



3115 Hurontario Street, Mississauga

Interim

Phase Two Environmental Site Assessment

Project Location:

3115 Hurontario Street, Mississauga, ON

Prepared for:

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1.0 Executive Summary

MTE Consultants Inc. (MTE) was retained by Clearbrook Developments Ltd. to conduct a Phase Two Environmental Site Assessment (ESA) for the property located at 3115 Hurontario Street in Mississauga, Ontario (the “Phase Two Property” or “Site”). The purpose of the Phase Two ESA was to further assess Areas of Potential Environmental Concern (APECs) on the Site, which were identified in a Phase One ESA (MTE, 2022).

The Phase Two ESA was conducted following the process and report format according to Ontario Regulation (O.Reg.) 153/04 and was prepared under the supervision of a Qualified Person (QP_{ESA}). The report was completed to support the future filing of a Record of Site Condition (RSC) for residential use.

The scope of work for the Phase Two ESA included the collection of soil samples from boreholes and groundwater samples from monitoring wells placed within each of the APECs. Soil and groundwater samples were submitted for analysis of the contaminants of potential concern (COPCs) identified by the Phase One ESA. The analytical results were compared to the applicable Ministry of the Environment, Conservation and Parks (MECP) Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for residential/parkland/institutional land use and coarse textured soil (2011 Table 2 RPI SCSs).

Summary of Phase Two ESA Results

The QP_{ESA} was satisfied that each APEC has been sufficiently investigated and that soil and groundwater samples had been collected for all identified COPCs within each APEC. The analytical results for soil and groundwater identified no COCs on the Site and a Record of Site Condition (RSC) could be filed at this time.

It is understood that the proposed redevelopment of the Site is several years away. As a result, it is recommended that the monitoring wells be resampled for all of the COPCs closer to the development date (i.e. within one year) following an update to the Phase One ESA, and the Phase Two ESA report be updated with this analytical data. Following completion of this sampling event, the RSC can be filed.

2.0 Introduction

MTE Consultants Inc. (MTE) was retained by Clearbrook Developments Ltd. to conduct a Phase Two Environmental Site Assessment (ESA) for the property located at 3115 Hurontario Street in Mississauga, Ontario (the “Phase Two Property” or “Site”). The Site location is illustrated on **Figure 1**. The Phase Two ESA was completed by MTE between January 2022 and May 2022 according to Reference Number 50347-100.

The purpose of the Phase Two ESA was to further assess Areas of Potential Environmental Concern (APECs) on the Site, which were identified in a previous Phase One ESA (MTE, 2022). The Phase Two ESA was conducted following the process and report format according to O.Reg.153/04, and was prepared under the supervision of a Qualified Person (QP_{ESA}). The report was completed to support the future filing of a Record of Site Condition (RSC).

It is noted that the Ontario Ministry of the Environment, Conservation and Parks (MECP) was previously named the Ontario Ministry of the Environment (MOE) and the Ontario Ministry of the Environment and Climate Change (MOECC). For ease of discussion in this report, “MECP” is used to represent this provincial ministry and is inclusive of MOE and MOECC.

For ease of discussion, all directions in this report are in reference to “Project North” as indicated on **Figure 2**.

(i) Site Description

The Phase Two Property is approximately 0.25 hectares (0.62 acres) in area and is located on the east side of Hurontario Street, south of Kirwin Avenue in a mixed residential and commercial area of Mississauga. The Phase Two Property is occupied by a two-storey brick, stone and wood converted residential building with a basement and garage, which is currently tenanted by The Dam, a community centre for youth. The remaining Site area includes an asphalt surface parking area/laneway between the dwelling and Hurontario Street, and grassed area with some mature trees. The southern, eastern and northern boundaries of the Site include a chain link fence. The Site Layout and Features are illustrated on **Figure 2**.

The legal description and Property Identification Number (PIN) for the Phase Two Property are as follows:

Municipal Address:	3115 Hurontario Street
Property Identification Numbers (PIN):	13157-0002(LT)
Legal Description:	Lot 15, Concession 1, North of Dundas Street, City Of Mississauga, Regional Municipality of Peel

The Phase Two Property boundaries were established using a Plan of Survey dated October 28, 2021. A copy of the survey is provided in **Appendix A5**.

(ii) Property Ownership

The Phase Two ESA was commissioned by Clearbrook Developments Ltd. who is also the owner of the Site. The Site owner contact information is as follows:

Clearbrook Developments Ltd.
80 Front Street E, Suite 506
Toronto, ON M5E 1T4
Ms. Jane Deighton
Email: jdeighton@sympatico.ca

(iii) Current and Proposed Future Uses

The Site consists of a converted residential building currently tenanted by a community centre for youth. The current or most recent land uses at the Site are defined as community land use under O.Reg.153/04.

The proposed future use of the Site is a new residential development, which would be a change to a more sensitive use. The filing of an RSC is therefore required in accordance with O. Reg. 153/04 and Section 168.3.1 of the Environmental Protection Act.

(iv) Applicable Site Conditions Standard

The applicable Site Condition Standards (SCSs) for the Phase Two ESA were determined based on the following information:

- Subsurface investigations on the Site determined there is more than 2 metres of overburden above bedrock and the Site is not a “shallow soil property”.
- There are no surface water bodies on or within 30 metres of the Site.
- The Site is not on or within 30m of an area of natural significance. The Site was not considered to be an “Environmentally Sensitive Area” as defined by O.Reg.153/04.
- The Site is municipally serviced for drinking water by the City of Mississauga and there are no drinking water wells on the property. It is noted that some areas of Peel Region include wellhead protection areas and/or historical potable supply wells. In the absence of a non-potable request to Peel Region the potable groundwater standards were conservatively applied.
- The soil stratigraphy consists of coarse textured fill over native sand and shale bedrock. The soil was considered to be coarse textured for the purposes of this Phase Two ESA.

Based on the above, the applicable SCSs were the Table 2 Full Depth Generic Site Condition Standards in a Potable Groundwater Condition from the document “*Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, MOE, April 15, 2011*”, and those for Residential/Parkland/Institutional property use and coarse textured soil (the “2011 Table 2 RPI SCSs”).

3.0 Background Information

(i) Physical Setting

The Site is located in the broad physiographic region is known as the Iroquois Plain, which includes the lowlands bordering Lake Ontario and the Niagara Escarpment, extending from the Niagara River to the Trent River (*Chapman and Putnam, 1984*). The Iroquois Plain is described as “sand plains” and the northern portion of the Study Area is described as “beaches”. Regional geology mapping suggests the presence of sand (derived from deltaic and lacustrine deposits) (*Chapman and Putman, 1984*). Bedrock topography mapping suggests the depth to bedrock in the Study Area is approximately 5m below ground surface (bgs) and consists of Georgian Bay Formation shale and limestone (Ministry of Northern Development and Mines, 1991).

The geodetic ground surface elevation of the Site is approximately 120 metres above sea level (masl). The UTM coordinates for the approximate center of the Phase One Property are 17T 611,467m east and 4,826,473m north (MNR, 1980 National Topographic Map).

A review of a historical report from the south adjacent property showed stratigraphy of sand extending to depths ranging between 2.1-3.6 m bgs, underlain by a layer of clayey silt, and shale bedrock at approximately 4.3 m bgs. Groundwater was identified to range in depths from 2.4 to 3.4m bgs.

The groundwater flow direction is expected to be southerly to southeasterly following topography to decrease towards Cooksville Creek and a general decrease in surface elevation towards Lake Ontario. However, the local groundwater flow direction is southwesterly according to previous investigations immediately adjacent to the Site. It is possible that the buried utility corridors may result in local variations to the regional groundwater flow direction.

Surface water drainage is expected to remain on Site and be infiltrated the ground surface or directed towards catch basins located along Hurontario Street.

(ii) Past Investigations

No previous environmental reports were provided to MTE for review.

4.0 Scope of the Investigation

(i) Overview of the Site Investigation

This Phase Two ESA applies to the entire Site and was commenced within 18 months of the completion of the Phase One ESA. The Phase Two ESA was supervised by a QP_{ESA} and completed following the requirements of O.Reg.153/04.

The Phase Two ESA Site investigations included:

- Preparing a Site Specific Health and Safety Plan (HASP) including safety provisions for project team members and personal protective equipment;
- Preparing a Sampling and Analysis Plan (SAP) based on the results of the Phase One ESA and the proposed scope of work for the Phase Two ESA;
- Review of MTE Standard Operating Procedures for borehole drilling and monitoring well installation, equipment calibration, groundwater sampling, disposal of soil cuttings and development water and equipment decontamination;
- Drilling 10 boreholes, four of which (MW101-22, MW102-22, MW104-22, and MW105-22) were completed as water table monitoring wells to investigate the APECs;
- Collecting soil samples from each borehole for field screening of organic vapours using a field instrument;
- Submitting selected soil samples from the boreholes under chain-of-custody for laboratory analysis of one or more of the COPCs, which included petroleum hydrocarbons (PHCs) and benzene, ethylbenzene, toluene and xylenes (BTEX). Selected soil samples were also submitted for analysis of metals, hydride-forming metals (As, Sb, Se), mercury (Hg) and hot water soluble boron (B-HWS);
- Submitting soil samples for pH determination;
- Developing and purging the monitoring wells and monitoring field chemistry parameters during well development and prior to sampling;
- Collecting groundwater samples from the monitoring wells for laboratory analysis of one or more of the groundwater COPCs, which included metals, As, Sb, Se, PHCs, BTEX and volatile organic compounds (VOCs);
- Measurement of water levels and elevation surveying of each monitoring well to a geodetic datum to evaluate groundwater flow patterns and hydraulic gradients;
- Implementing Quality Assurance/Quality Control (QA/QC) procedures for the field activities;
- Field and analytical data evaluation and interpretation; and

- Preparing this Phase Two ESA report.

The Phase Two ESA drilling investigation was completed concurrently with a geotechnical and hydrogeological investigation. One additional shallow monitoring well (MW108-22) and two deep bedrock monitoring wells (MW107-22 and MW109-22) were installed at the Site as part of the hydrogeological investigation but not sampled for the purposes of the Phase Two ESA. One additional deep borehole (BH106-22) was planned to be completed for the purposes of the geotechnical investigation, but was removed due to time constraints.

The Phase Two ESA Sampling and Analysis Plan, dated February 2022, is included in **Appendix A1**. The SAP describes the field sampling and procedures with reference to MTE SOPs, field screening and record keeping procedures, the media to be tested, the number of samples to be collected, the COPCs to be analyzed, and a description of the QA/QC plan.

The sampling program was conducted in accordance with MTE SOPs, the SAPs and the documents “*Guidance on Sampling and Analytical Methods of Use at Contaminated Sites in Ontario, MOE, 1996*” and “*Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, MOE, 2004, amended July 1, 2011*”.

(ii) Media Investigation

The media investigated during this Phase Two ESA included soil and groundwater. There is no surface water or sediment on the Phase Two Property.

The field investigations included the collection of soil samples through borehole drilling and the collection of groundwater samples from installed monitoring wells. The more detailed sampling methodologies are summarized in **Section 5**.

The borehole and monitoring well locations and depths were selected based on a review of the the APECs that were identified, and considering underground utility locations and Site boundaries to assess the potential presence of Contaminants of Concern (COCs).

(iii) Phase One Conceptual Site Model

The Phase One Conceptual Site Model (CSM) was developed in accordance with Part V in Schedule D of O. Reg. 153/04. The CSM consisted of two parts; the following narrative description, which follows the sub-headings in Table 1 of Schedule D and supporting **Figure 1** through **Figure 5**.

The following was noted with respect to the Phase One CSM:

- (i) The Site is occupied by a two-storey brick, stone and wood converted residential building with a basement and garage, which is currently tenanted by The Dam, a community centre for youth. The Site layout is illustrated on **Figure 2**.
- (ii) There are no water bodies located on or within 30m of the Site.
- (iii) There are no areas of natural significance on or within 30m of the Site.
- (iv) There are no drinking water wells on the Phase One Property.
- (v) Roads located near the Phase One Property include Hurontario Street to the west, and Kirwin Avenue to the north. Other roads within the Study Area are indicated on **Figure 4**.
- (vi) The locations of the PCAs in the Study Area are illustrated on **Figure 4**.
- (vii) The locations of the on-Site PCAs and APECs on the Phase One Property are illustrated on **Figure 5**.

Phase One Property Description

The Phase One Property is approximately 0.25 hectares (0.62 acres) in area is located on the east side of Hurontario Street, south of Kirwin Avenue in a mixed residential and commercial area of Mississauga. The The Phase One Property located at municipal address 3115 Hurontario Street is occupied by a two-storey brick, stone and wood converted residential building with a basement and garage and is currently tenanted by The Dam, a community centre for youth. The remaining Site area includes an asphalt surface parking area/laneway between the dwelling and Hurontario Street, and grassed area with some mature trees. The southern, eastern and northern boundaries of the Site include a chain link fence.

Phase One Property History

Historical records indicate that the Phase One Property was developed as a residential dwelling around 1954. The building was subsequently occupied by a youth club (1989-1994), offices for an electrical contractor and a skin care clinic (around 2000), real estate offices (2009 - 2011), and a youth community centre (2011-present).

Proposed Future Use

The proposed future use of the Phase One Property is a new residential development.

Enhanced Investigation Property (EIP)

The Site is not classified as an EIP according to O.Reg.153/04 based on the historical usages.

Areas where Potentially Contaminating Activity on or potentially affecting the Phase One Property has occurred

The PCAs identified on the Site and in the Study Area are summarized in **Section 7.0(ii)** of this report.

The on-Site PCAs are illustrated on **Figure 3**. The off-Site PCA locations are illustrated on **Figure 4**, and APEC locations are shown in **Figure 5**. The PCA Summary Table and APEC Table are included in **Appendix A7**.

APEC Boundaries and Contaminants of Potential Concern (COPCs)

The boundaries of the APECs and the COPCs in each APEC were as follows:

- APEC 1 was defined as the southwestern portion of the current building, in the west-central portion of the Site, where a former fuel oil AST in the basement was used for storing heating oil (PCA 1). The COPCs within APEC 1 included PHCs and BTEX in soil and groundwater.
- APEC 2 was defined as the northwestern portion of Site where road salt may have been used on the asphalt parking area for de-icing purposes (PCA 2). The COPCs in APEC 2 included EC and SAR in soil and Na and Cl⁻ in groundwater.
- APEC 3 was defined as the area located in the northwestern portion of the Site based on the presence of a potential former vehicle repair garage adjacent to the north (PCA 3). The COPCs within APEC 3 included metals, As, Sb, Se, PHCs, BTEX and VOCs in groundwater.
- APEC 4 was defined as the area located in the western portion of the Site based on the presence of former machine shop to the west of the Site (PCA 4). The COPCs within APEC 4 included PHCs, BTEX and VOCs in groundwater.
- APEC 5a was defined as the area located in the northwestern portion of the Site based on the presence of former auto body shops to the northwest (PCA 5a). The COPCs within APEC 5a included PHCs, BTEX and VOCs in groundwater.

- APEC 5b was defined as the area located in the northwestern portion of the Site based on the presence of former auto repair shops to the northwest (PCA 5b). The COPCs within APEC 5b included PHCs, BTEX and VOCs in groundwater.
- APEC 6 was defined as the area adjacent to the northern portion of the Site based on the presence of a former dry cleaner to the north (PCA 6). The COPCs within APEC 6 included VOCs in groundwater.

Potential for Underground Utilities to Affect Contaminant Distribution

No underground utility drawings were available for the Phase One Property. Observations made during the Site visit suggested that the Phase One Property is serviced with overhead hydro and underground natural gas, municipal water and sewer. A sewer manhole was observed along Hurontario Street, suggesting that underground utilities corridors are located parallel to the roadway.

Regional or site specific geological and hydrogeological information

The Phase One Property is located in the broad physiographic region known as the Iroquois Plain, which includes the lowlands bordering Lake Ontario and the Niagara Escarpment, extending from the Niagara River to the Trent River. Regional geology mapping suggests the presence of sand derived from deltaic and lacustrine deposits (Chapman and Putman, 1984).

The geodetic ground surface elevation of the Site is approximately 120 metres above sea level (masl). The UTM coordinates for the approximate center of the Phase One Property are 17T 611,467m east and 4,826,473m north. The regional topography decreases in elevation towards Lake Ontario, located approximately 4.5km south of the Site (MNR, 1980 National Topographic Map).

Bedrock topography mapping suggested the depth to bedrock in the Study Area is approximately 5m below ground surface (bgs) and consists Georgian Bay Formation shale and limestone (Ministry of Northern Development and Mines, 1991).

Well records in the Study Area described the general soil stratigraphy as general soil stratigraphy as fill to 0.6m bgs, sand to depths between 1.5 and 3.6m bgs, underlain with silty clay or clayey silt (up to 4.8m bgs). Shale bedrock was encountered at approximately 4m bgs. Groundwater was identified in a Study Area to range in depths from 2.4 to 3.4m bgs.

The groundwater flow direction is expected to be southerly towards Lake Ontario. Surface water drainage on the Site is expected to remain on Site and infiltrated the ground surface.

Uncertainty or absence of information that could affect the validity of the CSM

There were no limitations to the Phase One ESA that were interpreted to affect the conclusions or the validity of the CSM.

Subsequently Acquired Information

There was no subsequently acquired information during this Phase Two ESA that affected the Phase One CSM.

(iv) Deviations from Sampling and Analysis Plan

There were no deviations from the Sampling and Analysis Plan during the Phase Two ESA.

(v) Impediments

MTE did not encounter any physical impediments to the Phase Two ESA and was not denied access to any areas on the Phase Two Property.

5.0 Investigation Method

(i) General

A Site Specific HASP was developed in accordance with MTE policy prior to commencement of the field work. The Site Specific HASP identified the location of the work, field activities, responsibilities of MTE and contractor personnel, the COPCs, physical hazards, environmental conditions, personal protective equipment required and directions to the nearest emergency health care provider. A copy of the HASP is maintained on file with MTE.

The field investigations were completed in accordance with the SAP, which references the following company Standard Operating Procedures:

- 5.6.2(a) Borehole drilling;
- 5.6.2(b) Excavating;
- 5.6.2(c) Soil sampling;
- 5.6.2(d) Field Screening measurements, including calibration procedures;
- 5.6.2(e) Monitoring well installation;
- 5.6.2(f) Monitoring well development;
- 5.6.2(g) Field measurement of water quality indicators, including calibration procedures; and
- 5.6.2(i) Groundwater sampling

(ii) Drilling and Excavating

(i) Borehole Drilling

The Phase Two ESA borehole drilling work was completed between February 14th to 18th, 2022. Boreholes were advanced in 10 locations across the Site and four boreholes were completed as water table monitoring wells in the exterior areas of the Site (MW101-22, MW102-22, MW104-22, MW105-22). One borehole (BH103-22) was located in the basement of the existing on-site building and drilled to 1.22m below the basement floor level.

One additional shallow monitoring well (MW108-22) and two deep bedrock monitoring wells (MW107-22 and MW109-22) were installed at the Site for hydrogeological assessment purposes.

The maximum Phase Two ESA drilling depth was 15.6m bgs and the sampling locations are illustrated on **Figure 5**.

MTE retained Geo-Environmental Drilling Inc. (GEDI) of Halton Hills, Ontario, an MECP licensed well contractor, to complete the borehole drilling on the Site. GEDI used a track-mounted CME55LC conventional drilling rig coupled with hollow stem augers to advance the exterior boreholes and install the monitoring wells. In addition, GEDI used a hand held pneumatic Pionjar drill to advance the interior borehole.

(iii) Soil Sampling

(i) Soil Sampling Equipment

The soil sampling method included the advancement of split spoons to collect continuous and semi-continuous samples from each borehole. Soils were logged by MTE for geological characteristics as well as visual and olfactory evidence of environmental impacts such as staining, odours or the presence of non-soil materials. The sampling equipment (i.e. split spoons, trowels) were cleaned between locations using soapy water and a tap water rinse to minimize the potential for cross contamination between boreholes.

Soil samples were collected from the spilt spoons for field headspace screening and for potential laboratory analysis. Soil samples for F1 PHC, BTEX and VOC analyses were collected following USEPA SW-846 Method 5035 (field methanol preservation). This soil sampling procedure included collecting approximately 5 grams of sample from the undisturbed soil core using a Terra Core™ sampling device and placing the sample in a laboratory supplied VOC vial containing 5mL of methanol. Soil samples collected for moisture analyses were obtained directly from the soil core and placed into new laboratory supplied soil jars.

Soil samples for analysis of other parameters were placed directly into laboratory supplied glass sample jars. The MTE field technician utilized a stainless steel trowel that was cleaned between each sample using an Alconox detergent solution and tap water rinse.

New nitrile gloves were worn during the handling of all samples, sampling equipment and sample jars and changed between each sample. The soil samples were placed in a cooler with ice for transportation to the analytical laboratory, Bureau Veritas Laboratories of Mississauga, Ontario.

(ii) Geologic Description of Soil

The soil stratigraphy generally consisted of topsoil or asphalt underlain by sand and gravel fill and native sand/silty sand, with the exception of the basement where native silty sand was underlain by the concrete floor. The depth of the fill material ranged from 1.5 to 2.4m bgs and no non-soil materials (i.e. brick, concrete) were observed. The native sand/silty sand was underlain by clayey silt till soil at some borehole locations. Bedrock consisting of weathered shale was encountered below the sand/silty sand or clayey silt till at depths ranging from 3.0m to 4.0m bgs.

Borehole logs describing and illustrating the soil stratigraphy at each investigation location are included in **Appendix A2**. Geologic cross sections illustrating the soil stratigraphy are included on **Figure 7** and **Figure 8**.

(iv) Field Screening Measures

Soil samples were field screened by MTE using a pre-cleaned and calibrated RKI Instruments Eagle 2 multi-gas detector to measure total hydrocarbons and VOC gasses in the soil sample headspace. The Eagle 2 detection limits for VOCs are capable of 0-50ppm with 0.1ppm resolution or 200-2000ppm VOCs with 1ppm resolution. The Eagle 2 measures hydrocarbons in the 0-50,000ppm or 0-100% LEL ranges.

Equipment calibration was performed according to the manufacturer's recommendations to ensure proper operation in the field. The RKI Eagle 2 calibration process includes a fresh air/zero calibration and a single sensor calibration for VOCs using isobutylene and hydrocarbons using hexane. The fresh air/zero calibration to background conditions was completed by using a charcoal filter and ambient air. After completing a fresh air/zero calibration and moisture test response, a calibration test using isobutylene and/or hexane was completed.

(v) Groundwater Monitoring Well Installation

Groundwater monitoring wells for the Phase Two ESA were installed in four locations (MW101-22, MW102-22, MW104-22 and MW105-22) by GEDI between February 15th to 18th, 2022. The monitoring wells were installed in accordance with Ontario Regulation 903 and in consideration of the guidance document "*Test Holes and Dewatering Wells – Requirements and Best Management Practices, MOE, April 2014*". MTE was present during the monitoring well installations to observe and document the well construction details.

Nitrile gloves were worn by MTE and driller staff during all work with the monitoring wells, including water level checks. No groundwater samples were collected prior to installation of the permanent wells.

The monitoring well pipe and screens were new materials, sealed in a protective plastic wrap from the manufacturer. The riser pipe and screen sections were pre-threaded with O-ring seals.

No glues or solvents were used to connect the pipe or screen sections. A coarse grained (#3) sand pack was placed around and approximately 0.3m above the well screens to allow for groundwater collection in the well. Bentonite (holeplug) was placed immediately above the sand pack to hydraulically isolate the screened portion of the well. The holeplug was manually hydrated with potable water at the time of placement.

All monitoring wells were completed with either a flushmount or monument steel protective casing, which was cemented in place. The well contractors filed MECP well records for the monitoring wells in accordance with Ontario Regulation 903/90. The monitoring well installation details are summarized in **Table 1** and illustrated on the borehole logs in **Appendix A2**.

The monitoring wells were developed by pumping using dedicated low density polyethylene (LDPE) or high density polyethylene (HDPE) tubing and a foot valve device to remove standing water and foreign material that may have been introduced during drilling. Well development included the removal of three well volumes and/or purging the well dry on three occasions.

(vi) Groundwater Field Measurements of Water Quality Parameters

Prior to the collection of groundwater samples, each of the new wells were purged to remove stagnant/standing water from the well and the surrounding sand pack, and to allow for the collection of a representative groundwater sample from the surrounding formation. Purging was similarly completed using dedicated LDPE tubing and a foot valve or dedicated LDPE tubing and a peristaltic pump.

Field chemistry parameters including: conductivity, pH, temperature, dissolved oxygen, and oxidation reduction potential (ORP) were monitored during well development using a YSI Professional Plus Water Quality Meter. Well purging was considered complete when stabilized measurements were recorded and a minimum of three well volumes were removed.

(vii) Groundwater Sampling

Following purging and well development, groundwater samples were collected using dedicated LDPE tubing and a peristaltic pump. Groundwater samples were collected from the monitoring wells as outlined in the SAP and placed directly into laboratory-supplied sample bottles, sealed, labeled and stored in a cooler with ice for transportation under chain-of-custody to Bureau Veritas Laboratories of Mississauga, Ontario. Refer to **Table 7** for a summary of the groundwater samples submitted for analysis. Groundwater samples were collected by MTE on March 22nd, 2022 and submitted for analysis of the COPCs.

During the purging and sampling activities, groundwater was examined for visual and olfactory evidence of impact. No sheen, odours, free product or other evidence of potential environmental contamination was observed.

(viii) Sediment Sampling

There is no sediment on the Phase Two Property and therefore no sediment samples were collected.

(ix) Analytical Testing

The soil and groundwater samples collected by MTE during this Phase Two ESA were submitted to Bureau Veritas Laboratories of Mississauga, Ontario. Bureau Veritas is accredited by the Standards Council of Canada (SCC), in accordance with ISO/IEC 17025:2005 for the analysis of all parameters and samples in the scope of work for which site condition standards have been established under O.Reg.153/04. The Bureau Veritas contact is Mr. Ronklin Gracian at 6740 Campobello Road, Mississauga, Ontario. Mr. Gracian can be reached at 905-817-5752.

(x) Residue Management Procedures

Soil cuttings, purge water and equipment cleaning water were temporarily stored in sealed, steel 205L drums across the Phase Two Property. The investigative derived wastes were transported

off-Site for disposal by GFL Environmental Inc. on May 19th, 2022. The waste management documents are included in **Appendix A4**.

(xi) Elevation Survey

A location and elevation survey of the new monitoring wells and boreholes was completed by MTE on March 22, 2022. The elevations and locations were measured to a geodetic datum as identified on the legal survey of the Site. The geodetic monitoring well and groundwater elevations are provided in **Table 2**.

(xii) Quality Assurance and Quality Control Measures

The following describes the QA/QC procedures that were implemented during the Phase Two ESA.

Sample Containers, Preservation and Sample Handling

All soil samples were placed into new laboratory supplied containers, which were clearly labeled with a unique sample identifier, project number, MTE contact name and the requested analytical parameters. Soil samples for PHC F1, BTEX and VOC analyses were collected following USEPA SW-846 Method 5035 (field methanol preservation) as described in **Section 5(iii)(i)**. Soil samples collected for other analyses were collected in 250ml unpreserved clear glass jars supplied by the laboratory.

The following details the container types and preservatives for each soil analysis group:

Soil Analysis Group	Container Type	Preservative
PHC F1, BTEX, VOCs	2 – 40mL clear glass vials	Methanol
PHC F2-F4, metals, As, Sb, Se, Hg, B-HWS, pH	1 – 250mL clear glass jar	None

Groundwater samples analyzed for PHC F1, BTEX and VOCs were placed in septum vials with Teflon® lined lids with zero head space. The following details the container types and preservatives for each groundwater analysis group:

Groundwater Analysis Group	Container Type	Preservative
PHC F1, VOCs, BTEX	3 – 40ml Glass Septum Vials	NaHSO ₄
PHC F2-F4	2 – 500ml Amber Glass Bottle	NaHSO ₄
Metals, As, Sb, Se	1 – 125ml Plastic Bottle (Field Filtered)	HNO ₃

The samples were stored in insulated coolers with bags of ice to initiate cooling after sample collection and during transportation to the laboratory under Chain-of-Custody.

Equipment Cleaning

Equipment decontamination and sampling procedures were completed in accordance with industry standard procedures, MTE SOPs and the document “*Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*, MOE, 1996”. The sampling tools (e.g., trowel or knife) were decontaminated between each sample by cleaning equipment with an Alconox detergent solution and distilled water rinse.

Field and Laboratory Quality Control Measures

Field logbooks and field forms were used by technical staff to record data collection and sampling activities. The equipment used to collect samples was noted, along with the time of sampling, sampling description, depth from which the samples were collected and volume and number of containers. All samples were accompanied by a completed Chain-of-Custody record, which listed the sample identification, sample dates and time, sample matrix, the number of containers and requested analysis.

Other field QA/QC procedures included:

- Adherence to MTE standard operating procedures (SOPs), which meet industry standards and MECP guidance for field sample data collection;
- The use of new and dedicated sampling equipment and supplies; and
- The collection and/or analysis of QC samples including blind duplicate samples.

Laboratory QA/QC procedures were implemented internally by the laboratory and carried out in accordance with the requirements of the *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act*. Analytical results were validated through a review of the sample Chain-of-Custody forms and Laboratory Certificates of Analysis. The laboratory QA/QC assessment included a review of the following:

- Sample holding times and arrival temperatures;
- Laboratory analytical methods (i.e., MECP approved methods were used);
- Results were received for all of the requested samples and analyses;
- Laboratory surrogate recovery and spike sample results;
- Dilution factors and method detection limits;
- Duplicate sample analytical results;
- Laboratory Certificate of Analysis notes; and
- Analytical results as compared to visual/olfactory observations.

Analytical data precision was assessed by calculating the Relative Percent Difference (RPD) between the investigation sample results (C1) and the field duplicate sample results (C2). The RPD was calculated as follows:

$$RPD = 2 \left| \frac{C1 - C2}{C1 + C2} \right| \times 100\%$$

The RPD acceptance criterion was 50% for soil analysis and 30% for groundwater analysis. There were no deviations from the SAP with respect to QA/QC.

6.0 Review and Evaluation

(i) Geology

The soil stratigraphy generally consisted of topsoil or asphalt underlain by sand and gravel fill and native sand/silty sand, with the exception of the basement where native silty sand was underlain by the concrete floor. The depth of the fill material ranged from 1.5 to 2.4m bgs and no non-soil materials (i.e. brick, concrete) were observed. The native sand/silty sand was underlain by clayey silt till soil at some borehole locations. Bedrock consisting of weathered shale was encountered below the sand/silty sand or clayey silt till at depths ranging from 3.0m to 4.0m bgs. No visual or olfactory indicators of contamination such as staining and odours were observed.

The approximate elevations of the stratigraphic units were interpreted as follows:

Stratigraphic Unit	Elevation Range (masl)*	
	Upper	Lower
Fill	118.7	115.9
Sand/Silty Sand	116.4	114.6
Clayey Silt Till	115.3	114.1
Shale	116.1	102.6**

*metres above mean sea level, **maximum depth drilled depth

It is noted that fill material was not identified as a PCA resulting in an APEC on the Site during the Phase One ESA as historical records suggested that little to no Site grading had occurred historically. The fill material that was encountered on the Site was observed to be uniform and no non-soil materials (i.e. brick, concrete, wood) were noted. MTE collected representative samples of the fill material, as discussed below, and the analytical results were all below the 2011 Table 2 RPI SCSs. Therefore, the presence of the fill material on the Site was not considered to be a concern and did not result in the creation of a new APEC.

Borehole logs describing and illustrating the soil stratigraphy at each investigation location are included in **Appendix A2**. Geologic cross section locations are illustrated on **Figure 5**. Geologic cross sections illustrating the soil stratigraphy are included on **Figures 7a** and **7b**.

(ii) Groundwater Elevations and Flow Direction

One aquifer was identified on the Site and monitoring well screens were placed at the same approximate elevation within the overburden. Groundwater levels were measured on three occasions between March 9th and March 23rd, 2022. The depth to the water table ranged between 2.51m and 3.44m bgs within the monitoring wells intersecting the water table. The measured groundwater levels and their respective geodetic elevations that were calculated based on the elevation survey results are summarized in **Table 2**.

Groundwater flow contours were developed based on the March 22nd, 2022 groundwater elevations, and are illustrated on **Figure 6**. The inferred groundwater flow direction was southerly, consistent with the Phase Two CSM for the adjoining property to the south/east.

As discussed in **Section 5 (vii)**, during the purging and sampling activities no sheen, odours, free product or other evidence of potential environmental contamination was observed. MTE used an interface probe determine if separate-phase liquids (i.e., LNAPL or DNAPL) were present on the Site. There was no detection or thickness of separate-phase liquids measured.

(iii) Groundwater Hydraulic Gradients

(i) Horizontal Hydraulic Gradients

Based on the March 22, 2022 water level measurements, the geodetic groundwater elevations in the shallow screened wells ranged from approximately 116.15m asl at MW101-22 in the northwestern portion of the Site to 115.03m asl at MW105-22 in the southwestern portion of the Site. These wells are located approximately 40m apart. This represents a horizontal hydraulic gradient of approximately 0.028m/m at the water table.

Hydraulic conductivity tests were completed by MTE in March 2022 on two shallow wells screened within the native sand (MW101-22 and MW108-22) and one deep well screen in the native shale (MW107-22). The results were as follows:

Well Location	Estimated Hydraulic Conductivity (m/s)
MW101-22	7.7×10^{-7}
MW108-22	1.3×10^{-6}
MW107-22 (bedrock well)	3.7×10^{-6}

The average calculated hydraulic conductivity (geometric mean) of the sand unit was 9.95×10^{-7} . Using the average hydraulic conductivity and the horizontal hydraulic gradient calculated for the shallow wells above, the average linear groundwater velocity was calculated using:

$$q = (-Ki)/n \rightarrow (\text{flux/porosity})$$

Where:

q = groundwater flux ($\text{m}^3/\text{m}^2/\text{time}$)

K = effective hydraulic conductivity (m/sec)

i = horizontal hydraulic gradient (m/m)

n = soil porosity (0.25-0.50 for sand, Freeze and Cherry, 1979)

The average linear groundwater velocity in the sand unit was estimated to be approximately 1.76m to 3.51m/year.

(ii) Vertical Hydraulic Gradients

While monitoring wells were installed at two general depth intervals at the Site, the deep and shallow monitoring wells were not installed in proximity (i.e. within 5m) of each other. Therefore, a vertical hydraulic gradient could not be calculated.

(iv) Fine Medium Soil Texture

The analytical results for soil and groundwater samples were compared to the Site Condition Standards for coarse textured soils. The underlying stratigraphy of the Site included coarse textured fill material overlying sandy soils which comprise of greater than 1/3 of the overburden soil volume beneath the Site.

(v) Soil Field Screening

Soil samples were screened in the field using a pre-cleaned and calibrated RKI Instruments Eagle 2 multi-gas detector as described in **Section 5 (iv)** to measure total hydrocarbons and VOCs in the soil sample headspace. The field screening measurements are included on the borehole logs in **Appendix A2**.

The results of the field screening were generally 0ppm or within expected background concentrations (i.e. less than 1 ppm for isobutylene or 30ppm for hexane).

(vi) Soil Quality

The COPCs for soil identified in the Phase One ESA included EC, SAR, PHCs and BTEX. Samples of fill material were also submitted for analysis of metals, As, Sb, Se, Hg and B-HWS. The soil samples submitted for analysis are summarized in **Table 3**. The analytical results for soil are summarized in **Table 4** through **Table 6**, along with a comparison to the 2011 Table 2 RPI SCSs. The Laboratory Certificates of Analysis for all samples relied upon in this Phase Two ESA are provided in **Appendix A3**.

The following sections summarize the analytical results for soil for each Method Group.

(i) Metals and Other Regulated Parameters

Samples of soil fill were collected from three boreholes (MW101-22, BH110-22 and BH111-22) across the Site and submitted for analysis of metals, hydride-forming metals As, Sb, and Se, Hg and B-HWS to assess fill quality at the Site. The analytical results are summarized in **Table 4**.

The analytical results for metals, hydride-forming metals, Hg and B-HWS in soil were all below the 2011 Table 2 RPI SCSs.

(ii) Electrical Conductivity (EC) and Sodium Adsorption Ratio (SAR)

EC and SAR were identified as soil COPCs in APEC 2 as a result of the application of road salt for de-icing.

In accordance with Section 49.1 of Ontario Regulation 153/04, the QP_{ESA} can deem that an applicable site condition standard has not been exceeded at a property if it has been determined that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both. As a result, the presence of EC and SAR in soil above the applicable SCSs would not be COCs if identified and no soil samples were collected for analysis of these road salt-related parameters.

(iii) pH

Six soil samples were submitted for pH determination, including three samples of surface soil (less than 1.5m bgs) and three samples of subsurface soil (greater than 1.5m bgs). The results for soil pH were between 7.39 and 8.01, within the acceptable range of 5.0-9.0 for surface soil (less than 1.5m bgs) and 5.0-11.0 for subsurface soil (greater than 1.5m bgs).

