August 21, 2024

Mr. Jean-Philippe Wilkins
Harnois Groupe immobilier inc.
Director, Operations and Real Estate Development
80, route 153
Saint-Thomas (QC)
J0K 3L0

Subject : **Phase II Environmental Site Assessment (ESA)**
Property located at 1660 Merivale Road, Nepean, Ottawa, ON
Reference Number: HARN1660P2

Mr. Wilkins,

We are pleased to present this Phase II Environmental Site Assessment report, conducted for the property located at 1660 Merivale Road, Nepean, Ottawa, Ontario.

We trust this report meets your expectations. Should you have any questions or require further information, please feel free to contact our team, who will be more than pleased to assist you.

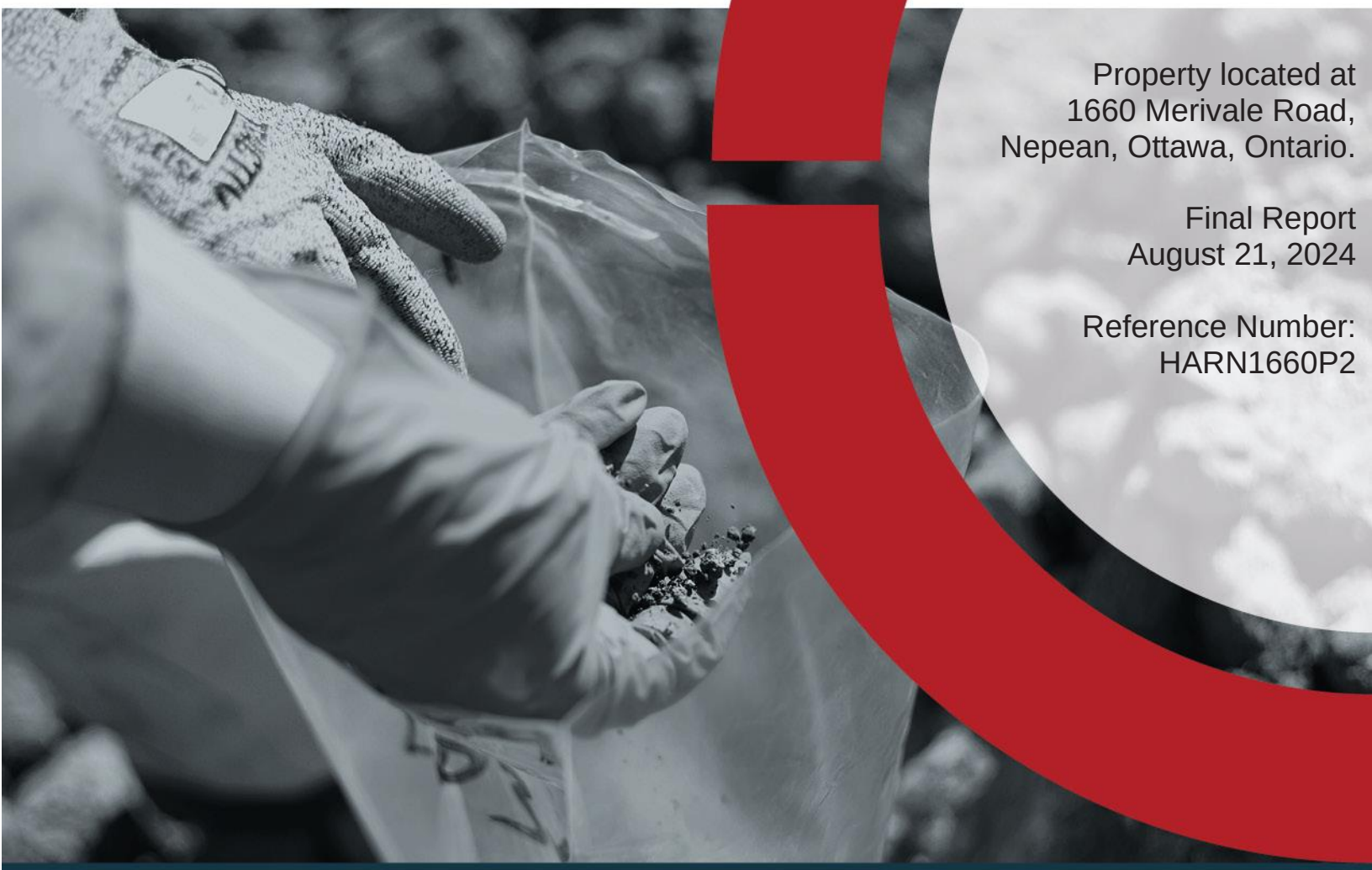
Sincerely,

Num®riquement sign® par Mathieu B®lisle, ing.
5043064
Date : 2024-08-21 09:04-04:00

Mathieu Bélisle, eng., M. Sc.A., P.Eng
Project Manager
Groupe C. Laganière (1995) inc.
514.452.5718.

GROUPE
C. LAGANIÈRE

PHASE II ENVIRONMENTAL SITE ASSESSMENT



Property located at
1660 Merivale Road,
Nepean, Ottawa, Ontario.

Final Report
August 21, 2024

Reference Number:
HARN1660P2

PHASE II ENVIRONMENTAL SITE ASSESSMENT

Property located at 1660 Merivale Road, Nepean, Ottawa, Ontario.
Part of Lot 30, Concession 1 of Rideau Front

Privileged and Confidential Document presented to:

Harnois Groupe Immobilier inc.

Prepared and verified by:

Num®riquement sign®par Mathieu B®lisle, ing.
5043064
Date : 2024-08-21 09:03-04:00

Mathieu Bélisle, eng., M. Sc.A., P.Eng.
Gestionnaire de projets
Groupe C. Laganière (1995) inc.

Approved by:

Guylaine Lebel, eng., M.Eng., P.Eng.
Executive Director – CEME
Groupe C. Laganière (1995) inc.

Reference Number : HARN1660P2

REVISIONS FOLLOW-UP				
Revision	Date	Description	Prepared by	Verified by

PRIVACY NOTICE:

EXECUTIVE SUMMARY

The property under study is occupied by a gas station with a convenience store and a car wash. As part of a project to be submitted to the City, Phase I and II Environmental Site Assessments (ESAs) are required. The intent of these assessments is not to register a Record of Site Condition.

Groupe C. Laganière (1995) inc. (hereafter "GCL") has been commissioned by Harnois Groupe Immobilier inc. (hereafter "Harnois"), the owner of the Site, to conduct a Phase II ESA on the property located at 1660, Merivale Road, Nepean, Ottawa, Ontario (hereafter "the Site"). This report is in accordance with the service proposal dated June 6, 2024. (Reference Number: 2024-126-CE-REV2).

The objective of the mandate is to verify the risks of potential or actual contamination at the site that were identified by the Phase I ESA.

This mandate follows up on the recommendations issued in the Phase I ESA conducted by GCL (Reference Number: HARN1660P1) between June and August 2024, which identified the following environmental risk areas:

Risk #	Risk Identification	Area (m^2)	Analytical Parameters
1	Underground storage tanks in the northeast corner of the site probably since the 1960s	150	BTEX, PH F1 to F4, Ha, Pb
2	Pump islands north of the store since 1984	250	BTEX, PH F1 to F4, Ha, Pb
3	Underground pipes connecting the pump islands and the underground tanks	200	BTEX, PH F1 to F4, Ha, Pb
4	Former pump islands north and east of the store from the 1960s to 1984	2x 50	BTEX, PH F1 to F4, Ha, Pb
5	Former mechanical garage west of the store from the 1960s to 1984	175	BTEX, PH F1 to F4, Ha, PAH, MTX
6	Carwash in the south section since 1984	125	BTEX, PH F1 to F4, Ha, PAH, MTX
7	BTEX, PH F1-F4, Ha and locally Pb contamination in groundwater	-	BTEX, PH F1-F4, Ha and/or Pb

Fieldwork was conducted from July 8 to July 11, 2024, under the supervision of a GCL certified technician. This work included drilling eight boreholes and sampling groundwater from the wells found on site in good condition.

The Phase II ESA highlights that:

- All soil samples analysis results were below Table 3 Standards.
- Groundwater sample analysis results were below Table 3 Standards in wells MW15-01, MW15-02, TH3 and TH7.
- One groundwater sample result (F2, 590 ppb) was above Table 3 Standards in well 23F01. This concentration represents a decrease compared to TH5's last (2022) analytical results (3500 ppb), located in the vicinity of this well.
- Other existing wells could not be sampled due to their poor condition (e.g. presence of sediments, or blocked). Some of these wells had contamination levels exceeding Table 3 Standards in previous groundwater monitoring reports.

Based on the results obtained, the environmental quality of the soils at the sample locations meets the Table 3 Standards.

However, given that petroleum equipment is still present on the site, it is recommended to conduct an additional environmental characterization campaign for the soils found at the bottom and on the walls of the excavation, upon the removal of these equipment.

Additionally, groundwater contamination is present both on and off the Site according to previous reports. It is recommended to continue the annual groundwater monitoring program along with the TSSA, using both existing and new wells. The damaged wells should be replaced to ensure a complete and accurate TSSA groundwater monitoring program. New wells should be constructed to intercept the groundwater interface to effectively capture LNAPL, if applicable.

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LIST OF ACRONYMS

APEC	Areas of Potential Environmental Concern
ANSI	Areas of Natural and Scientific Interest
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CMP	Contamination Management Plans
CSA	Canadian Standard Association
EPA	Environmental Protection Act
ESA	Environmental Site Assessment
F1 to F4	Petroleum Hydrocarbons F1 to F4
GCL	Groupe C. Laganière (1995) inc.
Ha	Hexane
NRC	Natural Resources of Canada
MAH	Monocyclic Aromatic Hydrocarbons
MECP	Ministry of the Environment, Conservation and Parks of Ontario
MM	Ministry of Mines of Ontario
MTX	Metals and Metalloids
O.Reg 153/04	Ontario Regulation 153/04 – Records of Site Conditions
PAH	Polycyclic Aromatic Hydrocarbons
Pb	Lead
PCA	Potentially Contaminating Activities
TSSA	Technical Standards and Safety Authority
VOC	Volatile Organic Compounds

1. INTRODUCTION

1.1 Context

The property is occupied by a gas station with a convenience store and a car wash. As part of a project to be submitted to the City, the conduction of Phase I and II Environmental Site Assessments (ESAs) is required. These assessments are not intended to register a Record of Site Condition.

1.2 Mandate and Objective

Groupe C. Laganière (1995) inc. (hereafter "GCL") has been commissioned by Harnois Groupe Immobilier inc. (hereafter "Harnois"), the owner of the Site, to conduct a Phase II ESA on the property located at 1660, Merivale Road, Nepean, Ottawa, Ontario (hereafter "the Site"). This is in accordance with the service proposal dated June 6, 2024, (Ref No: 2024-126-CE-REV2).

The objective of the mandate is to verify the risks of potential or actual contamination at the site that were identified by the Phase I ESA.

The Phase II ESA was conducted following the standard methodologies outlined in Ontario Regulation 153/04 (O.Reg. 153/04) – Record of Site Condition – Part XV.I of the Environmental Protection Act (EPA) and in the Canadian Standard CSA-Z769-00 – Phase II Environmental Site Assessment.

Appendix 8 outlines the limitations and general conditions related to the completed study.

1.3 Site Description

Table 1 below provides a general description of the site. The general location of the site is illustrated in Figure 1 of Appendix 1. For the purposes of this study, Merivale Road is oriented in a north-south axis.

Table 1 : Description of the Property

Site Address	1660 Merivale Road, Nepean, Ottawa, Ontario (hereafter the site)
Geographical Coordinates of the Land	Lat. : 45,343350 Long.: -75,729600
Lot Number	Part of Lot 30, concession 1 of Rideau Front
Land Area (m^2)	1 968,10 m^2
Landowner	Harnois Groupe immobilier Inc. (hereafter Harnois)
Land Occupants	+ Commercial : • Proxy • Esso Gas Station
Current Use	+ Commercial (Gas station, convenience store, carwash)
Projected Future Use	+ Commercial (Gas station, convenience store, carwash)
Municipal Zoning	AM10 (Arterial Mainstreet Zone)
Permitted Uses	+ Commercial + Residentials

Description of the Land	+ Convenience store in the middle + Carwash in the south section + Gas pump to the north of the store + Underground storage tanks in the northeast corner + Paved parking and circulation areas around the buildings
Site boundaries	+ South and west limits: fenced + South section trees + North and east: open area
Building Construction Date	1984
Building Modification Date	No major modification
Current and Previous Heating Methods	Electric and natural gas
Drinking Water Supply	Aqueduct
Wastewater Treatment System	Municipal sewer

1.4 Adjacent Properties

The site is located at the southwest corner of the intersection of Merivale Road and Viewmount Drive. It is surrounded by a mix of commercial, residential and public sites. The adjacent properties are as follows:

- North: Viewmount Drive followed by a parking lot and a commercial mall;
- South : Residential buildings;
- East: Merivale Road followed by a school;
- West: Glenmanor Drive followed by residential buildings.

The zoning by-laws for the adjacent properties are as follows:

- Residential to the west (R2M) and southwest (R1FF);
- Mixt commercial and residential to the southeast (AM10[2205]) and to the north (AM10[2676]);
- Institutional to the east (I1A[409]).

2. SITE CONDITION STANDARD

The information obtained from previous studies and from the Phase II ESA fieldwork was reviewed to determine the applicable standard based on the criteria defined by O.Reg. 153/04. The main decisive points for defining the applicable standard are as follows:

2.1 Site Sensitivity

- The site and the area within 30 meters of the site are not part of an area of natural significance.
- The surface soil of the property has a pH within the range of 5-9, and the sub-surface soil has a pH within the range of 5-11.
- No qualified person considers the site to be a sensitive area.

2.2 Water Body

- No water bodies are present within a 30-meter radius of the site.

2.3 Groundwater

- The area within a 250-meter radius of the site is serviced by the Ottawa municipal water supply.
- The site is not located within a groundwater protection area.
- The site is situated in a non-potable groundwater condition.

2.4 Shallow soil

- Based on the borehole logs from various studies on site, at least two/thirds of the site has soil depth of over 2 meters before reaching the bedrock.

2.5 Soil texture

- Based on the borehole logs from various studies on site, the majority of the soils are fine-textured.

2.6 Property use

- The site is currently used for commercial purpose.
- According to information from the owner, the site is planned to continue being used commercially in the future.

2.7 Applicable Standard

Based on these observations and the criteria from O.Reg 153/04, Table 3 Standards for industrial/commercial/community property use and medium to fine-textured soils are appropriate for the site.

3 PREVIOUS STUDIES

The Phase I ESA identified additional studies conducted on site between 2011 and 2024, which are detailed in the Phase I report. A summary of the main observations is provided here.

3.1 Topography, Geology, Hydrogeology

The site is situated in an area with a general slope descending from north to south, then southeast towards Nepean Creek, which is located approximately 360 meters southeast of the site. This creek eventually joins the Rideau Canal to the east.

According to a topographic plan by VRSB Arpenteurs-Géomètres (VRSB), there is a slight elevation change from the northeast corner, at an elevation of approximately 87.8 meters, descending to the southwest corner of the pavement at an elevation of 86.5 meters. A more pronounced slope is observed south of the carwash, where the elevation drops from 86.5 meters to 85.3 meters.

The bedrock on site is composed of limestone, encountered at depths ranging from 2.7 meters to more than 5.49 meters below ground surface (BGS). The surficial deposits consist of sand and gravel, likely backfill material, from 1 to 2 meters BGS, followed by brown to grey silt till.

Groundwater flow on site generally moves from northeast to southwest. The groundwater level is typically around the interface of the bedrock and the surface soils or within the bedrock, at depths varying between 2.3 meters and 5.0 meters BGS.

3.2 Soil and Groundwater Environmental Quality on Site

In summary, according to the previous studies listed, no soil contamination above Table 3 Standards for the parameters BTEX, PH F1 to F4, Ha, MTX and/or PAH was detected. Historical groundwater quality exceeded Table 3 standards in the following wells:

- TH1 (2020) : F2 to F4
- TH3 (2011 to 2014 and 2021): F1 and F2
- TH4 (all years): BTEX, Ha, F1 to F3, Pb (2018 only), light non aqueous liquid phase (LNAPL) in 2021
- TH5 (all years) : BTEX, Ha, F1 to F4, Pb (2020 an 2021 only), LNAPL in 2022
- TH7 (2014 to 2017) : BTEX, F1 and F2
- MW15-02 (2015 and 2016) : BTEX, F1 and F2

No concentrations above Table 3 Standards were detected in wells TH2, TH6, MW16-01, MW21-01 and MW21-02.

Additionally, soil vapor monitoring probes were sampled for BTEX/VOC measurements, with all results being below the selected standards. Sampling points were located at the east, west and south limits of the Site.

4 SCOPE OF THE INVESTIGATION

4.1 Overview of the site investigation

The objective of this Phase II ESA was to evaluate subsurface environmental conditions in the risk areas identified in the Phase I ESA. The site investigation included the following activities:

- Drilling of eight boreholes in or around the risk zones
- Continuous soil sampling in the boreholes
- Inspection of the existing wells
- Monitoring of groundwater levels
- Sampling groundwater from the wells in good conditions

No wells were installed during this study.

4.2 Phase I Conceptual Model

The Phase I conceptual model identified the following potential sources of contamination

- Underground storage tanks in the northeast corner of the site since the 1960s
- Pump islands north of the store since 1984
- Underground pipes connecting the pump islands and the underground tanks
- Former pump islands north and east of the store from the 1960s to 1984
- Former mechanical garage west of the store from the 1960s to 1984
- Carwash in the south area since 1984
- BTEX, PH F1-F4, Ha and locally Pb contamination in groundwater

The potential contaminants of concern identified were:

- BTEX
- F1 to F4
- Ha
- PAH and/or
- MTX

5. INVESTIGATION METHOD

The site investigation was conducted between July 8, 2024 and July 11, 2024 by a GCL certified environmental technician. It involved drilling eight boreholes for soil sampling, inspecting the existing wells and sampling groundwater from wells in good condition. No groundwater samples were collected from damaged wells, and no new groundwater wells were installed. Private underground infrastructure location work was carried out by *Softex*, while drilling operations were performed by *George Downing Estate Drilling Limited* using a Geoprobe 6622 drilling machine.

A photographic report is included in Appendix 5.

5.1 Underground Infrastructures

A detection request for the location of underground public services (electricity, natural gas, telecom, sewer, aqueduct, etc.) was made on June 6, 2024. This request confirmed the presence of a natural gas line southwest of the carwash and electrical infrastructure northwest of the site, south of the store, and east of the carwash.

In addition, *Softex* conducted further investigations on July 8, 2024, to locate private underground infrastructure. These investigations identified underground electrical wires and potential water and sewer pipes in various sections of the site.

These results were compared with infrastructure site plans from 1984 provided in the previous studies. Boreholes were positioned at a safe distance from any detected infrastructure and from those shown on the site plans.

5.2 Drilling Investigation

The drilling investigation was performed on July 9, 2024, using a Geoprobe 6622 equipped with 1.2-meter long single-use plastic sample tubes for environmental sampling. The boreholes were drilled until refusal on possible bedrock at depths ranging from 3.0 to 3.6 meters. The boreholes were backfilled with sand or gravel, and the surface was finished with cold asphalt in paved areas.

The location of each drilling was measured relative to existing infrastructure. Figure 2 of Appendix 1 shows the locations of the drilled boreholes.

5.3 Soil Characterization and Sampling

Before sampling, all sampling equipment was decontaminated using Alconox soap and deionized water spray between each sample.

Soil samples were collected directly from the single-use sampling tubes of the Geoprobe. A continuous sampling was conducted for each borehole. Composite soil samples were collected from each stratigraphic layer encountered, up to a maximum length of 0.6 meters. Stratigraphic and physical evidence of contamination descriptions were noted from the sampling tubes. A total of 57 soil samples and 7 field duplicates were collected.

Except for samples taken for volatile organic compound (VOC) analysis, composite soil samples were collected manually using single-use nitrile gloves, which were changed between samples. Soil samples for VOC analysis were collected punctually using a Terra Core syringe and transferred directly into laboratory-prepared methanol-containing vials.

The samples were examined to describe the nature and composition of the different layers encountered, the nature of the debris present in the backfill (when applicable), and any relevant additional information (e.g. color, odor, water content, compaction). The stratigraphic description for each borehole is presented in Appendix 4. Note that this description is based solely on visual observations made on site in the for an environmental characterization and does not correspond to a geotechnical interpretation.

After sampling, VOC field measurements were performed on each sample using an Eagle 2 gas monitor. The results are presented in the borehole logs in Appendix 4.

5.4 Groundwater Sampling

5.4.1 Well Condition Inspection

A visual inspection of the wells installed on site during previous studies was conducted on July 8, 2024. It was noted that some wells had the cap removed (TH6) and/or were partially filled with sediments due to a poor surface sealing (TH1, TH2, TH4, TH5, TH6). One well had the cap blocked (MW1-22).

Therefore, groundwater characterization was conducted for existing wells considered to be in good condition and containing sufficient groundwater for sampling. Only TH3, TH7, MW15-01 and MW15-02 could be sampled during this campaign, along with a well physically identified on site as 23F01 (likely installed in 2023), located near TH5. The bottom of this well was at a depth of 3.05 meters, likely above the bedrock.

5.4.2 Groundwater Level Measurement

Groundwater levels were measured on July 8, 2024, in all accessible wells, including some considered in poor condition. Measurements were made using a Heron handheld interface probe, which measures water depth and detects and measures the LNAPL thickness, if applicable. Some LNAPL, less than 0.001 meters thick, was noted in wells TH2 and TH4. Most well elevations were obtained from the topographic plan of *VRSB* dated April 6, 2023, presented in Appendix 7, while some others were calculated from elevation differences noted in previous studies. The collected data are presented in Table 2.

Table 2 : Groundwater Level

Well	Condition	Elevation	Water Depth (m)	Product Depth(m)	Product Thickness (m)	Water Table Elevation (m)
TH1	Sediments, dry	87.00	Not available (NA)	NA	NA	NA
TH2	Sediments	87.02	3.370	3.369	<0.001	83.65
TH3	Good	87.28	3.310	Not observed (NO)	0	83.97
TH4	Sediments	87.28	3.051	3.050	<0.001	84.23
TH5	Sediments	87.09	NA	NA	NA	NA
TH6	Sediments, no cap, dry	86.43	NA	NA	0	NA
TH7	Good	86.55	3.790	NO	0	82.76
MW15-01	Good	84.88	2.040	NO	0	82.84
MW15-02	Good	84.97	2.440	NO	0	82.53
MW1-22	Blocked	87.03	NA	NA	NA	NA
23F01	Good	87.12	2.530	NO	0	84.59

5.4.3 Groundwater Sampling

Groundwater sampling was conducted using the low-flow and low-drawdown purge method. A peristaltic pump with ¼" diameter HDPE tubing was employed for this purpose. A Hanna Instruments multi-parameter probe was used to measure key parameters, including temperature, pH, conductivity, dissolved oxygen, and oxidation-reduction potential. Groundwater samples were collected only when these parameters were stable, using dedicated tubing for each well. A total of five groundwater samples and one duplicate were collected. The purging water was collected in 5-gallon plastic pails and disposed of offsite at an authorized contaminated water treatment facility.

5.5 Analytical Program

The analytical program was designed based on the potential sources of contamination identified in the Phase I ESA, including current and former petroleum installations at a gas station, a former mechanical garage, and known site contamination described in Sections 3.2 and 4.2.

Thus, the selected soil samples were analyzed for a combination of the following parameters: BTEX, PH F1-F4, Ha, MTX, and/or PAH.

A total of ten (10) soil samples taken from the boreholes were analyzed. Additionally, five (5) groundwater samples were retrieved from the existing wells for analysis. The samples were analyzed by *Bureau Veritas*, a laboratory authorized by the MECP for the selected analytical parameters.

5.6 Quality Assurance/Quality Control Program

A Quality Assurance/Quality Control (QA/QC) program was implemented to minimize and verify the impact of sample collection and analytical methods on the results. This program included the analysis of control samples prepared in the field by GCL personnel and the review of the laboratory's internal quality control results.

All soil samples were placed in amber glass containers prepared by the contracted analytical laboratory, Bureau Veritas. Water samples were placed in amber glass or plastic containers with preservatives provided by the laboratory for each type of analysis requested.

Field quality control involved sampling and analyzing duplicate soil samples taken simultaneously with regular samples at a 10% ratio. For the ten soil samples submitted for analysis, one duplicate was analyzed for BTEX, F1-F4, Ha, PAH, and MTX parameters. Similarly, for the five groundwater samples submitted for analysis, one duplicate was analyzed for BTEX, F1-F4, Ha, PAH, and MTX parameters.

The laboratory implemented its own internal quality program by analyzing laboratory blanks, certified reference standards, and internal duplicates.

Selected samples taken from the site were duly identified, protected from light, and kept cool at approximately 4ºC until delivery to the laboratory. Remaining samples were stored in a refrigerator and will be retained for 30 days in case further analysis is required.

6. REVIEW AND EVALUATION

6.1 Geology

The stratigraphy generally observed under the pavement consists of a 0.1 to 0.4-meter thick crushed stone layer, followed by a sand and gravel backfill material extending to depths of 1.2 to 2.0 meters BGS. This backfill material is underlain by a sandy or clayey silt with traces of gravel till, extending down to the bedrock. Boreholes were terminated upon refusal on possible bedrock at depths ranging from 3.0 to 3.6 meters BGS. Borehole logs are presented in Appendix 4 and show the stratigraphy observed at each borehole location.

6.2 Field Screening

As mentioned in Section 5.3, soil samples were screened on site for visual and olfactory impacts, and VOC field measurements were conducted. Petroleum odors were detected in boreholes BH-04, located west of the pump islands, and BH-06, located southeast of the pump islands. VOC concentrations up to 84 ppm were measured in BH-06, just above the bedrock refusal. No significant values were observed in the other boreholes.

6.3 Soil Analytical Results

Soil chemical analysis results were compared to Table 3 standards for commercial use in medium/fine textured soil. Figure 2 of Appendix 1 provides a summary of the analytical results for each category of analysis. Table A of Appendix 2 shows the analytical results compared to the standards for each parameter. The analytical certificates provided by the laboratory are presented in Appendix 6.

The analytical results indicated that all analyzed soil samples showed concentrations below the Table 3 Standards for commercial use for the selected parameters.

6.4 Ground Water Flow

Groundwater levels were measured on site, and groundwater elevation was calculated using the topographic data plan and other relative elevation data from previous studies. Groundwater levels range from 84.59 meters at well 23F01 (near TH5) to 82.53 meters at MW15-02. The general flow direction is towards the southwest. However, the highest groundwater level appears to be near well 23F01, located in the middle east of the site, with a local gradient northwest of this point. The general flow gradient towards the southwest is estimated at 0.069.

6.5 Groundwater Analytical Results

Groundwater samples were collected from wells in good condition, as mentioned in Section 5.4. These wells include TH3, TH7, MW15-01, MW15-02, and 23F01. Figure 4 of Appendix 1 shows the general classification of the analyzed groundwater samples compared to Table 3 standards. Table B of Appendix 2 displays all groundwater analytical results compared to Table 3 standards. The analytical certificates from Bureau Veritas are presented in Appendix 6.

Most of the analytical results from the collected groundwater samples were below Table 3 standards. However, the F2 concentration (590 ppb) in well 23F01 was above Table 3 standards. This concentration represents a decrease compared to TH5's last 2022 analytical results (3500 ppb), located in the vicinity of this well.

It should be noted that no groundwater samples were taken from wells considered in poor condition, and some of these wells had historically non-compliant groundwater concentrations (> Table 3 standards). These wells should be replaced to ensure a complete and accurate TSSA groundwater monitoring program.

6.6 Quality Assurance/Quality Control Results

As part of the QA/QC program, one field duplicate was analyzed for the ten soil samples tested for all parameters, and one groundwater duplicate was analyzed for the five groundwater samples. As indicated in Tables A and B of Appendix 2, the relative percentage differences (RPD) were calculated for soil samples with concentrations at least five times the reported detection limit. All RPDs are below 30% for both soil and groundwater samples, which is considered within normal variation.

Additionally, the detection limits provided by Bureau Veritas are lower than the selected standards. The laboratory's QA/QC program results indicate that the provided results are reliable. The laboratory control results are presented in the analytical certificates provided in Appendix 6.

6.7 Conceptual Model

The conceptual model from the Phase I ESA was revised based on the results of the Phase II ESA. The potential contamination sources identified in the Phase I ESA were:

- Underground storage tanks in the northeast corner of the site since the 1960s
- Pump islands north of the store since 1984
- Underground pipes connecting the pump islands and the underground tanks
- Former pump islands north and east of the store from the 1960s to 1984
- Former mechanical garage west of the store from the 1960s to 1984
- Carwash in the south area since 1984
- BTEX, PH F1-F4, Ha and locally Pb contamination in groundwater

The Phase II ESA highlights that:

- All soil samples analysis results were below Table 3 standards.
- Groundwater sample analysis results were below Table 3 standards in wells MW15-01, MW15-02, TH3 and TH7.
- One groundwater sample result (F2, 590 ppb) was above Table 3 standards in well 23F01. This concentration represents a decrease compared to TH5's last 2022 analytical results (3500 ppb), located in the vicinity of this well.
- Other existing wells could not be sampled due to their poor condition (e.g. presence of sediments, blocked). These wells should be replaced to ensure a complete and accurate TSSA groundwater monitoring program.

Considering these results, the following image schematically presents the real and potential contamination sources on site.

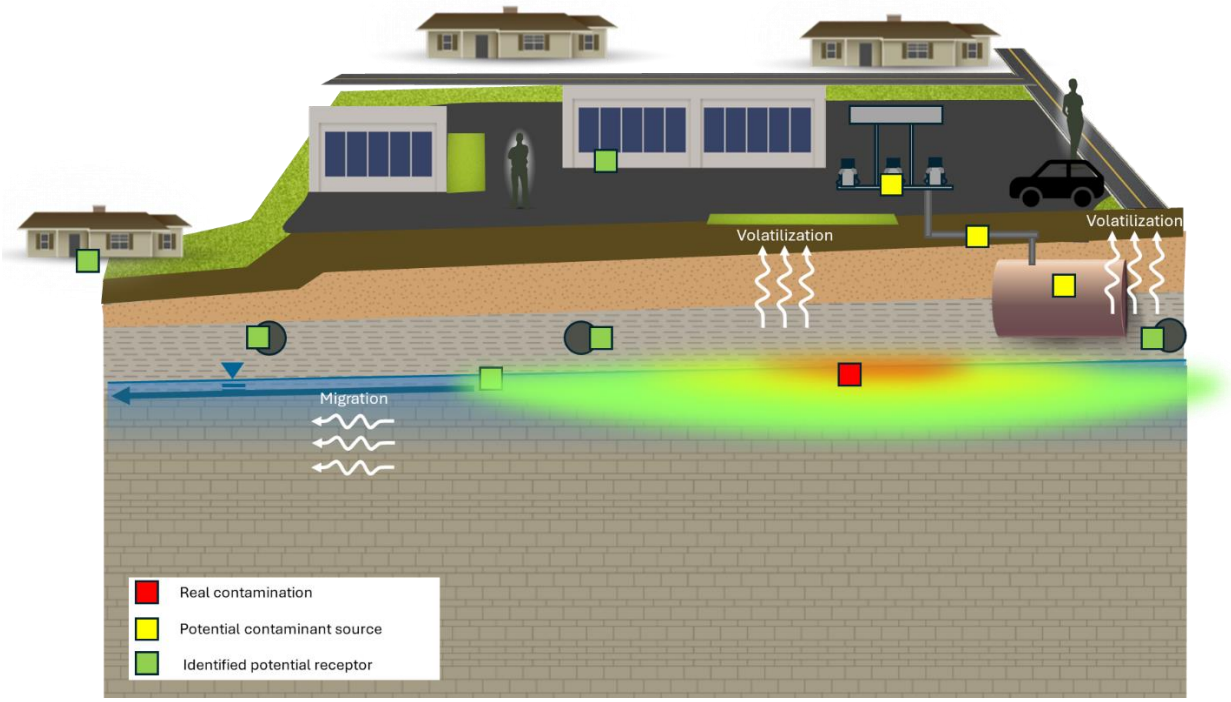

Table 3 summarizes information related to the site description, main receptors, and the actual and potential contamination sources that need be validated in future work.

