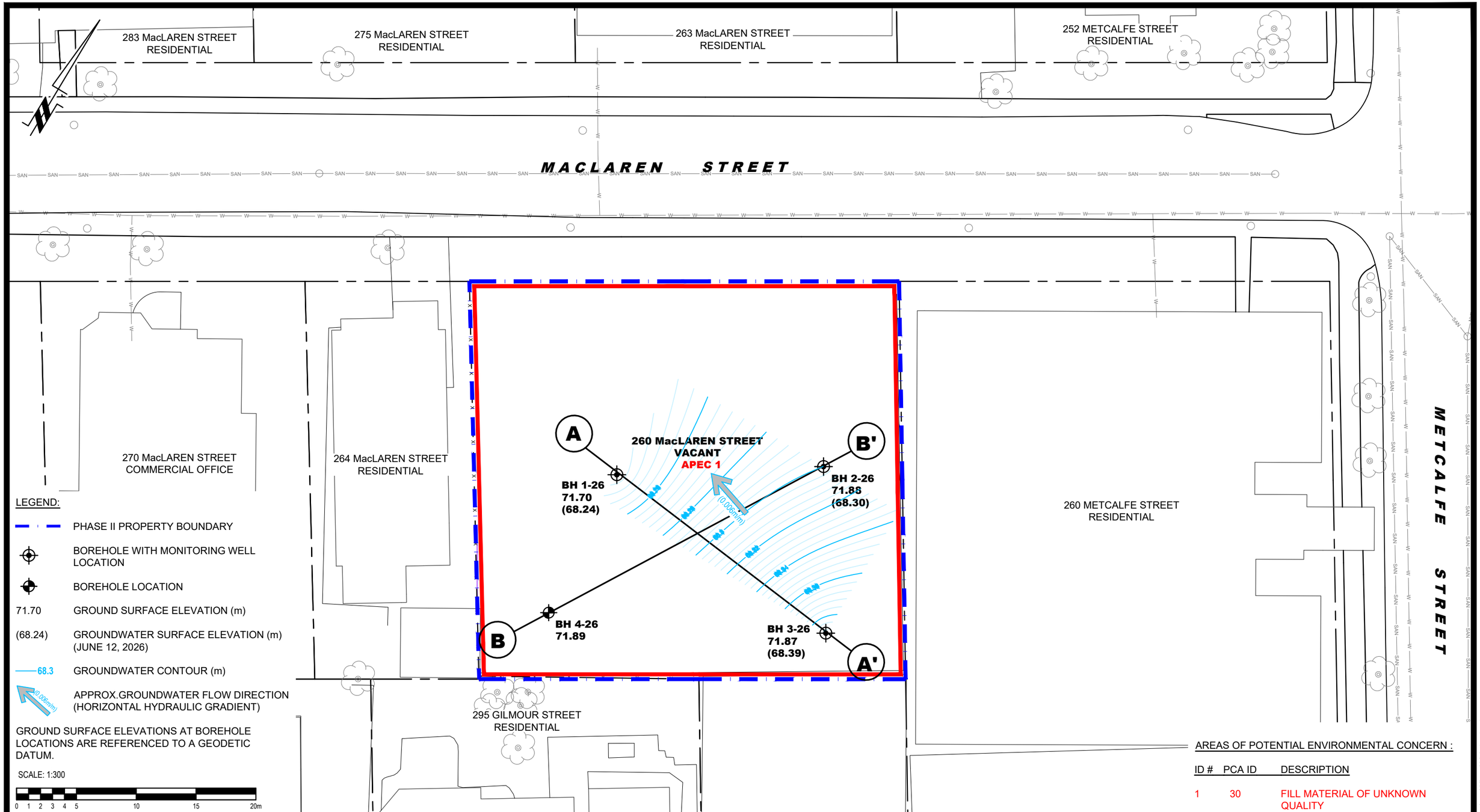
Title:

SURROUNDING LAND USE PLAN

Scale: 1:2500	Date: 02/2026
Drawn by: GK	Report No.: PE7414-1
Checked by: MR	Dwg. No.: PE7414-2
Approved by: MSD	Revision No.:

p:\autocad drawings\environmental\pe74xx\pe7414\pe7414-2 surrounding land use plan.dwg

11x17



LEGEND:

- PHASE II PROPERTY BOUNDARY
- BOREHOLE WITH MONITORING WELL LOCATION
- BOREHOLE LOCATION
- 71.70 GROUND SURFACE ELEVATION (m)
- (68.24) GROUNDWATER SURFACE ELEVATION (m) (JUNE 12, 2026)
- 68.3 GROUNDWATER CONTOUR (m)
- (0.006m/m) APPROX.GROUNDWATER FLOW DIRECTION (HORIZONTAL HYDRAULIC GRADIENT)

GROUND SURFACE ELEVATIONS AT BOREHOLE LOCATIONS ARE REFERENCED TO A GEODETIC DATUM.

SCALE: 1:300

0 1 2 3 4 5 10 15 20m

AREAS OF POTENTIAL ENVIRONMENTAL CONCERN :

ID #	PCA ID	DESCRIPTION
1	30	FILL MATERIAL OF UNKNOWN QUALITY

PATERSON GROUP
9 AURIGA DRIVE
OTTAWA, ON
K2E 7T9
TEL: (613) 226-7381

NO.	REVISIONS	DATE	INITIAL

CLARIDGE HOMES

PHASE II - ENVIRONMENTAL SITE ASSESSMENT
260 MacLAREN STREET

OTTAWA, ONTARIO

Title:

TEST HOLE LOCATION PLAN

Scale: 1:300	Date: 07/2026
Drawn by: GK	Report No.: PE7414-2
Checked by: NS	Dwg. No.: PE7414-3
Approved by: MSD	Revision No.:

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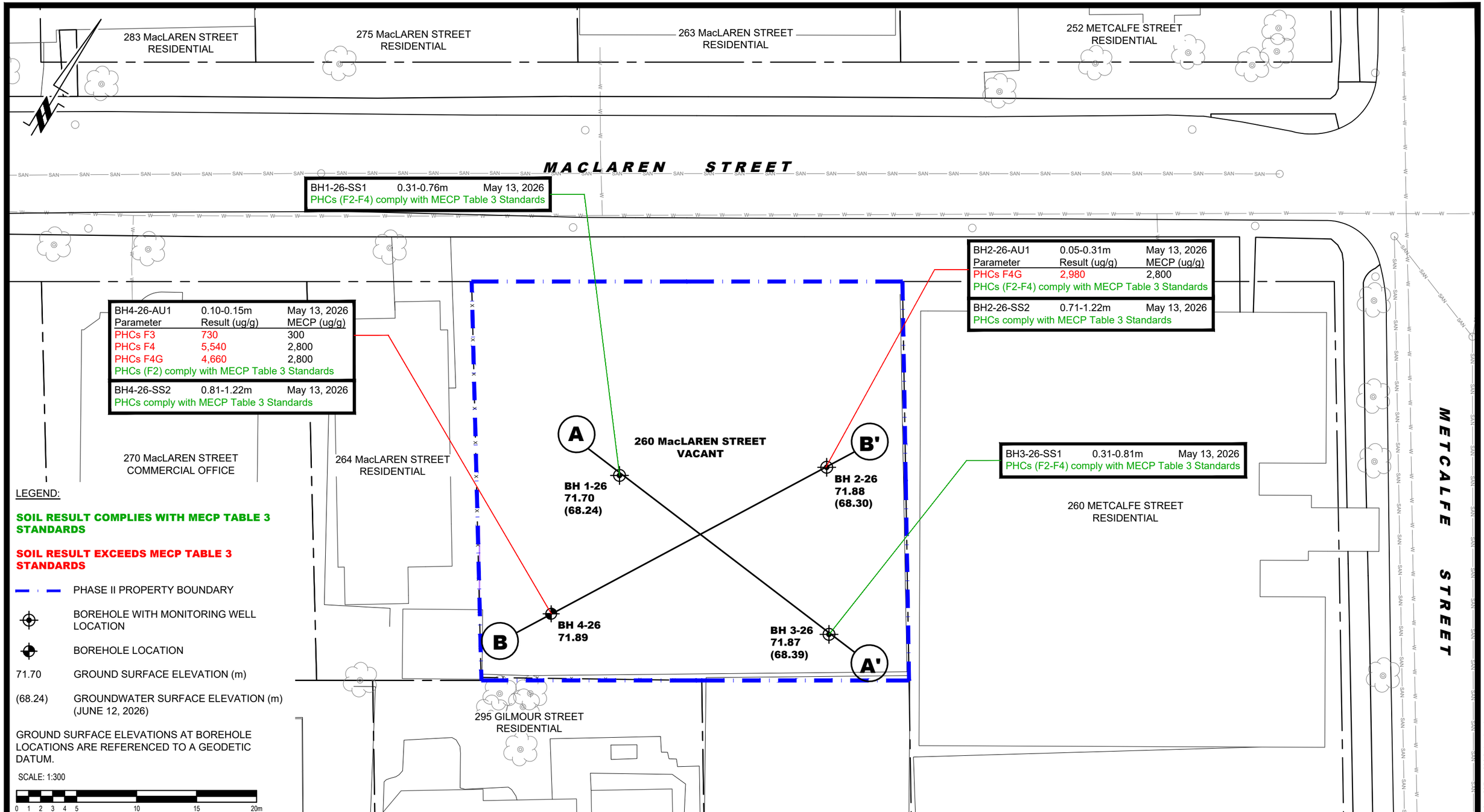
11x17



LEGEND:

SOIL RESULT COMPLIES WITH MECP TABLE 3 STANDARDS

SOIL RESULT EXCEEDS MECP TABLE 3 STANDARDS

PHASE II PROPERTY BOUNDARY

BOREHOLE WITH MONITORING WELL LOCATION

BOREHOLE LOCATION

71.70 GROUND SURFACE ELEVATION (m)

(68.24) GROUNDWATER SURFACE ELEVATION (m) (JUNE 12, 2026)

GROUND SURFACE ELEVATIONS AT BOREHOLE LOCATIONS ARE REFERENCED TO A GEODETIC DATUM.

SCALE: 1:300

0 1 2 3 4 5 10 15 20m

PATERSON GROUP
9 AURIGA DRIVE
OTTAWA, ON
K2E 7T9
TEL: (613) 226-7381

NO.	REVISIONS	DATE	INITIAL

CLARIDGE HOMES

PHASE II - ENVIRONMENTAL SITE ASSESSMENT
260 MacLAREN STREET

OTTAWA, ONTARIO

Title:

ANALYTICAL TESTING PLAN - SOIL (PHCs)

Scale: 1:300	Date: 07/2026
Drawn by: GK	Report No.: PE7414-2
Checked by: NS	Dwg. No.: PE7414-4
Approved by: MSD	Revision No.:

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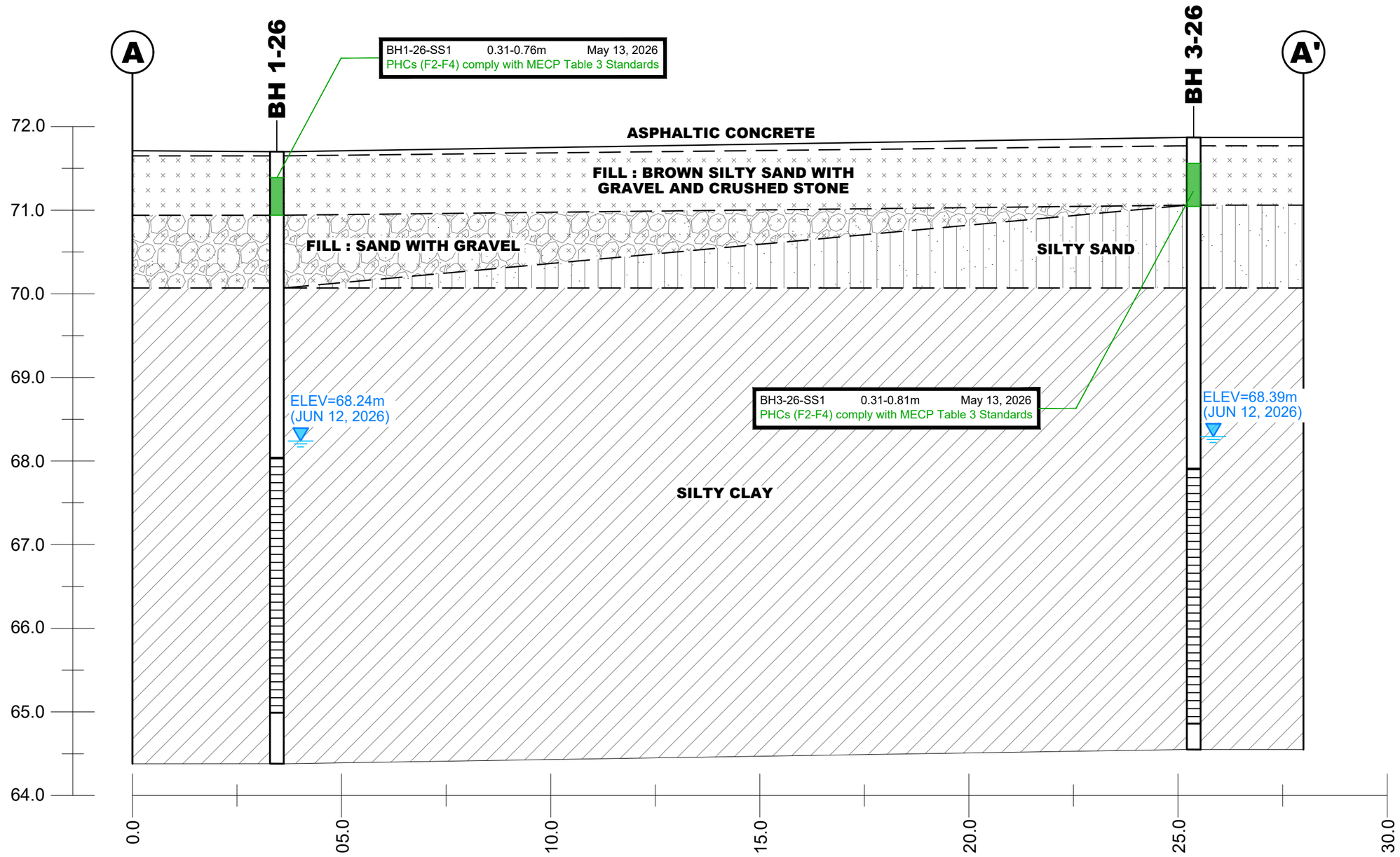

LEGEND:

SOIL RESULT COMPLIES WITH MECP TABLE 3 STANDARDS

PHASE II PROPERTY BOUNDARY

PATERSON GROUP
9 AURIGA DRIVE
OTTAWA, ON
K2E 7T9
TEL: (613) 226-7381

NO.	REVISIONS	DATE	INITIAL

CLARIDGE HOMES

PHASE II - ENVIRONMENTAL SITE ASSESSMENT
260 MacLAREN STREET

OTTAWA, ONTARIO

Title:

CROSS SECTION A-A' - SOIL (PHCs)

Scale: AS SHOWN	Date: 07/2026
Drawn by: GK	Report No.: PE7414-2
Checked by: NS	Dwg. No.: PE7414-4A
Approved by: MSD	Revision No.:

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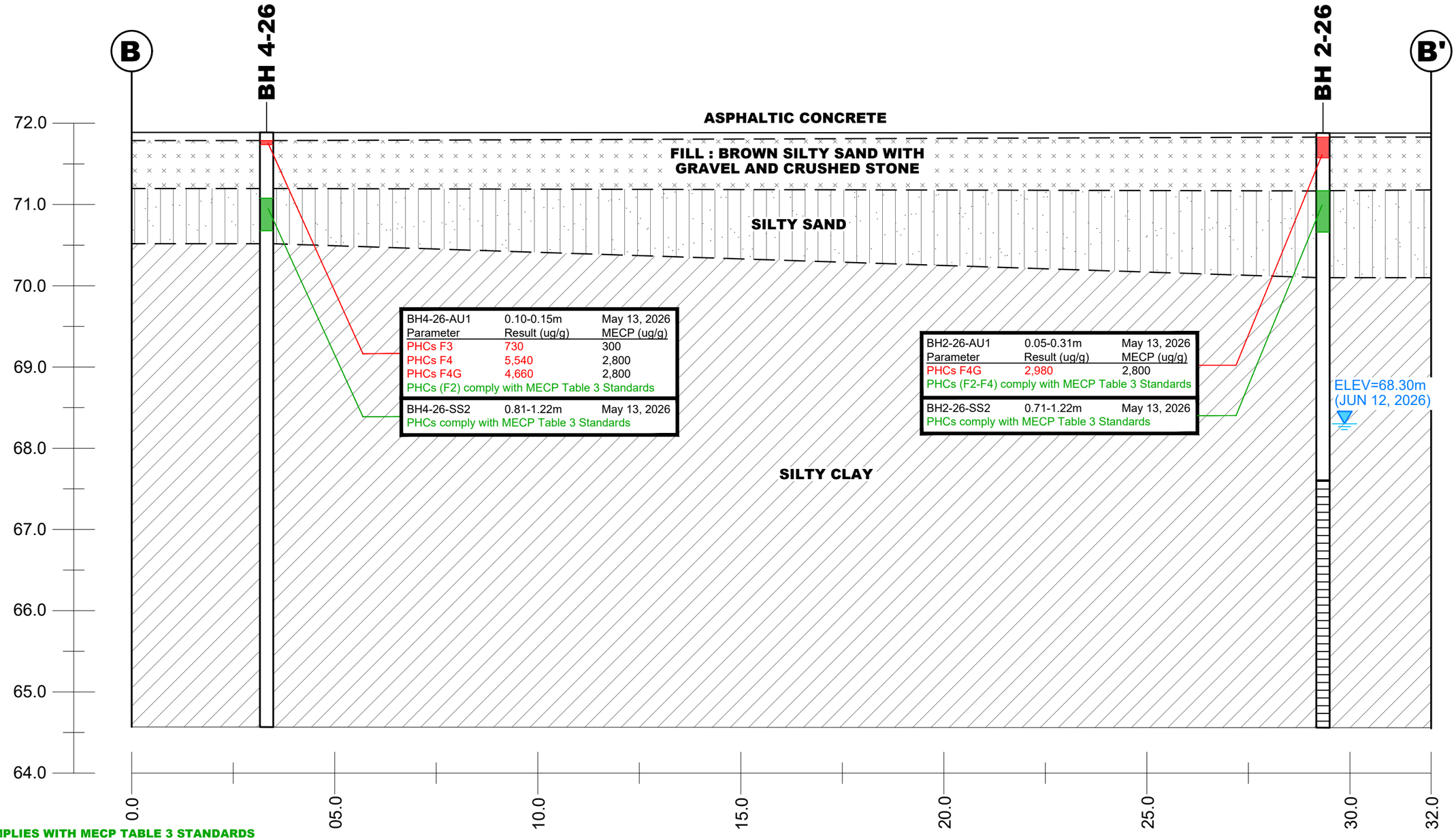