(iv) Petroleum Hydrocarbons (PHCs) and Benzene, Toluene, Ethylene and Xylenes (BTEX)

Samples of soil fill were collected from three boreholes (MW101-22, BH110-22 and BH111-22) across the Site and submitted for analysis of PHCs and BTEX to assess fill quality at the Site. In addition, samples of shallow fill and native soil were collected from BH103-22 (located within the basement of the building, in the area of the former fuel oil AST) and MW104-22 (located in proximity to the vent/fill pipes) and submitted for analysis of PHCs and BTEX to assess the potential for impacts from historical spills during tank filling or from tank leaks. The analytical results are summarized in **Table 5** (PHCs) and **Table 6** (BTEX).

The analytical results for PHCs and BTEX were below the 2011 Table 2 RPI SCSs.

(v) Summary of Soil Analytical Results

The results of the soil analysis completed during this Phase Two ESA identified no COCs in soil at the Site.

Contaminants Related to Chemical or Biological Transformations

No COCs were measured in soil at the Site.

Soil as a Source of Contaminant Mass to Groundwater

No COCs were measured in soil at the Site and therefore soil is not considered to be a source of contaminant mass to groundwater.

Potential Presence of Light or Dense Non-Aqueous Phase Liquids

No evidence of separate-phase liquids was observed on the Site and the soil analytical results do not suggest the presence or potential presence of light or dense non-aqueous phase liquids.

(vii) Groundwater Quality

The COPCs for groundwater identified in the Phase One ESA included metals, As, Sb, Se, Na, Cl-, PHCs, BTEX and VOCs. The groundwater samples submitted for analysis are summarized in **Table 7**. The groundwater analytical results are summarized in **Table 8** through **Table 10**, along with a comparison to the 2011 Table 2 RPI SCSs. Laboratory Certificates of Analysis for all samples relied upon in this Phase Two ESA are included in **Appendix A3**.

The analytical results for groundwater were below the 2011 Table 2 RPI SCSs for all of the analyzed parameters and no COCs were identified.

As with EC and SAR in soil, Na and Cl⁻ were identified as groundwater COPCs in APEC 2 as a result of the application of road salt for de-icing.

In accordance with Section 49.1 of Ontario Regulation 153/04, the QP_{ESA} can deem that an applicable site condition standard has not been exceeded at a property if it has been determined that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both. As a result, the presence of Na and Cl⁻ in groundwater above the applicable SCSs would not be COCs if identified and no groundwater samples were collected for analysis of these road salt-related parameters.

Potential for Light or Dense Non-Aqueous Phase Liquids (LNAPL or DNAPL)

No evidence of light or dense non-aqueous liquids (LNAPL or DNAPL) was observed during the soil or groundwater sampling activities. No COCs were identified in groundwater and groundwater concentrations on the Site were all below the ½ solubility values as provided in the document *Rational for the Development of Soil and Ground Water Standards for Use at Contaminated Sites in Ontario, MOE, April 2011* and do not suggest the potential for LNAPL or DNAPL formation. MTE measured water levels in all wells on the Site using an interface probe and no separate-phase liquids were detected.

(viii) Quality Assurance Quality Control Results

A data quality review process was implemented in the field and laboratory to demonstrate that the physical and analytical data that were generated during the Phase Two ESA were suitable to assess the site conditions and for comparison to the applicable 2011 Table 2 RPI SCSs. Field QA/QC procedures included:

- Adherence to the SAP and MTEs SOPs, which meet industry standards and MECP guidance for field sample data collection;
- The use of new laboratory-supplied sample containers;
- The use of new and dedicated sampling equipment;
- Implementing equipment cleaning procedures; and
- The collection of QC samples (blind field duplicates).

Laboratory QA/QC procedures were implemented internally by the laboratory and validated through a review of the sample Chain-of-Custody forms and Laboratory Certificates of Analysis. The laboratory QA/QC assessment included a review of the following:

- Sample holding times and arrival temperatures;
- Laboratory analytical methods (i.e., MECP approved methods were used);
- Results were received for all of the requested samples and analyses;
- Laboratory surrogate recovery and spike sample results;
- Dilution factors and method detection limits;
- Duplicate sample analytical results;
- Laboratory Certificate of Analysis notes; and
- Analytical results as compared to visual/olfactory observations.

Laboratory QA/QC Assessment

Laboratory Certificates of Analysis for all soil and groundwater samples analyzed and relied upon during this Phase Two ESA are included in **Appendix A3**. Bureau Veritas is accredited by the Standards Council of Canada (SCC) in accordance with ISO/IEC 17025:2005 for the analysis of all parameters and samples in the scope of work for which Site Condition Standards have been established under O.Reg.153/04.

The lab reports meet the requirements of S.47 (2b) and (3) of O.Reg.153/04 and are signed by the lab managers. Bureau Veritas have indicated that all samples were received in good condition. There were no lab qualifiers with respect to temperature, holding time, preservation method or sample container.

Field QA/QC Assessment

Quality Control Samples

Analytical data precision was assessed by calculating the Relative Percent Difference (RPD) between the investigation sample results (C1) and the field duplicate sample results (C2). The RPD was calculated as follows:

$$RPD = 2 \left| \frac{C1 - C2}{C1 + C2} \right| \times 100\%$$

RPDs are only calculated where both C1 and C2 are above the analytical method detection limits. The following field duplicate samples were submitted for analysis

Sample	Field Duplicate	Media	Analysis
BH103-22 SS1 0.3-2	BH1003-22 0.3-2	Soil	PHCs, BTEX
MW104-22 SS4 7.5-9.5	MW1004-22 SS4 7.5-9.5	Soil	PHCs, BTEX
BH110-22 SS3 2.5-4.5	BH1010-22 2.5-4.5	Soil	metals, As, Sb, Se, Hg, B-HWS
MW101-22	MW1101-22	Groundwater	metals, As, Sb, Se, PHCs, VOCs

Field duplicate RPD control limits were set at 50% for soil and 30% for groundwater. Where the concentration of the sample (C1) or field duplicate (C2) are less than 10 times the laboratory detection limits, lower precision is expected and the screening-level criterion does not apply.

The calculated RPDs for the samples and their field duplicates met the screening criteria for all analyzed parameters where a calculation could be completed, with the exception of the following samples:

Sample	Field Duplicate	Media	Analysis
BH110-22 2.5-4.5	BH1010-22 2.5-4.5	Soil	metals (vanadium)

The concentrations of vanadium in both the sample and field duplicate from BH110-22 2.5-4.5 were below the 2011 Table 2 RPI SCSs. As a result, there was no change to the interpretation of the analytical data between the samples and duplicates in these areas.

This elevated RPD was not considered to be a concern for overall data quality or to affect the interpretation of the analytical data set and Site conditions.

Data Validation

Based on a review of the QC samples and QA program results, the analytical and field data was considered to be suitable for evaluation of the Site conditions and the analytical results are considered to be suitable for comparison to the 2011 Table 2 RPI SCSs based on the following:

- The sampling program design was appropriate to characterize the subsurface media in each APEC.
- Samples were collected using industry standard methods in laboratory supplied containers, and transported in insulated coolers containing ice under Chain-of-Custody to the laboratory. No concerns with respect to sample collection, handling or control were noted.
- The field methods and laboratory methods were kept consistent throughout the Phase

Two ESA sampling program and the analytical results were consistent with field observations and field screening results.

- Analytical results were obtained for all the samples submitted for analysis.
- The analytical results for similar samples of like materials across the Site gave similar and/or expected results.
- No concerns were noted with respect to lab internal quality indicators (e.g., surrogate recoveries) or Certificate of Analysis notes.
- No analytical results were rejected by the laboratory.

Elevated Detection Limits and Rejected Data

The data validation process also included a detailed review of the analytical data set by the QP_{ESA}. The results of the review did not identify any elevated detection limits that would impact the interpretation of the analytical results and no analytical data was rejected by the QP_{ESA}.

Overall the QP_{ESA} was satisfied that the objectives of the Phase Two ESA were met and that the data set has allowed appropriate decisions to be made regarding the environmental conditions of the Site.

(ix) Phase Two Conceptual Site Model

A Phase Two Conceptual Site Model (CSM) will be prepared in accordance with Schedule E, Part V, Table 1, S6(x) of O.Reg.153/04 prior to the future RSC filing.

7.0 Conclusions

The QP_{ESA} was satisfied that each APEC has been sufficiently investigated and that soil and groundwater samples had been collected for the identified COPCs of each APEC. The analytical results for soil and groundwater identified no COCs on the Site and a Record of Site Condition (RSC) could be filed at this time.

It is understood that the proposed redevelopment of the Site is several years away. As a result, it is recommended that the monitoring wells be resampled for all of the COPCs closer to the development date (i.e. within one year) following an update to the Phase One ESA, and the Phase Two ESA report be updated with this analytical data. Following completion of this sampling event, the RSC can be filed.

8.0 Limitations

Services performed by **MTE Consultants Inc.** (MTE) were conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the Environmental Engineering & Consulting profession. No other warranty or representation expressed or implied as to the accuracy of the information, conclusions or recommendations is included or intended in this report.

This report was completed for the sole use of MTE and Clearbrook Developments Ltd. It was carried out in accordance with the approved Scope of Work referred to in **Section 4**. As such, this report may not deal with all issues potentially applicable to the site and may omit issues, which are or may be of interest to the reader. MTE makes no representation that the present report has dealt with any and all of the important features, including any or all important environmental features, except as provided in the Scope of Work. All findings and conclusions presented in this report are based on site conditions as they existed during the time period of the investigation. This report is not intended to be exhaustive in scope or to imply a risk-free facility.

Any use which a third party makes of this report, or any reliance on, or decisions to be made based upon it, are the responsibility of such third parties. MTE accepts no responsibility for liabilities incurred by or damages, if any, suffered by any third party as a result of decisions made or actions taken, based upon this report. Others with interest in the site should undertake their own investigations and studies to determine how or if the condition affects them or their plans.

It should be recognized that the passage of time may affect the views, conclusions and recommendations (if any) provided in this report because environmental conditions of a property can change. Should additional or new information become available, MTE recommends that it be brought to our attention in order that we may re-assess the contents of this report.

Respectfully Submitted,

MTE Consultants Inc.



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SDB:

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9.0 References

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“Bedrock Geology of Southern Ontario, Southern Sheet”, Ministry of Northern Development and Mines, 1991.

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“Protocol for in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, March 9, 2004”, Ontario Ministry of the Environment, amended as of July 1, 2011.

“Protocol of Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act – March 9, 2004”, Ontario Ministry of the Environment, amended as of July 1, 2011.

“Rationale for the Development of Soil and Ground Water Standards for Use at Contaminated Sites in Ontario”, Standards Development Branch, Ontario Ministry of the Environment, April 15, 2011.

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Figures

Project: 50347-100 CAD: P:\50347\100\50347-100-PH 2 ESA.DWG
1 Site Location Map
May 3, 2022 — 9:23 PM — Plotted By: TSchneider



Engineers, Scientists, Surveyors
Ph. (905) 639-2552

0 2 4 6 8 10km
Scale(8.5x11): 1:200 000

CLIENT
Clearbrook Developments Ltd.

PROJECT
Phase Two ESA

SITE
3115 Hurontario Street
Mississauga, Ontario

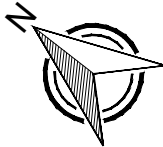
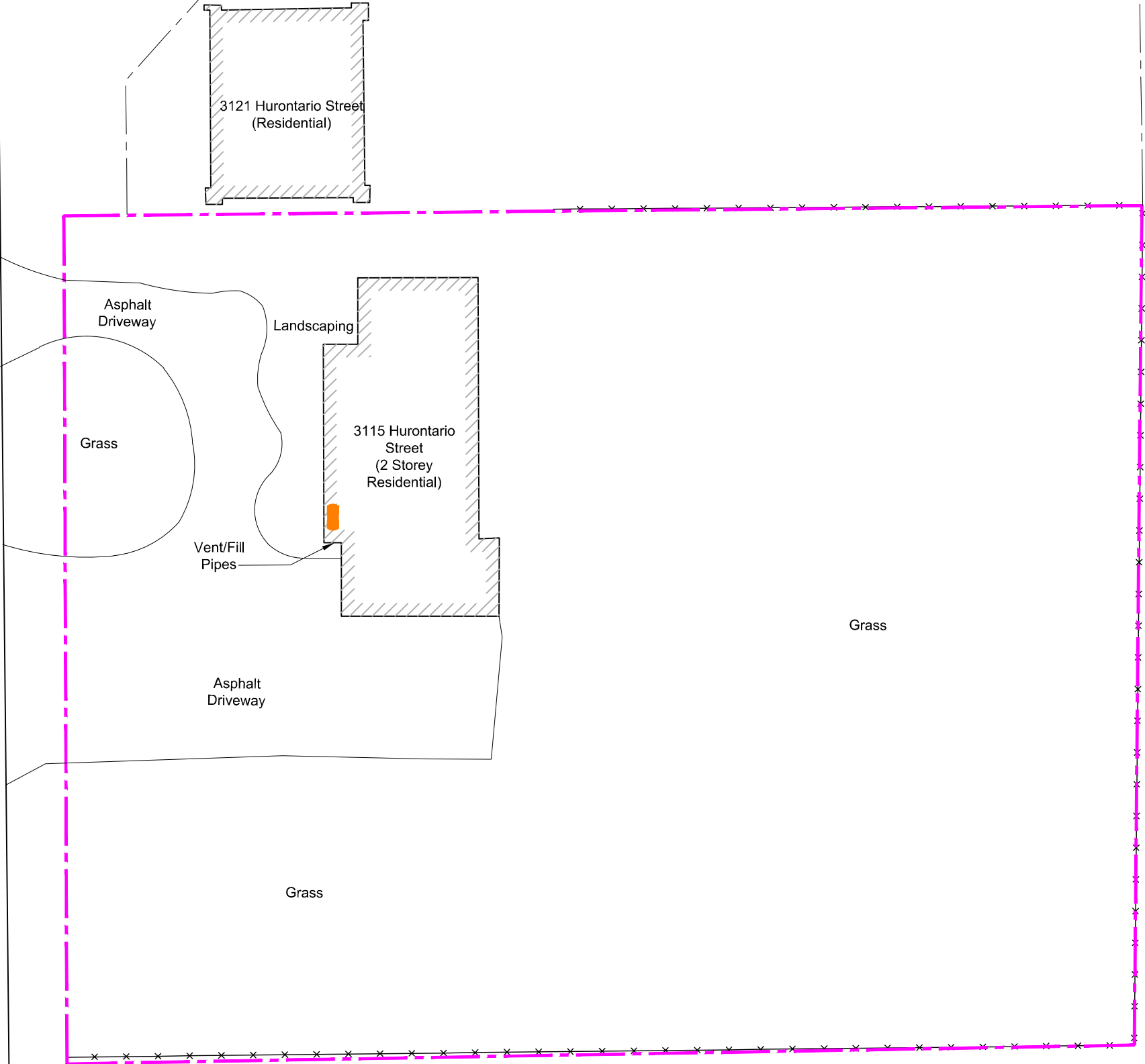
TITLE
Site Location Map

Reviewed By	TJJ
Prepared By	KDH
Drawn By	TXS
Date	May 2022
Project No.	50347-100
Figure No.	1



NORTH

Hurontario Street



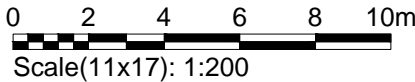
NORTH



PROJECT
NORTH

LEGEND

- Property Line
- Adjoining Property Line
- Existing Building
- Fence Line
- Aboveground Storage Tank



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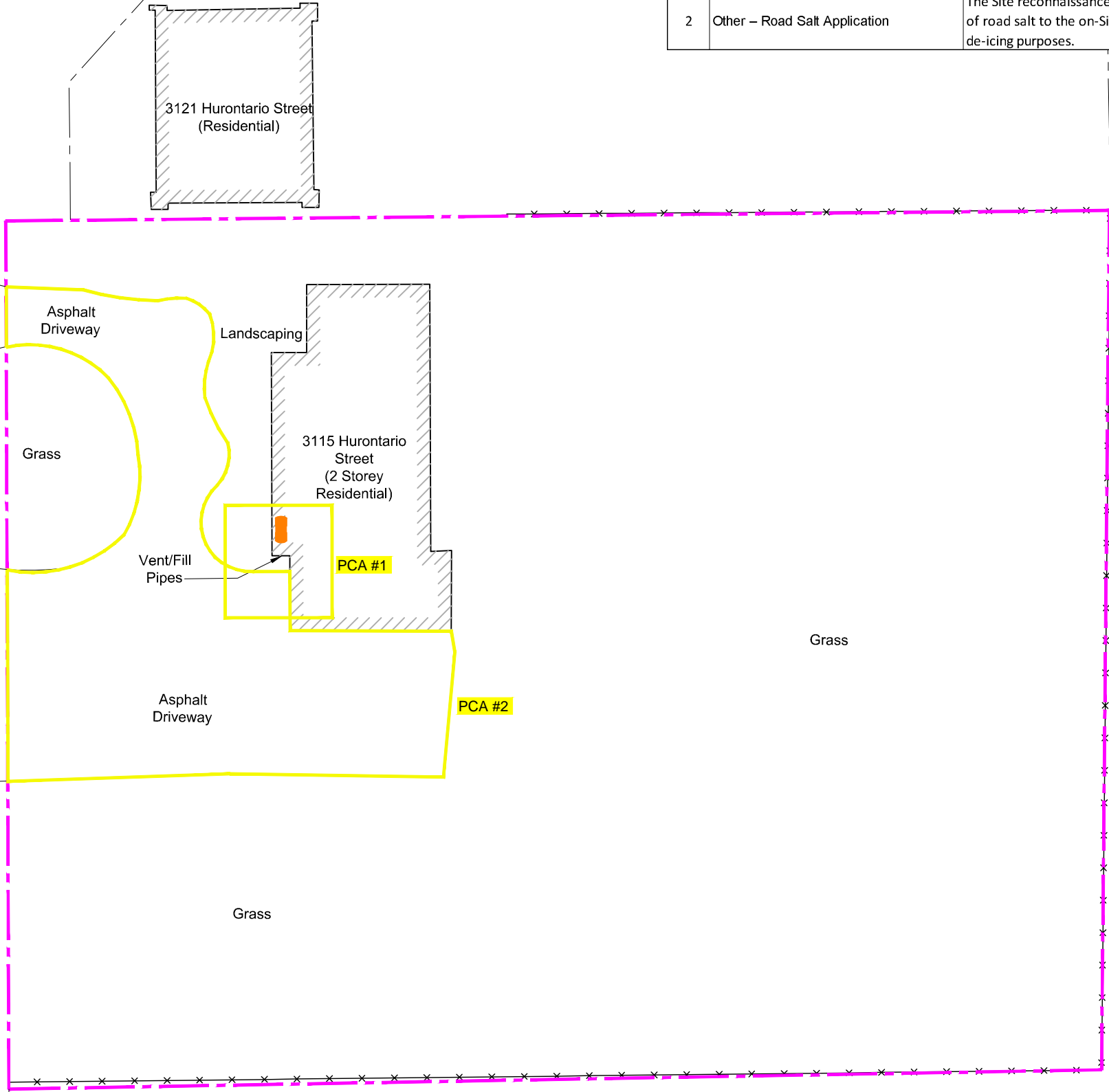
PROJECT
Phase Two ESA

SITE
3115 Hurontario Street
Mississauga, Ontario

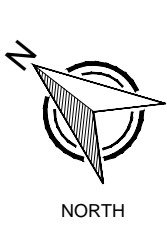
TITLE
Site Layout and Features

Reviewed By	TJJ	Project No.	50347-100
Prepared By	KDH	Figure No.	2
Drawn By	TXS		
Date	May 2022		

Hurontario Street

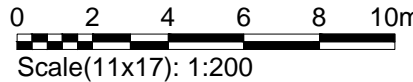


PCA #	MECP Potentially Contaminating Activity	Basis for PCA	PCA Results in an APEC	APEC #
1	28. Gasoline and Associated Products Storage in Fixed Tanks	Historical records indicate that the Site was historically heated via fuel oil stored in a tank in the basement of the building. The Site reconnaissance identified vent/fill pipes along the southwestern exterior wall of the building.	Yes	APEC 1
2	Other – Road Salt Application	The Site reconnaissance identified the application of road salt to the on-Site asphalt parking area for de-icing purposes.	Yes	APEC 2



LEGEND

- Property Line
- Adjoining Property Line
- Existing Building
- Fence Line
- Aboveground Storage Tank



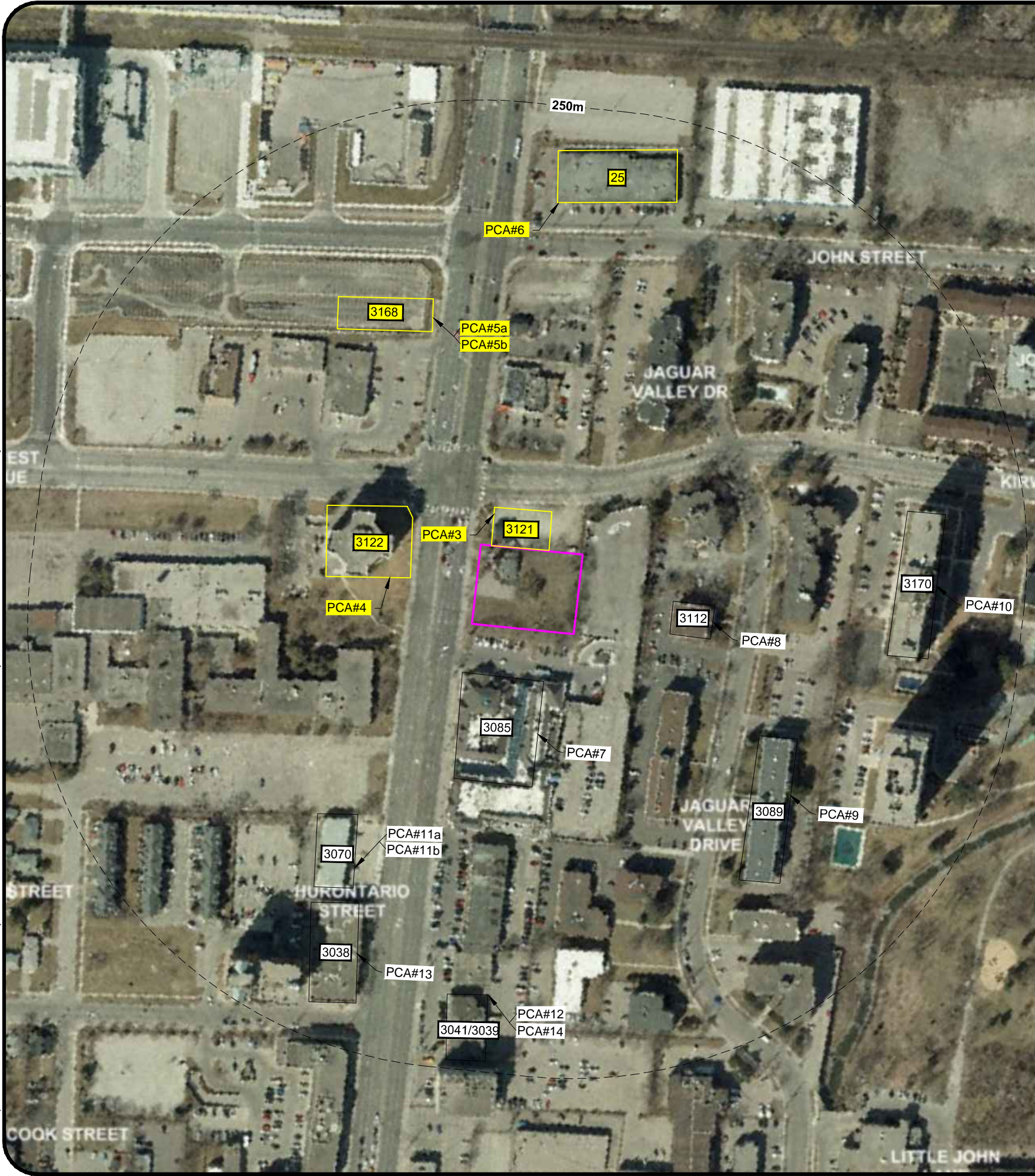
CLIENT
Clearbrook Developments Ltd.

PROJECT
Phase Two ESA

SITE
3115 Hurontario Street
Mississauga, Ontario

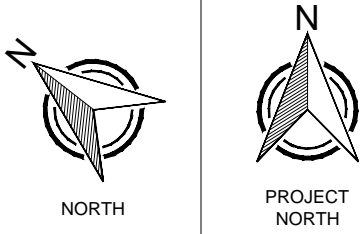
TITLE
On-Site PCAs

Reviewed By	TJJ	Project No.	50347-100
Prepared By	KDH	Figure No.	3
Drawn By	TXS		
Date	May 2022		



Off-Site PCA Resulting in an APEC		
PCA Number	Municipal Address of Off-Site PCA Area	PCA According to Table 2. Schedule D of O.Reg. 153/04
3	3121 Hurontario Street	27. Garages and Maintenance and Repairs of Railcars, Marine Vehicles and Aviation Vehicles
4	3122 Hurontario Street	34. Metal Fabrication
5a	3168 Hurontario Street	10. Commercial Autobody Shops
5b	3168 Hurontario Street	27. Garages and Maintenance and Repairs of Railcars, Marine Vehicles and Aviation Vehicles
6	25 John Street	37. Operation of Dry Cleaning Equipment (where chemicals are used)

Off-Site PCA Not Resulting in an APEC		
PCA Number	Municipal Address of Off-Site PCA Area	PCA According to Table 2. Schedule D of O.Reg. 153/04
PCA #7	3085 Hurontario Street	Other - Fire
PCA #8	3112 Jaguar Valley Drive	18. Electricity generation Transformation and Power stations
PCA #9	3089 Jaguar Valley Drive	27. Garages and Maintenance and Repairs of Railcars, Marine Vehicles and Aviation Vehicles
PCA #10	3170 Kirwin Avenue	18. Electricity generation Transformation and Power stations
PCA #11a	3070 Hurontario Street	27. Garages and Maintenance and Repairs of Railcars, Marine Vehicles and Aviation Vehicles
PCA #11b	3070 Hurontario Street	31. Ink Manufacturing, Processing and Bulk Storage
PCA #12	3041 Hurontario Street	37. Operation of Dry Cleaning Equipment (where chemicals are used)
PCA #13	3038 Hurontario Street	31. Ink Manufacturing, Processing and Bulk Storage
PCA #14	3039 Hurontario Street	27. Garages and Maintenance and Repairs of Railcars, Marine Vehicles and Aviation Vehicles



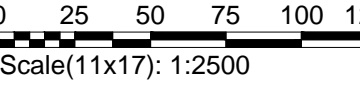
LEGEND

Property Line

250m Study Area

3078 Municipal Address

PCA#3 PCA




Engineers, Scientists, Surveyors
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CLIENT
Clearbrook Developments Ltd.

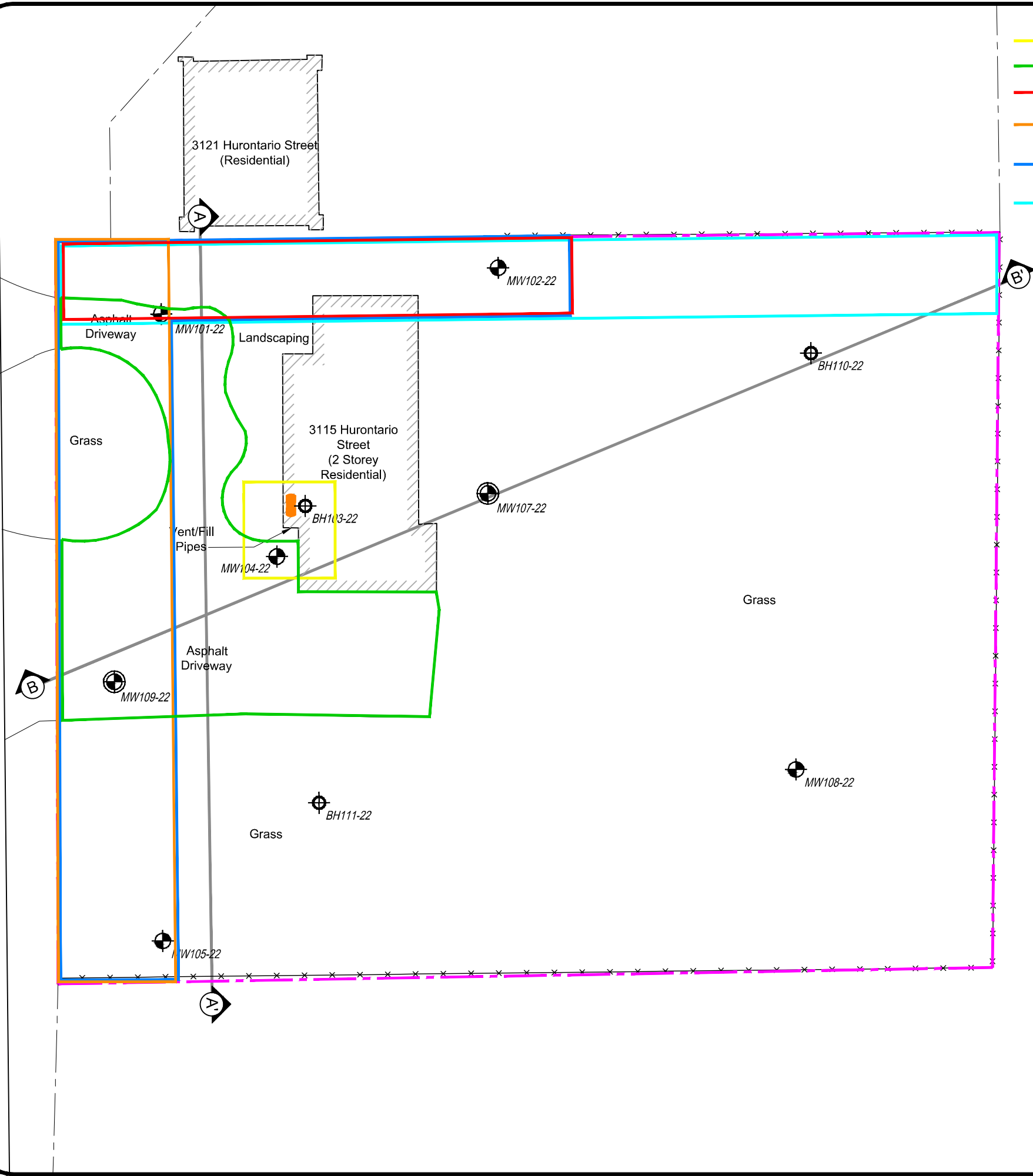
PROJECT
Phase Two ESA

SITE
3115 Hurontario Street
Mississauga, Ontario

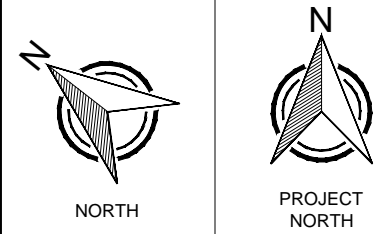
TITLE
Phase One Study Area
and Off-Site PCAs

Reviewed By	TJJ	Project No.	50347-100
Prepared By	KDH	Figure No.	4
Drawn By	TXS		
Date	May 2022		

June 23, 2022 — 4:03 PM — Plotted By: Ahalkevych Project: 50347-100 CAD: P:\50347\100\50347-100-PH 2 ESA.DWG 5 Areas of Potential Environmental Concern



- APEC #1 (PCA #1) Gasoline and Associated Products Storage in Fixed Tanks
- APEC #2 (PCA #2) Other – Road Salt Application
- APEC #3 (Off-Site PCA #3) Garages and Maintenance and Repairs of Railcars, Marine Vehicles and Aviation Vehicles
- APEC #4 (Off-Site PCA #4) Metal Fabrication
- APEC #5a (Off-Site PCA #5a) Commercial Autobody Shops
- APEC #5b (Off-Site PCA #5b) Garages and Maintenance and Repairs of Railcars, Marine Vehicles and Aviation Vehicles
- APEC #6 (Off-Site PCA #6) Operation of Dry Cleaning Equipment (where chemicals are used)



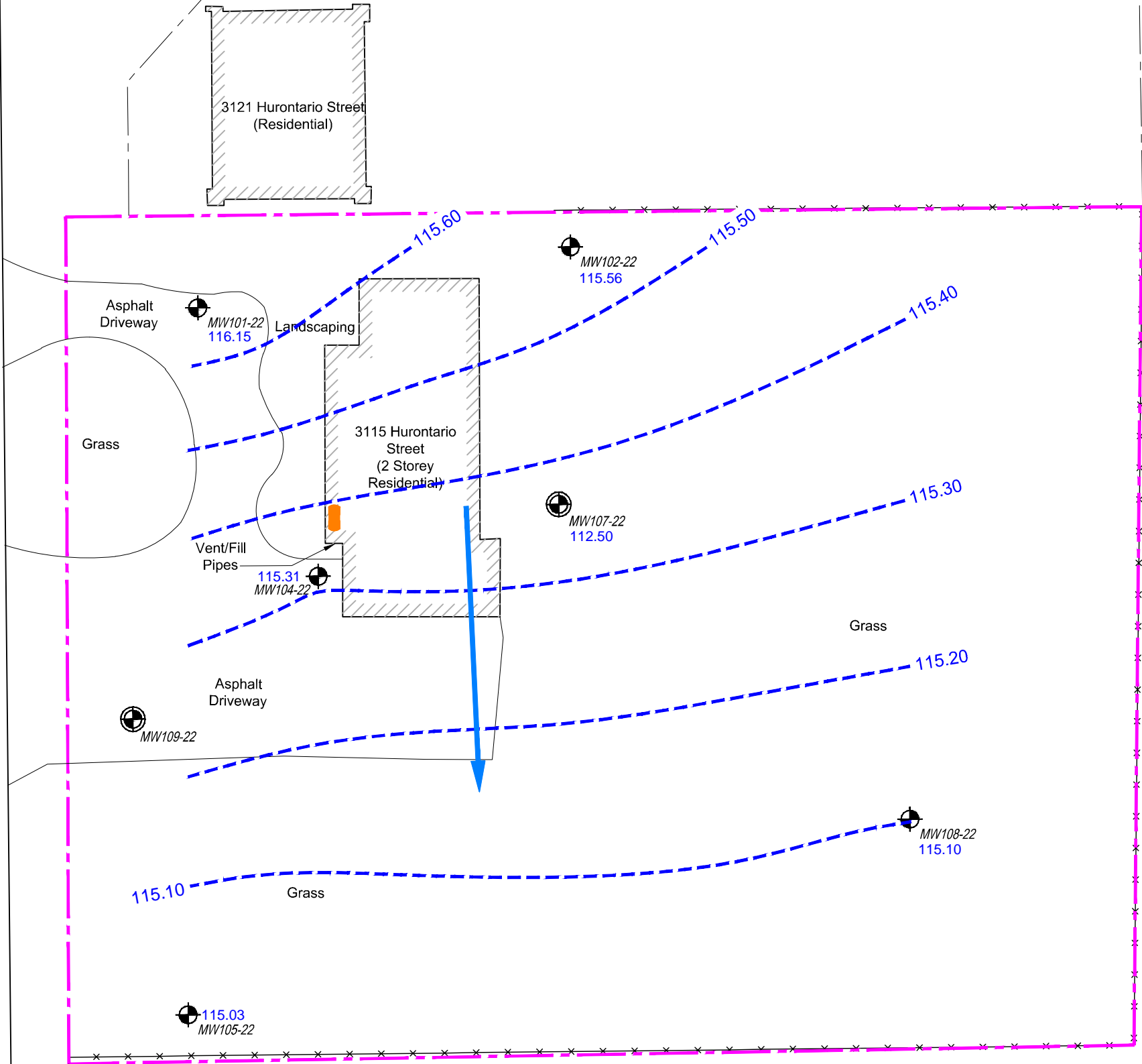
- LEGEND**
- Property Line
 - Adjoining Property Line
 - Existing Building
 - Fence Line
 - Aboveground Storage Tank
 - Borehole
 - Monitoring Well
 - Deep Monitoring Well
 - Cross-Section Line

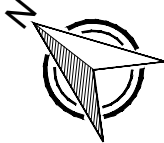
0 2 4 6 8 10m
Scale(11x17): 1:200




CLIENT		Clearbrook Developments Ltd.
PROJECT		Phase Two ESA
SITE		3115 Hurontario Street Mississauga, Ontario
TITLE		APECs and Sampling Locations
Reviewed By		TJJ
Prepared By	KDH	Project No. 50347-100
Drawn By	TXS	Figure No.
Date	May 2022	5

Hurontario Street





NORTH




PROJECT NORTH

LEGEND

- Property Line
- Adjoining Property Line
- Existing Building
- Fence Line
- Aboveground Storage Tank
- Monitoring Well
- Deep Monitoring Well
- 115.56 Groundwater Elevation (MAMSL)
- 115.00 Groundwater Contour (MAMSL)
- Inferred Direction of Groundwater Flow


NOTES:

MASL - metres above seal level



0 2 4 6 8 10m

Scale(11x17): 1:200



MTE
Engineers, Scientists, Surveyors
Ph. (905) 639-2552

CLIENT

Clearbrook Developments Ltd.

