PROJECT NO.: SM 230469-E

NOVEMBER 30, 2023

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
2076 OLD LAKESHORE ROAD
BURLINGTON, ONTARIO

PREPARED FOR:

1959025 ONTARIO INC.

Soil-Mat

BY

SOIL-MAT ENGINEERS & CONSULTANTS LTD.
401 GRAYS ROAD
HAMILTON, ONTARIO
L8E 2Z3

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PROJECT NO.: SM 230469-E November 30, 2023

1959025 ONTARIO INC.
366 King Street West
Hamilton, Ontario
L8P 1B3

Attention: Mr. Peter Horn
Development Manager

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
2076 OLD LAKESHORE ROAD
BURLINGTON, ONTARIO

Dear Mr. Horn,

1.0 EXECUTIVE SUMMARY

SOIL-MAT ENGINEERS & CONSULTANTS LTD. [SOIL-MAT ENGINEERS] were retained by the numbered company '1959025 ONTARIO INC.' to undertake Phase Two Environmental Site Assessment [ESA] activities on the above captioned property. It is noted that the Phase Two activities were completed in accordance with Ontario Regulation 153/04 [as amended] to facilitate the eventual filing of a Record of Site Condition [RSC] for the property.

The Phase Two activities included the advancement of six [6] boreholes on the subject property to facilitate the collection and submission of select soil samples for laboratory analytical testing. In addition, a groundwater monitoring well was installed at three [3] of the borehole locations, upon completion of drilling activities, to facilitate the collection of groundwater samples for laboratory analytical testing. It is noted that an additional six [6] boreholes, along with an additional four [4] monitoring wells were installed on the subject property, in conjunction with the above noted fieldwork, as part of a hydrogeological assessment for the subject property.

Based on SOIL-MAT ENGINEERS' field observations and the laboratory analytical test results received in its office, SOIL-MAT ENGINEERS is pleased to offer the following:

- The laboratory analytical test results, for the submitted soil samples, revealed the following Table 9 Residential/Parkland/Institutional Land Use [RPI] exceedances:
    - Elevated levels of select Polycyclic Aromatic Hydrocarbons [PAHs] parameters [specifically Benzo(a)anthracene, Fluoranthene, and Pyrene] were reported in soil sample 'BH11 SS3' at a depth of 1.5 – 2.1 metres below the existing ground surface [m bgs];

  - With the exception of the above, all of the other soil samples subjected to laboratory analytical testing were found to be within the applicable Table 9 RPI site condition standards for the select tested contaminant of potential concern [CPOC] groupings.
- The Phase Two ESA activities did not reveal any elevated levels, above the applicable Table 9 RPI site condition standards, of the select tested COPC groupings in the groundwater medium for the secured groundwater samples.

The samples secured for analytical testing are believed to be representative of the conditions at the sample locations only. If any significant changes are noted, i.e., odours, staining etc., SOIL-MAT ENGINEERS should be contacted to reassess the environmental characteristics of the Site.

As noted in the preamble above, an isolated 'hotspot' of soil exhibiting an elevated level of select PAH parameters was identified at our borehole location 'BH11'. Specifically, the elevated level of select PAH parameters was encountered in the soil sample secured between 1.5 to 2.1 m bgs. However, it is noted that the sample secured directly above and below this 'hot spot', at a depth of between 0.8 to 1.9m bgs and 2.3 to 2.9m bgs respectively, is reportedly within the applicable Table 9 RPI Standards for the specific PAH parameters. Given the available analytical test results, it is recommended that additional intrusive soil sampling is required to further delineate the lateral extent of the isolated 'hot spot' and/or demonstrate that the noted exceedance can be considered anomalous in nature and not representative of the actual soil conditions at this location.

It is noted that subsurface soil conditions may be present on-site that are not typical of those presented in this Report. If future activities reveal such soils, SOIL-MAT ENGINEERS should be contacted to assess the soil conditions with respect to the proposed activity.

2.0 INTRODUCTION

SOIL-MAT ENGINEERS were retained by the numbered company '1959025 ONTARIO INC.' to undertake Phase Two ESA activities on the above captioned property. Of note, the Phase Two activities were undertaken in accordance with Ontario Regulation 153/04 [as amended] to support the eventual filing of an RSC for the property.

A Phase One ESA was previously prepared for the subject lands, by SOIL-MAT ENGINEERS, and was utilised in determining the rationale for these Phase Two activities [refer to SOIL-MAT ENGINEERS' Report No.: SM 200216-E dated May 22, 2020].

Our fieldwork, laboratory testing and interpretation in connection with the assessment activities has been finalised and our comments and recommendations, based on our findings, are presented in the following paragraphs.

The subject property is herein referred to as the Phase Two Property and/or the *Site*.

2.0 (i) SITE DESCRIPTION

The Site is comprised of an irregular shaped parcel of vacant land located on the south side of Old Lakeshore Road to the east of Pearl Street in the City of Burlington, Ontario.

For descriptive purposes, Old Lakeshore Road has been designated as having an east-west alignment.

At the time of this Report, the Site was comprised of an irregular shaped parcel of land that was occupied by the following structures:

- a 2-storey dwelling that had been converted to three [3] residential rental units. There is also a basement level in the structure;
- a single-storey ten [10] unit motel [recognised as the Marquis Lakeside Inn at the time of this Report]. There is also a partial basement level in the structure, and;
- a single-storey, flat roof cabin, that was utilized as a residential rental unit. A basement level is not present in the cabin structure.

The remainder of the Phase Two Property was comprised of landscaped aeras to the north and east of the three-unit residential structure and rental cabin and asphaltic-concrete parking areas to the east of the motel. A landscaped area was also present along the southern limit of the Phase Two Property.

The Site was bounded to the north by Old Lakeshore Road, to the east by vacant commercial lands [formerly Emma's Back Porch], to the south by Lake Ontario and to the west by a walkway and a high-rise residential building.

The Site is recognized with the municipal address of '2076 Old Lakeshore Road, Burlington, Ontario. The property identification number [PIN] is '07061-0019'.

The area of the Site is 0.1985 hectares.

2.0 (ii) PROPERTY OWNERSHIP

At the time of this report, the Site was owned by the numbered company '1959025 Ontario Inc.' The contact information for the owner is provided below:

1. Contact Name: Mr. Peter Horn
2. Mailing Address: 366 King Street West, Hamilton, Ontario, L8P 1B3
3. Contact e-mail: tphorn75@gmail.com
4. Contact Phone: 647-242-6956

2.0 (iii) CURRENT AND PROPOSED FUTURE USE

Current Use: Commercial and Residential
Proposed Use: Residential

Based on the current use and the proposed use of the Site, the proposed development is subject to a mandatory RSC filing.

2.0 (iv) APPLICABLE SITE CONDITION STANDARDS

The following criteria were utilised to determine the appropriate site classification and applicable soil and groundwater standards.

- Current land use: Commercial and Residential;
- Intended land use: Residential;
- Drinking Water Supply: Non-Potable Ground Water;
- On-site Soil Texture: Medium to Fine Grained Soils;
- Depth to Bedrock: Approximately 3.0 to 4.25 metres;
- pH of soils on the Site: Within the Applicable Generic Site Condition Standards Range;
- Surface Water Body: Lake Ontario is located 10 metres south of the Site.

Based on the above, the applicable site condition standards [SCSs] are the Table 9 SCSs for use within 30 metres of a Water Body in a non-potable groundwater condition from the Ministry of the Environment document "Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environment Protection Act, (2011), hereinafter referred to as the 'Table 9 Standards'. Of note, the Table 9 Standards are the same for both the residential/ parkland/ institutional land use properties and the industrial/ commercial and community use properties.

3.0 BACKGROUND INFORMATION

3.0 (i) PHYSICAL SETTING

The Site is located in an area of mixed retail commercial, parkland, and residential use lands.

There are no water bodies in whole or in part on the Phase Two Property. In addition, with the exception of Lake Ontario, located approximately 10 metres south of the Site, surface water bodies were not observed within 30 metres of the Phase Two Property.

There are no areas of natural significance located in whole or in part on the Phase Two Property.

The topography of the Site is relatively flat and level, with surface water being directed to an on-site catch basin.

3.0 (ii) PAST INVESTIGATIONS

SOIL-MAT ENGINEERS had access to the following environmental report, which was utilized as a supporting document during the completion of this Report.

1. Phase One Environmental Site Assessment, 2076 Old Lakeshore Road, Burlington, Ontario, dated May 22, 2020: prepared by Soil-Mat Engineers for Vrancor Developments [Mr. Darko Vranich].

The May 22, 2020 Phase One ESA report revealed four [4] potentially contaminating activities [PCAs] on the Phase One Property, including the following:

- A Fire Insurance Plan from 1910 illustrates a former building on the Site. Historically, it was a common practise to demolish buildings and utilise the remaining construction debris and/or various imported fill material(s) to backfill the basement level of structures, if present;
- A Fire Insurance Plan from 1932 illustrates two [2] underground storage tanks [USTs] on the Site;
- Fill material of unknown quality may be present in the vicinity of the noted UST nest area if the USTs have been removed, and;
- Aerial photographs from 1988 and 2004 illustrate an in-ground pool at the northeast corner of the Site. This pool was not observed on the property at the time of our site reconnaissance. As such, there is a potential for fill material of unknown quality in the immediate vicinity of the former pool.

The lands in the general vicinity of the Site are comprised of a mixture of retail commercial, parkland and residential use lands. The Phase One ESA research revealed two [2] historical PCAs on lands in the Phase One Study Area that are considered a potential environmental liability to the Site, including the following:

- The Vernon City Directories revealed a ‘Sunoco Service Station’ operated in close proximity to the Phase One Property from pre-1960 to 1982 [2071 Lakeshore Road].

- A 1971 Fire Insurance Plan illustrates an UST on the 2071 Lakeshore Road property, which s located approximately 40 metres north-northwest [up-gradient] from the Phase One property.

Based on the above, the PCAs were limited to the following:

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Locations of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or sediment)
APEC #1	The northeast corner of the Phase One Property	30. Importation of Fill Material of Unknown Quality [PCA A]	On-Site	Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity, Cr (VI), Hg and SAR	Soil
APEC #2	The northern portion of the Phase One Property	30. Importation of Fill Material of Unknown Quality [PCA B]	On-Site	Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity, Cr (VI), Hg and SAR	Soil
APEC #3a	The northern portion of the Phase One Property	28. Gasoline and Associated Products Storage in Fixed Tanks [PCA C]	On-Site	PHCs, VOCs, PAHs, BTEX and Metals	Soil and Groundwater
APEC #3b	The northern portion of the Phase One Property	30. Importation of Fill Material of Unknown Quality [PCA D]	On-Site	Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity, Cr (VI), Hg and SAR	Soil
APEC #4	The northern limit of the Phase One Property	28. Gasoline and Associated Products Storage in Fixed Tanks [PCA E]	Off-Site	PHCs, VOCs, PAHs, BTEX and Metals	Soil and Groundwater
		10. Commercial Autobody Shops [PCA F]	Off-Site	PHCs, VOCs, PAHs, BTEX and Metals	Soil and groundwater

In all cases, the above noted reports were supervised by a Qualified Person [QP] of SOIL-MAT ENGINEERS.

In addition to the above, SOIL-MAT ENGINEERS contacted the City of Burlington to request a copy of previous environmental reports for the Site that may be on file with the City. However, the results were not available during the completion of this Report.

In addition, a search of the MOE's *Brownfields Environmental Site Registry* did not reveal a previous Phase One ESA that may have been undertaken on the Site.

4.0 SCOPE OF THE INVESTIGATION

4.0 (i) OVERVIEW OF SITE INVESTIGATION

Based on the Phase One ESA findings, six [6] boreholes were advanced on the Site to assess the impact to the soil, if any, as a result of the noted PCAs. In addition, a groundwater monitoring well was installed at three [3] of the borehole locations, upon completion of drilling activities, to facilitate the collection of groundwater samples for laboratory analytical testing. As previously noted, six [6] additional boreholes, and four [4] additional groundwater monitoring wells were advanced and on the Site as part of a hydrogeological assessment for the Site.

Representative soil samples were secured following standard industry sampling protocols and were submitted to AGAT laboratories for laboratory analytical testing for the specific Phase Two ESA contaminants of potential concern, in this case being Petroleum Hydrocarbons [PHCs], Benzene, Toluene, Ethylbenzene and Xylenes [BTEX], Volatile Organic Compounds [VOCs], Polycyclic Aromatic Hydrocarbons [PAHs], Metals, Arsenic [As], Antimony [Sb], Selenium [Se], Boron Hot Water Soluble [BHWS], Cyanide [CN-], Electrical Conductivity [EC], Hexavalent Chromium [Cr (VI)], [Mercury [Hg] and Sodium Adsorption Ration [SAR]. For reporting purposes, the COPCs listed above [with the exception of PHCs, BTEX, VOCs, and PAHS] are hereinafter referred to as “Metals”.

4.0 (ii) MEDIA INVESTIGATED

The purpose of the Phase Two activities was to assess the soil and groundwater quality on the Phase Two Property, as related to the environmental concerns identified upon completion of our May 22, 2020 Phase One ESA.

4.0 (iii) PHASE ONE CONCEPTUAL SITE MODEL

The Phase One Property is comprised of an irregularly shaped parcel of land, located on the south side of Old Lakeshore Road, immediately east of Pearl Street, recognised with the municipal address of ‘2076 Old Lakeshore Road’ the City of Burlington, Ontario.

SOIL-MAT ENGINEERS completed a Phase One ESA on the Site in May 2022. The information gathered during the completion of the Phase One ESA report revealed that the Site was first developed before 1909 as residential use lands and then redeveloped circa 1924 to 1932 as mixed commercial and residential use lands. The first readily available visual aid for the Site is a topographic map from 1909 which illustrates the Site as undeveloped lands. Other visual aids, including aerial photographs from 1954, 1960, 1978, 1988, 2004, 2011, and 2018, topographic maps from 1938, 1968, and 1999, and fire insurance plans from 1910, 1924, 1932, and 1971 confirm the development timeline above. The neighbouring and nearby lands to the Site are comprised of a mixture of retail commercial , parkland, and residential use lands.

Information gathered for the Site and adjoining and nearby properties revealed four [4] historical PCAs on the Phase One Property, and two [2] PCAs on nearby lands located in the Phase One Study Area that are considered a potential environmental liability to the Site.

As a result of the Phase One ESA,, the following PCAs were identified:

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Locations of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or sediment)
APEC #1	The northeast corner of the Phase One Property	30. Importation of Fill Material of Unknown Quality [PCA A]	On-Site	Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity, Cr (VI), Hg and SAR	Soil
APEC #2	The northern portion of the Phase One Property	30. Importation of Fill Material of Unknown Quality [PCA B]	On-Site	Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity, Cr (VI), Hg and SAR	Soil
APEC #3a	The northern portion of the Phase One Property	28. Gasoline and Associated Products Storage in Fixed Tanks [PCA C]	On-Site	PHCs, VOCs, PAHs, BTEX and Metals	Soil and Groundwater
APEC #3b	The northern portion of the Phase One Property	30. Importation of Fill Material of Unknown Quality [PCA D]	On-Site	Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity, Cr (VI), Hg and SAR	Soil
APEC #4	The northern limit of the Phase One Property	28. Gasoline and Associated Products Storage in Fixed Tanks [PCA E]	Off-Site	PHCs, VOCs, PAHs, BTEX and Metals	Soil and Groundwater
		10. Commercial Autobody Shops [PCA F]	Off-Site	PHCs, VOCs, PAHs, BTEX and Metals	Soil and groundwater

No other PCAs were identified on the Phase One Property or on the neighbouring lands or lands located within the Phase One Study Area.

4.0 (iv) DEVIATIONS FROM SAMPLING AND ANALYSIS PLAN

Professional care was exercised during the retrieval of each sample, the placement of each sample in the appropriate sample jar, the labeling of the field samples and associated chain of custody and in the delivery of the samples to the testing laboratory.

As our standard operating procedures dictate unusual field observations, such as visual or olfactory evidence of a suspected impact, a deviation from SOIL-MAT ENGINEERS' field sampling and handling protocols or incident on the testing laboratories' side was documented either on our field borehole logs or in-house copy of the sample certificate of analysis. There were no deviations recorded during this Phase Two ESA.

4.0 (v) IMPEDIMENTS

There were no impediments to SOIL-MAT ENGINEERS' field work and assessment activities during the advancement of the planned Phase Two activities.

5.0 INVESTIGATION METHODS

5.0 (i) GENERAL

There were no deviations in SOIL-MAT ENGINEERS' planned Phase Two ESA activities.

5.0 (ii) DRILLING AND EXCAVATING

All boreholes with the exception of three [3] boreholes, were advanced using hollow stem continuous flight auger equipment on September 5, 2023 through September 14, 2023. The physical advancement of the boreholes and installation of the groundwater monitoring wells was conducted by Davis Drilling, via a truck mounted drill rig, under the supervision of a representative of SOIL-MAT ENGINEERS.

Soil samples were generally collected in 0.76m intervals from the ground surface to the termination of each borehole. After each sampling event, the split-spoon sampler was thoroughly washed with non-phosphate detergent then rinsed with water before the collection of each subsequent sample to minimise the potential for cross-contamination between samples. The boreholes were advanced on the Site using hollow stem augers with the exception of three [3] boreholes which utilised solid stem augers.

5.0 (iii) SOIL SAMPLING

Soil samples were examined in the field for visual and olfactory evidence of potential impacts such as unusual staining and/or odours, etc., and were split into two separate samples, including the following:

- One half of the sample was sealed in sampling jars for submission to AGAT for analytical testing, and;
- One half of the sample was sealed in a plastic sampling bag for further characterisation in SOIL-MAT ENGINEERS' in-house soils laboratory.

The soil samples that were picked up at our office by AGAT were sealed in pre-cleaned wide mouth, amber glass sample jars, no head space, as provided by the laboratory. The samples were stored and transported in a cooler and kept under ice packs to minimise potential volatilisation of select parameters. New disposable sampling gloves were used for the collection of each soil sample with care given not to make contact with the samples and gloves. Dedicated sample retrieval equipment, including a stainless steel split-spoon, was used to retrieve each sample and before depositing it directly it into the AGAT Laboratories sample jar.

The samples were picked up at our office by AGAT in coolers equipped with ice packs to help maintain a temperature range between the applicable 0°C to 10°C. As reported on the chain of custody for the soil samples, the soil samples arrived at AGAT's lab in Mississauga, Ontario with an average temperature of 6.4°C.

5.0 (iv) FIELD SCREENING MEASUREMENTS

All of the Phase Two ESA soil samples were examined in the field for visual and olfactory evidence of potential PHC impact(s), such as unusual staining and/or odours, etc. In addition, an RKI Eagle was utilised during the collection of the soil samples for field screening purposes. Of note, all of the recovered soil samples subjected to field screening with the RKI Eagle did not have a measurable or detectable headspace reading.

5.0 (v) GROUND WATER: MONITORING WELL INSTALLATION

A 50 millimetre groundwater monitoring well was installed at Borehole Nos. 10, 11, and 12 upon the completion of drilling activities. The monitoring wells were installed to depths of approximately 9.1 metres, with a screened interval in the lower 3.05 metres. The groundwater monitoring wells were installed in accordance with *Ontario Regulation 903 [Water Wells]* under the Ontario Water Resources Act. It is also noted that a monitoring well was also installed at Borehole Nos. 1, 2, 4, and 6. However, as previously noted these specific monitoring wells were installed as part of a hydrogeological assessment of the Site and were not installed as part of the planned Phase Two activities.

A water well record was submitted to the Ministry of the Environment, Conservation and Parks [MOE] upon completion of drilling activities. It is the responsibility of the Site owner to ensure the groundwater monitoring well is maintained in an appropriate, safe and secure condition as per the Regulation and to arrange for the monitoring well to be abandoned in accordance with the Regulation when it is no longer in use.

The monitoring installation details are summarized below.

Monitoring Well	Bottom of Monitoring Well [m bgs]	Bottom of the Borehole Elevation [m]	Screen Length [m]	Screen Interval [m bgs]	Filter Pack [m bgs]	Bentonite Plug [m bgs]	Ground Surface Elevation [m ASL]
MW10	9.1	72.83	3.05	6.05 – 9.1	5.75 - 9.1	0.15 – 5.75	81.93
MW11	9.1	72.86	3.05	6.05 – 9.1	5.75 - 9.1	0.15 – 5.75	81.96
MW12	9.1	72.71	3.05	6.05 – 9.1	5.75 - 9.1	0.15 – 5.75	81.81

5.0 (vi) GROUND WATER: FIELD MEASUREMENT OF WATER QUALITY PARAMETERS

An Oil / Water interface probe was utilized during the monitoring and collection of the groundwater samples. Of note, a light non-aqueous phase liquid [LNAPL] was not identified in any of the on-site groundwater monitoring wells.

The groundwater samples were delivered immediately to AGAT upon retrieval from the monitoring well and were subjected to AGAT's QA procedure which included a temperature reading upon their receipt.

The groundwater samples were delivered to the AGAT depot in Stoney Creek, Ontario immediately after sampling on ice to begin cooling the samples between the applicable 0°C to 10°C. As reported on the chain of custody for the groundwater samples, the samples were delivered to AGAT on ice with an average temperature of 16.1°C and

arrived at the lab in Mississauga, Ontario with a final average temperature of 9.7ºC. It is noted that although the samples were immediately put on ice, not enough time passed from the sampling to the delivery at the AGAT depot in Stoney Creek to allow the samples to get below 10 ºC.

5.0 (vii) GROUND WATER: SAMPLING

Three [3] well volumes were purged from each groundwater monitoring well prior to the collection of the groundwater samples. The monitoring wells were then allowed to recharge back to recorded static groundwater levels prior to the physical sample collection.

The monitoring wells installed on the Site during this Phase Two ESA were equipped with dedicated sampling equipment, including a 25 millimetre water bailer for sample collection for the PHC and BTEX parameters, as well as tubing fitted with foot valves for the metals and PAH parameters, utilizing field filtering equipment where applicable.

A low flow bladder pump was utilised for the collection of groundwater samples for the remaining COPC groupings as the samples were subjected to laboratory analytical testing for VOCs.

Professional care was exercised during the retrieval of each sample, the placement of each sample in the appropriate sample jar, the labeling of the field samples and associated chain of custody and in the delivery of the samples to the testing laboratory.

As our standard operating procedures dictate unusual field observations, such as visual or olfactory evidence of a suspected impact, a deviation from SOIL-MAT ENGINEERS' field sampling and handling protocols or incident on the testing laboratories' side was documented either on our field borehole logs or in-house copy of the sample certificate of analysis.

There were no deviations recorded during the advancement of the planned Phase Two activities.

5.0 (viii) SEDIMENT SAMPLING

Sediment sampling was not conducted, as part of the planned Phase Two activities, as the mediums of concern were limited to the soil and groundwater medium.

5.0 (ix) ANALYTICAL TESTING

All laboratory analytical work was performed by AGAT Laboratories [AGAT] in Mississauga, Ontario.

AGAT is a member of the Canadian Association for Laboratory Accreditation [CALA] and meets the requirements of Section 47 of the Record of Site Condition Regulation.

5.0 (x) RESIDUAL MANAGEMENT PROCEDURES

Soil cuttings produced from the physical drilling activities were stored on-site in metal, 45-gallon drums and were retrieved by a third party for proper off-site disposal.

Purged groundwater was stored on-site in plastic 5-gallon pails until the results of the laboratory analytical testing demonstrated that the groundwater met the applicable SCS at which time the groundwater was discarded across the surface soil in the vicinity of each groundwater sampling point.

5.0 (xi) ELEVATION SURVEYING

All boreholes and groundwater monitoring wells were surveyed by a staff member of SOIL-MAT ENGINEERS to facilitate site relative survey information. Benchmark Station #0011991U001 was used as a permanent geodetic benchmark with an elevation of 77.90 m.

5.0 (xii) QUALITY ASSURANCE AND QUALITY CONTROL MEASURES

QA/QC was maintained during the field program through equipment decontamination and sampling procedures, as outlined in the "*MOE Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*" (May, 1996).

Standard QA/QC protocols were followed for bottle preparation, sample collection and transportation, as outlined by MOE guidance documents, including the MOE's 2011 "*Protocol for Analytical Methods Used in the Assessment of Properties Under Part XV.1 of the Environmental Protection Act*".

In addition to these field-based measures, extensive QA/QC procedures were carried out by the analytical laboratories, including:

- Lab blanks;
- Spikes;
- Matrix blanks; and
- Instrument blanks and assessments of instrument tuning and performance.

Based on the evaluation of the sampling and analytical procedures used, the following data quality statements can be made:

- The data are adequate for the RSC objectives and approach utilized; and,
- Soil analytical data were of an acceptable quality for comparison to 2011 MOE SCS as defined by *O.Reg.153/04, as amended,* for current investigations.