LEGEND:

SOIL RESULT COMPLIES WITH MECP TABLE 3 STANDARDS

SOIL RESULT EXCEEDS MECP TABLE 3 STANDARDS

PHASE II PROPERTY BOUNDARY

PATERSON GROUP
9 AURIGA DRIVE
OTTAWA, ON
K2E 7T9
TEL: (613) 226-7381

NO.	REVISIONS	DATE	INITIAL

CLARIDGE HOMES

PHASE II - ENVIRONMENTAL SITE ASSESSMENT
260 MacLAREN STREET

OTTAWA, ONTARIO

Title:

CROSS SECTION B-B' - SOIL (PHCs)

Scale: AS SHOWN	Date: 07/2026
Drawn by: GK	Report No.: PE7414-2
Checked by: NS	Dwg. No.: PE7414-4B
Approved by: MSD	Revision No.:

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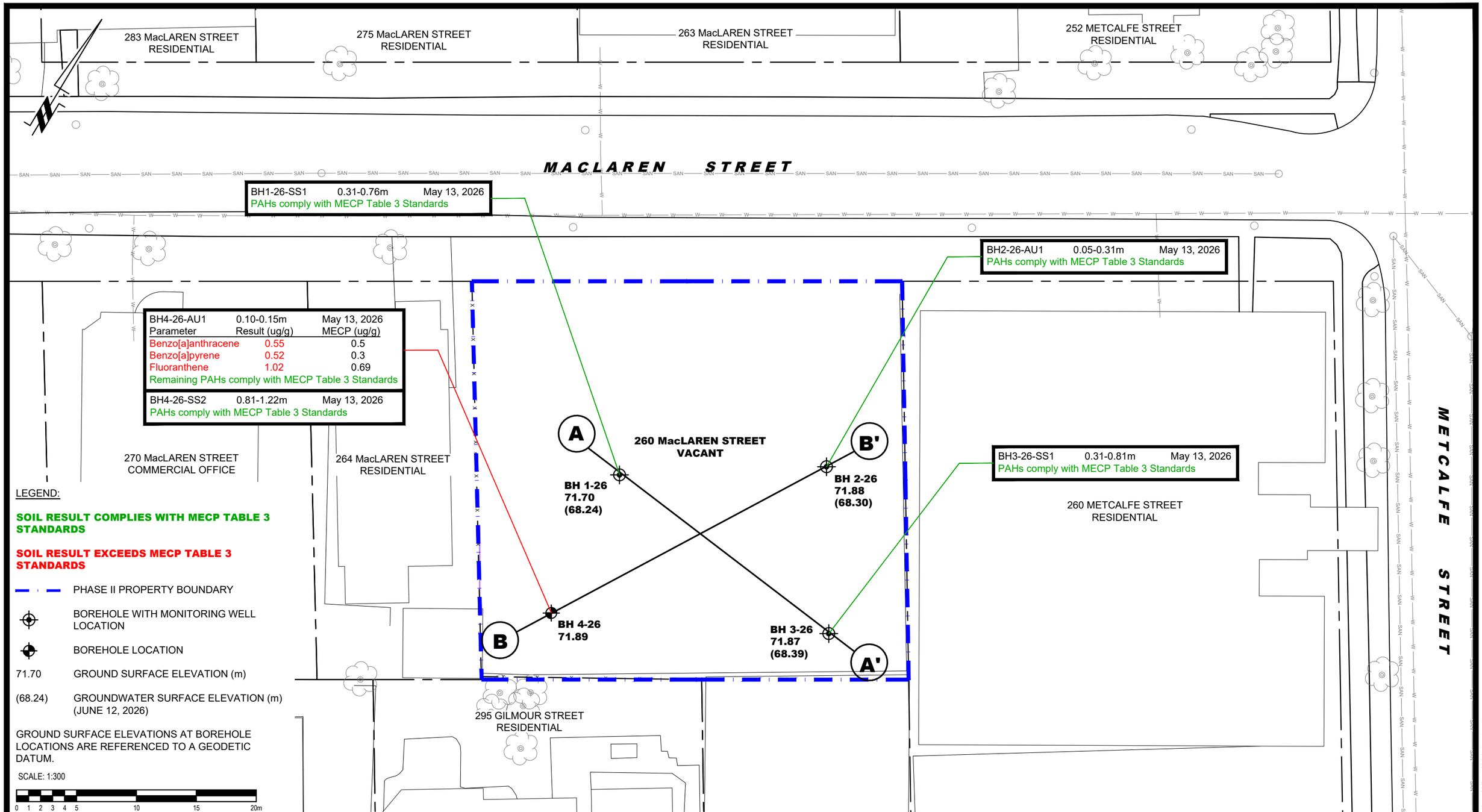

LEGEND:

SOIL RESULT COMPLIES WITH MECP TABLE 3 STANDARDS

SOIL RESULT EXCEEDS MECP TABLE 3 STANDARDS

PHASE II PROPERTY BOUNDARY

BOREHOLE WITH MONITORING WELL LOCATION

BOREHOLE LOCATION

71.70 GROUND SURFACE ELEVATION (m)

(68.24) GROUNDWATER SURFACE ELEVATION (m) (JUNE 12, 2026)

GROUND SURFACE ELEVATIONS AT BOREHOLE LOCATIONS ARE REFERENCED TO A GEODETIC DATUM.

SCALE: 1:300

0 1 2 3 4 5 10 15 20m

PATERSON GROUP
9 AURIGA DRIVE
OTTAWA, ON
K2E 7T9
TEL: (613) 226-7381

NO.	REVISIONS	DATE	INITIAL

CLARIDGE HOMES

PHASE II - ENVIRONMENTAL SITE ASSESSMENT
260 MacLAREN STREET

OTTAWA, ONTARIO

Title:

ANALYTICAL TESTING PLAN - SOIL (PAHs)

Scale: 1:300	Date: 07/2026
Drawn by: GK	Report No.: PE7414-2
Checked by: NS	Dwg. No.: PE7414-5
Approved by: MSD	Revision No.:

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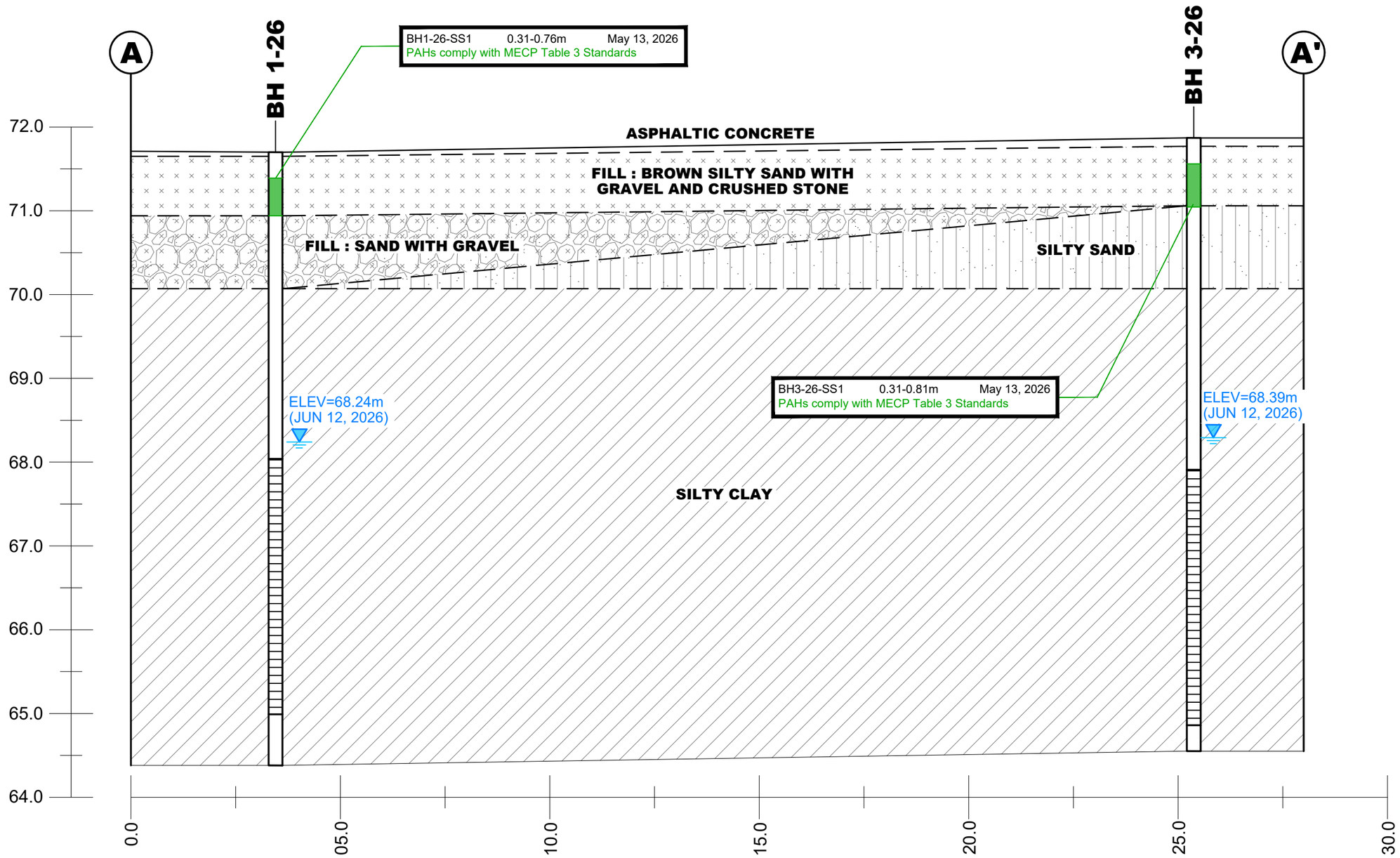

LEGEND:

SOIL RESULT COMPLIES WITH MECP TABLE 3 STANDARDS

PHASE II PROPERTY BOUNDARY

PATERSON GROUP
9 AURIGA DRIVE
OTTAWA, ON
K2E 7T9
TEL: (613) 226-7381

NO.	REVISIONS	DATE	INITIAL

CLARIDGE HOMES

PHASE II - ENVIRONMENTAL SITE ASSESSMENT
260 MacLAREN STREET

OTTAWA, ONTARIO

Title:

CROSS SECTION A-A' - SOIL (PAHs)

Scale: AS SHOWN	Date: 07/2026
Drawn by: GK	Report No.: PE7414-2
Checked by: NS	Dwg. No.: PE7414-5A
Approved by: MSD	Revision No.:

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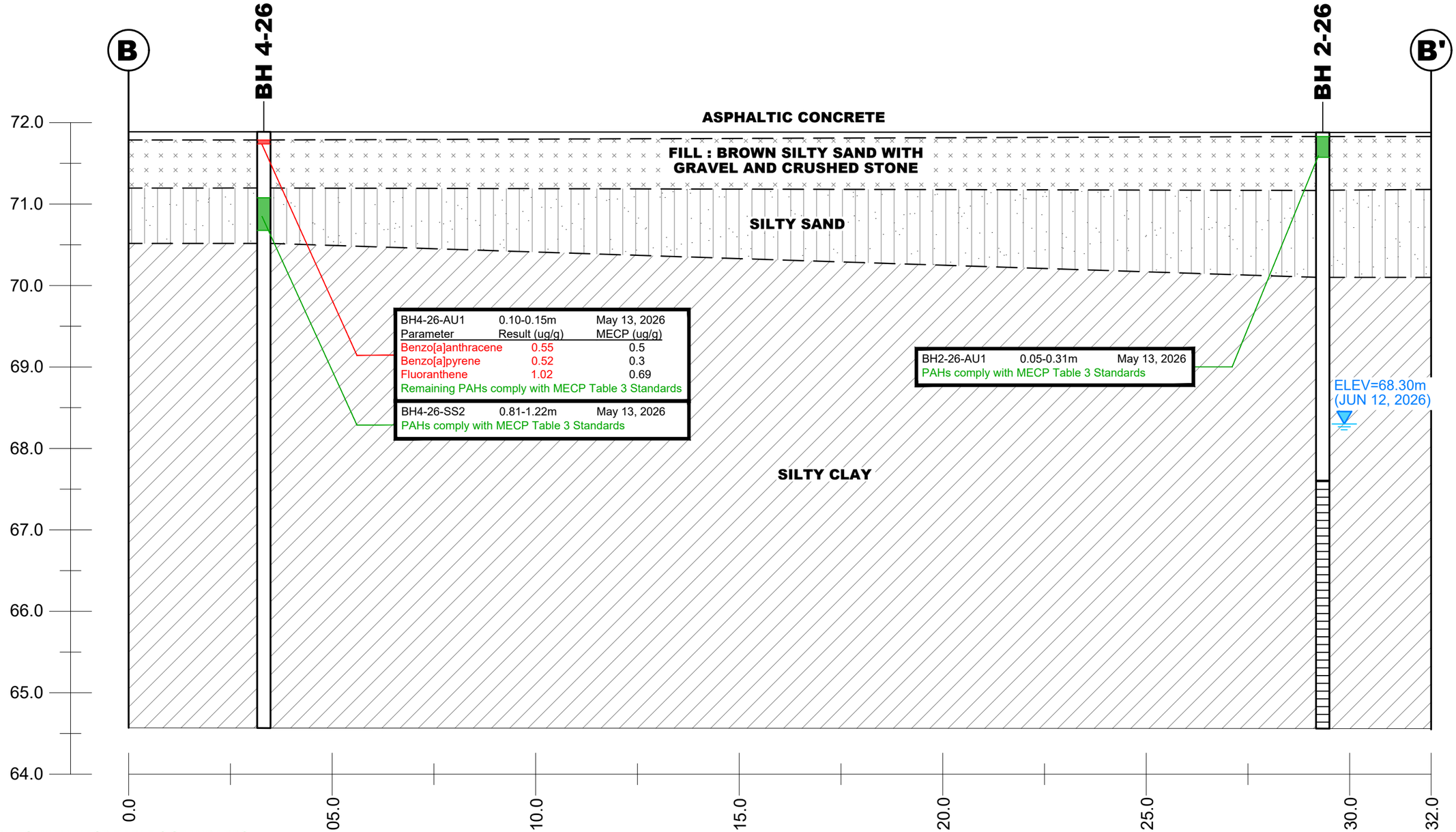

LEGEND:

SOIL RESULT COMPLIES WITH MECP TABLE 3 STANDARDS

SOIL RESULT EXCEEDS MECP TABLE 3 STANDARDS

PHASE II PROPERTY BOUNDARY

PATERSON GROUP
9 AURIGA DRIVE
OTTAWA, ON
K2E 7T9
TEL: (613) 226-7381

NO.	REVISIONS	DATE	INITIAL

CLARIDGE HOMES

PHASE II - ENVIRONMENTAL SITE ASSESSMENT
260 MacLAREN STREET

OTTAWA, ONTARIO

Title:

CROSS SECTION B-B' - SOIL (PAHs)

Scale: AS SHOWN	Date: 07/2026
Drawn by: GK	Report No.: PE7414-2
Checked by: NS	Dwg. No.: PE7414-5B
Approved by: MSD	Revision No.:

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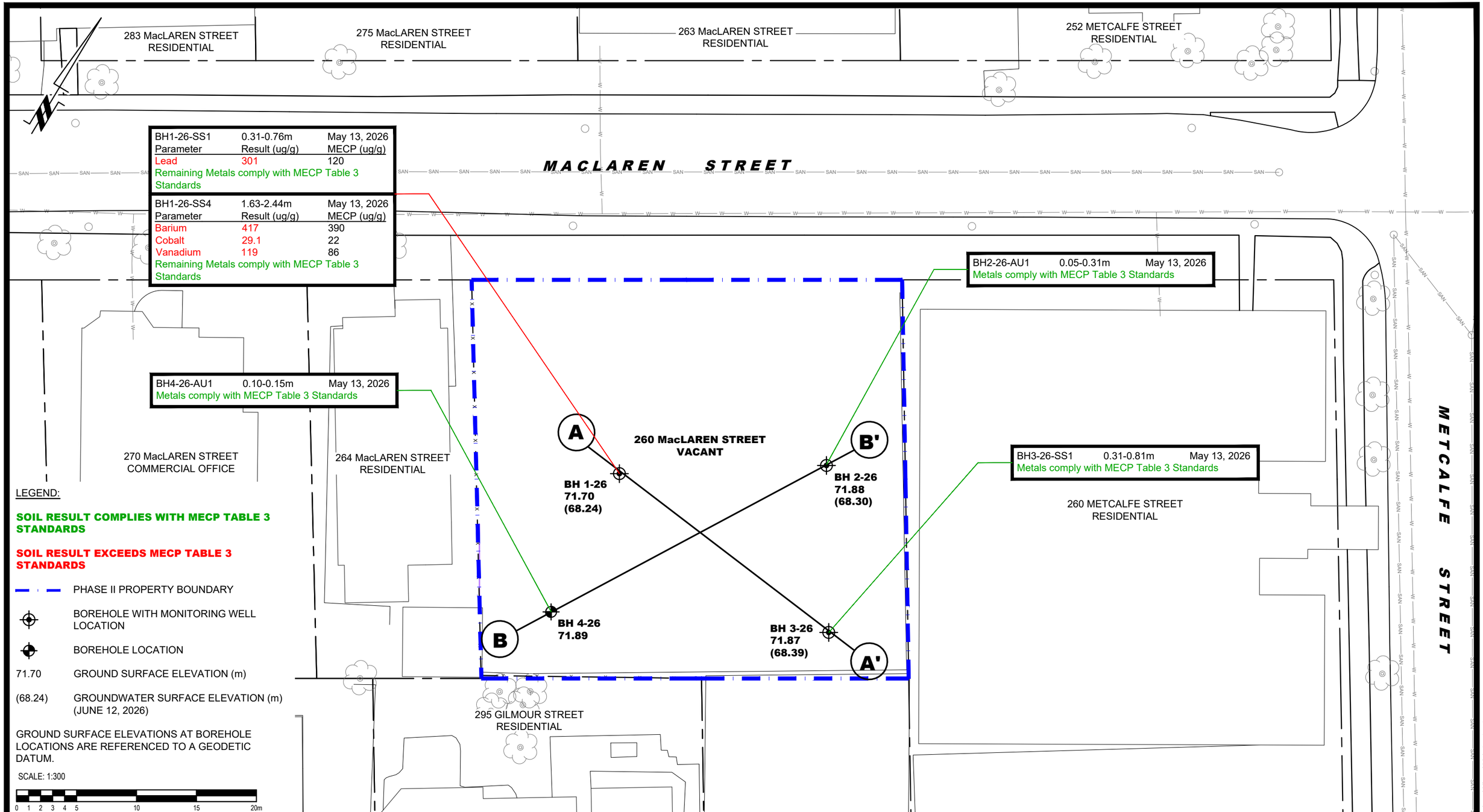

LEGEND:

SOIL RESULT COMPLIES WITH MECP TABLE 3 STANDARDS

SOIL RESULT EXCEEDS MECP TABLE 3 STANDARDS

PHASE II PROPERTY BOUNDARY

BOREHOLE WITH MONITORING WELL LOCATION

BOREHOLE LOCATION

71.70 GROUND SURFACE ELEVATION (m)

(68.24) GROUNDWATER SURFACE ELEVATION (m) (JUNE 12, 2026)

GROUND SURFACE ELEVATIONS AT BOREHOLE LOCATIONS ARE REFERENCED TO A GEODETIC DATUM.

SCALE: 1:300

0 1 2 3 4 5 10 15 20m

PATERSON GROUP
9 AURIGA DRIVE
OTTAWA, ON
K2E 7T9
TEL: (613) 226-7381

NO.	REVISIONS	DATE	INITIAL

CLARIDGE HOMES

PHASE II - ENVIRONMENTAL SITE ASSESSMENT
260 MacLAREN STREET

OTTAWA, ONTARIO

Title:

ANALYTICAL TESTING PLAN - SOIL (METALS)

Scale: 1:300	Date: 07/2026
Drawn by: GK	Report No.: PE7414-2
Checked by: NS	Dwg. No.: PE7414-6
Approved by: MSD	Revision No.:

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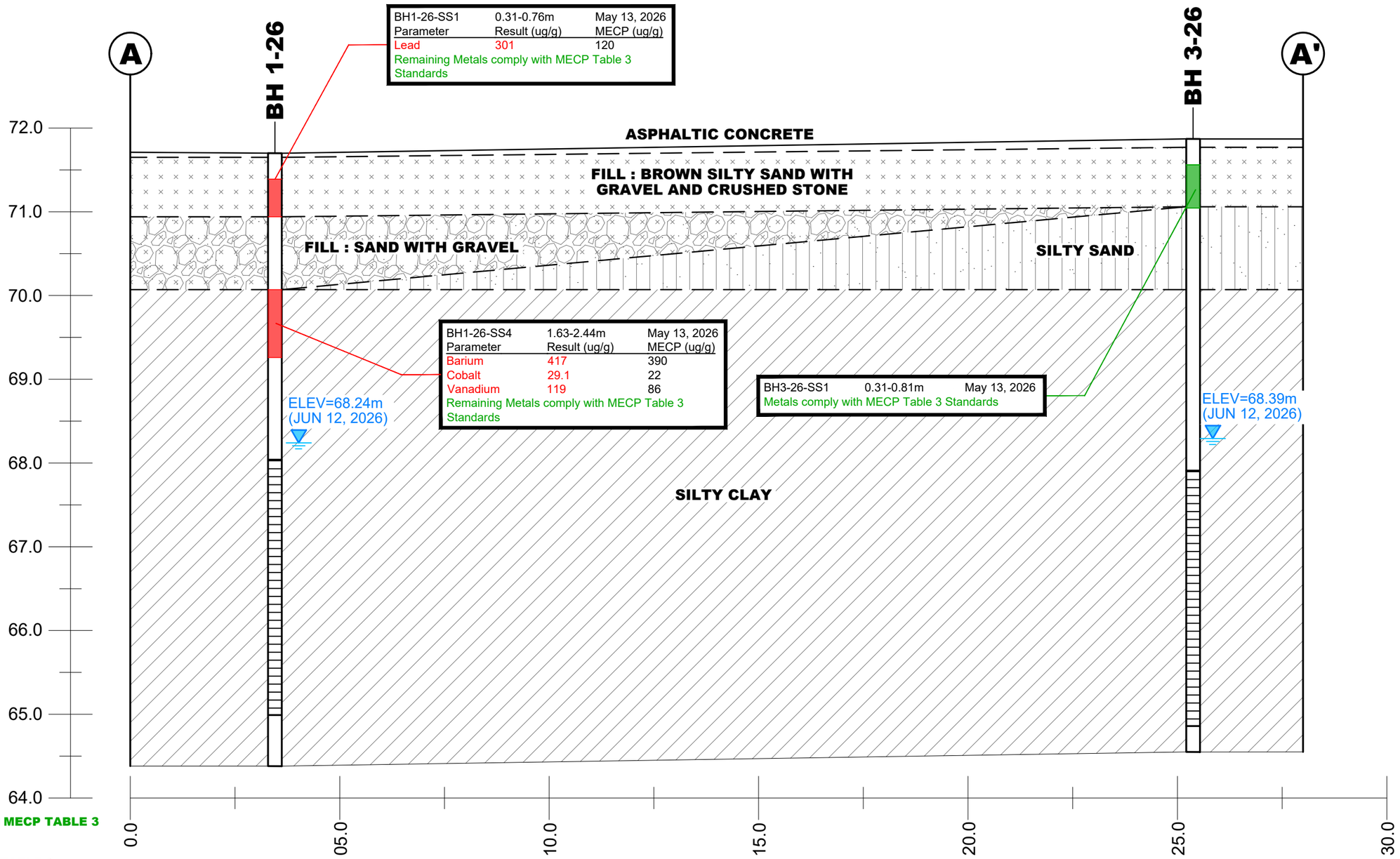

LEGEND:

SOIL RESULT COMPLIES WITH MECP TABLE 3 STANDARDS

SOIL RESULT EXCEEDS MECP TABLE 3 STANDARDS

PHASE II PROPERTY BOUNDARY

PATERSON GROUP
9 AURIGA DRIVE
OTTAWA, ON
K2E 7T9
TEL: (613) 226-7381

NO.	REVISIONS	DATE	INITIAL

CLARIDGE HOMES

PHASE II - ENVIRONMENTAL SITE ASSESSMENT
260 MacLAREN STREET

OTTAWA, ONTARIO

Title:

CROSS SECTION A-A' - SOIL (METALS)

Scale: AS SHOWN	Date: 07/2026
Drawn by: GK	Report No.: PE7414-2
Checked by: NS	Dwg. No.: PE7414-6A
Approved by: MSD	Revision No.:

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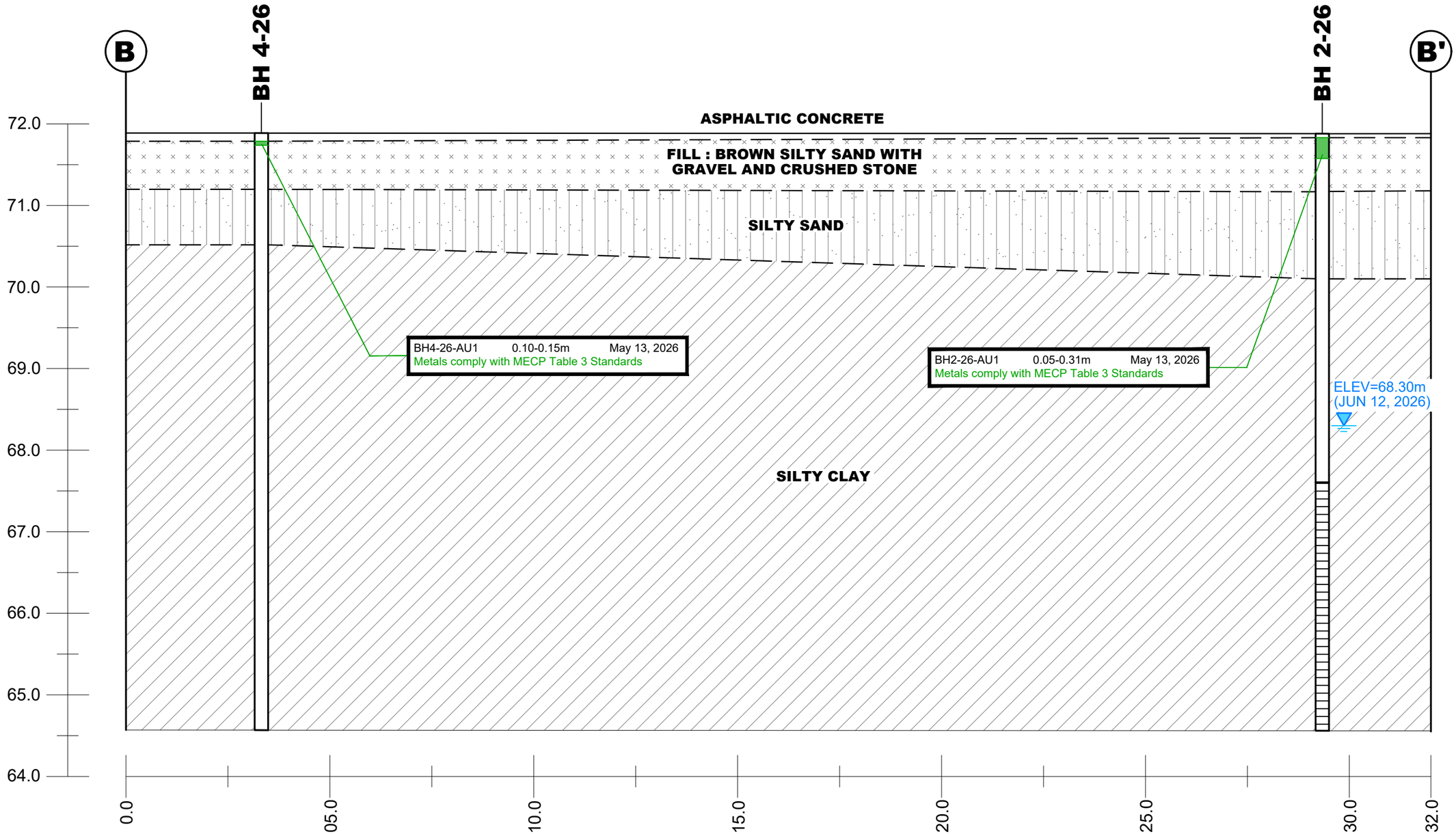

LEGEND:

SOIL RESULT COMPLIES WITH MECP TABLE 3 STANDARDS

PHASE II PROPERTY BOUNDARY

PATERSON GROUP
9 AURIGA DRIVE
OTTAWA, ON
K2E 7T9
TEL: (613) 226-7381

NO.	REVISIONS	DATE	INITIAL

CLARIDGE HOMES

PHASE II - ENVIRONMENTAL SITE ASSESSMENT
260 MacLAREN STREET

OTTAWA, ONTARIO

Title:

CROSS SECTION B-B' - SOIL (METALS)

Scale: AS SHOWN	Date: 07/2026
Drawn by: GK	Report No.: PE7414-2
Checked by: NS	Dwg. No.: PE7414-6B
Approved by: MSD	Revision No.:

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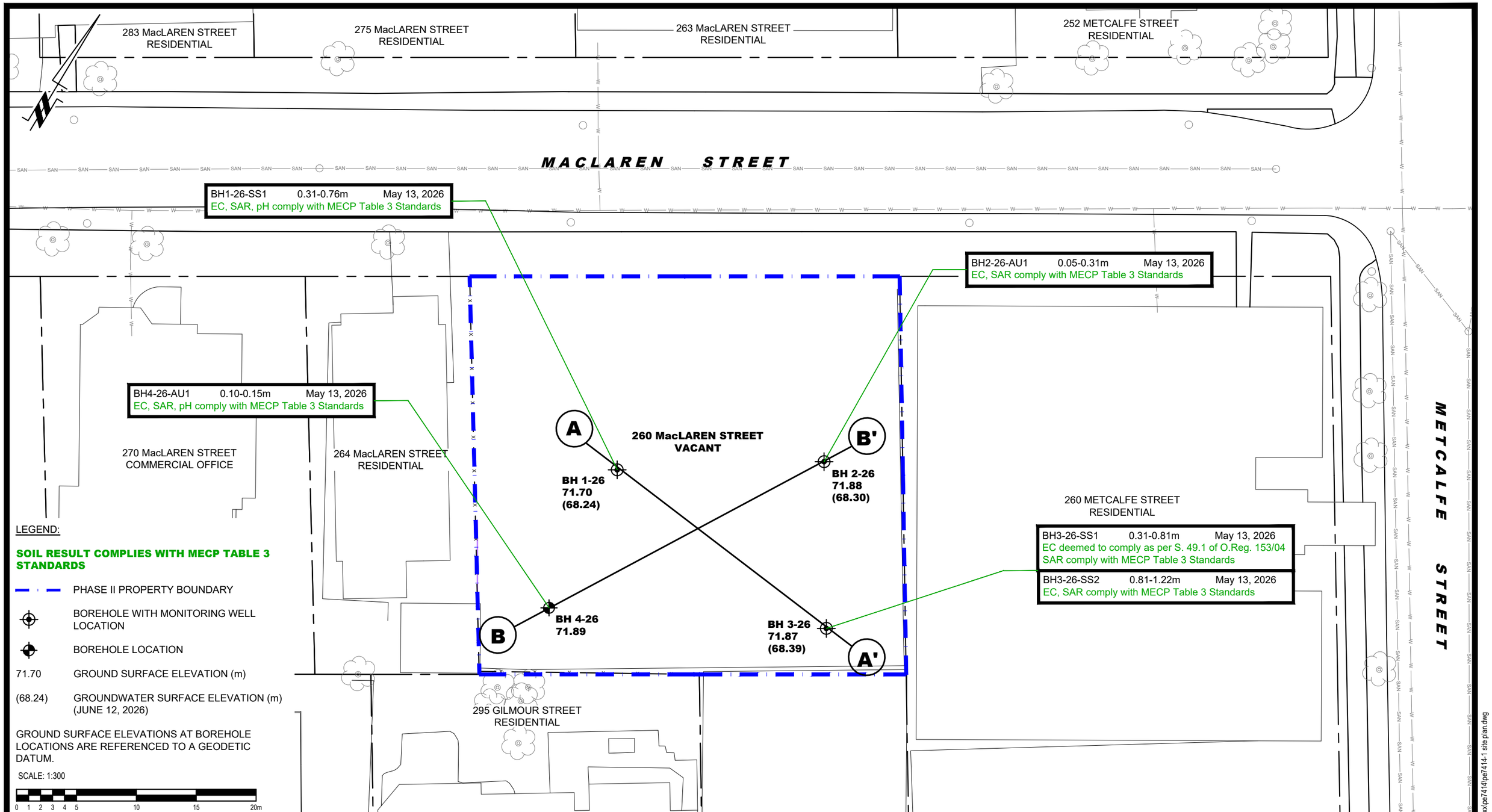

LEGEND:

SOIL RESULT COMPLIES WITH MECP TABLE 3 STANDARDS

- PHASE II PROPERTY BOUNDARY
- BOREHOLE WITH MONITORING WELL LOCATION
- BOREHOLE LOCATION
- 71.70 GROUND SURFACE ELEVATION (m)
- (68.24) GROUNDWATER SURFACE ELEVATION (m) (JUNE 12, 2026)

GROUND SURFACE ELEVATIONS AT BOREHOLE LOCATIONS ARE REFERENCED TO A GEODETIC DATUM.