PROJECT

Phase Two ESA

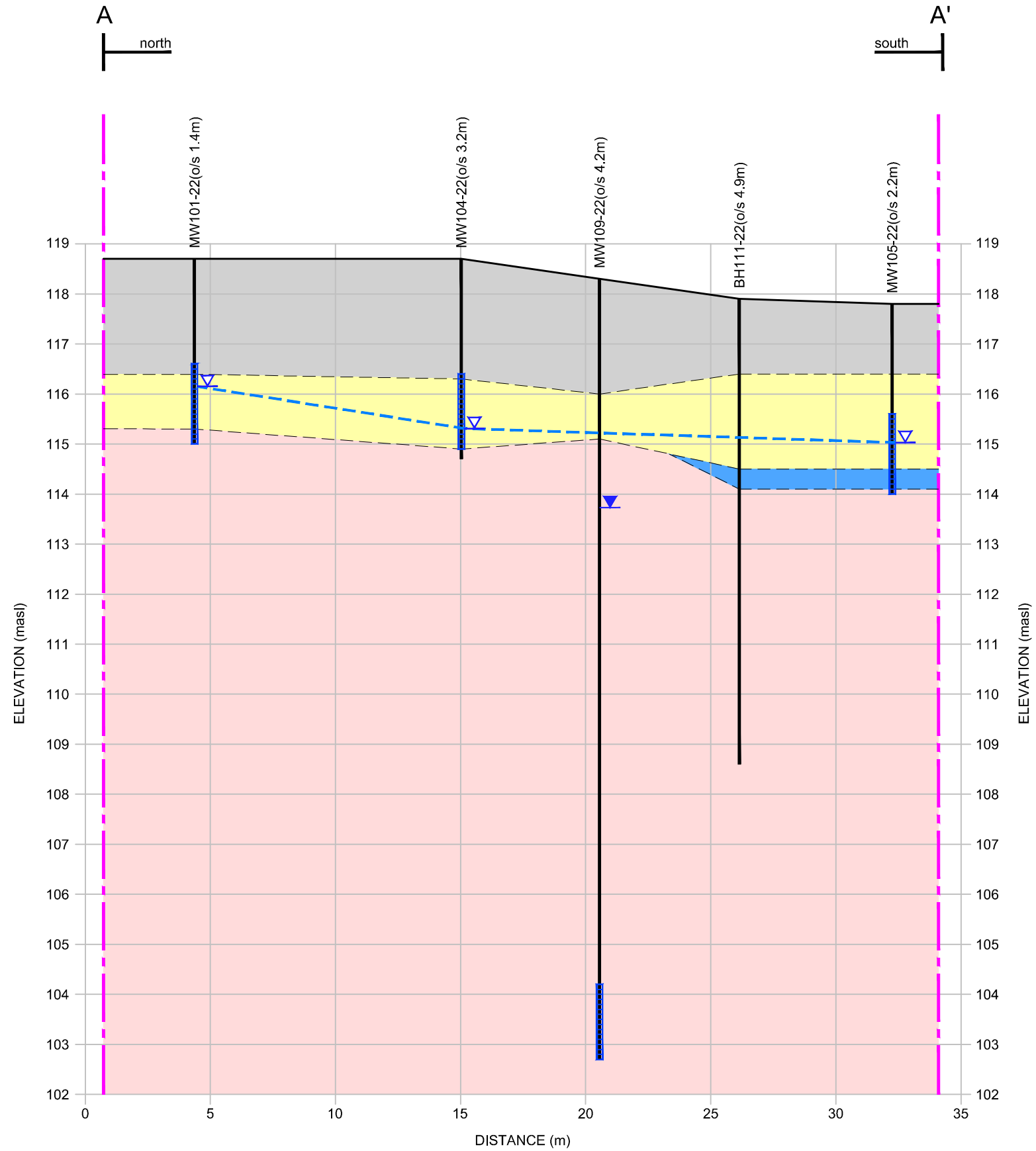
SITE

3115 Hurontario Street
Mississauga, Ontario

TITLE

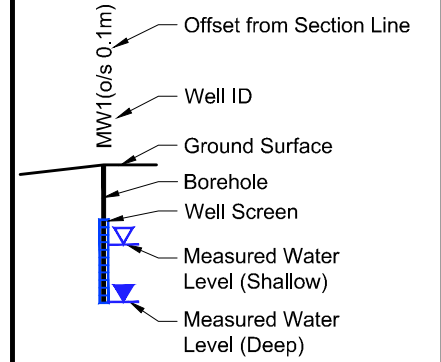
**Groundwater Flow Map
(March 22, 2022)**

Reviewed By	TJJ		
Prepared By	KDH	Project No.	50347-100
Drawn By	TXS	Figure No.	6
Date	May 2022		



LEGEND

- Property Line
- Fill
- Sand/ Silty Sand
- Clayey Silt Till
- Shale



NOTES:

mamsl - metres above mean sea level
Water levels measured on 2022/03/22

Scale(11x17): As Indicated



CLIENT

Clearbrook Developments Ltd.

PROJECT

Phase Two ESA

SITE

3115 Hurontario Street
Mississauga, Ontario

TITLE

Cross-Section A-A'

Reviewed By TJJ

Prepared By KDH

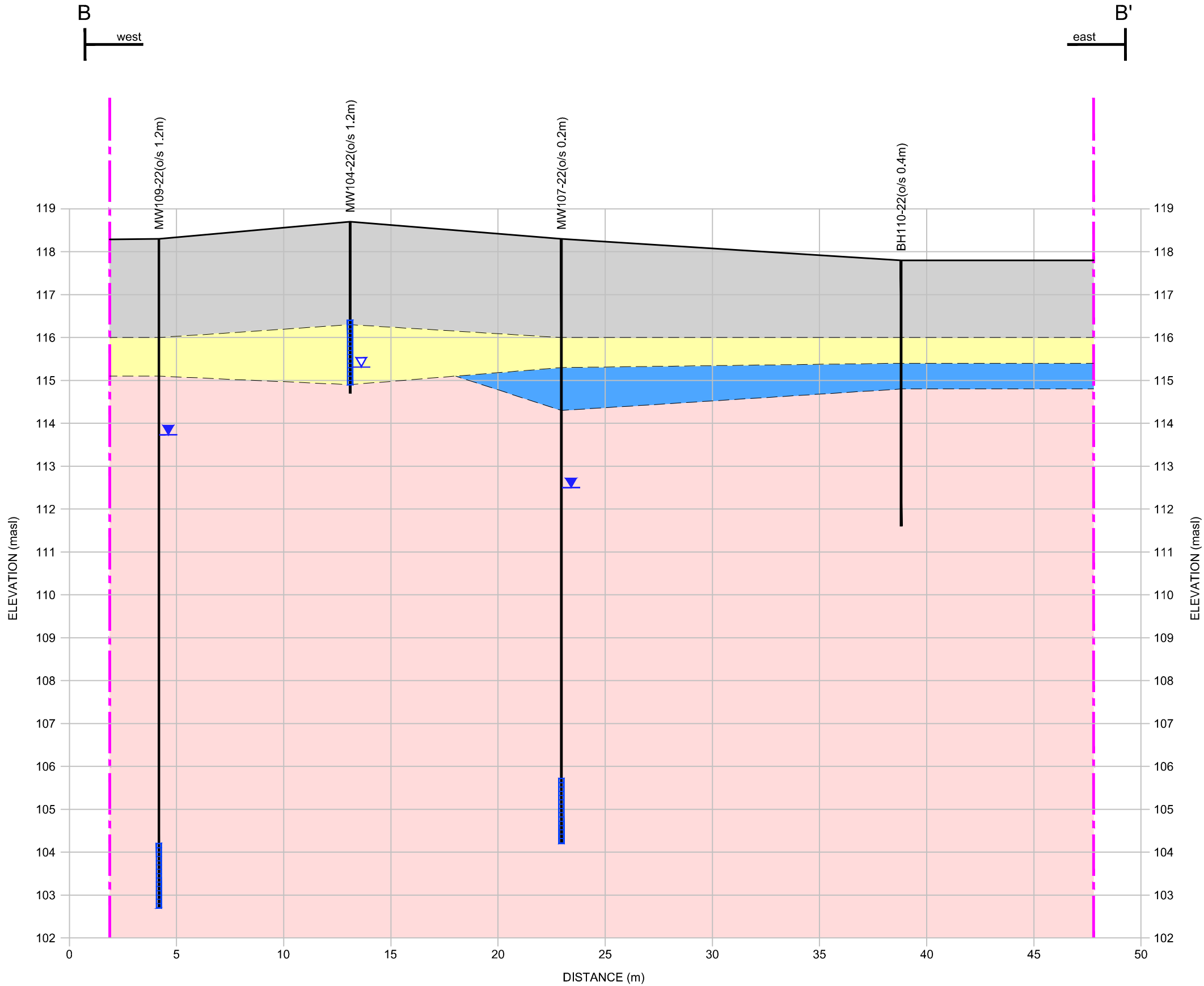
Drawn By TXS

Date May 2022

Project No. 50347-100

Figure No.

7



LEGEND

- Property Line
- Fill
- Sand/ Silty Sand
- Clayey Silt Till
- Shale

NOTES:

- mamsl - metres above mean sea level
- Water levels measured on 2022/03/22

Scale(11x17): As Indicated

CLIENT

Clearbrook Developments Ltd.

PROJECT

Phase Two ESA

SITE

3115 Hurontario Street
Mississauga, Ontario

TITLE

Cross-Section B-B'

Reviewed By TJJ

Prepared By KDH Project No. 50347-100

Drawn By TXS Figure No. 8

Date May 2022

Tables

Table 1: Monitoring Well Construction Details

Well ID	Completed By	Ground Surface Elevation (masl)	Top of Pipe Elevation (masl)	Well Depth (mbgs)	Screen Length (m)	Well Construction Details						Type of Casing
						Depth of Screen (m)		Sand Pack (m)		Bentonite (m)		
						Top	Bottom	Top	Bottom	Top	Bottom	
MW101-22	MTE	118.69	118.54	3.66	1.52	2.13	3.66	1.83	3.66	0.3	1.83	Flushmount Casing
MW102-22	MTE	118.46	119.32	3.81	1.52	2.29	3.81	1.99	3.81	0.3	1.99	Monument Casing
MW104-22	MTE	118.69	118.56	3.81	1.52	2.29	3.81	1.99	3.81	0.3	1.99	Flushmount Casing
MW105-22	MTE	117.79	119.01	3.81	1.52	2.29	3.81	1.99	3.81	0.3	1.99	Monument Casing
MW107-22	MTE	118.33	119.49	14.10	1.52	12.57	14.10	9.14	14.10	0.3	9.14	Monument Casing
MW108-22	MTE	117.62	118.74	3.66	1.52	2.13	3.66	1.83	3.66	0.3	1.83	Monument Casing
MW109-22	MTE	118.27	118.17	15.62	1.52	14.10	15.62	9.14	15.62	0.3	9.14	Flushmount Casing

Notes:
Date of elevation survey: March 22, 2022
Elevations relative to ground surface elevation identified by Topographic Survey from R-PE Surveying Limited of Woodbridge, Ontario dated October 28, 2021.
m - metres
masl - meters above sea level
mbgs - metres below ground surface

Table 2: Summary of Groundwater Elevations

Well ID	Top of Pipe Elevation (masl)	Ground Surface Elevation (masl)	March 9 2022			March 22 2022			March 23 2022		
			Water Level (mbtop)	Water Level (mbgs)	Elevation (masl)	Water Level (mbtop)	Water Level (mbgs)	Elevation (masl)	Water Level (mbtop)	Water Level (mbgs)	Elevation (masl)
MW101-22	118.54	118.69	2.96	3.10	115.59	2.39	2.54	116.15	2.88	3.02	115.67
MW102-22	119.32	118.46	3.83	2.97	115.49	3.76	2.90	115.56	-	-	-
MW104-22	118.56	118.69	3.31	3.44	115.25	3.26	3.38	115.31	-	-	-
MW105-22	119.01	117.79	4.04	2.82	114.98	3.99	2.76	115.03	3.98	2.76	115.04
MW107-22	119.49	118.33	6.96	5.80	112.53	7.00	5.84	112.50	6.97	5.81	112.53
MW108-22	118.74	117.62	3.68	2.56	115.06	3.64	2.52	115.10	3.63	2.51	115.11
MW109-22	118.17	118.27	4.45	4.54	113.73	-	-	-	-	-	-

Notes:
Date of elevation survey: March 22, 2022
Elevations relative to ground surface elevation identified by Topographic Survey from R-PE Surveying Limited of Woodbridge, Ontario dated October 28, 2021.
m - metres
mbgs - metres below ground surface
mbtop - metres below top of pipe
masl - metres above sea level

Table 3: Summary of Soil Samples Submitted for Analysis

Sample Location	Sample Information									
	Laboratory Sample ID	Sample Date	Sample Depth (m bgs)	Metals	As, Sb, Se	Hg	B-HWS	pH	PHCs	BTEX
MW101-22	MW 101-22,SS2,2.5-4.5'	18-Feb-2022	0.8-1.4	x	x	x	x	x	x	x
MW101-22	MW 101-22,SS2,2.5-4.5' Lab-Dup	18-Feb-2022	0.8-1.4					x		
MW101-22	MW 101-22,SS4,7.5-9.5'	18-Feb-2022	2.3-2.9					x		
BH103-22	BH103-22 SS1 0.3-2'	15-Feb-2022	0.1-0.6						x	x
BH103-22	BH103-22 SS1 0.3-2' Lab-Dup	15-Feb-2022	0.1-0.6						x	x
BH103-22	BH1003-22 0.3-2'	15-Feb-2022	0.1-0.6						x	x
BH103-22	BH1003-22 0.3-2' Lab-Dup	15-Feb-2022	0.1-0.6						x	
MW104-22	MW 104-22,SS1,0-2'	18-Feb-2022	0.0-0.6						x	x
MW104-22	MW 104-22,SS4,7.5'-9.5'	18-Feb-2022	2.3-2.9						x	x
MW104-22	MW 1004-22,SS4,7.5-9.5'	18-Feb-2022	2.3-2.9						x	x
BH110-22	BH110-22 SS2 2.5-4.5'	15-Feb-2022	0.8-1.4	x	x	x	x	x	x	x
BH110-22	BH110-22 SS3 6-7'	15-Feb-2022	1.8-2.1					x		
BH110-22	BH1010-22 2.5-4.5'	15-Feb-2022	0.8-1.4	x	x	x	x			
BH110-22	BH1010-22 2.5-4.5' Lab-Dup	15-Feb-2022	0.8-1.4	x	x	x	x			
BH111-22	BH111-22 SS1 0-2'	14-Feb-2022	0.0-0.6	x	x	x	x	x	x	x
BH111-22	BH111-22 SS3 5-7'	14-Feb-2022	1.5-2.1					x		
		Total Soil Samples:		3	3	3	3	6	6	6
		Total Soil Field Duplicate Samples:		1	1	1	1	0	2	2
		Total Soil Lab Duplicate Samples:		1	1	1	1	1	2	1

Notes:
X = sample submitted for analysis
m bgs = meters below ground surface

Table 4: Metals and Other Regulated Parameters Analysis in Soil

Parameters	Unit	RDL	2011 Table 2 SCS (R/P/I, Coarse)	Sample Location		MW101-22	MW101-22	MW101-22	BH110-22	BH110-22	BH110-22	BH110-22	BH111-22	BH111-22
				Sample Name		MW 101-22, SS2, 2.5-4.5'	MW 101-22, SS2, 2.5-4.5'	MW 101-22, SS4, 7.5-9.5'	BH110-22 SS2 2.5-4.5'	BH1010-22 2.5-4.5'	BH1010-22 2.5-4.5' Lab-Dup	BH110-22 SS3 6-7'	BH111-22 SS1 0-2'	BH111-22 SS3 5-7'
				Lab Job #		C245099	C245099	C245099	C241996	C241996	C241996	C241996	C241996	C241996
				Laboratory ID		RXB272	RXB272	RXB273	RWK841	RWK843	RWK843	RWK842	RWK832	RWK834
				Sampling Date		18-Feb-2022	18-Feb-2022	18-Feb-2022	15-Feb-2022	15-Feb-2022	15-Feb-2022	15-Feb-2022	14-Feb-2022	14-Feb-2022
				Sample Depth (m bgs)		0.8-1.4	0.8-1.4	2.3-2.9	0.8-1.4	0.8-1.4	0.8-1.4	1.8-2.1	0.0-0.6	1.5-2.1
				Maximum Concentration			Laboratory Duplicate			Field Duplicate	Laboratory Duplicate			
Metals and Inorganics														
Antimony	µg/g	0.2 - 1	7.5		0.22	<0.20	-	-	<0.20	<0.20	<0.20	-	0.22	-
Arsenic	µg/g	1	18		4.4	4.4	-	-	1.8	<1.0	<1.0	-	3.5	-
Barium	µg/g	0.5 - 1	390		33	33	-	-	23	15	16	-	28	-
Beryllium	µg/g	0.2 - 0.5	4		0.3	0.24	-	-	0.21	<0.20	<0.20	-	0.3	-
Boron	µg/g	5	120		6.2	6.2	-	-	<5.0	<5.0	<5.0	-	<5.0	-
Boron (Hot Water Soluble)	µg/g	0.05	1.5		0.27	0.13	-	-	0.072	0.05	<0.050	-	0.27	-
Cadmium	µg/g	0.1 - 0.5	1.2		0.17	0.13	-	-	<0.10	<0.10	<0.10	-	0.17	-
Chromium	µg/g	1	160		11	8	-	-	7.6	6	6.2	-	11	-
Cobalt	µg/g	0.1 - 1	22		4.1	4.1	-	-	2.2	1.6	1.6	-	4.1	-
Copper	µg/g	0.5 - 1	140		23	23	-	-	3.6	3.1	3.3	-	19	-
Lead	µg/g	1	120		22	11	-	-	4.6	3.2	3.2	-	22	-
Mercury	µg/g	0.05	0.27		0.065	<0.050	-	-	<0.050	<0.050	<0.050	-	0.065	-
Molybdenum	µg/g	0.5 - 1	6.9	<	0.5	<0.50	-	-	<0.50	<0.50	<0.50	-	<0.50	-
Nickel	µg/g	0.5 - 1	100		8.7	8.5	-	-	4.6	3.7	3.9	-	8.7	-
Selenium	µg/g	0.5 - 1	2.4	<	0.5	<0.50	-	-	<0.50	<0.50	<0.50	-	<0.50	-
Silver	µg/g	0.2	20	<	0.2	<0.20	-	-	<0.20	<0.20	<0.20	-	<0.20	-
Thallium	µg/g	0.05 - 0.5	1		0.08	0.08	-	-	<0.050	<0.050	<0.050	-	0.066	-
Uranium	µg/g	0.05 - 1	23		0.37	0.35	-	-	0.37	0.28	0.26	-	0.34	-
Vanadium	µg/g	1 - 5	86		22	17	-	-	22	13	14	-	17	-
Zinc	µg/g	5	340		68	49	-	-	9	6.3	6.7	-	68	-
pH	pH units	0.1	NR		8.01	7.97	7.84	8.01	7.39	-	-	7.49	7.62	7.63

Notes:
2011 Site Condition Standards (SCS) - As identified in 'Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act' (as amended April 15, 2011)

Bold - Exceeds 2011 Table 2 SCS

"-" - parameter not analyzed
RDL - Reported detection limit
NR - Not Relevant
NV- No Value
NA - Not Applicable
"<" - Less than the Reporting Detection Limit

Table 5: Petroleum Hydrocarbons (PHCs) Analysis in Soil

Parameters	Unit	RDL	2011 Table 2 SCS (R/P/I, Coarse)	Sample Location		MW101-22	BH103-22	BH103-22	BH103-22	BH103-22	BH103-22	MW104-22	MW104-22	MW104-22	BH110-22	BH111-22
				Sample Name		MW 101-22,SS2,2.5-4.5'	BH103-22 SS1 0.3-2'	BH103-22 SS1 0.3-2' Lab-Dup	BH103-22 0.3-2'	BH103-22 0.3-2'	MW 104-22,SS1,0-2'	MW 104-22,SS4,7.5'-9.5'	MW 1004-22,SS4,7.5-9.5'	BH110-22 SS2 2.5-4.5'	BH111-22 SS1 0-2'	
				Lab Job #		C245099	C241996	C241996	C241996	C241996	C245099	C245099	C245099	C241996	C241996	
				Laboratory ID		RXB272	RWK836	RWK836	RWK838	RWK838	RXB275	RXB277	RXB281	RWK841	RWK832	
				Sampling Date		18-Feb-2022	15-Feb-2022	15-Feb-2022	15-Feb-2022	15-Feb-2022	18-Feb-2022	18-Feb-2022	18-Feb-2022	15-Feb-2022	14-Feb-2022	
				Sample Depth (m bgs)		0.8-1.4	0.1-0.6	0.1-0.6	0.1-0.6	0.1-0.6	0.0-0.6	2.3-2.9	2.3-2.9	0.8-1.4	0.0-0.6	
				Maximum Concentration			Laboratory Duplicate	Field Duplicate	Laboratory Duplicate			Field Duplicate				
Petroleum Hydrocarbons (PHCs)																
F1 (C6 to C10)	µg/g	5 - 10	55	<	10	<10	<10	<10	<10	-	<10	<10	<10	<10	<10	<10
F1 (C6 to C10) minus BTEX	µg/g	5 - 10	55	<	10	<10	<10	<10	<10	-	<10	<10	<10	<10	<10	<10
F2 (C10 to C16)	µg/g	10 - 50	98		13	<10	13	-	<10	<10	<10	<10	<10	<10	<10	<10
F3 (C16 to C34)	µg/g	50 - 250	300		200	200	<50	-	<50	<50	<50	<50	<50	<50	<50	<50
F4 (C34 to C50)	µg/g	50 - 250	2800		640	640	<50	-	<50	<50	<50	<50	<50	<50	<50	<50
Reached Baseline at C50	unitless		NR		NA	NO	YES	-	YES	YES	YES	YES	YES	YES	YES	YES
F4G (Gravimetric)	µg/g	100 - 250	2800		2000	2000	-	-	-	-	-	-	-	-	-	-

Notes:
2011 Site Condition Standards (SCS) - As identified in 'Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act' (as amended April 15, 2011)

Exceeds 2011 Table 2 SCS

"-" - parameter not analyzed
RDL - Reported detection limit
NR - Not Relevant
NV- No Value
NA - Not Applicable
"<" - Less than the Reporting Detection Limit

Table 6: Benzene, Ethylbenzene, Toluene and Xylenes (BTEX) Analysis in Soil

Parameters	Unit	RDL	2011 Table 2 SCS (R/P/I, Coarse)	Sample Location		MW101-22	BH103-22	BH103-22	BH103-22	MW104-22	MW104-22	MW104-22	BH110-22	BH111-22
				Sample Name		MW 101-22,SS2,2.5-4.5'	BH103-22 SS1 0.3-2'	BH103-22 SS1 0.3-2' Lab-Dup	BH1003-22 0.3-2'	MW 104-22,SS1,0-2'	MW 104-22,SS4,7.5'-9.5'	MW 1004-22,SS4,7.5-9.5'	BH110-22 SS2 2.5-4.5'	BH111-22 SS1 0-2'
				Lab Job #		C245099	C241996	C241996	C241996	C245099	C245099	C245099	C241996	C241996
				Laboratory ID		RXB272	RWK836	RWK836	RWK838	RXB275	RXB277	RXB281	RWK841	RWK832
				Sampling Date		18-Feb-2022	15-Feb-2022	15-Feb-2022	15-Feb-2022	18-Feb-2022	18-Feb-2022	18-Feb-2022	15-Feb-2022	14-Feb-2022
				Sample Depth (m bgs)		0.8-1.4	0.1-0.6	0.1-0.6	0.1-0.6	0.0-0.6	2.3-2.9	2.3-2.9	0.8-1.4	0.0-0.6
				Maximum Concentration				Laboratory Duplicate	Field Duplicate			Field Duplicate		
Benzene, Ethylbenzene, Toluene and Xylenes (BTEX)														
Benzene	µg/g	0.0068 - 0.02	0.21	<	0.02	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Ethylbenzene	µg/g	0.018 - 0.02	1.1	<	0.02	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Toluene	µg/g	0.02 - 0.08	2.3	<	0.02	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
o-Xylene	µg/g	0.02	NR	<	0.02	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
m+p-Xylene	µg/g	0.03 - 0.04	NR	<	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Xylene Mixture	µg/g	0.04 - 0.05	3.1	<	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040

Notes:
2011 Site Condition Standards (SCS) - As identified in 'Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act' (as amended April 15, 2011)

Exceeds 2011 Table 2 SCS - Exceeds 2011 Table 2 SCS

"-" - parameter not analyzed
RDL - Reported detection limit
NR - Not Relevant
NV- No Value
NA - Not Applicable
"<" - Less than the Reporting Detection Limit

Table 7: Summary of Groundwater Samples Submitted for Analysis

Sample Location	Sample Information							
	Laboratory Sample ID	Sample Date	Well Screen Interval (m bgs)	Metals	As, Sb, Se	PHCs	BTEX	VOCs
MW101-22	MW101-22	22-Mar-2022	2.1-3.7	x	x	x		x
MW101-22	MW101-22 Lab-Dup	22-Mar-2022	2.3-3.8			x		
MW101-22	MW1101-22	22-Mar-2022	2.3-3.8	x	x	x		x
MW102-22	MW102-22	22-Mar-2022	2.3-3.8	x	x	x		x
MW104-22	MW104-22	22-Mar-2022	2.3-3.8			x	x	
MW105-22	MW105-22	22-Mar-2022	2.3-3.8			x		x
		Total Groundwater Samples:		2	2	4	1	3
		Total Groundwater Field Duplicate Samples:		1	1	1	0	1
		Total Groundwater Lab Duplicate Samples:		0	0	1	0	0

Notes:
X = sample submitted for analysis
m bgs = meters below ground surface

Table 8: Metals and Other Regulated Parameters Analysis in Groundwater

Parameters	Unit	RDL	2011 Table 2 SCS (R/P/I, Coarse)	Sample Location		MW101-22	MW101-22	MW102-22
				Sample Name		MW101-22	MW101-22	MW102-22
				Lab Job #		C275683	C275683	C275683
				Laboratory ID		SDV753	SDV757	SDV754
				Sampling Date		22-Mar-2022	22-Mar-2022	22-Mar-2022
				Well Screen Interval (m bgs)		2.1-3.7	2.3-3.8	2.3-3.8
Maximum Concentration					Field Duplicate			
Metals and Inorganics								
Antimony	µg/L	0.5 - 2.5	6	<	2.5	<0.50	<0.50	<2.5
Arsenic	µg/L	1 - 5	25	<	5	<1.0	<1.0	<5.0
Barium	µg/L	2 - 10	1000		940	280	290	940
Beryllium	µg/L	0.4 - 2	4	<	2	<0.40	<0.40	<2.0
Boron	µg/L	10 - 50	5000		200	190	200	100
Cadmium	µg/L	0.09 - 0.45	2.7	<	0.45	<0.090	<0.090	<0.45
Chromium	µg/L	5 - 25	50	<	25	<5.0	<5.0	<25
Cobalt	µg/L	0.5 - 2.5	3.8	<	2.5	<0.50	<0.50	<2.5
Copper	µg/L	0.9 - 4.5	87	<	4.5	2	4.1	<4.5
Lead	µg/L	0.5 - 2.5	10	<	2.5	<0.50	<0.50	<2.5
Molybdenum	µg/L	0.5 - 2.5	70	<	2.5	1.5	1.4	<2.5
Nickel	µg/L	1 - 5	100	<	5	<1.0	1.1	<5.0
Selenium	µg/L	2 - 10	10	<	10	<2.0	<2.0	<10
Silver	µg/L	0.09 - 0.45	1.5	<	0.45	<0.090	<0.090	<0.45
Thallium	µg/L	0.05 - 0.25	2	<	0.25	<0.050	<0.050	<0.25
Uranium	µg/L	0.1 - 0.5	20		1.2	1.2	1.1	1
Vanadium	µg/L	0.5 - 2.5	6.2	<	2.5	<0.50	<0.50	<2.5
Zinc	µg/L	5 - 25	1100	<	25	<5.0	<5.0	<25

Notes:
2011 Site Condition Standards (SCS) - As identified in 'Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act' (as amended April 15, 2011)

Bold - Exceeds 2011 Table 2 SCS

"-" - parameter not analyzed
RDL - Reported detection limit
NR - Not Relevant
NV- No Value
NA - Not Applicable
"<" - Less than the Reporting Detection Limit

Table 9: Petroleum Hydrocarbons (PHCs) Analysis in Groundwater

Parameters	Unit	RDL	2011 Table 2 SCS (R/P/I, Coarse)	Sample Location		MW101-22	MW101-22	MW101-22	MW102-22	MW104-22	MW105-22
				Sample Name		MW101-22	MW1101-22	MW101-22 Lab-Dup	MW102-22	MW104-22	MW105-22
				Lab Job #		C275683	C275683	C275683	C275683	C275683	C275683
				Laboratory ID		SDV753	SDV757	SDV753	SDV754	SDV756	SDV755
				Sampling Date		22-Mar-2022	22-Mar-2022	22-Mar-2022	22-Mar-2022	22-Mar-2022	22-Mar-2022
				Well Screen Interval (m bgs)		2.1-3.7	2.3-3.8	2.3-3.8	2.3-3.8	2.3-3.8	2.3-3.8
				Maximum Concentration			Field Duplicate	Laboratory Duplicate			
Petroleum Hydrocarbons (PHCs)											
F1 (C6 to C10)	µg/L	25	750	<	25	<25	<25	-	<25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L	25	750	<	25	<25	<25	-	<25	<25	<25
F2 (C10 to C16)	µg/L	100	150	<	100	<100	<100	<100	<100	<100	<100
F3 (C16 to C34)	µg/L	200	500	<	200	<200	<200	<200	<200	<200	<200
F4 (C34 to C50)	µg/L	200	500	<	200	<200	<200	<200	<200	<200	<200
Reached Baseline at C50	unitless		NR		NA	YES	YES	YES	YES	YES	YES

Notes:
2011 Site Condition Standards (SCS) - As identified in 'Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act' (as amended April 15, 2011)

Exceeds 2011 Table 2 SCS

"-" - parameter not analyzed
RDL - Reported detection limit
NR - Not Relevant
NV- No Value
NA - Not Applicable
"<" - Less than the Reporting Detection Limit

Table 10: Volatile Organic Compounds (VOCs) Analysis in Groundwater

Parameters	Unit	RDL	2011 Table 2 SCS (R/P/I, Coarse)	Sample Location	MW101-22	MW101-22	MW102-22	MW104-22	MW105-22	
				Sample Name	MW101-22	MW1101-22	MW102-22	MW104-22	MW105-22	
				Lab Job #	C275683	C275683	C275683	C275683	C275683	
				Laboratory ID	SDV753	SDV757	SDV754	SDV756	SDV755	
				Sampling Date	22-Mar-2022	22-Mar-2022	22-Mar-2022	22-Mar-2022	22-Mar-2022	
				Well Screen Interval (m bgs)	2.1-3.7	2.3-3.8	2.3-3.8	2.3-3.8	2.3-3.8	
Maximum Concentration					Field Duplicate					
Volatile Organic Compounds (VOCs)										
Acetone	µg/L	10	2700	<	10	<10	<10	<10	-	<10
Benzene	µg/L	0.17 - 0.2	5	<	0.2	<0.17	<0.17	<0.17	<0.20	<0.17
Bromodichloromethane	µg/L	0.5	16	<	0.5	<0.50	<0.50	<0.50	-	<0.50
Bromoform	µg/L	1	25	<	1	<1.0	<1.0	<1.0	-	<1.0
Bromomethane	µg/L	0.5	0.89	<	0.5	<0.50	<0.50	<0.50	-	<0.50
Carbon Tetrachloride	µg/L	0.2	0.79	<	0.2	<0.20	<0.20	<0.20	-	<0.20
Chlorobenzene	µg/L	0.2	30	<	0.2	<0.20	<0.20	<0.20	-	<0.20
Chloroform	µg/L	0.2	2.4	<	0.6	0.6	0.57	0.4	-	<0.20
Dibromochloromethane	µg/L	0.5	25	<	0.5	<0.50	<0.50	<0.50	-	<0.50
1,2-Dichlorobenzene	µg/L	0.5	3	<	0.5	<0.50	<0.50	<0.50	-	<0.50
1,3-Dichlorobenzene	µg/L	0.5	59	<	0.5	<0.50	<0.50	<0.50	-	<0.50
1,4-Dichlorobenzene	µg/L	0.5	1	<	0.5	<0.50	<0.50	<0.50	-	<0.50
Dichlorodifluoromethane	µg/L	1	590	<	1	<1.0	<1.0	<1.0	-	<1.0
1,1-Dichloroethane	µg/L	0.2	5	<	0.2	<0.20	<0.20	<0.20	-	<0.20
1,2-Dichloroethane	µg/L	0.5	1.6	<	0.5	<0.50	<0.50	<0.50	-	<0.50
1,1-Dichloroethylene	µg/L	0.2	1.6	<	0.2	<0.20	<0.20	<0.20	-	<0.20
Ethylbenzene	µg/L	0.2	2.4	<	0.2	<0.20	<0.20	<0.20	<0.20	<0.20
cis-1,2-Dichloroethylene	µg/L	0.5	1.6	<	0.5	<0.50	<0.50	<0.50	-	<0.50
trans-1,2-Dichloroethylene	µg/L	0.5	1.6	<	0.5	<0.50	<0.50	<0.50	-	<0.50
1,2-Dichloropropane	µg/L	0.2	5	<	0.2	<0.20	<0.20	<0.20	-	<0.20
cis-1,3-Dichloropropene	µg/L	0.3	NR	<	0.3	<0.30	<0.30	<0.30	-	<0.30
trans-1,3-Dichloropropene	µg/L	0.4	NR	<	0.4	<0.40	<0.40	<0.40	-	<0.40
1,3-Dichloropropene	µg/L	0.5	0.5	<	0.5	<0.50	<0.50	<0.50	-	<0.50
Ethylene Dibromide	µg/L	0.2	0.2	<	0.2	<0.20	<0.20	<0.20	-	<0.20
Hexane (n)	µg/L	1	51	<	1	<1.0	<1.0	<1.0	-	<1.0
Methyl Ethyl Ketone	µg/L	10	1800	<	10	<10	<10	<10	-	<10
Methyl Isobutyl Ketone	µg/L	5	640	<	5	<5.0	<5.0	<5.0	-	<5.0
Methyl Tert-Butyl Ether	µg/L	0.5	15	<	0.5	<0.50	<0.50	<0.50	-	<0.50
Methylene Chloride	µg/L	2	50	<	2	<2.0	<2.0	<2.0	-	<2.0
Styrene	µg/L	0.5	5.4	<	0.5	<0.50	<0.50	<0.50	-	<0.50
1,1,1,2-Tetrachloroethane	µg/L	0.5	1.1	<	0.5	<0.50	<0.50	<0.50	-	<0.50
1,1,2,2-Tetrachloroethane	µg/L	0.5	1	<	0.5	<0.50	<0.50	<0.50	-	<0.50
Tetrachloroethylene	µg/L	0.2	1.6	<	0.2	<0.20	<0.20	<0.20	-	<0.20
Toluene	µg/L	0.2	24	<	0.2	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	µg/L	0.2	200	<	0.2	<0.20	<0.20	<0.20	-	<0.20
1,1,2-Trichloroethane	µg/L	0.5	4.7	<	0.5	<0.50	<0.50	<0.50	-	<0.50
Trichloroethylene	µg/L	0.2	1.6	<	0.2	<0.20	<0.20	<0.20	-	<0.20
Trichlorofluoromethane	µg/L	0.5	150	<	0.5	<0.50	<0.50	<0.50	-	<0.50
Vinyl Chloride	µg/L	0.2	0.5	<	0.2	<0.20	<0.20	<0.20	-	<0.20
o-Xylene	µg/L	0.2	NR	<	0.2	<0.20	<0.20	<0.20	<0.20	<0.20
m+p-Xylene	µg/L	0.2 - 0.4	NR	<	0.4	<0.20	<0.20	<0.20	<0.40	<0.20
Xylene Mixture	µg/L	0.2 - 0.4	300	<	0.4	<0.20	<0.20	<0.20	<0.40	<0.20

Notes:
2011 Site Condition Standards (SCS) - As identified in 'Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act' (as amended April 15, 2011)

Bold - Exceeds 2011 Table 2 SCS

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Appendix A1

Sampling and Analysis Plan



SAMPLING & ANALYSIS PLAN

PROJECT NAME: Phase Two ESA – 3115 Hurontario Street, Mississauga, ON

LOCATION: 3115 Hurontario Street, Mississauga, ON

DISTRIBUTION: Kay Harvey, E.I.T., Field Technician
Harman Sandhu, E.I.T., Field Technician
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Spencer Buck, B.Sc., Project Manager
Kelvin Lee, P.Eng., M.Eng., Qualified Person (QP_{ESA})

CLIENT CONTACT: Ms. Jane Deighton, Clearbrook Developments Ltd.