6.0 REVIEW AND EVALUATION

6.0 (i) GEOLOGY

SOIL-MAT ENGINEERS' Phase Two ESA revealed the following Site stratigraphy:

- TOPSOIL: A surficial veneer of topsoil, consisting of approximately 75 to 150 millimetres in thickness, was encountered in Borehole Nos.: BH2, BH3, BH7, BH8 and BH10. It is noted that the depth of topsoil may vary across the site and from the borehole locations. It is also noted that the term 'topsoil' has been used from a geotechnical point of view and does not necessarily reflect its nutrient content or ability to support plant life.
- PAVEMENT STRUCTURE: Borehole Nos.: BH1, BH4, BH5, BH6, BH9, BH11, and BH12 were advanced through an existing pavement structure which was found to consist of approximately 25 to 100 millimetres of asphaltic concrete over 100 to 300 millimetres of compact granular base.
- GRAVEL FILL: Gravel fill, approximately 100 and 150 millimetres in thickness, was encountered beneath the topsoil in Borehole Nos.: BH3 and BH10, respectively. The gravel was found to be generally compact in consistency.
- CLAYEY/SANDY SILT FILL: Clayey / Sandy Silt Fill was encountered beneath the granular fill in Borehole No.: BH3 and beneath the topsoil in Borehole No.: BH8. The clayey / sandy silt fill was brown in colour, contained trace gravel, and occasional cobbles and construction debris inclusions, and was found to be very stiff to soft in consistency. The silty sand / sandy silt fill was proven to auger refusal on assumed concrete a depth of 1.8 and 1.4 m bgs, respectively.
- CLAYEY / SANDY SILT: Native silty sand/ sandy silt was encountered beneath the topsoil in Borehole Nos.: BH2, BH7, and BH10, and beneath the pavement structure in Borehole Nos.: BH1, BH4, BH5, BH6, BH9, BH11, and BH12. The silty clay/ clayey silt was brown in colour, and contained trace gravel, some to trace clay, with some occasional sandy seams, had a reworked appearance in the upper levels, and was generally soft to hard in consistency. The silty sand/ sandy silt was proven to depths ranging between 3.0 to 4.3 m bgs.
- QUEENSTON SHALE: Queenston shale bedrock was encountered beneath the silty sand / sandy silt at depths of approximately 3.0 to 4.3 m bgs in Borehole Nos.: BH1, BH2, BH4 through BH7, and BH9 through BH12. The Queenston shale was severely weathered in the upper levels, becoming more sound with depth. The Queenston shale bedrock was proven to termination at depths ranging between 3.5 to 25.9 m bgs.
- GROUNDWATER: The depth to the groundwater table is anticipated to be approximately 7.0 to 9.0 m bgs based on groundwater readings secured from the three [3] Phase Two monitoring wells installed on the Site. Seasonal fluctuations to this level should be expected. Based on the ground water contours extrapolated from the recorded static ground water levels on the Site the ground water flow direction through the Site is to the south-southeast. In addition, the horizontal hydraulic gradient was estimated as 0.0078.

6.0 (ii) GROUND WATER: ELEVATIONS AND FLOW DIRECTIONS

It is noted that water was utilised as part of the coring activities. As such, our filed observations were limited upon the immediate completion of the boreholes.

Groundwater monitoring wells were installed in Borehole Nos. 10, 11 and 12 for future monitoring of the static groundwater level and to facilitate the collection of groundwater samples for laboratory analytical testing. The groundwater monitoring well installation details are summarized in the table below.

TABLE A
SUMMARY OF GROUNDWATER LEVELS

Borehole No.	Surface Elevation (m)	October 4, 2023		October 17, 2023	
		Depth [m]	Elev. [m]	Depth [m]	Elev. [m]
BH10	81.93	7.24	74.69	7.26	74.67
BH11	81.96	6.42	75.54	8.14	73.82
BH12	81.81	3.20	78.61	8.64	73.17

Based on the groundwater readings, the static groundwater level is estimated at a depth of approximately 7.0 and 9.0 metres below the existing ground surface, although seasonal fluctuations must be expected.

Based on the groundwater contours, extrapolated from the recorded static groundwater levels on the Site, the groundwater flow direction through the Site is to the south-southeast.

The monitoring well locations, groundwater contours, and inferred groundwater flow direction is illustrated on Drawing No. 2 in Appendix 'A'.

6.0 (iii) GROUND WATER: HYDRAULIC GRADIENTS

The horizontal hydraulic gradient was calculated based on the groundwater levels recorded during the Phase Two ESA. Based on these recordings, the distance between the monitoring wells and the depth of well installation the horizontal hydraulic gradient is estimated as 0.0078.

6.0 (iv) FINE-MEDIUM SOIL TEXTURE

SOIL-MAT ENGINEERS' conducted hydrometer testing on six [6] samples. The result of these hydrometers indicates that the surface and subsurface soil consists primarily of a brown clayey and sandy silt with a trace of gravel as the predominant soil type. Given the above, the soil has more than 50% finer than the 75 um sieve, and so is classified as medium to fine textured.

6.0 (v) SOIL: FIELD SCREENING

SOIL-MAT ENGINEERS did not observe any visual or olfactory evidence that suggested a new COPC grouping should be considered during the assessment activities.

6.0 (vi) SOIL QUALITY

In total, thirteen [13] soil samples, including two [2] duplicate samples, were secured from the Site to assess potential adverse impact(s) on the Site as a result of PCAs noted in our May 2022 Phase One ESA.

The secured soil samples were submitted to AGAT for laboratory analytical testing as described in the summary table below:

SUMMARY OF TESTED SOIL SAMPLES

Sample ID [APEC / PCA]	Depth [m bgs]	Laboratory Analysis	Soil Description
BH3 SS2 [APEC #1 / PCA #30]	0.8 – 1.4	Metals, PHCs, and BTEX	Silty Sand / Silty Clay Fill
BH3 SS3 [APEC #1 / PCA #30]	1.5 – 1.8	Metals, PHCs, and BTEX	Silty Sand / Silty Clay Fill
BH8 AS1 [APEC #1 / PCA #30]	0.8	Metals, PHCs, and BTEX	Silty Sand / Sandy Silt Fill
BH9 SS2 [APEC #2 / PCA #30]	0.8 – 1.4	Metals, PHCs, and BTEX	Silty Sand / Sandy Silt
BH9 SS3 [APEC #2 / PCA #30]	1.5 – 2.1	Metals, PHCs, and BTEX	Silty Sand / Sandy Silt
BH10 SS2 [APEC #4 / PCA #28 & #10]	0.8 – 1.4	Metals, PHCs, BTEX, PAHs, and VOC's	Silty Sand / Sandy Silt
BH10 SS3 [APEC# 4 / PCA #28 & #10]	1.5 – 2.1	Metals, PHCs, BTEX, PAHs, and VOC's	Silty Sand / Sandy Silt
BH10 SS4 [APEC #4 / PCA #28 & #10]	2.3 – 2.9	Metals, PHCs, BTEX, PAHs, and VOC's	Silty Sand / Sandy Silt
BH11 SS2 [APEC #3 & #4 / PCA #28, #30, #10, & #28]	0.8 – 1.4	Metals, PHCs, BTEX, PAHs, and VOC's	Silty Sand / Sandy Silt
BH11 SS3 [APEC #3 & #4 / PCA #28, #30, #10, & #28]	1.5 – 2.1	Metals, PHCs, BTEX, PAHs, and VOC's	Silty Sand / Sandy Silt
BH11 SS4 [APEC #3 & #4 / PCA #28, #30, #10, & #28]	2.3 – 2.9	Metals, PHCs, BTEX, PAHs, and VOC's	Silty Sand / Sandy Silt
DUP BH8 AS1 [APEC #1 / PCA #30]	0.8	Metals, PHCs, and BTEX	Silty Sand / Sandy Silt Fill
DUP BH10 SS3 [APEC #4 / PCA #28 & #10]	1.5 – 2.1	Metals, PHCs, BTEX, PAHs, and VOC's	Silty Sand / Sandy Silt
Notes: Metals = Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity [EC], Cr (VI), Hg and SAR PHCs = Petroleum Hydrocarbons, BTEX = Benzene, Toluene, Ethylbenzene, and Xylene Mixture, VOCs = Volatile Organic Compounds, PAHs = Polycyclic Aromatic Hydrocarbons			

The laboratory analytical test results for the submitted soil samples are summarised below:

SUMMARY OF SOIL SAMPLE TEST RESULTS

Sample ID [APEC / PCA]	Depth [m bgs]	Laboratory Analysis	Soil Description	Table 9 RPI / ICC Exceedances
BH3 SS2 [APEC #1 / PCA #30]	0.8 – 1.4	Metals, PHCs, and BTEX	Silty Sand / Silty Clay Fill	No exceedances reported

Sample ID [APEC / PCA]	Depth [m bgs]	Laboratory Analysis	Soil Description	Table 9 RPI / ICC Exceedances
BH3 SS3 [APEC #1 / PCA #30]	1.5 – 1.8	Metals, PHCs, and BTEX	Silty Sand / Silty Clay Fill	No exceedances reported
BH8 AS1 [APEC #1 / PCA #30]	0.8	Metals, PHCs, and BTEX	Silty Sand / Sandy Silt Fill	No exceedances reported
BH9 SS2 [APEC #2 / PCA #30]	0.8 – 1.4	Metals, PHCs, and BTEX	Silty Sand / Sandy Silt	No exceedances reported
BH9 SS3 [APEC #2 / PCA #30]	1.5 – 2.1	Metals, PHCs, and BTEX	Silty Sand / Sandy Silt	No exceedances reported
BH10 SS2 [APEC #4 / PCA #28 & #10]	0.8 – 1.4	Metals, PHCs, BTEX, PAHs, and VOC's	Silty Sand / Sandy Silt	No exceedances reported
BH10 SS3 [APEC# 4 / PCA #28 & #10]	1.5 – 2.1	Metals, PHCs, BTEX, PAHs, and VOC's	Silty Sand / Sandy Silt	No exceedances reported
BH10 SS4 [APEC #4 / PCA #28 & #10]	2.3 – 2.9	Metals, PHCs, BTEX, PAHs, and VOC's	Silty Sand / Sandy Silt	No exceedances reported
BH11 SS2 [APEC #3 & #4 / PCA #28, #30, #10, & #28]	0.8 – 1.4	Metals, PHCs, BTEX, PAHs, and VOC's	Silty Sand / Sandy Silt	No exceedances reported
BH11 SS3 [APEC #3 & #4 / PCA #28, #30, #10, & #28]	1.5 – 2.1	Metals, PHCs, BTEX, PAHs, and VOC's	Silty Sand / Sandy Silt	Exceeds the Table 9 RPI / ICC SCSs in PAHs as: Benzo(a)anthracene – 0.49ppm vs 0.0.36ppm Fluoranthene – 1.33ppm vs 0.69ppm Pyrene – 1.11ppm vs 1.0ppm
BH11 SS4 [APEC #3 & #4 / PCA #28, #30, #10, & #28]	2.3 – 2.9	Metals, PHCs, BTEX, PAHs, and VOC's	Silty Sand / Sandy Silt	No exceedances reported
DUP BH8 AS1 [APEC #1 / PCA #30]	0.8	Metals, PHCs, and BTEX	Silty Sand / Sandy Silt Fill	No exceedances reported
DUP BH10 SS3 [APEC #4 / PCA #28 & #10]	1.5 – 2.1	Metals, PHCs, BTEX, PAHs, and VOC's	Silty Sand / Sandy Silt	No exceedances reported
Notes: Metals = Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity [EC], Cr (VI), Hg and SAR PHCs = Petroleum Hydrocarbons, BTEX = Benzene, Toluene, Ethylbenzene, and Xylene Mixture, VOCs = Volatile Organic Compounds, PAHs = Polycyclic Aromatic Hydrocarbons				

The laboratory analytical test results for the submitted soil samples indicate the following Table 9 RPI / ICC exceedances:

1. Elevated levels of select PAH parameters [specifically Benzo(a)anthracene, Fluoranthene, and Pyrene] were reported in soil sample 'BH11 SS3' at a depth of 1.5 to 2.1 m bgs;
2. With the exception of the above, all of the other soil samples subjected to laboratory analytical testing were found to be within the Table 9 Standards for the select tested COPC groupings.

The Phase Two Property, borehole locations and laboratory analytical test results are illustrated on Drawing Nos. 3, 3A – 3E, and 4A – 4E in Appendix 'A'. SOIL-MAT ENGINEERS' borehole logs are also included in Appendix 'A' for reference.

The AGAT Certificate of Analysis is included in Appendix 'B' for reference.

6.0 (vii) GROUND WATER QUALITY

In total, three [3] groundwater samples, including one duplicate groundwater sample, was secured from the Site to assess potential adverse impact(s) on the Site as a result of PCAs identified in our May 2020 Phase One ESA.

The secured groundwater samples were submitted to AGAT for laboratory analytical testing as described in the summary table below:

Sample ID [APEC / PCA]	Laboratory Analysis
MW10 [APEC #4 / PCA #28 & #10]	Metals, PHCs, BTEX, PAHs, and VOCs
MW11 [APEC #3 & #4 / PCA #28, #30, #10, & #28]	Metals, PHCs, BTEX, PAHs, and VOCs
Dup 1 [MW10] [APEC #4 / PCA #28 & #10]	Metals, PHCs, BTEX, PAHs, and VOCs
Notes: Metals = Metals, As, Sb, Se, BHWS, CN, Chloride, Cr (VI), Hg and Sodium PHCs = Petroleum Hydrocarbons, BTEX = Benzene, Toluene, Ethylbenzene, and Xylene Mixture PAHs = Polycyclic Aromatic Hydrocarbons, VOCs = Volatile Organic Compounds	

The laboratory analytical test results for the submitted groundwater samples are summarised below:

SUMMARY OF ANALYTICAL TESTING – WATER [TABLE 9 NPGW]

Sample ID	Laboratory Analysis	Table 9 NPGW Exceedances
MW10 [APEC #4 / PCA #28 & #10]	Metals, PHCs, BTEX, PAHs, and VOCs	No exceedances reported
MW11 [APEC #3 & #4 / PCA #28, #30, #10, & #28]	Metals, PHCs, BTEX, PAHs, and VOCs	No exceedances reported
Dup 1 [MW10] [APEC #4 / PCA #28 & #10]	Metals, PHCs, BTEX, PAHs, and VOCs	No exceedances reported
Notes: Metals = Metals, As, Sb, Se, BHWS, CN, Chloride, Cr (VI), Hg and Sodium PHCs = Petroleum Hydrocarbons, BTEX = Benzene, Toluene, Ethylbenzene, and Xylene Mixture PAHs = Polycyclic Aromatic Hydrocarbons, VOCs = Volatile Organic Compounds		

The laboratory analytical test results for the submitted groundwater samples are all below the applicable Table 9 NPGW Standards for the select test parameters.

The AGAT certificate of analysis for the groundwater analytical data is contained in Appendix ‘C’ for reference.

It should be noted that the research indicates that the area is subject to non-potable groundwater standards. However, written confirmation from Halton Region will be required to support this prior to the completion and submission of an RSC.

6.0 (viii) SEDIMENT QUALITY

Sediment sampling was not conducted as part of the planned Phase Two activities.

6.0 (ix) QUALITY ASSURANCE AND QUALITY CONTROL RESULTS

QA/QC was maintained during the field program through equipment decontamination and sampling procedures, as outlined in the "*MOE Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*" (May, 1996).

Standard QA/QC protocols were followed for bottle preparation, sample collection and transportation, as outlined by MOE guidance documents, including the MOE's 2011 "*Protocol for Analytical Methods Used in the Assessment of Properties Under Part XV.1 of the Environmental Protection Act*".

In addition to these field-based measures, extensive QA/QC procedures were carried out by the analytical laboratories, including:

- Lab blanks;
- Spikes;
- Matrix blanks; and
- Instrument blanks and assessments of instrument tuning and performance.

Based on the evaluation of the sampling and analytical procedures used, the following data quality statements can be made:

- The data is adequate for the RSC objectives and approach utilized; and,
- Soil analytical data were of an acceptable quality for comparison to Table 3 SCS as defined by *O.Reg.153/04, as amended,* for current investigations;

No deviations from the QA/QC protocols were noted during the completion of the Phase Two ESA fieldwork.

6.0 (x) PHASE TWO CONCEPTUAL SITE MODEL

SOIL-MAT ENGINEERS' has not prepared a Phase Two CSM as part of this Phase Two ESA. However, a Phase Two CSM will be prepared to support the eventual filing of an RSC, once a targeted remedial action plan has been initiated for the isolated PAH 'hot spot' on Site or once additional intrusive soil sampling and laboratory analytical testing demonstrates the isolated exceedances as anomalous and not representative of the actual soil conditions.

7.0 CONCLUSIONS

A description of the staff members associated with the completion of the Phase Two ESA activities is contained in Appendix 'E' of this Report. The ESA activities were supervised by Mr. Steve Sears, P. Eng., QP_{ESA}, who is a Qualified Person for the undertaking of ESA activities.

Based on SOIL-MAT ENGINEERS' field observations and the laboratory analytical test results received in its office, SOIL-MAT ENGINEERS is pleased to offer the following:

- The laboratory analytical test results, for the submitted soil samples, revealed the following Table 9 Residential/Parkland/Institutional Land Use [RPI] exceedances:
    - Elevated levels of select Polycyclic Aromatic Hydrocarbons [PAHs] parameters [specifically Benzo(a)anthracene, Fluoranthene, and Pyrene] were reported in soil sample 'BH11 SS3' at a depth of 1.5 – 2.1 metres below the existing ground surface [m bgs];
    - With the exception of the above, all of the other soil samples subjected to laboratory analytical testing were found to be within the applicable Table 9 RPI site condition standards for the select tested contaminant of potential concern [CPOC] groupings.
- The Phase Two ESA activities did not reveal any elevated levels, above the applicable Table 9 RPI site condition standards, of the select tested COPC groupings in the groundwater medium for the secured groundwater samples.

The samples secured for analytical testing are believed to be representative of the conditions at the sample locations only. If any significant changes are noted, i.e., odours, staining etc., SOIL-MAT ENGINEERS should be contacted to reassess the environmental characteristics of the Site.

As noted in the preamble above, an isolated 'hotspot' of soil exhibiting an elevated level of select PAH parameters was identified at our borehole location 'BH11'. Specifically, the elevated level of select PAH parameters was encountered in the soil sample secured between 1.5 to 2.1 m bgs. However, it is noted that the sample secured directly above and below this 'hot spot', at a depth of between 0.8 to 1.9m bgs and 2.3 to 2.9m bgs respectively, is reportedly within the applicable Table 9 RPI Standards for the specific PAH parameters. Given the available analytical test results, it is recommended that additional intrusive soil sampling is required to further delineate the lateral extent of the isolated 'hot spot' and/or demonstrate that the noted exceedance can be considered anomalous in nature and not representative of the actual soil conditions at this location.

It is noted that subsurface soil conditions may be present on-site that are not typical of those presented in this Report. If future activities reveal such soils, SOIL-MAT ENGINEERS should be contacted to assess the soil conditions with respect to the proposed activity.

SOIL-MAT ENGINEERS & CONSULTANTS LTD. prepared this Report for the account of 1959025 ONTARIO INC. The material in if reflects SOIL-MAT ENGINEERS' best judgement in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. SOIL-MAT ENGINEERS accepts no responsibility for

damages, if any suffered by any third party as a result of decisions made or actions based on this report.

We trust this Report is satisfactory for your purposes. Please feel free to contact our Office if you have any questions, or we may be of further service to you.

Sincerely,
SOIL-MAT ENGINEERS & CONSULTANTS LTD.

Peter Markesic, B.Sc.
Project Manager

Keith Gleadall, B.A., EA Dipl.
Environmental Manager



Stephen R. Sears, B. Eng. Mgmt., P. Eng., QP_{ESA}
Review Engineer

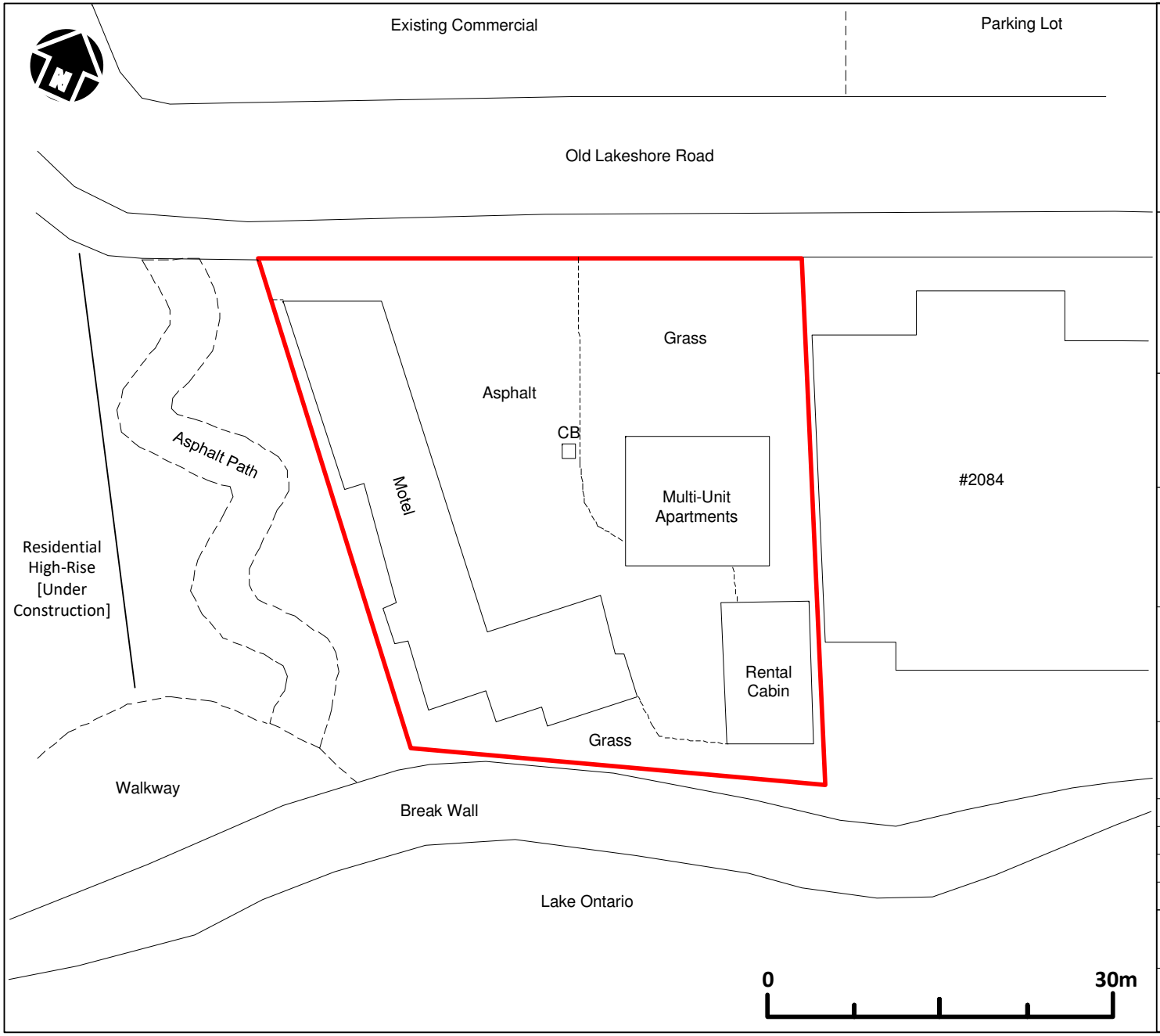
Distribution: 1959025 ONTARIO INC. [2]

Enclosures:

Appendix 'A'	Site Plan Drawings and Borehole Logs;
Appendix 'B'	AGAT Soil Analytical Data;
Appendix 'C'	AGAT Ground Water Analytical Data
Appendix 'D'	Qualifications of Assessors;
Appendix 'E'	Statement of Limitations

Appendix 'A'

1. Drawing No.: 1: Site Plan;
2. Drawing No.: 1A: APECs;
3. Drawing No.: 2: Monitoring Well Details and Groundwater Flow
4. Drawing No.: 3: Borehole Location Plan;
5. Drawing No.: 3A: Analytical Data Summary [Soil] Metals;
6. Drawing No.: 3B: Analytical Data Summary [Soil] PHCs;
7. Drawing No.: 3C: Analytical Data Summary [Soil] BTEX;
8. Drawing No.: 3D: Analytical Data Summary [Soil] VOCs;
9. Drawing No.: 3E: Analytical Data Summary [Soil] PAHs;
10. Drawing No.: 4A: Analytical Data Summary [Groundwater] Metals;
11. Drawing No.: 4B: Analytical Data Summary [Groundwater] PHCs;
12. Drawing No.: 4C: Analytical Data Summary [Groundwater] BTEX;
13. Drawing No.: 4D: Analytical Data Summary [Groundwater] VOCs;
14. Drawing No.: 4E: Analytical Data Summary [Groundwater] PAHs;
15. Borehole Logs



LEGEND

= Site Boundary

= Monitoring Well

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230469-E

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PROJECT TITLE

Phase Two Environmental Site Assessment
2076 Old Lakeshore Road
Burlington, Ontario

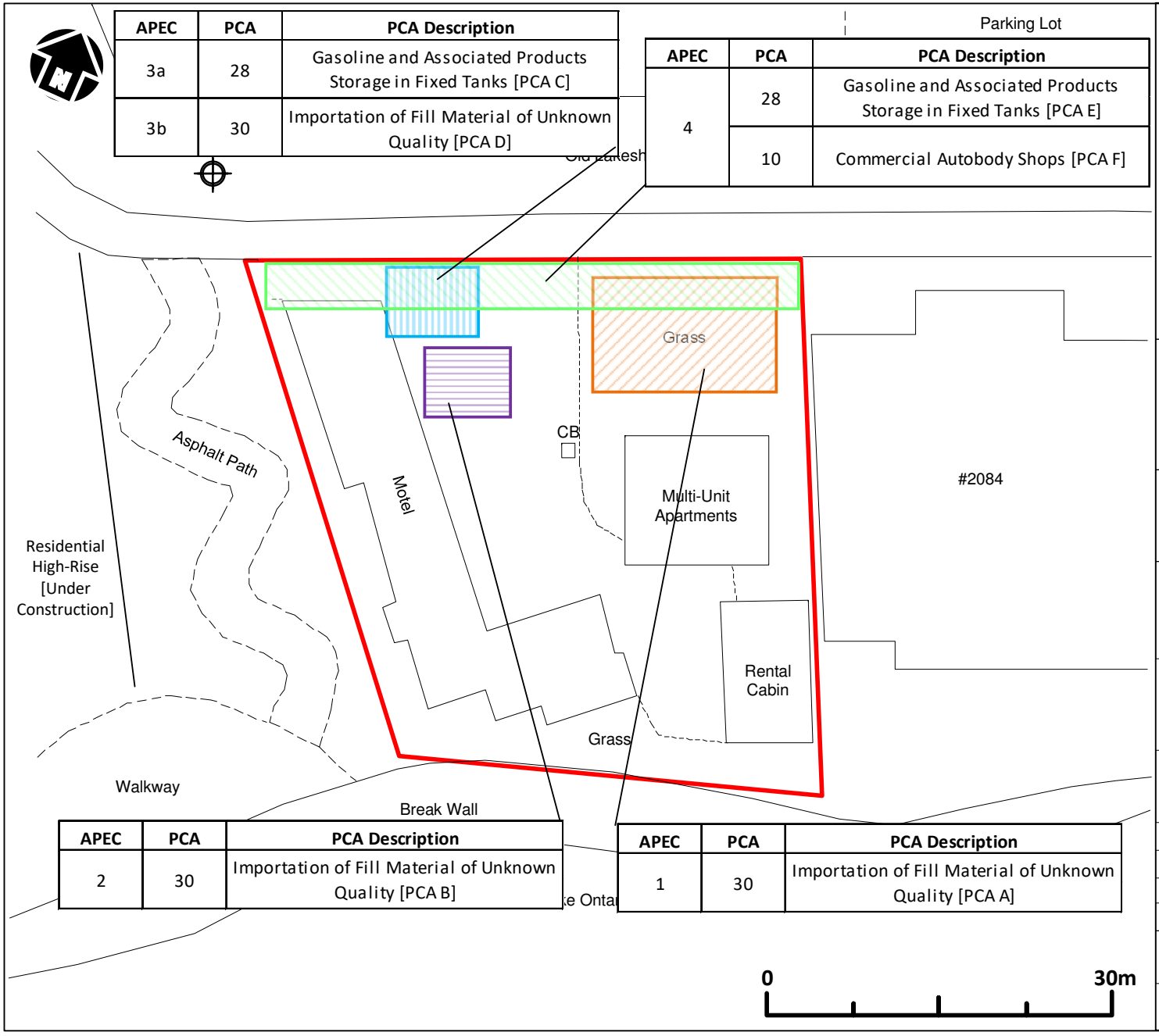
DRAWING TITLE

Site Plan Drawing

PROJECT No.	SM 230469-E
DATE	October 2023
CHECKED	SS
DRAWN	PM

FILE NAME
230469 Drawings.vsd

DRAWING No. 1



APEC	PCA	PCA Description
3a	28	Gasoline and Associated Products Storage in Fixed Tanks [PCA C]
3b	30	Importation of Fill Material of Unknown Quality [PCA D]

APEC	PCA	PCA Description
4	28	Gasoline and Associated Products Storage in Fixed Tanks [PCA E]
	10	Commercial Autobody Shops [PCA F]

APEC	PCA	PCA Description
2	30	Importation of Fill Material of Unknown Quality [PCA B]

APEC	PCA	PCA Description
1	30	Importation of Fill Material of Unknown Quality [PCA A]

LEGEND

= Site Boundary

= APEC #1

= APEC #2

= APEC #3

= APEC #4

BH# [MW#] = Borehole Location

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230469-E

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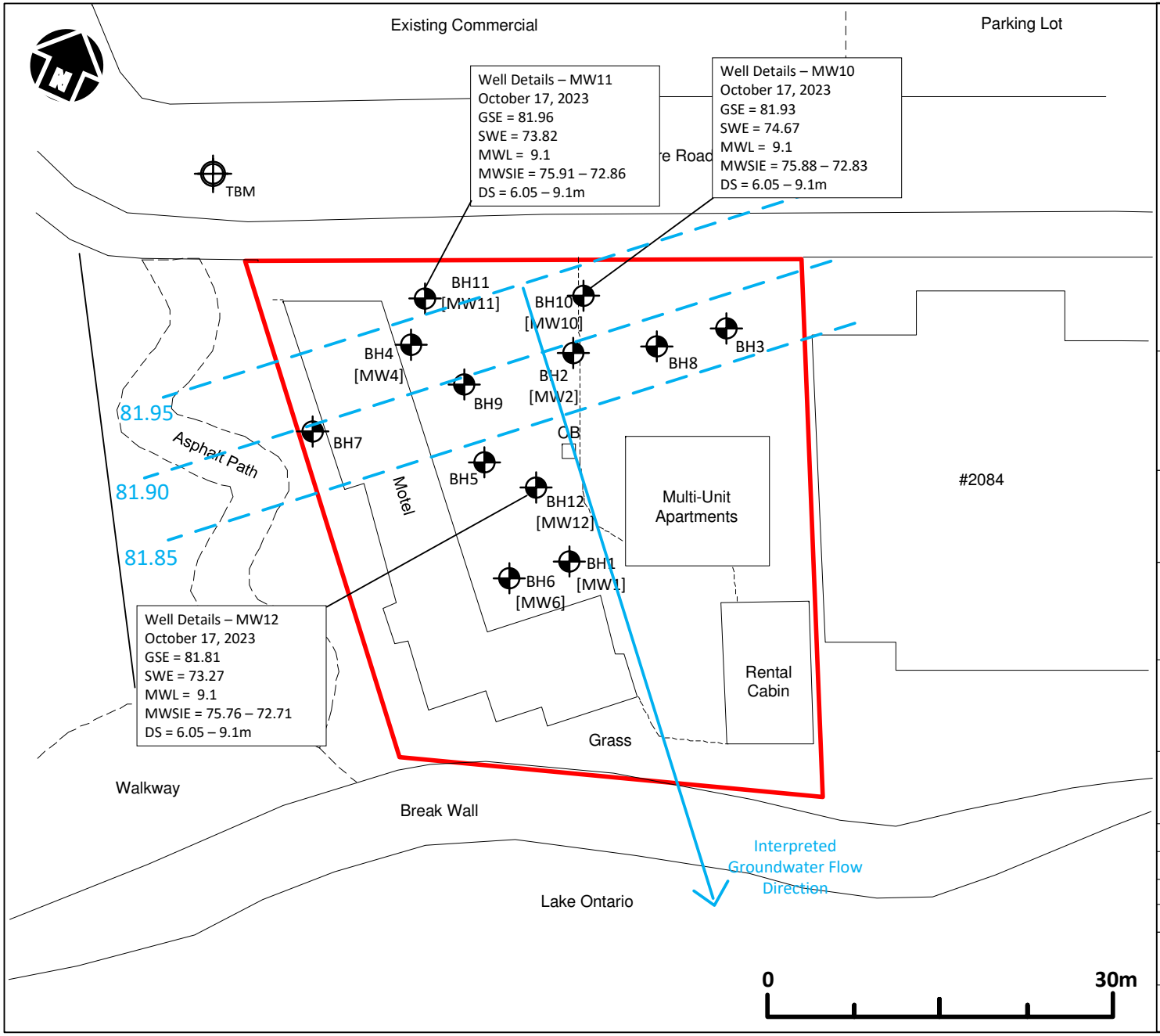
PROJECT TITLE
Phase Two Environmental Site Assessment
2076 Old Lakeshore Road
Burlington, Ontario

DRAWING TITLE
Borehole Location Plan

PROJECT No.	SM 230469-E
DATE	October 2023
CHECKED	SS
DRAWN	PM

FILE NAME
230469 Drawings.vsd

DRAWING No. 1A



LEGEND

= Site Boundary

BH# [MW#] = Borehole Location

TBM = Temporary Benchmark [Top or manhole cover with assumed elevation of 100.00m]

GSE = Monitoring Well Ground Surface Elevation
SWE = Static Water Elevation [taken on Nov. 9, 2020]
MWL = Monitoring Well Length
MWSIE = Monitoring Well Screen Interval Elevation
DS = Depth of Screen

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230469-E

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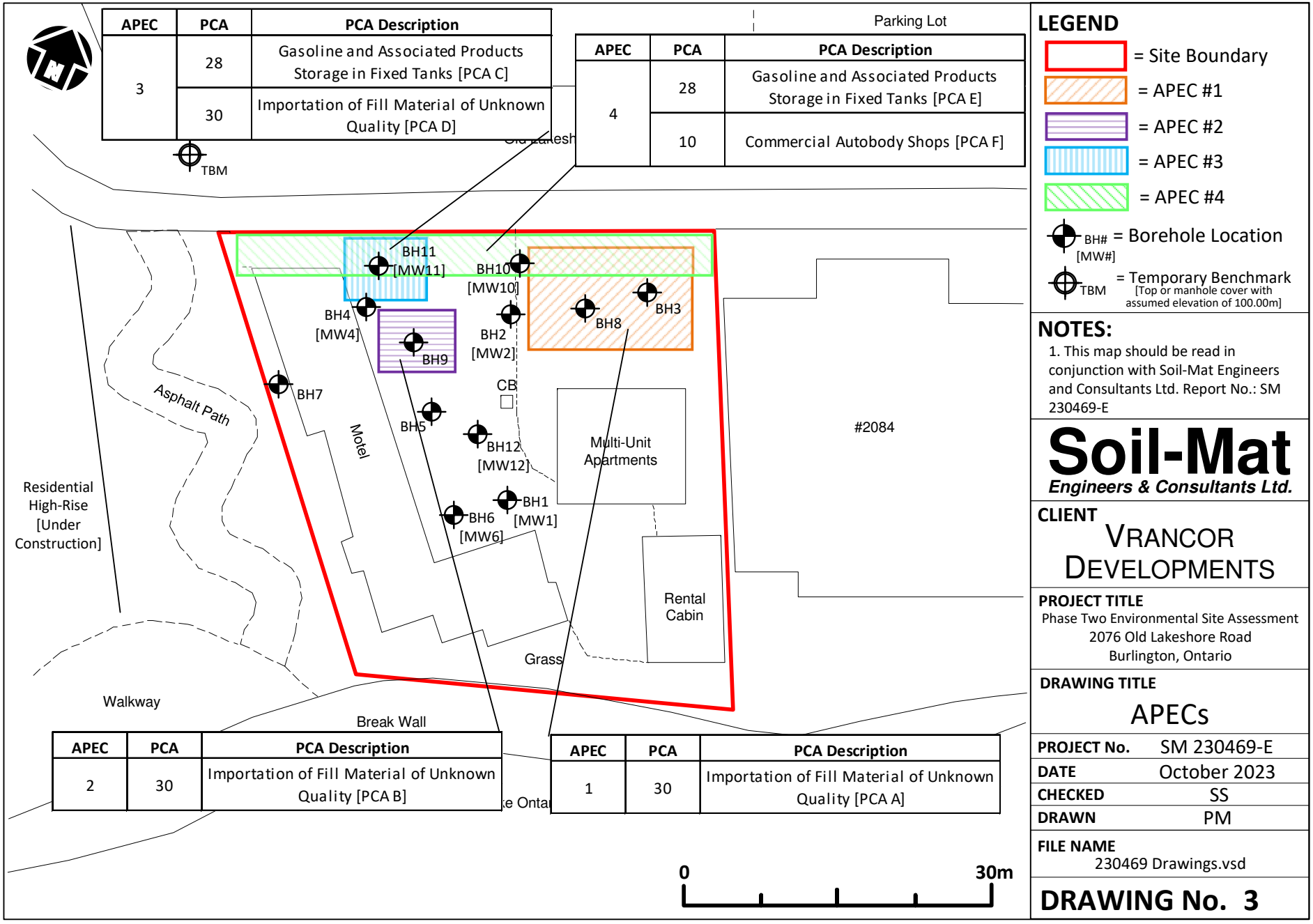
PROJECT TITLE
Phase Two Environmental Site Assessment
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DRAWING TITLE
Interpreted Groundwater Flow

PROJECT No.	SM 230469-E
DATE	October 2023
CHECKED	SS
DRAWN	PM

FILE NAME
230469 Drawings.vsd

DRAWING No. 2



APEC	PCA	PCA Description
3	28	Gasoline and Associated Products Storage in Fixed Tanks [PCA C]
	30	Importation of Fill Material of Unknown Quality [PCA D]

APEC	PCA	PCA Description
4	28	Gasoline and Associated Products Storage in Fixed Tanks [PCA E]
	10	Commercial Autobody Shops [PCA F]

APEC	PCA	PCA Description
2	30	Importation of Fill Material of Unknown Quality [PCA B]

APEC	PCA	PCA Description
1	30	Importation of Fill Material of Unknown Quality [PCA A]

LEGEND

- = Site Boundary
- = APEC #1
- = APEC #2
- = APEC #3
- = APEC #4
- BH# [MW#] = Borehole Location
- TBM = Temporary Benchmark [Top or manhole cover with assumed elevation of 100.00m]

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230469-E

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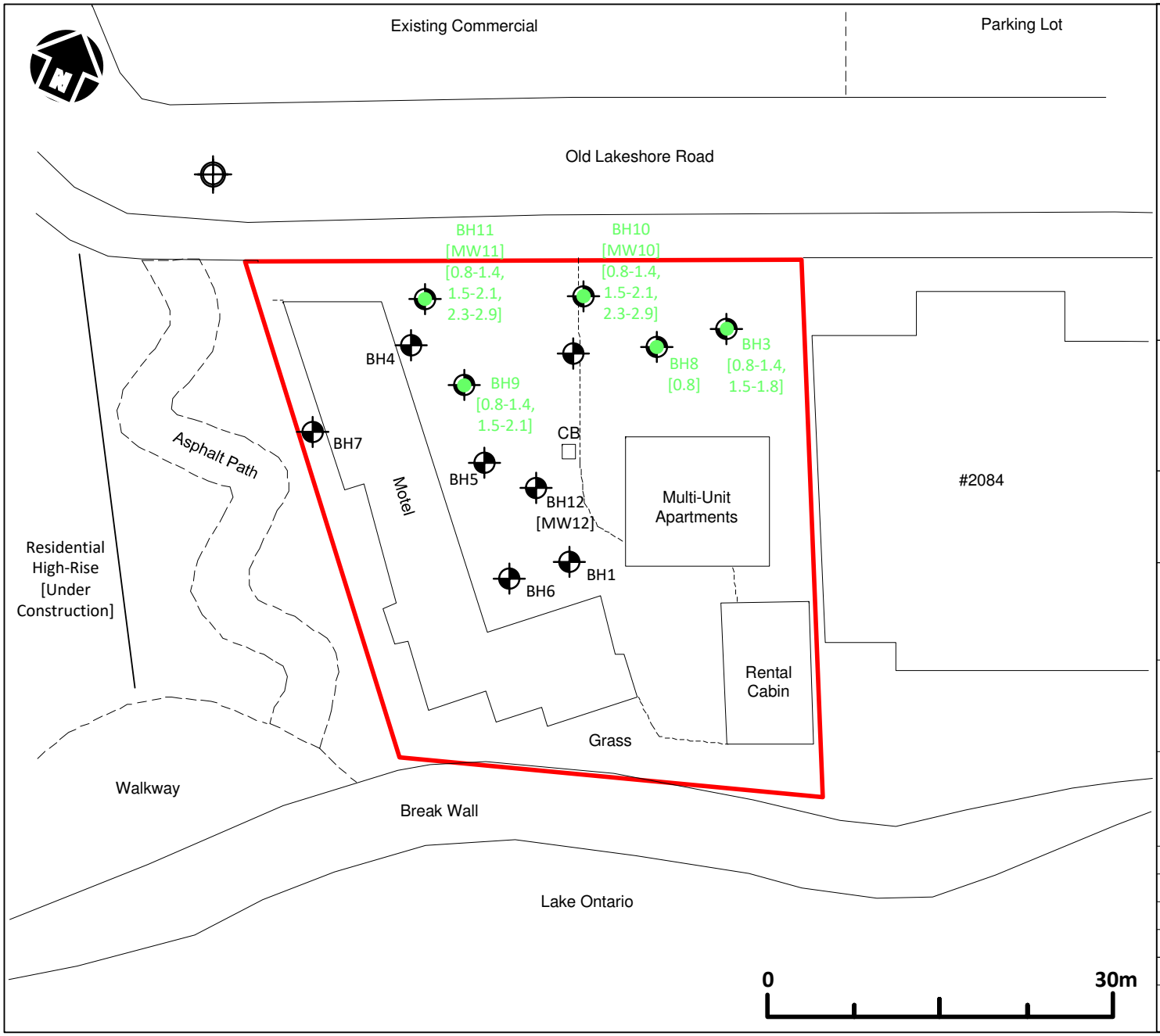
PROJECT TITLE
Phase Two Environmental Site Assessment
2076 Old Lakeshore Road
Burlington, Ontario

DRAWING TITLE
APECs

PROJECT No.	SM 230469-E
DATE	October 2023
CHECKED	SS
DRAWN	PM

FILE NAME
230469 Drawings.vsd

DRAWING No. 3



LEGEND

= Site Boundary

BH# [MW#] = Borehole Location

= Soil Samples that meet Applicable Table 9 SCSs

= Soil Samples that exceed Applicable Table 9 SCSs

The Metals grouping listed on the drawing includes: Metals, EC, SAR, B-HWS, Cyanide, Hexavalent Chromium and Mercury.

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230469-E

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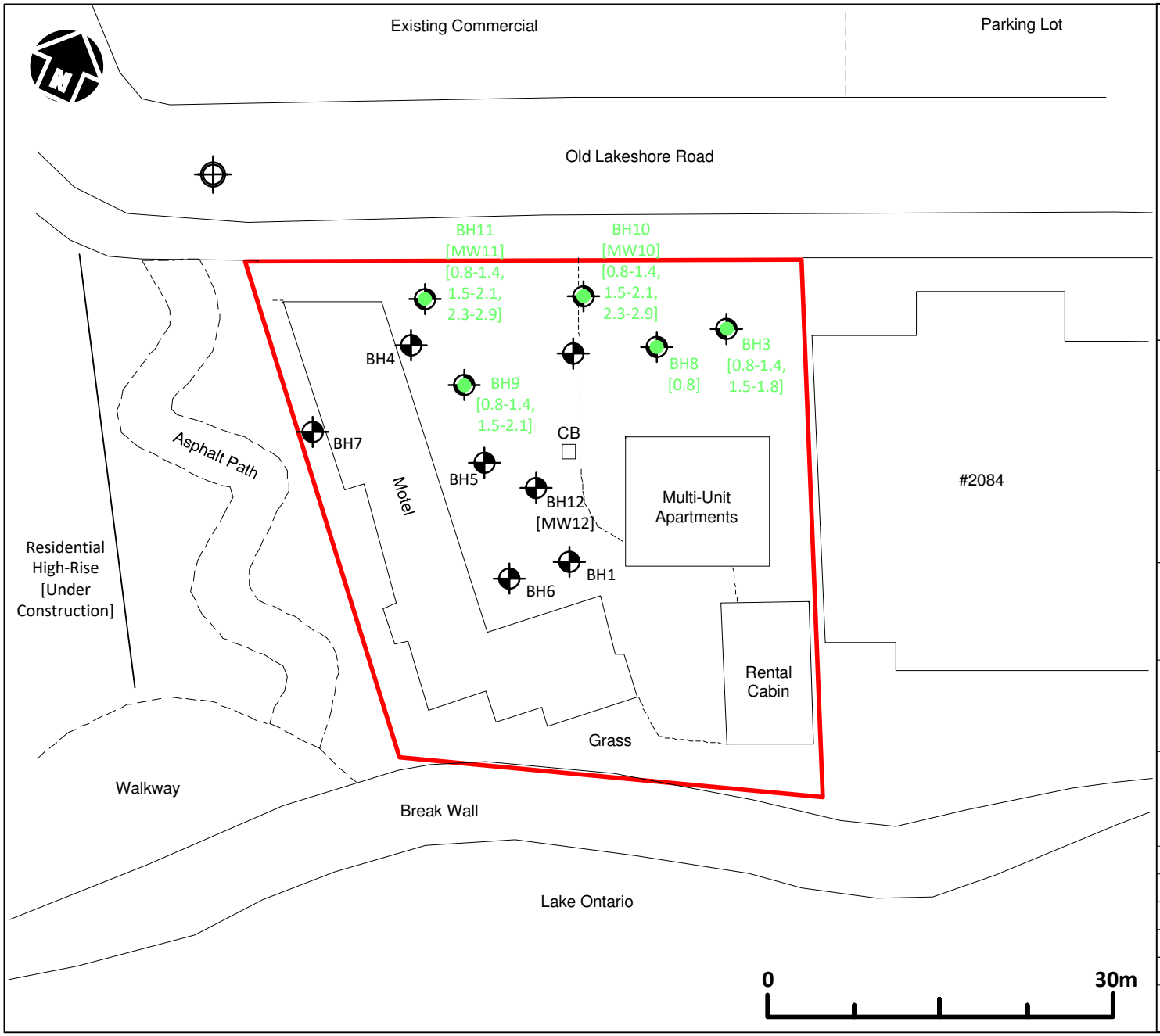
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PROJECT TITLE
Phase Two Environmental Site Assessment
2076 Old Lakeshore Road
Burlington, Ontario

DRAWING TITLE
Analytical Data Summary [Soil]-Metals

PROJECT No.	SM 230469-E
DATE	October 2023
CHECKED	SS
DRAWN	PM
FILE NAME	230469 Drawings.vsd

DRAWING No. 3A



LEGEND

= Site Boundary

BH# [MW#] = Borehole Location

= Soil Samples that meet Applicable Table 9 SCSs

= Soil Samples that exceed Applicable Table 9 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230469-E

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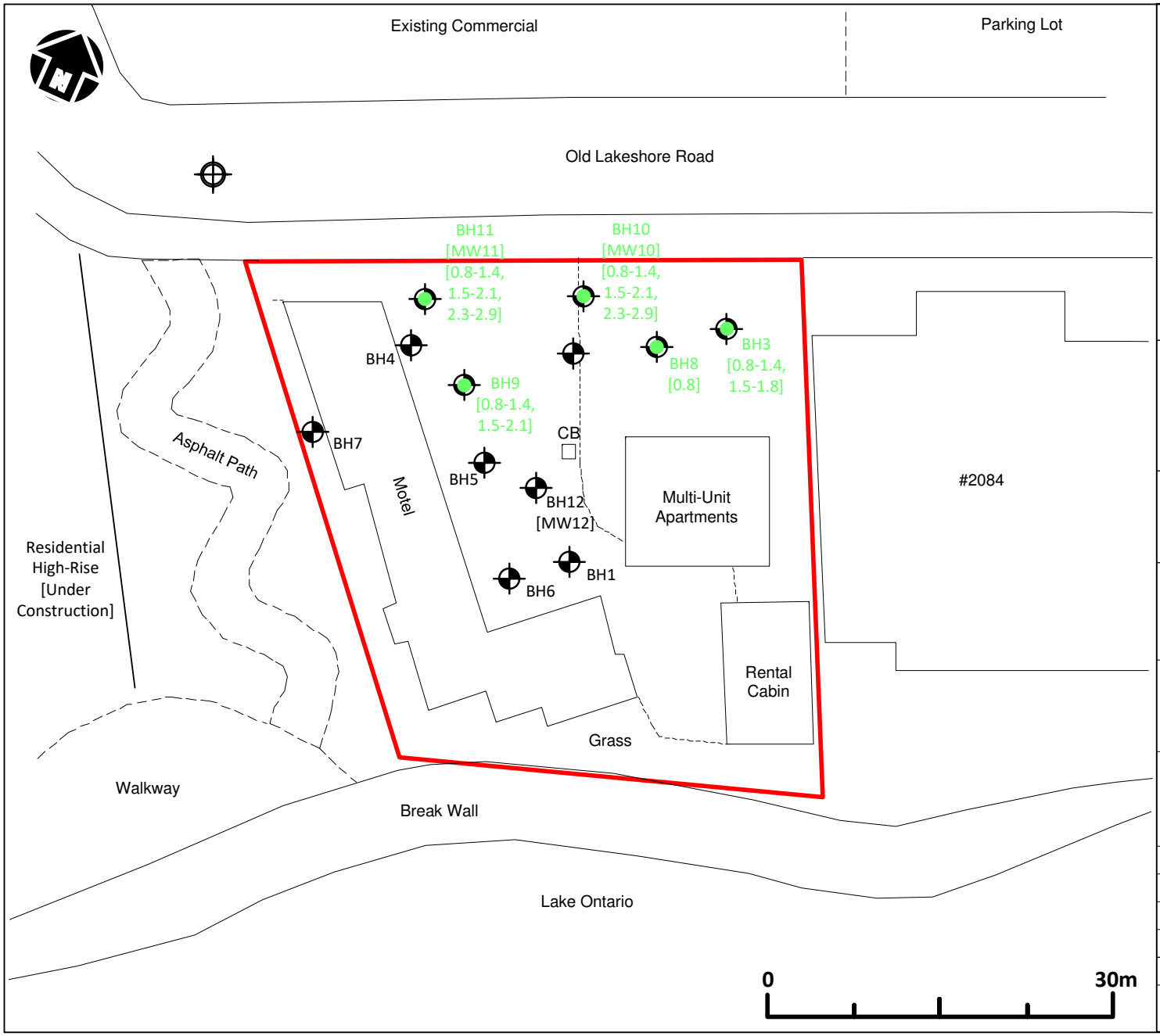
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PROJECT TITLE
Phase Two Environmental Site Assessment
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DRAWING TITLE
Analytical Data Summary [Soil]-
Petroleum Hydrocarbons [PHCs]

PROJECT No.	SM 230469-E
DATE	October 2023
CHECKED	SS
DRAWN	PM
FILE NAME	230469 Drawings.vsd

DRAWING No. 3B



LEGEND

= Site Boundary

BH# [MW#] = Borehole Location

= Soil Samples that meet Applicable Table 9 SCSs

= Soil Samples that exceed Applicable Table 9 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230469-E

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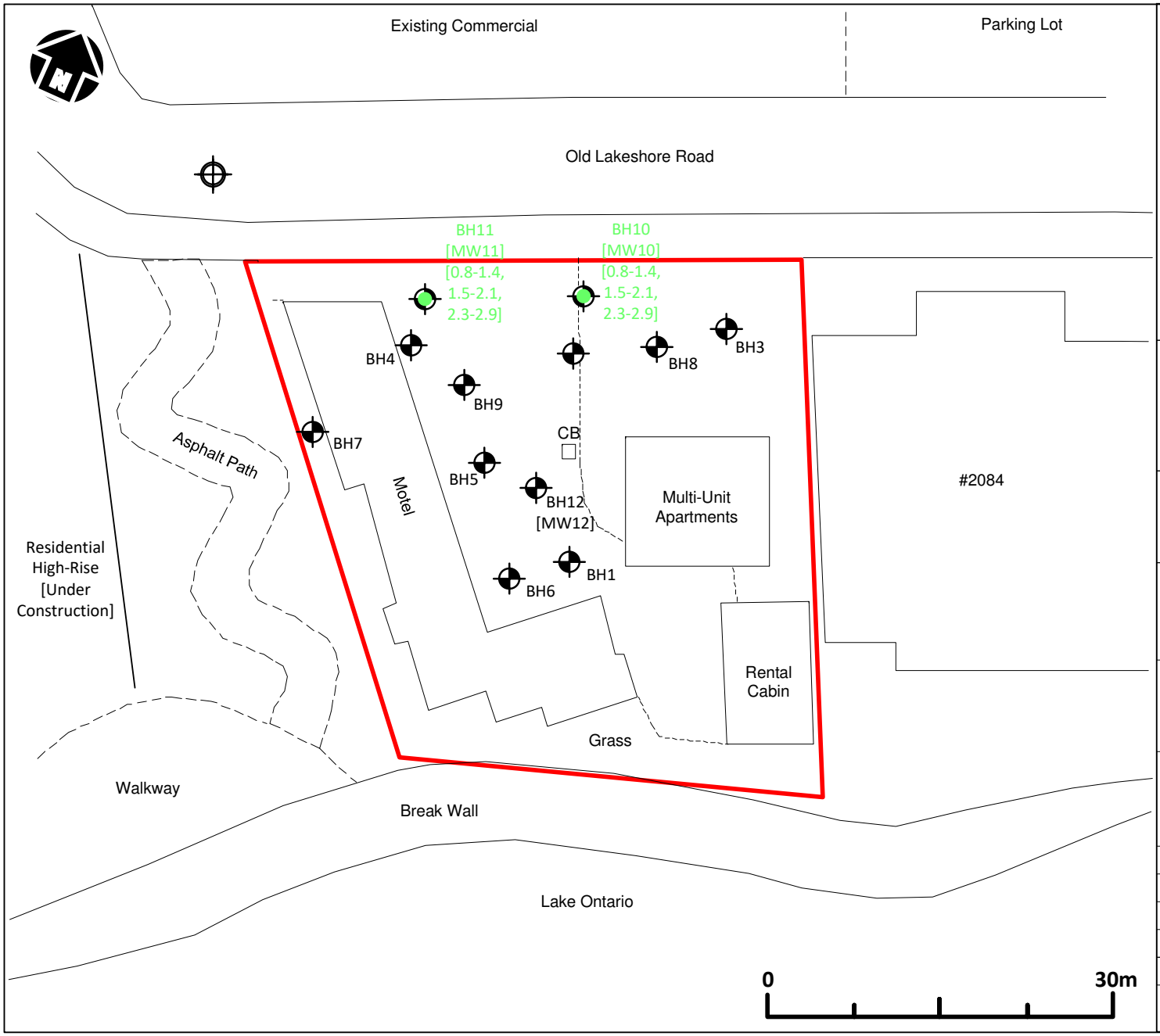
CLIENT
VRANCOR DEVELOPMENTS

PROJECT TITLE
Phase Two Environmental Site Assessment
2076 Old Lakeshore Road
Burlington, Ontario

DRAWING TITLE
Analytical Data Summary [Soil]- BTEX

PROJECT No.	SM 230469-E
DATE	October 2023
CHECKED	SS
DRAWN	PM
FILE NAME	230469 Drawings.vsd

DRAWING No. 3C



LEGEND

= Site Boundary

BH# [MW#] = Borehole Location

= Soil Samples that meet Applicable Table 9 SCSs

= Soil Samples that exceed Applicable Table 9 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230469-E

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PROJECT TITLE
Phase Two Environmental Site Assessment
2076 Old Lakeshore Road
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DRAWING TITLE
Analytical Data Summary [Soil]-
Volatile Organic Compounds [VOCs]

PROJECT No.	SM 230469-E
DATE	October 2023
CHECKED	SS
DRAWN	PM
FILE NAME	230469 Drawings.vsd

DRAWING No. 3D

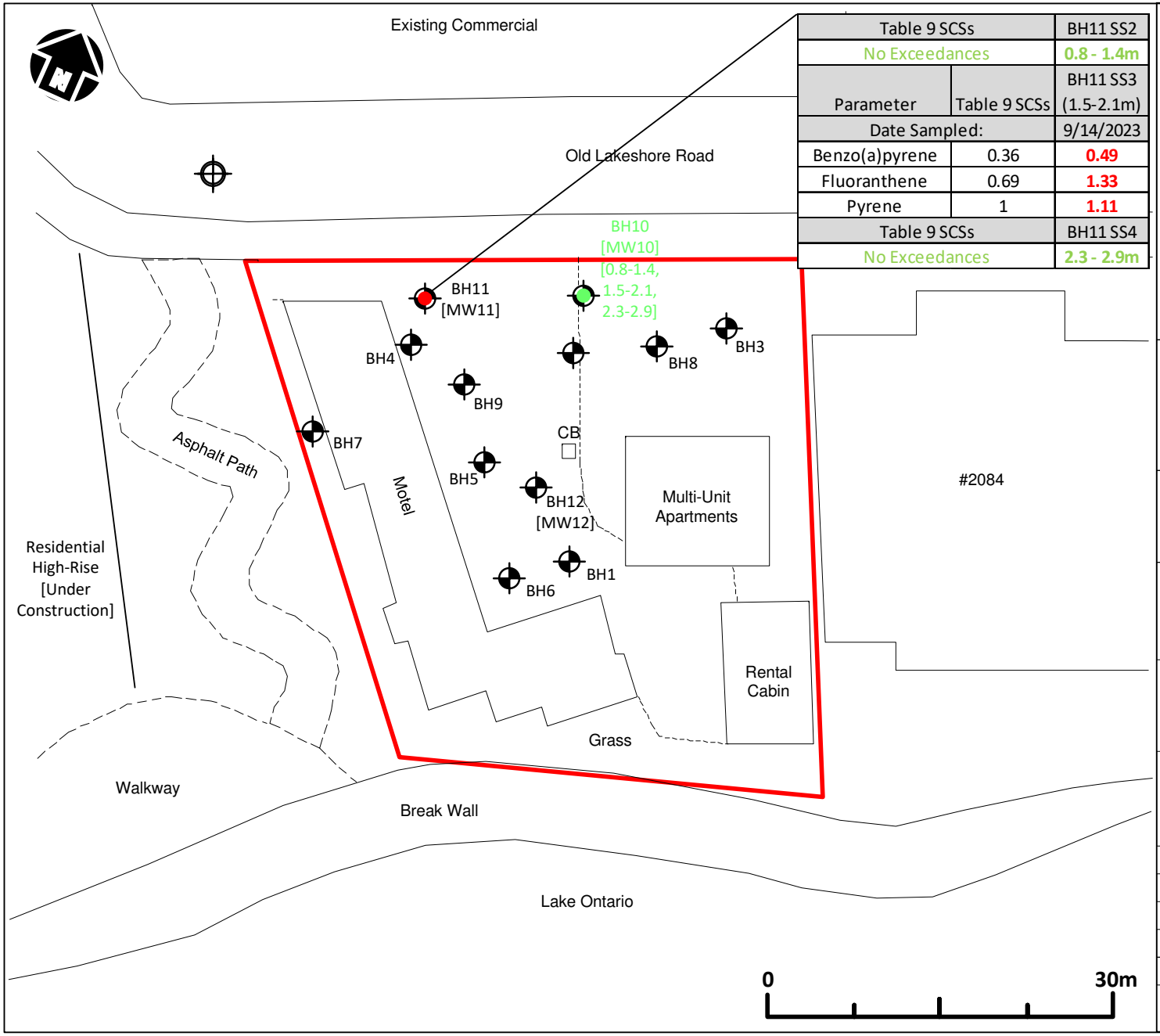


Table 9 SCSs		BH11 SS2
No Exceedances		0.8 - 1.4m
Parameter	Table 9 SCSs	BH11 SS3 (1.5-2.1m)
Date Sampled:		9/14/2023
Benzo(a)pyrene	0.36	0.49
Fluoranthene	0.69	1.33
Pyrene	1	1.11
Table 9 SCSs		BH11 SS4
No Exceedances		2.3 - 2.9m

LEGEND

= Site Boundary

BH# [MW#] = Borehole Location

= Soil Samples that meet Applicable Table 9 SCSs

= Soil Samples that exceed Applicable Table 9 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230469-E

Soil-Mat
Engineers & Consultants Ltd.

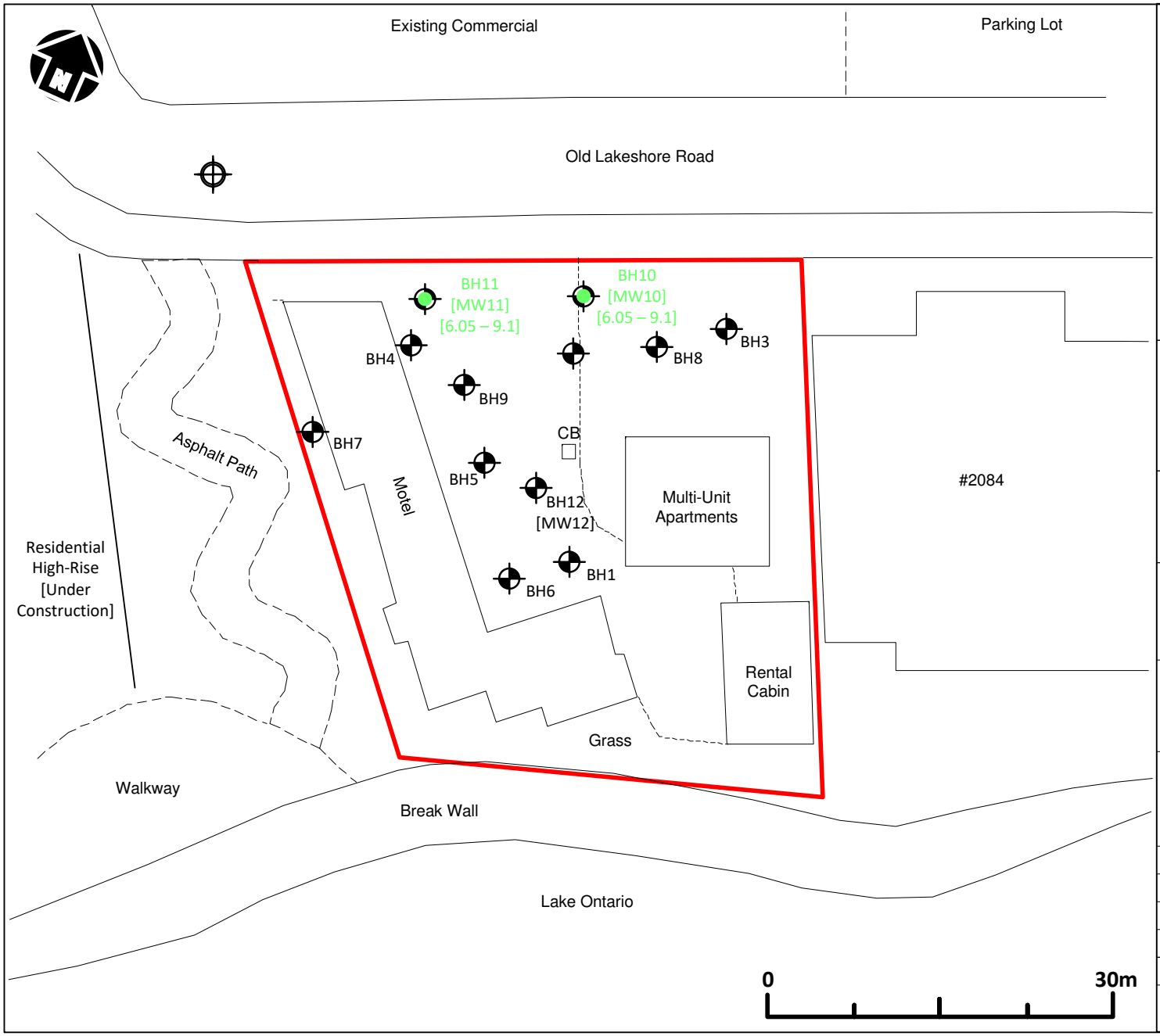
CLIENT
VRANCOR DEVELOPMENTS

PROJECT TITLE
Phase Two Environmental Site Assessment
2076 Old Lakeshore Road
Burlington, Ontario

DRAWING TITLE
Analytical Data Summary [Soil]-
Polycyclic Aromatic Hydrocarbons [PAHs]

PROJECT No.	SM 230469-E
DATE	October 2023
CHECKED	SS
DRAWN	PM
FILE NAME	230469 Drawings.vsd

DRAWING No. 3E



LEGEND

= Site Boundary

BH# [MW#] = Borehole Location

= Water Samples that meet Applicable Table 9 SCSs

= Water Samples that exceed Applicable Table 9 SCSs

The Metals grouping listed on the drawing includes: Metals, Sodium, B-HWS, Cyanide, Hexavalent Chromium, Chloride and Mercury.

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230469-E

Soil-Mat
Engineers & Consultants Ltd.

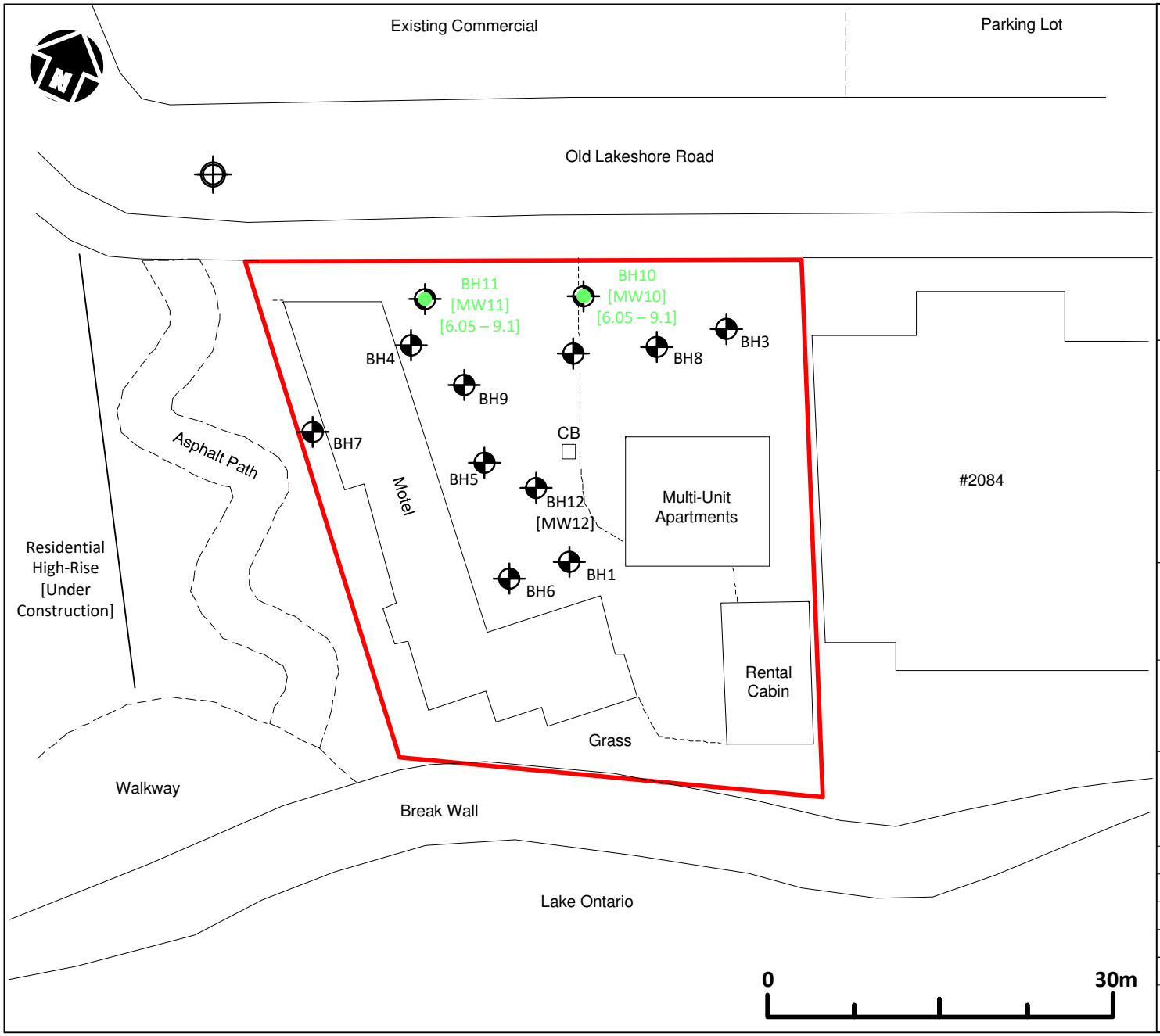
CLIENT
VRANCOR DEVELOPMENTS

PROJECT TITLE
Phase Two Environmental Site Assessment
2076 Old Lakeshore Road
Burlington, Ontario

DRAWING TITLE
Analytical Data Summary
[Water]- Metals

PROJECT No.	SM 230469-E
DATE	October 2023
CHECKED	SS
DRAWN	PM
FILE NAME	230469 Drawings.vsd

DRAWING No. 4A



LEGEND

= Site Boundary

BH# [MW#] = Borehole Location

= Water Samples that meet Applicable Table 9 SCSs

= Water Samples that exceed Applicable Table 9 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230469-E

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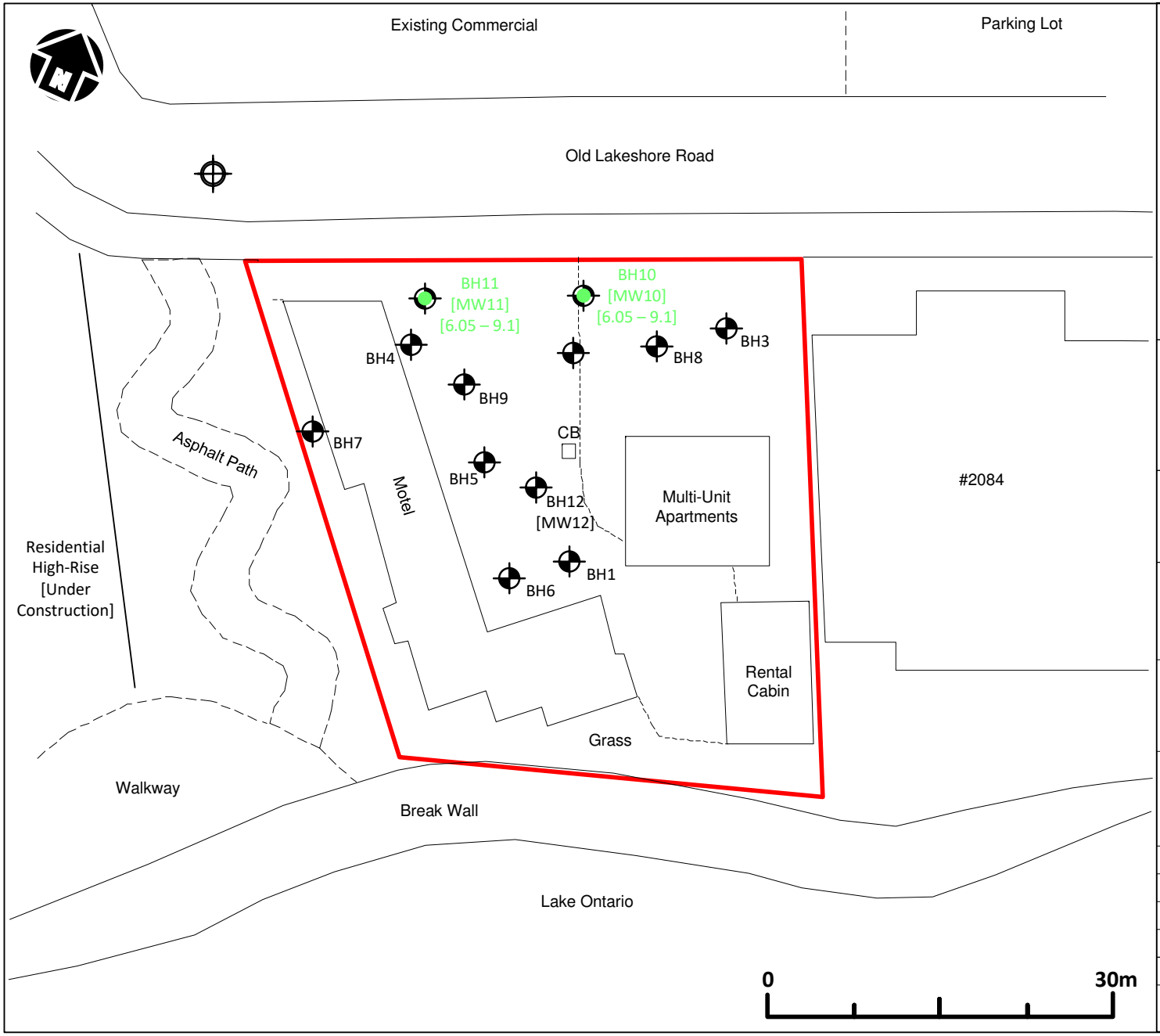
CLIENT
VRANCOR DEVELOPMENTS

PROJECT TITLE
Phase Two Environmental Site Assessment
2076 Old Lakeshore Road
Burlington, Ontario

DRAWING TITLE
Analytical Data Summary [Water]-
Petroleum Hydrocarbons [PHCs]

PROJECT No.	SM 230469-E
DATE	October 2023
CHECKED	SS
DRAWN	PM
FILE NAME	230469 Drawings.vsd

DRAWING No. 4B



LEGEND

= Site Boundary

BH# [MW#] = Borehole Location

= Water Samples that meet Applicable Table 9 SCSs

= Water Samples that exceed Applicable Table 9 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230469-E

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Engineers & Consultants Ltd.

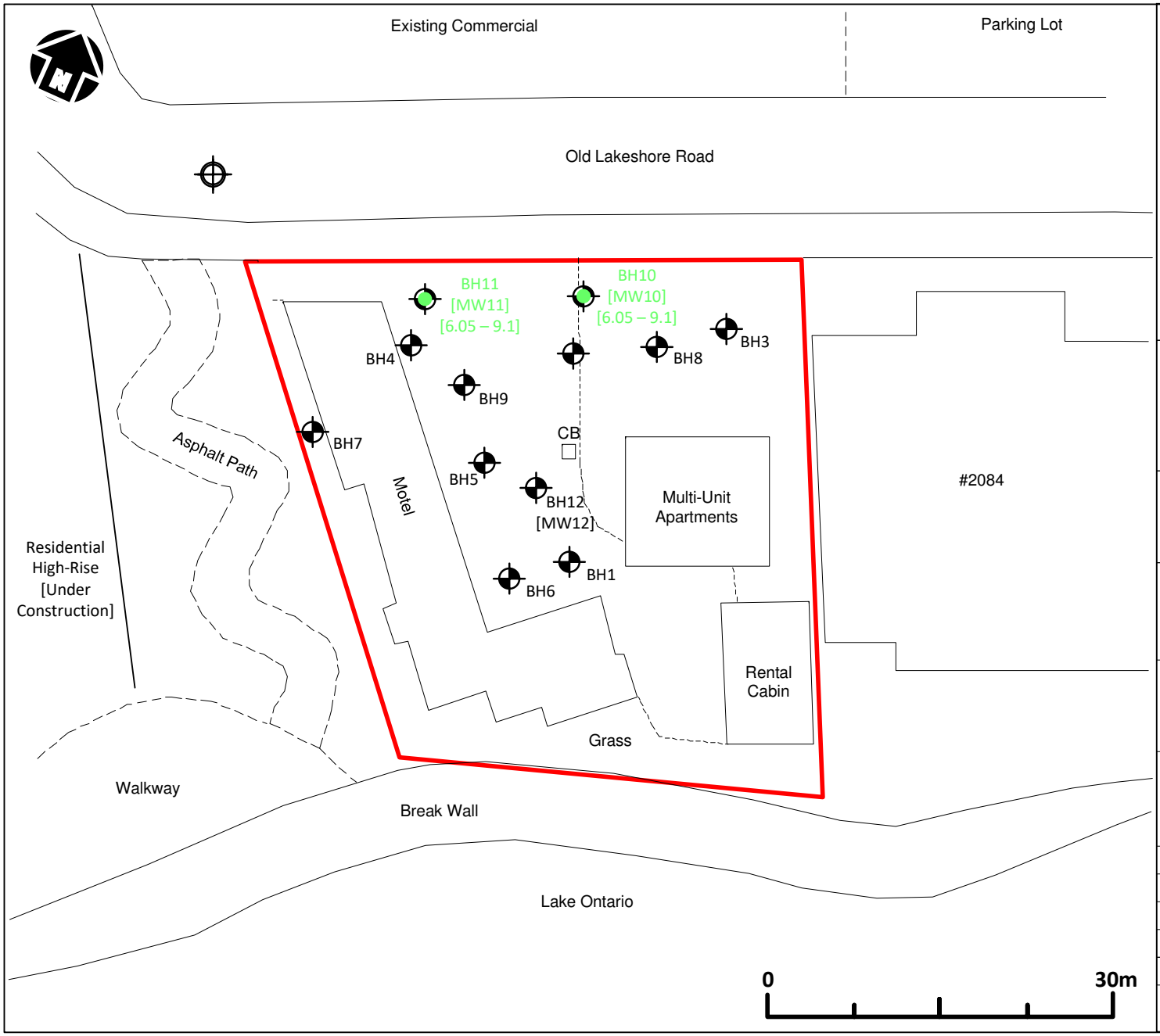
CLIENT
VRANCOR DEVELOPMENTS

PROJECT TITLE
Phase Two Environmental Site Assessment
2076 Old Lakeshore Road
Burlington, Ontario

DRAWING TITLE
Analytical Data Summary [Water]- BTEX

PROJECT No.	SM 230469-E
DATE	October 2023
CHECKED	SS
DRAWN	PM
FILE NAME	230469 Drawings.vsd

DRAWING No. 4C



LEGEND

= Site Boundary

BH# [MW#] = Borehole Location

= Water Samples that meet Applicable Table 9 SCSs

= Water Samples that exceed Applicable Table 9 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230469-E

Soil-Mat
Engineers & Consultants Ltd.

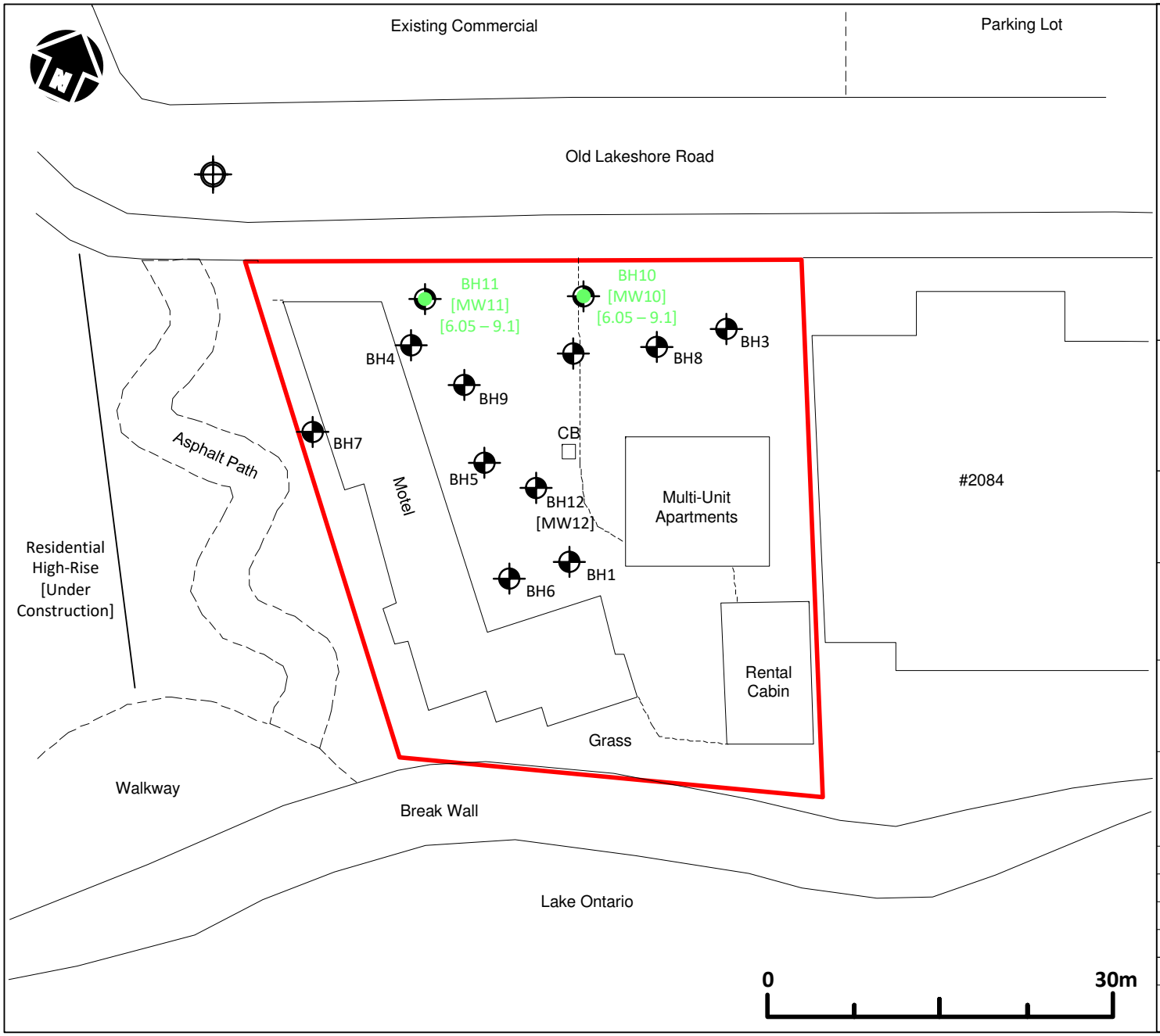
CLIENT
VRANCOR DEVELOPMENTS

PROJECT TITLE
Phase Two Environmental Site Assessment
2076 Old Lakeshore Road
Burlington, Ontario

DRAWING TITLE
Analytical Data Summary [Water]-
Volatile Organic Compounds [VOCs]

PROJECT No.	SM 230469-E
DATE	October 2023
CHECKED	SS
DRAWN	PM
FILE NAME	230469 Drawings.vsd

DRAWING No. 4D



LEGEND

= Site Boundary

BH# [MW#] = Borehole Location

= Water Samples that meet Applicable Table 9 SCSs

= Water Samples that exceed Applicable Table 9 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230469-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
VRANCOR DEVELOPMENTS

PROJECT TITLE
Phase Two Environmental Site Assessment
2076 Old Lakeshore Road
Burlington, Ontario

DRAWING TITLE
Analytical Data Summary [Water]-
Polycyclic Aromatic Hydrocarbons [PAHs]

PROJECT No.	SM 230469-E
DATE	October 2023
CHECKED	SS
DRAWN	PM
FILE NAME	230469 Drawings.vsd

DRAWING No. 4E

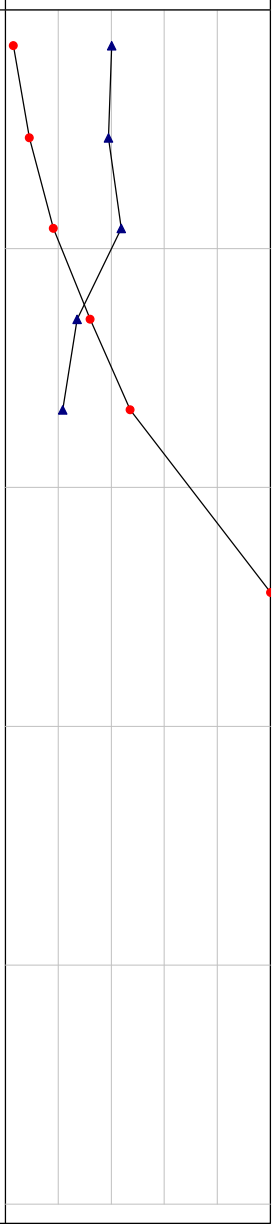
Log of Borehole No. 1

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797671
E: 597892

Depth (ft / m)	Elevation (m)	Description	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	81.90	Ground Surface							
		Pavement Structure Approximately 50 millimetres of asphaltic concrete over 100 millimetres of compact granular base.	SS	1	4,2,1,2	3			
		Clayey Sandy Silt Brown, trace gravel, reworked in appearances in the upper levels, stiff to hard.	SS	2	2,3,6,8	9			
			SS	3	6,8,10,50/4" Wet Spoon	18			
	79.60	Transition to more till-like material.	SS	4	8,16,16,17	32			
	78.30	**Queenston shale** Red, with more resistant grey layers, highly weathered in upper levels, becoming more sound with depth, hard.	SS	5	5,21,26,50/5"	47			
			SS	6	50/2"	100			
			HQ	7	RQD=81.7%				

Moisture Content w% (10 20 30 40)
Standard Penetration Test blows/300mm (20 40 60 80)



Drill Method: HS/HQ
Drill Date: September 5, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Datum: Geodetic Benchmark
Field Logged by: PTT
Checked by: SRS
Sheet: 1 of 3

Log of Borehole No. 1

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797671
E: 597892

Depth	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
34												
35												
36	11											
37												
38												
39												
40	12											
41												
42												
43	13											
44												
45												
46	14											
47												
48												
49	15											
50												
51												
52												
53	16											
54												
55												
56	17				HQ	8	RQD=98.3%					
57												
58												
59	18											
60												
61												
62	19				HQ	9	RQD=86.7%					
63												
64												
65												

Drill Method: HS/HQ
Drill Date: September 5, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Log of Borehole No. 1

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797671
E: 597892

Depth	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98	56.00		End of Borehole NOTES: 1. Borehole was advanced using hollow stem auger and HQ coring equipment on September 5, 2023 to termination at a depth of 25.9 metres. 2. Borehole was recorded as open upon completion and backfilled as per Ontario Regulation 903. 3. Soil samples will be discarded after 3 months unless otherwise directed by our client. 4. A monitoring well was installed. The following free groundwater level readings have been measured: October 4, 2023 - 15.66 metres bgs.		HQ	10	RQD=94.4%					Core C2: 23.31 metres Unconfined Compressive Strength = 26.5 MPa Core C3: 24.63 metres Unconfined Compressive Strength = 12.4 MPa
					HQ	11	RQD=100%					

Drill Method: HS/HQ
Drill Date: September 5, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Sheet: 3 of 3

Log of Borehole No. 2

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797682
E: 597890

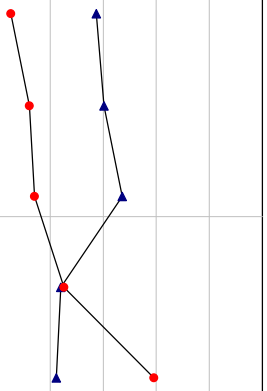
Depth (ft / m)	Elevation (m)	Description	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	81.90	Ground Surface							
		Topsoil Approximately 75 millimetres of topsoil.							
		Clayey Sandy Silt Brown, some to trace clay, trace gravel and reworked in appearances in the upper levels, firm to hard.	SS	1	4,3,2,2	5			
			SS	2	3,4,8,6	12			
			SS	3	7,9,5,7	14			
2	79.60	Transition to more till-like material.	SS	4	7,12,13,15	25			
3	78.30	**Queenston shale** Red, with more resistant grey layers, highly weathered in upper levels, becoming more sound with depth, hard.	SS	5	4,24,35,50/4"	59			
4									
5									
6									
7									
8									
9									

Well Data

SAMPLE

Moisture Content w% (10 20 30 40)

Standard Penetration Test blows/300mm (20 40 60 80)



Drill Method: HS/HQ
Drill Date: September 6, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Log of Borehole No. 2

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797682
E: 597890

Depth	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
34												
35												
36	11											
37												
38												
39												
40	12											
41												
42												
43	13											
44												
45												
46	14											
47												
48												
49	15											
50												
51												
52												
53	16											
54												
55												
56	17											
57												
58												
59	18											
60												
61												
62	19											
63												
64												
65												
	61.80											

Drill Method: HS/HQ
Drill Date: September 6, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Log of Borehole No. 2

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797682
E: 597890

Depth	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	SAMPLE PP (kgf/cm2)	SAMPLE U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
66			End of Borehole									
67												
68												
69	21											
70												
71												
72	22											
73												
74												
75												
76	23											
77												
78												
79	24											
80												
81												
82	25											
83												
84												
85												
86	26											
87												
88												
89	27											
90												
91												
92	28											
93												
94												
95	29											
96												
97												
98												

NOTES:

1. Borehole was advanced using hollow stem auger and HQ coring equipment on September 6, 2023 to termination at a depth of 20.1 metres.

2. Borehole was recorded as open upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

4. A monitoring well was installed. The following free groundwater level readings have been measured:
October 4, 2023 - 9.08 metres bgs.

Drill Method: HS/HQ
Drill Date: September 6, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Sheet: 3 of 3

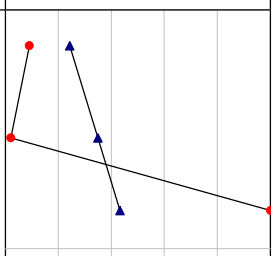
Log of Borehole No. 3

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 479783
E: 597880

Depth (ft / m)	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	Headspace rdg [ppm]
0 / 0	81.97		Ground Surface								
0–1 / 0	81.60		**Topsoil** Approximately 150 millimetres of topsoil.		SS	1	1,4,5,3	9			0
1–3 / 0–1			**Pavement Structure** Approximately 150 millimetres of compact granular base.		SS	2	1,1,1,2	2			0
5–6 / 1–2	80.17		**Silty Sand/Silty Clay Fill** Brown, occasional cobbles, organics and concrete inclusions, stiff to soft.		SS	3	28,50/2"	100			0
6 / 2			End of Borehole Spoon Refusal on Assumed Concrete								

Moisture Content w% (10 20 30 40)
Standard Penetration Test blows/300mm (20 40 60 80)



NOTES:

1. Borehole was advanced using solid stem auger equipment on September 12, 2023 to spoon refusal on assumed concrete at a depth of 1.8 metres.

2. Borehole was recorded as open and 'dry' below the ground surface upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Auger
Drill Date: September 12, 2023
Hole Size: 150 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Datum: Geodetic Benchmark
Field Logged by: PTT
Checked by: SRS
Sheet: 1 of 1

Log of Borehole No. 4

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797671
E: 597876

Depth (ft / m)	Elevation (m)	Description	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	81.96	Ground Surface							
0 / 0	81.74	**Pavement Structure** Approximately 100 millimetres of asphaltic concrete over 125 millimetres of compact granular base.							
1 / 0		**Clayey Sandy Silt** Brown, trace gravel, some clay, occasional sandy seams, occasional rocks inclusions and reworked in appearances in the upper levels, very loose to dense.	SS	1	2,2,2,3	4			
2 / 1			SS	2	1,0,2,2	2			
3 / 1			SS	3	1,2,4,12	6			
7 / 2	79.60	Transition to more till-like material.							
8 / 2			SS	4	7,10,18,15	28			
10 / 3	78.60	**Queenston shale** Red, with more resistant grey layers, highly weathered in upper levels, becoming more sound with depth, hard.	SS	5	4,22,28,50/5"	50			

Moisture Content w% (10 20 30 40)
Standard Penetration Test blows/300mm (20 40 60 80)

Drill Method: HS/HQ
Drill Date: September 7, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Datum: Geodetic Benchmark
Field Logged by: PTT
Checked by: SRS
Sheet: 1 of 3

Log of Borehole No. 4

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797671
E: 597876

Depth	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
34												
35												
36	11											
37												
38												
39												
40	12											
41												
42												
43	13											
44												
45												
46	14											
47												
48												
49	15											
50												
51												
52												
53	16											
54												
55												
56	17				HQ	6	RQD=93.3%					
57												
58												
59	18											
60												
61												
62	19				HQ	7	RQD=95.3%					
63												
64												
65												

Drill Method: HS/HQ
Drill Date: September 7, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Datum: Geodetic Benchmark
Field Logged by: PTT
Checked by: SRS
Sheet: 2 of 3

Log of Borehole No. 4

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797671
E: 597876

Depth	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98	56.06		End of Borehole NOTES: 1. Borehole was advanced using hollow stem auger and HQ coring equipment on September 7, 2023 to termination at a depth of 25.9 metres. 2. Borehole was recorded as open upon completion and backfilled as per Ontario Regulation 903. 3. Soil samples will be discarded after 3 months unless otherwise directed by our client. 4. A monitoring well was installed. The following free groundwater level readings have been measured: October 4, 2023 - 8.53 metres bgs.		HQ	8	RQD=95.8%					Core D1: 18.69 metres Unconfined Compressive Strength = 17.5 MPa Core D3: 25.69 metres Unconfined Compressive Strength = 30.9 MPa
					HQ	9	RQD=89.3%					

Drill Method: HS/HQ
Drill Date: September 7, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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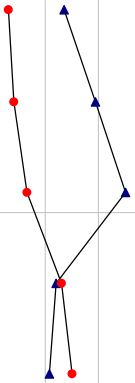
Log of Borehole No. 5

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797697
E: 597894

Depth (ft / m)	Elevation (m)	Description	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	82.01	Ground Surface							
0 / 0	81.76	**Pavement Structure** Approximately 75 millimetres of asphaltic concrete over 175 millimetres of compact granular base.							
1 / 0		**Clayey Sandy Silt** Brown, trace gravel, some to trace clay, occasional sandy seams, reworked in appearances in the upper levels, firm to hard.	SS	1	5,4,2,1	6			
2 / 1			SS	2	2,5,3,6	8			
3 / 1			SS	3	4,6,7,8	13			
7 / 2	79.70	Transition to more till-like material.							
8 / 2			SS	4	4,15,11,14	26			
10 / 3			SS	5	4,9,21,50/4"	30			
11 / 3	78.60	**Queenston shale** Red, with more resistant grey layers, highly weathered in upper levels, becoming more sound with depth, hard.							
26 / 8			HQ	6	RQD=100%				

Moisture Content w% (10 20 30 40)
Standard Penetration Test blows/300mm (20 40 60 80)



Drill Method: HS/HQ
Drill Date: September 8, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Log of Borehole No. 5

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797697
E: 597894

Depth	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
34												
35												
36	11											
37												
38												
39												
40	12											
41												
42												
43	13											
44												
45												
46	14											
47												
48												
49	15											
50												
51												
52												
53	16											
54												
55												
56	17				HQ	7	RQD=75.0%					
57												
58												
59	18											
60												
61												
62	19											
63												
64												
65												

Drill Method: HS/HQ
Drill Date: September 8, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Log of Borehole No. 5

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797697
E: 597894

Depth	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98	21 22 23 24 25 26 27 28 29											
	59.01		End of Borehole		HQ	8	RQD=91.8%					Core B1: 7.92 metres Unconfined Compressive Strength = 22.3 MPa Core B2: 21.97 metres Unconfined Compressive Strength = 26.3 MPa

NOTES:

1. Borehole was advanced using hollow stem auger and HQ coring equipment on September 8, 2023 to termination at a depth of 23.0 metres.

2. Borehole was recorded as open upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: HS/HQ
Drill Date: September 8, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Log of Borehole No. 6

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797661
E: 597890

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
0 ft / 0 m	81.97	Ground Surface									
0	81.75	**Pavement Structure** Approximately 75 millimetres of asphaltic concrete over 150 millimetres of compact granular base.									
1 – 2 / 0 – 1		**Clayey Sandy Silt** Brown, trace gravel, some to trace clay, occasional sandy seams, reworked in appearances in the upper levels, firm to hard.		SS	1	3,1,1,1	2				
				SS	2	2,3,3,4	6				
				SS	3	2,3,4,5	7				
2 / 1	79.60	Transition to more till-like material, occasional cobbles inclusions.		SS	4	7,9,12,14	21				
3 / 2	78.60	**Queenston shale** Red, with more resistant grey layers, highly weathered in upper levels, becoming more sound with depth, hard.		SS	5	6,11,34,34	45				
4 – 33 / 3 – 9											

Drill Method: HS/HQ
Drill Date: September 11, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Log of Borehole No. 6

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797661
E: 597890

Depth	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
34												
35												
36	11											
37												
38												
39												
40	12											
41												
42												
43	13											
44												
45												
46	14											
47												
48												
49	15											
50												
51												
52												
53	16											
54												
55												
56	17											
57												
58												
59	18											
60												
61												
62	19											
63												
64												
65												

Drill Method: HS/HQ
Drill Date: September 11, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Log of Borehole No. 6

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797661
E: 597890

Depth	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	SAMPLE PP (kgf/cm2)	SAMPLE U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
66	61.67											
67			End of Borehole									
68												
69	21											
70												
71												
72	22											
73												
74												
75	23											
76												
77												
78	24											
79												
80												
81												
82	25											
83												
84												
85	26											
86												
87												
88	27											
89												
90												
91												
92	28											
93												
94												
95	29											
96												
97												
98												

NOTES:

1. Borehole was advanced using hollow stem auger and HQ coring equipment on September 11, 2023 to termination at a depth of 20.3 metres.

2. Borehole was recorded as open upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

4. A monitoring well was installed. The following free groundwater level readings have been measured:
October 4, 2023 - 5.49 metres bgs.

Drill Method: HS/HQ
Drill Date: September 11, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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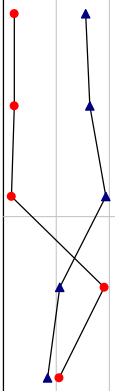
Log of Borehole No. 7

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797662
E: 597856

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	82.29	Ground Surface								
0 – 3 / 0 – 1		**Topsoil** Approximately 125 millimetres of topsoil.		SS	1	1,2,2,1	4			
		Clayey Sandy Silt Brown, trace gravel, trace to some clay, occasional organics inlcusions in the upper levels, soft to hard.		SS	2	2,2,2,1	4			
6 – 8 / 2				SS	3	3,2,1,3	3			
8 / 2	79.70			SS	4	6,17,21,16	38			
9 – 10 / 3		Transition to more till-like material, occasional cobbles inclusions.		SS	5	6,9,12,15	21			
13 – 14 / 4	78.00									
14 – 23 / 5 – 7		**Queenston shale** Red, high silt content, with more resistant grey layers, highly weathered in upper levels, becoming more sound with depth, hard.		HQ	6	RQD=48.3%				

Moisture Content w% (10 20 30 40)
Standard Penetration Test blows/300mm (20 40 60 80)



Drill Method: HS/HQ
Drill Date: September 12, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Log of Borehole No. 7

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797662
E: 597856

Depth	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
34												
35												
36	11											
37												
38												
39												
40	12											
41												
42												
43	13											
44												
45												
46	14											
47												
48												
49	15											
50												
51												
52	16											
53												
54												
55												
56	17				HQ	7	RQD=70.7%					
57												
58												
59	18											
60												
61												
62	19											
63												
64												
65												

Drill Method: HS/HQ
Drill Date: September 12, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Log of Borehole No. 7

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797662
E: 597856

Depth	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98	21 22 23 24 25 26 27 28 29											
					HQ	8	RQD=85.0%					Core A1: 17.00 metres Unconfined Compressive Strength = 17.2 MPa Core A2: 21.68 metres Unconfined Compressive Strength = 27.7
	59.39		End of Borehole									

NOTES:

1. Borehole was advanced using hollow stem auger and HQ coring equipment on September 12, 2023 to termination at a depth of 22.9 metres.

2. Borehole was recorded as open upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: HS/HQ
Drill Date: September 12, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Log of Borehole No. 8

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797686
E: 597896

Depth (ft / m)	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	Headspace rdg [ppm]	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
0 / 0	81.95		Ground Surface									
0–3 / 0–1			**Topsoil** Approximately 150 millimetres of topsoil.		SS	1	4,7,7,6	14			0	
3–4 / 1	80.55		**Silty Sand/Sandy Silt Fill** Brown, trace gravel, occasional cobbles and construction debris inclusions, compact.		SS	2	1,4,0,0	4			0	
4 / 1			End of Borehole Auger Refusal on Assumed Concrete									
0–33 / 0–9			NOTES: 1. Borehole was advanced using solid stem auger equipment on September 12, 2023 to auger refusal on assumed concrete at a depth of 1.4 metres. 2. Borehole was recorded as open and 'dry' below the ground surface upon completion and backfilled as per Ontario Regulation 903. 3. Soil samples will be discarded after 3 months unless otherwise directed by our client.									

Drill Method: Solid Stem Auger
Drill Date: September 12, 2023
Hole Size: 150 millimetres
Drilling Contractor: Davis Drilling Ltd.

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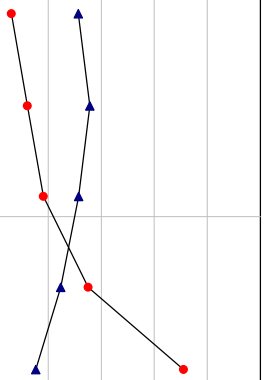
Log of Borehole No. 9

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797676
E: 597886

Depth (ft / m)	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	Headspace rdg [ppm]
	81.94		Ground Surface								
0 / 0	81.61		**Pavement Structure** Approximately 25 millimetres of asphaltic concrete over 300 millimetres of compact granular base.		SS	1	5,3,3,3	6			0
3 / 1			**Clayey Sandy Silt** Brown, trace gravel, some to trace clay, reworked in appearances in the upper levels, loose to dense.		SS	2	2,5,7,8	12			75
6 / 2	79.90		Transition to more till-like material, occasional cobbles inclusions.		SS	3	7,8,10,11	18			0
10 / 3	78.70				SS	4	9,9,26,22	35			0
11 / 4	78.40		**Queenston Shale** Red, with more resistant grey layers, highly weathered in upper levels, becoming more sound with depth, hard.		SS	5	14,21,50/6"	71			0
			End of Borehole Spoon Refusal on Assumed Bedrock								

Moisture Content w% (10 20 30 40)
Standard Penetration Test blows/300mm (20 40 60 80)



NOTES:

1. Borehole was advanced using solid stem auger equipment on September 14, 2023 to spoon refusal on assumed bedrock at a depth of 3.5 metres.

2. Borehole was recorded as open and 'dry' below the ground surface upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Auger
Drill Date: September 14, 2023
Hole Size: 150 millimetres
Drilling Contractor: Davis Drilling Ltd.

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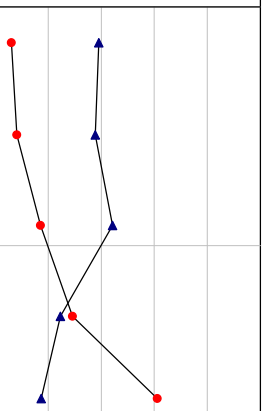
Log of Borehole No. 10

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797684
E: 597890

Depth (ft / m)	Elevation (m)	Description	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	Headspce rdg [ppm]
0 / 0	81.93	Ground Surface							
0 – 1 / 0		**Topsoil** Approximately 125 millimetres of topsoil.	SS	1	3,4,2,4	6			80
1 – 3 / 1		**Pavement Structure** Approximately 100 millimetres of compact granular base.	SS	2	3,4,4,4	8			0
3 – 7 / 1 – 2		**Clayey Sandy Silt** Brown, reworked in appearances in the upper levels, stiff to hard.	SS	3	4,8,9,10	17			0
7 / 2	79.60	Transition to more till-like material, occasional cobbles inclusions.	SS	4	3,11,18,17	29			0
11 / 3	78.50	**Queenston Shale** Red, with more resistant grey layers, highly weathered in upper levels, becoming more sound with depth, hard.	SS	5	4,11,50/6"	61			0
30 / 9	72.80	End of Borehole							

Moisture Content w% (10 20 30 40)
Standard Penetration Test blows/300mm (20 40 60 80)



NOTES:

1. Borehole was advanced using hollow stem auger and HQ coring equipment on September 13, 2023 to termination at a depth of 9.2 metres.
2. Borehole was recorded as open upon completion and backfilled as per Ontario Regulation 903.
3. Soil samples will be discarded after 3 months unless otherwise directed by our client.
4. A monitoring well was installed. The following free groundwater level readings have been measured:
October 4, 2023 - 7.24 metres bgs.
October 17, 2023 - 7.26 metres bgs.

Drill Method: HS/HQ
Drill Date: September 13, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Datum: Geodetic Benchmark
Field Logged by: PTT
Checked by: SRS
Sheet: 1 of 1

Log of Borehole No. 11

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797674
E: 597872

Depth (ft / m)	Elevation (m)	Description	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	Headspace rdg [ppm]
0 / 0	81.96	Ground Surface							
0 / 0	81.76	**Pavement Structure** Approximately 50 millimetres of asphaltic concrete over 150 millimetres of compact granular base.							
1 / 0		**Clayey Sandy Silt** Brown, trace gravel, some to trace clay, reworked in appearances in the upper levels, very loose to compact.	SS	1	5,2,3,2	5			0
3 / 1			SS	2	3,2,1,2	3			0
6 / 2			SS	3	3,2,7,10	9			0
7 / 2	79.60	Transition to more till-like material.							
9 / 3			SS	4	5,9,11,14	20			0
10 / 3	78.80	**Queenston Shale** Red, with more resistant grey layers, highly weathered in upper levels, becoming more sound with depth, hard.	SS	5	5,21,25,50/4"	46			0
30 / 9	72.80	End of Borehole							

Moisture Content w% (10 20 30 40)
Standard Penetration Test blows/300mm (20 40 60 80)

NOTES:

1. Borehole was advanced using hollow stem auger and HQ coring equipment on September 14, 2023 to termination at a depth of 9.2 metres.

2. Borehole was recorded as open upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

4. A monitoring well was installed. The following free groundwater level readings have been measured:
October 4, 2023 - 6.42 metres bgs.
October 17, 2023 - 8.14 metres bgs.

Drill Method: HS/HQ
Drill Date: September 14, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

Soil-Mat Engineers & Consultants Ltd.
401 Grays Road · Hamilton, Ontario · L8E 2Z3
T: 905.318.7440 · TF: 800.243.1922 · F: 905.318.7455
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Datum: Geodetic Benchmark
Field Logged by: PTT
Checked by: SRS
Sheet: 1 of 1

Log of Borehole No. 12

Project No: SM 230469-G
Project: Proposed High-Rise Structure
Location: 2076 Old Lakeshore Road, Burlington
Client: 1959025 Ontario Inc.

Project Manager: Stephen R. Sears, P. Eng., QP ESA
Borehole Location: See Drawing No. 1
UTM Coordinates - N: 4797669
E: 597887

Depth (ft / m)	Elevation (m)	Description	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	Headspace rdg [ppm]
0 / 0	81.81	Ground Surface							
	81.60	**Pavement Structure** Approximately 50 millimetres of asphaltic concrete over 150 millimetres of compact granular base.							
		Clayey Sandy Silt Brown, trace gravel, some clay, occasional sandy seams, reworked in appearances in the upper levels, firm to very stiff.	SS	1	9,4,3,3	7			0
			SS	2	1,2,4,3	6			35
			SS	3	2,5,6,6	11			0
	79.40	Transition to more till-like material, occasional cobbles inclusions.	SS	4	9,10,12,38	22			0
	78.80	**Queenston Shale** Red, with more resistant grey layers, highly weathered in upper levels, becoming more sound with depth, hard.							
	72.61	End of Borehole							

Moisture Content w% (10 20 30 40)
Standard Penetration Test blows/300mm (20 40 60 80)

NOTES:

1. Borehole was advanced using hollow stem auger and HQ coring equipment on September 13, 2023 to termination at a depth of 9.2 metres.

2. Borehole was recorded as open upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

4. A monitoring well was installed. The following free groundwater level readings have been measured:
October 4, 2023 - 3.2 metres bgs.
October 17, 2023 - 8.64 metres bgs.

Drill Method: HS/HQ
Drill Date: September 13, 2023
Hole Size: 200 millimetres
Drilling Contractor: Davis Drilling Ltd.

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Datum: Geodetic Benchmark
Field Logged by: PTT
Checked by: SRS
Sheet: 1 of 1

Appendix 'B'

1. AGAT Certificate of Analysis – Soil

AGAT Laboratories

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

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
401 GRAYS ROAD
HAMILTON, ON L8E 2Z3
(905) 318-7440

ATTENTION TO: Peter Markesic

PROJECT: SM 230469-G

AGAT WORK ORDER: 23T070989

SOIL ANALYSIS REVIEWED BY: Sukhwinder Randhawa, Inorganic Team Lead

TRACE ORGANICS REVIEWED BY: Pinkal Patel, Report Reviewer

DATE REPORTED: Sep 22, 2023

PAGES (INCLUDING COVER): 21

VERSION*: 1

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

Notes

Disclaimer:

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days following analysis, unless expressly agreed otherwise in writing. Please contact your Client Project Manager if you require additional sample storage time.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This report shall not be reproduced or distributed, in whole or in part, without the prior written consent of AGAT Laboratories.
- The test results reported herewith relate only to the samples as received by the laboratory.
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- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.

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Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

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Certificate of Analysis

AGAT WORK ORDER: 23T070989

PROJECT: SM 230469-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:2076 OLD LAKESHORE

SAMPLED BY:PTT

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2023-09-19 **DATE REPORTED: 2023-09-22**

		SAMPLE DESCRIPTION:		BH3 SS2	BH3 SS3	BH8 AS1	DUP BH8 AS1	BH9 SS2	BH9 SS3	BH11 SS2	BH11 SS3
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-09-12	2023-09-12	2023-09-12	2023-09-12	2023-09-14	2023-09-14	2023-09-14	2023-09-14
Parameter	Unit	G / S	RDL	5299156	5299157	5299158	5299159	5299160	5299161	5299163	5299164
Antimony	µg/g	1.3	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	5	5	5	5	2	2	2	4
Barium	µg/g	220	2.0	104	99.0	35.4	35.8	16.9	28.0	50.7	19.1
Beryllium	µg/g	2.5	0.5	0.7	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Boron	µg/g	36	5	14	12	6	6	<5	6	<5	6
Boron (Hot Water Soluble)	µg/g	1.5	0.10	0.52	0.49	0.27	0.33	0.11	0.14	0.19	0.11
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	70	5	25	24	13	12	9	9	13	9
Cobalt	µg/g	22	0.8	9.8	9.4	4.8	4.5	3.6	4.3	3.0	4.2
Copper	µg/g	92	1.0	27.0	26.0	18.5	18.4	9.0	11.9	6.3	10.2
Lead	µg/g	120	1	21	18	22	21	3	4	40	4
Molybdenum	µg/g	2	0.5	0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel	µg/g	82	1	23	22	10	10	7	9	7	8
Selenium	µg/g	1.5	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Silver	µg/g	0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Thallium	µg/g	1	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Uranium	µg/g	2.5	0.50	0.73	0.69	0.64	<0.50	<0.50	<0.50	<0.50	<0.50
Vanadium	µg/g	86	2.0	34.8	32.5	24.8	23.5	19.9	16.8	22.5	19.8
Zinc	µg/g	290	5	73	73	73	68	19	22	30	20
Chromium, Hexavalent	µg/g	0.66	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cyanide, WAD	µg/g	0.051	0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Mercury	µg/g	0.27	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Electrical Conductivity (2:1)	mS/cm	0.7	0.005	0.253	0.313	0.159	0.220	0.134	0.182	0.227	0.309
Sodium Adsorption Ratio (2:1) (Calc.)	N/A	5	N/A	0.444	0.198	0.053	0.102	0.264	1.12	2.78	0.534
pH, 2:1 CaCl2 Extraction	pH Units		NA	7.57	7.63	7.50	7.45	7.79	7.83	7.54	7.85

Certified By:

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 23T070989

PROJECT: SM 230469-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:2076 OLD LAKESHORE

SAMPLED BY:PTT

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2023-09-19

DATE REPORTED: 2023-09-22

		SAMPLE DESCRIPTION:		BH11 SS4	BH10 SS2	BH10 SS3	DUP BH10 SS3	BH10 SS4
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-09-14	2023-09-13	2023-09-13	2023-09-13	2023-09-13
Parameter	Unit	G / S	RDL	5299165	5299166	5299167	5299168	5299169
Antimony	µg/g	1.3	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	6	3	1	1	6
Barium	µg/g	220	2.0	122	39.5	11.9	17.6	129
Beryllium	µg/g	2.5	0.5	1.0	<0.5	<0.5	<0.5	0.9
Boron	µg/g	36	5	25	<5	<5	<5	20
Boron (Hot Water Soluble)	µg/g	1.5	0.10	0.40	0.14	<0.10	0.12	0.31
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	70	5	30	16	8	9	28
Cobalt	µg/g	22	0.8	14.8	5.1	3.3	4.1	14.6
Copper	µg/g	92	1.0	34.2	8.9	8.7	11.4	39.0
Lead	µg/g	120	1	10	12	3	6	10
Molybdenum	µg/g	2	0.5	0.8	0.5	<0.5	<0.5	0.8
Nickel	µg/g	82	1	32	9	7	8	32
Selenium	µg/g	1.5	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Silver	µg/g	0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Thallium	µg/g	1	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Uranium	µg/g	2.5	0.50	0.82	<0.50	<0.50	<0.50	0.78
Vanadium	µg/g	86	2.0	41.7	31.2	15.5	17.3	37.5
Zinc	µg/g	290	5	73	25	19	22	71
Chromium, Hexavalent	µg/g	0.66	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cyanide, WAD	µg/g	0.051	0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Mercury	µg/g	0.27	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Electrical Conductivity (2:1)	mS/cm	0.7	0.005	0.212	0.257	0.240	0.311	0.223
Sodium Adsorption Ratio (2:1) (Calc.)	N/A	5	N/A	0.421	2.11	0.600	1.98	1.21
pH, 2:1 CaCl2 Extraction	pH Units		NA	7.87	7.32	7.85	7.78	7.87

Certified By:

Results relate only to the items tested. Results apply to samples as received.

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Certificate of Analysis

AGAT WORK ORDER: 23T070989

PROJECT: SM 230469-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:2076 OLD LAKESHORE

SAMPLED BY:PTT

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2023-09-19 **DATE REPORTED: 2023-09-22**

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T9 S RPI/ICC
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

5299156-5299169 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio. SAR is a calculated parameter.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:



Results relate only to the items tested. Results apply to samples as received.

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Certificate of Analysis

AGAT WORK ORDER: 23T070989

PROJECT: SM 230469-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:2076 OLD LAKESHORE

SAMPLED BY:PTT

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

DATE RECEIVED: 2023-09-19 **DATE REPORTED: 2023-09-22**

		SAMPLE DESCRIPTION:		BH11 SS2	BH11 SS3	BH11 SS4	BH10 SS2	BH10 SS3	DUP BH10 SS3	BH10 SS4
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-09-14	2023-09-14	2023-09-14	2023-09-13	2023-09-13	2023-09-13	2023-09-13
Parameter	**Unit**	**G / S**	**RDL**	**5299163**	**5299164**	**5299165**	**5299166**	**5299167**	**5299168**	**5299169**
Naphthalene	µg/g	0.09	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.093	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthene	µg/g	0.072	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluorene	µg/g	0.19	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Phenanthrene	µg/g	0.69	0.05	<0.05	0.67	<0.05	<0.05	<0.05	<0.05	<0.05
Anthracene	µg/g	0.22	0.05	<0.05	0.12	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	0.10	**1.33**	<0.05	<0.05	<0.05	<0.05	<0.05
Pyrene	µg/g	1	0.05	0.07	**1.11**	<0.05	<0.05	<0.05	<0.05	<0.05
Benz(a)anthracene	µg/g	0.36	0.05	<0.05	**0.49**	<0.05	<0.05	<0.05	<0.05	<0.05
Chrysene	µg/g	2.8	0.05	<0.05	0.55	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.47	0.05	<0.05	0.41	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.48	0.05	<0.05	0.19	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	0.17	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.23	0.05	<0.05	0.11	<0.05	<0.05	<0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	0.68	0.05	<0.05	0.19	<0.05	<0.05	<0.05	<0.05	<0.05
1 and 2 Methlynaphthalene	µg/g	0.59	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	15.7	17.5	9.3	15.7	17.0	17.6	11.8
Surrogate	**Unit**	**Acceptable Limits**								
Naphthalene-d8	%	50-140		70	105	70	70	75	85	70
Acridine-d9	%	50-140		90	85	75	75	80	80	70
Terphenyl-d14	%	50-140		105	95	100	75	95	70	100

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T9 S RPI/ICC
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

5299163-5299169 Results are based on the dry weight of the soil.
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Jinkal Patel

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 23T070989

PROJECT: SM 230469-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:2076 OLD LAKESHORE

SAMPLED BY:PTT

O. Reg. 153(511) - PHCs F1 - F4 (Soil)

DATE RECEIVED: 2023-09-19 **DATE REPORTED: 2023-09-22**

		SAMPLE DESCRIPTION:		BH3 SS2	BH3 SS3	BH8 AS1	DUP BH8 AS1	BH9 SS2	BH9 SS3
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-09-12	2023-09-12	2023-09-12	2023-09-12	2023-09-14	2023-09-14
Parameter	**Unit**	**G / S**	**RDL**	**5299156**	**5299157**	**5299158**	**5299159**	**5299160**	**5299161**
Benzene	µg/g	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Toluene	µg/g	0.2	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	µg/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
m & p-Xylene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
o-Xylene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylenes (Total)	µg/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
F1 (C6 - C10)	µg/g		5	<5	<5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5	<5	<5	<5	<5	<5
F2 (C10 to C16)	µg/g	10	10	<10	<10	<10	<10	<10	<10
F3 (C16 to C34)	µg/g	240	50	<50	<50	<50	<50	<50	<50
F4 (C34 to C50)	µg/g	120	50	<50	<50	<50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA	NA	NA	NA	NA	NA
Moisture Content	%		0.1	17.0	20.1	6.4	10.2	19.8	18.7
Surrogate	**Unit**	**Acceptable Limits**							
Toluene-d8	% Recovery	60-140		91	89	83	76	76	78
Terphenyl	%	60-140		90	85	77	82	88	84

Certified By:

Results relate only to the items tested. Results apply to samples as received.

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Certificate of Analysis

AGAT WORK ORDER: 23T070989

PROJECT: SM 230469-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:2076 OLD LAKESHORE

SAMPLED BY:PTT

O. Reg. 153(511) - PHCs F1 - F4 (Soil)

DATE RECEIVED: 2023-09-19 **DATE REPORTED: 2023-09-22**

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T9 S RPI/ICC
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

5299156-5299161 Results are based on sample dry weight.
The C6-C10 fraction is calculated using Toluene response factor.
Xylenes is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.
Quality Control Data is available upon request.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: 

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AGAT WORK ORDER: 23T070989

PROJECT: SM 230469-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:2076 OLD LAKESHORE

SAMPLED BY:PTT

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

DATE RECEIVED: 2023-09-19 **DATE REPORTED: 2023-09-22**

		SAMPLE DESCRIPTION:		BH11 SS2	BH11 SS3	BH11 SS4	BH10 SS2	BH10 SS3	DUP BH10 SS3	BH10 SS4
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-09-14	2023-09-14	2023-09-14	2023-09-13	2023-09-13	2023-09-13	2023-09-13
Parameter	**Unit**	**G / S**	**RDL**	**5299163**	**5299164**	**5299165**	**5299166**	**5299167**	**5299168**	**5299169**
F1 (C6 - C10)	µg/g		5	<5	<5	<5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5	<5	<5	<5	<5	<5	<5
F2 (C10 to C16)	µg/g	10	10	<10	<10	<10	<10	<10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10	<10	<10	<10	<10	<10	<10
F3 (C16 to C34)	µg/g	240	50	<50	76	<50	<50	<50	<50	<50
F3 (C16 to C34) minus PAHs	µg/g		50	<50	72	<50	<50	<50	<50	<50
F4 (C34 to C50)	µg/g	120	50	<50	<50	<50	<50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA	NA	NA	NA	NA	NA	NA
Moisture Content	%		0.1	15.7	17.5	9.3	15.7	17.0	17.6	11.8
Surrogate	**Unit**	**Acceptable Limits**								
Toluene-d8	%	50-140		115	110	116	121	118	116	113
Terphenyl	%	60-140		80	88	85	90	83	84	81

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T9 S RPI/ICC
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

5299163-5299169 Results are based on sample dry weight.
The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX and PAH contributions.
C>10 – C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Jinkal Patel

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Certificate of Analysis

AGAT WORK ORDER: 23T070989

PROJECT: SM 230469-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:2076 OLD LAKESHORE

SAMPLED BY:PTT

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

DATE RECEIVED: 2023-09-19

DATE REPORTED: 2023-09-22

		SAMPLE DESCRIPTION:		BH11 SS2	BH11 SS3	BH11 SS4	BH10 SS2	BH10 SS3	DUP BH10 SS3	BH10 SS4
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-09-14	2023-09-14	2023-09-14	2023-09-13	2023-09-13	2023-09-13	2023-09-13
Parameter	Unit	G / S	RDL	5299163	5299164	5299165	5299166	5299167	5299168	5299169
Dichlorodifluoromethane	µg/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	0.25	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acetone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methylene Chloride	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	0.05	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	0.05	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzene	ug/g	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.05	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Bromodichloromethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Toluene	ug/g	0.2	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dibromochloromethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
m & p-Xylene	ug/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Certified By: Jinkal Patel

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Certificate of Analysis

AGAT WORK ORDER: 23T070989

PROJECT: SM 230469-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:2076 OLD LAKESHORE

SAMPLED BY:PTT

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

DATE RECEIVED: 2023-09-19 **DATE REPORTED: 2023-09-22**

		SAMPLE DESCRIPTION:		BH11 SS2	BH11 SS3	BH11 SS4	BH10 SS2	BH10 SS3	DUP BH10 SS3	BH10 SS4
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-09-14	2023-09-14	2023-09-14	2023-09-13	2023-09-13	2023-09-13	2023-09-13
Parameter	**Unit**	**G / S**	**RDL**	**5299163**	**5299164**	**5299165**	**5299166**	**5299167**	**5299168**	**5299169**
Bromoform	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Styrene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
o-Xylene	ug/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylenes (Total)	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,3-Dichloropropene (Cis + Trans)	µg/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
n-Hexane	µg/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	15.7	17.5	9.3	15.7	17.0	17.6	11.8
Surrogate	**Unit**	**Acceptable Limits**								
Toluene-d8	% Recovery	50-140		115	110	116	121	118	116	113
4-Bromofluorobenzene	% Recovery	50-140		80	80	82	86	84	82	80

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T9 S RPI/ICC
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

5299163-5299169 The sample was analyzed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Pinkal Patel

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Guideline Violation

AGAT WORK ORDER: 23T070989

PROJECT: SM 230469-G

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	UNIT	GUIDEVALUE	RESULT
5299164	BH11 SS3	ON T9 S RPI/ICC	O. Reg. 153(511) - PAHs (Soil)	Benz(a)anthracene	µg/g	0.36	0.49
5299164	BH11 SS3	ON T9 S RPI/ICC	O. Reg. 153(511) - PAHs (Soil)	Fluoranthene	µg/g	0.69	1.33
5299164	BH11 SS3	ON T9 S RPI/ICC	O. Reg. 153(511) - PAHs (Soil)	Pyrene	µg/g	1	1.11
5299164	BH11 SS3	ON T9 S RPI/ICC	O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Soil)	Benzo(a)anthracene	µg/g	0.36	0.49
5299164	BH11 SS3	ON T9 S RPI/ICC	O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Soil)	Fluoranthene	µg/g	0.69	1.33
5299164	BH11 SS3	ON T9 S RPI/ICC	O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Soil)	Pyrene	µg/g	1	1.11

Results relate only to the items tested. Results apply to samples as received.

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Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23T070989

PROJECT: SM 230469-G

ATTENTION TO: Peter Markesic

SAMPLING SITE:2076 OLD LAKESHORE

SAMPLED BY:PTT

Soil Analysis

RPT Date: Sep 22, 2023			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals & Inorganics (Soil)															
Antimony	5299156	5299156	<0.8	<0.8	NA	< 0.8	137%	70%	130%	97%	80%	120%	101%	70%	130%
Arsenic	5299156	5299156	5	5	0.0%	< 1	122%	70%	130%	101%	80%	120%	103%	70%	130%
Barium	5299156	5299156	104	104	0.0%	< 2.0	105%	70%	130%	100%	80%	120%	102%	70%	130%
Beryllium	5299156	5299156	0.7	0.7	NA	< 0.5	101%	70%	130%	103%	80%	120%	105%	70%	130%
Boron	5299156	5299156	14	15	NA	< 5	93%	70%	130%	107%	80%	120%	106%	70%	130%
Boron (Hot Water Soluble)	5299156	5299156	0.52	0.51	1.9%	< 0.10	95%	60%	140%	102%	70%	130%	102%	60%	140%
Cadmium	5299156	5299156	<0.5	<0.5	NA	< 0.5	95%	70%	130%	106%	80%	120%	111%	70%	130%
Chromium	5299156	5299156	25	25	0.0%	< 5	108%	70%	130%	113%	80%	120%	111%	70%	130%
Cobalt	5299156	5299156	9.8	9.8	0.0%	< 0.8	105%	70%	130%	105%	80%	120%	103%	70%	130%
Copper	5299156	5299156	27.0	27.1	0.4%	< 1.0	100%	70%	130%	110%	80%	120%	96%	70%	130%
Lead	5299156	5299156	21	21	0.0%	< 1	108%	70%	130%	105%	80%	120%	94%	70%	130%
Molybdenum	5299156	5299156	0.5	0.6	NA	< 0.5	113%	70%	130%	108%	80%	120%	114%	70%	130%
Nickel	5299156	5299156	23	23	0.0%	< 1	106%	70%	130%	106%	80%	120%	101%	70%	130%
Selenium	5299156	5299156	<0.8	<0.8	NA	< 0.8	111%	70%	130%	118%	80%	120%	116%	70%	130%
Silver	5299156	5299156	<0.5	<0.5	NA	< 0.5	113%	70%	130%	105%	80%	120%	100%	70%	130%
Thallium	5299156	5299156	<0.5	<0.5	NA	< 0.5	117%	70%	130%	104%	80%	120%	102%	70%	130%
Uranium	5299156	5299156	0.73	0.74	NA	< 0.50	129%	70%	130%	104%	80%	120%	111%	70%	130%
Vanadium	5299156	5299156	34.8	36.0	3.4%	< 2.0	120%	70%	130%	110%	80%	120%	107%	70%	130%
Zinc	5299156	5299156	73	69	5.6%	< 5	115%	70%	130%	117%	80%	120%	111%	70%	130%
Chromium, Hexavalent	5299043		<0.2	<0.2	NA	< 0.2	105%	70%	130%	102%	80%	120%	87%	70%	130%
Cyanide, WAD	5299164	5299164	<0.040	<0.040	NA	< 0.040	104%	70%	130%	103%	80%	120%	91%	70%	130%
Mercury	5299156	5299156	<0.10	<0.10	NA	< 0.10	123%	70%	130%	106%	80%	120%	102%	70%	130%
Electrical Conductivity (2:1)	5299156	5299156	0.253	0.226	11.3%	< 0.005	109%	80%	120%						
Sodium Adsorption Ratio (2:1) (Calc.)	5299156	5299156	0.444	0.438	1.4%	NA									
pH, 2:1 CaCl2 Extraction	5299163	5299163	7.54	7.58	0.5%	NA	99%	80%	120%						

Comments: NA signifies Not Applicable.
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.
Duplicate NA: results are under 5X the RDL and will not be calculated.
More than 90% of the elements met acceptance limits and overall data quality is acceptable for use. For a multi-element scan up to 10% of analytes may exceed the quoted limits by up to 10% absolute.

Certified By:



AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. RPDs calculated using raw data. The RPD may not be reflective of duplicate values shown, due to rounding of final results.

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Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23T070989

PROJECT: SM 230469-G

ATTENTION TO: Peter Markesic

SAMPLING SITE:2076 OLD LAKESHORE

SAMPLED BY:PTT

Trace Organics Analysis

RPT Date: Sep 22, 2023			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PHCs F1 - F4 (Soil)															
Benzene	5299161	5299161	<0.02	<0.02	NA	< 0.02	87%	60%	140%	79%	60%	140%	113%	60%	140%
Toluene	5299161	5299161	<0.05	<0.05	NA	< 0.05	99%	60%	140%	88%	60%	140%	82%	60%	140%
Ethylbenzene	5299161	5299161	<0.05	<0.05	NA	< 0.05	102%	60%	140%	87%	60%	140%	83%	60%	140%
m & p-Xylene	5299161	5299161	<0.05	<0.05	NA	< 0.05	109%	60%	140%	107%	60%	140%	105%	60%	140%
o-Xylene	5299161	5299161	<0.05	<0.05	NA	< 0.05	103%	60%	140%	99%	60%	140%	105%	60%	140%
F1 (C6 - C10)	5299161	5299161	<5	<5	NA	< 5	103%	60%	140%	92%	60%	140%	104%	60%	140%
F2 (C10 to C16)	5299156	5299156	< 10	< 10	NA	< 10	119%	60%	140%	85%	60%	140%	99%	60%	140%
F3 (C16 to C34)	5299156	5299156	< 50	< 50	NA	< 50	111%	60%	140%	77%	60%	140%	93%	60%	140%
F4 (C34 to C50)	5299156	5299156	< 50	< 50	NA	< 50	66%	60%	140%	86%	60%	140%	88%	60%	140%
O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Soil)															
F1 (C6 - C10)	5298985		<5	<5	NA	< 5	91%	60%	140%	77%	60%	140%	82%	60%	140%
O. Reg. 153(511) - VOCs (with PHC) (Soil)															
Dichlorodifluoromethane	5298985		<0.05	<0.05	NA	< 0.05	78%	50%	140%	108%	50%	140%	82%	50%	140%
Vinyl Chloride	5298985		<0.02	<0.02	NA	< 0.02	117%	50%	140%	118%	50%	140%	118%	50%	140%
Bromomethane	5298985		<0.05	<0.05	NA	< 0.05	106%	50%	140%	99%	50%	140%	90%	50%	140%
Trichlorofluoromethane	5298985		<0.05	<0.05	NA	< 0.05	101%	50%	140%	107%	50%	140%	103%	50%	140%
Acetone	5298985		<0.50	<0.50	NA	< 0.50	87%	50%	140%	61%	50%	140%	111%	50%	140%
1,1-Dichloroethylene	5298985		<0.05	<0.05	NA	< 0.05	73%	50%	140%	83%	60%	130%	80%	50%	140%
Methylene Chloride	5298985		<0.05	<0.05	NA	< 0.05	105%	50%	140%	96%	60%	130%	106%	50%	140%
Trans- 1,2-Dichloroethylene	5298985		<0.05	<0.05	NA	< 0.05	76%	50%	140%	80%	60%	130%	75%	50%	140%
Methyl tert-butyl Ether	5298985		<0.05	<0.05	NA	< 0.05	96%	50%	140%	82%	60%	130%	110%	50%	140%
1,1-Dichloroethane	5298985		<0.02	<0.02	NA	< 0.02	82%	50%	140%	85%	60%	130%	87%	50%	140%
Methyl Ethyl Ketone	5298985		<0.50	<0.50	NA	< 0.50	84%	50%	140%	83%	50%	140%	93%	50%	140%
Cis- 1,2-Dichloroethylene	5298985		<0.02	<0.02	NA	< 0.02	83%	50%	140%	83%	60%	130%	88%	50%	140%
Chloroform	5298985		<0.04	<0.04	NA	< 0.04	85%	50%	140%	88%	60%	130%	97%	50%	140%
1,2-Dichloroethane	5298985		<0.03	<0.03	NA	< 0.03	105%	50%	140%	80%	60%	130%	108%	50%	140%
1,1,1-Trichloroethane	5298985		<0.05	<0.05	NA	< 0.05	75%	50%	140%	83%	60%	130%	85%	50%	140%
Carbon Tetrachloride	5298985		<0.05	<0.05	NA	< 0.05	83%	50%	140%	97%	60%	130%	96%	50%	140%
Benzene	5298985		<0.02	<0.02	NA	< 0.02	76%	50%	140%	78%	60%	130%	81%	50%	140%
1,2-Dichloropropane	5298985		<0.03	<0.03	NA	< 0.03	73%	50%	140%	97%	60%	130%	82%	50%	140%
Trichloroethylene	5298985		<0.03	<0.03	NA	< 0.03	100%	50%	140%	105%	60%	130%	99%	50%	140%
Bromodichloromethane	5298985		<0.05	<0.05	NA	< 0.05	77%	50%	140%	76%	60%	130%	91%	50%	140%
Methyl Isobutyl Ketone	5298985		<0.50	<0.50	NA	< 0.50	82%	50%	140%	88%	50%	140%	97%	50%	140%
1,1,2-Trichloroethane	5298985		<0.04	<0.04	NA	< 0.04	101%	50%	140%	101%	60%	130%	115%	50%	140%
Toluene	5298985		<0.05	<0.05	NA	< 0.05	81%	50%	140%	92%	60%	130%	85%	50%	140%
Dibromochloromethane	5298985		<0.05	<0.05	NA	< 0.05	110%	50%	140%	105%	60%	130%	99%	50%	140%
Ethylene Dibromide	5298985		<0.04	<0.04	NA	< 0.04	97%	50%	140%	98%	60%	130%	110%	50%	140%
Tetrachloroethylene	5298985		<0.05	<0.05	NA	< 0.05	99%	50%	140%	108%	60%	130%	101%	50%	140%

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Results relate only to the items tested. Results apply to samples as received.

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Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23T070989

PROJECT: SM 230469-G

ATTENTION TO: Peter Markesic

SAMPLING SITE:2076 OLD LAKESHORE

SAMPLED BY:PTT

Trace Organics Analysis (Continued)

RPT Date: Sep 22, 2023			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
1,1,1,2-Tetrachloroethane	5298985		<0.04	<0.04	NA	< 0.04	94%	50%	140%	99%	60%	130%	105%	50%	140%
Chlorobenzene	5298985		<0.05	<0.05	NA	< 0.05	93%	50%	140%	97%	60%	130%	98%	50%	140%
Ethylbenzene	5298985		<0.05	<0.05	NA	< 0.05	82%	50%	140%	80%	60%	130%	83%	50%	140%
m & p-Xylene	5298985		<0.05	<0.05	NA	< 0.05	85%	50%	140%	84%	60%	130%	76%	50%	140%
Bromoform	5298985		<0.05	<0.05	NA	< 0.05	105%	50%	140%	109%	60%	130%	106%	50%	140%
Styrene	5298985		<0.05	<0.05	NA	< 0.05	79%	50%	140%	81%	60%	130%	81%	50%	140%
1,1,2,2-Tetrachloroethane	5298985		<0.05	<0.05	NA	< 0.05	118%	50%	140%	110%	60%	130%	94%	50%	140%
o-Xylene	5298985		<0.05	<0.05	NA	< 0.05	80%	50%	140%	87%	60%	130%	80%	50%	140%
1,3-Dichlorobenzene	5298985		<0.05	<0.05	NA	< 0.05	112%	50%	140%	112%	60%	130%	112%	50%	140%
1,4-Dichlorobenzene	5298985		<0.05	<0.05	NA	< 0.05	108%	50%	140%	106%	60%	130%	95%	50%	140%
1,2-Dichlorobenzene	5298985		<0.05	<0.05	NA	< 0.05	107%	50%	140%	102%	60%	130%	118%	50%	140%
n-Hexane	5298985		<0.05	<0.05	NA	< 0.05	84%	50%	140%	78%	60%	130%	87%	50%	140%
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	5291461		<0.05	<0.05	NA	< 0.05	84%	50%	140%	100%	50%	140%	78%	50%	140%
Acenaphthylene	5291461		<0.05	<0.05	NA	< 0.05	71%	50%	140%	75%	50%	140%	73%	50%	140%
Acenaphthene	5291461		<0.05	<0.05	NA	< 0.05	84%	50%	140%	93%	50%	140%	83%	50%	140%
Fluorene	5291461		<0.05	<0.05	NA	< 0.05	77%	50%	140%	85%	50%	140%	80%	50%	140%
Phenanthrene	5291461		<0.05	<0.05	NA	< 0.05	84%	50%	140%	88%	50%	140%	100%	50%	140%
Anthracene	5291461		<0.05	<0.05	NA	< 0.05	79%	50%	140%	73%	50%	140%	83%	50%	140%
Fluoranthene	5291461		<0.05	<0.05	NA	< 0.05	78%	50%	140%	100%	50%	140%	95%	50%	140%
Pyrene	5291461		<0.05	<0.05	NA	< 0.05	81%	50%	140%	108%	50%	140%	93%	50%	140%
Benz(a)anthracene	5291461		<0.05	<0.05	NA	< 0.05	96%	50%	140%	95%	50%	140%	75%	50%	140%
Chrysene	5291461		<0.05	<0.05	NA	< 0.05	103%	50%	140%	83%	50%	140%	100%	50%	140%
Benzo(b)fluoranthene	5291461		<0.05	<0.05	NA	< 0.05	93%	50%	140%	80%	50%	140%	78%	50%	140%
Benzo(k)fluoranthene	5291461		<0.05	<0.05	NA	< 0.05	68%	50%	140%	83%	50%	140%	78%	50%	140%
Benzo(a)pyrene	5291461		<0.05	<0.05	NA	< 0.05	64%	50%	140%	95%	50%	140%	93%	50%	140%
Indeno(1,2,3-cd)pyrene	5291461		<0.05	<0.05	NA	< 0.05	85%	50%	140%	80%	50%	140%	80%	50%	140%
Dibenz(a,h)anthracene	5291461		<0.05	<0.05	NA	< 0.05	61%	50%	140%	83%	50%	140%	103%	50%	140%
Benzo(g,h,i)perylene	5291461		<0.05	<0.05	NA	< 0.05	70%	50%	140%	93%	50%	140%	95%	50%	140%

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

Certified By: Jinkal Patel

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QA Violation

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23T070989

PROJECT: SM 230469-G

ATTENTION TO: Peter Markesic

RPT Date: Sep 22, 2023

PARAMETER	Sample Id	Sample Description	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
				Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals & Inorganics (Soil)											
Antimony	5299156	BH3 SS2	137%	70%	130%	97%	80%	120%	101%	70%	130%

Comments: NA signifies Not Applicable.
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.
Duplicate NA: results are under 5X the RDL and will not be calculated.
More than 90% of the elements met acceptance limits and overall data quality is acceptable for use. For a multi-element scan up to 10% of analytes may exceed the quoted limits by up to 10% absolute.

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Method Summary

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PROJECT: SM 230469-G

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SAMPLING SITE:2076 OLD LAKESHORE

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PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Arsenic	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Barium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Beryllium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	modified from EPA 6010D and MSA PART 3, CH 21	ICP/OES
Cadmium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Cobalt	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Copper	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Lead	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Molybdenum	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Nickel	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Selenium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Silver	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Thallium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Uranium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Vanadium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Zinc	MET 93 -6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium, Hexavalent	INOR-93-6068	modified from EPA 3060 and EPA 7196	SPECTROPHOTOMETER
Cyanide, WAD	INOR-93-6052	modified from ON MOECC E3015, SM 4500-CN- I, G-387	SEGMENTED FLOW ANALYSIS
Mercury	MET-93-6103	modified from EPA 7471B and SM 3112 B	ICP-MS
Electrical Conductivity (2:1)	INOR-93-6075	modified from MSA PART 3, CH 14 and SM 2510 B	PC TITRATE
Sodium Adsorption Ratio (2:1) (Calc.)	INOR-93-6007	modified from EPA 6010D & Analytical Protocol	ICP/OES
pH, 2:1 CaCl2 Extraction	INOR-93-6075	modified from EPA 9045D, MCKEAGUE 3.11 E3137	PC TITRATE

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

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PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Gravimetric Heavy Hydrocarbons	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
Toluene-d8	VOL-91- 5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
F2 (C10 to C16) minus Naphthalene	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
Dichlorodifluoromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Acetone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Chloroform	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Benzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Toluene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS

Results relate only to the items tested. Results apply to samples as received.

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

Method Summary

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23T070989

PROJECT: SM 230469-G

ATTENTION TO: Peter Markesic

SAMPLING SITE:2076 OLD LAKESHORE

SAMPLED BY:PTT

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

Results relate only to the items tested. Results apply to samples as received.

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

Chain of Custody Record

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

Laboratory Use Only

Work Order #: 2310709B9

Cooler Quantity: 1 large

Arrival Temperatures: 7.1 | 5.7 | 6.2

Custody Seal Intact: ☐ Yes ☐ No ☒ N/A

Notes: FREE ICE

Report Information:

Company: Soil MAT
Contact: Peter Markesic
Address: 401 Grays Rd

Phone: Fax:

Reports to be sent to:
1. Email: pmarkesic@soilmat.ca
2. Email:

Project Information:

Project: SM 236469-C
Site Location: 2076 old Lakeshore
Sampled By: PT
AGAT Quote #: PO:

Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☑ No ☐

Company:
Contact:
Address:
Email:

Regulatory Requirements:

(Please check all applicable boxes)

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

☑ Regulation 406
Table 1 RPI/ICC *Indicate One*

☐ Regulation 558

☐ CCME

☐ Sewer Use ☐ Sanitary ☐ Storm
____ *Region*

☐ Prov. Water Quality Objectives (PWQO)

☐ Other
____ *Indicate One*

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

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

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

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

OR Date Required (Rush Surcharges May Apply):

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

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

Sample Matrix Legend

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

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI, DOC Y/N	O. Reg 153: Metals & Inorganics	O. Reg 153: Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	O. Reg 153: BTEX, F1-F4 PHCs	VOC	PAHs	PCBs	PCBs: Aroclors ☐	O. Reg 558: Landfill Disposal Characterization TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 406: Regulation 406 SPLP Rainwater Leach SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	O. Reg 406: Regulation 406 Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Corrosivity: ☐ Moisture ☐ Sulphide	Potentially Hazardous or High Concentration (Y/N)
1. BH3 SS2	09/12/23	AM/PM	3	S			✓		✓									
2. BH3 SS3		AM/PM	3				✓		✓									
3. BH3 AS1		AM/PM	3				✓		✓									
4. DUP BH3 AS1		AM/PM	3		Duplicate		✓		✓									
5. BH9 SS2	09/14/23	AM/PM	3				✓		✓									
6. BH9 SS3		AM/PM	3				✓		✓									
7. BH11 SS2		AM/PM	4				✓		✓	✓	✓							
8. BH11 SS3		AM/PM	4				✓		✓	✓	✓							
9. BH11 SS4		AM/PM	4				✓		✓	✓	✓							
10. BH10 SS2	09/13/23	AM/PM	4				✓		✓	✓	✓							
11. BH10 SS3	"	AM/PM	4				✓		✓	✓	✓							

	Date	Time		Date	Time	
Samples Relinquished By (Print Name and Sign):			Samples Received By (Print Name and Sign): Andy Jin	Sept 19/23	6PM	
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time	Page ____ of ____
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time	N°: T - 147291

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

Document ID: DW-78-1511.022

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

Chain of Custody Record

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

Report Information:

Company: SOILMAT
Contact: Peter Markesic
Address: 401 Grays Rd
Phone: Fax:
Reports to be sent to:
1. Email: pmarkesic@soilmat.ca
2. Email:

Project Information:

Project: SM 230469-F
Site Location: 2076 Old Lakeshore
Sampled By: PTT
AGAT Quote #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

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

Regulatory Requirements:

(Please check all applicable boxes)

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

☑ Regulation 406
Table 1 RPI/ICC *Indicate One*
☐ Regulation 558
☐ CCME

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

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

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

Sample Matrix Legend

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

Laboratory Use Only

Work Order #: 23T070989
Cooler Quantity:
Arrival Temperatures:
Custody Seal Intact: ☐ Yes ☐ No ☐ N/A
Notes: GREE ICE

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days
Rush TAT (Rush Surcharges Apply)
☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day
OR Date Required (Rush Surcharges May Apply):
Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*
For 'Same Day' analysis, please contact your AGAT CPM

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI, DOC (Y/N)	O. Reg 153: Metals & Inorganics	O. Reg 153: Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	O. Reg 153: BTEX, F1-F4 PHCs	VOC	PAHs	PCBs	PCBs: Arocolors ☐	O. Reg 558: Landfill Disposal Characterization TCLP: TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 406: Regulation 406 SPLP Rainwater Leach SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	O. Reg 406: Regulation 406 Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Corrosivity: ☐ Moisture ☐ Sulphide	Potentially Hazardous or High Concentration (Y/N)
1. DUP BH10 SS3	09/13/23	AM PM	4	S	Duplicate		✓		✓	✓	✓							
2. BH10 SS4	"	AM PM	4	"			✓		✓	✓	✓							
3.		AM PM																
4.		AM PM																
5.		AM PM																
6.		AM PM																
7.		AM PM																
8.		AM PM																
9.		AM PM																
10.		AM PM																
11.		AM PM																

	Date	Time		Date	Time	
Samples Relinquished By (Print Name and Sign):			Samples Received By (Print Name and Sign): Andy	Sept. 19/23	6PM	
Samples Relinquished By (Print Name and Sign):			Samples Received By (Print Name and Sign):			Page ____ of ____
Samples Relinquished By (Print Name and Sign):			Samples Received By (Print Name and Sign):			N°: T-147258

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Document ID: DIV-TR-1513-022
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Appendix 'C'

1. AGAT Certificate of Analysis – Groundwater

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

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
401 GRAYS ROAD
HAMILTON, ON L8E 2Z3
(905) 318-7440

ATTENTION TO: Alex Lajkosz

PROJECT: 230649

AGAT WORK ORDER: 23H081589

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

WATER ANALYSIS REVIEWED BY: Amanjot Bhela, Lab Operation Manager

DATE REPORTED: Oct 23, 2023

PAGES (INCLUDING COVER): 15

VERSION*: 1

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

*Notes

Disclaimer:

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days following analysis, unless expressly agreed otherwise in writing. Please contact your Client Project Manager if you require additional sample storage time.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This report shall not be reproduced or distributed, in whole or in part, without the prior written consent of AGAT Laboratories.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the information contained in this document.
- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.

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Western Enviro-Agricultural Laboratory Association (WEALA)
Environmental Services Association of Alberta (ESAA)

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. Measurement Uncertainty is not taken into consideration when stating conformity with a specified requirement.

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 23H081589

PROJECT: 230649

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Alex Lajkosz

SAMPLING SITE:2076 Old Lakeshore Rd, Burlington

SAMPLED BY:AL/GG

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

DATE RECEIVED: 2023-10-17

DATE REPORTED: 2023-10-23

		SAMPLE DESCRIPTION:		MW10	MW11	DUP1
		SAMPLE TYPE:		Water	Water	Water
		DATE SAMPLED:		2023-10-17	2023-10-17	2023-10-17
Parameter	Unit	G / S	RDL	5371859	5371861	5371862
Naphthalene	µg/L	1400	0.20	<0.20	<0.20	<0.20
Acenaphthylene	µg/L	1.4	0.20	<0.20	<0.20	<0.20
Acenaphthene	µg/L	600	0.20	<0.20	<0.20	<0.20
Fluorene	µg/L	290	0.20	<0.20	<0.20	<0.20
Phenanthrene	µg/L	380	0.10	<0.10	<0.10	<0.10
Anthracene	µg/L	1	0.10	<0.10	<0.10	<0.10
Fluoranthene	µg/L	73	0.20	<0.20	<0.20	<0.20
Pyrene	µg/L	5.7	0.20	<0.20	<0.20	<0.20
Benzo(a)anthracene	µg/L	1.8	0.20	<0.20	<0.20	<0.20
Chrysene	µg/L	0.7	0.10	<0.10	<0.10	<0.10
Benzo(b)fluoranthene	µg/L	0.75	0.10	<0.10	<0.10	<0.10
Benzo(k)fluoranthene	µg/L	0.4	0.10	<0.10	<0.10	<0.10
Benzo(a)pyrene	µg/L	0.81	0.01	<0.01	<0.01	<0.01
Indeno(1,2,3-cd)pyrene	µg/L	0.2	0.20	<0.20	<0.20	<0.20
Dibenz(a,h)anthracene	µg/L	0.4	0.20	<0.20	<0.20	<0.20
Benzo(g,h,i)perylene	µg/L	0.2	0.20	<0.20	<0.20	<0.20
2-and 1-methyl Naphthalene	µg/L	1500	0.20	<0.20	<0.20	<0.20
Sediment				1	1	1
Surrogate	Unit	Acceptable Limits				
Naphthalene-d8	%	50-140		75	77	68
Acridine-d9	%	50-140		100	101	96
Terphenyl-d14	%	50-140		107	101	90

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T9 GW
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

5371859-5371862 Sediment parameter is comment only based on visual inspection of the sample prior to extraction and is not an accredited test.
Legend: 1 = no sediment present; 2 = sediment present; 3 = sediment present in trace amount
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&(j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowkolof

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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

Certificate of Analysis

AGAT WORK ORDER: 23H081589

PROJECT: 230649

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Alex Lajkosz

SAMPLING SITE:2076 Old Lakeshore Rd, Burlington

SAMPLED BY:AL/GG

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

DATE RECEIVED: 2023-10-17

DATE REPORTED: 2023-10-23

				SAMPLE DESCRIPTION:	MW10	MW11	DUP1
				SAMPLE TYPE:	Water	Water	Water
				DATE SAMPLED:	2023-10-17	2023-10-17	2023-10-17
Parameter	Unit	G / S	RDL		5371859	5371861	5371862
F1 (C6-C10)	µg/L		25		<25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L	420	25		<25	<25	<25
F2 (C10 to C16)	µg/L	150	100		<100	<100	<100
F2 (C10 to C16) minus Naphthalene	µg/L		100		<100	<100	<100
F3 (C16 to C34)	µg/L	500	100		<100	<100	<100
F3 (C16 to C34) minus PAHs	µg/L		100		<100	<100	<100
F4 (C34 to C50)	µg/L	500	100		<100	<100	<100
Gravimetric Heavy Hydrocarbons	µg/L		500		NA	NA	NA
Sediment					1	1	1
Surrogate	Unit	Acceptable Limits					
Toluene-d8	%	50-140			98	100	103
Terphenyl	% Recovery	60-140			73	70	80

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T9 GW
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

5371859-5371862 The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX and PAH contributions.
C>10 – C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.

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

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popnikolof

Results relate only to the items tested. Results apply to samples as received.

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

Certificate of Analysis

AGAT WORK ORDER: 23H081589

PROJECT: 230649

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Alex Lajkosz

SAMPLING SITE:2076 Old Lakeshore Rd, Burlington

SAMPLED BY:AL/GG

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

DATE RECEIVED: 2023-10-17

DATE REPORTED: 2023-10-23

		SAMPLE DESCRIPTION:		MW10	MW11	DUP1
		SAMPLE TYPE:		Water	Water	Water
		DATE SAMPLED:		2023-10-17	2023-10-17	2023-10-17
Parameter	Unit	G / S	RDL	5371859	5371861	5371862
Dichlorodifluoromethane	µg/L	3500	0.40	<0.40	<0.40	<0.40
Vinyl Chloride	µg/L	0.5	0.17	<0.17	<0.17	<0.17
Bromomethane	µg/L	5.6	0.20	<0.20	<0.20	<0.20
Trichlorofluoromethane	µg/L	2000	0.40	<0.40	<0.40	<0.40
Acetone	µg/L	100000	1.0	<1.0	<1.0	<1.0
1,1-Dichloroethylene	µg/L	1.6	0.30	<0.30	<0.30	<0.30
Methylene Chloride	µg/L	610	0.30	<0.30	<0.30	<0.30
trans- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20
Methyl tert-butyl ether	µg/L	190	0.20	<0.20	<0.20	<0.20
1,1-Dichloroethane	µg/L	320	0.30	<0.30	<0.30	<0.30
Methyl Ethyl Ketone	µg/L	470000	1.0	<1.0	<1.0	<1.0
cis- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20
Chloroform	µg/L	2.4	0.20	1.33	1.01	1.58
1,2-Dichloroethane	µg/L	1.6	0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	µg/L	640	0.30	<0.30	<0.30	<0.30
Carbon Tetrachloride	µg/L	0.79	0.20	<0.20	<0.20	<0.20
Benzene	µg/L	44	0.20	<0.20	<0.20	<0.20
1,2-Dichloropropane	µg/L	16	0.20	<0.20	<0.20	<0.20
Trichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20
Bromodichloromethane	µg/L	67000	0.20	<0.20	<0.20	<0.20
Methyl Isobutyl Ketone	µg/L	140000	1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	µg/L	4.7	0.20	<0.20	<0.20	<0.20
Toluene	µg/L	14000	0.20	<0.20	<0.20	<0.20
Dibromochloromethane	µg/L	65000	0.10	<0.10	<0.10	<0.10
Ethylene Dibromide	µg/L	0.25	0.10	<0.10	<0.10	<0.10
Tetrachloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20
1,1,1,2-Tetrachloroethane	µg/L	3.3	0.10	<0.10	<0.10	<0.10
Chlorobenzene	µg/L	500	0.10	<0.10	<0.10	<0.10
Ethylbenzene	µg/L	1800	0.10	<0.10	<0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20	<0.20	<0.20

Certified By: N Popnikolof

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Certificate of Analysis

AGAT WORK ORDER: 23H081589

PROJECT: 230649

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Alex Lajkosz

SAMPLING SITE:2076 Old Lakeshore Rd, Burlington

SAMPLED BY:AL/GG

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

DATE RECEIVED: 2023-10-17

DATE REPORTED: 2023-10-23

		SAMPLE DESCRIPTION:		MW10	MW11	DUP1
		SAMPLE TYPE:		Water	Water	Water
		DATE SAMPLED:		2023-10-17	2023-10-17	2023-10-17
Parameter	Unit	G / S	RDL	5371859	5371861	5371862
Bromoform	µg/L	380	0.10	<0.10	<0.10	<0.10
Styrene	µg/L	1300	0.10	<0.10	<0.10	<0.10
1,1,2,2-Tetrachloroethane	µg/L	3.2	0.10	<0.10	<0.10	<0.10
o-Xylene	µg/L		0.10	<0.10	<0.10	<0.10
1,3-Dichlorobenzene	µg/L	7600	0.10	<0.10	<0.10	<0.10
1,4-Dichlorobenzene	µg/L	8	0.10	<0.10	<0.10	<0.10
1,2-Dichlorobenzene	µg/L	4600	0.10	<0.10	<0.10	<0.10
1,3-Dichloropropene	µg/L	5.2	0.30	<0.30	<0.30	<0.30
Xylenes (Total)	µg/L	3300	0.20	<0.20	<0.20	<0.20
n-Hexane	µg/L	51	0.20	<0.20	<0.20	<0.20
Surrogate	Unit	Acceptable Limits				
Toluene-d8	% Recovery	50-140		98	100	103
4-Bromofluorobenzene	% Recovery	50-140		71	77	74

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T9 GW
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

5371859-5371862 Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.
The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popowkolof

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Certificate of Analysis

AGAT WORK ORDER: 23H081589

PROJECT: 230649

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Alex Lajkosz

SAMPLING SITE:2076 Old Lakeshore Rd, Burlington

SAMPLED BY:AL/GG

O. Reg. 153(511) - Metals & Inorganics (Water)

DATE RECEIVED: 2023-10-17

DATE REPORTED: 2023-10-23

		SAMPLE DESCRIPTION:		MW10	MW11	DUP1
		SAMPLE TYPE:		Water	Water	Water
		DATE SAMPLED:		2023-10-17	2023-10-17	2023-10-17
Parameter	Unit	G / S	RDL	5371859	5371861	5371862
Dissolved Antimony	µg/L	16000	1.0	<1.0	<1.0	<1.0
Dissolved Arsenic	µg/L	1500	1.0	7.3	4.6	8.0
Dissolved Barium	µg/L	23000	2.0	46.0	46.4	65.5
Dissolved Beryllium	µg/L	53	0.50	<0.50	<0.50	<0.50
Dissolved Boron	µg/L	36000	10.0	1660	1540	3560
Dissolved Cadmium	µg/L	2.1	0.20	<0.20	<0.20	<0.20
Dissolved Chromium	µg/L	640	2.0	<2.0	<2.0	<2.0
Dissolved Cobalt	µg/L	52	0.50	<0.50	<0.50	<0.50
Dissolved Copper	µg/L	69	1.0	1.6	1.6	<1.0
Dissolved Lead	µg/L	20	0.50	<0.50	<0.50	<0.50
Dissolved Molybdenum	µg/L	7300	0.50	47.1	33.2	55.1
Dissolved Nickel	µg/L	390	1.0	<1.0	<1.0	<1.0
Dissolved Selenium	µg/L	50	1.0	5.5	<1.0	1.2
Dissolved Silver	µg/L	1.2	0.20	<0.20	<0.20	<0.20
Dissolved Thallium	µg/L	400	0.30	<0.30	<0.30	<0.30
Dissolved Uranium	µg/L	330	0.50	7.11	3.07	6.17
Dissolved Vanadium	µg/L	200	0.40	2.76	2.52	2.11
Dissolved Zinc	µg/L	890	5.0	<5.0	<5.0	<5.0
Mercury	µg/L	0.29	0.02	<0.02	<0.02	<0.02
Chromium VI	µg/L	110	2.000	<2.000	<2.000	<2.000
Cyanide, WAD	µg/L	52	2	<2	<2	<2
Dissolved Sodium	µg/L	1800000	50	98100	87600	125000
Chloride	µg/L	1800000	100	48500	37500	46700
Electrical Conductivity	uS/cm	NA	2	748	972	879
pH	pH Units		NA	7.82	7.90	8.05

Certified By:



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Certificate of Analysis

AGAT WORK ORDER: 23H081589

PROJECT: 230649

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Alex Lajkosz

SAMPLING SITE:2076 Old Lakeshore Rd, Burlington

SAMPLED BY:AL/GG

O. Reg. 153(511) - Metals & Inorganics (Water)

DATE RECEIVED: 2023-10-17

DATE REPORTED: 2023-10-23

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T9 GW
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

5371859 Metals analysis completed on a filtered sample.
pH is a recommended field analysis taken within 15 minutes of sample collection. Due to the potential for rapid change in sample equilibrium chemistry laboratory results may differ from field measured results.
Metals results were confirmed by re-analysis.

5371861 Metals analysis completed on a filtered sample.
pH is a recommended field analysis taken within 15 minutes of sample collection. Due to the potential for rapid change in sample equilibrium chemistry laboratory results may differ from field measured results

5371862 Metals analysis completed on a filtered sample.
pH is a recommended field analysis taken within 15 minutes of sample collection. Due to the potential for rapid change in sample equilibrium chemistry laboratory results may differ from field measured results.
Metals results were confirmed by re-analysis.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:



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Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
AGAT WORK ORDER: 23H081589
PROJECT: 230649
ATTENTION TO: Alex Lajkosz
SAMPLING SITE:2076 Old Lakeshore Rd, Burlington
SAMPLED BY:AL/GG

Trace Organics Analysis

RPT Date: Oct 23, 2023

PARAMETER	Batch	Sample Id	DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Water)															
F1 (C6-C10)	5371862	5371862	<25	<25	NA	< 25	115%	60%	140%	110%	60%	140%	91%	60%	140%
F2 (C10 to C16)	5367143		1230	1391	12.3%	< 100	107%	60%	140%	62%	60%	140%	83%	60%	140%
F3 (C16 to C34)	5367143		173	215	NA	< 100	113%	60%	140%	66%	60%	140%	88%	60%	140%
F4 (C34 to C50)	5367143		<100	< 100	NA	< 100	88%	60%	140%	72%	60%	140%	100%	60%	140%
O. Reg. 153(511) - PAHs (Water)															
Naphthalene	5367223		<0.20	<0.20	NA	< 0.20	84%	50%	140%	92%	50%	140%	103%	50%	140%
Acenaphthylene	5367223		<0.20	<0.20	NA	< 0.20	101%	50%	140%	98%	50%	140%	93%	50%	140%
Acenaphthene	5367223		<0.20	<0.20	NA	< 0.20	121%	50%	140%	110%	50%	140%	112%	50%	140%
Fluorene	5367223		<0.20	<0.20	NA	< 0.20	111%	50%	140%	106%	50%	140%	105%	50%	140%
Phenanthrene	5367223		0.11	0.11	NA	< 0.10	121%	50%	140%	118%	50%	140%	113%	50%	140%
Anthracene	5367223		<0.10	<0.10	NA	< 0.10	123%	50%	140%	118%	50%	140%	113%	50%	140%
Fluoranthene	5367223		<0.20	<0.20	NA	< 0.20	118%	50%	140%	121%	50%	140%	102%	50%	140%
Pyrene	5367223		<0.20	<0.20	NA	< 0.20	113%	50%	140%	120%	50%	140%	104%	50%	140%
Benzo(a)anthracene	5367223		<0.20	<0.20	NA	< 0.20	77%	50%	140%	89%	50%	140%	70%	50%	140%
Chrysene	5367223		0.11	<0.10	NA	< 0.10	115%	50%	140%	104%	50%	140%	100%	50%	140%
Benzo(b)fluoranthene	5367223		<0.10	<0.10	NA	< 0.10	112%	50%	140%	66%	50%	140%	74%	50%	140%
Benzo(k)fluoranthene	5367223		<0.10	<0.10	NA	< 0.10	92%	50%	140%	99%	50%	140%	106%	50%	140%
Benzo(a)pyrene	5367223		<0.01	<0.01	NA	< 0.01	79%	50%	140%	70%	50%	140%	62%	50%	140%
Indeno(1,2,3-cd)pyrene	5367223		<0.20	<0.20	NA	< 0.20	84%	50%	140%	69%	50%	140%	79%	50%	140%
Dibenz(a,h)anthracene	5367223		<0.20	<0.20	NA	< 0.20	95%	50%	140%	84%	50%	140%	85%	50%	140%
Benzo(g,h,i)perylene	5367223		<0.20	<0.20	NA	< 0.20	98%	50%	140%	97%	50%	140%	104%	50%	140%
O. Reg. 153(511) - VOCs (with PHC) (Water)															
Dichlorodifluoromethane	5371862	5371862	<0.40	<0.40	NA	< 0.40	104%	50%	140%	63%	50%	140%	101%	50%	140%
Vinyl Chloride	5371862	5371862	<0.17	<0.17	NA	< 0.17	89%	50%	140%	75%	50%	140%	71%	50%	140%
Bromomethane	5371862	5371862	<0.20	<0.20	NA	< 0.20	83%	50%	140%	90%	50%	140%	118%	50%	140%
Trichlorofluoromethane	5371862	5371862	<0.40	<0.40	NA	< 0.40	97%	50%	140%	112%	50%	140%	80%	50%	140%
Acetone	5371862	5371862	<1.0	<1.0	NA	< 1.0	103%	50%	140%	88%	50%	140%	87%	50%	140%
1,1-Dichloroethylene	5371862	5371862	<0.30	<0.30	NA	< 0.30	90%	50%	140%	81%	60%	130%	71%	50%	140%
Methylene Chloride	5371862	5371862	<0.30	<0.30	NA	< 0.30	100%	50%	140%	110%	60%	130%	83%	50%	140%
trans- 1,2-Dichloroethylene	5371862	5371862	<0.20	<0.20	NA	< 0.20	98%	50%	140%	98%	60%	130%	87%	50%	140%
Methyl tert-butyl ether	5371862	5371862	<0.20	<0.20	NA	< 0.20	102%	50%	140%	92%	60%	130%	103%	50%	140%
1,1-Dichloroethane	5371862	5371862	<0.30	<0.30	NA	< 0.30	90%	50%	140%	99%	60%	130%	88%	50%	140%
Methyl Ethyl Ketone	5371862	5371862	<1.0	<1.0	NA	< 1.0	99%	50%	140%	96%	50%	140%	75%	50%	140%
cis- 1,2-Dichloroethylene	5371862	5371862	<0.20	<0.20	NA	< 0.20	93%	50%	140%	103%	60%	130%	84%	50%	140%
Chloroform	5371862	5371862	1.58	1.68	6.1%	< 0.20	90%	50%	140%	97%	60%	130%	85%	50%	140%
1,2-Dichloroethane	5371862	5371862	<0.20	<0.20	NA	< 0.20	99%	50%	140%	104%	60%	130%	98%	50%	140%
1,1,1-Trichloroethane	5371862	5371862	<0.30	<0.30	NA	< 0.30	79%	50%	140%	92%	60%	130%	91%	50%	140%
Carbon Tetrachloride	5371862	5371862	<0.20	<0.20	NA	< 0.20	82%	50%	140%	87%	60%	130%	86%	50%	140%

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Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23H081589

PROJECT: 230649

ATTENTION TO: Alex Lajkosz

SAMPLING SITE:2076 Old Lakeshore Rd, Burlington

SAMPLED BY:AL/GG

Trace Organics Analysis (Continued)

RPT Date: Oct 23, 2023			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Benzene	5371862	5371862	<0.20	<0.20	NA	< 0.20	101%	50%	140%	105%	60%	130%	89%	50%	140%
1,2-Dichloropropane	5371862	5371862	<0.20	<0.20	NA	< 0.20	119%	50%	140%	115%	60%	130%	105%	50%	140%
Trichloroethylene	5371862	5371862	<0.20	<0.20	NA	< 0.20	84%	50%	140%	82%	60%	130%	96%	50%	140%
Bromodichloromethane	5371862	5371862	<0.20	<0.20	NA	< 0.20	96%	50%	140%	108%	60%	130%	99%	50%	140%
Methyl Isobutyl Ketone	5371862	5371862	<1.0	<1.0	NA	< 1.0	104%	50%	140%	111%	50%	140%	107%	50%	140%
1,1,2-Trichloroethane	5371862	5371862	<0.20	<0.20	NA	< 0.20	116%	50%	140%	98%	60%	130%	106%	50%	140%
Toluene	5371862	5371862	<0.20	<0.20	NA	< 0.20	107%	50%	140%	117%	60%	130%	99%	50%	140%
Dibromochloromethane	5371862	5371862	<0.10	<0.10	NA	< 0.10	103%	50%	140%	113%	60%	130%	106%	50%	140%
Ethylene Dibromide	5371862	5371862	<0.10	<0.10	NA	< 0.10	117%	50%	140%	103%	60%	130%	111%	50%	140%
Tetrachloroethylene	5371862	5371862	<0.20	<0.20	NA	< 0.20	105%	50%	140%	109%	60%	130%	118%	50%	140%
1,1,1,2-Tetrachloroethane	5371862	5371862	<0.10	<0.10	NA	< 0.10	82%	50%	140%	97%	60%	130%	86%	50%	140%
Chlorobenzene	5371862	5371862	<0.10	<0.10	NA	< 0.10	106%	50%	140%	120%	60%	130%	102%	50%	140%
Ethylbenzene	5371862	5371862	<0.10	<0.10	NA	< 0.10	104%	50%	140%	96%	60%	130%	107%	50%	140%
m & p-Xylene	5371862	5371862	<0.20	<0.20	NA	< 0.20	106%	50%	140%	104%	60%	130%	108%	50%	140%
Bromoform	5371862	5371862	<0.10	<0.10	NA	< 0.10	81%	50%	140%	99%	60%	130%	96%	50%	140%
Styrene	5371862	5371862	<0.10	<0.10	NA	< 0.10	95%	50%	140%	103%	60%	130%	101%	50%	140%
1,1,2,2-Tetrachloroethane	5371862	5371862	<0.10	<0.10	NA	< 0.10	98%	50%	140%	110%	60%	130%	98%	50%	140%
o-Xylene	5371862	5371862	<0.10	<0.10	NA	< 0.10	106%	50%	140%	106%	60%	130%	111%	50%	140%
1,3-Dichlorobenzene	5371862	5371862	<0.10	<0.10	NA	< 0.10	107%	50%	140%	118%	60%	130%	106%	50%	140%
1,4-Dichlorobenzene	5371862	5371862	<0.10	<0.10	NA	< 0.10	104%	50%	140%	115%	60%	130%	105%	50%	140%
1,2-Dichlorobenzene	5371862	5371862	<0.10	<0.10	NA	< 0.10	94%	50%	140%	102%	60%	130%	97%	50%	140%
n-Hexane	5371862	5371862	<0.20	<0.20	NA	< 0.20	106%	50%	140%	115%	60%	130%	96%	50%	140%

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

Certified By: N Popnikolof

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Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
AGAT WORK ORDER: 23H081589
PROJECT: 230649
ATTENTION TO: Alex Lajkosz
SAMPLING SITE:2076 Old Lakeshore Rd, Burlington
SAMPLED BY:AL/GG

Water Analysis

RPT Date: Oct 23, 2023			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals & Inorganics (Water)															
Dissolved Antimony	5371859	5371859	< 1.0	<1.0	NA	< 1.0	103%	70%	130%	105%	80%	120%	109%	70%	130%
Dissolved Arsenic	5371859	5371859	7.3	7.1	2.8%	< 1.0	99%	70%	130%	108%	80%	120%	115%	70%	130%
Dissolved Barium	5371859	5371859	46.0	46.0	0.0%	< 2.0	100%	70%	130%	101%	80%	120%	108%	70%	130%
Dissolved Beryllium	5371859	5371859	< 0.50	<0.50	NA	< 0.50	95%	70%	130%	106%	80%	120%	106%	70%	130%
Dissolved Boron	5371859	5371859	1660	1680	1.2%	< 10.0	93%	70%	130%	103%	80%	120%	100%	70%	130%
Dissolved Cadmium	5371859	5371859	< 0.20	<0.20	NA	< 0.20	100%	70%	130%	102%	80%	120%	108%	70%	130%
Dissolved Chromium	5371859	5371859	< 2.0	<2.0	NA	< 2.0	102%	70%	130%	106%	80%	120%	111%	70%	130%
Dissolved Cobalt	5371859	5371859	< 0.50	<0.50	NA	< 0.50	104%	70%	130%	106%	80%	120%	109%	70%	130%
Dissolved Copper	5371859	5371859	1.6	1.7	NA	< 1.0	100%	70%	130%	102%	80%	120%	104%	70%	130%
Dissolved Lead	5371859	5371859	< 0.50	<0.50	NA	< 0.50	106%	70%	130%	94%	80%	120%	95%	70%	130%
Dissolved Molybdenum	5371859	5371859	47.1	48.4	2.7%	< 0.50	105%	70%	130%	111%	80%	120%	115%	70%	130%
Dissolved Nickel	5371859	5371859	< 1.0	<1.0	NA	< 1.0	102%	70%	130%	104%	80%	120%	107%	70%	130%
Dissolved Selenium	5371859	5371859	5.5	6.2	12.0%	< 1.0	97%	70%	130%	106%	80%	120%	117%	70%	130%
Dissolved Silver	5371859	5371859	< 0.20	<0.20	NA	< 0.20	102%	70%	130%	103%	80%	120%	101%	70%	130%
Dissolved Thallium	5371859	5371859	< 0.30	<0.30	NA	< 0.30	103%	70%	130%	100%	80%	120%	101%	70%	130%
Dissolved Uranium	5371859	5371859	7.11	7.10	0.1%	< 0.50	96%	70%	130%	106%	80%	120%	110%	70%	130%
Dissolved Vanadium	5371859	5371859	2.76	2.88	4.3%	< 0.40	105%	70%	130%	110%	80%	120%	115%	70%	130%
Dissolved Zinc	5371859	5371859	< 5.0	<5.0	NA	< 5.0	100%	70%	130%	107%	80%	120%	113%	70%	130%
Mercury	5371859	5371859	<0.02	<0.02	NA	< 0.02	103%	70%	130%	104%	80%	120%	98%	70%	130%
Chromium VI	5371731		5.54	5.30	NA	< 2	101%	70%	130%	103%	80%	120%	95%	70%	130%
Cyanide, WAD	5354662		<2	<2	NA	< 2	99%	70%	130%	100%	80%	120%	100%	70%	130%
Dissolved Sodium	5371859	5371859	98100	97700	0.4%	< 50	94%	70%	130%	99%	80%	120%	97%	70%	130%
Chloride	5371862	5371862	46700	46700	0.0%	< 100	95%	70%	130%	102%	80%	120%	103%	70%	130%
Electrical Conductivity	5369633		2320	2270	2.2%	< 2	105%	90%	110%	NA			NA		
pH	5369633		7.22	7.38	2.2%	NA	100%	90%	110%	NA			NA		

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

Certified By:



AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. RPDs calculated using raw data. The RPD may not be reflective of duplicate values shown, due to rounding of final results.

Results relate only to the items tested. Results apply to samples as received.

AGAT Laboratories

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

Method Summary

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23H081589

PROJECT: 230649

ATTENTION TO: Alex Lajkosz

SAMPLING SITE:2076 Old Lakeshore Rd, Burlington

SAMPLED BY:AL/GG

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

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SAMPLING SITE:2076 Old Lakeshore Rd, Burlington

SAMPLED BY:AL/GG

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

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SAMPLING SITE:2076 Old Lakeshore Rd, Burlington

SAMPLED BY:AL/GG

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

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ATTENTION TO: Alex Lajkosz

SAMPLING SITE:2076 Old Lakeshore Rd, Burlington

SAMPLED BY:AL/GG

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Dissolved Antimony	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Arsenic	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Barium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Beryllium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Boron	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Cadmium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Chromium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Cobalt	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Copper	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Lead	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Molybdenum	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Nickel	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Selenium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Silver	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Thallium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Uranium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Vanadium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Zinc	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Mercury	MET-93-6100	modified from EPA 245.2 and SM 3112 B	CVAAS
Chromium VI	INOR-93-6073	modified from SM 3500-CR B	LACHAT FIA
Cyanide, WAD	INOR-93-6052	modified from ON MOECC E3015, SM 4500-CN- I, G-387	SEGMENTED FLOW ANALYSIS
Dissolved Sodium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP/MS
Chloride	INOR-93-6004	modified from SM 4110 B	ION CHROMATOGRAPH
Electrical Conductivity	INOR-93-6000	SM 2510 B	PC TITRATE
pH	INOR-93-6000	modified from SM 4500-H+ B	PC TITRATE

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AGAT Laboratories

Have feedback? Scan here for a quick survey!

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webearth.agatlabs.com

Chain of Custody Record

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

Report Information:

Company: Soil-Mat
Contact: Alex Lajkosz & Greta Gilmour
Address: 401 Grays road.
Phone: Fax:
Reports to be sent to:
1. Email: alajkosz@soil-mat.ca
2. Email: ggilmour@soil-mat.ca

Project Information:

Project: [redacted] 230649
Site Location: 2076 Old Lakeshore Rd, Burlington
Sampled By: AL/GG
AGAT Quote #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

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

Regulatory Requirements:

(Please check all applicable boxes)

☒ Regulation 153/04 — Table 1 (Indicate One) — ☐ Ind/Com ☐ Res/Park ☐ Agriculture
Soil Texture (Check One): ☐ Coarse ☐ Fine
☐ Regulation 406 — Table (Indicate One)
☐ Regulation 558
☐ CCME
☐ Sewer Use ☐ Sanitary ☐ Storm — Region
☐ Prov. Water Quality Objectives (PWQO)
☐ Other — Indicate One

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

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

Sample Matrix Legend

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

Laboratory Use Only

Work Order #: 23H081589
Cooler Quantity: 1 Large
Arrival Temperatures: 15.9 | 16.0 | 16.2
9.6 | 9.9 | 9.4
Custody Seal Intact: ☐ Yes ☐ No ☐ N/A
Notes: on ice

Turnaround Time (TAT) Required:

Regular TAT ☒ 5 to 7 Business Days
Rush TAT (Rush Surcharges Apply)
☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day
OR Date Required (Rush Surcharges May Apply):
Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*
For 'Same Day' analysis, please contact your AGAT CPM

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI, DOC Y/N	O. Reg 153: Metals & Inorganics	O. Reg 153: Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	O. Reg 153: BTEX, F1-F4 PHCs	VOC	PAHs	PCBs	PCBs: Aroclors ☐	O. Reg 558: Landfill Disposal Characterization TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 406: Regulation 406 SPLP Rainwater Leach SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	O. Reg 406: Regulation 406 Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Corrosivity: ☐ Moisture ☐ Sulphide	Potentially Hazardous or High Concentration (Y/N)
1. MW10	10/17/23	AM/PM	16	GW			X		X	X	X							
2. MW11	↓	AM/PM	16	↓			X		X	X	X							
3. DUP 1	↓	AM/PM	16	↓			X		X	X	X							
4.		AM/PM																
5.		AM/PM																
6.		AM/PM																
7.		AM/PM																
8.		AM/PM																
9.		AM/PM																
10.		AM/PM																
11.		AM/PM																

Samples Relinquished By (Print Name and Sign)	Date	Time	Samples Received By (Print Name and Sign)	Date	Time
[illegible]	10/17/23	2:50pm	Chris Cahue	10/17/23	2:50pm
Alex Lajkosz	10/17/23	3:00pm	Anna Butler	10/17/23	4:47pm

Page 1 of 1

N°: T-146760

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

Document ID: DW-TH-1551-022
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Date Issued: Mar 30, 2023

Appendix 'D'

1. Qualifications of Assessors

COMPANY BACKGROUND

SOIL-MAT ENGINEERS & CONSULTANTS LTD. [SOIL-MAT ENGINEERS] is a Canadian Consulting Engineering firm owned by its senior staff. Over the past thirty years the principals of SOIL-MAT ENGINEERS have undertaken geotechnical investigations in all areas of Hamilton and surrounding area and are familiar with the distinct geology of the area and therefore well-versed with the various soil, bedrock and groundwater conditions. SOIL-MAT ENGINEERS has a staff of over twenty-five engineers and technical staff who specialize in geotechnical assignments, environmental assessments, hydrogeological investigations and construction quality control/assurance projects. The company commenced operation on June 15, 1992 and has undertaken over 5,000 projects since its inception. The firm and all professional staff are in good standing with Professional Engineers Ontario. The company has maintained a current Certificate of Authorisation since it was granted on April 28, 1992. The firm's office and laboratory facilities are located at 130 Lancing Drive in Hamilton, Ontario.

REPORT AUTHORS

Peter Markesic, B.Sc.
Project Manager

Mr. Markesic has over ten years of experience in conducting Phase I ESA research and Phase II ESA fieldwork, including soil and groundwater sampling. Mr. Markesic has also been a key project member on a number of Phase III Environmental Site Assessment projects, including the decommissioning of underground fuel storage tanks and both in-situ and ex-situ remediation projects.

Stephen R. Sears, B. Eng. Mgmt., P. Eng.
[Director/ Senior Professional]

Mr. Sears has over twenty-two years of experience in the geotechnical and geo-environmental fields. Mr. Sears holds current Consulting Engineer designations with the Professional Engineers Ontario and the Association of Professional Engineers and Geoscientists of Saskatchewan and has supervised the geotechnical investigations for numerous industrial, commercial and residential development projects in Southern Ontario, slope stability assignments associated with Hamilton Conservation Authority, Conservation Halton and Niagara Peninsula Conservation Authority requirements, and several high rise developments throughout Ontario. Mr. Sears has also been involved in geotechnical and hydrogeological investigations for industrial park developments in the Greater Toronto Area and Niagara Peninsula. Some of Mr. Sears' projects have included the decommissioning and reconstruction of underground and above ground fuel oil storage tanks in Ontario and Saskatchewan, the study of the containment structures at a number of Petroleum Storage Facilities in Ontario and and numerous 'dig and dump' remediation projects.

Keith Gleadall, B.A., EA Dipl.

Vice-President [Senior Professional]

Mr. Gleadall has over fourteen years of experience in conducting Phase I, II and III Environmental Site Assessments and has successfully completed the requirements of the Associated Environmental Site Assessors of Canada and a Post Graduate Diploma in Environmental Site Assessment from Niagara College. Mr. Gleadall is responsible for undertaking numerous hydrogeological investigations, primarily within the City of Hamilton, associated with the development of residential and commercial subdivision projects, together with Phase I, II and III Environmental Site Assessments. Projects have included the decommissioning of underground and above ground fuel oil storage tanks, the implementation of in-situ and ex-situ remediation programmes, the decommissioning of a former dry cleaning facility and numerous 'dig and dump' remediation projects.

Appendix 'E'

1. Statement of Limitations

REPORT LIMITATIONS

Achieving the objectives that are stated in this report has required SOIL-MAT ENGINEERS to derive conclusions based upon the best and most recent information currently available to SOIL-MAT ENGINEERS. No investigative method can completely eliminate the possibility of obtaining partially imprecise information. SOIL-MAT ENGINEERS has expressed professional judgement in gathering and analysing the information obtained and in the formulation of its conclusions.

Information in this report was obtained from sources deemed to be reliable, however, no representation or warranty is made as to the accuracy of this information. To the best of SOIL-MAT ENGINEERS' knowledge, the information gathered from outside sources contained in this report on which SOIL-MAT ENGINEERS has formulated its opinions and conclusions, are both true and correct. SOIL-MAT ENGINEERS assumes no responsibility for any misrepresentation of facts gathered from outside sources.

This report was prepared to assess and document evidence of potential environmental contamination, and not to judge the acceptability of the risks associated with such environmental contamination. Much of the information gathered for this report is only accurate at the time of collection and a change in the Site conditions may alter the interpretation of SOIL-MAT ENGINEERS' findings. Furthermore, the reader should note that the Site reconnaissance described in this report was an environmental assessment of the Site, not a regulatory compliance or an environmental audit of the Site.

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