SCALE: 1:300

0 1 2 3 4 5 10 15 20m

PATERSON GROUP
9 AURIGA DRIVE
OTTAWA, ON
K2E 7T9
TEL: (613) 226-7381

NO.	REVISIONS	DATE	INITIAL

CLARIDGE HOMES

PHASE II - ENVIRONMENTAL SITE ASSESSMENT
260 MacLAREN STREET

OTTAWA, ONTARIO

Title:
ANALYTICAL TESTING PLAN - SOIL (EC, SAR, pH)

Scale: 1:300	Date: 07/2026
Drawn by: GK	Report No.: PE7414-2
Checked by: NS	Dwg. No.: PE7414-7
Approved by: MSD	Revision No.:

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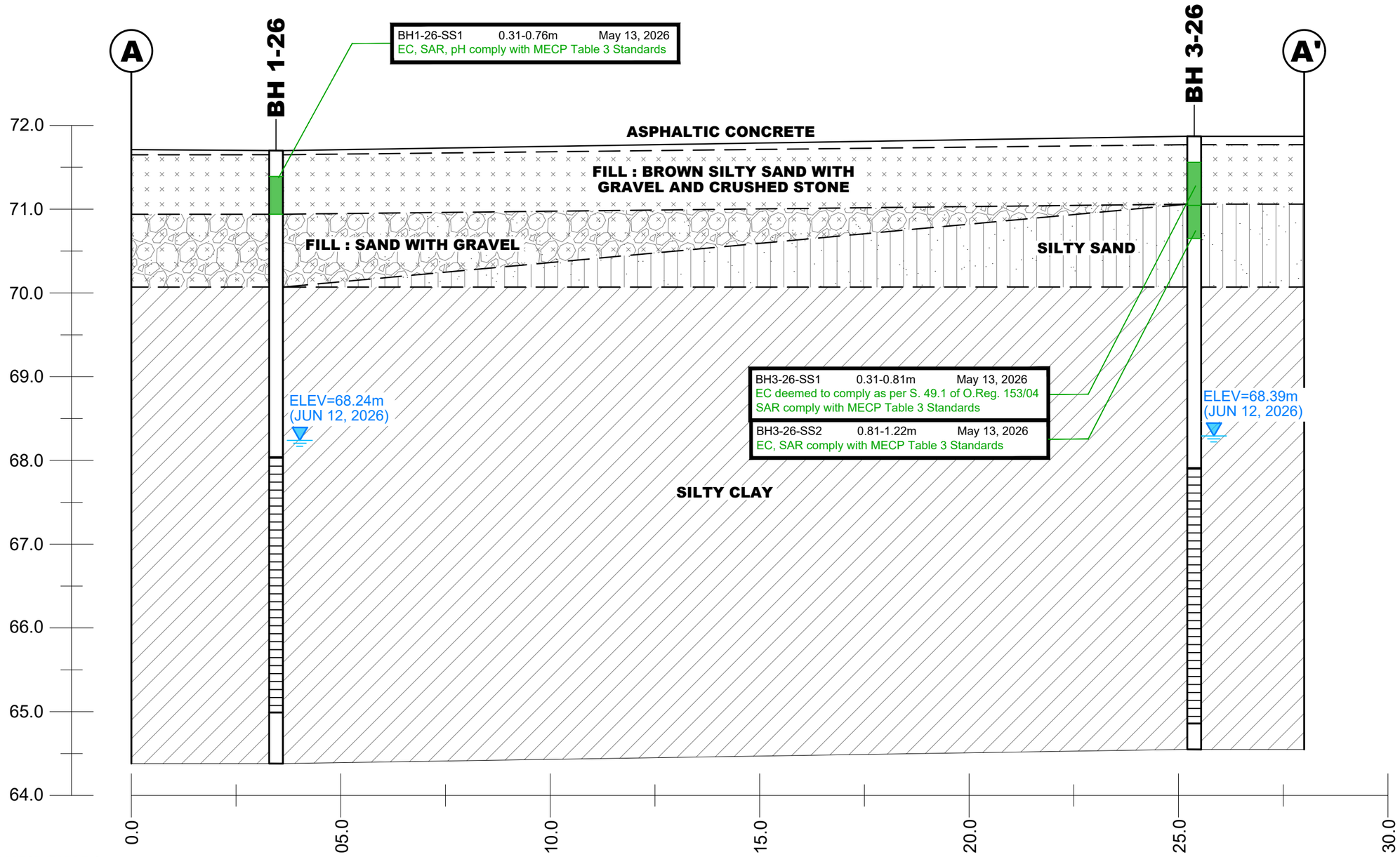

LEGEND:

SOIL RESULT COMPLIES WITH MECP TABLE 3 STANDARDS

PHASE II PROPERTY BOUNDARY

PATERSON GROUP
9 AURIGA DRIVE
OTTAWA, ON
K2E 7T9
TEL: (613) 226-7381

NO.	REVISIONS	DATE	INITIAL

CLARIDGE HOMES

PHASE II - ENVIRONMENTAL SITE ASSESSMENT
260 MacLAREN STREET

OTTAWA, ONTARIO

Title:

CROSS SECTION A-A' - SOIL (EC, SAR, pH)

Scale: AS SHOWN	Date: 07/2026
Drawn by: GK	Report No.: PE7414-2
Checked by: NS	Dwg. No.: PE7414-7A
Approved by: MSD	Revision No.:

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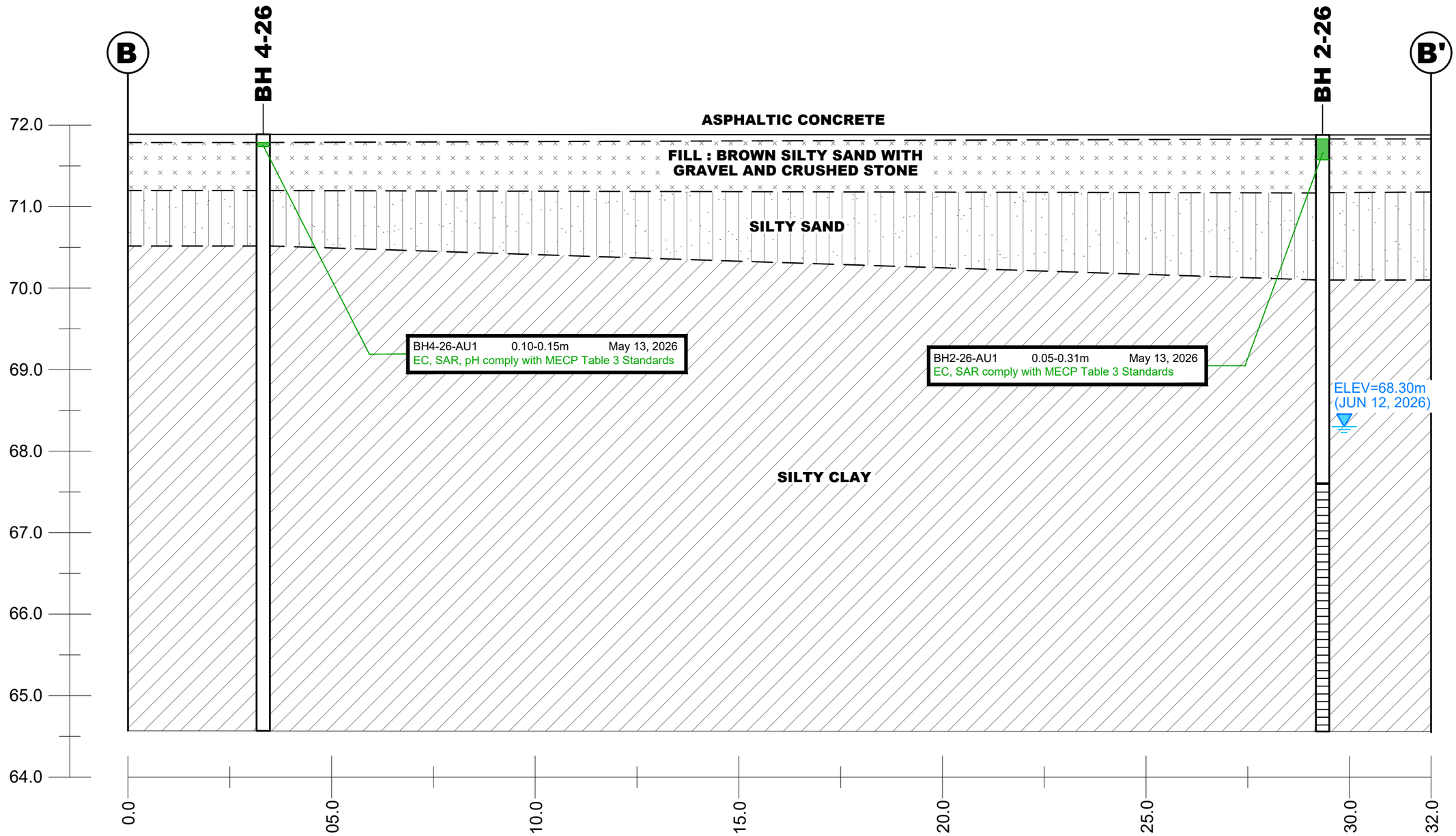

LEGEND:

SOIL RESULT COMPLIES WITH MECP TABLE 3 STANDARDS

PHASE II PROPERTY BOUNDARY

PATERSON GROUP
9 AURIGA DRIVE
OTTAWA, ON
K2E 7T9
TEL: (613) 226-7381

NO.	REVISIONS	DATE	INITIAL

CLARIDGE HOMES

PHASE II - ENVIRONMENTAL SITE ASSESSMENT
260 MacLAREN STREET

OTTAWA, ONTARIO

Title:

CROSS SECTION B-B' - SOIL (EC, SAR, pH)

Scale: AS SHOWN	Date: 07/2026
Drawn by: GK	Report No.: PE7414-2
Checked by: NS	Dwg. No.: PE7414-7B
Approved by: MSD	Revision No.:

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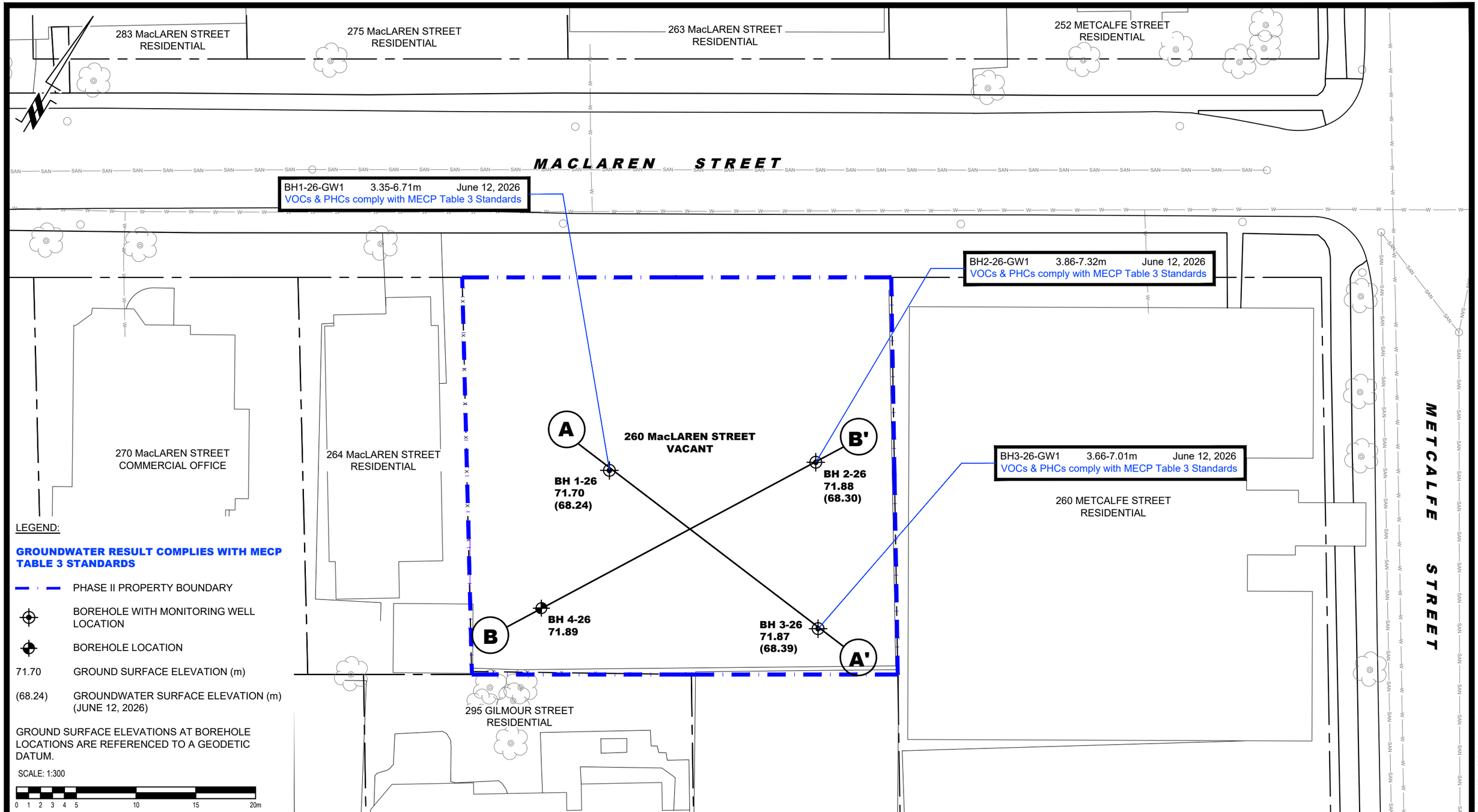

LEGEND:

GROUNDWATER RESULT COMPLIES WITH MECP TABLE 3 STANDARDS

PHASE II PROPERTY BOUNDARY

BOREHOLE WITH MONITORING WELL LOCATION

BOREHOLE LOCATION

71.70 GROUND SURFACE ELEVATION (m)

(68.24) GROUNDWATER SURFACE ELEVATION (m) (JUNE 12, 2026)

GROUND SURFACE ELEVATIONS AT BOREHOLE LOCATIONS ARE REFERENCED TO A GEODETIC DATUM.

SCALE: 1:300

0 1 2 3 4 5 10 15 20m

PATERSON GROUP
9 AURIGA DRIVE
OTTAWA, ON
K2E 7T9
TEL: (613) 226-7381

NO.	REVISIONS	DATE	INITIAL

CLARIDGE HOMES

PHASE II - ENVIRONMENTAL SITE ASSESSMENT
260 MacLAREN STREET

OTTAWA, ONTARIO

Title:

ANALYTICAL TESTING PLAN - GROUNDWATER

Scale: 1:300	Date: 07/2026
Drawn by: GK	Report No.: PE7414-2
Checked by: NS	Dwg. No.: PE7414-8
Approved by: MSD	Revision No.:

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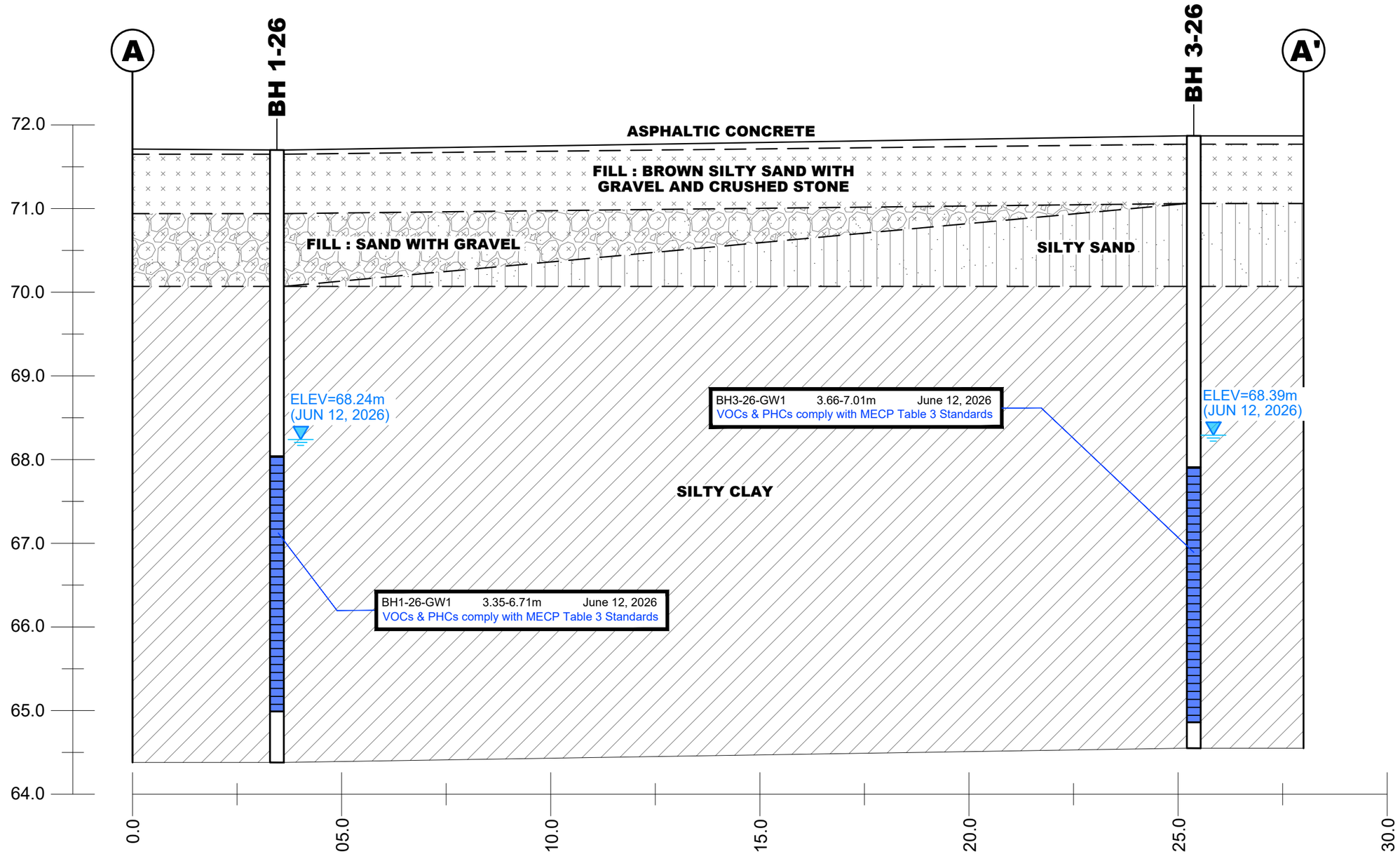

