



**PHASE TWO ENVIRONMENTAL SITE ASSESSMENT  
3493, 3497, AND 3499 INNES ROAD, OTTAWA, ONTARIO**

Prepared for:

**Gestion FRAMI**  
**6587712 Canada Inc.**  
1085 Boulevard de la Carrière  
Gatineau, QC J8Y 6V4

Prepared by:

**BluMetric Environmental Inc.**  
1682 Woodward Drive  
Ottawa, ON K2C 3R8

Project Number: 230028-00  
January 19, 2023

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## 1. EXECUTIVE SUMMARY

In October 2022, BluMetric Environmental Inc. (BluMetric®) was retained by Gestion FRAMI, 6587712 Canada Inc. to prepare an updated Phase Two Environmental Site Assessment (ESA) for the property at 3493, 3497, and 3499 Innes Road in Ottawa, Ontario (subsequently referred to as the “Phase Two Property”). A previous Phase II ESA was completed by BluMetric in July 2020 and the updated Phase Two ESA was requested in support of a Site Plan Approval application. As per the requirements of the City of Ottawa Site Plan Approval process, the Phase Two ESA was completed in general accordance with Ontario Regulation (O. Reg.) 153/04. However, filing for a Record of Site Condition (RSC) is not required for the Phase Two Property. The Phase Two ESA investigated the areas of potential environmental concern (APECs) identified in the Phase I ESA prepared by BluMetric and dated June 2020 and the updated Phase One ESA prepared by BluMetric and dated January 2023.

The Phase Two Property is located on the north side of Innes Road approximately 600 m east of Orleans Boulevard. The property has a total area of approximately 1.51 acres of which 0.62 acres corresponds with 3493 Innes Road, 0.44 acres corresponds with 3497 Innes Road, and the remaining 0.44 acres corresponds with 3499 Innes Road. The Phase Two Property is irregular in shape with frontage of approximately 91 m along the north side of Innes Road and with a depth of approximately 61 m. A portion of the western part of the Phase Two Property (3493 Innes Road) extends for a 41 m (approximate) length behind the commercial plaza located at 3469 Innes Road. The commercial plaza at 3469 Innes Road is the location of an Ultramar petroleum fuels service station.

The Phase Two ESA work program was determined based on the findings from the BluMetric 2020 Phase I and II ESAs, and the updated BluMetric January 2023 Phase One ESA. The storage and dispensing of fuels at the 3469 Innes Road property was identified as a potentially contaminating activity (PCA) in the Phase One Study Area. A minor spill (50 Litres) of engine oil was also identified for this location. Due to the fuel pumps and underground storage tanks (USTs) for the Ultramar service station being within 40 m of the Phase Two Property, the PCA was considered an area of potential environmental concern (APEC) for the Phase Two Property (3493, 3497 and 3499 Innes Road). Orleans Dry Cleaners was also identified at 3469 Innes Road; however, it was determined to be a drop off and pick up location with no identified records of waste generation. No other APECs were identified with respect to the Phase One Property.

The contaminants of potential concern associated with the 3469 Innes Road PCA/APEC included petroleum hydrocarbons (PHCs in the F1 to F4 fractions), and benzene, toluene, ethylbenzene and xylenes (BTEX). These constituents of gasoline, diesel fuels and motor oil have the potential to migrate laterally through soil and groundwater on to the Phase Two Property.



The Phase Two Property is currently zoned as R1 - Residential First Density Zone. 'Residential/Parkland/Institutional Property Use' represents the most sensitive potential use of the Phase Two Property. The Phase Two Property is considered a 'Shallow Soil Property' as the bedrock was encountered at less than 2 m depth during the investigation. The Phase Two Property is in a 'Non-Potable Ground Water Condition' as the Phase Two Property and neighbouring properties within 250 metres are not serviced by drinking water supply wells (subject to municipal approval). Based on site conditions and potential future property use, the O. Reg. 153/04 Table 7 - Generic Site Condition Standards (SCS) for Shallow Soils in a Non-Potable Ground Water Condition, Coarse Textured Soils, Residential/Parkland/Institutional Land use were considered appropriate for comparison to soil and groundwater analytical results at the Phase Two Property.

The Phase Two ESA work program in 2020 included advancement of 2 boreholes on the west side of the Phase Two Property for soil sampling and the installation of bedrock monitoring wells for groundwater sampling at both borehole locations. Both boreholes were advanced through soil overburden and limestone bedrock to a depth of 7.6 m and completed as monitoring wells on June 19, 2020. Less than 1.2 m of soil over bedrock was found at both investigation locations. The laboratory results for all soil samples analysed met the applicable O. Reg. 153/04 Table 7 SCS for coarse textured soils in an area of Residential/Parkland/Institutional Property Use for the contaminants of concern (PHCs and BTEX). Groundwater was sampled for the two monitoring wells on June 25, 2020 and again on November 18, 2022. The laboratory analytical results for the groundwater samples were below the laboratory detection limits for all tested PHC and BTEX parameters. Consequently, groundwater quality at both monitoring well locations meet the O. Reg. 153/04 Table 7 SCS for groundwater for the parameters tested.

The static groundwater elevation data collected on June 25, 2020 and November 18, 2022 indicate a consistently higher static groundwater elevation at MW1 compared to MW2. Since MW2 is located further to the west on the Phase Two Property, the measured static groundwater elevations indicate that the majority of the 3493, 3497 and 3499 Innes Road property may be located up gradient or crossgradient to groundwater flow leaving the 3469 Innes Road property.

Based on the field observations and the laboratory results, no further subsurface investigation is deemed necessary for the Phase Two Property. If the monitoring wells are not to be maintained for future use, the wells must be properly sealed and abandoned per the requirements of O. Reg. 903.



## 2. INTRODUCTION

In October 2022, BluMetric Environmental Inc. (BluMetric®) was retained by Gestion FRAMI, 6587712 Canada Inc. to prepare an updated Phase Two Environmental Site Assessment (ESA) for the property at 3493, 3497, and 3499 Innes Road in Ottawa, Ontario (subsequently referred to as the “Phase Two Property”). A previous Phase II ESA was completed by BluMetric in July 2020 and the updated Phase Two ESA was requested in support of a Site Plan Approval application. As per the requirements of the City of Ottawa Site Plan Approval process, the Phase Two ESA was completed in general accordance with Ontario Regulation (O. Reg.) 153/04. However, filing for a Record of Site Condition (RSC) is not required for the Phase Two Property. The Phase Two ESA investigated the areas of potential environmental concern (APECs) identified in the Phase I ESA prepared by BluMetric and dated June 2020 and the updated Phase One ESA prepared by BluMetric and dated January 2023. The location of the Phase Two Property is shown in Figure 1.

### 2.1 SITE DESCRIPTION

#### Municipal Address and Property Identifier

The Phase Two Property is comprised of three municipal addresses described as:

- Municipal Addresses: 3493, 3497, and 3499 Innes Road, Ottawa, ON
- Legal Description: Part of Lot 5, Concession 2, RP 5R-8564 Parts 1, 2 & 3 and RP 5R-3024 Part 3, City of Ottawa
- PIN: 04406-0223, 04406-0224, and 04406-0225

The NAD83 UTM coordinates for the centre of the Phase One Property are as follows:

- Zone: 18T
- Easting: 458,869.80 m
- Northing: 5,032,810.38 m

#### Size and Property Boundaries

The Phase Two Property has a total area of approximately 1.51 acres (approximately 0.61 hectares). Approximately 0.62 acres corresponds with 3493 Innes Road, 0.44 acres corresponds with 3497 Innes Road, and the remaining 0.44 acres corresponds with 3499 Innes Road. The Phase Two Property is irregular in shape with frontage of approximately 91 m along the north side of Innes Road and a depth of approximately 61 m. A portion of the western part of the Phase Two Property (3493 Innes Road) extends for a 41 m (approximate) length behind the commercial plaza located at 3469 Innes Road. The Phase Two Property is currently zoned as R1 - Residential First Density



Zone. The Phase Two Property is generally surrounded to the north and east by residential land use. The property to the immediate west (3469 Innes Road) of the Phase Two Property includes a commercial plaza and an Ultramar petroleum fuels service station, while further west beyond Pagé Road is a mix of commercial and residential development. The area to the south of the Phase Two Property, south of Innes Road is mostly lands reserved for future development along with some commercial and residential properties along Pagé Road.

## Property Description

Two structures are located on the Phase Two Property and were observed at the time of the November 18, 2022 groundwater sampling event. A trailer previously used as a real-estate sales office was noted on the central property (3497 Innes Road) while on the western property (3493 Innes Road) a storage garage was observed. Aerial photographs discussed further in Section 3.1 indicate that a two-storey stone house was present in the current location of the trailer prior to 2011. The remaining property area is primarily grass-covered, with a gravel driveway and parking area in front of the structures. Several mature trees were noted across the property.

Based on the BluMetric, January 2023 Phase One ESA review of historical aerial photographs and National Topographic Service (NTS) maps, the Phase Two Property was vacant or used for agricultural use until at least 1956. A residence first appears on the 3497 Innes Road property in 1965, which was demolished between 2008 and 2011. A garage outbuilding was constructed on the property at 3493 Innes Road between 1981 and 1991 and was partly torn down between 2017 and 2021. A sales office trailer was constructed on the 3497 Innes Road property between 2011 and 2014. The Phase One Property was acquired by Gestion FRAMI in 2019 from Rockcliffe Asset Management Inc. The residence on the 3493 Innes Road property was partially demolished as of 2021.

## 2.2 PROPERTY OWNERSHIP

### Name, Status, and Contact Information for Person who engaged the Qualified Person to Conduct the Phase Two ESA:

Mr. Michel Lapensée, President  
819-664-4306 | [mfgolf@hotmail.com](mailto:mfgolf@hotmail.com)

### Owner of the Phase Two Property:

Gestion FRAMI, 6587712 Canada Inc.  
1085 Boulevard de la Carrière  
Gatineau, QC 8Y 6V4





## 2.3 CURRENT AND PROPOSED FUTURE USES

The Phase Two Property is presently unoccupied. The Phase Two Property is currently zoned by City of Ottawa as Residential First Density Zone (R1). The Phase Two Property will be redeveloped for commercial use.

## 2.4 APPLICABLE SITE CONDITION STANDARD

Generic standards for soil and groundwater quality are prescribed through Ontario Regulation (O. Reg.) 153/04, as amended. The decision path for selecting the applicable site condition standards (SCS) for comparison to soil and groundwater quality at the Phase Two Property is based on the following:

- The Phase Two Property is currently zoned as R1 - Residential First Density Zone. 'Residential/Parkland/Institutional Property Use' represents the most sensitive potential use of the Phase Two Property.
- The Phase Two Property is considered a 'Shallow Soil Property' as the bedrock was encountered at less than 2 m depth during the investigation.
- The Phase Two Property is in a 'Non-Potable Ground Water Condition' as the Phase Two Property and neighbouring properties within 250 metres are not serviced by drinking water supply wells (subject to municipal approval).
- The Phase Two Property is not located within 30 m of a permanent water body.

Based on site conditions, the following SCS as provided in the Ministry of the Environment, Conservation and Park (MECP) "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, April 15, 2011" were considered appropriate for comparison to the soil and groundwater quality sampling program:

- Table 7 - Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition
  - Residential/Parkland/Institutional Property Use
  - Coarse textured soils (Note: selected based on being the most conservative standards)

Further to the above, it should be noted that the Phase Two Property is to be redeveloped for commercial use. The Table 7 SCS for Industrial/Commercial/Community Property Use have not been provided herein as they are less stringent than the SCS for Residential/Parkland/Institutional Property Use.



### **3. BACKGROUND INFORMATION**

#### **3.1 PHYSICAL SETTING**

##### **Water Bodies and Areas of Natural Significance**

There are no surface water bodies located on the Phase Two Property. The closest surface water body is Bilberry Creek, located approximately 0.74 km northwest of the Phase Two Property.

Areas of Natural and Scientific Interest (ANSI) includes water bodies, wetlands, wooded areas, conservation areas, municipal parks, provincial parks, natural parks and nature reserves. No ANSI have been identified for the Phase Two Property. The nearest ANSI area is the Blackburn Hamlet DND Forest located 1.29 km west-southwest of the Phase Two Property.

##### **Topography and Surface Water Drainage Features**

The Phase Two Property is generally flat with an approximate elevation of 91 m above sea level (ASL). There is a slightly elevated area in the centre of the Phase Two Property which generally slopes downward to the north (back of property) and to the east. No permanent surface water features are located on the Phase Two Property. Surface drainage on the Phase Two Property is generally through infiltration, though some runoff onto adjacent properties and to Innes Road may occur during particularly wet periods. Storm sewer catch basins are located adjacent to the Phase Two Property along the north roadside curb for Innes Road. City of Ottawa mapping indicates the Innes Road storm sewer system and municipal sanitary sewer system drain to the west along the roadway.

Rideau Valley Conservation Authority (RVCA) GeoPortal mapping indicates the Phase Two Property is situated on the boundary between the West Bilberry Creek and Mud Creek (GCK) catchment areas of the Ottawa River East Subwatershed. On a regional scale, topography slopes north to the Ottawa River, and bedrock groundwater flow is inferred to be oriented to the northwest towards the Ottawa River, which is approximately 5 km northwest of the Phase Two Property.

##### **Geological Setting**

Published accounts by the Ontario Geological Survey (OGS) describe the bedrock geology of the Phase Two Property as consisting of fossiliferous limestone of the Bobcaygeon Formation (OGS MRD-219-June 2007). Overburden thickness is minimal in the area; reports indicate overburden consists of unconsolidated quaternary sediments up to 1 m in thickness (OGS MRD-128 Rev. 2010).



As discussed in the BluMetric January 2023 Phase One ESA, a geotechnical Investigation completed by Paterson Group in 2010 along with a Phase I ESA included five test pits advanced to shallow bedrock between 0.7 and 1.5 m below surface grade on the Phase Two Property.

## Hydrogeological Setting

It is inferred that the predominant direction of shallow groundwater flow in the vicinity of the Phase Two Property is generally to the north or northwest, in the direction of regionally sloping surface topography and the Ottawa River. On relatively smaller scales, flow directions can be influenced by conditions such as shallow bedrock conditions, bedding materials around underground utility lines, leaking sewers, and/or the presence of building foundations. The Phase Two Property and properties within the 150 m radius of the property line are serviced by municipal water supply and sewers. Groundwater use at the Phase Two Property, is inferred to be non-potable (i.e., not used as a raw water supply for a drinking water system).

The BluMetric January 2023 Phase One ESA identified four well records within the Water Well Information System (WWIS) database for the Phase Two Property, which included two former bedrock supply wells, installed in the 1960s and two existing monitoring wells/boreholes, installed into shallow bedrock by BluMetric in 2020 (BluMetric, July 2020). A total of 36 other well records were also found for properties within 200 m of the Phase Two Property, all completed as bedrock supply wells. Overburden within the vicinity of the site is generally described as clay, silt, or rock overlying shallow grey limestone. For the two site boreholes advanced by BluMetric in June 2020, approximately 1 m ( $\pm 0.2$  m) of sand/silt/clay over limestone bedrock was observed.

## 3.2 PAST INVESTIGATIONS

### Previous Environmental Site Investigations

The following environmental reports concerning the Phase One Property were previously prepared by BluMetric for Gestion FRAMI:

- *BluMetric Environmental Inc., 2020. Phase I Environmental Site Assessment, 3493, 3497, & 3499 Innes Road, Ottawa, Ontario. Dated June 26, 2020. (BluMetric, June 2020)*
- *BluMetric Environmental Inc., 2020. Phase II Environmental Site Assessment, 3493, 3497 & 3499 Innes Road, Ottawa, Ontario. Dated July 7, 2020. (BluMetric, July 2020)*
- *BluMetric Environmental Inc., December 2022. Phase One Environmental Site Assessment, 3493, 3497 & 3499 Innes Road, Ottawa, Ontario. (BluMetric, January 2023)*



The following salient information was gleaned from the reports:

- In June 2020, BluMetric was retained by Gestion FRAMI to prepare a Phase I Environmental Site Assessment of the subject property. This Phase I ESA was conducted to CSA guideline Z768-01 (R2016) and in support of financing.
- The Phase I/One Property was agricultural land prior to development with residences in the 1960s. Structures on the Phase One Property at the time includes a garage planned for demolition and a trailer planned for removal from the site.
- Based on the information collected during the BluMetric, June 2020 Phase I ESA the presence of the Ultramar petroleum fuels service station to the immediate west (3469 Innes Road) was identified as a PCA and creating an APEC on the Phase I Property. No other APECs were identified.
- In July 2020, a Phase II ESA was conducted on the subject property, in accordance with CSA Z769-00 standards and for due diligence purposes. All field investigation methods and analytical testing methods were consistent with the general requirements of O. Reg. 153/04.
- Two boreholes (MW1 and MW2) were advanced on the Phase One Property along the west boundary of the property. MW2 was installed at the closest proximity to the fuel pumps and USTs located on the adjacent property to the west. The boreholes were advanced through the overburden into the bedrock to a total depth of 7.6 m below ground surface (bgs). One soil sample was selected from each of the borehole location for laboratory analyses, including PHC F1-F4 fractions and BTEX.
- Both boreholes were subsequently completed and installed as monitoring wells. Static groundwater levels were recorded at each of the well locations and ground water samples were collected and submitted for analyses of PHC F1-F4 fractions and BTEX.
- Subsurface materials encountered within the boreholes included silt overlying clay (MW1) and fine sand overlying silt (MW2). Bedrock was encountered at 1.14 m bgs at MW1 and 0.86 m bgs at MW2. No visual or olfactory indications of environmental impact for soil were noted.
- Static ground water elevations were higher at MW1 (95.82 m ASL) compared to MW2 (95.42 m ASL). Since MW2 is located further west on the subject property, the measured static ground water elevations indicated that the majority of the Phase One Property may be upgradient or cross gradient to the ground water flow leaving the adjacent property at 3469 Innes Road.
- Based on site conditions at the Phase I Property, soil and groundwater analytical results were compared to Table 7 Generic Site Condition Standards for shallow coarse soils in a non-potable ground water condition, and for residential /parkland/institutional property use. No exceedances of the applicable O. Reg. 153/04 Table 7 SCS were identified for any of the soil or ground water samples analyzed.



- In October 2022, BluMetric was retained by Gestion FRAMI to prepare an updated Phase One ESA of the subject property.
- Based on the information collected during the BluMetric, January 2023 Phase One ESA the continued presence and operation of the Ultramar petroleum fuels service station at 3469 Innes Road was identified as a PCA and creating an APEC for groundwater on the westernmost portion of the Phase One Property. No other APECs were identified.

### **Confirmation of Quality of Past Investigations**

The BluMetric January 2023 Phase One ESA report was completed within the last twelve months and the information in the report was deemed adequate and consistent with the recommendations of the BluMetric June 2020 Phase I ESA report. The PCAs and APECs described in the Phase I/One ESA reports were used as the basis for the Phase II/Two ESA investigation programs.



## 4. SCOPE OF THE INVESTIGATION

### 4.1 OVERVIEW OF THE SITE INVESTIGATION

The BluMetric July 2020 Phase II ESA involved soil and ground water sampling on the Phase Two Property. The updated Phase Two ESA involved re-sampling of groundwater on the Phase Two Property. The following tasks were undertaken in May to July 2020 and in November 2022:

- The Phase II/Two investigation work programs were developed by BluMetric and approved by the client.
- Prior to drilling activities, all utilities were located in the investigation areas of the Phase Two Property by USL-1 of Ottawa, Ontario.
- A site-specific health and safety plan (HASP) and communications plan was prepared for BluMetric and its subcontractors.
- Two boreholes were advanced on the Phase Two Property on June 19, 2020.
- Soil samples were collected from each borehole.
- Selected soil samples were submitted for the analysis of petroleum hydrocarbons (PHCs in the F1 to F4 fractions), and benzene, toluene, ethylbenzene and xylenes (BTEX) analysis.
- Borehole cuttings were collected in UN-approved drums pending disposal based on soil analytical results.
- Soil samples were submitted to Paracel Laboratories Ltd. (Paracel) in Ottawa on June 20, 2020.
- Groundwater monitoring wells were installed at both borehole locations.
- An elevation survey of the boreholes and monitoring wells was completed on June 23, 2020.
- Initial purging of the monitoring wells (MW1 and MW2) was completed on June 19 and June 23, 2020.
- Groundwater samples were collected from the two monitoring wells at the Phase Two Property (MW1 and MW2) on June 25, 2020 and submitted to Paracel in Ottawa. Samples were analyzed for PHCs and BTEX. Groundwater samples were re-collected from the two monitoring wells at the Phase Two Property (MW1 and MW2) on November 18, 2022 and submitted to Eurofins Environmental Testing Inc. in Ottawa. Samples were analyzed for PHCs and BTEX.
- Groundwater levels were measured for monitoring wells on the Phase Two Property on June 23 and June 25, 2020, and November 18, 2022.
- The preparation of this report.



## 4.2 MEDIA INVESTIGATED

The media investigated for the initial Phase II ESA included soil and groundwater. Two new monitoring wells were installed in the investigation. Selected borehole/monitoring well locations were determined based on proximity to the relevant APEC, the inferred direction for groundwater flow towards the north/northwest, drilling equipment access, and limitations posed by the presence of any underground or overhead utilities. Groundwater was re-sampled for the updated Phase Two ESA.

Sediment is not present on the Phase Two Property and was not included in the media sampling program.

## 4.3 PHASE ONE CONCEPTUAL SITE MODEL

A Phase One Conceptual Site Model (CSM) was completed by BluMetric (January 2023) and is reproduced as Figure 2 herein. The Phase One CSM shows:

- The location of buildings and structures.
- Water bodies (if present) located in whole or in part in the Phase One Study Area.
- Water Supply Wells and/or Monitoring Wells on the Phase One Property.
- Roads within the Phase One Study Area.
- Uses of properties adjacent to the Phase I Property.
- Areas where any PCA has occurred, and,
- Identified APECs.

Some types of information that can appear in a CSM were not needed in the CSM:

- There is no figure which illustrates areas of natural significance in the Phase One Study Area because there were no areas of natural significance in the Phase One Study Area.

No PCAs were identified on the Phase One Property from historical or current activities.