Table 3 : Summary of Information

Site Address	1660 Merivale Road, Nepean, Ottawa, Ontario
Geographical Coordinates of the Land	Lat. : 45,343350 Long.: -75,729600
Lot number	Part of Lot 30, concession 1 of Rideau Front
Land Area (m^2)	1 968,10 m^2
Landowner	Harnois Groupe immobilier Inc.
Land Occupants	+ Commercial: • Proxy convenience store with carwash • Esso Service-Station
Former land occupants	+ Commercial: • Convenience store since 1984 with or without restaurant • Carwash since 1984 • Service station since 1968 • Mechanical garage from 1968 to 1984
Current Use	Commercial
Projected Future Use	Commercial
Municipal Zoning	AM10 (Arterial Mainstreet Zone)
Permitted Uses	+ Commercial + Residential
Neighbours	+ North: Viewmount Drive followed by a parking and a mall

	+ South: Residential buildings + East: Merivale Road followed by a school + West: Glenmanor Drive followed by residential buildings
Site description	+ Two buildings: Convenience store and car wash + Convenience store: one story without a basement, featuring sales, office and storage areas, as well as a cold room and washroom. + Carwash: one story without a basement, with a washing area and mechanical room and storage room.
Topography and Surface	+ Light descending slope to the southwest, more pronounced south of the carwash. + Convenience store (195 m²): concrete slab primarily with ceramic cover, generally in good condition. + Carwash (110 m^2): concrete slab. + Pump island: concrete slab generally in good condition + Circulation area: asphalt pavement in poor condition, with numerous cracks. + Grass and tree cover along the west and south limits of the site, in the northeast corner, site entrances and northwest of the carwash.
Potential contamination sources for future works	+ Underground storage tanks in the northeast corner since 1984, possibly since 1968 at this location + Pump islands north of the store since 1984 + Underground pipes between the underground tanks and the pump islands
Real contamination identified	+ Groundwater: BTEX, PH F1-F4, Ha and Pb contamination in some wells since 2011, mostly in the east side of the site
Potential receptors and exposure pathways	+ Sewer on site and under neighboring streets; + Buildings on site and south neighboring buildings
Selected standards	+ On. Reg 153/04, Table 3 Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition / Fine textured soils
Geology	+ Sand and gravel backfill material up to 1 or 2 meters thick + Brown to grey silt till up to 3 to 5 m BGS + Bedrock at depths of 2,7 m to more than 5,49 m BGS
Hydrogeology	+ Groundwater flows to the southwest with local northwest gradient from high point around 23F01. + Groundwater level is around the interface of the bedrock and the surface soils or in the bedrock, at depths varying between 2.3 m and 5.0 m BGS.
Potential contamination substances when removing petroleum equipment	+ Gasoline BTEX, PH F1 to F4, Hexane, Pb
Potential Light Non-Aqueous phase Liquids (LNAPL)	+ Gasoline: BTEX, PH F1 to F4

7. CONCLUSION AND RECOMMANDATION

7.1 Conclusion

The property is occupied by a gas station with a convenience store and a car wash. As part of a project to be submitted to the City, Phase I and II Environmental Site Assessments (ESAs) are required. These assessments are not intended to register a Record of Site Condition.

Groupe C. Laganière (1995) inc. has been commissioned by Harnois Groupe Immobilier inc., the owner of the site, to conduct a Phase II ESA on the property located at 1660, Merivale Road, Nepean, Ottawa, Ontario. This is in accordance with the service proposal dated June 6, 2024. (Reference Number: 2024-126-CE-REV2).

The objective of the mandate is to verify the risks of potential or actual contamination at the site that were identified by the Phase I ESA.

Fieldwork was conducted from July 8-11, 2024, under the supervision of a GCL certified technician. The work included drilling eight boreholes and sampling groundwater from wells in good condition on site.

The Phase II ESA highlights that:

- All soil samples analysis results were below Table 3 Standards.
- Groundwater sample analysis results were below Table 3 standards in wells MW15-01, MW15-02, TH3 and TH7.
- One groundwater sample result (F2, 590 ppb) was above Table 3 Standards in well 23F01. This concentration represents a decrease compared to TH5's last 2022 analytical results (3500 ppb), located in the vicinity of this well.
- Other existing wells could not be sampled due to their poor condition (e.g. presence of sediments, blocked).
- The other existing wells could not be sampled because of their bad condition, (presence of sediments, blocked, etc.). Some of these wells had contamination levels exceeding Table 3 standards in previous groundwater monitoring reports.

7.2 Recommandation

Based on the results obtained, the environmental quality of the soils at the sample locations meets the Table 3 standards.

However, given that petroleum equipment is still present on the site, it is recommended to conduct an additional environmental characterization campaign for the soils found at the bottom and on the walls of the excavation, upon the removal of these equipment.

Additionally, groundwater contamination is present both on and off the site according to previous reports. It is recommended to continue the annual groundwater monitoring program with the TSSA using both existing and new wells. The damaged wells should be replaced to ensure a complete and accurate TSSA groundwater monitoring program. New wells should be constructed to intercept the groundwater interface to effectively capture LNAPL, if applicable.

8. REFERENCES

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GCL, 2024. Environmental Site Assessment, 1660, Merivale Road, Nepean, Ottawa, Ontario. Reference Number : Harn1660P1.

Gelogical Survey of Canada, 1982. Surfical Geology - Ottawa, Map 1506A (31G5).

Groupe VRBS, April 6, 2023. Plan Topographique. Archive: 79-30, Dossier: 230454, minute : 4390.

MECP, Guide for completing phase two environmental site assessments under Ontario Regulation 153/04, 2004 consulted in July 2024.

MECP, Map Well Records, consulted in July 2024.

MNRF, Make a Map: Natural Heritage Areas, consulted in July 2024.

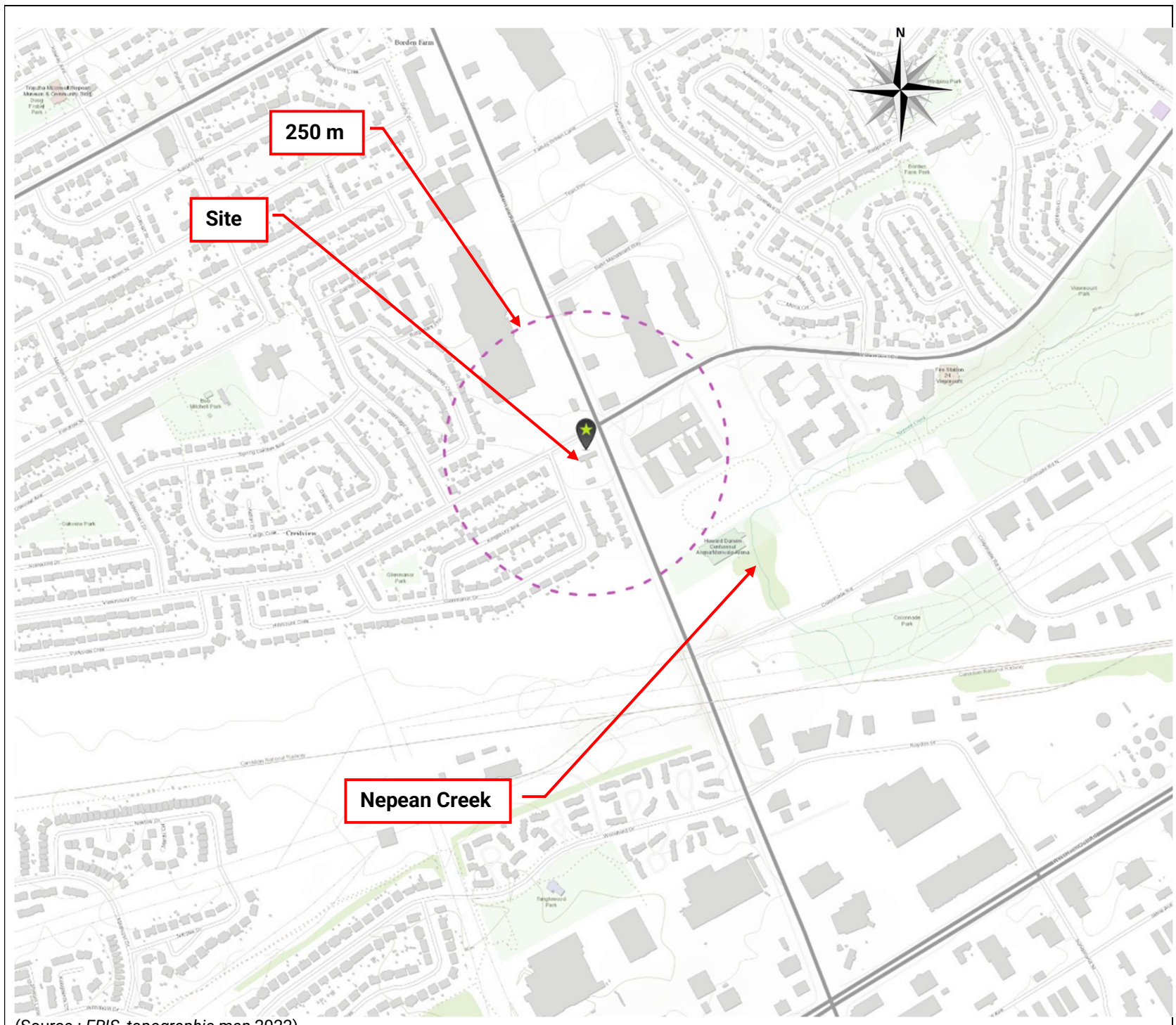
MNRO, 1984. Paleozoic Geology Ottawa Area, Map P.2176.

NRC, 1925 to 1998. Topographic Map – Ottawa Area, Sheet N ° 31G05.

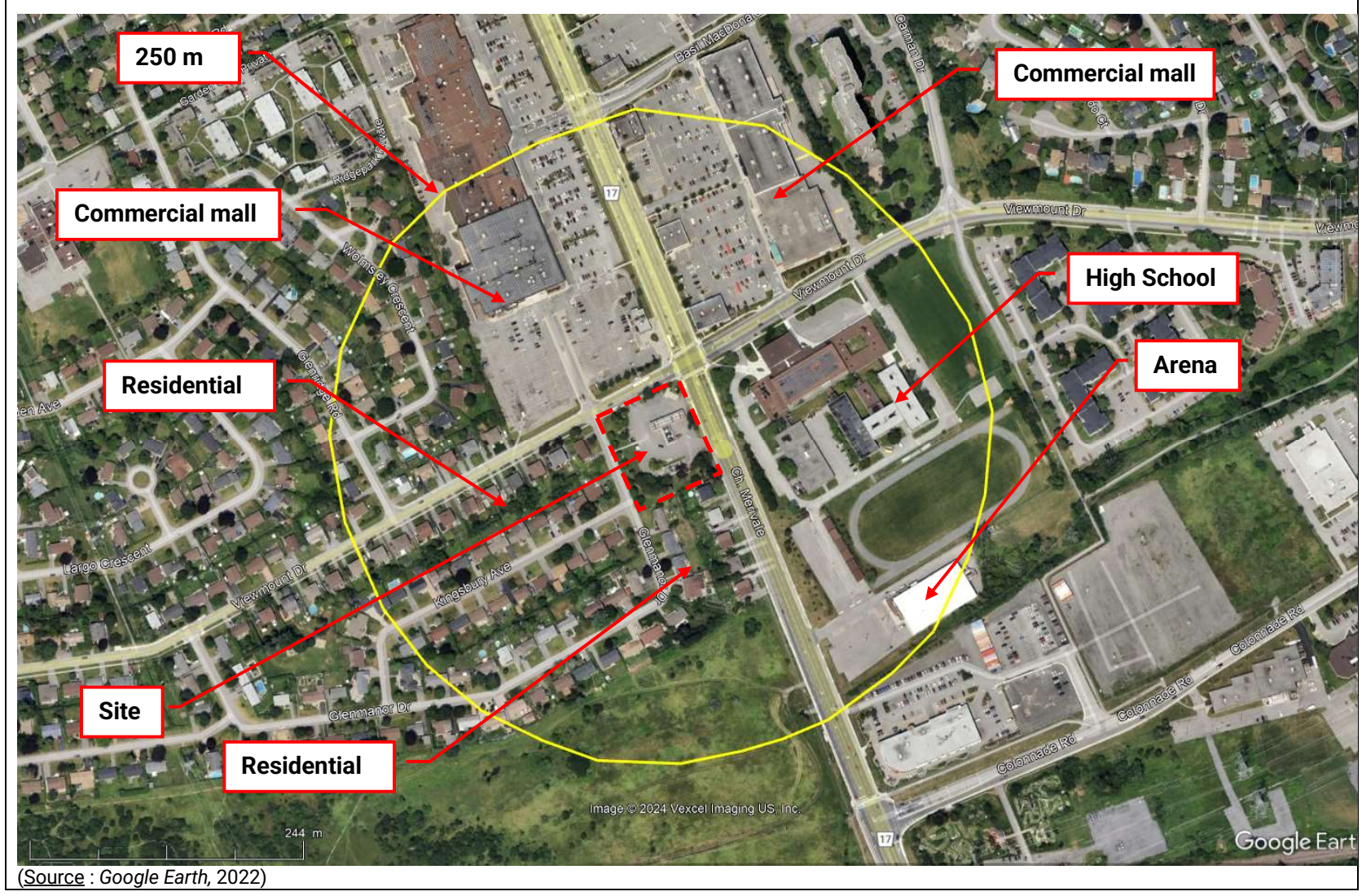
Ontario Regulation 153/04 (as amended by Regulation 362/23) from Part XV.1 of the Environmental Protection Act, December 2023.

VRSB Arpenteurs-Géomètres, 6 avril 2023. Plan Topographique. Dossier 230454, Minute 4390.

APPENDIX 1
Figures



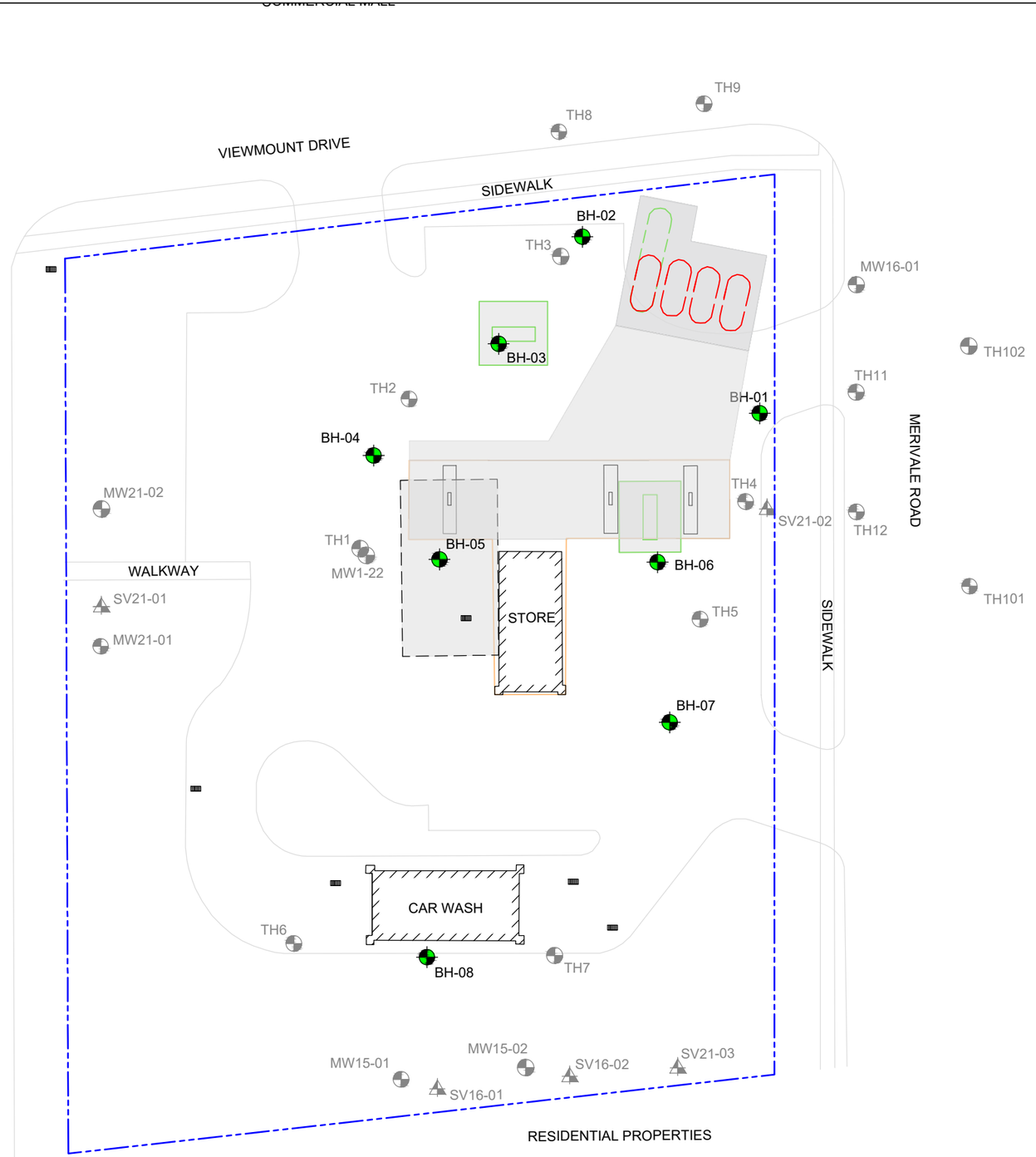
(Source : *ERIS, topographic map* 2022).



(Source : *Google Earth,* 2022)

GENERAL SITE LOCATION			**Figure 1**
Client :	*Harnois Groupe Immobilier Inc.*	Site :	1660 Merivale Road, Nepean, Ottawa, Ontario
Project :	Phase II ESA	Produced by:	Mathieu Bélisle, ing., M.Sc.A., P. Eng
File **:**	HARN1660P2	Verified by :	Guylaine Lebel, Ing., M.Ing., P.Eng.

Note: For the purpose of this study, Merivale Road is oriented in a north-south axis.



BH-01	6
Prof.(m)	2.4-3.0
BTEX	●
F1	●
F2	●
F3	●
F4	●
HA	●

BH-02	6
Prof.(m)	2.6-3.0
BTEX	●
F1	●
F2	●
F3	●
F4	●
HA	●

BH-03	6
Prof.(m)	2.6-3.0
BTEX	●
F1	●
F2	●
F3	●
F4	●
HA	●

BH-04	5	8
Prof.(m)	1.7-2.2	2.7-3.0
BTEX	●	●
F1	●	●
F2	●	●
F3	●	●
F4	●	●
HA	●	●
PAH	●	—
MTX	●	—

BH-05	3	6
Prof.(m)	1.2-1.8	3.0-3.3
BTEX	●	●
F1	●	●
F2	●	●
F3	●	●
F4	●	●
HA	●	●
PAH	●	●
MTX	●	●

BH-06	5
Prof.(m)	2.4-3.0
BTEX	●
F1	●
F2	●
F3	●
F4	●
HA	●

BH-07	6
Prof.(m)	2.7-3.3
BTEX	●
F1	●
F2	●
F3	●
F4	●
HA	●

BH-08	7
Prof.(m)	2.8-3.3
BTEX	●
F1	●
F2	●
F3	●
F4	●
HA	●
PAH	●
MTX	●

0 2 4 8 12 16 20

Unit of measurement : meter

LEGEND:

- Site limit
- Paving and sidewalk limit
- Current building
- Approximate location of former buildings
- Current underground storage tank
- Former underground storage tank
- Pump island
- Approximate location of former pump island
- Canopy
- Previous borehole, some with monitoring well
- Previous soil vapour probe
- Drain
- 2024 GCL Borehole

PAH: Polycyclic aromatic hydrocarbons

F1 to F4: F1 to F4 Petroleum hydrocarbons

BTEX: Benzene, Toluene, Ethylbenzene, Xylenes

MTX: Metals

HA: Hexane

Comparted to O.Reg. 153/04 Table 3 Standards for commercial use with medium/fine texture soils

● <Table 3	■ >Table 3

SOURCE: -Previous studies
VRSB Arpenteurs-Géomètres, Plan Topographique, dossier : 230454, Minute : 4390, April 6, 2024

NOTE: This figure was prepared from unauthenticated documents. The position may vary from reality. For indicative purpose only.

GROUPE C. LAGANIÈRE
Revalorisation de propriétés
Unlocking property value

	ÉCHELLE: Graphic	DATE
DRAWN BY:	David Sauvé, Tech.	August 6, 2024
CHECKED BY:	Mathieu Bélisle, P. Eng., M.App.Sc.	August 8, 2024
APPROVED BY:	Guylaine Lebel, P. Eng., M.Eng.	August 19, 2024

CLIENT:
HARNOIS GROUPE IMMOBILIER INC.

ADRESS:
1660 MERIVALE ROAD, NEPEAN, ON.

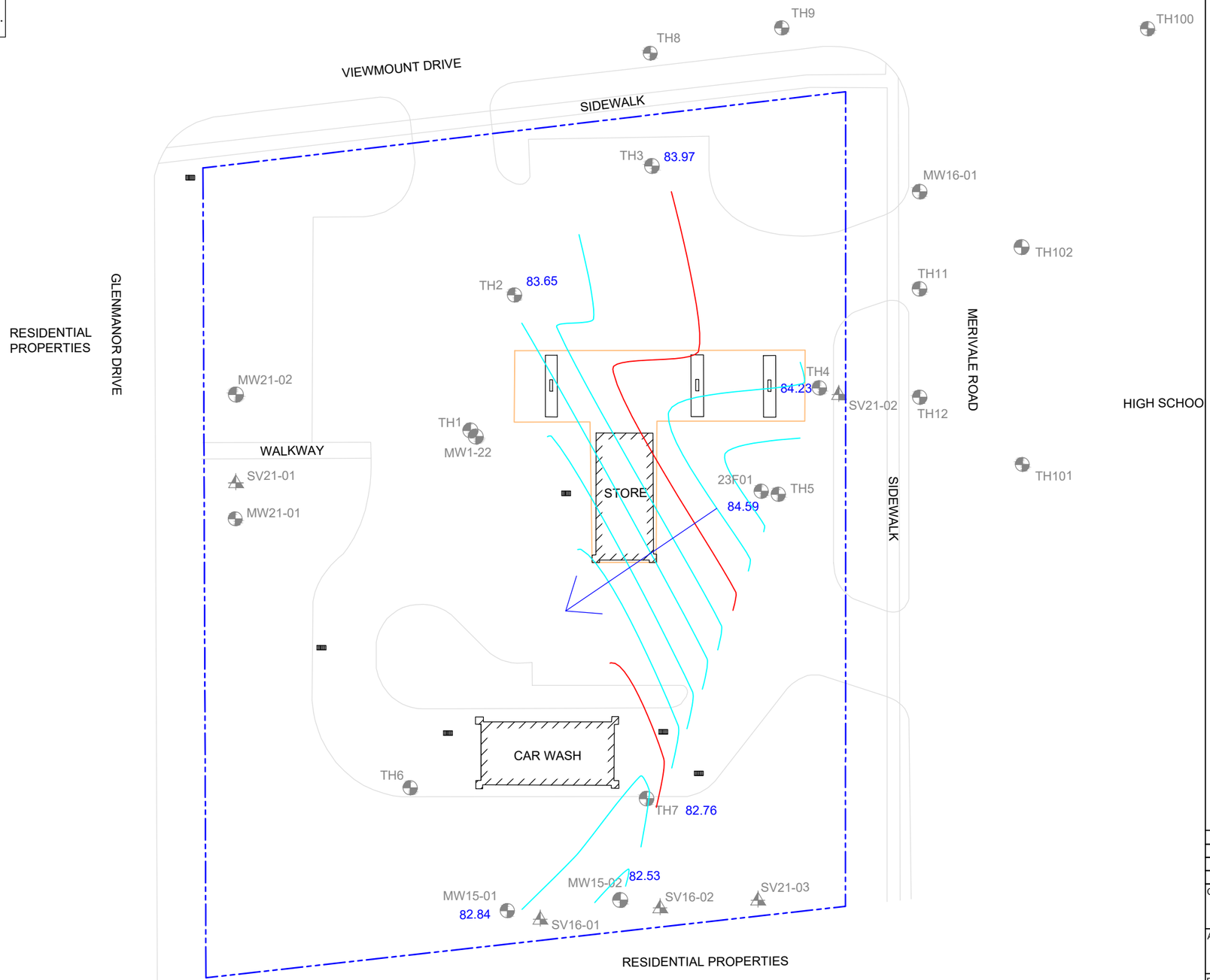
PROJECT:
PHASE II ESA

TITLE:
BOREHOLE LOCATION AND SOIL ANALYTICAL RESULTS

CONFIDENTIAL AND PRIVILEGED DOCUMENT

REF. NO.: HARN1660P2 | FIGURE 2

Note: For the purpose of this study, Merivale Road is oriented in a north-south axis.



0 2 4 8 12 16 20

Unit of measurement : meter

LEGEND:

- Site limit
- Paving and sidewalk limit
- Current building
- Approximate location of former buildings
- Current underground storage tank
- Former underground storage tank
- Pump island
- Approximate location of former pump island
- Canopy
- Previous borehole, some with monitoring well
- Previous soil vapour probe
- Drain

SOURCE: -Previous studies
VRSB Arpenteurs-Géomètres, Plan Topographique, dossier : 230454, Minute : 4390, April 6, 2024

NOTE: This figure was prepared from unauthenticated documents. The position may vary from reality. For indicative purpose only.

GROUPE C. LAGANIÈRE
Revalorisation de propriétés
Unlocking property value

	ÉCHELLE: Graphic	DATE
DRAWN BY:	David Sauvé, Tech.	August 5, 2024
CHECKED BY:	Mathieu Bélisle, P. Eng., M.App.Sc.	August 8, 2024
APPROVED BY:	Guylaine Lebel, P.Eng., M.Eng.	August 19, 2024

CLIENT:
HARNOIS GROUPE IMMOBILIER INC.

ADRESS:
1660 MERIVALE ROAD, NEPEAN, ON.

PROJECT:
PHASE II ESA

TITLE:
GROUNDWATER FLOW

CONFIDENTIAL AND PRIVILEGED DOCUMENT

REF. NO.: HARN1660P2 | FIGURE 3

TH1											Screen Interval: 2.6 to 5.6 mbgs
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
31-Aug-11	<0.20	<0.20	<0.20	<0.40	<25	<100	<100	<100	<5.0	<0.50
13-Jun-13	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	0.53
26-Aug-14	<0.20	0.75	<0.20	1.2	<25	<100	<200	<200	<5.0	<0.50
17-Nov-15	<0.20	0.27	0.28	<0.40	<25	<100	<200	<200	<5.0	<0.50
10-Aug-16	<0.20	<0.20	<0.20	<0.40	<25	<100	300	**1200**	<5.0	<0.50
06-Dec-16	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
21-Jun-17	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
16-Aug-18	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
30-Jul-19	<0.20	<0.20	<0.20	<0.40	<25	<100	**350**	**1400**	<5.0	<0.50
29-Jul-20	<0.20	<0.20	<0.20	<0.40	<25	**400**	**24000**	**160000**	-	1.5
13-Jul-21	LNAPL THICKNESS<0.001 m									

TH2											Screen Interval: 3.2 to 4.7 mbgs
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
31-Aug-11	0.77	<0.20	1.3	0.48	<25	<100	<100	<100	<5.0	<0.50
13-Jun-13	0.62	<0.20	2.2	<0.40	<25	<100	<200	<200	<5.0	<0.50
27-Aug-14	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
17-Nov-15	<0.20	0.29	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
17-Nov-15	(DUP)	<0.20	0.28	<0.20	<0.40	<25	<100	<200	<200	<5.0
09-Aug-16	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
21-Jun-17	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
15-Aug-18	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
31-Jul-19	<0.20	<0.20	<0.20	<0.40	<25	<100	250	<200	-	<0.50
28-Jul-20	0.44	<0.20	<0.20	3.6	<25	<100	<200	<200	-	<0.50
13-Jul-21	<0.20	<0.20	<0.20	<0.40	31	<100	<200	<200	-	<0.50
15-Jun-22	<0.2	-	-	<0.4	<25	<100	-	-	-	-

TH3											Screen Interval: 3.2 to 4.7 mbgs
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
31-Aug-11	27	2.4	79	150	**1100**	**430**	<100	130	20	3.8
31-Aug-11 (DUP)	23	2.1	69	130	**1100**	**380**	<100	110	17	3.9
13-Jun-13	11	0.61	66	85	**900**	**350**	<200	<200	<5.0	3.1
26-Aug-14	14	0.28	19	5.2	520	**180**	<200	<200	<5.0	2.2
28-Oct-15	25	<0.20	15	0.89	450	<100	<200	<200	<5.0	2.0
10-Aug-16	42	<0.20	26	1.5	560	110	<200	<200	<5.0	0.98
21-Jun-17	19	0.29	77	20	630	140	<200	<200	-	<0.50
15-Aug-18	7.4	<0.20	7.2	3.3	310	<100	<200	<200	-	0.76
31-Jul-19	18	<0.20	26	2.1	380	120	<200	<200	-	2.2
29-Jul-20	9.8	<0.20	6.4	0.58	310	<100	<200	<200	-	3.7
13-Jul-21	23	0.28	17	0.83	330	**170**	<200	<200	-	0.83
22-Mar-22	18	<0.20	18	2.4	590	150	<200	<200	-	1.5
15-Jun-22	17	-	-	0.46	520	130	-	-	-	-
11-Jul-24	6.1	<1.0	1.5	<0.4	320	<100	<200	<200	<0.5	-

TH4										Screen Interval: 3.4 to 4.9 mbgs
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
31-Aug-11	**610**	610	**3400**	**19000**	**26000**	**17000**	360	170	**540**	2.6
13-Jun-13	200	35	1.2	**4300**	**6200**	**19000**	**580**	430	<100(d)	5.8
26-Aug-14	**500**	37	1.4	2600	**4700**	**1400**	<200	<200	58	3.0
26-Aug-14 (DUP)	**540**	40	1.6	2700	400	**1400**	<200	<200	62	1.9
17-Nov-15	180	18	560	930	**1900**	**940**	240	230	<100(d)	3.1
10-Aug-16	210	11	550	1500	**1800**	**370**	<200	<200	31	1.1
10-Aug-16 (DUP)	190	9.7	490	1400	**1600**	**400**	210	<200	27	1.7
21-Jun-17	210	28	470	1500	**2000**	**930**	<200	<200	-	0.78
16-Aug-18	400	14	860	3400	**3100**	**1300**	250	<200	-	**30**
16-Aug-18 (DUP)	420	14	890	3500	**2800**	**1200**	260	210	-	**32**
31-Jul-19	36	1.9	41	270	**1500**	**1400**	280	<200	-	12
27-Jul-20	LNAPL THICKNESS: 0.002 m									
22-Mar-22	21	1.6	370	390	**2800**	**2300**	380	270	-	21
16-Jun-22	380	-	-	**5900**	**8900**	**2500**	-	-	-	-

TH5										Screen Interval: 3.5 to 5.0 mbgs
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
31-Aug-11	**750**	140	**3000**	**13000**	**85000**	**20000**	**690**	**620**	**1400**	5.5
13-Jun-13	**530**	44	1600	3800	**9900**	**160000**	**12000**	**6800**	<100(d)	8.3
2013-Jun-13 (DUP)	**550**	44	1600	3800	**9200**	**110000**	**7000**	**4300**	<100(d)	8
27-Aug-14	**450**	46	1600	3100	**11000**	**2800**	<200	<200	**210**	4.1
17-Nov-15	380	26	930	1300	**3300**	**2900**	320	240	<100(d)	3.7
10-Aug-16	420	43	1500	3700	**13000**	**11000**	**1100**	**810**	**240**	0.81
21-Jun-17	210	25	690	1800	**4400**	**3600**	420	350	-	1.8
2017-Jun-21 (DUP)	190	23	640	1600	**4400**	**3200**	490	450	-	2.2
16-Aug-18	**510**	37	1400	2600	**6700**	**3300**	300	<200	-	2.6
31-Jul-19	380	24	910	2800	**5600**	**5400**	350	<200	-	8.4
2019-Jul-31 (DUP)	380	26	940	2900	**5700**	**4100**	290	<200	-	8.3
29-Jul-20	200	12	830	1400	**6000**	**8500**	**570**	<200	-	**26**
2020-Jul-29 (DUP)	200	12	790	1300	**5900**	**8500**	470	<200	-	25
13-Jul-21	210	19	720	1700	**6300**	**14000**	**1000**	**590**	-	**37**
2021-Jul-13 (DUP)	270	26	930	2100	**6300**	**13000**	**910**	**550**	-	**39**
22-Mar-22	LNAPL THICKNESS: 0.002 m									
15-Jun-22	190	-	-	1700	**4900**	**3500**	-	-	-	-

TH6										Screen Interval: 3.6 to 5.1 mbgs
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
20-Oct-11	<0.20	<0.20	<0.20	<0.40	<25	<100	<100	<100	<5.0	<0.50
2011-Oct-20 (DUP)	<0.20	<0.20	<0.20	<0.40	<25	<100	<100	<100	<5.0	<0.50
13-Jun-13	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	0.6
27-Aug-14	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
28-Oct-15	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
2015-Oct-28 (DUP)	<0.20	0.39	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
09-Aug-16	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
22-Jun-17	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
14-Aug-18	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
29-Jul-19	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
27-Jul-20	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
13-Jul-21	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
21-Mar-22	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
2022-Mar-21 (DUP)	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
15-Jun-22	<0.20	-	-	<0.40	<25	<100	-	-	-	-

TH7										Screen Interval: 4.4 to 5.8 mbgs
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
14-Nov-11	31	5.4	160	340	430	<100	<100	<100	<30	<0.5
13-Jun-13	37	2.8	140	130	550	**460**	<200	<200	<5.0	3.2
27-Aug-14	150	18	610	730	**1900**	**540**	<200	<200	22	2.1
28-Oct-15	93	8.4	270	300	**1000**	**280**	<200	<200	<5.0	1.2
09-Aug-16	62	5.8	120	140	500	150	<200	<200	<5.0	<0.50
22-Jun-17	93	8.7	240	190	**800**	**190**	<200	<200	-	0.54
14-Aug-18	22	0.53	8.8	0.60	68	<100	<200	<200	-	<0.50
29-Jul-19	46	1.4	43	2.5	400	110	<200	<200	-	<0.50
27-Jul-20	27	1.3	35	3.1	270	<100	<200	<200	-	<0.50
13-Jul-21	21	0.60	4.5	0.70	150	<100	<200	<200	-	0.60
21-Mar-22	4.0	<0.20	<0.20	<0.40	36	<100	<200	<200	-	<0.50
15-Jun-22	7.3	-	-	<0.4	38	<100	-	-	-	-
11-Jul-24	<0.2	<1.0	<0.1	<0.4	<100	<100	<200	<200	<0.5	0.15

MW15-01										Screen Interval: 3.0 to 6.0 mbgs
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
17-Nov-15	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
09-Aug-16	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
22-Jun-17	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
15-Aug-18	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
29-Jul-19	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
27-Jul-20	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
13-Jul-21	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
21-Mar-22	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	0.62
11-Jul-24	<0.2	<1.0	<0.1	<0.4	<100	<100	<200	<200	<0.5	-

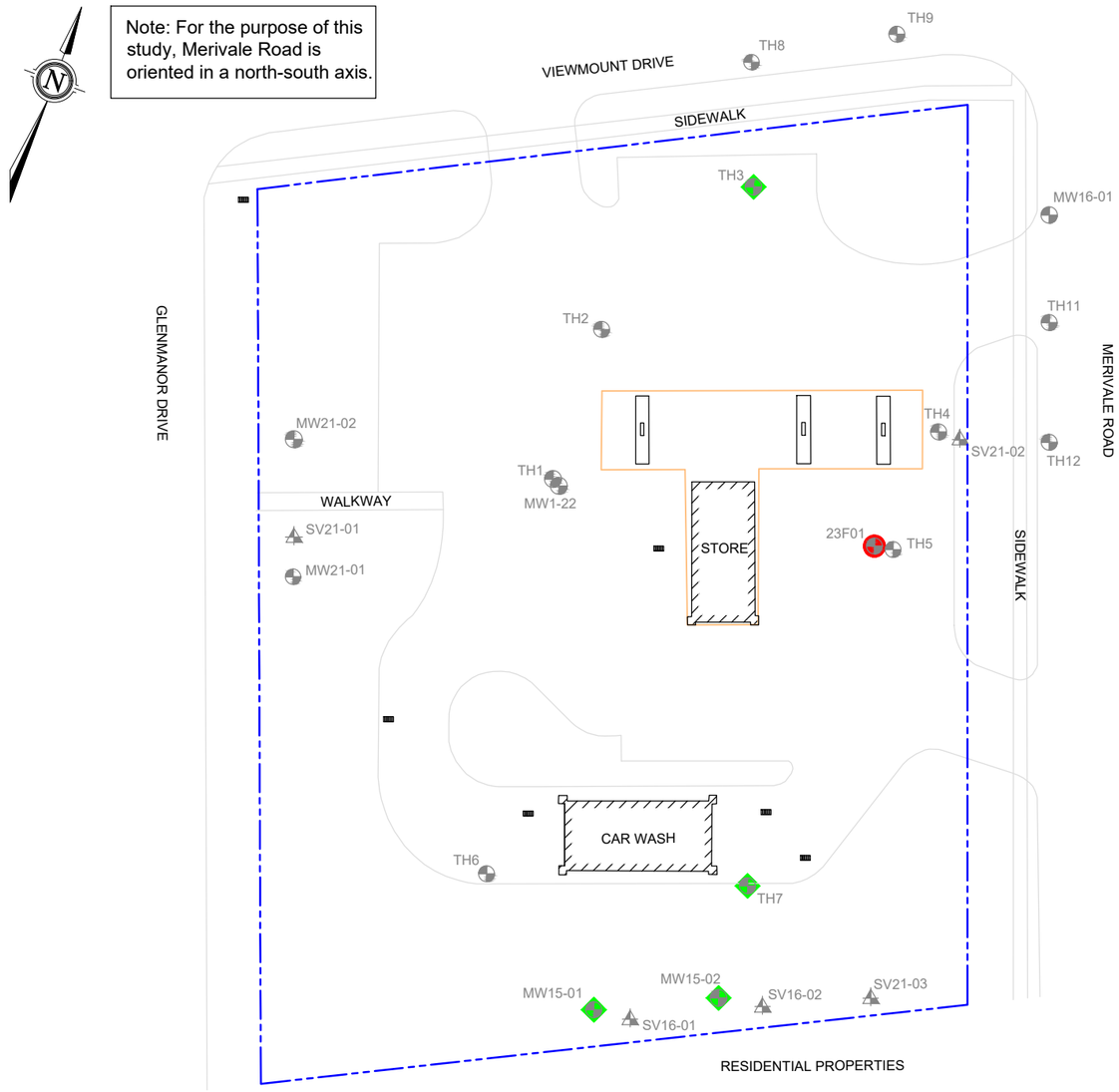
MW15-02										Screen Interval: 2.7 to 4.9 mbgs
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
17-Nov-15	44	5.9	180	170	**2300**	**750**	<200	<200	35	2.2
09-Aug-16	78	4.7	73	25	**800**	**450**	<200	<200	5.5	<0.50
22-Jun-17	20	1.0	1.5	2.3	190	110	<200	<200	-	1.1
14-Aug-18	2.0	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
29-Jul-19	1.7	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
27-Jul-20	0.79	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
13-Jul-21	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
21-Mar-22	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
15-Jun-22	<0.2	-	-	<0.4	<25	<100	-	-	-	-
11-Jul-24	1.4	<1.0	4.8	<0.4	<100	<100	<200	<200	0.56	0.93

23F01											Screen Interval: 2.7 to 4.9 mbgs
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
17-Nov-15	1.7	<1.0	1.7	9.3	260	**590**	210	<200	<0.05	-

PARAMETERS	B	T	E	X	F1	F2	F3	F4	HA	Pb
STANDARD *	430	18000	2300	4200	750	150	500	500	520	25
RDL	0.2	1.0	0.2	0.4	25	100	200	200	0.05	0.5

* : O.Reg. 153/04 Table 3 Standards for commercial use with medium/fine texture soils

Note: For the purpose of this study, Merivale Road is oriented in a north-south axis.



LEGEND:

- Site limit
- Paving and sidewalk limit
- Current building
- Approximate location of former buildings
- Current underground storage tank
- Former underground storage tank
- Pump island
- Approximate location of former pump island
- Canopy
- Previous borehole, some with monitoring well
- Previous soil vapour probe
- Drain

PAH: Polycyclic aromatic hydrocarbons

F1 to F4: F1 to F4 Petroleum hydrocarbons

BTEX: Benzene, Toluene, Ethylbenzene, Xylenes

Pb: Lead

HA: Hexane

Comparted to O.Reg. 153/04 Table 3 Standards for commercial use with medium/fine texture soils

<Table 3	>Table 3

SOURCE: -Previous studies
VRSB Arpenteurs-Géomètres, Plan Topographique, dossier : 230454, Minute : 4390, April 6, 2024

NOTE: This figure was prepared from unauthenticated documents. The position may vary from reality. For indicative purpose only.

GROUPE C. LAGANIÈRE
Revalorisation de propriétés
Unlocking property value

	ÉCHELLE: Graphic	DATE
DRAWN BY:	David Sauvé, Tech.	August 6, 2024
CHECKED BY:	Mathieu Bélisle, P.Eng., M.App.Sc.	August 12, 2024
APPROVED BY:	Guylaine Lebel, P.Eng., M.Eng.	August 19, 2024

CLIENT:
HARNOIS GROUPE IMMOBILIER INC.

ADRESS:
1660 MERIVALE ROAD, NEPEAN, ON.

PROJECT:
PHASE II ESA

TITLE:
GROUNDWATER ANALYTICAL RESULTS

CONFIDENTIAL AND PRIVILEGED DOCUMENT

REF. NO.: HARN1660P2	FIGURE 4

APPENDIX 2
Tables

Table A: Summary of analytical results for SOIL samples

Project N° HARN1660P2
Site: 1660, Merivale Road, Nepoean, Ottawa, Ontario
Bureau Veritas File Nº: C437803V2R

Parameters	Units	O.Reg 153/04 [1] Industrial/Commercial/ Community Property Use [2]	Analytical results												
Sample			BH-01-6	BH-02-8	BH-03-6	BH-04-5	DUP#2	RPD	BH-04-8	BH-05-3	BH-05-6	BH-06-5	BH-07-6(REPRISE 2)	BH-08-7	RDL
Sampling date (year-month-day)			2024-07-09	2024-07-09	2024-07-09	2024-07-09	2024-07-09		2024-07-09	2024-07-09	2024-07-09	2024-07-09	2024-07-09	2024-07-09	
Depth (m)			0,21 - 0,9			0,17 - 0,9			0,9 - 1,15	1,15 - 1,8	0,09 - 0,9	0,9 - 1,8	0,22 - 0,9	2,7 - 3,6	
POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)															
Acenaphthene	mg/kg	96	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
Acenaphthylene	mg/kg	0.17	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
Anthracene	mg/kg	0.74	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
Benzo(a)anthracene	mg/kg	0.96	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
Benzo(a)pyrene	mg/kg	0.3	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
Benzo(b)fluoranthene	mg/kg	0.96	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
Benzo(j)fluoranthene	mg/kg	NC	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
Benzo(k)fluoranthene	mg/kg	0.96	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
Benzo(c)phenanthrene	mg/kg	NC	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
Benzo(ghi)perylene	mg/kg	9,6	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
Chrysene	mg/kg	9,6	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
Dibenzo(a,h)anthracene	mg/kg	0,1	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
Dibenzo(a,i)pyrene	mg/kg	NC	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
Dibenzo(a,h)pyrene	mg/kg	NC	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
Dibenzo(a,l)pyrene	mg/kg	NC	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
7,12-Dimethylbenzanthracene	mg/kg	NC	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
Fluoranthene	mg/kg	9.6	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
Fluorene	mg/kg	69	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.95	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
3-Methylcholanthrene	mg/kg	NC	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
Naphthalene	mg/kg	28	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
Phenanthrene	mg/kg	16	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
Pyrene	mg/kg	96	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
2-Methylnaphthalene	mg/kg	85	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
1-Methylnaphthalene	mg/kg	85	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
1,3-Dimethylnaphthalene	mg/kg	NC	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
2,3,5-Trimethylnaphthalene	mg/kg	NC	-	-	-	<0.10	<0.10	RDNC	-	<0.10	<0.10	-	-	<0.10	0.1
PETROLEUM HYDROCARBONS (C10-C50)															
Petroleum Hydrocarbons F1 [3]	mg/kg	65	<10	<10	<10	<10	<10	RDNC	<10	<10	<10	24	<10	<10	10
Petroleum Hydrocarbons F2	mg/kg	250	<10	<10	<10	<10	<10	RDNC	<10	<10	<10	680	<10	<10	10
Petroleum Hydrocarbons F3	mg/kg	2500	<50	<50	<50	<50	<50	RDNC	<50	<50	<50	140	<50	<50	50
Petroleum Hydrocarbons F4	mg/kg	6600	<50	<50	<50	<50	<50	RDNC	<50	<50	<50	<50	<50	<50	50
VOLATILE ORGANIC COMPOUNDS (VOCs)															
Benzene	mg/kg	0.4	<0.0050	<0.0050	<0.0050	0.0066	<0.0050	RDNC	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.005
Ethylbenzene	mg/kg	19	<0.050	<0.050	<0.050	<0.050	<0.050	RDNC	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.05
Toluene	mg/kg	78	<0.010	<0.010	<0.010	<0.010	<0.010	RDNC	<0.010	<0.010	<0.010	1.3	<0.010	<0.010	0.01
Xylene Mixture	mg/kg	30	<0.040	<0.040	<0.040	<0.040	<0.040	RDNC	<0.040	<0.040	<0.040	5.2	<0.040	<0.040	0.04
Hexane (n)	mg/kg	88	<0.50	<0.50	<0.50	<0.50	<0.50	RDNC	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.5
METALS (MET)															
Arsenic (As)	mg/kg	18	-	-	-	<5.0	<5.0	RDNC	-	<5.0	<5.0	-	-	<5.0	5
Cadmium (Cd)	mg/kg	1.9	-	-	-	<0.50	<0.50	RDNC	-	<0.50	<0.50	-	-	<0.50	0.5
Chromium (Cr)	mg/kg	160	-	-	-	55	55	0%	-	4	9.7	-	-	34	2
Cobalt (Co)	mg/kg	100	-	-	-	12	12	0%	-	3.1	6.4	-	-	7.7	2
Copper (Cu)	mg/kg	300	-	-	-	26	24	8%	-	8.4	11	-	-	18	2
Nickel (Ni)	mg/kg	340	-	-	-	29	28	4%	-	4.9	13	-	-	19	1
Lead (Pb)	mg/kg	120	5.3	6.8	7	8.9	7.1	RDNC	9.5	<5.0	7	8.2	6.1	<5.0	5
Thallium (Tl)	mg/kg	3.3	<2.0	<2.0	<2.0	-	-	-	<2.0	-	-	<2.0	<2.0	-	2
Zinc (Zn)	mg/kg	340	-	-	-	71	66	7%	-	11	14	-	-	44	10

Notes:

(1) : Ontario Regulation 153/04 : Records of Site Conditions
(2) : Table 3 standard for industrial/commercial/community proporty with fine textured soils
(3) : F1 fraction standard does not include BTEX
RDL : Laboratory Reported Detection Limit.
NC : No available criteria for this parameter
RPD : Relative difference in percentage. Considered acceptable up to 30%
RDNC : Relative diffrence not calculable becauses concetrations are lower than 5x the RDL.
- : Not analyzed
0,7 : Concentration lower than Table 3 standard for industrial/commercial/community proporty with medium/fine textured soils
300 : Concentration above than Table 3 standard for industrial/commercial/community proporty with medium/fine textured soils

Table B: Summary of analytical results for GROUNDWATER samples

Project N° HARN1660P2
Site: 1660, Merivale Road, Nepoean, Ottawa, Ontario
Bureau Veritas File Nº: C437803V2R

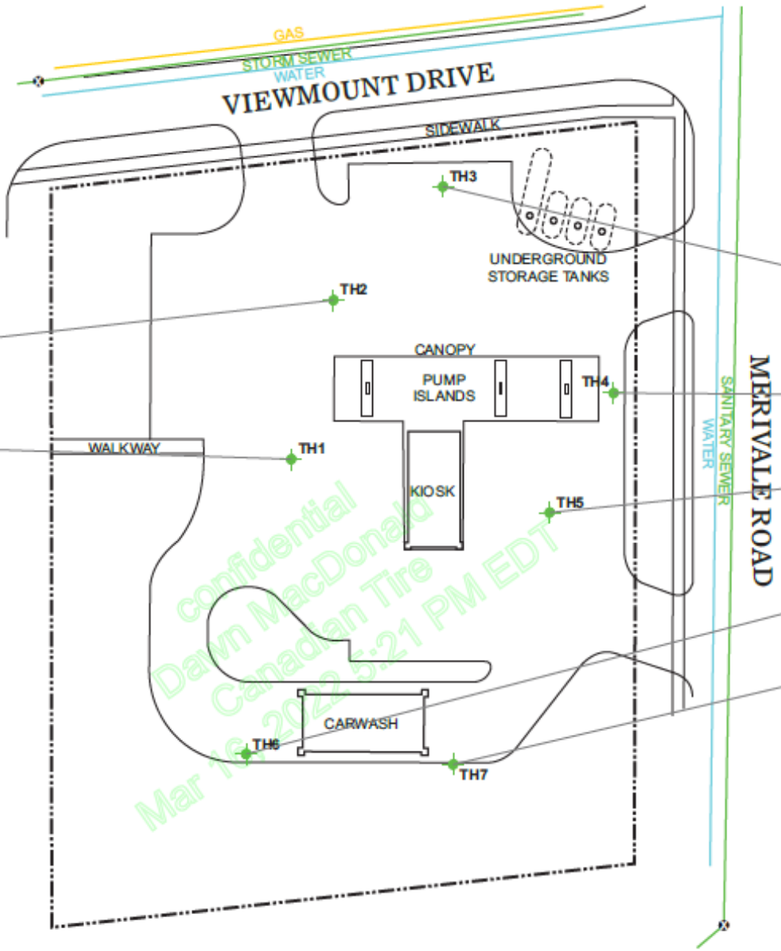
Parameters	Units	O.Reg 153/04 [1] Industrial/Commercial/ Community Property Use [2]								
Sample			**MW15-01**	**MW15-02**	**DUP-MW15-02**	**RPD**	**TH3**	**TH7**	**23F01**	**RDL**
Sampling date (year-month-day)			2024-07-08	2024-07-11	2024-07-11		2024-07-11	2024-07-11	2024-07-11	
Water Table Elevation (m)			82.84	82.53	82.53		83.97	82.76	84.59	
POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)										
Acenaphthene	ug/L	1700	<0.030	<0.030	<0.030	RDNC	-	<0.030	-	0.030
Anthracene	ug/L	2.4	<0.030	<0.030	<0.030	RDNC	-	<0.030	-	0.030
Benzo(a)anthracene	ug/L	4.7	<0.030	<0.030	<0.030	RDNC	-	<0.030	-	0.030
Benzo(a)pyrene	ug/L	0.81	<0.0080	<0.0080	<0.0080	RDNC	-	<0.0080	-	0.0080
Benzo(b)fluoranthene	ug/L	0.75	<0.060	<0.060	<0.060	RDNC	-	<0.060	-	0.06
Benzo(j)fluoranthene	ug/L	NC	<0.060	<0.060	<0.060	RDNC	-	<0.060	-	0.06
Benzo(k)fluoranthene	ug/L	0.4	<0.060	<0.060	<0.060	RDNC	-	<0.060	-	0.06
Chrysene	ug/L	1	<0.030	<0.030	<0.030	RDNC	-	<0.030	-	0.03
Dibenzo(a,h)anthracene	ug/L	0.52	<0.030	<0.030	<0.030	RDNC	-	<0.030	-	0.03
Fluoranthene	ug/L	130	<0.030	<0.030	<0.030	RDNC	-	<0.030	-	0.03
Fluorene	ug/L	400	<0.030	<0.030	<0.030	RDNC	-	<0.030	-	0.03
Indeno(1,2,3-cd)pyrene	ug/L	0.2	<0.030	<0.030	<0.030	RDNC	-	<0.030	-	0.03
Naphthalene	ug/L	6400	<0.030	0.033	<0.030	RDNC	-	<0.030	-	0.03
Phenanthrene	ug/L	580	<0.030	<0.030	<0.030	RDNC	-	<0.030	-	0.03
Pyrene	ug/L	68	<0.030	<0.030	<0.030	RDNC	-	<0.030	-	0.030
PETROLEUM HYDROCARBONS										
Petroleum Hydrocarbons F1 [3]	ug/L	750	<100	100	<100	RDNC	320	<100	260	100
Petroleum Hydrocarbons F2	ug/L	150	<100	<100	<100	RDNC	<100	<100	**590**	100
Petroleum Hydrocarbons F3	ug/L	500	<200	<200	<200	RDNC	<200	<200	210	200
Petroleum Hydrocarbons F4	ug/L	500	<200	<200	<200	RDNC	<200	<200	<200	200
VOLATILE ORGANIC COMPOUNDS (VOCs)										
Benzene	ug/L	430	<0.2	1.4	1.4	0%	6.1	<0.2	1.7	0.2
Ethylbenzene	ug/L	2300	<0.1	4.8	4.6	4%	1.5	<0.1	1.7	0.1
Toluene	ug/L	18000	<1.0	<1.0	<1.0	RDNC	<1.0	<1.0	<1.0	1.0
Xylene Mixture	ug/L	4200	<0.4	<0.4	<0.4	RDNC	<0.4	<0.4	9,3	0.4
Hexane (n)	ug/L	520	<0.50	0.56	<0.50	RDNC	<0.50	<0.50	<0.5	0.50
METALS (MTX)										
Arsenic (As)	ug/L	1900	-	<0.30	<0.30	RDNC	-	<0.30	-	0.30
Cadmium (Cd)	ug/L	2.7	-	<0.20	<0.20	RDNC	-	<0.20	-	0.20
Chromium (Cr)	ug/L	810	-	<0.50	0.52	RDNC	-	<0.50	-	0.50
Cobalt (Co)	ug/L	66	-	0.54	0.58	RDNC	-	<0.50	-	0.50
Copper (Cu)	ug/L	87	-	2.5	2.5	0%	-	1.2	-	0.50
Nickel (Ni)	ug/L	490	-	6.0	6.7	11%	-	5.3	-	1.0
Lead (Pb)	ug/L	25	-	0.93	0.85	9%	-	0.15	-	0.10
Zinc (Zn)	ug/L	1100	-	17	57	RDNC	-	<5.0	-	5.0

Notes:

(1)	: Ontario Regulation 153/04 : Records of Site Conditions
(2)	: Table 3 standard for industrial/commercial/community proporty with fine textured soils
(3)	: F1 fraction standard does not include BTEX
RDL	:Laboratory Reported Detection Limit.
NC	: No available criteria for this parameter
RPD	: Relative difference in percentage. Considered acceptable up to 30%
RDNC	: Relative diffrence not calculable becauses concetrations are lower than 5x the RDL.
-	: Not analyzed
0,7	: Concentration lower than Table 3 standard for industrial/commercial/community proporty with medium/fine textured soils
300	: Concentration above than Table 3 standard for industrial/commercial/community proporty with medium/fine textured soils

APPENDIX 3
Previous Studies Site Plans

GROUPE
C. LAGANIÈRE



TH2										AUG23/11
DEPTH(m)	B	T	E	X	H	F1	F2	F3	F4	Pb
2.3-2.9	0.02	ND	0.29	ND	ND	ND	ND	ND	ND	12

TH1										AUG23/11
DEPTH(m)	B	T	E	X	H	F1	F2	F3	F4	Pb
3.0-3.7	ND	0.13	ND	ND	ND	ND	ND	ND	ND	7

TH3										AUG23/11
DEPTH(m)	B	T	E	X	H	F1	F2	F3	F4	Pb
2.3-2.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	7
2.3-2.9(DUP)	ND	ND	ND	ND	ND	ND	ND	ND	ND	8

TH4										AUG24/11
DEPTH(m)	B	T	E	X	H	F1	F2	F3	F4	Pb
2.4-3.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	4

TH5										AUG24/11
DEPTH(m)	B	T	E	X	H	F1	F2	F3	F4	Pb
2.3-2.9	ND	ND	0.05	ND	ND	ND	ND	ND	ND	7
2.3-2.9(DUP)	ND	ND	0.06	ND	ND	ND	ND	ND	ND	7

TH6										OCT18/11
DEPTH(mbgs)	B	T	E	X	H	F1	F2	F3	F4	Pb
4.3-4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.1

TH7										OCT19/11
DEPTH(mbgs)	B	T	E	X	H	F1	F2	F3	F4	Pb
2.1-2.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.8
3.4-4.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.0
3.4-4.0(DUP)	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.5

SCALE:

0 15 30m
(APPROXIMATE)

BARENCO

DRAWN BY	CHECKED BY
C.N.	D.K.S.

SOURCE:

BASED ON 'SITE PLAN' BY IMPERIAL OIL A0765 DATED JAN. 16, 1984 AND FIELD OBSERVATIONS BY BARENCO STAFF

LEGEND:

PROPERTY BOUNDARY
MANHOLE
TEST HOLE WITH MONITOR

LOCATION WHERE ALL SOIL SAMPLES MEET **REG 153/04 (2011) TABLE 3** STANDARDS FOR ALL PARAMETERS THAT WERE ANALYSED SHOWN AS GREEN

LOCATION WHERE AT LEAST ONE SOIL SAMPLE EXCEEDS **REG 153/04 (2011) TABLE 3** STANDARDS FOR AT LEAST ONE PARAMETER SHOWN AS RED

EXCEEDANCES OF **REG 153/04 (2011) TABLE 3** STANDARDS SHOWN IN TEXT AS **RED BOLD**

ALL ANALYTICAL RESULTS ARE IN µg/g DRY WEIGHT BASIS
'DEPTH(mbgs)' MEANS DEPTH IN METRES BELOW GROUND SURFACE
'ND' MEANS NOT DETECTED
'RDL' MEANS LABORATORY REPORTING DETECTION LIMIT

* STANDARDS SHOWN ARE FOR AN INDUSTRIAL/COMMERCIAL/COMMUNITY PROPERTY USE AND MEDIUM AND FINE TEXTURED SOILS IN A NON-POTABLE GROUND WATER CONDITION

PARAMETER	ABBREVIATION	153/04 (2011) TABLE 3 STANDARDS*	RDL
BENZENE	B	0.4	0.02
TOLUENE	T	19	0.02
ETHYLBENZENE	E	78	0.02
XYLENES	X	30	0.04
n-HEXANE	H	88	0.5
F1 (C_6-C_{10}) - BTEX	F1	65	10
F2 (C_{10}-C_{16})	F2	250	10
F3 (C_{16}-C_{34})	F3	2500	10
F4 (C_{34}-C_{50})	F4	6600	10

SOIL ANALYTICAL RESULTS

FIGURE 3

IMPERIAL OIL
1660 MERIVALE ROAD
OTTAWA, ONTARIO

BARENCO JOB #: 11010 | DATE: MARCH 2012

11010-SOIL RESULTS-MAR12

MW15-01									Date Sampled - September 09/15	
Depth (mbgs)	B	T	E	X	F1	F2	F3	F4	H	Pb
0.30	<0.020	<0.020	<0.020	<0.040	<10	<10	<50	<50	<0.50	24
1.80	<0.020	<0.020	<0.020	<0.040	<10	<10	<50	<50	<0.50	5.6

MW15-02									Date Sampled - September 09/15	
Depth (mbgs)	B	T	E	X	F1	F2	F3	F4	H	Pb
0.20	<0.020	<0.020	<0.020	<0.040	<10	<10	<50	<50	<0.50	33
1.60	<0.020	<0.020	<0.020	<0.040	<10	<10	<50	<50	<0.50	5.7

ONTARIO STANDARDS

PARAMETERS	B	T	E	X	F1	F2	F3	F4	H	Pb
CRITERIA[a]	0.4	78	19	30	65	250	2,500	6,600	88	120
RDL	0.020	0.020	0.020	0.040	10	10	50	50	0.50	5.0

LEGEND

PROPERTY BOUNDARY

BOREHOLE LOCATION COMPLETED AS A MONITORING WELL

LIST OF APPLICABLE ABBREVIATIONS

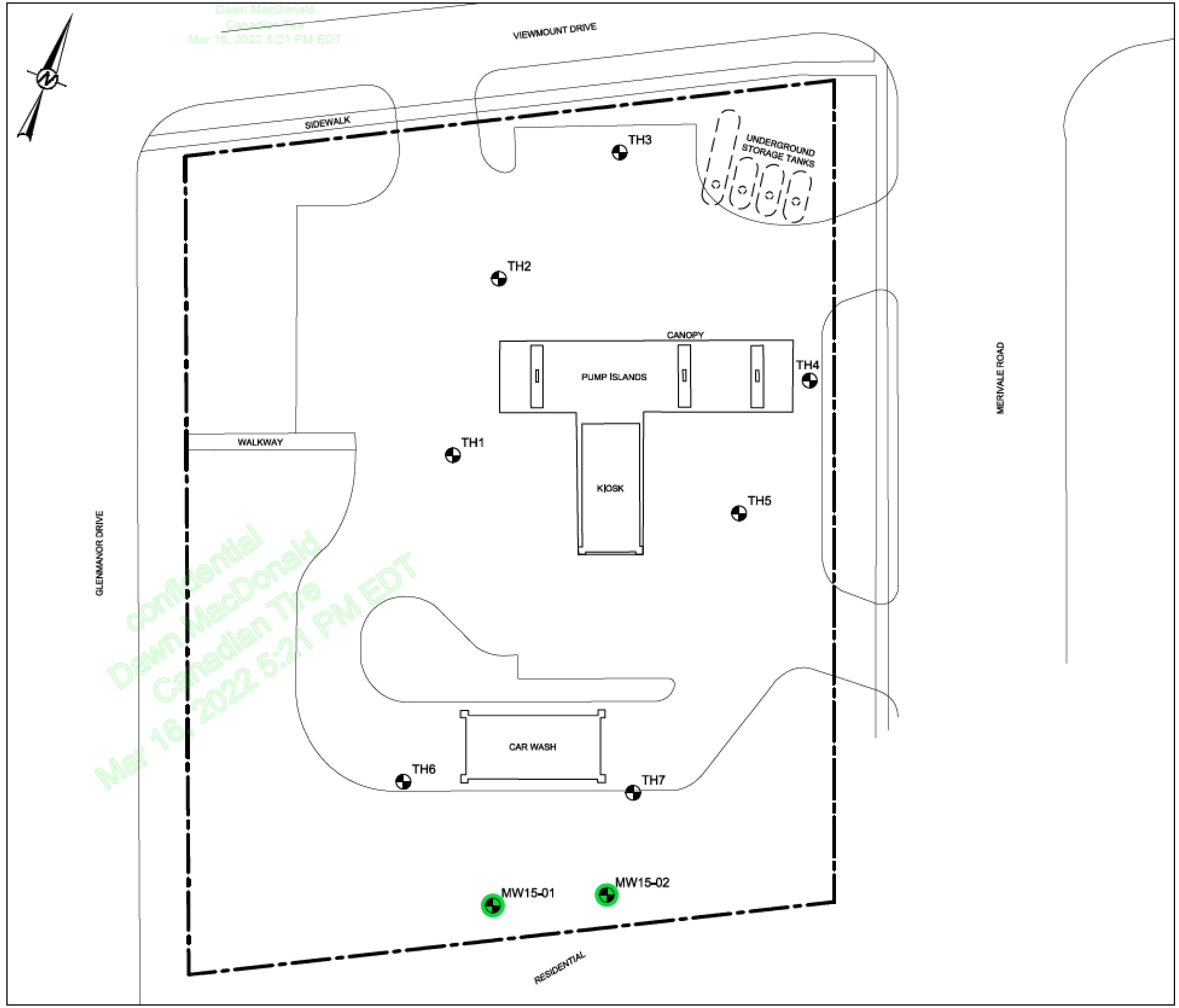
(a)	O.REG 153 (2011) TABLE 3 FULL DEPTH GENERIC SITE CONDITION STANDARDS FOR INDUSTRIAL/COMMERICAL/COMMUNITY PROPERTY USE FOR MEDIUM AND FINE TEXTURED SOIL IN A NON-POTABLE GROUNDWATER CONDITION.
<	LESS THAN
µg/g	MICROGRAMS PER GRAM
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENES
F1	PETROLEUM HYDROCARBON FRACTION 1 (C_6-C_{10}) MINUS BTEX
F2	PETROLEUM HYDROCARBON FRACTION 2 (C_{10}-C_{16})
F3	PETROLEUM HYDROCARBON FRACTION 3 (C_{16}-C_{34})
F4	PETROLEUM HYDROCARBON FRACTION 4 (C_{34}-C_{50})
HA	n-HEXANE
mbgs	METRES BELOW GROUND SURFACE
O.REG	ONTARIO REGULATION
Pb	LEAD
RDL	REPORTABLE DETECTION LIMIT

NOTES

1. LOCATIONS WHERE ALL SOIL SAMPLES MEET APPLICABLE STANDARDS FOR ALL PARAMETERS ANALYZED SHOWN IN GREEN.
2. LOCATIONS WHERE AT LEAST ONE SOIL SAMPLE EXCEEDS APPLICABLE STANDARDS FOR AT LEAST ONE OF THE PARAMETERS ANALYZED SHOWN IN RED.
3. EXCEEDANCES OF APPLICABLE CRITERIA IN TEXT ARE SHOWN IN RED.
4. ALL RESULTS IN µg/g.

REFERENCE

ORIGINAL DRAWING OBTAINED FROM BARENCO INC.; FILE No.: 11010-SITE PLAN ONSITE-JUN14; SCALE: UNKNOWN; DATE: JUNE 2014.



0 10 20
1:500 METRES

CLIENT
IMPERIAL OIL LIMITED

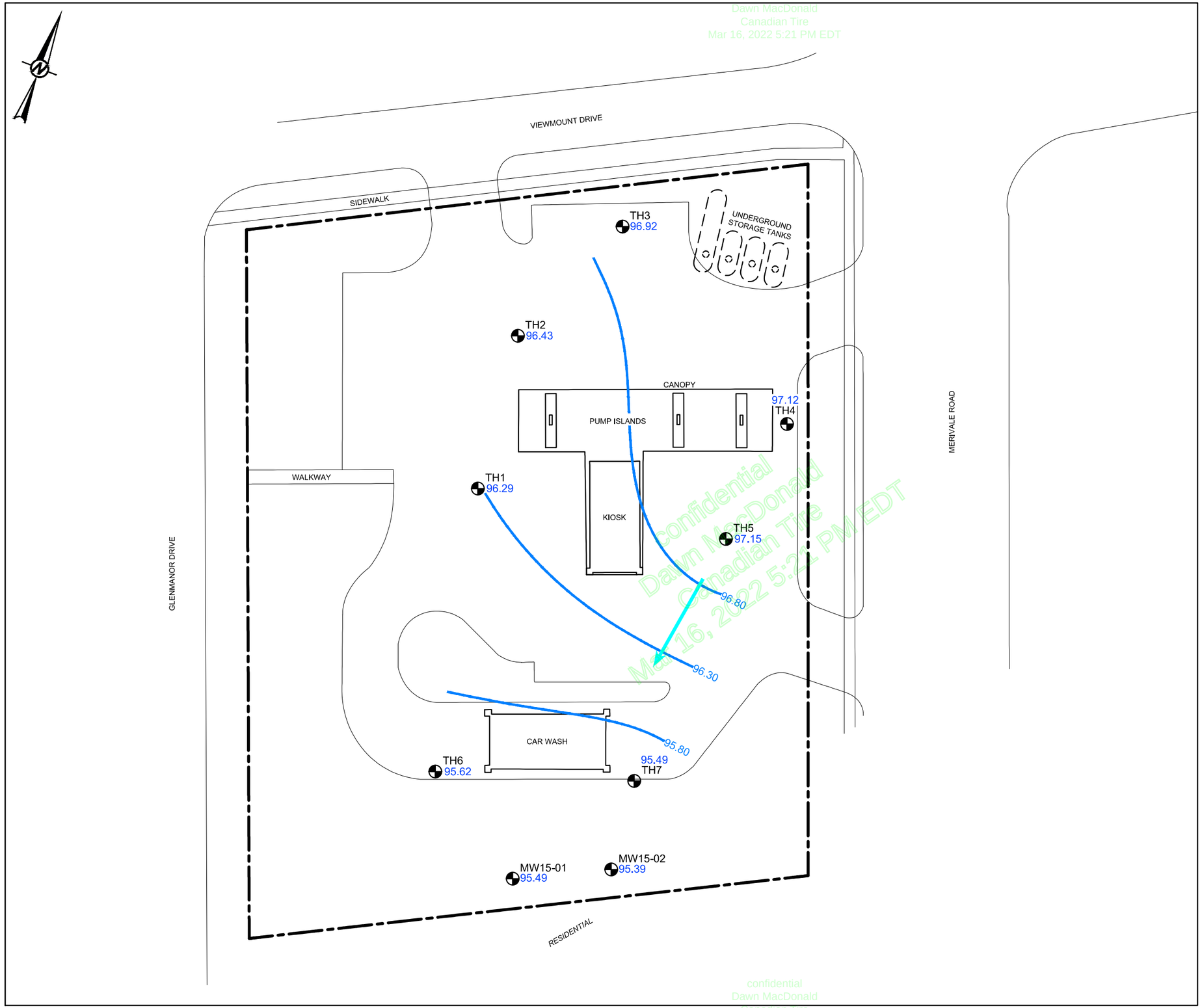
PROJECT
RETAIL FUEL OUTLET
1660 MERIVALE ROAD
OTTAWA, ONTARIO

CONSULTANT
Golder Associates

YYYY-MM-DD	2016-05-04
DESIGNED	BMcParlan
PREPARED	SStoddart
REVIEWED	BMcParlan
APPROVED	SCarrelas

TITLE
SOIL ANALYTICAL RESULTS - BTEX, PHC FRACTIONS F1-F4, n-HEXANE AND LEAD

PROJECT NO.	CONTROL	REV.	FIGURE
1536518	1155-HS-0006	0	6



LEGEND

- PROPERTY BOUNDARY
- 96.80 GROUNDWATER CONTOUR (masl)
- BOREHOLE LOCATION COMPLETED AS A MONITORING WELL
- 96.92 GROUNDWATER ELEVATION (masl)
- DIRECTION OF GROUNDWATER FLOW

LIST OF APPLICABLE ABBREVIATIONS

m	METRE
masl	METRES ABOVE SEA LEVEL

NOTE

TH1 TO TH5 AND TH7 ELEVATIONS ARE RELATIVE TO LOCAL BENCHMARK (CENTRE OF STORM SEWER CATCH BASIN LOCATED APPROXIMATELY 5 METRES WEST OF KIOSK) ASSIGNED ELEVATION: 100.00 m (EXP 2013).

MW15-01, MW15-02 AND TH6 ELEVATIONS ARE RELATIVE TO LOCAL BENCHMARK (GROUND SURFACE AT TH7) ASSIGNED ELEVATION: 99.66 m (EXP 2013).

REFERENCE

ORIGINAL DRAWING OBTAINED FROM BARENCO INC.; FILE No.: 11010-SITE PLAN ONSITE-JUN14; SCALE: UNKNOWN; DATE: JUNE 2014.

0 10 20
1:500 METRES

CLIENT
IMPERIAL OIL LIMITED

PROJECT
ACTIVE RETAIL OUTLET
1660 MERIVALE ROAD
OTTAWA, ONTARIO

TITLE
GROUNDWATER FLOW DIRECTION
August 9, 2016

CONSULTANT
Golder Associates

YYYY-MM-DD	2017-01-31
DESIGNED	BMcParlan
PREPARED	AMehdilou
REVIEWED	LBurger
APPROVED	SCarrelas

PROJECT NO.	PHASE-TASK	REV.	FIGURE
1544125	1155-2016	1	4

TH1 — Screen Interval: 2.6 to 5.6 mbgs

Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
31-Aug-11	<0.20	<0.20	<0.20	<0.40	<25	<100	<100	<100	<5.0	<0.50
13-Jun-13	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	0.53
26-Aug-14	<0.20	0.75	<0.20	1.2	<25	<100	<200	<200	<5.0	<0.50
17-Nov-15	<0.20	0.27	0.28	<0.40	<25	<100	<200	<200	<5.0	<0.50
10-Aug-16	<0.20	<0.20	<0.20	<0.40	<25	<100	300	1,200[IN]	<5.0	<0.50
5-Dec-16	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	na	<0.50

TH2 — Screen Interval: 3.2 to 4.7 mbgs

Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
31-Aug-11	0.77	<0.20	1.3	0.48	<25	<100	<100	<100	<5.0	<0.50
13-Jun-13	0.62	<0.20	2.2	<0.40	<25	<100	<200	<200	<5.0	<0.50
27-Aug-14	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
17-Nov-15	<0.20	0.29	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
9-Aug-16	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50

TH3 — Screen Interval: 3.2 to 4.7 mbgs

Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
31-Aug-11	27	2.4	79	150	1100	430	<100	130	20	3.8
31-Aug-11 (DUP)	23	2.1	69	130	1100	380	<100	110	17	3.9
13-Jun-13	11	0.61	66	85	900	350	<200	<200	<5.0	3.1
26-Aug-14	14	0.28	19	5.2	520	180	<200	<200	<5.0	2.2
28-Oct-15	25	<0.20	15	0.89	450	<100	<100	<200	<5.0	2.0
10-Aug-16	42	<0.20	26	1.5	560	110	<200	<200	<5.0	0.98

TH4 — Screen Interval: 3.4 to 4.9 mbgs

Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
31-Aug-11	610	610	3,400	19,000	26,000	17,000	360	170	540	2.6
13-Jun-13	200	35	1200	4,300	6,200	19,000	580	430	<100	5.8
26-Aug-14	500	37	1400	2600	4,700	1400	<200	<200	58	3.0
26-Aug-14 (DUP)	540	40	1600	2700	400	1400	<200	<200	62	1.9
17-Nov-15	180	18	560	930	1,900	940	240	230	<100	3.1
10-Aug-16 (DUP A)	190	9.7	490	1,400	1,600	400	210	<200	31	1.7
10-Aug-16	210	11	550	1,500	1,800	370	<200	<200	27	1.1

TH5 — Screen Interval: 3.5 to 5.0 mbgs

Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
31-Aug-11	750	140	3,000	13,000	85,000	20,000	690	620	1,400	5.5
13-Jun-13	530	44	1600	3800	9,900	160,000	12,000	6,800	<100	8.3
13-Jun-13 (DUP)	550	44	1600	3800	9,200	110,000	7,000	4,300	<100	8
27-Aug-14	450	46	1600	3100	11,000	2,800	<200	<200	210	4.1
17-Nov-15	360	26	930	1,300	3,300	2,900	320	240	<100	3.7
10-Aug-16	420	43	1,500	3,700	13,000	11,000	1,100	810	240	0.81

TH6 — Screen Interval: 3.6 to 5.1 mbgs

Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
20-Oct-11	<0.20	<0.20	<0.20	<0.40	<25	<100	<100	<100	<5.0	<0.50
20-Oct-11 (DUP)	<0.20	<0.20	<0.20	<0.40	<25	<100	<100	<100	<5.0	<0.50
13-Jun-13	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	0.6
27-Aug-14	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
28-Oct-15	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
9-Aug-16	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50

TH7 — Screen Interval: 4.4 to 5.8 mbgs

Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
14-Nov-11	31	5.4	160	340	430	<100	<100	<100	<30	<0.5
13-Jun-13	37	2.8	140	130	550	460	<200	<200	<5.0	3.2
27-Aug-14	150	18	610	730	1,900	540	<200	<200	22	2.1
28-Oct-15	93	8.4	270	300	1,000	280	<200	<200	<5.0	1.2
9-Aug-16	62	5.8	120	140	500	150	<200	<200	<5.0	<0.50

MW15-01 — Screen Interval: 3.0 to 6.0 mbgs

Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
17-Nov-15	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
9-Aug-16	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50

MW15-02 — Screen Interval: 2.7 to 4.9 mbgs

Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
17-Nov-15	44	5.9	180	170	2,300	750	<200	<200	35	2.2
9-Aug-16	78	4.7	73	25	800	450	<200	<200	5.5	<0.50

ONTARIO STANDARDS

PARAMETERS	B	T	E	X	F1	F2	F3	F4	HA	Pb
STANDARDS[a]	430	18,000	2,300	4,200	750[IC]	150	500	500	520	25
RDL	0.20	0.20	0.20	0.40	25	100	200	200	10	0.50

(a) O.REG 153 (2011) TABLE 3 FULL DEPTH GENERIC SITE CONDITION STANDARDS FOR ALL TYPES OF PROPERTY USE FOR GROUNDWATER IN MEDIUM AND FINE TEXTURED SOIL IN IN A NON-POTABLE GROUND WATER CONDITION.

LEGEND

PROPERTY BOUNDARY

BOREHOLE LOCATION COMPLETED AS A MONITORING WELL

LIST OF APPLICABLE ABBREVIATIONS

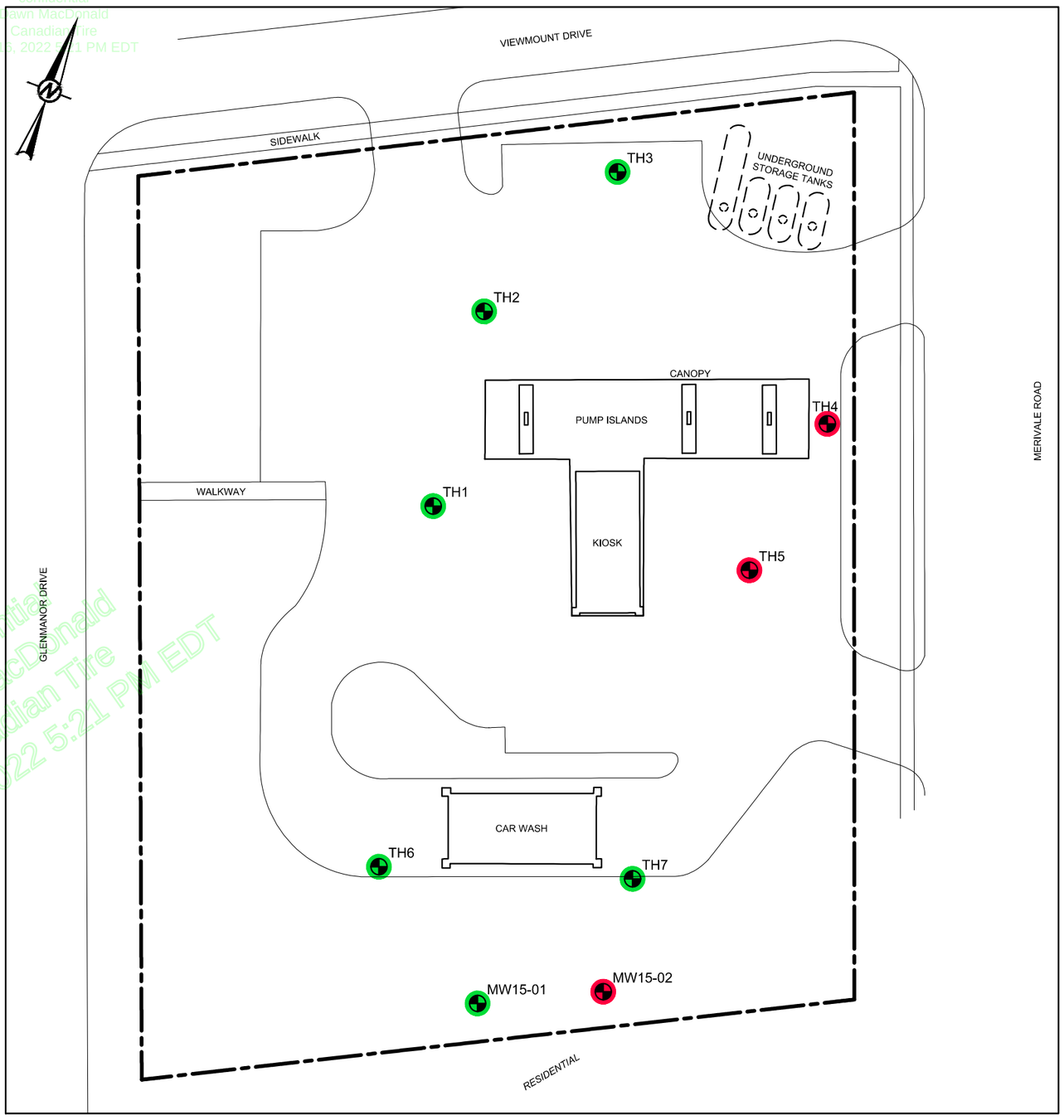
<	LESS THAN
µg/L	MICROGRAMS PER LITRE
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENES
DUP	DUPLICATE FIELD SAMPLE
F1	PETROLEUM HYDROCARBON FRACTION 1 (C_6-C_{10}) MINUS BTEX
F2	PETROLEUM HYDROCARBON FRACTION 2 (C_{10}-C_{16})
F3	PETROLEUM HYDROCARBON FRACTION 3 (C_{16}-C_{34})
F4	PETROLEUM HYDROCARBON FRACTION 4 (C_{34}-C_{50})
HA	n-HEXANE
mbgs	METRES BELOW GROUND SURFACE
Pb	LEAD
O.REG	ONTARIO REGULATION
RDL	REPORTABLE DETECTION LIMIT

NOTES

1. LOCATIONS WHERE MOST RECENT GROUNDWATER SAMPLE MEETS APPLICABLE STANDARDS FOR ALL PARAMETERS ANALYZED SHOWN IN **GREEN.**
2. LOCATIONS WHERE MOST RECENT GROUNDWATER SAMPLE EXCEEDS APPLICABLE STANDARDS FOR AT LEAST ONE OF THE PARAMETERS ANALYZED SHOWN IN **RED.**
3. EXCEEDANCES OF APPLICABLE STANDARDS IN TEXT ARE SHOWN IN **RED.**
4. LOCATION WHERE NO SAMPLES WERE TAKEN IN THE MOST RECENT SAMPLING EVENT SHOWN IN **BLACK**.
5. ALL RESULTS IN µg/L.

REFERENCE

ORIGINAL DRAWING OBTAINED FROM BARENCO INC.; FILE No.: 11010-SITE PLAN ONSITE-JUN14; SCALE: UNKNOWN; DATE: JUNE 2014.



0 10 20
1:500 METRES

CLIENT
IMPERIAL OIL LIMITED

CONSULTANT
Golder Associates

YYYY-MM-DD	2017-01-31
DESIGNED	BMcParlan
PREPARED	AMehdilou
REVIEWED	LBurger
APPROVED	SCarrelas

PROJECT
ACTIVE RETAIL OUTLET
1660 MERIVALE ROAD
OTTAWA, ONTARIO

TITLE
GROUNDWATER ANALYTICAL RESULTS - BTEX, PHC FRACTIONS F1 - F4, n-HEXANE AND LEAD

PROJECT NO.	PHASE-TASK	REV.	FIGURE
1544125	1155-2016	1	5

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

25 mm

TH1									Screen Interval: 2.6 to 5.6 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
31-Aug-11	<0.20	<0.20	<0.20	<0.40	<25	<100	<100	<100	<5.0	<0.50
13-Jun-13	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	0.53
26-Aug-14	<0.20	0.75	<0.20	1.2	<25	<100	<200	<200	<5.0	<0.50
17-Nov-15	<0.20	0.27	0.28	<0.40	<25	<100	<200	<200	<5.0	<0.50
10-Aug-16	<0.20	<0.20	<0.20	<0.40	<25	<100	300	1,200(b)	<5.0	<0.50
05-Dec-16	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
21-Jun-17	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
16-Aug-18	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
30-Jul-19	<0.20	<0.20	<0.20	<0.40	<25	<100	350	1,400(b)	<5.0	<0.50
29-Jul-20	<0.20	<0.20	<0.20	<0.40	<25	400	24,000	160,000(b)	-	1.5
13-Jul-21	LNAPL THICKNESS: <0.001 m									

TH2									Screen Interval: 3.2 to 4.7 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
31-Aug-11	0.77	<0.20	1.3	0.48	<25	<100	<100	<100	<5.0	<0.50
13-Jun-13	0.62	<0.20	2.2	<0.40	<25	<100	<200	<200	<5.0	<0.50
27-Aug-14	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
17-Nov-15	<0.20	0.29	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
17-Nov-15 (DUP)	<0.20	0.28	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
09-Aug-16	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
21-Jun-17	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
15-Aug-18	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
31-Jul-19	<0.20	<0.20	<0.20	<0.40	<25	<100	250	<200	-	<0.50
28-Jul-20	0.44	<0.20	<0.20	3.6	<25	<100	<200	<200	-	<0.50
13-Jul-21	<0.20	<0.20	<0.20	<0.40	31	<100	<200	<200	-	<0.50

TH3									Screen Interval: 3.2 to 4.7 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
31-Aug-11	27	2.4	79	150	1,100	430	<100	130	20	3.8
31-Aug-11 (DUP)	23	2.1	69	130	1,100	380	<100	110	17	3.9
13-Jun-13	11	0.61	66	85	900	350	<200	<200	<5.0	3.1
26-Aug-14	14	0.28	19	5.2	520	180	<200	<200	<5.0	2.2
28-Oct-15	25	<0.20	15	0.89	450	<100	<200	<200	<5.0	2.0
10-Aug-16	42	<0.20	26	1.5	560	110	<200	<200	<5.0	0.98
21-Jun-17	19	0.29	77	20	630	140	<200	<200	-	<0.50
15-Aug-18	7.4	<0.20	7.2	3.3	310	<100	<200	<200	-	0.76
31-Jul-19	18	<0.20	26	2.1	380	120	<200	<200	-	2.2
29-Jul-20	9.8	<0.20	6.4	0.58	310	<100	<200	<200	-	3.7
13-Jul-21	23	0.28	17	0.83	330	170	<200	<200	-	0.83
22-Mar-22	18	<0.20	18	2.4	590	150	<200	<200	-	1.5

TH4									Screen Interval: 3.4 to 4.9 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
31-Aug-11	610	610	3,400	19,000	26,000	17,000	360	170	540	2.6
13-Jun-13	200	35	1,200	4,300	6,200	19,000	580	430	<100(d)	5.8
26-Aug-14	500	37	1,400	2,600	4,700	1,400	<200	<200	58	3.0
26-Aug-14 (DUP)	540	40	1,600	2,700	400	1,400	<200	<200	62	1.9
17-Nov-15	180	18	560	930	1,900	940	240	230	<100(d)	3.1
10-Aug-16	210	11	550	1,500	1,800	370	<200	<200	31	1.1
10-Aug-16 (DUP)	190	9.7	490	1,400	1,600	400	210	<200	27	1.7
21-Jun-17	210	28	470	1,500	2,000	930	<200	<200	-	0.78
16-Aug-18	400	14	860	3,400	3,100	1,300	250	<200	-	30
16-Aug-18 (DUP)	420	14	890	3,500	2,800	1,200	260	210	-	32
31-Jul-19	36	1.9	41	270	1,500	1,400	280	<200	-	12
27-Jul-20	LNAPL THICKNESS: 0.002 m									
22-Mar-22	21	1.6	370	390	2,800	2,300	380	270	-	21

TH5									Screen Interval: 3.5 to 5.0 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
31-Aug-11	750	140	3,000	13,000	85,000	20,000	690	620	1,400	5.5
13-Jun-13	530	44	1,600	3,800	9,900	160,000	12,000	6,800	<100(d)	8.3
13-Jun-13 (DUP)	550	44	1,600	3,800	9,200	110,000	7,000	4,300	<100(d)	8
27-Aug-14	450	46	1,600	3,100	11,000	2,800	<200	<200	210	4.1
17-Nov-15	360	26	930	1,300	3,300	2,900	320	240	<100(d)	3.7
10-Aug-16	420	43	1,500	3,700	13,000	11,000	1,100	810	240	0.81
21-Jun-17	210	25	690	1,800	4,400	3,600	420	350	-	1.8
21-Jun-17 (DUP)	190	23	640	1,600	4,400	3,200	490	450	-	2.2
16-Aug-18	510	37	1,400	2,600	6,700	3,300	300	<200	-	2.6
31-Jul-19	380	24	910	2,800	5,600	5,400	350	<200	-	8.4
31-Jul-19 (DUP)	380	26	940	2,900	5,700	4,100	290	<200	-	8.3
29-Jul-20	200	12	830	1,400	6,000	8,500	570	<200	-	26
29-Jul-20 (DUP)	200	12	790	1,300	5,900	8,500	470	<200	-	25
13-Jul-21	210	19	720	1,700	6,300	14,000	1,000	590	-	37
13-Jul-21 (DUP)	270	26	930	2,100	6,300	13,000	910	550	-	39
22-Mar-22	LNAPL THICKNESS: 0.002 m									

TH6									Screen Interval: 3.6 to 5.1 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
20-Oct-11	<0.20	<0.20	<0.20	<0.40	<25	<100	<100	<100	<5.0	<0.50
20-Oct-11 (DUP)	<0.20	<0.20	<0.20	<0.40	<25	<100	<100	<100	<5.0	<0.50
13-Jun-13	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	0.6
27-Aug-14	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
28-Oct-15	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
28-Oct-15 (DUP)	<0.20	0.38	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
09-Aug-16	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
22-Jun-17	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
14-Aug-18	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
29-Jul-19	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
27-Jul-20	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
13-Jul-21	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
21-Mar-22	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
21-Mar-22 (DUP)	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50

TH7									Screen Interval: 4.4 to 5.8 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
14-Nov-11	31	5.4	160	340	430	<100	<100	<100	<30	<0.5
13-Jun-13	37	2.8	140	130	550	460	<200	<200	<5.0	3.2
27-Aug-14	150	18	610	730	1,900	540	<200	<200	22	2.1
28-Oct-15	93	8.4	270	300	1,000	280	<200	<200	<5.0	1.2
09-Aug-16	62	5.8	120	140	500	150	<200	<200	<5.0	<0.50
22-Jun-17	93	8.7	240	190	800	190	<200	<200	-	0.54
14-Aug-18	22	0.53	8.8	0.60	68	<100	<200	<200	-	<0.50
29-Jul-19	46	1.4	43	2.5	400	110	<200	<200	-	<0.50
27-Jul-20	27	1.3	35	3.1	270	<100	<200	<200	-	<0.50
13-Jul-21	21	0.60	4.5	0.70	150	<100	<200	<200	-	0.50
21-Mar-22	4.0	<0.20	<0.20	<0.40	35	<100	<200	<200	-	<0.50

TH8									Screen Interval: 3.3 to 4.9 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
13-Jun-13	3.9	<0.20	4.1	0.61	48	<100	<200	<200	<0.5	1.1
27-Oct-15	4.4	<0.20	0.51	0.41	<25	<100	<200	<200	<5.0	0.82
10-Aug-16	3.0	<0.20	0.66	<0.40	70	<100	<200	<200	<5.0	0.77
15-Aug-18	0.99	<0.20	0.80	<0.40	<25	<100	<200	<200	-	<2.5
15-Aug-18 (DUP)	1.0	<0.20	0.78	<0.40	<25	<100	<200	<200	-	<2.5
30-Jul-19	3.7	<0.20	1.0	<0.40	220	<100	440	1,500(b)	-	1.2
28-Jul-20	4.5	<0.20	5.4	0.75	170	130	780	500	-	1.2
14-Oct-20	0.96	<0.20	1.2	<0.40	29	<100	<200	<200	-	0.61
14-Jul-21	3.8	<0.20	2.0	<0.40	110	<100	1,200	890	-	0.56
13-Apr-22	SHEEN									
13-Apr-22	3.4	0.31	3.4	0.47	130	110	590	380	-	1.8

TH9									Screen Interval: 3.4 to 4.9 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
06-Oct-14	31	3	230	290	1,000	570	610	420	15	1.1
27-Oct-15	51	7.2	390	350	2,500	1,100	220	360	35	2.6
10-Aug-16	23	1.8	250	70	1,600	350	<200	<200	11	1.1
20-Jun-17	36	5.5	460	370	4,200	1,200	<200	<200	-	2.3
15-Aug-18	12	0.69	78	49	740	190	350	1,600(b)	-	<0.50
30-Jul-19	0.81	<0.20	2.5	0.47	50	<100	540	1,900(b)	-	<0.50
30-Jul-19 (DUP)	0.84	<0.20	2.6	0.51	63	<100	1,200	3,000(b)	-	<0.50
28-Jul-20	4.4	<0.20	7.8	<0.40	51	<100	700	520	-	<0.50
14-Oct-20	54	6.3	420	210	1,500	480	<200	<200	-	<0.50
14-Jul-21	<0.20	<0.20	0.29	<0.40	<25	<100	810	780	-	<0.50
13-Apr-22	Sheen									
13-Apr-22	0.21	<0.20	0.22	<0.40	<25	<100	<200	<200	-	<2.5

TH10									Screen Interval: 3.3 to 4.9 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	H	Pb
11-Jun-13	73	58	52	200	1,400	560	<200	<200	35	1.2

TH11									Screen Interval: 3.3 to 4.9 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
11-Jun-13	370	34	2,200	3,400	11,000	1,400	<200	<200	130	2.6
28-Oct-15	96	8.1	710	120	4,400	2,500	1,300	820	72	4.6
11-Aug-16	100	6.3	590	160	5,000	6,700	2,200	1,300	37	6.0
11-Aug-16 (DUP)	110	7.1	610	170	4,900	7,100	2,400	1,400	43	3.3
28-Jul-20	5.9	0.36	8.8	3.4	490	12,000	36,000	150,000(b)	-	<0.50
14-Oct-20	170	19	820	640	3,300	1,000	300	<200	-	<0.50
14-Jul-21	9.6	0.72	68	22	740	630	1,100	800	-	0.82
14-Apr-22	46	6.5	170	160	1,300	1,100	740	500	-	7.6

TH12									Screen Interval: 3.3 to 4.9 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
11-Jun-13	380	35	2,300	3,500	11,000	3,100	<200	<200	<100(d)	6.8
11-Jun-13 (DUP)	360	34	2,300	3,500	11,000	2,800	<200	<200	<100(d)	6.9
28-Oct-15	95	14	620	400	4,500	1,600	540	320	140	4.5
11-Aug-16	130	17	1,100	630	6,800	1,800	900	510	120	2.1
20-Jun-17	160	11	1,200	170	7,900	2,800	750	460	-	3.8
20-Jun-17 (DUP)	150	11	1,200	160	7,300	2,600	700	430	-	4.5
14-Oct-20	37	4.7	240	69	4,100	1,900	270	<200	-	0.90
15-Jul-21	15	1.4	72	<2.0	3,400	1,500	350	<200	-	1.7

TH100									Screen Interval: 3.0 to 4.9 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
06-Oct-14	<0.20	<0.20	0.31	0.91	<25	<100	<200	<200	<5.0	<0.50
27-Oct-15	<0.20	<0.20	0.94	1.1	<25	<100	<200	<200	<5.0	<0.50
27-Oct-15 (DUP)	<0.20	<0.20	0.24	<0.40	<25	<100	<200	<200	<5.0	<0.50
10-Aug-16	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
20-Jun-17	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
15-Aug-18	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<2.5
31-Jul-19	<0.20	<0.20	1.3	<0.40	<25	<100	460	1,400(b)	-	<0.50
29-Jul-20	<0.20	<0.20	<0.20	<0.40	<25	<100	1,100	820	-	<0.50
14-Oct-20	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
14-Oct-20 (DUP)	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
14-Jul-21	0.25	<0.20	<0.20	<0.40	<25	<100	730	580	-	<0.50
13-Apr-22	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
13-Apr-22 (DUP)	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<2.5

TH101									Screen Interval: 3.0 to 4.9 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
06-Oct-14	85	12	580	500	4,100	830	<200	<200	44	2.9
06-Oct-14 (DUP)	84	12	580	510	4,100	910	<200	<200	54	4.2
28-Oct-15	110	16	740	590	3,400	830	<200	<200	64	4.6
11-Aug-16	49	8.6	580	390	2,200	590	<200	<200	23	0.63
20-Jun-17	76	14	870	410	4,800	1,100	<200	<200	-	0.84
15-Aug-18	110	9.2	1,200	130	5,900	1,700	<200	<200	-	3.8
31-Jul-19	73	7.5	870	130	5,100	1,500	<200	<200	-	3.2
28-Jul-20	86	7.1	1,000	69	5,700	1,400	<200	<200	-	6.6
28-Jul-20 (DUP)	76	6.5	900	61	4,900	1,500	<200	<200	-	6.4
14-Jul-21	61	8.9	1,300	1,700	5,300	1,900	280	<200	-	4.2
14-Jul-21 (DUP)	59	8.3	1,200	1,700	5,200	1,800	260	<200	-	6.2
13-Apr-22	1.8	0.45	84	2.5	940	350	<200	<200	-	1.0

TH102									Screen Interval: 3.0 to 4.9 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
06-Oct-14	0.72	0.52	16	42	360	360	<200	<200	7.2	3.9
28-Oct-15	42	1.6	100	140	970	350	<200	<200	23	1.5
11-Aug-16	8.3	<0.20	33	21	510	180	<200	<200	18	1.4
20-Jun-17	19	3.1	190	120	1,800	500	<200	<200	-	<0.50
31-Jul-19	4.5	1.5	33	27	500	270	<200	<200	-	2.8
29-Jul-20	0.26	<0.20	0.71	0.55	66	<100	<200	<200	-	0.71
14-Jul-21	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
13-Apr-22	4.1	0.48	10	2.3	450	<100	<200	<200	-	1.8

MW15-01									Screen Interval: 3.0 to 6.0 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
17-Nov-15	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
09-Aug-16	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	<5.0	<0.50
22-Jun-17	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
15-Aug-18	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
29-Jul-19	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
27-Jul-20	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
13-Jul-21	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
21-Mar-22	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	0.62

MW15-02									Screen Interval: 2.7 to 4.9 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
17-Nov-15	44	5.9	180	170	2,300	750	<200	<200	35	2.2
09-Aug-16	78	4.7	73	25	800	450	<200	<200	5.5	<0.50
22-Jun-17	20	1.0	1.5	2.3	190	110	<200	<200	-	1.1
14-Aug-18	2.0	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
29-Jul-19	1.7	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
27-Jul-20	0.79	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
13-Jul-21	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
21-Mar-22	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50

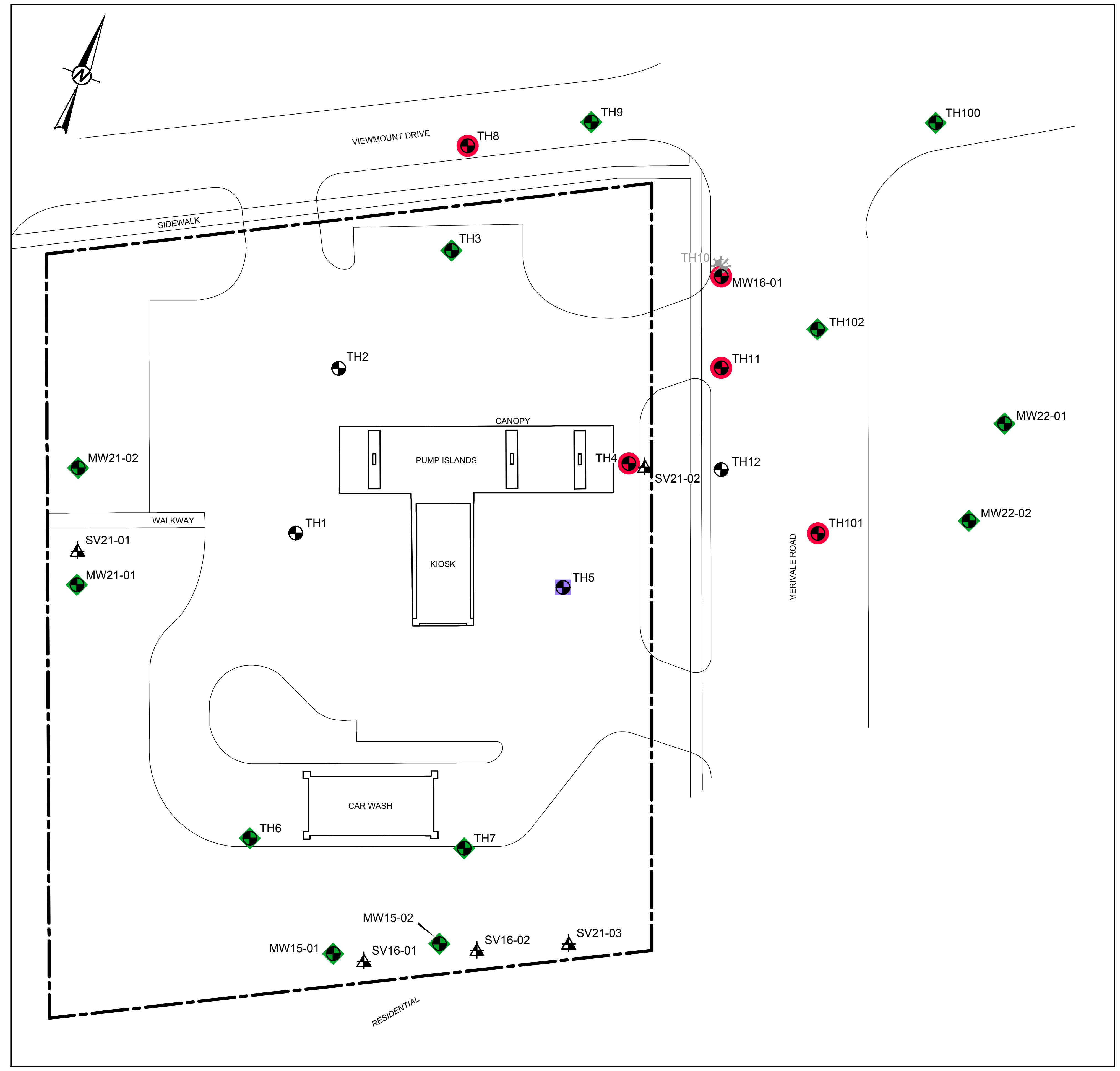
MW16-01									Screen Interval: 3.3 - 4.8 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
31-Aug-16	18	3.8	41	59	250	<100	<200	<200	-	0.53
21-Jun-17	46	3.7	170	79	820	260	<200	<200	-	1.2
16-Aug-18	15	0.39	30	0.81	88	<100	260	<200	-	0.53
30-Jul-19	110	0.57	41	0.79	470	140	<200	<200	-	0.71
28-Jul-20	38	0.63	20	1.3	260	<100	<200	<200	-	<0.50
14-Jul-21	18	0.51	18	3.3	110	<100	880	670	-	<0.50
14-Apr-22	59	7.9	75	230	530	220	330	<200	-	<2.5

MW21-01									Screen Interval: 3.0 - 6.1 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
03-Dec-21	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
03-Dec-21 (DUP)	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
21-Mar-22	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50

MW21-02									Screen Interval: 3.0 - 6.1 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
03-Dec-21	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50
22-Mar-22	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50

MW22-01									Screen Interval: 2.8 - 4.8 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
30-Mar-22	<0.20	<0.20	<0.20	<0.40	<25	<100	<200	<200	-	<0.50

MW22-02									Screen Interval: 2.8 - 4.8 mbgs	
Date	B	T	E	X	F1	F2	F3	F4	HA	Pb
30-Mar-22	<0.20	<0.20	<0.20	<0.40	<25	<100	230	<200	-	<0.50



ONTARIO STANDARDS

PARAMETERS	B	T	E	X	F1	F2	F3	F4	HA	Pb
CRITERIA(a)	44	18,000	2,300	4,200	750(b)	150	500	500	51	25
RDL	0.20	0.20	0.20	0.40	100	100	200	200	10	0.50
UNITS	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L

(a) O.REG 153 (2011) TABLE 3 FULL DEPTH GENERIC SITE CONDITION STANDARDS FOR ALL TYPES OF PROPERTY USE FOR GROUNDWATER IN COARSE TEXTURED SOIL IN A NON-POTABLE GROUND WATER CONDITION.

(b) BASELINE WAS NOT REACHED AT CARBON 50. VALUE PRESENTED CORRESPONDS TO THE GREATER OF THE F4 AND F4G VALUES.

(c) F1 FRACTION DOES NOT INCLUDE BTEX; HOWEVER, THE PROPONENT HAS THE CHOICE AS TO WHETHER OR NOT TO SUBTRACT BTEX FROM THE ANALYTICAL RESULT.

(d) RDL GREATER THAN CRITERIA.

LEGEND

- PROPERTY BOUNDARY
- BOREHOLE LOCATION COMPLETED AS A MONITORING WELL
- BOREHOLE LOCATION COMPLETED AS A MONITORING WELL (DECOMMISSIONED)
- SOIL VAPOUR PROBE LOCATION

NOTES

1. LOCATIONS WHERE CURRENT GROUNDWATER SAMPLE MEETS APPLICABLE GUIDELINES/STANDARDS FOR ALL PARAMETERS ANALYZED SHOWN AS AN GREEN DIAMOND (♦).
2. LOCATIONS WHERE CURRENT GROUNDWATER SAMPLE EXCEEDS APPLICABLE GUIDELINES/STANDARDS FOR AT LEAST ONE OF THE PARAMETERS ANALYZED SHOWN AS A RED CIRCLE (●).
3. LOCATIONS WHERE LNAPL WAS ENCOUNTERED SHOWN AS A PURPLE SQUARE (■).
4. EXCEEDANCES OF APPLICABLE GUIDELINES/STANDARDS IN TEXT ARE SHOWN IN RED.
5. LIGHT NON-AQUEOUS PHASE LIQUID (LNAPL) THICKNESSES IN TEXT SHOWN IN PURPLE.
6. LOCATION WHERE NO SAMPLES WERE TAKEN IN THE CURRENT SAMPLING EVENT SHOWN IN **BLACK**.
7. LNAPL REPORTED IN METRES (m).

LIST OF APPLICABLE ABBREVIATIONS

<	LESS THAN
µg/L	MICROGRAMS PER LITRE
-	NOT AVAILABLE OR NO DATA
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENES
F1	PETROLEUM HYDROCARBON FRACTION 1 (C_6-C_{10}) LESS BTEX
F2	PETROLEUM HYDROCARBON FRACTION 2 (C_{10}-C_{16})
F3	PETROLEUM HYDROCARBON FRACTION 3 (C_{16}-C_{34})
F4	PETROLEUM HYDROCARBON FRACTION 4 (C_{34}-C_{50})
F4G	PETROLEUM HYDROCARBON 4 GRAVIMETRIC
HA	n-HEXANE
LNAPL	LIGHT NON-AQUEOUS PHASE LIQUID
m	METRE
mbgs	METRES BELOW GROUND SURFACE
O.REG	ONTARIO REGULATION
Pb	DISSOLVED LEAD
RDL	REPORTABLE DETECTION LIMIT

REFERENCE

ORIGINAL DRAWING OBTAINED FROM BARENCO INC.; FILE No.: 11010-SITE PLAN ONSITE-JUN14; SCALE: UNKNOWN; DATE: JUNE 2014.

0 10 20
1:500 METRES

CLIENT
IMPERIAL OIL LIMITED

CONSULTANT
WSP GOLDER

YYYY-MM-DD	2022-06-30
DESIGNED	SMoloughney
PREPARED	KWray
REVIEWED	CVettotazzo
APPROVED	RMungal

PROJECT
FORMER RETAIL FUEL OUTLET
1660 MERIVALE ROAD
OTTAWA, ONTARIO

TITLE
GROUNDWATER ANALYTICAL RESULTS - BTEX AND PHC FRACTIONS F1 - F2, n-HEXANE AND DISSOLVED LEAD

PROJECT NO.	PHASE-TASK	REV.	FIGURE
21506016	1155-2216	0	6

VIEWMONT DRIVE

SIDEWALK

MERVALE ROAD

WALKWAY

UNDERGROUND STORAGE TANKS

FORMER PUMP ISLAND

CANOPY

PUMP ISLAND

FORMER SERVICE GARAGE

KIOSK

FORMER PUMP ISLAND

CAR WASH

TH1 *

BH1-22/MW1-22

TH2

BH2-22

TH3

BH3-22

TH4

BH4-22

TH5

BH5-22

TH6

TH7

BH6-22

BH7-22

MW15-01

MW15-02

TH8

TH9

TH10

MW16-01

TH11

TH12

TH100

TH101

TH102

TH3	06/15/2022
Benzene	17
PHC F1 (C6-C10)	560
PHC F1 (C6-C10)-BTEX	520
PHC F2 (C10-C16)	130
Xylenes (total)	0.46

TH2	06/15/2022
Benzene	ND(0.20)
PHC F1 (C6-C10)	ND(25)
PHC F1 (C6-C10)-BTEX	ND(25)
PHC F2 (C10-C16)	ND(100)
Xylenes (total)	ND(0.40)

MW1-22	07/07/2022
Benzene	ND(0.20)
PHC F1 (C6-C10)	ND(25)
PHC F1 (C6-C10)-BTEX	ND(25)
PHC F2 (C10-C16)	ND(100)
Xylenes (total)	ND(0.40)

TH4	06/16/2022
Benzene	380
PHC F1 (C6-C10)	17000
PHC F1 (C6-C10)-BTEX	8900
PHC F2 (C10-C16)	2500
Xylenes (total)	5900

TH5	06/15/2022
Benzene	190
PHC F1 (C6-C10)	7600
PHC F1 (C6-C10)-BTEX	4900
PHC F2 (C10-C16)	3500
Xylenes (total)	1700

TH6	06/15/2022
Benzene	ND(0.20)/ND(0.20)
PHC F1 (C6-C10)	ND(25)/ND(25)
PHC F1 (C6-C10)-BTEX	ND(25)/ND(25)
PHC F2 (C10-C16)	ND(100)/ND(100)
Xylenes (total)	ND(0.40)/ND(0.40)

MW15-02	06/15/2022
Benzene	ND(0.20)
PHC F1 (C6-C10)	ND(25)
PHC F1 (C6-C10)-BTEX	ND(25)
PHC F2 (C10-C16)	ND(100)
Xylenes (total)	ND(0.40)

TH7	06/15/2022
Benzene	7.3
PHC F1 (C6-C10)	45
PHC F1 (C6-C10)-BTEX	38
PHC F2 (C10-C16)	ND(100)
Xylenes (total)	ND(0.40)

LEGEND

- MONITORING WELL LOCATION
- MONITORING WELL LOCATION (GHD, 2022)
- BOREHOLE LOCATION (GHD, 2022)
- * MONITORING WELL DAMAGED
- LIMIT OF 2011 SOIL EXCAVATION
- HISTORICAL GROUNDWATER CONCENTRATION ABOVE MOE STANDARD ON ONE OR MORE OCCASION (PRE 2022)
- CONCENTRATION BELOW MOE TABLE 3 STANDARDS (GHD, 2022)
- CONCENTRATION ABOVE MOE TABLE 3 STANDARDS (GHD, 2022)
- CONCENTRATION ABOVE MOE TABLE 3 STANDARDS (GHD, 2022)
- ug/L MICROGRAMS PER LITRE
- ND (25) NOT DETECTED
- ND(25)/ND(25) PARENT RESULT/DUPLICATE RESULT

NOTE:
(1) Ontario Ministry of the Environment (MOE), "Soil, Ground Water and Sediment Standards for Use XV.1 of the Environmental Protection Act," April 15, 2011, Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for All Types of Property Uses and Medium to Fine Textured Soils

TH7	06/15/2022
Benzene	7.3
PHC F1 (C6-C10)	45
PHC F1 (C6-C10)-BTEX	38
PHC F2 (C10-C16)	ND(100)
Xylenes (total)	ND(0.40)

SAMPLE LOCATION
SAMPLE DATE
RESULT (ug/L)
PARAMETER

PARAMETER	Table 3 Standard (1) (ug/L)
Benzene	430
PHC F1 (C6-C10)	750
PHC F1 (C6-C10)-BTEX	750
PHC F2 (C10-C16)	150
Xylenes (total)	4200

0 5 10 15m
1:500
Coordinate System:
UTM ZONE 18, NAD83
METRES

N

GHD

CANADIAN TIRE CORPORATION
1660 MERIVALE ROAD,
NEPEAN, ONTARIO (CTP 1126)
SOIL AND GROUNDWATER QUALITY INVESTIGATION

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

Project No. 12583574
Date August 2022

FIGURE 4

Filename: N:\CA\Mississauga\Projects\662\12583574\Digital_Design\ACAD\Figures\LTR-Hunter005\12583574-GHD-00-00-LTR-EN-D103_WA-Hunter005.dwg
Plot Date: 25 August 2022 2:24 PM

APPENDIX 4
Borehole Logs

LOG INFORMATION DESCRIPTION

GROUPE C. LAGANIÈRE

Project number: HARN1660
Client: Harnois Groupe Immobilier inc.
Site: 1660, Merivale Road, Nepean, Ottawa, Ontario

SYMBOLS

Results

- Analytical result below Table 3 Commercial standard
- Analytical result above Table 3 Commercial standard

Groundwater

- Water level
- Free phase level

ABREVIATIONS

Analyzes

PAH = Polycyclic aromatic hydrocarbons
F1-F4 = F1 to F4 Petroleum hydrocarbon
MTX = Metals MT(6)
VOC = Volatil organic compounds
BTEX = Benzene, toluene, ethylbenzene, xylenes
MAH = Monocyclic aromatic hydrocarbons
Hn = Hexane

Olfactory signs of contamination

A = Absent
N = Noticeable
S = Strong

Visual signs of contamination

A = Absent
D = Disseminated
T = Saturated

Compactness condition

N = Standard penetration test index

TERMINOLOGY

"and"	=	Fraction greater than 35%
Adjective	=	Fraction between 20 et 35%
"some"	=	Fraction between 10 et 20%
"trace"	=	Fraction less than 10%

SOIL CLASSIFICATION

			Symbol
Clay		= Particles < 0,002 mm	
Silt		= From 0,002 to 0,08 mm	
Sand:	fine	= From 0,08 to 0,4 mm	
	medium	= From 0,4 to 1,0 mm	
	coarse	= From 1,0 to 5,0 mm	
Gravel:	fine	= From 5 to 10 mm	
	coarse	= From 10 to 80 mm	
Cobbles		= From 80 to 300 mm	
Boulders		= Particles > 300 mm	
Backfill material			

STATE

= Moved
= Intact
= Core
= Empty

NOTE:

Soil description is only based on visual observations realized for an environmental characterization. It can not be use for geotechnical interpretation.

GROUPE C. LAGANIÈRE

BOREHOLE LOG

Borehole number: BH-01

Project:	Phase II - E.S.A.	Date:	9 July 2024
Ref. number:	HARN1660	Survey effectued by:	Succession Forage Downing
Client:	Harnois Groupe Immobilier inc.	Equipement:	Geoprobe 6622DT
Site:	1660, Merivale Road, Nepean, Ottawa, Ontario	Sampler type:	4' plastic liner
		Sampled by:	David Sauvé

Depth (m)	Soil description	Symbol	Condition	Recovery %	Identification	VOC (ppm)	contamination sign: Olfactive A	Olfactive P	Olfactive F	Visual A	Visual D	Visual I	Analysis	Results	Water level
0.00															
0.02	Asphalt														
0.10	Gray gravel backfill material with some sand, compact and dry														
	Dark beige sand backfill material, compact and dry			58	BH-01-1	2									
					BH-01-2	0									
1.20															
	Dark beige sand backfill material with some clay, steep and dry				BH-01-3	0									
1.40															
	Dark green gray clayey silt with traces of sand, steep and dry				BH-01-4	0									
1.80				67											
	Dark beige marbled black silty sand, compact and dry				BH-01-5	0									
2.40															
	Beige clayey silt with some gravel and traces of sand, steep and dry			100	BH-01-6 DUP#7	0							F1-F4 BTEX Hn	●	
3.00															
	Refusal at 3.00 meters														

Note:
- Stratigraphic unit limit
- Internal statigraphic unit change
- Survey limit

See the "log information description" for symbols and nomenclature information.

Written by: David Sauvé, tech.

Cheked by: Mathieu Bélisle,Ing,MScA,P.Eng.

Date: 6 August 2024

GROUPE C. LAGANIÈRE

BOREHOLE LOG

Borehole number: BH-02

Project:	Phase II - E.S.A.	Date:	9 July 2024
Ref. number:	HARN1660	Survey effectued by:	Succession Forage Downing
Client:	Harnois Groupe Immobilier inc.	Equipement:	Geoprobe 6622DT
Site:	1660, Merivale Road, Nepean, Ottawa, Ontario	Sampler type:	4' plastic liner
		Sampled by:	David Sauvé

Depth (m)	Soil description	Symbol	Condition	Recovery %	Identification	VOC (ppm)	contamination sign: Olfactive A	Olfactive P	Olfactive F	Visual A	Visual D	Visual I	Analysis	Results	Water level
0.00															
0.02	Asphalt														
0.20	Beige gray sandy gravel backfill material, loose and dry				BH-02-1	0									
	Dark beige sand backfill material, compact and dry			75	BH-02-2	0									
1.20															
	Dark beige sand backfill material, compact and dry				BH-02-3	0									
1.50															
	Brown beige clayey silt, steep and dry			92	BH-02-4	0									
2.00															
2.10	Orange beige silty sand, compact and humid				BH-02-5	0									
	Beige clayey silt with traces of sand, steep and humid				BH-02-6	0									
2.40															
	Beige clayey silt with some sand, steep and saturated				BH-02-7	0									
2.60															
	Gray clayey silt with traces of sand, steep and saturated			100	BH-02-8	0							F1-F4 BTEX Hn		
3.00															
	Refusal at 3.00 meters														

Note:
- Stratigraphic unit limit
- Internal statigraphic unit change
- Survey limit

See the "log information description" for symbols and nomenclature information.

Written by: David Sauvé, tech.

Cheked by: Mathieu Bélisle,Ing,MScA,P.Eng.

Date: 6 August 2024

GROUPE C. LAGANIÈRE

BOREHOLE LOG

Borehole number: BH-03

Project:	Phase II - E.S.A.
Ref. number:	HARN1660
Client:	Harnois Groupe Immobilier inc.
Site:	1660, Merivale Road, Nepean, Ottawa, Ontario
Date:	9 July 2024
Survey effectued by:	Succession Forage Downing
Equipement:	Geoprobe 6622DT
Sampler type:	4' plastic liner
Sampled by:	David Sauvé

Depth (m)	Soil description	Symbol	Condition	Recovery %	Identification	VOC (ppm)	contamination sign: Olfactive A	Olfactive P	Olfactive F	Visual A	Visual D	Visual I	Analysis	Results	Water level
0.00															
0.02	Asphalt														
	Beige gray gravel backfill material, loose and dry				BH-03-1	0									
0.30															
	Beige sand backfill material, compact and dry				BH-03-2	0									
				75	DUP#1										
1.20															
	Beige sand backfill material, compact and saturated with water				BH-03-3	0									
1.60															
	Gray clayey silt with traces of sand, steep and humid			92	BH-03-4	0									
2.40															
	Gray clayey silt with traces of sand, steep and humid				BH-03-5	0									
2.60															
	Gray clayey silt with traces of sand, steep and saturated			100	BH-03-6	0							F1-F4 BTEX Hn		
3.00															
	Refusal at 3.00 meters														

Note:
- Stratigraphic unit limit
- Internal statigraphic unit change
- Survey limit

See the "log information description" for symbols and nomenclature information.

Written by: David Sauvé, tech.

Cheked by: Mathieu Bélisle,Ing,MScA,P.Eng.

Date: 6 August 2024

GROUPE C. LAGANIÈRE

BOREHOLE LOG

Borehole number: BH-04

Project:	Phase II - E.S.A.	Date:	9 July 2024
Ref. number:	HARN1660	Survey effectued by:	Succession Forage Downing
Client:	Harnois Groupe Immobilier inc.	Equipement:	Geoprobe 6622DT
Site:	1660, Merivale Road, Nepean, Ottawa, Ontario	Sampler type:	4' plastic liner
		Sampled by:	David Sauvé

Depth (m)	Soil description	Symbol	Condition	Recovery %	Identification	VOC (ppm)	contamination sign: Olfactive A	Olfactive P	Olfactive F	Visual A	Visual D	Visual I	Analysis	Results	Water level
0.00															
0.02	Asphalt														
	Gray gravel backfill material, compact and dry				BH-04-1	0									
0.40															
	Beige sand backfill material, compact and dry				BH-04-2	0									
				58											
1															
1.20															
	Pale beige silty sand backfill material with some gravel, compact and dry				BH-04-3	0									
1.40															
	Dark beige sand backfill material with some gravel, compact and humid				BH-04-4	0									
1.70															
	Black brown clayey silt with traces of sand, steep and dry				BH-04-5	0							PAH F1-F4 BTEX Hn MTX	●	
				83	DUP#2										
2															
2.40															
	Beige clayey silt with traces of sand, steep and dry				BH-04-6	0									
2.60															
2.70	Gray clayey silt with traces of sand, steep and saturated				BH-04-7	0									
	Pale beige clayey silt with traces of sand and of dark brown stain, steep and saturated			60	BH-04-8	0							F1-F4 BTEX Hn	●	
3															
3.20															
	Refusal at 3.20 meters														
4															
5															

Note:
- Stratigraphic unit limit
- Internal statigraphic unit change
- Survey limit

See the "log information description" for symbols and nomenclature information.

Written by: David Sauvé, tech.

Cheked by: Mathieu Bélisle,Ing,MScA,P.Eng.

Date: 6 August 2024

GROUPE C. LAGANIÈRE

BOREHOLE LOG

Borehole number: BH-05

Project:	Phase II - E.S.A.	Date:	9 July 2024
Ref. number:	HARN1660	Survey effectued by:	Succession Forage Downing
Client:	Harnois Groupe Immobilier inc.	Equipement:	Geoprobe 6622DT
Site:	1660, Merivale Road, Nepean, Ottawa, Ontario	Sampler type:	4' plastic liner
		Sampled by:	David Sauvé

Depth (m)	Soil description	Symbol	Condition	Recovery %	Identification	VOC (ppm)	contamination sign: Olfactive A	Olfactive P	Olfactive F	Visual A	Visual D	Visual I	Analysis	Results	Water level
0.00															
0.02	Asphalt														
	Beige gray sandy gravel backfill material, loose and dry				BH-05-1	0									
0.40															
	Dark beige sand backfill material, loose and dry			58	BH-05-2	0									
					DUP#3										
1.20															
	Dark beige sand backfill material, loose and dry				BH-05-3	0							PAH, F1-F4, BTEX, Hn, MTX	●	
1.80				75											
	Pale brown clayey silt with traces of sand, steep and dry				BH-05-4	0									
2.40															
	Pale beige clayey silt with traces of sand, steep and humid				BH-05-5	0									
				100											
3.00															
	Gray clayey silt with some sand, steep and saturated				BH-05-6	0							PAH, F1-F4, BTEX, Hn, MTX	●	
3.30															
	Refusal at 3.30 meters														

Note:
- Stratigraphic unit limit
- Internal statigraphic unit change
- Survey limit

See the "log information description" for symbols and nomenclature information.

Written by: David Sauvé, tech.

Cheked by: Mathieu Bélisle,Ing,MScA,P.Eng.

Date: 6 August 2024

GROUPE C. LAGANIÈRE

BOREHOLE LOG

Borehole number: BH-06

Project:	Phase II - E.S.A.	Date:	9 July 2024
Ref. number:	HARN1660	Survey effectued by:	Succession Forage Downing
Client:	Harnois Groupe Immobilier inc.	Equipement:	Geoprobe 6622DT
Site:	1660, Merivale Road, Nepean, Ottawa, Ontario	Sampler type:	4' plastic liner
		Sampled by:	David Sauvé

Depth (m)	Soil description	Symbol	Condition	Recovery %	Identification	VOC (ppm)	contamination sign: Olfactive A	Olfactive P	Olfactive F	Visual A	Visual D	Visual I	Analysis	Results	Water level
0.00															
0.02	Asphalt														
0.20	Gray gravel backfill material with some sand, loose and dry				BH-06-1	0									
	Dark beige clayey sand backfill material, compact and dry				BH-06-2	0									
				50											
1															
1.20	Dark beige sand backfill material, compact and dry				BH-06-3 DUP#6	0									
1.80				83											
	Green gray clayey silt with traces of sand, steep and dry				BH-06-4	46									
2															
2.40	Gray sandy clayey silt with traces of sand, loose and saturated				BH-06-5	84							F1-F4 BTEX Hn		
				66											
3															
3.30															
	Refusal at 3.30 meters														
4															
5															

Note:
- Stratigraphic unit limit
- Internal statigraphic unit change
- Survey limit

See the "log information description" for symbols and nomenclature information.

Written by: David Sauvé, tech.

Cheked by: Mathieu Bélisle,Ing,MScA,P.Eng.

Date: 6 August 2024

GROUPE C. LAGANIÈRE

BOREHOLE LOG

Borehole number: BH-07 (reprise 2)

Project:	Phase II - E.S.A.
Ref. number:	HARN1660
Client:	Harnois Groupe Immobilier inc.
Site:	1660, Merivale Road, Nepean, Ottawa, Ontario
Date:	9 July 2024
Survey effectued by:	Succession Forage Downing
Equipement:	Geoprobe 6622DT
Sampler type:	4' plastic liner
Sampled by:	David Sauvé

Depth (m)	Soil description	Symbol	Condition	Recovery %	Identification	VOC (ppm)	Olfactive A	Olfactive P	Olfactive F	Visual A	Visual D	Visual I	Analysis	Results	Water level
0.00															
0.02	Asphalt														
	Gray gravel backfill material, compact and dry				BH-07-1 (reprise 2)	0									
0.30															
	Dark beige sand backfill material, compact and dry				BH-07-2 (reprise 2)	0									
				67	DUP#5										
1															
1.20															
	Pale brown sandy and clayey silt, steep and humid				BH-07-3 (reprise 2)	0									
1.80															
	Dark green clayey silt with traces of sand, steep and dry			92	BH-07-4 (reprise 2)	0									
2															
2.40															
	Beige gray clayey silt with traces of sand, steep and saturated with water				BH-07-5 (reprise 2)	0									
				100	BH-07-6 (reprise 2)	0							F1-F4 BTEX Hn		
3															
3.30															
	Refusal at 3.30 meters														
4															
5															

Note:
- Stratigraphic unit limit
- Internal statigraphic unit change
- Survey limit

See the "log information description" for symbols and nomenclature information.

Written by: David Sauvé, tech.

Cheked by: Mathieu Bélisle,Ing,MScA,P.Eng.

Date: 6 August 2024

GROUPE C. LAGANIÈRE

BOREHOLE LOG

Borehole number: BH-08

Project:	Phase II - E.S.A.	Date:	9 July 2024
Ref. number:	HARN1660	Survey effectued by:	Succession Forage Downing
Client:	Harnois Groupe Immobilier inc.	Equipement:	Geoprobe 6622DT
Site:	1660, Merivale Road, Nepean, Ottawa, Ontario	Sampler type:	4' plastic liner
		Sampled by:	David Sauvé

Depth (m)	Soil description	Symbol	Condition	Recovery %	Identification	VOC (ppm)	contamination sign: Olfactive A	Olfactive P	Olfactive F	Visual A	Visual D	Visual I	Analysis	Results	Water level
0.00															
0.02	Asphalt														
0.20	Dark brown top soil backfill material with some clay, compact and dry				BH-08-1	0									
0.30	Gray gravel backfill material, compact and dry				BH-08-2	0									
	Dark beige sand backfill material, compact and dry				BH-08-3	0									
				50											
1.20															
	Beige sand backfill material with some gravel, compact and dry				BH-08-4	0									
				67	BH-08-5	0									
2.40															
	Pale brown clayey and sandy silt , steep and humid				BH-08-6	0									
2.80					DUP#4										
	Pale brown clayey silt with some sand, steep and humid			100									PAH, F1-F4, BTEX, Hn, MTX		
					BH-08-7	0									
3.30															
	Refusal at 3.30 meters														

Note:
- Stratigraphic unit limit
- Internal statigraphic unit change
- Survey limit

See the "log information description" for symbols and nomenclature information.

Written by: David Sauvé, tech.

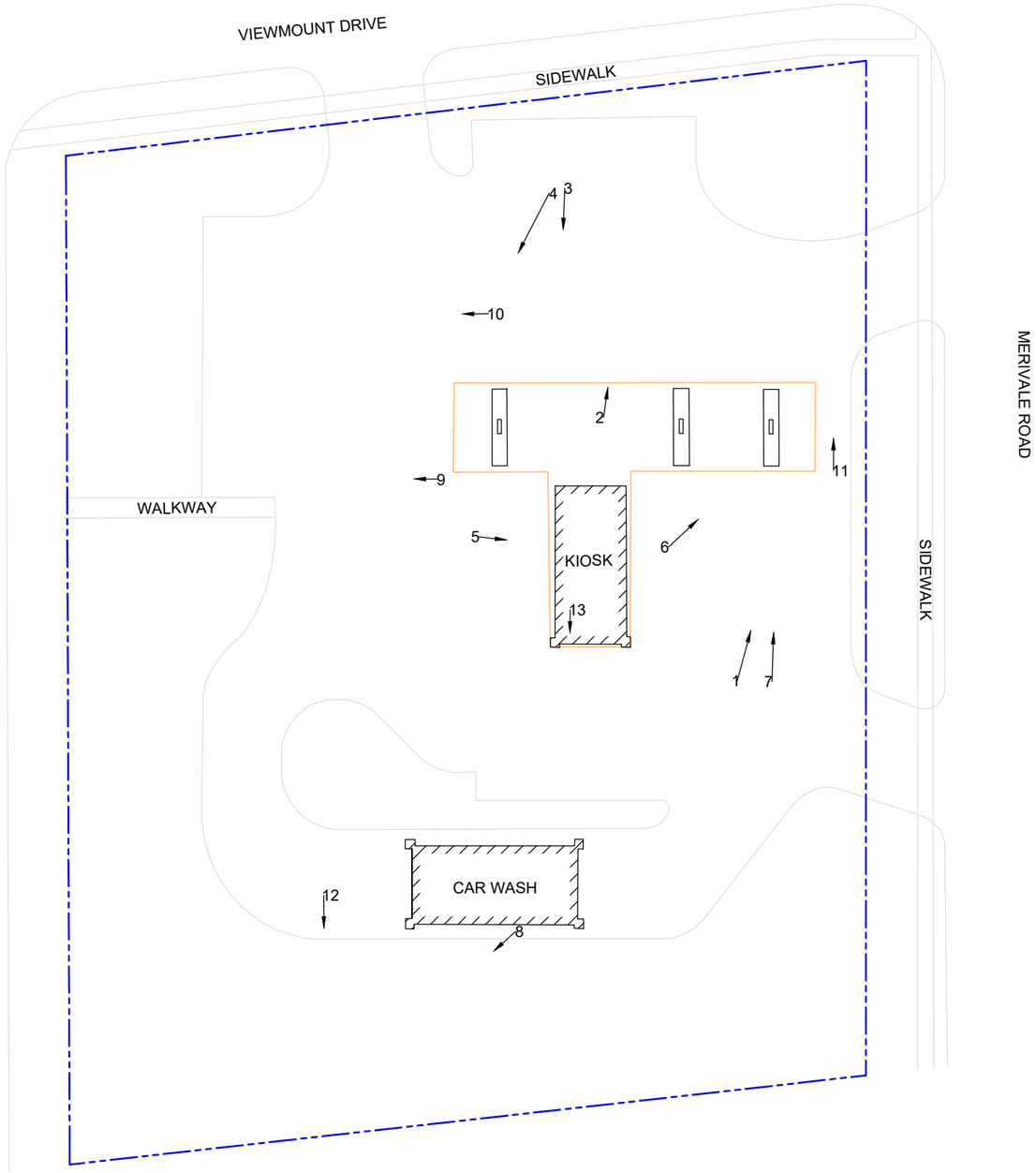
Cheked by: Mathieu Bélisle,Ing,MScA,P.Eng.

Date: 6 August 2024

APPENDIX 5
Photographic Report

GROUPE
C. LAGANIÈRE

Note: For the purpose of this study, Merivale Road is oriented in a north-south axis.



0 2 4 8 12 16 20

Unit of measurement : meter

LEGEND:

- Study area
- Paving, sidewalk and curb boundary
- Current building boundary
- Pump island
- Canopy

SOURCE: -Previous studies
Google Earth

NOTE: This figure was prepared from unauthenticated documents. The position may vary from reality. For indicative purpose only.

GROUPE C. LAGANIÈRE
Revalorisation de propriétés
Unlocking property value

	ÉCHELLE: Graphic	DATE
DRAWN BY:	David Sauvé, Tech.	July 21, 2024
CHECKED BY:	Mathieu Bélisle, P.Eng., M.App.Sc.	August 7, 2024
APPROVED BY:	Guylaine Lebel, P. Eng., M.Eng.	August 12, 2024

CLIENT:
HARNOIS GROUPE IMMOBILIER INC.

ADRESS:
1660 MERIVALE ROAD, NEPEAN, OTTAWA ON.

PROJECT:
PHASE 2 ENVIRONMENTAL SITE ASSESSMENT

TITLE:
PHOTO LOCATIONS AND DIRECTION

CONFIDENTIAL AND PRIVILEGED DOCUMENT

REF. NO.: HARN1660P2 | PHOTOGRAPHIC REPORT

Photo 1 : BH-01	Photo 2 : BH-02
	
Description : View of the realization of borehole BH-01, located northeast of the pump islands and southeast of the underground tanks.	**Description :** View of the realization of borehole BH-02, located northwest of the underground tanks.
Photo 3 : BH-03	**Photo 4 : BH-04**
	
Description : View of the realization of borehole BH-03 at the location of a former pump island, north of the actual ones.	**Description :** View of the realization of borehole BH-04, located west of the pump islands.

Photo 5 : BH-05	Photo 6 : BH-06
	
Description : View of BH-05 at the location of a former mechanical garage, southwest of the pump islands.	**Description :** View of the realization of borehole BH-06 at the location of a former pump island, southeast of the actual ones.
Photo 7 : BH-07	**Photo 8 : BH-08**
	
Description : View of the realization of borehole BH-07, located southeast of the pump islands and south of borehole 23F01.	**Description :** View of BH-08 located south of the carwash.

Photo 9 : TH1	Photo 10 : TH2
	
Description : View of the state of well TH1.	**Description :** View of the state of well TH2.
Photo 11 : TH4	**Photo 12 : TH6**
	
Description : View of the state of well TH4.	**Description :** View of the state of well TH6.

APPENDIX 6
Chemical Analysis Certificates

GROUPE
C. LAGANIÈRE

Your P.O. #: 01-14014
Your Project #: HARN1660P2
Site Location: 1660,MERIVALE RD,NEPEAN,OTTAWA
Your C.O.C. #: N/A

Attention: Mathieu Bélisle

GROUPE C. LAGANIERE INC.
35 avenue Laganiere
Montréal-Est, QC
CANADA H1B 5T1

Report Date: 2024/08/08
Report #: R2967337
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C437803
Received: 2024/07/12, 12:30

Sample Matrix: Soil
Samples Received: 11

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
VOC in soils - Methanol Field Preserved (1)	11	N/A	2024/07/19	STL SOP-00145	MA.400–COV 2.0 R4 m
F1-BTEX (CCME)-Methanol Field Preserved (2)	11	N/A	2024/07/19	STL SOP-00131	CCME PHC-CWS m
Petroleum Hydrocarbons (F2-F4)-soil (3)	2	2024/07/19	2024/07/22	STL SOP-00170	CCME PHC-CWS m
Petroleum Hydrocarbons (F2-F4)-soil (3)	9	2024/07/19	2024/07/23	STL SOP-00170	CCME PHC-CWS m
Total Extractable Metals in soils	5	2024/07/20	2024/07/24	STL SOP-00062 STL SOP-00069	MA.200–Mét. 1.2 R7 m
Total Extractable Metals in soils	6	2024/08/06	2024/08/07	STL SOP-00062 STL SOP-00069	MA.200–Mét. 1.2 R7 m
PAH in soil	5	2024/07/20	2024/07/21	STL SOP-00178	MA.400–HAP 1.1 R5 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, EPA, APHA or the Quebec Ministry of Environment.

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.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
Note: RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) No lab extraction date is given for F1/BTEX and VOC analyses for samples that are field preserved with methanol. Extraction date is date sampled unless otherwise stated.
(2) All CCME 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

Your P.O. #: 01-14014
Your Project #: HARN1660P2
Site Location: 1660,MERIVALE RD,NEPEAN,OTTAWA
Your C.O.C. #: N/A

Attention: Mathieu Bélisle

GROUPE C. LAGANIERE INC.
35 avenue Laganiere
Montréal-Est, QC
CANADA H1B 5T1

Report Date: 2024/08/08
Report #: R2967337
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C437803
Received: 2024/07/12, 12:30

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.

No lab extraction date is given for F1/BTEX and VOC analyses for samples that are field preserved with methanol. Extraction date is date sampled unless otherwise stated.
(3) All CCME 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.

Note: All parameters included in the present certificate are accredited by the Québec Ministry of the Environment, unless stated otherwise.

Encryption Key

Hafsa Zaki
Project Manager 1
08 Aug 2024 16:37:08

Please direct all questions regarding this Certificate of Analysis to:
Hafsa Zaki, Project Manager 1
Email: hafsa.zaki@bureauveritas.com
Phone# (438)221-2672

==========

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 Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Aglaia Yannakis, General Manager responsible for Quebec Environmental laboratory operations.

Bureau Veritas Job #: C437803
Report Date: 2024/08/08

GROUPE C. LAGANIERE INC.
Client Project #: HARN1660P2
Site Location: 1660,MERIVALE RD,NEPEAN,OTTAWA
Your P.O. #: 01-14014
Sampler Initials: DS

PETROLEUM HYDROCARBONS F1BTEX (SOIL)

Bureau Veritas ID					NF9604		NF9604		NF9605		NF9606			
Sampling Date					2024/07/09		2024/07/09		2024/07/09		2024/07/09			
	Units	**A**	**B**	**C**	**BH-01-6**	**CR**	**BH-01-6 Lab-Dup**	**CR**	**BH-02-8**	**CR**	**BH-03-6**	**CR**	**RDL**	**QC Batch**
% MOISTURE	%	-	-	-	9.5		9.5		7.6		16		N/A	N/A
VOLATILES														
Benzene	mg/kg	0.2	0.5	5	<0.0050		<0.0050		<0.0050		<0.0050		0.0050	2546235
Toluene	mg/kg	0.2	3	30	<0.050		<0.050		<0.050		<0.050		0.050	2546235
Ethylbenzene	mg/kg	0.2	5	50	<0.010		<0.010		<0.010		<0.010		0.010	2546235
p+m-Xylene	mg/kg	-	-	-	<0.040		<0.040		<0.040		<0.040		0.040	2546235
o-Xylene	mg/kg	-	-	-	<0.020		<0.020		<0.020		<0.020		0.020	2546235
Total_Xylenes †	mg/kg	0.4	5	50	<0.040		<0.040		<0.040		<0.040		0.040	2546235
F1 (C6-C10) †	mg/kg	-	-	-	<10		<10		<10		<10		10	2546235
F1 (C6-C10) - BTEX †	mg/kg	-	-	-	<10		<10		<10		<10		10	2546235
Surrogate Recovery (%)														
1,4-Difluorobenzene	%	-	-	-	99		98		98		98		N/A	2546235
4-Bromofluorobenzene	%	-	-	-	75		76		80		81		N/A	2546235
D10-Ethylbenzene	%	-	-	-	73		86		80		93		N/A	2546235
D4-1,2-Dichloroethane	%	-	-	-	106		105		104		103		N/A	2546235

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
† Parameter is not accreditable

Bureau Veritas Bureau Veritas 889 Montée de Liesse, Ville St-Laurent, Québec, Canada H4T 1P5 Tel: (514) 448-9001 Fax: (514) 448-9199 Ligne sans frais : 1-877-462-9926

Bureau Veritas Job #: C437803
Report Date: 2024/08/08

GROUPE C. LAGANIERE INC.
Client Project #: HARN1660P2
Site Location: 1660,MERIVALE RD,NEPEAN,OTTAWA
Your P.O. #: 01-14014
Sampler Initials: DS

PETROLEUM HYDROCARBONS F1BTEX (SOIL)

Bureau Veritas ID					NF9607		NF9608		NF9609		NF9610			
Sampling Date					2024/07/09		2024/07/09		2024/07/09		2024/07/09			
	Units	**A**	**B**	**C**	**BH-04-5**	**CR**	**DUP#2**	**CR**	**BH-04-8**	**CR**	**BH-05-3**	**CR**	**RDL**	**QC Batch**
% MOISTURE	%	-	-	-	20		19		33		7.2		N/A	N/A
VOLATILES														
Benzene	mg/kg	0.2	0.5	5	0.0066	<A	<0.0050		<0.0050		<0.0050		0.0050	2546235
Toluene	mg/kg	0.2	3	30	<0.050		<0.050		<0.050		<0.050		0.050	2546235
Ethylbenzene	mg/kg	0.2	5	50	<0.010		<0.010		<0.010		<0.010		0.010	2546235
p+m-Xylene	mg/kg	-	-	-	<0.040		<0.040		<0.040		<0.040		0.040	2546235
o-Xylene	mg/kg	-	-	-	<0.020		<0.020		<0.020		<0.020		0.020	2546235
Total_Xylenes †	mg/kg	0.4	5	50	<0.040		<0.040		<0.040		<0.040		0.040	2546235
F1 (C6-C10) †	mg/kg	-	-	-	<10		<10		<10		<10		10	2546235
F1 (C6-C10) - BTEX †	mg/kg	-	-	-	<10		<10		<10		<10		10	2546235
Surrogate Recovery (%)														
1,4-Difluorobenzene	%	-	-	-	99		100		98		98		N/A	2546235
4-Bromofluorobenzene	%	-	-	-	77		79		75		76		N/A	2546235
D10-Ethylbenzene	%	-	-	-	85		67		83		89		N/A	2546235
D4-1,2-Dichloroethane	%	-	-	-	105		107		106		104		N/A	2546235

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
† Parameter is not accreditable

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Bureau Veritas Job #: C437803
Report Date: 2024/08/08

GROUPE C. LAGANIERE INC.
Client Project #: HARN1660P2
Site Location: 1660,MERIVALE RD,NEPEAN,OTTAWA
Your P.O. #: 01-14014
Sampler Initials: DS

PETROLEUM HYDROCARBONS F1BTEX (SOIL)

Bureau Veritas ID					NF9611		NF9612		NF9613			
Sampling Date					2024/07/09		2024/07/09		2024/07/09			
	Units	**A**	**B**	**C**	**BH-05-6**	**CR**	**BH-06-5**	**CR**	**BH-07-6(REPRISE 2)**	**CR**	**RDL**	**QC Batch**
% MOISTURE	%	-	-	-	7.5		23		9.5		N/A	N/A
VOLATILES												
Benzene	mg/kg	0.2	0.5	5	<0.0050		<0.0050		<0.0050		0.0050	2546235
Toluene	mg/kg	0.2	3	30	<0.050		<0.050		<0.050		0.050	2546235
Ethylbenzene	mg/kg	0.2	5	50	<0.010		1.3	A-B	<0.010		0.010	2546235
p+m-Xylene	mg/kg	-	-	-	<0.040		5.1		<0.040		0.040	2546235
o-Xylene	mg/kg	-	-	-	<0.020		0.17		<0.020		0.020	2546235
Total_Xylenes †	mg/kg	0.4	5	50	<0.040		5.2	B-C	<0.040		0.040	2546235
F1 (C6-C10) †	mg/kg	-	-	-	<10		30		<10		10	2546235
F1 (C6-C10) - BTEX †	mg/kg	-	-	-	<10		24		<10		10	2546235
Surrogate Recovery (%)												
1,4-Difluorobenzene	%	-	-	-	97		95		97		N/A	2546235
4-Bromofluorobenzene	%	-	-	-	82		105		78		N/A	2546235
D10-Ethylbenzene	%	-	-	-	84		89		89		N/A	2546235
D4-1,2-Dichloroethane	%	-	-	-	104		100		104		N/A	2546235

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
† Parameter is not accreditable

Bureau Veritas Bureau Veritas 889 Montée de Liesse, Ville St-Laurent, Québec, Canada H4T 1P5 Tel: (514) 448-9001 Fax: (514) 448-9199 Ligne sans frais : 1-877-462-9926

Bureau Veritas Job #: C437803
Report Date: 2024/08/08

GROUPE C. LAGANIERE INC.
Client Project #: HARN1660P2
Site Location: 1660,MERIVALE RD,NEPEAN,OTTAWA
Your P.O. #: 01-14014
Sampler Initials: DS

PETROLEUM HYDROCARBONS F1BTEX (SOIL)

Bureau Veritas ID					NF9614			
Sampling Date					2024/07/09			
	Units	**A**	**B**	**C**	**BH-08-7**	**CR**	**RDL**	**QC Batch**
% MOISTURE	%	-	-	-	27		N/A	N/A
VOLATILES								
Benzene	mg/kg	0.2	0.5	5	<0.0050		0.0050	2546235
Toluene	mg/kg	0.2	3	30	<0.050		0.050	2546235
Ethylbenzene	mg/kg	0.2	5	50	<0.010		0.010	2546235
p+m-Xylene	mg/kg	-	-	-	<0.040		0.040	2546235
o-Xylene	mg/kg	-	-	-	<0.020		0.020	2546235
Total_Xylenes †	mg/kg	0.4	5	50	<0.040		0.040	2546235
F1 (C6-C10) †	mg/kg	-	-	-	<10		10	2546235
F1 (C6-C10) - BTEX †	mg/kg	-	-	-	<10		10	2546235
Surrogate Recovery (%)								
1,4-Difluorobenzene	%	-	-	-	99		N/A	2546235
4-Bromofluorobenzene	%	-	-	-	75		N/A	2546235
D10-Ethylbenzene	%	-	-	-	88		N/A	2546235
D4-1,2-Dichloroethane	%	-	-	-	103		N/A	2546235

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
† Parameter is not accreditable

Bureau Veritas Bureau Veritas 889 Montée de Liesse, Ville St-Laurent, Québec, Canada H4T 1P5 Tel: (514) 448-9001 Fax: (514) 448-9199 Ligne sans frais : 1-877-462-9926

Bureau Veritas Job #: C437803
Report Date: 2024/08/08

GROUPE C. LAGANIERE INC.
Client Project #: HARN1660P2
Site Location: 1660,MERIVALE RD,NEPEAN,OTTAWA
Your P.O. #: 01-14014
Sampler Initials: DS

PAH BY GCMS (SOIL)

Bureau Veritas ID					NF9607		NF9608		NF9610		NF9611			
Sampling Date					2024/07/09		2024/07/09		2024/07/09		2024/07/09			
	Units	**A**	**B**	**C**	**BH-04-5**	**CR**	**DUP#2**	**CR**	**BH-05-3**	**CR**	**BH-05-6**	**CR**	**RDL**	**QC Batch**
% MOISTURE	%	-	-	-	20		19		7.2		7.5		N/A	N/A
PAH														
Acenaphthene	mg/kg	0.1	10	100	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Acenaphthylene	mg/kg	0.1	10	100	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Anthracene	mg/kg	0.1	10	100	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Benzo(a)anthracene	mg/kg	0.1	1	10	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Benzo(a)pyrene	mg/kg	0.1	1	10	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Benzo(b)fluoranthene †	mg/kg	0.1	1	10	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Benzo(j)fluoranthene †	mg/kg	0.1	1	10	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Benzo(k)fluoranthene †	mg/kg	0.1	1	10	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Benzo(c)phenanthrene	mg/kg	0.1	1	10	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Benzo(ghi)perylene	mg/kg	0.1	1	10	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Chrysene	mg/kg	0.1	1	10	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Dibenzo(a,h)anthracene	mg/kg	0.1	1	10	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Dibenzo(a,i)pyrene	mg/kg	0.1	1	10	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Dibenzo(a,h)pyrene	mg/kg	0.1	1	10	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Dibenzo(a,l)pyrene	mg/kg	0.1	1	10	<0.10		<0.10		<0.10		<0.10		0.10	2546713
7,12-Dimethylbenzanthracene	mg/kg	0.1	1	10	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Fluoranthene	mg/kg	0.1	10	100	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Fluorene	mg/kg	0.1	10	100	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	1	10	<0.10		<0.10		<0.10		<0.10		0.10	2546713
3-Methylcholanthrene	mg/kg	0.1	1	10	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Naphthalene	mg/kg	0.1	5	50	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Phenanthrene	mg/kg	0.1	5	50	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Pyrene	mg/kg	0.1	10	100	<0.10		<0.10		<0.10		<0.10		0.10	2546713
2-Methylnaphthalene	mg/kg	0.1	1	10	<0.10		<0.10		<0.10		<0.10		0.10	2546713
1-Methylnaphthalene	mg/kg	0.1	1	10	<0.10		<0.10		<0.10		<0.10		0.10	2546713
1,3-Dimethylnaphthalene	mg/kg	0.1	1	10	<0.10		<0.10		<0.10		<0.10		0.10	2546713
2,3,5-Trimethylnaphthalene	mg/kg	0.1	1	10	<0.10		<0.10		<0.10		<0.10		0.10	2546713
Surrogate Recovery (%)														
D10-Anthracene	%	-	-	-	76		75		74		75		N/A	2546713
D12-Benzo(a)pyrene	%	-	-	-	77		77		77		76		N/A	2546713
D14-Terphenyl	%	-	-	-	75		74		71		72		N/A	2546713
D8-Acenaphthylene	%	-	-	-	76		75		76		76		N/A	2546713

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
† Parameter is not accreditable

Bureau Veritas Bureau Veritas 889 Montée de Liesse, Ville St-Laurent, Québec, Canada H4T 1P5 Tel: (514) 448-9001 Fax: (514) 448-9199 Ligne sans frais : 1-877-462-9926

PAH BY GCMS (SOIL)

Bureau Veritas ID					NF9607		NF9608		NF9610		NF9611			
Sampling Date					2024/07/09		2024/07/09		2024/07/09		2024/07/09			
	Units	**A**	**B**	**C**	**BH-04-5**	**CR**	**DUP#2**	**CR**	**BH-05-3**	**CR**	**BH-05-6**	**CR**	**RDL**	**QC Batch**
D8-Naphthalene	%	-	-	-	79		78		78		79		N/A	2546713

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

Bureau Veritas Bureau Veritas 889 Montée de Liesse, Ville St-Laurent, Québec, Canada H4T 1P5 Tel: (514) 448-9001 Fax: (514) 448-9199 Ligne sans frais : 1-877-462-9926

GROUPE C. LAGANIERE INC.
Client Project #: HARN1660P2
Site Location: 1660,MERIVALE RD,NEPEAN,OTTAWA
Your P.O. #: 01-14014
Sampler Initials: DS

PAH BY GCMS (SOIL)

Bureau Veritas ID					NF9614			
Sampling Date					2024/07/09			
	Units	**A**	**B**	**C**	**BH-08-7**	**CR**	**RDL**	**QC Batch**
% MOISTURE	%	-	-	-	27		N/A	N/A
PAH								
Acenaphthene	mg/kg	0.1	10	100	<0.10		0.10	2546713
Acenaphthylene	mg/kg	0.1	10	100	<0.10		0.10	2546713
Anthracene	mg/kg	0.1	10	100	<0.10		0.10	2546713
Benzo(a)anthracene	mg/kg	0.1	1	10	<0.10		0.10	2546713
Benzo(a)pyrene	mg/kg	0.1	1	10	<0.10		0.10	2546713
Benzo(b)fluoranthene †	mg/kg	0.1	1	10	<0.10		0.10	2546713
Benzo(j)fluoranthene †	mg/kg	0.1	1	10	<0.10		0.10	2546713
Benzo(k)fluoranthene †	mg/kg	0.1	1	10	<0.10		0.10	2546713
Benzo(c)phenanthrene	mg/kg	0.1	1	10	<0.10		0.10	2546713
Benzo(ghi)perylene	mg/kg	0.1	1	10	<0.10		0.10	2546713
Chrysene	mg/kg	0.1	1	10	<0.10		0.10	2546713
Dibenzo(a,h)anthracene	mg/kg	0.1	1	10	<0.10		0.10	2546713
Dibenzo(a,i)pyrene	mg/kg	0.1	1	10	<0.10		0.10	2546713
Dibenzo(a,h)pyrene	mg/kg	0.1	1	10	<0.10		0.10	2546713
Dibenzo(a,l)pyrene	mg/kg	0.1	1	10	<0.10		0.10	2546713
7,12-Dimethylbenzanthracene	mg/kg	0.1	1	10	<0.10		0.10	2546713
Fluoranthene	mg/kg	0.1	10	100	<0.10		0.10	2546713
Fluorene	mg/kg	0.1	10	100	<0.10		0.10	2546713
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	1	10	<0.10		0.10	2546713
3-Methylcholanthrene	mg/kg	0.1	1	10	<0.10		0.10	2546713
Naphthalene	mg/kg	0.1	5	50	<0.10		0.10	2546713
Phenanthrene	mg/kg	0.1	5	50	<0.10		0.10	2546713
Pyrene	mg/kg	0.1	10	100	<0.10		0.10	2546713
2-Methylnaphthalene	mg/kg	0.1	1	10	<0.10		0.10	2546713
1-Methylnaphthalene	mg/kg	0.1	1	10	<0.10		0.10	2546713
1,3-Dimethylnaphthalene	mg/kg	0.1	1	10	<0.10		0.10	2546713
2,3,5-Trimethylnaphthalene	mg/kg	0.1	1	10	<0.10		0.10	2546713
Surrogate Recovery (%)								
D10-Anthracene	%	-	-	-	73		N/A	2546713
D12-Benzo(a)pyrene	%	-	-	-	76		N/A	2546713
D14-Terphenyl	%	-	-	-	72		N/A	2546713
D8-Acenaphthylene	%	-	-	-	74		N/A	2546713

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
† Parameter is not accreditable

Bureau Veritas Bureau Veritas 889 Montée de Liesse, Ville St-Laurent, Québec, Canada H4T 1P5 Tel: (514) 448-9001 Fax: (514) 448-9199 Ligne sans frais : 1-877-462-9926

PAH BY GCMS (SOIL)

Bureau Veritas ID					NF9614			
Sampling Date					2024/07/09			
	Units	**A**	**B**	**C**	**BH-08-7**	**CR**	**RDL**	**QC Batch**
D8-Naphthalene	%	-	-	-	77		N/A	2546713

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

Bureau Veritas Bureau Veritas 889 Montée de Liesse, Ville St-Laurent, Québec, Canada H4T 1P5 Tel: (514) 448-9001 Fax: (514) 448-9199 Ligne sans frais : 1-877-462-9926

Bureau Veritas Job #: C437803
Report Date: 2024/08/08

GROUPE C. LAGANIERE INC.
Client Project #: HARN1660P2
Site Location: 1660,MERIVALE RD,NEPEAN,OTTAWA
Your P.O. #: 01-14014
Sampler Initials: DS

HYDROCARBONS BY GCFID (SOIL)

Bureau Veritas ID		NF9604	NF9605	NF9606	NF9607	NF9608	NF9609	NF9610		
Sampling Date		2024/07/09	2024/07/09	2024/07/09	2024/07/09	2024/07/09	2024/07/09	2024/07/09		
	Units	**BH-01-6**	**BH-02-8**	**BH-03-6**	**BH-04-5**	**DUP#2**	**BH-04-8**	**BH-05-3**	**RDL**	**QC Batch**
% MOISTURE	%	9.5	7.6	16	20	19	33	7.2	N/A	N/A
PETROLEUM HYDROCARBONS										
F2 (C10-C16) †	mg/kg	<10	<10	<10	<10	<10	<10	<10	10	2546605
F3 (C16-C34) †	mg/kg	<50	<50	<50	<50	<50	<50	<50	50	2546605
F4 (C34-C50) †	mg/kg	<50	<50	<50	<50	<50	<50	<50	50	2546605
Reached Baseline at C50 †	mg/kg	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	2546605
Surrogate Recovery (%)										
O-Terphenyl	%	97	98	95	94	96	90	94	N/A	2546605

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
† Parameter is not accreditable

Bureau Veritas ID		NF9611	NF9612	NF9613	NF9614	NF9614		
Sampling Date		2024/07/09	2024/07/09	2024/07/09	2024/07/09	2024/07/09		
	Units	**BH-05-6**	**BH-06-5**	**BH-07-6(REPRISE 2)**	**BH-08-7**	**BH-08-7 Lab-Dup**	**RDL**	**QC Batch**
% MOISTURE	%	7.5	23	9.5	27	27	N/A	N/A
PETROLEUM HYDROCARBONS								
F2 (C10-C16) †	mg/kg	<10	680	<10	<10	<10	10	2546605
F3 (C16-C34) †	mg/kg	<50	140	<50	<50	<50	50	2546605
F4 (C34-C50) †	mg/kg	<50	<50	<50	<50	<50	50	2546605
Reached Baseline at C50 †	mg/kg	Yes	Yes	Yes	Yes	Yes	N/A	2546605
Surrogate Recovery (%)								
O-Terphenyl	%	93	91	98	87	84	N/A	2546605

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
† Parameter is not accreditable

Bureau Veritas Bureau Veritas 889 Montée de Liesse, Ville St-Laurent, Québec, Canada H4T 1P5 Tel: (514) 448-9001 Fax: (514) 448-9199 Ligne sans frais : 1-877-462-9926

Bureau Veritas Job #: C437803
Report Date: 2024/08/08

GROUPE C. LAGANIERE INC.
Client Project #: HARN1660P2
Site Location: 1660,MERIVALE RD,NEPEAN,OTTAWA
Your P.O. #: 01-14014
Sampler Initials: DS

VOC BY GC/MS (SOIL)

Bureau Veritas ID		NF9604	NF9604	NF9605	NF9606	NF9607	NF9608	NF9609		
Sampling Date		2024/07/09	2024/07/09	2024/07/09	2024/07/09	2024/07/09	2024/07/09	2024/07/09		
	Units	**BH-01-6**	**BH-01-6 Lab-Dup**	**BH-02-8**	**BH-03-6**	**BH-04-5**	**DUP#2**	**BH-04-8**	**RDL**	**QC Batch**
% MOISTURE	%	9.5	9.5	7.6	16	20	19	33	N/A	N/A
VOLATILES										
Hexane †	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	2546240
Surrogate Recovery (%)										
4-Bromofluorobenzene	%	97	93	100	101	98	99	97	N/A	2546240
D10-Ethylbenzene	%	116	108	94	106	98	95	100	N/A	2546240
D4-1,2-Dichloroethane	%	119	118	119	117	122	117	116	N/A	2546240
D8-Toluene	%	101	102	100	102	103	102	100	N/A	2546240

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
† Parameter is not accreditable

Bureau Veritas ID		NF9610	NF9611	NF9612	NF9613	NF9614		
Sampling Date		2024/07/09	2024/07/09	2024/07/09	2024/07/09	2024/07/09		
	Units	**BH-05-3**	**BH-05-6**	**BH-06-5**	**BH-07-6(REPRISE 2)**	**BH-08-7**	**RDL**	**QC Batch**
% MOISTURE	%	7.2	7.5	23	9.5	27	N/A	N/A
VOLATILES								
Hexane †	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	2546240
Surrogate Recovery (%)								
4-Bromofluorobenzene	%	99	100	101	99	99	N/A	2546240
D10-Ethylbenzene	%	100	101	102	99	104	N/A	2546240
D4-1,2-Dichloroethane	%	121	121	116	113	121	N/A	2546240
D8-Toluene	%	102	103	104	102	101	N/A	2546240

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
† Parameter is not accreditable

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TOTAL EXTRACTABLE METALS (SOIL)

Bureau Veritas ID					NF9604		NF9605		NF9606			
Sampling Date					2024/07/09		2024/07/09		2024/07/09			
	Units	**A**	**B**	**C**	**BH-01-6**	**CR**	**BH-02-8**	**CR**	**BH-03-6**	**CR**	**RDL**	**QC Batch**
% MOISTURE	%	-	-	-	9.5		7.6		16		N/A	N/A
METALS												
Total Extractable Lead (Pb)	mg/kg	50	500	1000	5.3	<A	6.8	<A	7.0	<A	5.0	2552925
Total Extractable Thallium (Tl) †	mg/kg	-	-	-	<2.0		<2.0		<2.0		2.0	2552925

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
† Parameter is not accreditable

Bureau Veritas ID					NF9607		NF9607		NF9608			
Sampling Date					2024/07/09		2024/07/09		2024/07/09			
	Units	**A**	**B**	**C**	**BH-04-5**	**CR**	**BH-04-5 Lab-Dup**	**CR**	**DUP#2**	**CR**	**RDL**	**QC Batch**
% MOISTURE	%	-	-	-	20		20		19		N/A	N/A
METALS												
Total Extractable Arsenic (As)	mg/kg	6	30	50	<5.0		<5.0		<5.0		5.0	2546811
Total Extractable Cadmium (Cd)	mg/kg	1.5	5	20	<0.50		<0.50		<0.50		0.50	2546811
Total Extractable Chromium (Cr)	mg/kg	100	250	800	55	<A	51	<A	55	<A	2.0	2546811
Total Extractable Cobalt (Co)	mg/kg	25	50	300	12	<A	12	<A	12	<A	2.0	2546811
Total Extractable Copper (Cu)	mg/kg	50	100	500	26	<A	27	<A	24	<A	2.0	2546811
Total Extractable Nickel (Ni)	mg/kg	50	100	500	29	<A	27	<A	28	<A	1.0	2546811
Total Extractable Lead (Pb)	mg/kg	50	500	1000	8.9	<A	8.4	<A	7.1	<A	5.0	2546811
Total Extractable Zinc (Zn)	mg/kg	140	500	1500	71	<A	67	<A	66	<A	10	2546811

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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GROUPE C. LAGANIERE INC.
Client Project #: HARN1660P2
Site Location: 1660,MERIVALE RD,NEPEAN,OTTAWA
Your P.O. #: 01-14014
Sampler Initials: DS

TOTAL EXTRACTABLE METALS (SOIL)

Bureau Veritas ID					NF9609			NF9610		NF9611			
Sampling Date					2024/07/09			2024/07/09		2024/07/09			
	Units	**A**	**B**	**C**	**BH-04-8**	**CR**	**QC Batch**	**BH-05-3**	**CR**	**BH-05-6**	**CR**	**RDL**	**QC Batch**
% MOISTURE	%	-	-	-	33		N/A	7.2		7.5		N/A	N/A
METALS													
Total Extractable Arsenic (As)	mg/kg	6	30	50	N/A		2546811	<5.0		<5.0		5.0	2546811
Total Extractable Cadmium (Cd)	mg/kg	1.5	5	20	N/A		2546811	<0.50		<0.50		0.50	2546811
Total Extractable Chromium (Cr)	mg/kg	100	250	800	N/A		2546811	4.0	<A	9.7	<A	2.0	2546811
Total Extractable Cobalt (Co)	mg/kg	25	50	300	N/A		2546811	3.1	<A	6.4	<A	2.0	2546811
Total Extractable Copper (Cu)	mg/kg	50	100	500	N/A		2546811	8.4	<A	11	<A	2.0	2546811
Total Extractable Nickel (Ni)	mg/kg	50	100	500	N/A		2546811	4.9	<A	13	<A	1.0	2546811
Total Extractable Lead (Pb)	mg/kg	50	500	1000	9.5	<A	2552925	<5.0		7.0	<A	5.0	2546811
Total Extractable Thallium (Tl) †	mg/kg	-	-	-	<2.0		2552925	N/A		N/A		2.0	N/A
Total Extractable Zinc (Zn)	mg/kg	140	500	1500	N/A		N/A	11	<A	14	<A	10	2546811

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
† Parameter is not accreditable

Bureau Veritas ID					NF9612		NF9613			NF9614			
Sampling Date					2024/07/09		2024/07/09			2024/07/09			
	Units	**A**	**B**	**C**	**BH-06-5**	**CR**	**BH-07-6(REPRISE 2)**	**CR**	**QC Batch**	**BH-08-7**	**CR**	**RDL**	**QC Batch**
% MOISTURE	%	-	-	-	23		9.5		N/A	27		N/A	N/A
METALS													
Total Extractable Arsenic (As)	mg/kg	6	30	50	N/A		N/A		2546811	<5.0		5.0	2546811
Total Extractable Cadmium (Cd)	mg/kg	1.5	5	20	N/A		N/A		2546811	<0.50		0.50	2546811
Total Extractable Chromium (Cr)	mg/kg	100	250	800	N/A		N/A		2546811	34	<A	2.0	2546811
Total Extractable Cobalt (Co)	mg/kg	25	50	300	N/A		N/A		2546811	7.7	<A	2.0	2546811
Total Extractable Copper (Cu)	mg/kg	50	100	500	N/A		N/A		2546811	18	<A	2.0	2546811
Total Extractable Nickel (Ni)	mg/kg	50	100	500	N/A		N/A		2546811	19	<A	1.0	2546811
Total Extractable Lead (Pb)	mg/kg	50	500	1000	8.2	<A	6.1	<A	2552925	<5.0		5.0	2546811
Total Extractable Thallium (Tl) †	mg/kg	-	-	-	<2.0		<2.0		2552925	N/A		2.0	N/A
Total Extractable Zinc (Zn)	mg/kg	140	500	1500	N/A		N/A		N/A	44	<A	10	2546811

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
† Parameter is not accreditable

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GENERAL COMMENTS

Samples temperature is above 10°C.: NF9604, NF9604, NF9605, NF9605, NF9606, NF9606, NF9607, NF9607, NF9608, NF9608, NF9609, NF9609, NF9610, NF9610, NF9611, NF9611, NF9612, NF9612, NF9613, NF9613, NF9614, NF9614

Revision: Additional analysis has been added per M7617 on 2024/08/06

A,B,C,CR: Soil Criteria following appendix 2 of the " Guide d'intervention-Protection des sols et réhabilitation des terrains contaminés. MELCC, May 2021." entitled " Grille des critères génériques pour les sols". The soil criteria refer to the St. Lawrence Lowlands Geological Province.

Groundwater criteria A and B follow the appendix 7 entitled "Grille des critères de qualité des eaux souterraines" of the document mentionned above.The criterion A refers to " Drinking Water " and the criterion B refers to "Seepage into Surface Water".

These criteria references are shown for visual aid only, and should not be interpreted otherwise.
- = This parameter is not part of the regulation.

PETROLEUM HYDROCARBONS F1BTEX (SOIL)

Un-rounded results are used in the total xylene (o,m,p) calculation. This total result is then rounded to two significant figures.

Please note that the above results have been corrected for the instrument blank.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units
2546235	XDU	Spiked Blank	1,4-Difluorobenzene	2024/07/19		97	%
			4-Bromofluorobenzene	2024/07/19		99	%
			D10-Ethylbenzene	2024/07/19		83	%
			D4-1,2-Dichloroethane	2024/07/19		107	%
			Benzene	2024/07/19		85	%
			Toluene	2024/07/19		67	%
			Ethylbenzene	2024/07/19		73	%
			p+m-Xylene	2024/07/19		77	%
			o-Xylene	2024/07/19		83	%
			Total_Xylenes	2024/07/19		80	%
			F1 (C6-C10)	2024/07/19		66	%
2546235	XDU	Method Blank	1,4-Difluorobenzene	2024/07/19		98	%
			4-Bromofluorobenzene	2024/07/19		75	%
			D10-Ethylbenzene	2024/07/19		77	%
			D4-1,2-Dichloroethane	2024/07/19		105	%
			Benzene	2024/07/19	<0.0050		mg/kg
			Toluene	2024/07/19	<0.050		mg/kg
			Ethylbenzene	2024/07/19	<0.010		mg/kg
			p+m-Xylene	2024/07/19	<0.040		mg/kg
			o-Xylene	2024/07/19	<0.020		mg/kg
			Total_Xylenes	2024/07/19	<0.040		mg/kg
			F1 (C6-C10)	2024/07/19	<10		mg/kg
			F1 (C6-C10) - BTEX	2024/07/19	<10		mg/kg
2546240	FEM	Spiked Blank	4-Bromofluorobenzene	2024/07/20		109	%
			D10-Ethylbenzene	2024/07/20		111	%
			D4-1,2-Dichloroethane	2024/07/20		113	%
			D8-Toluene	2024/07/20		99	%
2546240	FEM	Method Blank	4-Bromofluorobenzene	2024/07/20		99	%
			D10-Ethylbenzene	2024/07/20		94	%
			D4-1,2-Dichloroethane	2024/07/20		117	%
			D8-Toluene	2024/07/20		102	%
			Hexane	2024/07/20	<0.50		mg/kg
2546605	JNI	Spiked Blank	O-Terphenyl	2024/07/22		94	%
			F2 (C10-C16)	2024/07/22		107	%
			F3 (C16-C34)	2024/07/22		107	%
			F4 (C34-C50)	2024/07/22		107	%
2546605	JNI	Method Blank	O-Terphenyl	2024/07/22		99	%
			F2 (C10-C16)	2024/07/22	<10		mg/kg
			F3 (C16-C34)	2024/07/22	<50		mg/kg
			F4 (C34-C50)	2024/07/22	<50		mg/kg
2546713	JTA	Spiked Blank	D10-Anthracene	2024/07/21		78	%
			D12-Benzo(a)pyrene	2024/07/21		81	%
			D14-Terphenyl	2024/07/21		74	%
			D8-Acenaphthylene	2024/07/21		77	%
			D8-Naphthalene	2024/07/21		79	%
			Acenaphthene	2024/07/21		73	%
			Acenaphthylene	2024/07/21		74	%
			Anthracene	2024/07/21		75	%
			Benzo(a)anthracene	2024/07/21		65	%
			Benzo(a)pyrene	2024/07/21		75	%

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units
			Benzo(b)fluoranthene	2024/07/21		74	%
			Benzo(j)fluoranthene	2024/07/21		77	%
			Benzo(k)fluoranthene	2024/07/21		75	%
			Benzo(c)phenanthrene	2024/07/21		66	%
			Benzo(ghi)perylene	2024/07/21		72	%
			Chrysene	2024/07/21		66	%
			Dibenzo(a,h)anthracene	2024/07/21		77	%
			Dibenzo(a,i)pyrene	2024/07/21		64	%
			Dibenzo(a,h)pyrene	2024/07/21		67	%
			Dibenzo(a,l)pyrene	2024/07/21		74	%
			7,12-Dimethylbenzanthracene	2024/07/21		67	%
			Fluoranthene	2024/07/21		74	%
			Fluorene	2024/07/21		69	%
			Indeno(1,2,3-cd)pyrene	2024/07/21		71	%
			3-Methylcholanthrene	2024/07/21		85	%
			Naphthalene	2024/07/21		79	%
			Phenanthrene	2024/07/21		73	%
			Pyrene	2024/07/21		74	%
			2-Methylnaphthalene	2024/07/21		71	%
			1-Methylnaphthalene	2024/07/21		72	%
			1,3-Dimethylnaphthalene	2024/07/21		67	%
			2,3,5-Trimethylnaphthalene	2024/07/21		69	%
2546713	JTA	Method Blank	D10-Anthracene	2024/07/21		77	%
			D12-Benzo(a)pyrene	2024/07/21		78	%
			D14-Terphenyl	2024/07/21		72	%
			D8-Acenaphthylene	2024/07/21		77	%
			D8-Naphthalene	2024/07/21		80	%
			Acenaphthene	2024/07/21	<0.10		mg/kg
			Acenaphthylene	2024/07/21	<0.10		mg/kg
			Anthracene	2024/07/21	<0.10		mg/kg
			Benzo(a)anthracene	2024/07/21	<0.10		mg/kg
			Benzo(a)pyrene	2024/07/21	<0.10		mg/kg
			Benzo(b)fluoranthene	2024/07/21	<0.10		mg/kg
			Benzo(j)fluoranthene	2024/07/21	<0.10		mg/kg
			Benzo(k)fluoranthene	2024/07/21	<0.10		mg/kg
			Benzo(c)phenanthrene	2024/07/21	<0.10		mg/kg
			Benzo(ghi)perylene	2024/07/21	<0.10		mg/kg
			Chrysene	2024/07/21	<0.10		mg/kg
			Dibenzo(a,h)anthracene	2024/07/21	<0.10		mg/kg
			Dibenzo(a,i)pyrene	2024/07/21	<0.10		mg/kg
			Dibenzo(a,h)pyrene	2024/07/21	<0.10		mg/kg
			Dibenzo(a,l)pyrene	2024/07/21	<0.10		mg/kg
			7,12-Dimethylbenzanthracene	2024/07/21	<0.10		mg/kg
			Fluoranthene	2024/07/21	<0.10		mg/kg
			Fluorene	2024/07/21	<0.10		mg/kg
			Indeno(1,2,3-cd)pyrene	2024/07/21	<0.10		mg/kg
			3-Methylcholanthrene	2024/07/21	<0.10		mg/kg
			Naphthalene	2024/07/21	<0.10		mg/kg
			Phenanthrene	2024/07/21	<0.10		mg/kg
			Pyrene	2024/07/21	<0.10		mg/kg

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units
			2-Methylnaphthalene	2024/07/21	<0.10		mg/kg
			1-Methylnaphthalene	2024/07/21	<0.10		mg/kg
			1,3-Dimethylnaphthalene	2024/07/21	<0.10		mg/kg
			2,3,5-Trimethylnaphthalene	2024/07/21	<0.10		mg/kg
2546811	JGK	QC Standard	Total Extractable Arsenic (As)	2024/07/24		101	%
			Total Extractable Cadmium (Cd)	2024/07/24		104	%
			Total Extractable Chromium (Cr)	2024/07/24		69	%
			Total Extractable Cobalt (Co)	2024/07/24		95	%
			Total Extractable Copper (Cu)	2024/07/24		111	%
			Total Extractable Nickel (Ni)	2024/07/24		107	%
			Total Extractable Lead (Pb)	2024/07/24		118	%
			Total Extractable Zinc (Zn)	2024/07/24		109	%
2546811	JGK	Spiked Blank	Total Extractable Arsenic (As)	2024/07/24		108	%
			Total Extractable Cadmium (Cd)	2024/07/24		107	%
			Total Extractable Chromium (Cr)	2024/07/24		103	%
			Total Extractable Cobalt (Co)	2024/07/24		104	%
			Total Extractable Copper (Cu)	2024/07/24		104	%
			Total Extractable Nickel (Ni)	2024/07/24		107	%
			Total Extractable Lead (Pb)	2024/07/24		106	%
			Total Extractable Zinc (Zn)	2024/07/24		105	%
2546811	JGK	Method Blank	Total Extractable Arsenic (As)	2024/07/24	<5.0		mg/kg
			Total Extractable Cadmium (Cd)	2024/07/24	<0.50		mg/kg
			Total Extractable Chromium (Cr)	2024/07/24	<2.0		mg/kg
			Total Extractable Cobalt (Co)	2024/07/24	<2.0		mg/kg
			Total Extractable Copper (Cu)	2024/07/24	<2.0		mg/kg
			Total Extractable Nickel (Ni)	2024/07/24	<1.0		mg/kg
			Total Extractable Lead (Pb)	2024/07/24	<5.0		mg/kg
			Total Extractable Zinc (Zn)	2024/07/24	<10		mg/kg
2552925	DMI	Spiked Blank	Total Extractable Lead (Pb)	2024/08/07		110	%
			Total Extractable Thallium (Tl)	2024/08/07		97	%
2552925	DMI	Method Blank	Total Extractable Lead (Pb)	2024/08/07	<5.0		mg/kg
			Total Extractable Thallium (Tl)	2024/08/07	<2.0		mg/kg

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

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.

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Bureau Veritas Job #: C437803
Report Date: 2024/08/08

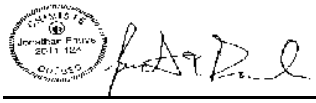
GROUPE C. LAGANIERE INC.
Client Project #: HARN1660P2
Site Location: 1660,MERIVALE RD,NEPEAN,OTTAWA
Your P.O. #: 01-14014
Sampler Initials: DS

VALIDATION SIGNATURE PAGE

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

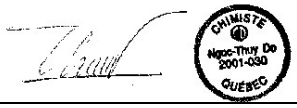
Amelie Houle, B.Sc., Chemist, Montréal, Analyst II

Cansu Bolukbas, B.Sc., Chemist, Montreal, Analyst II



Jonathan Fauvel, B.Sc., Chemist, Montreal, Scientific Specialist

Noureddine Chafiaai, B.Sc., Chemist, Montreal, Team leader



Ngoc-Thuy Do, B.Sc., Chemist, Montreal, Analyst 2

Zili Jiang, Chemist, Montreal, Analyst 1

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 Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Aglaia Yannakis, General Manager responsible for Quebec Environmental laboratory operations.

Bureau Veritas Bureau Veritas 889 Montée de Liesse, Ville St-Laurent, Québec, Canada H4T 1P5 Tel: (514) 448-9001 Fax: (514) 448-9199 Ligne sans frais : 1-877-462-9926

NOVA-2024-07-1859

889 Montée de Liesse, Saint-Laurent, QC H4T 1P5 — Téléphone : 514 448-9001 Télécopieur : 514 448-9199
2690 avenue Dalton, Sainte-Foy, QC G1P 3S4 — Téléphone : 418 658-5784 Télécopieur : 418 658-
737 boul. Barette, Chicoutimi, QC G7J 4C4 — Téléphone : 418 543-3788 Télécopieur : 418 543-8994
Ligne sans frais : (877) 462-9926
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Cl

ENV COC - 00017v5

Facturation	Rapport requis a l'adresse de facturation ☐	Rapport		Projet		Réservé au laboratoire - PLACER L'AUTOCOLLANT ICI
Entreprise:	Groupe C. Laganière (1995) Inc.	Entreprise:	Groupe C. Laganière (1995) Inc.	N° de soumission:	C40044	
À l'attention:	Mathieu Bélisle	À l'attention	Mathieu Bélisle	N° de bon de commande:	01-14014	
Adresse:	35 av Laganiere	Adresse:	35 av Laganiere	N° de projet:	HARN1660P2	
Ville: Montréal-Est	Prov: QC Code postal: H1B5T1	Ville:	Prov: Code postal:	N° de site:		
Tél.:	5146400840	Tél.:	514-452-5718	Emplacement du site:	1660, Merivale Rd, Nepean, Ottawa, Ont	N° de confirmation de délai rapide:
Courriel:	grl.payables@gr-laganiere.com	Courriel:	mbelisle@gr-laganiere.com	Emplacement du site, province:		
Copie(cc):	mbelisle@gr-laganiere.com	Copie(cc):		Échantillonneur:	David Sauvé	

Critères ou règlements applicables

☐ Guide d'intervention ☐ RQEP - formulaire MELCC requis ☑ Autre (précisez): 153-04
☐ RMD (mat. lixiviable) ☐ CMM 2008-47 ☐ RVMR
☐ Qualité de l'eau de surface ☐ CCME ☐ Dir. 019 (minier)

LES ÉCHANTILLONS DOIVENT ÊTRE CONSERVÉS AU FRAIS (<10°C) DU MOMENT DE L'ÉCHANTILLONNAGE JUSQU'À LA LIVRAISON A BUREAU VERITAS

Délai d'analyses

☑ délai régulier

Délai rapide (frais supplémentaires)

Acheminez toute demande de délai rapide à votre chargé de projet
☐ Même jour ☐ 1 jour ☐ 2 jours ☐ 3 jours

Date requise: AA MM JJ

	Identification de l'échantillon	Date de prélèvement AA	MM	JJ	Heure (24hr) HH	MM	Matrice	1 FILTRATION AU LABO. REQUISE	2 RETENIR À LA RÉCEPTION (ANALYSES À VENIR)	3 COV 624	4 HAM	5 BTEX	6 C10-C50	7 HAP	8 14 métaux - Ag, As, Ba, Cd, Co, Cr, Cu, Se, Sn, Mn, Mo, Ni, Pb, Zn	9 16 métaux - Al, Sb, Ag, As, Ba, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Se, Na, Zn	10 Mercure	11 Bore, uranium	12 Dioxines/furanes	13	14 As-Cd-Cr-Co-Cu-Ni-Pb-Zn	15	16 F1-BTEX	17 F2-F4	18 Hexane	19	20	21 NOMBRE DE CONTENANTS ENVOYÉS	22 ARCHIVER - NE PAS ANALYSER	Commentaires
1	BH-01-6	24	07	09			Sol (Sol)															x	x	x					Rapport en anglais
2	BH-02-8	24	07	09			Sol (Sol)															x	x	x					
3	BH-03-6	24	07	09			Sol (Sol)															x	x	x					
4	BH-04-5	24	07	09			Sol (Sol)							x							x	x	x	x					
5	DUP #2	24	07	09			Sol (Sol)							x							x	x	x	x					
6	BH-04-8	24	07	09			Sol (Sol)															x	x	x					
7	BH-05-3	24	07	09			Sol (Sol)							x							x	x	x	x					
8	BH-05-6	24	07	09			Sol (Sol)							x							x	x	x	x					
9	BH-06-5	24	07	09			Sol (Sol)															x	x	x					Possibilité concentration élevée
10	BH-07-6 (reprise 2)	24	07	09			Sol (Sol)															x	x	x					
11	BH-08-7	24	07	09			Sol (Sol)							x							x	x	x	x					
12																													

*SAUF ACCORD ÉCRIT CONTRAIRE, LES DOSSIERS SOUMIS DANS LE CADRE DE CETTE CHAINE DE RESPONSABILITÉS SONT SOUMIS AUX CONDITIONS GÉNÉRALES DE BUREAU VERITAS. LA SIGNATURE DE CE DOCUMENT DE CHAINE DE RESPONSABILITÉS CONSTITUE UNE RECONNAISSANCE ET UNE ACCEPTATION DE NOS CONDITIONS GÉNÉRALES QUI PEUVENT ÊTRE CONSULTÉES SUR http://www.bvna.com/fr/laboratoires-environnementaux/ressources/cdr-conditions-generales OU EN APPELANT LE LABORATOIRE INDIQUÉ CI-DESSUS POUR EN OBTENIR UN EXEMPLAIRE.

Réservé au laboratoire	Oui	Non	°C	1	2	3
Scellé légal présent		✓				
Scellé légal intact		✓				
Réfrigérant présent	✓			14	13	12

Réservé au laboratoire	Oui	Non	°C	1	2	3
Scellé légal présent						
Scellé légal intact						
Réfrigérant présent						

Réservé au laboratoire	Oui	Non	°C	1	2	3	PRIS PAR:
Scellé légal présent							
Scellé légal intact							
Réfrigérant présent							

Déssaisi par: (signature/majuscules)	Date AA	MM	JJ	Heure HH	MM	Reçu par: (signature/majuscules)	Date AA	MM	JJ	Heure HH	MM	Transport d'échantillon par:
1						1 David Lod	2024	07	12	12	30	☐ Courrier (précisez): Client
2						2						☐ Personnel BV ☐ Client

WT505

12-Jul-24 12:30

Hafsa Zaki

C437803

C437803_COC

NOVA-2024-07-1859

889 Mc
2690 av
737 bou

SKB

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Téléphone : 418 543-3788 Télécopieur : 418 543-8994
Ligne sans frais : (877) 462-9926

ENV COC - 00017v5

Facturation	Rapport requis a l'adresse de facturation ☐	Rapport		Projet	
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À l'attention:	Mathieu Bélisle	À l'attention	Mathieu Bélisle	N° de bon de commande:	01-14014
Adresse:	35 av Laganiere	Adresse:	35 av Laganiere	N° de projet:	HARN1660P2
Ville:	Montréal-Est Prov: QC Code postal: H1B5T1	Ville:	Prov: Code postal:	N° de site:	
Tél.:	5146400840	Tél.:	514-452-5718	Emplacement du site:	1660, Merivale Rd, Nepean, Ottawa, Ont
Courriel:	grl.payables@gr-laganiere.com	Courriel:	mbelisle@gr-laganiere.com	Emplacement du site, province:	
Copie(cc):	mbelisle@gr-laganiere.com	Copie(cc):		Échantillonneur:	David Sauvé

Réservé au laboratoire - PLACER L'AUTOCOLLANT ICI

N° de confirmation de délai rapide:

Critères ou règlements applicables

☐ Guide d'intervention ☐ RQEP - formulaire MELCC requis ☑ Autre (précisez): 153-04
☐ RMD (mat. lixiviable) ☐ CMM 2008-47 ☐ RVMR
☐ Qualité de l'eau de surface ☐ CCME ☐ Dir. 019 (minier)

LES ÉCHANTILLONS DOIVENT ÊTRE CONSERVÉS AU FRAIS (<10°C) DU MOMENT DE L'ÉCHANTILLONNAGE JUSQU'À LA LIVRAISON A BUREAU VERITAS

Délai d'analyses

☑ délai régulier

Délai rapide (frais supplémentaires)

Acheminez toute demande de délai rapide à votre chargé de projet

☐ Même jour ☐ 1 jour ☐ 2 jours ☐ 3 jours

Date requise: AA MM JJ

	Identification de l'échantillon	Date de prélèvement AA	MM	JJ	Heure (24hr) HH	MM	Matrice	1 FILTRATION AU LABO. REQUISE	2 RETENIR À LA RÉCEPTION (ANALYSES À VENIR)	3 COV 624	4 HAM	5 BTEX	6 C10-C50	7 HAP	8 14 métaux - Ag, As, Ba, Cd, Co, Cr, Cu, Se, Sn, Mn, Mo, Ni, Pb, Zn	9 16 métaux - Al, Sb, Ag, As, Ba, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Se, Na, Zn	10 Mercure	11 Bore, uranium	12 Dioxines/furanes	13	14 As-Cd-Cr-Co-Cu-Ni-Pb-Zn	15	16 F1-BTEX	17 F2-F4	18 Hexane	19	20	21 NOMBRE DE CONTENANTS ENVOYÉS	22 ARCHIVER - NE PAS ANALYSER	Commentaires
1	BH-01-6	24	07	09			Sol (Sol)															x	x	x					Rapport en anglais
2	BH-02-8	24	07	09			Sol (Sol)															x	x	x					
3	BH-03-6	24	07	09			Sol (Sol)															x	x	x					
4	BH-04-5	24	07	09			Sol (Sol)							x							x	x	x	x					
5	DUP #2	24	07	09			Sol (Sol)							x							x	x	x	x					
6	BH-04-8	24	07	09			Sol (Sol)															x	x	x					
7	BH-05-3	24	07	09			Sol (Sol)							x							x	x	x	x					
8	BH-05-6	24	07	09			Sol (Sol)							x							x	x	x	x					
9	BH-06-5	24	07	09			Sol (Sol)															x	x	x					Possibilité concentration élevée
10	BH-07-6 (reprise 2)	24	07	09			Sol (Sol)															x	x	x					
11	BH-08-7	24	07	09			Sol (Sol)							x							x	x	x	x					
12																													

Réservé au laboratoire	Oui	Non	°C	1	2	3
Scellé légal présent		✓				
Scellé légal intact		✓				
Réfrigérant présent	✓			14	13	12

Réservé au laboratoire	Oui	Non	°C	1	2	3
Scellé légal présent						
Scellé légal intact						
Réfrigérant présent						

Réservé au laboratoire	Oui	Non	°C	1	2	3	PRIS PAR:
Scellé légal présent							
Scellé légal intact							
Réfrigérant présent							

Déssaisi par: (signature/majuscules)	Date AA	MM	JJ	Heure HH	MM	Reçu par: (signature/majuscules)	Date AA	MM	JJ	Heure HH	MM	Transport d'échantillon par:
1						1 David Lock	2024	07	12	12	30	☐ Courrier (précisez): Client
						2						☐ Personnel BV ☐ Client

WT305

Your P.O. #: 01-14014
Your Project #: HARN1660P2
Site Location: 1660, MERIVALE RD, NEPEAN OTTAWA, ONT
Your C.O.C. #: N/A

Attention: Mathieu Bélisle

GROUPE C. LAGANIERE INC.
35 avenue Laganiere
Montréal-Est, QC
CANADA H1B 5T1

Report Date: 2024/07/24
Report #: R2963178
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C437773
Received: 2024/07/12, 12:30

Sample Matrix: Ground Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
VOC in water	5	N/A	2024/07/18	STL SOP-00145	MA.400–COV 2.0 R4 m
VOC in water	1	N/A	2024/07/22	STL SOP-00145	MA.400–COV 2.0 R4 m
F1-BTEX (CCME) in water	5	N/A	2024/07/18	STL SOP-00131	CCME PHC-CWS m
F1-BTEX (CCME) in water	1	N/A	2024/07/22	STL SOP-00131	CCME PHC-CWS m
Petroleum Hydrocarbons (F2-F4)-water	6	2024/07/17	2024/07/18	STL-SOP-00170	CCME PHC-CWS m
Dissolved Metals (Low DL) site filtered	3	N/A	2024/07/18	STL SOP-00062	MA.200–Mét. 1.2 R7 m
PAH in water (1)	3	2024/07/17	2024/07/20	STL SOP-00177	MA.400–HAP 1.1 R5 m
PAH in water (1)	1	2024/07/18	2024/07/20	STL SOP-00177	MA.400–HAP 1.1 R5 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, EPA, APHA or the Quebec Ministry of Environment.

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.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
Note: RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas - Québec, 2690 Avenue Dalton , Quebec, QC, G1P 3S4

Note: All parameters included in the present certificate are accredited by the Québec Ministry of the Environment, unless stated otherwise.

Bureau Veritas Bureau Veritas 889 Montée de Liesse, Ville St-Laurent, Québec, Canada H4T 1P5 Tel: (514) 448-9001 Fax: (514) 448-9199 Ligne sans frais : 1-877-462-9926

Your P.O. #: 01-14014
Your Project #: HARN1660P2
Site Location: 1660, MERIVALE RD, NEPEAN OTTAWA, ONT
Your C.O.C. #: N/A

Attention: Mathieu Bélisle

GROUPE C. LAGANIERE INC.
35 avenue Laganiere
Montréal-Est, QC
CANADA H1B 5T1

Report Date: 2024/07/24
Report #: R2963178
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C437773
Received: 2024/07/12, 12:30

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Hafsa Zaki, Project Manager 1
Email: hafsa.zaki@bureauveritas.com
Phone# (438)221-2672

==========

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Bureau Veritas Job #: C437773
Report Date: 2024/07/24

GROUPE C. LAGANIERE INC.
Client Project #: HARN1660P2
Site Location: 1660, MERIVALE RD, NEPEAN OTTAWA, ONT
Your P.O. #: 01-14014
Sampler Initials: DS

PETROLEUM HYDROCARBONS F1BTEX (GROUND WATER)

Bureau Veritas ID		NF9398	NF9399	NF9400	NF9401	NF9402		NF9403		
Sampling Date		2024/07/08	2024/07/11	2024/07/11	2024/07/11	2024/07/11		2024/07/11		
	Units	**MW15-01**	**MW15-02**	**DUP-MW15-02**	**TH3**	**TH7**	**QC Batch**	**TH5**	**RDL**	**QC Batch**
VOLATILES										
F1 (C6-C10) †	ug/L	<100	110	<100	330	<100	2545666	300	100	2546966
F1 (C6-C10) - BTEX †	ug/L	<100	100	<100	320	<100	2545666	260	100	2546966
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	95	93	93	93	93	2545666	92	N/A	2546966
4-Bromofluorobenzene	%	81	97	98	98	85	2545666	112	N/A	2546966
D10-Ethylbenzene	%	91	92	101	89	82	2545666	87	N/A	2546966
D4-1,2-Dichloroethane	%	98	98	96	94	95	2545666	99	N/A	2546966

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
† Parameter is not accreditable
N/A = Not Applicable

Bureau Veritas Bureau Veritas 889 Montée de Liesse, Ville St-Laurent, Québec, Canada H4T 1P5 Tel: (514) 448-9001 Fax: (514) 448-9199 Ligne sans frais : 1-877-462-9926

Bureau Veritas Job #: C437773
Report Date: 2024/07/24

GROUPE C. LAGANIERE INC.
Client Project #: HARN1660P2
Site Location: 1660, MERIVALE RD, NEPEAN OTTAWA, ONT
Your P.O. #: 01-14014
Sampler Initials: DS

PAH BY GCMS (GROUND WATER)

Bureau Veritas ID				NF9398			NF9399		NF9400			
Sampling Date				2024/07/08			2024/07/11		2024/07/11			
	Units	**A**	**B**	**MW15-01**	**CR**	**QC Batch**	**MW15-02**	**CR**	**DUP-MW15-02**	**CR**	**RDL**	**QC Batch**
PAH												
Acenaphthene	ug/L	-	100	<0.030		2545747	<0.030		<0.030		0.030	2545614
Anthracene	ug/L	-	-	<0.030		2545747	<0.030		<0.030		0.030	2545614
Benzo(a)anthracene	ug/L	-	-	<0.030		2545747	<0.030		<0.030		0.030	2545614
Benzo(b)fluoranthene †	ug/L	-	-	<0.060		2545747	<0.060		<0.060		0.060	2545614
Benzo(j)fluoranthene †	ug/L	-	-	<0.060		2545747	<0.060		<0.060		0.060	2545614
Benzo(k)fluoranthene †	ug/L	-	-	<0.060		2545747	<0.060		<0.060		0.060	2545614
Benzo(a)pyrene	ug/L	0.01	-	<0.0080		2545747	<0.0080		<0.0080		0.0080	2545614
Chrysene	ug/L	-	-	<0.030		2545747	<0.030		<0.030		0.030	2545614
Dibenzo(a,h)anthracene	ug/L	-	-	<0.030		2545747	<0.030		<0.030		0.030	2545614
Fluoranthene	ug/L	4	14	<0.030		2545747	<0.030		<0.030		0.030	2545614
Fluorene	ug/L	-	110	<0.030		2545747	<0.030		<0.030		0.030	2545614
Indeno(1,2,3-cd)pyrene	ug/L	-	-	<0.030		2545747	<0.030		<0.030		0.030	2545614
Naphthalene	ug/L	100	100	<0.030		2545747	0.033	<A	<0.030		0.030	2545614
Phenanthrene	ug/L	-	4.7	<0.030		2545747	<0.030		<0.030		0.030	2545614
Pyrene	ug/L	-	-	<0.030		2545747	<0.030		<0.030		0.030	2545614
Total PAH (SSW) †	ug/L	-	1.8	<0.060		2545747	<0.060		<0.060		0.060	2545614
Surrogate Recovery (%)												
D10-Anthracene	%	-	-	85		2545747	99		90		N/A	2545614
D12-Benzo(a)pyrene	%	-	-	94		2545747	115		114		N/A	2545614
D14-Terphenyl	%	-	-	87		2545747	101		90		N/A	2545614
D8-Acenaphthylene	%	-	-	92		2545747	106		101		N/A	2545614
D8-Naphthalene	%	-	-	83		2545747	96		90		N/A	2545614

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QC Batch = Quality Control Batch
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GROUPE C. LAGANIERE INC.
Client Project #: HARN1660P2
Site Location: 1660, MERIVALE RD, NEPEAN OTTAWA, ONT
Your P.O. #: 01-14014
Sampler Initials: DS

PAH BY GCMS (GROUND WATER)

Bureau Veritas ID				NF9402			
Sampling Date				2024/07/11			
	Units	**A**	**B**	**TH7**	**CR**	**RDL**	**QC Batch**
PAH							
Acenaphthene	ug/L	-	100	<0.030		0.030	2545614
Anthracene	ug/L	-	-	<0.030		0.030	2545614
Benzo(a)anthracene	ug/L	-	-	<0.030		0.030	2545614
Benzo(b)fluoranthene †	ug/L	-	-	<0.060		0.060	2545614
Benzo(j)fluoranthene †	ug/L	-	-	<0.060		0.060	2545614
Benzo(k)fluoranthene †	ug/L	-	-	<0.060		0.060	2545614
Benzo(a)pyrene	ug/L	0.01	-	<0.0080		0.0080	2545614
Chrysene	ug/L	-	-	<0.030		0.030	2545614
Dibenzo(a,h)anthracene	ug/L	-	-	<0.030		0.030	2545614
Fluoranthene	ug/L	4	14	<0.030		0.030	2545614
Fluorene	ug/L	-	110	<0.030		0.030	2545614
Indeno(1,2,3-cd)pyrene	ug/L	-	-	<0.030		0.030	2545614
Naphthalene	ug/L	100	100	<0.030		0.030	2545614
Phenanthrene	ug/L	-	4.7	<0.030		0.030	2545614
Pyrene	ug/L	-	-	<0.030		0.030	2545614
Total PAH (SSW) †	ug/L	-	1.8	<0.060		0.060	2545614
Surrogate Recovery (%)							
D10-Anthracene	%	-	-	97		N/A	2545614
D12-Benzo(a)pyrene	%	-	-	113		N/A	2545614
D14-Terphenyl	%	-	-	99		N/A	2545614
D8-Acenaphthylene	%	-	-	104		N/A	2545614
D8-Naphthalene	%	-	-	93		N/A	2545614

RDL = Reportable Detection Limit
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† Parameter is not accreditable
N/A = Not Applicable

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GROUPE C. LAGANIERE INC.
Client Project #: HARN1660P2
Site Location: 1660, MERIVALE RD, NEPEAN OTTAWA, ONT
Your P.O. #: 01-14014
Sampler Initials: DS

HYDROCARBONS BY GCFID (GROUND WATER)

Bureau Veritas ID		NF9398	NF9399	NF9400	NF9401	NF9402	NF9403		
Sampling Date		2024/07/08	2024/07/11	2024/07/11	2024/07/11	2024/07/11	2024/07/11		
	Units	**MW15-01**	**MW15-02**	**DUP-MW15-02**	**TH3**	**TH7**	**TH5**	**RDL**	**QC Batch**
PETROLEUM HYDROCARBONS									
F2 (C10-C16) †	ug/L	<100	<100	<100	<100	<100	590	100	2545526
F3 (C16-C34) †	ug/L	<200	<200	<200	<200	<200	210	200	2545526
F4 (C34-C50) †	ug/L	<200	<200	<200	<200	<200	<200	200	2545526
Reached Baseline at C50 †	ug/L	Yes	Yes	Yes	Yes	Yes	Yes	N/A	2545526
Surrogate Recovery (%)									
O-Terphenyl	%	86	80	77	80	85	83	N/A	2545526

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
† Parameter is not accreditable
N/A = Not Applicable

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Bureau Veritas Job #: C437773
Report Date: 2024/07/24

GROUPE C. LAGANIERE INC.
Client Project #: HARN1660P2
Site Location: 1660, MERIVALE RD, NEPEAN OTTAWA, ONT
Your P.O. #: 01-14014
Sampler Initials: DS

VOC BY GC/MS (GROUND WATER)

Bureau Veritas ID		NF9398	NF9399	NF9400	NF9401	NF9402		NF9403		
Sampling Date		2024/07/08	2024/07/11	2024/07/11	2024/07/11	2024/07/11		2024/07/11		
	Units	**MW15-01**	**MW15-02**	**DUP-MW15-02**	**TH3**	**TH7**	**QC Batch**	**TH5**	**RDL**	**QC Batch**
VOLATILES										
Hexane †	ug/L	<0.50	0.56	<0.50	<0.50	<0.50	2545667	<0.50	0.50	2546967
Surrogate Recovery (%)										
4-Bromofluorobenzene	%	77	78	78	78	76	2545667	94	N/A	2546967
D4-1,2-Dichloroethane	%	112	109	108	107	111	2545667	118	N/A	2546967
D8-Toluene	%	94	95	95	97	94	2545667	98	N/A	2546967

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
† Parameter is not accreditable
N/A = Not Applicable

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GROUPE C. LAGANIERE INC.
Client Project #: HARN1660P2
Site Location: 1660, MERIVALE RD, NEPEAN OTTAWA, ONT
Your P.O. #: 01-14014
Sampler Initials: DS

DISSOLVED METALS (GROUND WATER)

Bureau Veritas ID				NF9399		NF9400		NF9402			
Sampling Date				2024/07/11		2024/07/11		2024/07/11			
	Units	**A**	**B**	**MW15-02**	**CR**	**DUP-MW15-02**	**CR**	**TH7**	**CR**	**RDL**	**QC Batch**
METALS ICP-MS											
Dissolved Arsenic (As)	ug/L	0.3	340	<0.30		<0.30		<0.30		0.30	2544204
Dissolved Cadmium (Cd)	ug/L	5	1.1	<0.20		<0.20		<0.20		0.20	2544204
Dissolved Chromium (Cr)	ug/L	50	-	<0.50		0.52	<A	<0.50		0.50	2544204
Dissolved Cobalt (Co)	ug/L	-	370	0.54	<B	0.58	<B	<0.50		0.50	2544204
Dissolved Copper (Cu)	ug/L	1000	7.3	2.5	<A	2.5	<A	1.2	<A	0.50	2544204
Dissolved Nickel (Ni)	ug/L	70	260	6.0	<A	6.7	<A	5.3	<A	1.0	2544204
Dissolved Lead (Pb)	ug/L	5	34	0.93	<A	0.85	<A	0.15	<A	0.10	2544204
Dissolved Zinc (Zn)	ug/L	5000	67	17	<A	57	<A	<5.0		5.0	2544204

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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GENERAL COMMENTS

Samples temperature is above 10°C.: NF9398, NF9398, NF9399, NF9399, NF9399, NF9400, NF9400, NF9400, NF9401, NF9401, NF9402, NF9402, NF9402, NF9403, NF9403

Revision: Additional analysis has been added per M7371 on 2024/07/16

A,B,CR: Soil Criteria following appendix 2 of the " Guide d'intervention-Protection des sols et réhabilitation des terrains contaminés. MELCC, May 2021." entitled " Grille des critères génériques pour les sols". The soil criteria refer to the St. Lawrence Lowlands Geological Province.

Groundwater criteria A and B follow the appendix 7 entitled "Grille des critères de qualité des eaux souterraines" of the document mentionned above.The criterion A refers to " Drinking Water " and the criterion B refers to "Seepage into Surface Water".

These criteria references are shown for visual aid only, and should not be interpreted otherwise.
- = This parameter is not part of the regulation.

PETROLEUM HYDROCARBONS F1BTEX (GROUND WATER)

Please note that the above results have been corrected for the instrument blank.

PAH BY GCMS (GROUND WATER)

Result for Total PAH (SSW) represents the summation of the following 7 compounds: benzo(a)anthracene, benzo(b)fluoranthene, benzo(k) fluoranthene, benzo(a)pyrene, chrysene, dibenzo(a,h)anthracene and indeno(1,2,3-c,d)pyrene. Un-rounded results are used in the total "PAH"(SSW) calculation. This total result is then rounded to two significant figures.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units
2544204	DPA	Spiked Blank	Dissolved Arsenic (As)	2024/07/18		93	%
			Dissolved Cadmium (Cd)	2024/07/18		99	%
			Dissolved Chromium (Cr)	2024/07/18		97	%
			Dissolved Cobalt (Co)	2024/07/18		98	%
			Dissolved Copper (Cu)	2024/07/18		97	%
			Dissolved Nickel (Ni)	2024/07/18		96	%
			Dissolved Lead (Pb)	2024/07/18		104	%
			Dissolved Zinc (Zn)	2024/07/18		94	%
2544204	DPA	Method Blank	Dissolved Arsenic (As)	2024/07/18	<0.30		ug/L
			Dissolved Cadmium (Cd)	2024/07/18	<0.20		ug/L
			Dissolved Chromium (Cr)	2024/07/18	<0.50		ug/L
			Dissolved Cobalt (Co)	2024/07/18	<0.50		ug/L
			Dissolved Copper (Cu)	2024/07/18	<0.50		ug/L
			Dissolved Nickel (Ni)	2024/07/18	<1.0		ug/L
			Dissolved Lead (Pb)	2024/07/18	<0.10		ug/L
			Dissolved Zinc (Zn)	2024/07/18	<5.0		ug/L
2545526	NM2	Spiked Blank	O-Terphenyl	2024/07/18		90	%
			F2 (C10-C16)	2024/07/18		108	%
			F3 (C16-C34)	2024/07/18		108	%
			F4 (C34-C50)	2024/07/18		108	%
2545526	NM2	Method Blank	O-Terphenyl	2024/07/18		87	%
			F2 (C10-C16)	2024/07/18	<100		ug/L
			F3 (C16-C34)	2024/07/18	<200		ug/L
			F4 (C34-C50)	2024/07/18	<200		ug/L
2545614	AOA	Spiked Blank	D10-Anthracene	2024/07/20		88	%
			D12-Benzo(a)pyrene	2024/07/20		108	%
			D14-Terphenyl	2024/07/20		88	%
			D8-Acenaphthylene	2024/07/20		95	%
			D8-Naphthalene	2024/07/20		95	%
			Acenaphthene	2024/07/20		100	%
			Anthracene	2024/07/20		100	%
			Benzo(a)anthracene	2024/07/20		99	%
			Benzo(b)fluoranthene	2024/07/20		111	%
			Benzo(j)fluoranthene	2024/07/20		108	%
			Benzo(k)fluoranthene	2024/07/20		104	%
			Benzo(a)pyrene	2024/07/20		107	%
			Chrysene	2024/07/20		102	%
			Dibenzo(a,h)anthracene	2024/07/20		113	%
			Fluoranthene	2024/07/20		101	%
			Fluorene	2024/07/20		98	%
			Indeno(1,2,3-cd)pyrene	2024/07/20		106	%
			Naphthalene	2024/07/20		99	%
			Phenanthrene	2024/07/20		96	%
			Pyrene	2024/07/20		96	%
2545614	AOA	Method Blank	D10-Anthracene	2024/07/20		96	%
			D12-Benzo(a)pyrene	2024/07/20		105	%
			D14-Terphenyl	2024/07/20		97	%
			D8-Acenaphthylene	2024/07/20		102	%
			D8-Naphthalene	2024/07/20		94	%
			Acenaphthene	2024/07/20	<0.030		ug/L

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units
			Anthracene	2024/07/20	<0.030		ug/L
			Benzo(a)anthracene	2024/07/20	<0.030		ug/L
			Benzo(b)fluoranthene	2024/07/20	<0.060		ug/L
			Benzo(j)fluoranthene	2024/07/20	<0.060		ug/L
			Benzo(k)fluoranthene	2024/07/20	<0.060		ug/L
			Benzo(a)pyrene	2024/07/20	<0.0080		ug/L
			Chrysene	2024/07/20	<0.030		ug/L
			Dibenzo(a,h)anthracene	2024/07/20	<0.030		ug/L
			Fluoranthene	2024/07/20	<0.030		ug/L
			Fluorene	2024/07/20	<0.030		ug/L
			Indeno(1,2,3-cd)pyrene	2024/07/20	<0.030		ug/L
			Naphthalene	2024/07/20	<0.030		ug/L
			Phenanthrene	2024/07/20	<0.030		ug/L
			Pyrene	2024/07/20	<0.030		ug/L
			Total PAH (SSW)	2024/07/20	<0.060		ug/L
2545666	XDU	Spiked Blank	1,4-Difluorobenzene	2024/07/18		96	%
			4-Bromofluorobenzene	2024/07/18		102	%
			D10-Ethylbenzene	2024/07/18		96	%
			D4-1,2-Dichloroethane	2024/07/18		102	%
			F1 (C6-C10)	2024/07/18		89	%
2545666	XDU	Method Blank	1,4-Difluorobenzene	2024/07/18		95	%
			4-Bromofluorobenzene	2024/07/18		82	%
			D10-Ethylbenzene	2024/07/18		93	%
			D4-1,2-Dichloroethane	2024/07/18		96	%
			F1 (C6-C10)	2024/07/18	<100		ug/L
			F1 (C6-C10) - BTEX	2024/07/18	<100		ug/L
2545667	EDM	Spiked Blank	4-Bromofluorobenzene	2024/07/19		94	%
			D4-1,2-Dichloroethane	2024/07/19		119	%
			D8-Toluene	2024/07/19		94	%
2545667	EDM	Method Blank	4-Bromofluorobenzene	2024/07/18		77	%
			D4-1,2-Dichloroethane	2024/07/18		111	%
			D8-Toluene	2024/07/18		95	%
			Hexane	2024/07/18	<0.50		ug/L
2545747	AOA	Spiked Blank	D10-Anthracene	2024/07/20		81	%
			D12-Benzo(a)pyrene	2024/07/20		103	%
			D14-Terphenyl	2024/07/20		87	%
			D8-Acenaphthylene	2024/07/20		91	%
			D8-Naphthalene	2024/07/20		84	%
			Acenaphthene	2024/07/20		91	%
			Anthracene	2024/07/20		95	%
			Benzo(a)anthracene	2024/07/20		92	%
			Benzo(b)fluoranthene	2024/07/20		102	%
			Benzo(j)fluoranthene	2024/07/20		113	%
			Benzo(k)fluoranthene	2024/07/20		116	%
			Benzo(a)pyrene	2024/07/20		108	%
			Chrysene	2024/07/20		93	%
			Dibenzo(a,h)anthracene	2024/07/20		107	%
			Fluoranthene	2024/07/20		96	%
			Fluorene	2024/07/20		86	%
			Indeno(1,2,3-cd)pyrene	2024/07/20		103	%

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units
			Naphthalene	2024/07/20		87	%
			Phenanthrene	2024/07/20		87	%
			Pyrene	2024/07/20		94	%
2545747	AOA	Method Blank	D10-Anthracene	2024/07/20		84	%
			D12-Benzo(a)pyrene	2024/07/20		89	%
			D14-Terphenyl	2024/07/20		84	%
			D8-Acenaphthylene	2024/07/20		90	%
			D8-Naphthalene	2024/07/20		82	%
			Acenaphthene	2024/07/20	<0.030		ug/L
			Anthracene	2024/07/20	<0.030		ug/L
			Benzo(a)anthracene	2024/07/20	<0.030		ug/L
			Benzo(b)fluoranthene	2024/07/20	<0.060		ug/L
			Benzo(j)fluoranthene	2024/07/20	<0.060		ug/L
			Benzo(k)fluoranthene	2024/07/20	<0.060		ug/L
			Benzo(a)pyrene	2024/07/20	<0.0080		ug/L
			Chrysene	2024/07/20	<0.030		ug/L
			Dibenzo(a,h)anthracene	2024/07/20	<0.030		ug/L
			Fluoranthene	2024/07/20	<0.030		ug/L
			Fluorene	2024/07/20	<0.030		ug/L
			Indeno(1,2,3-cd)pyrene	2024/07/20	<0.030		ug/L
			Naphthalene	2024/07/20	<0.030		ug/L
			Phenanthrene	2024/07/20	<0.030		ug/L
			Pyrene	2024/07/20	<0.030		ug/L
			Total PAH (SSW)	2024/07/20	<0.060		ug/L
2546966	EDM	Spiked Blank	1,4-Difluorobenzene	2024/07/22		94	%
			4-Bromofluorobenzene	2024/07/22		102	%
			D10-Ethylbenzene	2024/07/22		89	%
			D4-1,2-Dichloroethane	2024/07/22		102	%
			F1 (C6-C10)	2024/07/22		80	%
2546966	EDM	Method Blank	1,4-Difluorobenzene	2024/07/22		97	%
			4-Bromofluorobenzene	2024/07/22		84	%
			D10-Ethylbenzene	2024/07/22		92	%
			D4-1,2-Dichloroethane	2024/07/22		101	%
			F1 (C6-C10)	2024/07/22	<100		ug/L
			F1 (C6-C10) - BTEX	2024/07/22	<100		ug/L
2546967	DA2	Spiked Blank	4-Bromofluorobenzene	2024/07/22		99	%
			D4-1,2-Dichloroethane	2024/07/22		115	%
			D8-Toluene	2024/07/22		97	%
2546967	DA2	Method Blank	4-Bromofluorobenzene	2024/07/22		94	%
			D4-1,2-Dichloroethane	2024/07/22		119	%
			D8-Toluene	2024/07/22		98	%
			Hexane	2024/07/22	<0.50		ug/L

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.

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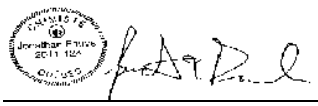
Bureau Veritas Job #: C437773
Report Date: 2024/07/24

GROUPE C. LAGANIERE INC.
Client Project #: HARN1660P2
Site Location: 1660, MERIVALE RD, NEPEAN OTTAWA, ONT
Your P.O. #: 01-14014
Sampler Initials: DS

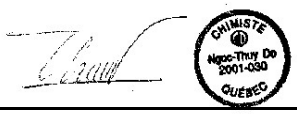
VALIDATION SIGNATURE PAGE

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



Jonathan Fauvel, B.Sc., Chemist, Montreal, Scientific Specialist

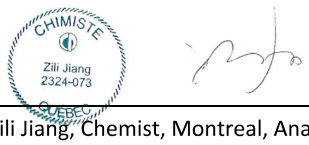
Noureddine Chafiaai, B.Sc., Chemist, Montreal, Team leader



Ngoc-Thuy Do, B.Sc., Chemist, Montreal, Analyst 2

Sylvain Chevigny, B.Sc., Chemist, Montréal, Scientific Service Specialist

Vanessa Seka, B.Sc., Chemist, Analyst II



Zili Jiang, Chemist, Montreal, Analyst 1

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www.BVNA.com

889 Montée de Liesse, Saint-Laurent, QC H4T 1P5
2690 avenue Dalton, Sainte-Foy, QC G1P 3S4
737 boul. Barette, Chicoutimi, QC G7J 4C4

Téléphone : 514 448-9001 Télécopieur : 514 448-9199
Téléphone : 418 658-5784 Télécopieur : 418 658-
Téléphone : 418 543-3788 Télécopieur : 418 543-8994
Ligne sans frais : (877) 462-9926

CHAÎNE DE RESPONSABILITÉ

ENV COC - 00017v5

Facturation	Rapport requis a l'adresse de facturation ☐	Rapport		Projet	
Entreprise:	Groupe C. Laganière (1995) Inc.	Entreprise:	Groupe C. Laganière (1995) Inc.	N° de soumission:	C40044
À l'attention:	Mathieu Bélisle	À l'attention	Mathieu Bélisle	N° de bon de commande:	01-14014
Adresse:	35 av Laganiere	Adresse:	35 av Laganiere	N° de projet:	HARN1660P2
Ville:	Montréal-Est Prov: QC Code postal: H1B5T1	Ville:	Prov: Code postal:	N° de site:	
Tél.:	5146400840	Tél.:	514-452-5718	Emplacement du site:	1660, Merivale Rd, Nepean, Ottawa, Ont
Courriel:	grl.payables@gr-laganiere.com	Courriel:	mbelisle@gr-laganiere.com	Emplacement du site, province:	
Copie(cc):	mbelisle@gr-laganiere.com	Copie(cc):		Échantillonneur:	David Sauvé

Réservé au laboratoire - PLACER L'AUTOCOLLANT ICI

N° de confirmation de délai rapide:

Critères ou règlements applicables

☐ Guide d'intervention ☐ RQEP - formulaire MELCC requis ☑ Autre (précisez): 153-04
☐ RMD (mat. lixiviable) ☐ CMM 2008-47 ☐ RVMR
☐ Qualité de l'eau de surface ☐ CCME ☐ Dir. 019 (minier)

LES ÉCHANTILLONS DOIVENT ÊTRE CONSERVÉS AU FRAIS (<10°C) OU MOMENT DE L'ÉCHANTILLONNAGE JUSQU'À LA LIVRAISON A BUREAU VERITAS

Délai d'analyses

☑ délai régulier

Délai rapide (frais supplémentaires)

Acheminez toute demande de délai rapide à votre chargé de projet
☐ Même jour ☐ 1 jour ☐ 2 jours ☐ 3 jours

Date requise: AA MM JJ

Commentaires

	Identification de l'échantillon	Date de prélèvement AA	MM	JJ	Heure (24hr) HH	MM	Matrice	1 FILTRATION AU LABO. REQUISE	2 RETENIR À LA RÉCEPTION (ANALYSES À VENIR)	3 COV 624	4 HAM	5 BTEX	6 C10-C50	7 HAP	8 14 métaux - Ag, As, Ba, Cd, Co, Cr, Cu, Se, Sn, Mn, Mo, Ni, Pb, Zn	9 16 métaux - Al, Sb, Ag, As, Ba, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Se, Na, Zn	10 Mercure	11 Bore, uranium	12 Dioxines/furanes	13	14 As-Cd-Cr-Co-Cu-Ni-Pb	15	16 F1-BTEX	17 F2-F4	18 Hexane	19	20	21 NOMBRE DE CONTENANTS ENVOYÉS	22 ARCHIVER - NE PAS ANALYSER
1	MW15-01	24	07	08			Eau souterraine (ES)															x	x	x				
2	MW15-02	24	07	11			Eau souterraine (ES)							x						x		x	x	x				
3	DUP-MW15-02	24	07	11			Eau souterraine (ES)							x						x		x	x	x				
4	TH3	24	07	11			Eau souterraine (ES)															x	x	x				
5	TH7	24	07	10			Eau souterraine (ES)							x						x		x	x	x				
6																												
7																												
8																												
9																												
10																												
11																												
12																												

NOVA-2024-07-1860

Réservé au laboratoire	Oui	Non	°C	1	2	3
Scellé légal présent		✓				
Scellé légal intact		✓				
Réfrigérant présent	✓			19	20	21

Réservé au laboratoire	Oui	Non	°C	1	2	3
Scellé légal présent						
Scellé légal intact						
Réfrigérant présent						

Réservé au laboratoire	Oui	Non	°C	1	2	3
Scellé légal présent						
Scellé légal intact						
Réfrigérant présent						

	Désaisi par: (signature/majuscules)	Date AA	MM	JJ	Heure HH	MM	Reçu par: (signature/majuscules)	Date AA	MM	JJ	Heure HH	MM
1							1 Sarah Look	2024	07	12	12	30
2							2					

Transport d'échantillon par:
☐ Courrier (précisez):
☐ Personnel BV ☑ Client

WT805

APPENDIX 7
Other Documents

PLAN TOPOGRAPHIQUE

REQUÉRANT: HARNOIS ÉNERGIES INC.

LOT: N/A

CADASTRE: N/A

MUNICIPALITÉ: VILLE D'OTTAWA

CIRCONSCRIPTION FONCIÈRE: OTTAWA

DOSSIER CALCUL: 79 — ÉCHELLE 1: 200 (SI)

#	RÉVISION	date
1	Ajout d'un poteau et de deux conduites souterraines de gaz	2023-04-25
2	Ajout du centre ligne de pavage sur les trois rues	2023-11-28

carnet: CPL8-SP-P139
levé des lieux: 20 au 22 mars 2023 (sur un sol couvert de neige)

- poteau butoir
- prise électrique de stationnement
- prise pour voiture électrique
- puits
- balise Bell
- balise de gaz
- balise HQ
- balise Vidéotron
- entrée électrique
- entrée de gaz
- feu de circulation
- fils aériens
- hauban
- lampadaire
- lampadaire privé
- poteau d'utilité publique
- poteau hauban
- regard Bell
- regard HQ
- borne-fontaine t.n.: xx,xx (TOP NUT)
- cours d'eau
- conduit Bell souterrain
- conduite aqueduc
- conduite pluviale
- conduite sanitaire
- conduit souterrain non-identifié
- couvercle de valve d'eau
- entrée d'eau
- entrée d'eau siamoise
- évent
- grille circulaire
- grille rectangulaire
- regard aqueduc
- regard puits d'observation
- regard réservoir d'essence
- regard non identifié
- regard pluvial
- regard sanitaire
- clôture
- panneau publique
- piquet de bois
- repère altimétrique
- repère (tige)
- repère d'arpentage
- tuyau de fer
- arbre conifère
- arbre feuillu
- arbuste
- bord de boisé
- haie
- haut de talus
- bas de talus
- T:xx,xx F:xx,xx — élévation au dessus (T) et au fond (F)
- I:xx,xx Ø:±x,xx — élévation du radier (I) et diamètre (Ø) de la conduite

NOTES:
1-Les élévations sont des altitudes orthométriques (CGVD-28).
2-La position des conduites souterraines de Bell provient du plan MU 56110.dwg, fourni par Bell Canada, et représente la position approximative.

VRSB
ARPENTEURS-GÉOMÈTRES
QUÉBEC 418-628-5544
LÉVIS 418-839-3886
PORTNEUF 418-878-2598
BELLECHASSE 418-885-9101
MONTRÉAL 514-384-5224
www.groupevrsb.com

Québec, le 6 avril 2023

par..
DAVID LORD
arpenteur-géomètre

Copie conforme à l'original

date:.............................par:..A.-G.

ARCHIVE: 79-30	DOSSIER: 230454	MINUTE: 4390

APPENDIX 8
Contingent and Limiting Conditions

GROUPE
C. LAGANIÈRE

This intervention report is subject to, but not limited to, the following conditions :

- The report reflects the condition of the site as observed during our site visits. The information contained herein is provided to the best of our knowledge and based on the data available to *Groupe C. Laganière (1995) inc*.

- This report may not be used in conjunction with any other environmental site assessment or verification without the written consent of *Groupe C. Laganière (1995) Inc*. This document should be considered as a whole; no part of it may be used separately.

- The signatories of this document are not obligated to appear in court as experts in connection with this appraisal, unless prior agreement has been made with the client.

- Possession of this report or a copy does not grant the right to reproduce or publish it, nor the right to use it by anyone other than the client, without written consent from *Groupe C. Laganière (1995) Inc*. Any use made of this report by a third party or any decisions based on its content shall be the sole responsibility of that third party.

- This report is based on the accuracy of the analytical results provided by the laboratory accredited by the MECP.

- This report and its conclusions do not constitute legal advice.

- This report is environmental in nature and should not be used for designing foundations, structures, developments, or similar purposes.

- The environmental interpretation of the analytical results presented in this study and the conclusions drawn are based on data collected during the work conducted as part of this environmental assessment. These are based on environmental standards, laws, and regulations in force at the time of the study and are applicable only to the site studied.

- Environmental contamination is often very specific and heterogeneous. Therefore, the conclusions of this report apply only to the locations surveyed and the parameters analyzed. General conclusions about the site as a whole are provided for informational purposes only and do not guarantee the absence or presence of contamination at locations other than those explored.

- The contamination levels described in this study are valid only for the period during which sampling was conducted. These levels may vary due to natural phenomena or subsequent human activities on the site or adjacent sites.