LEGEND:

GROUNDWATER RESULT COMPLIES WITH MECP TABLE 3 STANDARDS

PHASE II PROPERTY BOUNDARY

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NO.	REVISIONS	DATE	INITIAL

CLARIDGE HOMES

PHASE II - ENVIRONMENTAL SITE ASSESSMENT
260 MacLAREN STREET

OTTAWA, ONTARIO

Title:

CROSS SECTION A-A' - GROUNDWATER

Scale: AS SHOWN	Date: 07/2026
Drawn by: GK	Report No.: PE7414-2
Checked by: NS	Dwg. No.: PE7414-8A
Approved by: MSD	Revision No.:

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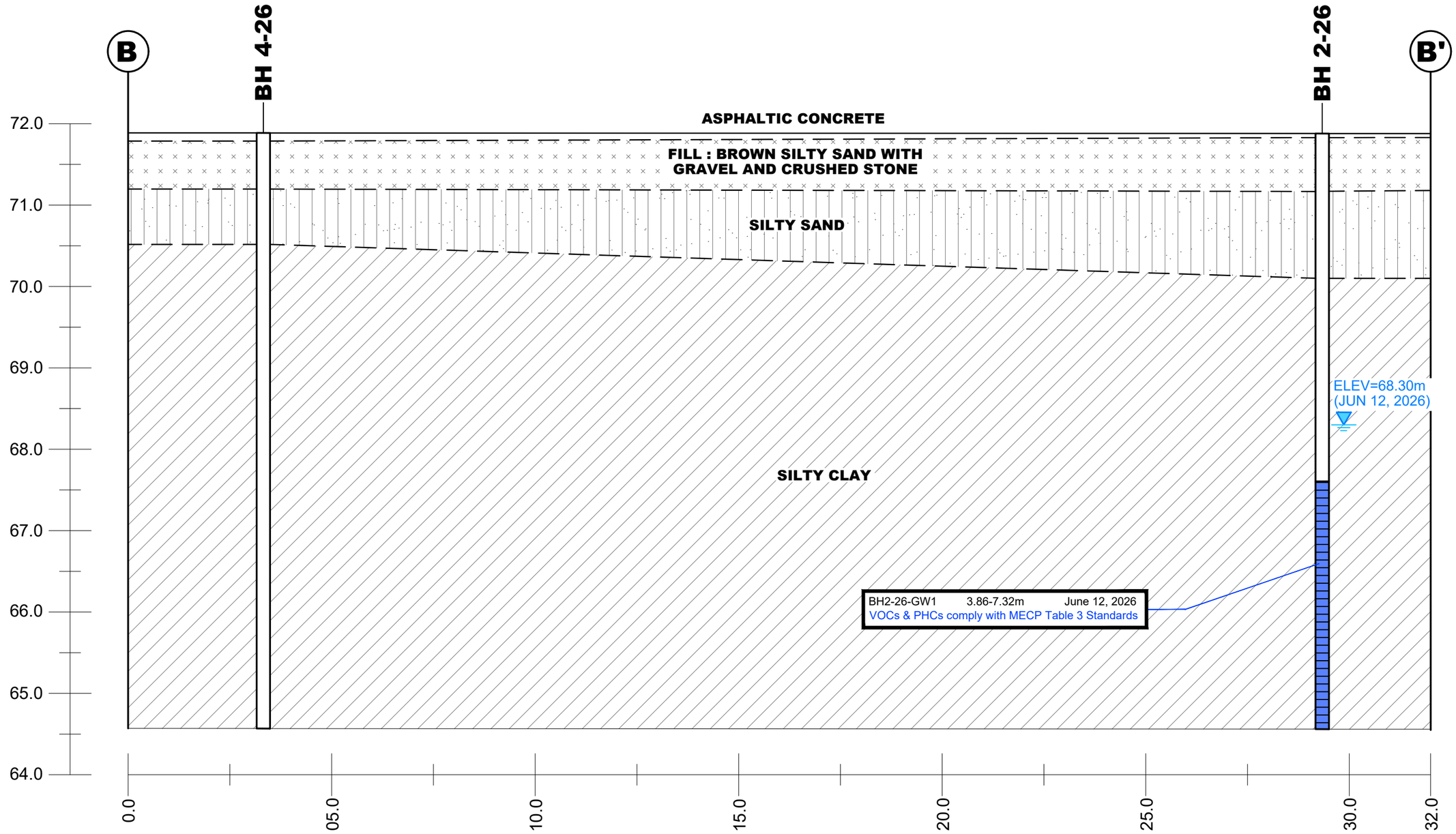

LEGEND:

GROUNDWATER RESULT COMPLIES WITH MECP TABLE 3 STANDARDS

PHASE II PROPERTY BOUNDARY

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NO.	REVISIONS	DATE	INITIAL

CLARIDGE HOMES

PHASE II - ENVIRONMENTAL SITE ASSESSMENT
260 MacLAREN STREET

OTTAWA, ONTARIO

Title:

CROSS SECTION B-B' - GROUNDWATER

Scale: AS SHOWN	Date: 07/2026
Drawn by: GK	Report No.: PE7414-2
Checked by: NS	Dwg. No.: PE7414-8B
Approved by: MSD	Revision No.:

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APPENDIX 1

SAMPLING AND ANALYSIS PLAN

SOIL PROFILE AND TEST DATA SHEETS

SYMBOLS AND TERMS

LABORATORY CERTIFICATES OF ANALYSIS

PATERSON GROUP

Sampling & Analysis Plan

260 MacLaren Street

Ottawa, Ontario

Prepared for Claridge Homes

Report: PE7414-SAP
May 1, 2026

TABLE OF CONTENTS

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2.0 ANALYTICAL TESTING PROGRAM 2

3.0 STANDARD OPERATING PROCEDURES 3
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1.0 SAMPLING PROGRAM

Paterson Group Inc. (Paterson) was commissioned by Claridge Homes, to conduct a Phase II – Environmental Site Assessment (Phase II ESA) for 260 MacLaren Street, Ottawa, Ontario.

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

Borehole	Location	Rationale	Proposed Depth & Rationale
BH1-26	Western Portion of Phase I Property	To assess the potential for soil and groundwater impacts resulting from the presence of fill material of unknown quality.	6-8 m; for the purposes of installing a groundwater monitoring well.
BH2-26	Eastern Portion of Phase I Property	To assess the potential for soil and groundwater impacts resulting from the presence of fill material of unknown quality.	6-8 m; for the purposes of installing a groundwater monitoring well.
BH3-26	Eastern Portion of Phase I Property	To assess the potential for soil and groundwater impacts resulting from the presence of fill material of unknown quality.	6-8 m; for the purposes of installing a groundwater monitoring well.
BH4-26	Western Portion of Phase I Property	To assess the potential for soil impacts resulting from the presence of fill material of unknown quality.	6-8 m; for general coverage purposes

Borehole locations are shown on Drawing PE7414-3 – 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. 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 all three boreholes to allow for the collection of groundwater samples.

2.0 ANALYTICAL TESTING PROGRAM

The analytical testing program for soil at the Phase I Property 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 soil at the Phase I Property 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)
- ❒ RKI 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 F_1, 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

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.

SOIL PROFILE AND TEST DATA

Phase II - Environmental Site Assessment

260 Maclaren Street, Ottawa, ON.

COORD. SYS.: MTM ZONE 9 **EASTING:** 368009.93 **NORTHING:** 5030975.00 **ELEVATION:** 71.70

PROJECT:

ADVANCED BY: Geoprobe

REMARKS: Datum: NAD1983 (Canada) Geoid: HT2-2010 **DATE:** May 13, 2026

FILE NO. : PE7414

HOLE NO. : BH 1-26

SAMPLE DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLE TYPE AND NO.	RECOVERY (%)	N OR RQD	ANALYTICAL TESTS	GASTECH (ppm) / GASTECH (% LEL) / PID (ppm) / PID (% LEL)	MONITORING WELL CONSTRUCTION	ELEVATION (m)
GROUND SURFACE									
ASPHALT 0.05m [71.65m]			AU 1				0.0		
FILL: Crushed stone			SS 1		P	PHCs / PAHs / Metals by ICP / Hg / CrVI / EC / SAR / pH	0.0		
0.76m [70.94m]									71
FILL: Loose sand with gravel, brick and concrete		1	SS 2		P		0.2		
			SS 3		P		1.7		
1.63m [70.07m]									
Brown **SILTY CLAY**									70
		2	SS 4		P	Metals by ICP	0.3		
			SS 5		P		0.0		69
		3							
			SS 6		P		0.0	3.46 m 2026-06-12	
- Grey and siltier by 3.66 m depth								3.66m	68
		4	SS 7		P		0.0		
			SS 8		P		0.1		67
		5	SS 9		P		0.0		
			SS 10		P		0.0		66
		6							

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SOIL PROFILE AND TEST DATA

Phase II - Environmental Site Assessment

260 Maclaren Street, Ottawa, ON.

PATERSON GROUP

COORD. SYS.: MTM ZONE 9 **EASTING:** 368009.93 **NORTHING:** 5030975.00 **ELEVATION:** 71.70

PROJECT:

ADVANCED BY: Geoprobe

REMARKS: Datum: NAD1983 (Canada) Geoid: HT2-2010 **DATE:** May 13, 2026

FILE NO. : PE7414

HOLE NO. : BH 1-26

SAMPLE DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLE TYPE AND NO.	RECOVERY (%)	N OR RQD	ANALYTICAL TESTS	■ GASTECH (ppm) □ GASTECH (% LEL) 50 100 150 200 / ▲ PID (ppm) △ PID (% LEL) 20 40 60 80	MONITORING WELL CONSTRUCTION	ELEVATION (m)
		6	SS 10						
			SS 11		P				
								6.71m	5
		7	SS 12		P				
7.32m [64.38m]									
End of Borehole (GWL at 3.46 m depth - June 12, 2026)									64
		8							
									63
		9							
									62
		10							
									61
		11							
									60
		12							

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SOIL PROFILE AND TEST DATA

Phase II - Environmental Site Assessment

260 Maclaren Street, Ottawa, ON.

COORD. SYS.: MTM ZONE 9 **EASTING:** 368024.38 **NORTHING:** 5030984.49 **ELEVATION:** 71.88

PROJECT:

ADVANCED BY: Geoprobe

REMARKS: Datum: NAD1983 (Canada) Geoid: HT2-2010 **DATE:** May 13, 2026

FILE NO. : PE7414

HOLE NO. : BH 2-26

SAMPLE DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLE TYPE AND NO.	RECOVERY (%)	N OR RQD	ANALYTICAL TESTS	GASTECH (ppm) / GASTECH (% LEL) / PID (ppm) / PID (% LEL)	MONITORING WELL CONSTRUCTION	ELEVATION (m)
GROUND SURFACE									
ASPHALT 0.05m [71.83m]			AU 1			PHCs / PAHs / Metals by ICP / Hg / CrVI / EC / SAR	0.1		
FILL: Crushed stone 0.71m [71.17m]			SS 2		P	PHCs (F1-F4)	0.0		
Brown **SILTY SAND** 1.78m [70.10m]		1	SS 3		P		0.1		71
			SS 4		P		0.1		
Brown **SILTY CLAY**		2	SS 5		P		0.1		70
			SS 6		P		0.0		69
		3	SS 7		P		0.0	3.58 m 2026-06-12	
- Grey and siltier by 3.66 m depth		4	SS 8		P		0.0	4.27m	68
			SS 9		P		0.0		67
		5	SS 10		P		0.0		
		6	SS 11		P		0.0		66

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SOIL PROFILE AND TEST DATA

Phase II - Environmental Site Assessment

260 Maclaren Street, Ottawa, ON.

COORD. SYS.: MTM ZONE 9 **EASTING:** 368024.38 **NORTHING:** 5030984.49 **ELEVATION:** 71.88

PROJECT:

ADVANCED BY: Geoprobe

REMARKS: Datum: NAD1983 (Canada) Geoid: HT2-2010 **DATE:** May 13, 2026

FILE NO. : PE7414

HOLE NO. : BH 2-26

SAMPLE DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLE TYPE AND NO.	RECOVERY (%)	N OR RQD	ANALYTICAL TESTS	GASTECH (ppm) / GASTECH (% LEL) / PID (ppm) / PID (% LEL)	MONITORING WELL CONSTRUCTION	ELEVATION (m)
		6	SS 11						
			SS 12		P		0.0		
		7	SS 13		P		0.0		65
7.32m [64.56m]								7.32m	
End of Borehole									
(GWL at 3.58 m depth - June 12, 2026)									
		8							64
		9							63
		10							62
		11							61
		12							60

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SOIL PROFILE AND TEST DATA

Phase II - Environmental Site Assessment

260 Maclaren Street, Ottawa, ON.

COORD. SYS.: MTM ZONE 9 **EASTING:** 368031.72 **NORTHING:** 5030972.65 **ELEVATION:** 71.87

PROJECT:

ADVANCED BY: Geoprobe

REMARKS: Datum: NAD1983 (Canada) Geoid: HT2-2010 **DATE:** May 13, 2026

FILE NO. : PE7414

HOLE NO. : BH 3-26

SAMPLE DESCRIPTION (GROUND SURFACE)	STRATA PLOT	DEPTH (m)	SAMPLE TYPE AND NO.	RECOVERY (%)	N OR RQD	ANALYTICAL TESTS	GASTECH (ppm) / GASTECH (% LEL) / PID (ppm) / PID (% LEL)	MONITORING WELL CONSTRUCTION	ELEVATION (m)
ASPHALT 0.10m [71.77m]									
FILL: Crushed stone 0.81m [71.06m]			AU 1				1.0		
			SS 1		P	PHCs / PAHs / Metals by ICP / Hg / CrVI	0.3		
Brown **SILTY SAND** 1.80m [70.07m]		1	SS 2		P	EC / SAR	0.0		71
			SS 3		P		0.0		
Brown **SILTY CLAY**		2	SS 4		P		0.0		70
			SS 5		P		0.0		69
		3	SS 6		P		0.0	3.48 m 2026-06-12	
		4	SS 7		P		0.0	3.96m	68
- Grey and siltier by 4.27 m depth			SS 8		P		0.0		67
		5	SS 9		P		0.0		
		6	SS 10		P		0.0		66

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SOIL PROFILE AND TEST DATA

Phase II - Environmental Site Assessment

260 Maclaren Street, Ottawa, ON.

PATERSON GROUP

COORD. SYS.: MTM ZONE 9 **EASTING:** 368031.72 **NORTHING:** 5030972.65 **ELEVATION:** 71.87

PROJECT:

ADVANCED BY: Geoprobe

REMARKS: Datum: NAD1983 (Canada) Geoid: HT2-2010 **DATE:** May 13, 2026

FILE NO. : PE7414

HOLE NO. : BH 3-26

SAMPLE DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLE TYPE AND NO.	RECOVERY (%)	N OR RQD	ANALYTICAL TESTS	■ GASTECH (ppm) □ GASTECH (% LEL) 50 100 150 200 / ▲ PID (ppm) △ PID (% LEL) 20 40 60 80	MONITORING WELL CONSTRUCTION	ELEVATION (m)
		6	SS 10						
			SS 11		P		▲ 0.0		
		7	SS 12		P		▲ 0.0	7.01m	65
7.32m [64.55m]									
End of Borehole (GWL at 3.48 m depth - June 12, 2026)		8							64
		9							63
		10							62
		11							61
		12							60

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SOIL PROFILE AND TEST DATA

Phase II - Environmental Site Assessment

260 Maclaren Street, Ottawa, ON.

COORD. SYS.: MTM ZONE 9 **EASTING:** 368010.99 **NORTHING:** 5030962.19 **ELEVATION:** 71.89

PROJECT:

ADVANCED BY: Geoprobe

REMARKS: Datum: NAD1983 (Canada) Geoid: HT2-2010 **DATE:** May 13, 2026

FILE NO. : PE7414

HOLE NO. : BH 4-26

SAMPLE DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLE TYPE AND NO.	RECOVERY (%)	N OR RQD	ANALYTICAL TESTS	GASTECH (ppm) / GASTECH (% LEL) / PID (ppm) / PID (% LEL)	PIEZOMETER CONSTRUCTION	ELEVATION (m)
GROUND SURFACE									
ASPHALT 0.10m [71.80m]			AU 1			PHCs / PAHs / Metals by ICP / Hg / CrVI	0.1		
FILL: Crushed stone 0.69m [71.20m]			SS 1		P		0.0		
Brown **SILTY SAND** with brick and construction debris 1.37m [70.52m]		1	SS 2		P	PAHs / PHCs (F1-F4)	0.0		71
			SS 3		P		0.0		
Brown **SILTY CLAY**		2	SS 4		P		0.0		70
			SS 5		P		0.0		
		3							69
			SS 6		P		0.0		
- Grey and siltier by 3.66 m depth		4	SS 7		P		0.0		68
			SS 8		P		0.0		
		5							67
			SS 9		P		0.0		
		6	SS 10		P		0.0		66

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SOIL PROFILE AND TEST DATA

Phase II - Environmental Site Assessment

260 Maclaren Street, Ottawa, ON.

COORD. SYS.: MTM ZONE 9 **EASTING:** 368010.99 **NORTHING:** 5030962.19 **ELEVATION:** 71.89

PROJECT:

ADVANCED BY: Geoprobe

REMARKS: Datum: NAD1983 (Canada) Geoid: HT2-2010 **DATE:** May 13, 2026

FILE NO. : PE7414

HOLE NO. : BH 4-26

SAMPLE DESCRIPTION	STRATA PLOT	DEPTH (m)	SAMPLE TYPE AND NO.	RECOVERY (%)	N OR RQD	ANALYTICAL TESTS	GASTECH (ppm) / GASTECH (% LEL) / PID (ppm) / PID (% LEL)	PIEZOMETER CONSTRUCTION	ELEVATION (m)
		6	SS 10						
			SS 11		P		0.0		
		7	SS 12		P		0.0		65
7.32m [64.57m]									
End of Borehole									
		8							64
		9							63
		10							62
		11							61
		12							60

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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)
Dxx	-	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
D10	-	Grain size at which 10% of the soil is finer (effective grain size)
D60	-	Grain size at which 60% of the soil is finer
Cc	-	Concavity coefficient = $(D30)^2 / (D10 \times D60)$
Cu	-	Uniformity coefficient = D60 / D10

Cc and Cu are used to assess the grading of sands and gravels:
Well-graded gravels have: $1 < Cc < 3$ and $Cu > 4$
Well-graded sands have: $1 < Cc < 3$ and $Cu > 6$
Sands and gravels not meeting the above requirements are poorly-graded or uniformly-graded.
Cc and Cu 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

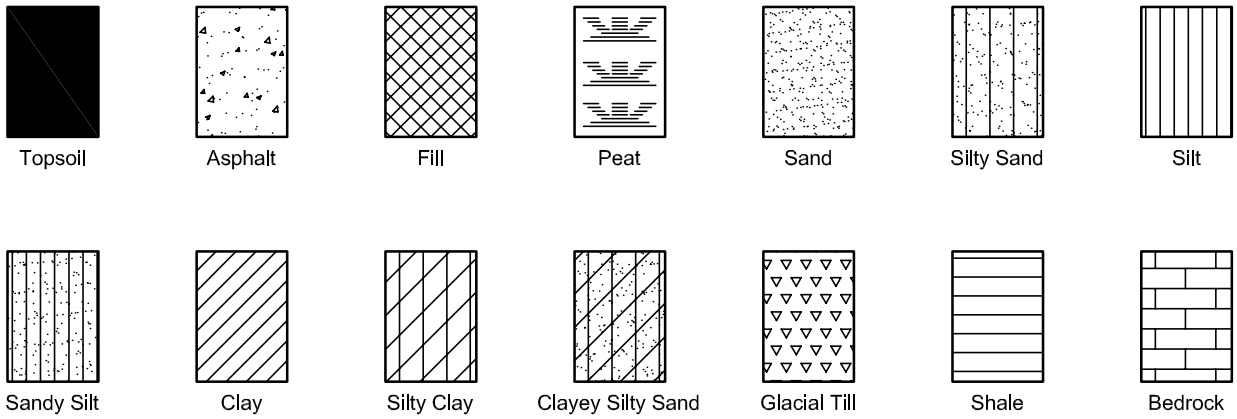
p'_o	-	Present effective overburden pressure at sample depth
p'_c	-	Preconsolidation pressure of (maximum past pressure on) sample
Ccr	-	Recompression index (in effect at pressures below p'_c)
Cc	-	Compression index (in effect at pressures above p'_c)
OC Ratio		Overconsolidaton ratio = p'_c / p'_o
Void Ratio		Initial sample void ratio = volume of voids / volume of solids
Wo	-	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.

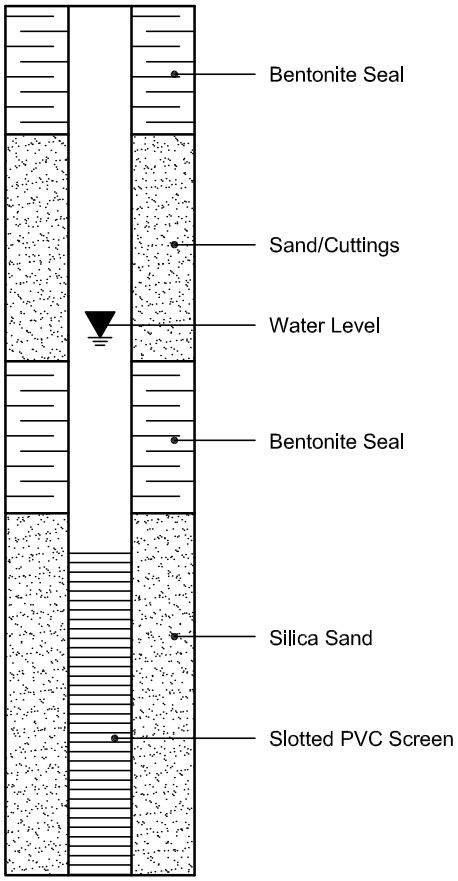
SYMBOLS AND TERMS (continued)

STRATA PLOT

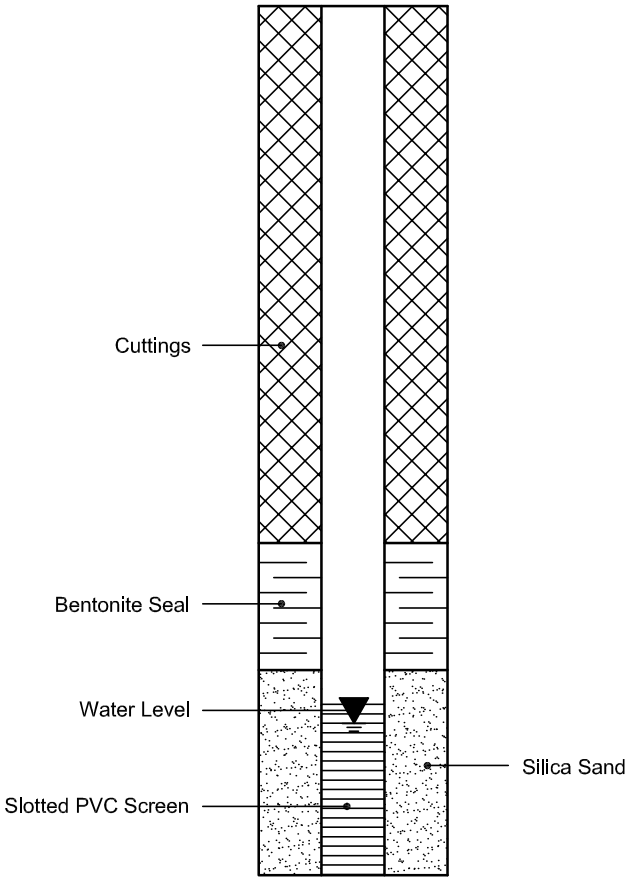


MONITORING WELL AND PIEZOMETER CONSTRUCTION

MONITORING WELL CONSTRUCTION



PIEZOMETER CONSTRUCTION



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Certificate of Analysis

Paterson Group Consulting Engineers (Ottawa)
9 Auriga Drive
Ottawa, ON K2E 7T9
Attn: Nick Sullivan

Report Date: 25-May-2026
Order Date: 19-May-2026

Client PO: 65948
Project: PE7414
Custody:

Order #: 2621080

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

Paracel ID	Client ID
2621080-01	BH1-26-SS1
2621080-02	BH2-26-AU1
2621080-03	BH3-26-SS1
2621080-04	BH4-26-AU1
2621080-05	DUP-1

Approved By: Mark Foto

Mark Foto, M.Sc.
Laboratory Director

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	Extraction Date	Analysis Date
Chromium, hexavalent - soil	MOE E3056 - Extraction, colourimetric	Ottawa	25-May-26	25-May-26
Conductivity	MOE E3138 - probe @25 °C, water ext	Ottawa	22-May-26	22-May-26
Mercury by CVAA	EPA 7471B - CVAA, digestion	Ottawa	22-May-26	22-May-26
pH, soil	MOE E3137 - probe @25 °C, CaCl2 ext	Ottawa	22-May-26	22-May-26
PHC F4G (gravimetric)	CWS Tier 1 - Extraction Gravimetric	Ottawa	25-May-26	25-May-26
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	Ottawa	20-May-26	22-May-26
REG 153: Metals by ICP/MS, soil	EPA 6020 - Digestion - ICP-MS	Ottawa	22-May-26	22-May-26
REG 153: PAHs by GC-MS	EPA 8270 - GC-MS, extraction	Ottawa	21-May-26	24-May-26
SAR	Calculated	Ottawa	22-May-26	22-May-26
Solids, %	CWS Tier 1 - Gravimetric		20-May-26	21-May-26

PARACEL LABORATORIES LTD.

Order #: 2621080

Certificate of Analysis

Report Date: 25-May-2026

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

Order Date: 19-May-2026

Client PO: 65948

Project Description: PE7414

	Client ID:	BH1-26-SS1	BH2-26-AU1	BH3-26-SS1	BH4-26-AU1	-	-
	Sample Date:	13-May-26 09:00	13-May-26 09:00	13-May-26 09:00	13-May-26 09:00		
	Sample ID:	2621080-01	2621080-02	2621080-03	2621080-04		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	87.2	92.0	90.1	96.6	-	-
General Inorganics							
SAR	0.01 N/A	2.12	4.32	1.54	0.95	-	-
Conductivity	5 uS/cm	340	543	1250	306	-	-
pH	0.05 pH Units	7.77	-	-	8.19	-	-
Metals							
Antimony	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	-	-
Arsenic	1.0 ug/g	5.0	2.7	3.5	1.0	-	-
Barium	1.0 ug/g	190	83.9	72.6	45.6	-	-
Beryllium	0.5 ug/g	<0.5	<0.5	<0.5	<0.5	-	-
Boron	5.0 ug/g	<5.0	<5.0	<5.0	<5.0	-	-
Cadmium	0.5 ug/g	<0.5	<0.5	<0.5	<0.5	-	-
Chromium	5.0 ug/g	24.6	16.4	17.8	12.1	-	-
Chromium (VI)	0.2 ug/g	0.2	<0.2	<0.2	<0.2	-	-
Cobalt	1.0 ug/g	5.6	3.9	4.0	4.5	-	-
Copper	5.0 ug/g	21.5	11.3	12.6	8.1	-	-
Lead	1.0 ug/g	301	94.9	49.1	11.3	-	-
Mercury	0.1 ug/g	0.1	<0.1	0.1	<0.1	-	-
Molybdenum	1.0 ug/g	1.8	<1.0	<1.0	<1.0	-	-
Nickel	5.0 ug/g	14.9	9.5	10.4	15.1	-	-
Selenium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	-	-
Silver	0.3 ug/g	<0.3	<0.3	<0.3	<0.3	-	-
Thallium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	-	-
Uranium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	-	-
Vanadium	10.0 ug/g	29.9	27.0	24.2	32.7	-	-
Zinc	20.0 ug/g	179	105	53.7	<20.0	-	-

PARACEL LABORATORIES LTD.

Order #: 2621080

Certificate of Analysis

Report Date: 25-May-2026

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

Order Date: 19-May-2026

Client PO: 65948

Project Description: PE7414

	Client ID:	BH1-26-SS1	BH2-26-AU1	BH3-26-SS1	BH4-26-AU1	-	-
	Sample Date:	13-May-26 09:00	13-May-26 09:00	13-May-26 09:00	13-May-26 09:00		
	Sample ID:	2621080-01	2621080-02	2621080-03	2621080-04		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Hydrocarbons							
F2 PHCs (C10-C16)	4 ug/g	<40 [1]	<80 [1]	<80 [1]	<80 [1]	-	-
F3 PHCs (C16-C34)	8 ug/g	250	243	244	730	-	-
F4 PHCs (C34-C50)	6 ug/g	1210 [2]	2590 [2]	2470 [2]	5540 [2]	-	-
F4G PHCs (gravimetric)	50 ug/g	1030	2980	2060	4660	-	-
Semi-Volatiles							
Acenaphthene	0.02 ug/g	<0.10 [1] [3]	<0.10 [1]	<0.10 [1]	<0.20 [1]	-	-
Acenaphthylene	0.02 ug/g	<0.10 [1] [3]	<0.10 [1]	<0.10 [1]	<0.20 [1]	-	-
Anthracene	0.02 ug/g	<0.10 [1] [3]	<0.10 [1]	<0.10 [1]	<0.20 [1]	-	-
Benzo [a] anthracene	0.02 ug/g	<0.10 [1] [3]	0.24 [1]	0.28 [1]	0.55 [1]	-	-
Benzo [a] pyrene	0.02 ug/g	<0.10 [1] [3]	0.25 [1]	0.27 [1]	0.52 [1]	-	-
Benzo [b] fluoranthene	0.02 ug/g	<0.10 [1] [3]	0.20 [1]	0.22 [1]	0.45 [1]	-	-
Benzo [g,h,i] perylene	0.02 ug/g	<0.10 [1] [3]	0.15 [1]	0.13 [1]	0.24 [1]	-	-
Benzo [k] fluoranthene	0.02 ug/g	<0.10 [1] [3]	0.11 [1]	0.12 [1]	0.25 [1]	-	-
Chrysene	0.02 ug/g	<0.10 [1] [3]	0.33 [1]	0.35 [1]	0.74 [1]	-	-
Dibenzo [a,h] anthracene	0.02 ug/g	<0.10 [1] [3]	<0.10 [1]	<0.10 [1]	<0.20 [1]	-	-
Fluoranthene	0.02 ug/g	<0.10 [1] [3]	0.46 [1]	0.48 [1]	1.02 [1]	-	-
Fluorene	0.02 ug/g	<0.10 [1] [3]	<0.10 [1]	<0.10 [1]	<0.20 [1]	-	-
Indeno [1,2,3-cd] pyrene	0.02 ug/g	<0.10 [1] [3]	<0.10 [1]	0.11 [1]	<0.20 [1]	-	-
1-Methylnaphthalene	0.02 ug/g	<0.10 [1] [3]	<0.10 [1]	<0.10 [1]	<0.20 [1]	-	-
2-Methylnaphthalene	0.02 ug/g	<0.10 [1] [3]	<0.10 [1]	<0.10 [1]	<0.20 [1]	-	-
Methylnaphthalene (1&2)	0.04 ug/g	<0.20 [1] [3]	<0.20 [1]	<0.20 [1]	<0.40 [1]	-	-
Naphthalene	0.01 ug/g	<0.05 [1] [3]	<0.05 [1]	<0.05 [1]	<0.10 [1]	-	-
Phenanthrene	0.02 ug/g	<0.10 [1] [3]	0.40 [1]	0.36 [1]	0.80 [1]	-	-
Pyrene	0.02 ug/g	<0.10 [1] [3]	0.38 [1]	0.41 [1]	0.86 [1]	-	-
2-Fluorobiphenyl	Surrogate	-	70.4% [1]	68.1% [1]	123% [1]	-	-
Terphenyl-d14	Surrogate	-	80.3% [1]	77.0% [1]	163% [1] [4]	-	-

PARACEL LABORATORIES LTD.