The following PCAs were identified within the Phase One Study Area from historical or current activities and are identified on Figure 2:



Item	Potentially Contaminating Activity	Location of Potentially Contaminating Activity	Potential Environmental Concern to the Phase One Property – Y/N (Rationale)
28.	Gasoline and Associated Products Storage in Fixed Tanks	<p><u>3469 Innes Road</u>                      Gasoline service station with at least two L underground fuel tanks, tanks installed in 1987 and 2015, and records of three other underground fuel oil tanks (Located 65 m west-southwest of the Phase One Property.)</p> <p><u>3605 Innes Road</u>                      Delisted 10,000 L fuel oil tank, installed on 28 June 2006. Delisted 4,546 L fuel oil tank said to be 12 years old. Record date was April 2013.                      Standby emergency diesel generator set (Located 247 m east-northeast of the Phase One Property.)</p>	<p><b>Y (PCA is located in near proximity to the western boundary to the Phase One Property).</b></p> <p>N (PCA is located a significant distance and crossgradient to the Phase One Property).</p>
GEN	Waste Generator	<p><u>3605 Innes Road</u>                      Waste generator of inorganics and alkaline wastes – heavy metals between 1997 and 2004; light fuels, oil skimmings and sludges and waste oils and lubricants in 2005; and alkaline wastes – heavy metals and acid wastes – heavy metals in 2021 and 2022 (Located 247 m east-northeast of the Phase One Property).</p>	<p>N (PCA is located a significant distance and crossgradient to the Phase One Property).</p>
SPL	Spill	<p><u>3469 Innes Road</u>                      50 L spill of engine oil to the sewer dated September 23, 2010. Unknown quantity of hydraulic oil spilled into the lot on May 16, 2002. The spill was contained (Located 65 m west-southwest of the Phase One Property.)</p> <p><u>3443 Innes Road</u>                      Spill of oil or gas from property to the road and catchbasin on April 8, 2019 (Located 70 m west-southwest of the Phase One Property).</p>	<p>N (Fairly small spill amount and inferred to have occurred on opposite side of fuel service station at 3469 Innes Road and therefore considered to be crossgradient to the Phase One Property).</p> <p>N (Inferred to be a small spill amount given residential use. Also, PCA is located crossgradient to the Phase One Property).</p>
58.	Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners	<p><u>Innes Road</u>                      Westbay Investments Inc., unnamed landfill site (Located 800 m east-northeast of the Phase One Property).</p>	<p>N (PCA is located a significant distance and crossgradient to the Phase One Property).</p>





Item	Potentially Contaminating Activity	Location of Potentially Contaminating Activity	Potential Environmental Concern to the Phase One Property – Y/N (Rationale)
12.	Concrete, Cement and Lime Manufacturing	<u>3544 Innes Road</u> Concrete forming company (Normco Forming Limited) in operation between 2001 and 2005 (Located 85 m southeast of the Phase One Property).	N (PCA is located crossgradient to the Phase One Property).
58.	Wood Treating and Preservative Facility and Bulk Storage of Treated and Preserved Wood Products	<u>3636 Innes Road</u> Builders' Warehouse lumber and building materials storage facility, in operation since 1985 (Located 250 m southeast of the Phase One Property).	N (PCA is located a significant distance and crossgradient to the Phase One Property).
55.	Transformer Manufacturing, Processing and Use	Pole and pad mount transformers were observed throughout the Phase One Study Area.	N (Subsurface impacts derived from mineral insulating oils are localized and have low mobility in soils).

Source: Table 2, Schedule D, O. Reg. 153/04

The search of environmental source information yielded records for fuel storage tanks at the 3469 Innes Road property dating back to 1987 and a review of the available aerial photos for the Phase One Study Area indicate that the petroleum fuels service station was present at this location since prior to 1991. Based on the information collected during the Phase One ESA, the presence of the Ultramar petroleum fuels service station to the immediate west (3469 Innes Road) of the Phase One Property is considered to create an Area of Potential Environmental Concern (APEC) for the westernmost portion of the Phase One Property. The spill records associated with 3469 Innes Road (<40 m west of the Phase One Property) and for 3443 Innes Road (70 m west of the Phase One Property) are considered of low risk for environmental impact but would be captured by an investigation of the APEC pertaining to the Ultramar petroleum fuels station at 3469 Innes Road.

The contaminants of potential concern for the identified APEC are summarized as follows:

APEC	Location of APEC	PCA(s)	Contaminants of Potential Concern	Potentially Affected Media
A	Western Boundary of Phase One Property	#28 – Gasoline and Associated Products Storage in Fixed Tanks	BTEX and PHCs	Groundwater

Notes:

BTEX - Benzene, Toluene, Ethylbenzene and Xylenes

PHCs - Petroleum Hydrocarbons (PHCs) in the F1 to F4 fractions



Based on the information collected during the Phase One ESA (BluMetric, January 2023) and considering that all soil and groundwater quality results from the June 2020 sampling program (BluMetric, 2020) were below laboratory method detection limits and did not exceed the applicable O. Reg. 153/04 Table 7 SCS, the Phase One ESA recommended a Phase Two ESA to investigate for any potential change in groundwater quality for the APEC identified on the westernmost end of the Phase One Property.

#### **4.4 DEVIATIONS FROM SAMPLING AND ANALYSIS PLAN**

The sampling and analysis plan for the Phase I ESA and updated for the Phase Two ESA is provided in Appendix 10.1. The following deviations from this plan are noted:

- Boreholes were advanced to 7.6 m depth (rather than 4.5 m depth) as deeper boreholes were necessary to encounter groundwater for sampling and analysis.
- Only 1 soil sample (rather than 2) was analyzed for each borehole location due to the shallow depth to bedrock and limited available soil sample for analyses.

#### **4.5 IMPEDIMENTS**

No denial of access to the Phase Two Property was encountered during the Phase Two ESA. No physical impediments were encountered during the drilling investigation program.



## 5. INVESTIGATION METHOD

### 5.1 GENERAL

All field investigation and compliance verification sampling conducted by BluMetric followed the general protocols outlined in the Ministry of the Environment, Conservation and Park (MECP) “Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario, June 1996 and addenda” as well as the requirements of O. Reg. 153/04, as amended. Detailed descriptions of the investigation methods used are provided throughout this section.

Prior to the subsurface investigation activities, all investigation areas were cleared for subsurface utilities by USL-1 Underground Service Locators Inc. of Ottawa, Ontario. Locate reports are included in Appendix 10.5.

### 5.2 DRILLING AND EXCAVATING

Two boreholes installed as monitoring wells (MW1 and MW2) were advanced on the Phase Two Property on June 19, 2020 by Strata Group of Stouffville, Ontario (Well Contractor License No. 7421). Boreholes were advanced using a Geomachine Model GM100 - Hydraulic Track Mounted Remote Controlled Multi-Purpose Drill Rig. Drilling supervision was provided by BluMetric. The subsurface investigation program included overburden and bedrock drilling at two locations along the western boundary of the Phase Two Property. Borehole/monitoring well location MW1 was installed at a central location along the west property boundary and borehole/monitoring well MW2 was installed at the closest proximity (approximately 40 m northwest) to the Ultramar fuel pumps and underground storage tanks (USTs). The final locations for the two boreholes (MW1 and MW2) were confirmed based on the clearance of underground and overhead utilities and on access with the drilling equipment.

Each borehole was advanced through the overburden to top of bedrock at depths of 1.14 m below ground surface (bgs) at MW1 and 0.86 m bgs at MW2. A 1.5 m long by 0.05 m diameter continuous soil sampler was used for sampling of overburden materials. Upon reaching bedrock each borehole was advanced into bedrock by tri-cone drilling methods to a total depth of 7.6 m. Decontamination/cleaning protocols were used for all drilling and sampling equipment to prevent potential cross contamination between sampling intervals. The drilling/sampling tools were scrubbed with Alconox® detergent and then rinsed prior to re-use.

Borehole logs are provided in Appendix 10.2 and borehole/monitoring well locations are illustrated in Figure 3.

No excavation was completed as part of the Phase Two ESA investigation.



### 5.3 SOIL SAMPLING

Throughout the soil sampling program, BluMetric maintained a continuous, descriptive geological and hydrogeological log of the soil stratigraphy, fill material identification, moisture content, colour, appearance, and odour of the soil encountered at the Phase Two Property. This data is provided in the borehole logs in Appendix 10.2.

Logging of subsurface conditions was conducted continuously from grade to borehole termination. Both drilling locations were located in grassed areas. For both borehole locations bedrock refusal was encountered during the initial sample run with the 1.5 m continuous sampler. Upon recovery, the soil was removed from the sample liner using a stainless-steel putty knife and placed in the appropriate sample containers and a re-sealable polyethylene bag for field screening. The putty knife was washed with dish detergent and rinsed with clean water between each sample collected. Due to the shallow bedrock conditions only two soil samples were collected from the boreholes for field screening.

Soil samples from each borehole location were selected for laboratory analysis based on field observations, olfactory detection of potential impacts and the results of the field combustible vapour screening. For each borehole sample interval, the soil sample was split in the field into a re-sealable plastic bag for field screening and the appropriate, laboratory supplied sample containers for possible laboratory analysis. Samples for PHC F1/BTEX analysis were collected immediately upon recovery using a disposable volumetric sampling device to extract approximately 10 mL of soil. Each sample was extruded into laboratory prepared 40 mL vials (2 per sample) containing a known weight of methanol preservative. Samples for PHCs F2 to F4 fraction analysis were collected in 250 mL glass jars (one per sample) with a Teflon lined lid. Each sample jar was labelled with the project name and number, date, collector's name, sample location identification, and type of analyses required.

The jarred samples were packed in a cooler with ice at approximately 4°C, pending analysis and shipment to the laboratory. The bagged samples were allowed to equilibrate to room temperature, prior to combustible vapour screening, described in Section 5.4.

A summary of the soil samples submitted for laboratory analysis is provided below in Table 1:



**Table 1: Soil Samples Submitted for Chemical Analysis**

Borehole ID	Borehole/Sample Location on Phase Two Property	Sample ID	Interval Represented (m bgs)	Description	Types of Analysis
MW1	APEC A – Western Property Boundary unknown quality	MW1 S1	0.3 - 0.8	CLAY- Damp, brown sandy clay	PHCs, BTEX
MW2	APEC A – Western Property Boundary	MW2 S1	0.6 to 0.9	SILT - Damp, brown, sandy silt, trace clay	PHCs, BTEX

Notes:

PHCs – petroleum hydrocarbons in the F1 to F4 Fractions; BTEX – Benzene, Toluene, Ethylbenzene & Xylenes.

#### 5.4 FIELD SCREENING MEASUREMENTS

As described above, each borehole sample was split in the field with a portion placed in a re-sealable polyethylene bag for field screening including visual or olfactory inspection for petroleum hydrocarbon impacts and headspace combustible vapour analysis. The initial visual and olfactory screening was completed at the time of collection and headspace vapour measurements were taken after the bagged soil samples were allowed to equilibrate to room temperature.

A RKI Eagle 2 combustible gas monitor was calibrated as per manufacturer specifications and used to measure the headspace vapour concentration of each sample. Vapour measurement and operation of the combustible gas monitor was conducted according to manufacturer’s recommendations and the manufacturer’s reported accuracy is  $\pm 5\%$  in the range of 0 to 500 ppm. The headspace readings are included on the borehole logs (Appendix 10.2).

The results of the field screening were used in the selection of soil samples for laboratory analysis.

#### 5.5 GROUNDWATER MONITORING WELL INSTALLATION

The two borehole locations were instrumented as monitoring wells (MW1 and MW2), constructed using new 50 mm inside diameter flush threaded schedule 40 PVC standpipe and well screen. All wells were assembled on site and included a 3.05 m long 10-slot well screen. Silica sand (#3) was placed as a filter pack around the well screen and extending approximately 0.5 m above the well screen. Bentonite clay chips (0.43 mm to 0.95 mm in diameter) were used to install a seal in the annular space above the sand pack interval.

All monitoring wells were constructed in compliance with O. Reg. 903, as amended, and Well Records (Well Record ID 7365220 and 7365221) was prepared by Strata Group. Each monitoring well was completed at surface with a metal flush mount manhole cover with locking bolts.



## 5.6 GROUND WATER: FIELD MEASUREMENT OF WATER QUALITY PARAMETERS

For the June 23, 2020, June 25, 2020 and November 18, 2022 monitoring events, static groundwater levels along with the presence and thickness of light non-aqueous phase liquid (LNAPL) were measured and recorded (if detected) for both monitoring well locations using a Solinst® oil/water interface probe Model 122. Prior to use, and between well locations, the probe was decontaminated using a combination of methanol and de-ionized water.

All groundwater samples were collected using dedicated tubing and using low flow sampling methods. Field measurements for DO, temperature, pH, conductivity and ORP were conducted using a flow cell to ensure parameter stabilization prior to the collection of groundwater samples. Field measurement data was collected using a YSI Pro Plus multi-parameter meter that was calibrated prior to use. Field measurement data for the November 18, 2022 groundwater sampling event is included in Appendix 10.2.

## 5.7 GROUND WATER: SAMPLING

Groundwater sampling was conducted on June 25, 2020 and on November 18, 2022 for monitoring wells MW1 and MW2. Sampling was carried out using the ‘U.S. EPA Region 1 Low Stress (Low Flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells. Revised: September 19, 2017’ to minimize sediment disturbance during sample collection and laboratory analysis. Disposable powder-free nitrile gloves were always worn during ground water purging and sampling activities and a new pair of gloves was donned between monitoring well locations to prevent potential cross contamination. The monitoring wells were purged of sufficient volumes to ensure that groundwater at each well was representative of subsurface conditions. Dedicated ¼ inch outside diameter (OD) LDPE sample tubing was used in conjunction with a peristaltic pump and a short section of dedicated ¼ inch inside diameter (ID) silicone tubing for the pump head. The outlet from the peristaltic pump was connected to an in-line flow-through cell system for monitoring select geochemical groundwater parameters using a YSI Pro Plus multi-parameter meter. The YSI Pro Plus multi-parameter meter was calibrated prior to use.

Due to a low well yield for MW2, sampling on June 25, 2020 was conducted by no-purge sampling methods (Note: the well was pumped dry on June 23, 2020, two days prior to sampling) using new 1/2” low density polyethylene tubing fitted with an inertial-lift foot valve.



All groundwater samples were collected in clean, laboratory supplied sample bottles and placed in a cooler at approximately 4°C for transport to the lab. Sample bottles were separated from each other using a combination of bubble wrap and plastic bags to prevent any potential cross-contamination within the cooler during transport. Samples were submitted to Paracel (June 25, 2020 event) and Eurofins (November 18, 2022 event) for PHC F1-F4 fractions, and BTEX analyses.

A summary of the groundwater samples submitted for laboratory analysis is provided below in Table 2:

**Table 2: Groundwater Samples Submitted for Chemical Analysis**

Monitoring Well ID	Monitoring Well Location on Phase Two Property	Types of Analysis
MW1	APEC A – Western Property Boundary	PHCs, BTEX
MW2	APEC A – Western Property Boundary	PHCs, BTEX

*Notes:*

*PHCs – petroleum hydrocarbons in the F1 to F4 Fractions; BTEX – Benzene, Toluene, Ethylbenzene & Xylenes.*

## 5.8 SEDIMENT SAMPLING

Sediment was not present in the areas of investigation at the Phase Two Property. Therefore, the sampling and analysis of sediment at the Phase Two Property was not conducted as part of this investigation.

## 5.9 ANALYTICAL TESTING

The June 2020 analytical soil and groundwater testing for the Phase Two ESA was completed by Paracel Laboratories Ltd. and the November 2022 groundwater testing was completed by Eurofins Environment Testing Canada Inc. (Eurofins). Both laboratories are located in Ottawa, Ontario and are Canadian Association for Laboratory Accreditation Inc. (CALA) accredited laboratories.

## 5.10 RESIDUE MANAGEMENT PROCEDURES

Residues generated during the Phase Two investigation were limited to soil cuttings from drilling of the boreholes and purge water generated during monitoring well development and sampling. One 200-Litre UN-approved drum was partially filled with excess soil cuttings. Based on the laboratory analytical results for soil samples from the borehole locations the retained soils were disposed onsite. Two 20-Litre UN-approved pails were used for the collection of purge water and



flow through sampling water. Based on the laboratory analytical results for groundwater samples from the monitoring well locations the retained groundwater was disposed onsite.

### 5.11 ELEVATION SURVEYING

An elevation/location survey for the monitoring wells was completed by BluMetric on June 23, 2020. A survey level was used, and a benchmark elevation of 100.00 m assigned to the top of the manhole cover for monitoring well MW1. Elevation survey and static groundwater elevation data is provided in Table 3.

### 5.12 QUALITY ASSURANCE AND QUALITY CONTROL MEASURES

The quality assurance and quality control (QA/QC) program implemented for this project followed the general outline of subsection 3 (3) of O. Reg. 153/04, as amended. In preparing the QA/QC program, BluMetric also followed the Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario (MOE, 1996). Specific attention was given to the guidance on QA/QC measures and sampling frequency. The general QA/QC procedures included, but were not limited to:

- Clean, laboratory prepared sample containers were procured from the laboratory prior to field deployment.
- Samples were placed in the appropriate sample container for the selected analyses, following specific protocols (i.e., soil sample for BTEX, PHC F1 analysis methanol preservation in pre-prepared vials);
- Immediately following collection, all jarred samples were stored in laboratory supplied coolers with the appropriate packing materials (i.e., bubble wrap) and ice packs, pending shipment to the laboratory. All samples were shipped to the laboratory in the most expedient manner possible (i.e., hand delivery or by courier).
- During sampling, equipment was dedicated to the sampling location (single use) where possible. Multi-use sampling equipment (split spoon, putty knife, etc.) was cleaned with laboratory grade detergent and distilled water between uses to avoid cross contamination; and,
- A new pair of disposable nitrile gloves was used for each sample.

All samples collected by BluMetric were given unique sample identification. BluMetric field staff maintained field notebooks and log sheets, which were used to record the location and identification of each sample collected. BluMetric personnel filled out Chain of Custody (COC) forms that travelled with all samples placed in coolers and shipped to the laboratory for analysis. Each shipment was sent with a COC with the following information: date sampled,





sample matrix, number and type of containers, and requested analyses. Samples were immediately placed in a cooler containing ice to ensure the sample temperature was maintained near 4°C. Samples were submitted to the laboratory under strict chain of custody protocol and within 24 hours of sample collection.

### Sampling QA/QC – Blind Field Duplicate

BluMetric collected one blind field duplicate (BFD) sample to demonstrate that the field sampling techniques utilized by BluMetric personnel for the November 18, 2022 groundwater sampling event can yield reproducible results. The blind field duplicate was collected from the same location, MW1, and at the same time as the original sample and submitted to the laboratory as “DUP 1” for the same analyses as the original sample. Sampling precision was determined by calculating the relative percentage difference (RPD) for the duplicate samples as follows:

$$RPD (\%) = [(Dup1 - Dup2) / (\text{average of Dup1+Dup2})] \times 100$$

An RPD was calculated for duplicate samples returning contaminant concentrations greater than 5 times the reportable detection limit (RDL). Concentrations less than 5 times the RDL become increasingly imprecise, and, in these cases, the results were not considered sufficiently reliable and an RPD was not calculated. When the analytical result for one or both of a duplicate pair were less than the RDL (i.e., non-detect), an RPD cannot be calculated. BluMetric evaluated the results of the QA/QC analyses using the Recommended Alert Criteria specified in “Environmental QA/QC Interpretation Guide”, Maxxam Analytics, Inc. (COR FCD-00097/5). An RPD below the Alert Criteria was considered acceptable and confirmed that the sampling methodology could produce repeatable results.

Parameter	Media	Recommended* Alert Criteria** for RPD
BTEX / PHCs	Soil	50%
	Water	40%

Note(s): \* Reference: “Environmental QA/QC Interpretation Guide”, Maxxam Analytics, Inc.  
 \*\* Where both the original and the duplicate samples results are greater than 5X RDL.

### Groundwater Sample Trip Blank

A ‘trip blank’ prepared by the laboratory with purified water was shipped with the sampling containers to the field for the November 18, 2022 groundwater sampling event. The Trip Blank was returned unopened to the laboratory for BTEX/PHC F1 analysis to assess for any potential contamination of water samples/containers during sample bottle handling and shipment.



## Laboratory QA/QC

Samples were analyzed by either Paracel or Eurofins. Both are Canadian Association for Laboratory Accreditation Inc. (CALA) accredited laboratories that use MECP recognized methods to conduct laboratory analyses. As conveyed by the laboratory, method blanks, control standards samples, certified reference material standards, method spikes, replicates, duplicates, and instrument blanks are routinely analyzed as part of their internal QA/QC programs. As an internal quality control measure, the project laboratory routinely reports the results of laboratory prepared QA/QC analyses. The results of the laboratory QA/QC are reported in the laboratory certificates. If these criteria are not met, the laboratory is asked to either re-analyze the affected samples or qualify the results.



## 6. REVIEW AND EVALUATION

### 6.1 GEOLOGY

As described in Section 3.1, the bedrock geology of the Phase Two Property consists of fossiliferous limestone of the Bobcaygeon Formation. Overburden thickness is minimal in the area. A geotechnical Investigation completed by Paterson Group in 2010 included five test pits that encountered shallow bedrock between 0.7 and 1.5 m below surface grade on the Phase Two Property. The BluMetric June 2020 drilling program encountered limestone bedrock at depths of 1.14 m bgs at MW1 and 0.86 m bgs at MW2. At MW1, overburden was comprised of approximately 0.3 m of silt over approximately 0.8 m of clay. At MW2, overburden was comprised of approximately 0.6 m of fine sand over approximately 0.25 m of silt.

### 6.2 GROUND WATER: ELEVATIONS AND FLOW DIRECTION

Static groundwater level measurements were taken in both monitoring wells on June 25, 2020 and November 18, 2022. Static water level measurement elevation data is provided in Table 3 and shown on Figure 3. The June 25, 2020 water levels are included on the borehole logs in Appendix 10.2, which are within 0.10 m of levels measured on November 18, 2022. The groundwater level observations place the static water table approximately 3 m into the limestone bedrock. For both well locations, soft bedrock seams with no groundwater evident were encountered up to 6.0 m depth. Groundwater was only evident during drilling within the bottom 1.5 m of both boreholes. The static water elevation data on Figure 3 indicates a consistently higher static groundwater elevation at MW1 compared to MW2. Since MW2 is located further to the west on the Phase Two Property, the measured static groundwater elevations indicate that the majority of the 3493, 3497 and 3499 Innes Road property is potentially located up gradient or crossgradient to groundwater flow leaving 3469 Innes Road property.