MTE FILE NO.: 50347-100

DATE: February 9, 2022

PREPARED BY: Spencer Buck, B.Sc.

REVIEWED BY: Kelvin Lee, P.Eng., M.Eng., QP_{ESA}

1. INTRODUCTION

The purpose of this Sampling and Analysis Plan (SAP) is to outline the procedures to follow during the completion of a Phase Two ESA for the municipal address 3115 Hurontario Street in Mississauga, Ontario (the “Phase Two Property” or “Site”). The SAP includes a summary of:

- Media to be sampled;
- Sampling and other field methods;
- Sampling locations and rationale;
- Field measurements to be collected;
- Laboratory analysis; and
- Quality Assurance/Quality Control (QA/QC) procedures.

The Phase Two ESA of the Site is required in accordance with Ontario Regulation 153/04 to support the filing of a Record of Site Condition (RSC) for the Site. The SAP was prepared based on a review of information obtained about the Site during a Phase One ESA.

The SAP was developed under the supervision of a Qualified Person (QP_{ESA}) and was based on the potentially contaminating activities (PCAs), Areas of Potential Environmental Concern (APECs), and the contaminants of potential concern (COPCs) as identified by the Phase One ESA.



SAMPLING & ANALYSIS PLAN

2. APPLICABLE SITE CONDITION STANDARDS

The following information was used to determine the applicable MECP Site Condition Standards (SCSs):

- The results of the Phase One ESA determined that the Site is not on or located within 30m of a water body or an environmentally sensitive area;
- Bedrock geology mapping suggests that there is more than 2 m of overburden and the Site is not a shallow soil property;
- The Site is located within a municipality that does not rely on groundwater as a source of drinking water, but a non-potable groundwater request was not completed with Peel Region and therefore the potable groundwater standards were conservatively applied;
- The underlying stratigraphy in the area of the Site is anticipated to include coarse grained fill material overlying sand. The coarse textured Site Condition Standards were therefore conservatively applied; and
- The proposed future use of the Site will be residential.

Based on the above, the analytical results will be compared to the Ministry of Environment, Conservation and Parks (MECP) Table 2 Full Depth Generic Site Condition Standards in a Potable Groundwater Condition from *Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, April 15, 2011*, and those for Residential/Parkland/Institutional property use (the “2011 Table 2 RPI SCSs”).

In the event that less than 2 m of overburden is encountered or the depth to groundwater is less than 3m during the Phase Two ESA, it will be reported to the MTE Project Manager and QP_{ESA} as soon as possible. In this event, the 2011 Table 7 SCSs may be applicable for comparison to the analytical data.

3. PCAs, APECs and COPCs

The Potentially Contaminating Activities (PCAs) on the Site and in the Study Area that resulted in Areas of Potential Environmental Concern (APECs) at the Phase Two Property are summarized in the Phase One ESA APEC table and further described in Section 4 of this SAP.

The COPCs on the Phase Two Property include metals, hydride-forming metals (As, Sb, Se), electrical conductivity (EC), sodium adsorption ratio (SAR), chloride (Cl⁻), sodium (Na), petroleum hydrocarbons (PHCs), benzene, toluene, ethylbenzene and xylenes (BTEX), and volatile organic compounds (VOCs).



SAMPLING & ANALYSIS PLAN

4. PHASE TWO ESA SCOPE OF WORK

The scope of work for the Phase Two ESA was designed to assess soil and/or groundwater quality in each of the APECs identified by the Phase One ESA and, where possible using the proposed sampling locations, delineate the lateral and/or vertical extent of Contaminants of Concern (COCs) that are identified.

All groundwater samples will be collected from monitoring wells. The Phase Two Property does not include a surface water body, and therefore no surface water or sediment samples will be collected.

The following summarizes the proposed sampling plan for each APEC.

- APEC 1 was defined as the southwestern portion of the current building, in the west-central portion of the Site, where a former fuel oil AST in the basement was used for storing heating oil (PCA 1). The COPCs within APEC 1 included PHCs and BTEX in soil and groundwater. Two boreholes, one completed as a monitoring well, will be advanced within APEC 1 to assess the potential for surface spills during filling (adjacent to the vent/fill pipes) and from the AST within the basement of the building. Soil and groundwater samples will be submitted for all of the COPCs at each sampling location.
- APEC 2 was defined as the northwestern portion of Site where road salt may have been used on the asphalt parking area for de-icing purposes (PCA 2). The COPCs in APEC 2 included EC and SAR in soil and Na and Cl⁻ in groundwater. No sampling will be completed to assess the potential for salt impacts from de-icing in accordance with Section 49.1 of O.Reg.153/04, as described in the Phase Two report text.
- APEC 3 was defined as the area located in the northwestern portion of the Site based on the presence of a potential former vehicle repair garage adjacent to the north (PCA 3). The COPCs within APEC 3 included metals, As, Sb, Se, PHCs, BTEX and VOCs in groundwater. Two boreholes, both completed as monitoring wells, will be advanced within APEC 3 and groundwater samples will be collected from both monitoring wells for analysis of all of the COPCs.
- APEC 4 was defined as the area located in the western portion of the Site based on the presence of former machine shop to the west of the Site (PCA 4) The COPCs within APEC 4 included PHCs, BTEX and VOCs in groundwater. Two boreholes, both completed as monitoring wells, will be advanced within APEC 4 and groundwater samples will be collected from both monitoring wells for analysis of all of the COPCs.
- APEC 5a was defined as the area located in the northwestern portion of the Site based on the presence of former auto body shops to the northwest (PCA 5a). The COPCs within APEC 5a included PHCs, BTEX and VOCs in groundwater. Two boreholes, both completed as monitoring wells, will be advanced within APEC 5a and groundwater samples will be collected from both monitoring wells for analysis of all of the COPCs.
- APEC 5b was defined as the area located in the northwestern portion of the Site based on the presence of former auto repair shops to the northwest (PCA 5b). The COPCs



SAMPLING & ANALYSIS PLAN

within APEC 5b included PHCs, BTEX and VOCs in groundwater. Two boreholes, both completed as monitoring wells, will be advanced within APEC 5b and groundwater samples will be collected from both monitoring wells for analysis of all of the COPCs.

- APEC 6 was defined as the area adjacent to the northern portion of the Site based on the presence of a former dry cleaner to the north (PCA 6). The COPCs within APEC 6 included VOCs in groundwater. Two boreholes, both completed as monitoring wells, will be advanced within APEC 6 and groundwater samples will be collected from both monitoring wells for analysis of all of the COPCs.

The more specific Scope of Work for the Phase Two ESA will include the following:

- Preparation of a Site Specific Health and Safety Plan (HASP);
- Review of MTE Standard Operating Procedures for borehole and monitoring well installation, equipment calibration, groundwater sampling, disposal of soil cuttings and development water and equipment decontamination;
- Drilling five boreholes concurrently with a hydrogeological and geotechnical investigation, four of which were completed as water table monitoring wells to investigate the APECs;
- Collection of soil samples to evaluate and describe the subsurface stratigraphy;
- Using a field instrument to screen and measure for the presence of hydrocarbon and VOC vapours in the headspace of soil samples;
- Submitting selected soil samples to an accredited laboratory for analysis of the COPCs under Chain-of-Custody;
- Collecting groundwater samples from the monitoring wells for submission to an accredited laboratory for analysis of the COCs under Chain-of-Custody;
- Measuring static groundwater levels and elevation surveying of the monitoring wells to a geodetic datum to assess groundwater flow conditions and hydraulic gradients;
- Implementing Quality Assurance/Quality control (QA/QC) procedures for field sampling activities and laboratory analytical data;
- Documenting the field work including Site photographs;
- Preparation of a Phase Two Conceptual Site Model (CSM); and
- Data analysis and report preparation.

The selection of soil samples for laboratory analysis during this Phase Two ESA will be completed in consultation with the QP_{ESA} and be based on the results of the field observations, soil headspace readings and to assess the COPCs in each APEC. All samples will be submitted under chain-of-custody to Bureau Veritas Laboratories of Mississauga, Ontario.



SAMPLING & ANALYSIS PLAN

5. HEALTH AND SAFETY

Health & Safety Plan (HASP)

A Site-specific HASP will be prepared in advance of the field work. All staff working on this project in the field must read and sign-off confirming they have read and understand the requirements of the HASP and will following the requirements of the HASP.

MTE field personnel shall wear safety boots, safety glasses, reflective vests, nitrile gloves and long pants and long sleeves during all sampling and other field activities. Hearing protection shall be worn during drilling activities.

Contaminants of Potential Concern

It is expected that contaminants will be present in soil and groundwater on the Site. COPCs in soil and/or groundwater identified by the Phase One ESA include metals, As, Sb, Se, EC, SAR, Na, Cl-, PHCs, BTEX and VOCs. All field staff shall wear the required personal protective equipment and follow standard hygiene practices in accordance with the HASP to limit the potential for exposure.

Utility Locates

Both public locates and private locates are mandatory prior to conducting any subsurface investigation work at the Site. Utility services shall be located and marked by the utility provider or their subcontractor and arranged through Ontario One Call. A private utility locator must also be retained to clear all proposed drilling locations prior to the commencement of fieldwork.

Site Access and Communication

Vehicle access to the Site is provided from Hurontario Street. MTE staff shall park in a designated parking spot during the sampling and field activities. Field staff shall communicate regularly during the field work with the Project Manager and/or QP_{ESA}, including at the beginning and end of each work day.

6. STANDARD OPERATING & FIELD PROCEDURES

All field work during this Phase Two ESA will be completed in accordance with MTE Standards Operating Procedures (SOPs). The following MTE SOPs will apply to this project:

SOP Number	Description
5.ENV.3(5)(a)	Borehole Drilling (revised January 2019)
5.ENV.3(5)(d)	Field Screening Measurements (Soil) and Equipment Calibration (revised January 2019);
5.ENV.3(5)(e)	Monitoring Well Installation (revised January 2019);



SAMPLING & ANALYSIS PLAN

5.ENV.3(5)(f)	Monitoring Well Development (revised January 2019)
5.ENV.3(5)(g)	Field Measurement of Water Quality and Equipment Calibration (revised January 2019)
5.ENV.3(5)(i)	Groundwater Sampling (revised January 2019)

The following procedures shall be followed:

Field Data Recording: Field forms are to be used by technical staff to document field data collection and sampling activities. All fields in the forms shall be completed.

Field Equipment: Calibration of field monitoring equipment shall be performed according to manufacturers' recommendations and the MTE SOP in advance of use to ensure proper operation in the field.

Field screening: Soils from soil cores shall be field screened at each sampling location. This will include recording visual evidence of staining, non-soil materials or odours. Organic vapour measurements (hydrocarbons and VOCs) shall be recorded for all soil samples collected.

Borehole Sampling: Soil samples shall be collected directly from the undisturbed plastic core obtained by direct push drilling or split spoon if percussion drilling.

Soil samples being analyzed for volatile parameters (PHCs F1, BTEX, VOCs) shall be collected following EPA Method 5035, which includes collecting approximately 5 grams of soil from the undisturbed soil core for placement in a VOC vile containing methanol preservative.

Soil samples collected for metals, As, Sb, Se, EC, SAR and PHCs F2-F4 will be collected in 120 mL or 250 mL unpreserved glass jars supplied by the laboratory.

Groundwater levels: Groundwater level measurements shall be collected prior to any disturbance of the wells, and from the highest marked point on the well riser pipe. The water level and/or interface probe is to be decontaminated between sampling locations as indicated in the MTE SOP.

Groundwater Sampling: During the purging of monitoring wells, field parameters including conductivity, pH, temperature, dissolved oxygen, oxidation reduction potential and turbidity will be recorded during well purging until stabilized measurements are recorded. If the



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monitoring well does not provide sufficient water, each monitoring well should be purged dry at least three times.

The following details the container types and preservatives for soil samples:

Soil Analyte Group	Container Type	Preservative
PHC F1, BTEX, VOCs	2 – 40mL clear glass vials	Methanol
metals, As, Sb, Se, EC, SAR, PHCs F2-F4	1 –250 mL clear glass jar	None

Groundwater samples analyzed for PHC F1, BTEX and VOCs will be placed in septum vials, with Teflon® lined lids with zero head space, provided by the laboratory as follows:

Groundwater Analysis Group	Container Type	Preservative
PHC F1, VOCs, BTEX	3 – 40ml Glass Septum Vials	NaHSO ₄
PHC F2-F4	2 – 500ml Amber Glass Bottle	NaHSO ₄
Metals, As, Sb, Se	1 – 125ml Plastic Bottle (Field Filtered)	HNO ₃

All samples shall be placed into insulated coolers with sufficient ice immediately after collection to initiate cooling. Coolers should contain sufficient ice prior to and during transportation to the laboratory.

All samples are to be accompanied by a completed chain-of-custody record that lists each sample identifier, sampling date and time, sample matrix, the number of containers and analytical parameters for which the sample is to be tested.

7. PHYSICAL IMPEDIMENTS AND FIELD CHANGES

There are no known physical or access impediments to completing the scope or work. Conditions such as inclement weather, underground or overhead utilities or minimum clearance requirements may require alteration or revision of the investigation and sampling plan. If these situations arise they should be reported to the MTE Project Manager and QP_{ESA} as soon as possible for instructions.

8. QUALITY ASSURANCE AND QUALITY CONTROL

A quality assurance and quality control (QA/QC) plan will be implemented during this Phase Two ESA. QA/QC measures will be implemented in the field and laboratory to demonstrate that the physical and analytical data that are generated during the Phase Two ESA are suitable to assess the site conditions and for comparison to the applicable 2011 Table 3 RPI SCSs.



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Field Quality Assurance

Field QA procedures will include:

- Adherence to this SAP and MTE SOPs, which meet industry standards and MECP guidance for field sample data collection;
- The use of new laboratory-supplied sample containers;
- The use of new and dedicated sampling equipment;
- The use of field forms for recording the collected field data; and
- Implementing field equipment cleaning and calibration procedures.

Field Quality Control

Quality Control procedures will include the collection and analysis of QC samples, including blind field duplicate samples and trip blanks. The trip blanks will consist of a sample of ultra-pure water prepared by the laboratory, which will accompany the sample bottles and samples during collection, storage and transport.

The numbers of field duplicate samples and trip blanks and shall be in accordance with O.Reg.153/04 and include:

- One field duplicate for every 10 samples collected; and
- One trip blank to accompany each batch submission of VOC samples in groundwater.

Analytical data precision will be assessed by calculating the Relative Percent Difference (RPD) between the investigation sample results (C1) and the blind field duplicate sample results (C2). The RPD will be calculated as follows:

$$RPD = 2 \left| \frac{C1 - C2}{C1 + C2} \right| \times 100\%$$

RPDs are only calculated where both C1 and C2 are above the analytical method detection limits. The RPD acceptance criterion will be 50% for soil analyses and 30% for groundwater analyses.

Laboratory QA/QC

Laboratory QA/QC procedures will be implemented internally by the laboratory and validated through a review of the sample Chain-of-Custody forms and Laboratory Certificates of Analysis.

The laboratory QA/QC assessment will include a review of the following:

- Sample holding times and arrival temperatures;
- Laboratory analytical methods (i.e., MECP approved methods were used);
- Results were received for all of the requested samples and analyses;
- Laboratory surrogate recovery and spike sample results;
- Dilution factors and method detection limits;
- Duplicate sample analytical results;



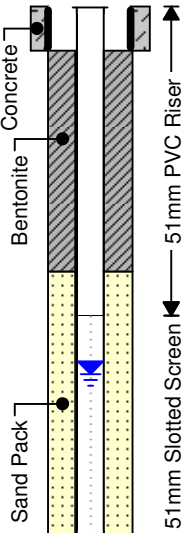
SAMPLING & ANALYSIS PLAN

- Laboratory Certificate of Analysis notes; and
- Analytical results as compared to visual/olfactory observations.

Appendix A2

Borehole Logs and Site Photographs

ID No.: MW101-22**Project Name:** Phase Two ESA**MTE File No.:** 50347-100**Client:** Clearbrook Developments Ltd.**Site Location:** 3115 Hurontario Street, Mississauga, ON**Date Completed:** 2/18/2022**Drilling Contractor:** Geo-Environmental Drilling Inc.**Drill Rig:** LC 55**Drill Method:** Hollow Stem Augers**Protective Cover:** Flushmount

Subsurface Profile			Sample						Well Completion Details	
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	PID (ppm)		
0		Ground Surface	118.7							
0		ASPHALTIC CONCRETE 100 mm	0.0	1	SS	67		1	0	
2		FILL dense brown sand and gravel, trace silt, wet dense to compact brown sand and silt, trace gravel, wet to very moist	118.1 0.6	2	SS	33	Metals, As, Sb, Se , Hg, B-HWS, pH, PHCs, BTEX	0	0	
4										
6				3	SS	75		0	0	
8		SAND AND SILT compact brown sand and silt, trace gravel, very moist	116.4 2.3	4	SS	83	pH	0	0	
10		saturated	115.6 3.0							
12		SHALE dense weathered grey shale, moist	115.3 3.4	5	SS	58		0	0	
14		Drilling Terminated	115.0 3.7							
16										
18										
20										
22										
24										

Field Technician: HXS**Drafted by:** HXS**Reviewed by:** KCL

Water encountered at 3.1mbgs
(Elevation 115.6masl) during drilling.
Water measured at 2.5mbgs (Elevation
116.2masl) on March 22, 2022.

Sheet: 1 of 1

ID No.: MW102-22**Project Name:** Phase Two ESA**MTE File No.:** 50347-100**Client:** Clearbrook Developments Ltd.**Site Location:** 3115 Hurontario Street, Mississauga, ON**Date Completed:** 2/18/2022**Drilling Contractor:** Geo-Environmental Drilling Inc.**Drill Rig:** LC 55**Drill Method:** Hollow Stem Augers**Protective Cover:** Monument Casing


Subsurface Profile			Sample						Well Completion Details		
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	PID (ppm)			Hydrocarbon (ppm)
0 ft 0 m		Ground Surface	118.5							<p>Concrete</p> <p>Bentonite</p> <p>Sand Pack</p> <p>51mm Slotted Screen</p> <p>51mm PVC Riser</p>	
0		FILL (TOPSOIL) compact dark brown sandy silty topsoil, trace sand, gravel, and organics, very moist (760mm)	0.0	1	SS	25		0	0		
2			117.7								
2			FILL compact brown sand and silt, trace gravel, moist	0.8	2	SS		79	0		5
4				116.9							
4			loose	1.5	3	SS		63	0		0
6			116.2								
2		SAND compact brown sand, trace silt and clay, very moist	2.3	4	SS	79	0	0			
8			115.6								
8			saturated	2.9	5	SS	38	1	0		
10				114.7							
12			SHALE very dense weatered grey shale, moist	3.8	6	SS	29	1	0		
4		Drilling Terminated									
14											
16											
18											
20											
6											
22											
24											

Field Technician: HXS**Drafted by:** HXS**Reviewed by:** KCL

Water encountered at 2.9mbgs
(Elevation 115.6masl) during drilling.
Water measured at 2.9mbgs (Elevation
115.6masl) on March 22, 2022.

Sheet: 1 of 1

ID No.: BH103-22**Project Name:** Phase Two ESA**MTE File No.:** 50347-100**Client:** Clearbrook Developments Ltd.**Site Location:** 3115 Hurontario Street, Mississauga, ON**Date Completed:** 2/15/2022**Drilling Contractor:** Geo-Environmental Drilling Inc**Drill Rig:** Neumatic Pionjar**Drill Method:** Direct Push**Protective Cover:** N/A

Subsurface Profile				Sample						Well Completion Details
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	PID (ppm)	Hydrocarbon (ppm)	
0		Ground Surface	117.3							 Bentonite Dry Cave Borehole dry upon drilling completion
0		Concrete 100 mm	0.0	1	SS	100	PHCs, BTEX	0	0	
2		GRAVEL loose brown gravel, moist		2	SS	100		0	0	
4		SILTY SAND light brown silty sand, trace gravel, moist	116.1							
1.2		Drilling Terminated								

Field Technician: HXS**Drafted by:** HXS**Reviewed by:** KCL

Sheet: 1 of 1

ID No.: MW104-22**Project Name:** Phase Two ESA**MTE File No.:** 50347-100**Client:** Clearbrook Developments Ltd.**Site Location:** 3115 Hurontario Street, Mississauga, ON**Date Completed:** 2/18/2022**Drilling Contractor:** Geo-Environmental Drilling Inc.**Drill Rig:** LC 55**Drill Method:** Hollow Stem Augers**Protective Cover:** Flushmount

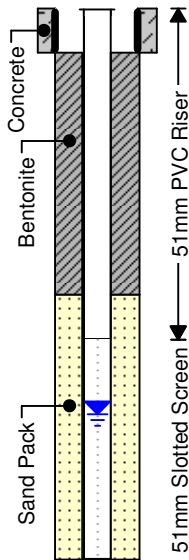
Subsurface Profile			Sample						Well Completion Details	
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	PID (ppm)		
0		Ground Surface	118.7							<div>Concrete</div> <div>Bentonite</div> <div>Sand Pack</div> <div>51mm Slotted Screen</div> <div>51mm PVC Riser</div>
0		ASPHALTIC CONCRETE 100 mm	0.0	1	SS	46	PHCs, BTEX	0	0	
2		FILL compact brown sand and gravel, trace silt, very moist	118.2							
		compact brown sand and silt, trace gravel, very moist	0.5							
		compact brown sand and gravel, some silt, very moist	117.9							
4			0.8	2	SS	50		0	0	
6				3	SS	75		0	0	
8			116.2							
10		SAND compact brown sand, trace gravel, silt and clay, moist to very moist	2.4	4	SS	83	PHCs, BTEX	0	0	
12		saturated	115.3	5	SS	79		0	0	
14		SHALE very dense weathered grey shale, very moist	114.9	6	SS	29		0	0	
16		Drilling Terminated								

Field Technician: HXS**Drafted by:** HXS**Reviewed by:** KCL

Water encountered at 3.4mbgs
(Elevation 115.3masl) during drilling.
Water measured at 3.4mbgs (Elevation
115.3masl) on March 22, 2022.

Sheet: 1 of 1

ID No.: MW105-22**Project Name:** Phase Two ESA**MTE File No.:** 50347-100**Client:** Clearbrook Developments Ltd.**Site Location:** 3115 Hurontario Street, Mississauga, ON**Date Completed:** 2/15/2022**Drilling Contractor:** Geo-Environmental Drilling Inc**Drill Rig:** LC 55**Drill Method:** Hollow Stem Augers**Protective Cover:** N/A

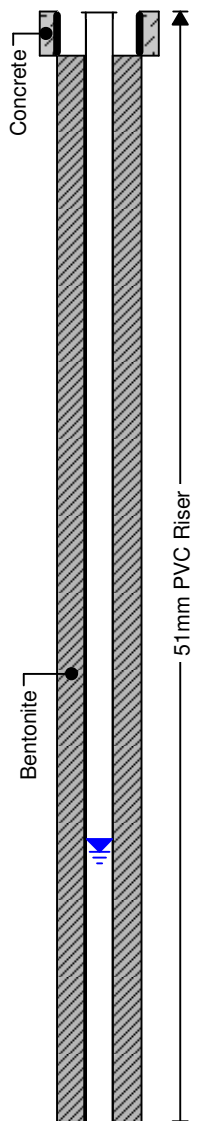
Subsurface Profile			Sample							Well Completion Details
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	PID (ppm)	Hydrocarbon (ppm)	
0 ft 0 m		Ground Surface	117.8 0.0							
2 4 6 8 10 12 14 16 18 20 22 24										
2										
4										
6										
8										
10										
12										
14										
16										
18										
20										
22										
24										
		Drilling Terminated	114.0 3.8							

Field Technician: HXS**Drafted by:** HXS**Reviewed by:** KCL

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Borehole straight augered to depth. No soil sampling completed
Water measured at 2.8mbgs (Elevation 115.0masl) on March 22, 2022.

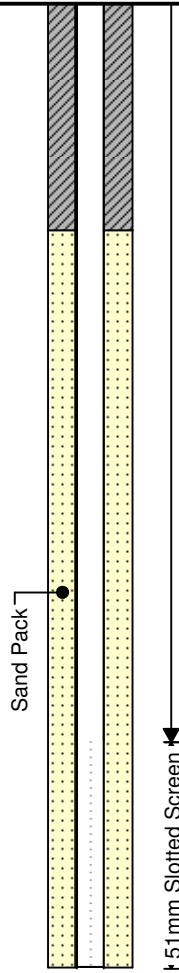
ID No.: MW107-22**Project Name:** Phase Two ESA**MTE File No.:** 50347-100**Client:** Clearbrook Developments Ltd.**Site Location:** 3115 Hurontario Street, Mississauga, ON**Date Completed:** 2/16/2022**Drilling Contractor:** Geo-Environmental Drilling Inc.**Drill Rig:** LC 55**Drill Method:** Hollow Stem Augers**Protective Cover:** Monument Casing

Subsurface Profile			Sample						Well Completion Details		
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	PID (ppm)			Hydrocarbon (ppm)
0		Ground Surface	118.3								
0		FILL (TOPSOIL) compact dark brown sandy silt, trace gravel and organics, wet (250mm)	0.0	1	SS	83		0	10		
2		FILL compact brown sand and silt, trace gravel, very moist some gravel, with brick fragments	117.6	2	SS	63		0	30		
4			0.8								
6				3	SS	88		0	25		
8		SILTY SAND compact brown silty sand, trace gravel, very moist saturated	116.0	4	SS	88		0	15		
10			2.3								
12		CLAYEY SANDY SILT TILL hard grey clayey sandy silt, trace gravel, DTPL	115.7	5	SS	92		0	5		
14			2.6								
16		SHALE very dense weathered grey shale, very moist	115.3	6	SS	50		0	15		
18			3.0								
20			4.0	7	RC	-					
22				8	RC	-					
24				9	RC	-					

Field Technician: HXS**Drafted by:** HXS**Reviewed by:** KCL

Water encountered at 2.6mbgs
(Elevation 115.7masl) during drilling.
Water measured at 5.8mbgs (Elevation
112.5masl) on March 22, 2022.

ID No.: MW107-22**Project Name:** Phase Two ESA**MTE File No.:** 50347-100**Client:** Clearbrook Developments Ltd.**Site Location:** 3115 Hurontario Street, Mississauga, ON**Date Completed:** 2/16/2022**Drilling Contractor:** Geo-Environmental Drilling Inc.**Drill Rig:** LC 55**Drill Method:** Hollow Stem Augers**Protective Cover:** Monument Casing

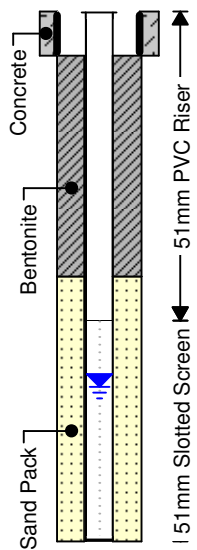
Subsurface Profile			Sample						Well Completion Details	
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	PID (ppm)		
26 28 30 32 34 36 38 40 42 44 46 48 50	8 10 12 14			10	RC	-				 Sand Pack 51mm Slotted Screen
				11	RC	-				
				12	RC	-				
				13	RC	-				
		Drilling Terminated	104.2 14.1							

Field Technician: HXS**Drafted by:** HXS**Reviewed by:** KCL

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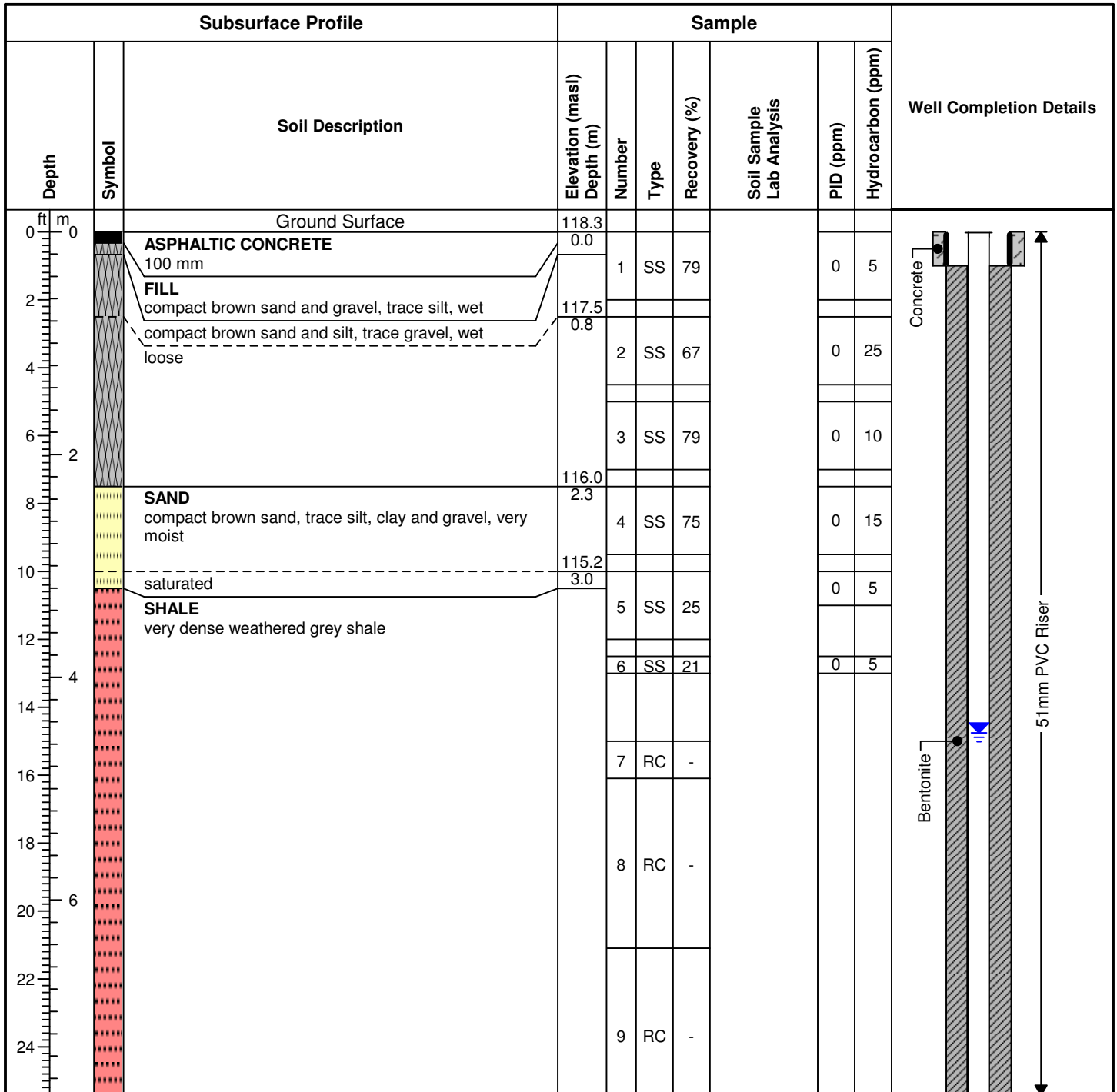
Water encountered at 2.6mbgs
(Elevation 115.7masl) during drilling.
Water measured at 5.8mbgs (Elevation
112.5masl) on March 22, 2022.

ID No.: MW108-22**Project Name:** Phase Two ESA**MTE File No.:** 50347-100**Client:** Clearbrook Developments Ltd.**Site Location:** 3115 Hurontario Street, Mississauga, ON**Date Completed:** 2/15/2022**Drilling Contractor:** Geo-Environmental Drilling Inc.**Drill Rig:** LC 55**Drill Method:** Hollow Stem Augers**Protective Cover:** Monument Casing

Subsurface Profile				Sample						Well Completion Details	
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	PID (ppm)	Hydrocarbon (ppm)		
0		Ground Surface	117.6								
0		FILL (TOPSOIL) compact dark brown sandy silty topsoil, trace gravel and organics, very moist (200mm)	0.0	1	SS	79		0	10		
2		FILL compact dark brown sand and silt, trace gravel, very moist	116.9	2	SS	63		1	0		
4		loose brown silty sand, trace gravel, very moist	116.1								
6		SILTY SAND compact brown silty sand, trace gravel, very moist	1.5	3	SS	75		0	10		
8		saturated	115.0	4	SS	100		0	10		
10		CLAYEY SILT TILL hard grey clayey silt, trace sand and gravel, DTPL	2.6					0	5		
10		SHALE compact weathered grey shale, very moist	114.6	5	SS	83		0	0		
12			3.0								
12			114.0								
4		Drilling Terminated	3.7								
14											
16											
18											
20											
22											
24											

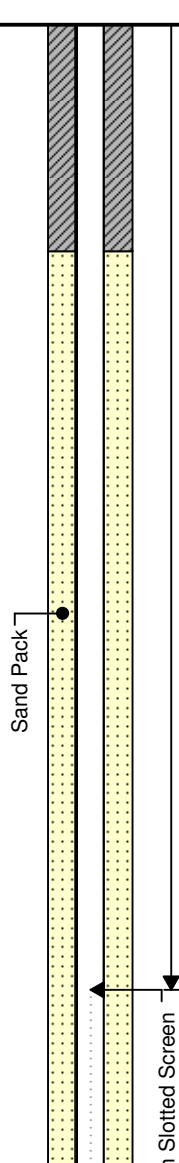
Field Technician: HXS**Drafted by:** HXS**Reviewed by:** TJJ

Sheet: 1 of 1

ID No.: MW109-22**Project Name:** Phase Two ESA**MTE File No.:** 50347-100**Client:** Clearbrook Developments Ltd.**Site Location:** 3115 Hurontario Street, Mississauga, ON**Date Completed:** 2/17/2022**Drilling Contractor:** Geo-Environmental Drilling Inc.**Drill Rig:** LC 55**Drill Method:** Hollow Stem Augers**Protective Cover:** Monument Casing**Field Technician:** HXS**Drafted by:** HXS**Reviewed by:** TJJ

Water encountered at 3.1mbgs
(Elevation 115.2masl) during drilling.
Water measured at 4.5mbgs (Elevation
113.8masl) on March 9, 2022.

ID No.: MW109-22**Project Name:** Phase Two ESA**MTE File No.:** 50347-100**Client:** Clearbrook Developments Ltd.**Site Location:** 3115 Hurontario Street, Mississauga, ON**Date Completed:** 2/17/2022**Drilling Contractor:** Geo-Environmental Drilling Inc.**Drill Rig:** LC 55**Drill Method:** Hollow Stem Augers**Protective Cover:** Monument Casing

Subsurface Profile			Sample						Well Completion Details		
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	PID (ppm)			Hydrocarbon (ppm)
26 28 30 32 34 36 38 40 42 44 46 48 50	8 10 12 14			10	RC	-					 Sand Pack 1mm Slotted Screen
				11	RC	-					
				12	RC	-					
				13	RC	-					
				14	RC	-					

Field Technician: HXS**Drafted by:** HXS**Reviewed by:** TJJ

Sheet: 2 of 3

Water encountered at 3.1mbgs
(Elevation 115.2masl) during drilling.
Water measured at 4.5mbgs (Elevation
113.8masl) on March 9, 2022.

ID No.: MW109-22**Project Name:** Phase Two ESA**MTE File No.:** 50347-100**Client:** Clearbrook Developments Ltd.**Site Location:** 3115 Hurontario Street, Mississauga, ON**Date Completed:** 2/17/2022**Drilling Contractor:** Geo-Environmental Drilling Inc.**Drill Rig:** LC 55**Drill Method:** Hollow Stem Augers**Protective Cover:** Monument Casing


Subsurface Profile			Sample						Well Completion Details
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	PID (ppm)	
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Field Technician: HXS**Drafted by:** HXS**Reviewed by:** TJJ

Sheet: 3 of 3

Water encountered at 3.1mbgs
(Elevation 115.2masl) during drilling.
Water measured at 4.5mbgs (Elevation
113.8masl) on March 9, 2022.







ID No.: BH110-22**Project Name:** Phase Two ESA**MTE File No.:** 50347-100**Client:** Clearbrook Developments Ltd.**Site Location:** 3115 Hurontario Street, Mississauga, ON**Date Completed:** 2/15/2022**Drilling Contractor:** Geo-Environmental Drilling Inc.**Drill Rig:** LC 55**Drill Method:** Hollow Stem Augers**Protective Cover:** N/A

Subsurface Profile			Sample						Well Completion Details	
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	PID (ppm)		
0		Ground Surface	117.8							
0		FILL (TOPSOIL) loose dark brown sandy silty topsoil, trace gravel and organics, very moist (200mm)	0.0	1	SS	75		0	10	
2		FILL loose brown sand and silt, trace gravel, moist		2	SS	100	Metals, As, Sb, Se, Hg, B-HWS, pH, PHCs, BTEX	0	10	
4										
6			115.9	3	SS	71		0	0	
2		SILTY SAND compact brown sand and silt, some gravel moist to very moist	1.8				pH			
8		----- saturated	115.3							
2.4			2.4	4	SS	67		0	10	
10		CLAYEY SILT TILL hard grey clayey silt, trace sand and gravel, DTPL	114.7							
3.0			3.0	5	SS	75		0	5	
12		SHALE compact to very dense weathered grey shale, very moist to moist		6	SS	29		0	0	
4										
14				7	SS	13		0	0	
16										
18										
20			111.5	8	SS	13				
6			6.2							
22		Drilling Terminated								Water encountered at 2.4 mbgs during drilling
24										

Field Technician: HXS**Drafted by:** HXS**Reviewed by:** KCL

Sheet: 1 of 1



ID No.: BH111-22**Project Name:** Phase Two ESA**MTE File No.:** 50347-100**Client:** Clearbrook Developments Ltd.**Site Location:** 3115 Hurontario Street, Mississauga, ON**Date Completed:** 2/14/2022**Drilling Contractor:** Geo-Environmental Drilling Inc.**Drill Rig:** LC 55**Drill Method:** Hollow Stem Augers**Protective Cover:** N/A

Subsurface Profile			Sample						Well Completion Details	
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	PID (ppm)		
0		Ground Surface	117.9							
0		FILL (TOPSOIL) compact dark brown sandy silty topsoil, trace gravel and organics, wet (175mm)	0.0	1	SS	46	Metals, As, Sb, Se, Hg, B-HWS, pH, PHCs, BTEX	0	35	
2		FILL compact brown sand, some gravel, very moist	117.2	2	SS	54		0	5	
4		compact brown sand and silt, some gravel very moist	0.8							
6		SILTY SAND compact brown silty sand, trace gravel, moist to wet	116.4	3	SS	20	pH	0	15	
8			1.5	4	SS	79		0	0	
10		saturated	114.9							
12		CLAYEY SILT TILL hard grey clayey silt, trace sand and gravel, DTPL	114.6	5	SS	71		0	0	
14		SHALE very dense weathered grey shale, very moist to moist	114.1	6	SS	71		0	0	
16				7	SS	21		0	0	
18										
20				8	SS	21		0	0	
22										
24										

Field Technician: HXS**Drafted by:** HXS**Reviewed by:** KCL

Sheet: 1 of 2

ID No.: BH111-22**Project Name:** Phase Two ESA**MTE File No.:** 50347-100**Client:** Clearbrook Developments Ltd.**Site Location:** 3115 Hurontario Street, Mississauga, ON**Date Completed:** 2/14/2022**Drilling Contractor:** Geo-Environmental Drilling Inc.**Drill Rig:** LC 55**Drill Method:** Hollow Stem Augers**Protective Cover:** N/A

Subsurface Profile			Sample						Well Completion Details	
Depth	Symbol	Soil Description	Elevation (masl) Depth (m)	Number	Type	Recovery (%)	Soil Sample Lab Analysis	PID (ppm)		
26 8				9	SS	4				 ← Wet Cave Water encountered at 3.1 mbgs during drilling
28										
30				108.6	10	SS		4		
32 10		Drilling Terminated	9.3							
34										
36										
38										
40 12										
42										
44										
46 14										
48										
50										

Field Technician: HXS**Drafted by:** HXS**Reviewed by:** KCL

Sheet: 2 of 2



Photograph No. 1 – View of the south and west elevations of the 3115 Hurontario Street building (the Site), facing northeast.



Photograph No. 2 – View of the south of the Site, facing east.



Photograph No. 3 – View of the back yard of the Site, facing northeast.



Photograph No. 4 – View of the east elevation of the Site building, facing west.

Appendix A3

Laboratory Certificates of Analysis



Your Project #: 50347-100
Your C.O.C. #: 865472-01-01, 865472-02-01

Attention: Spencer Buck

MTE Consultants Inc
520 Bingham Centre Dr
Kitchener, ON
CANADA N2B 3X9

Report Date: 2022/02/25
Report #: R7018534
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C241996

Received: 2022/02/16, 08:30

Sample Matrix: Soil
Samples Received: 7

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Hot Water Extractable Boron	2	2022/02/22	2022/02/22	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	1	2022/02/23	2022/02/23	CAM SOP-00408	R153 Ana. Prot. 2011
Petroleum Hydro. CCME F1 & BTEX in Soil (1)	4	N/A	2022/02/22	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (2)	4	2022/02/19	2022/02/22	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	3	2022/02/22	2022/02/22	CAM SOP-00447	EPA 6020B m
Moisture	4	N/A	2022/02/17	CAM SOP-00445	Carter 2nd ed 51.2 m
pH CaCl2 EXTRACT	4	2022/02/18	2022/02/18	CAM SOP-00413	EPA 9045 D m

Remarks:

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

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.

(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003".



Your Project #: 50347-100
Your C.O.C. #: 865472-01-01, 865472-02-01

Attention: Spencer Buck

MTE Consultants Inc
520 Bingham Centre Dr
Kitchener, ON
CANADA N2B 3X9

Report Date: 2022/02/25
Report #: R7018534
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C241996

Received: 2022/02/16, 08:30

Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Ronklin Gracian
Project Manager
25 Feb 2022 09:56:43

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bureauveritas.com
Phone# (905)817-5752

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

BUREAU
VERITAS

Bureau Veritas Job #: C241996

Report Date: 2022/02/25

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: HS

O.REG 153 METALS GROUPS 1.2.2 & 1.2.3 (SOIL)

Bureau Veritas ID			RWK832	RWK841	RWK843		
Sampling Date			2022/02/14 12:40	2022/02/15 15:00	2022/02/15 16:05		
COC Number			865472-01-01	865472-01-01	865472-02-01		
	UNITS	Criteria	BH111-22 SS1 0-2'	BH110-22 SS2 2.5-4.5'	BH1010-22 2.5-4.5'	RDL	QC Batch
Metals							
Acid Extractable Antimony (Sb)	ug/g	7.5	0.22	<0.20	<0.20	0.20	7844483
Acid Extractable Arsenic (As)	ug/g	18	3.5	1.8	<1.0	1.0	7844483
Acid Extractable Barium (Ba)	ug/g	390	28	23	15	0.50	7844483
Acid Extractable Beryllium (Be)	ug/g	4	0.30	0.21	<0.20	0.20	7844483
Acid Extractable Boron (B)	ug/g	120	<5.0	<5.0	<5.0	5.0	7844483
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.17	<0.10	<0.10	0.10	7844483
Acid Extractable Chromium (Cr)	ug/g	160	11	7.6	6.0	1.0	7844483
Acid Extractable Cobalt (Co)	ug/g	22	4.1	2.2	1.6	0.10	7844483
Acid Extractable Copper (Cu)	ug/g	140	19	3.6	3.1	0.50	7844483
Acid Extractable Lead (Pb)	ug/g	120	22	4.6	3.2	1.0	7844483
Acid Extractable Molybdenum (Mo)	ug/g	6.9	<0.50	<0.50	<0.50	0.50	7844483
Acid Extractable Nickel (Ni)	ug/g	100	8.7	4.6	3.7	0.50	7844483
Acid Extractable Selenium (Se)	ug/g	2.4	<0.50	<0.50	<0.50	0.50	7844483
Acid Extractable Silver (Ag)	ug/g	20	<0.20	<0.20	<0.20	0.20	7844483
Acid Extractable Thallium (Tl)	ug/g	1	0.066	<0.050	<0.050	0.050	7844483
Acid Extractable Uranium (U)	ug/g	23	0.34	0.37	0.28	0.050	7844483
Acid Extractable Vanadium (V)	ug/g	86	17	22	13	5.0	7844483
Acid Extractable Zinc (Zn)	ug/g	340	68	9.0	6.3	5.0	7844483
Acid Extractable Mercury (Hg)	ug/g	0.27	0.065	<0.050	<0.050	0.050	7844483
No Fill	No Exceedance						
Grey	Exceeds 1 criteria policy/level						
Black	Exceeds both criteria/levels						
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)							
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition							
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil							



BUREAU
VERITAS

Bureau Veritas Job #: C241996
Report Date: 2022/02/25

MTE Consultants Inc
Client Project #: 50347-100
Sampler Initials: HS

O.REG 153 METALS GROUPS 1.2.2 & 1.2.3 (SOIL)

Bureau Veritas ID			RWK843		
Sampling Date			2022/02/15 16:05		
COC Number			865472-02-01		
	UNITS	Criteria	BH1010-22 2.5-4.5' Lab-Dup	RDL	QC Batch

Metals					
Acid Extractable Antimony (Sb)	ug/g	7.5	<0.20	0.20	7844483
Acid Extractable Arsenic (As)	ug/g	18	<1.0	1.0	7844483
Acid Extractable Barium (Ba)	ug/g	390	16	0.50	7844483
Acid Extractable Beryllium (Be)	ug/g	4	<0.20	0.20	7844483
Acid Extractable Boron (B)	ug/g	120	<5.0	5.0	7844483
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	0.10	7844483
Acid Extractable Chromium (Cr)	ug/g	160	6.2	1.0	7844483
Acid Extractable Cobalt (Co)	ug/g	22	1.6	0.10	7844483
Acid Extractable Copper (Cu)	ug/g	140	3.3	0.50	7844483
Acid Extractable Lead (Pb)	ug/g	120	3.2	1.0	7844483
Acid Extractable Molybdenum (Mo)	ug/g	6.9	<0.50	0.50	7844483
Acid Extractable Nickel (Ni)	ug/g	100	3.9	0.50	7844483
Acid Extractable Selenium (Se)	ug/g	2.4	<0.50	0.50	7844483
Acid Extractable Silver (Ag)	ug/g	20	<0.20	0.20	7844483
Acid Extractable Thallium (Tl)	ug/g	1	<0.050	0.050	7844483
Acid Extractable Uranium (U)	ug/g	23	0.26	0.050	7844483
Acid Extractable Vanadium (V)	ug/g	86	14	5.0	7844483
Acid Extractable Zinc (Zn)	ug/g	340	6.7	5.0	7844483
Acid Extractable Mercury (Hg)	ug/g	0.27	<0.050	0.050	7844483

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels
RDL = Reportable Detection Limit	
QC Batch = Quality Control Batch	
Lab-Dup = Laboratory Initiated Duplicate	
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)	
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition	
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil	



BUREAU
VERITAS

Bureau Veritas Job #: C241996
Report Date: 2022/02/25

MTE Consultants Inc
Client Project #: 50347-100
Sampler Initials: HS

O.REG 153 PHCS, BTEX/F1-F4 (SOIL)

Bureau Veritas ID			RWK832		RWK836		
Sampling Date			2022/02/14 12:40		2022/02/15 12:30		
COC Number			865472-01-01		865472-01-01		
	UNITS	Criteria	BH111-22 SS1 0-2'	QC Batch	BH103-22 SS1 0.3-2'	RDL	QC Batch
Inorganics							
Moisture	%	-	19	7840508	4.9	1.0	7839804
BTEX & F1 Hydrocarbons							
Benzene	ug/g	0.21	<0.020	7845629	<0.020	0.020	7845629
Toluene	ug/g	2.3	<0.020	7845629	<0.020	0.020	7845629
Ethylbenzene	ug/g	2	<0.020	7845629	<0.020	0.020	7845629
o-Xylene	ug/g	-	<0.020	7845629	<0.020	0.020	7845629
p+m-Xylene	ug/g	-	<0.040	7845629	<0.040	0.040	7845629
Total Xylenes	ug/g	3.1	<0.040	7845629	<0.040	0.040	7845629
F1 (C6-C10)	ug/g	55	<10	7845629	<10	10	7845629
F1 (C6-C10) - BTEX	ug/g	55	<10	7845629	<10	10	7845629
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	7843147	13	10	7843147
F3 (C16-C34 Hydrocarbons)	ug/g	300	<50	7843147	<50	50	7843147
F4 (C34-C50 Hydrocarbons)	ug/g	2800	<50	7843147	<50	50	7843147
Reached Baseline at C50	ug/g	-	Yes	7843147	Yes		7843147
Surrogate Recovery (%)							
1,4-Difluorobenzene	%	-	95	7845629	98		7845629
4-Bromofluorobenzene	%	-	96	7845629	96		7845629
D10-o-Xylene	%	-	98	7845629	97		7845629
D4-1,2-Dichloroethane	%	-	101	7845629	97		7845629
o-Terphenyl	%	-	91	7843147	101		7843147
No Fill	No Exceedance						
Grey	Exceeds 1 criteria policy/level						
Black	Exceeds both criteria/levels						
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)							
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition							
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil							

BUREAU
VERITAS

Bureau Veritas Job #: C241996

Report Date: 2022/02/25

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: HS

O.REG 153 PHCS, BTEX/F1-F4 (SOIL)

Bureau Veritas ID			RWK836			RWK838		
Sampling Date			2022/02/15 12:30			2022/02/15 12:35		
COC Number			865472-01-01			865472-01-01		
	UNITS	Criteria	BH103-22 SS1 0.3-2' Lab-Dup	RDL	QC Batch	BH1003-22 0.3-2'	RDL	QC Batch
Inorganics								
Moisture	%	-	4.8	1.0	7839804	4.0	1.0	7839804
BTEx & F1 Hydrocarbons								
Benzene	ug/g	0.21	<0.020	0.020	7845629	<0.020	0.020	7845629
Toluene	ug/g	2.3	<0.020	0.020	7845629	<0.020	0.020	7845629
Ethylbenzene	ug/g	2	<0.020	0.020	7845629	<0.020	0.020	7845629
o-Xylene	ug/g	-	<0.020	0.020	7845629	<0.020	0.020	7845629
p+m-Xylene	ug/g	-	<0.040	0.040	7845629	<0.040	0.040	7845629
Total Xylenes	ug/g	3.1	<0.040	0.040	7845629	<0.040	0.040	7845629
F1 (C6-C10)	ug/g	55	<10	10	7845629	<10	10	7845629
F1 (C6-C10) - BTEx	ug/g	55	<10	10	7845629	<10	10	7845629
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/g	98				<10	10	7843147
F3 (C16-C34 Hydrocarbons)	ug/g	300				<50	50	7843147
F4 (C34-C50 Hydrocarbons)	ug/g	2800				<50	50	7843147
Reached Baseline at C50	ug/g	-				Yes		7843147
Surrogate Recovery (%)								
1,4-Difluorobenzene	%	-	94		7845629	95		7845629
4-Bromofluorobenzene	%	-	97		7845629	86		7845629
D10-o-Xylene	%	-	98		7845629	100		7845629
D4-1,2-Dichloroethane	%	-	98		7845629	95		7845629
o-Terphenyl	%	-				98		7843147
No Fill	No Exceedance							
Grey	Exceeds 1 criteria policy/level							
Black	Exceeds both criteria/levels							
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
Lab-Dup = Laboratory Initiated Duplicate								
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)								
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition								
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil								

BUREAU
VERITAS

Bureau Veritas Job #: C241996

Report Date: 2022/02/25

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: HS

O.REG 153 PHCS, BTEX/F1-F4 (SOIL)

Bureau Veritas ID			RWK838			RWK841		
Sampling Date			2022/02/15 12:35			2022/02/15 15:00		
COC Number			865472-01-01			865472-01-01		
	UNITS	Criteria	BH1003-22 0.3-2' Lab-Dup	RDL	QC Batch	BH110-22 SS2 2.5-4.5'	RDL	QC Batch
Inorganics								
Moisture	%	-				6.4	1.0	7840508
BTEX & F1 Hydrocarbons								
Benzene	ug/g	0.21				<0.020	0.020	7845629
Toluene	ug/g	2.3				<0.020	0.020	7845629
Ethylbenzene	ug/g	2				<0.020	0.020	7845629
o-Xylene	ug/g	-				<0.020	0.020	7845629
p+m-Xylene	ug/g	-				<0.040	0.040	7845629
Total Xylenes	ug/g	3.1				<0.040	0.040	7845629
F1 (C6-C10)	ug/g	55				<10	10	7845629
F1 (C6-C10) - BTEX	ug/g	55				<10	10	7845629
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	10	7843147	<10	10	7843147
F3 (C16-C34 Hydrocarbons)	ug/g	300	<50	50	7843147	<50	50	7843147
F4 (C34-C50 Hydrocarbons)	ug/g	2800	<50	50	7843147	<50	50	7843147
Reached Baseline at C50	ug/g	-	Yes		7843147	Yes		7843147
Surrogate Recovery (%)								
1,4-Difluorobenzene	%	-				97		7845629
4-Bromofluorobenzene	%	-				101		7845629
D10-o-Xylene	%	-				98		7845629
D4-1,2-Dichloroethane	%	-				98		7845629
o-Terphenyl	%	-	100		7843147	97		7843147
No Fill	No Exceedance							
Grey	Exceeds 1 criteria policy/level							
Black	Exceeds both criteria/levels							
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
Lab-Dup = Laboratory Initiated Duplicate								
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)								
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition								
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil								



BUREAU
VERITAS

Bureau Veritas Job #: C241996

Report Date: 2022/02/25

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: HS

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		RWK832		RWK834		RWK841	
Sampling Date		2022/02/14 12:40		2022/02/14 13:15		2022/02/15 15:00	
COC Number		865472-01-01		865472-01-01		865472-01-01	
	UNITS	BH111-22 SS1 0-2'	QC Batch	BH111-22 SS3 5-7'	QC Batch	BH110-22 SS2 2.5-4.5'	QC Batch

Inorganics

Available (CaCl2) pH	pH	7.62	7841426	7.63	7841728	7.39	7841426
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QC Batch = Quality Control Batch

Bureau Veritas ID		RWK842	
Sampling Date		2022/02/15 15:45	
COC Number		865472-02-01	
	UNITS	BH110-22 SS3 6-7'	QC Batch

Inorganics

Available (CaCl2) pH	pH	7.49	7841728
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QC Batch = Quality Control Batch



BUREAU
VERITAS

Bureau Veritas Job #: C241996
Report Date: 2022/02/25

MTE Consultants Inc
Client Project #: 50347-100
Sampler Initials: HS

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Bureau Veritas ID			RWK832	RWK841		RWK843		
Sampling Date			2022/02/14 12:40	2022/02/15 15:00		2022/02/15 16:05		
COC Number			865472-01-01	865472-01-01		865472-02-01		
	UNITS	Criteria	BH111-22 SS1 0-2'	BH110-22 SS2 2.5-4.5'	QC Batch	BH1010-22 2.5-4.5'	RDL	QC Batch
Metals								
Hot Water Ext. Boron (B)	ug/g	1.5	0.27	0.072	7844855	0.050	0.050	7848126
No Fill	No Exceedance							
Grey	Exceeds 1 criteria policy/level							
Black	Exceeds both criteria/levels							
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)								
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition								
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil								

Bureau Veritas ID			RWK843		
Sampling Date			2022/02/15 16:05		
COC Number			865472-02-01		
	UNITS	Criteria	BH1010-22 2.5-4.5' Lab-Dup	RDL	QC Batch
Metals					
Hot Water Ext. Boron (B)	ug/g	1.5	<0.050	0.050	7848126
No Fill	No Exceedance				
Grey	Exceeds 1 criteria policy/level				
Black	Exceeds both criteria/levels				
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
Lab-Dup = Laboratory Initiated Duplicate					
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)					
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition					
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil					



BUREAU
VERITAS

Bureau Veritas Job #: C241996

Report Date: 2022/02/25

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: HS

TEST SUMMARY

Bureau Veritas ID: RWK832
Sample ID: BH111-22 SS1 0-2'
Matrix: Soil

Collected: 2022/02/14
Shipped:
Received: 2022/02/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	7844855	2022/02/22	2022/02/22	Archana Patel
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7845629	N/A	2022/02/22	Joe Paino
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7843147	2022/02/19	2022/02/22	Agnieszka Brzuzy-Snopko
Acid Extractable Metals by ICPMS	ICP/MS	7844483	2022/02/22	2022/02/22	Viviana Canzonieri
Moisture	BAL	7840508	N/A	2022/02/17	Abhijot Kaur
pH CaCl2 EXTRACT	AT	7841426	2022/02/18	2022/02/18	Taslina Aktar

Bureau Veritas ID: RWK834
Sample ID: BH111-22 SS3 5-7'
Matrix: Soil

Collected: 2022/02/14
Shipped:
Received: 2022/02/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH CaCl2 EXTRACT	AT	7841728	2022/02/18	2022/02/18	Taslina Aktar

Bureau Veritas ID: RWK836
Sample ID: BH103-22 SS1 0.3-2'
Matrix: Soil

Collected: 2022/02/15
Shipped:
Received: 2022/02/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7845629	N/A	2022/02/22	Joe Paino
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7843147	2022/02/19	2022/02/22	Agnieszka Brzuzy-Snopko
Moisture	BAL	7839804	N/A	2022/02/17	Simrat Bhathal

Bureau Veritas ID: RWK836 Dup
Sample ID: BH103-22 SS1 0.3-2'
Matrix: Soil

Collected: 2022/02/15
Shipped:
Received: 2022/02/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7845629	N/A	2022/02/22	Joe Paino
Moisture	BAL	7839804	N/A	2022/02/17	Simrat Bhathal

Bureau Veritas ID: RWK838
Sample ID: BH1003-22 0.3-2'
Matrix: Soil

Collected: 2022/02/15
Shipped:
Received: 2022/02/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7845629	N/A	2022/02/22	Joe Paino
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7843147	2022/02/19	2022/02/22	Agnieszka Brzuzy-Snopko
Moisture	BAL	7839804	N/A	2022/02/17	Simrat Bhathal

Bureau Veritas ID: RWK838 Dup
Sample ID: BH1003-22 0.3-2'
Matrix: Soil

Collected: 2022/02/15
Shipped:
Received: 2022/02/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7843147	2022/02/19	2022/02/22	Agnieszka Brzuzy-Snopko



BUREAU
VERITAS

Bureau Veritas Job #: C241996

Report Date: 2022/02/25

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: HS

TEST SUMMARY

Bureau Veritas ID: RWK841
Sample ID: BH110-22 SS2 2.5-4.5'
Matrix: Soil

Collected: 2022/02/15
Shipped:
Received: 2022/02/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	7844855	2022/02/22	2022/02/22	Archana Patel
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7845629	N/A	2022/02/22	Joe Paino
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7843147	2022/02/19	2022/02/22	Agnieszka Brzuzy-Snopko
Acid Extractable Metals by ICPMS	ICP/MS	7844483	2022/02/22	2022/02/22	Viviana Canzonieri
Moisture	BAL	7840508	N/A	2022/02/17	Abhijot Kaur
pH CaCl2 EXTRACT	AT	7841426	2022/02/18	2022/02/18	Taslima Aktar

Bureau Veritas ID: RWK842
Sample ID: BH110-22 SS3 6-7'
Matrix: Soil

Collected: 2022/02/15
Shipped:
Received: 2022/02/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH CaCl2 EXTRACT	AT	7841728	2022/02/18	2022/02/18	Taslima Aktar

Bureau Veritas ID: RWK843
Sample ID: BH1010-22 2.5-4.5'
Matrix: Soil

Collected: 2022/02/15
Shipped:
Received: 2022/02/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	7848126	2022/02/23	2022/02/23	Gagandeep Rai
Acid Extractable Metals by ICPMS	ICP/MS	7844483	2022/02/22	2022/02/22	Viviana Canzonieri

Bureau Veritas ID: RWK843 Dup
Sample ID: BH1010-22 2.5-4.5'
Matrix: Soil

Collected: 2022/02/15
Shipped:
Received: 2022/02/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	7848126	2022/02/23	2022/02/23	Gagandeep Rai
Acid Extractable Metals by ICPMS	ICP/MS	7844483	2022/02/22	2022/02/22	Viviana Canzonieri



GENERAL COMMENTS

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

Package 1	0.7°C
-----------	-------

Results relate only to the items tested.

BUREAU
VERITAS

Bureau Veritas Job #: C241996

Report Date: 2022/02/25

QUALITY ASSURANCE REPORT

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: HS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7843147	o-Terphenyl	2022/02/22	104	60 - 130	96	60 - 130	107	%		
7845629	1,4-Difluorobenzene	2022/02/22	91	60 - 140	92	60 - 140	100	%		
7845629	4-Bromofluorobenzene	2022/02/22	109	60 - 140	108	60 - 140	95	%		
7845629	D10-o-Xylene	2022/02/22	99	60 - 140	93	60 - 140	97	%		
7845629	D4-1,2-Dichloroethane	2022/02/22	94	60 - 140	91	60 - 140	99	%		
7839804	Moisture	2022/02/17							2.1	20
7840508	Moisture	2022/02/17							6.9	20
7841426	Available (CaCl ₂) pH	2022/02/18			101	97 - 103			0.79	N/A
7841728	Available (CaCl ₂) pH	2022/02/18			101	97 - 103			1.7	N/A
7843147	F2 (C10-C16 Hydrocarbons)	2022/02/22	105	60 - 130	98	80 - 120	<10	ug/g	NC	30
7843147	F3 (C16-C34 Hydrocarbons)	2022/02/22	115	60 - 130	104	80 - 120	<50	ug/g	NC	30
7843147	F4 (C34-C50 Hydrocarbons)	2022/02/22	115	60 - 130	104	80 - 120	<50	ug/g	NC	30
7844483	Acid Extractable Antimony (Sb)	2022/02/22	98	75 - 125	102	80 - 120	<0.20	ug/g	NC	30
7844483	Acid Extractable Arsenic (As)	2022/02/22	99	75 - 125	99	80 - 120	<1.0	ug/g	NC	30
7844483	Acid Extractable Barium (Ba)	2022/02/22	99	75 - 125	103	80 - 120	<0.50	ug/g	10	30
7844483	Acid Extractable Beryllium (Be)	2022/02/22	99	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
7844483	Acid Extractable Boron (B)	2022/02/22	95	75 - 125	99	80 - 120	<5.0	ug/g	NC	30
7844483	Acid Extractable Cadmium (Cd)	2022/02/22	97	75 - 125	99	80 - 120	<0.10	ug/g	NC	30
7844483	Acid Extractable Chromium (Cr)	2022/02/22	96	75 - 125	99	80 - 120	<1.0	ug/g	3.0	30
7844483	Acid Extractable Cobalt (Co)	2022/02/22	96	75 - 125	98	80 - 120	<0.10	ug/g	2.1	30
7844483	Acid Extractable Copper (Cu)	2022/02/22	97	75 - 125	97	80 - 120	<0.50	ug/g	6.0	30
7844483	Acid Extractable Lead (Pb)	2022/02/22	95	75 - 125	99	80 - 120	<1.0	ug/g	1.5	30
7844483	Acid Extractable Mercury (Hg)	2022/02/22	84	75 - 125	89	80 - 120	<0.050	ug/g	NC	30
7844483	Acid Extractable Molybdenum (Mo)	2022/02/22	99	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
7844483	Acid Extractable Nickel (Ni)	2022/02/22	95	75 - 125	97	80 - 120	<0.50	ug/g	5.3	30
7844483	Acid Extractable Selenium (Se)	2022/02/22	97	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
7844483	Acid Extractable Silver (Ag)	2022/02/22	98	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
7844483	Acid Extractable Thallium (Tl)	2022/02/22	98	75 - 125	99	80 - 120	<0.050	ug/g	NC	30
7844483	Acid Extractable Uranium (U)	2022/02/22	95	75 - 125	97	80 - 120	<0.050	ug/g	5.8	30
7844483	Acid Extractable Vanadium (V)	2022/02/22	94	75 - 125	98	80 - 120	<5.0	ug/g	4.9	30
7844483	Acid Extractable Zinc (Zn)	2022/02/22	96	75 - 125	93	80 - 120	<5.0	ug/g	6.2	30



BUREAU
VERITAS

Bureau Veritas Job #: C241996

Report Date: 2022/02/25

QUALITY ASSURANCE REPORT(CONT'D)

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: HS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7844855	Hot Water Ext. Boron (B)	2022/02/22	107	75 - 125	103	75 - 125	<0.050	ug/g	6.6	40
7845629	Benzene	2022/02/22	99	50 - 140	96	50 - 140	<0.020	ug/g	NC	50
7845629	Ethylbenzene	2022/02/22	109	50 - 140	93	50 - 140	<0.020	ug/g	NC	50
7845629	F1 (C6-C10) - BTEX	2022/02/22					<10	ug/g	NC	30
7845629	F1 (C6-C10)	2022/02/22	93	60 - 140	89	80 - 120	<10	ug/g	NC	30
7845629	o-Xylene	2022/02/22	109	50 - 140	106	50 - 140	<0.020	ug/g	NC	50
7845629	p+m-Xylene	2022/02/22	108	50 - 140	106	50 - 140	<0.040	ug/g	NC	50
7845629	Toluene	2022/02/22	90	50 - 140	89	50 - 140	<0.020	ug/g	NC	50
7845629	Total Xylenes	2022/02/22					<0.040	ug/g	NC	50
7848126	Hot Water Ext. Boron (B)	2022/02/23	117	75 - 125	100	75 - 125	<0.050	ug/g	0.38	40

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).



BUREAU
VERITAS

Bureau Veritas Job #: C241996

Report Date: 2022/02/25

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: HS

VALIDATION SIGNATURE PAGE

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

Anastassia Hamanov, Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Bureau Veritas
6740 Campbell Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.bvna.com

16-Feb-22 08:30

Page 1 of 2

Ronkin Gracian
C241996

ATM ENV-1219

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name: #6868 MTE Consultants Inc	Company Name: MTE	Quotation #: B90004	Only:		
Attention: Accounts Payable	Attention: Spencer Buck	P.O. #:	Bottle Order #:		
Address: 520 Bingham Centre Dr	Address:	Project: 50347-100	Barcode: 865472		
Kitchener ON N2B 3X9		Project Name:	Project Manager:		
Tel: (519) 743-6500 Fax: (519) 743-6513	Tel: (905) 639-2552 Ext: 2411 Fax:	Site #:	COC #:		
Email: accounting@mte85.com	Email: sbuck@mte85.com	Sampled By:	Barcode: C#95472-01-01		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required: Please provide advance notice for rush projects				
Regulation 153 (2011)			Other Regulations			Special Instructions			Field Filtered (please circle): Metals / Hg / Cr VI										Regular (Standard) TAT: (will be applied if Rush TAT is not specified): Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.	
<input type="checkbox"/> Table 1	<input checked="" type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw		PHC FI to FH/STEX PHC FI to FH/VOCs Metals scan pH's SAR/EC pH OC pesticides PCBs										<input checked="" type="checkbox"/>				
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input checked="" type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw												Job Specific Rush TAT (if applies to entire submission)				
<input checked="" type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input checked="" type="checkbox"/> For RSC	<input type="checkbox"/> MISA	<input type="checkbox"/> Municipality												Date Required: _____ Time Required: _____				
<input type="checkbox"/> Table			<input type="checkbox"/> PWQO	<input type="checkbox"/> Reg 406 Table												Rush Confirmation Number: _____ (call lab for #)				
Include Criteria on Certificate of Analysis (Y/N)?																				
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix												# of Bottles	Comments			
1 BH111-22, SS1	0-2'	14/2/22	12:40	Soil												3	hold			
2 BH111-22, SS2	2.5-4.5'		13:00													3	hold			
3 BH111-22, SS3	5-7'		13:15													3	hold			
4 BH101-22	2.5-4.5'	✓	13:30													1	hold			
5 BH103-22, SS1	0.3-2'	15/2/22	12:30													3	hold			
6 BH103-22, SS2	3-4'	1	12:50													3	hold			
7 BH103-22,	0.3-2'	1	12:35													3	hold			
8 BH108-22, SS2	2.5-4.5'		13:50													3	hold			
9 BH108-22, SS3	5-7'		14:00													3	hold			
10 BH110-22, SS2	2.5-4.5	✓	15:00													3	hold			

* RELINQUISHED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
Hammann Sandhu		2022/2/15	7:45 AM	Sarah Webster		2022/2/16	08:30		Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
				HARPREST		2022/2/16	15:40			610/2	Present	✓	
											Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

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

White: Bureau Veritas Yellow: Client
on ice

Bureau Veritas Canada (2019) Inc.

420524 3,3,2



Bureau Veritas
6740 Campbell Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-free 800-563-6266 Fax: (905) 817-5777 www.bvna.com

CHAIN OF CUSTODY RECORD

Page 2 of 2

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name: #6868 MTE Consultants Inc	Company Name: MTE	Quotation #: B90004	Bureau Veritas Job #:	Bottle Order #:			
Attention: Accounts Payable	Attention: Spencer Buck	P.O. #:					
Address: 520 Bingham Centre Dr	Address:	Project: 50347-100					
Kitchener ON N2B 3X9		Project Name:					
Tel: (519) 743-6500 Fax: (519) 743-6513	Tel: (905) 639-2552 Ext: 2411 Fax:	Site #:					
Email: accounting@mte85.com	Email: sbuck@mte85.com	Sampled By:					

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY				ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required: Please provide advance notice for rush projects							
Regulation 153 (2011)		Other Regulations		Special Instructions		Field Filtered (please circle): Metals / Hg / Cr VI										Regular (Standard) TAT: (will be applied if Rush TAT is not specified): Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.					
<input type="checkbox"/> Table 1	<input checked="" type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw		PHC8 FI to FY/BTEX PHC FI to FY/WXs metals scan PAHs SAR/EC pH OC pesticides PCBs										<input checked="" type="checkbox"/>					
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input checked="" type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw												Job Specific Rush TAT (if applies to entire submission): Date Required: Time Required: <input type="checkbox"/>					
<input checked="" type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input checked="" type="checkbox"/> For RSC	<input type="checkbox"/> MISA	<input type="checkbox"/> Municipality												Rush Confirmation Number: (call lab for #)					
<input type="checkbox"/> Table			<input type="checkbox"/> PWQO	<input type="checkbox"/> Reg 406 Table																	
Include Criteria on Certificate of Analysis (Y/N)?																					
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix																	
1 BH110-22, 453	G-7'	15/12/22	15:45	soil																	
2 BH1010-22	2.5-4.5'	↓	16:05	↓																	
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

* RELINQUISHED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
Hedman Smith		2022/12/15	7:45 PM	Sarah Webster		2022/12/16	08:30		Time Sensitive	Temperature (°C) on Receipt	Custody Seal Present	Yes	No
				See page 1						0/12	Intact		
* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/TERMS-AND-CONDITIONS.										White: Bureau Veritas Yellow: Client			
* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.										SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS			
** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.										on ice.			

Bureau Veritas Canada (2019) Inc.



BUREAU
VERITAS

Bureau Veritas Job #: C241996

Report Date: 2022/02/25

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: HS

Exceedance Summary Table – Reg153/04 T3-Soil/Res-C
Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						
The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						



Consultant Name: MTE Consultants Inc.

Project Manager: Spencer Buck

Contact Name:

Project #: 50347-100

BV Job #: C220433

(Please complete this form on a per job basis - i.e. one form per original Maxxam Job#)

Date Submitted: 2/17/2022

Maxxam Location: Mississauga, Ontario

TURNAROUND TIME		
Standard	(4 days)	<input checked="" type="checkbox"/>
Rush	(3 days)	<input type="checkbox"/>
	(2 days)	<input type="checkbox"/>
	(1 day)	<input type="checkbox"/>
	(same day)	<input type="checkbox"/>
Date Required :		

ADDITIONAL ANALYSIS REQUEST

LAB USE ONLY	
Original COC analysis completed and invoiced at time of add-on (circle one)	
YES	NO
(if yes original coc in invoice package is for reference only)	
New Maxxam Job # (if applicable)	

Applicable Guidelines (please specify):

CLIENT SAMPLE ID	Original COC #	LAB ID	Matrix	SAMPLING		Metals	As, Sb, Se	Hg	B-HWS	PHCs, BTEX	pH					Sample previously submitted on hold (Y/N)	SPECIAL INSTRUCTIONS
				DATE (YY/MM/DD)	Time HH:MM												
BH111-22 SS1 0-2'						X	X	X	X	X	X						
BH111-22 SS2 2.5-4.5'																	
BH111-22 SS3 5-7'											X						
BH1011-22 2.5-4.5'																	
BH103-22 SS1 0.3-2'										X							
BH103-22 SS2 3-4'																	
BH1003-22 0.3-2'										X							
BH108-22 SS2 2.5-4.5'																	
BH108-22 SS3 5-7'																	
BH110-22 SS2 2.5-4.5'						X	X	X	X	X	X						
BH110-22 SS3 6-7'											X						
			Date:						Time:								

Consultant Name: MTE Consultants Inc.

Project Manager: **Spencer Buck**

Project #: 50347-100

Contact Name:

BV Job #:

(Please complete this form on a per job basis - i.e. one form per original Maxxam Job#)

Date Submitted: 2022/02/17

Maxxam Location: Mississauga, Ontario

TURNAROUND TIME		
Standard	(4 days)	<input checked="" type="checkbox"/>
Rush	(3 days)	<input type="checkbox"/>
	(2 days)	<input type="checkbox"/>
	(1 day)	<input type="checkbox"/>
	(same day)	<input type="checkbox"/>
Date Required :		

ADDITIONAL ANALYSIS REQUEST	
Metals	
As, Sb, Se	
Hg	
B-HWS	
PHCs, BTEX	
pH	
Sample previously submitted	

LAB USE ONLY	
Original COC analysis completed and invoiced at time of add-on (circle one)	
YES	NO
(if yes original coc in invoice package is for reference only)	
New Maxxam Job # (if applicable)	

Applicable Guidelines (please specify):

				SAMPLING		Metals	As, Sb, Se	Hg	B-HWS	PHCs, BTE	pH					Sample preserved on hold (Y/N)	
				DATE (YY/MM/DD)	Time HH:MM												
CLIENT SAMPLE ID	Original COC #	LAB ID	Matrix														SPECIAL INSTRUCTIONS
BH1010-22 2.5-4.5'						X	X	X	X								
			Date:							Time:							



Your Project #: 50347-100
Your C.O.C. #: 865472-04-01, 865472-05-01

Attention: Spencer Buck

MTE Consultants Inc
520 Bingham Centre Dr
Kitchener, ON
CANADA N2B 3X9

Report Date: 2022/02/28

Report #: R7022643

Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C245099

Received: 2022/02/19, 12:15

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Hot Water Extractable Boron	1	2022/02/23	2022/02/23	CAM SOP-00408	R153 Ana. Prot. 2011
Petroleum Hydro. CCME F1 & BTEX in Soil (1)	4	N/A	2022/02/23	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (2)	2	2022/02/24	2022/02/25	CAM SOP-00316	CCME CWS m
Petroleum Hydrocarbons F2-F4 in Soil (2)	2	2022/02/26	2022/02/27	CAM SOP-00316	CCME CWS m
F4G (CCME Hydrocarbons Gravimetric)	1	2022/02/28	2022/02/28	CAM SOP-00316	CCME PHC-CWS m
Acid Extractable Metals by ICPMS	1	2022/02/23	2022/02/23	CAM SOP-00447	EPA 6020B m
Moisture	4	N/A	2022/02/22	CAM SOP-00445	Carter 2nd ed 51.2 m
pH CaCl2 EXTRACT	2	2022/02/24	2022/02/24	CAM SOP-00413	EPA 9045 D m

Remarks:

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

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.

(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's



Your Project #: 50347-100
Your C.O.C. #: 865472-04-01, 865472-05-01

Attention: Spencer Buck

MTE Consultants Inc
520 Bingham Centre Dr
Kitchener, ON
CANADA N2B 3X9

Report Date: 2022/02/28
Report #: R7022643
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C245099

Received: 2022/02/19, 12:15

Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Ronklin Gracian
Project Manager
28 Feb 2022 17:19:21

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bureauveritas.com
Phone# (905)817-5752

=====

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



BUREAU
VERITAS

Bureau Veritas Job #: C245099
Report Date: 2022/02/28

MTE Consultants Inc
Client Project #: 50347-100
Sampler Initials: HS

O.REG 153 METALS GROUPS 1.2.2 & 1.2.3 (SOIL)

Bureau Veritas ID			RXB272		
Sampling Date			2022/02/18 12:30		
COC Number			865472-04-01		
	UNITS	Criteria	MW 101-22,SS2,2.5-4.5'	RDL	QC Batch
Metals					
Acid Extractable Antimony (Sb)	ug/g	7.5	<0.20	0.20	7848029
Acid Extractable Arsenic (As)	ug/g	18	4.4	1.0	7848029
Acid Extractable Barium (Ba)	ug/g	390	33	0.50	7848029
Acid Extractable Beryllium (Be)	ug/g	4	0.24	0.20	7848029
Acid Extractable Boron (B)	ug/g	120	6.2	5.0	7848029
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.13	0.10	7848029
Acid Extractable Chromium (Cr)	ug/g	160	8.0	1.0	7848029
Acid Extractable Cobalt (Co)	ug/g	22	4.1	0.10	7848029
Acid Extractable Copper (Cu)	ug/g	140	23	0.50	7848029
Acid Extractable Lead (Pb)	ug/g	120	11	1.0	7848029
Acid Extractable Molybdenum (Mo)	ug/g	6.9	<0.50	0.50	7848029
Acid Extractable Nickel (Ni)	ug/g	100	8.5	0.50	7848029
Acid Extractable Selenium (Se)	ug/g	2.4	<0.50	0.50	7848029
Acid Extractable Silver (Ag)	ug/g	20	<0.20	0.20	7848029
Acid Extractable Thallium (Tl)	ug/g	1	0.080	0.050	7848029
Acid Extractable Uranium (U)	ug/g	23	0.35	0.050	7848029
Acid Extractable Vanadium (V)	ug/g	86	17	5.0	7848029
Acid Extractable Zinc (Zn)	ug/g	340	49	5.0	7848029
Acid Extractable Mercury (Hg)	ug/g	0.27	<0.050	0.050	7848029
No Fill	No Exceedance				
Grey	Exceeds 1 criteria policy/level				
Black	Exceeds both criteria/levels				
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)					
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition					
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil					



BUREAU
VERITAS

Bureau Veritas Job #: C245099

Report Date: 2022/02/28

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: HS

O.REG 153 PHCS, BTEX/F1-F4 (SOIL)

Bureau Veritas ID			RXB272	RXB275		RXB277		
Sampling Date			2022/02/18 12:30	2022/02/18 13:30		2022/02/18 14:19		
COC Number			865472-04-01	865472-04-01		865472-04-01		
	UNITS	Criteria	MW 101-22,SS2,2.5-4.5'	MW 104-22,SS1,0-2'	QC Batch	MW 104-22,SS4,7.5'-9.5'	RDL	QC Batch
Inorganics								
Moisture	%	-	12	17	7845821	9.4	1.0	7845821
BTEX & F1 Hydrocarbons								
Benzene	ug/g	0.21	<0.020	<0.020	7846892	<0.020	0.020	7846892
Toluene	ug/g	2.3	<0.020	<0.020	7846892	<0.020	0.020	7846892
Ethylbenzene	ug/g	2	<0.020	<0.020	7846892	<0.020	0.020	7846892
o-Xylene	ug/g	-	<0.020	<0.020	7846892	<0.020	0.020	7846892
p+m-Xylene	ug/g	-	<0.040	<0.040	7846892	<0.040	0.040	7846892
Total Xylenes	ug/g	3.1	<0.040	<0.040	7846892	<0.040	0.040	7846892
F1 (C6-C10)	ug/g	55	<10	<10	7846892	<10	10	7846892
F1 (C6-C10) - BTEX	ug/g	55	<10	<10	7846892	<10	10	7846892
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	<10	7851393	<10	10	7854199
F3 (C16-C34 Hydrocarbons)	ug/g	300	200	<50	7851393	<50	50	7854199
F4 (C34-C50 Hydrocarbons)	ug/g	2800	640	<50	7851393	<50	50	7854199
Reached Baseline at C50	ug/g	-	No	Yes	7851393	Yes		7854199
Surrogate Recovery (%)								
1,4-Difluorobenzene	%	-	106	106	7846892	107		7846892
4-Bromofluorobenzene	%	-	91	94	7846892	90		7846892
D10-o-Xylene	%	-	106	112	7846892	101		7846892
D4-1,2-Dichloroethane	%	-	104	104	7846892	110		7846892
o-Terphenyl	%	-	103	103	7851393	106		7854199
No Fill	No Exceedance							
Grey	Exceeds 1 criteria policy/level							
Black	Exceeds both criteria/levels							
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)								
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition								
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil								

**O.REG 153 PHCS, BTEX/F1-F4 (SOIL)**

Bureau Veritas ID			RXB281		
Sampling Date			2022/02/18 14:50		
COC Number			865472-05-01		
	UNITS	Criteria	MW 1004-22,SS4,7.5-9.5'	RDL	QC Batch
Inorganics					
Moisture	%	-	8.6	1.0	7845821
BTEX & F1 Hydrocarbons					
Benzene	ug/g	0.21	<0.020	0.020	7846892
Toluene	ug/g	2.3	<0.020	0.020	7846892
Ethylbenzene	ug/g	2	<0.020	0.020	7846892
o-Xylene	ug/g	-	<0.020	0.020	7846892
p+m-Xylene	ug/g	-	<0.040	0.040	7846892
Total Xylenes	ug/g	3.1	<0.040	0.040	7846892
F1 (C6-C10)	ug/g	55	<10	10	7846892
F1 (C6-C10) - BTEX	ug/g	55	<10	10	7846892
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	10	7854199
F3 (C16-C34 Hydrocarbons)	ug/g	300	<50	50	7854199
F4 (C34-C50 Hydrocarbons)	ug/g	2800	<50	50	7854199
Reached Baseline at C50	ug/g	-	Yes		7854199
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	-	107		7846892
4-Bromofluorobenzene	%	-	93		7846892
D10-o-Xylene	%	-	103		7846892
D4-1,2-Dichloroethane	%	-	103		7846892
o-Terphenyl	%	-	104		7854199
No Fill	No Exceedance				
Grey	Exceeds 1 criteria policy/level				
Black	Exceeds both criteria/levels				
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)					
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition					
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil					



BUREAU
VERITAS

Bureau Veritas Job #: C245099

Report Date: 2022/02/28

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: HS

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		RXB272	RXB272	RXB273	
Sampling Date		2022/02/18 12:30	2022/02/18 12:30	2022/02/18 12:50	
COC Number		865472-04-01	865472-04-01	865472-04-01	
	UNITS	MW 101-22,SS2,2.5-4.5'	MW 101-22,SS2,2.5-4.5' Lab-Dup	MW 101-22,SS4,7.5-9.5'	QC Batch
Inorganics					
Available (CaCl2) pH	pH	7.97	7.84	8.01	7849999
QC Batch = Quality Control Batch					
Lab-Dup = Laboratory Initiated Duplicate					



ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Bureau Veritas ID			RXB272		
Sampling Date			2022/02/18 12:30		
COC Number			865472-04-01		
	UNITS	Criteria	MW 101-22,SS2,2.5-4.5'	RDL	QC Batch
Metals					
Hot Water Ext. Boron (B)	ug/g	1.5	0.13	0.050	7848126
No Fill	No Exceedance				
Grey	Exceeds 1 criteria policy/level				
Black	Exceeds both criteria/levels				
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)					
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition					
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil					



PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID			RXB272		
Sampling Date			2022/02/18 12:30		
COC Number			865472-04-01		
	UNITS	Criteria	MW 101-22,SS2,2.5-4.5'	RDL	QC Batch
F2-F4 Hydrocarbons					
F4G-sg (Grav. Heavy Hydrocarbons)	ug/g	2800	2000	100	7855073
No Fill	No Exceedance				
Grey	Exceeds 1 criteria policy/level				
Black	Exceeds both criteria/levels				
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)					
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition					
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil					



BUREAU
VERITAS

Bureau Veritas Job #: C245099

Report Date: 2022/02/28

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: HS

TEST SUMMARY

Bureau Veritas ID: RXB272
Sample ID: MW 101-22,SS2,2.5-4.5'
Matrix: Soil

Collected: 2022/02/18
Shipped:
Received: 2022/02/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	7848126	2022/02/23	2022/02/23	Gagandeep Rai
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7846892	N/A	2022/02/23	Haibin Wu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7851393	2022/02/24	2022/02/25	Agnieszka Brzuzy-Snopko
F4G (CCME Hydrocarbons Gravimetric)	BAL	7855073	2022/02/28	2022/02/28	Rashmi Dubey
Acid Extractable Metals by ICPMS	ICP/MS	7848029	2022/02/23	2022/02/23	Daniel Teclu
Moisture	BAL	7845821	N/A	2022/02/22	Prgya Panchal
pH CaCl2 EXTRACT	AT	7849999	2022/02/24	2022/02/24	Taslina Aktar

Bureau Veritas ID: RXB272 Dup
Sample ID: MW 101-22,SS2,2.5-4.5'
Matrix: Soil

Collected: 2022/02/18
Shipped:
Received: 2022/02/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH CaCl2 EXTRACT	AT	7849999	2022/02/24	2022/02/24	Taslina Aktar

Bureau Veritas ID: RXB273
Sample ID: MW 101-22,SS4,7.5-9.5'
Matrix: Soil

Collected: 2022/02/18
Shipped:
Received: 2022/02/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH CaCl2 EXTRACT	AT	7849999	2022/02/24	2022/02/24	Taslina Aktar

Bureau Veritas ID: RXB275
Sample ID: MW 104-22,SS1,0-2'
Matrix: Soil

Collected: 2022/02/18
Shipped:
Received: 2022/02/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7846892	N/A	2022/02/23	Haibin Wu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7851393	2022/02/24	2022/02/25	Agnieszka Brzuzy-Snopko
Moisture	BAL	7845821	N/A	2022/02/22	Prgya Panchal

Bureau Veritas ID: RXB277
Sample ID: MW 104-22,SS4,7.5'-9.5'
Matrix: Soil

Collected: 2022/02/18
Shipped:
Received: 2022/02/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7846892	N/A	2022/02/23	Haibin Wu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7854199	2022/02/26	2022/02/27	Suleeqa Nurr
Moisture	BAL	7845821	N/A	2022/02/22	Prgya Panchal

Bureau Veritas ID: RXB281
Sample ID: MW 1004-22,SS4,7.5-9.5'
Matrix: Soil

Collected: 2022/02/18
Shipped:
Received: 2022/02/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7846892	N/A	2022/02/23	Haibin Wu



BUREAU
VERITAS

Bureau Veritas Job #: C245099
Report Date: 2022/02/28

MTE Consultants Inc
Client Project #: 50347-100
Sampler Initials: HS

TEST SUMMARY

Bureau Veritas ID: RXB281
Sample ID: MW 1004-22,SS4,7.5-9.5'
Matrix: Soil

Collected: 2022/02/18
Shipped:
Received: 2022/02/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7854199	2022/02/26	2022/02/27	Suleeqa Nurr
Moisture	BAL	7845821	N/A	2022/02/22	Prgya Panchal



GENERAL COMMENTS

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

Package 1	-0.3°C
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PETROLEUM HYDROCARBONS (CCME)

F4G (CCME Hydrocarbons Gravimetric): F4G -: The recovery in the matrix spike was not calculated (NC). Because of the high concentration of this analyte in the parent sample, the relative difference between the spiked and unspiked concentrations is not sufficiently significant to permit a reliable recovery calculation.

Results relate only to the items tested.

BUREAU
VERITAS

Bureau Veritas Job #: C245099

Report Date: 2022/02/28

QUALITY ASSURANCE REPORT

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: HS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7846892	1,4-Difluorobenzene	2022/02/23	99	60 - 140	100	60 - 140	106	%		
7846892	4-Bromofluorobenzene	2022/02/23	105	60 - 140	100	60 - 140	96	%		
7846892	D10-o-Xylene	2022/02/23	104	60 - 140	97	60 - 140	97	%		
7846892	D4-1,2-Dichloroethane	2022/02/23	98	60 - 140	98	60 - 140	103	%		
7851393	o-Terphenyl	2022/02/25	106	60 - 130	100	60 - 130	103	%		
7854199	o-Terphenyl	2022/02/27	101	60 - 130	101	60 - 130	101	%		
7845821	Moisture	2022/02/22							5.6	20
7846892	Benzene	2022/02/23	94	50 - 140	90	50 - 140	<0.020	ug/g	NC	50
7846892	Ethylbenzene	2022/02/23	107	50 - 140	102	50 - 140	<0.020	ug/g	NC	50
7846892	F1 (C6-C10) - BTEX	2022/02/23					<10	ug/g	NC	30
7846892	F1 (C6-C10)	2022/02/23	88	60 - 140	82	80 - 120	<10	ug/g	NC	30
7846892	o-Xylene	2022/02/23	108	50 - 140	102	50 - 140	<0.020	ug/g	NC	50
7846892	p+m-Xylene	2022/02/23	105	50 - 140	100	50 - 140	<0.040	ug/g	NC	50
7846892	Toluene	2022/02/23	92	50 - 140	88	50 - 140	<0.020	ug/g	NC	50
7846892	Total Xylenes	2022/02/23					<0.040	ug/g	NC	50
7848029	Acid Extractable Antimony (Sb)	2022/02/23	95	75 - 125	102	80 - 120	<0.20	ug/g	NC	30
7848029	Acid Extractable Arsenic (As)	2022/02/23	93	75 - 125	99	80 - 120	<1.0	ug/g	8.1	30
7848029	Acid Extractable Barium (Ba)	2022/02/23	NC	75 - 125	99	80 - 120	<0.50	ug/g	0.090	30
7848029	Acid Extractable Beryllium (Be)	2022/02/23	91	75 - 125	102	80 - 120	<0.20	ug/g	NC	30
7848029	Acid Extractable Boron (B)	2022/02/23	88	75 - 125	104	80 - 120	<5.0	ug/g	0.74	30
7848029	Acid Extractable Cadmium (Cd)	2022/02/23	92	75 - 125	97	80 - 120	<0.10	ug/g	0.17	30
7848029	Acid Extractable Chromium (Cr)	2022/02/23	91	75 - 125	96	80 - 120	<1.0	ug/g	2.0	30
7848029	Acid Extractable Cobalt (Co)	2022/02/23	88	75 - 125	96	80 - 120	<0.10	ug/g	1.2	30
7848029	Acid Extractable Copper (Cu)	2022/02/23	87	75 - 125	98	80 - 120	<0.50	ug/g	14	30
7848029	Acid Extractable Lead (Pb)	2022/02/23	84	75 - 125	94	80 - 120	<1.0	ug/g	3.1	30
7848029	Acid Extractable Mercury (Hg)	2022/02/23	83	75 - 125	88	80 - 120	<0.050	ug/g	NC	30
7848029	Acid Extractable Molybdenum (Mo)	2022/02/23	94	75 - 125	95	80 - 120	<0.50	ug/g	4.8	30
7848029	Acid Extractable Nickel (Ni)	2022/02/23	89	75 - 125	98	80 - 120	<0.50	ug/g	2.3	30
7848029	Acid Extractable Selenium (Se)	2022/02/23	93	75 - 125	98	80 - 120	<0.50	ug/g	NC	30
7848029	Acid Extractable Silver (Ag)	2022/02/23	91	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
7848029	Acid Extractable Thallium (Tl)	2022/02/23	85	75 - 125	93	80 - 120	<0.050	ug/g	16	30



BUREAU
VERITAS

Bureau Veritas Job #: C245099

Report Date: 2022/02/28

QUALITY ASSURANCE REPORT(CONT'D)

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: HS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7848029	Acid Extractable Uranium (U)	2022/02/23	89	75 - 125	93	80 - 120	<0.050	ug/g	1.6	30
7848029	Acid Extractable Vanadium (V)	2022/02/23	94	75 - 125	100	80 - 120	<5.0	ug/g	2.5	30
7848029	Acid Extractable Zinc (Zn)	2022/02/23	80	75 - 125	95	80 - 120	<5.0	ug/g	14	30
7848126	Hot Water Ext. Boron (B)	2022/02/23	117	75 - 125	100	75 - 125	<0.050	ug/g	0.38	40
7849999	Available (CaCl ₂) pH	2022/02/24			100	97 - 103			1.7	N/A
7851393	F2 (C10-C16 Hydrocarbons)	2022/02/25	116	60 - 130	108	80 - 120	<10	ug/g	NC	30
7851393	F3 (C16-C34 Hydrocarbons)	2022/02/25	123	60 - 130	114	80 - 120	<50	ug/g	NC	30
7851393	F4 (C34-C50 Hydrocarbons)	2022/02/25	125	60 - 130	115	80 - 120	<50	ug/g	NC	30
7854199	F2 (C10-C16 Hydrocarbons)	2022/02/28	105	60 - 130	106	80 - 120	<10	ug/g	NC	30
7854199	F3 (C16-C34 Hydrocarbons)	2022/02/28	99	60 - 130	105	80 - 120	<50	ug/g	56 (1)	30
7854199	F4 (C34-C50 Hydrocarbons)	2022/02/28	108	60 - 130	109	80 - 120	<50	ug/g	NC	30
7855073	F4G-sg (Grav. Heavy Hydrocarbons)	2022/02/28	NC	65 - 135	101	65 - 135	<100	ug/g	6.9	50

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Duplicate results exceeded RPD acceptance criteria for flagged analytes. Sample extract was reanalyzed with the same results. This is likely due to sample heterogeneity.



BUREAU
VERITAS

Bureau Veritas Job #: C245099

Report Date: 2022/02/28

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: HS

VALIDATION SIGNATURE PAGE

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

Ewa Pranjić, M.Sc., C.Chem, Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Bureau Veritas
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

CHAIN OF CUSTODY RECORD

Page 2 of 2

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name: #6868 MTE Consultants Inc		Company Name: Spencer Buck		Quotation #: B90004		Bureau Veritas Job #:	
Attention: Accounts Payable		Attention: Spencer Buck		P.O. #:		Bottle Order #:	
Address: 520 Bingham Centre Dr		Address:		Project: 50347-100		COC #:	
Tel: (519) 743-6500 Fax: (519) 743-6513		Tel: (905) 639-2552 Ext: 2411 Fax:		Project Name:		Project Manager:	
Email: accounting@mte85.com		Email: sbuck@mte85.com		Site #:		Ronkin Gracian	
				Sampled By:		C#865472-05-01	

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required:				
Regulation 153 (2011)			Other Regulations			Special Instructions			Field Filtered (please circle): Metals / Hg / Cr VI										Regular (Standard) TAT:	
<input type="checkbox"/> Table 1	<input checked="" type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw		PHC FI to PH/BIUX PHC FI to PH/BIUX metals scan PALS SAR/EC PH OC pesticide PCBS										Please provide advance notice for rush projects				
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input checked="" type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw												Job Specific Rush TAT (if applies to entire submission)				
<input checked="" type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input checked="" type="checkbox"/> For RSC	<input type="checkbox"/> MISA	<input type="checkbox"/> Municipality												Date Required: Time Required:				
Include Criteria on Certificate of Analysis (Y/N)?																Rush Confirmation Number: (call lab for #)				
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix											# of Bottles	Comments				
1	1001-21-19-9	12/21/2024	14:50	soil											3	hold				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

* RELINQUISHED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
H. Sandhu		12/21/2024	8:45 PM	See pg: 1					Time Sensitive	Temperature (°C) on Recept	Custody Seal	Yes	No
											Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

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

White: Bureau Veritas Yellow: Client



BUREAU
VERITAS

Bureau Veritas Job #: C245099

Report Date: 2022/02/28

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: HS

Exceedance Summary Table – Reg153/04 T3-Soil/Res-C
Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						
The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						



Your Project #: 50347-100
Your C.O.C. #: 867336-01-01

Attention: Spencer Buck

MTE Consultants Inc
520 Bingham Centre Dr
Kitchener, ON
CANADA N2B 3X9

Report Date: 2022/03/29
Report #: R7063317
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C275683

Received: 2022/03/22, 17:59

Sample Matrix: Water
Samples Received: 5

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
1,3-Dichloropropene Sum	4	N/A	2022/03/25		EPA 8260C m
Petroleum Hydro. CCME F1 & BTEX in Water	1	N/A	2022/03/25	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1)	5	2022/03/25	2022/03/25	CAM SOP-00316	CCME PHC-CWS m
Dissolved Metals by ICPMS	3	N/A	2022/03/24	CAM SOP-00447	EPA 6020B m
Volatile Organic Compounds and F1 PHCs	4	N/A	2022/03/24	CAM SOP-00230	EPA 8260C m

Remarks:

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

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.



Your Project #: 50347-100
Your C.O.C. #: 867336-01-01

Attention: Spencer Buck

MTE Consultants Inc
520 Bingemans Centre Dr
Kitchener, ON
CANADA N2B 3X9

Report Date: 2022/03/29
Report #: R7063317
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C275683

Received: 2022/03/22, 17:59

Encryption Key

Ronklin Gracian
Project Manager
29 Mar 2022 10:26:19

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Ronklin Gracian, Project Manager

Email: Ronklin.Gracian@bureauveritas.com

Phone# (905)817-5752

=====

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.
For Service Group specific validation please refer to the Validation Signature Page.



BUREAU
VERITAS

Bureau Veritas Job #: C275683
Report Date: 2022/03/29

MTE Consultants Inc
Client Project #: 50347-100
Sampler Initials: ZT

O.REG 153 METALS GROUPS 1.2.2 & 1.2.3 (WATER)

Bureau Veritas ID		SDV753		SDV754			SDV757		
Sampling Date		2022/03/22 12:10		2022/03/22 16:25			2022/03/22 12:10		
COC Number		867336-01-01		867336-01-01			867336-01-01		
	UNITS	MW101-22	RDL	MW102-22	RDL	QC Batch	MW1101-22	RDL	QC Batch
Metals									
Dissolved Antimony (Sb)	ug/L	<0.50	0.50	<2.5	2.5	7900460	<0.50	0.50	7900464
Dissolved Arsenic (As)	ug/L	<1.0	1.0	<5.0	5.0	7900460	<1.0	1.0	7900464
Dissolved Barium (Ba)	ug/L	280	2.0	940	10	7900460	290	2.0	7900464
Dissolved Beryllium (Be)	ug/L	<0.40	0.40	<2.0	2.0	7900460	<0.40	0.40	7900464
Dissolved Boron (B)	ug/L	190	10	100	50	7900460	200	10	7900464
Dissolved Cadmium (Cd)	ug/L	<0.090	0.090	<0.45	0.45	7900460	<0.090	0.090	7900464
Dissolved Chromium (Cr)	ug/L	<5.0	5.0	<25	25	7900460	<5.0	5.0	7900464
Dissolved Cobalt (Co)	ug/L	<0.50	0.50	<2.5	2.5	7900460	<0.50	0.50	7900464
Dissolved Copper (Cu)	ug/L	2.0	0.90	<4.5	4.5	7900460	4.1	0.90	7900464
Dissolved Lead (Pb)	ug/L	<0.50	0.50	<2.5	2.5	7900460	<0.50	0.50	7900464
Dissolved Molybdenum (Mo)	ug/L	1.5	0.50	<2.5	2.5	7900460	1.4	0.50	7900464
Dissolved Nickel (Ni)	ug/L	<1.0	1.0	<5.0	5.0	7900460	1.1	1.0	7900464
Dissolved Selenium (Se)	ug/L	<2.0	2.0	<10	10	7900460	<2.0	2.0	7900464
Dissolved Silver (Ag)	ug/L	<0.090	0.090	<0.45	0.45	7900460	<0.090	0.090	7900464
Dissolved Thallium (Tl)	ug/L	<0.050	0.050	<0.25	0.25	7900460	<0.050	0.050	7900464
Dissolved Uranium (U)	ug/L	1.2	0.10	1.0	0.50	7900460	1.1	0.10	7900464
Dissolved Vanadium (V)	ug/L	<0.50	0.50	<2.5	2.5	7900460	<0.50	0.50	7900464
Dissolved Zinc (Zn)	ug/L	<5.0	5.0	<25	25	7900460	<5.0	5.0	7900464
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									



O.REG 153 PHCS, BTEX/F1-F4 (WATER)

Bureau Veritas ID		SDV756		
Sampling Date		2022/03/22 14:10		
COC Number		867336-01-01		
	UNITS	MW104-22	RDL	QC Batch
BTEX & F1 Hydrocarbons				
Benzene	ug/L	<0.20	0.20	7903889
Toluene	ug/L	<0.20	0.20	7903889
Ethylbenzene	ug/L	<0.20	0.20	7903889
o-Xylene	ug/L	<0.20	0.20	7903889
p+m-Xylene	ug/L	<0.40	0.40	7903889
Total Xylenes	ug/L	<0.40	0.40	7903889
F1 (C6-C10)	ug/L	<25	25	7903889
F1 (C6-C10) - BTEX	ug/L	<25	25	7903889
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	7903361
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	7903361
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	7903361
Reached Baseline at C50	ug/L	Yes		7903361
Surrogate Recovery (%)				
1,4-Difluorobenzene	%	106		7903889
4-Bromofluorobenzene	%	76		7903889
D10-o-Xylene	%	98		7903889
D4-1,2-Dichloroethane	%	110		7903889
o-Terphenyl	%	101		7903361
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

BUREAU
VERITAS

Bureau Veritas Job #: C275683

Report Date: 2022/03/29

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: ZT

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

Bureau Veritas ID		SDV753			SDV753			SDV754		
Sampling Date		2022/03/22 12:10			2022/03/22 12:10			2022/03/22 16:25		
COC Number		867336-01-01			867336-01-01			867336-01-01		
	UNITS	MW101-22	RDL	QC Batch	MW101-22 Lab-Dup	RDL	QC Batch	MW102-22	RDL	QC Batch

Calculated Parameters

1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	7897233				<0.50	0.50	7897233
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Volatile Organics

Acetone (2-Propanone)	ug/L	<10	10	7898451				<10	10	7898451
Benzene	ug/L	<0.17	0.17	7898451				<0.17	0.17	7898451
Bromodichloromethane	ug/L	<0.50	0.50	7898451				<0.50	0.50	7898451
Bromoform	ug/L	<1.0	1.0	7898451				<1.0	1.0	7898451
Bromomethane	ug/L	<0.50	0.50	7898451				<0.50	0.50	7898451
Carbon Tetrachloride	ug/L	<0.20	0.20	7898451				<0.20	0.20	7898451
Chlorobenzene	ug/L	<0.20	0.20	7898451				<0.20	0.20	7898451
Chloroform	ug/L	0.60	0.20	7898451				0.40	0.20	7898451
Dibromochloromethane	ug/L	<0.50	0.50	7898451				<0.50	0.50	7898451
1,2-Dichlorobenzene	ug/L	<0.50	0.50	7898451				<0.50	0.50	7898451
1,3-Dichlorobenzene	ug/L	<0.50	0.50	7898451				<0.50	0.50	7898451
1,4-Dichlorobenzene	ug/L	<0.50	0.50	7898451				<0.50	0.50	7898451
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	7898451				<1.0	1.0	7898451
1,1-Dichloroethane	ug/L	<0.20	0.20	7898451				<0.20	0.20	7898451
1,2-Dichloroethane	ug/L	<0.50	0.50	7898451				<0.50	0.50	7898451
1,1-Dichloroethylene	ug/L	<0.20	0.20	7898451				<0.20	0.20	7898451
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	7898451				<0.50	0.50	7898451
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	7898451				<0.50	0.50	7898451
1,2-Dichloropropane	ug/L	<0.20	0.20	7898451				<0.20	0.20	7898451
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	7898451				<0.30	0.30	7898451
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	7898451				<0.40	0.40	7898451
Ethylbenzene	ug/L	<0.20	0.20	7898451				<0.20	0.20	7898451
Ethylene Dibromide	ug/L	<0.20	0.20	7898451				<0.20	0.20	7898451
Hexane	ug/L	<1.0	1.0	7898451				<1.0	1.0	7898451
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	7898451				<2.0	2.0	7898451
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	7898451				<10	10	7898451
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	7898451				<5.0	5.0	7898451
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	7898451				<0.50	0.50	7898451
Styrene	ug/L	<0.50	0.50	7898451				<0.50	0.50	7898451

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate



BUREAU
VERITAS

Bureau Veritas Job #: C275683

Report Date: 2022/03/29

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: ZT

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

Bureau Veritas ID		SDV753			SDV753			SDV754		
Sampling Date		2022/03/22 12:10			2022/03/22 12:10			2022/03/22 16:25		
COC Number		867336-01-01			867336-01-01			867336-01-01		
	UNITS	MW101-22	RDL	QC Batch	MW101-22 Lab-Dup	RDL	QC Batch	MW102-22	RDL	QC Batch
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	7898451				<0.50	0.50	7898451
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	7898451				<0.50	0.50	7898451
Tetrachloroethylene	ug/L	<0.20	0.20	7898451				<0.20	0.20	7898451
Toluene	ug/L	<0.20	0.20	7898451				<0.20	0.20	7898451
1,1,1-Trichloroethane	ug/L	<0.20	0.20	7898451				<0.20	0.20	7898451
1,1,2-Trichloroethane	ug/L	<0.50	0.50	7898451				<0.50	0.50	7898451
Trichloroethylene	ug/L	<0.20	0.20	7898451				<0.20	0.20	7898451
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	7898451				<0.50	0.50	7898451
Vinyl Chloride	ug/L	<0.20	0.20	7898451				<0.20	0.20	7898451
p+m-Xylene	ug/L	<0.20	0.20	7898451				<0.20	0.20	7898451
o-Xylene	ug/L	<0.20	0.20	7898451				<0.20	0.20	7898451
Total Xylenes	ug/L	<0.20	0.20	7898451				<0.20	0.20	7898451
F1 (C6-C10)	ug/L	<25	25	7898451				<25	25	7898451
F1 (C6-C10) - BTEX	ug/L	<25	25	7898451				<25	25	7898451
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	7903361	<100	100	7903361	<100	100	7903361
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	7903361	<200	200	7903361	<200	200	7903361
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	7903361	<200	200	7903361	<200	200	7903361
Reached Baseline at C50	ug/L	Yes		7903361	Yes		7903361	Yes		7903361
Surrogate Recovery (%)										
o-Terphenyl	%	100		7903361	100		7903361	102		7903361
4-Bromofluorobenzene	%	89		7898451				89		7898451
D4-1,2-Dichloroethane	%	103		7898451				109		7898451
D8-Toluene	%	96		7898451				95		7898451
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										
Lab-Dup = Laboratory Initiated Duplicate										



BUREAU
VERITAS

Bureau Veritas Job #: C275683

Report Date: 2022/03/29

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: ZT

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

Bureau Veritas ID		SDV755	SDV757		
Sampling Date		2022/03/22 15:50	2022/03/22 12:10		
COC Number		867336-01-01	867336-01-01		
	UNITS	MW105-22	MW1101-22	RDL	QC Batch
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	0.50	7897233
Volatile Organics					
Acetone (2-Propanone)	ug/L	<10	<10	10	7898451
Benzene	ug/L	<0.17	<0.17	0.17	7898451
Bromodichloromethane	ug/L	<0.50	<0.50	0.50	7898451
Bromoform	ug/L	<1.0	<1.0	1.0	7898451
Bromomethane	ug/L	<0.50	<0.50	0.50	7898451
Carbon Tetrachloride	ug/L	<0.20	<0.20	0.20	7898451
Chlorobenzene	ug/L	<0.20	<0.20	0.20	7898451
Chloroform	ug/L	<0.20	0.57	0.20	7898451
Dibromochloromethane	ug/L	<0.50	<0.50	0.50	7898451
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	7898451
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	7898451
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	7898451
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	1.0	7898451
1,1-Dichloroethane	ug/L	<0.20	<0.20	0.20	7898451
1,2-Dichloroethane	ug/L	<0.50	<0.50	0.50	7898451
1,1-Dichloroethylene	ug/L	<0.20	<0.20	0.20	7898451
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	7898451
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	7898451
1,2-Dichloropropane	ug/L	<0.20	<0.20	0.20	7898451
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	0.30	7898451
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	0.40	7898451
Ethylbenzene	ug/L	<0.20	<0.20	0.20	7898451
Ethylene Dibromide	ug/L	<0.20	<0.20	0.20	7898451
Hexane	ug/L	<1.0	<1.0	1.0	7898451
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	2.0	7898451
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	10	7898451
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	5.0	7898451
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	0.50	7898451
Styrene	ug/L	<0.50	<0.50	0.50	7898451
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					

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

Bureau Veritas ID		SDV755	SDV757		
Sampling Date		2022/03/22 15:50	2022/03/22 12:10		
COC Number		867336-01-01	867336-01-01		
	UNITS	MW105-22	MW1101-22	RDL	QC Batch
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	7898451
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	7898451
Tetrachloroethylene	ug/L	<0.20	<0.20	0.20	7898451
Toluene	ug/L	<0.20	<0.20	0.20	7898451
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	0.20	7898451
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	0.50	7898451
Trichloroethylene	ug/L	<0.20	<0.20	0.20	7898451
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	0.50	7898451
Vinyl Chloride	ug/L	<0.20	<0.20	0.20	7898451
p+m-Xylene	ug/L	<0.20	<0.20	0.20	7898451
o-Xylene	ug/L	<0.20	<0.20	0.20	7898451
Total Xylenes	ug/L	<0.20	<0.20	0.20	7898451
F1 (C6-C10)	ug/L	<25	<25	25	7898451
F1 (C6-C10) - BTEX	ug/L	<25	<25	25	7898451
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	100	7903361
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	200	7903361
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	200	7903361
Reached Baseline at C50	ug/L	Yes	Yes		7903361
Surrogate Recovery (%)					
o-Terphenyl	%	103	105		7903361
4-Bromofluorobenzene	%	90	91		7898451
D4-1,2-Dichloroethane	%	112	109		7898451
D8-Toluene	%	93	96		7898451
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					



BUREAU
VERITAS

Bureau Veritas Job #: C275683

Report Date: 2022/03/29

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: ZT

TEST SUMMARY

Bureau Veritas ID: SDV753
Sample ID: MW101-22
Matrix: Water

Collected: 2022/03/22
Shipped:
Received: 2022/03/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	7897233	N/A	2022/03/25	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	7903361	2022/03/25	2022/03/25	Dennis Ngondou
Dissolved Metals by ICPMS	ICP/MS	7900460	N/A	2022/03/24	Nan Raykha
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7898451	N/A	2022/03/24	Anna Gabrielyan

Bureau Veritas ID: SDV753 Dup
Sample ID: MW101-22
Matrix: Water

Collected: 2022/03/22
Shipped:
Received: 2022/03/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	7903361	2022/03/25	2022/03/25	Dennis Ngondou

Bureau Veritas ID: SDV754
Sample ID: MW102-22
Matrix: Water

Collected: 2022/03/22
Shipped:
Received: 2022/03/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	7897233	N/A	2022/03/25	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	7903361	2022/03/25	2022/03/25	Dennis Ngondou
Dissolved Metals by ICPMS	ICP/MS	7900460	N/A	2022/03/24	Nan Raykha
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7898451	N/A	2022/03/24	Anna Gabrielyan

Bureau Veritas ID: SDV755
Sample ID: MW105-22
Matrix: Water

Collected: 2022/03/22
Shipped:
Received: 2022/03/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	7897233	N/A	2022/03/25	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	7903361	2022/03/25	2022/03/25	Dennis Ngondou
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7898451	N/A	2022/03/24	Anna Gabrielyan

Bureau Veritas ID: SDV756
Sample ID: MW104-22
Matrix: Water

Collected: 2022/03/22
Shipped:
Received: 2022/03/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	7903889	N/A	2022/03/25	Domnica Andronesco
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	7903361	2022/03/25	2022/03/25	Dennis Ngondou

Bureau Veritas ID: SDV757
Sample ID: MW1101-22
Matrix: Water

Collected: 2022/03/22
Shipped:
Received: 2022/03/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	7897233	N/A	2022/03/25	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	7903361	2022/03/25	2022/03/25	Dennis Ngondou



BUREAU
VERITAS

Bureau Veritas Job #: C275683

Report Date: 2022/03/29

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: ZT

TEST SUMMARY

Bureau Veritas ID: SDV757
Sample ID: MW1101-22
Matrix: Water

Collected: 2022/03/22
Shipped:
Received: 2022/03/22

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS	ICP/MS	7900464	N/A	2022/03/24	Nan Raykha
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7898451	N/A	2022/03/24	Anna Gabrielyan



BUREAU
VERITAS

Bureau Veritas Job #: C275683

Report Date: 2022/03/29

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: ZT

GENERAL COMMENTS

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

Package 1	7.3°C
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Sample SDV754 [MW102-22] : Metal Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Results relate only to the items tested.

BUREAU
VERITAS

Bureau Veritas Job #: C275683

Report Date: 2022/03/29

QUALITY ASSURANCE REPORT

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: ZT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7898451	4-Bromofluorobenzene	2022/03/24	103	70 - 130	103	70 - 130	95	%		
7898451	D4-1,2-Dichloroethane	2022/03/24	100	70 - 130	98	70 - 130	103	%		
7898451	D8-Toluene	2022/03/24	109	70 - 130	104	70 - 130	96	%		
7903361	o-Terphenyl	2022/03/25	102	60 - 130	102	60 - 130	101	%		
7903889	1,4-Difluorobenzene	2022/03/25	96	70 - 130	98	70 - 130	104	%		
7903889	4-Bromofluorobenzene	2022/03/25	108	70 - 130	108	70 - 130	82	%		
7903889	D10-o-Xylene	2022/03/25	101	70 - 130	102	70 - 130	97	%		
7903889	D4-1,2-Dichloroethane	2022/03/25	101	70 - 130	101	70 - 130	104	%		
7898451	1,1,1,2-Tetrachloroethane	2022/03/24	101	70 - 130	100	70 - 130	<0.50	ug/L		
7898451	1,1,1-Trichloroethane	2022/03/24	106	70 - 130	107	70 - 130	<0.20	ug/L		
7898451	1,1,2,2-Tetrachloroethane	2022/03/24	99	70 - 130	97	70 - 130	<0.50	ug/L		
7898451	1,1,2-Trichloroethane	2022/03/24	107	70 - 130	104	70 - 130	<0.50	ug/L		
7898451	1,1-Dichloroethane	2022/03/24	105	70 - 130	106	70 - 130	<0.20	ug/L		
7898451	1,1-Dichloroethylene	2022/03/24	108	70 - 130	112	70 - 130	<0.20	ug/L		
7898451	1,2-Dichlorobenzene	2022/03/24	100	70 - 130	98	70 - 130	<0.50	ug/L		
7898451	1,2-Dichloroethane	2022/03/24	102	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
7898451	1,2-Dichloropropane	2022/03/24	104	70 - 130	103	70 - 130	<0.20	ug/L		
7898451	1,3-Dichlorobenzene	2022/03/24	97	70 - 130	99	70 - 130	<0.50	ug/L		
7898451	1,4-Dichlorobenzene	2022/03/24	114	70 - 130	115	70 - 130	<0.50	ug/L		
7898451	Acetone (2-Propanone)	2022/03/24	116	60 - 140	120	60 - 140	<10	ug/L		
7898451	Benzene	2022/03/24	99	70 - 130	98	70 - 130	<0.17	ug/L	NC	30
7898451	Bromodichloromethane	2022/03/24	105	70 - 130	102	70 - 130	<0.50	ug/L		
7898451	Bromoform	2022/03/24	102	70 - 130	99	70 - 130	<1.0	ug/L		
7898451	Bromomethane	2022/03/24	114	60 - 140	113	60 - 140	<0.50	ug/L		
7898451	Carbon Tetrachloride	2022/03/24	103	70 - 130	103	70 - 130	<0.20	ug/L		
7898451	Chlorobenzene	2022/03/24	101	70 - 130	99	70 - 130	<0.20	ug/L		
7898451	Chloroform	2022/03/24	102	70 - 130	105	70 - 130	<0.20	ug/L		
7898451	cis-1,2-Dichloroethylene	2022/03/24	107	70 - 130	110	70 - 130	<0.50	ug/L		
7898451	cis-1,3-Dichloropropene	2022/03/24	98	70 - 130	94	70 - 130	<0.30	ug/L		
7898451	Dibromochloromethane	2022/03/24	100	70 - 130	99	70 - 130	<0.50	ug/L		
7898451	Dichlorodifluoromethane (FREON 12)	2022/03/24	108	60 - 140	111	60 - 140	<1.0	ug/L		

BUREAU
VERITAS

Bureau Veritas Job #: C275683

Report Date: 2022/03/29

QUALITY ASSURANCE REPORT(CONT'D)

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: ZT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7898451	Ethylbenzene	2022/03/24	96	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
7898451	Ethylene Dibromide	2022/03/24	101	70 - 130	99	70 - 130	<0.20	ug/L		
7898451	F1 (C6-C10) - BTEX	2022/03/24					<25	ug/L	NC	30
7898451	F1 (C6-C10)	2022/03/24	106	60 - 140	102	60 - 140	<25	ug/L	NC	30
7898451	Hexane	2022/03/24	110	70 - 130	111	70 - 130	<1.0	ug/L	NC	30
7898451	Methyl Ethyl Ketone (2-Butanone)	2022/03/24	119	60 - 140	122	60 - 140	<10	ug/L		
7898451	Methyl Isobutyl Ketone	2022/03/24	89	70 - 130	91	70 - 130	<5.0	ug/L		
7898451	Methyl t-butyl ether (MTBE)	2022/03/24	100	70 - 130	102	70 - 130	<0.50	ug/L		
7898451	Methylene Chloride(Dichloromethane)	2022/03/24	106	70 - 130	109	70 - 130	<2.0	ug/L		
7898451	o-Xylene	2022/03/24	97	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
7898451	p+m-Xylene	2022/03/24	97	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
7898451	Styrene	2022/03/24	111	70 - 130	110	70 - 130	<0.50	ug/L		
7898451	Tetrachloroethylene	2022/03/24	99	70 - 130	97	70 - 130	<0.20	ug/L		
7898451	Toluene	2022/03/24	103	70 - 130	98	70 - 130	<0.20	ug/L	NC	30
7898451	Total Xylenes	2022/03/24					<0.20	ug/L	NC	30
7898451	trans-1,2-Dichloroethylene	2022/03/24	105	70 - 130	110	70 - 130	<0.50	ug/L		
7898451	trans-1,3-Dichloropropene	2022/03/24	106	70 - 130	95	70 - 130	<0.40	ug/L		
7898451	Trichloroethylene	2022/03/24	112	70 - 130	110	70 - 130	<0.20	ug/L		
7898451	Trichlorofluoromethane (FREON 11)	2022/03/24	112	70 - 130	114	70 - 130	<0.50	ug/L		
7898451	Vinyl Chloride	2022/03/24	112	70 - 130	116	70 - 130	<0.20	ug/L		
7900460	Dissolved Antimony (Sb)	2022/03/24	102	80 - 120	100	80 - 120	<0.50	ug/L	11	20
7900460	Dissolved Arsenic (As)	2022/03/24	101	80 - 120	99	80 - 120	<1.0	ug/L	NC	20
7900460	Dissolved Barium (Ba)	2022/03/24	102	80 - 120	103	80 - 120	<2.0	ug/L	0.069	20
7900460	Dissolved Beryllium (Be)	2022/03/24	100	80 - 120	98	80 - 120	<0.40	ug/L	NC	20
7900460	Dissolved Boron (B)	2022/03/24	94	80 - 120	99	80 - 120	<10	ug/L	4.6	20
7900460	Dissolved Cadmium (Cd)	2022/03/24	100	80 - 120	99	80 - 120	<0.090	ug/L	NC	20
7900460	Dissolved Chromium (Cr)	2022/03/24	98	80 - 120	98	80 - 120	<5.0	ug/L	NC	20
7900460	Dissolved Cobalt (Co)	2022/03/24	99	80 - 120	99	80 - 120	<0.50	ug/L	NC	20
7900460	Dissolved Copper (Cu)	2022/03/24	102	80 - 120	103	80 - 120	<0.90	ug/L	NC	20
7900460	Dissolved Lead (Pb)	2022/03/24	93	80 - 120	96	80 - 120	<0.50	ug/L	NC	20
7900460	Dissolved Molybdenum (Mo)	2022/03/24	105	80 - 120	103	80 - 120	<0.50	ug/L	0.62	20

BUREAU
VERITAS

Bureau Veritas Job #: C275683

Report Date: 2022/03/29

QUALITY ASSURANCE REPORT(CONT'D)

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: ZT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7900460	Dissolved Nickel (Ni)	2022/03/24	95	80 - 120	97	80 - 120	<1.0	ug/L	NC	20
7900460	Dissolved Selenium (Se)	2022/03/24	97	80 - 120	99	80 - 120	<2.0	ug/L	NC	20
7900460	Dissolved Silver (Ag)	2022/03/24	77 (1)	80 - 120	101	80 - 120	<0.090	ug/L	NC	20
7900460	Dissolved Thallium (Tl)	2022/03/24	96	80 - 120	95	80 - 120	<0.050	ug/L	NC	20
7900460	Dissolved Uranium (U)	2022/03/24	90	80 - 120	91	80 - 120	<0.10	ug/L	NC	20
7900460	Dissolved Vanadium (V)	2022/03/24	101	80 - 120	99	80 - 120	<0.50	ug/L	NC	20
7900460	Dissolved Zinc (Zn)	2022/03/24	98	80 - 120	98	80 - 120	<5.0	ug/L	NC	20
7900464	Dissolved Antimony (Sb)	2022/03/24	100	80 - 120	102	80 - 120	<0.50	ug/L	NC	20
7900464	Dissolved Arsenic (As)	2022/03/24	99	80 - 120	99	80 - 120	<1.0	ug/L	NC	20
7900464	Dissolved Barium (Ba)	2022/03/24	103	80 - 120	106	80 - 120	<2.0	ug/L	0.043	20
7900464	Dissolved Beryllium (Be)	2022/03/24	96	80 - 120	96	80 - 120	<0.40	ug/L	NC	20
7900464	Dissolved Boron (B)	2022/03/24	96	80 - 120	96	80 - 120	<10	ug/L	2.7	20
7900464	Dissolved Cadmium (Cd)	2022/03/24	98	80 - 120	100	80 - 120	<0.090	ug/L	NC	20
7900464	Dissolved Chromium (Cr)	2022/03/24	96	80 - 120	97	80 - 120	<5.0	ug/L	NC	20
7900464	Dissolved Cobalt (Co)	2022/03/24	97	80 - 120	100	80 - 120	<0.50	ug/L	NC	20
7900464	Dissolved Copper (Cu)	2022/03/24	99	80 - 120	104	80 - 120	<0.90	ug/L	12	20
7900464	Dissolved Lead (Pb)	2022/03/24	96	80 - 120	97	80 - 120	<0.50	ug/L	NC	20
7900464	Dissolved Molybdenum (Mo)	2022/03/24	103	80 - 120	104	80 - 120	<0.50	ug/L	0.0063	20
7900464	Dissolved Nickel (Ni)	2022/03/24	94	80 - 120	95	80 - 120	<1.0	ug/L	NC	20
7900464	Dissolved Selenium (Se)	2022/03/24	99	80 - 120	100	80 - 120	<2.0	ug/L	NC	20
7900464	Dissolved Silver (Ag)	2022/03/24	99	80 - 120	102	80 - 120	<0.090	ug/L	NC	20
7900464	Dissolved Thallium (Tl)	2022/03/24	95	80 - 120	95	80 - 120	<0.050	ug/L	NC	20
7900464	Dissolved Uranium (U)	2022/03/24	90	80 - 120	86	80 - 120	<0.10	ug/L	NC	20
7900464	Dissolved Vanadium (V)	2022/03/24	99	80 - 120	100	80 - 120	<0.50	ug/L	NC	20
7900464	Dissolved Zinc (Zn)	2022/03/24	97	80 - 120	97	80 - 120	<5.0	ug/L	NC	20
7903361	F2 (C10-C16 Hydrocarbons)	2022/03/25	101	60 - 130	98	60 - 130	<100	ug/L	NC	30
7903361	F3 (C16-C34 Hydrocarbons)	2022/03/25	104	60 - 130	103	60 - 130	<200	ug/L	NC	30
7903361	F4 (C34-C50 Hydrocarbons)	2022/03/25	105	60 - 130	104	60 - 130	<200	ug/L	NC	30
7903889	Benzene	2022/03/25	101	50 - 140	102	50 - 140	<0.20	ug/L	NC	30
7903889	Ethylbenzene	2022/03/25	107	50 - 140	107	50 - 140	<0.20	ug/L	NC	30
7903889	F1 (C6-C10) - BTEX	2022/03/25					<25	ug/L	NC	30



BUREAU
VERITAS

Bureau Veritas Job #: C275683

Report Date: 2022/03/29

QUALITY ASSURANCE REPORT(CONT'D)

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: ZT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7903889	F1 (C6-C10)	2022/03/25	89	60 - 140	90	60 - 140	<25	ug/L	NC	30
7903889	o-Xylene	2022/03/25	106	50 - 140	106	50 - 140	<0.20	ug/L	NC	30
7903889	p+m-Xylene	2022/03/25	103	50 - 140	104	50 - 140	<0.40	ug/L	NC	30
7903889	Toluene	2022/03/25	95	50 - 140	96	50 - 140	<0.20	ug/L	NC	30
7903889	Total Xylenes	2022/03/25					<0.40	ug/L	NC	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference $\leq 2 \times \text{RDL}$).

(1) Matrix Spike exceeds acceptance limits. Probable Matrix interference



BUREAU
VERITAS

Bureau Veritas Job #: C275683

Report Date: 2022/03/29

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: ZT

VALIDATION SIGNATURE PAGE

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

A handwritten signature in black ink, appearing to read 'A. Hamanov', written over a horizontal line.

Anastassia Hamanov, Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



Bureau Veritas
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name: #6868 MTE Consultants Inc		Company Name: Spencer Buck		Quotation #: B90004		Bureau Veritas Job #:	
Attention: Accounts Payable		Attention: Spencer Buck		P.O. #:		Bottle Order #:	
Address: 520 Bingham Centre Dr		Address:		Project: 50347-100		COC #:	
Kitchener ON N2B 3X9		Tel: (905) 639-2552 Ext: 2411 Fax:		Project Name:		Project Manager:	
Tel: (519) 743-6500 Fax: (519) 743-6513		Email: sbuck@mte85.com		Site #:		Ronklin Gracian	
Email: accounting@mte85.com		Email: sbuck@mte85.com		Sampled By: ZXT		C#867336-01-01	
MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY				ANALYSIS REQUESTED (PLEASE BE SPECIFIC)			
Regulation 153 (2011)		Other Regulations		Special Instructions		Turnaround Time (TAT) Required:	
<input type="checkbox"/> Table 1 <input type="checkbox"/> Res/Park <input type="checkbox"/> Medium/Fine		<input type="checkbox"/> CCME <input type="checkbox"/> Sanitary Sewer Bylaw				Please provide advance notice for rush projects	
<input type="checkbox"/> Table 2 <input type="checkbox"/> Ind/Comm <input type="checkbox"/> Coarse		<input type="checkbox"/> Reg 558 <input type="checkbox"/> Storm Sewer Bylaw				<input checked="" type="checkbox"/> Regular (Standard) TAT:	
<input type="checkbox"/> Table 3 <input type="checkbox"/> Agri/Other <input type="checkbox"/> For RSC		<input type="checkbox"/> MISA <input type="checkbox"/> Municipality				(will be applied if Rush TAT is not specified)	
<input type="checkbox"/> Table		<input type="checkbox"/> PWQO <input type="checkbox"/> Reg 406 Table				Standard TAT = 5-7 Working days for most tests.	
		<input type="checkbox"/> Other				Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.	
Include Criteria on Certificate of Analysis (Y/N)?				Job Specific Rush TAT (if applies to entire submission)			
				Date Required: Time Required:			
				Rush Confirmation Number: (call lab for #)			
				# of Bottles Comments			
Sample Barcode Label Sample (Location) Identification Date Sampled Time Sampled Matrix							
1 MW101-22 22/03/22 12:10 GW				6			
2 MW102-22 16:25				6			
3 MW105-22 15:50				4			
4 MW104-22 14:10				4			
5 MW101-22 12:10				6			
6							
7							
8							
9							
10							
RECEIVED BY: (Signature/Print) Date: (YY/MM/DD) Time				RECEIVED BY: (Signature/Print) Date: (YY/MM/DD) Time			
12-Thomson 22/03/22 17:30				DIPILKA SINHA 22/03/22 17:59			
# jars used and not submitted				Laboratory Use Only			
				Time Sensitive Temperature (°C) on Receipt			
				6/8/8			
Custody Seal Present Intact				Yes No			
White: Bureau Veritas Yellow: Client							

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/TERMS-AND-CONDITIONS.

** IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

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

22-Mar-22 17:59
Ronklin Gracian
C275683
ATM ENV-1360

Appendix A4

Residue Management

WORK ORDER



Service Location / Consignor	3115 Hurontario Site#: 000595804 3115 Hurontario Street Mississauga, ON L5A 2G9 Tel: 905-639-2552 Fax: Attn: Spencer Buck Email: T:				Invoice Location	MTE Consultants Inc. (Burlington) Acct #: L0606731 1016 Sutton Drive, Unit A Burlington, ON L7L 6B8 Tel: 905-639-2552 Fax: Attn: Spencer Buck Email: T:				Work Order Number:		W1351131 (1 of 1)	
										Reference Number:			
										Scheduled Date (mm/dd/yyyy):		N/A	
										Week:		19	
										Leaving Yard:		1215	
Arriving At Yard:		400											

Service Date	Week	Purchase Order	TSR	Driver	Std. Zone	Route	Payment Method	Exp.	Payment Terms	Truck	Trailer	Time In	Time Out
05/11/22			Stacy-Ann Girvan	SP	ON9		On Account	N	Net 30 Days	0056		1245	245

#	Ordered	Part	EC	Service Description	Customer Description	TDG Ref	Prov. ID	Srv	Serial	Supply of	Vol. Removed	Billed Qty	Unit of	Price per	Subtotal of
3071597	19	2159		Non-regulated solid waste	Non Regulated Soil Cutting	1	N/R	0			3895KG	19	Drum		
3071601	2	2288		Residue last contained	Residue last contain < 1 inch	2	N/R	0			20KG	2	Drum		
3071598	1	2527		Box truck service (flat rate)	Box Truck Flat Rate Milk Run	N/A	N/R	0					Flat rate		
3071599	2	2701		Labourer (per hour)	Labourer for loading min 2 hour	N/A	N/R	0				0	Hour		
3071600	19	2533		Drum lifter	Drum Dingo	N/A	N/R	0				19	Drum		
				EERF 19.9%											

Good	Poor	Parts Washer Condition/Operation	Good	Poor	Brake Cleaner Condition/Operation	Good	Poor	Spray Gun Condition/Operation	Sub-Total
		Machine cleanliness & condition			Machine cleanliness & condition			Machine cleanliness & condition	
		Light assembly working and operating			Lid assembly working and operating			Lid assembly working and operating	
		Electrical wire no frays & ground intact			Wheels working and not sticking			Drain tub connecting correctly	
Yes	No		Yes	No		Yes	No		
		Spigot/hose/brush working correctly			No air leaks present			No air leaks present & WHMIS labels legible	
		WHMIS labels legible			Air blower operating correctly			Fume extraction working properly (if applicable)	
		Closure/fusible link operating correctly			Flow through hose operating correctly			Automatic wash cycle operating correctly	
		Paint in good condition			WHMIS labels legible			Clean wash cycle operating correctly	

Carrier Information: Carrier No: A840849 Carrier: GFL Environmental Inc. 322 Bennett Road, Bowmanville, ON, L1C 3Z2, 905-623-1367

Generator No:	Reg. 347 Exempt No:	Manifest Ref1:	Manifest Ref2:
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Transportation of Dangerous Goods Information:

TDG Ref	Prov. ID	DG	UN Number	Shipping Name	Class (Sub Class)	Packing Group	Qty	UOM	Packaging		Physical State
1	N/R		N/R	soil (non TDGA regulated)	N/R	N/R	3895	Kilogram	19	01	S
2	N/R		N/R	residue last contained (non TDGA regulated)	N/R	N/R	20	Litre	02	01	S

Receiver Information: Receiver No : A390323 Receiver : GFL Environmental Inc. (Bowmanville) 322 Bennett Road, Bowmanville, ON, L1C 3Z2, 24-Hour-No : 1-877-898-7222

	Comments/Notes	Customer/Consignor Certification	
		I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, are properly classified and packaged, have dangerous goods safety marks properly affixed or displayed on them, and are in all respects in proper condition for transport according to the Transportation of Dangerous Goods Regulations. Services described in this Work order are provided subject to the terms and conditions set out on the reverse side.	
		 Customer/Consignor Representative (Please Print)	 Customer/Consignor Representative (Please Sign)



Your Project #: 50347-100
Your C.O.C. #: 857658-03-01

Attention: Spencer Buck

MTE Consultants Inc
520 Bingham Centre Dr
Kitchener, ON
CANADA N2B 3X9

Report Date: 2022/05/04

Report #: R7110498

Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C2A8645

Received: 2022/04/25, 11:45

Sample Matrix: Soil
Samples Received: 1

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
Methylnaphthalene Sum	1	N/A	2022/05/02	CAM SOP-00301	EPA 8270D m
ABN Compounds in soil by GC/MS	1	2022/04/30	2022/05/02	CAM SOP-00301	EPA 8270 m
1,3-Dichloropropene Sum	1	N/A	2022/04/29		EPA 8260C m
Dinitrotoluene Sum	1	2022/04/26	2022/05/02	CAM SOP - 00301	EPA 8270
Petroleum Hydrocarbons F2-F4 in Soil (1)	1	2022/04/28	2022/04/28	CAM SOP-00316	CCME CWS m
Total Metals in TCLP Leachate by ICPMS	1	2022/05/03	2022/05/04	CAM SOP-00447	EPA 6020B m
Moisture	1	N/A	2022/04/28	CAM SOP-00445	Carter 2nd ed 51.2 m
TCLP - % Solids	1	2022/05/02	2022/05/03	CAM SOP-00401	EPA 1311 Update I m
TCLP - Extraction Fluid	1	N/A	2022/05/03	CAM SOP-00401	EPA 1311 Update I m
TCLP - Initial and final pH	1	N/A	2022/05/03	CAM SOP-00401	EPA 1311 Update I m
Volatile Organic Compounds and F1 PHCs	1	N/A	2022/04/28	CAM SOP-00230	EPA 8260C m

Remarks:

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

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.



Your Project #: 50347-100
Your C.O.C. #: 857658-03-01

Attention: Spencer Buck

MTE Consultants Inc
520 Bingemans Centre Dr
Kitchener, ON
CANADA N2B 3X9

Report Date: 2022/05/04

Report #: R7110498

Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C2A8645

Received: 2022/04/25, 11:45

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Ronklin Gracian
Project Manager
04 May 2022 17:14:14

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Ronklin Gracian, Project Manager

Email: Ronklin.Gracian@bureauveritas.com

Phone# (905)817-5752

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total Cover Pages : 2

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Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

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

Bureau Veritas ID		SLC782		
Sampling Date		2022/04/25 10:30		
COC Number		857658-03-01		
	UNITS	TCLP-1	RDL	QC Batch
Inorganics				
Moisture	%	15	1.0	7964758
Calculated Parameters				
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	0.050	7959159
Volatile Organics				
Acetone (2-Propanone)	ug/g	<0.49	0.49	7962925
Benzene	ug/g	<0.0060	0.0060	7962925
Bromodichloromethane	ug/g	<0.040	0.040	7962925
Bromoform	ug/g	<0.040	0.040	7962925
Bromomethane	ug/g	<0.040	0.040	7962925
Carbon Tetrachloride	ug/g	<0.040	0.040	7962925
Chlorobenzene	ug/g	<0.040	0.040	7962925
Chloroform	ug/g	<0.040	0.040	7962925
Dibromochloromethane	ug/g	<0.040	0.040	7962925
1,2-Dichlorobenzene	ug/g	<0.040	0.040	7962925
1,3-Dichlorobenzene	ug/g	<0.040	0.040	7962925
1,4-Dichlorobenzene	ug/g	<0.040	0.040	7962925
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	0.040	7962925
1,1-Dichloroethane	ug/g	<0.040	0.040	7962925
1,2-Dichloroethane	ug/g	<0.049	0.049	7962925
1,1-Dichloroethylene	ug/g	<0.040	0.040	7962925
cis-1,2-Dichloroethylene	ug/g	<0.040	0.040	7962925
trans-1,2-Dichloroethylene	ug/g	<0.040	0.040	7962925
1,2-Dichloropropane	ug/g	<0.040	0.040	7962925
cis-1,3-Dichloropropene	ug/g	<0.030	0.030	7962925
trans-1,3-Dichloropropene	ug/g	<0.040	0.040	7962925
Ethylbenzene	ug/g	<0.010	0.010	7962925
Ethylene Dibromide	ug/g	<0.040	0.040	7962925
Hexane	ug/g	<0.040	0.040	7962925
Methylene Chloride(Dichloromethane)	ug/g	<0.049	0.049	7962925
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	0.40	7962925
Methyl Isobutyl Ketone	ug/g	<0.40	0.40	7962925
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU
VERITAS

Bureau Veritas Job #: C2A8645

Report Date: 2022/05/04

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: ZXT

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

Bureau Veritas ID		SLC782		
Sampling Date		2022/04/25 10:30		
COC Number		857658-03-01		
	UNITS	TCLP-1	RDL	QC Batch
Methyl t-butyl ether (MTBE)	ug/g	<0.040	0.040	7962925
Styrene	ug/g	<0.040	0.040	7962925
1,1,1,2-Tetrachloroethane	ug/g	<0.040	0.040	7962925
1,1,2,2-Tetrachloroethane	ug/g	<0.040	0.040	7962925
Tetrachloroethylene	ug/g	<0.040	0.040	7962925
Toluene	ug/g	<0.020	0.020	7962925
1,1,1-Trichloroethane	ug/g	<0.040	0.040	7962925
1,1,2-Trichloroethane	ug/g	<0.040	0.040	7962925
Trichloroethylene	ug/g	<0.010	0.010	7962925
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	0.040	7962925
Vinyl Chloride	ug/g	<0.019	0.019	7962925
p+m-Xylene	ug/g	<0.020	0.020	7962925
o-Xylene	ug/g	<0.020	0.020	7962925
Total Xylenes	ug/g	<0.020	0.020	7962925
F1 (C6-C10)	ug/g	<10	10	7962925
F1 (C6-C10) - BTEX	ug/g	<10	10	7962925
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	7964884
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	7964884
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	7964884
Reached Baseline at C50	ug/g	Yes		7964884
Surrogate Recovery (%)				
o-Terphenyl	%	94		7964884
4-Bromofluorobenzene	%	93		7962925
D10-o-Xylene	%	97		7962925
D4-1,2-Dichloroethane	%	88		7962925
D8-Toluene	%	92		7962925
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU
VERITAS

Bureau Veritas Job #: C2A8645
Report Date: 2022/05/04

MTE Consultants Inc
Client Project #: 50347-100
Sampler Initials: ZXT

O.REG 153 SEMIVOLATILES PACKAGE (SOIL)

Bureau Veritas ID		SLC782			SLC782		
Sampling Date		2022/04/25 10:30			2022/04/25 10:30		
COC Number		857658-03-01			857658-03-01		
	UNITS	TCLP-1	RDL	QC Batch	TCLP-1 Lab-Dup	RDL	QC Batch
Semivolatile Organics							
1,2,4-Trichlorobenzene	ug/g	<0.05	0.05	7969028	<0.05	0.05	7969028
1-Methylnaphthalene	ug/g	<0.03	0.03	7969028	<0.03	0.03	7969028
2,4,5-Trichlorophenol	ug/g	<0.08	0.08	7969028	<0.08	0.08	7969028
2,4,6-Trichlorophenol	ug/g	<0.1	0.1	7969028	<0.1	0.1	7969028
2,4-Dichlorophenol	ug/g	<0.1	0.1	7969028	<0.1	0.1	7969028
2,4-Dimethylphenol	ug/g	<0.2	0.2	7969028	<0.2	0.2	7969028
2,4-Dinitrophenol	ug/g	<0.5	0.5	7969028	<0.5	0.5	7969028
2,4-Dinitrotoluene	ug/g	<0.1	0.1	7969028	<0.1	0.1	7969028
2,6-Dinitrotoluene	ug/g	<0.1	0.1	7969028	<0.1	0.1	7969028
2-Chlorophenol	ug/g	<0.08	0.08	7969028	<0.08	0.08	7969028
2-Methylnaphthalene	ug/g	<0.03	0.03	7969028	<0.03	0.03	7969028
3,3'-Dichlorobenzidine	ug/g	<0.5	0.5	7969028	<0.5	0.5	7969028
Acenaphthene	ug/g	<0.03	0.03	7969028	<0.03	0.03	7969028
Acenaphthylene	ug/g	<0.05	0.05	7969028	<0.05	0.05	7969028
Anthracene	ug/g	<0.03	0.03	7969028	<0.03	0.03	7969028
Benzo(a)anthracene	ug/g	<0.05	0.05	7969028	<0.05	0.05	7969028
Benzo(a)pyrene	ug/g	<0.05	0.05	7969028	<0.05	0.05	7969028
Benzo(b,j)fluoranthene	ug/g	<0.1	0.1	7969028	<0.1	0.1	7969028
Benzo(g,h,i)perylene	ug/g	<0.1	0.1	7969028	<0.1	0.1	7969028
Benzo(k)fluoranthene	ug/g	<0.03	0.03	7969028	<0.03	0.03	7969028
Biphenyl	ug/g	<0.05	0.05	7969028	<0.05	0.05	7969028
Bis(2-chloroethyl)ether	ug/g	<0.2	0.2	7969028	<0.2	0.2	7969028
Bis(2-chloroisopropyl)ether	ug/g	<0.1	0.1	7969028	<0.1	0.1	7969028
Bis(2-ethylhexyl)phthalate	ug/g	<1	1	7969028	<1	1	7969028
Chrysene	ug/g	<0.05	0.05	7969028	<0.05	0.05	7969028
Dibenzo(a,h)anthracene	ug/g	<0.05	0.05	7969028	<0.05	0.05	7969028
Diethyl phthalate	ug/g	<0.2	0.2	7969028	<0.2	0.2	7969028
Dimethyl phthalate	ug/g	<0.2	0.2	7969028	<0.2	0.2	7969028
Fluoranthene	ug/g	<0.05	0.05	7969028	<0.05	0.05	7969028
Fluorene	ug/g	<0.03	0.03	7969028	<0.03	0.03	7969028
Indeno(1,2,3-cd)pyrene	ug/g	<0.08	0.08	7969028	<0.08	0.08	7969028
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							



BUREAU
VERITAS

Bureau Veritas Job #: C2A8645
Report Date: 2022/05/04

MTE Consultants Inc
Client Project #: 50347-100
Sampler Initials: ZXT

O.REG 153 SEMIVOLATILES PACKAGE (SOIL)

Bureau Veritas ID		SLC782			SLC782		
Sampling Date		2022/04/25 10:30			2022/04/25 10:30		
COC Number		857658-03-01			857658-03-01		
	UNITS	TCLP-1	RDL	QC Batch	TCLP-1 Lab-Dup	RDL	QC Batch
Naphthalene	ug/g	<0.03	0.03	7969028	<0.03	0.03	7969028
p-Chloroaniline	ug/g	<0.2	0.2	7969028	<0.2	0.2	7969028
Pentachlorophenol	ug/g	<0.1	0.1	7969028	<0.1	0.1	7969028
Phenanthrene	ug/g	<0.05	0.05	7969028	<0.05	0.05	7969028
Phenol	ug/g	<0.09	0.09	7969028	<0.09	0.09	7969028
Pyrene	ug/g	<0.05	0.05	7969028	<0.05	0.05	7969028
Calculated Parameters							
2,4- & 2,6-Dinitrotoluene	ug/g	<0.14	0.14	7959976			
Methylnaphthalene, 2-(1-)	ug/g	<0.042	0.042	7959975			
Surrogate Recovery (%)							
2,4,6-Tribromophenol	%	58		7969028	52		7969028
2-Fluorobiphenyl	%	71		7969028	65		7969028
D14-Terphenyl (FS)	%	96		7969028	92		7969028
D5-Nitrobenzene	%	75		7969028	70		7969028
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate							



BUREAU
VERITAS

Bureau Veritas Job #: C2A8645

Report Date: 2022/05/04

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: ZXT

TCLP LEACHATE PREPARATION (SOIL)

Bureau Veritas ID		SLC782		
Sampling Date		2022/04/25 10:30		
COC Number		857658-03-01		
	UNITS	TCLP-1	RDL	QC Batch
Inorganics				
Final pH	pH	5.48		7970648
Initial pH	pH	9.49		7970648
TCLP - % Solids	%	100	0.2	7970664
TCLP Extraction Fluid	N/A	FLUID 1		7970662
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



O.REG 558 TCLP METALS (SOIL)

Bureau Veritas ID		SLC782		
Sampling Date		2022/04/25 10:30		
COC Number		857658-03-01		
	UNITS	TCLP-1	RDL	QC Batch
Metals				
Leachable Arsenic (As)	mg/L	<0.2	0.2	7973297
Leachable Barium (Ba)	mg/L	0.3	0.2	7973297
Leachable Boron (B)	mg/L	0.5	0.1	7973297
Leachable Cadmium (Cd)	mg/L	<0.05	0.05	7973297
Leachable Chromium (Cr)	mg/L	<0.1	0.1	7973297
Leachable Lead (Pb)	mg/L	<0.1	0.1	7973297
Leachable Mercury (Hg)	mg/L	<0.001	0.001	7973297
Leachable Selenium (Se)	mg/L	<0.1	0.1	7973297
Leachable Silver (Ag)	mg/L	<0.01	0.01	7973297
Leachable Uranium (U)	mg/L	<0.01	0.01	7973297
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU
VERITAS

Bureau Veritas Job #: C2A8645
Report Date: 2022/05/04

MTE Consultants Inc
Client Project #: 50347-100
Sampler Initials: ZXT

TEST SUMMARY

Bureau Veritas ID: SLC782
Sample ID: TCLP-1
Matrix: Soil

Collected: 2022/04/25
Shipped:
Received: 2022/04/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	7959975	N/A	2022/05/02	Automated Statchk
ABN Compounds in soil by GC/MS	GC/MS	7969028	2022/04/30	2022/05/02	Milijana Avramovic
1,3-Dichloropropene Sum	CALC	7959159	N/A	2022/04/29	Automated Statchk
Dinitrotoluene Sum	CALC	7959976	2022/05/02	2022/05/02	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7964884	2022/04/28	2022/04/28	Ksenia Trofimova
Total Metals in TCLP Leachate by ICPMS	ICP1/MS	7973297	2022/05/03	2022/05/04	Arefa Dabhad
Moisture	BAL	7964758	N/A	2022/04/28	Abhijot Kaur
TCLP - % Solids	BAL	7970664	2022/05/02	2022/05/03	Jian (Ken) Wang
TCLP - Extraction Fluid		7970662	N/A	2022/05/03	Jian (Ken) Wang
TCLP - Initial and final pH	PH	7970648	N/A	2022/05/03	Jian (Ken) Wang
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7962925	N/A	2022/04/28	Denis Reid

Bureau Veritas ID: SLC782 Dup
Sample ID: TCLP-1
Matrix: Soil

Collected: 2022/04/25
Shipped:
Received: 2022/04/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in soil by GC/MS	GC/MS	7969028	2022/04/30	2022/05/02	Milijana Avramovic



GENERAL COMMENTS

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

Package 1	12.3°C
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Results relate only to the items tested.



BUREAU
VERITAS

Bureau Veritas Job #: C2A8645

Report Date: 2022/05/04

QUALITY ASSURANCE REPORT

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: ZXT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		Leachate Blank	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS
7962925	4-Bromofluorobenzene	2022/04/28	107	60 - 140	107	60 - 140	93	%				
7962925	D10-o-Xylene	2022/04/28	114	60 - 130	101	60 - 130	94	%				
7962925	D4-1,2-Dichloroethane	2022/04/28	85	60 - 140	87	60 - 140	88	%				
7962925	D8-Toluene	2022/04/28	104	60 - 140	103	60 - 140	95	%				
7964884	o-Terphenyl	2022/04/28	92	60 - 130	92	60 - 130	91	%				
7969028	2,4,6-Tribromophenol	2022/05/02	78	50 - 130	89	50 - 130	68	%				
7969028	2-Fluorobiphenyl	2022/05/02	72	50 - 130	77	50 - 130	73	%				
7969028	D14-Terphenyl (FS)	2022/05/02	93	50 - 130	93	50 - 130	92	%				
7969028	D5-Nitrobenzene	2022/05/02	74	50 - 130	75	50 - 130	71	%				
7962925	1,1,1,2-Tetrachloroethane	2022/04/28	96	60 - 140	97	60 - 130	<0.040	ug/g	NC	50		
7962925	1,1,1-Trichloroethane	2022/04/28	92	60 - 140	91	60 - 130	<0.040	ug/g	NC	50		
7962925	1,1,2,2-Tetrachloroethane	2022/04/28	93	60 - 140	100	60 - 130	<0.040	ug/g	NC	50		
7962925	1,1,2-Trichloroethane	2022/04/28	83	60 - 140	87	60 - 130	<0.040	ug/g	NC	50		
7962925	1,1-Dichloroethane	2022/04/28	87	60 - 140	88	60 - 130	<0.040	ug/g	NC	50		
7962925	1,1-Dichloroethylene	2022/04/28	86	60 - 140	85	60 - 130	<0.040	ug/g	NC	50		
7962925	1,2-Dichlorobenzene	2022/04/28	97	60 - 140	98	60 - 130	<0.040	ug/g	NC	50		
7962925	1,2-Dichloroethane	2022/04/28	77	60 - 140	80	60 - 130	<0.049	ug/g	NC	50		
7962925	1,2-Dichloropropane	2022/04/28	92	60 - 140	93	60 - 130	<0.040	ug/g	NC	50		
7962925	1,3-Dichlorobenzene	2022/04/28	98	60 - 140	96	60 - 130	<0.040	ug/g	NC	50		
7962925	1,4-Dichlorobenzene	2022/04/28	115	60 - 140	113	60 - 130	<0.040	ug/g	NC	50		
7962925	Acetone (2-Propanone)	2022/04/28	89	60 - 140	94	60 - 140	<0.49	ug/g	NC	50		
7962925	Benzene	2022/04/28	90	60 - 140	91	60 - 130	<0.0060	ug/g	NC	50		
7962925	Bromodichloromethane	2022/04/28	92	60 - 140	94	60 - 130	<0.040	ug/g	NC	50		
7962925	Bromoform	2022/04/28	96	60 - 140	102	60 - 130	<0.040	ug/g	NC	50		
7962925	Bromomethane	2022/04/28	103	60 - 140	106	60 - 140	<0.040	ug/g	NC	50		
7962925	Carbon Tetrachloride	2022/04/28	92	60 - 140	90	60 - 130	<0.040	ug/g	NC	50		
7962925	Chlorobenzene	2022/04/28	96	60 - 140	97	60 - 130	<0.040	ug/g	NC	50		
7962925	Chloroform	2022/04/28	90	60 - 140	91	60 - 130	<0.040	ug/g	NC	50		
7962925	cis-1,2-Dichloroethylene	2022/04/28	98	60 - 140	100	60 - 130	<0.040	ug/g	NC	50		
7962925	cis-1,3-Dichloropropene	2022/04/28	91	60 - 140	92	60 - 130	<0.030	ug/g	NC	50		
7962925	Dibromochloromethane	2022/04/28	90	60 - 140	94	60 - 130	<0.040	ug/g	NC	50		

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QUALITY ASSURANCE REPORT(CONT'D)

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: ZXT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		Leachate Blank	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS
7962925	Dichlorodifluoromethane (FREON 12)	2022/04/28	83	60 - 140	83	60 - 140	<0.040	ug/g	NC	50		
7962925	Ethylbenzene	2022/04/28	88	60 - 140	86	60 - 130	<0.010	ug/g	NC	50		
7962925	Ethylene Dibromide	2022/04/28	88	60 - 140	94	60 - 130	<0.040	ug/g	NC	50		
7962925	F1 (C6-C10) - BTEX	2022/04/28					<10	ug/g	NC	30		
7962925	F1 (C6-C10)	2022/04/28	108	60 - 140	98	80 - 120	<10	ug/g	NC	30		
7962925	Hexane	2022/04/28	95	60 - 140	93	60 - 130	<0.040	ug/g	NC	50		
7962925	Methyl Ethyl Ketone (2-Butanone)	2022/04/28	99	60 - 140	106	60 - 140	<0.40	ug/g	NC	50		
7962925	Methyl Isobutyl Ketone	2022/04/28	90	60 - 140	98	60 - 130	<0.40	ug/g	NC	50		
7962925	Methyl t-butyl ether (MTBE)	2022/04/28	86	60 - 140	85	60 - 130	<0.040	ug/g	NC	50		
7962925	Methylene Chloride(Dichloromethane)	2022/04/28	95	60 - 140	98	60 - 130	<0.049	ug/g	NC	50		
7962925	o-Xylene	2022/04/28	92	60 - 140	91	60 - 130	<0.020	ug/g	NC	50		
7962925	p+m-Xylene	2022/04/28	93	60 - 140	91	60 - 130	<0.020	ug/g	NC	50		
7962925	Styrene	2022/04/28	107	60 - 140	107	60 - 130	<0.040	ug/g	NC	50		
7962925	Tetrachloroethylene	2022/04/28	93	60 - 140	91	60 - 130	<0.040	ug/g	NC	50		
7962925	Toluene	2022/04/28	94	60 - 140	93	60 - 130	<0.020	ug/g	NC	50		
7962925	Total Xylenes	2022/04/28					<0.020	ug/g	NC	50		
7962925	trans-1,2-Dichloroethylene	2022/04/28	98	60 - 140	97	60 - 130	<0.040	ug/g	NC	50		
7962925	trans-1,3-Dichloropropene	2022/04/28	94	60 - 140	96	60 - 130	<0.040	ug/g	NC	50		
7962925	Trichloroethylene	2022/04/28	105	60 - 140	103	60 - 130	<0.010	ug/g	NC	50		
7962925	Trichlorofluoromethane (FREON 11)	2022/04/28	95	60 - 140	93	60 - 130	<0.040	ug/g	NC	50		
7962925	Vinyl Chloride	2022/04/28	97	60 - 140	98	60 - 130	<0.019	ug/g	NC	50		
7964758	Moisture	2022/04/28							1.2	20		
7964884	F2 (C10-C16 Hydrocarbons)	2022/04/28	101	60 - 130	100	80 - 120	<10	ug/g	NC	30		
7964884	F3 (C16-C34 Hydrocarbons)	2022/04/28	102	60 - 130	99	80 - 120	<50	ug/g	5.5	30		
7964884	F4 (C34-C50 Hydrocarbons)	2022/04/28	102	60 - 130	100	80 - 120	<50	ug/g	21	30		
7969028	1,2,4-Trichlorobenzene	2022/05/02	76	50 - 130	75	50 - 130	<0.05	ug/g	NC	40		
7969028	1-Methylnaphthalene	2022/05/02	74	50 - 130	77	50 - 130	<0.03	ug/g	NC	40		
7969028	2,4,5-Trichlorophenol	2022/05/02	80	50 - 130	89	50 - 130	<0.08	ug/g	NC	40		
7969028	2,4,6-Trichlorophenol	2022/05/02	79	50 - 130	90	50 - 130	<0.1	ug/g	NC	40		
7969028	2,4-Dichlorophenol	2022/05/02	77	50 - 130	73	50 - 130	<0.1	ug/g	NC	40		
7969028	2,4-Dimethylphenol	2022/05/02	89	30 - 130	91	30 - 130	<0.2	ug/g	NC	40		

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QUALITY ASSURANCE REPORT(CONT'D)

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: ZXT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		Leachate Blank	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS
7969028	2,4-Dinitrophenol	2022/05/02	47	30 - 130	40	30 - 130	<0.5	ug/g	NC	40		
7969028	2,4-Dinitrotoluene	2022/05/02	81	50 - 130	89	50 - 130	<0.1	ug/g	NC	40		
7969028	2,6-Dinitrotoluene	2022/05/02	69	50 - 130	80	50 - 130	<0.1	ug/g	NC	40		
7969028	2-Chlorophenol	2022/05/02	84	50 - 130	81	50 - 130	<0.08	ug/g	NC	40		
7969028	2-Methylnaphthalene	2022/05/02	80	50 - 130	82	50 - 130	<0.03	ug/g	NC	40		
7969028	3,3'-Dichlorobenzidine	2022/05/02	92	30 - 130	74	30 - 130	<0.5	ug/g	NC	40		
7969028	Acenaphthene	2022/05/02	74	50 - 130	80	50 - 130	<0.03	ug/g	NC	40		
7969028	Acenaphthylene	2022/05/02	75	50 - 130	81	50 - 130	<0.05	ug/g	NC	40		
7969028	Anthracene	2022/05/02	87	50 - 130	92	50 - 130	<0.03	ug/g	NC	40		
7969028	Benzo(a)anthracene	2022/05/02	105	50 - 130	107	50 - 130	<0.05	ug/g	NC	40		
7969028	Benzo(a)pyrene	2022/05/02	97	50 - 130	101	50 - 130	<0.05	ug/g	NC	40		
7969028	Benzo(b,j)fluoranthene	2022/05/02	91	50 - 130	95	50 - 130	<0.1	ug/g	NC	40		
7969028	Benzo(g,h,i)perylene	2022/05/02	92	50 - 130	100	50 - 130	<0.1	ug/g	NC	40		
7969028	Benzo(k)fluoranthene	2022/05/02	105	50 - 130	109	50 - 130	<0.03	ug/g	NC	40		
7969028	Biphenyl	2022/05/02	72	50 - 130	76	50 - 130	<0.05	ug/g	NC	40		
7969028	Bis(2-chloroethyl)ether	2022/05/02	78	50 - 130	75	50 - 130	<0.2	ug/g	NC	40		
7969028	Bis(2-chloroisopropyl)ether	2022/05/02	66	50 - 130	65	50 - 130	<0.1	ug/g	NC	40		
7969028	Bis(2-ethylhexyl)phthalate	2022/05/02	91	50 - 130	93	50 - 130	<1	ug/g	NC	40		
7969028	Chrysene	2022/05/02	91	50 - 130	94	50 - 130	<0.05	ug/g	NC	40		
7969028	Dibenzo(a,h)anthracene	2022/05/02	90	50 - 130	96	50 - 130	<0.05	ug/g	NC	40		
7969028	Diethyl phthalate	2022/05/02	87	50 - 130	93	50 - 130	<0.2	ug/g	NC	40		
7969028	Dimethyl phthalate	2022/05/02	90	50 - 130	98	50 - 130	<0.2	ug/g	NC	40		
7969028	Fluoranthene	2022/05/02	104	50 - 130	105	50 - 130	<0.05	ug/g	NC	40		
7969028	Fluorene	2022/05/02	79	50 - 130	86	50 - 130	<0.03	ug/g	NC	40		
7969028	Indeno(1,2,3-cd)pyrene	2022/05/02	80	50 - 130	87	50 - 130	<0.08	ug/g	NC	40		
7969028	Naphthalene	2022/05/02	82	50 - 130	80	50 - 130	<0.03	ug/g	NC	40		
7969028	p-Chloroaniline	2022/05/02	85	30 - 130	72	30 - 130	<0.2	ug/g	NC	40		
7969028	Pentachlorophenol	2022/05/02	70	50 - 130	77	50 - 130	<0.1	ug/g	NC	40		
7969028	Phenanthrene	2022/05/02	81	50 - 130	86	50 - 130	<0.05	ug/g	NC	40		
7969028	Phenol	2022/05/02	93	30 - 130	91	30 - 130	<0.09	ug/g	NC	40		
7969028	Pyrene	2022/05/02	98	50 - 130	99	50 - 130	<0.05	ug/g	NC	40		

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QUALITY ASSURANCE REPORT(CONT'D)

MTE Consultants Inc

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Sampler Initials: ZXT

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		Leachate Blank	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS
7973297	Leachable Arsenic (As)	2022/05/04	102	80 - 120	101	80 - 120	<0.2	mg/L	NC	35	<0.2	mg/L
7973297	Leachable Barium (Ba)	2022/05/04	104	80 - 120	99	80 - 120	<0.2	mg/L	6.4	35	<0.2	mg/L
7973297	Leachable Boron (B)	2022/05/04	96	80 - 120	106	80 - 120	<0.1	mg/L	1.1	35	<0.1	mg/L
7973297	Leachable Cadmium (Cd)	2022/05/04	98	80 - 120	96	80 - 120	<0.05	mg/L	NC	35	<0.05	mg/L
7973297	Leachable Chromium (Cr)	2022/05/04	93	80 - 120	93	80 - 120	<0.1	mg/L	NC	35	<0.1	mg/L
7973297	Leachable Lead (Pb)	2022/05/04	95	80 - 120	92	80 - 120	<0.1	mg/L	NC	35	<0.1	mg/L
7973297	Leachable Mercury (Hg)	2022/05/04	97	80 - 120	94	80 - 120	<0.001	mg/L	NC	35	<0.001	mg/L
7973297	Leachable Selenium (Se)	2022/05/04	100	80 - 120	100	80 - 120	<0.1	mg/L	NC	35	<0.1	mg/L
7973297	Leachable Silver (Ag)	2022/05/04	94	80 - 120	91	80 - 120	<0.01	mg/L	NC	35	<0.01	mg/L
7973297	Leachable Uranium (U)	2022/05/04	95	80 - 120	90	80 - 120	<0.01	mg/L	NC	35	<0.01	mg/L

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Leachate Blank: A blank matrix containing all reagents used in the leaching procedure. Used to determine any process contamination.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference $\leq 2 \times \text{RDL}$).



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Bureau Veritas Job #: C2A8645

Report Date: 2022/05/04

MTE Consultants Inc

Client Project #: 50347-100

Sampler Initials: ZXT

VALIDATION SIGNATURE PAGE

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

A handwritten signature in cursive script that reads "Cristina Carriere".

Cristina Carriere, Senior Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



INVOICE TO:			REPORT TO:			PROJECT INFORMATION:			Laboratory Use Only:		
Company Name: #6868 MTE Consultants Inc			Company Name: Spencer Buck			Quotation #: B90004			Bureau Veritas Job #:		
Attention: Accounts Payable			Attention: Spencer Buck			P.O. #:			Bottle Order #:		
Address: 520 Bingemans Centre Dr			Address:			Project: 49886-100 50347-100			COC #:		
Kitchen ON N2B 3X9						Project Name:			Project Manager:		
Tel: (519) 743-6500 Fax: (519) 743-6513			Tel: (905) 639-2552 Ext: 2411 Fax:			Site #:			C#857658-03-01		
Email: accounting@mte85.com			Email: sbuck@mte85.com			Sampled By: ZKI			Ronklin Gracian		
MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY											
Regulation 153 (2011)				Other Regulations				Special Instructions			
<input type="checkbox"/> Table 1 <input type="checkbox"/> Res/Park <input type="checkbox"/> Medium/Fine				<input type="checkbox"/> CCME <input type="checkbox"/> Sanitary Sewer Bylaw				Field Filtered (please circle): Metals / Hg / Cr VI X X X TCLP Metals PHC, VOCs SVOCs			
<input type="checkbox"/> Table 2 <input type="checkbox"/> Ind/Comm <input type="checkbox"/> Coarse				<input type="checkbox"/> Reg 558 <input type="checkbox"/> Storm Sewer Bylaw							
<input type="checkbox"/> Table 3 <input type="checkbox"/> Agri/Other <input type="checkbox"/> For RSC				<input type="checkbox"/> MISA Municipality							
<input type="checkbox"/> Table <input type="checkbox"/> PWQO <input type="checkbox"/> Reg 406 Table				<input type="checkbox"/> Other							
Include Criteria on Certificate of Analysis (Y/N)?											
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix							
1	TCLP-1	22/04/25	10:30	Soil							
2											
3											
4											
5											
6											
7											
8											
9											
10											
* RELINQUISHED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only		
Garry M. Thomson		22/04/25	11:45	[Signature]		04/04/25	11:45		Time Sensitive	Temperature (°C) on Receipt	Custody Seal
										Intact	Yes No
* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.											
* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD, AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.											
** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.											
SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS											
White: Bureau Veritas Yellow: Client											

Appendix A5

Survey of Phase Two Property

PLAN OF SURVEY AND TOPOGRAPHY
OF LOT 15, CONCESSION 1,
NORTH OF DUNDAS STREET
CITY OF MISSISSAUGA
REGIONAL MUNICIPALITY OF PEEL

SCALE 1:300
10m 5m 0 10m 20m 30 metres

R-PE SURVEYING LTD., O.L.S.

METRIC

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

NOTES

- DENOTES MONUMENT SET
- DENOTES MONUMENT FOUND
- SSIB DENOTES SHORT STANDARD IRON BAR
- SIB DENOTES STANDARD IRON BAR
- IB DENOTES IRON BAR
- PL1 DENOTES PLAN 43R-21969
- PL2 DENOTES PLAN 43R-464
- PL3 DENOTES PLAN OF SURVEY BY R-PE SURVEYING LTD., O.L.S. DATED FEBRUARY 24, 2021
- PL4 DENOTES PLAN 43R-33188
- (1225) DENOTES DAVID B. SEARLES SURVEYING LTD., O.L.S.
- (1654) DENOTES CHAMBERS & ASSOCIATES SURVEYING LTD., O.L.S.
- (N) DENOTES NOT IDENTIFIED
- (WT) DENOTES WITNESS
- P.I.N. DENOTES PROPERTY IDENTIFIER NUMBER
- SCP DENOTES SPECIFIED CONTROL POINT
- CLF DENOTES CHAIN LINK FENCE
- UP DENOTES UTILITY POLE
- LS DENOTES LAMP STANDARD
- Ø DENOTES DIAMETER
- X- DENOTES FENCE
- W- DENOTES OVERHEAD WIRE
- WV DENOTES WATER VALVE
- MHSA DENOTES MANHOLE SANITARY
- F.F. DENOTES FINISHED FLOOR ELEVATION
- CONC. DENOTES CONCRETE
- ST DENOTES STAIRS
- P DENOTES PORCH
- CB DENOTES CATCH BASIN
- G.S. DENOTES GARAGE SILL ELEVATION
- UB DENOTES UTILITY BOX
- DENOTES DECIDUOUS TREE
- DENOTES CONIFEROUS TREE
- DENOTES CURB CUT
- HW DENOTES HANDWELL

INTEGRATION NOTE

BEARINGS ARE UTM GRID, DERIVED FROM SPECIFIED CONTROL POINTS 2016079 AND 2016080, UTM ZONE 17, NAD-1983; CSRS: CBNV6-2010.0.

COORDINATES ARE UTM ZONE 17, NAD-1983; CSRS: CBNV6-2010.0, TO URBAN ACCURACY PER SEC. 14 (2) OF O.REG. 216/10, AND CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

POINT ID	NORTHING	EASTING
SCP 2016079	4826446.77	611405.54
SCP 2016080	4826342.28	611561.12

DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.999739.

BENCHMARK NOTE

ELEVATIONS ARE GEODETIC AND ARE REFERRED TO CITY OF MISSISSAUGA VERTICAL BENCH MARK NUMBER 1001 HAVING AN ORTHOMETRIC ELEVATION OF 123.221 METRES. ELEVATIONS ARE REFERENCED TO THE CANADIAN GEODETIC VERTICAL DATUM OF 1928, PRE-1978 ADJUSTMENT (CGVD: 1928; PRE-78ADJ.).

TABLET SET HORIZONTALLY AT THE BASE OF A 750MM CONCRETE TRAFFIC POLE ON THE SOUTH SIDE OF HILLOREST AVENUE, WEST OF CENTERLINE OF THE EASTERLY GO STATION ENTRANCE.

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:

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

2. THE SURVEY WAS COMPLETED ON THE 19th DAY OF OCTOBER, 2021.

DATE OCTOBER 28th, 2021

S. Goonewardena
S. GOONEWARDENA
ONTARIO LAND SURVEYOR

ASSOCIATION OF ONTARIO
LAND SURVEYORS
PLAN SUBMISSION FORM

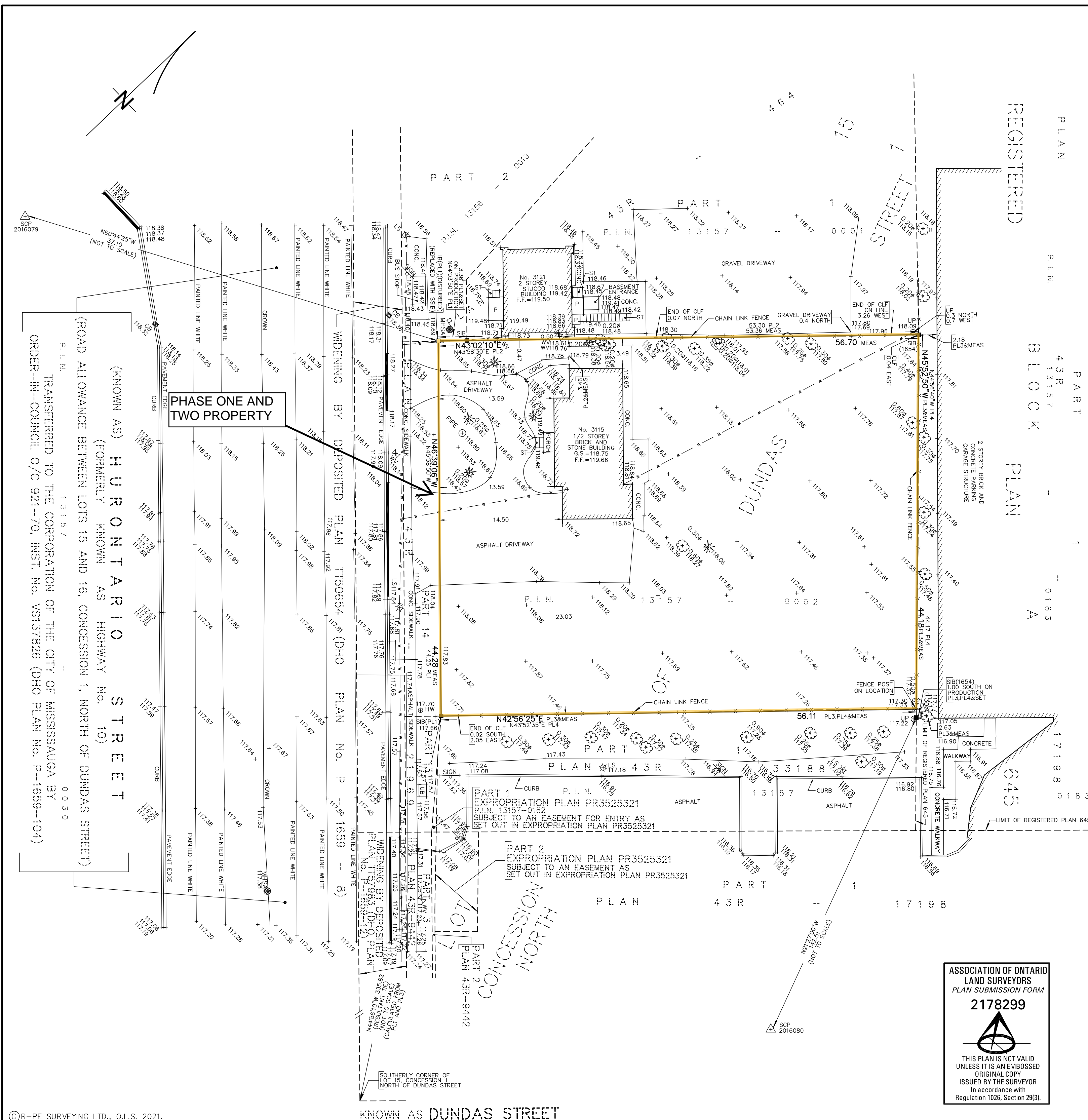
2178299



THIS PLAN IS NOT VALID
UNLESS IT IS AN EMBOSSED
ORIGINAL COPY
ISSUED BY THE SURVEYOR
In accordance with
Regulation 1026, Section 29(3).



R-PE SURVEYING LTD.
ONTARIO LAND SURVEYORS
643 Chrislea Road, Suite 7
Woodbridge, Ontario L4L 8A3
Tel. (416) 635-5000 Fax (416) 635-5001
Tel. (905) 264-0881 Fax (905) 264-2099
Website: www.r-pe.ca
DRAWN: A.Q. CHECKED: S.G.
JOB No. 21-342 CAD FILE No. 21342PS01



Appendix A6

PCA Summary Table and APEC Table

3115 Hurontario Street, Mississauga, ON

PCA SUMMARY TABLE

PCA#	PCA Location	MECP Potentially Contaminating Activity	Basis for PCA	PCA Results in an APEC	APEC #	Rationale
On-Site PCAs						
PCA #1	Southwestern corner of the current building, in the west-central portion of the Site	28. Gasoline and Associated Products Storage in Fixed Tanks	<ul style="list-style-type: none"> The building on Site was historically heated via fuel oil stored in a tank in the basement of the building. Vent/fill pipes were observed along the southwestern exterior wall of the building. 	Yes	APEC 1	On-Site PCA
PCA #2	Asphalt driveway in northwest portion of the Site	Other – Road Salt Application	<ul style="list-style-type: none"> Application of road salt to the on-Site asphalt parking area for de-icing purposes. 	Yes	APEC 2	On-Site PCA
Off-Site PCAs Resulting in an APEC						
PCA #3	3121 Hurontario Street	27. Garages and Maintenance and Repairs of Railcars, Marine Vehicles and Aviation Vehicles	<ul style="list-style-type: none"> 3121 Hurontario (north adjacent) was identified in the city directory as a rental car company. There is a potential that vehicle repairs were conducted at this property. 	Yes	APEC 3	PCA located north adjacent to the Site boundary.
PCA #4	3122 Hurontario Street	34. Metal Fabrication	<ul style="list-style-type: none"> 3122 Hurontario (40m west) was identified on the city directory as “Cooksville Machinery Supply Ltd”, and by ERIS as a generator of waste oils and lubricants from 2005-2006. There is a potential that a machine shop was located on this property. 	Yes	APEC 4	PCA located near and inferred hydraulically trans-gradient of the Site based on the inferred groundwater flow direction (southerly).
PCA #5a	3168 Hurontario Street	10. Commercial Autobody Shops	<ul style="list-style-type: none"> 3168 Hurontario Street (130m northwest) was identified in the city directory as historically occupied by autobody shops, and by ERIS as a generator of metal acid wastes and inorganic sludges, slurries and solids. 	Yes	APEC 5a	PCA located near and inferred hydraulically up-gradient of the Site based on the inferred groundwater flow direction (southerly).
PCA #5b	3168 Hurontario Street	27. Garages and Maintenance and Repairs of Railcars, Marine Vehicles and Aviation Vehicles	<ul style="list-style-type: none"> 3168 Hurontario Street (120m northwest) was identified in the city directory as historically occupied by auto repair shops, and by ERIS as a generator of metal acid wastes and inorganic sludges, slurries and solids. 	Yes	APEC 5b	PCA located near and inferred hydraulically up-gradient of the Site based on the inferred groundwater flow direction (southerly).
PCA #6	25 John Street	37. Operation of Dry Cleaning Equipment (where chemicals are used)	<ul style="list-style-type: none"> 25 John Street (180m north) was identified by the HWIN and ERIS report as being a dry cleaner and a generator of halogenated solvents. 	Yes	APEC 6	PCA located inferred hydraulically up-gradient of the Site based on the inferred groundwater flow direction (southerly).
Off-Site PCAs Not Resulting in an APEC						
PCA #7	3085 Hurontario Street	28. Gasoline and Associated Products Storage in Fixed Tanks Other - Fire	<ul style="list-style-type: none"> 3085 Hurontario Street (south and east adjacent) was identified in the ERIS report as having an explosion associated with gasoline fuel. 	No	N/A	PCA was not considered to result in an APEC due to the location of the incident (south) with respect to the inferred groundwater flow direction (southerly), and separation of this interior store (Unit 45) relative to the Site. In addition, records from RSC filed at this property suggested no soil or groundwater concentrations are above the applicable Table 2 SCSs.
PCA #8	3112 Jaguar Valley Drive	18. Electricity generation Transformation and Power stations	<ul style="list-style-type: none"> 3112 Jaguar Valley Drive (45m east) was identified by the HWIN and ERIS report as being a PCB containing transformer and a generator of undefined wastes. 	No	N/A	PCA was not considered to result in an APEC due to its location (east) with respect to the inferred groundwater flow direction (southerly), and distance relative to the Site.

PCA#	PCA Location	MECP Potentially Contaminating Activity	Basis for PCA	PCA Results in an APEC	APEC #	Rationale
PCA #9	3089 Jaguar Valley Drive	27. Garages and Maintenance and Repairs of Railcars, Marine Vehicles and Aviation Vehicles	<ul style="list-style-type: none"> 3089 Jaguar Valley Drive (100m southeast) was identified on the city directory as a possible location for vehicle repairs. 	No	N/A	PCA was not considered to result in an APEC due to its distance and its location (southeast) with respect to the inferred groundwater flow direction (southerly) relative to the Site.
PCA #10	3170 Kirwin Avenue	18. Electricity generation Transformation and Power stations	<ul style="list-style-type: none"> 3170 Kirwin Avenue (120m northeast) was identified by the HWIN and ERIS report as being a PCB containing transformer and a generator of undefined wastes. 	No	N/A	PCA was not considered to result in an APEC due to its distance and inferred hydraulically trans-gradient groundwater flow direction (southerly) relative from the Site.
PCA #11a	3070 Hurontario Street	27. Garages and Maintenance and Repairs of Railcars, Marine Vehicles and Aviation Vehicles	<ul style="list-style-type: none"> 3070 Hurontario Street (125m southwest) was identified on the city directory as a rental car company where vehicle repairs may have been done. 	No	N/A	PCA was not considered to result in an APEC due to its distance and its location (southwest) with respect to the inferred groundwater flow direction (southerly) relative to the Site.
PCA #11b	3070 Hurontario Street	31. Ink Manufacturing, Processing and Bulk Storage	<ul style="list-style-type: none"> 3070 Hurontario Street (125m southwest) was identified on the city directory as a printing service provider. 	No	N/A	PCA was not considered to result in an APEC due to its distance and its location (southwest) with respect to the inferred groundwater flow direction (southerly) relative to the Site.
PCA #12	3041 Hurontario Street	37. Operation of Dry Cleaning Equipment (where chemicals are used)	<ul style="list-style-type: none"> 3041 Hurontario Street (200m south) was identified in the city directory as a dry cleaner. 	No	N/A	PCA was not considered to result in an APEC due to its distance from the Site and its location (south) with respect to the inferred groundwater flow direction (southerly) relative to the Site.
PCA #13	3038 Hurontario Street	31. Ink Manufacturing, Processing and Bulk Storage	<ul style="list-style-type: none"> 3038 Hurontario Street (200m south) was identified in the city directory as a commercial printing company. 	No	N/A	PCA was not considered to result in an APEC due to its distance and its location (south) with respect to the inferred groundwater flow direction (southerly) relative to the Site.
PCA #14	3039 Hurontario Street	27. Garages and Maintenance and Repairs of Railcars, Marine Vehicles and Aviation Vehicles	<ul style="list-style-type: none"> 3039 Hurontario Street (230m south) was identified on the city directory as a possible location for vehicle repairs. 	No	N/A	PCA was not considered to result in an APEC due to its distance and its location (south) with respect to the inferred groundwater flow direction (southerly) relative to the Site.

"Table of areas of potential environmental concern"
(Refer to clause 16(2)(a), Schedule D, O. Reg. 153/04)

Area of potential environmental concern ¹	Location of area of potential environmental concern on phase one property	Potentially contaminating activity ²	Location of PCA (on-site or off-site)	Contaminants of potential concern ³	Media potentially Impacted (Ground water, soil and/or sediment)
APEC 1 Former fuel oil AST in basement of Site building, in the west-central portion of Site	West-central portion of the Phase One Property	28. Gasoline and Associated Products Storage in Fixed Tanks	On-Site (PCA 1)	PHCs BTEX	Soil Groundwater
APEC 2 Asphalt driveway in northwest portion of Site	Northwestern portion of Phase One Property	Other – Road Salt Application	On-Site (PCA 2)	EC SAR Na Cl-	Soil Groundwater
APEC 3 Potential vehicle repairs by a former car rental company at 3121 Hurontario Street	Northwestern portion of Phase One Property	27. Garages and Maintenance and Repairs of Railcars, Marine Vehicles and Aviation Vehicles	Off-Site (PCA 3)	Metals As, Sb, Se PHCs BTEX VOCs	Groundwater
APEC 4 Potential former machine shop at 3122 Hurontario Street	Western portion of Phase One Property	34. Metal Fabrication	Off-Site (PCA 4)	PHCs BTEX VOCs	Groundwater
APEC 5a Former auto body shops at 3168 Hurontario Street	Northwestern portion of Phase One Property	10. Commercial Autobody Shops	Off-Site (PCA 5a)	PHCs BTEX VOCs	Groundwater
APEC 5b Multiple former auto repair shops at 3168 Hurontario Street	Northwestern portion of Phase One Property	27. Garages and Maintenance and Repairs of Railcars, Marine Vehicles and Aviation Vehicles	Off-Site (PCA 5b)	PHCs BTEX VOCs	Groundwater

Area of potential environmental concern ¹	Location of area of potential environmental concern on phase one property	Potentially contaminating activity ²	Location of PCA (on-site or off-site)	Contaminants of potential concern ³	Media potentially Impacted (Ground water, soil and/or sediment)
APEC 6 Former Dry Cleaner at 25 John Street	Northern portion of Phase One Property	37. Operation of Dry Cleaning Equipment (where chemicals are used)	Off-Site (PCA 6)	VOCs	Groundwater

Notes:

1 - Areas of potential environmental concern means the area on, in or under a phase one property where one or more contaminants are potentially present, as determined through the phase one environmental site assessment, including through,
(a) identification of past or present uses on, in or under the phase one property, and
(b) identification of potentially contaminating activity.

2 - Potentially contaminating activity means a use or activity set out in Column A of Table 2 of Schedule D that is occurring or has occurred in a phase one study area

3 - When completing this column, identify all contaminants of potential concern using the Method Groups as identified in the "Protocol for in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, March 9, 2004, amended as of July 1, 2011, as specified below:

List of Method Groups:

ABNs	PCBs	Metals	Electrical Conductivity
CPs	PAHs	As, Sb, Se	Cr (VI)
1,4-Dioxane	THMs	Na	Hg
Dioxins/Furans, PCDDs/PCDFs	VOCs	B-HWS	Methyl Mercury
OCs	BTEX	Cl-	Low or high pH,
PHCs	Ca, Mg	CN-	SAR

4 - When submitting a record of site condition for filing, a copy of this table must be attached

****Cette publication hautement spécialisée n'est disponible qu'en anglais en vertu du règlement 671/92, qui en exempte l'application de la Loi sur les services en français. Pour obtenir de l'aide en français, veuillez communiquer avec le ministère de l'Environnement et de l'Action en matière de changement climatique au 1-800-461-6290**