Order #: 2621080

Certificate of Analysis

Report Date: 25-May-2026

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

Order Date: 19-May-2026

Client PO: 65948

Project Description: PE7414

	Client ID:	DUP-1				-	-
	Sample Date:	13-May-26 09:00					
	Sample ID:	2621080-05					
	Matrix:	Soil					
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	92.6	-	-	-	-	-
Metals							
Antimony	1.0 ug/g	<1.0	-	-	-	-	-
Arsenic	1.0 ug/g	2.9	-	-	-	-	-
Barium	1.0 ug/g	87.1	-	-	-	-	-
Beryllium	0.5 ug/g	<0.5	-	-	-	-	-
Boron	5.0 ug/g	<5.0	-	-	-	-	-
Cadmium	0.5 ug/g	<0.5	-	-	-	-	-
Chromium	5.0 ug/g	17.2	-	-	-	-	-
Chromium (VI)	0.2 ug/g	<0.2	-	-	-	-	-
Cobalt	1.0 ug/g	4.3	-	-	-	-	-
Copper	5.0 ug/g	11.6	-	-	-	-	-
Lead	1.0 ug/g	102	-	-	-	-	-
Mercury	0.1 ug/g	<0.1	-	-	-	-	-
Molybdenum	1.0 ug/g	<1.0	-	-	-	-	-
Nickel	5.0 ug/g	9.9	-	-	-	-	-
Selenium	1.0 ug/g	<1.0	-	-	-	-	-
Silver	0.3 ug/g	<0.3	-	-	-	-	-
Thallium	1.0 ug/g	<1.0	-	-	-	-	-
Uranium	1.0 ug/g	<1.0	-	-	-	-	-
Vanadium	10.0 ug/g	27.2	-	-	-	-	-
Zinc	20.0 ug/g	119	-	-	-	-	-
Hydrocarbons							
F2 PHCs (C10-C16)	4 ug/g	<80 [1]	-	-	-	-	-
F3 PHCs (C16-C34)	8 ug/g	220	-	-	-	-	-
F4 PHCs (C34-C50)	6 ug/g	2830 [2]	-	-	-	-	-

Certificate of Analysis

Report Date: 25-May-2026

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

Order Date: 19-May-2026

Client PO: 65948

Project Description: PE7414

	Client ID:	DUP-1				-	-
	Sample Date:	13-May-26 09:00					
	Sample ID:	2621080-05					
	Matrix:	Soil					
	MDL/Units						
Hydrocarbons							
F4G PHCs (gravimetric)	50 ug/g	2960	-	-	-	-	-
Semi-Volatiles							
Acenaphthene	0.02 ug/g	<0.10 [1] [3]	-	-	-	-	-
Acenaphthylene	0.02 ug/g	<0.10 [1] [3]	-	-	-	-	-
Anthracene	0.02 ug/g	<0.10 [1] [3]	-	-	-	-	-
Benzo [a] anthracene	0.02 ug/g	<0.10 [1] [3]	-	-	-	-	-
Benzo [a] pyrene	0.02 ug/g	<0.10 [1] [3]	-	-	-	-	-
Benzo [b] fluoranthene	0.02 ug/g	<0.10 [1] [3]	-	-	-	-	-
Benzo [g,h,i] perylene	0.02 ug/g	<0.10 [1] [3]	-	-	-	-	-
Benzo [k] fluoranthene	0.02 ug/g	<0.10 [1] [3]	-	-	-	-	-
Chrysene	0.02 ug/g	<0.10 [1] [3]	-	-	-	-	-
Dibenzo [a,h] anthracene	0.02 ug/g	<0.10 [1] [3]	-	-	-	-	-
Fluoranthene	0.02 ug/g	<0.10 [1] [3]	-	-	-	-	-
Fluorene	0.02 ug/g	<0.10 [1] [3]	-	-	-	-	-
Indeno [1,2,3-cd] pyrene	0.02 ug/g	<0.10 [1] [3]	-	-	-	-	-
1-Methylnaphthalene	0.02 ug/g	<0.10 [1] [3]	-	-	-	-	-
2-Methylnaphthalene	0.02 ug/g	<0.10 [1] [3]	-	-	-	-	-
Methylnaphthalene (1&2)	0.04 ug/g	<0.20 [1] [3]	-	-	-	-	-
Naphthalene	0.01 ug/g	<0.05 [1] [3]	-	-	-	-	-
Phenanthrene	0.02 ug/g	<0.10 [1] [3]	-	-	-	-	-
Pyrene	0.02 ug/g	<0.10 [1] [3]	-	-	-	-	-

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
General Inorganics								
Conductivity	ND	5	uS/cm					
Hydrocarbons								
F4G PHCs (gravimetric)	ND	50	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					

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	*0.705*		*%*	*52.9*	*50-140*			
Surrogate: Terphenyl-d14	*0.913*		*%*	*68.4*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
General Inorganics									
SAR	1.89	0.01	N/A	1.62			15.4	30	
Conductivity	492	5	uS/cm	486			1.3	5	
pH	7.50	0.05	pH Units	7.50			0.0	2.3	
Hydrocarbons									
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	3.7	1.0	ug/g	3.8			2.7	30	
Barium	51.8	1.0	ug/g	50.4			2.7	30	
Beryllium	ND	0.5	ug/g	ND			NC	30	
Boron	8.4	5.0	ug/g	8.6			2.4	30	
Cadmium	ND	0.5	ug/g	ND			NC	30	
Chromium (VI)	ND	0.2	ug/g	ND			NC	35	
Chromium	17.3	5.0	ug/g	15.9			8.7	30	
Cobalt	6.1	1.0	ug/g	6.2			0.8	30	
Copper	17.5	5.0	ug/g	17.1			2.2	30	
Lead	16.3	1.0	ug/g	16.0			2.0	30	
Mercury	ND	0.1	ug/g	ND			NC	30	
Molybdenum	ND	1.0	ug/g	ND			NC	30	
Nickel	13.2	5.0	ug/g	13.0			1.4	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	24.4	10.0	ug/g	23.7			3.1	30	
Zinc	57.7	20.0	ug/g	57.3			0.7	30	
Physical Characteristics									
% Solids	92.0	0.1	% by Wt.	93.0			1.1	25	

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
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	ND			NC	40	
Benzo [a] anthracene	ND	0.02	ug/g	ND			NC	40	
Benzo [a] pyrene	ND	0.02	ug/g	ND			NC	40	
Benzo [b] fluoranthene	ND	0.02	ug/g	ND			NC	40	
Benzo [g,h,i] perylene	ND	0.02	ug/g	ND			NC	40	
Benzo [k] fluoranthene	ND	0.02	ug/g	ND			NC	40	
Chrysene	ND	0.02	ug/g	ND			NC	40	
Dibenzo [a,h] anthracene	ND	0.02	ug/g	ND			NC	40	
Fluoranthene	ND	0.02	ug/g	ND			NC	40	
Fluorene	ND	0.02	ug/g	ND			NC	40	
Indeno [1,2,3-cd] pyrene	ND	0.02	ug/g	ND			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	ND	0.02	ug/g	ND			NC	40	
Pyrene	ND	0.02	ug/g	ND			NC	40	
Surrogate: 2-Fluorobiphenyl	*1.12*		*%*		*76.5*	*50-140*			
Surrogate: Terphenyl-d14	*1.30*		*%*		*88.3*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F2 PHCs (C10-C16)	95	4	ug/g	ND	99.2	60-140			
F3 PHCs (C16-C34)	262	8	ug/g	ND	112	60-140			
F4 PHCs (C34-C50)	168	6	ug/g	ND	113	60-140			
F4G PHCs (gravimetric)	1120	50	ug/g	ND	112	80-120			
Metals									
Antimony	40.7	1.0	ug/g	ND	81.0	70-130			
Arsenic	47.1	1.0	ug/g	1.5	91.1	70-130			
Barium	66.4	1.0	ug/g	20.2	92.5	70-130			
Beryllium	49.8	0.5	ug/g	ND	99.3	70-130			
Boron	53.7	5.0	ug/g	ND	101	70-130			
Cadmium	47.6	0.5	ug/g	ND	95.1	70-130			
Chromium (VI)	5.0	0.2	ug/g	ND	101	66-118			
Chromium	55.6	5.0	ug/g	6.3	98.4	70-130			
Cobalt	49.9	1.0	ug/g	2.5	95.0	70-130			
Copper	52.5	5.0	ug/g	6.8	91.4	70-130			
Lead	51.7	1.0	ug/g	6.4	90.7	70-130			
Mercury	1.50	0.1	ug/g	ND	99.7	70-130			
Molybdenum	47.3	1.0	ug/g	ND	94.3	70-130			
Nickel	51.6	5.0	ug/g	5.2	92.8	70-130			
Selenium	44.9	1.0	ug/g	ND	89.5	70-130			
Silver	44.3	0.3	ug/g	ND	88.6	70-130			
Thallium	45.7	1.0	ug/g	ND	91.3	70-130			
Uranium	47.8	1.0	ug/g	ND	95.1	70-130			
Vanadium	59.2	10.0	ug/g	ND	99.5	70-130			
Zinc	65.9	20.0	ug/g	22.9	85.9	70-130			
Semi-Volatiles									
Acenaphthene	0.232	0.02	ug/g	ND	126	50-140			
Acenaphthylene	0.208	0.02	ug/g	ND	113	50-140			
Anthracene	0.180	0.02	ug/g	ND	98.1	50-140			
Benzo [a] anthracene	0.243	0.02	ug/g	ND	132	50-140			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Benzo [a] pyrene	0.243	0.02	ug/g	ND	133	50-140			
Benzo [b] fluoranthene	0.250	0.02	ug/g	ND	136	50-140			
Benzo [g,h,i] perylene	0.233	0.02	ug/g	ND	127	50-140			
Benzo [k] fluoranthene	0.226	0.02	ug/g	ND	123	50-140			
Chrysene	0.250	0.02	ug/g	ND	137	50-140			
Dibenzo [a,h] anthracene	0.207	0.02	ug/g	ND	113	50-140			
Fluoranthene	0.244	0.02	ug/g	ND	133	50-140			
Fluorene	0.200	0.02	ug/g	ND	109	50-140			
Indeno [1,2,3-cd] pyrene	0.216	0.02	ug/g	ND	118	50-140			
1-Methylnaphthalene	0.163	0.02	ug/g	ND	89.0	50-140			
2-Methylnaphthalene	0.170	0.02	ug/g	ND	92.9	50-140			
Naphthalene	0.165	0.01	ug/g	ND	90.2	50-140			
Phenanthrene	0.251	0.02	ug/g	ND	137	50-140			
Pyrene	0.243	0.02	ug/g	ND	132	50-140			
Surrogate: 2-Fluorobiphenyl	*1.09*		*%*		*74.6*	*50-140*			
Surrogate: Terphenyl-d14	*1.38*		*%*		*94.3*	*50-140*			

Qualifier Notes:

Sample Qualifiers :

1: Elevated reporting limits due to the nature of the sample matrix.

2: GC-FID signal did not return to baseline by C50

Applies to Samples: BH1-26-SS1, BH2-26-AU1, BH3-26-SS1, BH4-26-AU1, DUP-1

3: The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference's.

Applies to Samples: BH1-26-SS1, DUP-1

4: The surrogate recovery for this sample is outside of established control limits possibly due to a sample matrix effect.

Applies to Samples: BH4-26-AU1

Sample Data Revisions:

None

Certificate of Analysis

Report Date: 25-May-2026

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

Order Date: 19-May-2026

Client PO: 65948

Project Description: PE7414

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 unlesss otherwise noted.

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

Benzo[b]fluoranthene results may be biased high due to co-elution with Benzo[j]fluoranthene

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 liabilty 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.

PARACE LABORATORIES LT

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Paracel Order Number (Lab Use Only) 2621080

Chain Of Custody (Lab Use Only)

Client Name: Paterson Group
Contact Name: Nick Sullivan
Address: 9 Auriga Dr, Ottawa, ON, K2E 7T9
Telephone: (613) 226-7381

Project Ref: PE 7414
Quote #:
PO #: 65948
E-mail: nsullivan @patersongroup.ca
@patersongroup.ca

Page 1 of 1

Turnaround Time
☐ 1 day ☐ 3 day
☐ 2 day ☒ Regular
Date Required:

☒ REG 153/04 ☐ REG 406/19

☐ Table 1 ☐ Agri/Other ☐ Med/Fine
☐ Table 2 ☒ Res/Park ☒ Coarse
☒ Table 3 ☐ Ind/Comm
☐ Table ___
For RSC: ☒ Yes ☐ No

Other Regulation
☐ REG 558 ☐ PWQO
☐ CCME ☐ MISA
☐ SU - Sani ☐ SU - Storm
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

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Field Filtered	Sample Taken Date	Sample Taken Time	PHCs F1-F4	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWE)	EC	SAR	pH	
1	BH1-26-SS1	S		1		May 13/26		X		X	X	X	X		X	X	X	
2	BH2-26-AU1	S		1				X		X	X	X	X		X	X		
3	BH3-26-SS1	S		1				X		X	X	X	X		X	X		
4	BH4-26-AU1	S		1				X		X	X	X	X		X	X	X	
5	DUP-1	S		1				X		X	X	X	X					
6																		
7																		
8																		
9																		
10																		

Comments:

Method of Delivery: Swift Messenger

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Relinquished By (Sign): N. Sullivan	Received at Depot:	Received at Lab: LTJ	Verified By: LTJ
Relinquished By (Print): Nick Sullivan	Date/Time:	Date/Time: 19/05/26; 16:08	Date/Time: 19/05/26; 17:18
Date/Time: May 19, 2026	Temperature: °C	Temperature: 18.2°C	pH Verified: ☐ By:

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Certificate of Analysis

Paterson Group Consulting Engineers (Ottawa)
9 Auriga Drive
Ottawa, ON K2E 7T9
Attn: Nick Sullivan

Report Date: 3-Jun-2026
Order Date: 28-May-2026

Client PO: 66030
Project: PE7414
Custody:

Order #: 2622471

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

Paracel ID	Client ID
2622471-01	BH1-26-SS4
2622471-02	BH2-26-SS2
2622471-03	BH3-26-SS2
2622471-04	BH4-26-SS2

Approved By: Mark Foto

Mark Foto, M.Sc.
Laboratory Director

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	Extraction Date	Analysis Date
Conductivity	MOE E3138 - probe @25 °C, water ext	Ottawa	1-Jun-26	1-Jun-26
PHC F1	CWS Tier 1 - P&T GC-FID	Ottawa	1-Jun-26	1-Jun-26
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	Ottawa	29-May-26	3-Jun-26
REG 153: Metals by ICP/MS, soil	EPA 6020 - Digestion - ICP-MS	Ottawa	1-Jun-26	1-Jun-26
REG 153: PAHs by GC-MS	EPA 8270 - GC-MS, extraction	Ottawa	29-May-26	1-Jun-26
SAR	Calculated	Ottawa	1-Jun-26	1-Jun-26
Solids, %	CWS Tier 1 - Gravimetric		29-May-26	1-Jun-26

PARACEL LABORATORIES LTD.

Order #: 2622471

Certificate of Analysis

Report Date: 03-Jun-2026

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

Order Date: 28-May-2026

Client PO: 66030

Project Description: PE7414

	Client ID:	BH1-26-SS4	BH2-26-SS2	BH3-26-SS2	BH4-26-SS2	-	-
	Sample Date:	13-May-26 09:00	13-May-26 09:00	13-May-26 09:00	13-May-26 09:00		
	Sample ID:	2622471-01	2622471-02	2622471-03	2622471-04		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	67.1	90.5	91.4	86.8	-	-
General Inorganics							
SAR	0.01 N/A	-	-	0.98	-	-	-
Conductivity	5 uS/cm	-	-	534	-	-	-
Metals							
Antimony	1.0 ug/g	<1.0	-	-	-	-	-
Arsenic	1.0 ug/g	3.1	-	-	-	-	-
Barium	1.0 ug/g	417	-	-	-	-	-
Beryllium	0.5 ug/g	0.9	-	-	-	-	-
Boron	5.0 ug/g	<5.0	-	-	-	-	-
Cadmium	0.5 ug/g	<0.5	-	-	-	-	-
Chromium	5.0 ug/g	134	-	-	-	-	-
Cobalt	1.0 ug/g	29.1	-	-	-	-	-
Copper	5.0 ug/g	59.6	-	-	-	-	-
Lead	1.0 ug/g	8.9	-	-	-	-	-
Molybdenum	1.0 ug/g	<1.0	-	-	-	-	-
Nickel	5.0 ug/g	73.8	-	-	-	-	-
Selenium	1.0 ug/g	<1.0	-	-	-	-	-
Silver	0.3 ug/g	<0.3	-	-	-	-	-
Thallium	1.0 ug/g	<1.0	-	-	-	-	-
Uranium	1.0 ug/g	<1.0	-	-	-	-	-
Vanadium	10.0 ug/g	119	-	-	-	-	-
Zinc	20.0 ug/g	140	-	-	-	-	-
Hydrocarbons							
F1 PHCs (C6-C10)	7 ug/g	-	<7 [1]	-	<7 [1]	-	-
F2 PHCs (C10-C16)	4 ug/g	-	<4	-	<4	-	-

PARACEL LABORATORIES LTD.