### 6.3 GROUND WATER: HYDRAULIC CONDUCTIVITY AND GRADIENTS

In situ hydraulic testing was not conducted for the Phase Two Property based on the heterogeneous nature of shallow fractured bedrock conditions and based on the acceptable soil and groundwater quality results for the Phase Two Property.

### 6.4 SOIL TEXTURE

Since the observed overburden thickness was <1.2 m and subsurface soil texture conditions appeared highly variable it was the Qualified Person's (QP's) decision to select the more conservative SCS for 'coarse texture' soils for comparison to investigation results.



## 6.5 SOIL: FIELD SCREENING

The borehole soil sample combustible vapour headspace field screening readings using an RKI Eagle 2 combustible gas monitor are provided on the borehole logs in Appendix 10.2.

No visual or olfactory indications of environmental impact for soil (i.e.: no staining or odours) were noted for soils at both borehole locations. The highest soil combustible vapour headspace reading was 20 ppm, obtained for soil sample MW2 S1, obtained directly overlying the bedrock. This combustible vapour reading is at the detection limit of the instrument and not considered indicative of a soil impact. Combustible vapour readings for all other soil samples were below the detection limit of the instrument.

## 6.6 SOIL QUALITY

Two soil samples were submitted for laboratory analysis: MW1 S1, and MW2 S1. Soil laboratory results are provided in Table 4 in comparison to the applicable O. Reg. 153/04 Table 7 SCS. All laboratory certificates of analyses are included in Appendix 10.4.

All results for soil samples MW1 S1 and MW2 S1 were below the laboratory detection limits for the parameters tested. Consequently, measured concentrations for the soil samples collected and analyzed for APEC A are below the O. Reg. 153/04 Table 7 SCS for coarse textured soils in an area of Residential/Parkland/Institutional Property Use.

## 6.7 GROUNDWATER QUALITY

Groundwater samples for laboratory analysis were collected on June 25, 2020 and submitted to Paracel for laboratory analysis. Groundwater was re-sampled for laboratory analysis on November 18, 2022 and submitted to Eurofins for laboratory analysis.

Laboratory analytical results for groundwater in comparison to the O. Reg. 153/04 Table 7 SCS are summarized in Table 5. All laboratory certificates of analyses are included in Appendix 10.4. The laboratory results associated with the two submitted groundwater samples for June 25, 2020 and November 18, 2022 were below the laboratory detection limits for all tested PHC and BTEX parameters. Consequently, groundwater quality at both monitoring well locations in APEC A meet the O. Reg. 153/04 Table 7 SCS for non-potable groundwater for the parameters tested.



## 6.8 SEDIMENT QUALITY

Sediment was not present in the areas of investigation at the Phase Two Property. Therefore, the sampling and analysis of sediment at the Phase Two Property was not conducted as part of this investigation.

## 6.9 QUALITY ASSURANCE AND QUALITY CONTROL RESULTS

All of the samples were handled in accordance with the Analytical Protocol with respect to the holding time, preservation method, storage requirements, and container type.

BluMetric received a certificate of analysis for each sample submitted to the laboratory. Copies of the certificates are included in Appendix 10.4.

### Blind Duplicate Sample

For groundwater, one blind duplicate sample (DUP 1) was collected for the November 18, 2022 sample event for MW1 and analyzed for BTEX and PHCs.

Since all analytical results for MW1 and the blind duplicate sample, DUP 1, were below laboratory detection limits an RPD calculation was not done. Consequently, the reproducibility of the laboratory analytical results for groundwater is inferred to be acceptable based on the identical results for both the MW1 and DUP 1 groundwater samples.

### Procedures Used in the Laboratory

Laboratories implement additional QA/QC procedures. These include analyzing selected samples twice (as described above), but also include analyzing surrogate chemicals or “spiked blanks” (to show that the analytical equipment is operating within the desired tolerances of accuracy) and analyzing method blanks (to show that analytical equipment is not contaminated). The reports received from laboratories thoroughly document these procedures as well as describe the methodology and instrumentation used for the analysis. The ‘qualifier notes’ provided in the lab reports for this Phase Two ESA did not raise concerns about the data quality. During this Phase Two ESA, there were no deviations from the sample holding times, preservation methods, storage requirements, or sample container types stipulated by the laboratory. Overall, the quality of the laboratory data produced by the soil and ground water quality investigations is adequate to meet the objectives of the Phase Two ESA investigation and there are no aspects of the laboratory data that have restricted decision-making or characterizing soil and ground water quality on the Phase Two Property.



## 6.10 PHASE TWO CONCEPTUAL SITE MODEL

The Phase Two Property has a total area of approximately 1.51 acres (approximately 0.61 hectares) and is comprised of 3493, 3497, and 3499 Innes Road. The Phase Two Property is irregular in shape with frontage of approximately 91 m along the north side of Innes Road and a depth of approximately 61 m. A portion of the western part of the Phase Two Property (3493 Innes Road) extends for a 41 m (approximate) length behind the commercial plaza located at 3469 Innes Road. The Phase Two Property is currently zoned for residential but is proposed for redevelopment for commercial land use.

Two structures are located on the Phase Two Property. Both structures are proposed for removal from the Phase Two Property. The remaining property area is primarily grass-covered, with a gravel driveway and parking area in front of the structures. Several mature trees were noted across the property.

Based on the Phase One ESA review of historical aerial photographs and National Topographic Service (NTS) maps, the Phase One Property was vacant and/or had a first use for agriculture until at least 1956. A residence first appears on the 3497 Innes Road property in 1965, which was demolished between 2008 and 2011. A garage outbuilding was constructed on the property at 3493 Innes Road between 1981 and 1991 and was partly torn down between 2017 and 2021. A sales office trailer was constructed on the 3497 Innes Road property between 2011 and 2014. The Phase One Property was acquired by Gestion FRAMI in 2019 from Rockcliffe Asset Management Inc. The residence on the 3493 Innes Road property was partially demolished as of 2021.

The Phase Two Property is generally surrounded to the north and east by residential land use. The property to the immediate west (3469 Innes Road) of the Phase Two Property includes a commercial plaza and an Ultramar petroleum fuels service station, while further west beyond Pagé Road is a mix of commercial and residential development. The area to the south of the Phase Two Property, south of Innes Road is mostly lands reserved for future development along with some commercial and residential properties along Pagé Road.

The Phase Two Property and all surrounding properties are serviced by municipal water. There are no well water supplies wells for drinking water in use within a 250 m radius of the Phase Two Property.



## Physical Setting of the Phase Two Property

The physical setting of the Phase Two Property is discussed throughout this report and is summarized below.

### Hydrological Conditions

The Phase Two Property is generally flat with an approximate elevation of 91 m above sea level (ASL). There is a slightly elevated area in the centre of the Phase Two Property which generally slopes downward to the north (back of property) and to the east. Surface drainage on the Phase Two Property is generally through infiltration, though some runoff onto adjacent properties and to Innes Road may occur during particularly wet periods. Storm sewer catch basins are located adjacent to the Phase Two Property along the north roadside curb for Innes Road. City of Ottawa mapping indicates the Innes Road storm sewer system and municipal sanitary sewer system drain to the west along the roadway.

Rideau Valley Conservation Authority (RVCA) GeoPortal mapping indicates the Phase Two Property is situated on the boundary between the West Bilberry Creek and Mud Creek (GCK) catchment areas of the Ottawa River East Subwatershed. On a regional scale, topography slopes north to the Ottawa River, and bedrock groundwater flow is inferred to be oriented to the northwest towards the Ottawa River, which is approximately 5 km northwest of the Phase Two Property.

There are no surface water bodies located on the Phase Two Property. The closest surface water body is Bilberry Creek, located approximately 0.74 km northwest of the Phase One Property. No ANSI have been identified for the Phase Two Property. The nearest ANSI area is the Blackburn Hamlet DND Forest located 1.29 km west-southwest of the Phase Two Property.

### Hydrogeological Setting

A site cross section through monitoring well MW1 and MW2 is provided as Figure 4. The line of cross section is indicated on Figure 3. The BluMetric June 2020 drilling program encountered limestone bedrock at depths of 1.14 m below ground surface (bgs) at MW1 and 0.86 m bgs at MW2. At MW1, overburden was comprised of approximately 0.3 m of silt over approximately 0.8 m of clay. At MW2, overburden was comprised of approximately 0.6 m of fine sand over approximately 0.25 m of silt. No groundwater was found in the overburden. For both well locations, soft bedrock seams with no groundwater evident were encountered up to 6.0 m bgs. Groundwater was only evident during drilling within the bottom 1.5 m of both boreholes. The groundwater level observations for both June 25, 2020 and November 18, 2022 place the



static water table approximately 3 m into limestone bedrock. The static water elevation data indicates a consistently higher static groundwater elevation at MW1 compared to MW2. Since MW2 is located further to the west on the Phase Two Property, the measured static groundwater elevations indicate that the majority of the 3493, 3497 and 3499 Innes Road property is potentially located up gradient or crossgradient to groundwater flow leaving the 3469 Innes Road property.

### Subsurface Structures and Utilities on Phase Two Property

A copy of the June 2020 locates is included in Appendix 10.5. No buried subsurface structures or utilities were identified for the location of APEC A.

The minimum measured static groundwater elevations on the Phase Two Property are greater than 4 m bgs and 3 m into limestone bedrock and is likely below the depth of any potential buried service conduits on the Phase Two Property.

### Assessment of APECs and PCAs

The APEC/PCA assessed for the Phase Two Property was identified through a Phase I/One ESA (BluMetric June 2020 and BluMetric January 2023). All collected soil and groundwater samples were analyzed for BTEX and PHCs. The APEC and PCA were assessed as follows:

APEC ID	Location of APEC on Phase Two Property	PCA(s)	COC(s)	Phase Two ESA Investigation Location(s)	Media: COC(s) Exceeding O. Reg. 153/04 Table 7 SCS
A	Western Boundary of Phase Two Property.	28. Gasoline and Associated Products Storage in Fixed Tanks – Ultramar Service Station at 3469 Innes Road.	BTEX, PHCs	<u>MW1</u> <u>MW2</u>	<u>Soil:</u> No Results Exceeded SCS for June 19, 2020 sampling event.  <u>Groundwater:</u> No Results Exceeded SCS for June 25, 2020, and November 18, 2022 sampling events.

Soil and groundwater samples were successfully obtained, analyzed and assessed for all contaminants of concern (COCs) for the APEC identified for the Phase Two ESA.





## Contaminants Present on the Phase Two Property

### Soils

Results of the soil analyses for APEC A are described in Section 6.6. Less than 1.2 m of soil over bedrock was found at both investigation locations. One soil sample from each borehole location was submitted for laboratory analysis of BTEX/PHCs. All soil quality results were below laboratory method detection limits and did not exceed the O. Reg. 153/04 Table 7 Generic SCS for Shallow Soils in a Non-Potable Ground Water Condition, Residential/Parkland/Institutional land use, coarse textured soils. Since groundwater was not observed in the overburden at APEC A it is the opinion of the Qualified Person that the offsite PCA at 3469 Innes Road does not pose a concern for soils at the Phase Two Property.

### Groundwater

Results of the groundwater analyses for APEC A are described in Section 6.7. The two groundwater monitoring wells, MW1 and MW2, were sampled on June 25, 2020 and again on November 18, 2022 for BTEX/PHCs. All groundwater quality results were below laboratory method detection limits and did not exceed the O. Reg. 153/04 Table 7 Generic SCS for Shallow Soils in a Non-Potable Ground Water Condition, Residential/Parkland/Institutional land use, coarse textured soils.

### Sediment

There is no sediment on the Phase Two Property and therefore, no contaminated sediment was identified.

## Contaminant Release Mechanisms, Transport, and Receptor Exposure

Human receptors may be exposed to contaminants of concern through inhalation of soil particles and/or vapours, dermal contact, and/or ingestion. Ecological receptors may be exposed through inhalation of particles and/or vapours and/or soil gas, plant uptake, dermal contact and/or root uptake and/or ingestion. No contaminants of concern were identified from the Phase Two ESA investigation for the Phase Two Property.



## 7. CONCLUSIONS

BluMetric Environmental Inc. (BluMetric®) was retained to complete a Phase Two ESA at 3493, 3497, and 3499 Innes Road, Ottawa, ON. The objective of the Phase Two ESA was to investigate the area of potential environmental concern identified in the Phase I ESA prepared by BluMetric and dated July 2020 and the updated Phase One ESA prepared by BluMetric and dated January 2023. The soil and groundwater quality conditions were documented in comparison to the applicable O. Reg. 153/04 Table 7 Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition, Residential/Parkland/Institutional Property Use, for Coarse Textured soils.

One APEC (APEC A) was investigated for the Phase Two Property. APEC A consists of the westernmost end of the Phase Two Property which borders 3469 Innes Road and the location of a petroleum fuels service station. The subsurface investigation program included overburden and bedrock drilling at two locations along the western boundary of the Phase Two Property. The June 19, 2020 drilling program encountered limestone bedrock at depths of 1.14 m bgs at MW1 and 0.86 m bgs at MW2. Groundwater was not encountered in the overburden at both drilling locations. Both boreholes were advanced into limestone bedrock and completed as monitoring wells to a depth of 7.6 m.

One soil sample from each borehole location was submitted for laboratory analysis of BTEX/PHCs. All soil quality results were below laboratory method detection limits and did not exceed the O. Reg. 153/04 Table 7 Generic SCS for Shallow Soils in a Non-Potable Ground Water Condition, Residential/Parkland/Institutional land use, coarse textured soils.

The two groundwater monitoring wells, MW1 and MW2, were sampled on June 25, 2020 and again on November 18, 2022 for BTEX/PHCs. All groundwater quality results were below laboratory method detection limits and did not exceed the O. Reg. 153/04 Table 7 Generic SCS for Shallow Soils in a Non-Potable Ground Water Condition, Residential/Parkland/Institutional land use, coarse textured soils.

The groundwater level observations for both June 25, 2020 and November 18, 2022 place the static water table approximately 3 m into limestone bedrock. The static water elevation data indicates a consistently higher static groundwater elevation at MW1 compared to MW2. Since MW2 is located further to the west on the Phase Two Property, the measured static groundwater elevations indicate that the majority of the 3493, 3497 and 3499 Innes Road property is potentially located up gradient or crossgradient to groundwater flow leaving the 3469 Innes Road property.



Based on the field observations and the laboratory results no further subsurface investigation is deemed necessary for the Phase Two Property. If the monitoring wells are not to be maintained for future use, the wells must be properly sealed and abandoned per the requirements of O. Reg. 903.

## 7.1 LIMITING CONDITIONS, QP STATEMENT, AND QP SIGNATURE

This Phase Two ESA was performed in accordance with the substance and intent of the Phase Two ESA definition in O. Reg. 153/04. The findings in this report are based on observations and laboratory testing of samples collected at specific locations. The conclusions presented in this report represent our professional opinion and are based on the conditions observed on the dates set out in the report, the information available at time this report was prepared, the scope of work, and any limiting conditions noted herein.

BluMetric provides no assurances regarding changes to conditions subsequent to the time of the assessment. BluMetric makes no warranty as to the accuracy or completeness of the information provided by others or of the conclusions and recommendations predicated on the accuracy of that information.



This report has been prepared for Gestion FRAMI. Any use a third party makes of this report, any reliance on the report, or decisions based upon the report, are the responsibility of those third parties unless authorization is received from BluMetric in writing. BluMetric accepts no responsibility for any loss or damages suffered by any unauthorized third party as a result of decisions made or actions taken based on this report.


This Phase Two ESA has been conducted in general accordance with O. Reg. 153/04 by or under the supervision of a qualified person (QP).

This report was prepared by Robert Hillier, P.Geo., QP<sub>ESA</sub> of BluMetric and reviewed by Amanda Gartshore, M.Sc. of BluMetric.

Respectfully submitted,

**BluMetric Environmental Inc.**

  
  
Robert Hillier, B.Sc., P. Geo., QP<sub>ESA</sub>  
Senior Hydrogeologist

  
Amanda Gartshore, M.Sc.  
Environmental Scientist



## 8. REFERENCES

BluMetric Environmental Inc. (BluMetric), January 2023. Phase One Environmental Site Assessment, 3493, 3497, and 3499 Innes Road, Ottawa, ON. Submitted to: Gestion FRAMI

BluMetric, 7 July 2020. Phase II Environmental Site Assessment, 3493, 3497, and 3499 Innes Road, Ottawa, ON. Submitted to: Gestion FRAMI.

BluMetric, 6 June 2020. Phase I Environmental Site Assessment, 3493, 3497, and 3499 Innes Road, Ottawa, ON. Submitted to: Gestion FRAMI.

Ontario Geological Survey, 2010. Surficial Geology of Southern Ontario; Ontario Geological Survey, Miscellaneous Release – Data 128 – Revised.

Ontario Geological Survey 2011. 1:250 000 scale bedrock geology of Ontario; Ontario Geological Survey, Miscellaneous Release---Data 126-Revision 1.

Ontario Ministry of Environment (MOE, now MECP). 1996. Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario.

Paterson Group Inc., 2010. Phase I – Environmental Site Assessment, 3493, 3497 & 3499 Innes Road, Ottawa, Ontario. Dated February 8, 2010.



## 9. FIGURES AND TABLES

### 9.1 FIGURES

The following topics are addressed in the following figures:

Topic	Figure Number
Site Location	Figure 1
Phase One ESA Conceptual Site Model	Figure 2
Phase Two Property Plan, Static groundwater data and inferred flow direction, Lines of Cross Section	Figure 3
Plan(s) showing concentrations of all sampled locations for COCs in soil, exceeding comparison SCS.	There is no Figure as no soil results exceeded the SCS
Plan(s) showing concentrations of all sampled locations for COCs in ground water, exceeding SCS.	There is no Figure as no groundwater results exceeded the SCS
Cross-sections showing stratigraphy down to the deepest aquifer or aquitard investigated. Lateral and vertical extent of COCs in soil, ground water, and sediment is not indicated as no COC exceeded the SCS.	Figure 4





REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

**REFERENCES**  
 PROPRIETARY INFORMATION MAY NOT BE REPRODUCED OR DIVULGED WITHOUT PRIOR WRITTEN CONSENT OF BLUMETRIC ENVIRONMENTAL INC. DO NOT SCALE DRAWING.  
 THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS.

1:7,500

**CLIENT**

**Gestion FRAMI**  
 1085 Boulevard de la Carriere  
 Gatineau, Quebec, J9Y 6V4

**PROJECT**

**Phase Two Environmental Site Assessment**  
 3493, 3497 and 3499 Innes Road  
 Ottawa, ON

**TITLE**

**General Site Location**

3108 Carp Road PO Box 430  
 Ottawa, Ontario K0A 1L0  
 TEL: (613) 839-3053  
 FAX: (613) 839-5376  
 Email: info@blumetric.ca  
 Web: http://www.blumetric.ca

<b>PROJECT #</b> 230028		<b>DATE</b> December 08, 2022	
<b>DRAWN</b> MB	<b>CHECKED</b> RH	<b>FIG NO.</b> 01	<b>REV</b> 0



**LEGEND**

- Property Outline
- Area of Potential Environmental Concern (APEC)
- ➔ Groundwater Flow Direction

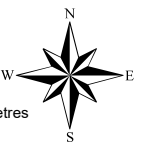
**Potentially Contaminating Activities (PCAs)**


- 28 Gasoline and Associated Products Storage in Fixed Tanks
- 55 Transformer Manufacturing, Processing and Use
- SPL Spill

1				
REV.	DESCRIPTION	YY/MM/DD	BY	CHK

**REFERENCES**

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1:750

**CLIENT**

**Gestion FRAMI**  
**1085 Boulevard de la Carriere**  
**Gatineau, Quebec, J9Y 6V4**

**PROJECT**

**Phase Two Environmental Site Assessment**  
**3493, 3497 and 3499 Innes Road**  
**Ottawa, ON**

**TITLE**

**Phase One ESA**  
**Conceptual Site Model**



3108 Carp Road PO Box 430  
 Ottawa, Ontario K0A 1L0  
 TEL: (613) 839-3053  
 FAX: (613) 839-5376  
 Email: info@blumetric.ca  
 Web: http://www.blumetric.ca

<b>PROJECT #</b> 230028	<b>DATE</b> January 20, 2023
----------------------------	---------------------------------

<b>DRAWN</b> MB	<b>CHECKED</b> RH	<b>FIG NO.</b> 02	<b>REV</b> 1
--------------------	----------------------	----------------------	-----------------



**LEGEND**

- Monitoring Well Location
- 95.82** Static Water Level Elevation (m) on June 25, 2020 / November 18, 2022
- Property Outline
- Cross Section
- Groundwater Flow Direction

1				
REV.	DESCRIPTION	YY/MM/DD	BY	CHK

**REFERENCES**  
 PROPRIETARY INFORMATION MAY NOT BE REPRODUCED OR DIVULGED WITHOUT PRIOR WRITTEN CONSENT OF BLUMETRIC ENVIRONMENTAL INC. DO NOT SCALE DRAWING. THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS.

1:750

**CLIENT**

**Gestion FRAMI**  
 1085 Boulevard de la Carriere  
 Gatineau, Quebec, J9Y 6V4

**PROJECT**

**Phase Two Environmental Site Assessment**  
 3493, 3497 and 3499 Innes Road  
 Ottawa, ON

**TITLE**

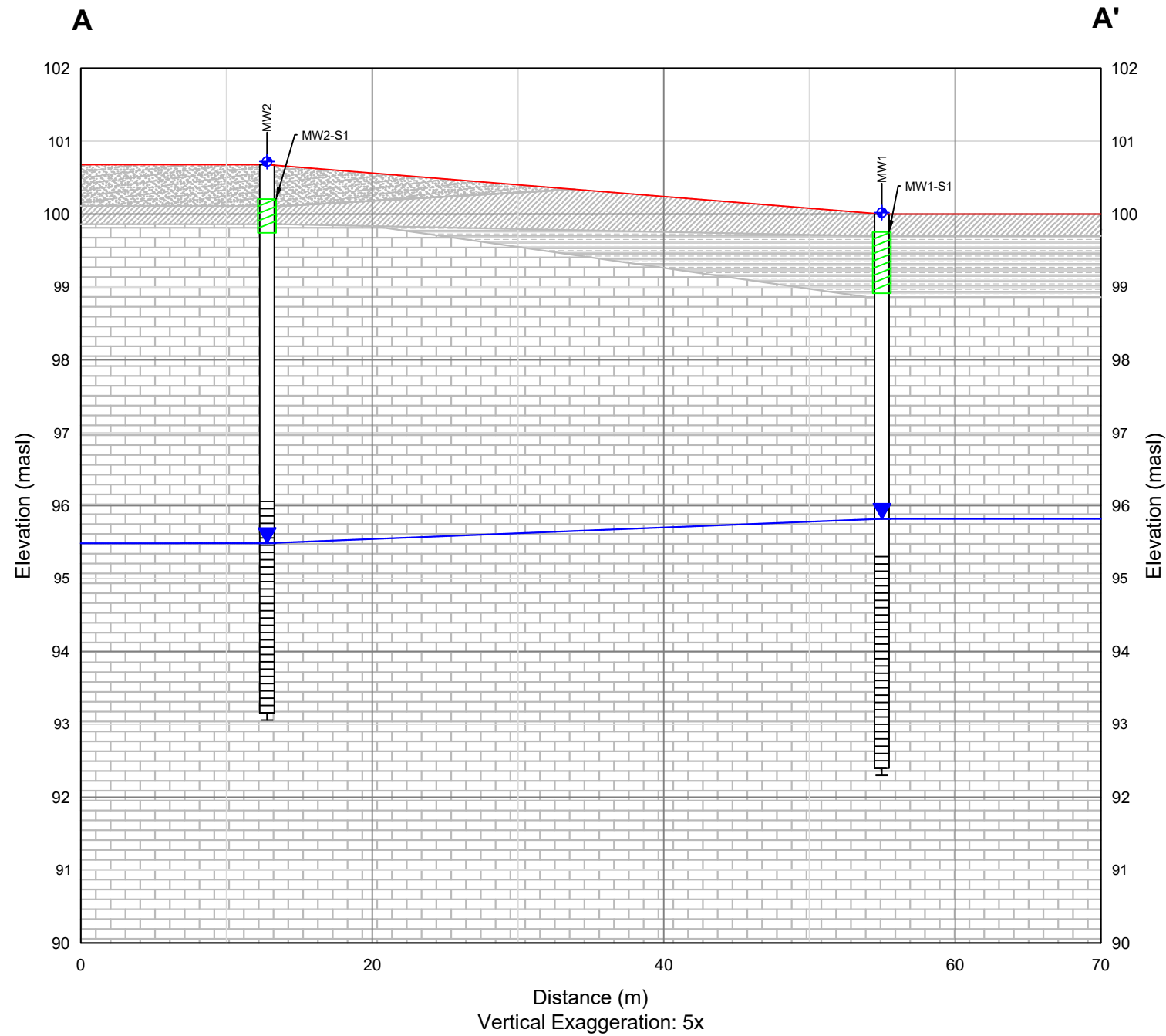
**Phase Two Property Site Plan**

3108 Carp Road PO Box 430  
 Ottawa, Ontario K0A 1L0  
 TEL: (613) 839-3053  
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 Web: http://www.blumetric.ca








PROJECT **230028** DATE **December 08, 2022**

DRAWN	CHECKED	FIG NO.	REV
<b>MB</b>	<b>RH</b>	<b>03</b>	<b>0</b>





LEGEND

-  Monitoring Well
-  Groundwater Level
-  Clay
-  Silt
-  Sand
-  Limestone Bedrock
-  Soil Sample Interval

1				
REV.	DESCRIPTION	YY/MM/DD	BY	CHK

REFERENCES  
 PROPRIETARY INFORMATION MAY NOT BE REPRODUCED OR DIVULGED WITHOUT PRIOR WRITTEN CONSENT OF BLUMETRIC ENVIRONMENTAL INC.  
 DO NOT SCALE DRAWING.  
 THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS.

CLIENT  
**Gestion FRAMI**  
**1085 Boulevard de la Carriere**  
**Gatineau, Quebec, J9Y 6V4**

PROJECT  
**Phase Two Environmental Site Assessment**  
**3493, 3497, 3499 Innes Road,**  
**Ottawa, ON**

TITLE  
**Phase Two Property Cross Section**

 1682 Woodward Drive  
 Ottawa, Ontario, K2C 3R8  
 TEL: (613) 839-3053  
 FAX: (613) 839-5376  
 Email: info@blumetric.ca  
 Web: http://www.blumetric.ca

PROJECT # <b>230028</b>		DATE <b>December 13, 2022</b>		
DRAWN <b>MB</b>	CHECKED <b>RH</b>	DWG NO. <b>04</b>	REV <b>1</b>	

## 9.2 TABLES

The following topics are addressed in the following tables:

Topic	Table Number and Location
Soil Samples Submitted	Table 1 in Section 5.3
Groundwater Samples Submitted	Table 2 in Section 5.6
Monitoring Well Construction	Table 3
Water Levels (to the nearest cm)	Table 3
NAPL Thickness (to the nearest cm)	Table 3, None was encountered at the Phase Two Property
Elevation	Table 3
Soil Data	Table 4
Ground Water Data	Table 5
Soil and Groundwater QA/QC Results	There is no Table as all analytical results were below laboratory method detection limits
Sediment Data	No Sediment on the Phase Two Property
Laboratory Results for Soil Exceeding Comparison Standards	There is no Table as no soil results exceeded the SCS
Laboratory Results for Groundwater Exceeding Comparison Standards	There is no Table as no groundwater results exceeded the SCS
Maximum Measured Concentrations in Soil and Groundwater for the COCs at the Phase Two Property	There is no Table as all analytical results were below laboratory method detection limits



**TABLE 3: Static Groundwater Level Measurements**  
**Project: 230028**  
**Phase Two ESA - 3493, 3497 and 3499 Innes Road, Ottawa, Ontario**

Well ID	Top of PVC Elev. (masl)	Ground Surface Elev. (masl)	Bedrock Depth (m)	Bedrock Surface Elev. (masl)	Top of Screen Elev. (masl)	Bottom of Screen Elev. (masl)	Date	Water Depth (mbTPVC)	Water Level Elev. (m asl)
MW1	99.92	100.02	1.14	98.88	95.45	92.40	23-Jun-20	N/A	--
							25-Jun-20	4.10	95.82
							18-Nov-22	4.00	95.92
MW2	100.62	100.72	0.86	99.86	96.15	93.10	23-Jun-20	5.12	95.50
							25-Jun-20	5.13	95.49
							18-Nov-22	5.22	95.40

Notes:

Benchmark elevation - 100.00 m for MW1 Top of manhole cover

N/A - not applicable/not measured

masl - metres above sea level

mbTPVC - metres below top of PVC

**TABLE 4 - Soil Analytical Results**

**Project: 230028**

**Phase Two ESA - 3493, 3497 and 3499 Innes Road, Ottawa, Ontario**

Parameter	Units	MDL	Regulation*	Sample	
				MW1 S1	MW2 S1
Sample Depth (m)				0.30 to 0.80	0.61 to 0.86
Sample Date (m/d/y)			Reg 153/04 (2011)-Table 7 Residential, coarse	2020-06-19 8:50	2020-06-19 12:45
<b>Volatiles</b>					
Benzene	ug/g dry	0.02	0.21 ug/g dry	ND (0.02)	ND (0.02)
Ethylbenzene	ug/g dry	0.05	2 ug/g dry	ND (0.05)	ND (0.05)
Toluene	ug/g dry	0.05	2.3 ug/g dry	ND (0.05)	ND (0.05)
m/p-Xylene	ug/g dry	0.05		ND (0.05)	ND (0.05)
o-Xylene	ug/g dry	0.05		ND (0.05)	ND (0.05)
Xylenes, total	ug/g dry	0.05	3.1 ug/g dry	ND (0.05)	ND (0.05)
<b>Hydrocarbons</b>					
F1 PHCs (C6-C10)	ug/g dry	7	55 ug/g dry	ND (7)	ND (7)
F2 PHCs (C10-C16)	ug/g dry	4	98 ug/g dry	ND (4)	ND (4)
F3 PHCs (C16-C34)	ug/g dry	8	300 ug/g dry	ND (8)	ND (8)
F4 PHCs (C34-C50)	ug/g dry	6	2800 ug/g dry	ND (6)	ND (6)

Notes:

\* - "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011

MDL - laboratory method detection limit

ND - not detected, below indicated laboratory method detection limit

**TABLE 5 - Groundwater Analytical Results**

**Project: 230028**

**Phase Two ESA - 3493, 3497 and 3499 Innes Road, Ottawa, Ontario**

Parameter	Units	MDL	Regulation*	Sample					
				MW1		MW2		Trip Blank	
Sample Date (m/d/y)			Reg 153/04 (2011)- Table 7 Non-Potable Groundwater, coarse	06/25/2020	11/18/2022		06/25/2020	11/18/2022	11/18/2022
<b>BTEX</b>						DUP 1			
Benzene	ug/L	0.5	0.5 ug/L	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Ethylbenzene	ug/L	0.5	54 ug/L	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Toluene	ug/L	0.5	320 ug/L	ND (0.5)	ND (0.4)	ND (0.4)	ND (0.5)	ND (0.4)	ND (0.4)
m/p-Xylene	ug/L	0.5		ND (0.5)	ND (0.4)	ND (0.4)	ND (0.5)	ND (0.4)	ND (0.4)
o-Xylene	ug/L	0.5		ND (0.5)	ND (0.4)	ND (0.4)	ND (0.5)	ND (0.4)	ND (0.4)
Xylenes, total	ug/L	0.5	72 ug/L	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
<b>Hydrocarbons</b>									
F1 PHCs (C6-C10)	ug/L	25	420 ug/L	ND (25)	ND (20)	ND (20)	ND (25)	ND (20)	ND (20)
PHCs F1-BTEX	ug/L	20		NA	ND (20)	ND (20)	NA	ND (20)	ND (20)
F2 PHCs (C10-C16)	ug/L	100	150 ug/L	ND (100)	ND (20)	ND (20)	ND (100)	ND (20)	NA
F3 PHCs (C16-C34)	ug/L	100	500 ug/L	ND (100)	ND (50)	ND (50)	ND (100)	ND (50)	NA
F4 PHCs (C34-C50)	ug/L	100	500 ug/L	ND (100)	ND (50)	ND (50)	ND (100)	ND (50)	NA

Notes:

\* - "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011

MDL - laboratory method detection limit

ND - not detected, below indicated laboratory method detection limit

NA - not analyzed

## 10. APPENDICES

### 10.1 GENERAL

#### Sampling and Analysis Plan for the Site Investigation

A soil and groundwater sampling plan was initially developed in May 2020. The plan was developed to investigate the contaminants of potential concern for soil and ground water in APEC A, as identified by the BluMetric Draft Phase I ESA. The Sampling and Analysis Plan is reproduced as follows.

#### TASK 1: UTILITY LOCATES AND REFINEMENT OF WORK PLAN

Proposed drilling locations are provided on the attached Figure 1, but within this Task the locations will be verified in the field for approval by the client. Utility clearances will be obtained for all drilling/sampling locations. The final deliverable for this project task will be a site plan showing all approved drilling and sampling locations, public and private locates documentation, and a site-specific Health and Safety Plan (HASP) for the drilling program.

#### TASK 2: DRILLING PROGRAM

The proposed field program includes the advancement of a total of two (2) boreholes instrumented as monitoring wells. Proposed drilling locations are provided on Figure 1 and locations will be finalized in conjunction with the completion of locates under Task 1. All boreholes will be advanced up to 4.5 m below ground surface (m bgs). The drilling quotation includes 3.6 m of drilling into bedrock as required to intersect the water table. All boreholes will be advanced using a Geomachine 100-Hammer & Diamond Core drilling rig. Should groundwater not be encountered at 4.5 m depth, the client will be contacted immediately regarding drilling cost implications to go to a greater depth.

Soil samples will be collected using a 2.25" OD Macro Core Soil Sampling System. Soil sample characteristics will be logged and samples will be screened in the field for combustible vapours using headspace screening methods. Appropriate decontamination/cleaning protocol will be used to prepare the equipment between sampling intervals. The drilling tools will be scrubbed with a detergent and water solution. A portion of the collected soil samples will be placed in a plastic zip-lock bag and screened for combustible vapours using a RKI Eagle combustible gas detector. A portion of the soil sample will be placed in clean sample jar and placed in a cooler at approximately 4oC. Field preservation with methanol will be conducted for soil samples as required under O. Reg. 153/04 for PHC F1 and BTEX analysis. Two soil samples per borehole



location will be submitted for laboratory analysis of petroleum hydrocarbon (PHC) F1 to F4 and BTEX analysis.

### Soil Sampling Program Summary

Sampling Event(s)	Analyses	Sample Location	Sample Location (See attached Figure)	Number of Samples
June 2020	petroleum hydrocarbons (PHCs F1 to F4),	MW1	APEC A – east of 3469 Innes Road	2
	benzene, toluene, ethylbenzene, xylenes (BTEX)	MW2	APEC A – north of 3469 Innes Road	2

Monitoring wells (50 mm ID PVC) will be installed in each borehole with the 3 m screened interval intersecting the water table. A silica sand pack will be placed around the outside of the well screen in the annular space of the borehole. The sand pack will be extended a minimum of 0.3 metres above the screened interval of the PVC. A minimum 0.6 m thick bentonite seal will be placed above the sand pack. Wells will be completed at surface with a flush mount manhole cover with locking bolts. Borehole cuttings from the drilling will be placed in UN-approved drums and stored at an appropriate location on site until the soil can be disposed appropriately following analytical testing. It is anticipated that up to 4 drums of soil cuttings could be produced from the drilling program and require disposal.

Level survey methods will be used to locate the monitoring well network on a suitable base plan for the Site. The elevation of the ground surface and the top of the riser at each monitoring well will be recorded. If a geodetic benchmark is not available, BluMetric will establish a benchmark with an assumed elevation for the site. Subsurface utility locations where marked within the APEC will be captured by the survey and provided on site plans.

### **TASK 3: GROUNDWATER MONITORING/SAMPLING EVENT**

This task involves the monitoring of static water level elevations, LNAPL thickness (if detected), and combustible vapours at all locations. The monitoring event will include the sampling of two new monitoring wells.

Static water levels and product thicknesses will be measured using a Solinst oil/water Interface Meter Model 122. The interface probe tip and tape will be cleaned between well locations using a combination of methanol and deionized water. Standpipe combustible vapour readings will be obtained with a RKI Eagle 2 combustible gas indicator.



Monitoring wells will be purged of at least three well volumes to ensure samples represent local groundwater conditions. The well volume will be determined based on the static water level, monitoring well depth and well diameter. In the event that sediment is visible in the purge water, the monitoring well will be purged until it is clear. Purge water will be collected in a barrel equipped with a cover and stored at the site pending laboratory analyses. Impacted purge water will be disposed by Veolia Ltd.

All groundwater samples will be collected using dedicated tubing and using low flow sampling methods. Field measurements for DO, temperature, pH, conductivity and ORP will be conducted using a flow cell to ensure parameter stabilization prior to the collection of groundwater samples. BluMetric field personnel will wear Nalgene® gloves that will be changed between each monitoring well sample that is collected. Sample bottles will be obtained from Paracel Laboratories of Ottawa, Ontario. All collected groundwater samples will immediately be placed in a cooler containing ice to ensure the temperature is kept near 4 °C. Samples will be submitted to Eurofins within 24 hours of sample collection under strict chain of custody protocol. Groundwater sample analysis will be as per the program summarized below.

#### Groundwater Sampling Program Summary (Updated with November 2022 Sample Event)

Sampling Event(s)	Analyses	Sample ID(s)	Sample Location (see attached Figure)
June 2020	petroleum hydrocarbons (PHCs F1 to F4), benzene, toluene, ethylbenzene, xylenes (BTEX)	MW1	APEC A – east of 3469 Innes Road
		MW2	APEC A – north of 3469 Innes Road
November 2022	petroleum hydrocarbons (PHCs F1 to F4),	MW1	APEC A – east of 3469 Innes Road
		MW2	APEC A – north of 3469 Innes Road
	benzene, toluene, ethylbenzene, xylenes (BTEX)	Trip Blank	Prepared by Laboratory
	DUP 1	Blind Duplicate	





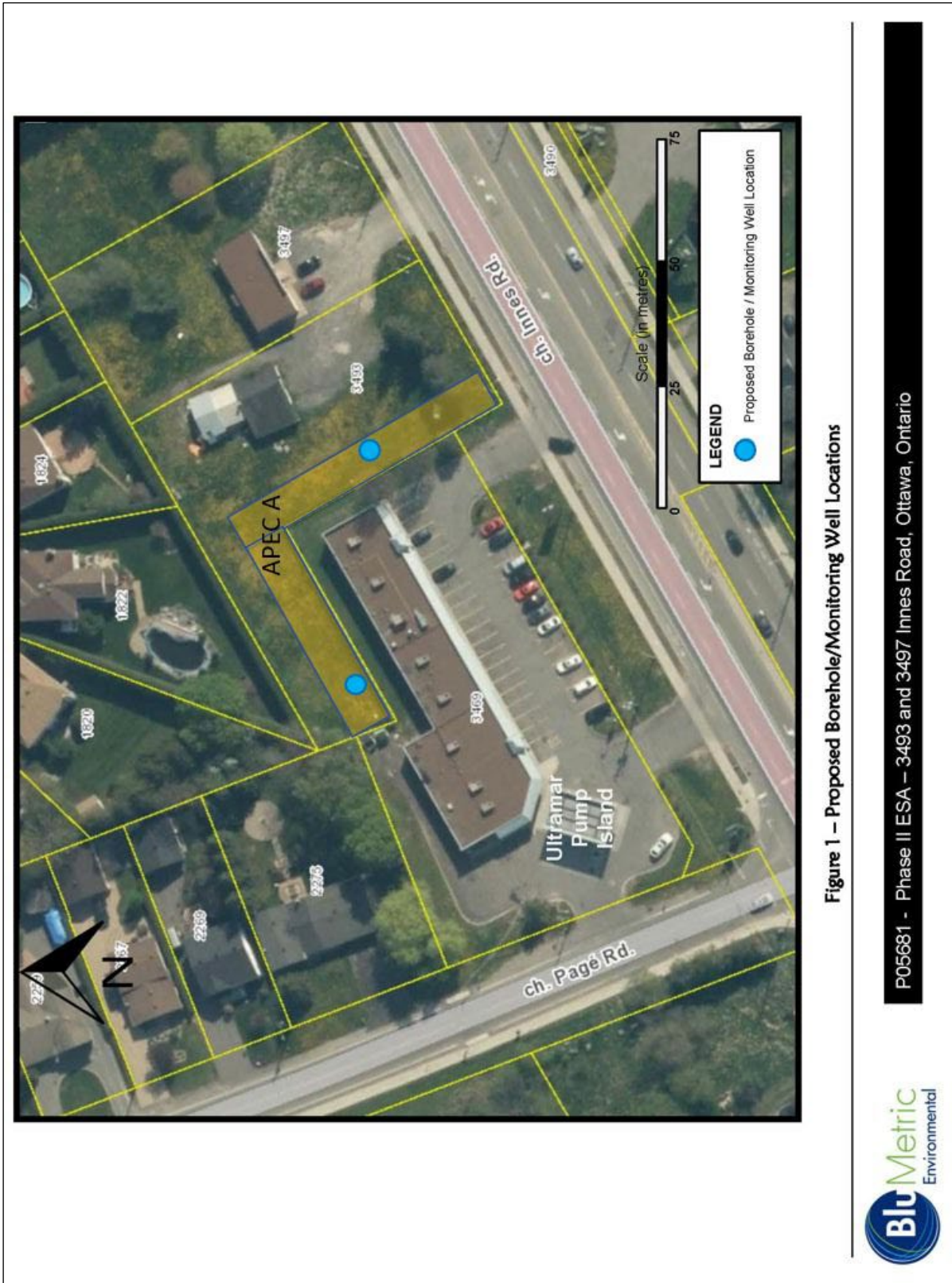


Figure 1 – Proposed Borehole/Monitoring Well Locations

P05681 - Phase II ESA – 3493 and 3497 Innes Road, Ottawa, Ontario



## 10.2 FINALIZED FIELD LOGS

The following borehole logs are included in this section:

- MW1 and MW2 constructed/installed under the supervision of BluMetric Environmental Inc. in June 2020.

The following parameter stabilization field logs for groundwater are included in this section:

- MW1 and MW2 for November 18, 2022.





# BOREHOLE ID: MW1

**Project No.:** 230028  
**Client:** Gestion FRAMI  
**Report:** Phase Two ESA  
**Site Address:** 3493,3497 and 3499  
 Innes Rd. Ottawa, ON

**Elevation Ground:** 100.02 m  
**TOP:** 99.92 m  
**MOECC Well Tag:** A296206  
**UTM 18 (Zone T):** 5032784 N  
 458840 E

SUBSURFACE PROFILE				SAMPLE						WELL COMPLETION					
Depth (m)	Symbol	Description	Depth (m) / Elev. (m a.s.l.)	Sample ID	Type	Blow Counts	Recovery (%)	Lab Analysis	Headspace Vapour Level CGD (ppm)				Construction	Notes	
									10	100	1000	10000			
0		Ground Surface	0.00												
0.00		<b>Organics</b>	100.02												
0.30		<b>Silt</b> Damp, brown silt with sand, some clay, trace angular gravel	99.72	MW1 S1	■		71%	PHCs and BTEX	0.0						flushmount, jplug
1.14		<b>Clay</b> Damp, brown sandy clay	98.88												
1.14		<b>Limestone</b> Limestone bedrock encountered at 1.14 m, Hit soft voids in bedrock at: 1.67m, 4.42m, 6.71m	98.88												
2															Cuttings
4															0.6 m thick benseal
4.57															GW = 95.82 m
7.62															3.05 m x 50 mm 10 slot PVC Screen with #3 silica Sand
7.77		End of borehole at 7.77 m	92.25												End cap
8		Well Completion Details: Screened interval from 4.57 m to 7.62 m below surface Elevation at top of pipe (TOP) = 99.92 m													
9		Encountered water at 7.47 m													

BH MW OB LOG V1.0 200413 3493 AND 3497 INNES RD.GPJ WESA TEMPLATE V1.2.GDT 20-7-3

**Drill Date:** 2020 June 19  
**Drilled By:** Strata Drilling Group  
**Drilling Method:** Tri-Cone  
**Hole Diameter:** 0.089 m (OD)  
**Logged By:** LJ  
**Checked By:**

Notes: ■ CONTINUOUS SAMPLE



# BOREHOLE ID: MW2

**Project No.:** 230028  
**Client:** Gestion FRAMI  
**Report:** Phase Two ESA  
**Site Address:** 3493, 3497 and 3499  
 Innes Rd. Ottawa, ON

**Elevation Ground:** 100.72 m  
**TOP:** 100.62 m  
**MOECC Well Tag:** A296207  
**UTM 18 (Zone T):** 5032791 N  
 458798 E

SUBSURFACE PROFILE				SAMPLE					WELL COMPLETION						
Depth (m)	Symbol	Description	Depth (m) / Elev. (m.a.s.l.)	Sample ID	Type	Blow Counts	Recovery (%)	Lab Analysis	Headspace Vapour Level CGD (ppm)				Construction	Notes	
									10	100	1000	10000			
0		Ground Surface	0.00												
0		<b>Fine sand</b> Damp, brown, fine sand with sily, trace clay and angular gravel.	100.72												flushmount, jplug
0.61		<b>Silt</b> Damp, brown, sandy silt, trace clay	100.11	MW2 S1	CONTINUOUS SAMPLE		76%	PHCs and BTEX	20.0						
0.86		<b>Limestone</b> Limestone bedrock encountered at 0.86 m, Hit soft voids in bedrock at: 1.83m, 5.5m	99.86												
1															
2															Cuttings
3															
4															0.6 m thick benseal
5															
6															GW = 95.49 m
7															3.05 m x 50 mm 10 slot PVC Screen with #3 silica Sand
7.62		End of borehole at 7.62 m	93.10												End cap
8		Well Completion Details: Screened interval from 4.57 m to 7.62 m below surface Elevation at top of pipe (TOP) = 100.62 m													
9															

BH MW OB LOG V1.0 200413 3493 AND 3497 INNES RD.GPJ WESA TEMPLATE V1.2.GDT 20-7-3

**Drill Date:** 2020 June 19  
**Drilled By:** Strata Drilling Group  
**Drilling Method:** Tri-Cone  
**Hole Diameter:** 0.089 m (OD)  
**Logged By:** LJ  
**Checked By:**

Notes:  CONTINUOUS SAMPLE

### 10.3 PHOTO LOG

The following provides photographs of the various investigation locations.





Drill Setting Up at MW1 – June 19, 2020



Looking West at MW1 – June 19, 2020



Drilling at MW2 – June 19, 2020



Looking West at MW2– June 19, 2020

#### 10.4 CERTIFICATES OF ANALYSES

The following laboratory reports from Eurofins are provided at the end of this appendix:

- Certificate of Analysis for Paracel Report #: 2025589. Report dated June 25, 2020, which contains the results for BTEX and PHC (F1 to F4) analysis for 2 soil samples collected on June 19, 2020; and,
- Certificate of Analysis for Paracel Report #: 2026423. Report dated July 2, 2020, which contains the results for BTEX and PHC (F1 to F4) analysis for 2 groundwater samples collected on June 25, 2020; and
- Certificate of Analysis for Eurofins Report #: 1990201. Report dated November 25, 2022, which contains the results for BTEX and PHC (F1 to F4) analysis for 3 groundwater samples and 1 Trip Blank collected on November 18, 2022.



## Certificate of Analysis

**BluMetric Environmental Inc. (Carp)**

P.O. Box 430, 3108 Carp Rd.  
Carp, ON K0A 1L0  
Attn: Rob Hillier

Client PO: 200413  
Project: 200413-Innes Rd  
Custody: 125383

Report Date: 25-Jun-2020  
Order Date: 19-Jun-2020

**Order #: 2025589**

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

Paracel ID	Client ID
2025589-01	MW1 S1
2025589-02	MW2 S1

Approved By:



Dale Robertson, BSc  
Laboratory Director



Certificate of Analysis

Report Date: 25-Jun-2020

Client: BluMetric Environmental Inc. (Carp)

Order Date: 19-Jun-2020

Client PO: 200413

Project Description: 200413-Innes Rd

### Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
BTEX by P&T GC-MS	EPA 8260 - P&T GC-MS	19-Jun-20	21-Jun-20
PHC F1	CWS Tier 1 - P&T GC-FID	19-Jun-20	21-Jun-20
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	19-Jun-20	23-Jun-20
Solids, %	Gravimetric, calculation	24-Jun-20	24-Jun-20

Certificate of Analysis

Report Date: 25-Jun-2020

Client: BluMetric Environmental Inc. (Carp)

Order Date: 19-Jun-2020

Client PO: 200413

Project Description: 200413-Innes Rd

<b>Client ID:</b>	MW1 S1	MW2 S1	-	-
<b>Sample Date:</b>	19-Jun-20 08:50	19-Jun-20 12:45	-	-
<b>Sample ID:</b>	2025589-01	2025589-02	-	-
<b>MDL/Units</b>	Soil	Soil	-	-

**Physical Characteristics**

% Solids	0.1 % by Wt.	76.4	81.5	-	-
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**Volatiles**

Benzene	0.02 ug/g dry	<0.02	<0.02	-	-
Ethylbenzene	0.05 ug/g dry	<0.05	<0.05	-	-
Toluene	0.05 ug/g dry	<0.05	<0.05	-	-
m,p-Xylenes	0.05 ug/g dry	<0.05	<0.05	-	-
o-Xylene	0.05 ug/g dry	<0.05	<0.05	-	-
Xylenes, total	0.05 ug/g dry	<0.05	<0.05	-	-
Toluene-d8	Surrogate	117%	120%	-	-

**Hydrocarbons**

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

Certificate of Analysis

Report Date: 25-Jun-2020

Client: **BluMetric Environmental Inc. (Carp)**

Order Date: 19-Jun-2020

Client PO: 200413

Project Description: 200413-Innes Rd

**Method Quality Control: Blank**

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>Hydrocarbons</b>									
F1 PHCs (C6-C10)	ND	7	ug/g						
F2 PHCs (C10-C16)	ND	4	ug/g						
F3 PHCs (C16-C34)	ND	8	ug/g						
F4 PHCs (C34-C50)	ND	6	ug/g						
<b>Volatiles</b>									
Benzene	ND	0.02	ug/g						
Ethylbenzene	ND	0.05	ug/g						
Toluene	ND	0.05	ug/g						
m,p-Xylenes	ND	0.05	ug/g						
o-Xylene	ND	0.05	ug/g						
Xylenes, total	ND	0.05	ug/g						
Surrogate: Toluene-d8	3.54		ug/g		111	50-140			

Certificate of Analysis

Report Date: 25-Jun-2020

Client: BluMetric Environmental Inc. (Carp)

Order Date: 19-Jun-2020

Client PO: 200413

Project Description: 200413-Innes Rd

**Method Quality Control: Duplicate**

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>Hydrocarbons</b>									
F1 PHCs (C6-C10)	ND	7	ug/g dry	ND			NC	40	
F2 PHCs (C10-C16)	ND	4	ug/g dry	ND			NC	30	
F3 PHCs (C16-C34)	ND	8	ug/g dry	ND			NC	30	
F4 PHCs (C34-C50)	ND	6	ug/g dry	ND			NC	30	
<b>Physical Characteristics</b>									
% Solids	65.2	0.1	% by Wt.	62.1			4.8	25	
<b>Volatiles</b>									
Benzene	ND	0.02	ug/g dry	ND			NC	50	
Ethylbenzene	ND	0.05	ug/g dry	ND			NC	50	
Toluene	ND	0.05	ug/g dry	ND			NC	50	
m,p-Xylenes	ND	0.05	ug/g dry	ND			NC	50	
o-Xylene	ND	0.05	ug/g dry	ND			NC	50	
Surrogate: Toluene-d8	3.79		ug/g dry		110	50-140			

Certificate of Analysis

Report Date: 25-Jun-2020

Client: BluMetric Environmental Inc. (Carp)

Order Date: 19-Jun-2020

Client PO: 200413

Project Description: 200413-Innes Rd

**Method Quality Control: Spike**

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>Hydrocarbons</b>									
F1 PHCs (C6-C10)	181	7	ug/g	ND	90.3	80-120			
F2 PHCs (C10-C16)	119	4	ug/g	ND	138	60-140			
F3 PHCs (C16-C34)	272	8	ug/g	ND	129	60-140			
F4 PHCs (C34-C50)	142	6	ug/g	ND	106	60-140			
<b>Volatiles</b>									
Benzene	2.75	0.02	ug/g	ND	68.9	60-130			
Ethylbenzene	3.83	0.05	ug/g	ND	95.7	60-130			
Toluene	3.71	0.05	ug/g	ND	92.8	60-130			
m,p-Xylenes	7.30	0.05	ug/g	ND	91.2	60-130			
o-Xylene	3.78	0.05	ug/g	ND	94.5	60-130			
Surrogate: Toluene-d8	2.79		ug/g		87.3	50-140			

Certificate of Analysis

Report Date: 25-Jun-2020

Client: BluMetric Environmental Inc. (Carp)

Order Date: 19-Jun-2020

Client PO: 200413

Project Description: 200413-Innes Rd

**Qualifier Notes:**

None

**Sample Data Revisions**

None

**Work Order Revisions / Comments:**

None

**Other Report Notes:**

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

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

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

Soil results are reported on a dry weight basis when the units are denoted with 'dry'.

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

*CCME PHC additional information:*

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



## Certificate of Analysis

**BluMetric Environmental Inc. (Carp)**

P.O. Box 430, 3108 Carp Rd.  
Carp, ON K0A 1L0  
Attn: Rob Hillier

Client PO: 200413  
Project: Innes Rd  
Custody: 54525

Report Date: 2-Jul-2020  
Order Date: 25-Jun-2020

**Order #: 2026423**

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

Paracel ID	Client ID
2026423-01	MW1
2026423-02	MW2

Approved By:



Dale Robertson, BSc  
Laboratory Director



Certificate of Analysis

Report Date: 02-Jul-2020

Client: **BluMetric Environmental Inc. (Carp)**

Order Date: 25-Jun-2020

Client PO: 200413

Project Description: **Innes Rd**

**Analysis Summary Table**

Analysis	Method Reference/Description	Extraction Date	Analysis Date
BTEX by P&T GC-MS	EPA 624 - P&T GC-MS	29-Jun-20	29-Jun-20
PHC F1	CWS Tier 1 - P&T GC-FID	26-Jun-20	29-Jun-20
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	29-Jun-20	30-Jun-20

Certificate of Analysis

Report Date: 02-Jul-2020

Client: BluMetric Environmental Inc. (Carp)

Order Date: 25-Jun-2020

Client PO: 200413

Project Description: Innes Rd

<b>Client ID:</b>	MW1	MW2	-	-
<b>Sample Date:</b>	25-Jun-20 14:35	25-Jun-20 14:00	-	-
<b>Sample ID:</b>	2026423-01	2026423-02	-	-
<b>MDL/Units</b>	Water	Water	-	-

**Volatiles**

Benzene	0.5 ug/L	<0.5	<0.5	-	-
Ethylbenzene	0.5 ug/L	<0.5	<0.5	-	-
Toluene	0.5 ug/L	<0.5	<0.5	-	-
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	-	-
o-Xylene	0.5 ug/L	<0.5	<0.5	-	-
Xylenes, total	0.5 ug/L	<0.5	<0.5	-	-
Toluene-d8	Surrogate	99.0%	100%	-	-

**Hydrocarbons**

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

Certificate of Analysis

Report Date: 02-Jul-2020

Client: BluMetric Environmental Inc. (Carp)

Order Date: 25-Jun-2020

Client PO: 200413

Project Description: Innes Rd

**Method Quality Control: Blank**

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>Hydrocarbons</b>									
F1 PHCs (C6-C10)	ND	25	ug/L						
F2 PHCs (C10-C16)	ND	100	ug/L						
F3 PHCs (C16-C34)	ND	100	ug/L						
F4 PHCs (C34-C50)	ND	100	ug/L						
<b>Volatiles</b>									
Benzene	ND	0.5	ug/L						
Ethylbenzene	ND	0.5	ug/L						
Toluene	ND	0.5	ug/L						
m,p-Xylenes	ND	0.5	ug/L						
o-Xylene	ND	0.5	ug/L						
Xylenes, total	ND	0.5	ug/L						
Surrogate: Toluene-d8	81.6		ug/L		102	50-140			

Certificate of Analysis

Report Date: 02-Jul-2020

Client: BluMetric Environmental Inc. (Carp)

Order Date: 25-Jun-2020

Client PO: 200413

Project Description: Innes Rd

**Method Quality Control: Duplicate**

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>Hydrocarbons</b>									
F1 PHCs (C6-C10)	ND	25	ug/L	ND			NC	30	
<b>Volatiles</b>									
Benzene	ND	0.5	ug/L	ND			NC	30	
Ethylbenzene	ND	0.5	ug/L	ND			NC	30	
Toluene	ND	0.5	ug/L	ND			NC	30	
m,p-Xylenes	ND	0.5	ug/L	ND			NC	30	
o-Xylene	ND	0.5	ug/L	ND			NC	30	
Surrogate: Toluene-d8	80.2		ug/L		100	50-140			

Certificate of Analysis

Report Date: 02-Jul-2020

Client: BluMetric Environmental Inc. (Carp)

Order Date: 25-Jun-2020

Client PO: 200413

Project Description: Innes Rd

**Method Quality Control: Spike**

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
<b>Hydrocarbons</b>									
F1 PHCs (C6-C10)	1760	25	ug/L	ND	87.8	68-117			
F2 PHCs (C10-C16)	2030	100	ug/L	ND	127	60-140			
F3 PHCs (C16-C34)	4550	100	ug/L	ND	116	60-140			
F4 PHCs (C34-C50)	2590	100	ug/L	ND	105	60-140			
<b>Volatiles</b>									
Benzene	29.8	0.5	ug/L	ND	74.4	60-130			
Ethylbenzene	35.0	0.5	ug/L	ND	87.6	60-130			
Toluene	31.6	0.5	ug/L	ND	79.1	60-130			
m,p-Xylenes	69.9	0.5	ug/L	ND	87.4	60-130			
o-Xylene	36.0	0.5	ug/L	ND	90.0	60-130			
Surrogate: Toluene-d8	81.3		ug/L		102	50-140			

Certificate of Analysis

Report Date: 02-Jul-2020

Client: BluMetric Environmental Inc. (Carp)

Order Date: 25-Jun-2020

Client PO: 200413

Project Description: Innes Rd

**Qualifier Notes:**

None

**Sample Data Revisions**

None

**Work Order Revisions / Comments:**

None

**Other Report Notes:**

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

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

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

***CCME PHC additional information:***

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



Laurent Blvd.  
ario K1G 4J8  
-1947  
paracellabs.com  
llabs.com

Parcel Order Number  
(Lab Use Only)

2026423

Chain Of Custody  
(Lab Use Only)

Nº 54525

Client Name: *Blumetric Environmental* Project Ref: *Imes Rd.* Page *1* of *1*

Contact Name: *Rob Hillier* Quote #:

Address: *3108 Capp Rd. Capp, ON.  
K0A 1L0* PO #: *200413* Turnaround Time  
 1 day  3 day  
 2 day  Regular

Telephone: *613-296-2091* E-mail: *rhillier@blumetric.ca* Date Required: \_\_\_\_\_

Regulation 153/04		Other Regulation		Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)		Required Analysis																									
<input type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Med/Fine	<input type="checkbox"/> REG 558	<input type="checkbox"/> PWQO	Matrix	Air Volume	# of Containers	Sample Taken		PHC FI-FM + BTEX																					
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> CCME	<input type="checkbox"/> MISA																	Date	Time									
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> SU - Sani	<input type="checkbox"/> SU - Storm	Mun: _____				<input type="checkbox"/> Other: _____																							
Table _____																															
For RSC: <input type="checkbox"/> Yes <input type="checkbox"/> No																															
Sample ID/Location Name																															
1	<i>MW1</i>	<i>GW</i>	<i>3</i>	<i>25 Jun 2020</i>	<i>14:35</i>	<i>X</i>																									
2	<i>MW2</i>	<i>GW</i>	<i>3</i>	<i>25 Jun 2020</i>	<i>14:00</i>	<i>X</i>																									
3																															
4																															
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6																															
7																															
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9																															
10																															

Comments: \_\_\_\_\_ Method of Delivery: *Drop Box*

Relinquished By (Sign): *[Signature]* Received By Driver/Depot: \_\_\_\_\_ Received at Lab: *Simepam Adhmi* Verified By: *[Signature]*

Relinquished By (Print): *LAKE SIMPSON* Date/Time: \_\_\_\_\_ Date/Time: *JUN 25 2020 04:51* Date/Time: *2020-06-25 16:30*

Date/Time: *25 Jun 2020 16:30* Temperature: \_\_\_\_\_ °C Temperature: *14.4* °C pH Verified:  By: \_\_\_\_\_

Client: Blumetric Environmental Inc. - Ottawa  
1682 Woodward Drive  
Carp, ON  
K2C 3R8  
Attention: Mr. Rob Hillier  
Invoice to: Blumetric Environmental Inc.  
PO#:

Report Number: 1990201  
Date Submitted: 2022-11-18  
Date Reported: 2022-11-25  
Project: 230028  
COC #: 903021  
Temperature (C): 3  
Custody Seal:

Page 1 of 7

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**Dear Rob Hillier:**

**Please find attached the analytical results for your samples. If you have any questions regarding this report, please do not hesitate to call (613-727-5692).**

Report Comments:

---

Emma-Dawn Ferguson, Chemist

All analysis is completed at Eurofins Environment Testing Canada Inc. (Ottawa, Ontario) unless otherwise stated

Eurofins Environment Testing Canada Inc. is accredited by CALA, Canadian Association for Laboratory Accreditation to ISO/IEC 17025 for tests which appear on the scope of accreditation. The scope is available at <https://directory.cala.ca/>

Please note: Field data, where presented on the report, has been provided by the client and is presented for informational purposes only. Guideline or regulatory limits listed on this report are provided for ease of use (informational purposes) only. Eurofins recommends consulting the official guideline or regulation as required. Unless otherwise stated, measurement uncertainty is not taken into account when determining guideline or regulatory exceedances.



**Environment Testing**

Client: Blumetric Environmental Inc. - Ottawa  
1682 Woodward Drive  
Carp, ON  
K2C 3R8  
Attention: Mr. Rob Hillier  
PO#:  
Invoice to: Blumetric Environmental Inc.

Report Number: 1990201  
Date Submitted: 2022-11-18  
Date Reported: 2022-11-25  
Project: 230028  
COC #: 903021

***Exceedence Summary***

Sample I.D.	Analyte	Result	Units	Criteria

Results relate only to the parameters tested on the samples submitted.  
Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

**Environment Testing**

Client: Blumetric Environmental Inc. - Ottawa  
 1682 Woodward Drive  
 Carp, ON  
 K2C 3R8  
 Attention: Mr. Rob Hillier  
 PO#:  
 Invoice to: Blumetric Environmental Inc.

Report Number: 1990201  
 Date Submitted: 2022-11-18  
 Date Reported: 2022-11-25  
 Project: 230028  
 COC #: 903021

**Guideline = O.Reg 153-T1-Groundwater**

**Hydrocarbons**

Analyte	Batch No	MRL	Units	Guideline	Lab I.D.	Sample Matrix	Sample Type	Sample Date	Sampling Time	Sample I.D.
					1663570 GW153	1663571 GW153	1663572 GW153	1663573 GW153	2022-11-18 12:36 MW1	2022-11-18 11:11 MW2
PHC's F1	433917	20	ug/L	STD 420	<20	<20	<20	<20		
PHC's F1-BTEX	433921	20	ug/L		<20	<20	<20	<20		
PHC's F2	433787	20	ug/L	STD 150	<20					
	433788	20	ug/L	STD 150		<20	<20			
PHC's F3	433787	50	ug/L	STD 500	<50					
	433788	50	ug/L	STD 500		<50	<50			
PHC's F4	433787	50	ug/L	STD 500	<50					
	433788	50	ug/L	STD 500		<50	<50			

**Volatiles**

Analyte	Batch No	MRL	Units	Guideline	Lab I.D.	Sample Matrix	Sample Type	Sample Date	Sampling Time	Sample I.D.
					1663570 GW153	1663571 GW153	1663572 GW153	1663573 GW153	2022-11-18 12:36 MW1	2022-11-18 11:11 MW2
Benzene	433917	0.5	ug/L	STD 0.5	<0.5	<0.5	<0.5	<0.5		
Ethylbenzene	433917	0.5	ug/L	STD 0.5	<0.5	<0.5	<0.5	<0.5		
Toluene	433917	0.4	ug/L	STD 0.8	<0.4	<0.4	<0.4	<0.4		
Xylene Mixture	433920	0.5	ug/L	STD 72	<0.5	<0.5	<0.5	<0.5		
Xylene, m/p-	433917	0.4	ug/L		<0.4	<0.4	<0.4	<0.4		
Xylene, o-	433917	0.4	ug/L		<0.4	<0.4	<0.4	<0.4		

Results relate only to the parameters tested on the samples submitted.  
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

**Environment Testing**

Client: Blumetric Environmental Inc. - Ottawa  
 1682 Woodward Drive  
 Carp, ON  
 K2C 3R8  
 Attention: Mr. Rob Hillier  
 PO#:  
 Invoice to: Blumetric Environmental Inc.

Report Number: 1990201  
 Date Submitted: 2022-11-18  
 Date Reported: 2022-11-25  
 Project: 230028  
 COC #: 903021

**Guideline = O.Reg 153-T1-Groundwater**

**PHC Surrogate**

Lab I.D.  
 Sample Matrix  
 Sample Type  
 Sample Date  
 Sampling Time  
 Sample I.D.

1663570 GW153	1663571 GW153	1663572 GW153
2022-11-18 12:36 MW1	2022-11-18 11:11 MW2	2022-11-18  DUP 1

**Analyte                      Batch No                      MRL                      Units                      Guideline**

Alpha-androstrane	433787	0	%		80		
	433788	0	%			90	92

**VOCs Surrogates**

Lab I.D.  
 Sample Matrix  
 Sample Type  
 Sample Date  
 Sampling Time  
 Sample I.D.

1663570 GW153	1663571 GW153	1663572 GW153	1663573 GW153
2022-11-18 12:36 MW1	2022-11-18 11:11 MW2	2022-11-18  DUP 1	2022-11-18  Trip Blank

**Analyte                      Batch No                      MRL                      Units                      Guideline**

Toluene-d8	433917	0	%		105	108	106	100
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Results relate only to the parameters tested on the samples submitted.  
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

Client: Blumetric Environmental Inc. - Ottawa  
 1682 Woodward Drive  
 Carp, ON  
 K2C 3R8  
 Attention: Mr. Rob Hillier  
 PO#:  
 Invoice to: Blumetric Environmental Inc.

Report Number: 1990201  
 Date Submitted: 2022-11-18  
 Date Reported: 2022-11-25  
 Project: 230028  
 COC #: 903021

**Quality Assurance Summary**

Batch No	Analyte	Blank	QC % Rec	QC Limits	Spike % Rec	Spike Limits	Dup % RPD	Duplicate Limits
433787	PHC's F2	<20 ug/L	112	60-140		60-140		0-30
433787	PHC's F3	<50 ug/L	112	60-140		60-140		0-30
433787	PHC's F4	<50 ug/L	112	60-140		60-140		0-30
433788	PHC's F2	<20 ug/L	104	60-140		60-140		0-30
433788	PHC's F3	<50 ug/L	104	60-140		60-140		0-30
433788	PHC's F4	<50 ug/L	104	60-140		60-140		0-30
433917	Benzene	<0.5 ug/L	94	60-130	87	50-140	0	0-30
433917	Ethylbenzene	<0.5 ug/L	90	60-130	83	50-140	0	0-30
433917	PHC's F1	<20 ug/L	89	60-140	101	60-140	0	0-30
433917	Xylene, m/p-	<0.4 ug/L	97	60-130	89	50-140	0	0-30
433917	Xylene, o-	<0.4 ug/L	92	60-130	85	50-140	0	0-30
433917	Toluene	<0.4 ug/L	88	60-130	81	50-140	0	0-30
433920	Xylene Mixture							
433921	PHC's F1-BTEX							

Results relate only to the parameters tested on the samples submitted.  
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

**Environment Testing**

Client: Blumetric Environmental Inc. - Ottawa  
 1682 Woodward Drive  
 Carp, ON  
 K2C 3R8  
 Attention: Mr. Rob Hillier  
 PO#:  
 Invoice to: Blumetric Environmental Inc.

Report Number: 1990201  
 Date Submitted: 2022-11-18  
 Date Reported: 2022-11-25  
 Project: 230028  
 COC #: 903021

***Test Summary***

Batch No	Analyte	Instrument	Preparation Date	Analysis Date	Analyst	Method
433787	PHC's F2	GC/FID	2022-11-24	2022-11-24	SS	CCME O.Reg 153/04
433787	PHC's F3	GC/FID	2022-11-24	2022-11-24	SS	CCME O.Reg 153/04
433787	PHC's F4	GC/FID	2022-11-24	2022-11-24	SS	CCME O.Reg 153/04
433788	PHC's F2	GC/FID	2022-11-24	2022-11-24	SS	CCME O.Reg 153/04
433788	PHC's F3	GC/FID	2022-11-24	2022-11-24	SS	CCME O.Reg 153/04
433788	PHC's F4	GC/FID	2022-11-24	2022-11-24	SS	CCME O.Reg 153/04
433917	Benzene	GC-MS	2022-11-24	2022-11-24	PJ	EPA 8260
433917	Ethylbenzene	GC-MS	2022-11-24	2022-11-24	PJ	EPA 8260
433917	PHC's F1	GC/FID	2022-11-25	2022-11-25	PJ	CCME O.Reg 153/04
433917	Xylene, m/p-	GC-MS	2022-11-24	2022-11-24	PJ	EPA 8260
433917	Xylene, o-	GC-MS	2022-11-24	2022-11-24	PJ	EPA 8260
433917	Toluene	GC-MS	2022-11-24	2022-11-24	PJ	EPA 8260
433920	Xylene Mixture	GC-MS	2022-11-25	2022-11-25	PJ	EPA 8260
433921	PHC's F1-BTEX	GC/FID	2022-11-25	2022-11-25	PJ	CCME O.Reg 153/04

Results relate only to the parameters tested on the samples submitted.  
 Methods references and/or additional QA/QC information available on request.

MRL = Method Reporting Limit, AO = Aesthetic Objective, OG = Operational Guideline, MAC = Maximum Acceptable Concentration, IMAC = Interim Maximum Acceptable Concentration, STD = Standard, PWQO = Provincial Water Quality Guideline, IPWQO = Interim Provincial Water Quality Objective, TDR = Typical Desired Range

**Environment Testing**

Client: Blumetric Environmental Inc. - Ottawa  
1682 Woodward Drive  
Carp, ON  
K2C 3R8  
Attention: Mr. Rob Hillier  
PO#:  
Invoice to: Blumetric Environmental Inc.

Report Number: 1990201  
Date Submitted: 2022-11-18  
Date Reported: 2022-11-25  
Project: 230028  
COC #: 903021

**CWS for Petroleum Hydrocarbons in Soil - Tier 1****Notes:**

1. The laboratory method complies with CCME Tier 1 reference method for PHC in soil. It is validated for laboratory use.
2. Where the F1 fraction (C6 to C10) and BTEX are both measured, F1-BTEX is reported.
3. Where the F2 fraction (C10 to C16) and naphthalene are both measured, F2-naphthalene is reported.
4. Where the F3 fraction (C16 to C34) and PAHs\* are both measured, F3-PAH is reported.
5. F4G is analyzed if the chromatogram does not descend to baseline before C50. Where F4 (C34 to C50) and F4G are both reported, the higher result is compared to the standard.
6. Unless otherwise stated in the sample comments, the following criteria have been met where applicable:
  - nC6 and nC10 response factors within 30% of response factor for toluene;
  - nC10, nC16, and nC34 response factors within 10% of each other;
  - C50 response factors within 70% of nC10 + nC16 + nC34 average; and,
  - Linearity is within 15%.
7. Unless otherwise stated in the sample comments, sampling requirements and analytical holding times have been met.
8. Gravimetric heavy hydrocarbons (F4G) cannot be added to the C6 and C50 hydrocarbons.
9. \*PAHs = phenanthrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-c,d)pyrene and pyrene.

CLIENT INFORMATION

INVOICE INFORMATION (SAME AS CLIENT INFORMATION: YES  NO )

Company: BluMetric Environmental  
 Contact: Rob Hillier  
 Address: 1682 Woodward Dr. Ottawa, ON  
 Telephone: Cell:  
 Email: #1: rhillier@blumetric.ca  
 Email: #2:  
 Project: 230028 Quote #: 190078

Company: Fax:  
 Contact: Email: #1: rph@blumetric.ca  
 Address: Email: #2:  
 Telephone: PO #:

TURN-AROUND TIME (Business Days)

1 Day\* (100%)  2 Day\*\* (50%)  3-5 Days (25%)  5-7 Days (Standard)

Please contact Lab in advance to determine rush availability.  
 \*For results reported after rush due date, surcharges will apply: before 12:00 - 100%, after 12:00 - 50%.  
 \*\*For results reported after rush due date, surcharges will apply: before 12:00 - 50%, after 12:00 - 25%.

REGULATION/GUIDELINE REQUIRED

- Sanitary Sewer, City: \_\_\_\_\_
- Storm Sewer, City: \_\_\_\_\_
- ODWSOG (Use DW CoC if analyzing drinking water)
- PWQO
- O.Reg 347
- Other: \_\_\_\_\_

O. Reg 153  
 The sample results from this submission will form part of a formal Record of Site Condition (RSC) under O.Reg. 153/04. Analysis of full parameter list only  
 Yes  No   
 Table # \_\_\_\_\_ Coarse / Fine, Surface / subsurface  
 Type: Com-Ind / Res-Park / Agri / GW / All Other / Sediment  
 O. Reg 406 Excess Soils  
 Table # \_\_\_\_\_ Full depth/Strat/Ceiling/mSPLP Leachate  
 Type: Com-Ind / Res-Park / Agri / All Other  
 Category: Surface / Subsurface

The optimal temperature conditions during transport should be less than 10°C. Sample(s) cannot be frozen, unless otherwise indicated or agreed upon with the Laboratory. Note that this COC is not to be used for drinking water samples. The COC must be complete upon submission of the samples, there will be a \$25 surcharge if required information is missing (required fields are shaded in grey).

Sample Details

Sample ID	Date/Time Collected	Sample Matrix	# of Containers	O.Reg.153 parameters								PHCs F1-F4	BTEX	RNH (Lab Use Only)
				Field Filtered -->	PHC F1 - F4	BTEX	VOCs	PAHs	PCBs	Metals + Inorganic	Metals only			
MW1	18 Nov 2022 12:36	GW	3									X	X	1663570 71 72 73
MW2	18 Nov 2022 11:11	GW	3									X	X	
DUP 1	18 Nov 2022	GW	3									X	X	
Trip Blank	18 Nov 2022		2									X	X	

PRINT SIGN DATE/TIME TEMP (°C) COMMENTS: \* 1 Trip blank vial broke

Sampled By: Relinquished By: LAKE JOHNSTON Received By: 18 Nov 2022 4:35 1118122@435 3.3

CUSTODY SEAL:  YES  NO (see packs submit)  Yes  No

## 10.5 LOCATE REPORTS





# USL-1

**UNDERGROUND ● SERVICE LOCATORS INC.**

USL-1 UNDERGROUND SERVICE LOCATORS INC.

100 - 1704 CARLING AVE. - OTTAWA, ON - K2H 1H3

613-226-8750 - WWW.USL-1.COM

## COVER SHEET

DATE: JUNE 11/20

TO: ROBERTT -

RE: 3493 JONES RD.

PAGES (INCLUDING COVER): 18

FROM: MATT MOREAU

613-218-7751 - MATTM@USL-1.COM

IF YOU DID NOT RECEIVE ALL OF THE PAGES FOR THIS REPORT, OR IF ANY PART OF IT IS UNCLEAR, PLEASE CONTACT ME. THANK YOU AND HAVE A GREAT DAY!



UNDERGROUND SERVICE LOCATORS INC.

DATE: JUNE 11/20

CLIENT: BLUMESTIC JOB LOCATION: 3493 INNES RD. WORK TYPE: BHS

### PUBLIC UTILITY LOCATE REPORT

	UTILITY	LOCATED BY	MARKED / CLEAR
①	BELL, GAS, HYDRO	PROMARK	CLEAR -
②	WATER, SEWER	CITY/TOWNSHIP	CLEAR -
③	STREET LIGHTS	BLACK & MAC	CLEAR -
④	TRAFFIC	CITY	CLEAR -

\*UTILITIES MARKED AROUND STRIP MALL & NEAR INNES. NOT IN CONFLICT W/ BHS

### PRIVATE UTILITY LOCATE REPORT

UTILITY	MARKED / CLEAR or N/A	UTILITY	MARKED / CLEAR or N/A
HYDRO	CLEAR	WATER	CLEAR
ELECTRICAL	↓	STORM SEWER	↓
COMMUNICATIONS		SANITARY SEWER	
F.O.C.		STEAM	N/A
GAS		TUNNELS	N/A

AS-BUILT OR UTILITY PLANS PROVIDED? YES / (NO) WORK AREA MARKED? (YES) / NO

## Locates

**From:** solutions@on1call.com  
**Sent:** Wednesday, June 3, 2020 4:20 AM  
**To:** Locates  
**Subject:** Request 2020234105



# LOCATE REQUEST CONFIRMATION

**TICKET #:**  
2020234105

**REQUEST PRIORITY:**  
STANDARD

**REQUEST TYPE:** REGULAR

**WORK TO BEGIN DATE:**  
06/10/2020

**Update of Ticket #**      **Project #**

**Transmit date:** 06/03/2020  
04:19:24 AM

### REQUESTOR'S CONTACT INFORMATION

<b>Contractor ID#:</b> 202	<b>Company Phone #:</b> (613) 226-8750
<b>Contact Name:</b> Sara Staniszewski	<b>Cell #:</b>
<b>Alternate Contact Name:</b> JACQUES DESJARDINS	<b>Fax #:</b> (613) 226-8677
<b>Company name:</b> U S L	<b>Email:</b> locates@usl-1.com
<b>Address:</b> 1704 Carling	<b>Alternate Contact #:</b>

### DIG INFORMATION

<b>Region/County:</b> OTTAWA	<b>Type of work:</b> BORE HOLES	<b>Mark &amp; Fax:</b> NO
<b>Community:</b>	<b>Max Depth:</b> 100.00 FT	<b>Area is not marked:</b> NO
<b>City:</b> OTTAWA	<b>Machine Dig:</b> YES	<b>Area is marked:</b> YES
<b>Address:</b> 3493, INNES RD	<b>Hand Dig:</b> NO	<b>Site Meet Req.:</b> NO
<b>Intersecting Street 1:</b> LAMARCHE AVE	<b>Directional Drilling:</b> NO	<b>Work being done for:</b> Blumetric
<b>Intersecting Street 2:</b> PAGE RD	<b>Public Property:</b> YES	
	<b>Private Property:</b> YES	

### DETAILED DESCRIPTION OF WORK

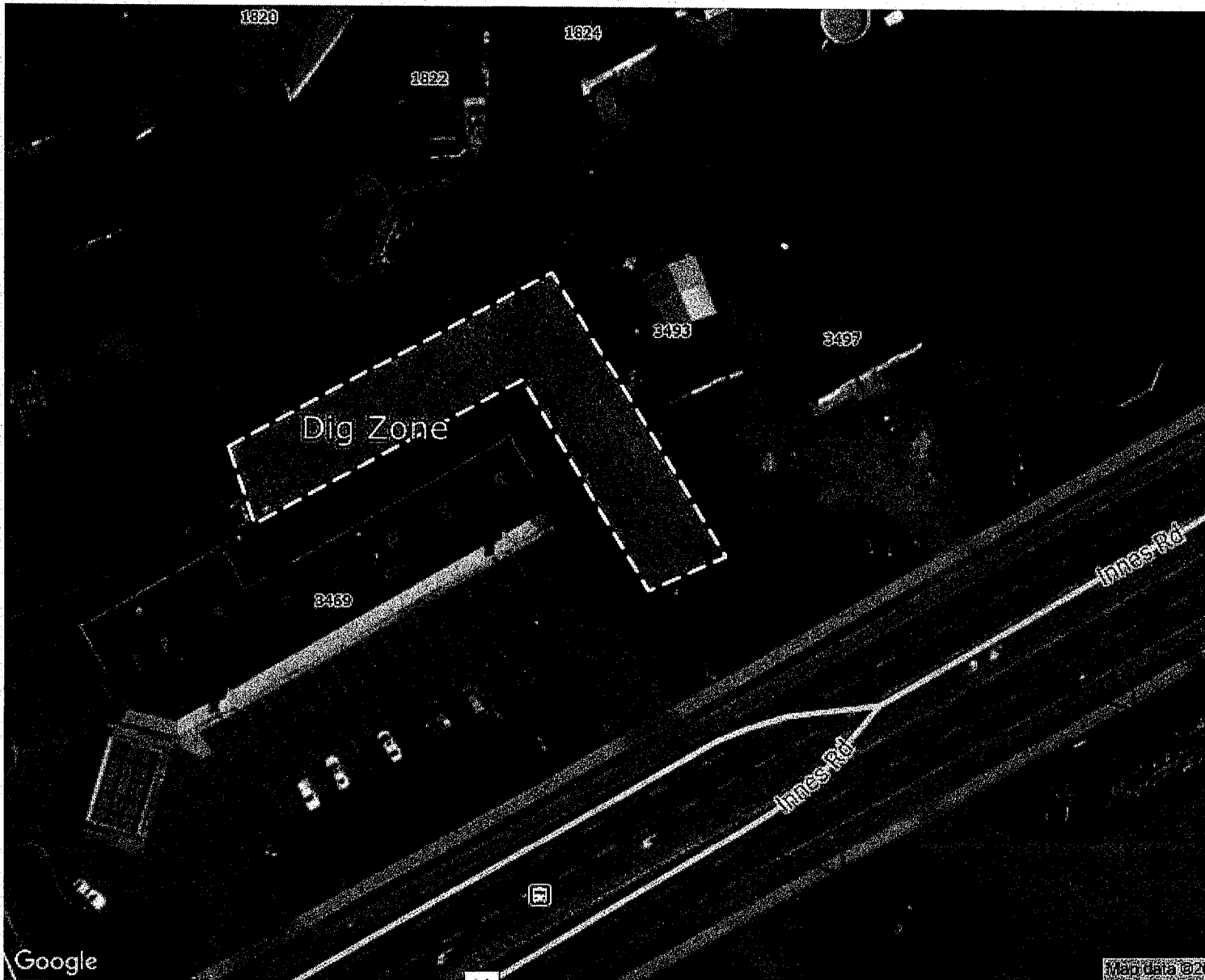
### REMARKS

CORLOT=U Clear from the interior property/ fence corner, to 35m south, 40m west, and to 10m north and east of fence as shown on plan provided. Boreholes marked on site.

**MEMBERS NOTIFIED:** The following owners of underground infrastructure in the area of your excavation site have been notified.

Member name	Station Code	Initial Status
HYDRO OTTAWA (HOT1)	HOT1	Notification sent
PROMARK FOR ENBRIDGE GAS (ENOE01)	ENOE01	Notification sent
PROMARK FOR ENBRIDGE GAS (ENVMOE01)	ENVMOE01	Notification sent
CITY OF OTTAWA WATER/SEWER (OTWAWS01)	OTWAWS01	Notification sent
CITY OF OTTAWA TRAFFIC SIGNALS (OTWATS01)	OTWATS01	Notification sent
BLACK AND MC DONALD FOR CITY OF OTTAWA STREET LIGHTS (OTWASL01)	OTWASL01	Notification sent
PROMARK FOR BELL CANADA (BCOE01)	BCOE01	Notification sent

MAP SELECTION: Map Selection provided by the excavator through Ontario One Call's map tool or through agent interpretation by



## **IMPORTANT INFORMATION: Please read.**

### **Defining "NC" - Non-Compliant**

- Non-compliant members have not met their obligations under section 5 of the Ontario Underground Infrastructure Notification Act. ON1Call has notified these members to ensure they are aware of your excavation. In this circumstance, should the member not respond, the excavator should contact the member directly to obtain their locates or request a status. ON1Call will not be provided with a locate status from the member regarding this ticket and therefore, cannot provide further information at this time. For locate status contact information please refer to our website.

### **You have a valid locate when...**

- You have reviewed your locate request information for accuracy. CONTACT Ontario One Call (ON1Call) IMMEDIATELY if changes are needed and obtain a corrected locate request confirmation.
- You have obtained locates or clearances from all ON1Call members listed in this ticket before beginning your dig.

### **You've met your obligations when...**

- In addition to this locate request, you have DIRECTLY contacted all owners of infrastructure who ARE NOT current members of ON1Call (such as owned buried infrastructure on private property), as well as arranged for contract locates for your private lines on your private property - where applicable. For a list of locate status contacts visit [www.on1call.com](http://www.on1call.com).
- You respect the marks and instructions provided by the locators and dig with care; the marks and locator instructions MUST MATCH.
- You have obtained any necessary permits from the municipality in which you are excavating.

### **What does "Cleared" mean in the "Initial Status" section?**

1. The information that you have provided about your dig will not affect that member's underground infrastructure and they have provided you with a clearance, if anything about your excavation changes, please ensure that you update your ticket immediately.

### **What are the images under "Map Selection":**

1. A drawing created by an excavator directly within Ontario One Call's web ticket tool, this is expected to be an accurate rendition of the dig site, and it is the excavator's responsibility to ensure the location matches the information they provide under the 'Dig Location' section OR;
2. A drawing created by an Ontario One Call agent, this drawing is based on a verbal description by phone of the area by the excavator. Agents may create drawings that are larger than the proposed dig to minimize risk of interpretation. It is the excavator's responsibility to review these map selections for accuracy. Changes can be made by the excavator through the web ticket tool, to learn how visit [www.on1call.com/contractors](http://www.on1call.com/contractors).
3. All drawings dictate which members are notified.



Primary Locate Sheet

UNION GAS EMERGENCY #  
1-877-969-0999

Fax: 613-723-9277

Toll free: 1-800-371-8866

Email:

Request #  
**2020234105**  
NORMAL

Utilities Located <input checked="" type="checkbox"/> Bell <input checked="" type="checkbox"/> Gas <input checked="" type="checkbox"/> Hydro Ottawa <input type="checkbox"/> Hydro One <input type="checkbox"/> Zayo <input type="checkbox"/> Videotron <input type="checkbox"/> Lakefront Utilities <input type="checkbox"/> Elexicon Energy		Revised Excavation Date mm/dd/yyyy	Excavation Date 06/10/2020 08:00:00 mm/dd/yyyy	Status <b>STANDARD</b>
Requested by: SARA STANISZEWSKI	Company: U S L	Phone: (613)-226-8750 ext.	Fax/email: (613)-226-8677 ext.	Homeowner <input type="checkbox"/> Contractor <input checked="" type="checkbox"/> Project <input type="checkbox"/>

Appt Date: mm/dd/yyyy	Received Date: 06/03/2020 mm/dd/yyyy	Locate Address: <b>3493, INNES RD</b>	
		1st Inters.: LAMARCHE AVE	2nd Inters.: PAGE RD

Type of work: BORE HOLES	City: OTTAWA
-----------------------------	-----------------

Caller's Remarks:  
MACH. DIG  
CORLOT=U CLEAR FROM THE INTERIOR PROPERTY/ FENCE CORNER, TO 35M SOUTH, 40M WEST, AND TO 10M NORTH AND EAST OF FENCE AS SHOWN ON PLAN PROVIDED. BOREHOLES MARKED ON SITE.

-75.526605, 45.447495, NB\_SEGMENTS::1, NO\_PLAN::, BCOE01, OTWASL01, OTWATS01, OTWAW501, ENVMOE01, ENOE01, HOT1

Bell Mark   Clear <b>1</b>	Gas Mark   Clear <b>1</b>	Hydro Ottawa Mark   Clear <b>1</b>	Street Lighting Mark   Clear	Lakefront Mark   Clear	Hydro One Mark   Clear	Zayo Mark   Clear	Elexicon Energy Mark   Clear	Videotron Mark   Clear
-------------------------------	------------------------------	---------------------------------------	------------------------------	------------------------	------------------------	-------------------	------------------------------	------------------------

**LOCATED AREA: EXCAVATOR SHALL NOT WORK OUTSIDE THE LOCATED AREA WITHOUT OBTAINING ANOTHER LOCATE.**

Records Reference: _ Map _ Network X # _ Byers <input checked="" type="checkbox"/> Datapak: Field Notes: <input checked="" type="checkbox"/> LAC Multiviewer Other: <b>GL203 6-0010-119</b> DPT Remarks:	_ Third Party Notification _____  <div style="border: 2px solid black; padding: 10px; text-align: center;"> <p><b>***DANGER DO NOT PROCEED***</b></p> <p>BURIED HIGH VOLTAGE CABLES WITHIN THE LOCATED AREA. YOU MUST SEND LOCATE TO <a href="mailto:HOLsupervisions@hydroottawa.com">HOLsupervisions@hydroottawa.com</a> OR CONTACT HYDRO OTTAWA AT 613-738-6418 FOR FURTHER INFORMATION</p> <p><b>"EMERGENCY" NUMBER IS 613-738-0188</b></p> </div> <p style="text-align: center;">Apply Sticker Here if Required</p>
---	---

Excavator shall notify & receive a clearance from Utility prior to excavation for the following: Telecon <input type="checkbox"/> High Priority Cable <input type="checkbox"/> Central Office Vicinity	Gas Material Type: <input type="checkbox"/> Steel(st) <input type="checkbox"/> Plastic(PE) <input type="checkbox"/> Copper(CO)
---	---

Method of Field Marking:  Paint  Stakes  Flags  Offset Flags  Other (Telecom=Orange, Gas=Yellow, Hydro Ott. =Red)

**Caution:** Bell locate valid for life of excavation see attached document. Hydro One - Hydro Ottawa - Enbridge Gas - Lakefront Utilities - Elexicon Energy valid for 60 days, 360 valid for life of excavation. See disclaimer for Facility Owner Guidelines.

**Caution:** Any changes to location or nature of work require new locate. The Excavator must not work outside the Located Area without a new locate. Privately owned services within the located area have not been marked - check with service / property owner. For all Locate requests including remarks contact: Ontario One Call at **1-800-400-2255** or **www.on1call.com**

Locator Name: LAFLAMME ALAIN  ID #: 1987  Date: <b>JUNE 8 2020</b>	Start Time: <b>10H</b>  End Time: <b>11H</b>  Total Hours: <b>1H</b>	_ Mark & Fax _ Left on Site <input checked="" type="checkbox"/> Emailed  Print: _____  Signature: _____
--	--	---

**A copy of this Primary Locate Sheet and Auxiliary Locate Sheet(s) must be on site and in the hands of the machine operator during work operations. If sketch and markings do not coincide, the Excavator must obtain a new locate.**

## Robert Hillier

---

**From:** Loveland, Nick <NickLoveland@hydroottawa.com>  
**Sent:** Thursday, June 11, 2020 7:13 AM  
**To:** Robert Hillier  
**Subject:** RE: PROMARK TELECON OTT -- Ticket # 2020234105

Always ensure to hand dig or hydro vac within 1.5m of Hydro Ottawa locate markings. Please also ensure to hand dig or hydro vac within 1.5m of Hydro Ottawa equipment including but not limited to transformers, switch gear and manholes. If you expose any direct buried underground hydro cables during your excavation, contact me immediately.

**Definitions:**

Hand Dig means to excavate using a shovel with a wooden or insulated handle, not including picks, bars, stakes or other earth piercing devices.

Mechanical Excavation means boring or open cut excavation by means of mechanical excavating equipment such as powered excavator, earth mover, and earth piercing equipment including hand held augers, picks, bars, stakes or any other device that may damage any utility lines.

**Initial Exposure:**

At no time, with the exception of lifting asphalt but not underlying road base or underlying structure, should an excavator use mechanical excavation within 1.5m of Hydro Ottawa locates without first hand digging or hydro vac test holes to determine the exact centre line and depth of cover of the utility line.

Once exposed. Mechanical excavation must not be used closer than 0.3m in any direction of the utility line. All excavation within 0.3m must be done by hand or hydro vac.

As long as you understand and follow all of the instructions within this e-mail and on your locates. You are okay to proceed. If you have any questions or concerns, please let me know. Please ensure that a printed or electric copy of this email is on site with the crew as a part of the locate package.

Nick Loveland  
Damage Prevention Inspector  
Cell: 613-229-7290  
nickloveland@hydroottawa.com

Hydro Ottawa Limited / Hydro Ottawa limitée  
2711 Hunt Club Rd  
Ottawa, Ontario K1G 3S4

[www.hydroottawa.com](http://www.hydroottawa.com)

-----Original Message-----  
From: HOL Supervisions  
Sent: June-09-20 3:23 PM  
To: Loveland, Nick

Subject: FW: PROMARK TELECON OTT -- Ticket # 2020234105

Record # : 50562

REQUEST#2020234105

Complete Civic Address : 3493 INNES RD

Contractor or Homeowner Name (highlight which one it is): CONTRACTOR-SARA STANISZEWSKI-USL Phone Number : 6132268750 AGENTS INITIALS: JD

-----Original Message-----

From: Locates [mailto:Locates@usl-1.com]

Sent: Tuesday, June 9, 2020 2:29 PM

To: HOL Supervisions

Cc: rhillier@blumetric.ca

Subject: FW: PROMARK TELECON OTT -- Ticket # 2020234105

CAUTION: EXTERNAL EMAIL

This email is NOT from an employee and originated from outside of Hydro Ottawa or its affiliates. You must exercise caution when handling. Please report any suspicious emails by clicking Report Email or by forwarding to [phishing@hydroottawa.com](mailto:phishing@hydroottawa.com)<<mailto:phishing@hydroottawa.com>>.

Hello,

We have advised our client not to dig within 1.5 meters of Hydro.

Our client contact is Robert Hillier [rhillier@blumetric.ca](mailto:rhillier@blumetric.ca)

Robert, THIS IS NOT your complete locate package. The package will follow once complete.

Thank you,

Sara Staniszewski

100-1704 Carling Ave.

Ottawa, ON

K2A 1C7

Tel: 613-226-8750

Toll Free: 1-877-B4U-DIGG

Fax: 613-226-8677

[Locates@usl-1.com](mailto:Locates@usl-1.com)

[www.usl-1.com](http://www.usl-1.com)

-----Original Message-----

From: [teldig.ottawa@promark-telecon.ca](mailto:teldig.ottawa@promark-telecon.ca) <[teldig.ottawa@promark-telecon.ca](mailto:teldig.ottawa@promark-telecon.ca)>

Sent: Tuesday, June 9, 2020 2:25 PM

To: Locates <[Locates@usl-1.com](mailto:Locates@usl-1.com)>



Subject: PROMARK TELECON OTT -- Ticket # 2020234105

See attached file(s)

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[<https://static.hydroottawa.com/images/signature/awards2014.gif>]



Auxiliary Locate Sheet

Union Gas Emergency # 1-877-969-0999

Fax: 613-723-9277

Toll free: 1-800-371-8866

Email

Utilities  Bell  Gas  HydroOttawa  Street Lighting  
Located:  Bellink  Peel Fibre

Date Located: JUNE 8 2020

Request # 2020234105

Number of Services marked: (Specify building/house numbers)

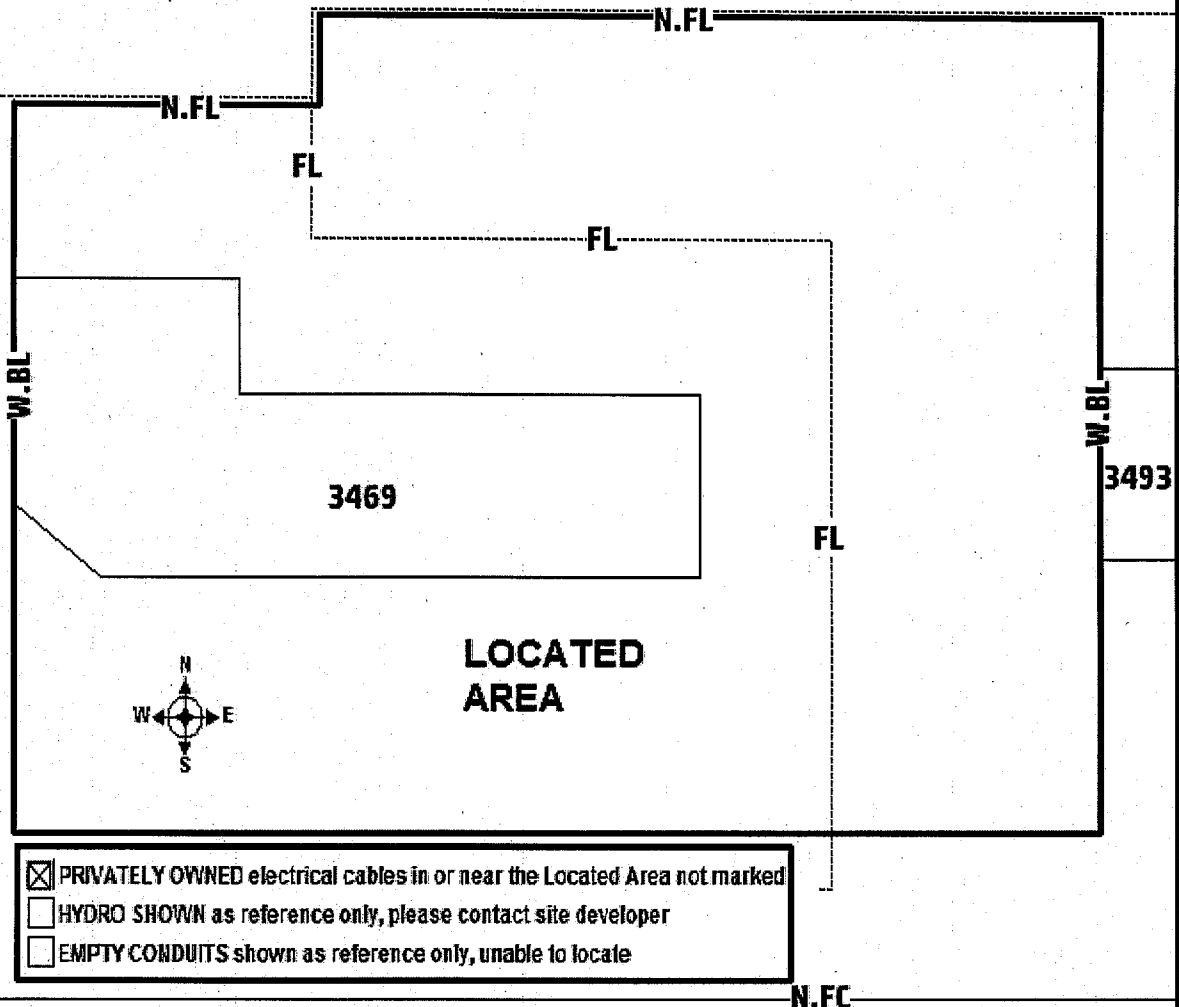
LOCATED AREA: EXCAVATOR SHALL NOT WORK OUTSIDE THE LOCATED AREA WITHOUT OBTAINING ANOTHER LOCATE.

FROM: WBL OF 3469 INNES RD  
FROM: NFL OF 3469 & 3493 INNES RD

TO: WBL OF 3493 INNES RD  
TO: 10M N OF N.FC INNES RD

- Legend**
- Building Line - BL -
  - Fence Line - FL -
  - Face of Curb - FC -
  - Asphalt Edge - AE -
  - Sidewalk - SW -
  - Driveway - DW -
  - Manhole  M/H
  - Pedestal
  - Flush to Grade Pedestal  FTG
  - Buried Service Wire - BSW -
  - Buried Cable - B -
  - Conduit - C -
  - Fiber Optic Cable - FO -
  - Bell Hydro Service - BH -
  - Gas Valve
  - Gas Service - GS -
  - Gas Main - GM -
  - Transformer
  - Demarcation  DM
  - Hydro - H -
  - Hydro Primary - HP -
  - Hydro Secondary - HS -
  - Catch Basin  CB
  - Sewer Manhole
  - Water Valve
  - Hydrant
  - Water Valve Chamber  W
  - Hydro / Bell Pole
  - Railway
  - End Cap
  - Traffic Manhole
  - Street Light Cable - SL -
  - Street Light
  - North N.
  - East E.
  - West W.
  - South S.

CAUTION: Hand dig within 1.5M as measured horizontally from the field markings to avoid damaging the underground utilities. If you damage the plant, you may be held liable. If you damage underground plant, contact the facility owner immediately. Depth varies and MUST be verified by hand digging or vacuum excavation. LOCATED AREA HAS BEEN ALTERED AS PER:



THIS FORM VALID ONLY WITH Primary Locate Form. This sketch is not to scale. Any privately owned services within the located area have not been marked- check with service/property owner.

A copy of this Auxiliary Locate Sheet(s) and the Primary Locate Sheet must be on site and in the hands of the machine operator during work operations. If sketch and markings do not coincide, the Excavator must obtain a new locate.

Fax:  
613-723-9277

Toll free:  
1-800-371-8866

Email

Utilities  Bell  Gas  HydroOttawa  Street Lighting  
Located:  Bellink  Peel Fibre

Date Located:  
mm/dd/yyyy **JUNE 8 2020**

















Request # 2020234105

Number of Services marked: (Specify building/house numbers)

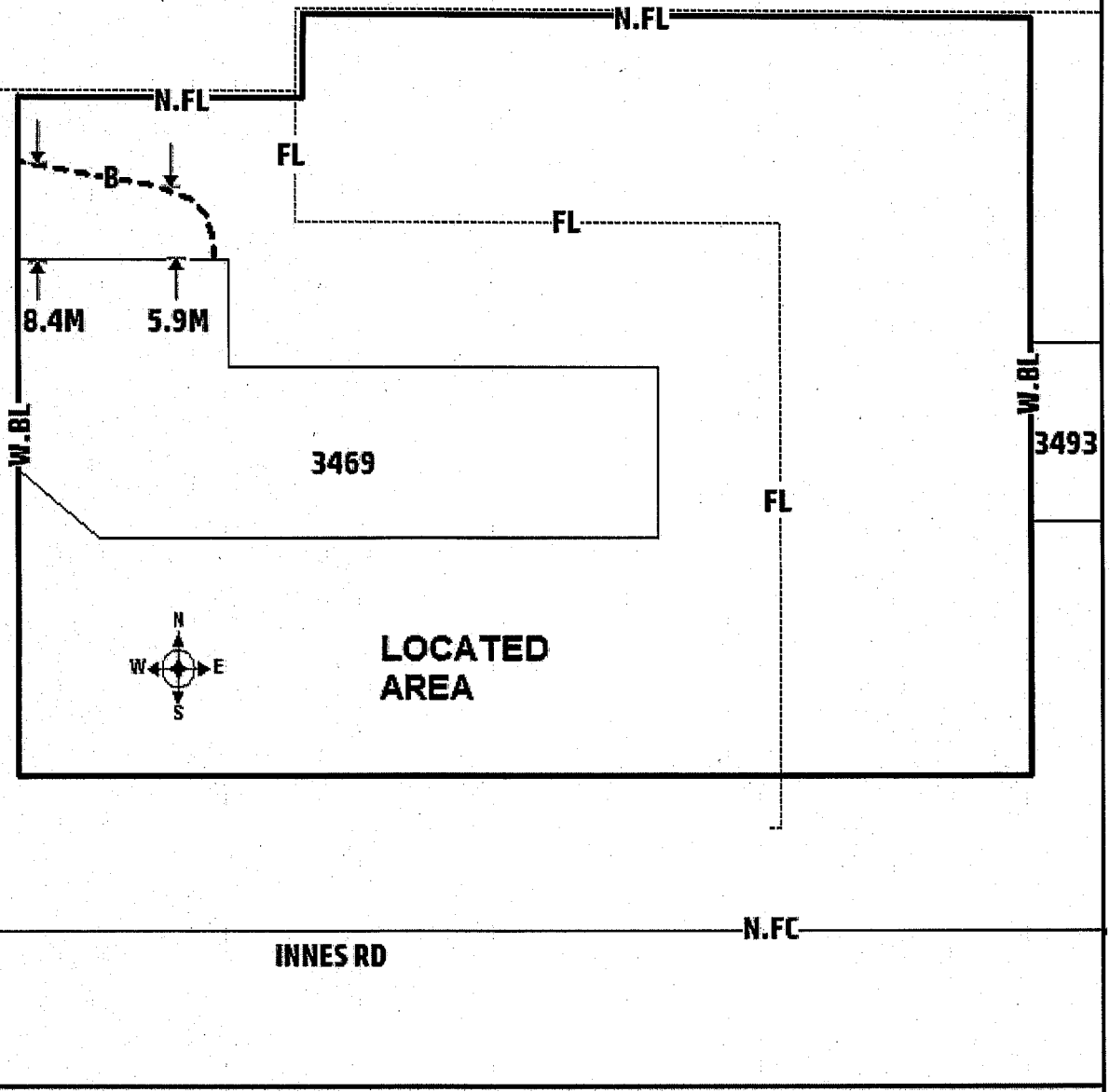
**LOCATED AREA: EXCAVATOR SHALL NOT WORK OUTSIDE THE LOCATED AREA WITHOUT OBTAINING ANOTHER LOCATE.**

FROM: **WBL OF 3469 INNES RD**  
FROM: **NFL OF 3469 & 3493 INNES RD**

TO: **WBL OF 3493 INNES RD**  
TO: **10M N OF N.FC INNES RD**

- Legend**
- Building Line --BL--
  - Fence Line --FL--
  - Face of Curb --FC--
  - Asphalt Edge --AE--
  - Sidewalk --SW--
  - Driveway --DW--
  - Manhole 
  - Pedestal 
  - Flush to Grade Pedestal 
  - Buried Service Wire --BSW--
  - Buried Cable --B--
  - Conduit --C--
  - Fiber Optic Cable --FO--
  - Bell Hydro Service --BH--
  - Gas Valve 
  - Gas Service --GS--
  - Gas Main --GM--
  - Transformer 
  - Demarcation 
  - Hydro --H--
  - Hydro Primary --HP--
  - Hydro Secondary --HS--
  - Catch Basin 
  - Sewer Manhole 
  - Water Valve 
  - Hydrant 
  - Water Valve Chamber 
  - Hydro / Bell Pole 
  - Railway 
  - End Cap 
  - Traffic Manhole 
  - Street Light Cable --SL--
  - Street Light 
  - North N.
  - East E.
  - West W.
  - South S.

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**A copy of this Auxiliary Locate Sheet(s) and the Primary Locate Sheet must be on site and in the hands of the machine operator during work operations. If sketch and markings do not coincide, the Excavator must obtain a new locate.**

**Promark**  
telecon  
Location of underground infrastructure

Auxiliary Locate Sheet

Union Gas Emergency #  
1-877-969-0999

Fax:  
613-723-9277

Toll free:  
1-800-371-8866

Email

Utilities  Bell  Gas  HydroOttawa  Street Lighting  
Located:  Blink  Peel Fibre

Date Located:  
mm/dd/yyyy **JUNE 8 2020**

Request # 2020234105

Number of Services marked: (Specify building/house numbers)

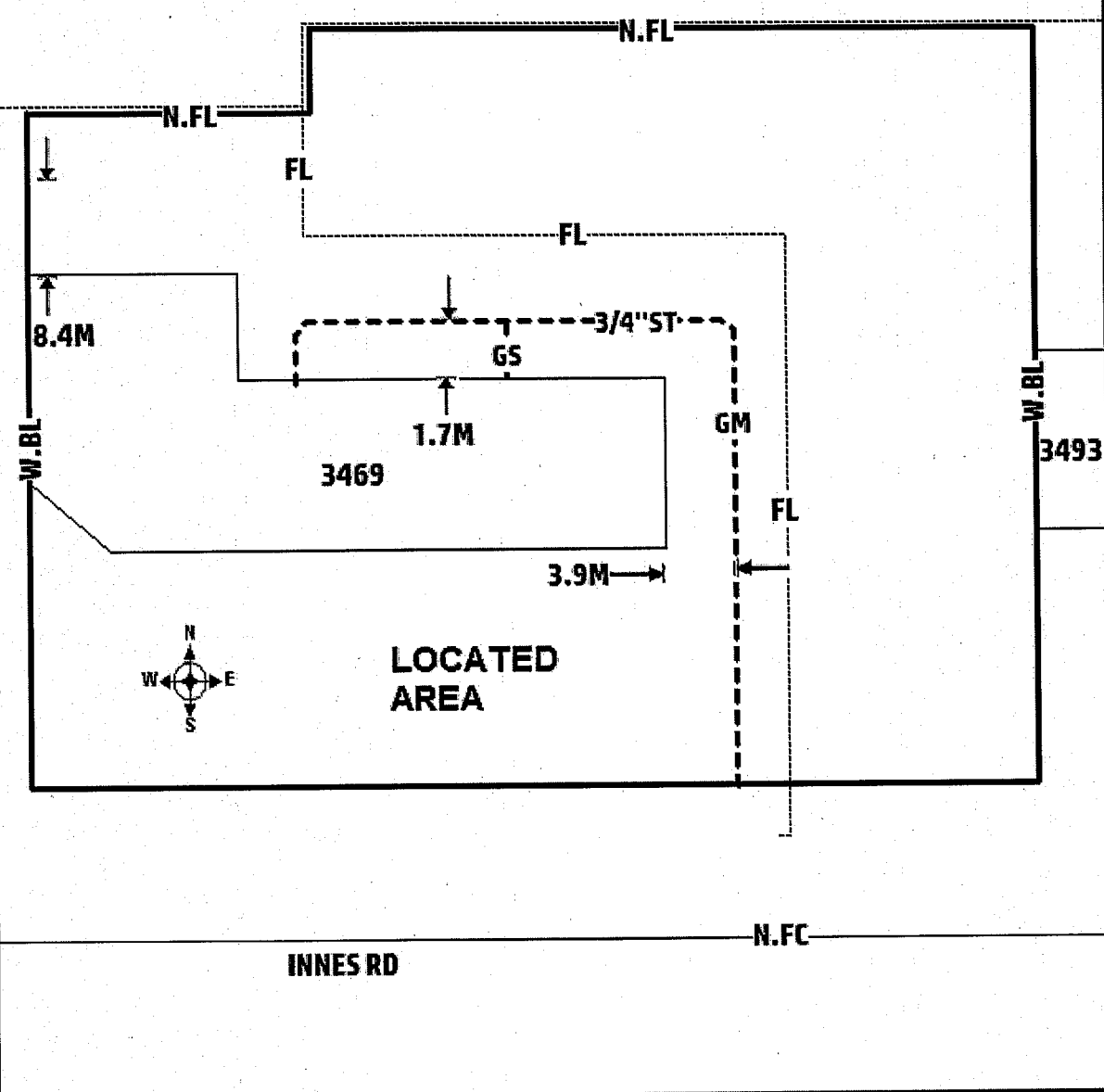
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## ENBRIDGE GAS INC.

Thank you for calling for a locate prior to starting your project.

Please note Enbridge Gas Inc has changed the locate validity period for station codes **ENOE01** and **EN2OE01** and this completed locate is valid for a period of **60 days** from the completion date on the Primary Locate Sheet.

You must adhere to the following:

- You must follow all STOP letters associated with your locate if provided in your locate package.
- You should always review the Primary and all the Auxiliary Sheets of your locate package and understand the validity period for all utilities / infrastructure owners.
- It is the responsibility of Excavators to protect and preserve the original yellow paint markings. White paint can be used to preserve/maintain the markings but should be placed beside or at the top / bottom of the original markings ensuring not to replace the yellow paint.

When winter conditions exist, such as snow, pink paint and stakes or flags can be used.

Please be aware new gas services or mains can be installed after this locate was completed. Newly buried gas plant flags will be installed as visual identifier if this occurs.



If flags are present, please contact Enbridge Gas Damage Prevention at 1-866-922-3622

For station code – **ENOE01** or *Legacy Enbridge Gas Distribution* please refer to the Third Party Requirements in the Vicinity of Natural Gas Facilities must always be followed.

<https://www.enbridgegas.com/~media/Extranet-Pages/Safety/Before-you-dig/Third-Party-Requirements-in-the-Vicinity-of-Natural-Gas-Facilities>

For station code **EN2OE01** or *Legacy Union Gas* please refer to

<https://www.uniongas.com/about-us/safety/safe-digging-practices>

Thank you



**February 9 2015**

**To all Excavators:**

**Bell locates are now valid for the life of the excavation project and will not automatically be relocated every 60 days.**

**Please note the following for the above to apply:**

- a) Construction within the located area begins within 60 days of the "locate completed" date on the original ticket.**
- b) The construction company named on the locate remains active on the site.**

**Bell expects excavators will protect and preserve the paint marks put down on the original locate ticket. If markings are removed due to weather or excavation work the excavator is expected to recreate the markings based on the tie-in measurements provided on the original locate ticket.**

**If an excavator would like their markings freshened up they can contact Promark (the Bell Canada Locate Service Provider in this area) directly to arrange for them to place fresh markings on the ground however this will be at the excavators expense. Promark can be reached at 613-723-9888.**

**The locate will be considered officially expired one day after the final day of construction.**

**Thank you.**

**Bell Canada**

# Service Request Details

Service Request

1361517

Lagan Case ID: 20202341051

Source: Contractor

Created By: Ga Maxpur

Priority:

Reported By:

Status: RESOLVED

Initiated: 2020-Jun-03 4:20 AM

## Location Information

<b>Address:</b> 3493 INNES RD	<b>Range:</b>	<b>Unit:</b>
<b>Between Streets:</b> LAMARCHE, AVENUE DE / PAGE, CHEMIN		<b>Municipality:</b> GL
<b>Description:</b> Street Range:3493- Street:INNES RD Intersect 1:LAMARCHE AVE Intersect 2:PAGE RD Door Numbers:- Municipality:		

The work area is clear of underground water and sewer pipes owned by The City of Ottawa.  
Please note: City of Ottawa locates are valid for sixty (60) days. | S'il-vous-plaît notez: les localisations de la ville d'Ottawa sont valables pendant soixante (60) jours.

## Requestor Information

<b>Name:</b> Sara Staniszewski	<b>Phones</b>	
<b>Address:</b> 1704 CARLING AVE	<b>Res:</b>	<b>Cell:</b>
<b>City:</b> OTTAWA	<b>Bus:</b> 6132268750	<b>Ext:</b>
<b>Postal Code:</b> K2A1C7	<b>Unit:</b>	<b>Fax:</b> 6132268677

## Call Back & Other Assignments

Responsibilities	Work Order #	Work Order
Service Request		

## Request Details

<b>Start Date:</b>	<b>Appointment Time:</b>	<b>Service:</b> ESD
<b>Finish Date:</b> 2020-Jun-05	<b>Classification:</b> LOCATES - PROVIDE	
<b>Amount Charge to Customer:</b>	<b>Category:</b>	

## Structures

Structure ID	District	Description	Location	Qualifier	Unit
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**NOTICE OF INTENT TO EXCAVATE**

Header Code: STANDARD

Request Type: NORMAL

Ticket No: 2020234105

Original Call Date: 06/03/2020 4:19:32 AM

Work To Begin Date: 06/10/2020

Company: U S L

Contact Name: SARA STANISZEWSKI

Pager:

Contact Phone: (613)-226-8750 ext.

Cell:

Fax: (613)-226-8677 ext.

Alternate Contact: JACQUES DESJARDINS

Alt. Phone:

Place: OTTAWA

Street: 3493 INNES RD

Nearest Intersecting Street: LAMARCHE AVE

Second Intersecting Street: PAGE RD

Subdivision: OTTAWA

**Additional Dig Information:**

CORLOT=U CLEAR FROM THE INTERIOR PROPERTY/ FENCE CORNER, TO 35M SOUTH, 40M WEST, AND TO 10M NORTH AND EAST OF FENCE AS SHOWN ON PLAN PROVIDED. BOREHOLES MARKED ON SITE. NO\_PLAN::

WO/ JOB #: ANYTIME

Type Of Work: BORE HOLES

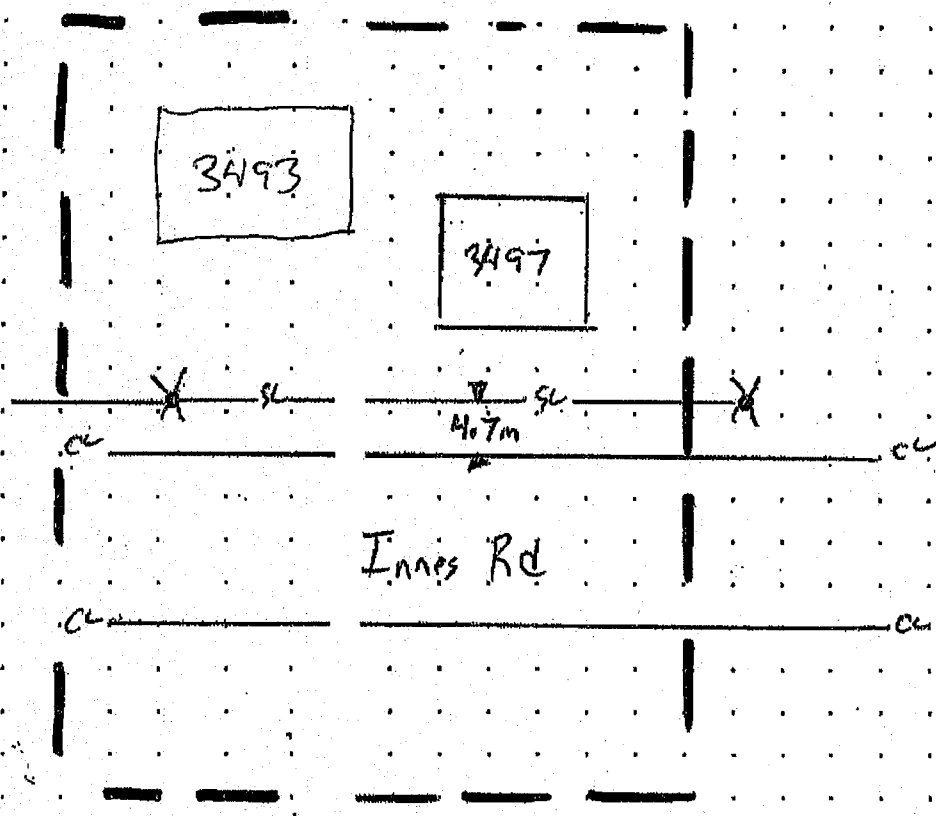
**Remarks:**

-75.526605 45.447495 NB\_SEGMENTS::1 BC0E01 OTWASL01 OTWATS01 OTWAWS01 ENVMOE01 ENOE01 HOT1





LOCATOR SKETCH



- SL — Street Light Cable
- OH — Overhead/Aerial Wires
- △ Source/Transformer
- ⊗ Street Light
- ⊗ Globe/Decorative Light
- Hydro Pole
- BL = Building Line
- FL = Fence Line
- CL = Face of Curb
- RE = Road Edge
- PL = Property Line

**ANY MEASUREMENTS FROM A CURB EDGE ARE FROM OUTSIDE CURB EDGE UNLESS STATED OTHERWISE**

Notes/Comments:

Locate is valid for 80 days. If sketch is different from markings, location or nature of work changes, a new locate must be requested. Hand dig within 1m (3.28ft) on either side of markings. Depth of buried plant varies. Cette fiche n'est pas valide 60 jours de calendrier apres le reperege. Si les marques ne concordent pas avec celles sur le croquis, un nouveau reperege est requis. Tout changement a l'emplacement ou a la nature du travail necessite un nouveau reperege. Creuser a la main un metre (3.28 pieds) du repere. La profondeur des installation varie d'un endroit a l'autre.

Date Located	05 June 2020
Located by	KB
Page	2 of 2

## Disclaimer

Black & McDonald

### Warning!

The Excavator must have a copy of this locate on the job site during excavation.

**Located Area:** The Excavator must not work outside the area indicated, by the located area in the diagram, without a further locate completed by Black & McDonald Limited.

**Locate the Plant:** The plant location information provided is the best we have available, but constitutes only an estimate. Depth of underground plant varies and the exact location must be determined by hand digging prior to excavation with mechanical equipment.

Mechanical equipment must not be used within 1.0 meter of the estimated location of the plant.

**Valid Documentation:** This locate is valid only for the Agency accepting it. Other parties must obtain and accept their respective underground locate from Ontario 1 Call.

**Excavator Alterations:** Under no circumstance shall an Excavator touch or move an underground power cable. Arrangements must be made to have qualified personnel relocate any such cable.

**Expose the plant:** Once the plant has been located by hand digging, it must be exposed along its length adjacent to or in the immediate vicinity of the proposed excavation. For this purpose, mechanical equipment must not be used within 0.5 meters of the plant.

**Digging around the Exposed Plant:** When the plant has been exposed, any further excavation within 0.3 meters, must only be done by hand digging and not with mechanical equipment.

**Support Requirements:** If the underground plant is exposed over a distance of more than 1.25 meters, the Facility Owner must be notified. Underground plant must be supported at all times.

**Private Cables:** Please be advised that Black & McDonald Limited is not responsible for and does not locate private cables.

**New Cables:** Be aware that new cables could be installed at any time after the locate has been completed. It is the Excavator's responsibility to call for new locates if any changes are known or suspected.

**Caution:** The markings may disappear or be misplaced. Should sketch and markings not coincide, the Excavator must obtain a new locate. This is based on the information given at the time. Any changes to location or nature of work require a new locate. The Excavator must not work outside the indicated located area without a further locate. Privately owned services within the located area have not been marked- check with service/property owner.

**Liability:** Any person or Excavator who interferes with or damages any underground electrical cable without having obtained a valid locate/clearance from Black & McDonald Limited, shall be liable for all cost incurred during the repair of the cable as well as any resulting legal actions.

This locate has been given as accurately as possible, but no locate is guaranteed. Excavators must always dig with extreme caution to prevent the possibility of damaging electrical cables and endangering safety.

Locate is void after 60 days

For remarks contact Ontario One Call 1-800-400-2255 or [www.on1call.com](http://www.on1call.com)



## Locates

---

**From:** Sigouin, Francois <Francois.Sigouin@ottawa.ca>  
**Sent:** Wednesday, June 3, 2020 12:19 PM  
**To:** Locates  
**Subject:** 2020234105

2020234105

This Ontario One Ticket is **\*\*Clear of Underground City of Ottawa / Ville d'Ottawa Traffic Lights Infrastructure in Proposed Work Area \*\***

“Locates are Valide for 60 Days”

Ce billet Ontario One est **\*\* libre de toute infrastructure souterraine de la ville d'Ottawa pour les feux de signalisation dans la zone de travail proposée \*\***

“Les habitants sont valides pendant 60 jours”

Frank Sigouin  
City of Ottawa  
Traffic U/G Utilities Investigator  
Cell: (613)229-0580  
Email: [francois.sigouin@ottawa.ca](mailto:francois.sigouin@ottawa.ca)  
Mon-Fri 7h30 to 16h00

This e-mail originates from the City of Ottawa e-mail system. Any distribution, use or copying of this e-mail or the information it contains by other than the intended recipient(s) is unauthorized. Thank you.

Le présent courriel a été expédié par le système de courriels de la Ville d'Ottawa. Toute distribution, utilisation ou reproduction du courriel ou des renseignements qui s'y trouvent par une personne autre que son destinataire prévu est interdite. Je vous remercie de votre collaboration.

**UNDERGROUND SERVICE LOCATORS**

DATE: *JUNE 10/20*

**ONE-CALL SYSTEMS INC.**

**100-1704 CARLING AVE**

PHONE (613) 226-8750

**OTTAWA, ON K2A 1C7**

FAX (613) 226-8677

CUSTOMER: *BLUMETRIC*

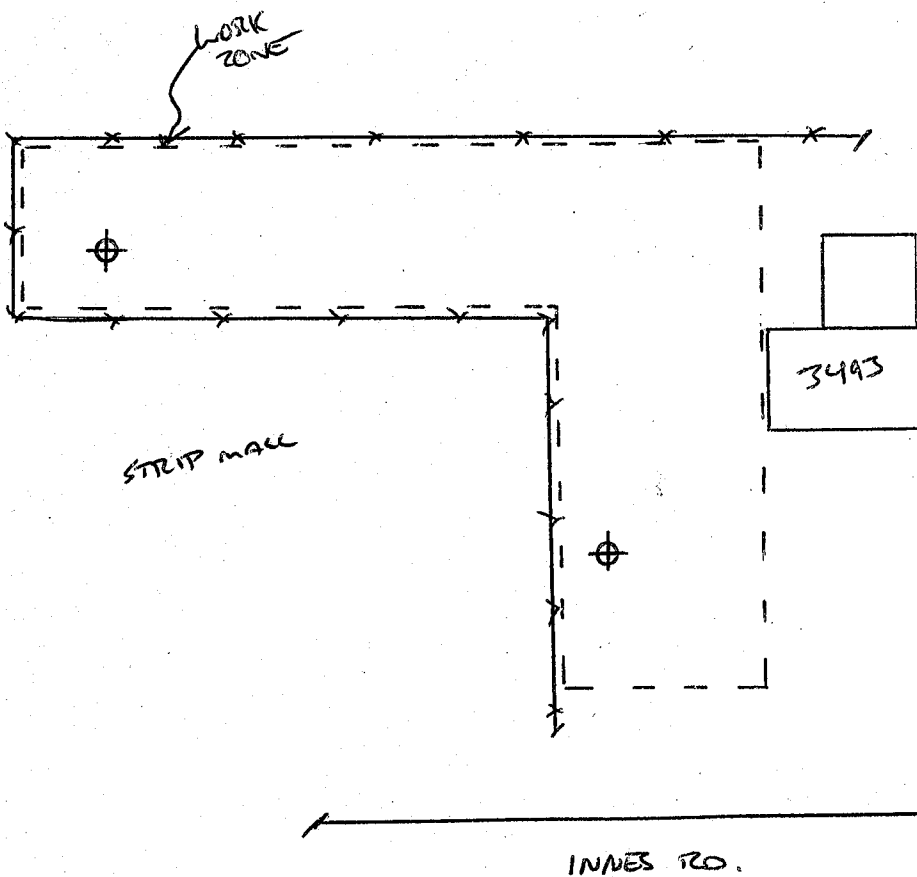
REQUESTED BY: *ROBERT HILLIER*

LOCATION OF WORK: *3493 INNES RD.*

LIMITS OF WORK: *BHS*

HYDRO	-- H --	CABLE T.V.	-- T.V. --	<u>OTHER:</u>
GAS	-- G --	SANITARY		
BELL	-- B --	SEWER	-- S --	
WATER	-- W --	STORM	-- ST --	

**LOCATES ONLY APPLICABLE TO INFO ABOVE - LOCATES VOID AFTER 30 DAYS!**



*\* WORK AREA CLEAR  
SERVICES FOR 3493  
ARE CUT/ABAND.*

SKETCH NOT TO SCALE

THIS SKETCH IS NOT A VALID PUBLIC UTILITY LOCATE. CONTRACTOR IS RESPONSIBLE TO ENSURE THEY HAVE PUBLIC LOCATES BEFORE COMMENCING WORK.

ASBUILTS OR PLANS PROVIDED: YES  NO

LOCATORS NAME: *MATT MOREAU*

SIGNATURE: *[Signature]*

**CAUTION: HAND DIG WITHIN 1.5 METERS OF MARKINGS**

## USL-1 DISCLAIMER - FORM 101

- It is our Clients responsibility to fully read and understand this document, prior to any ground disturbance taking place. Should any questions or clarifications be required, contact USL-1 before commencing work
- Locate is VOID after 30 days from the date the locate was completed. Contact USL-1 for remarks and/or new ticket requests, with a minimum notice of 5 business days
- If the scope of work, locate area, or site information changes, contact USL-1 before continuing work. In certain instances, a new ticket request may be required
- Any work within 1.5 metres laterally of a marked utility, must be hand dug or daylighted. Utility depths vary, as does the accuracy of the locate equipment, and therefore depths are typically not provided and should not be used for excavation purposes. Depth of utilities should also be verified by hand digging or daylighting. The best information is provided at the time of the locate, however the accuracy of field markings can vary with regard to equipment accuracy and external interference
- If the paint markings or flags on site differ from that of the sketch provided, please contact USL-1 before commencing work. If possible, the issue will be clarified by USL-1 and/or a site meet may be requested with the appropriate parties
- The "Excavator" is responsible for keeping a current copy of the locates on site, with the operators and in/on the excavation equipment AT ALL TIMES
- It is the "Excavator/Contractor's" responsibility to read ALL locate sheets, both public and private, to ensure they understand what potential hazards or buried utilities exist in their work area
- Special purpose locates such as sewer sondeing, locate surveys, tunnel identification, conduit identification, ground fault detections, ground penetrating radar, well cap location, concrete scanning, or anything else that requires use of more than Radiodetection equipment, must be identified at the time of the original locate request. Should a USL-1 locator identify any special needs services during a normal Private utility locate, the client will be notified for the appropriate course of action
- Not all buried utilities can be traced. In many instances, water and sewer lines, irrigation systems, grounding cables, fibre optic cables, heating cables, protection cables, and communication cables may not be traceable. Typically, sewer lines will be painted and lined up directionally from manhole to manhole where possible. It may not be possible to detect bends in the sewer lines between manholes. If tracer wires have been buried with the utility, they will be used to locate the buried utility where possible. If a buried utility cannot be traced, it will be noted on the USL-1 report. USL-1 is not liable for damage to untraceable utilities
- Public utility locators have maps, plans and as-built diagrams for reference to work from. Private utility locators, for the most part, do not. USL-1 will attempt to locate any Private utilities on a site, using as-built plans provided to them. Building access is mandatory and must be arranged by our client. Any conduits or utilities noted entering or exiting a building will be traced if possible, as well as any other visible utilities observed on site. It is the responsibility of the contractor to provide any and all buried utility information and site contacts that they have. There is no guarantee that USL-1 can find all buried utilities if the property owner does not have records or information regarding their own buried utilities
- USL-1 cannot be held liable for damage to Private water and/or sewer laterals unless building access is granted, and the utility is locatable
- Thick snow and ice, frozen manhole lids, live traffic, parked cars, construction debris and activities etc, are all factors that can interfere with USL-1's ability to perform Private utility locates. USL-1 cannot guaranty location of all buried utilities when such factors impede the locate process. It is the contractor's responsibility to ensure that the work areas are safe and accessible for locates, prior to USL-1's arrival to site
- USL-1 as a Private utility locator, is not permitted to locate Publicly owned utilities. In some cases, Public utilities may be noted on a sketch, but are FOR REFERENCE ONLY, and under no circumstances shall be used for excavation purposes. It is the contractor's responsibility to verify any Public utilities noted on the USL-1 sketch by referring to the Public utility locate sheets for physical LOCATION AND ACCURACY. USL-1 DOES NOT ASSUME LIABILITY FOR PUBLIC LOCATE INNACCURACIES
- If the proposed work area is on Private property, it does NOT mean that all buried utilities are Private. Regardless of where you are digging, and what the proposed depth of excavation is, it is the law to notify Ontario One Call (or Info-Excavation in Quebec) to obtain Public utility locates
- NCC PROPERTY - assuming the contractor has been issued a Land Access Permit from the NCC, it is typically indicated within the permit that it is the contractor's responsibility to contact NCC for utility locates of their buried utilities

USL-1 - January 2016

## BluMetric Environmental Inc.

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1682 Woodward Drive  
Ottawa, Ontario  
Canada K2C 3R8  
Tel: 613.839.3053  
Fax: 613.839.5376  
[ottawa@blumetric.ca](mailto:ottawa@blumetric.ca)

4 Catarqui Street  
The Tower, The Woolen Mill  
Kingston, Ontario  
Canada K7K 1Z7  
Tel: 613.531.2725  
[kingston@blumetric.ca](mailto:kingston@blumetric.ca)

209 Frederick Street  
Unit 3B  
Kitchener, Ontario  
Canada N2H 2M7  
Tel: 519.742.6685  
[kitchener@blumetric.ca](mailto:kitchener@blumetric.ca)

825 Milner Avenue  
Toronto, Ontario  
Canada M1B 3C3  
Tel: 877.487.8436  
[toronto@blumetric.ca](mailto:toronto@blumetric.ca)

410 Falconbridge Road  
Unit 6  
Sudbury, Ontario  
Canada P3A 4S4  
Tel: 705.525.6075  
[sudbury@blumetric.ca](mailto:sudbury@blumetric.ca)

---

1046 Gorham Street  
Thunder Bay, Ontario  
Canada P7B 5X5  
Tel: 807.707.4736  
[thunderbay@blumetric.ca](mailto:thunderbay@blumetric.ca)

4-41 de Valcourt Street  
Gatineau, Quebec  
Canada J8T 8G9  
Tel: 819.243.7555  
[gatineau@blumetric.ca](mailto:gatineau@blumetric.ca)

1500 du College Street  
Suite 200  
Saint-Laurent, Quebec  
Canada H4L 5G6  
Tel: 514.844.7199  
[montreal@blumetric.ca](mailto:montreal@blumetric.ca)

4916 - 49th Street  
Yellowknife, NT  
Canada X1A 1P3  
Tel: 867.873.3500  
Fax: 867.873.3499  
[yellowknife@blumetric.ca](mailto:yellowknife@blumetric.ca)

202b Strickland Street  
Whitehorse, Yukon  
Canada Y1A 2J8  
Tel: 867.689.8465  
[whitehorse@blumetric.ca](mailto:whitehorse@blumetric.ca)

[www.blumetric.ca](http://www.blumetric.ca)