Order #: 2622471

Certificate of Analysis

Report Date: 03-Jun-2026

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

Order Date: 28-May-2026

Client PO: 66030

Project Description: PE7414

	Client ID:	BH1-26-SS4	BH2-26-SS2	BH3-26-SS2	BH4-26-SS2	-	-
	Sample Date:	13-May-26 09:00	13-May-26 09:00	13-May-26 09:00	13-May-26 09:00		
	Sample ID:	2622471-01	2622471-02	2622471-03	2622471-04		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Hydrocarbons							
F3 PHCs (C16-C34)	8 ug/g	-	<8	-	21	-	-
F4 PHCs (C34-C50)	6 ug/g	-	7	-	13	-	-
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	-	-	-	0.16	-	-
Benzo [a] pyrene	0.02 ug/g	-	-	-	0.26	-	-
Benzo [b] fluoranthene	0.02 ug/g	-	-	-	0.15	-	-
Benzo [g,h,i] perylene	0.02 ug/g	-	-	-	0.15	-	-
Benzo [k] fluoranthene	0.02 ug/g	-	-	-	0.09	-	-
Chrysene	0.02 ug/g	-	-	-	0.18	-	-
Dibenzo [a,h] anthracene	0.02 ug/g	-	-	-	0.04	-	-
Fluoranthene	0.02 ug/g	-	-	-	0.11	-	-
Fluorene	0.02 ug/g	-	-	-	<0.02	-	-
Indeno [1,2,3-cd] pyrene	0.02 ug/g	-	-	-	0.13	-	-
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	-	-	-	0.08	-	-
Pyrene	0.02 ug/g	-	-	-	0.12	-	-
2-Fluorobiphenyl	Surrogate	-	-	-	57.8%	-	-
Terphenyl-d14	Surrogate	-	-	-	82.3%	-	-

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								
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					
Benzo [a] pyrene	ND	0.02	ug/g					
Benzo [b] fluoranthene	ND	0.02	ug/g					

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
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	*0.960*		*%*	*72.0*	*50-140*			
Surrogate: Terphenyl-d14	*1.57*		*%*	*118*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
General Inorganics									
SAR	6.18	0.01	N/A	5.97			3.5	30	
Conductivity	1100	5	uS/cm	1090			0.5	5	
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	9.4	1.0	ug/g	8.2			13.5	30	
Barium	98.2	1.0	ug/g	83.5			16.2	30	
Beryllium	1.0	0.5	ug/g	0.8			22.7	30	
Boron	14.7	5.0	ug/g	10.5			NC	30	
Cadmium	ND	0.5	ug/g	ND			NC	30	
Chromium	25.2	5.0	ug/g	20.9			18.3	30	
Cobalt	11.0	1.0	ug/g	9.3			15.9	30	
Copper	29.5	5.0	ug/g	29.7			0.8	30	
Lead	31.4	1.0	ug/g	27.4			13.6	30	
Molybdenum	3.4	1.0	ug/g	2.9			15.3	30	
Nickel	32.9	5.0	ug/g	26.0			23.4	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	1.6	1.0	ug/g	1.4			14.1	30	
Vanadium	36.1	10.0	ug/g	29.8			19.1	30	
Zinc	99.1	20.0	ug/g	84.4			16.0	30	
Physical Characteristics									
% Solids	91.8	0.1	% by Wt.	91.4			0.4	25	
Semi-Volatiles									
Acenaphthene	ND	0.02	ug/g	ND			NC	40	

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Acenaphthylene	ND	0.02	ug/g	ND			NC	40	
Anthracene	ND	0.02	ug/g	ND			NC	40	
Benzo [a] anthracene	ND	0.02	ug/g	ND			NC	40	
Benzo [a] pyrene	ND	0.02	ug/g	ND			NC	40	
Benzo [b] fluoranthene	ND	0.02	ug/g	ND			NC	40	
Benzo [g,h,i] perylene	ND	0.02	ug/g	ND			NC	40	
Benzo [k] fluoranthene	ND	0.02	ug/g	ND			NC	40	
Chrysene	ND	0.02	ug/g	ND			NC	40	
Dibenzo [a,h] anthracene	ND	0.02	ug/g	ND			NC	40	
Fluoranthene	ND	0.02	ug/g	ND			NC	40	
Fluorene	ND	0.02	ug/g	ND			NC	40	
Indeno [1,2,3-cd] pyrene	ND	0.02	ug/g	ND			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	ND	0.02	ug/g	ND			NC	40	
Pyrene	ND	0.02	ug/g	ND			NC	40	
Surrogate: 2-Fluorobiphenyl	*0.893*		*%*		*51.6*	*50-140*			
Surrogate: Terphenyl-d14	*1.09*		*%*		*63.2*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	198	7	ug/g	ND	99.1	85-115			
F2 PHCs (C10-C16)	99	4	ug/g	ND	97.4	60-140			
F3 PHCs (C16-C34)	260	8	ug/g	ND	104	60-140			
F4 PHCs (C34-C50)	166	6	ug/g	ND	105	60-140			
Metals									
Antimony	46.7	1.0	ug/g	ND	93.0	70-130			
Arsenic	56.2	1.0	ug/g	3.3	106	70-130			
Barium	92.5	1.0	ug/g	33.4	118	70-130			
Beryllium	55.8	0.5	ug/g	ND	111	70-130			
Boron	57.0	5.0	ug/g	ND	106	70-130			
Cadmium	52.3	0.5	ug/g	ND	104	70-130			
Chromium	66.8	5.0	ug/g	8.4	117	70-130			
Cobalt	60.3	1.0	ug/g	3.7	113	70-130			
Copper	66.6	5.0	ug/g	11.9	110	70-130			
Lead	64.5	1.0	ug/g	10.9	107	70-130			
Molybdenum	55.8	1.0	ug/g	1.2	109	70-130			
Nickel	65.8	5.0	ug/g	10.4	111	70-130			
Selenium	52.4	1.0	ug/g	ND	104	70-130			
Silver	47.2	0.3	ug/g	ND	94.3	70-130			
Thallium	53.0	1.0	ug/g	ND	106	70-130			
Uranium	57.0	1.0	ug/g	ND	113	70-130			
Vanadium	71.5	10.0	ug/g	11.9	119	70-130			
Zinc	88.4	20.0	ug/g	33.8	109	70-130			
Semi-Volatiles									
Acenaphthene	0.117	0.02	ug/g	ND	54.2	50-140			
Acenaphthylene	0.117	0.02	ug/g	ND	54.2	50-140			
Anthracene	0.139	0.02	ug/g	ND	64.4	50-140			
Benzo [a] anthracene	0.128	0.02	ug/g	ND	59.0	50-140			
Benzo [a] pyrene	0.122	0.02	ug/g	ND	56.6	50-140			
Benzo [b] fluoranthene	0.116	0.02	ug/g	ND	53.8	50-140			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Benzo [g,h,i] perylene	0.149	0.02	ug/g	ND	69.0	50-140			
Benzo [k] fluoranthene	0.113	0.02	ug/g	ND	52.5	50-140			
Chrysene	0.150	0.02	ug/g	ND	69.3	50-140			
Dibenzo [a,h] anthracene	0.122	0.02	ug/g	ND	56.6	50-140			
Fluoranthene	0.121	0.02	ug/g	ND	56.1	50-140			
Fluorene	0.113	0.02	ug/g	ND	52.1	50-140			
Indeno [1,2,3-cd] pyrene	0.109	0.02	ug/g	ND	50.2	50-140			
1-Methylnaphthalene	0.112	0.02	ug/g	ND	52.0	50-140			
2-Methylnaphthalene	0.118	0.02	ug/g	ND	54.7	50-140			
Naphthalene	0.138	0.01	ug/g	ND	63.8	50-140			
Phenanthrene	0.137	0.02	ug/g	ND	63.3	50-140			
Pyrene	0.131	0.02	ug/g	ND	60.5	50-140			
Surrogate: 2-Fluorobiphenyl	*0.742*		*%*		*42.9*	*50-140*			*S-GC*
Surrogate: Terphenyl-d14	*0.885*		*%*		*51.2*	*50-140*			

Qualifier Notes:

Login Qualifiers :

Sample - One or more parameter received or added past hold time. Directed by client to proceed with analysis - PHCs.

Applies to Samples: BH2-26-SS2, BH4-26-SS2

Sample Qualifiers :

1: This analysis was conducted after the accepted holding time had been exceeded.

Applies to Samples: BH2-26-SS2, BH4-26-SS2

QC Qualifiers:

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

Sample Data Revisions:

None

Certificate of Analysis

Report Date: 03-Jun-2026

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

Order Date: 28-May-2026

Client PO: 66030

Project Description: PE7414

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 unlesss otherwise noted.

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

Benzo[b]fluoranthene results may be biased high due to co-elution with Benzo[j]fluoranthene

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 liabilty 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 LABORATORIES LTD.

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Paracel Order Number (Lab Use Only)	Chain Of Custody (Lab Use Only)
2262247 1	

Client Name: Paterson Group	Project Ref: PE7414	Page 1 of 1
Contact Name: Nick Sullivan	Quote #:	Turnaround Time
Address: 9 Auriga Drive	PO #: 66030	☐ 1 day ☐ 3 day
	E-mail: nsullivan@patersongroup.ca mdaroy@patersongroup.ca	☐ 2 day ☒ Regular
Telephone: 613-226-7381		Date Required:

☒ REG 153/04 ☐ REG 406/19

☐ Table 1 ☐ Agri/Other ☐ Med/Fine
☐ Table 2 ☒ Res/Park ☒ Coarse
☒ Table 3 ☐ Ind/Comm
☐ Table ___
For RSC: ☒ Yes ☐ No

Other Regulation: ☐ REG 558 ☐ PWQO ☐ CCME ☐ MISA ☐ SU - Sani ☐ SU - Storm
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

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Field Filtered	Sample Taken Date	Sample Taken Time	PHCs F1-F4	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWE)	EC	PHCs F1-F4		
1	BH1-26-SS4	S	/	1	/	05/13/26					X							
2	BH2-26-SS2	↓	↓	2	↓	↓										X		
3	BH3-26-SS2	↓	↓	1	↓	↓									X			
4	BH4-26-SS2	↓	↓	2	↓	↓				X						X		
5																		
6																		
7																		
8																		
9																		
10																		

Comments:

Method of Delivery: Paracel courier

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Date/Time: 05/28/26	Temperature: °C	Temperature: 13.9°C	pH Verified: ☐ By:

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Certificate of Analysis

Paterson Group Consulting Engineers (Ottawa)
9 Auriga Drive
Ottawa, ON K2E 7T9
Attn: Nick Sullivan

Report Date: 18-Jun-2026
Order Date: 15-Jun-2026

Client PO: 66188
Project: PE7414
Custody:

Order #: 2625103

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

Paracel ID	Client ID
2625103-01	BH1-26-GW
2625103-02	BH2-26-GW
2625103-03	BH3-26-GW
2625103-04	DUP

Approved By: Mark Foto

Mark Foto, M.Sc.
Laboratory Director

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	Extraction Date	Analysis Date
PHC F1	CWS Tier 1 - P&T GC-FID	Ottawa	16-Jun-26	16-Jun-26
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	Ottawa	16-Jun-26	17-Jun-26
REG 153: VOCs by P&T GC/MS	EPA 624 - P&T GC-MS	Ottawa	16-Jun-26	16-Jun-26

PARACEL LABORATORIES LTD.

Order #: 2625103

Certificate of Analysis

Report Date: 18-Jun-2026

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

Order Date: 15-Jun-2026

Client PO: 66188

Project Description: PE7414

	Client ID:	BH1-26-GW	BH2-26-GW	BH3-26-GW	DUP	-	-
	Sample Date:	12-Jun-26 12:00	12-Jun-26 12:00	12-Jun-26 12:00	12-Jun-26 12:00		
	Sample ID:	2625103-01	2625103-02	2625103-03	2625103-04		
	Matrix:	Ground Water	Ground Water	Ground Water	Ground Water		
	MDL/Units						
Volatiles							
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0	-	-
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2	-	-
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0	-	-
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
Ethylene dibromide (dibromoethane,	0.2 ug/L	<0.2	<0.2	<0.2	<0.2	-	-
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0	-	-
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0	-	-

PARACEL LABORATORIES LTD.

Order #: 2625103

Certificate of Analysis

Report Date: 18-Jun-2026

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

Order Date: 15-Jun-2026

Client PO: 66188

Project Description: PE7414

	Client ID:	BH1-26-GW	BH2-26-GW	BH3-26-GW	DUP	-	-
	Sample Date:	12-Jun-26 12:00	12-Jun-26 12:00	12-Jun-26 12:00	12-Jun-26 12:00		
	Sample ID:	2625103-01	2625103-02	2625103-03	2625103-04		
	Matrix:	Ground Water	Ground Water	Ground Water	Ground Water		
	MDL/Units						
Volatiles							
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0	-	-
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0	-	-
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0	-	-
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
Trichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0	-	-
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5	-	-
4-Bromofluorobenzene	Surrogate	116%	117%	117%	120%	-	-
Dibromofluoromethane	Surrogate	98.8%	101%	104%	104%	-	-
Toluene-d8	Surrogate	103%	105%	105%	105%	-	-
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	-	-

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					
Volatiles								
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					
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					

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
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					
Xylenes, total	ND	0.5	ug/L					
Surrogate: 4-Bromofluorobenzene	*92.4*		*%*	*115*	*50-140*			
Surrogate: Dibromofluoromethane	*84.6*		*%*	*106*	*50-140*			
Surrogate: Toluene-d8	*84.7*		*%*	*106*	*50-140*			

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	
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	
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	

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
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	
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	*94.5*		*%*		*118*	*50-140*			
Surrogate: Dibromofluoromethane	*85.3*		*%*		*107*	*50-140*			
Surrogate: Toluene-d8	*85.2*		*%*		*107*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	1910	25	ug/L	ND	95.5	85-115			
F2 PHCs (C10-C16)	1340	100	ug/L	ND	83.7	60-140			
F3 PHCs (C16-C34)	4430	100	ug/L	ND	113	60-140			
F4 PHCs (C34-C50)	2740	100	ug/L	ND	111	60-140			
Volatiles									
Acetone	93.8	5.0	ug/L	ND	93.8	50-140			
Benzene	43.0	0.5	ug/L	ND	107	60-130			
Bromodichloromethane	44.9	0.5	ug/L	ND	112	60-130			
Bromoform	46.6	0.5	ug/L	ND	116	60-130			
Bromomethane	48.4	0.5	ug/L	ND	121	50-140			
Carbon Tetrachloride	49.1	0.2	ug/L	ND	123	60-130			
Chlorobenzene	47.2	0.5	ug/L	ND	118	60-130			
Chloroform	45.5	0.5	ug/L	ND	114	60-130			
Dibromochloromethane	45.9	0.5	ug/L	ND	115	60-130			
Dichlorodifluoromethane	44.9	1.0	ug/L	ND	112	50-140			
1,2-Dichlorobenzene	41.9	0.5	ug/L	ND	105	60-130			
1,3-Dichlorobenzene	41.4	0.5	ug/L	ND	104	60-130			
1,4-Dichlorobenzene	42.3	0.5	ug/L	ND	106	60-130			
1,1-Dichloroethane	40.8	0.5	ug/L	ND	102	60-130			
1,2-Dichloroethane	42.4	0.5	ug/L	ND	106	60-130			
1,1-Dichloroethylene	41.3	0.5	ug/L	ND	103	60-130			
cis-1,2-Dichloroethylene	44.3	0.5	ug/L	ND	111	60-130			
trans-1,2-Dichloroethylene	46.5	0.5	ug/L	ND	116	60-130			
1,2-Dichloropropane	41.8	0.5	ug/L	ND	104	60-130			
cis-1,3-Dichloropropylene	41.1	0.5	ug/L	ND	103	60-130			
trans-1,3-Dichloropropylene	41.1	0.5	ug/L	ND	103	60-130			
Ethylbenzene	42.6	0.5	ug/L	ND	107	60-130			
Ethylene dibromide (dibromoethane, 1,2-)	44.4	0.2	ug/L	ND	111	60-130			
Hexane	34.7	1.0	ug/L	ND	86.8	60-130			
Methyl Ethyl Ketone (2-Butanone)	95.5	5.0	ug/L	ND	95.5	50-140			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Methyl Isobutyl Ketone	102	5.0	ug/L	ND	102	50-140			
Methyl tert-butyl ether	91.4	2.0	ug/L	ND	91.4	50-140			
Methylene Chloride	44.9	5.0	ug/L	ND	112	60-130			
Styrene	45.7	0.5	ug/L	ND	114	60-130			
1,1,1,2-Tetrachloroethane	48.4	0.5	ug/L	ND	121	60-130			
1,1,2,2-Tetrachloroethane	44.6	0.5	ug/L	ND	111	60-130			
Tetrachloroethylene	49.8	0.5	ug/L	ND	124	60-130			
Toluene	44.2	0.5	ug/L	ND	110	60-130			
1,1,1-Trichloroethane	46.2	0.5	ug/L	ND	115	60-130			
1,1,2-Trichloroethane	44.8	0.5	ug/L	ND	112	60-130			
Trichloroethylene	44.8	0.5	ug/L	ND	112	60-130			
Trichlorofluoromethane	47.3	1.0	ug/L	ND	118	60-130			
Vinyl chloride	40.8	0.5	ug/L	ND	102	50-140			
m,p-Xylenes	87.0	0.5	ug/L	ND	109	60-130			
o-Xylene	45.4	0.5	ug/L	ND	113	60-130			
Surrogate: 4-Bromofluorobenzene	*74.4*		*%*		*92.9*	*50-140*			
Surrogate: Dibromofluoromethane	*88.1*		*%*		*110*	*50-140*			
Surrogate: Toluene-d8	*79.6*		*%*		*99.5*	*50-140*			

Qualifier Notes:

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 liabilty 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.

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Page 1 of 1

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Turnaround Time

- ☐ 1 day
- ☐ 3 day
- ☐ 2 day
- ☒ Regular

Date Required:

☒ REG 153/04 ☐ REG 406/19

- ☐ Table 1 ☐ Agri/Other ☐ Med/Fine
- ☐ Table 2 ☒ Res/Park ☒ Coarse
- ☒ Table 3 ☐ Ind/Comm
- ☐ Table ___

For RSC: ☒ Yes ☐ No

Other Regulation

- ☐ REG 558 ☐ PWQO
- ☐ CCME ☐ MISA
- ☐ SU - Sani ☐ SU - Storm

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

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Field Filtered	Sample Taken Date	Sample Taken Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWE)				
1	BH1-26-GW	GW	-	4	-	6/12/2026	PM	X	X									
2	BH2-26-GW	↓	-	↓	-	↓	↓	↓	↓									
3	BH3-26-GW	↓	-	↓	-	↓	↓	↓	↓									
4	Dup	↓	-	↓	-	↓	↓	↓	↓									
5																		
6																		
7																		
8																		
9																		
10																		

Comments:

Method of Delivery: Paracel Courier

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Relinquished By (Sign): Clea Blais.	Received at Depot:	Received at Lab:	Verified By: LTJ
Relinquished By (Print): Clea Blais.	Date/Time:	Date/Time: Jun 15/26 16:00	Date/Time: 15/06/26
Date/Time: 6/15/2026.	Temperature: °C	Temperature: 14.8	pH Verified: ☐ By: