

1184-1196 CUMMINGS AVENUE SERVICING AND STORMWATER MANAGEMENT REPORT

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Prepared for: TCU Development Corporation

Prepared by: Stantec Consulting Ltd.

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1184-1196 Cummings Avenue Servicing and Stormwater Management Report

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Prepared by:	
	Signature
	Michael Wu, EIT
	Printed Name
Reviewed by:	Signature
	Dustin Thiffault, P.Eng.
	Printed Name
Approved by:	the the
	Signature
	Kris Kilborn

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1 Introduction

Stantec Consulting Ltd. has been commissioned by TCU Development Corporation to prepare the following Servicing and Stormwater Management Report in support of a Site Plan Control and a Zoning By-Law Amendment application for the proposed development located at 1184-1196 Cummings Avenue in the City of Ottawa.

The 0.35 ha site is situated along the west side of Cummings Avenue, at the southwest corner of the intersection between Cummings Avenue and Weldon Drive. The site is currently zoned R3Y [708] and contains an existing two-storey residential building and two single-storey residential buildings with sheds, trees, and surface parking. The site is bound by Weldon Drive to the north, Cummings Avenue to the east, an existing commercial development to the south and an existing residential development to the west as shown in **Figure 1-1** below.



Figure 1-1: Key Plan of Site

The proposed 0.35 ha site comprises of a six-storey medium-rise residential building. Project 1 Studios Ltd. has prepared a site plan dated December 19, 2023, which defines the proposed development (see **Appendix B**), while the unit type breakdown is listed in **Table 1.1** below.

Unit Type	Number
Studio	157
One-bedroom	6
One-bedroom with Den	3
Two-bedroom	23
Total	189

Table 1.1: Unit Type Breakdown

1.1 Objective

This site servicing and stormwater management (SWM) report presents a servicing scheme that is free of conflicts, provides on-site servicing in accordance with City of Ottawa Design Guidelines, and uses the existing municipal infrastructure in accordance with any limitations communicated during consultation with the City of Ottawa staff. Details of the existing infrastructure located within the Cummings Avenue right of way (ROW) were obtained from available as-built drawings and site topographic survey.

Criteria and constraints provided by the City of Ottawa have been used as a basis for the detailed servicing design of the proposed development. Specific and potential development constraints to be addressed are as follows:

- Potable Water Servicing
 - Estimated water demands to characterize the proposed feed(s) for the proposed development which will be serviced from the existing 305 mm diameter watermain within the Cummings Avenue ROW.
 - Watermain servicing for the development is to be able to provide average day and maximum day (including peak hour) demands (i.e., non-emergency conditions) at pressures within the acceptable range of 345 to 552 kPa (50 to 80 psi)
 - Under fire flow (emergency) conditions, the water distribution system is to maintain a minimum pressure greater than 140 kPa (20 psi)
- Wastewater (Sanitary) Servicing
 - Define and size the sanitary service lateral which will be connected to the existing 250 mm diameter sanitary sewer within the Cummings Avenue ROW.
- Storm Sewer Servicing
 - Define major and minor conveyance systems in conjunction with the proposed grading plan.
 - Determine the stormwater management storage requirements to meet the allowable release rate for the site.
 - Define and size the proposed storm service lateral that will be connected to the existing 600 mm diameter municipal storm sewer within the Cummings Avenue ROW.



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• Prepare a grading plan in accordance with the proposed site plan and existing grades.

Drawing SSP-1 illustrates the proposed internal servicing scheme for the site.



2 Background

Documents referenced in preparing of this stormwater and servicing report for the 1184 Cummings Avenue development include:

- *City of Ottawa Sewer Design Guidelines* (SDG), City of Ottawa, October 2012, including all subsequent technical bulletins
- *City of Ottawa Design Guidelines Water Distribution*, City of Ottawa, July 2010, including all subsequent technical bulletins
- Design Guidelines for Drinking Water Systems, Ministry of the Environment, Conservation, and Parks (MECP), 2008
- *Fire Protection Water Supply Guideline* for Part 3 in the Ontario Building Code, Office of the Fire Marshal (OFM), October 2020
- Water Supply for Public Fire Protection, Fire Underwriters Survey (FUS), 2020
- Geotechnical Investigation Proposed Multi-Storey, 1184, 1188, and 1196 Cummings Avenue, Ottawa, Ontario, Paterson Group, December 18, 2023
- Phase I Environmental Site Assessment, 1184, 1188 and 1196 Cummings Avenue, Ottawa, Ontario, Paterson Group, March 6, 2023



3 Water Servicing

3.1 Background

The proposed building is in Pressure Zone 1E of the City of Ottawa's Water Distribution System. The existing dwellings have water service lateral connections to the existing 305 mm diameter watermain on Cummings Avenue. The existing services will be blanked at the main by City forces, as shown in the Existing Conditions and Removals Plan (see **Drawing EX-1**).

3.1 Water Demands

3.1.1 POTABLE (DOMESTIC) WATER DEMANDS

The City of Ottawa Water Distribution Guidelines (July 2010) and ISTB 2021-03 Technical Bulletin were used to determine water demands based on projected population densities for residential areas and associated peaking factors. The population was estimated using an occupancy of 1.4 persons per unit for studio and one-bedroom apartments and 2.1 persons per unit for one-bedroom with den and two-bedroom apartments. Based on the unit type breakdown in **Table 1.1**, the proposed building is estimated to have a total population of 283 persons.

A daily rate of 280 L/cap/day has been used to estimate average daily (AVDY) potable water demand for the residential units. Maximum day (MXDY) demands were determined by multiplying the AVDY demands by a factor of 2.5 for residential areas, while peak hourly (PKHR) demands were determined by multiplying the MXDY by a factor of 2.2 for residential areas. The estimated demand for the proposed residential building is summarized in **Table 3-1** below and detailed in **Appendix A.1**.

Demand Type	Population	AVDY (L/s)	MXDY (L/s)	PKHR (L/s)
Studio	220	0.71	1.78	3.92
1 Bedroom	8	0.03	0.07	0.15
1 Bedroom + Den	6	0.02	0.05	0.11
2 Bedroom	48	0.16	0.39	0.86
Total Site:	283	0.92	2.39	5.04

3.1.2 FIRE FLOW DEMANDS

Fire flow requirements were estimated using Fire Underwriters Survey (FUS) methodology, as the estimated fire flow for the site equals or exceeds 9,000 L/min (150.0 L/s) when determined through the Office of the Fire Marshal (OFM) fire protection water supply guidelines under the Ontario Building Code. The FUS estimate is based on a building of ordinary construction type, as a result, the 'gross construction

area' of all floor areas was used for the purpose of the FUS calculation, as per page 22 of the *Fire Underwriters Survey's Water Supply for Public Fire Protection*, 2020. Additionally, it is anticipated that the building will be equipped with an automatic sprinkler system that is fully supervised and conforms to the NFPA 13 standard. Required fire flows were determined to be 333.3 L/s (20,000 L/min). Detailed fire flow calculations per the FUS methodology are provided in **Appendix A.2**, while correspondence with the architect on the construction type are provided in **Appendix A.3**.

3.2 Level of Servicing

3.2.1 BOUNDARY CONDITIONS

The estimated domestic water and fire flow demands were used to define the level of servicing required for the proposed development from the municipal watermain and hydrants within the Cummings Avenue ROW. **Table 3-2** outlines the boundary conditions provided by the City of Ottawa on June 29, 2023.

	Connection at Cummings Avenue
Min. HGL (m)	110.1
Max. HGL (m)	118.3
Max. Day + Fire Flow (333.3 L/s) HGL (m)	108.7

Table	3-2:	Boundary	Conditions
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3.2.2 ALLOWABLE DOMESTIC PRESSURES

The desired normal operating pressure range in occupied areas as per the City of Ottawa 2010 Water Distribution Design Guidelines is 345 kPa to 552 kPa (50 psi to 80 psi) under a condition of maximum daily flow and no less than 276 kPa (40 psi) under a condition of maximum hourly demand. Furthermore, the maximum pressure at any point in the water distribution should not exceed 689 kPa (100 psi) as per the Ontario Building/Plumbing Code; pressure reducing measures are required to service areas where pressures greater than 552 kPa (80 psi) are anticipated in occupied areas.

The proposed finished floor elevation of the first floor, 71.8 m, will serve as the ground floor elevation for the calculation of the residual pressures at ground level. As per the boundary conditions, the on-site pressures are expected to range from 375.5 kPa to 455.9 kPa (54.4 psi to 66.1 psi) under normal operating conditions, which are within the normal operating pressure range defined by the City of Ottawa design guidelines as within 276 kPa to 552 kPa (40 psi to 80 psi). It is anticipated that booster pumps will be required to service the upper floors of the building.

3.2.3 ALLOWABLE FIRE FLOW PRESSURES

The boundary conditions provided by the City of Ottawa indicate that watermain within Cummings Avenue is expected to maintain a residual pressure of 37 m equivalent to 362.8 kPa (52.6 psi) under the worst-case fire flow conditions. This demonstrates that the watermains and nearby hydrants can provide the required fire flows while maintaining a residual pressure of 20 psi.



3.2.4 FIRE HYDRANT COVERAGE

The building will be sprinklered and a Siamese (fire department) connection is to be provided to the right of the main entrance. There are six existing hydrants in the proximity of the proposed development site, as shown in **Figure 3-1**. The distance of each hydrant from the proposed building is more than 76 m.

According to the NFPA 1 Table 18.5.4.3 in Appendix I of the City of Ottawa Technical Bulletin ISTB-2018-02, a hydrant situated less than 76 m away from a building can supply a maximum capacity of 5,678 L/min, while a hydrant situated between 76 m and 152 m away from a building can supply a maximum capacity of 3,785 L/min. Given the large fire flow demands from the site, it is proposed that a new fire hydrant be placed within 45 metres from the Siamese connection both to meet requirements of the Ontario Building Code (OBC) and to reduce the number of fire hydrants needed to service the site's fire flow demand. It is suggested that the new hydrant be located in the north end of the site, west of Cummings Avenue as shown on **Drawing SSP-1**. See **Appendix A.6** for fire hydrant coverage table calculations and NFPA Table 18.5.4.3.



Figure 3-1: Existing Fire Hydrant Coverage Map

3.3 Proposed Water Servicing

The development will be serviced via dual 150 mm building services connecting to the existing 305 mm diameter watermain on Cummings Avenue with a 300 mm main isolation valve and individual 150 mm

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valves on each building service. The sizing of the service connection is to be confirmed by the mechanical consultant.

The proposed water servicing is shown on **Drawing SSP-1**. Based on the City of Ottawa Water Design Guidelines and the provided boundary conditions, the existing 305 mm diameter watermain on Cummings Avenue can provide adequate fire and domestic flows for the subject site.

Booster pumps are required for the building. The mechanical consultant or plumbing contractor will ultimately be responsible to confirm building pressures are adequate to meet building code requirements.



4 Wastewater Servicing

The site will be serviced from the existing 250 mm diameter asbestos cement sanitary sewer within the Cummings Avenue ROW. The existing dwellings have sanitary service lateral connections to the municipal sewer, which will be decommissioned and abandoned as shown in **Drawing EX-1**.

4.1 Design Criteria

As outlined in the City of Ottawa Sewer Design Guidelines and the MECP Design Guidelines for Sewage Works, the following criteria were used to calculate the estimated wastewater flow rates and to determine the size and location of the sanitary service lateral:

- Minimum velocity = 0.6 m/s (0.8 m/s for upstream sections)
- Maximum velocity = 3.0 m/s
- Manning roughness coefficient for all smooth wall pipes = 0.013
- Minimum size of sanitary sewer service = 135 mm
- Minimum grade of sanitary sewer service = 1.0 % (2.0 % preferred)
- Average wastewater generation = 280 L/person/day (per City Design Guidelines)
- Peak Factor = based on Harmon Equation; maximum of 4.0 (residential)
- Harmon correction factor = 0.8
- Infiltration allowance = 0.33 L/s/ha (per City Design Guidelines)
- Minimum cover for sewer service connections 2.0 m
- Population density for one-bedroom and bachelor apartments 1.4 persons/apartment
- Population density for one-bedroom with den and two-bedroom apartments 2.1 persons/apartment

4.2 Wastewater Generation and Servicing Design

The estimated peak wastewater flow generated are based on the current site plan and unit breakdown as shown in **Table 1.1**. The anticipated wastewater peak flow generated from the proposed development is summarized in **Table 4-1** below.

Peak R	esidential Waste	Infiltration	Total Peak		
Population	Peak Factor	Peak Flow (L/s)	Flow (L/s)	Flow (L/s)	
283	3.47	3.2	0.1	3.3	

Table 4-1: Estimated Peak wastewater Flow	Table 4-1:	Estimated	Peak Was	stewater	Flow
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Detailed sanitary sewage calculations are included in **Appendix C.1**. A full port backwater valve will be required for the proposed building in accordance with the Sewer Design Guidelines and will be coordinated with the building mechanical engineers.

The anticipated peak wastewater flows for the proposed development were provided to the City of Ottawa staff on August 16th, 2023 (see **Appendix C.2**) to evaluate the adequacy of the receiving municipal



sanitary sewer system in the vicinity of the site and downstream network. The City has confirmed that the 250 mm diameter sanitary sewers in Cummings Avenue has sufficient capacity for the proposed sanitary peak flows; however, the sewers will not have any further capacity should any additional development occur in the 250 mm sanitary sewer area along Cummings Avenue.

4.3 Proposed Sanitary Servicing

A 150 mm diameter sanitary building service, complete with full port backwater valve as per City standard S14.1, is recommended to service the proposed development. Final sizing of the lateral is to be confirmed by the mechanical consultant. The sanitary lateral is be equipped with a sanitary monitor manhole prior to connecting to the existing sewer manhole in Cummings Avenue. The proposed sanitary servicing is shown on **Drawing SSP-1**.



5 Stormwater Management and Servicing

5.1 Objectives

The goal of this stormwater servicing and stormwater management (SWM) plan is to determine the measures necessary to control the quantity and quality of stormwater released from the proposed development to meet the criteria established during the consultation process with City of Ottawa and Rideau Valley Conservation Authority (RVCA) staff, and to provide sufficient details required for approval.

5.2 Stormwater Management (SWM) Criteria

The Stormwater Management (SWM) criteria were established by combining current design practices outlined by the City of Ottawa Sewer Design Guidelines (SDG) (October 2012), review of project preconsultation notes with the City of Ottawa, and through consultation with City of Ottawa staff. The following summarizes the criteria, with the source of each criterion indicated in brackets:

General

- Use of the dual drainage principle (City of Ottawa SDG)
- Wherever feasible and practical, site-level measures should be used to reduce and control the volume and rate of runoff (City of Ottawa SDG)
- Assess impact of 100-year event outlined in the City of Ottawa Sewer Design Guidelines on the major and minor drainage systems (City of Ottawa SDG)

Storm Sewer & Inlet Controls

- Size storm sewers to convey 5-year storm event.
- Discharge for each storm event to be restricted to a 5-year storm event pre-development rate with a maximum pre-development C coefficient of 0.5 (City of Ottawa pre-consultation, **Appendix F**)
- Peak flows generated from events greater than the 5-year and including the 100-year storm must be detained on site (City of Ottawa pre-consultation, **Appendix F**)
- The preferred stormwater system outlet for this site is the 600 mm diameter storm sewer within Cummings Avenue
- The foundation drainage system is to be pumped to the building site storm service lateral tying to Cummings Avenue.
- Internal roof drainage system shall not be routed through the cistern.
- T_c should be not less than 10 minutes (City of Ottawa SDG).

Surface Storage & Overland Flow

- Building openings to be a minimum of 0.30 m above the 100-year water level (City of Ottawa SDG)
- Maximum depth of flow under either static or dynamic conditions shall be less than 0.35 m (City of Ottawa SDG)

• Provide adequate emergency overflow conveyance off-site with a minimum vertical clearance of 15 cm between the spill elevation and the ground elevation at the building envelope in the proximity of the flow route or ponding area (City of Ottawa SDG)

5.3 Existing Conditions

The existing site (0.35 ha) consists of two one-story buildings, a two-storey building, vegetated/sodded areas, trees, chain link fencing, and gravel parking and driveway. The existing structures, chain link fence, and some trees will be removed to allow for the proposed development, as shown in the Existing Conditions and Removals Plan (see **Drawing EX-1**).

Three sub-catchments were delineated in the Existing Conditions Storm Drainage Plan (see **Drawing EXSD-1**), consisting of the north, west, and east areas of the site. The catchments are characterized by a mix of gravel, roof, and vegetated areas, as well as the direction of uncontrolled discharge under existing conditions. The EXSD-1 plan was used to establish the overall site pre-development runoff coefficient of C=0.43, as summarized in **Table 5-1** below.

Catchment Areas	С	A (ha)	Outlet
NORTH	0.40	0.07	Weldon ROW
WEST	0.45	0.20	Adjacent property
EAST	0.41	0.08	Cummings ROW
Total	0.43	0.35	-

Table 5-1: Summary of Existing Subcatchment Areas

The pre-development release rates for the site have been determined using the rational method and the drainage characteristics identified above. A time of concentration for the pre-development area was first determined using the FAA method. As calculated time of concentrations were determined to be below 10 minutes, the minimum 10 minute Tc was assigned. The peak pre-development flow rates shown in **Table 5-2** have been calculated using the rational method as follows:

$$Q = 2.78 (C)(I)(A)$$

Where:

Q = peak flow rate, L/s

C = site runoff coefficient

I = rainfall intensity, mm/hr (per City of Ottawa IDF curves)

A = drainage area, ha



Design Storm	Pre-Development Flow Rate (L/s) for C=0.43, A=0.35 ha, $t_c = 10$ min
5-year	43.3

 Table 5-2: Peak Pre-Development Flow Rates

5.4 Stormwater Management Design

The Modified Rational Method was employed to assess the rate and volume of runoff anticipated during post-development rainfall runoff events. The site was subdivided into sub-catchments (subareas) as defined by the proposed grades and the location, nature, or presence/absence of inlet control devices (ICDs). Each sub-catchment was assigned a runoff coefficient based on the proposed finished surface. A summary of subareas and runoff coefficients is provided in **Table 5-3** below. Further details can be found in **Appendix D.1**, while **Drawing SD-1** illustrates the proposed sub-catchments.

Catchment Areas	С	A (ha)	Flow Type	Outlet
BLDG-1	0.90	0.165	Controlled	Cummings Storm Sewer
BLDG-2	0.90	0.003	Controlled	
BLDG-3	0.90	0.001	Controlled	
BLDG-4	0.90	0.001	Controlled	
CB-1	0.69	0.046	Controlled	Cistern
CB-2	0.73	0.027	Controlled	
CB-3	0.70	0.024	Controlled	
RAMP	0.90	0.008	Uncontrolled	
UNC-1	0.20	0.005	Uncontrolled	Adjacent property
UNC-2	0.20	0.020	Uncontrolled	Adjacent property / Weldon Drive
UNC-3	0.20	0.013	Uncontrolled	Weldon Drive
UNC-4	0.46	0.035	Uncontrolled	Cummings ROW
Total Site	0.73	0.348	-	-

Table 5-3: Summary of Subcatchment Areas

5.4.1 ALLOWABLE RELEASE RATE

The pre-development 5-year release rate for the site was determined using the rational method to be 43.3 L/s. Consequently, the target release rate for 1184-1196 Cummings Avenue under all events up to and including the 100-year event will be 43.3 L/s. Runoff coefficient values have been increased by 25 % for the post-development 100-year storm event based on the City of Ottawa SDG.

5.4.2 QUANTITY CONTROL: STORAGE REQUIREMENTS

The site requires quantity control measures to meet the restrictive stormwater release criteria. It is proposed that rooftop storage via restricted roof release directly to the Cummings Ave. storm sewer while the remaining site drainage be collected through catch basins and routed to an internal cistern to reduce the site peak outflow. A spreadsheet using the Modified Rational Method (MRM) was used to size the roof and cistern storage, as shown in **Appendix D.1**.

5.4.2.1 Rooftop Storage

It is proposed to retain stormwater on the building rooftop by installing restricted flow roof drains. The MRM calculations assume the roof will be equipped with 27 standard Watts model roof drains complete with Adjustable Accutrol Weirs. Discharge from the controlled roof drains will be routed by the mechanical consultant through the building's internal plumbing to the storm service lateral downstream of the proposed cistern.

Watts Drainage Adjustable Accutrol roof drain weir data (see **Appendix D.2**) and the roof plan (see **Appendix B**) has been used to calculate a practical roof release rate and detention storage volume for the rooftop areas, with 80 % of the roof area assumed to be available for storage. It should be noted that the Accutrol weir has been used as an example only, and that other products may be specified for use, provided that:

- the peak roof drain release rate is restricted to match the maximum rate of release indicated in **Table 5-3**,
- sufficient roof storage is provided to meet (or exceed) the required volume of detained stormwater indicated in **Table 5-3**, and
- the maximum ponding depth of 150 mm is not exceeded during a design storm event.

The proposed drain release rates and storage volumes have been calculated based on 21 of the roof drain weirs at 25 % opened setting, and 6 drains at the closed setting. Rooftop storage volumes and controlled release rates are summarized in **Table 5-4**.

Design Storm	Storage Depth (mm)	Peak Discharge (L/s)	Volume Stored (m ³)
5-Year (Roof)	90	17.8	15.1
100-Year (Roof)	128	20.3	41.6

5.4.2.2 Uncontrolled Areas

There are four uncontrolled subcatchment areas, consisting of UNC-1, UNC-2, UNC-3, and UNC-4, which drain to the south and west sides of the site and to the Weldon Drive and Cummings Avenue ROW, respectively. While UNC-1 and UNC-2 will continue to drain as per existing conditions to the neighbouring properties, UNC-3 and UNC-4 will drain to the Weldon Drive and Cummings Avenue ROW via surface



flows and are directed toward the existing roadway catch basins (CBs). The peak post-development release rates from the uncontrolled areas are summarized in **Table 5-5**.

Design	Release Rate (L/s)					
Storm	UNC-1	UNC-2	UNC-3	UNC-4	Total	
5-Year	0.3	1.2	0.8	4.7	6.3	
100-Year	0.6	2.5	1.6	10.0	13.5	

Table 5-5: Peak Post-Development Uncontrolled Surface Release Rates

Table 5-6 compares the pre- and post-development peak stormwater release rates from the north side of the site, which discharges uncontrolled towards Weldon Drive as per existing conditions. The table below demonstrates that by developing the site, the overall stormwater release rate towards Weldon Drive will be reduced by 74 % in the 5-year event and by 69 % in the 100-year event compared to existing conditions.

Table 5-6: Comparison of Uncontrolled Discharge to Weldon Drive Pre- to Post-Development

	A (ha)	С	5-Year (L/s)	5-Year Difference (%)	100-Year (L/s)	100-Year Difference (%)
Pre-development from NORTH	0.07	0.40	7.6	-	13.1	-
Post-development from UNC-3, UNC-2	0.03	0.20	2.0	-	4.1	-
Difference	-0.04	-	-5.6	-74	-9.0	-69

The reverse sloped ramp to the parking garage is to be equipped with a trench drain at the bottom of the ramp to provide an outlet for the driveway area (RAMP subcatchment). As per Section 5.7.6 of the City SDG (as amended), separate stormwater service piping is proposed to connect the trench drain to the cistern, also separate from the foundation drain and will be designed by the mechanical engineer.

5.4.2.3 Stormwater Cistern

As part of the stormwater management design of the site development, a stormwater cistern located in the underground parking area and equipped with a mechanical pump is proposed to attenuate peak flows from the catch basin and ramp drain areas. The final location of the cistern within the proposed building is to be coordinated by the architect with mechanical and structural engineers.

The stormwater cistern is to be designed to provide a minimum active storage volume of 30 m³ with a maximum controlled release rate of 8.3 L/s. The stormwater cistern is to discharge at the specified controlled release rate using a pump. **Table 5-7** summarizes the respective flow rates and volume of retained stormwater in the 5-year and 100-year storm events.



Storm Return Period	Area IDs	Drainage Area (ha)	Q _{release} (L/s)	V _{required} (m ³)	V _{available} (m ³)
5-year	CB-1 – CB-3,			8.9	
100-year	RAMP, BLDG-2 – BLDG-4	0.11	8.3	29.6	30.0

Table 5-7: Proposed Cistern 5 and 100-Year Storage Requirement

5.4.2.4 Results

The proposed stormwater management plan meets the requirements identified during pre-consultation that all stormwater release under all storm events, including the 100-year storm event, are to be controlled to the 5-year pre-development target release rate. **Table 5-8** provides a summary of the peak design discharge rates calculated from the MRM analysis, shown in **Appendix D.1**.

Table 5-8: Summary of Total 5-Year and 100-Year Event Release Rates				
Drainage areas	5-year Peak Discharge	100-Year Peak Discharge		

Drainage areas	5-year Peak Discharge (L/s)	100-Year Peak Discharge (L/s)
Uncontrolled Areas	6.9	14.7
Roof to Sewer	17.8	20.3
Cistern to Sewer	8.3	8.3
Target (L/s)	43.3	43.3
Total (L/s)	33.0	43.3*

*May not sum exactly due to rounding.

5.4.3 QUALITY CONTROL

Through correspondence with the City of Ottawa, it was confirmed that on-site quality control with a minimum target of 80 % TSS removal be established. As such, an oil/grit separator (OGS) has been specified for this purpose to capture runoff from impervious areas of development. Using a fine particle size distribution and the Stormceptor Sizing Tool, a Stormceptor model EFO4 has been selected for the proposed monitoring manhole at the east property limit near Cummings Avenue and will achieve 92% TSS removal, exceeding the minimum required TSS removal level of 80%. The surface areas and runoff coefficient of which the sizing is based on is tabulated in **Table 5-9** below, while the detailed Stormceptor sizing report is included in **Appendix D.5**.



Catchment Areas	С	A (ha)
CB-1	0.69	0.05
CB-2	0.73	0.03
CB-3	0.70	0.02
RAMP	0.90	0.01
BLDG-1	0.90	0.17
BLDG-2	0.90	0.00
BLDG-3	0.90	0.00
BLDG-4	0.90	0.00
Total	0.81	0.29

Table 5-9: Surface Area and Runoff for Stormceptor Sizing

The OGS unit has been considered as an example only. Other OGS products or treatment systems with equivalent TSS removal capabilities may also be selected based on the input parameters noted within the Stormceptor sizing report.

5.5 Proposed Stormwater Servicing

One 300 mm diameter stormwater building service, complete with full port backwater valve as per City standard S14.1, is proposed for the storm service lateral, as per **Drawing SSP-1**. A stormwater sump and pump are required for the proposed foundation drain, ramp drain and surface drainage. The roof drains are to be connected to the service lateral downstream of the sump pump and full port backwater valve.

The foundation drain and proposed private storm sewers will outlet to the cistern, which then pumps the discharge at a controlled rate to the existing 600 mm diameter storm sewer within the Cummings Avenue ROW. The lateral is to connect to the main as per City standard S11. The proposed stormwater servicing is shown on **Drawing SSP-1** and **SD-1**.



6 Site Grading

The proposed re-development site measures approximately 0.35 ha in area and consists of grassed areas with trees and three existing residential dwellings. The topography across the site generally slopes from the middle towards the northern boundary and the Cummings Avenue ROW at the south. A detailed grading plan (see **Drawing GP-1**) has been provided to satisfy the stormwater management requirements, as detailed in **Section 5**, adhere to any grade raise restrictions for the site, and provide for minimum cover requirements for storm and sanitary sewers where possible.

Site grading has been established to provide emergency overland flow routes required for stormwater management. The overland escape route will follow the south curb line of the site access drive aisle, with overland flow to Cummings Avenue right of way. The elevation of onsite surface ponding will be a minimum of 0.30 m below the elevations at the building openings as shown on the drawings. The proposed development will require a section of retaining wall along the west and south boundary to maintain existing property line ground conditions and to ensure the overland spill route is directed to Cummings Avenue rather than to neighboring parcels.



7 Utilities

Overhead (OH) hydro-wires run parallel to the south property line with branches servicing the existing buildings from the south. All utilities within the work area will require relocation during construction. The existing utility poles within the public right of way are to be protected during construction.

As the site is surrounded by existing residential and commercial development, Hydro Ottawa, Bell, Rogers, and Enbridge servicing is readily available through existing infrastructure to service this site. The exact size, location, and routing of utilities will be finalized after design circulation. Existing overhead wires and utility plants may need to be temporarily moved/reconfigured to allow sufficient clearance for the movement of heavy machinery required for construction. The relocation of existing utilities will be coordinated with the individual utility providers upon design circulation.



8 Approvals

The proposed development lies on a private site under singular ownership; drains to an approved separated sewer outlet; and is not intended to service industrial land or land uses. Therefore, the site is exempt from the Ministry of the Environment, Conservation and Parks (MECP) Environmental Compliance Application (ECA) process under O.Reg. 525/98.

For ground or surface water volumes being pumped during the construction phase, typically between 50,000 to 400,000 L/day, it is required to register on the Environmental Activity and Sector Registry (EASR). It is possible that groundwater may be encountered during the foundation excavation on this site. A minimum of two to four weeks should be allotted for completion of the EASR registration and the preparation of the Water Taking and Discharge Plan by a Qualified Person as stipulated under O.Reg. 63/16. An MECP Permit to Take Water (PTTW), which is required for dewatering volumes exceeding 400,000L/day, is not anticipated for the site.



9 Erosion and Sediment Control During Construction

To protect downstream water quality and prevent sediment build-up in catch basins and storm sewers, erosion and sediment control measures must be implemented during construction. The following recommendations will be included in the contract documents and communicated to the Contractor.

- 1. Implement best management practices to provide appropriate protection of the existing and proposed drainage system and the receiving water course(s).
- 2. Limit the extent of the exposed soils at any given time.
- 3. Re-vegetate exposed areas as soon as possible.
- 4. Minimize the area to be cleared and grubbed.
- 5. Protect exposed slopes with geotextiles, geogrid, or synthetic mulches.
- 6. Install silt barriers/fencing around the perimeter of the site as indicated in **Drawing ECDS-1** to prevent the migration of sediment offsite.
- 7. Install trackout control mats (mud mats) at the entrance/egress to prevent migration of sediment into the public ROW.
- 8. Provide sediment traps and basins during dewatering works.
- 9. Install sediment traps (such as SiltSack® by Terrafix) between catch basins and frames.
- 10. Schedule the construction works at times which avoid flooding due to seasonal rains.

The Contractor will also be required to complete inspections and guarantee the proper performance of their erosion and sediment control measures at least after every rainfall. The inspections are to include:

- Verification that water is not flowing under silt barriers.
- Cleaning and changing the sediment traps placed on catch basins.

Refer to **Drawing ECDS-1** for the proposed location of silt fences, sediment traps, and other erosion control measures.



10 Geotechnical Investigation

A geotechnical investigation for 1184-1196 Cummings Avenue was completed by Pinchin on March 27, 2023, and revised in December 2023. Field testing consisting of the advancement of four boreholes to a maximum depth of 7.6 m below existing grade was carried out throughout the subject site on March 10, 2023, with previous investigations carried out by Paterson on February 14, 2023 and by others on January 28, 2021. The borehole locations are presented in the geotechnical investigation report included in **Appendix E.1**.

The subsurface profile encountered at the test hole locations consists of topsoil and fill, underlain by a layer of silty sand to sandy silty with gravel and cobbles, overlying bedrock. The fill was noted to consist of a mixture of brown silty sand with gravel and crushed stone, trace clay, some shale, and cobbles. Bedrock was observed to consist of black shale of the Billings formation and is classified as very poor to fair in quality at the top, generally increasing in quality with depth.

Groundwater levels were measured to be at depths ranging from 2.07 m to 2.87 m below ground surface (BGS) at the four boreholes on site. Long term groundwater level is estimated to be at 2 to 3 m BGS, though seasonal variations in the water table should be expected. Clean imported granular fill should be used for grading beneath the building areas, while site-excavated soil and non-specified existing fill can be used for general landscaping fill where settlement of the ground surface is of minor concern.

The subject site is considered suitable for the proposed building, and it is recommended that it be founded using conventional shallow footings placed on clean, surface sounded bedrock. Bedrock removal could be carried out by hoe-ramming, while for sounded bedrock removal, line drilling and controlled blasting may be used, though a pre-blast or pre-construction survey must be carried out, with subsequent blasting operations planned and carried out under the supervision of an experienced blasting consultant who is a licensed professional engineer.

The pavement structure for the parking and access driveway is provided as follows in **Table 10-1**: Pavement Structure:

Material	Thickness (mm)						
	Parking Areas	Driveways	Underground Parking				
Rigid Concrete Pavement – 32 MPa concrete with air entrainment	-	-	125				
Wear Course – HL-3 or Superpave 12.5 Asphaltic Concrete	50	40	-				
Binder – HL-8 or Superpave 19.0 Asphaltic Concrete	-	50	-				
Base – OPSS Granular A Crushed Stone	150	150	300				
Sub-Base – OPSS Granular B Type II	300	400	-				

Table 10-1: Pavement Structure

11 Conclusions

11.1 Water Servicing

Based on the supplied boundary conditions for existing watermains and calculated domestic and fire flow demands for the subject site, the adjacent watermain on Cummings Avenue has sufficient capacity to sustain both the required domestic and emergency fire flow demands for the development. Booster pumps are required to provide adequate pressures to the building's upper stories. The proposed development requires a 150 mm diameter water service lateral, which will be connected to the existing 305 mm diameter watermain in the Cummings Avenue ROW, and a new fire hydrant to be located within the public road right of way. Sizing of the water service and requirements for booster pump(s) are to be confirmed by the mechanical consultant.

11.2 Sanitary Servicing

The proposed sanitary sewer service will consist of a 150 mm diameter sanitary service lateral, a sanitary sump pit, a monitor manhole, and sump pump directing wastewater to the existing 250 mm diameter sanitary sewer on Cummings Avenue. Existing connections are to be abandoned and full port backwater valves installed on the proposed sanitary service within the site to prevent any surcharge from the downstream sewer main from impacting the proposed property. A sump pump will be required for sewage discharge from the mechanical room. Sizing of the service lateral, sump pit, and sump pump are to be confirmed by the mechanical consultant.

11.3 Stormwater Servicing and Management

Rooftop storage and a cistern have been proposed to limit the stormwater discharge rate for all rainfall events up to and including the 100-year event to a peak 5-year predevelopment release rate. The remaining site area drains uncontrolled, with the east and north sides drain uncontrolled to the Cummings Avenue ROW and Weldon Drive, while the south and west landscaped sides of the site drain uncontrolled to the neighbouring properties as per existing conditions. While the proposed land use and site surfacing is not expected to be a significant source of particulates or pollutants, it is recommended that the site provides Enhanced level of stormwater quality control (80 % TSS removal).

A single 300 mm diameter storm service lateral is proposed for the building's foundation drain, ramp drain and storm sewer system, which is to be mechanically pumped at a controlled rate through the service lateral and the backwater valve to the 600 mm diameter municipal storm sewer in the Cummings Avenue ROW. The roof drains are to be connected independently to the storm service lateral. Sizing of the service lateral, cistern, and foundation drain pump are to be confirmed by the mechanical consultant.



11.4 Grading

Site grading has been designed to provide an adequate emergency overland flow route. The east and north sides drain uncontrolled to the Cummings Avenue and Weldon Drive ROWs, while the south and west sides drain uncontrolled to the neighbouring properties as per existing conditions.

11.5 Erosion and Sediment Control During Construction

Erosion and sediment control measures and best management practices outlined in this report and included in the drawing set will be implemented during construction to reduce the impact on adjacent properties, the public ROW, and existing facilities.

11.6 Geotechnical Investigation

Based on the geotechnical investigation, the site is considered suitable for the proposed building, and it is recommended that it be founded using conventional shallow footings placed on clean, surface sounded bedrock. Long term groundwater level is estimated to be at 2 to 3 m BGS, though seasonal variations in the water table should be expected.

11.7 Utilities

The site is situated within an established neighbourhood, hence existing utility infrastructure is readily available to service the proposed development.

11.8 Approvals

This site is exempt from the Ministry of the Environment, Conservation and Parks (MECP) Environmental Compliance Application (ECA) process under O.Reg. 525/98. For the expected dewatering needs of 50,000 to 400,000 L/day, the proponent will need to register on the MECP's Environmental Activity and Sector Registry (EASR). A Permit to Take Water, for dewatering needs in excess of 400,000 L/day, is not anticipated for this site.



1184-1196 Cummings Avenue Servicing and Stormwater Management Report

APPENDICES



Appendix A Water Demands

A.1 Domestic Water Demands

1184-1196 Cummings Avenue - Domestic Water Demand Estimates Site Plan provided by Project 1 Studios (2023-12-19) Project Number: 160401787

Population densities as per MECP Guidelines:								
Bachelor	1.4	ppu						
1 Bedroom	1.4	ppu						
2 Bedroom	2.1	ppu						



mand conversion factors as per MECP Guidelines and Ottawa Design Guidelines - Water Distribution⁵: Residential 280 L/cap/day

Building ID	Number of	Estimated	Daily Rate of	Avg. Day	Demand	Max. Day	/ Demand ¹	Peak Hour Demand ¹	
	Apt Units ²	Population	Demand ⁴	(L/min)	(L/s)	(L/min)	(L/s)	(L/min)	(L/s)
Studio	157	220	280	42.7	0.71	106.8	1.78	235.1	3.92
1-Bedroom	6	8	280	1.6	0.03	4.1	0.07	9.0	0.15
1-Bedroom+Den ³	3	6	280	1.2	0.02	3.1	0.05	6.7	0.11
2-Bedroom	23	48	280	9.4	0.16	23.5	0.39	51.7	0.86
Total Site :	189	283		54.99	0.92	137.47	2.29	302.44	5.04

Notes:

1 Water demand criteria used to estimate peak demand rates for residential areas are as follows:

maximum day demand rate = 2.5 x average day demand rate

peak hour demand rate = 2.2 x maximum day demand rate (as per Technical Bulletin ISD-2010-02)

2 Number of apartment units counted as per Project1 Studios Suite Plan (December 19, 2023).

3 Assumption that "1 bedroom with den" has density of 2.1 ppu

4 As per Table 4-2 from the City of Ottawa Water Design Guidelines and Technical Bulletin ISTB-2021-03, the average daily rate of water demand for residential areas: 280 L/cap/day

A.2 Fire Flow Demands (FUS 2020)



Stantec Project #: 160401787 Project Name: 1184-1196 Cummings Avenue Date: 2024-01-10 Fire Flow Calculation #: 1

Description: 6-storey residential apartment building

Notes: Site Plan provided by Project 1 Studio on December 19, 2023

Step	Task	Notes										Value Used	Req'd Fire Flow (L/min)
1	Determine Type of Construction	Type III - Ordinary Construction / Type IV-C - Mass Timber Construction										1	-
2	Determine Effective Floor Area	Sum of All Floor Areas								-	-		
2		2071	1623	1639	1621	1610	1439	1433				11436	-
3	Determine Required Fire Flow	(F = $220 \times C \times A^{1/2}$). Round to nearest 1000 L/min										-	24000
4	Determine Occupancy Charae		Limited Combustible										20400
			Conforms to NFPA 13								-30%		
5	Determine Sprinkler					Standard W	ater Supply					-10%	-10200
	Reduction	Fully Supervised									-10%	-10200	
			% Coverage of Sprinkler System									100%	
	Determine Increase for Exposures (Max. 75%)	Direction	Exposure Distance (m)	Exposed Length (m)	Exposed Height (Stories)	Length-Height Factor (m x stories)	Construction W	of Adjacent all	Fire	wall / Sprinkler	ed ?	-	-
		North	10.1 to 20	37	1	21-49	Тур	e V		NO		11%	
6		East	20.1 to 30	63	2	> 100	Тур	e V		NO		10%	9588
		South	10.1 to 20	37	1	21-49	Тур	e V		NO		11%	7000
		West	10.1 to 20	63	2	> 100	Тур	e V		NO		15%	
7		Total Required Fire Flow in L/min, Rounded to Nearest 1000L/min										20000	
	Determine Final Required Fire Flow	Total Required Fire Flow in L/s										333.3	
		Required Duration of Fire Flow (hrs)									4.50		
		Required Volume of Fire Flow (m ³)								5400			

A.3 Correspondence with Architect on Construction Type

Wu, Michael

From: Sent: To: Cc: Subject: Ryan Koolwine <koolwine@project1studio.ca> Monday, 27 March, 2023 15:44 Moir, Tyler Kilborn, Kris; Wu, Michael RE: 2231 - 1184 Cummings

Hi Tyler,

The building will be sprinklered.

The building is to be wood framed. That said, every exterior wall will have a fire resistance rating of 1hr, the floors will have a 1hr FRR and so will demising walls. We would propose that the building be considered 'ordinary construction' for the purpose of the FUS calculation.

Ryan Koolwine

project1studio | 613 884-3939 x1

From: Moir, Tyler <Tyler.Moir@stantec.com>
Sent: March 27, 2023 3:03 PM
To: Ryan Koolwine <koolwine@project1studio.ca>
Cc: Kilborn, Kris <kris.kilborn@stantec.com>; Wu, Michael <Michael.Wu@stantec.com>
Subject: RE: 2231 - 1184 Cummings

Hi Ryan,

To complete the boundary conditions request for the 1184 Cummings Ave project, we will need to confirm the proposed construction classification and confirm that the building is sprinklered. Can you provide this information at your earliest convenience?

Thanks, Tyler

Tyler Moir P.Eng. Project Manager, Community Development

Direct: 902 620-0250 Mobile: 902 388-0100 Tyler.Moir@stantec.com

Stantec 165 Maple Hills Avenue Charlottetown PE C1C 1N9





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Please consider the environment before printing this email.
From: Ryan Koolwine <koolwine@project1studio.ca>
Sent: Thursday, March 16, 2023 8:19 AM
To: Kilborn, Kris <kris.kilborn@stantec.com>
Cc: Moir, Tyler <Tyler.Moir@stantec.com>
Subject: RE: 2231 - 1184 Cummings

Hi Kris,

Odd... just tried it an it worked. Either way, I've attached the two files.

Ryan Koolwine

project1studio | 613 884-3939 x1

From: Kilborn, Kris <kris.kilborn@stantec.com>
Sent: March 16, 2023 7:02 AM
To: Ryan Koolwine <koolwine@project1studio.ca>
Cc: Moir, Tyler <Tyler.Moir@stantec.com>
Subject: RE: 2231 - 1184 Cummings

Good morning Ryan

I clicked the attached link and it indicates that the files do not exist. Could you try resending or resetting the link

Sincerely

Kris Kilborn

Principal, Community Development Business Center Practice Leader

Mobile: 613 297-0571 Fax: 613 722-2799 kris.kilborn@stantec.com Stantec 300 - 1331 Clyde Avenue Ottawa ON K2C 3G4

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The Ottawa office is open however many staff are working remotely. To contact me please use email, or my mobile and leave a message. Please note our reception is on the 3rd floor.

From: Ryan Koolwine <<u>koolwine@project1studio.ca</u>>
Sent: Wednesday, March 15, 2023 5:52 PM
To: Kilborn, Kris <<u>kris.kilborn@stantec.com</u>>; Mike Lennox <<u>ml@jbla.ca</u>>; James Lennox <<u>jl@jbla.ca</u>>; Timothy Beed
<<u>beed@fotenn.com></u>
Cr: Dylan Designing <D Designing @tcudeycorn.com>: Bailey Haskins

haskins @project1studio.ca>

Cc: Dylan Desjardins <<u>D.Desjardins@tcudevcorp.com</u>>; Bailey Haskins <<u>haskins@project1studio.ca</u>> Subject: 2231 - 1184 Cummings Hi All,

Please see the link below for the current version of the site plan in PDF and CAD. <u>https://www.dropbox.com/home/NASRevit/2231%20-%201184%20Cummings/Sent/230315%20Site%20Plan</u>

Cheers,

Ryan Koolwine Principal

project1studio

260 St. Patrick Street - Suite 300 | project1studio.ca | 613 884-3939 x1 Please consider the environment before printing this email

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A.4 Boundary Conditions

Wu, Michael

From:	Moir, Tyler
Sent:	June 29, 2023 11:58
То:	Wu, Michael
Subject:	FW: Application D02-02-23-0031/D07-12-23-0044 Address 1184,1188, 1196 Cummings - 1st Review Comments
Attachments:	Memo to File Lead - Preliminary Comments 1184-1196 Cummings SPC.docx; D02-02-23-0031 and D07-12-23-0044 2023-06-16 09-20-24.pdf; D02-02-23-0031 and D07-12-23-0044 2023-06-16 09-20-01.pdf; Cummings, 1184_D07-12-23-0044_UD Comments 1.docx; Cummings, 1184_D07-12-23-0044 _UD Comments 1.docx; D07-12-23-0044 - 1184-1196 Cummings Avenue.pdf; 2023-05-16 - Application Summary - D02-02-23-0031.pdf

Importance:

High

Kris just sent me this. I will review and give you a call to discuss.

Tyler Moir P.Eng. Project Manager, Community Development

Direct: 902 620-0250 Mobile: 902 388-0100 Tyler.Moir@stantec.com

Stantec 165 Maple Hills Avenue Charlottetown PE C1C 1N9



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From: Kilborn, Kris <kris.kilborn@stantec.com> Sent: Thursday, June 29, 2023 12:50 PM To: Moir, Tyler <Tyler.Moir@stantec.com> Subject: FW: Application D02-02-23-0031/D07-12-23-0044 Address 1184,1188, 1196 Cummings - 1st Review Comments Importance: High

Fyi attached and below

From: Thomas Freeman <<u>freeman@fotenn.com</u>> Sent: Thursday, June 29, 2023 10:54 AM To: Kilborn, Kris <<u>kris.kilborn@stantec.com</u>> Cc: Ryan Koolwine <<u>koolwine@project1studio.ca</u>>; Timothy Beed <<u>beed@fotenn.com</u>>; Dylan Desjardins <<u>D.Desjardins@tcudevcorp.com</u>> Subject: FW: Application D02-02-23-0031/D07-12-23-0044 Address 1184,1188, 1196 Cummings - 1st Review Comments Importance: High

Hi Kris,

Are you able to provide the water modeling data for 1184 Cummings. The City planner says if they do not receive it today, we will be bumped to the August 16 PHC meeting.

Can you please confirm ASAP.

Thanks,

Thomas Freeman, B.URPL Planner

From: Belan, Steve <<u>Steve.Belan@ottawa.ca</u>>
Sent: Wednesday, June 28, 2023 5:00 PM
To: Timothy Beed <<u>beed@fotenn.com</u>>; Thomas Freeman <<u>freeman@fotenn.com</u>>
Cc: Wildman, Geraldine <<u>Geraldine.Wildman@ottawa.ca</u>>; Elsby, Cam <<u>Cam.Elsby@ottawa.ca</u>>; Giampa, Mike<<<u>Mike.Giampa@ottawa.ca</u>>
Subject: Application D02-02-23-0031/D07-12-23-0044 Address 1184,1188, 1196 Cummings - 1st Review Comments

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Hello Tim,

We agreed to place the zoning report on the agenda, provided that servicing for the site was confirmed. At this time, it still has not be confirmed that there is sufficient water to service this site. Given that, we are looking to defer the zoning to the next available Planning and Housing Committee. Please have your engineer provide the modeling using the Project Managers Boundary Conditions below. <u>We will need confirmation of the water in the next couple of days to make this committee date</u>.

Here are the remainder of the comments from the circulation which ended on June 14.

Please find attached here consolidated comments from the 1st review of the above noted application.

Engineering

Water service still needs to be modeled. Please fine that following information to assist you

The following are boundary conditions, HGL, for hydraulic analysis at 1184-1196 Cumming Avenue (zone 1E) assumed to be connected to the 305 mm watermain on Cummings Avenue (see attached PDF for location).

Min HGL: 110.1 m Max HGL: 118.3 m

Max Day + Fire Flow (333.3 L/s): 108.7 m

These are for current conditions and are based on computer model simulation.

Disclaimer: The boundary condition information is based on current operation of the city water distribution system. The computer model simulation is based on the best information available at the time. The operation of the water distribution system can change on a regular basis, resulting in a variation in boundary conditions. The physical properties of watermains deteriorate over time, as such must be assumed in the absence of actual field test data. The variation in physical watermain properties can therefore alter the results of the computer model simulation.

Other engineering comments are attached in the memo. Feel free to contact the Infrastructure Project Manager, Cam Elsby at <u>Cam.Elsby@ottawa.ca</u>, for follow-up questions

Transportation Engineering Services

Section 2.3.1 Planned Conditions

Section 2.3.1 states that, "In the Active Transportation project List (April 2022), cycling facilities are identified along Cummings Avenue between Donald Street and Cyrville Road. Based on the Cyrville TOD Plan area, it is assumed that this cycling facility would be a shared-use lane". Please note that the Cyrville TOD Plan is outdated in this regard. The active transportation project is more likely to involve unidirectional cycling facilities on each side of the road, such as painted bike lanes or cycle tracks (consistent with Section 4.1.2 of the Official Plan).

Section 8.1 Design for Sustainable Modes

Within the Element 4.1.1 of the TIA (Design for Sustainable Modes), please reference and discuss the TDM-Supportive Development Design and Infrastructure Checklist.

Section 8.2 Circulation and Access

Provide swept path turning analysis for garbage collection vehicles and describe where/how garbage collection will occur.

Section 11.1 Location and Design of Access:

While the text of the TIA notes that the access will comply with the City of Ottawa standard drawing SC7.1, the site plan and grading plan currently show the curb return continuing across the sidewalk (noted on the site plan as #9, depressed curb). SC7.1 no longer includes a depressed curb return across the sidewalk. Weldon Drive to the north of the site is a good example of an access that does not include a depressed curb return across the sidewalk. Please correct the access design in the site plan and grading plan.

Traffic analysis presented in Section 7 of the TIA indicates that the southbound left-turn movement at Ogilvie Road and Cummings Avenue experiences extended queues (>75m) during the PM peak hour. In addition, the 95th percentile southbound through queue at this intersection is estimated to extend 64m and 57m during the AM and PM peak hours, respectively. The proposed access is only approximately 35m north of the intersection. Therefore, site generated traffic may have difficulty safely turning northbound left into the site or eastbound left out of the site during the PM peak hour. It is highly recommended that the site layout is "flipped" so that the access is located near the north edge of the site. This would place the access approximately 105m away from the Ogilvie Road and Cummings Avenue intersection and outside of the typical extent of the southbound left-turn queue.

The Private Approach By-Law states that no person shall construct a private approach within 3 metres of any property line measured at the highway line and at the curb or the edge of the roadway. The curb return of the proposed access extends into the adjacent property to the south, essentially providing 0 metres of off-set). The off-set is below the

absolute minimum of 0.3 metres, does not meet the conditions of the Private Approach By-Law, and therefore should not be permitted in its current location.

Section 14.2.2 Network Intersection MMLOS:

Transportation Engineering Services respectfully requests CGH to stop writing the following statement within their TIAs: "Pedestrian delay LOS is not considered in the PLOS calculation as it is not a suitable metric for the assessment of pedestrian LOS as formulated. This exclusion is consistent with City direction since 2015, and no alternative methodology has been provided for its assessment." This is not true, and CGH has not provided any evidence of the supposed City direction provided in 2015.

Traffic Signal Design

No comments for this current circulation. Traffic Signal Design Unit reserves the right to make future comments based on subsequent submissions.

If there are any future proposed changes in the existing roadway geometry that would require the installation of a pedestrian crossover (Type B or Type C), the signalization of an intersection or modifications to an existing signalized intersection, the City of Ottawa Traffic Signal Design Unit would be required to complete a traffic signal plant design and would need to be engaged in reviews during the functional design stage.

Traffic Engineering

The location of the full movement access in relation to the intersection of Ogilvie Road & Cummings Avenue is not supported. Alternatives (move, right-in/right-out) should be considered.

Streetlighting

No comments with the TIA for this circulation. Street lighting reserves the right to make future comments based on subsequent submissions.

Future considerations are as follows:

If there are any proposed changes to the existing roadway geometry, the City of Ottawa Street Light Asset Management Group is required to provide a full street light design. Upon completion of proposed roadway geometry design changes, please submit digital Micro Station drawings with proposed roadway geometry changes to the Street Lighting Department, so that we may proceed with the detailed street light design and coordination with the Street Light maintenance provider and all necessary parties. Be advised that the applicant will be 100% responsible for all costs associated with any Street Light design as a result of the roadway geometry change.

Alterations and /or repairs are required where the existing street light plant is directly, indirectly or adversely affected by the scope of work under this circulation, due to the proposed road reconstruction process. All street light plant alterations

Solid Waste

After reviewing this site plan the city will collect the garbage and recycling at this building ,I do not see any issues at this location but I would need the sqF of the garbage room. This is what they will need for containers:

Garbage: 5x4 yard bins Fiber: 2x3 yard bin Glass metal plastic: 1x3 yard bins Organics: 3 x240L carts

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City Surveyor

Just wondering how the CL of Cummings Ave has been captured or calculated on the site plan. The legal survey in the submission package does not show the CL !

If the CL location has not been calculated correctly according to the OP then the distance shown to the development limit could be changed.



Is there any other topographic survey ?

Community Benefit Contribution

The Site is subject to CBC and will be conditioned in the Site Plan Agreement

City Parks

Cash in lieu of parkland will be required in accordance with the City's By-laws

Noise

The building will need to be serviced with air conditioning to allow for window to remain closed to protect from road noise. Location of air handling units will need to be located away from neighbouring properties.

Environmental

No reference to the Bird-Safe Design Guidelines in the design brief or the elevation drawings; while they have avoided monolithic expanses of glass, there are still concerns here from a bird-safe perspective. The glass balcony railings are a design trap and should be treated; this would also help reduce the risk posed by the glass doors/windows behind the railings. I note that they are proposing to have fritted railings for some units as a design feature, this is a great start – all railings should be fritted or etched to render them bird-safe.

Trees and Forestry

TCR

• The tree removal permit will be issued upon site plan approval. Please reach out to the Planning Forester for more information on obtaining the permit (<u>hayley.murray@ottawa.ca</u>)

5

This document was created by an application that isn't licensed to use <u>novaPDF</u>. Purchase a license to generate PDF files without this notice. • Please ensure all adjacently owned trees with CRZs extending into the development site were accounted for.

• Section 4.8.2 (3,d) of the Official Plan states, when considering impacts on individual trees, planning and development decisions, including Committee of Adjustment decisions, shall give priority to the retention and protection of large, healthy trees over replacement plantings and compensation; 32 trees are planned for removed and only 12 are shown as replacements.

• Why can a design that limits the large extent of the drive aisle not be proposed? The rear drive aisle in combination with the underground parking and the mid-rise apartment forces extensive tree removal and significantly limits opportunities for tree planting. Can the site not be oriented to decrease the size of the drive aisle, providing more space for replacement tree planting?

• Has a retention solution been explored for the row of maples (in good health) bordering Weldon Drive?

• Please investigate alternative designs that allow for more tree retention or increase space available for tree planting.

- Explain why the city owned eastern white cedar tree requires removal. If justified, monetary and
- replacement planting compensation would be required.

Landscape Plan

- Can an additional tree or two be planted in the northeast corner of the property where open sod is shown?
- Columnar varieties do not contribute to the urban canopy. Please replace the GP with medium or large canopy tree species.
- HA, JL and SB are small canopy trees that should only be planted when there are restrictions. Unless justified, please replace these species in the ROW with larger canopy species.
- Have adequate soil volumes been provided? Please label the volumes provided on the plan.
- Incorporating a landscape buffer with trees would contribute to the urban canopy cover that's being lost on this site and would also benefit the existing homes backing onto this property.
- Deciduous tree stock should be 50 mm in caliper. Larger or smaller stock has shown to have less success.

CPTED

No issues

Urban Design

This application should proceed to the UDRP prior to being rezoned. The remainder of the comments are attached in the UD_Comments above.

RVCA

The RVCA has reviewed the above noted Zoning By-law Amendment and Site Plan Control applications to permit a six-storey apartment building consisting of 188 dwelling units, 184 bicycle parking spaces and 56 vehicle parking spaces and have no objections.

School Board

Attached

Utilities

Attached

Telus

TELUS has no underground infrastructure in the area of your proposed work. Permit expires six (6) months from approval date.

Rogers Communications

Rogers has no comment or concerns regarding this circulation. Please contact Aubrey Macmillan at <u>Aubrey.Macmillan@rci.rogers.com</u> or <u>JoAnn.Zorzi@rci.rogers.com</u> for Rogers Site Servicing if approved, or if you required additional information

In order to achieve the target review and approval timeline, **please provide the next submission in 5/3** weeks, by July 26 date. Otherwise, the application will be placed on-hold.

The development review team will be happy to meet you to discuss comments and resolve issues. We highly recommend holding the comments review meeting within one week from the date of this letter. Please contact me at your earliest convenience to confirm the meeting date, time, format and location.

Please do not hesitate to contact me if you have any questions.

Regards,

Steve Belan, MCIP, RPP

Planner Planning Services, Development Review Services Planning, Corporate Real Estate and Economic Development department (PRED) City of Ottawa / Ville d'Ottawa 110 Laurier Avenue West, 4th Floor / 110, avenue Laurier Ouest, 4e étage Ottawa, ON K1P 1J1 Telephone / tél.: 613-580-2424 ext./poste 27591 E-mail / courriel: <u>Steve.Belan@ottawa.ca</u>

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A.5 Hydraulic Analysis

	Project:	1184-1196 Cummings	No. 160401787			
Stantec	SITE PLAN HYDRAULIC ANALYSIS					
otantee	Revision:	01 F	Prepared By: MW			
	Revision Date:	30-Aug-2023 Checked By:				

BOUNDARY CONDITIONS (BC)					
Connection at Cummings Avenue					
Site Plan Revision Date	31-Mar-2023				
Min. HGL (m)	110.1				
Max. HGL (m)	118.3				
Max. Day + Fire Flow (333 L/s)	108.7				

Ground Floor Elevation (GFE) (Level 01) (m)

71.8

	GROUND FLOOR (GF) PRESSURE RANGE						
	GF HGL (m)	GF Pressure (kPa)	GF Pressure (psi)	Outcome			
	= BC HGL (m) - FFE (m)	= GF HGL (m) x 9.804 (kPa/m)	= GF Pressure (kPA) x 0.145 (psi/kPa)	If min <50 psi: booster pump If max >100 psi: pressure reducer			
Minimum Normal	38.3	375.5	54.4	No Booster Pump Required			
Maximum Normal	46.5	455.9	66.1	No Pressure Reducer Required			

Number of Floors Above Ground	6
Approximate Height of One Storey (m)	3
Pressure Drop Per Floor (kPa)	29.4
Pressure Drop Per Floor (psi)	4.3

RESIDUAL PRESSURE RANGE IN MULTI-LEVEL BUILDINGS					
	Residual Pressure (kPa)	Residual Pressure (psi)	Outcome		
Top Floor Min	228.4	33.1			
Top Floor Max	308.8	44.8			
Maximum Number of Floors Above Ground at Minimum Pressure	3		Booster Pump Required		

RESIDUAL PRESSURE UNDER FIRE FLOW CONDITIONS							
	Residual HGL (m)	Residual HGL (m) Residual Pressure Residual Pressure					
	Residual HOE (III)	(kPa)	(psi)				
Ground Floor	36.9	361.8	52.5				
Top Floor	21.9	214.7	31.1				

PRESSURE CHECK						
	Pressure	Pressure				
	(kPa)	(psi)				
UNDER NORMAL OPER	ATING CONDITION	S				
Pressure Below Minimum	<276	<40				
Pressure Below Normal	276-345	40-50				
Pressure Within Normal Range	345-552	50-80				
Pressure Above Normal Range	552-690	80-100				
Pressure Above Maximum	>690	>100				
UNDER FIRE FLOW	UNDER FIRE FLOW CONDITIONS					
Pressure Below Minimum	<140	<20				
Acceptable Pressure	≥140	≥20				

A.6 Fire Hydrant Coverage Calculations

	Project: 1184-1196 Cummings Avenue			160401787
Stantec	TABLE 1: FIRE HYDRANT COVERAGE TABLE			
	Revision:	1 Prepared By:	MW	
	Revision Date:	2023-04-18 Checked By:		

	Hydrants ¹					Total Available	Total Required	
Description	HYD-01	HYD-02	HYD-03	HYD-04	HYD-05	HYD-06	Fire Flow (L/min)	Fire Flow ² (L/min)
	1184-1196 Cummings Avenue							
Distance from building (m)	97.3	94.0	77.1	76.1	172.5	96.8	-	-
Maximum fire flow capacity ³ (L/min)	3,785	3,785	3,785	3,785	2,839	3,785	21,764	20,000

NFPA 1 Table 18.5.4.3					
Distance to	Maximum				
Building	Capacity				
(m)	(L/min)				
≤ 76	5,678				
> 76 and ≤ 152	3,785				
> 152 and ≤ 305	2,839				

Notes:

1. Hydrant locations as per GeoOttawa accessed April 18, 2023. Refer to fire hydrant coverage sketch (Figure 3-1).

2. See OBC Calculations, Appendix A.2 for fire flow requirements.

3. See NFPA 1 Table 18.5.4.3 (and Appendix I of ISTB-2018-02 Technical Bulletin) for maxiumim fire flow capacity of hydrants by distance to building.

1184-1196 Cummings Avenue Servicing and Stormwater Management Report Site Plan by Project 1 Studios Inc.

Appendix B Site Plan by Project 1 Studios Inc.



	RESIDENT	IAL UNIT SCH	IEDULE		
LEVEL	NUMBER	UNIT TYPE	BEDS	AREA	T.O. I
.O. LEVEL 1 SLAB	101	TYPE D-BF	STUDIO	36.28 m ²	T.O. L
I.O. LEVEL 1 SLAB	102	TYPE D-BF	STUDIO	35.35 m ²	T.O. L
.O. LEVEL 1 SLAB	103	TYPE CA	STUDIO	35.35 m ²	T.O. L
.O. LEVEL 1 SLAB	105	TYPE N	STUDIO	58.72 m ²	T.O. L
O. LEVEL 1 SLAB	106	TYPE M	STUDIO	51.98 m ²	T.O. L
O LEVEL 1 SLAB	107	TYPE S	2-BED	51.43 m ² 69.99 m ²	TO 1
.O. LEVEL 1 SLAB	100	ТҮРЕ КВ	STUDIO	42.07 m ²	T.O. L
.O. LEVEL 1 SLAB	110	TYPE KE	STUDIO	42.07 m ²	T.O. L
OLEVEL 1 SLAB	111		STUDIO	42.07 m^2	T.O. L
.O. LEVEL 1 SLAB	112	ТҮРЕ КВ	STUDIO	42.07 m ²	T.O. L
.O. LEVEL 1 SLAB	114	TYPE KB	STUDIO	42.07 m ²	T.O. L
.O. LEVEL 1 SLAB	115	TYPE KB	STUDIO	42.07 m ²	T.O. L
.O. LEVEL 1 SLAB	116	TYPE KB		42.07 m ² 42.07 m ²	1.0.L
.O. LEVEL 1 SLAB	118	ТҮРЕ КВ	STUDIO	42.07 m ²	T.O. L
.O. LEVEL 1 SLAB	119	TYPE KD	STUDIO	44.30 m ²	T.O. L
O. LEVEL 1 SLAB	120	TYPE KD	STUDIO	44.33 m ²	T.O. L
.O. LEVEL 1 SLAB	121	TYPE KB	STUDIO	42.07 m ²	1.0.L
.O. LEVEL 1 SLAB	122	TYPE J1	2-BED	75.33 m ²	T.O. L
.O. LEVEL 1 SLAB	124	TYPE IC-BF	STUDIO	35.56 m ²	T.O. L
.O. LEVEL 1 SLAB	125	TYPE IA-BF	STUDIO	35.55 m ²	T.O. L
	126	I YPE IA-BF		35.55 m ² 53 08 m ²	1.0.L
.O. LEVEL 1 SLAB	127	TYPE 0	STUDIO	48.10 m ²	T.O. L
.O. LEVEL 2 STRUCT.	· · · · · · · · · · · · · · · · · · ·	· · · ·			T.O. L
O. LEVEL 2 STRUCT.	201	TYPE E2	1-BED + DEN	75.51 m ²	T.O. L
U. LEVEL 2 STRUCT.	202		STUDIO	33.78 m ²	T.O. L
.O. LEVEL 2 STRUCT	203	TYPE CA	STUDIO	33.18 m ²	T.O.I
.O. LEVEL 2 STRUCT.	205	TYPE CA	STUDIO	33.18 m ²	T.O. I
O. LEVEL 2 STRUCT.	206	TYPE C	STUDIO	33.18 m ²	T.O. I
O. LEVEL 2 STRUCT.	207	TYPE C	STUDIO	33.18 m ²	T.O. L
0 LEVEL 2 STRUCT.	200	TYPE C	STUDIO	32.62 m ²	TO 1
.O. LEVEL 2 STRUCT.	210	TYPE A2	2-BED	64.43 m ²	T.O. I
.O. LEVEL 2 STRUCT.	211	TYPE L2	2-BED	67.50 m ²	T.O. L
O. LEVEL 2 STRUCT.	212	TYPE KB	STUDIO	42.07 m ²	T.O. I
0. LEVEL 2 STRUCT.	213	TYPE KC		40.70 m ² 42.07 m ²	1.0.L
O. LEVEL 2 STRUCT.	215	TYPE KB	STUDIO	42.07 m ²	T.O. L
.O. LEVEL 2 STRUCT.	216	TYPE KB	STUDIO	42.07 m ²	T.O. L
.O. LEVEL 2 STRUCT.	217	TYPE KA	STUDIO	40.70 m ²	T.O. L
O LEVEL 2 STRUCT.	218	ΤΥΡΕ ΚΒ	STUDIO	42.07 m ²	T.O. L
.O. LEVEL 2 STRUCT.	219	TYPE KE	STUDIO	40.70 m ²	T.O. L
.O. LEVEL 2 STRUCT.	221	TYPE KB	STUDIO	42.07 m ²	T.O. L
.O. LEVEL 2 STRUCT.	222	TYPE KB	STUDIO	42.07 m ²	T.O. L
OLEVEL 2 STRUCT.	223		STUDIO	41.11 m^2 42.07 m^2	T.O. L
.0. LEVEL 2 STRUCT.	224	TYPE KB	STUDIO	42.07 m ²	T.O. L
.O. LEVEL 2 STRUCT.	226	TYPE KA	STUDIO	40.67 m ²	T.O. L
.O. LEVEL 2 STRUCT.	227	TYPE J2	2-BED	73.55 m ²	T.O. L
O LEVEL 2 STRUCT.	228	TYPE IC-BF	STUDIO	35.52 m ²	T.O. I
0 I EVEL 2 STRUCT	229	TYPE IA-BF	STUDIO	35.55 m ²	TO 1
.O. LEVEL 2 STRUCT.	231	TYPE H2-BF	2-BED	69.09 m ²	T.O. L
.O. LEVEL 2 STRUCT.	232	TYPE G2-BF	2-BED	76.07 m ²	T.O. L
OLEVEL 2 STRUCT.	233	TYPE F	STUDIO	56.14 m ²	T.O. I
.O. LEVEL 3 STRUCT.	301	TYPE E	1-BED + DEN	60.75 m ²	ТО I
.O. LEVEL 3 STRUCT.	302	TYPE D-BF	STUDIO	35.57 m ²	T.O. I
.O. LEVEL 3 STRUCT.	303	TYPE D-BF	STUDIO	35.35 m ²	T.O. I
U. LEVEL 3 STRUCT.	304		STUDIO	35.35 m ²	T.O. I
O. LEVEL 3 STRUCT	305	TYPE C	STUDIO	35.35 m ²	T.O.I
O. LEVEL 3 STRUCT.	307	TYPE C	STUDIO	35.35 m ²	T.O. I
O. LEVEL 3 STRUCT.	308	TYPE C	STUDIO	35.35 m ²	T.O. I
U. LEVEL 3 STRUCT.	309			33.69 m ²	T.O. I
O. LEVEL 3 STRUCT.	311	TYPEL	2-BED 2-BED	64.90 m ²	T.O. I
O. LEVEL 3 STRUCT.	312	TYPE KB	STUDIO	42.07 m ²	Т.О. І
O. LEVEL 3 STRUCT.	313	TYPE KC	STUDIO	40.70 m ²	T.O. I
U. LEVEL 3 STRUCT.	314	TYPE KB		42.07 m ²	1.0.1
O. LEVEL 3 STRUCT.	316	TYPE KB	STUDIO	42.07 m ²	T.O. I
O. LEVEL 3 STRUCT.	317	TYPE KA	STUDIO	40.70 m ²	T.O. I
O. LEVEL 3 STRUCT.	318	TYPE KB	STUDIO	42.07 m ²	T.O. I
U. LEVEL 3 STRUCT.	319		STUDIO	40.70 m ²	T.O. I
.O. LEVEL 3 STRUCT.	320	TYPE KC	STUDIO	40.70 M ²	ТО I
.O. LEVEL 3 STRUCT.	322	TYPE KB	STUDIO	42.07 m ²	T.O. I
.O. LEVEL 3 STRUCT.	323	TYPE KA	STUDIO	40.70 m ²	Τ.Ο.Ι
O. LEVEL 3 STRUCT.	324	TYPE KB	STUDIO	42.07 m ²	T.O. I
U. LEVEL 3 STRUCT.	325		STUDIO	42.07 m ²	T.O. I
.O. LEVEL 3 STRUCT.	320	TYPE J	2-BED	40.07 M ² 72.06 m ²	T.0.1
.O. LEVEL 3 STRUCT.	328	TYPE IC-BF	STUDIO	35.97 m ²	T.O. L
.O. LEVEL 3 STRUCT.	329	TYPE IB-BF	STUDIO	33.48 m ²	T.O. I
O. LEVEL 3 STRUCT.	330	TYPE IA-BF	STUDIO	35.92 m ²	T.O. L
OLEVEL 3 STRUCT	332		2-BED 2-RED	00.72 M ² 74 02 m ²	1.0.L
O. LEVEL 3 STRUCT	333	TYPE F	STUDIO	55.98 m ²	

	RESIDENT	IAL UNIT SC	HEDULE	
LEVEL	NUMBER	UNIT TYPE	BEDS	AREA
T.O. LEVEL 4 STRUCT.	401			206 72 m ²
T.O. LEVEL 4 STRUCT.	401	TYPE D-BF	STUDIO	33.18 m ²
T.O. LEVEL 4 STRUCT.	403	TYPE D-BF	STUDIO	33.18 m ²
T.O. LEVEL 4 STRUCT.	404	TYPE CA	STUDIO	33.18 m ²
T.O. LEVEL 4 STRUCT.	406	TYPE C	STUDIO	33.18 m ²
T.O. LEVEL 4 STRUCT.	407	TYPE C TYPE C	STUDIO	33.18 m ² 33.18 m ²
T.O. LEVEL 4 STRUCT.	409	TYPE B	STUDIO	32.62 m ²
T.O. LEVEL 4 STRUCT. T.O. LEVEL 4 STRUCT.	410	TYPE A TYPE L	2-BED 2-BED	63.05 m ² 64.56 m ²
T.O. LEVEL 4 STRUCT.	412	TYPE KB	STUDIO	42.07 m ²
T.O. LEVEL 4 STRUCT.	413	TYPE KC TYPE KA	STUDIO	40.70 m ² 40.70 m ²
T.O. LEVEL 4 STRUCT.	415	TYPE KA	STUDIO	40.70 m ²
T.O. LEVEL 4 STRUCT.	416	TYPE KB	STUDIO	42.07 m ² 40.70 m ²
T.O. LEVEL 4 STRUCT.	418	TYPE KB	STUDIO	42.07 m ²
T.O. LEVEL 4 STRUCT. T.O. LEVEL 4 STRUCT.	419	TYPE KA TYPE KC	STUDIO	40.70 m ² 40.70 m ²
T.O. LEVEL 4 STRUCT.	421	TYPE KB	STUDIO	42.07 m ²
T.O. LEVEL 4 STRUCT. T.O. LEVEL 4 STRUCT.	422 423	TYPE KA	STUDIO	40.70 m ² 40.70 m ²
T.O. LEVEL 4 STRUCT.	424	TYPE KA	STUDIO	40.70 m ²
T.O. LEVEL 4 STRUCT.	425	TYPE KB	STUDIO	42.07 m ² 40.67 m ²
T.O. LEVEL 4 STRUCT.	427	TYPE J4	2-BED	70.36 m ²
T.O. LEVEL 4 STRUCT.	428	TYPE ID-BF	STUDIO STUDIO	33.51 m ² 33 71 m ²
T.O. LEVEL 4 STRUCT.	430	TYPE IA-BF	STUDIO	35.55 m ²
T.O. LEVEL 4 STRUCT.	431	TYPE H4	2-BED 2-BED	67.27 m ² 74 53 m ²
T.O. LEVEL 4 STRUCT.	433	TYPE F4	STUDIO	54.40 m ²
T.O. LEVEL 5 STRUCT.	501	TYPE E5	STUDIO	Redundant Area
T.O. LEVEL 5 STRUCT.	502	TYPE D-BF	STUDIO	35.35 m ²
T.O. LEVEL 5 STRUCT.	503 504	TYPE D-BF	STUDIO	35.35 m ²
T.O. LEVEL 5 STRUCT.	504	TYPE CA	STUDIO	35.35 m ²
T.O. LEVEL 5 STRUCT.	506 507	TYPE C	STUDIO	35.35 m ²
T.O. LEVEL 5 STRUCT.	508	TYPE C	STUDIO	35.35 m ²
T.O. LEVEL 5 STRUCT.	509	TYPE B	STUDIO 2 RED	33.69 m ²
T.O. LEVEL 5 STRUCT.	510	TYPE L5	2-BED	62.09 m ²
T.O. LEVEL 5 STRUCT.	512		STUDIO	40.70 m ²
T.O. LEVEL 5 STRUCT.	513	TYPE KA	STUDIO	40.70 m ²
T.O. LEVEL 5 STRUCT.	515 516	ΤΥΡΕ ΚΑ	STUDIO	40.60 m ²
T.O. LEVEL 5 STRUCT.	510	ТҮРЕ КА	STUDIO	40.70 m ²
T.O. LEVEL 5 STRUCT.	518	TYPE KA	STUDIO	40.70 m ²
T.O. LEVEL 5 STRUCT.	510	TYPE KC	STUDIO	40.60 m ²
T.O. LEVEL 5 STRUCT.	521 522	ТҮРЕ КА ТҮРЕ КА	STUDIO	40.70 m ²
T.O. LEVEL 5 STRUCT.	523	ТҮРЕ КА	STUDIO	40.60 m ²
T.O. LEVEL 5 STRUCT.	524 525	ТҮРЕ КА ТҮРЕ КА	STUDIO	40.70 m ²
T.O. LEVEL 5 STRUCT.	526	ТҮРЕ КА	STUDIO	40.57 m ²
T.O. LEVEL 5 STRUCT.	527 528	TYPE J5 TYPE ID-BE	2-BED STUDIO	67.23 m ² 33 65 m ²
T.O. LEVEL 5 STRUCT.	529	TYPE IE-BF	STUDIO	33.37 m ²
T.O. LEVEL 5 STRUCT.	530 531	TYPE R TYPE Q	1-BED 1-BED	52.86 m ²
T.O. LEVEL 6 STRUCT.			1	
T.O. LEVEL 6 STRUCT. T.O. LEVEL 6 STRUCT.	601 602	TYPE E5	STUDIO	50.12 m ² 35.35 m ²
T.O. LEVEL 6 STRUCT.	603	TYPE D-BF	STUDIO	35.35 m ²
T.O. LEVEL 6 STRUCT.	604 605	TYPE CA	STUDIO	35.35 m ² 35.35 m ²
T.O. LEVEL 6 STRUCT.	606	TYPE C	STUDIO	35.35 m ²
T.O. LEVEL 6 STRUCT. T.O. LEVEL 6 STRUCT.	607 608	TYPE C	STUDIO	35.35 m ² 35.35 m ²
T.O. LEVEL 6 STRUCT.	609	TYPE B	STUDIO	33.69 m ²
T.O. LEVEL 6 STRUCT.	610 611	TYPE A5	2-BED 2-BED	61.07 m ²
T.O. LEVEL 6 STRUCT.	612	TYPE KA	STUDIO	40.50 m ²
T.O. LEVEL 6 STRUCT.	613 614	TYPE KC TYPE KA	STUDIO STUDIO	40.50 m ² 40.50 m ²
T.O. LEVEL 6 STRUCT.	615	TYPE KA	STUDIO	40.50 m ²
T.O. LEVEL 6 STRUCT.	616 617	TYPE KA	STUDIO	40.50 m ² 40.50 m ²
T.O. LEVEL 6 STRUCT.	618	TYPE KA	STUDIO	40.50 m ²
T.O. LEVEL 6 STRUCT.	619 620	TYPE KA	STUDIO	40.50 m ² 40.50 m ²
T.O. LEVEL 6 STRUCT.	621	TYPE KA	STUDIO	40.50 m ²
T.O. LEVEL 6 STRUCT.	622	TYPE KA	STUDIO	40.50 m ² 40.50 m ²
T.O. LEVEL 6 STRUCT.	624	TYPE KA	STUDIO	40.50 m ²
T.O. LEVEL 6 STRUCT.	625	TYPE KA	STUDIO	40.50 m ² 40.46 m ²
T.O. LEVEL 6 STRUCT.	627	TYPE J5	2-BED	66.99 m ²
T.O. LEVEL 6 STRUCT.	628	TYPE ID-BF	STUDIO	33.61 m ² 33.11 m ²
T.O. LEVEL 6 STRUCT.	630	TYPE R6	1-BED	50.40 m ²
TOTAL	031		I-BED	04.80 M ² 8509.65 m ²



1-BED 2-BED STUDI

TOTA

	UNIT COUNT														
BEDS	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	TOTAL	%							
1-BED	1	0	0	0	2	2	6	3%							
1-BED + DEN	0	1	1	1	0	0	3	2%							
2-BED	2	5	5	5	3	3	23	12%							
STUDIO	24	27	27	27	26	26	157	84%							
TOTAL	27	33	33	33	31	31	189	100%							

Current Zoning Designation:	TD1 (Transit Oriented Development Zone)	
Lot Width:	76.2m	
Total Lot Area:	3487.7m ²	
Average Existing Grade:	71.600	
Gross Floor Area:	11723.0m ²	
Building Area:	1657.6m ²	
Floor Space Index:	3.36	
Proposed Development - 6 Store	y Mid-Rise Apartment Building	
No. of units 189 Units		
Zoning Mechanism	Required	Provided
Minimum Lot Width 195(b)	No Minimum	76.2m
Minimum Lot Area 195(a)	No Minimum	3487.7m ²
Min. Front Yard Setback 195(c)(ii)	2m	3m
Corner Side Yard Setback 195(c)(i)	3m	3m
Min. Interior Side Yard Setback 195(d)(iii)	No Minimum	1.5m
Min. Rear Yard Setback 195(e)(i)	6m	6m
Maximum Building Height 195(g)(ii)	20m	18.62m
Min. Residential Units per Hectare Section 196(14)(a)(i)	52 Units 150 units / hectare	189 Units
Parking Space Rates (Residents) Zoning By-Law 2023-344	36 Spaces 0.19 spaces * 189 units	36 Spaces
Minimum Visitor Parking Rates 102(2)(Area X) Table 102	18 Spaces No Parking for 12 units, then 0.1 spaces * 177 units	18 Spaces (11 at grade + 7 underground)
Bicycle Parking Rates (Residents) Table 111A 111(11)	94 Spaces 0.5 spaces * 189 units	188 Spaces
Outdoor Communal Space at Grade Section 195(8)	69.75m ² (2% of total lot area)	193.72m ²

1130m²

894m²

AMENITY AREAS (COMMUNAL)

EL	NAME	AREA (M)	AREA (SF)
LEVEL P1 SLAB	FITNESS ROOM	133.82 m ²	1440.38 ft ²
LEVEL 1 SLAB	UNIVERSAL W.C.	7.73 m ²	83.18 ft²
LEVEL 1 SLAB	AMENITY ROOM	66.81 m ²	719.14 ft²
LEVEL 1 SLAB	OUTDOOR AMENITY AREA 1	73.03 m ²	786.04 ft ²
LEVEL 1 SLAB	OUTDOOR AMENITY AREA 2	104.48 m ²	1124.61 ft²
PENTHOUSE SLAB	ROOFTOP TERRACE	493.36 m ²	5310.43 ft ²
۵I	l.		9463 80 ft2

LEVEL

T.O. LEVEL 1 SLAB

T.O. LEVEL 6 STRUCT.

TOTA

PARKING SCH. (BICY	CLE)
L	COUNT
EVEL P1 SLAB	188
L	188



VEL	AREA (M)	AREA (SF)
O. LEVEL 1 SLAB	23.21 m ²	249.82 ft ²
O. LEVEL 2 STRUCT.	38.11 m²	410.22 ft ²
O. LEVEL 3 STRUCT.	42.83 m ²	461.02 ft ²
O. LEVEL 4 STRUCT.	41.51 m²	446.86 ft ²
O. LEVEL 5 STRUCT.	56.03 m ²	603.06 ft ²
O. LEVEL 6 STRUCT.	35.68 m²	384.11 ft ²
DTAL	237.38 m ²	2555.10 ft ²
GROSS LEASAE	BLE FLOOR	AREA
VEL	AREA	
		AREA (SF)
U. LEVEL T SLAB	1252.01 m ²	AREA (SF) 13477 SF
0. LEVEL 1 SLAB 0. LEVEL 2 STRUCT.	1252.01 m ² 1479.02 m ²	AREA (SF) 13477 SF 15920 SF
O. LEVEL 1 SLAB O. LEVEL 2 STRUCT. O. LEVEL 3 STRUCT.	1252.01 m ² 1479.02 m ² 1467.73 m ²	AREA (SF) 13477 SF 15920 SF 15799 SF
D. LEVEL 1 SLAB D. LEVEL 2 STRUCT. D. LEVEL 3 STRUCT. D. LEVEL 4 STRUCT.	1252.01 m ² 1479.02 m ² 1467.73 m ² 1585.89 m ²	AREA (SF) 13477 SF 15920 SF 15799 SF 17070 SF
0. LEVEL 1 SLAB 0. LEVEL 2 STRUCT. 0. LEVEL 3 STRUCT. 0. LEVEL 4 STRUCT. 0. LEVEL 5 STRUCT.	1252.01 m ² 1479.02 m ² 1467.73 m ² 1585.89 m ² 1414.71 m ²	AREA (SF) 13477 SF 15920 SF 15799 SF 17070 SF 15228 SF
D. LEVEL 1 SLAB D. LEVEL 2 STRUCT. D. LEVEL 3 STRUCT. D. LEVEL 4 STRUCT. D. LEVEL 5 STRUCT. D. LEVEL 6 STRUCT.	1252.01 m ² 1479.02 m ² 1467.73 m ² 1585.89 m ² 1414.71 m ² 1310.29 m ²	AREA (SF) 13477 SF 15920 SF 15799 SF 17070 SF 15228 SF 14104 SF

8509.65 m² 91597 SF

Total Amenity Area

Communal Amenity Area

Table 137(4)(II)

Table 137(4)(III)

AMENITY AREAS (PRIVATE)

GROSS FLOOR AREA													
LEVEL	AREA	AREA (SF)											
T.O. LEVEL P1 SLAB	2071.27 m ²	22295 SF											
T.O. LEVEL 1 SLAB	1622.78 m ²	17468 SF											
T.O. LEVEL 2 STRUCT.	1638.51 m ²	17637 SF											
T.O. LEVEL 3 STRUCT.	1621.24 m ²	17451 SF											
T.O. LEVEL 4 STRUCT.	1609.91 m ²	17329 SF											
T.O. LEVEL 5 STRUCT.	1439.19 m ²	15491 SF											
T.O. LEVEL 6 STRUCT.	1433.12 m ²	15426 SF											
T.O. ROOF STRUCT.	286.96 m ²	3089 SF											
TOTAL	11722.98 m ²	126185 SF											

3	SITE & PROJECT STATISTICS
SP-02	SCALE: 1:1

1128m²

564m²

6m² / unit for 188 units

Min. 50% of Total Amenity Area





1 LOCATION PLAN SP-02 SCALE: NTS

ltem		Ontario	o Buildina (Code Matrix	Parts 3 & 9			OBC	Reference		
1	Proiect Descrip	ption:		New		Part 11				Part 9	
							[A] 1.1.2.			[A] 1.1.2.	
			Change of Use		in		[r] <u>-</u> .			[·] ···· <u>-</u> ·	
2	Maior Occupar	ncv(s) GRO	UP C - RESIDEN				3.1.2.1.(1)			9.10.2	-
3	Building Area ((m ²) Exist	ina 0.00	New 1657.6	m ² Total 16	57.6m ²	[A] 1.4.1.2			[A] 1.4.1.2	-
4	Gross Area (m	²⁾ Exist	ina 0.00	New 11723	.0m ² Total 11	723.0m ²	[A] 1.4.1.2			[A] 1.4.1.2	-
5	Number of Stor	vrevs Abov	e Grade 6	Below Grade	1		3.2.1.1 & 1	.4.1.2		2.1.1.3	-
6	Building Height	it (m) 18.62	2m				[A] 1.4.1.2	. & 3.2.1.1.		[A] 1.4.1.2. & 9.10.4.	
7	Number of Stre	eets/Access Rout	es 1				3.2.2.10. 8	3.2.5.		9.10.20.	
8	Building Classi	ification 3.2.2	.43 - Group C, u	p to 6 Storeys, S	prinklered,		3.2.2.20	83.		n/a	
		Nonc	combustible Cons	struction							
9	Sprinkler Syste	em Proposed		Entire B	uilding		3.2.1.5. &	3.2.2.17.		9.10.8.24.	
				Baseme	nt Only		3.2.2.20	83			
				In Lieu	of Roof Rating		3.2.1.5				
				Not Rec	uired		3.2.2.17				
10	Standpipe Req	quired		✓ Yes		0	3.2.9.			n/a	
11	Fire Alarm Req	quired		✓ Yes		0	3.2.4.			9.10.18.	
12	Water Service/	/Supply is Adequa	ate	V Yes		0					
13	High Building	–	1.0			0	3.2.6			n/a	
14	Permitted Cons	struction] Combustible		V No	on - Combustible	3.2.2.20	83. & 3.2.1.4.		9.10.6.	
4-	Actual Constru		Combustible		V No	on - Combustible	0.0.1.1			0.40.4.4	
15	Mezzanine(s)	Area (m²) N/A					3.2.1.1.			9.10.4.1	
16	Occupant Load	d Based On		[√] m²/pers	on 🔽 De	esign of Building	3.1.17.			3.1.17.	
	LEVEL P1	Occupa	ncy FIINESS/I	DOG WASH (des	ign) Load 52	2 Persons					
	LEVEL P1	Occupa	ncy GROUP F	3 - STORAGE G/	ARAGE Load 41	l Persons					
	LEVEL 1	Occupa	ncy DWELLING		Load 58	Persons					
		Occupa			Load 70	Persons					
		Occupa			Load 70	Persons					
		Occupa			Load 64	Persons					
		Occupa			Load 64	Persons					
17	Barrier-Free D	esian				n (Explain)	3.8			952	
18	Hazardous Sul	bstances)	3.312 &	3.3.1.19.		9.10.1.3	
19	Required Fire F	Resistance Ratin	g (FRR)			-	3.2.2.20 -	83. & 3.2.1.4		9.10.8.	
	Horizontal Ass	emblies	FRR	Listed D	esign No. or Desc	cription (SB-2)					
	Floors		1 HR	SEE A0	01	,	_				
	Roofs		n/a	SEE A0	01						
	Mezzanine	es	1 HR	SEE A0	01						
	Supporting Me	embers	FRR	Listed D	esign No. or Desc	cription (SB-2)					
	Floors		1 HR	SEE A0	01						
	Roofs		n/a	SEE A0	01						
	Mezzanine	es	1 HR	SEE A0	01						
	Other Assembl	lies	FRR	Listed D	esign No. or Desc	cription (SB-2)					
	Residentia	al Suites	1 HR	SEE A0	01		3.3.4.2.				
	Residentia	al Suite Entry Doo	rs 20 MI	N SEE A0	01		3.1.8.10.				1 ISSUED FOR BUILDING PERMIT
	Janitor Roo	oms	0 HR	SEE A0	01		3.3.1.20.				
	Exits		1 HR	SEE A0	01		3.4.4.1.				
	Elevator S	hafts	1 HR	SEE A0	01		Table 3.5.3	3.1.			
	Vertical Se	ervice Space	45 MI	N SEE A0	01		3.6.3.1.				
	Service Ro	ooms (Mech & Ele	ec) 1 HR	SEE A0	01		3.6.2.1.				
	Refuse Ro	oom	1 HR	SEE A0	01		3.6.2.5.				
	Tenant Sto	orage Room	1 HR	SEE A0	01		3.3.4.3.				- 22A -
	Storage Ga	Storage Garage (Parking) 1.5 HR SEE A001					3.3.5.6.				SRID TOSOCIA
	Roof Supp	oorting Occupancy	y 1 HR	SEE A0	01		3.2.2.13.			0.10.11.00.10.10	St OF
20	Spatial Separa	ation - Constructio	on of Exterior Wa	lls	Denniti	Deres	3.2.3.	0	0	9.10.14. & 9.10.15.	O ARCHITECTS Z
	Wall	Area of EBF (m ²)	L.D. (m)	L/H or H/L	Permitted Max % of Openings	Proposed % of Openings	FRR	Combustible Construction	Comb. Cor	st. / Non-comb. Clad Construction	Man Mat
	North	n/a	±10.8	n/a	100%	-	-				FYAN M. KOOLWINE
1	South	n/a	10.2	n/a	100%	-	-				LICENCE NOT
	East	n/a	>9	n/a	100%	-	-				13/0 13/0
	West	max 29m ²	6	n/a	100%	-	-				-outline.
21	Other - Describ	be	1	1	1	1					
							3.x				
L	1										



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- Electrical Drawings. Positions of exposed or finished Mechanical or Electrical devices, fittings and fixtures are indicated on the Architectural Drawings. Locations shown on the Architectural Drawings shall govern over Mechanical and Electrical Drawings.
- Mechanical and Electrical items not clearly located will be located as directed by the Architect. These documents are not to be used for construction unless specifically noted for such purpose.



Appendix C Sanitary

C.1 Sanitary Calculation Sheet

			SITE: 1184-119	96 Cumm	nings Avenue	e, Ottawa,			S															DESIGN	PARAMETERS										
	.				ON		(City of Ottawa)				MAX PEAK F	ACTOR (RES	.)=	4.0		AVG. DAILY	FLOW / PERS	SON	2	80 l/p/day		MINIMUM VE	LOCITY		0.6	60 m/s									
	Stan	тес	DATE:		1/10/2	2024										MIN PEAK F.	ACTOR (RES.)=	2.0		COMMERC	IAL		28,0	00 l/ha/day		MAXIMUM V	ELOCITY		3.0	00 m/s				
			REVISION	:	1											PEAKING FA	CTOR (INDU	STRIAL):	2.4		INDUSTRIA	L (HEAVY)		55,0	00 l/ha/day		MANNINGS	n		0.01	13				
			DESIGNED	DBY:	MM	v	FILE NUMBER	ł:	160401787							PEAKING FA	CTOR (ICI >2	0%):	1.5		INDUSTRIA	L (LIGHT)		35,0	00 l/ha/day		BEDDING C	ASS			в				
			CHECKED	BY:												PERSONS /	1 BEDROOM		1.4	1	INSTITUTIO	DNAL		28,0	00 l/ha/day		MINIMUM C	OVER		2.	50 m				
																PERSONS /	2 BEDROOM		2.1	1	INFILTRAT	ION		0.	33 l/s/Ha		HARMON CO	ORRECTION F	ACTOR	0	.8				
																PERSONS /	3 BEDROOM		3.1	1															
	LOCATIO	N					RESIDENTIAL ARE	A AND POPU	JLATION				COMM	AMENITY	INDU	STRIAL (L)	INDUST	rrial (H)	INSTIT	UTIONAL	GREEN	V / UNUSED	C+I+I		INFILTRATIO	N	TOTAL				F	PIPE			
ARE	EA ID	FROM	TO	AREA	1 BEDROOM	2 BEDROOM	3 BEDROOM	POP.	CUMU	ATIVE	PEAK	PEAK	AREA	ACCU.	AREA	ACCU.	AREA	ACCU.	AREA	ACCU.	AREA	ACCU.	PEAK	TOTAL	ACCU.	INFILT.	FLOW	LENGTH	DIA	MATERIA	L CLASS	SLOPE	CAP.	CAP. V	VEL.
NUN	MBER	M.H.	M.H.						AREA	POP.	FACT.	FLOW		AREA		AREA		AREA		AREA		AREA	FLOW	AREA	AREA	FLOW							(FULL)	PEAK FLOW	(FULL)
				(ha)					(ha)			(l/s)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(l/s)	(ha)	(ha)	(l/s)	(l/s)	(m)	(mm)			(%)	(l/s)	(%)	(m/s)
PROPOS	ED BLDG	BLDG	EX SAN	0.165	163	26		283	0.165	283	3.47	3.18	0.000	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.183	0.18	0.00	0.349	0.35	0.12	3.30	6.9	150	PVC	SDR 35	5.00	34.3	9.62%	1.93

Notes

1. Unit breakdown for proposed 6-storey residential building provided by Project 1 Studios Inc. in December 19, 2023 2. Site to outlet to existing 250 mm dia. sanitary sewer on Cummings Avenue.

3. Entire site area considered as potential source of infiltration.

1184-1196 Cummings Avenue Servicing and Stormwater Management Report Sanitary

C.2 Correspondence with City on Sanitary Sewer Capacity

Wu, Michael

From: Sent:	Elsby, Cam <cam.elsby@ottawa.ca> August 16, 2023 09:12</cam.elsby@ottawa.ca>
То:	Wu, Michael
Cc:	Moir, Tyler
Subject:	RE: D07-12-23-0044 - 1184-1196 Cummings Avenue Updated Sanitary Peak Flows

Hi Michael,

Thanks for sending this over. I've confirmed with our Asset Management team that the revised proposed sanitary flow is still acceptable as the increase is not significant enough to affect the sewer's capacity.

Kind regards,

Cam Elsby

Project Manager, Infrastructure Approvals Planning, Real Estate and Economic Development Department | Services de la planification, des biens immobiliers et du développement économique Development Review – East Branch City of Ottawa | Ville d'Ottawa 110 Laurier Avenue West Ottawa, ON | 110, avenue Laurier Ouest. Ottawa (Ontario) K1P 1J1 613.580.2424 ext./poste 21443 cam.elsby@ottawa.ca

From: Wu, Michael <Michael.Wu@stantec.com>
Sent: August 15, 2023 10:58 AM
To: Elsby, Cam <Cam.Elsby@ottawa.ca>
Cc: Moir, Tyler <Tyler.Moir@stantec.com>
Subject: D07-12-23-0044 - 1184-1196 Cummings Avenue Updated Sanitary Peak Flows

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ATTENTION : Ce courriel provient d'un expéditeur externe. Ne cliquez sur aucun lien et n'ouvrez pas de pièce jointe, excepté si vous connaissez l'expéditeur.

Good morning, Cam:

As a follow-up to the preliminary engineering comments for 1184-1196 Cummings Avenue (D07-12-23-0044), we have updated the sanitary flows based on the corrected peaking factor, as per comment D.6.

D6. Peaking factor should be 3.47 based on a population of 284 using Harmon's Equation. Please revise and update sanitary flow calculations accordingly. D7. Note that our Asset Management team has confirmed that there is sufficient capacity for the proposed 3.12 L/s sanitary flow, <u>however</u> to note that there is no further capacity should any additional development occur in the 250mm Cummings sanitary sewer area.

As the sanitary peak flow has been revised to 3.3 L/s, up from 3.12 L/s that was initially submitted, we would like to confirm if the 250 mm diameter sanitary sewer in Cummings Avenue has the capacity for the 3.3 L/s of peak flow from the proposed site.

Attached is the updated sanitary design sheet for your information.

Please let me know if you have any questions or comments.

Thanks,

Michael Wu EIT Civil Engineering Intern, Community Development

Direct: 1 (613) 738-6033 Michael.Wu@stantec.com

Stantec 300-1331 Clyde Avenue Ottawa ON K2C 3G4





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Appendix D Stormwater Servicing

D.1 Modified Rational Method Sheet

 File No:
 160401787

 Project:
 1184-1196 Cummings Avenue

 Date:
 05-Mar-24

SWM Approach: Post-development to Pre-development flows

Post-Development Site Conditions:

Overall Runoff Coefficient for Site and Sub-Catchment Areas

[Runoff Co	efficient Table					
Sub-catchme	nt		Area		Runoff			Overall
Area			(ha)		Coefficient			Runoff
Catchment Type	ID / Description		"A"		"C"	"A	x C"	Coefficient
Uncontrolled - Tributary to Cisterr	BLDG-4	Hard	0.001		0.9	0.001		
choon a choon and a choon a ch	DED G 4	Soft	0.000		0.2	0.000		
	Su	btotal		0.001			0.0009	0.900
Uncentrolled Tributany to Cistorr		Hord	0.001		0.0	0.001		
Chechiloned - Modiary to Cistern	DLDG-5	Soft	0.000		0.9	0.001		
	Su	btotal	0.000	0.001	0.2	0.000	0.0009	0.900
Uncentrolled Tributery to Cisterr		Hord	0.002		0.0	0.002		
Chechiloned - Thoulary to Cistern	DLDG-2	Soft	0.003		0.9	0.000		
	Su	btotal	0.000	0.003	0.2	0.000	0.0027	0.900
Poof	BLDG 1	Hard	0 165		0.0	0 1 4 0		
1001	DEDG-1	Soft	0.105		0.9	0.149		
	Su	btotal	0.000	0.165	0.2	0.000	0.1485	0.900
Controlled - Tributary to Cistern	CB-3	Hard	0.017		0.9	0.015		
		Soft	0.007		0.2	0.001		0.700
	Su	btotal		0.024			0.0168	0.700
Controlled - Tributary to Cistern	CB-2	Hard	0.020		0.9	0.018		
·····, ····		Soft	0.007		0.2	0.001		
	Su	btotal		0.027			0.01971	0.730
Controlled - Tributary to Cistern	CB-1	Hard	0.032		0.9	0.029		
Controlled Inibutary to Clotenn		Soft	0.014		0.2	0.003		
	Su	btotal		0.046			0.03174	0.690
Uncontrolled - Ramp to Cistern	RAMP	Hard	0.008		0.9	0.007		
		Soft	0.000		0.2	0.000		
	Su	btotal		0.008			0.0072	0.900
Uncontrolled - Non-Tributary	UNC-4	Hard	0.013		0.9	0.012		
- ,		Soft	0.022		0.2	0.004		
	Su	btotal		0.035			0.0161	0.460
Uncontrolled - Non-Tributary	UNC-3	Hard	0.000		0.9	0.000		
Chooling Holl Hold Hold		Soft	0.013		0.2	0.003		
	Su	btotal		0.013			0.0026	0.200
Uncontrolled - Non-Tributary	UNC-2	Hard	0.000		0.9	0.000		
	C 11	SOTI	0.020	0.020	0.2	0.004	0.004	0.200
	50	biotai		0.020			0.004	0.200
Uncontrolled - Non-Tributary	UNC-1	Hard	0.000		0.9	0.000		
		Soft	0.005		0.2	0.001		
	Su	btotal		0.005			0.001	0.200
T-4-1				0.240			0.050	
otal Overall Runoff Coefficient= C:				0.348			0.252	0.72
Total Roof Areas			0.17 h	a				
Total Tributary Surface Areas (Contro	olled and Uncontrolle	d)	0.11 h	a				
Total Tributary Area to Outlet			U.28 N	a				
Total Uncontrolled Areas (Non-Tribut	ary)		0.07 h	a				
Total Site			0.35 h	a				

		liounation	0.00.00010	.90		
5 yr Intensity $ = a/(t + b)^d$ $a = 998.071$ t (min) I (mm/hr) 100 yr Intensi	ity	I = a/(t + b)	a=	= 1735.688	3 t (min)	l (mm/hr)
City of Ottawa b = 6.053 10 104.19 City of Ottawa	a		b	= 6.014	1 10	178.56
30 53.93				- 0.020	30	91.87
40 44.18					40	75.15
60 32.94					60	55.89
70 29.37					70	49.79
80 26.56 90 24.29					90	44.99 41.11
100 22.41					100	37.90
10 20.82 120 19.47					120	35.20 32.89
5 YEAR Predevelopment Target Release from Entire Site 100 YE	AR Prede	evelopmer	nt Target Re	elease fron	n Entire Sit	te
ubdrainage Area: Predevelopment Tributary Area to Outlet		·				
Area (ha): 0.35 Control to 5-1	Year Pred	evelopmen	t Runoff			
C: 0.43						
Typical Time of Concentration						
tc I (5 yr) Qtarget (min) (mm/hr) (L/s)						
10 104.19 43.3						
5 YEAR Modified Rational Method for Portion of Site 100 Y	/EAR Mo	dified Rati	ional Metho	od for Porti	on of Site	
bdrainage Area: CISTERN Cistern Subdrainage Area: C	ISTERN					Cistern
Area (ha): 0.11 Area (ha): C: 0.73 C:	0.11 0.89					
tc I (5 yr) Qactual Qrelease Qstored Vstored	(100 vr)	Qactual	Qrelease	Qstored	Vstored	٦
(min) (mm/hr) (L/s) (L/s) (m^3)	mm/hr)	(L/s)	(L/s)	(L/s)	(m^3)	
10 104.19 23.2 8.3 14.8 8.9 10 20 70.25 15.6 8.3 7.3 8.7 20	178.56	35.1 30.8	8.3	26.8 22.5	16.1 27.0	
30 53.93 12.0 8.3 3.7 6.6 30	91.87	24.8	8.3	16.5	29.6	
40 44.18 9.8 8.3 1.5 3.6 40 50 37.65 8.4 8.3 0.0 0.1 50	75.15	20.5	8.3 8.3	12.2	29.3	
60 32.94 7.3 7.3 0.0 0.0 60	55.89	15.3	8.3	9.2 7.0	25.0	
70 29.37 6.5 6.5 0.0 0.0 70	49.79	13.6	8.3	5.3	22.2	
80 20.00 5.9 5.9 0.0 0.0 80 90 24.29 5.4 5.4 0.0 0.0 90	44.99 41.11	12.3 11.2	8.3 8.3	4.0 2.9	19.1 15.7	
100 22.41 5.0 5.0 0.0 0.0 100	37.90	10.4	8.3	2.0	12.2	
110 20.82 4.6 4.6 0.0 0.0 110 120 19.47 4.3 4.3 0.0 0.0 120	35.20 32.89	9.6 9.0	8.3 8.3	1.3 0.7	8.6 4.8	
Stage Head Discharge Vreq Vavail Volume	Stage	Head	Discharge	Vreq	Vavail	Volume
(m) (L/s) (cu. m) Check Water Level - 8.3 8.90 30.00 OK 100-year Water Level	-	(m) -	(L/s) 8.3	(cu. m) 29.63	(cu. m) 30.00	Check OK
				Denset	0.37	denute Ol-t-
Area (ha): 0.00 Subdrainage Area: E	0.00			Uncontr	iollea - Tribu	nary to Cistern
C: 0.90 C:	1.00					7
tc I (5 yr) Qactual Qrelease Qstored Vstored tc I (min) (mm/hr) (L/s) (L/s) (m^3) (min) (min) <td< td=""><td>(100 yr) mm/hr)</td><td>Qactual (L/s)</td><td>Qrelease (L/s)</td><td>Qstored (L/s)</td><td>Vstored (m³)</td><td></td></td<>	(100 yr) mm/hr)	Qactual (L/s)	Qrelease (L/s)	Qstored (L/s)	Vstored (m ³)	
10 104.19 0.3 0.3 10 20 70.25 0.2 0.2 20	178.56	0.5	0.5			
30 53.93 0.1 0.1 30	91.87	0.3	0.3			
40 44.18 0.1 0.1 40	75.15	0.2	0.2			
50 37.55 U.1 U.1 50 60 32.94 0.1 0.1 60	63.95 55.89	0.2 0.2	0.2			
70 29.37 0.1 0.1 70	49.79	0.1	0.1			
80 26.56 0.1 0.1 80 90 24.29 0.1 0.1 90	44.99 41.11	0.1	0.1			
100 22.41 0.1 0.1 100	37.90	0.1	0.1			
110 20.82 0.1 110 120 19.47 0.0 0.0 120	35.20 32.89	0.1 0.1	0.1 0.1			
inage Area: BLDG-3 Uncontrolled - Tributary to Cistern Subdrainage Area: E	BLDG-3			Uncontr	rolled - Tribu	itary to Cistern
Area (ha): 0.00 Area (ha): C: 0.90 C:	0.00 1.00					
tc I (5 yr) Qactual Qrelease Qstored Vstored	(100 yr)	Qactual	Qrelease	Qstored	Vstored]
<u>(min) (min/nr) (Us) (Us) (Us) (m^3)</u> 10 104.19 0.3 0.3	178.56	(L/S) 0.5	(L/S) 0.5	(∟/s)	(m^3)	4
20 70.25 0.2 0.2 20	119.95	0.3	0.3			
30 53.93 0.1 0.1 30 40 44.18 0.1 0.1 40	91.87 75.15	0.3 0.2	0.3			
50 37.65 0.1 0.1 50	63.95	0.2	0.2			
60 32.94 0.1 0.1 60 70 29.37 0.1 0.1 70	55.89 49 79	0.2	0.2			
80 26.56 0.1 0.1 80	44.99	0.1	0.1			
		0.1	0.1			
90 24.29 0.1 0.1 90	41.11	0.1	0.1			
90 24.29 0.1 0.1 90 100 22.41 0.1 0.1 100 100 110 20.82 0.1 0.1 110 110	41.11 37.90 35.20	0.1 0.1	0.1			

Project #160401787, 1184-1196 Cummings Avenue

Project #160401787, 1184-1196 Cummings Avenue

Project #160401787, 1184-1196 Cummings Avenue Modified Rational Method Calculations for Storage

Subdra	iinage Area: Area (ha): C:	BLDG-2 0.00 0.90			Uncontro	olled - Tribut	ary to Cistern	
	tc	l (5 yr)	Qactual	Qrelease	Qstored	Vstored	[
	(min)	(mm/hr)	(L/s)	(L/s)	(L/s)	(m^3)		
	10	104.19	0.8	0.8				
	20	70.25	0.5	0.5				
	30	53.93	0.4	0.4				
	40	44.18	0.3	0.3				
	50	37.65	0.3	0.3				
	60	32.94	0.2	0.2				
	70	29.37	0.2	0.2				
	80	26.56	0.2	0.2				
	90	24.29	0.2	0.2				
	100	22.41	0.2	0.2				
	110	20.82	0.2	0.2				
	120	19.47	0.1	0.1				
Subdra	iinage Area: Area (ha): C:	BLDG-1 0.17 0.90		N	laximum Sto	rage Depth:	Roof 150	mm
	tc	1 (5 yr)	Oactual	Orelease	Ostored	Vetored	Denth	
	tc (min)	l (5 yr) (mm/br)	Qactual	Qrelease	Qstored	Vstored (m^3)	Depth (mm)	1
	tc (min)	l (5 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)	Qstored (L/s)	Vstored (m^3)	Depth (mm)]
	tc (min) 10 20	I (5 yr) (mm/hr) 104.19 70.25	Qactual (L/s) 43.0 29.0	Qrelease (L/s) 17.8 17.6	Qstored (L/s) 25.2 11.4	Vstored (m^3) 15.1 13.7	Depth (mm) 90.2 87.0	0.00
	tc (min) 10 20 30	I (5 yr) (mm/hr) 104.19 70.25 53.93	Qactual (L/s) 43.0 29.0 22.3	Qrelease (L/s) 17.8 17.6 17.0	Qstored (L/s) 25.2 11.4 5.3	Vstored (m^3) 15.1 13.7 9.5	Depth (mm) 90.2 87.0 77.8	0.00
	tc (min) 10 20 30 40	l (5 yr) (mm/hr) 104.19 70.25 53.93 44.18	Qactual (L/s) 43.0 29.0 22.3 18.2	Qrelease (L/s) 17.8 17.6 17.0 16.0	Qstored (L/s) 25.2 11.4 5.3 2.3	Vstored (m^3) 15.1 13.7 9.5 5.4	Depth (mm) 90.2 87.0 77.8 62.8	0.00 0.00 0.00 0.00
	tc (min) 10 20 30 40 50	l (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65	Qactual (L/s) 43.0 29.0 22.3 18.2 15.5	Qrelease (L/s) 17.8 17.6 17.0 16.0 14.8	Qstored (L/s) 25.2 11.4 5.3 2.3 0.8	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3	Depth (mm) 90.2 87.0 77.8 62.8 48.6	0.00 0.00 0.00 0.00 0.00
	tc (min) 10 20 30 40 50 60	l (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94	Qactual (L/s) 43.0 29.0 22.3 18.2 15.5 13.6	Qrelease (L/s) 17.8 17.6 17.0 16.0 14.8 13.1	Qstored (L/s) 25.2 11.4 5.3 2.3 0.8 0.5	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8	Depth (mm) 90.2 87.0 77.8 62.8 48.6 42.3	0.00 0.00 0.00 0.00 0.00 0.00
	tc (min) 10 20 30 40 50 60 70	l (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37	Qactual (L/s) 43.0 29.0 22.3 18.2 15.5 13.6 12.1	Qrelease (L/s) 17.8 17.6 17.0 16.0 14.8 13.1 11.8	Qstored (L/s) 25.2 11.4 5.3 2.3 0.8 0.5 0.3	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8 1.4	Depth (mm) 90.2 87.0 77.8 62.8 48.6 42.3 37.4	0.00 0.00 0.00 0.00 0.00 0.00 0.00
	tc (min) 10 20 30 40 50 60 70 80	l (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56	Qactual (L/s) 43.0 29.0 22.3 18.2 15.5 13.6 12.1 11.0	Qrelease (L/s) 17.8 17.6 17.0 16.0 14.8 13.1 11.8 10.8	Qstored (L/s) 25.2 11.4 5.3 2.3 0.8 0.5 0.3 0.2	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8 1.8 1.4 1.0	Depth (mm) 90.2 87.0 77.8 62.8 48.6 42.3 37.4 33.4	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
	tc (min) 10 20 30 40 50 60 70 80 90	l (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29	Qactual (L/s) 43.0 29.0 22.3 18.2 15.5 13.6 12.1 11.0 10.0	Qrelease (L/s) 17.8 17.6 17.0 16.0 14.8 13.1 11.8 10.8 9.9	Qstored (L/s) 25.2 11.4 5.3 2.3 0.8 0.5 0.3 0.2 0.1	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8 1.4 1.0 0.7	Depth (mm) 90.2 87.0 77.8 62.8 48.6 42.3 37.4 33.4 30.2	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	tc (min) 10 20 30 40 50 60 70 80 90 100	l (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41	Qactual (L/s) 43.0 29.0 22.3 18.2 15.5 13.6 12.1 11.0 10.0 9.3	Qrelease (L/s) 17.8 17.6 17.0 18.0 13.1 11.8 9.9 9.2	Qstored (L/s) 25.2 11.4 5.3 2.3 0.8 0.5 0.3 0.2 0.1 0.1	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8 1.4 1.4 1.0 0.7 0.5	Depth (mm) 90.2 87.0 77.8 62.8 48.6 42.3 37.4 33.4 33.4 30.2 27.4	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	tc (min) 10 20 30 40 50 60 70 80 90 100 110	l (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82	Qactual (L/s) 43.0 29.0 22.3 18.2 15.5 13.6 12.1 11.0 10.0 9.3 8.6	Qrelease (L/s) 17.8 17.6 17.0 16.0 14.8 13.1 11.8 10.8 9.9 9.2 8.5	Qstored (L/s) 25.2 11.4 5.3 2.3 0.8 0.5 0.3 0.2 0.1 0.1 0.0	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8 1.4 1.0 0.7 0.5 0.3	Depth (mm) 90.2 87.0 77.8 62.8 48.6 42.3 37.4 33.4 30.2 27.4 25.1	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	tc (min) 10 20 30 40 50 60 70 80 90 100 110 120	l (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82 19.47	Qactual (L/s) 43.0 29.0 22.3 18.2 15.5 13.6 12.1 11.0 10.0 9.3 8.6 8.0	Crelease (L/s) 17.8 17.6 17.0 16.0 14.8 13.1 10.8 9.9 9.2 8.5 8.0	Qstored (L/s) 25.2 11.4 5.3 2.3 0.8 0.5 0.3 0.2 0.1 0.1 0.0 0.0	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8 1.4 1.0 0.7 0.5 0.3 0.3	Depth (mm) 90.2 87.0 77.8 62.8 48.6 42.3 37.4 33.4 30.2 27.4 25.1 23.5	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
Storage:	tc (min) 10 20 30 40 50 60 70 80 90 100 110 120 Roof Storag	l (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82 19.47 39.47	Qactual (L/s) 43.0 29.0 22.3 18.2 15.5 13.6 12.1 11.0 10.0 9.3 8.6 8.0	Qrelease (L/s) 17.8 17.6 17.0 16.0 14.8 13.1 11.8 9.9 9.2 8.5 8.0	Qstored (L/s) 25.2 11.4 5.3 0.8 0.5 0.3 0.2 0.1 0.1 0.0 0.0	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8 1.4 1.0 0.7 0.5 0.3 0.3	Depth (mm) 90.2 87.0 77.8 62.8 48.6 42.3 37.4 33.4 30.2 27.4 25.1 23.5	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
Storage:	tc (min) 10 20 30 40 50 60 70 80 90 100 110 120 Roof Storaç	l (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82 19.47 ge	Qactuai (L/s) 43.0 22.0 22.3 18.2 15.5 13.6 12.1 11.0 10.0 9.3 8.6 8.0 Head	Qrelease (L/s) 17.8 17.0 16.0 13.1 10.8 9.9 9.2 8.5 8.0	Qstored (Us) 25.2 11.4 5.3 0.8 0.5 0.3 0.2 0.1 0.1 0.1 0.0 0.0	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8 1.4 1.0 0.7 0.5 0.3 0.3 0.3	Depth (mm) 90.2 87.0 77.8 62.8 48.6 42.3 37.4 33.4 30.2 27.4 25.1 23.5 Discharge	0.00 0.
Storage:	tc (min) 10 20 30 40 50 60 70 80 90 100 110 120 Roof Storag	l (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82 19.47 ge Depth (mm)	Qactual (L/s) 43.0 29.0 22.3 18.2 15.5 13.6 12.1 11.0 0.9 .3 8.6 8.0 Head (m)	Qrelease (L/s) 17.8 17.6 17.0 16.0 14.8 10.1 13.1 11.8 10.8 9.9 9.2 8.5 8.0 Discharge (L/s)	Qstored (L/s) 25.2 11.4 5.3 2.3 0.5 0.5 0.3 0.2 0.1 0.1 0.0 0.0 Vreq (cu. m)	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8 1.4 1.4 1.0 0.7 0.5 0.3 0.3 Vavail (cu. m)	Depth (mm) 90.2 87.0 77.8 62.8 48.6 42.3 37.4 33.2 27.4 25.1 23.5 Discharge Check	0.00 0.
Storage: 5-year	tc (min) 10 20 30 40 50 60 70 80 90 100 110 120 Roof Storag Water Level	l (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 20.82 24.41 20.82 19.47 ge Depth (mm) 90.21	Qactual (L/s) 43.0 29.0 22.3 18.2 15.5 13.6 12.1 11.0 10.0 9.3 8.6 8.0 Head (m) 0.09	Qrelease (L/s) 17.8 17.6 17.0 16.0 14.8 13.1 11.8 9.9 9.2 8.5 8.0 Discharge (L/s) 17.8	Qstored (L/s) 25.2 11.4 5.3 0.5 0.5 0.3 0.2 0.1 0.1 0.1 0.0 0.0 Vreq (cu.m) 15.1	Vstored (m^3) 15.1 13.7 9.5 5.4 2.3 1.8 1.4 1.0 0.7 0.5 0.3 0.3 0.3 Vavail (cu. m) 66.0	Depth (mm) 90.2 87.0 77.8 48.6 42.3 37.4 33.4 33.4 33.4 33.4 27.4 25.1 23.5 Discharge Check 0.0	0.00 0.

Subdrai	nage Area: Area (ha): C:	BLDG-2 0.00 1.00			Uncontro	olled - Tribut	ary to Cistern	
	tc	l (100 vr)	Oactual	Orelease	Ostored	Vstored		
	(min)	(mm/hr)	(1/s)	(1/s)	(1/s)	(m^3)		
	10	178 56	1.5	15	(2.0)	(0)		
	20	119.95	1.0	1.0				
	30	91.87	0.8	0.8				
	40	75.15	0.6	0.6				
	50	63.95	0.5	0.5				
	60	55.89	0.5	0.5				
	70	49.79	0.4	0.4				
	80	44.99	0.4	0.4				
	90	41.11	0.3	0.3				
	100	37.90	0.3	0.3				
	110	35.20	0.3	0.3				
	120	32.89	0.3	0.3				
Subdrai	nage Area: Area (ha): C:	BLDG-1 0.17 1.00		М	aximum Sto	rage Depth:	Roof 150	mm
	tc	l (100 vr)	Qactual	Qrelease	Qstored	Vstored	Depth	1
	tc (min)	l (100 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)	Qstored (L/s)	Vstored (m^3)	Depth (mm)]
	tc (min) 10	I (100 yr) (mm/hr) 178.56	Qactual (L/s) 81.9	Qrelease (L/s) 20.0	Qstored (L/s) 61.9	Vstored (m^3) 37.1	Depth (mm) 123.6	0.00
	tc (min) 10 20	I (100 yr) (mm/hr) 178.56 119.95	Qactual (L/s) 81.9 55.0	Qrelease (L/s) 20.0 20.3	Qstored (L/s) 61.9 34.7	Vstored (m^3) 37.1 41.6	Depth (mm) 123.6 128.1	0.00
	tc (min) 10 20 30	I (100 yr) (mm/hr) 178.56 119.95 91.87	Qactual (L/s) 81.9 55.0 42.1	Qrelease (L/s) 20.0 20.3 20.2	Qstored (L/s) 61.9 34.7 22.0	Vstored (m^3) 37.1 41.6 39.5	Depth (mm) 123.6 128.1 126.2	0.00 0.00 0.00
	tc (min) 10 20 30 40	I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15	Qactual (L/s) 81.9 55.0 42.1 34.5	Qrelease (L/s) 20.0 20.3 20.2 19.8	Qstored (L/s) 61.9 34.7 22.0 14.6	Vstored (m^3) 37.1 41.6 39.5 35.1	Depth (mm) 123.6 128.1 126.2 120.9	0.00 0.00 0.00 0.00
	tc (min) 10 20 30 40 50	I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95	Qactual (L/s) 81.9 55.0 42.1 34.5 29.3	Qrelease (L/s) 20.0 20.3 20.2 19.8 19.4	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0	Vstored (m^3) 37.1 41.6 39.5 35.1 29.9	Depth (mm) 123.6 128.1 126.2 120.9 113.9	0.00 0.00 0.00 0.00 0.00
	tc (min) 10 20 30 40 50 60	l (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89	Qactual (L/s) 81.9 55.0 42.1 34.5 29.3 25.6	Qrelease (L/s) 20.0 20.3 20.2 19.8 19.4 18.9	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0 6.8	Vstored (m^3) 37.1 41.6 39.5 35.1 29.9 24.3	Depth (mm) 123.6 128.1 126.2 120.9 113.9 106.4	0.00 0.00 0.00 0.00 0.00 0.00
	tc (min) 10 20 30 40 50 60 70	l (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79	Qactual (L/s) 81.9 55.0 42.1 34.5 29.3 25.6 22.8	Qrelease (L/s) 20.0 20.3 20.2 19.8 19.4 18.9 18.3	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0 6.8 4.5	Vstored (m^3) 37.1 41.6 39.5 35.1 29.9 24.3 18.9	Depth (mm) 123.6 128.1 126.2 120.9 113.9 106.4 98.5	0.00 0.00 0.00 0.00 0.00 0.00 0.00
	tc (min) 10 20 30 40 50 60 70 80	l (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99	Qactual (L/s) 81.9 55.0 42.1 34.5 29.3 25.6 22.8 20.6	Qrelease (L/s) 20.0 20.3 20.2 19.8 19.4 18.9 18.3 17.7	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0 6.8 4.5 3.0	Vstored (m^3) 37.1 41.6 39.5 35.1 29.9 24.3 18.9 14.2	Depth (mm) 123.6 128.1 126.2 120.9 113.9 106.4 98.5 88.2	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	tc (min) 10 20 30 40 50 60 70 80 90	I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 41.11	Qactual (L/s) 81.9 55.0 42.1 34.5 29.3 25.6 22.8 20.6 18.9	Qrelease (L/s) 20.0 20.3 20.2 19.8 19.4 18.9 18.3 17.7 17.0	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0 6.8 4.5 3.0 1.8	Vstored (m^3) 37.1 41.6 39.5 35.1 29.9 24.3 18.9 14.2 9.9	Depth (mm) 123.6 128.1 126.2 120.9 113.9 106.4 98.5 88.2 78.6	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	tc (min) 10 20 30 40 50 60 70 80 90 100	I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 41.11 37.90	Qactual (L/s) 81.9 55.0 42.1 34.5 29.3 25.6 22.8 20.6 18.9 17.4	Qrelease (L/s) 20.0 20.3 20.2 19.8 19.4 18.9 18.3 17.7 17.0 16.3	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0 6.8 4.5 3.0 1.8 1.1	Vstored (m^3) 37.1 41.6 39.5 35.1 29.9 24.3 18.9 14.2 9.9 6.5	Depth (mm) 123.6 128.1 126.2 120.9 113.9 106.4 98.5 88.2 78.6 67.5	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	tc (min) 10 20 30 40 50 60 70 80 90 100 110	I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 41.11 37.90 35.20	Qactual (L/s) 81.9 55.0 42.1 34.5 29.3 25.6 22.8 20.6 18.9 17.4 16.1	Qrelease (L/s) 20.0 20.3 20.2 19.8 19.4 18.9 18.3 17.7 17.0 16.3 15.6	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0 6.8 4.5 3.0 1.8 1.1 0.6	Vstored (m^3) 37.1 41.6 39.5 35.1 29.9 24.3 18.9 14.2 9.9 6.5 3.9	Depth (mm) 123.6 128.1 126.2 120.9 113.9 106.4 98.5 88.2 78.6 67.5 56.3	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
	tc (min) 10 20 30 40 50 60 70 80 90 100 110 120	I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 41.11 37.90 35.20 32.89	Qactual (L/s) 81.9 55.0 42.1 34.5 29.3 25.6 22.8 20.6 18.9 17.4 16.1 15.1	Qrelease (L/s) 20.0 20.3 20.2 19.8 19.4 18.9 18.3 17.7 17.0 16.3 15.6 14.8	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0 6.8 4.5 3.0 1.8 1.1 0.6 0.3	Vstored (m^3) 37.1 41.6 39.5 35.1 29.9 24.3 18.9 14.2 9.9 6.5 3.9 2.3	Depth (mm) 123.6 128.1 126.2 120.9 113.9 106.4 98.5 88.2 78.6 67.5 56.3 48.6	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
Storage:	tc (min) 10 20 30 40 50 60 70 80 90 90 100 1100 120 Roof Storag	I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 41.11 37.90 35.20 32.89	Qactual (L/s) 81.9 55.0 42.1 34.5 29.3 25.6 22.8 20.6 18.9 17.4 16.1 15.1	Qrelease (L/s) 20.0 20.3 20.2 19.8 19.4 18.9 18.3 17.7 17.0 16.3 15.6 14.8	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0 6.8 4.5 3.0 1.8 1.1 0.6 0.3	Vstored (m^3) 37.1 41.6 39.5 35.1 29.9 24.3 18.9 9.9 6.5 3.9 2.3	Depth (mm) 123.6 128.1 126.2 120.9 106.4 98.5 88.2 78.6 67.5 56.3 48.6	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
Storage:	tc (min) 10 20 30 40 50 60 70 80 90 100 110 120 Roof Storag	I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 44.99 44.99 41.11 37.90 35.20 32.89 ye	Qactual (L/s) 81.9 55.0 42.1 34.5 29.3 25.6 22.8 20.6 22.8 20.6 18.9 17.4 16.1 15.1	Qrelease (Us) 20.0 20.2 19.8 19.4 18.9 16.3 15.6 14.8	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0 6.8 4.5 3.0 1.8 1.1 0.6 0.3	Vstored (m*3) 37.1 41.6 39.5 35.1 29.9 24.3 18.9 14.2 9.9 6.5 3.9 2.3 Vavail	Depth (mm) 123.6 128.1 126.2 120.9 113.9 106.4 98.5 88.2 78.6 67.5 56.3 48.6 Discharge	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
Storage:	tc (min) 10 20 30 40 50 60 70 80 90 100 110 120 Roof Storag	I (100 yr) (mm/hr) 178.56 119.95 91.87 75.15 63.95 55.89 49.79 44.99 41.11 37.90 35.20 32.89 ge Depth (mm)	Qactual (L/s) 81.9 55.0 42.1 34.5 29.3 25.6 22.8 20.6 18.9 17.4 16.1 15.1 Head (m)	Qrelease (L/s) 20.0 20.2 19.4 18.9 18.3 17.7 16.3 15.6 14.8 Discharge (L/s)	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0 6.8 4.5 3.0 1.8 1.1 0.6 0.3	Vstored (m^3) 37.1 41.6 39.5 35.1 29.9 24.3 18.9 14.2 9.9 6.5 3.9 2.3 Vavail (cu. m)	Depth (mm) 123.6 128.1 126.2 120.9 113.9 106.4 98.5 88.2 78.6 67.5 56.3 56.3 56.3 48.6	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
Storage: 100-year	tc (min) 10 20 30 40 50 60 70 80 90 100 110 120 Roof Storag	I (100 yr) (mm/hr) 178.56 119.95 91.87 91.87 91.87 95.89 49.79 44.99 41.11 37.90 35.20 44.99 41.11 32.89 92 Depth (mm) 128.11	Qactual (Us) 81.9 55.0 42.1 34.5 29.3 25.6 22.8 20.6 18.9 17.4 16.1 15.1 Head (m) 0.13	Qrelease (Us) 20.0 20.3 20.2 19.4 19.4 19.4 19.4 19.4 19.4 19.4 19.4	Qstored (L/s) 61.9 34.7 22.0 14.6 10.0 6.8 4.5 3.0 1.8 1.1 0.6 0.3 Vreq (cu. m) 41.6 10.0	Vstored (m^3) 37.1 41.6 39.5 36.1 29.9 24.3 18.9 14.2 9.9 6.5 3.9 2.3 Vavaii (cu. m) 66.0	Depth (mm) 123.6 128.1 126.2 120.9 113.9 106.4 98.5 88.2 78.6 88.2 78.6 88.2 78.6 67.5 56.3 48.6 Discharge Check 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

Project #160401787, 1184-1196 Cummings Avenue Modified Rational Method Calculations for Storage

Subdrair	nage Area: Area (ha): C:	CB-3 0.02 0.70			Contro	olled - Tributa	ry to Cistern
	tc	l (5 yr)	Qactual	Qrelease	Qstored	Vstored	
l	(min)	(mm/hr)	(L/s)	(L/s)	(L/s)	(m^3)	
	20	70.25	3.3	3.3	0.0	0.0	
	30	53.93	2.5	2.5	0.0	0.0	
	40	44.18	2.1	2.1	0.0	0.0	
	60	32.94	1.5	1.5	0.0	0.0	
	70	29.37	1.4	1.4	0.0	0.0	
	80	26.56	1.2	1.2	0.0	0.0	
	100	22.41	1.0	1.0	0.0	0.0	
	110	20.82	1.0	1.0	0.0	0.0	
Storage:	120 Surface Sto	19.47 prage Above	0.9 CB	0.9	0.0	0.0	
	ICD	LMF 60					
Inve	rt Elevation	68.96	m				
T/0	G Elevation	71.28	m				
Max Pon Downs	ding Depth	0.00	m				
Downs		0.00					
	[Stage	Head	Discharge	Vreq	Vavail	Volume
5-vear V	Vater I evel	71.28	(m) 2.32	(L/s) 4.9	(cu. m) 0.00	(cu. m) 5.14	OK
- ,							
Subdrair	nage Area: Area (ha): C:	CB-2 0.03 0.73			Contro	olled - Tributa	ry to Cistern
	tc	1 (5 yr)	Oactual	Orelease	Ostored	Vetored	
	(min)	(mm/hr)	(L/s)	(L/s)	(L/s)	(m^3)	
	10	104.19	5.7	5.7	0.0	0.0	
	20	70.25	3.8	3.8	0.0	0.0	
	40	44.18	2.4	2.4	0.0	0.0	
	50	37.65	2.1	2.1	0.0	0.0	
	60	32.94	1.8	1.8	0.0	0.0	
	70	29.37	1.6	1.6	0.0	0.0	
	90	24.29	1.3	1.3	0.0	0.0	
	100	22.41	1.2	1.2	0.0	0.0	
	110	20.82	1.1	1.1	0.0	0.0	
	120	19.47	1.1	1.1	0.0	0.0	
Storage:	Above CB						
	ICD	I MF 80					
Inve	rt Elevation	69.06	m				
Max Pon	ding Denth	0.00	m				
Downs	stream W/L	0.00	m				
	1						
		Stage	(m)	(L/s)	(cu. m)	(cu, m)	Check
5-year V	Vater Level	70.06	1.00	5.7	0.00	3.41	OK
Subdrair	nage Area:	CB-1			Contro	olled - Tributa	ry to Cistern
	Area (ha):	0.05					
	C:	0.69					
ſ	tc	l (5 vr)	Qactual	Qrelease	Qstored	Vstored	
	(min)	(mm/hr)	(L/s)	(L/s)	(L/s)	(m^3)	
	10	104.19	9.2	9.2	0.0	0.0	
	20 30	70.25 53,93	о.2 4.8	0.2 4.8	0.0	0.0	
	40	44.18	3.9	3.9	0.0	0.0	
	50	37.65	3.3	3.3	0.0	0.0	
	50 70	32.94 29.37	2.9 2.6	2.9 2.6	0.0	0.0	
	80	26.56	2.3	2.3	0.0	0.0	
	90	24.29	2.1	2.1	0.0	0.0	
	110	∠∠.41 20.82	∠.U 1.8	∠.U 1.8	0.0	0.0	
	120	19.47	1.7	1.7	0.0	0.0	
Storage: :	Above CB						
Orifice	e Equation:	CdA(2gh)^	0.5	Where C =	0.61		
Orifice	Diameter:	73.00	mm				
Inver T//	Elevation	69.44 71.30	m				
Max Pon	ding Depth	0.00	m				
Downs	stream W/L	0.00	m				
	ſ	Stage	Head	Discharge	Vrea	Vavail	Volume
		5	(m)	(L/s)	(cu. m)	(cu. m)	Check
5-year V	vater Level	70.11	0.67	9.3	0.00	3.07	UK

Subdra	inage Area: Area (ha): C:	CB-3 0.02 0.88			Contro	lled - Tributa	ry to Cistern
	tc	l (100 yr)	Qactual	Qreleas	e Qstored	Vstored	
	(min)	(mm/hr)	(L/s)	(L/s)	(L/s)	(m^3)	
	20	119.95	7.0	5.0	5.4 2.0	3.2 2.4	
	30	91.87	5.4	5.0	0.3	0.6	
	40 50	75.15	4.4	4.4	0.0	0.0	
	60	55.89	3.3	3.3	0.0	0.0	
	70	49.79	2.9	2.9	0.0	0.0	
	80 90	44.99 41 11	2.6	2.6	0.0	0.0	
	100	37.90	2.2	2.2	0.0	0.0	
	110	35.20	2.1	2.1	0.0	0.0	
	120	32.89	1.9	1.9	0.0	0.0	
Storage:	Surface Sto	rage Above C	В				
	ICD	LMF 60					
Inv	ert Elevation	68.96 m					
Т	/G Elevation	71.28 m			Volume in CB	0.84 c	u.m
Max Po	nding Depth	0.12 m					
DOW	ISUCATI W/L	00.90 11					
		Stage	Head	Discharg	e Vreq	Vavail	Volume
100-vear	Water I evel	71.40	(m) 2.44	(L/s) 5.0	(cu. m) 3.23	(cu. m) 5.14	OK
,						1.91	
Subder	inage Arec:	CB-2			Contro	lled - Tribute	ry to Cistorn
Sabura	Area (ha):	0.03			Contro	nou - mouta	y to Gistelli
	Ċ:	0.91					
	tc	I (100 yr)	Oactual	Oreleas	e Ostored	Vetored	
	(min)	(mm/hr)	(L/s)	(L/s)	(L/s)	(m^3)	
	10	178.56	12.2	8.7	3.5	2.1	
	20	119.95 91.87	8.2 6.3	8.2	0.0	0.0	
	40	75.15	5.1	5.1	0.0	0.0	
	50	63.95	4.4	4.4	0.0	0.0	
	60 70	55.89 49.79	3.8 3.4	3.8	0.0	0.0	
	80	44.99	3.1	3.1	0.0	0.0	
	90	41.11	2.8	2.8	0.0	0.0	
	100	37.90	2.0	2.6	0.0	0.0	
	120	32.89	2.3	2.3	0.0	0.0	
Storago	Surface Ste	rago Abovo C	D				
otorago.	Ournable Oto	age Above o	0				
	ICD	LMF 80					
Inv	ert Elevation	69.06 m					
T May Da	/G Elevation	71.30 m			Volume in CB	0.81 c	u.m
Dowr	nstream W/L	69.00 m					
				D : 1			
		Stage	Head (m)	Discharg (L/s)	e Vreq (cu.m)	(cu. m)	Check
100-year	Water Level	71.40	2.34	8.7	2.09	3.41	OK
						1.31	
Subdra	inage Area:	CB-1			Contro	lled - Tributa	ry to Cistern
	Area (ha):	0.05					
	C:	0.86					
	tc	l (100 yr)	Qactual	Qreleas	e Qstored	Vstored	
	(min)	(mm/hr)	(L/s)	(L/s)	(L/s)	(m^3)	
	10 20	178.56	19.7 13.2	14.8	4.8	2.9	
	30	91.87	10.1	10.1	0.0	0.0	
	40	75.15	8.3	8.3	0.0	0.0	
	5U 60	55.89	7.1 6.2	7.1 6.2	0.0	0.0	
	70	49.79	5.5	5.5	0.0	0.0	
	80	44.99	5.0	5.0	0.0	0.0	
	90 100	37.90	4.5 4.2	4.5	0.0	0.0	
	110	35.20	3.9	3.9	0.0	0.0	
	120	32.89	3.6	3.6	0.0	0.0	
Storage:	Surface Sto	rage Above C	В				
Orifi	ce Equation:	Q = CdA(2gh)	^0.5	Where C =	0.57		
Orific	e Diameter:	73.00 m	m				
Inv T	G Elevation	o9.44 m 71.30 m			Volume in CR	0.67	:u.m
Max Po	nding Depth	0.10 m				0.07 0	
Dowr	nstream W/L	69.22 m					
		Stage	Head	Discharg	e Vreq	Vavail	Volume
100 year	Water Lovel	71.40	(m)	(L/s)	(cu. m)	(cu. m)	Check
.co-ycai			1.00	14.0	2.01	0.16	0.0

Project #160401787, 1184-1196 Cummings Avenue Modified Rational Method Calculations for Storage

Subdrai	nage Area: Area (ha): C:	RAMP 0.01 0.90			Unco	ntrolled - Ran	np to Cistern
	tc	l (5 vr)	Qactual	Qrelease	Qstored	Vstored	
	(min)	(mm/hr)	(L/s)	(L/s)	(L/s)	(m^3)	
	10	104.19	2.1	2.1			
	20	70.25	1.4	1.4			
	30	53.93	1.1	1.1			
	40 50	37.65	0.9	0.9			
	60	32.94	0.7	0.7			
	70	29.37	0.6	0.6			
	80	26.56	0.5	0.5			
	90	24.29	0.5	0.5			
	100	22.41	0.4	0.4			
	110	20.82	0.4	0.4			
	120	19.47	0.4	0.4			
Subdrai	nage Area: Area (ha): C:	UNC-4 0.04 0.46			Un	controlled - N	lon-Tributary
	tc (min)	l (5 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)	Qstored (L/s)	Vstored (m^3)	
	10	104.19	4.7	4.7	, , , ,		
	20	70.25	3.1	3.1			
	30	53.93	2.4	2.4			
	40	44.18	2.0	2.0			
	60	32,94	1.5	1.5			
	70	29.37	1.3	1.3			
	80	26.56	1.2	1.2			
	90	24.29	1.1	1.1			
	100	22.41	1.0	1.0			
	110	20.82	0.9	0.9			
	120	19.47	0.9	0.9			
Subdrai	nage Area: Area (ha): C:	UNC-3 0.01 0.20			Un	controlled - N	lon-Tributary
	tr	1 (5 vr)	Oactual	Orelease	Ostored	Vstored	
	(min)	(mm/hr)	(L/s)	(L/s)	(L/s)	(m^3)	
	10	104.19	0.8	0.8			
	20	70.25	0.5	0.5			
	30	53.93	0.4	0.4			
	40	44.18	0.3	0.3			
	50 60	37.05	0.3	0.3			
	00	02.04	0.2	0.2			
	70	29.37	0.2	0.2			
	70 80	29.37 26.56	0.2	0.2 0.2			
	70 80 90	29.37 26.56 24.29	0.2 0.2 0.2	0.2 0.2 0.2			
	70 80 90 100	29.37 26.56 24.29 22.41	0.2 0.2 0.2 0.2	0.2 0.2 0.2 0.2			
	70 80 90 100 110	29.37 26.56 24.29 22.41 20.82	0.2 0.2 0.2 0.2 0.2	0.2 0.2 0.2 0.2 0.2			
	70 80 90 100 110 120	29.37 26.56 24.29 22.41 20.82 19.47	0.2 0.2 0.2 0.2 0.2 0.2 0.1	0.2 0.2 0.2 0.2 0.2 0.2 0.1			
Subdrai	70 80 90 110 120 nage Area: Area (ha): C:	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20	0.2 0.2 0.2 0.2 0.2 0.2 0.2	0.2 0.2 0.2 0.2 0.2 0.2 0.1	Un	controlled - N	lon-Tributary
Subdrai	70 80 90 110 120 nage Area: Area (ha): C: tc	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20	0.2 0.2 0.2 0.2 0.2 0.1	0.2 0.2 0.2 0.2 0.2 0.2 0.1	Un	controlled - N Vstored	lon-Tributary
Subdrai	70 80 90 100 110 120 nage Area: Area (ha): C: tc (min)	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 I (5 yr) (mm/hr)	0.2 0.2 0.2 0.2 0.2 0.1 Qactual (L/s)	0.2 0.2 0.2 0.2 0.2 0.1 Qrelease (L/s)	Un Qstored (L/s)	controlled - N Vstored (m^3)	lon-Tributary
Subdrai	70 80 90 100 110 120 nage Area: Area (ha): C: tc (min) 10	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 I (5 yr) (mm/hr) 104.19	0.2 0.2 0.2 0.2 0.2 0.1 Qactual (L/s) 1.2	0.2 0.2 0.2 0.2 0.1 Qrelease (L/s)	Un Qstored (L/s)	vstored (m^3)	Ion-Tributary
Subdrai	70 80 90 100 110 120 mage Area: Area (ha): C: tc (min) 10 20 20	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 I (5 yr) (mm/hr) 104.19 70.25 52.22	0.2 0.2 0.2 0.2 0.1 Qactual (L/s) 1.2 0.8 0.6	0.2 0.2 0.2 0.2 0.1 Crelease (L/s) 1.2 0.8 0.6	Un Qstored (L/s)	Controlled - N Vstored (m^3)	Ion-Tributary
Subdrai	70 80 90 100 110 120 mage Area: Area (ha): C: tc (min) 10 20 30 40	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18	0.2 0.2 0.2 0.2 0.2 0.1 Qactual (L/s) 1.2 0.8 0.6 0.5	0.2 0.2 0.2 0.2 0.2 0.1 Qrelease (L/s) 1.2 0.8 0.6 0.5	Un Qstored (L/s)	Controlled - N Vstored (m^3)	lon-Tributary
Subdrai	70 80 90 100 120 Area (ha): C: tc (min) 10 20 30 40 50	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65	0.2 0.2 0.2 0.2 0.2 0.1 Qactual (L/s) 1.2 0.8 0.6 0.5 0.4	0.2 0.2 0.2 0.2 0.1 Qrelease (L/s) 1.2 0.8 0.6 0.5 0.4	Un Qstored (L/s)	Vstored (m^3)	ion-Tributary
Subdrai	70 80 90 100 110 120 nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.20 1(5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94	0.2 0.2 0.2 0.2 0.1 Qactual (L/s) 1.2 0.8 0.6 0.5 0.4 0.4	0.2 0.2 0.2 0.2 0.2 0.1 Qrelease (<i>L/s</i>) 1.2 0.8 0.6 0.5 0.4 0.4	Un Qstored (L/s)	Vstored (m^3)	Ion-Tributary
Subdrai	70 80 90 100 110 120 nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 22.57 26.57	0.2 0.2 0.2 0.2 0.1 Qactual (L/s) 1.2 0.8 0.6 0.5 0.4 0.4 0.2	0.2 0.2 0.2 0.2 0.2 0.1 Qrelease (L/s) 1.2 0.8 0.6 0.5 0.4 0.4 0.3 0.2	Un Qstored (L/s)	Vstored (m^3)	ion-Tributary
Subdrai	70 80 90 100 110 120 mage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 00	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56	0.2 0.2 0.2 0.2 0.1 Qactual (Us) 1.2 0.8 0.6 0.5 0.4 0.4 0.4 0.3 0.3 0.2	0.2 0.2 0.2 0.2 0.2 0.1 Qrelease (L/s) 1.2 0.6 0.6 0.5 0.4 0.4 0.3 0.3 0.3 0.2	Un Qstored (L/s)	Controlled - N Vstored (m^3)	Ion-Tributary
Subdrai	70 80 90 100 110 120 mage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 100	29.37 24.29 24.29 22.41 20.82 19.47 UNC-2 0.20 0.20 0.20 104.19 70.25 3.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41	0.2 0.2 0.2 0.2 0.2 0.1 Qactual (<i>L/s</i>) 1.2 0.8 0.6 0.5 0.4 0.4 0.3 0.3 0.3 0.2	0.2 0.2 0.2 0.2 0.2 0.1 Qrelease (L/s) 1.2 0.8 0.6 0.5 0.4 0.4 0.4 0.3 0.3 0.3 0.2	Un Qstored (L/s)	Vstored (m^3)	Ion-Tributary
Subdrai	70 80 90 110 120 nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 100	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 I (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 44.18 37.65 32.94 24.29 24.29 24.29 24.29	0.2 0.2 0.2 0.2 0.1 Qactual (L's) 1.2 0.8 0.5 0.4 0.5 0.4 0.3 0.3 0.3 0.2 0.2	0.2 0.2 0.2 0.2 0.1	Un Qstored (L/s)	Vstored (m^3)	ion-Tributary
Subdrai	70 80 90 100 110 120 mage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 00 50 60 70 80 90 100 1120	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 0.20 0.20 0.20 0.20 0.20 3.39 44.18 3.7.65 3.93 44.18 3.7.65 3.93 44.18 9.37 26.56 6.56 24.29 22.41 20.82 19.47	0.2 0.2 0.2 0.2 0.2 0.1 Qactual (L/s) 1.2 0.8 0.6 0.5 0.4 0.4 0.3 0.3 0.3 0.3 0.2 0.2	0.2 0.2 0.2 0.2 0.2 0.1 Qrelease (L/s) 1.2 0.8 0.6 0.5 0.4 0.4 0.3 0.3 0.3 0.3 0.2 0.2	Un Qstored (L/s)	Vstored (m^3)	lon-Tributary
Subdrai	70 80 90 110 110 120 nage Area: Area (ha): C: tc (min) 10 20 30 40 40 50 50 50 50 50 50 50 50 50 50 50 100 110 11	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 I (5 yr) (mm/hr) (104.19 70.25 53.93 44.18 37.65 53.94 29.37 26.56 24.29 26.56 24.29 22.41 20.82 19.47	0.2 0.2 0.2 0.2 0.2 0.1 (Us) 1.2 0.8 0.5 0.4 0.5 0.4 0.4 0.3 0.3 0.3 0.2 0.2 0.2	0.2 0.2 0.2 0.2 0.1 Qrelease (Us) 1.2 0.8 0.6 0.5 0.4 0.4 0.3 0.3 0.3 0.2 0.2 0.2 0.2	Un Qstored (L/s)	controlled - N Vstored (m^3)	Ion-Tributary
Subdrai	70 80 90 100 110 120 mage Area: Area (ha): C: (min) 10 20 30 40 50 60 70 80 90 90 100 110 120 mage Area: Area (ha): C: C: C: C: C: C: C: C: C: C: C: C: C:	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 i (5 yr) (mm/hr) 104.19 70.25 53.93 44.18 29.37 26.56 24.29 22.41 20.82 19.47 UNC-1 0.01 0.20	0.2 0.2 0.2 0.2 0.2 0.1 Qactual (L/s) 1.2 0.4 0.5 0.4 0.4 0.3 0.3 0.3 0.3 0.2 0.2	0.2 0.2 0.2 0.2 0.2 0.1 Qrelease (<i>L/s</i>) 1.2 0.8 0.6 0.5 0.4 0.4 0.3 0.3 0.3 0.3 0.2 0.2	Un (L/s) Un	vstored (m^3)	Ion-Tributary Ion-Tributary
Subdrai	70 80 90 100 110 120 nage Area: Area (ha): C: (min) 10 20 30 40 50 60 60 60 60 60 60 60 70 80 80 90 100 110 20 30 40 50 60 70 80 80 80 80 80 50 60 70 70 80 80 80 80 80 80 80 80 80 80 80 80 80	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 I (5 yr) (mm/.hp) 104.19 70.25 53.93 44.18 37.65 33.93 44.18 37.65 24.29 22.41 20.82 19.47 UNC-1 0.20 UNC-1 0.20 UNC-1 0.21 UNC-1 0.20	0.2 0.2 0.2 0.2 0.2 0.1 (Us) 1.2 0.8 0.6 0.5 0.4 0.4 0.3 0.3 0.3 0.2 0.2 0.2 0.2	0.2 0.2 0.2 0.2 0.2 0.1 Qrelease (Us) 1.2 0.8 0.6 0.5 0.4 0.4 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	Un Qstored (L/s) Un	controlled - N Vstored (m^3)	Ion-Tributary
Subdrai	70 80 90 100 110 120 mage Area: Area (ha): C: (min) 10 20 30 40 50 60 60 60 60 60 60 60 60 60 60 60 70 80 90 90 100 110 120	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 1(5 yr) (mm/hr) 70.25 53.93 44.18 37.65 32.94 44.18 37.65 32.94 24.29 24.29 24.29 24.41 20.82 19.47	0.2 0.2 0.2 0.2 0.2 0.1 (L/s) 1.2 0.8 0.6 0.5 0.4 0.3 0.3 0.3 0.3 0.2 0.2 0.2 0.2 (L/s)	0.2 0.2 0.2 0.2 0.2 0.1 Qrelease (L/s) 1.2 0.8 0.5 0.4 0.3 0.3 0.3 0.3 0.2 0.2 0.2 Qrelease (L/s)	Un (L/s) Un Qstored (L/s)	controlled - N Vstored (m^3)	Ion-Tributary
Subdrai	70 80 90 100 110 120 mage Area: Area (ha): C: (min) 10 20 30 40 50 60 70 80 90 90 90 100 1120 mage Area: Area (ha): C: C: C: C: C: C: C: C: C: C: C: C: C:	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 1(5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 44.18 29.37 26.56 24.29 22.41 20.87 20.41 0.20 1(5 yr) (mm/hr) 104.19	0.2 0.2 0.2 0.2 0.2 0.1 1.2 0.1 1.2 0.4 0.4 0.4 0.4 0.4 0.3 0.3 0.2 0.2 0.2 0.2	0.2 0.2 0.2 0.2 0.2 0.1 Qrelease (<i>L(s)</i> 1.2 0.4 0.4 0.4 0.4 0.4 0.3 0.3 0.2 0.2 Qrelease (<i>L(s)</i> 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	Un (L/s) Un Qstored (L/s)	controlled - N Vstored (m^3)	Ion-Tributary Ion-Tributary
Subdrai	70 80 90 100 110 120 nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 60 60 60 60 60 60 60 60 60 60 70 80 80 90 110 120 x area (ha): C: x c: tc (min) 10 20 30 40 50 60 110 110 20 x c: tc (min) 10 20 30 40 50 50 50 50 50 100 100 110 120 100 100 100 100 100 10	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 104.19 70.25 53.93 44.18 37.65 32.94 44.18 37.65 24.29 22.41 37.65 24.29 22.41 20.82 19.47 UNC-1 0.01 0.20 0.20 10.419 70.25	0.2 0.2 0.2 0.2 0.2 0.1 (Us) 1.2 0.8 0.6 0.5 0.4 0.5 0.4 0.5 0.4 0.3 0.3 0.2 0.2 0.2	0.2 0.2 0.2 0.2 0.2 0.1 12 0.8 0.6 0.5 0.4 0.4 0.4 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	Un (L/s) Un Qstored (L/s)	controlled - N Vstored (m^3) controlled - N Vstored (m^3)	Ion-Tributary
Subdrai	70 80 90 100 110 120 mage Area: Area (ha): C: (min) 10 20 30 40 50 60 60 60 60 60 60 60 60 60 60 70 80 90 90 100 120 100 120 100 120 100 100 100 10	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 1(5 yr) (mm/hr) 104.19 704.19 704.19 704.19 704.19 704.19 704.19 704.19 704.19 704.19 704.19 704.19 704.19 704.19 704.10 20 20 20 20 20 20 20 20 20 20 20 20 20	0.2 0.2 0.2 0.2 0.2 0.1 (L/s) 1.2 0.8 0.6 0.5 0.4 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.5 0.5 0.4 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	0.2 0.2 0.2 0.2 0.2 0.1 Qrelease (L/s) 1.2 0.8 0.6 0.5 0.4 0.3 0.3 0.2 0.2 0.2 Qrelease (L/s) 0.3 0.2 0.2 0.2 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	Un (L/s) Un Qstored (L/s)	controlled - N (m^3) controlled - N Vstored (m^3)	Ion-Tributary
Subdrat	70 80 90 100 110 120 mage Area: Area (ha): C: (min) 10 20 30 40 50 50 70 80 90 90 100 110 120 mage Area: Area (ha): C: (min) 10 20 30 40 100 100 100 50 50	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 1(5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 44.18 29.37 26.56 24.29 22.41 20.41 20.82 19.47 UNC-1 0.20 1(5 yr) (mm/hr) 104.19 70.25 53.93 44.18 20.82	0.2 0.2 0.2 0.2 0.1 (L/s) 1.2 0.8 0.5 0.4 0.5 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1	0.2 0.2 0.2 0.2 0.2 0.1 Qrelease (<i>L(s)</i> 1.2 0.5 0.4 0.4 0.4 0.4 0.4 0.3 0.3 0.3 0.2 0.2 Qrelease (<i>L(s)</i> Qrelease (<i>L(s)</i>) 1.2 0.5 0.5 0.4 0.4 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	Un (L/s) Un Qstored (L/s)	controlled - N Vstored (m^3)	Ion-Tributary Ion-Tributary
Subdrai	70 80 90 100 110 120 nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 110 120 mage Area: Area (ha): C: tc (min) 110 20 30 40 50 110 110 120 (min) 110 20 30 40 50 110 120 (min) 110 20 30 40 50 110 120 (min) 110 20 30 40 50 110 120 (min) 110 20 30 40 50 100 100 100 100 100 100 100 100 100	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 104.19 70.25 53.93 44.18 37.65 32.94 20.82 19.47 UNC-1 0.01 0.20 16 yr) (mm/hr) 104.19 70.25 53.93 44.18 20.82 19.47	0.2 0.2 0.2 0.2 0.2 0.1 (Us) 1.2 0.8 0.6 0.5 0.4 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.3 0.2 0.2 0.2 0.1 0.1 0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	0.2 0.2 0.2 0.2 0.2 0.1 0.1 1.2 0.8 0.6 0.5 0.4 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.3 0.2 0.2 0.2 0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	Un (L/s) Un Qstored (L/s)	controlled - N (m^3) controlled - N Vstored (m^3)	Ion-Tributary
Subdrai	70 80 90 100 110 120 nage Area: Area (ha): C: (min) 10 20 30 40 50 60 60 70 70 70 70 70 70 70 70 70 70 70 70 70	29.37 26.56 24.29 22.41 UNC-2 0.02 0.20 1(5 yr) (mm/hr) 104.19 70.55 32.94 44.18 37.65 32.94 24.29 24.41 0.20 24.21 104.19 70.25 24.29 24.41 0.20 105.97 104.19 70.25 24.29 24.41 0.20 105.97 1	0.2 0.2 0.2 0.2 0.2 0.1 (L/s) 1.2 0.8 0.6 0.5 0.4 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1	0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.5 0.5 0.4 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	Un (L/s) Un Qstored (L/s)	controlled - N (m^3)	Ion-Tributary
Subdrai	70 80 90 100 110 120 nage Area: Area (ha): C: tc (min) 10 20 30 40 50 60 70 80 90 100 110 110 20 30 60 70 80 90 100 110 20 30 60 70 80 90 100 110 20 30 40 50 60 70 100 100 100 100 100 100 100 100 100	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 104.19 70.25 53.93 70.25 53.93 70.25 53.93 70.25 23.93 70.25 23.93 70.25 23.93 70.25 23.93 70.25 24.11 20.82 19.47 UNC-1 0.01 0.01 0.01 0.02 0.20 104.19 22.41 20.82 19.47	0.2 0.2 0.2 0.2 0.2 0.1 (L/s) 12 0.8 0.6 0.5 0.4 0.5 0.4 0.5 0.4 0.5 0.4 0.5 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	0.2 0.2 0.2 0.2 0.2 0.1 12 12 0.8 0.8 0.6 0.5 0.4 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.1 12 0.8 0.6 0.4 0.4 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	Un (L/s) Un Qstored (L/s)	controlled - N Vstored (m^3)	Ion-Tributary
Subdrai	70 80 90 110 120 nage Area: Area (ha): C: (min) 10 20 30 40 50 60 70 80 90 90 90 90 90 100 110 120 mage Area: tc (min) 10 20 30 40 50 60 70 80 90 100 110 120 tc (min) 10 20 30 40 50 60 70 80 90 10 10 10 20 30 40 50 60 70 10 10 20 30 40 50 60 70 10 10 10 20 30 40 50 50 60 70 10 10 10 20 30 40 50 50 50 50 10 10 10 10 10 10 10 10 10 10 10 10 10	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 104.19 70.25 53.93 44.18 37.65 32.94 24.29 22.41 20.82 19.47 UNC-1 0.01 0.20 70.25 53.93 44.18 37.65 32.94 24.29 22.41 0.61 0.01 0.20 1(5 yr) (mm/hr) 104.19 70.25 53.93 44.18 20.82 19.47	0.2 0.2 0.2 0.2 0.2 0.1 Qactual (L/s) 1.2 0.8 0.6 0.5 0.4 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1	0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.5 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	Un (L/s) Un Qstored (L/s)	controlled - N (m^3) controlled - N Vstored (m^3)	Ion-Tributary
Subdrai	70 80 90 100 110 120 nage Area: Area (ha): C: (min) 10 20 30 40 50 60 70 70 80 90 100 120 internationalistic for the set of the s	29.37 26.56 24.29 22.41 UNC-2 0.02 0.20 1(5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 24.29 24.21 UNC-2 0.02 0.20 0.20 1(5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 53.93 44.18 37.65 53.93 44.18 37.65 53.94 29.47 104.19 70.25 53.93 24.41 0.20 105.19 104.19 70.25 53.93 24.41 0.20 105.29 105.20	0.2 0.2 0.2 0.2 0.2 0.1 Qactual (L/s) 1.2 0.8 0.6 0.5 0.4 0.3 0.3 0.3 0.3 0.2 0.2 0.2 0.2 Qactual (L/s) 1.2 0.8 0.6 0.5 0.4 0.3 0.2 0.2 0.2 0.2 0.1 1.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0	0.2 0.2 0.2 0.2 0.2 0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	Un (L/s) Un Qstored (L/s)	controlled - N (m^3)	Ion-Tributary
Subdrai	70 80 90 100 110 120 nage Area: Area (ha): C: (min) 10 20 30 40 50 60 70 80 90 100 110 110 120 x (min) 10 x 60 60 70 80 90 100 110 120 x x x x x x x x x x	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 104.19 70.25 53.93 44.18 37.65 32.94 104.19 70.25 24.9 22.41 20.82 19.47 UNC-1 0.20 0.20 104.19 70.25 53.93 44.18 37.65 32.94 UNC-1 0.20 0.20 105.97 (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 10.20 0.20 105.97 (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 10.20 0.20 0.20 105.97 104.19 70.25 53.93 44.18 37.65 32.94 10.20 0.20 0.20 105.97 104.19 70.25 53.93 44.18 32.94 10.20 0.20 0.20 105.97 104.19 70.25 53.93 44.18 20.82 19.47 10.20 0.20 0.20 105.97 104.19 70.25 53.93 44.18 20.82 19.47 10.65 32.94 10.20 0.20 0.20 105.97 104.19 70.25 24.29 22.41 10.20 0.20 0.20 0.20 0.20 105.97 104.19 70.25 53.93 44.18 70.55 53.93 44.18 70.55 53.93 44.18 70.25 53.93 44.18 70.25 53.93 22.41 0.20 0.2	0.2 0.2 0.2 0.2 0.2 0.1 (Us) 1.2 0.8 0.6 0.5 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	0.2 0.2 0.2 0.2 0.2 0.1 0.1 12 0.8 0.6 0.5 0.4 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Un (L/s) Un Qstored (L/s)	controlled - N (m^3) controlled - N Vstored (m^3)	Ion-Tributary
Subdrai	70 80 90 110 120 mage Area: Area (ha): C: (min) 10 20 30 40 50 60 70 80 90 90 90 90 90 90 90 90 90 90 90 90 90	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 104.19 70.25 53.93 44.18 37.65 32.94 24.29 22.41 20.82 19.47 UNC-1 0.01 0.20 70.25 53.93 44.18 37.65 32.94 24.29 22.41 20.82 19.47	0.2 0.2 0.2 0.2 0.2 0.1 1.2 0.8 0.6 0.5 0.4 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	0.2 0.2 0.2 0.2 0.2 0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.5 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	Un (L/s) Un Qstored (L/s)	controlled - N (m^3) controlled - N Vstored (m^3)	Ion-Tributary
Subdrai	70 80 90 100 110 120 nage Area: Area (ha): C: (min) 10 20 30 40 50 60 60 60 60 60 60 60 60 60 60 60 60 60	29.37 26.56 24.29 22.41 UNC-2 0.02 0.20 1(5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 24.29 22.41 0.20 UNC-1 0.20 UNC-1 0.20 1(5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 29.37 26.56 32.94 29.37 26.56 32.94 29.37 26.56 24.29 22.41 20.82 20.41 20.82 20.41 20.42 20.41 20.42 20.41 20.42 20.41 20.42 20.41 20.42 20.42 20.41 20.42 2	0.2 0.2 0.2 0.2 0.2 0.1 (L/s) 1.2 0.8 0.6 0.5 0.4 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1	0.2 0.2 0.2 0.2 0.2 0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.5 0.4 0.3 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	Un (L/s) Un Qstored (L/s)	controlled - N (m^3)	Ion-Tributary
Subdrai	70 80 90 100 110 120 nage Area: Area (ha): C: (min) 10 20 30 40 50 40 50 60 70 80 90 100 110 120 c: c: c: c: c: c: c: c:	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 104.19 70.25 53.93 44.18 37.65 32.94 44.18 37.65 24.29 22.41 20.82 19.47 UNC-1 0.01 0.20 UNC-1 0.20 1(5 yr) (mm/hr) 104.19 70.25 53.93 44.18 37.65 32.94 104.19 70.25 53.93 44.18 37.65 32.94 104.19 22.41 20.82 19.47	0.2 0.2 0.2 0.2 0.2 0.1 12 0.8 0.8 0.5 0.4 0.5 0.4 0.5 0.4 0.5 0.4 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	0.2 0.2 0.2 0.2 0.2 0.1 1 2 0.8 0.6 0.5 0.4 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	Un (L/s) Un Qstored (L/s)	controlled - N (m^3)	Ion-Tributary
Subdrai	70 80 90 110 120 nage Area: Area (ha): C: (min) 10 20 30 40 50 60 70 80 90 100 110 120 mage Area: Area (ha): C: (min) 10 20 30 40 50 60 70 80 90 110 120 to 120 to 10 10 120 to 10 10 10 20 30 40 50 60 70 80 90 110 120 to 10 10 10 20 30 40 50 60 70 80 90 110 120 to 10 10 20 30 40 50 50 60 70 10 10 10 20 30 40 50 60 70 10 10 10 20 30 40 50 60 70 10 10 10 20 30 40 50 60 70 10 10 120 10 10 20 30 40 50 60 70 10 20 30 40 50 50 60 70 10 10 10 20 30 40 50 60 70 10 20 30 40 50 50 60 70 80 90 10 10 120 10 10 20 30 40 50 50 60 70 80 90 10 10 120 10 10 20 30 40 50 60 70 80 80 10 10 120 10 10 120 10 10 120 10 10 120 10 10 120 10 10 120 10 10 120 10 10 120 10 10 120 10 10 120 10 10 120 10 10 120 10 10 10 10 10 10 10 10 10 10 10 10 10	29.37 26.56 24.29 22.41 20.82 19.47 UNC-2 0.02 0.20 104.19 70.25 53.93 44.18 37.65 32.94 24.29 22.41 20.82 19.47 UNC-1 0.01 0.20 22.429 22.41 20.82 19.47 UNC-1 0.01 0.20 23.93 44.18 37.65 33.93 44.18 37.65 33.93 44.18 37.65 33.93 44.18 37.65 33.93 44.18 37.65 33.93 44.18 37.65 33.93 44.18 37.65 33.93 44.19 70.25 33.93 44.18 37.65 33.93 44.18 37.65 33.93 44.19 70.25 33.93 44.18 37.65 33.93 44.19 70.25 33.93 44.19 70.25 33.93 44.19 70.25 33.93 44.19 70.25 33.93 44.19 70.25 33.93 44.19 70.25 33.93 44.19 70.25 33.93 44.19 70.25 25 3.93 44.19 70.25 25 3.93 44.19 70.25 25 3.93 44.19 70.25 25 3.93 44.19 70.25 25 3.93 44.19 70.25 25 3.93 44.19 70.25 25 3.93 44.19 70.25 26 4.19 70.25 26 24.29 22.41 8.00 70.25 27 24.29 22.41 8.00 70.25 25 3.93 4.18 70.25 25 3.93 4.18 70.55 3.93 4.18 70.55 3.93 4.19 70.25 25 3.93 4.18 70.25 25 3.93 4.18 70.55 3.93 4.19 70.25 25 3.93 4.18 70.55 3.93 4.18 70.55 3.93 4.19 70.25 25 3.93 4.18 70.25 25 3.93 4.18 70.25 53.93 4.18 70.25 53.93 4.18 70.25 53.93 4.18 70.25 53.93 77 26.56 53.93 77 26.56 53.93 77 26.56 53.93 77 26.55 73.93 77 70.25 73.93 77 70.25 73.93 77 70.25 73.93 77 70.25 73.93 77 70.25 73.93 77 72.55 73.93 77 72.55 73.93 77 72.55 73.93 77 72.55 73.93 77 72.55 73.93 77 72.55 73.93 77 72.55 73.93 77 72.55 73.93 77 72.55 73.93 77 72.55 73.93 77 72.55 73.77 72.55 73.77 72.55 73.77 72.55 73.77 72.55 73.77 72.55 73.77 72.55 73.77 72.55 73.77 72.55 73.77 72.55 73.77 72.55 73.77 72.55 73.77 72.55 73.77 72.55 73.77 72.55 73.77 72.55 73.77 72.55 73.77 72.55 73.77 72.55 73.77 72.55 72.577 72.55 72.57 75 75 75 75 75 75 75 75 75 75 75 75 7	0.2 0.2 0.2 0.2 0.2 0.1 1.2 0.8 0.6 0.5 0.4 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.3 0.5 0.4 0.3 0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	Un (L/s) Un Qstored (L/s)	controlled - N (m^3)	Ion-Tributary

Subdrai	inage Area:	RAMP			Unco	ntrolled - Ra	mp to Cistern
	Area (na): C:	1.00					
	tc	l (100 yr)	Qactual	Qrelease	Qstored	Vstored	
	(min)	(mm/hr)	(L/s)	(L/s)	(L/s)	(m^3)	
	20	119.95	2.7	2.7			
	30 40	91.87 75.15	2.0	2.0			
	50	63.95	1.4	1.4			
	60 70	55.89 49.79	1.2	1.2			
	80	44.99	1.0	1.0			
	90 100	41.11 37.90	0.9	0.9			
	110	35.20	0.8	0.8			
	120	32.89	0.7	0.7			
Subdrai	inage Area:	UNC-4			Un	controlled - I	Non-Tributary
	C:	0.58					
	tc	l (100 yr)	Qactual	Qrelease	Qstored	Vstored	
	(min) 10	(mm/hr) 178.56	(L/s)	(L/s)	(L/s)	(m^3)	
	20	119.95	6.7	6.7			
	30 40	91.87 75.15	5.1 4.2	5.1 4.2			
	50	63.95	3.6	3.6			
	60 70	55.89 49.79	3.1 2.8	3.1 2.8			
	80	44.99	2.5	2.5			
	90 100	41.11 37.90	2.3 2.1	2.3 2.1			
	110	35.20	2.0	2.0			
	120	JZ.09	1.0	1.0			
Subdrai	inage Area:	UNC-3			Un	controlled - I	Non-Tributary
	Area (ha): C:	0.01 0.25					
	40	1 (100	Osstual	Oreleses	Ostarad	Votorod	
	(min)	(mm/hr)	(L/s)	(L/s)	(L/s)	(m^3)	
	10	178.56	1.6	1.6			
	30	91.87	0.8	0.8			
	40 50	75.15	0.7	0.7			
	60	55.89	0.5	0.5			
	70 80	49.79 44.99	0.4	0.4			
	90	41.11	0.4	0.4			
	100 110	37.90 35.20	0.3	0.3 0.3			
	120	32.89	0.3	0.3			
Subdrai	inago Aroa:	LINC 2			Lin	controlled	
Suburai	Area (ha):	0.02			011	controlled - I	Non-Thouldry
	C:	0.25					
	tc (min)	l (100 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)	Qstored (L/s)	Vstored (m^3)	
	10	178.56	2.5	2.5	. ,	. ,	
	30	91.87	1.3	1.3			
	40 50	75.15 63.95	1.0 0.9	1.0 0.9			
	60	55.89	0.8	0.8			
	70 80	49.79 44.99	0.7 0.6	0.7 0.6			
	90	41.11	0.6	0.6			
	110	35.20	0.5	0.5			
	120	32.89	0.5	0.5			
Subdrai	inage Area	UNC-1			[In	controlled - I	Non-Tributary
	Area (ha):	0.01					,
	U:	0.20					
	tc (min)	l (100 yr) (mm/hr)	Qactual (L/s)	Qrelease (L/s)	Qstored (L/s)	Vstored (m^3)	
	10	178.56	0.6	0.6			
	20	91.87	0.4 0.3	0.4 0.3			
	40	75.15	0.3	0.3			
	5U 60	55.89	0.2	0.2			
	70	49.79	0.2	0.2			
	90	44.99 41.11	0.2	0.2			
	100	37.90 35.20	0.1	0.1			
	120	32.89	0.1	0.1			

Project #160401787, 1184-1196 Cummings Avenue Modified Rational Method Calculations for Storage

UMMARY TO OUTLET				
		Vrequired	Vavailable*	
Roof, Catch Basin and Ramp Drain Areas	0.28 ha			
Total 5 yr Flow to Cistern	23.2 L/s			
5 yr Flow from Roof to Sewer	17.8 L/s			
5 yr Flow from Cistern to Sewer	8.3 L/s	0.0	0.0 m ³	O
Non-Tributary Area	0.07 ha			
Total 5 yr Flow Uncontrolled	6.9 L/s			
Total Area	0.35 ha			
Total 5 yr Flow	33.0 L/s			
Target	43.3 L/s			1

UMMARY TO OUTLET				
		Vrequired Vava	ilable*	
Roof, Catch Basin and Ramp Drain Areas	0.28 ha			
Total 100 yr Flow to Cistern	35.1 L/s			
100 yr Flow from Roof to Sewer	20.3 L/s			
100 yr Flow from Cistern to Sewer	8.3 L/s	0.0	0.0 m ³	Ok
Non-Tributary Area	0.07 ha			
Total 100 yr Flow Uncontrolled	14.7 L/s			
Total Area	0.35 ha			
Total 100 yr Flow	43.3 L/s			
Target	43.3 L/s			

Project #160401787, 1184-1196 Cummings Avenue Roof Drain Design Sheet, Area BLDG Standard Watts Accutrol Weir - Single Notch Roof Drain

Γ	Rating Curve				Volume Estimation				
	Elevation	Discharge Rate	Outlet Discharge	Storage	Elevation	Area	Volume	: (cu. m)	Water Depth
	(m)	(cu.m/s)	(cu.m/s)	(cu. m)	(m)	(sq. m)	Increment	Accumulated	(m)
Г	0.000	0.000000	0.0000	0.00	0.000	0	0.00	0.00	0.000
	0.025	0.000315	0.0085	0.31	0.025	36.67	0.31	0.31	0.025
	0.050	0.000631	0.0151	2.44	0.050	146.67	2.14	2.44	0.050
	0.075	0.000710	0.0168	8.25	0.075	330.00	5.81	8.25	0.075
	0.100	0.000789	0.0185	19.56	0.100	586.67	11.31	19.56	0.100
	0.125	0.000867	0.0201	38.19	0.125	916.67	18.64	38.19	0.125
	0.150	0.000946	0.0218	66.00	0.150	1320.00	27.81	66.00	0.150

Drawdown Estimate							
Total	Total						
Volume	Time	Vol	Detention				
(cu.m)	cu.m) (sec)		Time (hr)				
0.0	0.0	0.0	0				
2.1	141.3	2.1	0.03924				
7.9	345.7	5.8	0.13526				
19.3	612.7	11.3	0.30545				
37.9	926.9	18.6	0.56294				
65.7	1277.6	27.8	0.91783				

Rooftop Storage Summary

Total Building Area (sq.m) Assume Available Roof Area (sq. Roof Imperviousness Roof Drain Requirement (sq.m/Notch)	80%	1650 1320 0.99 232	
Max. Allowable Depth of Roof Ponding (m) Max. Allowable Storage (cu.m) Estimated 100 Year Drawdown Time (h)		0.15 66 0.6	* As per Ontario Bu

* As per Ontario Building Code section OBC 7.4.10.4.(2)(c).

Adjustable Accutrol Weir Flow Rate Settings									
	From Watts Drain Catalogue								
Head (m) L/s									
	Open	75%	50%	25%	Closed				
0.025	0.3154	0.3154	0.3154	0.3154	0.3154				
0.05	0.6308	0.6308	0.6308	0.6308	0.3154				
0.075	0.9462	0.8674	0.7885	0.7097	0.3154				
0.1	1.2617	1.104	0.9462	0.7885	0.3154				
0.125	1.5771	1.3405	1.104	0.8674	0.3154				
0.15	1.8925	1.5771	1.2617	0.9462	0.3154				

* Note: Number of drains can be reduced if multiple-notch drain used.

Calculation Results	5yr	100yr	Available
Qresult (cu.m/s)	0.018	0.020	-
Depth (m)	0.090	0.128	0.150
Volume (cu.m)	15.1	41.6	66.0
Draintime (hrs)	0.2	0.6	

Federal Aviation Administration (FAA) (1970) Pre-Development Time of Concentration Calculation Project: 1184-1196 Cummings Avenue Stantec Project Number: 160401787

Federal Aviation Administ	<i>t</i> _o =	1.8(1.1- C)L ^{0.50} /S ^{0.333}	[min]	Developed from air field drainage data assembled by the
ration (1970)				US Corps of Engineers; method is intended for use
	C =	rational method runoff coefficient		on airfield drainage problems, but has been used
	L =	length of overland flow,	, ft	frequently for overland flow in urban basins
	S =	surface slope, ft/ft		

For WEST in the pre-development condition:

t_c = 9.98 minutes

Variable	Value	Unit	Notes
С	0.45	unitless	Represents existing condition of the area
L	151	ft	
S	3.00	%	

Since the calculated time of concentration is less than 10 minutes, a 10 minute time of concentration will be used to determine the stormwater target release rate.

For EAST in the pre-development condition:

t_c = 9.33 minutes

Variable	Value	Unit	Notes
С	0.41	unitless	Represents existing condition of the area
L	112	ft	
S	2.80	%	

Since the calculated time of concentration is less than 10 minutes, a 10 minute time of concentration will be used to determine the stormwater target release rate.

For NORTH in the pre-development condition:

t_c = 6.71 minutes

Variable	Value	Unit	Notes
С	0.4	unitless	Represents existing condition of the area
L	48.0	ft	
S	2.20	%	

Since the calculated time of concentration is less than 10 minutes, a 10 minute time of concentration will be used to determine the stormwater target release rate.

D.2 Watts Drainage Adjustable Accutrol Weir Detail (2016)

WATTS	Adjustable Accutrol Weir Tag:	Adjustable Flow Control for Roof Drains
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ADJUSTABLE ACCUTROL (for Large Sump Roof Drains only)

For more flexibility in controlling flow with heads deeper than 2", Watts Drainage offers the Adjustable Accutrol. The Adjustable Accutrol Weir is designed with a single parabolic opening that can be covered to restrict flow above 2" of head to less than 5 gpm per inch, up to 6" of head. To adjust the flow rate for depths over 2" of head, set the slot in the adjustable upper cone according to the flow rate required. Refer to Table 1 below. Note: Flow rates are directly proportional to the amount of weir opening that is exposed.

EXAMPLE:

For example, if the adjustable upper cone is set to cover 1/2 of the weir opening, flow rates above 2"of head will be restricted to 2-1/2 gpm per inch of head.

Therefore, at 3" of head, the flow rate through the Accutrol Weir that has 1/2 the slot exposed will be: [5 gpm (per inch of head) x 2 inches of head] + 2-1/2 gpm (for the third inch of head) = 12-1/2 gpm.



TABLE 1. Adjustable Accutrol Flow Rate Setting	ABLE 1. Adiu	table Accutr	ol Flow Rate	Settinas
--	--------------	--------------	--------------	----------

	1"	2"	3"	4"	5"	6"								
Exposed		Flow Rate (gallons per minute)												
Fully Exposed	5	10	15	20	25	30								
3/4	5	10	13.75	17.5	21.25	25								
1/2	5	10	12.5	15	17.5	20								
1/4	5	10	11.25	12.5	13.75	15								
Closed	5	5	5	5	5	5								

Job Name

Job Location

Engineer

Contractor's P.O. No.

Representative ____

Contractor _

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

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A Watts Water Technologies Company

D.3 Storm Sewer Design Sheet

Q	Stantec	DATE:	4-1196 Cumm	ings Avenu 2024	Je -03-05		: 	STORM DESIGN (City of	SEWE SHEE Ottawa)	R T		<u>DESIGN</u> I = a / (t+	(t+b) ^c 1:2 yr 1:5 yr 732 951 998 071		'ARAMETERS)) ^c (As per 1:2 yr 1:5 yr 1:10 yr 732 951 998 021 1174 15		City of Otta	awa Guide	elines, 201	12)			0.400																
		REVISION: DESIGNED E CHECKED B	3Y: Y:	Ľ	4 DT -	FILE NUN	IBER:	16040178	37			a = b = c =	732.951 6.199 0.810	6.053 0.814	6.014 0.816	6.014 0.820	MANNING MINIMUN TIME OF	I COVER: ENTRY	0.013 2.00 10	m min	BEDDING	CLASS =	В																
	LOCATION														D	RAINAGE AI	REA																	PIPE SELE	CTION				
	AREA ID	FROM	то	AREA	AREA	AREA	AREA	AREA	С	С	С	С	AxC	ACCUM	AxC	ACCUM.	AxC	ACCUM.	AxC	ACCUM.	T of C	I _{2-YEAR}	I _{5-YEAR}	I _{10-YEAR}	I _{100-YEAR}	QCONTROL	ACCUM.	Q _{ACT}	LENGTH	PIPE WIDTH	H PIPE	PIPE	MATERIAL	CLASS	SLOPE	Q _{CAP}	% FULL	VEL.	
	NUMBER	M.H.	M.H.	(2-YEAR)	(5-YEAR)	(10-YEAR)	(100-YEAR)) (ROOF)	(2-YEAR)	(5-YEAR)	(10-YEAR)	(100-YEAR)	(2-YEAR)	AxC (2YR)	(5-YEAR)	AxC (5YR)	(10-YEAR)	AxC (10YR) (100-YEAR	AxC (100YF	t)						Q _{CONTROL}	(CIA/360)	C	R DIAMETE	HEIGHT	SHAPE				(FULL)		(FULL)	
				(ha)	(ha)	(ha)	(ha)	(ha)	(-)	(-)	(-)	(-)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(ha)	(min)	(mm/h)	(mm/h)	(mm/h)	(mm/h)	(L/s)	(L/s)	(L/s)	(m)	(mm)	(mm)	(-)	(-)	(-)	%	(L/s)	(-)	(m/s)	
	CB-1, CB-2 CB-3	STM1 STM2	STM2 STUB	0.00 0.00	0.07 0.02	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.70 0.70	0.00 0.00	0.00 0.00	0.000 0.000	0.000 0.000	0.051 0.017	0.051 0.068	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	10.00 10.42	76.81 75.22	104.19 102.02	122.14 119.58	178.56 174.80	0.0 0.0	0.0 0.0	14.9 19.3	16.7 5.0	250 250	250 250	CIRCULAR	PVC PVC	-	0.50 0.50	42.7 42.7	34.87% 45.29%	0.86 0.86	
	BLDG 1-4, RAMP	CISTERN OGS	OGS EX SEWEF	0.00	0.01 0.00	0.00 0.00	0.00 0.00	0.17 0.00	0.00 0.00	0.90 0.00	0.00 0.00	0.00 0.00	0.000 0.000	0.000 0.000	0.012 0.000	0.068 0.068	0.000 0.000	0.000 0.000	0.000 0.000	0.000 0.000	10.42 10.44	75.22 75.17	102.02 101.94	119.58 119.49	174.80 174.66	17.8 0.0	17.8 17.8	37.1 37.1	1.0 10.4	300 300	300 300	CIRCULAR	PVC PVC	-	1.00 1.00	96.2 96.2	38.63% 38.61%	1.37 1.37	

D.4 Correspondence with City on SWM Quality Control Criteria

Wu, Michael

From:	Polyak, Alex <alex.polyak@ottawa.ca></alex.polyak@ottawa.ca>
Sent:	Monday, 17 April, 2023 13:57
То:	Wu, Michael
Cc:	Moir, Tyler
Subject:	RE: 1184-1196 Cummings Avenue Boundary Condition Request

Hello Michael,

That is correct, SWM quality control requirements will be responsibility of the City going forward. The following criteria must be met for development scenarios:

General:

- i) Characterize the water quality to be protected and Stormwater Contaminants (e.g., suspended solids, nutrients, bacteria, water temperature) for potential impact on the Natural Environment, and control as necessary, **OR**
- ii) As per the watershed/subwatershed plan, similar area-wide Stormwater study, or Stormwater management plan to minimize, or where possible, prevent increases in Contaminant loads and impacts to receiving waters.

Suspended Solids:

iii) Provide Enhanced level of protection (80%) for suspended solids removal.

Water Balance:

- iv) Provide a water balance analysis as per the conservation authority guidelines for development applications.
 - a) Control the recharge to meet Pre-development conditions on property.

Let me know if you have any questions regarding the above.

Regards,

Oleksandr (Alex) Polyak, B.Eng., P.Eng

Project Manager, Infrastructure Approvals, Development Review East Branch | Gestionnaire de projet, Direction de l'examen des projets d'aménagement – Est. Planning, Real Estate and Economic Development Department | Direction générale de la planification, des biens immobiliers et du développement économique

City of Ottawa | Ville d'Ottawa 110 Laurier Ave., 4th Fl East, Ottawa ON K1P 1J1 Email: alex.polyak@ottawa.ca www.Ottawa.ca


From: Wu, Michael <Michael.Wu@stantec.com>
Sent: April 17, 2023 11:40 AM
To: Polyak, Alex <alex.polyak@ottawa.ca>
Cc: Moir, Tyler <Tyler.Moir@stantec.com>
Subject: RE: 1184-1196 Cummings Avenue Boundary Condition Request

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Morning Alex, thanks for the update.

On a side note, I have been informed by Eric Lalande at the RVCA that as a result of Bill 23, stormwater quality control criteria will be provided by the City.

As such, below is a list of some key site information for our request for the stormwater quality control criteria for the site:

- Stormwater quantity control for the site is anticipated to be provided via a combination of rooftop storage and surface storage in the surface parking and access driveway, while the remaining site will drain via uncontrolled surface flow towards the Cummings Avenue and Weldon Drive ROWs.
- 2. The proposed storm service lateral will be connected to the existing 600 mm diameter separated concrete storm sewer fronting the site on Cummings Avenue. This local sewer discharges to the 600 mm diameter storm sewer on Ogilvie Road.
- 3. In the preconsultation, the City indicated that the allowable stormwater release rate is to be calculated using:
 - a. Allowable Runoff Coefficient (C): 0.5 or the existing C coefficient, whichever is more restricted
 - b. Allowable Flowrate: Control the 100-year storm event to the 5-year predevelopment storm event. The remainder of the site is to be left to drain uncontrolled towards the rights of way.

Attached is the latest Site Plan (provided by Project 1 Studios Inc.), preliminary storm drainage plan, and a site map for your review.

Please let me know if you have any questions or require any additional information from our end.

Thanks,

Michael Wu, EIT Civil Engineering Intern, Community Development

Work: (613) 738-6033 Mobile: (613) 858-0548 michael.wu@stantec.com

Stantec 300 - 1331 Clyde Avenue Ottawa ON K2C 3G4



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D.5 Detailed Stormceptor Sizing Reports





Province:	Ontario		Project Name:	1184 Cummings Av	/enue	
City:	Ottawa		Project Number:	160401787		
Nearest Rainfall Station:	OTTAWA CDA RCS		Designer Name:	Michael Wu		
Climate Station Id:	6105978		Designer Company:	Stantec		
Years of Rainfall Data:	20		Designer Email:	Michael.Wu@stan	tec.com	
			Designer Phone:	613-738-6033		
Site Name:	Full Updated Site		EOR Name:			
Drainage Area (ha):	0.29		EOR Company:			
Runoff Coefficient 'c':	0.81		EOR Email:			
	-	_	EOK Phone:			
Particle Size Distribution:	Fine			Net Annua	l Sediment	
Target TSS Removal (%):	80.0			(TSS) Load	Reduction	
Required Water Quality Runoff Volume Capture (%):		90.00		Sizing S	ummary	
Estimated Water Quality Flow Rate (L/s):		7.58		Stormceptor	TSS Removal	
Oil / Fuel Spill Risk Site?		Yes		Model	Provided (%)	
Instream Flow Control?		No		EFO4	92	
Peak Conveyance (maximum) Flow Rate (L/s):			EFO6	97	
Influent TSS Concentration (mg/l):		200		EFO8	99	
Estimated Average Annual Se	ediment Load (kg/yr):	285		EFO10	100	
Estimated Average Annual Se	ediment Volume (L/yr):	232		EFO12	100	
					· ••••••••••••••••••••••••••••••••••••	
			Recommended	Stormceptor EFO	IVIODEI: E	-04
	Estim	nated Net A	Annual Sediment (TSS) Load Reduct	ion (%):	92
			Water Quality Ru	noff Volume Capt	ure (%): >	90





THIRD-PARTY TESTING AND VERIFICATION

► Stormceptor® EF and Stormceptor® EFO are the latest evolutions in the Stormceptor® oil-grit separator (OGS) technology series, and are designed to remove a wide variety of pollutants from stormwater and snowmelt runoff. These technologies have been third-party tested in accordance with the Canadian ETV Procedure for Laboratory Testing of Oil-Grit Separators and performance has been third-party verified in accordance with the ISO 14034 Environmental Technology Verification (ETV) protocol.

PERFORMANCE

► Stormceptor® EF and EFO remove stormwater pollutants through gravity separation and floatation, and feature a patentpending design that generates positive removal of total suspended solids (TSS) throughout each storm event, including highintensity storms. Captured pollutants include sediment, free oils, and sediment-bound pollutants such as nutrients, heavy metals, and petroleum hydrocarbons. Stormceptor is sized to remove a high level of TSS from the frequent rainfall events that contribute the vast majority of annual runoff volume and pollutant load. The technology incorporates an internal bypass to convey excessive stormwater flows from high-intensity storms through the device without resuspension and washout (scour) of previously captured pollutants. Proper routine maintenance ensures high pollutant removal performance and protection of downstream waterwavs.

PARTICLE SIZE DISTRIBUTION (PSD)

► The **Canadian ETV PSD** shown in the table below was used, or in part, for this sizing. This is the identical PSD that is referenced in the Canadian ETV *Procedure for Laboratory Testing of Oil-Grit Separators* for both sediment removal testing and scour testing. The Canadian ETV PSD contains a wide range of particle sizes in the sand and silt fractions, and is considered reasonably representative of the particle size fractions found in typical urban stormwater runoff.

Particle	Percent Less	Particle Size	Dercent
Size (µm)	Than	Fraction (µm)	Percent
1000	100	500-1000	5
500	95	250-500	5
250	90	150-250	15
150	75	100-150	15
100	60	75-100	10
75	50	50-75	5
50	45	20-50	10
20	35	8-20	15
8	20	5-8	10
5	10	2-5	5
2	5	<2	5







Rainfall Intensity (mm / hr)	Percent Rainfall Volume (%)	Cumulative Rainfall Volume (%)	Flow Rate (L/s)	Flow Rate (L/min)	Surface Loading Rate (L/min/m²)	Removal Efficiency (%)	Incremental Removal (%)	Cumulative Removal (%)
0.50	8.6	8.6	0.33	20.0	16.0	100	8.6	8.6
1.00	20.3	29.0	0.65	39.0	33.0	100	20.3	29.0
2.00	16.2	45.2	1.31	78.0	65.0	100	16.2	45.2
3.00	12.0	57.2	1.96	118.0	98.0	97	11.7	56.8
4.00	8.4	65.6	2.61	157.0	131.0	92	7.8	64.6
5.00	5.9	71.6	3.27	196.0	163.0	88	5.2	69.9
6.00	4.6	76.2	3.92	235.0	196.0	84	3.9	73.8
7.00	3.1	79.3	4.57	274.0	229.0	82	2.5	76.3
8.00	2.7	82.0	5.22	313.0	261.0	80	2.2	78.5
9.00	3.3	85.3	5.88	353.0	294.0	79	2.6	81.1
10.00	2.3	87.6	6.53	392.0	327.0	78	1.8	82.9
11.00	1.6	89.2	7.18	431.0	359.0	76	1.2	84.1
12.00	1.3	90.5	7.84	470.0	392.0	74	1.0	85.1
13.00	1.7	92.2	8.49	509.0	424.0	73	1.3	86.3
14.00	1.2	93.5	9.14	549.0	457.0	72	0.9	87.2
15.00	1.2	94.6	9.80	588.0	490.0	70	0.8	88.0
16.00	0.7	95.3	10.45	627.0	522.0	68	0.5	88.5
17.00	0.7	96.1	11.10	666.0	555.0	67	0.5	89.0
18.00	0.4	96.5	11.75	705.0	588.0	66	0.3	89.2
19.00	0.4	96.9	12.41	744.0	620.0	64	0.3	89.5
20.00	0.2	97.1	13.06	784.0	653.0	64	0.1	89.6
21.00	0.5	97.5	13.71	823.0	686.0	64	0.3	89.9
22.00	0.2	97.8	14.37	862.0	718.0	64	0.2	90.1
23.00	1.0	98.8	15.02	901.0	751.0	63	0.6	90.7
24.00	0.3	99.1	15.67	940.0	784.0	63	0.2	90.9
25.00	0.0	99.1	16.33	980.0	816.0	63	0.0	90.9
30.00	0.9	100.0	19.59	1175.0	980.0	62	0.6	91.5
35.00	0.0	100.0	22.86	1371.0	1143.0	58	0.0	91.5
40.00	0.0	100.0	26.12	1567.0	1306.0	55	0.0	91.5
45.00	0.0	100.0	29.39	1763.0	1469.0	50	0.0	91.5
Estimated Net Annual Sediment (TSS) Load Reduction =						91 %		

Climate Station ID: 6105978 Years of Rainfall Data: 20



Stormceptor[®]











	Maximum Pipe Diameter / Peak Conveyance										
Stormceptor EF / EFO	Model Diameter		Model Diameter		Min Angle Inlet / Outlet Pipes	Max Inle Diame	et Pipe eter	Max Out Diame	let Pipe eter	Peak Cor Flow	nveyance Rate
	(m)	(ft)		(mm)	(in)	(mm)	(in)	(L/s)	(cfs)		
EF4 / EFO4	1.2	4	90	609	24	609	24	425	15		
EF6 / EFO6	1.8	6	90	914	36	914	36	990	35		
EF8 / EFO8	2.4	8	90	1219	48	1219	48	1700	60		
EF10 / EFO10	3.0	10	90	1828	72	1828	72	2830	100		
EF12 / EF012	3.6	12	90	1828	72	1828	72	2830	100		

SCOUR PREVENTION AND ONLINE CONFIGURATION

► Stormceptor® EF and EFO feature an internal bypass and superior scour prevention technology that have been demonstrated in third-party testing according to the scour testing provisions of the Canadian ETV Procedure for Laboratory Testing of Oil-Grit Separators, and the exceptional scour test performance has been third-party verified in accordance with the ISO 14034 ETV protocol. As a result, Stormceptor EF and EFO are approved for online installation, eliminating the need for costly additional bypass structures, piping, and installation expense.

DESIGN FLEXIBILITY

► Stormceptor[®] EF and EFO offers design flexibility in one simplified platform, accepting stormwater flow from a single inlet pipe or multiple inlet pipes, and/or surface runoff through an inlet grate. The device can also serve as a junction structure, accommodate a 90-degree inlet-to-outlet bend angle, and can be modified to ensure performance in submerged conditions.

OIL CAPTURE AND RETENTION

► While Stormceptor[®] EF will capture and retain oil from dry weather spills and low intensity runoff, **Stormceptor[®] EFO** has demonstrated superior oil capture and greater than 99% oil retention in third-party testing according to the light liquid reentrainment testing provisions of the Canadian ETV **Procedure for Laboratory Testing of Oil-Grit Separators**. Stormceptor EFO is recommended for sites where oil capture and retention is a requirement.











INLET-TO-OUTLET DROP

Elevation differential between inlet and outlet pipe inverts is dictated by the angle at which the inlet pipe(s) enters the unit.

- 0° 45° : The inlet pipe is 1-inch (25mm) higher than the outlet pipe.
- 45° 90° : The inlet pipe is 2-inches (50mm) higher than the outlet pipe.

HEAD LOSS

The head loss through Stormceptor EF is similar to that of a 60-degree bend structure. The applicable K value for calculating minor losses through the unit is 1.1. For submerged conditions the applicable K value is 3.0.

i onutant capacity												
Stormceptor EF / EFO	Moo Diam	del eter	Depth Pipe In Sump	(Outlet vert to Floor)	Oil Vo	lume	Recomi Sedi Maintenar	mended ment Ice Depth *	Maxiı Sediment ^v	num Volume *	Maxim Sediment I	ium Mass **
	(m)	(ft)	(m)	(ft)	(L)	(Gal)	(mm)	(in)	(L)	(ft³)	(kg)	(lb)
EF4 / EFO4	1.2	4	1.52	5.0	265	70	203	8	1190	42	1904	5250
EF6 / EFO6	1.8	6	1.93	6.3	610	160	305	12	3470	123	5552	15375
EF8 / EFO8	2.4	8	2.59	8.5	1070	280	610	24	8780	310	14048	38750
EF10 / EFO10	3.0	10	3.25	10.7	1670	440	610	24	17790	628	28464	78500
EF12 / EFO12	3.6	12	3.89	12.8	2475	655	610	24	31220	1103	49952	137875

Pollutant Capacity

*Increased sump depth may be added to increase sediment storage capacity ** Average density of wet packed sediment in sump = 1.6 kg/L (100 lb/ft³)

Feature	Benefit	Feature Appeals To
Patent-pending enhanced flow treatment and scour prevention technology	Superior, verified third-party performance	Regulator, Specifying & Design Engineer
Third-party verified light liquid capture	Proven performance for fuel/oil hotspot	Regulator, Specifying & Design Engineer,
and retention for EFO version	locations	Site Owner
Functions as bend, junction or inlet structure	Design flexibility	Specifying & Design Engineer
Minimal drop between inlet and outlet	Site installation ease	Contractor
Large diameter outlet riser for inspection	Easy maintenance access from grade	Maintenance Contractor & Site Owner

STANDARD STORMCEPTOR EF/EFO DRAWINGS

For standard details, please visit http://www.imbriumsystems.com/stormwater-treatment-solutions/stormceptor-ef

STANDARD STORMCEPTOR EF/EFO SPECIFICATION

For specifications, please visit http://www.imbriumsystems.com/stormwater-treatment-solutions/stormceptor-ef





STANDARD PERFORMANCE SPECIFICATION FOR "OIL GRIT SEPARATOR" (OGS) STORMWATER QUALITY TREATMENT DEVICE

PART 1 – GENERAL

1.1 WORK INCLUDED

This section specifies requirements for selecting, sizing, and designing an underground Oil Grit Separator (OGS) device for stormwater quality treatment, with third-party testing results and a Statement of Verification in accordance with ISO 14034 Environmental Management – Environmental Technology Verification (ETV).

1.2 REFERENCE STANDARDS & PROCEDURES

ISO 14034:2016 Environmental management – Environmental technology verification (ETV)

Canadian Environmental Technology Verification (ETV) Program's **Procedure for Laboratory Testing of Oil-Grit Separators**

1.3 SUBMITTALS

1.3.1 All submittals, including sizing reports & shop drawings, shall be submitted upon request with each order to the contractor then forwarded to the Engineer of Record for review and acceptance. Shop drawings shall detail all OGS components, elevations, and sequence of construction.

1.3.2 Alternative devices shall have features identical to or greater than the specified device, including: treatment chamber diameter, treatment chamber wet volume, sediment storage volume, and oil storage volume.

1.3.3 Unless directed otherwise by the Engineer of Record, OGS stormwater quality treatment product substitutions or alternatives submitted within ten days prior to project bid shall not be accepted. All alternatives or substitutions submitted shall be signed and sealed by a local registered Professional Engineer, based on the exact same criteria detailed in Section 3, in entirety, subject to review and approval by the Engineer of Record.

PART 2 – PRODUCTS

2.1 OGS POLLUTANT STORAGE

The OGS device shall include a sump for sediment storage, and a protected volume for the capture and storage of petroleum hydrocarbons and buoyant gross pollutants. The minimum sediment & petroleum hydrocarbon storage capacity shall be as follows:

2.1.1 4 ft (1219 mm) Diameter OGS Units:

6 ft (1829 mm) Diameter OGS Units:

8 ft (2438 mm) Diameter OGS Units:

10 ft (3048 mm) Diameter OGS Units:

12 ft (3657 mm) Diameter OGS Units:

 $\begin{array}{l} 1.19 \ m^3 \ sediment \ / \ 265 \ L \ oil \\ 3.48 \ m^3 \ sediment \ / \ 609 \ L \ oil \\ 8.78 \ m^3 \ sediment \ / \ 1,071 \ L \ oil \\ 17.78 \ m^3 \ sediment \ / \ 1,673 \ L \ oil \\ 31.23 \ m^3 \ sediment \ / \ 2,476 \ L \ oil \\ \end{array}$

PART 3 – PERFORMANCE & DESIGN

3.1 GENERAL

The OGS stormwater quality treatment device shall be verified in accordance with ISO 14034:2016 Environmental management – Environmental technology verification (ETV). The OGS stormwater quality treatment device shall







remove oil, sediment and gross pollutants from stormwater runoff during frequent wet weather events, and retain these pollutants during less frequent high flow wet weather events below the insert within the OGS for later removal during maintenance. The Manufacturer shall have at least ten (10) years of local experience, history and success in engineering design, manufacturing and production and supply of OGS stormwater quality treatment device systems, acceptable to the Engineer of Record.

3.2 SIZING METHODOLOGY

The OGS device shall be engineered, designed and sized to provide stormwater quality treatment based on treating a minimum of 90 percent of the average annual runoff volume and a minimum removal of an annual average 60% of the sediment (TSS) load based on the Particle Size Distribution (PSD) specified in the sizing report for the specified device. Sizing of the OGS shall be determined by use of a minimum ten (10) years of local historical rainfall data provided by Environment Canada. Sizing shall also be determined by use of the sediment removal performance data derived from the ISO 14034 ETV third-party verified laboratory testing data from testing conducted in accordance with the Canadian ETV protocol Procedure for Laboratory Testing of Oil-Grit Separators, as follows:

3.2.1 Sediment removal efficiency for a given surface loading rate and its associated flow rate shall be based on sediment removal efficiency demonstrated at the seven (7) tested surface loading rates specified in the protocol, ranging 40 L/min/m² to 1400 L/min/m², and as stated in the ISO 14034 ETV Verification Statement for the OGS device.

3.2.2 Sediment removal efficiency for surface loading rates between 40 L/min/m² and 1400 L/min/m² shall be based on linear interpolation of data between consecutive tested surface loading rates.

3.2.3 Sediment removal efficiency for surface loading rates less than the lowest tested surface loading rate of 40 $L/min/m^2$ shall be assumed to be identical to the sediment removal efficiency at 40 $L/min/m^2$. No extrapolation shall be allowed that results in a sediment removal efficiency that is greater than that demonstrated at 40 $L/min/m^2$.

3.2.4 Sediment removal efficiency for surface loading rates greater than the highest tested surface loading rate of 1400 L/min/m² shall assume zero sediment removal for the portion of flow that exceeds 1400 L/min/m², and shall be calculated using a simple proportioning formula, with 1400 L/min/m² in the numerator and the higher surface loading rate in the denominator, and multiplying the resulting fraction times the sediment removal efficiency at 1400 L/min/m².

The OGS device shall also have sufficient annual sediment storage capacity as specified and calculated in Section 2.1.

3.3 CANADIAN ETV or ISO 14034 ETV VERIFICATION OF SCOUR TESTING

The OGS device shall have Canadian ETV or ISO 14034 ETV Verification of third-party scour testing conducted in accordance with the Canadian ETV Program's **Procedure for Laboratory Testing of Oil-Grit Separators**.

3.3.1 To be acceptable for on-line installation, the OGS device must demonstrate an average scour test effluent concentration less than 10 mg/L at each surface loading rate tested, up to and including 2600 L/min/m².

3.4 LIGHT LIQUID RE-ENTRAINMENT SIMULATION TESTING

The OGS device shall have Canadian ETV or ISO 14034 ETV Verification of completed third-party Light Liquid Re-entrainment Simulation Testing in accordance with the Canadian ETV **Program's Procedure for Laboratory Testing of Oil-Grit Separators,** with results reported within the Canadian ETV or ISO 14034 ETV verification. This reentrainment testing is conducted with the device pre-loaded with low density polyethylene (LDPE) plastic beads as a surrogate for light liquids such as oil and fuel. Testing is conducted on the same OGS unit tested for sediment removal to





assess whether light liquids captured after a spill are effectively retained at high flow rates.

3.4.1 For an OGS device to be an acceptable stormwater treatment device on a site where vehicular traffic occurs and the potential for an oil or fuel spill exists, the OGS device must have reported verified performance results of greater than 99% cumulative retention of LDPE plastic beads for the five specified surface loading rates (ranging 200 L/min/m² to 2600 L/min/m²) in accordance with the Light Liquid Re-entrainment Simulation Testing within the Canadian ETV Program's **Procedure for Laboratory Testing of Oil-Grit Separators.** However, an OGS device shall not be allowed if the Light Liquid Re-entrainment Simulation Testing was performed with screening components within the OGS device that are effective at retaining the LDPE plastic beads, but would not be expected to retain light liquids such as oil and fuel.



Appendix E Background Studies

E.1 Geotechnical Investigation Report by Paterson Group, March 2023



Geotechnical Investigation

Proposed Multi-Storey Building

1184, 1188, and 1196 Cummings Avenue Ottawa, Ontario

Prepared for TCU Development

Report PG6604-1 Revision 3 dated December 18, 2023



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Appendices

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Test Hole Logs by Others
Analytical Testing Results
- Appendix 2Figure 1 Key PlanFigures 2 & 3 Seismic Shear Wave Velocity ProfilesDrawing PG6604-1 Test Hole Location Plan



1.0 Introduction

Paterson Group (Paterson) was commissioned by TCU Development to prepare a geotechnical investigation report for the proposed multi-storey building to be located at 1184, 1188, and 1196 Cummings Avenue, Ottawa, Ontario (refer to Figure 1 - Key Plan presented in Appendix 2 of this report).

The objective of the geotechnical investigation was to:

- determine the subsoil and groundwater conditions at the site by means of test holes
- □ provide geotechnical recommendations for the design of the proposed development including construction considerations which may affect its design.

The following report has been prepared specifically and solely for the aforementioned project which is described herein. It contains our findings and includes geotechnical recommendations pertaining to the design and construction of the subject development as they are understood at the time of writing this report.

2.0 Proposed Development

Based on the available conceptual drawings, it is understood that the proposed multi-storey building will consist of six floors and one underground parking structure occupying the majority of the site area. Access lanes, at-grade parking and landscaped areas are also anticipated as part of the development. It is further understood that the proposed residential building will be municipally serviced.



3.0 Method of Investigation

3.1 Field Investigation

Field Program

The field program for the current investigation was carried out on March 9 and March 10, 2023 and consisted of advancing a total of four (4) boreholes to a maximum depth of 7.6 m below existing grade. A previous investigation was also carried out by Paterson on February 14, 2023. At that time, a total of thirteen (13) test pits were excavated to a maximum depth of 2.1 m below existing grade. The test holes were placed in a manner to provide general coverage of the subject site taking into consideration site features and underground utilities. Historical investigations were also completed by others at the subject site in 2021. The test hole locations for the current and previous investigations are presented on Drawing PG6604-1 - Test Hole Location Plan included in Appendix 2.

The boreholes were completed using a track mounted drill rig operated by a twoperson crew. The test pits were completed using a hydraulic shovel at the selected locations across the site. All fieldwork was conducted under the full-time supervision of Paterson personnel under the direction of a senior engineer from the geotechnical division. The drilling and excavation procedure consisted of augering to the required depth at the selected locations, sampling and testing the overburden, and coring in bedrock.

Sampling and In Situ Testing

The soil samples were recovered from the auger flights and using a 50 mm diameter split-spoon sampler. The samples were initially classified on site, placed in sealed plastic bags and transported to our laboratory. The depths at which the auger, split-spoon and grab samples were recovered from the test holes are shown as AU, SS, and G respectively, on the Soil Profile and Test Data sheets in Appendix 1.

The Standard Penetration Test (SPT) was conducted in conjunction with the recovery of the split-spoon samples. The SPT results are recorded as "N" values on the Soil Profile and Test Data sheets. The "N" value is the number of blows required to drive the split-spoon sampler 300 mm into the soil after a 150 mm initial penetration using a 63.5 kg hammer falling from a height of 760 mm.



Rock samples were recovered from BH1-23, BH 2-23, BH 3-23, and BH 4-23 using a core barrel and diamond drilling techniques. The bedrock samples were classified on site, placed in hard cardboard core boxes and transported to Paterson's laboratory. The depths at which rock core samples were recovered from the boreholes are presented as RC on the Soil Profile and Test Data sheets in Appendix 1.

The recovery value and a Rock Quality Designation (RQD) value were calculated for each drilled section of bedrock and are presented on the borehole logs. The recovery value is the length of the bedrock sample recovered over the length of the drilled section. The RQD value is the total length of intact rock pieces longer than 100 mm over the length of the core run. The values indicate the bedrock quality.

The subsurface conditions observed in the test holes were recorded in detail in the field. The soil profiles are logged on the Soil Profile and Test Data sheets in Appendix 1 of this report.

Groundwater

A groundwater monitoring well was installed in borehole BH 2-23 to monitor the groundwater level subsequent of the sampling program. Also, flexible polyethylene standpipes were installed in boreholes BH 1-23, BH 3-23, and BH 4-23. The groundwater observations are discussed in subsection 4.3 and presented in the Soil Profile and Test Data Sheets in Appendix 1.

Monitoring Well Installation

Typical monitoring well construction details are described below:

- > 3.0 m of slotted 51 mm diameter PVC screen at the base of the boreholes.
- 51 mm diameter PVC riser pipe from the top of the screen to the ground surface.
- > No. 3 silica sand backfill within annular space around screen.
- > 300 mm thick bentonite hole plug directly above PVC slotted screen.
- Clean backfill from top of bentonite plug to the ground surface.

Refer to the Soil Profile and Test Data sheets in Appendix 1 for specific well construction details.



Sample Storage

All samples will be stored in the laboratory for a period of one (1) month after issuance of this report. They will then be discarded unless we are otherwise directed.

3.2 Field Survey

The test hole locations were selected by Paterson to provide general coverage of the subject site. The test hole locations and ground surface elevation at each test hole location were surveyed by Paterson using a high precision GPS and referenced to a geodetic datum. The location of the test holes is presented on Drawing PG6604-1 - Test Hole Location Plan in Appendix 2.

3.3 Laboratory Review

Soil samples were recovered from the subject site and visually examined in our laboratory to review the results of the field logging.

3.4 Analytical Testing

One (1) soil sample was submitted for analytical testing to assess the corrosion potential for exposed ferrous metals and the potential of sulphate attacks against subsurface concrete structures by others. The sample was submitted to determine the concentration of sulphate and chloride, the resistivity, and the pH of the samples. The results are presented in Appendix 1 and discussed further in Subsection 6.7.



4.0 Observations

4.1 Surface Conditions

The subject site consists of three residential properties, each occupied by a singlefamily dwelling and associated asphalt/gravel-covered driveways and backyards. Several mature trees were observed in the grass-covered backyards. In addition, the properties were observed to have a fence. The ground surface across the site is generally flat and approximately at grade with the neighbouring roads and properties.

The site is bordered to the north by Weldon Drive, to the east by Cummings Avenue, to the west by residential properties, and to the south by a gas/service station.

4.2 Subsurface Profile

Overburden

Generally, the subsurface profile observed at the test hole locations consists of a topsoil and fill, underlain by a layer of silty sand to sandy silty with gravel and cobbles, overlying bedrock. The fill was observed to consist of a mixture of brown silty sand with gravel and crushed stone, trace clay, some shale and cobbles. The silty sand/sandy silt formation was observed to be compact to dense.

Practical refusal to excavation/augering was encountered at all test holes at depths ranging between approximately 0.8 and 2.5m below the existing ground surface.

Reference should be made to the Soil Profile and Test Data sheets in Appendix 1 for specific details of the soil profiles encountered at each test hole location.

Bedrock

Bedrock was cored at BH 1-23, BH 2-23, BH 3-23 and BH 4-23, beginning at approximate depths of 1.83 to 2.54 m, and extending down to the final depth of the test holes. The bedrock was observed to consist of black shale of the Billings formation. Based on the RQDs of the recovered rock core, the bedrock can be classified as very poor to fair in quality at the top, generally increasing in quality with depth.



4.3 Groundwater

Groundwater levels were measured in the installed monitoring well and piezometers during the current investigation. The groundwater readings obtained from the current field program are summarised in Table 1 below and are also presented on the Soil Profile and Test Data sheets in Appendix 1.

Table 1 – Summary of Groundwater Levels					
Toot Holo	Ground Surface	Measured L	Groundwater evel	Date Recorded	
lest Hole	Elevation	Depth	Elevation		
	(m)	(m)	(m)		
BH 1-23	71.36	2.80	68.56	March 21, 2023	
BH 2-23	71.39	2.59	68.80	March 21, 2023	
BH 3-23	70.66	2.07	68.59	March 21, 2023	
BH 4-23	71.73	2.87	68.86	March 21, 2023	
Note: The ground surface elevation at each borehole location was surveyed using a					
high precisio	on GPS and referer	nced to a geo	detic datum.		

Based on the observed groundwater level measurements and our knowledge of the groundwater conditions within the area, the long-term groundwater level is estimated to be at **2** to **3 m** depth below the existing grade.

It should be noted that groundwater levels are subject to seasonal fluctuations. Therefore, the groundwater level could vary at the time of construction.



5.0 Discussion

5.1 Geotechnical Assessment

From a geotechnical perspective, the subject site is considered suitable for the proposed multi-storey building. It is recommended that the proposed six-floor building, and one underground parking structure be founded using conventional shallow footings placed on clean, surface sounded bedrock.

Depending on the final founding depth, bedrock removal may be required within the subject site to complete the underground parking level. Bedrock removal can be accomplished by hoe ramming where only a small quantity of the bedrock needs to be removed. Sound bedrock may be removed by line drilling and controlled blasting and/or hoe ramming. The blasting operations should be planned and conducted under the guidance of a professional engineer with experience in blasting operations.

Due to the expansive nature of the shale bedrock encountered at the subject site, precautions should be taken during construction to reduce the risks associated with heaving of the shale bedrock. The bedrock surface should be protected from excessive dewatering and exposure to ambient air. Therefore, a 50mm thick concrete mud slab consisting of a minimum of 15 MPA lean concrete, should be placed on the exposed bedrock surface within 48-hour period of being exposed. The excavated side slopes of the bedrock surface should be sprayed with bituminous emulsion to seal bedrock from exposure to air and dewatering.

Removal of concrete elements is likely to be encountered due to the demolition of the existing structures on site. In addition, tree roots may also be encountered at the west and east ends of the site, and these shall be removed as well.

Temporary shoring will be required where excavation is to be completed in close proximity to existing properties and roads.

The above and other considerations are further discussed in the following sections.

5.2 Site Grading and Preparation

Stripping Depth

Topsoil and deleterious fill, such as those containing significant amounts of organic materials, should be stripped from under any buildings, paved areas, pipe bedding and other settlement sensitive structures.



Due to the relatively shallow depth of the bedrock surface and the anticipated founding level for the proposed building, all existing overburden material should be excavated from within the proposed building footprint.

Existing foundation walls, and other construction debris should be entirely removed from within proposed building perimeters. Under paved areas, existing construction remnants such as foundation walls should be excavated to a minimum of 1 m below final grade.

Fill Placement

Fill used for grading beneath the building areas should consist, unless otherwise specified, of clean imported granular fill, such as Ontario Provincial Standard Specifications (OPSS) Granular A, Granular B Type II. This material should be tested and approved prior to delivery to the site. The fill should be placed in lifts no greater than 300 mm thick and compacted using suitable compaction equipment for the lift thickness. Fill placed beneath the building areas should be compacted to at least 98% of its standard Proctor maximum dry density (SPMDD).

Non-specified existing fill, along with site-excavated soil, can be used as general landscaping fill where settlement of the ground surface is of minor concern. These materials should be spread in thin lifts and at least compacted by the tracks of the spreading equipment to minimize voids. If these materials are to be used to build up the subgrade level for areas to be paved, they should be compacted in thin lifts to a minimum density of 95% of their respective SPMDD. Site-excavated soils are not suitable for use as backfill against foundation walls unless a composite drainage blanket connected to a perimeter drainage system is provided.

Non-specified existing fill and site-excavated soils are not suitable for use as backfill against foundation walls unless used in conjunction with a geocomposite drainage membrane, such as Miradrain G100N or Delta Drain 6000.

Bedrock Removal

Bedrock removal could be carried out by hoe-ramming where only small quantities of bedrock need to be removed. Sound bedrock may be removed by line drilling and controlled blasting and/or hoe ramming.

Prior to considering blasting operations, the blasting effects on the existing services, buildings and other structures should be addressed. A pre-blast or preconstruction survey of the existing structures located in proximity of the blasting operations should be completed prior to commencing site activities.



The extent of the survey should be determined by the blasting consultant and should be sufficient to respond to any inquiries/claims related to the blasting operations. As a general guideline, peak particle velocities of 25 mm/sec (measured at the structures) should not be exceeded during the blasting program to reduce the risks of damage to the existing structures.

The blasting operations should be planned and carried out under the supervision of a licensed professional engineer who is also an experienced blasting consultant.

Vibration Considerations

Construction operations are the cause of vibrations, and possibly, sources of nuisance to the community. Therefore, means to reduce the vibration levels as much as possible should be incorporated in the construction operations to maintain, as much as possible, a cooperative environment with the residents.

The following construction equipment could be the source of vibrations: hoe ram, compactor, dozer, crane, truck traffic, etc. Vibrations, whether caused by blasting operations or by construction operations, could be the source of detrimental vibrations on the nearby buildings and structures. Therefore, all vibrations are recommended to be limited.

Two parameters are used to determine the permissible vibrations, namely, the maximum peak particle velocity and the frequency. For low frequency vibrations, the maximum allowable peak particle velocity is less than that for high frequency vibrations. As outlined by City of Ottawa S.P. No: F-1201, vibrations limits should be limited to 20 mm/s for frequencies below or equal to 40 Hz and 50 mm/s for frequencies greater than 40 Hz. Considering that these guidelines are above perceptible human level and, in some cases, could be very disturbing to some people, a pre-construction survey is recommended be completed to minimize the risks of claims during or following the construction of the proposed building.

Should blasting be utilized a pre-blast survey must be completed for the surrounding area per City of Ottawa S.P. No: F-1201 and blast notices must be distributed 15 business days prior to the commencement of blasting work.

5.3 Foundation Design

Bearing Resistance Values (Conventional Shallow Footings)

Footings placed on a clean, surface sounded bedrock surface can be designed using a bearing resistance value at ultimate limit states (ULS) of **1,000 kPa**, incorporating a geotechnical resistance factor of 0.5.



A clean, surface-sounded bedrock bearing surface should be free of loose materials, and have no near surface seams, voids, fissures or open joints which can be detected from surface sounding with a rock hammer.

Settlement

Footings bearing on an acceptable bedrock bearing surface and designed using the bearing resistance values provided herein will be subjected to negligible potential post-construction total and differential settlements.

Lateral Support

The bearing medium under footing-supported structures is required to be provided with adequate lateral support with respect to excavations and different foundation levels. Adequate lateral support is provided to a sound bedrock bearing medium when a plane extending down and out from the bottom edge of the footing at a minimum of 1H:6V passes only through sound bedrock. Slopes of 1H:1V or shallower can be used for fractured bedrock.

5.4 Design for Earthquakes

Seismic shear wave velocity testing was completed for the subject site to accurately determine the applicable seismic site classification for the proposed building in accordance with Table 4.1.8.4.A of the Ontario Building Code 2012. The shear wave velocity testing was completed by Paterson personnel. The results of the shear wave velocity test are provided on Figures 2 and 3 in Appendix 2 of the present report.

Field Program

The seismic array testing location was placed as shown on Drawing PG6604-1 -Test Hole Location Plan, attached to the present report. Paterson field personnel placed 18 horizontal 4.5 Hz. geophones mounted to the surface by means of two 75 mm ground spikes attached to the geophone land case. The geophones were spaced at 1 m intervals and connected by a geophone spread cable to a Geode 24 Channel seismograph.

The seismograph was also connected to a computer laptop and a hammer trigger switch attached to a 12-pound dead blow hammer. The hammer trigger switch sends a start signal to the seismograph. The hammer is used to strike an I-Beam seated into the ground surface, which creates a polarized shear wave.



The hammer shots are repeated between four (4) to eight (8) times at each shot location to improve signal to noise ratio. The shot locations were 1, 1.5 and 10 m away from the first and last geophones, and at the centre of the seismic array.

Data Processing and Interpretation

Interpretation for the shear wave velocity results were completed by Paterson personnel. Shear wave velocity measurement was made using reflection/refraction methods. The interpretation is performed by recovering arrival times from direct and refracted waves.

The interpretation is repeated at each shot location to provide an average shear wave velocity, V_{s30} , of the upper 30 m profile, immediately below the foundation of the building. The layer intercept times, velocities from different layers and critical distances are interpreted from the shear wave records to compute the bedrock depth at each location.

The bedrock velocity was interpreted using the main refractor wave velocity, which is considered a conservative estimate of the bedrock velocity due to the increasing quality of the bedrock with depth. It should be noted that as bedrock quality increases, the bedrock shear wave velocity also increases.

Based on our testing results, the average shear wave velocity, V_{s30} for the proposed building is **2,023 m/s** provided the footings are placed directly on bedrock. The V_{s30} was calculated using the standard equation for average shear wave velocity provided in the OBC 2012 and as presented below:

$$V_{s30} = \frac{Depth_{of interest}(m)}{\left(\frac{Depth_{Layer1}(m)}{V_{s_{Layer1}}(m/s)} + \frac{Depth_{Layer2}(m)}{V_{s_{Layer2}}(m/s)}\right)}$$
$$V_{s30} = \frac{30 m}{\left(\frac{30 m}{2,023 m/s}\right)}$$
$$V_{s30} = 2,023 m/s$$

Based on the results of the shear wave velocity testing, the average shear wave velocity V_{s30} is **2,023 m/s**. Therefore, a **Site Class A** is applicable for design of the proposed building bearing on the bedrock, as per Table 4.1.8.4.A of the OBC 2012. The soil underlying the subject site is not susceptible to liquefaction.



5.5 Basement Slab

For the proposed building, all overburden soil will be removed from the building footprint, leaving the bedrock as the founding medium for the basement floor slab. The basement area for the proposed building will be mostly parking and the recommended pavement structure noted in Subsection 5.7 will be applicable. However, if storage or other uses of the lower level where a concrete floor slab will be constructed, the upper 200 mm of sub-slab fill is recommended to consist of 19 mm clear crushed stone.

Any soft areas in the basement slab subgrade should be removed and backfilled with appropriate backfill material prior to placing any fill. OPSS Granular A or Granular B Type II, with a maximum particle size of 50 mm, are recommended for backfilling below the floor slab.

All backfill material within the footprint of the proposed building(s) should be placed in maximum 300 mm thick loose layers and compacted to a minimum of 98% of the SPMDD.

Furthermore, a subfloor drainage system, consisting of lines of perforated drainage pipe subdrains connected to a positive outlet, should be provided in the subfloor fill under the lower basement floor (discussed further in Subsection 6.1). A modulus of subgrade reaction of **100 MPa/m** should be utilized for the design of the basement floor.

5.6 Basement Wall

There are several combinations of backfill materials and retained soils that could be applicable for the basement walls of the subject structure. However, the conditions can be well-represented by assuming the retained soil consists of a material with an angle of internal friction of 30 degrees and a drained unit weight of 20 kN/m^3 .

However, undrained conditions are anticipated (i.e. below the groundwater level). Therefore, the applicable effective (undrained) unit weight of the retained soil can be taken as 13 kN/m^3 , where applicable. A hydrostatic pressure should be added to the total static earth pressure when using the effective unit weight.

Lateral Earth Pressures

The static horizontal earth pressure (p_o) can be calculated using a triangular earth pressure distribution equal to $K_o \cdot \gamma \cdot H$ where:

 K_o = at-rest earth pressure coefficient of the applicable retained soil (0.5)



- γ = unit weight of fill of the applicable retained soil (kN/m³)
- H = height of the wall (m)

An additional pressure having a magnitude equal to $K_o \cdot q$ and acting on the entire height of the wall should be added to the above diagram for any surcharge loading, q (kPa), that may be placed at ground surface adjacent to the wall. The surcharge pressure will only be applicable for static analyses and should not be used in conjunction with the seismic loading case.

Actual earth pressures could be higher than the "at-rest" case if care is not exercised during the compaction of the backfill materials to maintain a minimum separation of 0.3 m from the walls with the compaction equipment.

Seismic Earth Pressures

The total seismic force (P_{AE}) includes both the earth force component (P_o) and the seismic component (ΔP_{AE}). The seismic earth force (ΔP_{AE}) can be calculated using 0.375·a_c· γ ·H²/g where:

 $a_c = (1.45 - a_{max}/g)a_{max}$ $\gamma = unit weight of fill of the applicable retained soil (kN/m³)$ H = height of the wall (m) $g = gravity, 9.81 \text{ m/s}^2$

The peak ground acceleration, (a_{max}) , for the site area is 0.32 g according to OBC 2012. Note that the vertical seismic coefficient is assumed to be zero.

The earth force component (P_o) under seismic conditions can be calculated using $P_o = 0.5 \text{ K}_o \text{ y } \text{H}^2$, where $K_o = 0.5$ for the soil conditions noted above.

The total earth force (P_{AE}) is considered to act at a height, h (m), from the base of the wall, where:

 $h = \{P_{o} \cdot (H/3) + \Delta P_{AE} \cdot (0.6 \cdot H)\} / P_{AE}$

The earth forces calculated are unfactored. For the ULS case, the earth loads should be factored as live loads, as per OBC 2012.



5.7 Pavement Design

Underground Parking Levels

It is anticipated that the underground parking levels will be provided car only parking areas, access lanes, fire truck lanes and loading areas.

Based on the concrete slab subgrade, the pavement structure indicated in the following page may be considered for design purposes:

Table 3 - Recom	Table 3 - Recommended Rigid Pavement Structure – Underground Parking			
Thickness (mm)	Material Description			
125	Rigid Concrete Pavement - 32 MPa concrete with air entrainment			
300	BASE - OPSS Granular A Crushed Stone			
SUBGRADE - Either fill, OPSS Granular B Type II material placed over in situ soil, fill or rock.				

Table 4 - Recommended Pavement Structure - Car-Only Parking Areas				
Thickness (mm)	Material Description			
50	Wear Course - HL-3 or Superpave 12.5 Asphaltic Concrete			
200**	Base - OPSS Granular A Crushed Stone			
See Below*	Thermal Break* - Rigid Insulation (See Paragraph Below)			
n/a	Waterproofing Membrane and IKO protection Board			
SUBGRADE – Reinforced concrete slab				
*If specified by others	*If specified by others, not required from a geotechnical perspective			
**Thickness is depen	ident on grade of insulation as noted in paragraphs below.			



Table 5 - Recommended Pavement Structure – Access Lane, Fire Truck Lane, Ramp and Heavy Truck Parking Areass					
Thickness (mm)	Material Description				
40	Wear Course - HL-3 or Superpave 12.5 Asphaltic Concrete				
50	Wear Course - HL-8 or Superpave 19.0 Asphaltic Concrete				
200**	Base - OPSS Granular A Crushed Stone				
See Below*	Thermal Break* - Rigid Insulation (See Paragraph Below)				
n/a	Waterproofing Membrane and IKO protection Board				
SUBGRADE – Reinforced concrete slab					
*If specified by others	*If specified by others, not required from a geotechnical perspective				
**Thickness is depen	dent on grade of insulation as noted in paragraphs below.				

Should the proposed underground parking levels be specified to be provided a thermal break by the use of a layer of rigid insulation below the pavement structure, its placement within the pavement structure is recommended to be as per the above-noted tables. The layer of rigid insulation is recommended to consist of a DOW Chemical High-Load 100 (HI-100), High-Load 60 (HI-60) or High Load (HI-40). The pavement structures base layer thickness will be dependent on the grade of insulation considered for this project and should be reassessed by the geotechnical consultant once pertinent design details have been prepared.

The higher grades of insulation have more resistance to deformation under wheelloading and require less granular cover to avoid being crushing by vehicular loading. It should be noted that SM (Styrofoam) rigid insulation is not considered suitable for this application.

Flexible Pavement Structure

The flexible pavement structure presented in Tables 6 and 7 could be used for the design of the pavement structure for car only parking, access lanes, and heavy truck parking areas.

Table 6 - Recommended Pavement Structure – Car Only Parking Areas				
Thickness (mm)	Material Description			
50	Wear Course - HL-3 or Superpave 12.5 Asphaltic Concrete			
150	BASE - OPSS Granular A Crushed Stone			
300	SUBBASE - OPSS Granular B Type II			
SUBGRADE Either in situ soils, fill approved by the geotechnical consultant or OPSS Granular B Type I or II material placed over in situ soil.				



Table 7 - Recommended Pavement Structure – Access Lanes and Heavy Truck Parking Areas		
Thickness (mm)	Material Description	
40	Wear Course - HL-3 or Superpave 12.5 Asphaltic Concrete	
50	Binder Course - HL-8 or Superpave 19.0 Asphaltic Concrete	
150	BASE - OPSS Granular A Crushed Stone	
400	SUBBASE - OPSS Granular B Type II	
SUBGRADE – Either in situ soils, fill approved by the geotechnical consultant or OPSS Granular B Type I or II material placed over in situ soil.		

Minimum Performance Graded (PG) 58-34 asphalt cement should be used for this project.

If soft spots develop in the subgrade during compaction or due to construction traffic, the affected areas should be excavated and replaced with OPSS Granular B Type I or II material. The pavement granular base and subbase should be placed in maximum 300 mm thick lifts and compacted to a minimum of 100% of the material's SPMDD using suitable vibratory equipment.

Where the subgrade is observed to be in a loose state of compactness, proof rolling should be completed, under dry conditions and above freezing temperatures, using suitably sized equipment to achieve desired levels of compactness.





6.0 Design and Construction Precautions

6.1 Foundation Drainage and Backfill

Foundation Drainage

Based on the preliminary information provided, it is expected that a portion of the proposed building foundation walls will be located below the long-term groundwater table. To limit long-term groundwater lowering, it is recommended that a groundwater infiltration control system be designed for the proposed building. Also, a perimeter foundation drainage system will be required as a secondary system to account for any groundwater which breaches the primary ground infiltration control system. The system should consist of a 150 mm diameter perforated corrugated plastic pipe, surrounded on all sides by 150 mm of 10 mm clear crushed stone, placed at the footing level around the exterior perimeter of the structure. The pipe should have a positive outlet, such as a gravity connection to the sump pump pit or storm sewer.

The groundwater infiltration control system should extend at least 1 m above the long-term groundwater level and the following is suggested for preliminary design purposes:

- Place a suitable waterproofing membrane against the temporary shoring surface, such as a bentomat liner system or equivalent. The membrane liner should extend down to footing level. The membrane liner should also extend horizontally a minimum of 600 mm below the footing at underside of footing level.
- Place a composite drainage layer, such as Delta Drain 6000 or equivalent, over the membrane, as a secondary system. The composite drainage layer should extend from finished grade to underside of footing level.
- > Pour the foundation wall against the composite drainage system.

It is recommended that the composite drainage system (such as Delta Drain 6000 or equivalent) extend down to the footing level. It is recommended that 150 mm diameter sleeves at 3-6 m centres be cast in the footing or at the foundation wall/footing interface to allow the infiltration of water to flow to the interior perimeter drainage pipe. The perimeter drainage pipe and underfloor drainage system should direct water to sump pit(s) within the lower basement area.

It is important to note that the building's sump pit and elevator pit be considered for waterproofing in a similar fashion. A detail can be provided by Paterson once the design drawings are available for the elevator and sump pits.



Foundation Backfilling – Double Side Pour Areas

Backfill against the exterior sides of the foundation walls should consist of freedraining non frost susceptible granular materials. The greater part of the site excavated materials will be frost susceptible and, as such, are not recommended for re-use as backfill against the foundation walls, unless used in conjunction with a drainage geocomposite, such as Miradrain G100N or Delta Drain 6000, connected to the perimeter foundation drainage system. Imported granular materials, such as clean sand or OPSS Granular B Type I granular material, should otherwise be used for this purpose.

Underfloor Drainage

Underfloor drainage is recommended to control water infiltration for the proposed structure. For preliminary design purposes, we recommend that 150 mm diameter perforated PVC pipes be placed below the floor slab at 3 to 6m center spacings. The spacing of the underfloor drainage system should be confirmed at the time of completing the excavation when water infiltration can be better assessed.

Adverse Effects of Dewatering on Adjacent Properties

Based on the subsurface conditions and on the anticipated excavation depth, any minor dewatering will be considered temporary and limited to the local area of the proposed building during the construction period. Therefore, adverse effects to the surrounding buildings or properties are not expected with respect to any groundwater lowering.

Concrete Sidewalks and Walkways

Backfill material below sidewalks and walkway subgrade areas throughout the subject site, including along the building, should be provided with a minimum 300 mm thick layer of OPSS Granular A or OPSS Granular B Type II crushed stone. This material should be placed in maximum 300 mm thick loose lifts and compacted to a minimum of 98% of the materials SPMDD. The subgrade for walkway structures against the building should be shaped to promote drainage towards the buildings perimeter drainage system.

6.2 **Protection Against Frost Action**

Perimeter footings of heated structures are required to be insulated against the deleterious effect of frost action. A minimum of 1.5 m thick soil cover (or equivalent) should be provided in this regard.



Exterior unheated footings, such as those for isolated exterior piers, are more prone to deleterious movement associated with frost action than the exterior walls of the structure proper and require additional protection, such as soil cover of 2.1 m or a combination of soil cover and foundation insulation.

It has been our experience that insufficient soil cover is typically provided to footings located in areas where minimal soil cover is available, such as entrance ramps to underground parking garages. Paterson requests permission to review design drawings prior to construction to ensure proper frost protection is provided.

6.3 Excavation Side Slopes

The side slopes of excavations in the overburden materials should either be cut back at acceptable slopes or should be retained by shoring systems from the start of the excavation until the structure is backfilled. It is assumed that insufficient room will be available for the greater part of the excavation to be undertaken by open-cut methods (i.e. unsupported excavations) and temporary shoring will likely be required.

Unsupported Excavations

The excavation side slopes above the groundwater level extending to a maximum depth of 3 m should be cut back at 1H:1V or flatter. The flatter slope is required for excavation below groundwater level. The subsoil at this site is considered to be mainly a Type 2 and 3 soil according to the Occupational Health and Safety Act and Regulations for Construction Projects.

Excavated soil should not be stockpiled directly at the top of excavations and heavy equipment should be kept away from the excavation sides.

Slopes in excess of 3 m in height should be periodically inspected by the geotechnical consultant in order to detect if the slopes are exhibiting signs of distress.

It is recommended that a trench box be used at all times to protect personnel working in trenches with steep or vertical sides. It is expected that services will be installed by "cut and cover" methods and excavations will not be left open for extended periods of time.



Temporary Shoring

Temporary shoring will be required to support the overburden soils. The design and implementation of these temporary systems will be the responsibility of the excavation contractor or the shoring contractor and their design team. Inspections and approval of the temporary system will also be the responsibility of the designer.

Geotechnical information provided below is to assist the designer in completing a suitable and safe shoring system. The designer should take into account the potential for a fully saturated condition following a significant precipitation event. Any changes to the approved shoring design system should be reported immediately to the owner's representative prior to implementation.

For design purposes, the temporary system may consist of soldier pile and lagging system or interlocking steel sheet piling. Any additional loading due to street traffic, construction equipment, adjacent structures and facilities, etc., should be added to the earth pressures described below. These systems can be cantilevered, anchored or braced. The earth pressures acting on the shoring system may be calculated using the following parameters.

Table 8 - Soil Parameters for Shoring System Design		
Parameters	Values	
Active Earth Pressure Coefficient (Ka)	0.33	
Passive Earth Pressure Coefficient (K_p)	3	
At-Rest Earth Pressure Coefficient (K _o)	0.5	
Unit Weight (γ), kN/m³	20	
Submerged Unit Weight (γ), kN/m ³	13	

The active earth pressure should be calculated where wall movements are permissible while the at-rest pressure should be calculated if no movement is permissible. The dry unit weight should be calculated above the groundwater level while the effective unit weight should be calculated below the groundwater level.

The hydrostatic groundwater pressure should be included to the earth pressure distribution wherever the effective unit weights are calculated for earth pressures. If the groundwater level is lowered, the dry unit weight for the soil should be calculated full weight, with no hydrostatic groundwater pressure component.

For design purposes, the minimum factor of safety of 1.5 should be calculated.


6.4 Pipe Bedding and Backfill

Bedding and backfill materials should be in accordance with the most recent Material Specifications & Standard Detail Drawings of the OPSD.

At least 150 mm of OPSS Granular A should be used for pipe bedding for sewer and water pipes. The bedding should extend to the spring line of the pipe. Cover material, from the spring line to at least 300 mm above the obvert of the pipe, should consist of OPSS Granular A or Granular B Type II with a maximum size of 25 mm. The bedding layer should be increased to a minimum thickness of 300 mm where the subgrade consists of grey silty clay. The bedding and cover materials should be placed in maximum 225 mm thick lifts compacted to 95% of the material's standard Proctor maximum dry density.

It should generally be possible to re-use the upper portion of the dry to moist (not wet) sandy silt above the cover material if the excavation and filling operations are carried out in dry weather conditions. Any stones greater than 200 mm in their longest dimension should be removed from these materials prior to placement.

The backfill material within the frost zone (about 1.8 m below finished grade) should match the soils exposed at the trench walls to reduce potential differential frost heaving. The backfill should be placed in maximum 300 mm thick loose lifts and compacted to a minimum of 95% of the material's SPMDD.

6.5 Groundwater Control

Groundwater Control for Building Construction

Based on our observations, it is anticipated that groundwater infiltration into the excavations should be moderate and controllable using open sumps. Pumping from open sumps should be sufficient to control the groundwater influx through the sides of shallow excavations above the groundwater level.

If excavation below the groundwater level will be completed, consideration may need to given to undertaking a dewatering program taking place outside the excavation footprints. The system would require the use of deep wells or well points to temporarily lower the local groundwater table below the depth of future excavations. The contractor should be prepared to direct water away from all bearing surfaces and subgrades, regardless of the source, to prevent disturbance to the founding medium.



Permit to Take Water

A temporary Ministry of the Environment, Conservation and Parks (MECP) permit to take water (PTTW) may be required for this project if more than 400,000 L/day of ground and/or surface water is to be pumped during the construction phase. A minimum 4 to 5 months should be allowed for completion of the PTTW application package and issuance of the permit by the MECP. For typical ground or surface water volumes being pumped during the construction phase, typically between 50,000 to 400,000 L/day, it is required to register on the Environmental Activity and Sector Registry (EASR). A minimum of two to four weeks should be allotted for completion of the EASR registration and the Water Taking and Discharge Plan to be prepared by a Qualified Person as stipulated under O.Reg. 63/16.

Impacts to Neighbouring Properties

It is understood that one level of underground parking is planned for the proposed building. Any groundwater encountered along the building's perimeter or underslab drainage system will be directed to the proposed building's cistern/sump pit. Provided the proposed groundwater infiltration control system is properly implemented and approved by the geotechnical consultant at the time of construction, long-term groundwater lowering is anticipated to be negligible for the area. Therefore, no adverse effects to neighbouring properties are expected.

6.6 Winter Construction

Precautions must be taken if winter construction is considered for this project. The subsoil conditions at this site mostly consist of frost susceptible materials. In the presence of water and freezing conditions, ice could form within the soil mass. Heaving and settlement upon thawing could occur.

In the event of construction during below zero temperatures, the founding stratum should be protected from freezing temperatures by the use of straw, propane heaters and tarpaulins or other suitable means. In this regard, the base of the excavations should be insulated from sub-zero temperatures immediately upon exposure and until such time as heat is adequately supplied to the building and the footings are protected with sufficient soil cover to prevent freezing at founding level.

Trench excavations and pavement construction are also difficult activities to complete during freezing conditions without introducing frost in the subgrade or in the excavation walls and bottoms. Precautions should be taken if such activities are to be carried out during freezing conditions.



6.7 Corrosion Potential and Sulphate

The results of analytical testing show that the sulphate content is less than 0.1%. This result is indicative that Type GU (General Use) cement would be appropriate for this site. The chloride content and the pH of the sample indicate that they are not significant factors in creating a corrosive environment for exposed ferrous metals at this site, whereas the resistivity is indicative of a moderate to very aggressive corrosive environment.

6.8 Storm Water Detention Cistern

Based on the available site servicing drawings, it is understood that storm water detention cistern is proposed to be located in the underground parking area with a mechanical pump to attenuate peak flows from the catch basin and ramp drain areas. It is understood that the final location of the cistern within the proposed building is to be coordinated by the architect with mechanical and structural engineers. The cistern will have an approximate volume of 30 m3 and it will be attached to the proposed building. The top of the cistern will be at geodetic elevation of 89.06m and the bottom of the cistern will be at geodetic elevation of 88.43m. The finish floor level for the basement of the adjacent 9 storey building will be at geodetic elevation of 87.2m. The finish grade level at the location of the cistern will be fully buried with a soil cover of approximately 2.36 m above the top of the cistern. Furthermore, due to the founding depth and the depth of the long-term groundwater level, frost protection and waterproofing will not be required for the proposed storm water cistern.

Based on the founding level of the cistern and the finish floor level of the adjacent 9 storey building, the minimum vertical separation between the bottom of the cistern and the USF of the adjacent basement wall is anticipated to be approximately 1.8m. The loads resulting from the cistern shall be taken into account in the design of the basement wall of the building in contact with the proposed storm water cistern. The cistern will exert a lateral hydrostatic pressure on the portion of the wall above the founding level of the cistern. On the other hand, the lateral component of the cistern surcharge shall be added to the lateral earth pressure acting on the basement wall for the portion of the wall below the founding level of the cistern. Further details on the design of the basement wall are discussed in section 5.6.

Due to the difference in elevation between the founding depth of the cistern and the muti storey building, it is recommended that the cistern be founded on OPSS Granular A or Granular B Type II extending to the founding level of the adjacent basement wall and compacted to a minimum 98% of the material's SPMDD.



7.0 Recommendations

It is a requirement for the foundation design data provided herein to be applicable that the following material testing and observation program be performed by the geotechnical consultant.

- □ Review of the grading and site servicing plans from a geotechnical perspective.
- **Q** Review of the proposed excavation activities
- Once structural and architectural drawings are available, it is recommended that Paterson provide a damp-proofing, waterproofing and drainage plan for the subject building.
- □ Periodic inspections of the damp-proofing of the foundation walls and waterproofing of the mechanical pits from a geotechnical perspective.
- Observation of all bearing surfaces prior to the placement of concrete.
- Sampling and testing of the concrete and fill materials.
- Periodic observation of the condition of unsupported excavation side slopes in excess of 3 m in height, if applicable.
- Observation of all subgrades prior to backfilling.
- □ Field density tests to ensure that the specified level of compaction has been achieved.
- Sampling and testing of the bituminous concrete including mix design reviews.

All excess soils generated by construction activities should be handled as per *Ontario Regulation 406/19: On-Site and Excess Soil Management*.

A report confirming that these works have been conducted in general accordance with our recommendations could be issued upon the completion of a satisfactory inspection program by the geotechnical consultant.



Statement of Limitations 8.0

The recommendations provided are in accordance with the present understanding of the project. Paterson requests permission to review the recommendations when the drawings and specifications are completed.

A soils investigation is a limited sampling of a site. Should any conditions at the site be encountered which differ from those at the test locations, Paterson requests immediate notification to permit reassessment of our recommendations.

The recommendations provided herein should only be used by the design professionals associated with this project. They are not intended for contractors bidding on or undertaking the work. The latter should evaluate the factual information provided in this report and determine the suitability and completeness for their intended construction schedule and methods. Additional testing may be required for their purposes.

The present report applies only to the project described in this document. Use of this report for purposes other than those described herein or by person(s) other than TCU Development or their agent(s) is not authorized without review by Paterson Group for the applicability of our recommendations to the altered use of the report.

December 18, 2023 Paterson Group Inc. Zubaida Al-Moselly, P.Eng Maha K. Saleh, M.A.Sc., P.Eng. 100507739 BOLINCE OF ONTARIO **Report Distribution:**

- TCU Development (email copy)
- Paterson Group (1 copy)



APPENDIX 1

SOIL PROFILE AND TEST DATA SHEETS

SYMBOLS AND TERMS

ANALYTICAL TESTING RESULTS

TEST HOLE LOGS BY OTHERS

SOIL PROFILE AND TEST DATA

9 Auriga Drive, Ottawa, Ontario K2E 7T9

DATUM Geodetic									FILE NO.	
REMARKS									HOLE NO.	
BORINGS BY CME-55 Low Clearance I	Drill			D	ATE	March 9,	2023		BH 1-23	1
SOIL DESCRIPTION	PLOT		SAN		_	DEPTH (m)	ELEV. (m)	Pen. Re ● 50	esist. Blows/0.3m 0 mm Dia. Cone	eter Iction
	STRATA	ТҮРЕ	UMBER	% COVER!	VALUE Dr RQD			• N	/ater Content %	Piezom Constru
GROUND SURFACE			А	RE	z	0-	-71.36	20	40 60 80	
TFILL: Crushed stone 0.10	XX	J .					71.00			
FILL: Topsoil, some crushed stone, gravel and sand		§ AU ∏	1					0		
<u>1.07</u>		∦-ss	2	58	12	1-	-70.36	0		
SAND to SANDY SILT, trace shale		ss	3	67	21	2-	-69.36	0		
2.54		-ss	4	100	45			0 0		
						3-	-68.36			
BEDROCK: Poor to fair quality, black shale		RC	1	89	27	4-	-67.36			
		RC	2	100	52	5-	-66.36			
- good to excellent quality by 6.0m depth.						6-	-65.36			
7.57		RC	3	100	90	7-	-64.36			
End of Borehole										
(GWL @ 2.80m - March 21, 2023)										
								20 Shea ▲ Undist	40 60 80 10 ar Strength (kPa) urbed △ Remoulded	00

SOIL PROFILE AND TEST DATA

9 Auriga Drive, Ottawa, Ontario K2E 7T9

DATUM Geodetic									FILE NO	04	
				-		Marah 0	0000			0. 02	
BORINGS BY CIVIE-35 LOW Clearance	5 5		SAN	/IPLE				Pen. Re	esist. B	zs lows/0.3m	lel
SOIL DESCRIPTION	A PL		R	RY	<u>ا</u>	(m)	(m)	• 5	0 mm Di	a. Cone	ing V Iction
	STRAT	ТҮРЕ	NUMBE	GCOVE %	VALI			0 V	later Co	ntent %	onitor onstru
	•		4	R	z	0-	-71.39	20	40	60 80	∣≥ŭ
	`	- 	4								
FILL: Brown silty sand with gravel, crushed stone, trace clay, topsoil and			1								
		ss	2	67	12	1-	-70.39			······································	
1.45	51222										
Compact, brown SILTY SAND with gravel		ss	3	83	20	2-	-69.39	0			
2.29		∐ ∏	1	80	50		00.00				
			-		50+						_
		RC	1	62	0	3-	-68.39				
		RC	2	93	47	1-	67 20				
BEDROCK: Very poor to fair quality, black shale						-	07.55				
						5-	66.39				
		RC	3	100	68						
							05.00				
End of Borehole)					6-	-65.39				
(GWL @ 2.59m - March 21, 2023)											
								20 Shea	40 ar Streng	60 80 19 jth (kPa)	00

SOIL PROFILE AND TEST DATA

9 Auriga Drive, Ottawa, Ontario K2E 7T9

DATUM Geodetic						-			FILE	NO.		
REMARKS									HOLI	E NO.		
BORINGS BY CME-55 Low Clearance	Drill			D	ATE	March 9,	2023	1	BH	3-23		
SOIL DESCRIPTION	A PLOT		SAN	IPLE پر	Но	DEPTH (m)	ELEV. (m)	Pen. R • 5	esist. 0 mm	Blows/0. Dia. Con	.3m e	neter uction
	STRAT	ТҮРЕ	NUMBEI	ECOVE1	N VALU or RQI			• V	Vater	Content %	6	Piezor Consti
GROUND SURFACE	XXX			<u></u>	4	0-	-70.66	20	40	60	80	× ×
FILL: Topsoil with silty clay, trace 0.36 gravel and organics		AU	1					O				
Compact, brown SILTY SAND, trace gravel, clay, shale, cobbles and boulders		ss	2	75	11	1-	-69.66	0				
<u>1.83</u>		 RC	1	100	0	2-	-68.66					⊻
		_				3-	-67.66					
BEDROCK: Very poor to fair quality,		RC	2	100	24	4-	-66.66					
		- RC	3	100	24	5-	-65.66					
		_				6-	-64.66					
		RC	4	100	72	7-	-63.66					
7.54												
(GWL @ 2.07m - March 21, 2023)												
								20 Shea ▲ Undist	40 ar Stre	60 ength (kP △ Remo	80 1 0 a) ulded	 DO

SOIL PROFILE AND TEST DATA

Undisturbed

△ Remoulded

9 Auriga Drive, Ottawa, Ontario K2E 7T9

Geotechnical Investigation Proposed Multi-Storey Building 1184, 1188 & 1196 Cummings Ave., Ottawa, Ontario

DATUM Geodetic FILE NO. **PG6604** REMARKS HOLE NO. **BH 4-23** BORINGS BY CME-55 Low Clearance Drill DATE March 10, 2023 SAMPLE Pen. Resist. Blows/0.3m STRATA PLOT Construction DEPTH ELEV. Piezometer SOIL DESCRIPTION 50 mm Dia. Cone • (m) (m) RECOVERY N VALUE or RQD NUMBER TYPE o/0 \bigcirc Water Content % **GROUND SURFACE** 80 20 40 60 0+71.73FILL: Crushed stone, some sand 0.10 AU 1 FILL: Dark brown silty sand with 0.30 2 Ö AU asphalt, crushed stone and gravel FILL: Brown silty sand, some gravel and crushed stone 0.97 Q 1+70.73 SS 3 100 31 0 SS 4 83 50 +Ö 2 + 69.73BEDROCK: Very poor to poor quality, black shale 5 SS 100 50 +Ò 3+68.73 - fair quality by 3.0m depth RC 1 100 36 4+67.73 5+66.73 RC 2 51 100 5.97 End of Borehole (GWL @ 2.87m - March 21, 2023) 20 40 60 80 100 Shear Strength (kPa)

SOIL PROFILE AND TEST DATA

▲ Undisturbed △ Remoulded

9 Auriga Drive, Ottawa, Ontario K2E 7T9

DATUM Geodetic									FILE	NO.	
REMARKS									HOLE	NO.	
BORINGS BY Excavator	1			D	ATE	February	14, 2023	3	TP 1	-23	
SOIL DESCRIPTION	A PLOT		SAN	IPLE ਨ	80	DEPTH (m)	ELEV. (m)	Pen. Re ● 5	esist. 0 mm	Blows/0.3m Dia. Cone	neter uction
	STRAT?	ТҮРЕ	NUMBEF	ECOVEI	I VALU or RQI			0 W	/ater C	Content %	Piezor Constr
GROUND SURFACE				8	Z	0-	71.44	20	40	60 80	
FILL: Crushed stone											
FILL: Brown silty sand with gravel, trace organics		G	1								
FILL: Brown silty sand with gravel		_ G	2								
<u>0.8(</u>		 G	3			1-	-70.44				_
Brown SANDY SILT with gravel, occasional cobbles		 G	4								
1.60	<u>) [] [] [] [] []</u>										-
TP terminated on bedrock surface at 1.60m depth.											
(TP dry upon completion)								20	40	60 80	100
								Shea	ir Stre	ngth (kPa)	

SOIL PROFILE AND TEST DATA

9 Auriga Drive, Ottawa, Ontario K2E 7T9

DATUM Geodetic REMARKS BORINGS BY Excavator					D	ATE	Februarv	14. 2023	3	FI P H T	ILE NO. PG660 IOLE NO.	4	
SOIL DESCRIPTION	E	ТОЛЧ		SAN	/IPLE		DEPTH	ELEV.	Pen. Re ● 50	esi 0 n	ist. Blo nm Dia.	ws/0.3m Cone	eter ction
		STRATA	ЭДХТ	NUMBER	« SCOVERY	I VALUE or RQD	(,	(,	• N	Vat	er Con	ent %	Piezom(Constru
GROUND SURFACE				~	R	ZŬ	0-	-71 44	20	4	10 60 	80	
TOPSOIL). <u>10</u>	~ ~						/					
FILL: Brown silty sand with gravel, trace organics		\bigotimes	– G	1									
C	0.50	\bigotimes											
FILL: Brown silty sand, trace clay, gravel and concrete blocks		\bigotimes	G	2									
C	<u>).80 X</u>	\bigotimes											
							1-	-70.44					
Brown SILTY SAND with gravel, some clay			G 	3									
2	200		G	4									
End of Test Pit							2-	-69.44					
TP terminated on bedrock surface at 2.00m depth.	t												
(TP dry upon completion)													
									20 Shea ▲ Undistu	4 ar S	io 60 Strengt bed △	80 10 h (kPa) Remoulded	00

SOIL PROFILE AND TEST DATA

9 Auriga Drive, Ottawa, Ontario K2E 7T9

DATUM Geodetic					·				FILE	NO. 6604		
REMARKS								_	HOLE	E NO.		
BORINGS BY Excavator				D	ATE	-ebruary	14, 2023	3		3-23		
SOIL DESCRIPTION	PLOT		SAN	IPLE		DEPTH (m)	ELEV. (m)	Pen. Re ● 50	esist.) mm	Blows/0 Dia. Con	.3m ⊮e	eter
	TRATA	Ξイλ	UMBER	°° COVER	VALUE r RQD			• N	/ater (Content 9	%	Piezom
GROUND SURFACE	ß		N	RE	z ^o	0-	71 50	20	40	60	80	
FILL: Crushed stone0.10						0-	71.52					
FILL: Brown silty sand, some shale and gravel		– G	1									-
FILL: Brown silty sand, some cobbles, trace brick and shale		 G	2									
Brown SILTY SAND , trace clay and gravel, occasional cobbles		G	3			1-	-70.52					
<u>1.70</u>		_ G	4									
TP terminated on bedrock surface at												
1.70m depth.												
								20 Shea ▲ Undist	40 I r Stre urbed	60 ength (kP △ Remo	80 10 a) ulded	00

SOIL PROFILE AND TEST DATA

9 Auriga Drive, Ottawa, Ontario K2E 7T9

DATUM	Geod
	<u> </u>
	(
	acou

DATUM Geodetic					·				FILE NO.		
REMARKS									HOLE NO.		
BORINGS BY Excavator	1			D	ATE	February	14, 2023	3	TP 4-23		
SOIL DESCRIPTION	PLOT		SAN	IPLE		DEPTH (m)	ELEV. (m)	Pen. Re ● 5	esist. Blows 0 mm Dia. Co	/0.3m one	eter iction
	STRATA	ТҮРЕ	NUMBER	SCOVER!	I VALUE or RQD			• N	/ater Conten	t %	Piezom Constru
GROUND SURFACE			4	R	zv	- 0-	70.97	20	40 60	80	
FILL: Crushed stone0.10											
FILL: Brown silty sand, trace gravel		G 	1								
		G	2								
Brown SILTY SAND with gravel, occasional cobbles						1-	-69.97				-
1.60		G	3								
End of Test Pit											
TP terminated on bedrock surface at 1.60m depth											
(TP dry upon completion)											
								20 Shea ▲ Undisti	40 60 ar Strength (H urbed △ Rer	80 10 (Pa) noulded	00

SOIL PROFILE AND TEST DATA

9 Auriga Drive, Ottawa, Ontario K2E 7T9

DATUM Geodetic									FILE	NO. 6604		
REMARKS					ATE	Fobruary	14 2022		HOL	E NO. 5-23		
SURINGS BY EXCAVALUI	E		SVI				14, 2023	Don D		J-ZJ	c/0.2m	
SOIL DESCRIPTION	LOIG .		JAIV	HFLE 2	M .	DEPTH (m)	ELEV. (m)	• 5	0 mm	Dia. C	one	heter
	TRATA	ТҮРЕ	UMBER	% COVER	VALUE F ROD			0 V	Vater (Conter	nt %	lezon
GROUND SURFACE	N N	_	N	RE	zö	0-	-70.87	20	40	60	80	
ILL: Crushed stone0.10		—					10.01					
rown SILTY SAND, some clay, ace organics (possible topsoil)		G	1									
0.40												
rown SANDY SILT with gravel		_ G	2									
<u>0.7</u> 0			2									
						1-	-69.87					
rown SILTY SAND with gravel and												
JUDIES												
		_										
		G	3									
1./0 nd of Test Pit) <u>·</u>].]];											-
P terminated on bedrock surface at												
.70m depth.												
IP dry upon completion)												
								20	40	60	80	100
								Shea ▲ Undist	ar Stre turbed	ength (∆ Re	KPa) moulded	

SOIL PROFILE AND TEST DATA

Geotechnical Investigation Proposed Multi-Storey Building 1184, 1188 and 1196 Cummings Ave., Ottawa, Ontario

9 Auriga Drive, Ottawa, Ontario K2E 7T9

DATUM Geodetic					·				FILE NO. PG6604	
REMARKS				_			14 0000		HOLE NO.	
BORINGS BY EXCAVALO	.		SAN		AIE		14, 2023	Don D	IF 0-23	
SOIL DESCRIPTION	PLOT		JAN			DEPTH	ELEV.	● 5	0 mm Dia. Cone	eter
	ATA	ΡE	BER	VERY	ALUE ROD				1 -1	zome
	STR	ТТ	MUN	RECO.	N VI OF			20		O E
FILL: Crushed stone						0-	-70.74			-
TOPSOIL	<u>-</u> (XXX)	 G	1							
<u>0.5</u> 0										
Brown SILTY SAND with gravel		_ G _	2							
		– G	3			1-	-69.74			
Brown SILTY SAND with shale fragments		 G	4							
End of Test Pit										
TP terminated on bedrock surface at 1.70m depth.								20 Shea	40 60 80 ar Strength (kPa)	100

SOIL PROFILE AND TEST DATA

9 Auriga Drive, Ottawa, Ontario K2E 7T9

DATUM Geodetic										FIL PC	e no 366	04		
REMARKS					-					НО		0.		
BORINGS BY Excavator				D	ATE	-ebruary	14, 2023				-1-2	23		
SOIL DESCRIPTION	PLOT		SAN			DEPTH (m)	ELEV. (m)	Pe	n. Re D 50	esis [:] 0 mr	t. Bl n Di	ows/(a. Coi).3m 1e	eter
	TRATA	ТҮРЕ	UMBER	% COVER3	VALUE r RQD	()	()	(> N	/ate	r Co	ntent	%	Piezomo Sonstru
GROUND SURFACE	Ω.		Ĩ	REC	zö		70.00	2	20	40		60	80	
FILL: Crushed stone 0.10	J 🕅					0-	-70.86							
FILL: Brown silty sand, trace silt and organics		G	1											
0.5		G	2											
Brown SILTY SAND with gravel, occasional cobbles		_ G	3			1-	-69.86							
		G	4			2-	-68.86							
2.10 End of Test Pit	0 <u> </u>													
TP terminated on bedrock surface at 2.10m depth.														
(TP dry upon completion)									N					100
									Shea Indist	40 Ir St urbec	reng ∣∠	ith (k ⊾ Remo	Pa) Dulded	IUU

SOIL PROFILE AND TEST DATA

40

20

▲ Undisturbed

60

Shear Strength (kPa)

80

△ Remoulded

100

Piezometer Construction

DATUM	G

9 Auriga Drive, Ottawa, Ontario K2E 7T9	eotechnic oposed N 184 1188	al Invest /ulti-Stoi and 1196	rey Buil	ding	Δνο (Ottawa	Onta	ario					
DATUM Geodetic						104, 1100		, ournin		FILE NO.		, ond	
REMARKS									H	PG66	04		
BORINGS BY Excavator				D	ATE	February	14, 2023	}	-	TP 8-2	2 <u>3</u>		
SOIL DESCRIPTION	гот	SAMPLE				DEPTH	ELEV.	Pen	ows/0.	0.3m			
	RATA P	ΥРЕ	MBER	° ∂VERY	'ALUE RQD	(m)	(m)	0	Wa	ter Cor	ntent %		ezomet
GROUND SUBFACE	E S	H	IÚN	REC	N OF O			20		40 f	50 R	0	Ë
FILL: Crushed stone 0.10						- 0-	-71.40						
FILL: Brown silty sand, some cobbles, trace shale and organics		G	1										
Brown SILTY SAND with gravel		– G	2										
End of Test Pit													
TP terminated on bedrock surface at 0.80m depth.													
(TP dry upon completion)													

SOIL PROFILE AND TEST DATA

20

▲ Undisturbed

40

60

Shear Strength (kPa)

80

△ Remoulded

100

9 Auriga Drive, Ottawa, Ontario K2E 7T9

						., 1100		- Caning			
DATUM Geodetic									FILE NO.)4	
REMARKS).	
BORINGS BY Excavator				D	ATE	-ebruary	14, 2023		TP 9-2	3	
SOIL DESCRIPTION			SAN	IPLE		DEPTH (m)	ELEV.	Pen. Re ● 50	esist. Blo 0 mm Dia	ows/0.3m a. Cone	eter ction
	AT.	ы	ER	ERY	S CE	(11)	(11)				om6 stru
	TRE	ТYF	IUME	°° No	L A			• v	later Con	ntent %	Piez
GROUND SURFACE	03		N	RE	z ^o	0-	71 40	20	40 6	60 80	
FILL: Crushed stone 0.10	\bigotimes					0	71.42				
FILL: Brown silty sand, some cobbles, trace shale, organics and brick		_ G	1								
Brown SILTY SAND with gravel		 G	2						·····		
Brown SILTY SAND with gravel, cobbles and shale fragments		 G	3			1-	-70.42				
End of Test Pit											
TP terminated on bedrock surface at 1.30m depth.											
(TP dry upon completion)											

SOIL PROFILE AND TEST DATA

▲ Undisturbed △ Remoulded

9 Auriga Drive, Ottawa, Ontario K2E 7T9

ΔΤΙΙΜ	Geodeti
	acouci

DATUM Geodetic									FILE NO.	04	
REMARKS									HOLE NO).	
BORINGS BY Excavator				D	ATE	February	14, 2023	3	TP10-2	23	
SOIL DESCRIPTION	PLOT		SAN		_	DEPTH (m)	ELEV. (m)	Pen. R	esist. Bl	ows/0.3m a. Cone	eter
	TRATA	ТҮРЕ	UMBER	© %	VALUE r RQD			0 V	Vater Cor	ntent %	Piezom
GROUND SURFACE	s N		Z	RE	z °	0	70 70	20	40 e	50 80	
FILL: Crushed stone 0.1	0	×				0-	-70.76				
FILL: Brown silty sand, some clay and organics	0	G	1								
FILL: Brown silty sand with cobbles,		G	2								
trace shale		× × × ×									
<u>1.C</u>		× × × 				1-	-69.76				_
		G	3								
Brown SILTY SAND with gravel		-									
1.5	io	G	4								
End of Test Pit											1
TP terminated on bedrock surface at 1.50m depth.											
(TP dry upon completion)											
									40 4		
								She	ar Streng	th (kPa)	00

SOIL PROFILE AND TEST DATA

9 Auriga Drive, Ottawa, Ontario K2E 7T9

Geotechnical Investigation Proposed Multi-Storey Building 1184, 1188 and 1196 Cummings Ave., Ottawa, Ontario

DATUM Geodetic

									PG	6604				
REMARKS									HOL	E NO.				
BORINGS BY Excavator		1		C	DATE	February	14, 2023	3	TP	11-23				
SOIL DESCRIPTION	ргот		SAN	MPLE	1	DEPTH	ELEV.	Pen. F	Resist. 50 mm	Blows/0.3 Dia. Cone	ter m			
	RATA 1	ХРЕ	MBER	° overy	ALUE (m) (m) (m) (m)			0	Water	er Content %				
GROUND SURFACE	L S	H	DN N	REC	NOL			20	40	60 80				
FILL: Crushed stone						- 0-	-71.50							
0.10	'													
FILL Brown sitly sand with clay		G												
shale, trace gravel and organics														
0.60	אאלי	•												
FILL Prown aith and with arough														
trace clay		G	2											
0.9	∞	-												
							70 50							
						1-	-70.50							
Brown SILTY SAND with gravel														
BIOWN SILT SAND WIT graver		G	3											
		–												
		-												
2 1(G	4			2-	-69.50							
End of Test Pit														
TP terminated on bedrock surface at														
2.10m deptn.														
(TP dry upon completion)														
								20	40	60 80	100			
								Sne	ar Str	engtn (KPa) ∧ Remoulo	i ded			

SOIL PROFILE AND TEST DATA

Shear Strength (kPa)

△ Remoulded

▲ Undisturbed

Geotechnical Investigation Proposed Multi-Storey Building 1184, 1188 and 1196 Cummings Ave., Ottawa, Ontario

9 Auriga Drive, Ottawa, Ontario K2E 7T9

REMARKS	

DATUM Geodetic									FILE	NO. 6604		
REMARKS									HOLE	E NO.		
BORINGS BY Excavator	1	1		D	ATE	February	14, 2023	3	TP1	2-23		
SOIL DESCRIPTION	PLOT		SAN	MPLE		DEPTH (m)	ELEV. (m)	Pen. Re • 5	esist. 0 mm	Blow Dia. C	s/0.3m Cone	leter uction
	TRATA	ТҮРЕ	UMBER	COVER	VALUE r RQD			• Water Cont				Piezom Constru
GROUND SURFACE	S		N	RE	z ^o	0	71.00	20	40	60	80	
TOPSOIL 0.10						- 0-	-71.08					
		G	1									
Brown SILTY SAND with gravel, trace shale fragments		G	2									
1 50		G	3			1-	-70.08					
Brown SILTY SAND with gravel and cobbles		G	4									
Endof Test Pit												_
TP terminated on bedrock surface at 1.80m depth.												
(TP dry upon completion)								20	40	60	80	

SOIL PROFILE AND TEST DATA

Geotechnical Investigation Proposed Multi-Storey Building 1184, 1188 and 1196 Cummings Ave., Ottawa, Ontario

9 Auriga Drive, Ottawa, Ontario K2E 7T9

DATUM Geodetic											FILE I	NO. 360	4			
REMARKS BOBINGS BY Excavator				D		February	14 2023	3		-	HOLE	: NO 3-2	23			
	Ę		SAN	/PLE					Pen	. Res	ist.	Blo	-v ws/().3m		
SOIL DESCRIPTION	PLO			ĸ	M -	DEPTH (m)	ELEV. (m)		•	50	mm	Dia	. Cor	ıe		neter intior
	RATA	ЧЪЕ	MBER	°∾ OVER	VALUI				0	Wa	Water Content %					ezon
GROUND SURFACE	LS	H	NN	REC	N OL	0.	71 10		20)	40	6	0	80		ĒĊ
TOPSOIL						0	71.10									
0.30 FILL: Brown silty sand with cobbles, trace shale 0.50		G	1										· · · · · · · · · · · · · · · · · · ·			
		G	2													
						1-	-70.10									
Brown SILTY SAND with gravel and cobbles		G	3													
		G	4													
0.10		G	5			2-	-69.10									
End of Test Pit TP terminated on bedrock surface at 2.10m depth.	<u>'- . </u> `															
(TP dry upon completion)																
									20 20 SI	h ear	40 Stre		0 h (kF Remo	80 2 3 3 3	1(00

SYMBOLS AND TERMS

SOIL DESCRIPTION

Behavioural properties, such as structure and strength, take precedence over particle gradation in describing soils. Terminology describing soil structure are as follows:

Desiccated	-	having visible signs of weathering by oxidation of clay minerals, shrinkage cracks, etc.
Fissured	-	having cracks, and hence a blocky structure.
Varved	-	composed of regular alternating layers of silt and clay.
Stratified	-	composed of alternating layers of different soil types, e.g. silt and sand or silt and clay.
Well-Graded	-	Having wide range in grain sizes and substantial amounts of all intermediate particle sizes (see Grain Size Distribution).
Uniformly-Graded	-	Predominantly of one grain size (see Grain Size Distribution).

The standard terminology to describe the strength of cohesionless soils is the relative density, usually inferred from the results of the Standard Penetration Test (SPT) 'N' value. The SPT N value is the number of blows of a 63.5 kg hammer, falling 760 mm, required to drive a 51 mm O.D. split spoon sampler 300 mm into the soil after an initial penetration of 150 mm.

Relative Density	'N' Value	Relative Density %
Very Loose	<4	<15
Loose	4-10	15-35
Compact	10-30	35-65
Dense	30-50	65-85
Very Dense	>50	>85

The standard terminology to describe the strength of cohesive soils is the consistency, which is based on the undisturbed undrained shear strength as measured by the in situ or laboratory vane tests, penetrometer tests, unconfined compression tests, or occasionally by Standard Penetration Tests.

Consistency	Undrained Shear Strength (kPa)	'N' Value
Very Soft	<12	<2
Soft	12-25	2-4
Firm	25-50	4-8
Stiff	50-100	8-15
Very Stiff	100-200	15-30
Hard	>200	>30

SYMBOLS AND TERMS (continued)

SOIL DESCRIPTION (continued)

Cohesive soils can also be classified according to their "sensitivity". The sensitivity is the ratio between the undisturbed undrained shear strength and the remoulded undrained shear strength of the soil.

Terminology used for describing soil strata based upon texture, or the proportion of individual particle sizes present is provided on the Textural Soil Classification Chart at the end of this information package.

ROCK DESCRIPTION

The structural description of the bedrock mass is based on the Rock Quality Designation (RQD).

The RQD classification is based on a modified core recovery percentage in which all pieces of sound core over 100 mm long are counted as recovery. The smaller pieces are considered to be a result of closely-spaced discontinuities (resulting from shearing, jointing, faulting, or weathering) in the rock mass and are not counted. RQD is ideally determined from NXL size core. However, it can be used on smaller core sizes, such as BX, if the bulk of the fractures caused by drilling stresses (called "mechanical breaks") are easily distinguishable from the normal in situ fractures.

RQD % ROCK QUALITY

90-100	Excellent, intact, very sound
75-90	Good, massive, moderately jointed or sound
50-75	Fair, blocky and seamy, fractured
25-50	Poor, shattered and very seamy or blocky, severely fractured
0-25	Very poor, crushed, very severely fractured

SAMPLE TYPES

SS	-	Split spoon sample (obtained in conjunction with the performing of the Standard
		Penetration Test (SPT))

- TW Thin wall tube or Shelby tube
- PS Piston sample
- AU Auger sample or bulk sample
- WS Wash sample
- RC Rock core sample (Core bit size AXT, BXL, etc.). Rock core samples are obtained with the use of standard diamond drilling bits.

SYMBOLS AND TERMS (continued)

GRAIN SIZE DISTRIBUTION

MC%	-	Natural moisture content or water content of sample, %
LL	-	Liquid Limit, % (water content above which soil behaves as a liquid)
PL	-	Plastic limit, % (water content above which soil behaves plastically)
PI	-	Plasticity index, % (difference between LL and PL)
Dxx	-	Grain size which xx% of the soil, by weight, is of finer grain sizes These grain size descriptions are not used below 0.075 mm grain size
D10	-	Grain size at which 10% of the soil is finer (effective grain size)
D60	-	Grain size at which 60% of the soil is finer
Сс	-	Concavity coefficient = $(D30)^2 / (D10 \times D60)$
Cu	-	Uniformity coefficient = D60 / D10
Cc and	Cu are	used to assess the grading of sands and gravels:

Well-graded gravels have: 1 < Cc < 3 and Cu > 4Well-graded sands have: 1 < Cc < 3 and Cu > 4Well-graded sands have: 1 < Cc < 3 and Cu > 6Sands and gravels not meeting the above requirements are poorly-graded or uniformly-graded. Cc and Cu are not applicable for the description of soils with more than 10% silt and clay (more than 10% finer than 0.075 mm or the #200 sieve)

CONSOLIDATION TEST

p'o	-	Present effective overburden pressure at sample depth
p'c	-	Preconsolidation pressure of (maximum past pressure on) sample
Ccr	-	Recompression index (in effect at pressures below p'c)
Сс	-	Compression index (in effect at pressures above p'c)
OC Ratio		Overconsolidaton ratio = p'c / p'o
Void Ratio	D	Initial sample void ratio = volume of voids / volume of solids
Wo	-	Initial water content (at start of consolidation test)

PERMEABILITY TEST

k - Coefficient of permeability or hydraulic conductivity is a measure of the ability of water to flow through the sample. The value of k is measured at a specified unit weight for (remoulded) cohesionless soil samples, because its value will vary with the unit weight or density of the sample during the test.

SYMBOLS AND TERMS (continued) STRATA PLOT Topsoil Asphalt Peat Sand Silty Sand Fill Δ Sandy Silt Clay Silty Clay Clayey Silty Sand Glacial Till Shale Bedrock

MONITORING WELL AND PIEZOMETER CONSTRUCTION









Certificate of Analysis Client: Paterson Group Consulting Engineers

-

Report Date: 16-Mar-2023

Order Date: 10-Mar-2023

Project Description: PG6604

 Client PO: 56998
 Client ID:
 BH1-23-SS4

 Sample Date:
 09-Mar-23 09:00

 Sample ID:
 2310483-01

 MDL/Units
 Soil

	Sample ID:	2310483-01	-	-	-
	MDL/Units	Soil	-	-	-
Physical Characteristics					
% Solids	0.1 % by Wt.	86.3	-	-	-
General Inorganics				•	
рН	0.05 pH Units	7.85	-	-	-
Resistivity	0.1 Ohm.m	29.9	-	-	-
Anions					
Chloride	10 ug/g dry	80	-	-	_
Sulphate	10 ug/g dry	68	-	_	-

				Log o Project #	f B : 286	or 278	eh	ole	e: BH1	Logg	ged B	y: WT	
		DINCLIN		Project: (Geote	echn	ical	Inve	stigation				
		РИССИИ		Client: Si	acku	Lim	ited						
				Location.	: 118	8 an	d 11	96 (Cummings Avenue, (Ottawa	, Onta	ario	
				Drill Date	: Jan	uary	/ 28,	202	21	Proje	ect M	anagei	r: WT
		SUBSURFACE PROFIL	E						SAMPLE				_
Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-values	SPT N-values	•	Lab Analysis	Moisture (%)	Plasticity Index
0-	xxx	Ground Surface	98.63	T			1						
		Brown sand and gravel, trace silt, trace organics, frozen Brown sand, trace silt, trace shale bedrock, compact, damp	98.17		SS	1	80	8					
1-			97.11	· No Monitoring Well Inst	SS	2	80	13		*****			
2-		Shale Bedrock Blackish brown highly weathered shale bedrock	96.50		SS	3	100	>50					
3-		End of Borehole Borehole terminated at approximately 2.13 mbgs due to auger refusal on weathered shale bedrock. No groundwater was encountered at drilling completion.	- 50.00	Y									
	Cont	ractor: Strata Drilling Group	1	1	1	L	I		Grade Elevatio	n: 98.6	53 m		1
	Drilli	ng Method: Hollow Stem Auger	/ Split	Spoon					Top of Casing	Elevat	tion:	N/A	
	Well	Casing Size: N/A							Sheet 1 of 1				

1	PINCHIN)	Log C Project # Project: Client: S	o f B #: 286 Geote iacku	Or 278 echr Lim	eh nical nited	ole Inve	e: BH2 Lo	gged l	3 <i>y:</i> WT	
			Location	: 118	8 ar	nd 11	196	Cummings Avenue, Otta	wa, On	tario	
			Drill Date	e: Jan	nuar	y 28,	, 202	21 Pr	oject N	lanage	r: WT
-	SUBSURFACE PROFIL	E		1	r—	r—	<u> </u>	SAMPLE			
Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-values	SPT N-values Shear Strength kPa 50 100 150 200	Lab Analysis	Moisture (%)	Plasticity Index
	Ground Surface	98.66	x	_			_				
	Fill Brown sand and gravel, trace silt, frozen Glacial Till Brown silty sand and gravel, compact, damp	98.51		SS	1	100	15				
	Brown sand, trace gravel, trace silt, compact, damp	97.90	Well Installed								
		97.14	vo Monitoring	SS	2	100	19				- 20
- / - /	Trace weathered shale bedrock	57.14		SS	3	100	38				
11		96.53	×								
	End of Borehole Borehole terminated at approximately 2.13 mbgs due to auger refusal on weathered shale bedrock. No groundwater was encountered at drilling completion.										
-											
Con	tractor: Strata Drilling Group	L						Grade Elevation:98	8.66 m		
Drill	ing Method: Hollow Stem Auger	/ Split :	Spoon					Top of Casing Elev	ation:	N/A	
Well	I Casing Size: N/A							Sheet 1 of 1			

				Log c	of B 1: 286	or 5278	eh	ole	e : BH3 Logged By: W	VТ
	7.	DINCLIN		Project:	Geote	echr	nical	Inve	estigation	
		PINCHIN		Client: S	iacku	Lin	ited			
				Location	: 118	8 ar	nd 11	196	Cummings Avenue, Ottawa, Ontario	
				Drill Date	e: Jan	nuar	y 28	, 202	21 Project Manag	ger: W
		SUBSURFACE PROFIL	E						SAMPLE	
uepin (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-values	SPT N-values Shear Strength kPa 50 100 150 200 Shear Strength	Plasticity Index
	~~~	Ground Surface	98.81	T						
		Fill Brown sand and gravel, trace silt, frozen Glacial Till Brown silty sand and gravel, loose, damp	98.61	Î	SS	1	100	7		
	XX	Brown sand, trace gravel, trace silt, loose, damp	98.05	Vell Installed	SS	2	100	9		
		Trace weathered shale bedrock	97.29		SS	3	80	13		
London hand	1	Shale Bedrock Blackish brown highly weathered shale bedrock, wet	96.52 96.07		SS	4	80	<50		
		End of Borehole Borehole terminated at approximately 2.74 mbgs due to auger refusal on weathered shale bedrock. Groundwater measured at approximately 2.30 mbgs, at drilling completion.								
	Cont	ractor: Strata Drilling Group							Grade Elevation: 98.81 m	
Ľ	Drilli	ng Method: Hollow Stem Auger	/ Split S	Spoon					Top of Casing Elevation: N/A	<b>`</b>
									rop of Subing Lievalon. Wr	

		DINICULA	)	Log C Project # Project:	0 <b>† B</b> €: 286 Geote	<b>0</b> 278 echr	eh ical	ole Inve	e: BH4	Logge	ed B	<i>y:</i> WT	
	1	PINCHIN		Client: S	iacku	Lim	ited						
	6			Location	: 118	8 ar	id 11	96 (	Cummings Avenue, (	Ottawa,	Onta	ario	
				Drill Date	e: Jar	uar	y 28,	202	21	Projec	ct Ma	anagei	r: W
		SUBSURFACE PROFIL	E						SAMPLE				
Sumbol	odmoo	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-values	SPT N-values           R         ₽         8           Shear Strength         kPa         50         100         150         200	, Ac	Lau Ailaiyais	Moisture (%)	Plasticity Index
-	$\propto$	Ground Surface	99.43	*	-	-				-	-		
	$\otimes$	Brown silty sand, trace gravel, trace clay, frozen Glacial Till Brown sand and silt some clay, trace gravel, damp, compact	99.23	nstalled	SS	1	100	22		Ну	/d.	18.1	
1	4	Shale Bedrock	98.67	Vell	-		-						
		Blackish brown highly weathered shale bedrock			SS	2	100	40					
					-	-							
			97.45	L T	SS	3	100	>50		9			
		End of Borehole Borehole terminated at approximately 1.98 mbgs due to auger refusal on weathered shale bedrock. No groundwater was encountered at drilling completion.											
Co	ontr	ractor: Strata Drilling Group							Grade Elevatio	<b>n:</b> 99.43	3 m		
Dri	illir	ng Method: Hollow Stem Auger	/ Split	Spoon					Top of Casing	Elevati	on:	N/A	
We	e// (	Casing Size: N/A							Sheet 1 of 1				

(	SUBSURFACE PROFIL	E	Client: S Location Drill Date	iacku : 118 e: Jan	Lim 8 an	ited nd 11 / 28,	96 ( 202	Cummings Avenue, ( 21 SAMPLE	Ottaw Pro	va, Ont o <b>ject M</b>	ario Ianagei	r: W
Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-values	SPT N-values	•	Lab Analysis	Moisture (%)	Plasticity Index
	Ground Surface Asphalt ~ 40 mm Fill Brown sand and gravel, trace silt, frozen	99.44	Ĩ	SS	1	100	47					
	<b>Glacial Till</b> Brown silty sand and gravel, loose, damp	30.00	Vell Installed	SS	2	100	5					
	Very dense, moist	97.92	<ul> <li>No Monitoring V</li> </ul>	SS	3	30	>50		i kang ju			
	Shale Bedrock Blackish brown higly weathered shale bedrock, wet	97.15		SS	4	100	58	<u></u>	44. 4			
	End of Borehole Borehole terminated at approximately 3.05 mbgs due to auger refusal on weathered shale bedrock. Groundwater measured at approximately 2.30 mbgs, at drilling completion.	96.39	¥									
Cont Drilli	ractor: Strata Drilling Group ng Method: Hollow Stem Auger	/ Split :	Spoon					Grade Elevatio Top of Casing	n:99 Elev	).44 m ration:		

	(	PINCHIN	)	Log c Project # Project: Client: S Location Drill Date	<b>f B</b> 286 Geote iacku : 118 e: Jar	278 278 echn Lim 8 ar	eh ical ited id 11 / 28,	<b>0/e</b> Inve 196 (	e <b>: BH6</b> estigation Cummings Avenue, Of 21	Logged : ttawa, On Project I	By: WT tario Manage	<i>r:</i> WT
		SUBSURFACE PROFIL	E						SAMPLE			
Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-values	SPT N-values           SPT N-values           Shear Strength           kPa           50         100         150         200	Lab Analysis	Moisture (%)	Plasticity Index
0	1 1 1 1	Ground Surface Organics ~ 100 mm Glacial Till Brown silty sand, some gravel, some clay, frozen	99.27 99.17		ss	1	80	10				
1		Compact, damp	90.01	onitoring Well Installed	SS	2	90	10		Hyd.	17.8	
2-	1 $1$ $1$ $1$	Brown sand, trace silt, trace gravel, damp	97.44	No Me	SS	3	80	20	· · · · · · · · · · · · · · · · · · ·	· • •		
3		Shale Bedrock Blackish brown higly weathered shale bedrock End of Borehole Borehole terminated at approximately 2.44 mbgs due to auger refusal on weathered shale bedrock. No groundwater was encountered at drilling completion.	96.98 96.83	¥	SS	4	30	>50				
	Cont	ractor: Strata Drilling Group						<u>,                                     </u>	Grade Elevation	:99.27 m		
	Drilli Well	ng Method: Hollow Stem Auger Casing Size: N/A	/ Split :	Spoon					Top of Casing El Sheet 1 of 1	evation:	N/A	



## **APPENDIX 2**

FIGURE 1 - KEY PLAN

FIGURES 2 & 3 - SEISMIC SHEAR WAVE VELOCITY PROFILES

DRAWING PG6604-1 - TEST HOLE LOCATION PLAN



## **FIGURE 1**

**KEY PLAN** 




Figure 2 – Shear Wave Velocity Profile at Shot Location -1.5 m



6



Figure 3 – Shear Wave Velocity Profile at Shot Location 18 m



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### E.2 Phase I Environmental Site Assessment by Paterson Group, March 2023



## Phase I Environmental Site Assessment

1184, 1188 and 1196 Cummings Avenue Ottawa, Ontario

Prepared for TCU Development Corporation

Report: PE5990-1 Date: March 8, 2023



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- Appendix 3 Qualifications of Assessors



### EXECUTIVE SUMMARY

#### Assessment

Paterson Group was retained by TCU Development Corporation to conduct a Phase I-Environmental Site Assessment (ESA) for the properties addressed 1184, 1188 and 1196 Cummings Avenue, in the City of Ottawa, Ontario. The purpose of this Phase I-ESA was to research the past and current use of the Phase I Property and 250m Phase I Study Area, and to identify any environmental concerns with the potential to have impacted the Phase I Property.

According to the historical research and personal interviews, the Phase I Property was first developed with the existing residential dwellings circa 1952. No historical potentially contaminating activities (PCAs) were identified on the Phase I Property.

Based on available historical information, adjacent and surrounding properties within the Phase I Study Area were primarily used for residential and commercial purposes. Historical off-site PCAs include former retail fuel outlets, an automotive service garage and a contractors yard (with an associated underground storage tank). Based on the separation distances and/or down/cross-gradient orientation with respect to the Phase I Property, these PCAs are not considered to result in areas of potential environmental concern (APEC) on the Phase I Property.

Following the historical research, a site visit was conducted. The Phase I Property is currently occupied by a two-storey residential duplex (1184 Cummings Avenue), two vacant one-storey residential dwellings (1188 and 1194 Cummings Avenue) and five outbuildings of various uses. No concerns were identified with the current use of the Phase I Property.

The current uses of the adjacent and neighbouring properties within the Phase I Study Area consists of residential use to the west and north and commercial use to the east and south. A retail fuel outlet was identified at the property addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property. The retail fuel outlet is not considered to represent an environmental concern to the Phase I Property based on the results of the 2019 Phase II ESA conducted on the 1188 and 1196 portions of the Phase I Property. Based on the separation distances and/or down/cross-gradient orientation with respect to the Phase I Property, remaining existing PCAs in the Phase I Study Area are not considered to result in areas of potential environmental concern (APEC) on the Phase I Property.

Based on the findings of the Phase I ESA, it is our opinion that a Phase II-Environmental Site Assessment is not required for the Phase I Property.



## 1.0 INTRODUCTION

At the request of the TCU Development Corporation, Paterson Group (Paterson) conducted a Phase I-Environmental Site Assessment (Phase I-ESA) for the properties addressed 1184, 1188 and 1196 Cummings Avenue, in the City of Ottawa, Ontario. The purpose of this Phase I-ESA was to research the past and current use of the Phase I Property and properties within the Phase I Study Area to identify any potentially contaminating activities (PCAs) that would result in areas of potential environmental concern (APECs) on the subject land.

Paterson was engaged to conduct this Phase I-ESA by Mr. Dylan Desjardins with TCU Development Corporation. Mr. Desjardins can be reached by telephone at (613)-725-4722.

This report has been prepared specifically and solely for the above noted project which is described herein. It contains all our findings and results of the environmental conditions at this site.

This Phase I-ESA report has been prepared in general accordance with Ontario Regulation (O.Reg.) 153/04, as amended, under the Environmental Protection Act, and CSA Z768-01 (reaffirmed 2022). The conclusions presented herein are based on information gathered from a limited historical review and field inspection program. The findings of the Phase I-ESA are based on a review of readily available geological, historical and regulatory information and a cursory review made at the time of the field assessment. The historical research relies on information supplied by others, such as, local, provincial and federal agencies and was limited within the scope-of-work, time and budget of the project herein.



## 2.0 PHASE I PROPERTY INFORMATION

Address:	1184, 1188 and 1196 Cummings Avenue, Ottawa, Ontario.					
Legal Description:	Part of Lot 1, Registered Plan 4R-26865; in the City of Ottawa, Ontario.					
Property Identification						
Number (PIN):	04265-0025, 04265-0026, 04265-0027					
Location:	The Phase I Property is located on the west side of Cummings Avenue, approximately 45 m north of Ogilvie Road, in the City of Ottawa, Ontario. For the purposes of this report, Cummings Avenue is assumed to run north-south. Refer to Figure 1 - Key Plan in the Figures section following the text.					
Latitude and Longitude:	45° 25' 36" N, 75° 37' 57" W					
Site Description:						
Configuration:	Rectangular					
Area:	0.35 ha (approximate)					
Zoning:	R3 – Residential Third Density Zone					
Current Use:	The Phase I Property is currently occupied by three residential dwellings, two of which are vacant.					
Services:	The Phase I Property is situated in a municipally serviced area.					



## **3.0 SCOPE OF INVESTIGATION**

The scope of work for this Phase I – Environmental Site Assessment was as follows:

- Determine the historical activities on the subject site and study area by conducting a review of readily available records, reports, photographs, plans, mapping, databases, and regulatory agencies;
- □ Investigate the existing conditions present at the subject site and study area by conducting site reconnaissance;
- □ Conduct interviews with persons knowledgeable of current and historic operations on the subject properties, and if warranted, neighbouring properties;
- Present the results of our findings in a comprehensive report in general accordance with the requirements of O.Reg. 153/04, as amended, under the Environmental Protection Act, and CSA Z768-01 (reaffirmed 2022);
- □ Provide a preliminary environmental site evaluation based on our findings;
- □ Provide preliminary remediation recommendations and further investigative work if contamination is suspected or encountered.



## 4.0 RECORDS REVIEW

#### 4.1 General

#### Phase I-ESA Study Area Determination

A radius of approximately 250m was determined to be appropriate as a Phase I Study Area for this assessment. Properties outside the 250m radius are not considered to have impacted the Phase I Property, based on their significant distance from the Phase I Property.

#### First Developed Use Determination

Based on a review of available historical information, the Phase I Property was first developed for residential purposes circa 1952.

#### Fire Insurance Plans

Fire insurance plans (FIPs) are not available for the area of the Phase I Property or the surrounding lands.

#### **City of Ottawa Street Directories**

City directories at the National Archives were reviewed in approximate 10-year intervals from 1935 to 2011 as part of the Phase I-ESA.

The three parcels that comprise the Phase I Property were first listed in 1970 as residential dwellings and have remained as such since that time. No concerns were identified with the historical use of the Phase I Property.

Surrounding properties in the Phase I Study Area were historically listed as residential dwellings and commercial businesses.

Potentially contaminating activities identified from a review of the City Directories are listed in Table 1.



Table 1 - Potentially Contaminating Activities   City Directories Review Summary										
Listing	Address	Approx. Distance from Phase I Property	Years Listed	Potentially Contaminating Activity	Represents an Area of Potential Environmental Concern (Y/N)					
Calex Service Station / Global Fuels Inc.	1111 Ogilvie Road	Adjacent to South	1975, 1980, 1990, 2000, 2011	<i>"Item 28: Gasoline and Associated Products Storage in Fixed Tanks"</i>	Ν					
Atlas Welding and Equipment Rentals	1091 Cummings Avenue	20 m E	1970, 1980, 1992	"Item 28: Gasoline and Associated Products Storage in Fixed Tanks"	Ν					
Top Value Gas Mart / Pioneer Petroleums	1134 Ogilvie Road	80 m SE	1980, 1990, 2000, 2011	"Item 28: Gasoline and Associated Products Storage in Fixed Tanks"	Ν					
Kenoco Gas Mart	1110 Ogilvie Road	80 m S	1970	"Item 28: Gasoline and Associated Products Storage in Fixed Tanks"	Ν					
Latremouille Fuels	1151 Ogilvie Road	85 m E	1980	"Item 28: Gasoline and Associated Products Storage in Fixed Tanks"	Ν					
Top Stop Gas Station	1154 Ogilvie Road (present day 1150 Ogilvie Road)	105 m SE	1990	"Item 28: Gasoline and Associated Products Storage in Fixed Tanks"	Ν					
Tremblay Auto Repair / Auto Choice 417 Inc.	1129 - 1133 Cyrville Road	165 m S	1980, 2011	"Item 52: Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems"	N					
One Stop Laundromat & Dry Cleaner	1099 Cyrville Road	175 m SW	2011	"Item 37: Operation of Dry Cleaning Equipment (where chemicals are used)"	Ν					
Manis Metal Manufacturing Ltd.	1120 Cummings Avenue	180 m N	1970, 1980, 1992	"Item N/A: Commercial Machine Shop"	N					
Sk Auto Repair	1057 Cyrville Road	210 m SW	2011	"Item 52: Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems"	N					



The property addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property, has been listed as various retail fuel outlets since the mid 1970's. As further discussed in the Previous Engineering Reports section of this report, the historic/existing function of the 1111 Ogilvie Road property is not considered to represent an environmental concern to the Phase I Property based on the results of the 2019 Phase II ESA (conducted on the 1188 and 1196 portions of the Phase I Property).

The property addressed 1091 Cummings Avenue, approximately 20 m east of the Phase I Property, was listed as Atlas Welding and Equipment Rental from the 1970's to the mid 1990's. As further discussed in the Environmental Risk Information Service (ERIS) Report section of this report, an underground fuel storage tank was historically present on the 1091 Cummings Avenue property, however based on the separation distance of the activities of concern and the extensive redevelopment of the property, the former use of the 1091 Cummings Avenue property is not considered to represent an environmental concern on the Phase I Property.

The remaining off-site historical PCAs are not considered to represent areas of potential environmental concern (APECs) based on the separation distances and/or down-or-cross gradient orientation with respect to the Phase I Property. Historical PCAs identified in the City of Ottawa Street Directories review are shown on Drawing PE5990-2- Surrounding Land Use Plan.

#### **Chain of Title**

Given the available information, it was determined that the results of a chain of title search would not contribute to the environmental assessment for the Phase I Property. Therefore, a chain of title search was not completed as part of this assessment.

#### **Plan of Survey**

A plan of survey for the Phase I Properly, prepared by Annis, O'Sullivan Vollebekk Limited was reviewed as part of the Phase I ESA. The plan shows the Phase I Property in its current configuration. A copy of the topographic plan of survey is provided in Appendix 1.



#### **Previous Environmental Reports**

□ *"Phase I Environmental Site Assessment, 1188 and 1196 Cummings Avenue,* Ottawa, Ontario", prepared by Pinchin Ltd., dated August 29, 2019.

A Phase I ESA was conducted on the portions of the Phase I Property addressed 1188 and 1196 Cummings Avenue in August of 2019. The Phase I ESA did not identify any environmental concerns with regard to the historical or current use of the Phase I Property. A retail fuel outlet was identified on the property addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property. Pinchin recommended a Phase II ESA to address potential impacts resulting from the retail fuel outlet located at 1111 Ogilvie Road, adjacent to the south of the Phase I Property.

□ *"Phase II Environmental Site Assessment, 1188 and 1196 Cummings Avenue,* Ottawa, Ontario", prepared by Pinchin Ltd., dated October 3, 2019.

A Phase II ESA was conducted on the portions of the Phase I Property addressed 1188 and 1196 Cummings Avenue in September and October of 2019. As part of the Phase II ESA, two boreholes outfitted with monitoring wells (MW1 and MW2) were drilled on the 1196 Cummings Avenue property. Soil and groundwater samples were submitted for analysis of petroleum hydrocarbons (PHCs), volatile organic compounds (VOCs) and/or polycyclic aromatic hydrocarbons (PAHs). Test results were compared to and comply with the MECP Table 3 Standards for residential/parkland/institutional land use. Based on the findings of the 2019 Phase II ESA, no further work was recommended.



 "Phase I Environmental Site Assessment, 1184, 1188 and 1196 Cummings Avenue, Ottawa, Ontario", prepared by Pinchin Ltd., dated January 20, 2023.

At the time of the assessment, the Phase I Property was developed with two, single-storey residential dwellings and a two-storey multi-tenant residential dwelling. The Phase I ESA did not identify any environmental concerns with regard to the historical or current use of the Phase I Property. The retail fuel outlet previously identified on the property addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property was not considered to represent an environmental concern to the Phase I Property based on the results of the 2019 Phase II ESA (conducted on the 1188 and 1196 portions of the Phase I Property). A second retail fuel outlet was identified at the property addressed 1134 Ogilvie Road, approximately 80 m southeast of the Phase I Property. Based on the separation distance and down-gradient orientation with respect to the Phase I Property, the retail fuel outlet located at 1134 Ogilvie Road was not considered to represent an environmental concern to the Phase I Property. No further work was recommended as a result of the 2023 Phase I ESA.

#### 4.2 Environmental Source Information

#### **Environment Canada**

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on February 27, 2023. No records were found in the NPRI database for properties within the Phase I Study Area.

#### PCB Inventory

A search of provincial PCB waste storage sites was conducted. No PCB waste storage sites were identified within the Phase I Study Area.

#### Areas of Natural Significance

A search for areas of natural significance and features within the Phase I Study Area was conducted on the website of the Ontario Ministry of Natural Resources (MNR) on February 27, 2023. The search did not reveal any areas of natural significance within the Phase I Study Area.



# Ministry of the Environment, Conservation and Parks Freedom of Information Request

A request was submitted to the MECP FOI office for information with respect to reports related to environmental conditions for the properties. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

#### **MECP Instruments**

A request was submitted to the MECP Freedom of Information (FOI) office for information with respect to certificates of approval, permits to take water, certificates of property use or any other similar MECP issued instruments for the site. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

#### MECP Waste Management Records

A request was submitted to the MECP FOI office for information with respect to waste management records. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

#### **MECP Submissions**

A request was submitted to the MECP FOI office for information with respect to reports related to environmental conditions for the Phase I Property. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

#### **MECP Incident Reports**

A request was submitted to the MECP FOI office for information with respect to records concerning environmental incidents, orders, offences, spills, discharges of contaminants, inspections maintained by the MECP the for Phase I Property or neighbouring properties. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.



#### **MECP Brownfields Environmental Site Registry**

A search of the MECP Brownfields Environmental Site Registry (ESR) was conducted as part of this assessment for the site, neighbouring properties and the general area of the site. No record of site condition (RSC) was identified for the Phase I Property or properties within the Phase I Study Area.

#### MECP Waste Disposal Site Inventory

The Ontario Ministry of Environment document titled "Waste Disposal Site Inventory in Ontario, 1991" was reviewed as part of the historical research. This document includes all recorded active and closed waste disposal sites, industrial manufactured gas plants and coal tar distillation plants in the Province of Ontario. There are no former waste disposal sites listed in this document within the Phase I Study Area.

#### Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto, was contacted electronically on February 27, 2023 to inquire about current and former underground/aboveground storage tanks, spills, and incidents for the subject and neighbouring properties. response from the TSSA indicated that no records were identified pertaining to the Phase I Property.

The property addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property, contains three records for expired full-service retail fuel outlets, one record for an active self-serve retail fuel outlet and six records for active liquid fuel tanks. Given the results of the Phase II ESA conducted on the 1188 and 1196 Cummings Avenue in 2019, the presence of the existing retail fuel outlet at 1111 Ogilvie Road, adjacent to the south of the Phase I Property, is not considered to represent an environmental concern to the Phase I Property.

#### City of Ottawa Historical Land Use Inventory (HLUI)

A request for a search of the City of Ottawa's Historical Land Use Inventory (HLUI) database was submitted to the City of Ottawa. A response had not been received at the time of issuing this report. A copy of the search results will be forwarded to the client upon receipt. A copy of the HLUI request form is provided in Appendix 2.

#### City of Ottawa Landfill Document

The document prepared by Golder Associates entitled "Old Landfill Management Strategy, Phase I - Identification of Sites, City of Ottawa", was reviewed. No former landfills were identified within the Phase I Study Area.



#### **Environmental Risk Information Service (ERIS) Report**

An ERIS (Environmental Risk Information Service) Report was obtained for the Phase I Property and surrounding lands. The ERIS report includes information that can normally be obtained through the MECP FOI, a TSSA search, MECP well records search as well as several other records (i.e., incident reports, waste generators, etc.). The ERIS search identified two records for the Phase I Property (one of which is a previous ERIS search) and 170 records for the surrounding properties within the Phase I Study Area (11 of which are previous ERIS searches), several of which are associated with the properties addressed 1111 Ogilvie Road (adjacent to the south), 1134 Ogilvie Road (80 m southeast) and 1154 Ogilvie Road (105 m southeast) and their historic/existing functions as retail fuel outlets.

The ERIS report identified one well record for the Phase I Property. The well records for the Phase I Property and for properties within the Phase I Study Area are further discussed in the Water Well Records section of this assessment.

The ERIS report identified 51 Waste Generator records for properties within the Phase I study area, several of which are associated with the properties addressed 1111 Ogilvie Road (adjacent to the south), 1134 Ogilvie Road (80 m southeast) and 1154 Ogilvie Road (alternatively addressed 1150 Ogilvie Road) (105 m southeast) and their historic/existing functions as retail fuel outlets. The waste classes documented include light fuels, oil skimmings, waste oils and lubricants, etc. As previously discussed, the historic/existing function of the 1111 Ogilvie Road property is not considered to represent an environmental concern to the Phase I Property based on the results of the 2019 Phase II ESA (conducted on the 1188 and 1196 portions of the Phase I Property). Several remaining waste generator records are associated with PCAs previously identified within the Phase I Study Area, however, due to their respective separation distances and/or cross/downgradient orientation with respect to the Phase I Property these PCAs are not considered to represent APECs. Remaining waste generator records identified in the ERIS report are not considered to represent PCAs based on information contained within the records.



The ERIS report identified four Scott's Manufacturing Directory records for properties within the Phase I Study Area. Three of which pertain to the property addressed 1120 Cummings Avenue, approximately 180 m north of the Phase I Property. The records list a metal window and door manufacturing facility. Based on the separation distance and cross-gradient orientation with respect to the Phase I Property, the function of the 1120 Cummings Avenue property is not considered to represent an environmental concern on the Phase I Property. The remaining Scott's Manufacturing Directory record identified in the ERIS report is not considered to represent a PCA based on information contained within the record.

The ERIS report identified various records pertaining to both current and historic fuel oil tanks. Several records for underground fuel storage tanks were identified for the property addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property, all of which pertain to its function as a retail fuel outlet since as early as 1977 (based on the records in the ERIS report). As previously discussed, the historic/existing function of the 1111 Ogilvie Road property is not considered to represent an environmental concern to the Phase I Property based on the results of the 2019 Phase II ESA (conducted on the 1188 and 1196 portions of the Phase I Property). Historic fuel tank records were identified for the property addressed 1091 Cummings Avenue, 20 m east of the Phase I Property, stating that a liquid fuel single wall underground storage tank installed in 1985 was removed in August, 2007. Based on aerial photos from this time, the activities of concern on the 1091 Cummings Avenue property would have occurred a minimum of 40 m from the Phase I Property, therefore, based on the separation distance of the activities of concern and the extensive redevelopment of the property, the former use of the 1091 Cummings Avenue property is not considered to represent an environmental concern on the Phase I Property. Several records for underground fuel storage tanks were identified for the property addressed 1134 Ogilvie Road, approximately 80 m southeast of the Phase I Property, all of which pertain to its function as a retail fuel outlet since as early as 1991 (based on the records in the ERIS report). Several records for underground fuel storage tanks were identified for the property addressed 1154 Ogilvie Road, approximately 105 m southeast of the Phase I Property, all of which pertain to its former function as a retail fuel outlet since as early as 1990 (based on the records in the ERIS report). Based on the listed separation distance and/or cross/down-gradient orientation with respect to the Phase I Property, the function of the properties associated with the various fuel records are not considered to pose an environmental concern to the Phase I Property



The ERIS report identified five Ontario Spill records for properties within the Phase I study area. Two of the records identified pertain to unknown addresses on Cummings Avenue south of Ogilvie Road. The two records dated June 1992 and February 2004 pertain to minimal spills of hydraulic oil and diesel fuel, respectively. Based on the listed description of the spills and the unknown specific location, these records are not considered to pose a concern to the Phase I Property. One Ontario spill record was identified for the property addressed 1111 Ogilvie Road (adjacent to the south), occurring in August, 2016, the record is for a 0.5 L spill of coolant to a catch basin. Two Ontario spill records were identified for the property addressed 1134 Ogilvie Road (80 m southeast), occurring in March, 2001 and June, 2014, both records were for minimal spills of diesel fuel to the ground. Due to the listed description of the Ontario spill records, the respective separation distance and/or the down/cross-gradient orientation with respect to the Phase I Property, these records are not considered to pose an environmental concern to the Phase I Property.

The ERIS report identified three various incident records. Two of which pertain to natural gas leaks and are not considered to represent an environmental concern. The remaining incident record pertains to a gasoline spill of an unknown amount on the 1134 Ogilvie Road property, approximately 80 m southeast of the Phase I Property, in October of 2014. No remaining pertinent information was listed in the record. Given the lack of information contained in the record in combination with the separation distance from the Phase I Property, the Fuel Oil Spills and Leaks record for the 1134 Ogilvie Road property is not considered to represent an environmental concern.

The ERIS report identified 23 well records (and one borehole record), which are further discussed in the water well records section of this report.

The ERIS report identified seven certificates of approval and environmental compliance approvals for properties within the Phase I Study Area. The records are limited to air, sewer and water works and are not considered to pose an environmental risk to the Phase I Property.

#### 4.3 Physical Setting Sources

#### Aerial Photographs

Historical air photos from the National Air Photo Library were reviewed in approximate ten (10) year intervals. Based on the review, the following observations have been made:



- 1945 (Poor Quality) The Phase I Property appears to be vacant and undeveloped land at this time. Surrounding properties consist primarily of vacant and agricultural land with occasional farmsteads to the east and further south. Ogilvie Road has been developed approximately 40 m south of the Phase I Property at this time.
- 1952 (Poor Quality) The Phase I Property has been developed with the three existing residential dwellings. Residential development has occurred on the surrounding properties. Cummings Avenue has been developed adjacent to the east of the Phase I Property at this time.
- 1965 (City of Ottawa website) No significant changes are apparent with respect to the Phase I Property or the surrounding properties.
- 1976 (City of Ottawa website) No significant changes are apparent with respect to the Phase I Property. A retail fuel outlet has been developed on the property adjacent to the south of the Phase I Property (1111 Ogilvie Road). A commercial plaza has been developed approximately 20 m east of the Phase I Property.
- 1991 (City of Ottawa website) An outbuilding has been developed on the west portion of the 1196 Cummings Avenue portion of the Phase I Property. The property approximately 75 m southeast of the Phase I Property, across Ogilvie Road, has been developed with a retail fuel outlet. Significant residential development has occurred further north and west of the Phase I Property with some commercial development further to the southwest and southeast.
- 2002 (City of Ottawa website) The 1188 Cummings Avenue portion of the Phase I Property appears to have been stripped of topsoil and a granular parking area is present to the west and south of the residential dwelling. No significant changes are apparent with respect to the surrounding properties.
- 2011 (City of Ottawa website) An outbuilding has been developed on the north portion of the 1188 Cummings Avenue portion of the Phase I Property. The retail fuel outlet adjacent to the south of the Phase I Property has been further developed with a car wash. Residential development has continued to the northeast of the Phase I Property.
- 2021 (City of Ottawa website) No significant changes are apparent with respect to the Phase I Property or the surrounding properties.



Laser copies of selected aerial photographs reviewed are included in Appendix 1.

#### Physiographic Maps

A Physiographic Map was reviewed from the Natural Resources Canada – The Atlas of Canada website. According to this physiographic map, the site is located in the St. Lawrence Lowlands. According to the mapping description provided: "The lowlands are plain-like areas that were all affected by the Pleistocene glaciations and are therefore covered by surficial deposits and other features associated with the ice sheets." The Phase I Property is located in the Central St. Lawrence Lowland, which is generally less than 150 m above sea level.

#### **Topographic Maps**

Topographic maps were obtained from Natural Resources Canada – The Atlas of Canada website and from the City of Ottawa website. The topographic map depicts topography in the area of the Phase I Property sloping gently downward to the west towards the Rideau River. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report.

#### **Geological Maps**

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on the information from NRCAN, bedrock in the area of the site consists of shale of the Billings Formation. Based on the maps, the surficial geology consists of till with an overburden thickness ranging from 1 to 5 m.

#### Water Well Records

A search of the MECP's web site for all drilled well records within 250 m of the Phase I Property was conducted on February 27, 2023. The search identified two well records for the portion of the Phase I Property addressed 1196 Cummings Avenue. The monitoring wells were drilled in 2019 to depths ranging from 6.1 to 7.0 m below ground surface (mbgs). The soil profile was reported to consist of topsoil underlain by sand with stones. Shale bedrock was encountered at a depth of 2.4 m below ground surface in both wells. The wells were installed as part of the 2019 Phase II ESA as discussed in the Previous Engineering Reports section of this assessment.

A total of 40 well records were identified for surrounding properties within the Phase I Study Area. The reported wells records were dated between 1948 and 2020.



Five records were identified for monitoring wells drilled in 2014, at the property addressed 1134 Ogilvie Road, approximately 80 m southeast of the Phase I Property, where an existing retail was identified. The wells were drilled to depths ranging from 2.8 to 4.6 m below ground surface (mbgs). The soil profile was generally reported to consist of gravel fill, underlain by a silty clay. Bedrock was not encountered at these depths. No other pertinent information was provided in these records.

Four well records were identified at the property addressed 1150 Ogilvie Road, approximately 105 m southeast of the Phase I Property, adjacent to the east of the aforementioned existing retail fuel outlet (at 1134 Ogilvie Road). Two of the records pertain to domestic wells installed in the late 1950's. The remaining two records pertain to monitoring wells installed in 2010. The wells were drilled to depths ranging from 3.1 to 4.3 m below ground surface (mbgs). The soil profile was reported to consist of sand with clay and gravel underlain by sand. Bedrock was not encountered at these depths. No other pertinent information was provided in these records.

The remaining records were identified as domestic wells or pertain to wells approximately 100 m or more away from the Phase I Property and are not considered to pose an environmental concern to the Phase I Property. Given the introduction of municipal water services since the installation of these domestic wells, it is our opinion that there are no domestic supply wells in service within the Phase I Study Area. Based on the well records, the stratigraphy in the general area of the Phase I Property consists of silty sand or clay underlain by shale bedrock encountered at depths ranging from approximately 0.61 to 7.6m below grade. A copy of the well records has been included in Appendix 2.

## 5.0 INTERVIEWS

#### **Property Owner Representatives**

Mr. Brendan Kuffner, with TCU Development Corporation, was interviewed via email correspondence as part of this assessment. Mr. Kuffner indicated that to his knowledge the Phase I Property was developed with the existing residential dwellings in the early 1950's and that the property has been used strictly for residential purposes since that time. Mr. Kuffner stated that he was unaware of any environmental concerns with regard to the Phase I Property, besides those addressed as part of previous environmental investigations. Mr. Kuffner was unaware of any asbestos/hazardous building materials assessment previously conducted for the subject buildings.



The information obtained through the interview with Mr. Kuffner is considered to be consistent with site information obtained from other sources (aerial photos, ERIS Database Report and site observations) and is considered to be valid.

## 6.0 SITE RECONNAISSANCE

#### 6.1 General Requirements

A site visit was conducted on March 7, 2023, by Mr. Jeremy Camposarcone with the Environmental Department of Paterson Group. In addition to the site, the uses of neighbouring properties within the Phase I Study Area were assessed at the time of the site visit from publicly accessible areas.

#### 6.2 Specific Observations at the Phase I Property

#### **Buildings and Structures**

The Phase I Property is currently occupied by a two-storey residential duplex (1184 Cummings Avenue), two vacant one-storey residential dwellings (1188 and 1194 Cummings Avenue) and five outbuildings of various uses.

The two-storey residential duplex addressed 1184 Cummings Avenue is finished on the exterior with brick, and vinyl siding in addition to a sloped and shingled style roof. Constructed circa 1952, the building is constructed with a concrete foundation and is currently heated and cooled via a combination of natural gas-and electric means.

A storage shed is present to the west of the residential duplex on the 1184 Cummings Avenue property. The storage shed is constructed with a wood frame, plywood walls and flooring, in addition to a sloped weather-proof membrane roof. The storage shed has been outfitted to be used as a leisure space with full electricity.

A second storage shed is present on the northwest corner of the 1184 Cummings Avenue property. The second storage shed is constructed with a wood frame, plywood walls and a sloped and shingled style roof. The second storage shed was used to store various household items and yard maintenance equipment at the time of the site inspection.



The vacant one-storey (with one basement level) residential dwelling addressed 1188 Cummings Avenue is finished on the exterior with vinyl siding and concrete block in addition to a sloped and shingled style roof. Constructed circa 1952, the building is constructed with a concrete foundation and is not currently serviced. However, natural gas services were noted to be present on the exterior of the subject building and assumed to be the most recent means of heating and cooling for the building.

The vacant one-storey (with one basement level) residential dwelling addressed 1196 Cummings Avenue is finished on the exterior with vinyl siding and pebble stucco in addition to a sloped and shingled style roof. Constructed circa 1952, the building is constructed with a concrete foundation and is not currently serviced. However, natural gas services were noted to be present on the exterior of the subject building and assumed to be the most recent means of heating and cooling for the building.

A storage shed is present to the west of the residential duplex on the 1196 Cummings Avenue property. The storage shed is constructed with a wood frame and is finished on the exterior with vinyl siding in addition to sloped and shingled style roof. The storage shed has been outfitted to be used as a leisure space with full electricity. The storage shed was used for the storage of miscellaneous items at the time of the site inspection.

Two small storage sheds are present on the southwest corner of the 1196 Cummings Avenue property. Both of which are constructed with metal siding and sloped and shingled style roofs. The two storage sheds were used for the storage of miscellaneous items at the time of the site inspection.

No other buildings or permanent structures are present on the Phase I Property.

#### Subsurface Structures and Utilities

The Phase I Property is situated in a municipally serviced area. Underground utility services on the subject land include natural gas, electricity, cable, water and sewer services. Services enter the Phase I Property from Cummings Avenue.

No subsurface structures, potable wells or private sewage systems were observed on the Phase I Property at the time of the site visit.



#### Site Features

The subject buildings occupy the northeast, east-central and southeast portions of the Phase I Property, with the remainder consisting of gravel parking areas and landscaped areas. At the time of the site visit, no evidence of fill material, spills, staining, stressed vegetation, or visual or olfactory evidence of contamination were noted.

No other fuels or chemicals, or signs of ASTs or USTs were observed on the exterior of the property at the time of the site inspection.

Site drainage typically occurs through infiltration and sheet flow to catch basins located along Cummings Avenue. The Phase I Property has a gentle slope to the east and is slightly above the grade of Cummings Avenue. The regional topography slopes down to the west towards the Rideau River. Groundwater within the Phase I Study Area is generally expected to flow towards the west.

Site features are presented on Drawing PE5990-1 – Site Plan, provided in the Figures section following the text.

#### Potential Environmental Concerns

#### **Given Storage Fuels and Chemical Storage**

No aboveground storage tanks (ASTs) or signs of underground storage tanks (USTs) were observed on the exterior of the Phase I Property at the time of the site inspection.

#### **Waste Management**

Solid, non-hazardous waste is stored in containers along the exterior of the west face of the 1184 Cummings Avenue property and is collected by a licensed contractor on a regular basis. No waste is currently generated on the 1188 and 1196 Cummings Avenue portions of the Phase I Property. No environmental concerns were identified with respect to waste management practices on the Phase I Property.

#### Fill Material

No evidence of fill material was observed on the exterior of the Phase I Property at the time of the site inspection.



#### **D** Polychlorinated Biphenyls (PCBs) and Transformer Oil

No potential sources of PCBs or transformer oil were observed on the exterior of the Phase I Property at the time of the site inspection.

#### **Interior Assessment**

A general description of the residential dwelling at 1184 Cummings Avenue is as follows:

- Floors consist of poured concrete, ceramic tile, carpet, and laminate;
- Walls consist of concrete blocks or drywall;
- Ceilings consist of drywall or exposed wood joists;
- Lighting is provided by fluorescent and incandescent fixtures.

Heating throughout the building is provided by a natural gas-fired boiler located in the basement. No drains, pits or sumps were observed on the interior of the subject building at the time of the site inspection. No aboveground storage tanks (ASTs) or signs of underground storage tanks (USTs) were observed on the interior of the property at the time of the site visit.

A general description of the residential dwelling at 1188 Cummings Avenue is as follows:

- Floors consist of concrete, hardwood, vinyl tiles, laminate and ceramic tiles;
- □ Walls consist of drywall and wood panelling;
- Ceilings are finished with suspended ceiling tiles, drywall and stippled plaster;
- Lighting is provided by fluorescent and incandescent fixtures.

An out-of-service natural gas fired furnace and water heater were identified in the basement of the 1188 Cummings Avenue residential dwelling. No drains, pits or sumps were observed on the interior of the subject building at the time of the site inspection. No aboveground storage tanks (ASTs) or signs of underground storage tanks (USTs) were observed on the interior of the property at the time of the site visit. Water damaged ceilings and suspected mould growth were observed in the 1188 Cummings Avenue residential dwelling.



A general description of the residential dwelling at 1196 Cummings Avenue is as follows:

- Floors consist of hardwood, vinyl tiles and linoleum;
- □ Walls consist of concrete block and drywall;
- Ceilings are finished with drywall and stippled plaster;
- Lighting is provided by fluorescent and incandescent fixtures.

An out-of-service natural gas fired furnace and water heater were identified in the basement of the 1196 Cummings Avenue residential dwelling. No drains, pits or sumps were observed on the interior of the subject building at the time of the site inspection. No aboveground storage tanks (ASTs) or signs of underground storage tanks (USTs) were observed on the interior of the property at the time of the site visit.

#### Potentially Hazardous Building Products

#### □ Asbestos-Containing Materials (ACMs)

Based on the age of the subject buildings (circa 1952), potential ACMs identified at the time of the site inspection include pebble stucco, vinyl floor tiles, linoleum flooring, drywall joint compound, stippled plaster and suspended ceiling tiles. The materials in the 1184 Cummings Avenue residential dwelling were observed to be in good condition at the time of the site inspection and do not pose an immediate concern.

#### Lead-Based Paints (LBPs)

Based on the age of the subject buildings (circa 1952), LBPs may be present within the structures on original or older painted surfaces. Painted surfaces in the 1184 Cummings Avenue residential dwelling were generally observed to be in good condition at the time of the site inspection, and do not pose an immediate concern.

#### Polychlorinated Biphenyls (PCBs) and Transformer Oil

No concerns with respect to PCBs or transformer oil were identified within the subject buildings at the time of the site inspection.

#### Urea Formaldehyde Foam Insulation (UFFI)

No signs of UFFI were noted at the time of the site visit, although wall and ceiling cavities were not inspected.



#### **Other Potential Environmental Concerns**

#### **Gamma** Fuel and Chemical Storage

The subject buildings are heated with either natural gas-fired equipment and/or electrical baseboard heaters. No evidence of ASTs or USTs was observed on the Phase I Property at the time of the site visit.

No chemicals, with the exception of common household cleaning and maintenance chemicals, were observed within the subject buildings.

#### Wastewater Discharge

Wastewater discharged from the portion of the Phase I Property addressed 1184 Cummings Avenue includes wash water and sewage. No wastewater is currently generated at the 1188 and 1196 Cummings Avenue properties. No concerns were noted with regard to wastewater discharge at the Phase I Property.

#### Ozone Depleting Substances (ODSs)

Potential sources of ODSs observed on-site include refrigerators, fire extinguishers, and exterior air conditioner units.

These appliances were noted to be in good condition at the time of the site inspection and should be regularly serviced by a licensed contractor on a regular basis.

#### **Neighbouring Properties**

An inspection of the neighbouring properties was conducted from publicly accessible areas at the time of the site visits. Land use adjacent to the Phase I Property was as follows:

- North Weldon Drive, followed by a community building and residential dwellings;
- □ South a retail fuel outlet, followed by Ogilvie Road and vacant land;
- East Cummings Avenue, followed by a commercial plaza and residential dwellings;
- □ West Residential dwellings, followed by Murdock Gate.



Land use within the Phase I Study generally consists of residential use to the west and north and commercial use to the east and south. As previously discussed, the retail fuel outlet addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property, is not considered to represent an environmental concern to the Phase I Property based on the results of the 2019 Phase II ESA (conducted on the 1188 and 1196 portions of the Phase I Property).

Current land use and PCAs identified in the Phase I Study Area are presented on Drawing PE5990-2 – Surrounding Land Use Plan.

## 7.0 REVIEW AND EVALUATION OF INFORMATION

#### 7.1 Current and Past Uses

Based on city directories, aerial photographs and personal interviews, the Phase I Property was first developed with the existing residential dwellings circa 1952.

#### Potentially Contaminating Activities (PCAs)

No historical or existing potentially contaminating activities were identified on the Phase I Property.

A total of 10 off-site PCAs (existing and historical) were identified within the Phase I Study Area but are not considered to result in APECs on the Phase I Property due to their respective separation distances and/or cross/down-gradient orientations with respect to the Phase I Property. The retail fuel outlet addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property, is not considered to represent an environmental concern to the Phase I Property based on the results of the 2019 Phase II ESA (conducted on the 1188 and 1196 portions of the Phase I Property).

All PCAs identified within the Phase I Study Area are presented on Drawing PE5990-2 – Surrounding Land Use Plan in the Figures section of the report, following the text.

#### Areas of Potential Environmental Concern (APECs)

No areas of potential environmental concern were identified on the Phase I Property.



#### **Contaminants of Potential Concern (CPCs)**

Since no APECs were identified there are no contaminants of potential concern identified on the Phase I Property.

#### 7.2 Conceptual Site Model

#### **Geological and Hydrogeological Setting**

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on the information from NRCAN, bedrock in the area of the site consists of shale of the Billings Formation. Based on the maps, the surficial geology consists of till with an overburden thickness ranging from 1 to 5 m.

The topographic maps indicate that the regional topography in the general area of the Phase I Property sloping gently downward to the west towards the Rideau River. Groundwater within the Phase I Study Area is generally expected to flow towards the west.

Topographic maps were obtained from Natural Resources Canada – The Atlas of Canada website and from the City of Ottawa website. The topographic map depicts topography in the area of the Phase I Property sloping gently downward to the west towards the Rideau River. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report.

#### **Fill Placement**

No evidence of fill material was observed on the exterior of the Phase I Property at the time of the site inspection.

#### Water Bodies and Areas of Natural Significance

No areas of natural significance or water bodies were identified on the Phase I Property or within the Phase I Study Area.

#### Drinking Water Wells

Records of historical potable wells were identified for properties within the Phase I Study Area. These wells are considered to have been abandoned and no longer in use; the Phase I Property and properties within the Phase I Study Area are currently provided with municipal services.



#### **Monitoring Wells**

A total of 40 well records were identified within he Phase I Study Area. Two monitoring well records were identified for the portion of the Phase I Property addressed 1196 Cummings Avenue. The monitoring wells were drilled in 2019 to depths ranging from 6.1 to 7.0 m below ground surface (mbgs). The soil profile was reported to consist of topsoil underlain by sand with stones. Shale bedrock was encountered at a depth of 2.4 m below ground surface in both wells. The wells were installed as a part of the 2019 Phase II ESA conducted on the Phase I Property.

Five monitoring well records were identified for monitoring wells drilled in 2014, at the property addressed 1134 Ogilvie Road, approximately 80 m southeast of the Phase I Property, where an existing retail was identified. The wells were drilled to depths ranging from 2.8 to 4.6 m below ground surface (mbgs). No other pertinent information was provided in these records.

Two monitoring well records were identified at the property addressed 1150 Ogilvie Road, approximately 105 m southeast of the Phase I Property, adjacent to the east of the aforementioned existing retail fuel outlet (at 1134 Ogilvie Road). The wells were drilled to depths ranging from 3.1 to 4.3 m below ground surface (mbgs). No other pertinent information was provided in these records.

The remaining monitoring well records pertain to monitoring wells approximately 100 m or more away from the Phase I Property and are not considered to pose an environmental concern to the Phase I Property. Based on the well records, the stratigraphy in the general area of the Phase I Property consists of silty sand or clay underlain by shale bedrock encountered at depths ranging from approximately 0.61 to 7.6m below grade. A copy of the well records has been included in Appendix 2.

#### **Existing Buildings and Structures**

The Phase I Property is currently occupied by a two-storey residential duplex (1184 Cummings Avenue), two vacant one-storey residential dwellings (1188 and 1194 Cummings Avenue) and five outbuildings of various uses.

The two-storey residential duplex addressed 1184 Cummings Avenue is finished on the exterior with brick, and vinyl siding in addition to a sloped and shingled style roof. Constructed circa 1952, the building is constructed with a concrete foundation and is currently heated and cooled via a combination of natural gas-and electric means.



A storage shed is present to the west of the residential duplex on the 1184 Cummings Avenue property. The storage shed is constructed with a wood frame, plywood walls and flooring, in addition to a sloped weather-proof membrane roof. The storage shed has been outfitted to be used as a leisure space with full electricity.

A second storage shed is present on the northwest corner of the 1184 Cummings Avenue property. The second storage shed is constructed with a wood frame, plywood walls and a sloped and shingled style roof. The second storage shed was used to store various household items and yard maintenance equipment at the time of the site inspection.

The vacant one-storey (with one basement level) residential dwelling addressed 1188 Cummings Avenue is finished on the exterior with vinyl siding and concrete block in addition to a sloped and shingled style roof. Constructed circa 1952, the building is constructed with a concrete foundation and is not currently serviced. However, natural gas services were noted to be present on the exterior of the subject building and assumed to be the most recent means of heating and cooling for the building.

The vacant one-storey (with one basement level) residential dwelling addressed 1196 Cummings Avenue is finished on the exterior with vinyl siding and pebble in addition to a sloped and shingled style roof. Constructed circa 1952, the building is constructed with a concrete foundation and is not currently serviced. However, natural gas services were noted to be present on the exterior of the subject building and assumed to be the most recent means of heating and cooling for the building.

A storage shed is present to the west of the residential duplex on the 1196 Cummings Avenue property. The storage shed is constructed with a wood frame and is finished on the exterior with vinyl siding in addition to sloped and shingled style roof. The storage shed has been outfitted to be used as a leisure space with full electricity. The storage shed was used for the storage of miscellaneous items at the time of the site inspection.

Two small storage sheds are present on the southwest corner of the 1196 Cummings Avenue property. Both of which are constructed with metal siding and sloped and shingled style roofs. The two storage sheds were used for the storage of miscellaneous items at the time of the site inspection.

No other buildings or permanent structures are present on the Phase I Property.



#### Subsurface Structures and Utilities

The Phase I Property is situated in a municipally serviced area. Underground utility services on the subject land include natural gas, electricity, cable, water and sewer services. Services enter the Phase I Property from Cummings Avenue.

No potable wells or private sewage systems were observed on the Phase I Property at the time of the site visit. No subsurface structures were identified at the time of the site visit.

#### Neighbouring Land Use

Land use within the Phase I Study generally consists of residential use to the west and north and commercial use to the east and south. As previously discussed, the retail fuel outlet addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property, is not considered to represent an environmental concern to the Phase I Property based on the results of the 2019 Phase II ESA (conducted on the 1188 and 1196 portions of the Phase I Property). Current land use and PCAs identified in the Phase I Study Area are presented on Drawing PE5990-2 – Surrounding Land Use Plan.

## Potentially Contaminating Activities and Areas of Potential Environmental Concern

As per Section 7.1 of this report, no historical or existing potentially contaminating activities were identified on the Phase I Property. A total of 10 off-site PCAs (existing and historical) were identified within the Phase I Study Area but are not considered to result in APECs on the Phase I Property due to their respective separation distances and/or cross/down-gradient orientations with respect to the Phase I Property. The retail fuel outlet addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property based on the results of the 2019 Phase II ESA (conducted on the 1188 and 1196 portions of the Phase I Property). As previously discussed in Section 7.1, all PCAs identified within the Phase I Study Area are presented on Drawing PE5990-2 – Surrounding Land Use Plan in the Figures section of the report, following the text.

As per Section 7.1 of this report, no areas of potential environmental concern were identified on the Phase I Property.



#### **Contaminants of Potential Concern**

As per Section 7.1 of this report, no contaminants of potential concern were identified on the Phase I Property.

#### Assessment of Uncertainty and/or Absence of Information

The information available for review as part of the preparation of this Phase I- ESA is considered to be sufficient to conclude that there are no PCAs that have resulted in APECs on the Phase I Property.

A variety of independent sources were consulted as part of this assessment, and as such, the conclusions of this report are not affected by uncertainty which may be present with respect to the individual sources.

## 8.0 CONCLUSIONS

#### 8.1 Assessment

Paterson Group was retained by TCU Development Corporation to conduct a Phase I-Environmental Site Assessment (ESA) for the properties addressed 1184, 1188 and 1196 Cummings Avenue, in the City of Ottawa, Ontario. The purpose of this Phase I-ESA was to research the past and current use of the Phase I Property and 250m Phase I Study Area, and to identify any environmental concerns with the potential to have impacted the Phase I Property.

According to the historical research and personal interviews, the Phase I Property was first developed with the existing residential dwellings circa 1952. No historical potentially contaminating activities (PCAs) were identified on the Phase I Property.

Based on available historical information, adjacent and surrounding properties within the Phase I Study Area were primarily used for residential and commercial purposes. Historical off-site PCAs include former retail fuel outlets, an automotive service garage and a contractors yard (with an associated underground storage tank). Based on the separation distances and/or down/cross-gradient orientation with respect to the Phase I Property, these PCAs are not considered to result in areas of potential environmental concern (APEC) on the Phase I Property.

Following the historical research, a site visit was conducted. The Phase I Property is currently occupied by a two-storey residential duplex (1184 Cummings Avenue), two vacant one-storey residential dwellings (1188 and 1194 Cummings Avenue) and five outbuildings of various uses. No concerns were identified with the current use of the Phase I Property.

The current uses of the adjacent and neighbouring properties within the Phase I Study Area consists of residential use to the west and north and commercial use to the east and south. A retail fuel outlet was identified at the property addressed 1111 Ogilvie Road, adjacent to the south of the Phase I Property. The retail fuel outlet is not considered to represent an environmental concern to the Phase I Property based on the results of the 2019 Phase II ESA conducted on the 1188 and 1196 portions of the Phase I Property. Based on the separation distances and/or down/cross-gradient orientation with respect to the Phase I Property, remaining existing PCAs in the Phase I Study Area are not considered to result in areas of potential environmental concern (APEC) on the Phase I Property.

Based on the findings of the Phase I ESA, it is **our opinion that a Phase II-**Environmental Site Assessment is not required for the Phase I Property.


### 9.0 STATEMENT OF LIMITATIONS

This Phase I - Environmental Site Assessment report has been prepared in general accordance with O.Reg. 153/04, as amended, and meets the requirements of CSA Z768-01 (reaffirmed 2022). The conclusions presented herein are based on information gathered from a limited historical review and field inspection program. The findings of the Phase I - ESA are based on a review of readily available geological, historical and regulatory information and a cursory review made at the time of the field assessment. The historical research relies on information supplied by others, such as, local, provincial and federal agencies and was limited within the scope-of-work, time and budget of the project herein.

Should any conditions be encountered at the subject site and/or historical information that differ from our findings, we request that we be notified immediately in order to allow for a reassessment.

This report was prepared for the sole use of the TCU Development Corporation. Permission and notification from the TCU Development Corporation and Paterson will be required to release this report to any other party.

#### Paterson Group Inc.

Jeremy Camposarcone, B.Eng.



Mark D'Arcy, P.Eng, Q.P.ESA

#### **Report Distribution:**

- □ TCU Development Corporation
- Paterson Group





## **10.0 REFERENCES**

### Federal Records

Air photos at the Energy Mines and Resources Air Photo Library. National Archives. Maps and photographs (Geological Survey of Canada surficial and subsurface mapping). Natural Resources Canada – The Atlas of Canada. Environment Canada, National Pollutant Release Inventory. PCB Waste Storage Site Inventory.

### **Provincial Records**

MECP Municipal Coal Gasification Plant Site Inventory, 1991.
MECP document titled "Waste Disposal Site Inventory in Ontario".
MECP Brownfields Environmental Site Registry.
MNR Areas of Natural Significance.
MECP Water Well Record Inventory.
Chapman, L.J., and Putnam, D.F., 1984: 'The Physiography of Southern Ontario, Third Edition', Ontario Geological Survey Special Volume 2.

### **Municipal Records**

City of Ottawa Document "Old Landfill Management Strategy, Phase I -Identification of Sites.", prepared by Golder Associates, 2004. geoOttawa: City of Ottawa electronic mapping website. City of Ottawa Historical Land Use Inventory (HLUI) Database

### **Local Information Sources**

Personal Interviews Previous Engineering Reports Environmental Risk Information Services (ERIS) Report, February 27, 2023 Plan of Survey by Annis, O'Sullivan, Vollebekk Ltd., dated March 5, 2013.

### **Public Information Sources**

Google Earth. Google Maps/Street View.

## FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE5990-1 – SITE PLAN

DRAWING PE5990-2 – SURROUNDING LAND USE PLAN



<u>figure 1</u> KEY PLAN





FIGURE 2 TOPOGRAPHIC MAP





utocad drawings\environmental\pe59xx\pe5990\pe5990-1-site plar



)	PCA ID	ADDRESS	DESCRIPTION
	28	1111 OGILVIE RD.	EXISTING RETAIL FUEL OUTLET
	28	1091 CUMMINGS AVE.	FORMER CONTRACTORS YARD WITH UNDERGROUND STORAGE TANK
	28	1134 OGILVIE RD.	EXISTING RETAIL FUEL OUTLET
	28	1110 OGILVIE RD.	FORMER POTENTIAL RETAIL FUEL OUTLET
	28	1151 OGILVIE RD.	FORMER RETAIL FUEL OUTLET
	28	1150 OGILVIE RD. (PRV. 1154 OGILVIE RD)	FORMER RETAIL FUEL OUTLET
	52	1129-1133 CYRVILLE RD.	FORMER AUTOMOTIVE SEVICE GARAGE
	37	1099 CYRVILLE RD.	EXISTING COMMERCIAL DRY CLEANERS
	N/A	1120 CUMMINGS AVE.	EXISTING COMMERCIAL MACHINE SHOP
	52/28	1057 CYRVILLE RD.	

25	50	75	100	125	150	200m
			Scale:			Date:
					1:3000	03/2023
		Drawn by:			Report No.:	
					YA	PE5990-1
O	NTAR	0	Checke	d by:		Dwg. No.:
					JC	PE5990-2
			Approv	ed by	:	
					MSD	Revision No.:

## **APPENDIX 1**

PLAN OF SURVEY AERIAL PHOTOGRAPHS

SITE PHOTOGRAPHS

































NAD-83 (original)



PE5990

1184, 1188 and 1196 Cummings Avenue Ottawa ON

March 7, 2023



Photograph 1: View of the front of 1184 Cummings Avenue residential dwelling, facing west.



Photograph 2: View of the outbuilding on the 1184 Cummings Avenue property, facing north.



PE5990

1184, 1188 and 1196 Cummings Avenue Ottawa ON



Photograph 3: View of the storage shed on the 1184 Cummings Avenue property, facing north.



Photograph 4: View of the front of 1188 Cummings Avenue residential dwelling, facing west.



PE5990

1184, 1188 and 1196 Cummings Avenue Ottawa ON



Photograph 5: View of the front of 1196 Cummings Avenue residential dwelling, facing west.



Photograph 6: View of the outbuilding on the 1196 Cummings Avenue property, facing west.



PE5990

1184, 1188 and 1196 Cummings Avenue Ottawa ON

March 7, 2023



Photograph 7: View of the storage sheds on the 1196 Cummings Avenue property, facing south.



Photograph 8: View of the retail fuel outlet on the 1111 Ogilvie Road property from the southeast corner of the Phase I Property, facing northwest.



PE5990

1184, 1188 and 1196 Cummings Avenue Ottawa ON

March 7, 2023



## **APPENDIX 2**

**MECP FREEDOM OF INFORMATION SEARCH** 

TSSA CORRESPONDANCE

**CITY OF OTTAWA HLUI SEARCH** 

**ERIS REPORT** 

Ministry of the Environment, Conservation and Parks Ministère de l'Environnement, de la Protection de la nature et des Parcs

Bureau de l'accès à l'information et

de la protection de la vie privée

Access and Privacy Office

12th Floor 40 St. Clair Avenue West Toronto ON M4V 1M2 Tel: (416) 314-4075 12^e étage 40, avenue St. Clair ouest Toronto ON M4V 1M2

Tél.: (416) 314-4075



March 9, 2023

Jeremy Camposarcone Paterson Group 9 Auriga Drive Ottawa, Ontario K2E 7T9 jcamposarcone@patersongroup.ca

Dear Jeremy Camposarcone:

#### RE: MECP FOI A-2023-01232, Your Reference PE5990 – Decision Letter

This letter is in response to your request made pursuant to the Freedom of Information and Protection of Privacy Act (the Act) relating to 1184, 1188 and 1196 Cummings Avenue, Ottawa.

After a thorough search through the files of the ministry's Ottawa District Office, Environmental Investigations and Enforcement Branch (EIEB), and Safe Drinking Water Branch (SDW) no records were located responsive to your request. **This file is now closed.** 

You may request a review of my decision within 30 days from the date of this letter by contacting the Information and Privacy Commissioner/Ontario at http://www.ipc.on.ca. Please note there may be a fee associated with submitting the appeal.

If you have any questions, please contact Tolani Abraham at Tolani.Abraham2@ontario.ca.

Yours truly,

ORIGINAL SIGNED BY

Ryan Gunn Manager (A), Access and Privacy Office

#### Jeremy Camposarcone

From:	Public Information Services <publicinformationservices@tssa.org></publicinformationservices@tssa.org>
Sent:	February 27, 2023 3:02 PM
То:	Jeremy Camposarcone
Subject:	RE: Records Search Request - PE5990

Hello,

#### **RECORD FOUND IN CURRENT DATABASE**

Thank you for your request for confirmation of public information. TSSA has performed a preliminary search of TSSA's current database.

• We confirm that there are records in our database of any fuel storage tanks at the subject address(es).

Inventory Number	Address	City	Province	Postal Code	Status	Asset Type / Inventory Item
	1111 OGILVIE					FS GASOLINE STATION - FULL
10083411	RD	GLOUCESTER	ON	K1J 7P7	EXPIRED	SERVE
	1111 OGILVIE					FS GASOLINE STATION - FULL
10105915	RD	GLOUCESTER	ON	K1J 7P7	EXPIRED	SERVE
	1111 OGILVIE					FS GASOLINE STATION - FULL
10105948	RD	GLOUCESTER	ON	K1J 7P7	EXPIRED	SERVE
	1111 OGILVIE					
11287886	RD	GLOUCESTER	ON	K1J 7P7	Active	FS LIQUID FUEL TANK
	1111 OGILVIE					
11287906	RD	GLOUCESTER	ON	K1J 7P7	Active	FS LIQUID FUEL TANK
	1111 OGILVIE					
11287923	RD	GLOUCESTER	ON	K1J 7P7	Active	FS LIQUID FUEL TANK
	1111 OGILVIE					
11287944	RD	GLOUCESTER	ON	K1J 7P7	Active	FS LIQUID FUEL TANK
	1111 OGILVIE					FS GASOLINE STATION - SELF
29160194	RD	GLOUCESTER	ON	K1J 7P7	Active	SERVE
	1111 OGILVIE					
64508685	RD	GLOUCESTER	ON	K1J 7P7	Active	FS LIQUID FUEL TANK
	1111 OGILVIE					
64508686	RD	GLOUCESTER	ON	K1J 7P7	Active	FS LIQUID FUEL TANK

<u>This is not a confirmation that there are no records in the archives</u>. For a further search in our archives, please submit an application for release of public information (PI Form) through TSSA's new Service Prepayment Portal. The associated fee must be paid via credit card (Visa or MasterCard) through a secure site.

- Please follow the steps below to access the new application(s) and Service Prepayment Portal:
  - 1. Click <u>Release of Public Information TSSA</u> TSSA and click "need a copy of a document";
  - 2. Select the appropriate application, download it and complete it in full; and
  - 3. Proceed to page 3 of the application and click the link TSSA Service Prepayment Portal under payment options (the link will take you the secure site to pay for the release via credit card).

Accessing the Service Prepayment Portal:

- 1. Select new or existing customer (*if you are an existing customer, you will need your account # & postal code to access your account);
- 2. Select the program area: AD (Amusement Devices), BPV (Boilers and Pressure Vessels), ED (Elevating Devices), FS (Fuels Services), OE (Operating Engineers) or SKI (Ski Lifts) and click continue;
- 3. Enter the application form number (obtained from bottom left corner of application form) and click continue;
  - a. When selecting the application form number from the drop-down menu, please make sure you select the application that begins with "PI" (i.e. PI-FS, PI-BPV etc.);
- 4. Complete the primary contact information section;
- 5. Complete the fees section;
- 6. Upload your completed application; and
- 7. Upload supporting documents (if required) and click continue.

Once all steps have been successfully completed, you will receive your receipt via email.

Questions? Please contact TSSA's Public Information Release team at publicinformationservices@tssa.org.

Although TSSA believes the information provided pursuant to your request is accurate, please note that TSSA does not warrant this information in any way whatsoever.

Kind regards,



From: Jeremy Camposarcone



Winner of 2022 5-Star Safety Cultures Award

<JCamposarcone@patersongroup.ca>
Sent: Monday, February 27, 2023 2:44 PM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: Records Search Request - PE5990

**[CAUTION]:** This email originated outside the organisation. Please do not click links or open attachments unless you recognise the source of this email and know the content is safe.

Good afternoon,

Could you please complete a search of your records for **underground/aboveground storage tanks**, historical spills, or **other incidents/infractions** for the following addresses in Ottawa, Ontario:

Cummings Avenue: 1184, 1188, 1196, 1172, 1111, 1103; Ogilvie Road: 1101, 1111, 1137 Belgate Way: 1270

Best Regards,



Jeremy Camposarcone, B.Eng. Junior Environmental Engineer TEL: (613)-226-7381 CELL: (343)-999-7255 9 AURIGA DRIVE OTTAWA ON K2E 7T9 patersongroup.ca

#### TEMPORARY SHORING DESIGN SERVICES ARE NOW AVAILABLE, PLEASE CONTACT US TO SEE HOW WE CAN HELP!

## OUR DIRECT LINE FOR MATERIALS TESTING INSPECTION BOOKING HAS BEEN UPDATED, PLEASE CALL **613-696-9677** TO BOOK AN INSPECTION.

This electronic message and any attached documents are intended only for the named recipients. This communication from the Technical Standards and Safety Authority may contain information that is privileged, confidential or otherwise protected from disclosure and it must not be disclosed, copied, forwarded or distributed without authorization. If you have received this message in error, please notify the sender immediately and delete the original message.

Application Number:	Ward Number:	Application Received: (dd/mm/yyyy):
Client Service Centre Staff:		Fee Received: \$



## **Historic Land Use Inventory**

**Application Form** 

#### **Notice of Public Record**

All information and materials required in support of your application shall be made available to the public, as indicated by Section 1.0.1 of *The Planning Act*, R.S.O. 1990, C.P.13.

#### **Municipal Freedom of Information and Protection Act**

Personal information on this form is collected under the authority the *Planning Act*, RSO 1990, c. P. 13 and will be used to process this application. Questions about this collection may be directed by mail to Manager, Business Support Services, Planning, Real Estate and Economic Development Department, 110 Laurier Avenue West, Ottawa, K1P 1J1, or by phone at (613) 580-2424, ext. 24075

	Background Information						
*Site Address or Location:	1184, 1188 & 1196 Cummings Avenue * Mandatory Field						
Applicant/Agent Information:							
Name:	Jereny Camposarcone - Paterson Group						
Mailing Address:	9 Auriga Drive						
Telephone:	343-999-9255 Email Address: Kamposarcune Opatersongroup.ca						
Registered Proper	ty Owner Information: Same as above						
Name:	TW Development Corporation						
Mailing Address:							
Telephone:	Email Address:						

	Site Details						
Legal Description         and PIN:         Post 3 Lot 1, Register ced Plan 4R-26865         What is the land         currently used for?         Lot frontage:       m         Lot depth:       m         Lot area:       0         m       Lot depth:         m       Lot area:       0         m       Lot depth:       m							
OR Lot area: (irregular lot) 3,500 m ²							
Does the site have Full Municipal Services: 🐞 Yes 🔿 No							
	Required Fees						
Please don't hesitate to visit the Historic Land Use Inventory website more information. Fees must be paid in full at the time of application submission.							
Planning Fee	Planning Fee \$132.00						
	Submittal Requirements						

The following are required to be submitted with this application:

- 1. Consent to Disclose Information: Consultants and other third parties may make requests for information on behalf of an individual or corporation. However, if the requester is not the owner of the property, the requester must provide the City of Ottawa with a 'consent to disclose information' letter, signed by the property owner. This will authorize the City of Ottawa to release any relevant information about the property or its owner(s) to the requester. Consent for disclosure is required in the event that personal information or proprietary company information is found concerning the property and its owner. All consents must clearly indicate the name of the property owner as well as the name of the requester, and must be signed and dated.
- 2. Disclaimer: Requesters must read and understand the conditions included in the attached disclaimer and submit a signed disclaimer to the City of Ottawa's Planning, Real Estate and Economic Development Department. This disclaimer is related to the Historic Land Use Inventory and must be received by the City of Ottawa, signed and dated by the requestor, before the process can begin.
- 3. A site plan or key plan of the property, its location and particular features.
- 4. Any significant dates or time frames that you would like researched.

#### Disclaimer For use with HLUI Database

CITY OF OTTAWA ("the City") is the owner of the Historical Land Use Inventory ("HLUI"), a database of information on the type and location of land uses within the geographic area of Ottawa, which had or have the potential to cause contamination in soil, groundwater or surface water.

The City, in providing information from the HLUI, to **Reduction** ("the Requester") does so only under the following conditions and understanding:

- The HLUI may contain erroneous information given that such records and sources of information may be flawed. Changes in municipal addresses over time may have introduced error in such records and sources of information. The City is not responsible for any errors or omissions in the HLUI and reserves the right to change and update the HLUI without further notice. The City does not, however, make any commitment to update the HLUI. Accordingly, all information from the HLUI is provided on an "as is" basis with no representation or warranty by the City with respect to the information's accuracy or exhaustiveness in responding to the request.
- 2. City staff will perform a search of the HLUI based on the information given by the Requester. City staff will make every effort to be accurate, however, the City does not provide an assurance, guarantee, warranty, representation (express or implied), as to the availability, accuracy, completeness or currency of information which will be provided to the Requester. The HLUI in no way confirms the presence or absence of contamination or pollution of any kind. The information provided by the City to the Requester is provided on the assumption that it will not be relied upon by any person whatsoever. The City denies all liability to any such persons attempting to rely on any information provided from the HLUI database.
- 3. The City, its employees, servants, agents, boards, officials or contractors take no responsibility for any actions, claims, losses, liability, judgments, demands, expenses, costs, damages or harm suffered by any person whatsoever including negligence in compiling or disseminating information in the HLUI.
- 4. Copyright is reserved to the City.
- 5. Any use of the information provided from the HLUI which a third party makes, or any reliance on or decisions to be based on it, are the responsibilities of such third parties. The City, its employees, servants, agents, boards, officials or contractors accept no responsibility for any damages, if any, suffered by a third party as a result of decisions made as a result of an information search of the HLUI.
- 6. Any use of this service by the Requestor indicates an acknowledgement, acceptance and limits of this disclaimer.
- 7. All information collected under this request and all records provided in response to this request are subject to the provisions of the Municipal Freedom of Information and Protection of Privacy Act, R.S.O. 1990, c. M.56, as amended.

Signed: Dated Company:



# DATABASE REPORT

**Project Property:** 

Project No: Report Type: Order No: Requested by: Date Completed: Phase I ESA 1184, 1188 & 1196 Cummings Avenue Gloucester ON K1J 7R8 P.O.56881 / PE5990 Standard Report 23022400359 Paterson Group Inc. February 27, 2023

Environmental Risk Information Services A division of Glacier Media Inc. 1.866.517.5204 | info@erisinfo.com | erisinfo.com

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#### Notice: IMPORTANT LIMITATIONS and YOUR LIABILITY

Reliance on information in Report: This report DOES NOT replace a full Phase I Environmental Site Assessment but is solely intended to be used as a database review of environmental records.

License for use of information in Report: No page of this report can be used without this cover page, this notice and the project property identifier. The information in Report(s) may not be modified or re-sold.

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### **Executive Summary**

#### Property Information:

**Project Property:** 

Phase I ESA 1184, 1188 & 1196 Cummings Avenue Gloucester ON K1J 7R8

Project No:

P.O.56881 / PE5990

#### **Coordinates:**

Elevation:

Latitude:	45.427021
Longitude:	-75.6324805
UTM Northing:	5,030,583.34
UTM Easting:	450,522.54
UTM Zone:	18T
	242 FT

#### Order Information:

Order No: Date Requested: Requested by: Report Type: 23022400359 February 24, 2023 Paterson Group Inc. Standard Report

73.88 M

#### Historical/Products:

### Executive Summary: Report Summary

Database	Name	Searched	Project Property	Within 0.25 km	Total
AAGR	Abandoned Aggregate Inventory	Y	0	0	0
AGR	Aggregate Inventory	Y	0	0	0
AMIS	Abandoned Mine Information System	Y	0	0	0
ANDR	Anderson's Waste Disposal Sites	Y	0	0	0
AST	Aboveground Storage Tanks	Y	0	0	0
AUWR	Automobile Wrecking & Supplies	Y	0	0	0
BORE	Borehole	Y	0	1	1
CA	Certificates of Approval	Y	0	2	2
CDRY	Dry Cleaning Facilities	Y	0	0	0
CFOT	Commercial Fuel Oil Tanks	Y	0	0	0
CHEM	Chemical Manufacturers and Distributors	Y	0	0	0
CHM	Chemical Register	Y	0	0	0
CNG	Compressed Natural Gas Stations	Y	0	0	0
COAL	Inventory of Coal Gasification Plants and Coal Tar Sites	Y	0	0	0
CONV	Compliance and Convictions	Y	0	0	0
CPU	Certificates of Property Use	Y	0	0	0
DRL	Drill Hole Database	Y	0	0	0
DTNK	Delisted Fuel Tanks	Y	0	26	26
EASR	Environmental Activity and Sector Registry	Y	0	1	1
EBR	Environmental Registry	Y	0	2	2
ECA	Environmental Compliance Approval	Y	0	5	5
EEM	Environmental Effects Monitoring	Y	0	0	0
EHS	ERIS Historical Searches	Y	1	11	12
EIIS	Environmental Issues Inventory System	Y	0	0	0
EMHE	Emergency Management Historical Event	Y	0	0	0
EPAR	Environmental Penalty Annual Report	Y	0	0	0
EXP	List of Expired Fuels Safety Facilities	Y	0	0	0
FCON	Federal Convictions	Y	0	0	0
FCS	Contaminated Sites on Federal Land	Y	0	0	0
FOFT	Fisheries & Oceans Fuel Tanks	Y	0	0	0
FRST	Federal Identification Registry for Storage Tank Systems (FIRSTS)	Y	0	0	0
FST	Fuel Storage Tank	Y	0	13	13
FSTH	Fuel Storage Tank - Historic	Y	0	5	5
GEN	Ontario Regulation 347 Waste Generators Summary	Y	0	51	51
GHG	Greenhouse Gas Emissions from Large Facilities	Y	0	0	0
HINC	TSSA Historic Incidents	Y	0	1	1
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0

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Database	Name	Searched	Project Property	Within 0.25 km	Total
INC	Fuel Oil Spills and Leaks	Y	0	2	2
LIMO	Landfill Inventory Management Ontario	Y	0	0	0
MINE	Canadian Mine Locations	Y	0	0	0
MNR	Mineral Occurrences	Y	0	0	0
NATE	National Analysis of Trends in Emergencies System	Y	0	0	0
NCPL	(NATES) Non-Compliance Reports	Y	0	0	0
NDFT	National Defense & Canadian Forces Fuel Tanks	Y	0	0	0
NDSP	National Defense & Canadian Forces Spills	Y	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal	Y	0	0	0
NEBI	Sites National Energy Board Pipeline Incidents	Y	0	0	0
NEBP	National Energy Board Wells	Y	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0
NPCB	National PCB Inventory	Y	0	0	0
NPRI	National Pollutant Release Inventory	Y	0	0	0
OGWE	Oil and Gas Wells	Y	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	0	0
OPCB	Inventory of PCB Storage Sites	Y	0	0	0
ORD	Orders	Y	0	0	0
PAP	Canadian Pulp and Paper	Y	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0
PES	Pesticide Register	Y	0	0	0
PINC	Pipeline Incidents	Y	0	0	0
PRT	Private and Retail Fuel Storage Tanks	Y	0	8	8
PTTW	Permit to Take Water	Y	0	1	1
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	0	0
RSC	Record of Site Condition	Y	0	0	0
RST	Retail Fuel Storage Tanks	Y	0	9	9
SCT	Scott's Manufacturing Directory	Y	0	4	4
SPL	Ontario Spills	Y	0	5	5
SRDS	Wastewater Discharger Registration Database	Y	0	0	0
TANK	Anderson's Storage Tanks	Y	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0
VAR	Variances for Abandonment of Underground Storage Tanks	Y	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0
WWIS	Water Well Information System	Y	1	23	24
		Total:	2	170	172

### Executive Summary: Site Report Summary - Project Property

Мар Кеу	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
<u>1</u>	EHS		1188 Cummings Ave Ottawa ON Gloucester ON K1J 7R8	SSE/29.9	0.00	<u>42</u>
<u>2</u>	WWIS		c1196 Cummings Ave Ottawa ON	SSE/44.7	0.00	<u>42</u>
			Well ID: 7346072			
## Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>3</u>	WWIS		1198 Cummings Ave Ottawa ON	SSE/56.4	0.00	<u>45</u>
			<b>Well ID:</b> 7346071			
<u>4</u>	WWIS		lot 25 con 1 ON	N/58.7	0.00	<u>49</u>
			<b>Well ID:</b> 1501127			
<u>5</u>	WWIS		lot 25 con 1 ON	ENE/65.9	0.00	<u>52</u>
			<b>Well ID:</b> 1501129			
<u>6</u>	WWIS		lot 25 con 1 ON	NE/79.2	1.00	<u>54</u>
			<b>Well ID:</b> 1501126			
<u>7</u>	PRT	CALEX DIVISION OF SUNOCO ATTN ROBERTA WALSH	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S/80.4	-1.00	<u>57</u>
Z	PRT	CALEX DIVISION OF SUNOCO ATTN ROBERTA WALSH	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S/80.4	-1.00	<u>57</u>
<u>7</u>	PRT	LES PETROLES CALEX LTEE	1111 OGILVIE OTTAWA ON K1J7P7	S/80.4	-1.00	<u>57</u>
<u>7</u>	PRT	CALEX DIVISION OF SUNOCO ATTN MARY MISANGYI	1111 OGILVIE OTTAWA ON K1J7P7	S/80.4	-1.00	<u>57</u>
<u>7</u>	PRT	CALEX DIVISION OF SUNOCO ATTN MARY MISANGYI	1111 OGILVIE OTTAWA ON K1J7P7	S/80.4	-1.00	<u>57</u>
<u>Z</u>	RST	CALEX SERVICE STATION	1111 OGILVIE RD GLOUCESTER ON K1J7P7	S/80.4	-1.00	<u>58</u>
<u>Z</u>	GEN	OLCO Petrolleum	1111 Ogilvie Ottawa ON K1J 7P7	S/80.4	-1.00	<u>58</u>
<u>7</u>	FSTH	1633981 ONTARIO INC O/ A OLCO GAS BAR	1111 OGILVIE RD GLOUCESTER OTTAWA ON K1J 7P7	S/80.4	-1.00	<u>58</u>

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Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>7</u>	FSTH	1633981 ONTARIO INC O/ A OLCO GAS BAR	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S/80.4	-1.00	<u>59</u>
<u>7</u>	CA	1633981 Ontario Inc.	1111 Ogilvie Rd Ottawa ON	S/80.4	-1.00	<u>59</u>
<u>7</u>	DTNK	MOT MARWAN ENTERPRISES LTD	1111 OGILVIE RD OTTAWA ON	S/80.4	-1.00	<u>59</u>
<u>7</u>	DTNK	LES PETROLES CALEX LTEE	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S/80.4	-1.00	<u>60</u>
<u>7</u>	DTNK	SMS PETROLEUMS DIVISION OF SUNOCO NANCY NG	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S/80.4	-1.00	<u>61</u>
<u>7</u>	DTNK	MO & MARWAN ENTERPRISES LTD	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S/80.4	-1.00	<u>61</u>
<u>7</u>	DTNK	1633981 ONTARIO INC O/ A OLCO GAS BAR	1111 OGILVIE RD GLOUCESTER ON	S/80.4	-1.00	<u>62</u>
<u>7</u>	DTNK	1633981 ONTARIO INC O/ A OLCO GAS BAR	1111 OGILVIE RD GLOUCESTER ON	S/80.4	-1.00	<u>62</u>
<u>7</u>	DTNK	1633981 ONTARIO INC O/ A OLCO GAS BAR	1111 OGILVIE RD GLOUCESTER ON	S/80.4	-1.00	<u>63</u>
<u>7</u>	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON	S/80.4	-1.00	<u>64</u>
<u>7</u>	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON	S/80.4	-1.00	<u>64</u>
<u>7</u>	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON	S/80.4	-1.00	<u>65</u>
<u>7</u>	FST	1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S/80.4	-1.00	<u>65</u>

Order No: 23022400359

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>7</u>	FST	1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S/80.4	-1.00	<u>65</u>
<u>7</u>	FST	1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S/80.4	-1.00	<u>66</u>
<u>7</u>	FST	1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S/80.4	-1.00	<u>66</u>
<u>7</u>	FST	1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S/80.4	-1.00	<u>67</u>
<u>7</u>	FST	1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S/80.4	-1.00	<u>67</u>
<u>7</u>	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON	S/80.4	-1.00	<u>68</u>
<u>7</u>	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON	S/80.4	-1.00	<u>68</u>
<u>7</u>	RST	FAS GAS PLUS	1111 OGILVIE RD UNIT 1 GLOUCESTER ON K1J7P7	S/80.4	-1.00	<u>69</u>
<u>7</u>	SPL		1111 Ogilvie Rd Ottawa ON	S/80.4	-1.00	<u>69</u>
<u>7</u>	ECA	1633981 Ontario Inc.	1111 Ogilvie Rd Ottawa ON K1J 7P7	S/80.4	-1.00	<u>69</u>
<u>7</u>	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S/80.4	-1.00	<u>70</u>
<u>7</u>	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S/80.4	-1.00	<u>70</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>7</u>	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S/80.4	-1.00	<u>71</u>
<u>7</u>	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S/80.4	-1.00	<u>71</u>
<u>7</u>	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S/80.4	-1.00	<u>72</u>
<u>7</u>	RST	ECONO GAS	1111 OGILVIE RD APT 1 GLOUCESTER ON K1J7P7	S/80.4	-1.00	<u>72</u>
<u>7</u>	DTNK	1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S/80.4	-1.00	<u>72</u>
<u>7</u>	DTNK	1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S/80.4	-1.00	<u>73</u>
<u>7</u>	DTNK	1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S/80.4	-1.00	<u>73</u>
<u>7</u>	DTNK	1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S/80.4	-1.00	<u>74</u>
<u>7</u>	DTNK		1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S/80.4	-1.00	<u>75</u>
<u>7</u>	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S/80.4	-1.00	<u>75</u>
<u>7</u>	GEN	1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S/80.4	-1.00	<u>76</u>
<u>8</u>	ĊA	MANDARIN-OGILVIE RESTAURANT	1137 OGILVIE ROAD GLOUCESTER CITY ON K1J 7P6	E/81.9	0.00	<u>76</u>
<u>8</u>	GEN	FRESH AIR EXPERIENCE INC.	1137 AGILVIE ROAD GLOUCESTER ON K1J 7P6	E/81.9	0.00	<u>76</u>

Мар Кеу	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>8</u>	GEN	FRESH AIR EXPERIENCE INC. 15-313	1137 AGILVIE ROAD GLOUCESTER ON K1J 7P6	E/81.9	0.00	<u>77</u>
<u>8</u>	EHS		1137 Ogilvie Road and 1111 Cummings Avenue Gloucester ON K1J 7P6	E/81.9	0.00	<u>77</u>
<u>8</u>	EHS		1137 Ogilvie Road and 1111 Cummings Avenue Gloucester ON K1J 7P6	E/81.9	0.00	<u>77</u>
<u>9</u>	PRT	ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE W	1091 CUMMINGS AV GLOUCESTER ON K1J 7S2	ENE/86.9	1.00	<u>77</u>
<u>9</u>	FSTH	ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE WELDING LTD	1091 CUMMINGS AVE GLOUCESTER ON K1J 7S2	ENE/86.9	1.00	<u>78</u>
<u>9</u>	DTNK	ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE WELDING LTD	1091 CUMMINGS AVE GLOUCESTER ON	ENE/86.9	1.00	<u>78</u>
<u>9</u>	DTNK	ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE WELDING LTD	1091 CUMMINGS AVE GLOUCESTER K1J 7S2 ON CA ON	ENE/86.9	1.00	<u>79</u>
<u>9</u>	FST	ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE WELDING LTD	1091 CUMMINGS AVE GLOUCESTER K1J 7S2 ON CA ON	ENE/86.9	1.00	<u>79</u>
<u>10</u>	WWIS		lot 25 con 1 ON <i>Well ID:</i> 1501115	SE/92.0	0.00	<u>80</u>
<u>11</u>	WWIS		lot 25 con 1 ON <i>Well ID:</i> 1501124	NE/92.2	1.00	<u>83</u>
<u>12</u>	WWIS		lot 25 con 1 ON <i>Well ID:</i> 1510842	SW/113.8	-1.00	<u>86</u>
<u>13</u>	SPL	UNKNOWN	CUMMINGS AVE JUST SOUTH OF OLGILVIE GLOUCESTER CITY ON	SE/114.3	0.00	<u>89</u>

Мар Кеу	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>13</u>	SPL	Labrador Spring Water <unofficial></unofficial>	OGILVIE STREET / CUMMING STREET <unofficial> Ottawa ON</unofficial>	SE/114.3	0.00	<u>90</u>
<u>14</u>	HINC		1085 CUMMINGS AVENUE OTTAWA ON	NNE/121.3	1.00	<u>90</u>
<u>15</u>	WWIS		lot 25 con 1 ON <b>Well ID:</b> 1501128	NE/128.3	1.00	<u>91</u>
<u>16</u>	WWIS		1134 OGILVIE RD. Ottawa ON	ESE/146.8	-1.03	<u>93</u>
<u>17</u>	WWIS		1134 ON	ESE/154.8	-1.03	<u>97</u>
<u>18</u>	WWIS		1134 OGILVIE RD ON	SE/155.6	-1.06	<u>100</u>
<u>19</u>	PRT	C CORP (ONTARIO) INC ATTN ACCOUNTS PAYABLE	1134 OGILVIE RD OTTAWA ON K1J8V1	ESE/160.7	-1.03	<u>103</u>
<u>19</u>	SPL	PIONEER PETROLEUMS LTD.	1134 OGILVIE RD GLOUCESTER SERVICE STATION OTTAWA CITY ON K1J 8V1	ESE/160.7	-1.03	<u>103</u>
<u>19</u>	RST	PIONEER PETROLEUMS	1134 OGILVIE RD OTTAWA ON K1J 8V1	ESE/160.7	-1.03	<u>104</u>
<u>19</u>	FSTH	PIONEER PETROLEUMS MANAGEMENT INC**	1134 OGILVIE RD OTTAWA ON K1J 8V1	ESE/160.7	-1.03	<u>104</u>
<u>19</u>	RST	PIONEER PETROLEUMS	1134 OGILVIE RD GLOUCESTER ON K1J 8V1	ESE/160.7	-1.03	<u>104</u>
<u>19</u>	FSTH	PIONEER PETROLEUMS MANAGEMENT INC**	1134 OGILVIE RD OTTAWA ON	ESE/160.7	-1.03	<u>104</u>
<u>19</u>	DTNK	PIONEER ENERGY MANAGEMENT INC.	1134 OGILVIE RD OTTAWA ON K1J 8V1	ESE/160.7	-1.03	<u>105</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>19</u>	DTNK	PIONEER ENERGY MANAGEMENT INC.	1134 OGILVIE RD OTTAWA ON	ESE/160.7	-1.03	<u>106</u>
<u>19</u>	DTNK	PIONEER ENERGY MANAGEMENT INC.	1134 OGILVIE RD OTTAWA ON	ESE/160.7	-1.03	<u>106</u>
<u>19</u>	DTNK	PIONEER ENERGY MANAGEMENT INC.	1134 OGILVIE RD OTTAWA ON	ESE/160.7	-1.03	<u>107</u>
<u>19</u>	FST	PARKLAND CORPORATION	1134 OGILVIE RD OTTAWA K1J 8V1 ON CA ON	ESE/160.7	-1.03	<u>107</u>
<u>19</u>	FST	PARKLAND CORPORATION	1134 OGILVIE RD OTTAWA K1J 8V1 ON CA ON	ESE/160.7	-1.03	<u>108</u>
<u>19</u>	FST	PARKLAND CORPORATION	1134 OGILVIE RD OTTAWA K1J 8V1 ON CA ON	ESE/160.7	-1.03	<u>108</u>
<u>19</u>	RST	PIONEER PETROLEUMS	1134 OGILVIE RD GLOUCESTER ON K1J8V1	ESE/160.7	-1.03	<u>109</u>
<u>19</u>	SPL	Triangle Pump Service Limited	1134 Ogilvie Road Ottawa ON K1J 8V1	ESE/160.7	-1.03	<u>109</u>
<u>19</u>	GEN	Pioneer Energy LP	1134 Ogilvie Road Gloucester ON K1J 8V1	ESE/160.7	-1.03	<u>110</u>
<u>19</u>	RST	PIONEER PETROLEUMS	1134 OGILVIE RD GLOUCESTER ON K1J8V1	ESE/160.7	-1.03	<u>110</u>
<u>19</u>	INC	PARKLAND CORPORATION	1134 OGILVIE RD,,OTTAWA,ON,K1J 8V1, CA ON	ESE/160.7	-1.03	<u>110</u>
<u>19</u>	DTNK		1134 OGILVIE RD GLOUCESTER ON K1J 8V1	ESE/160.7	-1.03	<u>111</u>
<u>20</u>	WWIS		1134 OGILVIE RD. Ottawa ON	ESE/166.8	-1.00	<u>111</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
			Well ID: 7224358			
<u>21</u>	WWIS		1134 ON <b>Well ID:</b> 7224187	ESE/168.4	-1.00	<u>115</u>
<u>22</u>	BORE		ON	ESE/168.9	-1.00	<u>118</u>
<u>23</u>	WWIS		lot 26 con 2 ON <i>Well ID:</i> 1501363	ESE/169.0	-1.00	<u>119</u>
<u>24</u>	WWIS		lot 26 con 2 ON <i>Well ID:</i> 1501355	ESE/177.9	0.08	<u>121</u>
<u>25</u>	PRT	1085091 ONTARIO LTD	1154 OGLIVIE RD GLOUCESTER ON K1J 8V1	ESE/178.7	0.08	<u>124</u>
<u>25</u>	RST	TROPIC SQUARE	1154 OGILVIE RD GLOUCESTER ON K1J8V1	ESE/178.7	0.08	<u>124</u>
<u>25</u>	RST	FENELON'S GAZ	1154 OGILVIE RD GLOUCESTER ON K1J 8V1	ESE/178.7	0.08	<u>124</u>
<u>25</u>	DTNK	TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER ON K1J 8V1	ESE/178.7	0.08	<u>125</u>
<u>25</u>	DTNK	TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER ON	ESE/178.7	0.08	<u>125</u>
<u>25</u>	DTNK	TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER ON	ESE/178.7	0.08	<u>126</u>
<u>25</u>	DTNK	TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER ON	ESE/178.7	0.08	<u>126</u>
25	DTNK	TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE/178.7	0.08	<u>127</u>
<u>25</u>	DTNK	TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE/178.7	0.08	<u>128</u>
	and a line for a second l	Environmental District on the second			000004000	

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>25</u>	DTNK	TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE/178.7	0.08	<u>128</u>
<u>25</u>	FST	TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE/178.7	0.08	<u>129</u>
<u>25</u>	FST	TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE/178.7	0.08	<u>129</u>
<u>25</u>	FST	TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE/178.7	0.08	<u>130</u>
<u>26</u>	WWIS		lot 25 con 1 ON <i>Well ID:</i> 1501123	E/183.2	1.00	<u>130</u>
<u>27</u>	GEN	6037682 CANADA INC.	1150 OGILVIE ROAD OTTAWA ON K1J 8V1	ESE/185.3	0.08	<u>133</u>
<u>27</u>	GEN	6037682 CANADA INC.	1150 OGILVIE RD OTTAWA ON K1J 8V1	ESE/185.3	0.08	<u>133</u>
<u>27</u>	EHS		1150 Chemin Ogilvie Ottawa ON K1J 8V1	ESE/185.3	0.08	<u>134</u>
<u>27</u>	GEN	6037682 Canada Inc.	1150 OGILVIE ROAD OTTAWA ON K1J 8V1	ESE/185.3	0.08	<u>134</u>
<u>28</u>	WWIS		1182 OGILIVE ROAD Ottawa ON <b>Well ID:</b> 7157668	ESE/193.7	-0.06	<u>134</u>
<u>29</u>	WWIS		ON <i>Well ID:</i> 7388761	S/194.7	-1.00	<u>137</u>
<u>30</u>	SCT	AFSC Future Security Controls	1088 Ogilvie Rd Gloucester ON K1J 7P8	SSW/201.2	-1.86	<u>138</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>31</u>	EHS		1098 Ogilvie Road Gloucester ON K1J 7P8	S/203.1	-0.97	<u>139</u>
<u>32</u>	INC		4297 WELDON DR, OTTAWA ON	WSW/204.5	-1.25	<u>139</u>
<u>33</u>	PTTW	9456-5082 Quebec Inc., as general partner for and on behalf of Lux Place L.P.	1098 Ogilvie Road and 1178 Cummings Avenue Ottawa, ON Canada ON	S/204.6	-0.97	<u>139</u>
<u>34</u>	EHS		1162 Ogilvie Road Gloucester ON K1J 8V1	ESE/205.6	0.00	<u>140</u>
<u>35</u>	EHS		1162 Ogilvie Road Ottawa ON	ESE/207.7	0.31	<u>140</u>
<u>36</u>	WWIS		lot 25 con 1 ON <i>Well ID:</i> 1501130	ENE/211.7	2.00	<u>140</u>
<u>37</u>	WWIS		1162 OGILIVE ROAD Ottawa ON	ESE/218.4	0.00	<u>143</u>
<u>38</u>	EHS		1055 Cummings Ave Gloucester (Ottawa) ON K1J 7S2	N/218.5	1.00	<u>146</u>
<u>39</u>	GEN	FAIRVIEW FUNERAL &CREMATION SERVICES INC	1092 OGILVIE ROAD GLOUCESTER ON K1J 7P8	SSW/226.3	-1.86	<u>147</u>
<u>39</u>	GEN	FAIRVIEW FUNERAL AND CREMATION	1092 OGILVIE ROAD GLOUCESTER ON K1J 7P8	SSW/226.3	-1.86	<u>147</u>
<u>40</u>	GEN	EDIFICE BEAUFORT BUILDING INC.	1178 CUMMINGS OTTAWA ON K1J 7R8	SSE/231.6	-1.31	<u>147</u>
<u>41</u>	WWIS		1043 CUMMINGS AVE OTTAWA ON	N/235.9	1.00	<u>148</u>
<u>42</u>	SCT	Ambico Limited	1120 Cummings Ave Gloucester ON K1J 7R8	NW/241.5	0.00	<u>150</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>42</u>	SCT	AMBICO LIMITED	1120 Cummings Ave Ottawa ON K1J 7R8	NW/241.5	0.00	<u>150</u>
<u>42</u>	GEN	MANIS METAL MANUFACTURING LTD.	1120 CUMMINGS AVENUE OTTAWA ON K1J 7R8	NW/241.5	0.00	<u>150</u>
<u>42</u>	GEN	MANIS METAL MANUFACTURING LTD.	1120 CUMMINGS AVENUE OTTAWA ON K1J 7R8	NW/241.5	0.00	<u>151</u>
<u>42</u>	GEN	AMBICO LIMITED 25-161	1120 CUMMINGS AVENUE OTTAWA ON K1J 7R8	NW/241.5	0.00	<u>152</u>
<u>42</u>	GEN	MANIS METAL MANUFACTURING LTD. 25-161	1120 CUMMINGS AVENUE OTTAWA ON K1J 7R8	NW/241.5	0.00	<u>152</u>
<u>42</u>	SCT	Ambico Limited	1120 Cummings Ave Gloucester ON K1J 7R8	NW/241.5	0.00	<u>153</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON	NW/241.5	0.00	<u>153</u>
<u>42</u>	EBR	Ambico Limited	1120 Cummings Avenue Ottawa K1J 7R8 CITY OF OTTAWA ON	NW/241.5	0.00	<u>154</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON	NW/241.5	0.00	<u>154</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON	NW/241.5	0.00	<u>154</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON	NW/241.5	0.00	<u>155</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON	NW/241.5	0.00	<u>155</u>
<u>42</u>	ECA	Ambico Limited	1120 Cummings Ave Ottawa ON K1J 7R8	NW/241.5	0.00	<u>156</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON	NW/241.5	0.00	<u>156</u>
<u>42</u>	EBR	Ambico Limited	1120 Cummings Avenue Ottawa K1J 7R8 CITY OF OTTAWA ON	NW/241.5	0.00	<u>157</u>
<u>42</u>	ECA	Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW/241.5	0.00	<u>157</u>
<u>42</u>	ECA	Ambico Limited	1120 Cummings Ave Ottawa ON K1J 7R8	NW/241.5	0.00	<u>157</u>
<u>42</u>	ECA	Ambico Limited	1120 Cummings Ave Ottawa ON K1J 7R8	NW/241.5	0.00	<u>158</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW/241.5	0.00	<u>158</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW/241.5	0.00	<u>159</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW/241.5	0.00	<u>159</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW/241.5	0.00	<u>160</u>
<u>42</u>	EASR	AMBICO LIMITED	1120 CUMMINGS AVE GLOUCESTER ON K1J 7R8	NW/241.5	0.00	<u>161</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW/241.5	0.00	<u>161</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW/241.5	0.00	<u>162</u>
<u>42</u>	GEN	Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW/241.5	0.00	<u>162</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>43</u>	EHS		1059 Ogilvie Road Gloucester ON K1J 7S6	WSW/242.3	-2.00	<u>163</u>
<u>43</u>	EHS		1059 Ogilvie Road Gloucester ON K1J 7S6	WSW/242.3	-2.00	<u>163</u>
<u>44</u>	EHS		1098 Ogilvie Road and 1178 Cummings Avenue Gloucester ON K1J 7P8	S/243.3	-1.68	<u>163</u>
<u>44</u>	EHS		1098 Ogilvie Road and 1178 Cummings Avenue Gloucester ON K1J 7P8	S/243.3	-1.68	<u>164</u>
<u>45</u>	GEN	ST. LAURENT FUNERAL HOME	1200 OGILVIE ROAD GLOUCESTER ON K1J 8V1	E/246.4	0.88	<u>164</u>
<u>45</u>	GEN	ST. LAURENT FUNERAL HOME 44-081	1200 OGILVIE ROAD GLOUCESTER ON K1J 8V1	E/246.4	0.88	<u>164</u>
<u>45</u>	GEN	HULSE PLAYFAIR & MCGARRY	1200 OGILVIE ROAD GLOUCESTER ON K1J 8V1	E/246.4	0.88	<u>164</u>
<u>45</u>	GEN	HULSE, PLAYFAIR & MCGARRY	1200 OGILVIE ROAD GLOUCESTER ON K1J 8V1	E/246.4	0.88	<u>165</u>
<u>45</u>	GEN	HULSE, PLAYFAIR & MCGARRY INC.	1200 OGILVIE ROAD OTTAWA ON K1J 8V1	E/246.4	0.88	<u>165</u>
<u>45</u>	GEN	HULSE, PLAYFAIR & MCGARRY INC.	1200 OGILVIE ROAD OTTAWA ON K1J 8V1	E/246.4	0.88	<u>165</u>
<u>45</u>	GEN	HULSE, PLAYFAIR & MCGARRY INC.	1200 OGILVIE ROAD OTTAWA ON K1J 8V1	E/246.4	0.88	<u>166</u>
<u>45</u>	GEN	HULSE, PLAYFAIR & MCGARRY INC.	1200 OGILVIE ROAD OTTAWA ON K1J 8V1	E/246.4	0.88	<u>166</u>
<u>45</u>	GEN	Hulse, Playfair & McGarry	1200 Ogilvie Rd. Ottawa ON K1J 8V1	E/246.4	0.88	<u>167</u>

Мар Кеу	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>45</u>	GEN	Hulse, Playfair & McGarry	1200 Ogilvie Rd. Ottawa ON K1J 8V1	E/246.4	0.88	<u>167</u>
<u>45</u>	GEN	Hulse, Playfair & McGarry	1200 Ogilvie Rd. Ottawa ON K1J 8V1	E/246.4	0.88	<u>167</u>
<u>46</u>	GEN	Gignul Non Profit Housing Corporation	1043 Cummings Avenue Ottawa ON K1J 7R8	N/248.8	1.00	<u>168</u>
<u>47</u>	WWIS		1043 CUMMINGS AVE Ottawa ON <b>Well ID:</b> 7159001	NNW/248.9	1.00	<u>168</u>
<u>47</u>	WWIS		1043 CUMMINGS AVE	NNW/248.9	1.00	<u>171</u>
			Well ID: 7163230			

# Executive Summary: Summary By Data Source

#### BORE - Borehole

A search of the BORE database, dated 1875-Jul 2018 has found that there are 1 BORE site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
	ON	ESE	168.90	<u>22</u>

#### **<u>CA</u>** - Certificates of Approval

A search of the CA database, dated 1985-Oct 30, 2011* has found that there are 2 CA site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
MANDARIN-OGILVIE RESTAURANT	1137 OGILVIE ROAD GLOUCESTER CITY ON K1J 7P6	E	81.94	<u>8</u>

Lower Elevation	Address	<b>Direction</b>	Distance (m)	<u>Map Key</u>
1633981 Ontario Inc.	1111 Ogilvie Rd Ottawa ON	S	80.43	<u>7</u>

#### **DTNK** - Delisted Fuel Tanks

A search of the DTNK database, dated Feb 28, 2022 has found that there are 26 DTNK site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	<u>Address</u>	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE WELDING LTD	1091 CUMMINGS AVE GLOUCESTER ON	ENE	86.94	<u>9</u>
ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE WELDING LTD	1091 CUMMINGS AVE GLOUCESTER K1J 7S2 ON CA ON	ENE	86.94	<u>9</u>

Equal/Higher Elevation	Address	Direction	<u>Distance (m)</u> 178.65	Map Key
	8V1 ON CA ON		110.00	25
TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER ON K1J 8V1	ESE	178.65	<u>25</u>
TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER ON	ESE	178.65	<u>25</u>
TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER ON	ESE	178.65	<u>25</u>
TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER ON	ESE	178.65	<u>25</u>
TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE	178.65	<u>25</u>
TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE	178.65	<u>25</u>

Lower Elevation	<u>Address</u>	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
MOT MARWAN ENTERPRISES LTD	1111 OGILVIE RD OTTAWA ON	S	80.43	<u>7</u>
SMS PETROLEUMS DIVISION OF SUNOCO NANCY NG	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S	80.43	<u>7</u>
MO & MARWAN ENTERPRISES LTD	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S	80.43	<u>7</u>
1633981 ONTARIO INC O/ A OLCO GAS BAR	1111 OGILVIE RD GLOUCESTER ON	S	80.43	<u>7</u>

1633981 ONTARIO INC O/ A OLCO GAS BAR	1111 OGILVIE RD GLOUCESTER ON	S	80.43	<u>7</u>
1633981 ONTARIO INC O/ A OLCO GAS BAR	1111 OGILVIE RD GLOUCESTER ON	S	80.43	<u>7</u>
1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S	80.43	<u>7</u>
1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S	80.43	<u>7</u>
1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S	80.43	<u>7</u>
1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S	80.43	<u>7</u>
	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S	80.43	<u>7</u>
LES PETROLES CALEX LTEE	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S	80.43	<u>7</u>
PIONEER ENERGY MANAGEMENT INC.	1134 OGILVIE RD OTTAWA ON K1J 8V1	ESE	160.74	<u>19</u>
PIONEER ENERGY MANAGEMENT INC.	1134 OGILVIE RD OTTAWA ON	ESE	160.74	<u>19</u>
PIONEER ENERGY MANAGEMENT INC.	1134 OGILVIE RD OTTAWA ON	ESE	160.74	<u>19</u>
PIONEER ENERGY MANAGEMENT INC.	1134 OGILVIE RD OTTAWA ON	ESE	160.74	<u>19</u>
	1134 OGILVIE RD GLOUCESTER ON K1J 8V1	ESE	160.74	<u>19</u>

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#### **EASR** - Environmental Activity and Sector Registry

A search of the EASR database, dated Oct 2011- Dec 31, 2022 has found that there are 1 EASR site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
AMBICO LIMITED	1120 CUMMINGS AVE GLOUCESTER ON K1J 7R8	NW	241.51	<u>42</u>

#### **EBR** - Environmental Registry

A search of the EBR database, dated 1994 - Jan 31, 2023 has found that there are 2 EBR site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	<u>Address</u>	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
Ambico Limited	1120 Cummings Avenue Ottawa K1J 7R8 CITY OF OTTAWA ON	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa K1J 7R8 CITY OF OTTAWA ON	NW	241.51	<u>42</u>

#### **ECA** - Environmental Compliance Approval

A search of the ECA database, dated Oct 2011- Dec 31, 2022 has found that there are 5 ECA site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	<u>Address</u>	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
Ambico Limited	1120 Cummings Ave Ottawa ON K1J 7R8	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Ave Ottawa ON K1J 7R8	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Ave Ottawa ON K1J 7R8	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW	241.51	<u>42</u>

Equal/Higher Elevation	Address	<b>Direction</b>	Distance (m)	<u>Map Key</u>
Lower Elevation	Address	Direction	Distance (m)	Man Kay
Lower Elevation	Address	Direction	Distance (m)	мар кеу
1633981 Ontario Inc.	1111 Ogilvie Rd Ottawa ON K1J 7P7	S	80.43	<u>7</u>

#### **EHS** - ERIS Historical Searches

A search of the EHS database, dated 1999-Jul 31, 2022 has found that there are 12 EHS site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address 1188 Cummings Ave Ottawa ON Gloucester ON K1J 7R8	Direction SSE	<u>Distance (m)</u> 29.86	<u>Map Key</u> <u>1</u>
	1137 Ogilvie Road and 1111 Cummings Avenue Gloucester ON K1J 7P6	E	81.94	<u>8</u>
	1137 Ogilvie Road and 1111 Cummings Avenue Gloucester ON K1J 7P6	E	81.94	<u>8</u>
	1150 Chemin Ogilvie Ottawa ON K1J 8V1	ESE	185.31	<u>27</u>
	1162 Ogilvie Road Gloucester ON K1J 8V1	ESE	205.64	<u>34</u>
	1162 Ogilvie Road Ottawa ON	ESE	207.72	<u>35</u>
	1055 Cummings Ave Gloucester (Ottawa) ON K1J 7S2	Ν	218.51	<u>38</u>

Lower Elev	vation <u>Address</u>	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
25	erisinfo.com   Environmental Risk Information Services			Order No: 23022400359

1098 Ogilvie Road Gloucester ON K1J 7P8	S	203.10	<u>31</u>
1059 Ogilvie Road Gloucester ON K1J 7S6	WSW	242.30	<u>43</u>
1059 Ogilvie Road Gloucester ON K1J 7S6	WSW	242.30	<u>43</u>
1098 Ogilvie Road and 1178 Cummings Avenue Gloucester ON K1J 7P8	S	243.26	<u>44</u>
1098 Ogilvie Road and 1178 Cummings Avenue Gloucester ON K1J 7P8	S	243.26	<u>44</u>

## FST - Fuel Storage Tank

A search of the FST database, dated Feb 28, 2022 has found that there are 13 FST site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	<b>Direction</b>	Distance (m)	<u>Map Key</u>
ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE WELDING LTD	1091 CUMMINGS AVE GLOUCESTER K1J 7S2 ON CA ON	ENE	86.94	<u>9</u>
TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE	178.65	<u>25</u>
TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE	178.65	<u>25</u>
TROPIC SQUARE LTD	1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA ON	ESE	178.65	<u>25</u>
Lower Elevation	<u>Address</u>	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA	S	80.43	<u>7</u>

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1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S	80.43	<u>7</u>
1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S	80.43	<u>7</u>
1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S	80.43	<u>7</u>
1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S	80.43	<u>7</u>
1633981 ONTARIO INC	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA ON	S	80.43	<u>7</u>
PARKLAND CORPORATION	1134 OGILVIE RD OTTAWA K1J 8V1 ON CA ON	ESE	160.74	<u>19</u>
PARKLAND CORPORATION	1134 OGILVIE RD OTTAWA K1J 8V1 ON CA ON	ESE	160.74	<u>19</u>
PARKLAND CORPORATION	1134 OGILVIE RD OTTAWA K1J 8V1 ON CA ON	ESE	160.74	<u>19</u>

#### **FSTH** - Fuel Storage Tank - Historic

A search of the FSTH database, dated Pre-Jan 2010* has found that there are 5 FSTH site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	<u>Address</u>	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE WELDING LTD	1091 CUMMINGS AVE GLOUCESTER ON K1J 7S2	ENE	86.94	<u>9</u>
Lower Elevation	Address	Direction	<u>Distance (m)</u>	<u>Map Key</u>

1633981 ONTARIO INC O/ A OLCO GAS BAR	1111 OGILVIE RD GLOUCESTER OTTAWA ON K1J 7P7	S	80.43	<u>7</u>
1633981 ONTARIO INC O/ A OLCO GAS BAR	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S	80.43	<u>7</u>
PIONEER PETROLEUMS MANAGEMENT INC**	1134 OGILVIE RD OTTAWA ON	ESE	160.74	<u>19</u>
PIONEER PETROLEUMS MANAGEMENT INC**	1134 OGILVIE RD OTTAWA ON K1J 8V1	ESE	160.74	<u>19</u>

#### GEN - Ontario Regulation 347 Waste Generators Summary

A search of the GEN database, dated 1986-Oct 31, 2022 has found that there are 51 GEN site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	<u>Address</u>	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
FRESH AIR EXPERIENCE INC.	1137 AGILVIE ROAD GLOUCESTER ON K1J 7P6	E	81.94	<u>8</u>
FRESH AIR EXPERIENCE INC. 15-313	1137 AGILVIE ROAD GLOUCESTER ON K1J 7P6	E	81.94	<u>8</u>
6037682 CANADA INC.	1150 OGILVIE ROAD OTTAWA ON K1J 8V1	ESE	185.31	<u>27</u>
6037682 CANADA INC.	1150 OGILVIE RD OTTAWA ON K1J 8V1	ESE	185.31	<u>27</u>
6037682 Canada Inc.	1150 OGILVIE ROAD OTTAWA ON K1J 8V1	ESE	185.31	<u>27</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW	241.51	<u>42</u>

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Equal/Higher Elevation	Address	Direction	<u>Distance (m)</u>	<u>Map Key</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON K1J 7R8	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON	NW	241.51	<u>42</u>
MANIS METAL MANUFACTURING LTD.	1120 CUMMINGS AVENUE OTTAWA ON K1J 7R8	NW	241.51	<u>42</u>
MANIS METAL MANUFACTURING LTD.	1120 CUMMINGS AVENUE OTTAWA ON K1J 7R8	NW	241.51	<u>42</u>
AMBICO LIMITED 25-161	1120 CUMMINGS AVENUE OTTAWA ON K1J 7R8	NW	241.51	<u>42</u>
MANIS METAL MANUFACTURING LTD. 25-161	1120 CUMMINGS AVENUE OTTAWA ON K1J 7R8	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON	NW	241.51	<u>42</u>

Equal/Higher Elevation Ambico Limited	Address 1120 Cummings Avenue Ottawa ON	Direction NW	Distance (m) <u>M</u> 241.51	<u>1ap Key</u> <u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON	NW	241.51	<u>42</u>
Ambico Limited	1120 Cummings Avenue Ottawa ON	NW	241.51	<u>42</u>
ST. LAURENT FUNERAL HOME	1200 OGILVIE ROAD GLOUCESTER ON K1J 8V1	E	246.38	<u>45</u>
ST. LAURENT FUNERAL HOME 44-081	1200 OGILVIE ROAD GLOUCESTER ON K1J 8V1	E	246.38	<u>45</u>
HULSE PLAYFAIR & MCGARRY	1200 OGILVIE ROAD GLOUCESTER ON K1J 8V1	E	246.38	<u>45</u>
HULSE, PLAYFAIR & MCGARRY	1200 OGILVIE ROAD GLOUCESTER ON K1J 8V1	E	246.38	<u>45</u>
HULSE, PLAYFAIR & MCGARRY INC.	1200 OGILVIE ROAD OTTAWA ON K1J 8V1	E	246.38	<u>45</u>
HULSE, PLAYFAIR & MCGARRY INC.	1200 OGILVIE ROAD OTTAWA ON K1J 8V1	E	246.38	<u>45</u>
HULSE, PLAYFAIR & MCGARRY INC.	1200 OGILVIE ROAD OTTAWA ON K1J 8V1	E	246.38	<u>45</u>
HULSE, PLAYFAIR & MCGARRY INC.	1200 OGILVIE ROAD OTTAWA ON K1J 8V1	E	246.38	<u>45</u>

Equal/Higher Elevation	<u>Address</u>	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
Hulse, Playfair & McGarry	1200 Ogilvie Rd. Ottawa ON K1J 8V1	E	246.38	<u>45</u>
Hulse, Playfair & McGarry	1200 Ogilvie Rd. Ottawa ON K1J 8V1	E	246.38	<u>45</u>
Hulse, Playfair & McGarry	1200 Ogilvie Rd. Ottawa ON K1J 8V1	E	246.38	<u>45</u>
Gignul Non Profit Housing Corporation	1043 Cummings Avenue Ottawa ON K1J 7R8	Ν	248.82	<u>46</u>

Lower Elevation	<u>Address</u>	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
OLCO Petrolleum	1111 Ogilvie Ottawa ON K1J 7P7	S	80.43	<u>7</u>
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON	S	80.43	<u>7</u>
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON	S	80.43	<u>7</u>
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON	S	80.43	<u>7</u>
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON	S	80.43	<u>7</u>
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON	S	80.43	<u>7</u>
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S	80.43	<u>7</u>

1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S	80.43	<u>7</u>
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S	80.43	<u>7</u>
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S	80.43	<u>7</u>
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S	80.43	<u>7</u>
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S	80.43	<u>7</u>
1633981 Ontario Inc	1111 Ogilvie Road Ottawa ON K1J 7P7	S	80.43	<u>7</u>
Pioneer Energy LP	1134 Ogilvie Road Gloucester ON K1J 8V1	ESE	160.74	<u>19</u>
FAIRVIEW FUNERAL &CREMATION SERVICES INC	1092 OGILVIE ROAD GLOUCESTER ON K1J 7P8	SSW	226.28	<u>39</u>
FAIRVIEW FUNERAL AND CREMATION	1092 OGILVIE ROAD GLOUCESTER ON K1J 7P8	SSW	226.28	<u>39</u>
EDIFICE BEAUFORT BUILDING INC.	1178 CUMMINGS OTTAWA ON K1J 7R8	SSE	231.57	<u>40</u>

#### HINC - TSSA Historic Incidents

A search of the HINC database, dated 2006-June 2009* has found that there are 1 HINC site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	<u>Address</u>	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
	1085 CUMMINGS AVENUE OTTAWA ON	NNE	121.26	<u>14</u>

#### **INC** - Fuel Oil Spills and Leaks

A search of the INC database, dated Feb 28, 2022 has found that there are 2 INC site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
PARKLAND CORPORATION	1134 OGILVIE RD,,OTTAWA,ON,K1J 8V1,CA ON	ESE	160.74	<u>19</u>
	4297 WELDON DR, OTTAWA ON	WSW	204.51	<u>32</u>

#### PRT - Private and Retail Fuel Storage Tanks

A search of the PRT database, dated 1989-1996* has found that there are 8 PRT site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	<u>Address</u>	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE W	1091 CUMMINGS AV GLOUCESTER ON K1J 7S2	ENE	86.94	<u>9</u>
1085091 ONTARIO LTD	1154 OGLIVIE RD GLOUCESTER ON K1J 8V1	ESE	178.65	<u>25</u>
Lower Elevation	Address	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
CALEX DIVISION OF SUNOCO ATTN ROBERTA WALSH	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S	80.43	<u>7</u>

LES PETROLES CALEX LTEE	1111 OGILVIE OTTAWA ON K1J7P7	S	80.43	<u>7</u>
CALEX DIVISION OF SUNOCO ATTN ROBERTA WALSH	1111 OGILVIE RD GLOUCESTER ON K1J 7P7	S	80.43	<u>7</u>

CALEX DIVISION OF SUNOCO ATTN MARY MISANGYI	1111 OGILVIE OTTAWA ON K1J7P7	S	80.43	<u>7</u>
CALEX DIVISION OF SUNOCO ATTN MARY MISANGYI	1111 OGILVIE OTTAWA ON K1J7P7	S	80.43	<u>7</u>
C CORP (ONTARIO) INC ATTN ACCOUNTS PAYABLE	1134 OGILVIE RD OTTAWA ON K1J8V1	ESE	160.74	<u>19</u>

#### PTTW - Permit to Take Water

A search of the PTTW database, dated 1994 - Jan 31, 2023 has found that there are 1 PTTW site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	<u>Address</u>	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
9456-5082 Quebec Inc., as general partner for and on behalf of Lux Place L.P.	1098 Ogilvie Road and 1178 Cummings Avenue Ottawa, ON Canada ON	S	204.56	<u>33</u>

#### **<u>RST</u>** - Retail Fuel Storage Tanks

A search of the RST database, dated 1999-May 31, 2022 has found that there are 9 RST site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	<u>Address</u>	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
TROPIC SQUARE	1154 OGILVIE RD GLOUCESTER ON K1J8V1	ESE	178.65	<u>25</u>
FENELON'S GAZ	1154 OGILVIE RD GLOUCESTER ON K1J 8V1	ESE	178.65	<u>25</u>
Lower Elevation	<u>Address</u>	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
CALEX SERVICE STATION	1111 OGILVIE RD GLOUCESTER ON K1J7P7	S	80.43	7
ECONO GAS	1111 OGILVIE RD APT 1 GLOUCESTER ON K1J7P7	S	80.43	<u>7</u>

FAS GAS PLUS	1111 OGILVIE RD UNIT 1 GLOUCESTER ON K1J7P7	S	80.43	<u>7</u>
PIONEER PETROLEUMS	1134 OGILVIE RD GLOUCESTER ON K1J8V1	ESE	160.74	<u>19</u>
PIONEER PETROLEUMS	1134 OGILVIE RD GLOUCESTER ON K1J 8V1	ESE	160.74	<u>19</u>
PIONEER PETROLEUMS	1134 OGILVIE RD OTTAWA ON K1J 8V1	ESE	160.74	<u>19</u>
PIONEER PETROLEUMS	1134 OGILVIE RD GLOUCESTER ON K1J8V1	ESE	160.74	<u>19</u>

#### **<u>SCT</u>** - Scott's Manufacturing Directory

A search of the SCT database, dated 1992-Mar 2011* has found that there are 4 SCT site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation Ambico Limited	Address 1120 Cummings Ave	<u>Direction</u> NW	<u>Distance (m)</u> 241.51	<u>Map Key</u> 42
	Gloucester ON K1J 7R8			-
Ambico Limited	1120 Cummings Ave Gloucester ON K1J 7R8	NW	241.51	<u>42</u>
AMBICO LIMITED	1120 Cummings Ave Ottawa ON K1J 7R8	NW	241.51	<u>42</u>
Lower Elevation	Address	<u>Direction</u>	<u>Distance (m)</u>	<u>Map Key</u>
AFSC Future Security Controls	1088 Ogilvie Rd Gloucester ON K1J 7P8	SSW	201.21	<u>30</u>

#### SPL - Ontario Spills

A search of the SPL database, dated 1988-Sep 2020; Dec 2020-Mar 2021 has found that there are 5 SPL site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
UNKNOWN	CUMMINGS AVE JUST SOUTH OF OLGILVIE GLOUCESTER CITY ON	SE	114.30	<u>13</u>
Labrador Spring Water <unofficial></unofficial>	OGILVIE STREET / CUMMING STREET <unofficial> Ottawa ON</unofficial>	SE	114.30	<u>13</u>
Lower Elevation	<u>Address</u>	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
	1111 Ogilvie Rd	S	80.43	7
	Ottawa ON			_
Triangle Pump Service Limited	1134 Ogilvie Road Ottawa ON K1J 8V1	ESE	160.74	_ <u>19</u>

#### WWIS - Water Well Information System

A search of the WWIS database, dated Jun 30 2022 has found that there are 24 WWIS site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
	c1196 Cummings Ave Ottawa ON	SSE	44.74	<u>2</u>
	Well ID: 7346072			
	1198 Cummings Ave Ottawa ON	SSE	56.45	<u>3</u>
	<b>Well ID:</b> 7346071			
	lot 25 con 1 ON	Ν	58.69	<u>4</u>
	Well ID: 1501127			

Equal/Higher Elevation	<u>Address</u>	Direction	<u>Distance (m)</u>	<u>Map Key</u>
	lot 25 con 1 ON	ENE	65.86	<u>5</u>
	<b>Well ID:</b> 1501129			
	lot 25 con 1 ON	NE	79.16	<u>6</u>
	Well ID: 1501126			
	lot 25 con 1 ON	SE	92.04	<u>10</u>
	<b>Well ID:</b> 1501115			
	lot 25 con 1 ON	NE	92.23	<u>11</u>
	<b>Well ID:</b> 1501124			
	lot 25 con 1 ON	NE	128.27	<u>15</u>
	<b>Well ID:</b> 1501128			
	lot 26 con 2 ON	ESE	177.85	<u>24</u>
	Well ID: 1501355			
	lot 25 con 1 ON	E	183.17	<u>26</u>
	Well ID: 1501123			
	lot 25 con 1 ON	ENE	211.73	<u>36</u>
	Well ID: 1501130			
	1162 OGILIVE ROAD Ottawa ON	ESE	218.36	<u>37</u>
	Well ID: 7157667			
	1043 CUMMINGS AVE OTTAWA ON	Ν	235.94	<u>41</u>
	Well ID: 7163232			
	1043 CUMMINGS AVE Ottawa ON	NNW	248.93	<u>47</u>
	Well ID: 7159001			
	1043 CUMMINGS AVE OTTAWA ON	NNW	248.93	<u>47</u>

Equal/Higher Elevation	<u>Address</u>	<b>Direction</b>	<u>Distance (m)</u>	<u>Map Key</u>
	Well ID: 7163230			

Lower Elevation	<u>Address</u>	Direction	<u>Distance (m)</u>	<u>Map Key</u>
	lot 25 con 1 ON	SW	113.83	<u>12</u>
	<b>Well ID:</b> 1510842			
	1134 OGILVIE RD. Ottawa ON	ESE	146.79	<u>16</u>
	Well ID: 7224359			
	1134 ON	ESE	154.77	<u>17</u>
	<b>Well ID:</b> 7224188			
	1134 OGILVIE RD ON	SE	155.61	<u>18</u>
	<b>Well ID:</b> 7224189			
	1134 OGILVIE RD. Ottawa ON	ESE	166.78	<u>20</u>
	Well ID: 7224358			
	1134 ON	ESE	168.41	<u>21</u>
	Well ID: 7224187			
	lot 26 con 2 ON	ESE	169.02	<u>23</u>
	Well ID: 1501363			
	1182 OGILIVE ROAD Ottawa ON	ESE	193.69	<u>28</u>
	Well ID: 7157668			
	ON	S	194.65	<u>29</u>
	Well ID: 7388761			



Source: © 2021 ESRI StreetMap Premium.

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## Address: 1184, 1188 & 1196 Cummings Avenue, Gloucester, ON

Source: ESRI World Imagery

# Order Number: 23022400359



© ERIS Information Limited Partnership



# **Topographic Map**

### Address: 1184, 1188 & 1196 Cummings Avenue, ON

Source: ESRI World Topographic Map

## Order Number: 23022400359



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# Detail Report

Мар Кеу	Number Record	of Direction s Distance	n/   e (m) (	Elev/Diff (m)	Site		DB
1	1 of 1	SSE/29.9	7	3.9/0.00	1188 Cummings Ave ( Gloucester ON K1J 7	Dttawa ON R8	EHS
Order No: Status: Report Type. Report Date: Date Receive Previous Situ Lot/Building Additional Int	: ed: e Name: Size: fo Ordered	20190809156 C Standard Report 15-AUG-19 09-AUG-19 Fire Insur. Ma	aps and/o	r Site Plans	Nearest Intersection: Municipality: Client Prov/State: Search Radius (km): X: Y:	ON .25 -75.632344 45.42677	
2	1 of 1	SSE/44.7	7	3.9/0.00	c1196 Cummings Ave Ottawa ON		WWIS
Well ID: Construction Use 1st: Use 2nd: Final Well St Water Type: Casing Mate Audit No: Tag: Constructn I Elevation (m Elevatn Relia Depth to Beo Well Depth: Overburden/ Pump Rate: Static Water Clear/Cloudy Municipality: Site Info: PDF URL (Mate)	n Date: hatus: rial: Method: ): abilty: drock: /Bedrock: /Bedrock: / Level: /:	7346072 Monitoring and Test Ho Monitoring and Test Ho Z298268 A274739 GLOUCEST	ole ole ER TOWN	ISHIP	Flowing (Y/N): Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	30-Oct-2019 00:00:00 TRUE 7241 7 OTTAWA-CARLETON	
<u>Additional De</u> Well Complet Year Complet Depth (m): Latitude: Longitude: Path:	<u>etail(s) (Ma</u> ted Date: ted:	2019/09/16 2019 6.1 45.42664091 -75.6322914	95665 072156				
<u>Bore Hole Inf</u> Bore Hole ID DP2BR: Spatial Statu	f <u>ormation</u> ): IS:	1007697673			Elevation: Elevrc: Zone:	18	
Direction/ Distance (m)	Elev/Diff (m)	Site		DB			
---------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------			
2019 00:00:00 on Water Well Reco	rd	East83: North83: Org CS: UTMRC: UTMRC Desc: Location Method:	450537.00 5030541.00 UTM83 4 margin of error : 30 m - 100 m wwr				
1007890235 1 8 BLACK 27 OTHER 11 GRAVEL 66 DENSE 0.0 0.310000002384185 m	58						
1007890236 2 6 BROWN 28 SAND 12 STONES 77 LOOSE 0.310000002384185 2.440000057220459 m	58 )						
1007890237 3 8 BLACK 17 SHALE 85 SOFT 2.440000057220459 6.099999904632568	) }						
	Direction/ Distance (m) Distance (m) 0019 00:00:00 on Water Well Reco 00 Water Well Reco 00 Water Well Reco 1007890235 1 8 BLACK 27 OTHER 11 GRAVEL 66 DENSE 0.0 0.310000002384185 m 1007890236 2 6 BROWN 28 SAND 12 STONES 77 LOOSE 0.310000002384185 m 1007890236 2 6 BROWN 28 SAND 12 STONES 77 LOOSE 0.3100000057220455 m	Direction/ Distance (m)   Elev/Diff (m)     2019 00:00:00 on Water Well Record	Direction/ Distance (m)   Elew/Diff (m)   Site     Image: Site (m)   Site (m)   Site (m)     Image: Site (m)   Site	Direction/ Distance (m)   Elev/Diff (m)   Site          2.5: UTMRC: 007890235       1 8 BLACK 27 07100000023841858 SNND       1 1007890237       3 BLACK 27 071HER       1 1007890237       3 BLACK 27 071HER       1 1007890237       3 BLACK 2 50FT       2.440000057220459       m         2.5: UTMRC Desc: UTMRC Desc:			

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DE
Formation Er	nd Depth UOM:	m				
<u>Annular Spac</u> Sealing Reco	<u>ce/Abandonment</u> rd					
Plug ID:		1007891422				
Plug From:		0.310000002384185	8			
Plug To: Plug Depth U	IOM:	2.740000009536743 m				
<u>Annular Spac</u> Sealing Reco	<u>ce/Abandonment</u> ord					
Plug ID:		1007891421				
Layer: Plug From:		1 0.0				
Plug To: Plug Depth U	IOM:	0.310000002384185 m	8			
<u>Annular Spac</u> Sealing Reco	<u>ce/Abandonment</u> ard					
Plug ID:		1007891423				
Layer: Plug From:		3 2.740000009536743	ł			
Plug To: Plug Depth U	IOM-	6.099999904632568 m				
r lug Depar o	<b>C</b>					
<u>Method of Co</u> <u>Use</u>	onstruction & Well					
Method Cons	truction ID:	1007892585				
Method Cons Method Cons Other Method	truction Code: truction: Construction:	ວ Air Percussion				
<u>Pipe Information Pipe Information Pipe Information Pipe Information Pipe Pipe Pipe Pipe Pipe Pipe Pipe Pipe</u>	tion					
Pipe ID:		1007888646				
Casing No: Comment:		0				
Alt Name:						
Construction	Record - Casing					
Casing ID:		1007893026 1				
Layer: Material:		5				
Open Hole or	Material:	PLASTIC				
Depth From. Depth To:		3.099999904632568	4			
Casing Diam	eter:	5.199999809265137				
Casing Depth	n UOM:	m				
<u>Construction</u>	Record - Screen					
Screen ID:		1007893380				
Layer:		1				
44	erisinfo.com   Env	vironmental Risk Infor	mation Service	S	Orc	ler No: 23022400359

Map Key	Numbe Record	r of Is	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Slot: Screen Top D Screen End D Screen Mater Screen Depth Screen Diame	Depth: Depth: rial: n UOM: eter UOM: eter:		10 3.0999999046325 6.09999999046325 5 m cm 6.0300002098083	684 68 5			
Results of We	ell Yield Te	esting					
Pumping Tes Pump Test ID Pump Set At: Static Level: Final Level A Recommende Pumping Rat	t Method I ): fter Pumpi ed Pump D e:	Desc: ing: Depth:	1007894063				
Flowing Rate Recommende	: ed Pump R	Rate:					
Levels UOM: Rate UOM: Water State A	After Test (	Code:	m LPM				
Water State A Pumping Tes Pumping Dur Pumping Dur Flowing:	After Test: at Method: ration HR: ration MIN:		0				
Hole Diamete	<u>er</u>						
Hole ID: Diameter: Depth From: Depth To: Hole Depth U Hole Diamete	IOM: er UOM:		1007892093 11.430000305175 0.0 3.3499999046325 m cm	781 684			
Hole Diamete	<u>er</u>						
Hole ID: Diameter: Depth From: Depth To: Hole Depth U Hole Diamete	IOM: er UOM:		1007892094 8.8900003433227 3.3499999046325 6.09999999046325 m cm	54 684 68			
<u>Links</u>							
Bore Hole ID Depth M: Year Comple Well Comple Audit No:	): eted: eted Dt:	10076976 6.1 2019 2019/09/⁄ Z298268	673 16		Tag No: Contractor: Path: Latitude: Longitude:	A274739 7241 734\7346072.pdf 45.4266409195665 -75.6322914072156	
<u>3</u>	1 of 1		SSE/56.4	73.9 / 0.00	1198 Cummings Ave Ottawa ON		WWIS
Well ID:		7346071			Flowing (Y/N):		
Construction Use 1st:	Date:	Monitorin	g and Test Hole		Flow Rate: Data Entry Status:		
Use 2nd: Final Well Sta	atus:	Monitorin	g and Test Hole		Data Src: Date Received:	30-Oct-2019 00:00:00	
	originfo o		onmontal Pick Int	formation Service	00	Order No:	22022400250

erisinfo.com | Environmental Risk Information Services

Order No: 23022400359

Map Key Number Records	of S	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Water Type:				Selected Flag:	TRUE	
Casing Material:	7209267			Abandonment Rec:	7241	
Audit No: Taa:	A274740			Contractor: Form Version:	7	
Constructn Method:	11214140			Owner:	1	
Elevation (m):				County:	OTTAWA-CARLETON	
Elevatn Reliabilty:				Lot:		
Depth to Bedrock:				Concession:		
Well Depth:				Concession Name:		
Overburden/Bedrock:				Easting NAD83:		
Static Water Level				Zone [.]		
Clear/Cloudy:				UTM Reliability:		
Municipality:		GLOUCESTER TOV	VNSHIP			
Site Info:						
PDF URL (Map):		https://d2khazk8e83	rdv.cloudfront.ne	et/moe_mapping/downloads	/2Water/Wells_pdfs/734\7346071.pdf	
<u>Additional Detail(s) (Map</u>	<u>2)</u>					
Well Completed Date:		2019/09/16				
Year Completed:		2019				
Deptn (m):		7.01				
Longitude:		-75.6321754619596				
Path:		734\7346071.pdf				
Bore Hole Information						
Bore Hole ID: DP2BR:	10076976	70		Elevation: Elevrc:		
Spatial Status:				Zone:	18	
Code OB:				East83:	450546.00	
Code OB Desc:				North83:	5030532.00	
Open Hole:				Org CS:	01M83	
Date Completed:	16-Sen-20	19 00.00.00		UTMRC:	4 margin of error : 30 m - 100 m	
Remarks:	10 000 20	10 00.00.00		Location Method:	wwr	
Loc Method Desc:		on Water Well Reco	rd			
Elevrc Desc:						
Location Source Date:	_					
Improvement Location S	Source:					
Improvement Location I	//ethoa: ont:					
Supplier Comment:	em.					
Overburden and Bedroc	k					
Materials Interval	_					
Formation ID:		1007890232				
Layer:		1				
Color:						
General Color: Mat1:						
Most Common Material		TOPSOIL				
Mat2:						
Mat2 Desc:						
Mat3:		85				
Mat3 Desc:		SOFT				
Formation Top Depth:		0.0				
Formation End Depth:	<b></b>	0.31000002384185	8			
Formation End Depth U	JM:	m				
46 erisinfo.co	m   Enviro	onmental Risk Info	rmation Servic	es	Order No: 230224	100359

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Overburden a</u> <u>Materials Inte</u>	and Bedrock erval				
Formation ID Layer: Color: General Colo Mat1: Most Commo Mat2: Mat2 Desc: Mat3 Desc: Formation To Formation Er	: n Material: p Depth: id Depth: id Depth:	1007890233 2 6 BROWN 28 SAND 12 STONES 77 LOOSE 0.310000002384185 2.440000057220459 m	8		
<u>Overburden a</u> Materials Inte	and Bedrock erval				
Formation ID Layer: Color: General Colo Mat1: Most Commo Mat2: Mat2 Desc: Mat3 Desc: Formation To Formation Er	: n Material: p Depth: Id Depth: Id Depth UOM:	1007890234 3 8 BLACK 17 SHALE 85 SOFT 2.440000057220459 7.010000228881836 m			
<u>Annular Spac</u> Sealing Reco	e/Abandonment rd				
Plug ID: Layer: Plug From: Plug To: Plug Depth U	ОМ:	1007891418 1 0.0 0.310000002384185 m	8		
<u>Annular Spac</u> <u>Sealing Reco</u>	e/Abandonment rd				
Plug ID: Layer: Plug From: Plug To: Plug Depth U	ОМ:	1007891419 2 0.310000002384185 3.660000085830688 m	8 5		
<u>Annular Spac</u> Sealing Reco	e/Abandonment rd				
Plug ID: Layer: Plug From: Plug To: Plug Depth U	ОМ:	1007891420 3 3.660000085830688 7.010000228881836 m	5		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Method of Co</u> <u>Use</u>	onstruction & Well				
Method Cons Method Cons Method Cons Other Method	struction ID: struction Code: struction: d Construction:	1007892579 5 Air Percussion			
<u>Pipe Informa</u>	<u>tion</u>				
Pipe ID: Casing No: Comment: Alt Name:		1007888645 0			
Construction	Record - Casing				
Casing ID: Layer: Material: Open Hole or Depth From: Depth To: Casing Diame Casing Diame Casing Depth	Material: eter: eter UOM: n UOM:	1007893025 1 5 PLASTIC 0.0 3.960000038146972 4.03000020980835 cm m	27		
Construction	Record - Screen				
Screen ID: Layer: Slot: Screen Top L Screen End L Screen Mater Screen Depth Screen Diame	Depth: Depth: rial: n UOM: eter UOM: eter:	1007893379 1 10 3.960000038146972 7.010000228881836 5 m cm 4.820000171661377	27		
<u>Results of We</u>	ell Yield Testing				
Pumping Tes Pump Test ID Pump Set At: Static Level A Final Level A Recommende Pumping Rate Flowing Rate	t Method Desc: ): fter Pumping: ed Pump Depth: e: :	1007894062			
Recommende Levels UOM: Rate UOM: Water State A Water State A	ed Pump Rate: After Test Code: After Test:	m LPM			
Pumping Tes Pumping Dur Pumping Dur Flowing:	t Method: ration HR: ration MIN:	0			

## Hole Diameter

# Hole ID:

Map Key Numbe Record	r of Direction/ ls Distance (m)	Elev/Diff (m)	Site	DB
Diameter: Depth From: Depth To: Hole Depth UOM: Hole Diameter UOM:	7.619999885559082 3.0999999904632568 7.010000228881836 m cm	2 34 5		
Hole Diameter				
Hole ID: Diameter: Depth From: Depth To: Hole Depth UOM: Hole Diameter UOM:	1007892091 11.43000030517578 0.0 3.0999999904632568 m cm	31 34		
<u>Links</u>				
Bore Hole ID: Depth M: Year Completed: Well Completed Dt: Audit No:	1007697670 7.01 2019 2019/09/16 Z298267		Tag No: Contractor: Path: Latitude: Longitude:	A274740 7241 734\7346071.pdf 45.426560550015 -75.6321754619596
4 1 of 1	N/58.7	73.9/0.00	lot 25 con 1 ON	WWIS
Well ID: Construction Date: Use 1st: Use 2nd: Final Well Status: Water Type: Casing Material: Audit No: Tag: Constructn Method: Elevation (m): Elevatin Reliabilty: Depth to Bedrock: Well Depth: Overburden/Bedrock: Pump Rate: Static Water Level: Clear/Cloudy: Municipality: Site Info: PDF URL (Map): Additional Detail(s) (Material Well Completed Date: Year Completed:	1501127 Domestic 0 Water Supply GLOUCESTER TOW https://d2khazk8e83 (p) 1959/06/12 1959	VNSHIP rdv.cloudfront.n	Flowing (Y/N): Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	1 22-Jun-1959 00:00:00 TRUE 2311 1 OTTAWA-CARLETON 025 01 OF
Depth (m): Latitude: Longitude: Path:	24.384 45.4275488368718 -75.6325099122333 150\1501127.pdf			
Bore Hole Information				
Bore Hole ID: DP2BR:	10023170		Elevation: Elevrc:	
49 erisinfo.c	om   Environmental Risk Info	rmation Servic	es	Order No: 23022400359

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Spatial Status Code OB: Code OB Desc Open Hole: Cluster Kind: Date Complete Remarks: Loc Method D Elevrc Desc: Location Sour	: c: ed: 12-Jun-1 esc: rce Date:	959 00:00:00 Original Pre1985 UT	'M Rel Code 5: m	Zone: East83: North83: Org CS: UTMRC: UTMRC Desc: Location Method: nargin of error : 100 m - 30	18 450520.70 5030642.00 5 margin of error : 100 m - 300 m p5 0 m	
Improvement i Improvement i Source Revisi Supplier Comi	Location Source. Location Method: on Comment: ment: <u>nd Bedrock</u>					
Materials Inter	rval					
Formation ID: Layer: Color: General Color		930991043 2				
Mat1: Most Commor Mat2: Mat2 Desc: Mat3:	n Material:	17 SHALE				
<i>Mat3 Desc: Formation Top Formation End Formation End</i>	o Depth: d Depth: d Depth UOM:	4.0 80.0 ft				
<u>Overburden al</u> <u>Materials Inter</u>	nd Bedrock rval					
Formation ID: Layer: Color:	_	930991042 1				
Mat1: Most Commor Mat2:	n Material:	11 GRAVEL 05 CLAX				
Mat2 Desc: Mat3: Mat2 Desc:		CLAT				
Formation Top Formation End Formation End	o Depth: d Depth: d Depth UOM:	0.0 4.0 ft				
<u>Method of Cor</u> <u>Use</u>	nstruction & Well					
Method Const Method Const Method Const Other Method	ruction ID: ruction Code: ruction: Construction:	961501127 1 Cable Tool				
<u>Pipe Informati</u>	<u>on</u>					
Pipe ID: Casing No: Comment:		10571740 1				

Alt Name:

#### Construction Record - Casing

Casing ID:	930039247
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	80.0
Casing Diameter:	4.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

## Construction Record - Casing

Casing ID:	930039246
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	10.0
Casing Diameter:	4.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

## Results of Well Yield Testing

Pumping Test Method Desc:	PUMP
Pump Test ID:	991501127
Pump Set At:	
Static Level:	8.0
Final Level After Pumping:	24.0
Recommended Pump Depth:	22.0
Pumping Rate:	4.0
Flowing Rate:	
Recommended Pump Rate:	4.0
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	No

#### Water Details

Water ID:	933453814
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	76.0
Water Found Depth UOM:	ft

#### <u>Links</u>

Bore Hole ID:	10023170	Tag No:	
Depth M:	24.384	Contractor:	2311
Year Completed:	1959	Path:	150\1501127.pdf
Well Completed Dt:	1959/06/12	Latitude:	45.4275488368718
Audit No:		Longitude:	-75.6325099122333

Мар Кеу	Number Records	of	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
<u>5</u>	1 of 1		ENE/65.9	73.9 / 0.00	lot 25 con 1 ON		wwis
Well ID: Construction Use 1st: Use 2nd: Final Well Sta Water Type: Casing Mater Audit No: Tag: Constructn M Elevation (m, Elevatn Relia Depth to Bea Well Depth: Overburden// Pump Rate: Static Water Clear/Cloudy Municinality	n Date: atus: rial: Method: ): hobilty: frock: Bedrock: Level: ':	1501129 Domestic 0 Water Su	GLOUCESTER T	DWNSHIP	Flowing (Y/N): Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	1 07-Dec-1962 00:00:00 TRUE 1504 1 OTTAWA-CARLETON 025 01 OF	
Site Info: PDF URL (Ma	ар):		https://d2khazk8e8	33rdv.cloudfront.ne	t/moe_mapping/downloads/2	Water/Wells_pdfs/150\1501129.pdf	
<u>Additional De</u> Well Comple	<u>etail(s) (Map</u> ted Date:	<u>)</u>	1962/10/15				
Year Comple Depth (m): Latitude: Longitude: Path:	itea:		1962 28.0416 45.427193406758 -75.63167503127 150\1501129.pdf	9 76			
Bore Hole Int	formation						
Bore Hole ID DP2BR: Spatial Statu Code OB: Code OB Des Open Hole: Cluster Kind.	: s: sc: :	10023172	2		Elevation: Elevrc: Zone: East83: North83: Org CS: UTMRC:	18 450585.70 5030602.00 5	
Date Comple Remarks:	ted:	15-Oct-19	962 00:00:00		UTMRC Desc: Location Method:	margin of error : 100 m - 300 m p5	
Loc Method I Elevrc Desc: Location Sou Improvement Source Revis Supplier Con	Desc: urce Date: t Location S t Location N sion Comme nment:	Source: Aethod: ent:	Original Pre1985 (	JTM Rel Code 5: m	nargin of error : 100 m - 300 n	n	
<u>Overburden a</u> Materials Inte	and Bedroc. erval	<u>k</u>					
Formation ID Layer: Color: General Colo	): )r:		930991047 2 6 BROWN				
52	erisinfo.co	m   Envir	onmental Risk In	formation Service	25	Order No: 23022	2400359

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Mat1: Most Commor Mat2: Mat2 Desc: Mat3: Mat3 Desc:	n Material:	19 SLATE			
Formation Top Formation End Formation End	o Depth: d Depth: d Depth UOM:	8.0 92.0 ft			
<u>Overburden al</u> Materials Inter	nd Bedrock rval				
Formation ID: Layer: Color:		930991046 1			
General Color Mat1: Most Common Mat2: Mat2 Desc: Mat3:	: n Material:	17 SHALE			
Formation Top Formation End Formation End	o Depth: d Depth: d Depth UOM:	0.0 8.0 ft			
<u>Method of Cor</u> <u>Use</u>	nstruction & Well				
Method Const Method Const Method Const Other Method	truction ID: truction Code: truction: Construction:	961501129 1 Cable Tool			
<u>Pipe Informati</u>	ion				
Pipe ID: Casing No: Comment: Alt Name:		10571742 1			
Construction	Record - Casing				
Casing ID: Layer: Material: Open Hole or J	Material:	930039251 2 4 OPEN HOLE			
Depth From. Depth To: Casing Diame Casing Diame Casing Depth	ter: ter UOM: UOM:	92.0 5.0 inch ft			
<u>Construction</u>	Record - Casing				
Casing ID: Layer: Material: Open Hole or Depth From:	Material:	930039250 1 1 STEEL			
Depth To:		16.0			

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Casing Diame Casing Diame Casing Depth	eter: eter UOM: 0 UOM:	5.0 inch ft				
<u>Results of We</u>	ell Yield Testing					
Pumping Test Pump Test ID Pump Set At:	t Method Desc: :	PUMP 991501129				
Static Level: Final Level At Recommende Pumping Rate	fter Pumping: ed Pump Depth: e:	12.0 30.0 30.0 12.0				
Flowing Rate: Recommende Levels UOM: Rate UOM: Water State A Water State A Pumping Tes Pumping Dura Flowing:	ed Pump Rate: fter Test Code: fter Test: t Method: ation HR: ation MIN:	12.0 ft GPM 1 CLEAR 1 3 0 No				
<u>Water Details</u>						
Water ID: Layer: Kind Code: Kind: Water Found Water Found	Depth: Depth UOM:	933453816 1 1 FRESH 92.0 ft				
<u>Links</u>						
Bore Hole ID: Depth M: Year Complet Well Complet Audit No:	100 28.0 <b>ed:</b> 196 <b>ed Dt:</b> 196	23172 0416 2 2/10/15		Tag No: Contractor: Path: Latitude: Longitude:	1504 150\1501129.pdf 45.4271934067589 -75.6316750312776	
<u>6</u>	1 of 1	NE/79.2	74.9 / 1.00	lot 25 con 1 ON		WWIS
Well ID: Construction Use 1st: Use 2nd: Final Well Sta Water Type: Casing Mater Audit No: Tag: Constructn M Elevation (m). Elevatn Relial Depth to Bedi Well Depth: Overburden/E Pump Rate: Static Water L Clear/Cloudy:	150 Date: Don 0 ttus: Wat ial: ial: iethod: : bilty: rock: Bedrock: _evel:	1126 nestic er Supply		Flowing (Y/N): Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	1 18-Apr-1957 00:00:00 TRUE 2311 1 OTTAWA-CARLETON 025 01 OF	

Map Key Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
<i>Municipality: Site Info:</i>	GLOUCESTER TO	WNSHIP			
PDF URL (Map):	https://d2khazk8e83	Brdv.cloudfront.ne	et/moe_mapping/download	s/2Water/Wells_pdfs/150\1501126.pdf	
<u>Additional Detail(s) (Map)</u>					
Well Completed Date: Year Completed: Depth (m): Latitude: Longitude: Path:	1957/03/16 1957 38.1 45.4275527278765 -75.631806872455 150\1501126.pdf				
Bore Hole Information					
Bore Hole ID:10DP2BR:Spatial Status:Code OB:Code OB Desc:Code OB Desc:Open Hole:Cluster Kind:Date Completed:16	0023169 5-Mar-1957 00:00:00		Elevation: Elevrc: Zone: East83: North83: Org CS: UTMRC: UTMRC Desc:	18 450575.70 5030642.00 9 unknown UTM	
Kemarks:   Loc Method Desc:   Elevrc Desc:   Location Source Date:   Improvement Location Sou   Improvement Location Meth   Source Revision Comment:   Supplier Comment:   Overburden and Bedrock   Materials Interval	Original Pre1985 U ⁻ rce: hod:	TM Rel Code 9: u	unknown UTM	μa	
Formation ID: Layer: Color: General Color: Mat1: Most Common Material: Mat2: Mat2 Desc: Mat3: Mat3 Desc: Formation Top Depth: Formation End Depth UOM:	930991041 1 17 SHALE 0.0 125.0 ft				
<u>Method of Construction &amp; V</u> <u>Use</u>	<u>Vell_</u>				
Method Construction ID: Method Construction Code Method Construction: Other Method Construction	961501126 : 1 Cable Tool :				
Pipe Information					
Pipe ID: Casing No:	10571739 1				

Comment: Alt Name:

## Construction Record - Casing

Casing ID:	930039244
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	12.0
Casing Diameter:	4.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

## Construction Record - Casing

Casing ID:	930039245
Laver:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	125.0
Casing Diameter:	4.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

#### **Results of Well Yield Testing**

Pumping Test Method Desc:	PUMP
Pump Test ID:	991501126
Pump Set At:	
Static Level:	8.0
Final Level After Pumping:	100.0
Recommended Pump Depth:	
Pumping Rate:	1.0
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	2
Pumping Duration MIN:	0
Flowing:	No

#### Water Details

Water ID:	933453813
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	90.0
Water Found Depth UOM:	ft

# <u>Links</u>

Bore Hole ID:	10023169	Tag No:	
Depth M:	38.1	Contractor:	2311
Year Completed:	1957	Path:	150\1501126.pdf
Well Completed Dt:	1957/03/16	Latitude:	45.4275527278765

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Audit No:				Longitude:	-75.631806872455	
7	1 of 44	S/80.4	72.9/-1.00	CALEX DIVISIO WALSH 1111 OGILVIE R GLOUCESTER (	N OF SUNOCO ATTN ROBERTA 2D ON K1J 7P7	PRT
Location ID: Type: Expiry Date: Capacity (L): Licence #:		19079 retail 1992-12-31 136380 0076343748				
7	2 of 44	S/80.4	72.9/-1.00	CALEX DIVISIO WALSH 1111 OGILVIE R GLOUCESTER (	N OF SUNOCO ATTN ROBERTA PD ON K1J 7P7	PRT
Location ID: Type: Expiry Date: Capacity (L): Licence #:		19079 retail 1994-12-31 136380 0076389428				
7_	3 of 44	S/80.4	72.9 / -1.00	LES PETROLES 1111 OGILVIE OTTAWA ON K1	S CALEX LTEE	PRT
Location ID: Type: Expiry Date: Capacity (L): Licence #:		28325 retail 1995-08-31 136313 0076421999				
7_	4 of 44	S/80.4	72.9/-1.00	CALEX DIVISIO MISANGYI 1111 OGILVIE OTTAWA ON K1	N OF SUNOCO ATTN MARY	PRT
Location ID: Type: Expiry Date: Capacity (L): Licence #:		28325 retail 1992-12-31 136380 0076343748				
<u>7</u>	5 of 44	S/80.4	72.9/-1.00	CALEX DIVISIO MISANGYI 1111 OGILVIE OTTAWA ON K1	N OF SUNOCO ATTN MARY 1J7P7	PRT
Location ID: Type: Expiry Date: Capacity (L): Licence #:		28325 retail 1994-12-31 136380 0076389428				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
7	6 of 44	S/80.4	72.9/-1.00	CALEX SERVICE STATION 1111 OGILVIE RD GLOUCESTER ON K1J7P7	RST
Headcode: Headcode De Phone: List Name: Description:	esc:	1186800 Service Stations-Ga 6137420528	asoline, Oil & Natural	Gas	
7	7 of 44	S/80.4	72.9/-1.00	OLCO Petrolleum 1111 Ogilvie Ottawa ON K1J 7P7	GEN
Generator No SIC Code:	o:	ON7373036			
Approval Ye PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ao Contaminate MHSW Facili	ion: ars: ontact: dmin: d Facility: ity:	03,04			
<u>7</u>	8 of 44	S/80.4	72.9/-1.00	1633981 ONTARIO INC O/ A OLCO GAS BAR 1111 OGILVIE RD GLOUCESTER OTTAWA ON K1J 7P7	FSTH
License Issu Tank Status: Tank Status Operation Ty Facility Type	e Date: As Of: /pe: ::	7/25/2005 Licensed August 2007 Retail Fuel Outlet Gasoline Station - S	Self Serve		
<u>Details</u> Status: Year of Insta Corrosion Pl Capacity: Tank Fuel Ty	llation: rotection: rpe:	Active 1989 27274 Liquid Fuel Single V	Vall UST - Gasoline		
Status: Year of Insta Corrosion Pi Capacity: Tank Fuel Ty	llation: rotection: vpe:	Active 1977 36365 Liquid Fuel Single V	Vall UST - Gasoline		
Status: Year of Insta Corrosion Pi Capacity: Tank Fuel Ty	llation: rotection: /pe:	Active 1989 27274 Liquid Fuel Single V	Vall UST - Diesel		
Status: Year of Insta Corrosion Pl Capacity: Tank Fuel Ty	llation: rotection: rpe:	Active 1989 45400 Liquid Fuel Single V	Vall UST - Gasoline		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>7</u>	9 of 44	S/80.4	72.9/-1.00	1633981 ONTARIO INC O/ A OLCO GAS BAR 1111 OGILVIE RD GLOUCESTER ON K1J 7P7	FSTH
License Issue Date: Tank Status: Tank Status As Of: Operation Type: Facility Type:		7/25/2005 3:04:00 F Licensed December 2008 Retail Fuel Outlet Gasoline Station - S	PM Self Serve		
<u>Details</u> Status: Year of Insta Corrosion P Capacity: Tank Fuel Ty	allation: rotection: ype:	Active 1989 27274 Liquid Fuel Single V	Vall UST - Diesel		
Status: Year of Insta Corrosion P Capacity: Tank Fuel Ty	allation: rotection: ype:	Active 1989 27274 Liquid Fuel Single V	Vall UST - Gasoline		
Status: Year of Insta Corrosion P Capacity: Tank Fuel Ty	allation: rotection: /pe:	Active 1977 36365 Liquid Fuel Single V	Vall UST - Gasoline		
Status: Year of Installation: Corrosion Protection: Capacity: Tank Fuel Type:		Active 1989 45400 Liquid Fuel Single V	Vall UST - Gasoline		
<u>7</u>	10 of 44	S/80.4	72.9/-1.00	1633981 Ontario Inc. 1111 Ogilvie Rd Ottawa ON	СА
Certificate # Application Issue Date: Approval Ty Status: Application Client Name Client Addre Client Addre Client City: Client Posta Project Deso Contaminan Emission Co	: Year: pe: Type: : sss: I Code: cription: ts: pontrol:	9556-7BLQAG 2008 2/8/2008 Industrial Sewage V Approved	Vorks		
<u>7</u>	11 of 44	S/80.4	72.9/-1.00	MOT MARWAN ENTERPRISES LTD 1111 OGILVIE RD OTTAWA ON	DTNK
<u>Delisted Exp</u> <u>Facilities</u>	bired Fuel Safety				

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Instance No: Status: Instance ID: Instance Type Instance Crea Instance Insta Item Descripti Manufacturer: Model: Serial No: ULC Standard Quantity: Unit of Measu Overfill Prot T Creation Date Next Periodic TSSA Base So TSSAMax Haz TSSA Volume TSSA Periodic TSSA Periodic TSSA Recd In TSSA Recd In TSSA Recd In TSSA Prograf Description: Original Source	2627950 EXPIRE 282503 S: FS Facili fition Dt: all Dt: ion: : : : : : : : : : : : : : : : : : :	0 D ty FS Cylinder Exchan EXP Up to Mar 2012	ge	Expired Date: Max Hazard Rank: Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:		
Ţ	12 of 44	S/80.4	72.9/-1.00	LES PETROLES CAL 1111 OGILVIE RD GLOUCESTER ON K	EX LTEE 1J 7P7	DTNK
<u>Delisted Expires</u> Facilities	red Fuel Safety					
Instance No: Status: Instance ID: Instance Type Instance Creat Instance Creat Instance Insta Item Descripti Manufacturer: Model: Serial No: ULC Standard Quantity: Unit of Measu Overfill Prot T Creation Date Next Periodic TSSA Base So TSSAMax Haz TSSA Risk Bat TSSA Volume TSSA Periodic TSSA Recd In TSSA Recd To TSSA Program	1008341 EXPIRE EXPIRE FS Facili for Dt: for Dt: for Dt: for Comparison for Compar	1 D ty		Expired Date: Max Hazard Rank: Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:	5/20/2009	

Мар Кеу	Number Records	of Direction/ Distance (m)	Elev/Diff (m)	Site	DB
TSSA Progra Description: Original Sou Record Date	nm Area 2: rce: :	EXP Up to May 2013			
<u>7</u>	13 of 44	S/80.4	72.9/-1.00	SMS PETROLEUMS DIVIS NANCY NG 1111 OGILVIE RD GLOUCESTER ON K1J 7F	SION OF SUNOCO DTNK
<u>Delisted Exp</u> <u>Facilities</u>	ired Fuel Sa	<u>lfety</u>			
Instance No: Status: Instance ID: Instance Typ Instance Cre Instance Cre Instance Inst Item Descrip Manufacture Model: Serial No: ULC Standar Quantity: Unit of Meas Overfill Prot Creation Dat Next Periodi TSSA Base S TSSAMax Ha TSSA Risk B TSSA Volum TSSA Period TSSA Statuto TSSA Recd I TSSA Recd I TSSA Progra Description: Original Sour	e: ation Dt: tall Dt: tion: r: d: ure: Type: e: c Str DT: Sched Cycle cased Period e of Directiv ic Exempt: ory Interval: nsp Interval: nsp Interval: nsp Interval: on Area: om Area 2: rce:	10105915 EXPIRED FS Facility 2: 1: lic Yn: res: EXP Up to May 2013		Expired Date:12Max Hazard Rank:Facility Location:Facility Type:Fuel Type 2:Fuel Type 3:Panam Related:Panam Venue Nm:External Identifier:Item:Piping Steel:Piping Galvanized:Tank Single Wall St:Piping Underground:Tank Underground:Source:	/20/1991
<u>7</u>	14 of 44	S/80.4	72.9/-1.00	MO & MARWAN ENTERPI 1111 OGILVIE RD GLOUCESTER ON K1J 7F	RISES LTD DTNK 27
<u>Delisted Exp</u> <u>Facilities</u>	ired Fuel Sa	fety			
Instance No: Status: Instance ID: Instance Typ Instance Cre Instance Inst Item Descrip Manufacture Model: Serial No: ULC Standar	e: ation Dt: tall Dt: tion: r: d:	10105948 EXPIRED FS Facility		Expired Date:12Max Hazard Rank:Facility Location:Facility Location:Facility Type:Fuel Type 2:Fuel Type 3:Fuel Type 3:Panam Related:Panam Venue Nm:External Identifier:Item:Piping Steel:	/7/2009 9:28

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Quantity: Unit of Measu Overfill Prot 1 Creation Date Next Periodic TSSA Base S TSSAMax Hai TSSA Risk Ba TSSA Volume TSSA Periodi TSSA Statuto TSSA Recd I TSSA Recd I TSSA Recd T TSSA Progra TSSA Progra Description: Original Sour Record Date:	Ire: Type: 2: 2: 2: 2: 2: 2: 2: 2: 2: 2: 2: 2: 2:	EXP Up to May 2013		Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:	
7	15 of 44	S/80.4	72.9/-1.00	1633981 ONTARIO INC O/ A OLCO GAS BAR 1111 OGILVIE RD GLOUCESTER ON	DTNK
<u>Delisted Expi</u> <u>Facilities</u>	red Fuel Safety				
Instance No: Status: Instance ID: Instance Type Instance Cred Instance Cred Instance Cred Instance Cred Instance Inst Item Descript Manufacturer Model: Serial No: ULC Standard Quantity: Unit of Measu Overfill Prot Creation Date Next Periodic TSSA Base S TSSA Max Hai TSSA Resc Ba TSSA Resc In TSSA Recd In TSSA Program Description: Original Sour Record Date:	632828 EXPIR 348109 e: FS Pip attion Dt: all Dt: tion: : : : : : : : : : : : : : : : : : :	FS Piping EXP Up to Mar 2012		Expired Date: Max Hazard Rank: Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:	
<u>7</u>	16 of 44	S/80.4	72.9 / -1.00	1633981 ONTARIO INC O/ A OLCO GAS BAR 1111 OGILVIE RD GLOUCESTER ON	DTNK

## Delisted Expired Fuel Safety

62

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Facilities					
Instance No: Status: Instance ID: Instance Type: Instance Creati Instance Install Item Descriptio Manufacturer: Model: Serial No: ULC Standard: Quantity: Unit of Measur Overfill Prot Ty Creation Date: Next Periodic S TSSA Base Sci TSSA Base Sci TSSA Risk Bas TSSA Volume of TSSA Periodic TSSA Periodic TSSA Recd Ins TSSA Program Description: Original Source Record Date:	11572668 EXPIRED 91197 FS Piping ion Dt: I Dt: Dn: e: /pe: Str DT: hed Cycle 2: ard Rank 1: sed Periodic Yn: of Directives: Exempt: y Interval: sp Interva: lerance: Area 2: e:	FS Piping EXP Up to Mar 2012		Expired Date: Max Hazard Rank: Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:	
<u>7</u> 1	17 of 44	S/80.4	72.9/-1.00	1633981 ONTARIO INC O/ A OLCO GAS BAR 1111 OGILVIE RD GLOUCESTER ON	DTNK
<u>Delisted Expire</u> <u>Facilities</u>	ed Fuel Safety				
Instance No: Status: Instance ID: Instance Type: Instance Creati Instance Creati Instance Install Item Descriptio Manufacturer: Model: Serial No: ULC Standard: Quantity: Unit of Measure Overfill Prot Ty Creation Date: Next Periodic S TSSA Base Sch TSSA Base Sch TSSA Base Sch TSSA Risk Bas TSSA Volume of TSSA Periodic TSSA Periodic TSSA Recd Ins TSSA Recd Top	11572649 EXPIRED 91528 FS Piping ion Dt: I Dt: on: e: ype: Str DT: hed Cycle 2: ard Rank 1: sed Periodic Yn: of Directives: Exempt: y Interval: sp Interva: lerance:			Expired Date: Max Hazard Rank: Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:	

Map Key Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
TSSA Program Area: TSSA Program Area 2: Description: Original Source: Record Date:	FS Piping EXP Up to Mar 2012			
7_ 18 of 44	S/80.4	72.9/-1.00	1633981 Ontario Inc 1111 Ogilvie Road Ottawa ON	GEN
Generator No: SIC Code: SIC Description: Approval Years: PO Box No: Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:	ON7051938 447110, 811192 Gasoline Stations w 2009	vith Convenience S	tores, Car Washes	
<u>Detail(s)</u>				
Waste Class: Waste Class Name:	213 PETROLEUM DIST	ILLATES		
Waste Class: Waste Class Name:	221 LIGHT FUELS			
Waste Class: Waste Class Name:	252 WASTE OILS & LU	BRICANTS		
7 19 of 44	S/80.4	72.9/-1.00	1633981 Ontario Inc 1111 Ogilvie Road Ottawa ON	GEN
Generator No: SIC Code: SIC Description: Approval Years: PO Box No: Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:	ON7051938 447110, 811192 Gasoline Stations w 2010	vith Convenience S	tores, Car Washes	
<u>Detail(s)</u>				
Waste Class: Waste Class Name:	252 WASTE OILS & LU	BRICANTS		
Waste Class: Waste Class Name:	213 PETROLEUM DIST	ILLATES		
Waste Class: Waste Class Name:	221 LIGHT FUELS			

Мар Кеу	Number Records	r of Direction/ s Distance (m)	Elev/Diff (m)	Site		DB
<u>7</u>	20 of 44	S/80.4	72.9 / -1.00	1633981 Ontario Inc 1111 Ogilvie Road Ottawa ON		GEN
Generator No SIC Code: SIC Descript Approval Yes PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ad Contaminate MHSW Facili	o: tion: ars: ontact: dmin: ed Facility: ity:	ON7051938 447110, 811192 Gasoline Stations 2011	with Convenience	Stores, Car Washes		
<u>Detail(s)</u>						
Waste Class Waste Class	: Name:	252 WASTE OILS & LU	JBRICANTS			
Waste Class Waste Class	: Name:	221 LIGHT FUELS				
Waste Class Waste Class	: Name:	213 PETROLEUM DIS	TILLATES			
<u>7</u>	21 of 44	S/80.4	72.9/-1.00	1633981 ONTARIO IN 1111 OGILVIE RD GLO ON	C OUCESTER K1J 7P7 ON CA	FST
Instance No:	ł	11287923		Manufacturer:		
Status: Cont Name:				Serial No: Ulc Standard:		
Instance Typ Item:	be:	FS Liquid Fuel Tank		Quantity: Unit of Measure:		
Item Descrip	tion:	FS Liquid Fuel Tank		Fuel Type:	Gasoline	
Install Date:		7/24/2009 10:42:38 AM		Fuel Type2: Fuel Type3:	NULL	
Install Year: Years in Ser	vice:	1986		Piping Steel: Piping Galvanized:		
Model:		NULL		Tanks Single Wall St:		
Capacity:		36365		No Underground:		
Tank Materia Corrosion Pi	al: rotect:	Fiberglass (FRP) Fiberglass		Panam Related: Panam Venue:		
Overfill Prote	ect:	ES Liquid Euel Tar	ak.			
Parent Facili	ity Type:	FS GASOLINE ST	ATION - SELF SE	RVE		
Facility Loca Device Insta	ition: lled Locatio	n: 1111 OGILVIE RD	GLOUCESTER K	1J 7P7 ON CA		
Liquid Fuel 1	Tank Details	2				
Overfill Prote	ection:					
Owner Acco Item:	unt Name:	1633981 ONTARIO FS LIQUID FUEL	O INC TANK			
<u>7</u>	22 of 44	S/80.4	72.9/-1.00	1633981 ONTARIO IN 1111 OGILVIE RD GLO ON	C OUCESTER K1J 7P7 ON CA	FST

Map Key	Number Records	r of S	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Instance No. Status: Cont Name: Instance Typ Item: Item Descrip Tank Type: Install Date: Install Pear: Years in Ser Model: Description: Capacity: Tank Materia Corrosion P Overfill Prot Facility Type Parent Facil Facility Loca Device Insta	e: ption: vice: al: rotect: ect: s: ity Type: ation: lled Locatio	11287886 FS Liquid F Single Wall 7/24/2009 1 1976 NULL 45400 Fiberglass ( Fiberglass ( Fiberglass ) F m: 1	uel Tank uel Tank UST 0:41:37 AM (FRP) S Liquid Fuel Tank S GASOLINE STA 111 OGILVIE RD (	TION - SELF SE GLOUCESTER K	Manufacturer: Serial No: Ulc Standard: Quantity: Unit of Measure: Fuel Type: Fuel Type2: Fuel Type3: Piping Steel: Piping Galvanized: Tanks Single Wall St: Piping Underground: No Underground: Panam Related: Panam Venue: RVE	Gasoline NULL NULL	
<u>Liquid Fuel</u> Overfill Prot Owner Acco Item:	<u>Tank Details</u> ection: unt Name:	1 F	633981 ONTARIO S LIQUID FUEL TA	INC ANK			
<u>7</u>	23 of 44		S/80.4	72.9/-1.00	1633981 ONTARIO IN 1111 OGILVIE RD GL ON	C OUCESTER K1J 7P7 ON CA	FST
Instance No. Status: Cont Name: Instance Typ Item: Item Descrip Tank Type: Install Date: Install Paer: Years in Ser Model: Description: Capacity: Tank Materia Corrosion P Overfill Prot Facility Type Parent Facil Facility Loca Device Insta Liquid Fuel Overfill Prot Owner Accoo Item:	: pe: ption: vice: vice: al: rotect: ect: ect: ation: lled Locatio <u>Tank Details</u> ection: unt Name:	11287944 FS Liquid F Single Wall 7/24/2009 1 1986 NULL 27274 Fiberglass ( Fiberglass 1 fiberglass 1 fiberglas 1 fiberglass 1 fiber	uel Tank UST 0:42:16 AM (FRP) S Liquid Fuel Tank S GASOLINE STA 111 OGILVIE RD ( 633981 ONTARIO S LIQUID FUEL TA	TION - SELF SE GLOUCESTER K	Manufacturer: Serial No: Ulc Standard: Quantity: Unit of Measure: Fuel Type: Fuel Type2: Fuel Type3: Piping Steel: Piping Galvanized: Tanks Single Wall St: Piping Underground: No Underground: Panam Related: Panam Venue:	Diesel NULL NULL	
<u>7</u>	24 of 44		S/80.4	72.9/-1.00	1633981 ONTARIO IN 1111 OGILVIE RD GL ON	C OUCESTER K1J 7P7 ON CA	FST
Instance No.	:	64508685			Manufacturer:		
66	erisinfo.co	om   Enviror	mental Risk Info	rmation Service	es	Order No: 230	22400359

Мар Кеу	Numbel Record	r of s	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Status: Cont Name: Instance Typ Item: Item Descrip Tank Type: Install Date: Install Year: Years in Serv Model: Description: Capacity: Tank Materia Corrosion Pr Overfill Prote Facility Type Parent Facili Facility Loca Device Insta	tion: tion: vice: vice: votect: ect: v: ty Type: tion: lled Locatic	FS Liquid Double W 6/24/2011 2011 DWT6 50000 Fiberglass Fiberglass	Fuel Tank Fuel Tank all UST 11:17:43 AM 6 (FRP) 5 FS Liquid Fuel Tan FS Gasoline Statio 1111 OGILVIE RD	k n - Self Serve GLOUCESTER K	Serial No: Ulc Standard: Quantity: Unit of Measure: Fuel Type: Fuel Type2: Fuel Type3: Piping Steel: Piping Galvanized: Tanks Single Wall St: Piping Underground: No Underground: Panam Related: Panam Venue:	Gasoline NULL NULL	
Liquid Fuel 1	Tank Details	5					
Overfill Prote Owner Acco Item:	ection: unt Name:		1633981 ONTARIO FS LIQUID FUEL 1	D INC ANK			
<u>7</u>	25 of 44		S/80.4	72.9 / -1.00	1633981 ONTARIO IN 1111 OGILVIE RD GLO ON	C OUCESTER K1J 7P7 ON CA	FST
Instance No: Status: Cont Name: Instance Typ Item: Item Descrip Tank Type: Install Date: Install Year: Years in Ser Model: Description: Capacity: Tank Materia Corrosion Pi Overfill Prote Facility Type Parent Facili Facility Loca Device Instal Liquid Fuel T Overfill Prote Owner Accord	tion: tion: vice: vice: ect: v: ty Type: tion: lled Locatic <u>Fank Details</u> ection: unt Name:	64508686 FS Liquid Double W 6/24/2011 2011 DWT6 DV 50000 Fiberglass Fiberglass	Fuel Tank Fuel Tank all UST 11:24:14 AM VB2 (FRP) S FS Liquid Fuel Tan FS Gasoline Statio 1111 OGILVIE RD 1633981 ONTARIO	k n - Self Serve GLOUCESTER K DINC TANK	Manufacturer: Serial No: Ulc Standard: Quantity: Unit of Measure: Fuel Type: Fuel Type3: Fuel Type3: Piping Steel: Piping Galvanized: Tanks Single Wall St: Piping Underground: No Underground: Panam Related: Panam Venue:	Gasoline Diesel NULL	
<u>7</u>	26 of 44		S/80.4	72.9/-1.00	1633981 ONTARIO IN 1111 OGIL VIE RD GL	C OUCESTER K1J 7P7 ON CA	FST
Instance No: Status:		11287906	i		ON Manufacturer: Serial No:		
67	erisinfo.co	om   Enviro	onmental Risk Inf	ormation Service	es	Order No: 230	22400359

Мар Кеу	Number Records	of	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Cont Name: Instance Type Item: Item Descripti Tank Type: Install Date: Install Year: Years in Servi Model: Description: Capacity: Tank Material Corrosion Pro Overfill Protei Facility Type: Parent Facility Facility Locat	e: ion: ice: ptect: ct: y Type: ion: led Locatio	FS Liquid F Single Wall 7/24/2009 1986 NULL 27274 Fiberglass Fiberglass Fiberglass	Fuel Tank Fuel Tank I UST 10:43:05 AM (FRP) FS Liquid Fuel Tank FS GASOLINE STAT 111 OGILVIE RD G	TION - SELF SERV BLOUCESTER K1J	Ulc Standard: Quantity: Unit of Measure: Fuel Type: Fuel Type2: Fuel Type3: Piping Steel: Piping Galvanized: Tanks Single Wall St: Piping Underground: No Underground: Panam Related: Panam Venue: 'E 7P7 ON CA	Gasoline NULL NULL	
<u>Liquid Fuel Ta</u>	ank Details						
Overfill Protec Owner Accou Item:	ction: Int Name:	1 F	633981 ONTARIO FS LIQUID FUEL TA	INC NK			
<u>7</u>	27 of 44		S/80.4	72.9/-1.00	1633981 Ontario Inc 1111 Ogilvie Road Ottawa ON		GEN
Generator No SIC Code: SIC Description Approval Yea PO Box No: Country: Status: Co Admin: Choice of Con Phone No Add Contaminated MHSW Facility	: rs: ntact: min: d Facility: y:	4 6 2	DN7051938 147110, 811192 Sasoline Stations wi 2012	th Convenience Sto	ores, Car Washes		
<u>Detail(s)</u> Waste Class:		2	252				
Waste Class I Waste Class:	Name:	V 2	VASTE OILS & LUE	RICANTS			
Waste Class / Waste Class: Waste Class /	Name: Name:	2 F	213 PETROLEUM DISTI	LLATES			
7	28 of 44		S/80.4	72.9/-1.00	1633981 Ontario Inc 1111 Ogilvie Road Ottawa ON		GEN
Generator No SIC Code: SIC Descriptio Approval Yea PO Box No: Country:	: on: rs:	0 4 0 2	DN7051938 147110, 811192 CAR WASHES 2013				

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Мар Кеу	Number Records	of Direction/ Distance (n	Elev/Diff n) (m)	Site		DB
Status: Co Admin: Choice of Co Phone No A Contaminate MHSW Facil	ontact: dmin: ed Facility: ity:					
<u>Detail(s)</u>						
Waste Class Waste Class	: Name:	252 WASTE OILS &	LUBRICANTS			
Waste Class Waste Class	: Name:	221 LIGHT FUELS				
Waste Class Waste Class	: Name:	213 PETROLEUM D	ISTILLATES			
<u>7</u>	29 of 44	S/80.4	72.9/-1.00	FAS GAS PLUS 1111 OGILVIE RD UN GLOUCESTER ON K1	IT 1 IJ7P7	RST
Headcode: Headcode D Phone: List Name: Description:	esc:	01186800 SERVICE STAT 6137420528 Info-direct(TM) E	IONS GASOLINE OIL BUSINESS FILE	. & NATURAL GAS		
<u>7</u>	30 of 44	S/80.4	72.9/-1.00	1111 Ogilvie Rd Ottawa ON		SPL
Ref No: Site No: Incident Dt: Year: Incident Cau Incident Eve Contaminan Contaminan Contaminan Contaminan Contaminan Environmen Nature of Im Receiving M Receiving M Receiving E MOE Resport Dt MOE Arvi MOE Resport Dt Documen Incident Rea Site Name: Site County/ Municipality Site Geo Rea Incident Sur Contaminan	Ise: t Code: t Name: t Limit 1: it Freq 1: t UN No 1: t Impact: pact: ledium: nv: nse: on Scn: ed Dt: t Closed: ason: District: No: f Meth: mmary: t Qty:	2234-ACHT7Y NA 2016/08/04 Unknown / N/A 27 COOLANT N.O.S. Land No 2016/08/04 Unknown / N/A catch basin <un Ottawa - 0.5L co 0.5 L</un 	OFFICIAL>	Discharger Report: Material Group: Health/Env Conseq: Client Type: Sector Type: Agency Involved: Nearest Watercourse: Site Address: Site District Office: Site Postal Code: Site Region: Site Region: Site Municipality: Site Lot: Site Conc: Northing: Easting: Site Geo Ref Accu: Site Map Datum: SAC Action Class: Source Type:	Unknown / N/A 1111 Ogilvie Rd Ottawa Primary Assessment of Spills	
<u>7</u>	31 of 44	S/80.4	72.9 / -1.00	1633981 Ontario Inc. 1111 Ogilvie Rd		ECA

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Order No: 23022400359

Map Key	Number Record	r of Direction/ s Distance (m)	Elev/Diff (m)	Site		DB
				Ottawa ON K1J 7	P7	
Approval No: Approval Date Status: Record Type: Link Source: SWP Area Nat Approval Type Project Type: Business Nan Address: Full Address: Full Address: Full PDF Link PDF Site Loca	e: me: e: ne: : ation:	9556-7BLQAG 2008-02-08 Approved ECA IDS Rideau Valley ECA-INDUSTRIAL INDUSTRIAL SEV 1633981 Ontario I 1111 Ogilvie Rd https://www.acces	- SEWAGE WORK VAGE WORKS nc. senvironment.ene.	MOE District: City: Longitude: Latitude: Geometry X: Geometry Y: S	Ottawa -75.63237 45.426285	
<u>7</u>	32 of 44	S/80.4	72.9/-1.00	1633981 Ontario 1111 Ogilvie Roa Ottawa ON K1J 7	lnc d P7	GEN
Generator No. SIC Code: SIC Descriptio Approval Yea PO Box No: Country: Status: Co Admin: Choice of Cor Phone No Adu Contaminated MHSW Facility	: on: rs: ntact: min: d Facility: y:	ON7051938 447110, 811192 447110, CAR WAS 2016 Canada CO_OFFICIAL No No	SHES			
<u>Detail(s)</u>						
Waste Class: Waste Class I	Name:	252 WASTE OILS & LI	UBRICANTS			
Waste Class: Waste Class I	Name:	213 PETROLEUM DIS	TILLATES			
Waste Class: Waste Class I	Name:	221 LIGHT FUELS				
Ž	33 of 44	S/80.4	72.9/-1.00	1633981 Ontario 1111 Ogilvie Roa Ottawa ON K1J 7	lnc d P7	GEN
Generator No. SIC Code: SIC Descriptio Approval Yea PO Box No: Country: Status: Co Admin: Choice of Cor Phone No Adi Contaminated	: on: rs: ntact: min: I Facility:	ON7051938 447110, 811192 447110, CAR WAS 2015 Canada CO_OFFICIAL No	SHES			
Phone No Adu Contaminateo MHSW Facility	min: I Facility: y:	No No				

Map Key Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Detail(s)</u>				
Waste Class: Waste Class Name:	221 LIGHT FUELS			
Waste Class: Waste Class Name:	213 PETROLEUM DIST	ILLATES		
Waste Class: Waste Class Name:	252 WASTE OILS & LU	BRICANTS		
734 of 44	S/80.4	72.9/-1.00	1633981 Ontario Inc 1111 Ogilvie Road Ottawa ON K1J 7P7	GEN
Generator No: SIC Code: SIC Description: Approval Years: PO Box No:	ON7051938 447110, 811192 447110, CAR WAS 2014	HES		
Country: Status: Co Admin:	Canada			
Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:	CO_OFFICIAL No No			
<u>Detail(s)</u>				
Waste Class: Waste Class Name:	221 LIGHT FUELS			
Waste Class: Waste Class Name:	252 WASTE OILS & LU	BRICANTS		
Waste Class: Waste Class Name:	213 PETROLEUM DIST	ILLATES		
7 35 of 44	S/80.4	72.9 / -1.00	1633981 Ontario Inc 1111 Ogilvie Road Ottawa ON K1J 7P7	GEN
Generator No: SIC Code:	ON7051938			
Approval Years: PO Box No:	As of Dec 2018			
Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:	Canada Registered			
<u>Detail(s)</u>				
Waste Class: Waste Class Name:	221 I Light fuels			
Waste Class: Waste Class Name:	252 L Waste crankcase oi	ls and lubricants		

Мар Кеу	Number Records	r of Direction/ s Distance (m)	Elev/Diff (m)	Site		DB
<u>7</u>	36 of 44	S/80.4	72.9/-1.00	1633981 Ontario Inc 1111 Ogilvie Road Ottawa ON K1J 7P7	GE	N
Generator N SIC Code: SIC Descrips Approval Ye PO Box No: Country: Status: Co Admin: Choice of Co	lo: tion: ears: ontact: dmin:	ON7051938 As of Jul 2020 Canada Registered				
Contaminate MHSW Facil	ed Facility: ity:					
Waste Class Waste Class	s: s Name:	252 L Waste crankcase	oils and lubricants			
Waste Class Waste Class	s: s Name:	221 I Light fuels				
<u>7</u>	37 of 44	S/80.4	72.9 / -1.00	ECONO GAS 1111 OGILVIE RD AF GLOUCESTER ON K	PT 1 RS 1J7P7	T
Headcode: Headcode D Phone: List Name: Description:	lesc:	01186800 SERVICE STATIC 6137420528 INFO-DIRECT(TM	ONS GASOLINE OII 1) BUSINESS FILE	L & NATURAL GAS		
<u>7</u>	38 of 44	S/80.4	72.9/-1.00	1633981 ONTARIO IN 1111 OGILVIE RD GL ON	NC OUCESTER K1J 7P7 ON CA	NK
<u>Delisted Exp</u> <u>Facilities</u>	oired Fuel Sa	afety_				
Instance No. Status: Instance ID:	:	11287923 Inactive		Expired Date: Max Hazard Rank: Facility Location:	NULL 1111 OGILVIE RD GLOUCESTER K1J 7F	97
Instance Typ Instance Cre Instance Ins Item Descrip Manufacture Model: Serial No: ULC Standa Quantity: Unit of Meas Overfill Prot Creation Dat Next Periodi	oe: eation Dt: stall Dt: otion: er: rd: sure: ture: ture: te: ic Str DT:	7/19/2000 8:15:15 PM 7/24/2009 10:42:38 AM FS Liquid Fuel Tank NULL NULL NULL NULL 1 EA NULL 7/5/2009 1:24:38 AM NULL		Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:	ON CA FS LIQUID FUEL TANK NULL NULL NULL NULL NULL FS Liquid Fuel Tank	

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Order No: 23022400359

Мар Кеу	Number Records	of	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
TSSA Base S TSSAMax Hai TSSA Risk Ba TSSA Volume TSSA Periodi TSSA Statuto TSSA Recd Ir TSSA Recd T TSSA Progra Description: Original Sour Record Date:	ched Cycle zard Rank 1 ased Period of Directiv c Exempt: ry Interval: nsp Interva: olerance: m Area: m Area 2: ce:	2: : lic Yn: æs:	NULL NULL NULL NULL NULL NULL NULL NULL	Isoline		
<u>7</u>	39 of 44		S/80.4	72.9 / -1.00	1633981 ONTARIO IN 1111 OGILVIE RD GLO ON	C DUCESTER K1J 7P7 ON CA DTNK
<u>Delisted Expi</u> <u>Facilities</u>	red Fuel Sa	<u>fety</u>				
Instance No: Status: Instance ID: Instance ID: Instance Creat Instance Creat Instance Creat Instance Insta Item Descript Manufacturer Model: Serial No: ULC Standard Quantity: Unit of Measu Overfill Prot Creation Date Next Periodic TSSA Base S TSSA Max Hat TSSA Risk Bat TSSA Risk Bat TSSA Periodic TSSA Periodic TSSA Recd It TSSA Recd It TSSA Program Description: Original Sour Record Date:	e: ation Dt: all Dt: fon: ': d: ure: Type: Str DT: ched Cycle zard Rank 1 ased Period of Directva: c Exempt: ry Interval: nsp Interva: olerance: m Area 2: m Area 2: ce:	11287906 Inactive 7/19/2000 7/24/2009 FS Liquid NULL NULL NULL 1 EA NULL 7/5/2009 NULL 2: <i>:</i> <i>:</i> <i>ic</i> Yn: res:	3 9 8:15:15 PM 9 10:43:05 AM Fuel Tank 1:24:38 AM NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NULL NUL NU	gasoline	Expired Date: Max Hazard Rank: Facility Location: Facility Location: Facility Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:	NULL 1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA FS LIQUID FUEL TANK NULL NULL NULL NULL FS Liquid Fuel Tank
<u>7</u>	40 of 44		S/80.4	72.9 / -1.00	1633981 ONTARIO IN 1111 OGILVIE RD GLO ON	C DUCESTER K1J 7P7 ON CA DTNK
<u>Delisted Expi</u> <u>Facilities</u>	red Fuel Sa	<u>fety</u>				
Instance No: Status:		11287944 Inactive	l		Expired Date: Max Hazard Rank:	NULL
73	erisinfo.co	m   Enviro	onmental Risk Info	ormation Services	3	Order No: 23022400359

Map Key	Number of Records	F I	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Instance ID: Instance Type Instance Creat Instance Insta Item Descript Manufacturer Model: Serial No: ULC Standard Quantity: Unit of Measu Overfill Prot Creation Date Next Periodic	e: ation Dt: 7/ all Dt: 7/ tion: FS ': Ni d: Ni d: Ni d: 1 ure: E/ Type: Ni 3: 7/ 5: TT: Ni	(19/2000 8:1 (24/2009 10 S Liquid Fue ULL ULL ULL A ULL (5/2009 1:24 ULL	15:15 PM :42:16 AM el Tank 4:35 AM		Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA FS LIQUID FUEL TANK NULL NULL NULL NULL NULL SULL SULL
TSSA Base S TSSAMax Ha TSSA Risk Ba TSSA Volume TSSA Periodi TSSA Statuto TSSA Recd I TSSA Recd T TSSA Recd T TSSA Progra TSSA Progra Description: Original Sour Record Date:	ched Cycle 2: zard Rank 1: ased Periodic e of Directives ic Exempt: ory Interval: nsp Interva: olerance: m Area: m Area 2: rce:	NU NU Yn: NU S: NU NU NU NU NU 200 EX 31-	LL LL LL LL LL LL LL LL LL D9VBS P JUL-2020			
<u>7</u>	41 of 44	S	/80.4	72.9 / -1.00	1633981 ONTARIO ING 1111 OGILVIE RD GLC ON	DUCESTER K1J 7P7 ON CA
<u>Delisted Expi</u> <u>Facilities</u>	ired Fuel Safet	<u>ty</u>				
Instance No:	11	1287886			Expired Date:	
Status:	In	active			Max Hazard Rank:	NULL
Instance ID: Instance Type Instance Crea Instance Insta	e: ation Dt:      7/ all Dt:        7/	/19/2000 8:1 /24/2009 10	15:15 PM :41:37 AM		Facility Location: Facility Type: Fuel Type 2: Fuel Type 3:	1111 OGILVIE RD GLOUCESTER K1J 7P7 ON CA FS LIQUID FUEL TANK NULL NULL
Item Descript	tion: FS	S Liquid Fue	el Tank		Panam Related:	NULL
Manufacturer Model:	n N	ULL			Panam venue nm: External Identifier:	NULL
Serial No:	N N	ULL			Item: Dining Steel:	
Quantity:	<b>u:</b> N	ULL			Piping Steel: Piping Galvanized:	
Unit of Measu	ure: E/ Type: N	A LILI			Tank Single Wall St: Pining Underground:	
Creation Date	e: 7/	/5/2009 1:24	1:32 AM		Tank Underground:	
Next Periodic TSSA Base S	Str DT: Ni Ched Cvcle 2:	ULL NU	LL		Source:	FS Liquid Fuel Tank
TSSAMax Ha	zard Rank 1:	NU	LL			
TSSA Risk Ba	asea Periodic e of Directives	<b>YN:</b> NU 5: NU	LL			
TSSA Periodi	ic Exempt:	NU	LL			
TSSA Statuto TSSA Recd Ir	ory Interval: hsp Interva:	NU NU	LL			
TSSA Recd T	olerance:	NU	LL			
TSSA Progra TSSA Progra	m Area: m Area 2:	NU NU	LL LL			
-						

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Map Key	Number Records	of Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Description: Original Sou Record Date:	rce: :	2009VBS Regular EXP 31-JUL-2020	gasoline			
<u>7</u>	42 of 44	S/80.4	72.9 / -1.00	1111 OGILVIE RD GLOUCESTER ON K1	1J 7P7	DTNK
Delisted Fuel	l Storage Ta	ank				
Instance No: Status: Instance Typ Fuel Type: Cont Name: Capacity: Tank Materia Corrosion Pr Tank Type: Install Year: Facility Type Device Instal Fuel Type 2: Fuel Type 3: Item: Item Description: Instance Creation Model: Description: Instance Creation Instance Creation Serial No: ULC Standar Quantity: Unit of Measus Parent Fac T TSSA Base S Original Sout	be: rot: rot: lled Loc: lled Loc: tall Dt: tall Dt: r: rd: ure: Sched Cycle Sched Cycle rce: ;	29160194 Active FS GASOLINE STATION - S 1: 2: FST 31-MAY-2021	ELF SERVE	Creation Date: Overfill Prot Type: Facility Location: Piping SW Steel: Piping SW Galvan: Tanks SW Steel: Piping Underground: No Underground: Max Hazard Rank: Max Hazard Rank 1: Nxt Period Start Dt: Program Area 1: Program Area 2: Nxt Period Strt Dt 2: Risk Based Periodic: Vol of Directives: Years in Service: Created Date: Federal Device: Periodic Exempt: Statutory Interval: Recommended Toler: Panam Venue Name: External Identifier:	0 0 3 6	
<u>7</u>	43 of 44	S/80.4	72.9 / -1.00	1633981 Ontario Inc 1111 Ogilvie Road Ottawa ON K1J 7P7		GEN
Generator No SIC Code:	0:	ON7051938				
SIC Descripti Approval Yea PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ac Contaminate MHSW Facili	ion: ars: ontact: dmin: ed Facility: ity:	As of Nov 2021 Canada Registered				
<u>Detail(s)</u>						
Waste Class: Waste Class	: Name:	252 L Waste crankcase o	ils and lubricants			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class Waste Class	: Name:	221 I Light fuels			
<u>7</u>	44 of 44	S/80.4	72.9 / -1.00	1633981 Ontario Inc 1111 Ogilvie Road Ottawa ON K1J 7P7	GEN
Generator No SIC Code: SIC Descript	o: ion:	ON7051938			
Approval Yea PO Box No: Country: Status:	ars:	As of Oct 2022 Canada Registered			
Co Admin: Choice of Co Phone No Ao Contaminate MHSW Facili	ontact: Imin: Id Facility: ity:				
<u>Detail(s)</u>					
Waste Class Waste Class	: Name:	221 I LIGHT FUELS			
Waste Class Waste Class	: Name:	252 L WASTE OILS & LU	BRICANTS		
<u>8</u>	1 of 5	E/81.9	73.9 / 0.00	MANDARIN-OGILVIE RESTAURANT 1137 OGILVIE ROAD GLOUCESTER CITY ON K1J 7P6	CA
Certificate #: Application Issue Date: Approval Typ Status: Application Client Name: Client Addre Client City:	Year: oe: Type: ss:	8-4099-93- 93 9/29/1993 Industrial air Approved			
Client Postal Project Desc Contaminant Emission Co	l Code: ription: ts: ntrol:	RESTAURANT KIT Odour/Fumes Panel Filter	CHEN EXHAUST FAN	4	
<u>8</u>	2 of 5	E/81.9	73.9 / 0.00	FRESH AIR EXPERIENCE INC. 1137 AGILVIE ROAD GLOUCESTER ON K1J 7P6	GEN
Generator No SIC Code: SIC Descript Approval Yea PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ad Contaminate MHSW Facili	o: ion: ars: potact: dmin: d Facility: ity:	ON0960500 0000 *** NOT DEFINED [,] 86,87,88,89,90,92,9	***		

Мар Кеу	Number Records	of Direction/ Distance (m)	Elev/Diff (m)	Site		DB
<u>Detail(s)</u>						
Waste Class Waste Class	: Name:	213 PETROLEUM DIS	TILLATES			
<u>8</u>	3 of 5	E/81.9	73.9/0.00	FRESH AIR EXPERIE 1137 AGILVIE ROAD GLOUCESTER ON K1	NCE INC. 15-313 1J 7P6	GEN
Generator No SIC Code: SIC Descript Approval Yea PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ad Contaminate MHSW Facili	o: ion: ars: ontact: dmin: ed Facility: ity:	ON0960500 6541 SPORTING GOOD 94,95,96	DS STORE			
<u>Detail(s)</u>						
Waste Class Waste Class	: Name:	213 PETROLEUM DIS	TILLATES			
<u>8</u>	4 of 5	E/81.9	73.9 / 0.00	1137 Ogilvie Road an Gloucester ON K1J 7	d 1111 Cummings Avenue P6	EHS
Order No: Status: Report Type. Report Date: Date Receive Previous Sitt Lot/Building Additional In	ed: e Name: Size: fo Ordered:	21031000028 C Standard Report 15-MAR-21 10-MAR-21		Nearest Intersection: Municipality: Client Prov/State: Search Radius (km): X: Y:	ON .25 -75.6314686 45.4268306	
<u>8</u>	5 of 5	E/81.9	73.9 / 0.00	1137 Ogilvie Road an Gloucester ON K1J 7	d 1111 Cummings Avenue P6	EHS
Order No: Status: Report Type: Report Date: Date Receive Previous Sitt Lot/Building Additional In	ed: e Name: Size: fo Ordered:	21031000028 C Standard Report 15-MAR-21 10-MAR-21		Nearest Intersection: Municipality: Client Prov/State: Search Radius (km): X: Y:	ON .25 -75.6314686 45.4268306	
<u>9</u>	1 of 5	ENE/86.9	74.9 / 1.00	ATLAS WELDING & E OF LALONDE W 1091 CUMMINGS AV GLOUCESTER ON K1	EQUIPMENT RENTALS DIV	PRT
Location ID: Type:		5278 private				

Map Key I I	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB	
Expiry Date: Capacity (L): Licence #:		2273.00 0001019493				
<u>9</u> 2	of 5	ENE/86.9	74.9 / 1.00	ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE WELDING LTD 1091 CUMMINGS AVE GLOUCESTER ON K1J 7S2	FSTH	
License Issue D Tank Status: Tank Status As Operation Type: Facility Type:	ate: Of: :	6/4/1990 Licensed August 2007 Private Fuel Outlet Gasoline Station - S	Self Serve			
<u>Details</u> Status: Year of Installat Corrosion Prote Capacity: Tank Fuel Type:	ion: ection:	Removed 1985 2273 Liquid Fuel Single V	Wall UST - Gasolin	e		
<u>9</u> 3	of 5	ENE/86.9	74.9 / 1.00	ATLAS WELDING & EQUIPMENT RENTALS DIV OF LALONDE WELDING LTD 1091 CUMMINGS AVE GLOUCESTER ON	DTNK	
<u>Delisted Expired</u> <u>Facilities</u>	d Fuel Safety					
Instance No: Status: Instance ID: Instance Type: Instance Creatic Instance Creatic Instance Install Item Description Manufacturer: Model: Serial No: ULC Standard: Quantity: Unit of Measure Overfill Prot Typ Creation Date: Next Periodic St TSSA Base Schu TSSA Base Schu TSSA Resc Base TSSA Volume of TSSA Periodic E TSSA Statutory TSSA Recd Insp TSSA Program Description: Original Source.	107622 EXPIRE 38518 FS Pipi on Dt: Dt: n: tr DT: ed Cycle 2: rd Rank 1: ed Periodic Yn: f Directives: Exempt: Interval: o Interva: erance: Area: Area 2: :	06 ED ng FS Piping EXP Un to Mar 2012		Expired Date: Max Hazard Rank: Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:		
Map Key	Numbe Record	r of s	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------	-----------------------------------------------------------------------------	------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------
<u>9</u>	4 of 5		ENE/86.9	74.9 / 1.00	ATLAS WELDING & E OF LALONDE WELDI 1091 CUMMINGS AVI ON CA ON	EQUIPMENT RENTALS DIV DTNK ING LTD DTNK E GLOUCESTER K1J 7S2
<u>Delisted Exp</u> <u>Facilities</u>	oired Fuel S	afety_				
Instance No Status: Instance ID:		1076219 EXPIRE	97 D		Expired Date: Max Hazard Rank: Facility Location:	NULL 1091 CUMMINGS AVE GLOUCESTER K1J 7S2 ON CA
Instance Ty Instance Cro Instance Ins Item Descrip Manufacture Model: Serial No: ULC Standa Quantity: Unit of Meas Overfill Prot	pe: eation Dt: stall Dt: otion: er: erd: sure: t Type:	1/17/199 1/17/199 FS Liqui NULL NULL NULL 1 EA NULL	90 90 d Fuel Tank		Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground:	FS LIQUID FUEL TANK NULL NULL NULL NULL NULL
Creation Da Next Period TSSA Base TSSAMax H TSSA Risk B TSSA Volun TSSA Period TSSA Statut TSSA Recd TSSA Recd TSSA Progr Description Original Sou Record Date	te: ic Str DT: Sched Cycl azard Rank Based Perio ne of Directi dic Exempt: tory Interval Insp Interva Insp Interva Tolerance: am Area: am Area 2: : urce:	7/5/2009 NULL e 2: 1: dic Yn: ives:	9 1:20:40 AM NULL NULL NULL NULL NULL NULL NULL NUL	ΓANK	Tank Underground: Source:	FS Liquid Fuel Tank
<u>9</u>	5 of 5		ENE/86.9	74.9 / 1.00	ATLAS WELDING & E OF LALONDE WELDI 1091 CUMMINGS AVI ON CA ON	EQUIPMENT RENTALS DIV ING LTD FST E GLOUCESTER K1J 7S2
Instance No Status: Cont Name: Instance Ty Item: Item Descrip Tank Type: Install Date: Install Year: Years in Ser Model: Description: Capacity: Tank Materia Corrosion P	r: pe: potion: rvice: : : al: Protect:	FS Liqui Liquid Fu 1/17/199 1985 NULL 2273 Steel Impress	97 d Fuel Tank uel Single Wall UST 90 ed Current		Manufacturer: Serial No: Ulc Standard: Quantity: Unit of Measure: Fuel Type: Fuel Type2: Fuel Type3: Piping Steel: Piping Galvanized: Tanks Single Wall St: Piping Underground: No Underground: Panam Related: Panam Venue:	Gasoline NULL NULL

Мар Кеу	Numbe Record	r of Is	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Overfill Prote Facility Type Parent Facili	ect: e: ity Type:		FS Liquid Fuel Tanl	K			
Facility Loca Device Insta	ation: lled Locatio	on:	1091 CUMMINGS	AVE GLOUCEST	ER K1J 7S2 ON CA		
Liquid Fuel 1	Tank Detail	<u>s</u>					
Overfill Prote Owner Acco Item:	ection: unt Name:		ATLAS WELDING & FS LIQUID FUEL T	& EQUIPMENT F ANK	RENTALS DIV OF LALOND	E WELDING LTD	
<u>10</u>	1 of 1		SE/92.0	73.9 / 0.00	lot 25 con 1 ON		WWIS
Well ID: Constructior	n Date:	1501115			Flowing (Y/N): Flow Rate:		
Use 1st:		Domestic	<b>c</b>		Data Entry Status:		
Use 2nd: Final Well St	tatus.	0 Water Si	vlaai		Data Src: Date Received:	1 23-Jun-1948 00:00:00	
Water Type:			~~~~		Selected Flag:	TRUE	
Casing Mate Audit No:	rial:				Abandonment Rec: Contractor:	2311	
Tag:					Form Version:	1	
Constructn I Elevation (m	Method:				Owner: Countv:	OTTAWA-CARLETON	
Elevatn Relia	abilty:				Lot:	025	
Depth to Bec Well Depth:	drock:				Concession: Concession Name:	01 OF	
Overburden/	/Bedrock:				Easting NAD83:		
Pump Rate: Static Water	Level:				Northing NAD83: Zone:		
Clear/Cloudy	y:				UTM Reliability:		
Municipality: Site Info:	:		GLOUCESTER TO	WNSHIP			
PDF URL (Ma	ap):		https://d2khazk8e83	3rdv.cloudfront.n	et/moe_mapping/downloads	s/2Water/Wells_pdfs/150\1501115.pdf	
Additional D	etail(s) (Ma	<u>ір)</u>					
Well Comple	eted Date:		1948/04/30				
Year Comple	eted:		1948 42 672				
Latitude:			45.4263829899684				
Longitude: Path:			-75.631729907518 ⁻ 150\1501115.pdf	1			
<u>Bore Hole In</u>	formation						
Bore Hole ID	) <u>;</u>	1002315	8		Elevation:		
DP2BR: Snatial Statu	16.				Elevrc: Zone:	18	
Code OB:	13.				East83:	450580.70	
Code OB De	SC:				North83:	5030512.00	
Cluster Kind	l:				UTMRC:	9	
Date Comple	eted:	30-Apr-1	948 00:00:00		UTMRC Desc:	unknown UTM	
Loc Method	Desc:		Original Pre1985 U	TM Rel Code 9:	unknown UTM	ha	
Location Sol	urce Date:	Courses					
Improvemen	t Location	Source:					
80	erisinfo.c	om   Envir	onmental Risk Info	ormation Servic	es	Order No: 2302	22400359

Map Ke	y Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Improven Source R Supplier	nent Location Method: evision Comment: Comment:					
<u>Overburd</u> <u>Materials</u>	<u>len and Bedrock</u> Interval					
Formation Layer: Color: General C Mat1: Most Con	n ID: Color: nmon Material:	930991012 2 17 SHALE				
Mat2: Mat2 Des Mat3: Mat3 Des Formation Formation	c: c: n Top Depth: n End Depth: n End Depth UOM:	22.0 140.0 ft				
<u>Overburd</u> <u>Materials</u>	len and Bedrock Interval					
Formation Layer: Color: General ( Mat1: Most Con Mat2: Mat2 Des Mat3: Formation Formation Formation	n ID: Color: nmon Material: c: c: n Top Depth: n End Depth: n End Depth UOM:	930991011 1 6 BROWN 05 CLAY 09 MEDIUM SAND 0.0 22.0 ft				
<u>Method o</u> <u>Use</u>	f Construction & Well					
Method C Method C Method C Other Me	Construction ID: Construction Code: Construction: thod Construction:	961501115 1 Cable Tool				
<u>Pipe Info</u>	r <u>mation</u>					
Pipe ID: Casing N Commen Alt Name	o: t: :	10571728 1				
<u>Construc</u>	tion Record - Casing					
Casing ID Layer: Material: Open Hol Depth Fro Depth To Casing D	): le or Material: om: : iameter:	930039223 3 4 OPEN HOLE 140.0 4.0				
<b>U</b> =						

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Casing Diam Casing Depth	eter UOM: n UOM:	inch ft			
<u>Construction</u>	Record - Casing				
Casing ID:		930039222			
Layer:		2			
Material:	Matarial				
Denth From:	waterial:				
Depth From.		22.0			
Casing Diam	eter:	4.0			
Casing Diam	eter UOM:	inch			
Casing Depth	n UOM:	ft			
<b>Construction</b>	Record - Casing				
Casing ID:		930039221			
Layer:		1			
Material:	Motorial	1 87551			
Denth From:	Walerial.	SIEEL			
Depth To:		20.0			
Casing Diam	eter:	4.0			
Casing Diam	eter UOM:	inch			
Casing Deptr	т UOM:	π			
Results of W	ell Yield Testing				
Pumping Tes	t Method Desc:	PUMP			
Pump Test ID	):	991501115			
Pump Set At:					
Final Level A	fter Pumpina:	45.0			
Recommende	ed Pump Depth:	10.0			
Pumping Rat	e:	2.0			
Flowing Rate	:				
Recommende	ed Pump Rate:	<del>f</del> t			
Rate UOM:		GPM			
Water State A	After Test Code:				
Water State A	After Test:				
Pumping Tes	t Method:	1			
Pumping Dui	ation HR:				
Flowing:		No			
Water Details					
<u></u>	-				
Water ID:		933453797			
Layer:		1			
Kind Code:		1 EDEQU			
Water Found	Depth:	120.0			
Water Found	Depth UOM:	ft			
Water Details	1				
Water ID-		933453798			
Laver:		2			
Kind Code:		1			
Kind:		FRESH			

Map Key	Numbe Record	r of 's	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Water Found Water Found	l Depth: l Depth UO	1 <b>M:</b> f	35.0 t				
<u>Links</u>							
Bore Hole ID. Depth M: Year Comple Well Complet Audit No:	: eted: ted Dt:	10023158 42.672 1948 1948/04/30	)		Tag No: Contractor: Path: Latitude: Longitude:	2311 150\1501115.pdf 45.4263829899684 -75.6317299075181	
<u>11</u>	1 of 1		NE/92.2	74.9 / 1.00	lot 25 con 1 ON		wwis
Well ID: Construction Use 1st: Use 2nd: Final Well Sta Water Type: Casing Mater Audit No: Tag: Constructn M Elevation (m) Elevatn Relia Depth to Bed Well Depth: Overburden// Pump Rate: Static Water Clear/Cloudy Municipality: Site Info: PDF URL (Ma Additional De	n Date: atus: rial: hethod: holity: frock: Bedrock: Level:  ap): etail(s) (Ma	1501124 Domestic Water Sup ( r	oly GLOUCESTER TOV https://d2khazk8e83	VNSHIP rdv.cloudfront.net/	Flowing (Y/N): Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	1 25-Oct-1956 00:00:00 TRUE 2311 1 OTTAWA-CARLETON 025 01 OF	
Well Complet Year Comple Depth (m): Latitude: Longitude: Path: <u>Bore Hole Int</u>	ted Date: ted: formation	1 1 2 - 1	956/10/06 956 9.812 5.4277323883663 75.6318727936797 50\1501124.pdf				
Bore Hole ID. DP2BR: Spatial Statu Code OB: Code OB Des Open Hole: Cluster Kind: Date Comple Remarks: Loc Method I Elevrc Desc: Location Sou Improvement	: sc: : ted: Desc: urce Date: t Location t Location	10023167 06-Oct-195 ( Source: Method:	6 00:00:00 Driginal Pre1985 UT	™ Rel Code 5: ma	Elevation: Elevrc: Zone: East83: North83: Org CS: UTMRC: UTMRC Desc: Location Method: argin of error : 100 m - 300 m	18 450570.70 5030662.00 5 margin of error : 100 m - 300 m p5	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Source Revis Supplier Con	sion Comment: nment:				
<u>Overburden a</u> <u>Materials Inte</u>	and Bedrock erval				
Formation ID Layer: Color: General Colo Mat1: Most Commo Mat2:	: or: on Material:	930991038 2 17 SHALE			
Mat2 Desc: Mat3: Mat3 Desc: Formation To Formation Er Formation Er	op Depth: nd Depth: nd Depth UOM:	5.0 65.0 ft			
<u>Overburden a</u> Materials Inte	and Bedrock erval				
Formation ID Layer: Color: General Colo Mat1: Most Commo Mat2: Mat2 Desc: Mat3:	: r: on Material:	930991037 1 6 BROWN 02 TOPSOIL			
Mat3 Desc: Formation Tc Formation Eı Formation Eı	op Depth: nd Depth: nd Depth UOM:	0.0 5.0 ft			
<u>Method of Co</u> <u>Use</u>	onstruction & Well				
Method Cons Method Cons Method Cons Other Method	struction ID: struction Code: struction: d Construction:	961501124 1 Cable Tool			
<u>Pipe Informa</u> Pipe ID: Casing No: Comment: Alt Name:	<u>tion</u>	10571737 1			
<u>Construction</u>	Record - Casing				
Casing ID: Layer: Material: Open Hole or Depth From: Depth To: Casing Diam	r Material: eter:	930039240 1 STEEL 12.0 4.0			
Casing Diam	eter UOM:	inch			

Мар Кеу	Number Records	of S	Direction/ Distance (m)	Elev/Diff (m)	Site	D	в
Casing Dept	h UOM:		ft				
Construction	n Record - C	asing					
Casing ID:			930039241				
Layer:			2				
Material:	. Matarial						
Open Hole of	r Materiai:		OPEN HOLE				
Depth From.			65.0				
Casing Diam	eter:		4.0				
Casing Diam	eter UOM:		inch				
Casing Dept	h UOM:		ft				
<u>Results of W</u>	ell Yield Te	<u>sting</u>					
Pumping Tes	st Method D	esc:	PUMP				
Pump Test IL	D:		991501124				
Pump Set At	:						
Static Level:	fter Dummin		5.0				
Pinai Level A	d Pump D	ig: anth:	15.0				
Pumping Rat	te [.]	эриі.	2.0				
Flowing Rate	);						
Recommend	ed Pump Ra	ate:					
Levels UOM:			ft				
Rate UOM:		- 4-	GPM				
Water State /	After Test C After Test	ode:					
Pumping Tes	st Method:		1				
Pumping Du	ration HR:		1				
Pumping Du	ration MIN:		0				
Flowing:			No				
Water Details	-						
<u>Mater Details</u>	2						
Water ID:			933453810				
Layer:			1				
Kind Code:							
Mater Found	Denth:		35.0				
Water Found	Depth. Depth UON	Л:	ft				
Water Details	5						
Water ID:			933453811				
Layer:			2				
Kind Code:			1				
Kind:			FRESH				
Water Found	Depth:		58.0 #				
water round	Depth UON	n:	п				
<u>Links</u>							
Bore Hole ID	:	1002316	7		Tag No:		
Depth M:	-	19.812			Contractor:	2311	
Year Comple	ted:	1956			Path:	150\1501124.pdf	
Well Comple	ted Dt:	1956/10/	06		Latitude:	45.4277323883663	
Audit No:					Longitude:	-75.6318727936797	

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Мар Кеу	Number Records	of Direction/ Distance (m)	Elev/Diff (m)	Site		DB
<u>12</u>	1 of 1	SW/113.8	72.9/-1.00	lot 25 con 1 ON		wwis
Well ID: Construction Use 1st: Use 2nd: Final Well St Water Type: Casing Mate Audit No: Tag: Constructn I Elevation (m Elevatn Relia Depth to Beo Well Depth: Overburden/ Pump Rate: Static Water Clear/Cloudy Municipality. Site Info:	n Date: ratus: rial: Method: ): abilty: drock: /Bedrock: /Bedrock: Level: /:	1510842 Commerical 0 Water Supply GLOUCESTER TO	DWNSHIP	Flowing (Y/N): Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	1 28-Sep-1970 00:00:00 TRUE 1558 1 OTTAWA-CARLETON 025 01 OF	

PDF URL (Map):

 $https://d2 khazk8e83 rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/151\1510842.pdf$ 

## Additional Detail(s) (Map)

Well Completed Date:	1970/07/22
Year Completed:	1970
Depth (m):	60.96
Latitude:	45.4261051836758
Longitude:	-75.6331329392714
Path:	151\1510842.pdf

## Bore Hole Information

Bore Hole ID: DP2BR: Spatial Status: Code OB: Code OB Desc: Open Hole: Cluster Kind:	10032845	Elevation: Elevrc: Zone: East83: North83: Org CS: UTMRC:	18 450470.70 5030482.00 4
Date Completed:	22-Jul-1970 00:00:00	UTMRC Desc:	margin of error : 30 m - 100 m
Remarks: Loc Method Desc: Elevrc Desc: Location Source Date: Improvement Location So Improvement Location M Source Revision Comme Supplier Comment:	Original Pre1985 UTM Rel Code ource: /ethod: nt:	<i>Location Method:</i> 4: margin of error : 30 m - 100 n	μ4 1
Overburden and Bedrock Materials Interval	<u>(</u>		
Formation ID: Laver:	931015951 3		
Color:	6		
General Color: Mat1:	BROWN 17		
Most Common Material:	SHALE		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Mat2: Mat2 Desc: Mat3: Mat3 Desc: Formation Tc Formation Er Formation Er	op Depth: nd Depth: nd Depth UOM:	30.0 55.0 ft			
<u>Overburden a</u> Materials Inte	and Bedrock erval				
Formation ID Layer: Color: General Colo Mat1: Most Commo Mat2: Mat2 Desc: Mat3:	: r: n Material:	931015950 2 8 BLACK 17 SHALE			
Mat3 Desc: Formation To Formation Er Formation Er	op Depth: nd Depth: nd Depth UOM:	4.0 30.0 ft			
<u>Overburden a</u> Materials Inte	and Bedrock erval				
Formation ID Layer: Color: General Colo Mat1: Most Commo Mat2: Mat2 Desc: Mat3 Desc: Formation To Formation Er Formation Er	: r: n Material: p Depth: nd Depth: nd Depth: nd Depth UOM:	931015952 4 2 GREY 15 LIMESTONE 55.0 200.0 ft			
<u>Overburden a</u> <u>Materials Inte</u>	and Bedrock erval				
Formation ID Layer: Color: General Colo Mat1: Most Commo Mat2: Mat2 Desc: Mat3 Desc: Formation To Formation Er Formation Er	: r: on Material: op Depth: od Depth: od Depth: od Depth UOM:	931015949 1 6 BROWN 09 MEDIUM SAND 12 STONES 01 FILL 0.0 4.0 ft			
Method of Co	onstruction & Well				

Use

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Method Cons Method Cons Method Cons	struction ID: struction Code: struction:	961510842 1 Cable Tool			
Pipe Informa Pipe ID: Casing No: Comment:	tion	10581415 1			
Alt Name:	Record - Casing				
Casing ID:		930058243			
Layer:		1			
Material:		1			
Open Hole of	r Materiai:	SIEEL			
Depth From:		10.0			
Casing Diam	eter:	6.0			

Depart rom.	
Depth To:	10.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

# Construction Record - Casing

930058244
2
4
OPEN HOLE
200.0
6.0
inch
ft

## Results of Well Yield Testing

Pumping Test Method Desc:	BAILER
Pump Test ID:	991510842
Pump Set At:	
Static Level:	4.0
Final Level After Pumping:	125.0
Recommended Pump Depth:	150.0
Pumping Rate:	1.0
Flowing Rate:	
Recommended Pump Rate:	1.0
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	2
Water State After Test:	CLOUDY
Pumping Test Method:	2
Pumping Duration HR:	1
Pumping Duration MIN:	30
Flowing:	No

# Draw Down & Recovery

Pump Test Detail ID:	934380135
Test Type:	Draw Down
Test Duration:	30
Test Level:	125.0

Map Key	Number Records	r of s	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Test Level UO	М:		ft				
Draw Down &	<u>Recovery</u>						
Pump Test De	tail ID:		934899053				
Test Type:			Draw Down				
Test Duration:			60 125 0				
Test Level:	м·		125.0 ft				
			n in				
<u>Draw Down &amp;</u>	<u>Recovery</u>						
Pump Test De	tail ID:		934097400				
Test Type:			Draw Down				
Test Duration:			15				
Test Level UO	м·		125.0 ft				
Draw Down &	<u>Recovery</u>						
Pump Test De	tail ID:		934641711				
Test Type:			Draw Down				
Test Duration:			45				
Test Level: Test Level UO	м·		125.0 ft				
Water Details							
Water ID:			933465871				
Layer:			1				
Kind Code:							
NIIIU: Water Found I	Denth:		130 0				
Water Found D	Depth UOI	И:	ft				
<u>Links</u>							
Bore Hole ID:		1003284	15		Tag No:		
Depth M:	l.	60.96			Contractor:	1558 151)1510842 pdf	
Vell Complete	ea: ad Dtr	1970	/22		Path: Latitude:	45 4261051836758	
Audit No:	<i>a D</i> .	1010/01/			Longitude:	-75.6331329392714	
					-		
<u>13</u>	1 of 2		SE/114.3	73.9/0.00	UNKNOWN CUMMINGS AVE JUS GLOUCESTER CITY (	T SOUTH OF OLGILVIE ON	SPL
Ref No:		71782			Discharger Report:		
Site No:					Material Group:		
Incident Dt:		//			Health/Env Conseq:		
Year:	_		\A/N		Client Type:		
Incident Cause	e: 	UNKNO	VVIN		Sector Type:		
Contaminant (	Code:				Nearest Watercourse:		
Contaminant N	Vame:				Site Address:		
Contaminant L	imit 1:				Site District Office:		
Contam Limit	Freq 1:				Site Postal Code:		
Contaminant U	JN No 1:				Site Region:		
Environment li	mpact:	CONFIR	RMED		Site Municipality:	GLOUCESTER CITY	
Receiving Mea	ict: lium·		lammation		Site Lot: Site Conc		
Necenting Med							

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Order No: 23022400359

Мар Кеу	Number Records	of Directio Distance	n/ Elev/Diff e (m) (m)	Site		DB
Receiving Env. MOE Response Dt MOE Arvl of MOE Reported Dt Document ( Incident Reaso Site Name: Site County/Di. Municipality No Site Geo Ref M Incident Summ Contaminant (	r: e: n Scn: I Dt: Closed: Closed: Dn: Strict: So: Strict: Neth: nary: Rty:	6/9/1992 UNKNOWN 20105 100 L HYDR	AULIC OIL TO GRO	Northing: Easting: Site Geo Ref Accu: Site Map Datum: SAC Action Class: Source Type:		
<u>13</u> 2	2 of 2	SE/114.3	73.9 / 0.00	Labrador Spring Wat OGIL VIE STREET / C STREET <unofficia Ottawa ON</unofficia 	ter <unofficial> CUMMING AL&gt;</unofficial>	SPL
Ref No: Site No: Incident Dt: Year: Incident Cause Incident Event Contaminant C Contaminant L Contaminant L Contaminant L Contaminant U Environment II Nature of Impa Receiving Med Receiving Env. MOE Response Dt MOE Arvl of MOE Reported Dt Document O Incident Reaso Site Name: Site County/Di Municipality No Site Geo Ref M Incident Summ Contaminant O	e: Sode: Name: Limit 1: Freq 1: JN No 1: mpact: act: dium: e: n Scn: l Dt: Closed: o: Strict: o: feth: nary: Qty:	1776-5W9PV4 2/17/2004 Other Transport Accide 13 DIESEL FUEL Not Anticipated Soil Contamination Land 2/17/2004 Error- Operator error OGILVIE ST MVA, 40 gal 182 L	ent REET / CUMMING : diesel to gnd	Discharger Report: Material Group: Health/Env Conseq: Client Type: Sector Type: Agency Involved: Nearest Watercourse: Site Address: Site District Office: Site Postal Code: Site Region: Site Region: Site Region: Site Conc: Northing: Easting: Site Geo Ref Accu: Site Geo Ref Accu: Site Map Datum: SAC Action Class: Source Type: STREET <unofficial></unofficial>	Oil Ottawa Eastern Ottawa	
<u>14</u> External File N	1 of 1 lum:	<b>NNE/121.3</b> ES INC 0711	<b>74.9 / 1.00</b>	1085 CUMMINGS AV OTTAWA ON	ENUE	HINC
Fuel Occurrend Date of Occurr Fuel Type Invo Status Desc: Job Type Desc Oper. Type Inv Service Interru Property Dama Fuel Life Cycle Root Cause: Reported Deta Fuel Category:	ills:	Pipeline Stril 11/2/2007 Natural Gas Completed - Incident/Nea Construction Yes Yes Transmissio Root Cause: Managemen Gaseous Fu	ce Causal Analysis(En r-Miss Occurrence ( Site (pipeline strike n, Distribution and T Equipment/Material t:Yes Human Fact el	d) FS) ) ransportation l/Component:No Procedures:Y ors:Yes	'es Maintenance:No	Design:No Training:No

Map Key	Number Records	r of s	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Occurrence Ty Affiliation: County Name: Approx. Quan Nearby body o Enter Drainag Approx. Quan Environmenta	ype: : t. Rel: of water: e Syst.: t. Unit: il Impact:		Incident Industry Stakeholde Ottawa	er (Licensee/Regis	tration/Certificate Holder, F	acility Owner, etc.)	
<u>15</u>	1 of 1		NE/128.3	74.9 / 1.00	lot 25 con 1 ON		wwis
Well ID: Construction I Use 1st: Use 2nd: Final Well Star Water Type: Casing Materia Audit No: Tag: Constructn Me Elevation (m): Elevatn Reliat Depth to Bedr Well Depth: Overburden/B Pump Rate: Static Water L Clear/Cloudy: Municipality: Site Info:	Date: tus: al: ethod: bilty: cock: Redrock: evel:	1501128 Domestic 0 Water Sup	oply GLOUCESTER TO	WNSHIP	Flowing (Y/N): Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	1 18-Aug-1959 00:00:00 TRUE 2311 1 OTTAWA-CARLETON 025 01 OF	
PDF URL (Map	o):		https://d2khazk8e83	Brdv.cloudfront.ne	t/moe_mapping/downloads/	/2Water/Wells_pdfs/150\1501128.pdf	
Additional Det Well Complete Year Complete Depth (m): Latitude: Longitude: Path:	<u>tail(s) (Ma</u> ed Date: ed:	<u>o)</u>	1959/07/15 1959 44.196 45.4280038234168 -75.6316201535922 150\1501128.pdf	2			
Bore Hole Info	ormation						
Bore Hole ID: DP2BR: Spatial Status Code OB: Code OB Desc Open Hole: Cluster Kind: Date Complete Remarks: Loc Method D Elevrc Desc: Location Sour Improvement Source Revisi Supplier Com	: c: ed: esc: rce Date: Location S Location N ion Commo ment:	10023171 15-Jul-195 Source: Method: ent:	59 00:00:00 Original Pre1985 U	TM Rel Code 5: m	Elevation: Elevrc: Zone: East83: North83: Org CS: UTMRC: UTMRC Desc: Location Method: argin of error : 100 m - 300	18 450590.70 5030692.00 5 margin of error : 100 m - 300 m p5 m	

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	
<u>Overburden a</u> Materials Inte	and Bedrock erval				
Formation ID	:	930991044			
Layer:		1			
Color:	r.				
Mat1:		09			
Most Commo	n Material:	MEDIUM SAND			
Mat2:		11 ODAV/EL			
Matz Desc: Mat3 [.]		GRAVEL			
Mat3 Desc:					
Formation To	p Depth:	0.0			
Formation En	d Depth: d Depth UOM:	28.0 ft			
r onnation En	a Depar Com.	it.			
<u>Overburden a</u> Materials Inte	and Bedrock erval				
Formation ID	:	930991045			
Layer:		2			
Color:	<i>v</i> .				
Mat1:		17			
Most Commo	n Material:	SHALE			
Mat2:					
Matz Desc: Mat3					
Mat3 Desc:					
Formation To	p Depth:	28.0			
Formation En	Id Depth: Id Depth UOM:	145.0 ft			
r onnation En	a Depar Com.	it.			
<u>Method of Co</u> <u>Use</u>	nstruction & Well				
Method Cons	truction ID:	961501128			
Method Cons	truction Code:	1 Cable Teal			
Other Method	l Construction:				
<u>Pipe Informat</u>	<u>tion</u>				
Dina /D-		105717/1			
Pipe ID: Casing No:		10571741			
Comment:					
Alt Name:					
<u>Construction</u>	Record - Casing				
Casing ID:		930039249			
Layer:		2			
Material: Open Hole or	Material	4 OPEN HOLE			
Depth From:	material.	OI EIGHOLL			
Depth To:		145.0			
Casing Diame	eter:	4.0			
Casing Diame	UOM:	ft			

Casing Depth UOM:

Мар Кеу	Numbe Record	r of 's	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
<b>Construction</b>	Record -	Casing					
Casing ID: Layer: Material: Open Hole o Depth From: Depth To: Casing Diam Casing Dept	r Material: neter: neter UOM: h UOM:		930039248 1 STEEL 30.0 4.0 inch ft				
<u>Results of W</u>	ell Yield Te	esting					
Pumping Tes Pump Test II Pump Set At Static Level: Final Level A Recommend Pumping Rate Flowing Rate Recommend Levels UOM: Rate UOM: Water State A Pumping Du Pumping Du Flowing: Water Detail: Water ID: Layer:	st Method I D: : After Pumpi led Pump E te: : ed Pump F After Test ( After Test: st Method: ration HR: ration MIN:	Desc: ing: Depth: Rate: Code:	PUMP 991501128 16.0 145.0 0.0 ft GPM 1 CLEAR 1 4 0 No				
Kind Code: Kind: Water Found	l Depth:		1 FRESH 80.0				
Water Found	I Depth UO	М:	π				
<u>Links</u>							
Bore Hole ID Depth M: Year Comple Well Comple Audit No:	: eted: ted Dt:	1002317 44.196 1959 1959/07/	1		Tag No: Contractor: Path: Latitude: Longitude:	2311 150\1501128.pdf 45.4280038234168 -75.6316201535922	
<u>16</u>	1 of 1		ESE/146.8	72.8/-1.03	1134 OGILVIE RD. Ottawa ON		wwis
Well ID: Constructior Use 1st: Use 2nd:	n Date:	7224359 Monitorir 0	ng and Test Hole		Flowing (Y/N): Flow Rate: Data Entry Status: Data Src:		

Date Received:

Selected Flag:

Form Version:

Contractor:

Owner:

Abandonment Rec:

Use 1st: Use 2nd: Final Well Status: Water Type: Casing Material: Audit No: Tag: Constructn Method:

93

A164777

Z189005

Monitoring and Test Hole

21-Jul-2014 00:00:00

TRUE

Map Key Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Elevation (m): Elevatn Reliabilty: Depth to Bedrock: Well Depth: Overburden/Bedrock: Pump Rate: Static Water Level: Clear/Cloudy: Municipality: Site Info:	GLOUCESTER TO	WNSHIP	County: Lot: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	OTTAWA-CARLETON	
PDF URL (Map): Additional Detail(s) (Map)					
Well Completed Date: Year Completed: Depth (m): Latitude: Longitude: Path:	2014/06/10 2014 3.1 45.4261798104351 -75.6310335230838	3			
Bore Hole Information					
Bore Hole ID:100495DP2BR:Spatial Status:Code OB:Code OB:Code OB Desc:Open Hole:Cluster Kind:Date Completed:Date Completed:10-Jun-Remarks:Loc Method Desc:Elevrc Desc:Location Source Date:Improvement Location Source:Improvement Location Method:Source Revision Comment:Supplier Comment:Overburden and BedrockMaterials Interval	7479 2014 00:00:00 on Water Well Reco	ord	Elevation: Elevrc: Zone: East83: North83: Org CS: UTMRC: UTMRC Desc: Location Method:	18 450635.00 5030489.00 UTM83 4 margin of error : 30 m - 100 m wwr	
Formation ID: Layer: Color: General Color: Mat1: Most Common Material: Mat2 Desc: Mat3: Mat3 Desc: Formation Top Depth: Formation End Depth: Formation End Depth UOM:	1005233183 1 6 BROWN 02 TOPSOIL 28 SAND 77 LOOSE 0.0 0.610000014305117 m	47			
Materials Interval Formation ID:	1005233185				

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Layer: Color: General Color Mat1: Most Common Mat2: Mat2 Desc: Mat3 Mat3 Desc: Formation Top Formation End	: n Material: o Depth: d Depth: d Depth UOM:	3 2 GREY 06 SILT 28 SAND 66 DENSE 1.5 3.099999904632568 m	4			
<u>Overburden a</u> <u>Materials Inter</u>	<u>nd Bedrock</u> <u>val</u>					
Formation ID: Layer: Color: General Color Mat1: Most Common Mat2: Mat2 Desc: Mat3: Mat3 Desc: Formation Top Formation End	: n Material: o Depth: d Depth: d Depth UOM:	1005233184 2 6 BROWN 06 SILT 05 CLAY 66 DENSE 0.610000014305114 1.5 m	7			
<u>Annular Space</u> <u>Sealing Recor</u>	e/Abandonment_ d					
Plug ID: Layer: Plug From: Plug To: Plug Depth U0	DM:	1005233194 2 0.300000011920928 1.220000028610229 m	96 5			
<u>Annular Space</u> Sealing Recor	e/Abandonment_ d					
Plug ID: Layer: Plug From: Plug To: Plug Depth U0	DM:	1005233195 3 1.220000028610229 3.099999904632568 m	5 4			
<u>Annular Space</u> Sealing Recor	e/Abandonment d					
Plug ID: Layer: Plug From: Plug To: Plug Depth U0	DM:	1005233193 1 0.0 0.300000011920928 m	96			
<u>Method of Col Use</u>	nstruction & Well					
Method Const Method Const	ruction ID: ruction Code:	1005233192 E				

Мар Кеу	Number o Records	of Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Method Cons Other Method	struction: d Constructio	Auger n:				
<u>Pipe Informa</u>	<u>tion</u>					
Pipe ID: Casing No: Comment: Alt Name:		1005233182 0				
<b>Construction</b>	Record - Cas	sing				
Casing ID: Layer: Material: Open Hole or Depth From: Depth To: Casing Diam Casing Diam Casing Depth	r Material: eter: eter UOM: n UOM:	1005233188 1 5 PLASTIC 0.0 1.5 5.19999980926513 cm m	7			
<u>Construction</u>	Record - Scr	reen				
Screen ID: Layer: Slot: Screen Top I Screen End I Screen Mater Screen Diam Screen Diam	Depth: Depth: rial: n UOM: eter UOM: eter:	1005233189 1 10 1.5 3.09999990463256 5 m cm 6.03000020980835	84			
Water Details	i					
Water ID: Layer: Kind Code: Kind: Water Found Water Found	Depth: Depth UOM:	1005233187 m				
Hole Diamete	<u>er</u>					
Hole ID: Diameter: Depth From: Depth To: Hole Depth U Hole Diamete	IOM: er UOM:	1005233186 15.23999977111810 0.0 3.099999904632560 m cm	64 84			
<u>Links</u>						
Bore Hole ID. Depth M: Year Comple Well Comple Audit No:	: 1 3 ted: 2 ted Dt: 2 2	1004957479 3.1 2014 2014/06/10 2189005		Tag No: Contractor: Path: Latitude: Longitude:	A164777 7241 722\7224359.pdf 45.4261798104351 -75.6310335230838	

Map Key Numbe Record	r of s	Direction/ Distance (m)	Elev/Diff (m)	Site	DE
<u>17</u> 1 of 1	E	SE/154.8	72.8/-1.03	1134 ON	WWIS
Well ID: Construction Date: Use 1st: Use 2nd: Final Well Status: Water Type: Casing Material: Audit No: Tag: Constructn Method: Elevation (m): Elevatin Reliabilty: Depth to Bedrock: Well Depth: Overburden/Bedrock: Pump Rate: Static Water Level: Clear/Cloudy: Municipality: Site Info: PDF URL (Map):	7224188 Monitoring Test Hole Monitoring a Z189003 A164780	nd Test Hole	DWNSHIP	Flowing (Y/N): Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	21-Jul-2014 00:00:00 TRUE 7241 7 OTTAWA-CARLETON
<u>Additional Detail(s) (Ma</u> Well Completed Date: Year Completed: Depth (m): Latitude: Longitude: Path:	<u>ם)</u> 20 20 2.7 45 -7	14/06/10 14 79 .426189587852 5.630893018763	7 34		
Bore Hole Information					
Bore Hole ID: DP2BR: Spatial Status: Code OB: Code OB Desc: Open Hole: Cluster Kind: Date Completed: Remarks: Loc Method Desc: Elevrc Desc: Location Source Date: Improvement Location Source Revision Comm Supplier Comment:	1004950461 10-Jun-2014 on Source: Method: tent:	00:00:00 Water Well Rec	ord	Elevation: Elevrc: Zone: East83: North83: Org CS: UTMRC: UTMRC Desc: Location Method:	18 450646.00 5030490.00 UTM83 4 margin of error : 30 m - 100 m wwr
<u>Overburden and Bedroo Materials Interval</u> Formation ID: Layer: Color: General Color: Mat1: Most Common Material.	2 <b>k</b> 10 2 6 BF 06 : SII	06697676 ROWN LT			

1	Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DE	3
N N N N F F F	<i>flat2: flat2 Desc: flat3: flat3 Desc: Formation Tc Formation Er Formation Er</i>	op Depth: nd Depth: nd Depth UOM:	05 CLAY 66 DENSE 0.610000014305114 1.220000028610229 m	.7 5			
<u>C</u> <u>N</u>	Overburden a Naterials Inte	and Bedrock erval					
FLCGNNNNNFFF	Formation ID ayer: Color: General Colo Mat1: Most Commo Mat2: Mat2 Desc: Mat3 Desc: Formation Er Formation Er	: r: on Material: op Depth: nd Depth: nd Depth UOM:	1006697677 3 2 GREY 06 SILT 05 CLAY 66 DENSE 1.220000028610229 2.789999961853027 m	5 3			
<u>C</u> <u>N</u>	Overburden a Materials Inte	and Bedrock erval					
FLCGNNNNFFF	Formation ID Layer: Color: General Colo Mat1: Most Commo Mat2: Mat3: Mat3: Desc: Formation Ter Formation Er Formation Er	: r: on Material: op Depth: nd Depth: nd Depth UOM:	1006697675 1 6 BROWN 01 FILL 11 GRAVEL 77 LOOSE 0.0 0.610000014305114 m	7			
<u>A</u> S	Annular Space Sealing Reco	ce/Abandonment rd					
P L P P P	Plug ID: .ayer: Plug From: Plug To: Plug Depth U	IOM:	1006697680 1 0.0 0.300000011920928 m	96			
<u>A</u> S	Annular Space	ce/Abandonment ord					
P L P P P	Plug ID: .ayer: Plug From: Plug To: Plug Depth U	IOM:	1006697681 2 0.300000011920928 0.910000026226043 m	96 7			
<u>A</u> S	Annular Space Sealing Reco	ce/Abandonment_ ord					

Map Key Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Plug ID: Layer: Plug From: Plug To: Plug Depth UOM:	1006697682 3 0.910000026226043 2.789999961853027 m	7 3		
<u>Method of Construction &amp; Well</u> <u>Use</u>				
Method Construction ID: Method Construction Code: Method Construction: Other Method Construction:	1005235020 E Auger			
Pipe Information				
Pipe ID: Casing No: Comment: Alt Name:	1005235014 0			
Construction Record - Casing				
Casing ID: Layer: Material: Open Hole or Material: Depth From: Depth To: Casing Diameter: Casing Diameter UOM: Casing Depth UOM:	1005235018 1 5 PLASTIC 0.0 1.220000028610229 5.199999809265137 cm m	5		
Construction Record - Screen				
Screen ID: Layer: Slot: Screen Top Depth: Screen End Depth: Screen Material: Screen Depth UOM: Screen Diameter UOM: Screen Diameter:	1005235019 1 10 1.220000028610229 2.700000047683716 5 m cm 6.03000020980835	5		
Water Details				
Water ID: Layer: Kind Code: Kind:	1005235017			
water Found Deptn: Water Found Depth UOM:	m			
Hole Diameter				
Hole ID: Diameter: Depth From: Dopth To:	1005235016 20.31999969482422 0.0 2.789999961853037	3		
<u>99 erisinfo.com</u>   Envi	ronmental Risk Info	mation Service	S	Order No: 23022400359

Map Key	Numbe Record	r of 's	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Hole Depth U Hole Diamete	IOM: er UOM:	n c	n :m				
<u>Links</u>							
Bore Hole ID Depth M: Year Comple Well Comple Audit No:	: ted: ted Dt:	100495046 2.79 2014 2014/06/10 Z189003	51 )		Tag No: Contractor: Path: Latitude: Longitude:	A164780 7241 722\7224188.pdf 45.4261895878527 -75.6308930187634	
<u>18</u>	1 of 1		SE/155.6	72.8/-1.06	1134 OGILVIE RD ON		WWIS
Well ID: Construction Use 1st: Use 2nd: Final Well Sta Water Type: Casing Mater Audit No: Tag: Constructn M Elevation (m, Elevation (m, Elevatn Relia Depth to Beo Well Depth: Overburden/A Pump Rate: Static Water Clear/Cloudy Municipality: Site Info:	n Date: atus: rial: //ethod: ): hbilty: lrock: Bedrock: Level:	7224189 Monitoring Test Hole Monitoring Z189002 A164781	and Test Hole	WNSHIP	Flowing (Y/N): Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	21-Jul-2014 00:00:00 TRUE 7241 7 OTTAWA-CARLETON	
PDF URL (Ma	ap):						
Additional De	etail(s) (Ma	<u>(a)</u>					
Well Comple Year Comple Depth (m): Latitude: Longitude: Path:	ted Date: ted:	2 2 4 	2014/06/10 2014 9.57 95.425990230626 75.631133674597	5			
Bore Hole Int	formation						
Bore Hole ID DP2BR: Spatial Statu Code OB: Code OB Des Open Hole: Cluster Kind.	: s: sc: :	100495046	:4		Elevation: Elevrc: Zone: East83: North83: Org CS: UTMRC:	18 450627.00 5030468.00 UTM83 4	
Date Comple Remarks: Loc Method I Elevrc Desc: Location Sou Improvement Improvement	ted: Desc: Irce Date: t Location t Location	10-Jun-201 o Source: Method:	4 00:00:00 on Water Well Rec	ord	UTMRC Desc: Location Method:	margin of error : 30 m - 100 m wwr	

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Source Revis Supplier Con	ion Comment: nment:				
<u>Overburden a</u> Materials Inte	and Bedrock erval				
Formation ID Layer: Color: General Colo Mat1: Most Commo Mat2: Mat2 Desc: Mat3 Desc: Formation To Formation En	: r: n Material: p Depth: nd Depth: nd Depth UOM:	1006697684 2 6 BROWN 06 SILT 05 CLAY 66 DENSE 0.610000014305114 1.5 m	.7		
<u>Overburden a</u> <u>Materials Inte</u>	and Bedrock erval				
Formation ID Layer: Color: General Colo Mat1: Most Commo Mat2: Mat2 Desc: Mat3 Desc: Formation To Formation En	: r: on Material: op Depth: od Depth: od Depth UOM:	1006697685 3 2 GREY 06 SILT 05 CLAY 66 DENSE 1.5 4.570000171661377 m			
<u>Overburden a</u> <u>Materials Inte</u>	and Bedrock erval				
Formation ID Layer: Color: General Colo Mat1: Most Commo Mat2: Mat2 Desc: Mat3 Desc: Formation To Formation El Formation El	: r: n Material: p Depth: nd Depth: nd Depth UOM:	1006697683 1 6 BROWN 01 FILL 11 GRAVEL 77 LOOSE 0.0 0.610000014305114 m	17		
<u>Annular Spaces Sealing Reco</u>	<u>e/Abandonment</u> <u>rd</u>				
Plug ID: Layer: Plug From: Plug To: Plug Depth U	OM:	1006697688 1 0.0 0.300000011920928 m	996		

<u>Annular Space/Abandonment</u> <u>Sealing Record</u>	
Plug ID: Layer: Plug From: Plug To: Plug Depth UOM:	1006697689 2 0.30000001192092896 1.2200000286102295 m
<u>Annular Space/Abandonment</u> Sealing Record	
Plug ID: Layer: Plug From: Plug To: Plug Depth UOM:	1006697690 3 1.220000286102295 4.570000171661377 m
Method of Construction & Well Use	
Method Construction ID: Method Construction Code: Method Construction: Other Method Construction:	1005235027 E Auger
Pipe Information	
Pipe ID: Casing No: Comment: Alt Name:	1005235021 0
Construction Record - Casing	
Casing ID: Layer: Material: Open Hole or Material: Depth From: Depth To: Casing Diameter: Casing Diameter UOM: Casing Depth UOM:	1005235025 1 5 PLASTIC 0.0 1.5 5.199999809265137 cm m

## Construction Record - Screen

Screen ID:	1005235026
Layer:	1
Slot:	10
Screen Top Depth:	1.5
Screen End Depth:	4.570000171661377
Screen Material:	5
Screen Depth UOM:	m
Screen Diameter UOM:	cm
Screen Diameter:	6.0300020980835

## Water Details

	Мар Кеу	Number Records	r of s	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
-	Water ID: Layer: Kind Code: Kind: Water Found Water Found	Depth: Depth UOI	И:	1005235024 m				
	Hole Diamete	<u>er</u>						
	Hole ID: Diameter: Depth From: Depth To: Hole Depth U Hole Diamete	IOM: er UOM:		1005235023 15.2399997711181 0.0 4.57000017166137 m cm	64 7			
	<u>Links</u>							
	Bore Hole ID: Depth M: Year Complet Well Complet Audit No:	ted: ted Dt:	1004950/ 4.57 2014 2014/06/ Z189002	464 10		Tag No: Contractor: Path: Latitude: Longitude:	A164781 7241 722\7224189.pdf 45.425990230626 -75.6311336745975	
	<u>19</u>	1 of 19		ESE/160.7	72.8/-1.03	C CORP (ONTARIO) I PAYABLE 1134 OGILVIE RD OTTAWA ON K1J8V1	NC ATTN ACCOUNTS	PRT
	Location ID: Type: Expiry Date: Capacity (L): Licence #:			11027 retail 1996-02-28 81700 0056442001				
-	<u>19</u>	2 of 19		ESE/160.7	72.8/-1.03	PIONEER PETROLEU 1134 OGILVIE RD GL STATION OTTAWA CITY ON K1	IMS LTD. OUCESTER SERVICE 1J 8V1	SPL
	Ref No:		197240			Discharger Report: Material Group:		
	Incident Dt: Year:		3/28/200	1		Health/Env Conseq:		
	Incident Caus Incident Ever Contaminant Contaminant Contaminant Contam Limit Contaminant	se: nt: Code: Name: Limit 1: t Freq 1: UN No 1:	PIPE/HO	SE LEAK		Sector Type: Agency Involved: Nearest Watercourse: Site Address: Site District Office: Site Postal Code: Site Region:	FD	
	Environment Nature of Imp Receiving Me Receiving En MOE Respon Dt MOE Arvio MOE Reporte	Impact: pact: edium: v: se: on Scn: ed Dt:	Possible Soil conta Land 3/28/200	amination 1		Site Municipality: Site Lot: Site Conc: Northing: Easting: Site Geo Ref Accu: Site Map Datum:	OTTAWA CITY	
	Dt Document Incident Reas Site Name: Site County/E	Closed: son: District:	ERROR			SAC Action Class: Source Type:		

Map Key Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Municipality No: Site Geo Ref Meth: Incident Summary: Contaminant Qty:	20107 PIONEER SERVIC	E STN: 50 LGASOL	INE TO GRND, ERROR, FD CONTAINED, WILL CLEAN.	
<u>19</u> 3 of 19	ESE/160.7	72.8 / -1.03	PIONEER PETROLEUMS 1134 OGILVIE RD OTTAWA ON K1J 8V1	RST
Headcode: Headcode Desc: Phone: List Name: Description:	1186800 Service Stations-Ga 6137418911	asoline, Oil & Natura	l Gas	
<u>19</u> 4 of 19	ESE/160.7	72.8/-1.03	PIONEER PETROLEUMS MANAGEMENT INC** 1134 OGILVIE RD OTTAWA ON K1J 8V1	FSTH
License Issue Date: Tank Status: Tank Status As Of: Operation Type: Facility Type:	9/27/2002 Licensed August 2007 Retail Fuel Outlet Gasoline Station - S	Self Serve		
<u>Details</u> Status: Year of Installation: Corrosion Protection: Capacity: Tank Fuel Type:	Active 1991 45400 Liquid Fuel Single V	Vall UST - Gasoline		
Status: Year of Installation: Corrosion Protection: Capacity: Tank Fuel Type:	Active 1991 22700 Liquid Fuel Single V	Vall UST - Gasoline		
Status: Year of Installation: Corrosion Protection: Capacity: Tank Fuel Type:	Active 1991 13600 Liquid Fuel Single V	Vall UST - Diesel		
<u>19</u> 5 of 19	ESE/160.7	72.8/-1.03	PIONEER PETROLEUMS 1134 OGILVIE RD GLOUCESTER ON K1J 8V1	RST
Headcode: Headcode Desc: Phone: List Name: Description:	01186800 SERVICE STATIO	NS-GASOLINE, OIL	& NATURAL GAS	
<u>19</u> 6 of 19	ESE/160.7	72.8 / -1.03	PIONEER PETROLEUMS MANAGEMENT INC** 1134 OGILVIE RD OTTAWA ON	FSTH

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
License Issu	ie Date:	9/27/2002			
Tank Status	:	Licensed			
Tank Status	As Of:	December 2008			
Operation T	ype:	Retail Fuel Outlet			
Facility Type	); );	Gasoline Station - S	Self Serve		
Details					
Status:		Active			
Year of Insta	allation:	1991			
Corrosion P	rotection:				
Capacity:		45400			
Tank Fuel T	/pe:	Liquid Fuel Single V	Vall UST - Gasoline		
Status:		Active			
Year of Insta	allation:	1991			
Corrosion P	rotection:				
Capacity:		22700			
Tank Fuel T	/pe:	Liquid Fuel Single V	Vall UST - Gasoline		
Status:		Active			
Year of Insta	allation:	1991			
Corrosion P	rotection:				
Capacity:		13600			
Tank Fuel T	/pe:	Liquid Fuel Single V	Vall UST - Diesel		
	7 of 19	ESE/160 7	72 8 / -1 03	PIONEER ENERGY MANAGEMENT INC	
	, 0, 10	202/100.7	,2.0, 1.00	1134 OGILVIE RD	DTNK

OTTAWA ON K1J 8V1

## Delisted Expired Fuel Safety Facilities

Instance No:	9836528		Expired Date:	9/1/1995
Status:	EXPIRED		Max Hazard Rank:	
Instance ID:			Facility Location:	
Instance Type:	FS Facility		Facility Type:	
Instance Creation Dt:			Fuel Type 2:	
Instance Install Dt:			Fuel Type 3:	
Item Description:			Panam Related:	
Manufacturer:			Panam Venue Nm:	
Model:			External Identifier:	
Serial No:			Item:	
ULC Standard:			Piping Steel:	
Quantity:			Piping Galvanized:	
Unit of Measure:			Tank Single Wall St:	
Overfill Prot Type:			Piping Underground:	
Creation Date:			Tank Underground:	
Next Periodic Str DT:		,	Source:	
TSSA Base Sched Cycle	2:			
TSSAMax Hazard Rank	1:			
TSSA Risk Based Period	lic Yn:			
TSSA Volume of Directiv	/es:			
TSSA Periodic Exempt:				
TSSA Statutory Interval:				
TSSA Recd Insp Interva:				
TSSA Recd Tolerance:				
TSSA Program Area:				
TSSA Program Area 2:				
Description:				
Original Source:	EXP			
Record Date:	Up to May 2013			

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>19</u>	8 of 19	ESE/160.7	72.8/-1.03	PIONEER ENERGY MANAGEMENT INC. 1134 OGILVIE RD OTTAWA ON	DTNK
<u>Delisted Exp</u> <u>Facilities</u>	pired Fuel Safety				
Instance No Status: Instance ID: Instance Cre Instance Cre Instance Cre Instance Cre Instance Ins Item Descrip Manufacture Model: Serial No: ULC Standa Quantity: Unit of Meas Overfill Prot Creation Da Next Period TSSA Base TSSA Max H TSSA Risk B TSSA Volun TSSA Period TSSA Statua TSSA Recd TSSA Perogr TSSA Progr Description: Original Sou	: 1090513 EXPIRE 50628 pe: FS Pipin eation Dt: tall Dt: otion: er: rd: sure: Type: te: ic Str DT: Sched Cycle 2: azard Rank 1: Based Periodic Yn: ne of Directives: dic Exempt: tory Interval: Insp Interva: Tolerance: am Area 2: : urce: :	FS Piping EXP Up to Mar 2012		Expired Date: Max Hazard Rank: Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:	
<u>19</u>	9 of 19	ESE/160.7	72.8/-1.03	PIONEER ENERGY MANAGEMENT INC. 1134 OGILVIE RD OTTAWA ON	DTNK
<u>Delisted Exp</u> <u>Facilities</u>	pired Fuel Safety				
Instance No Status: Instance ID: Instance Cre Instance Cre Instance Inst Item Descrip Manufacture Model: Serial No: ULC Standa Quantity: Unit of Meas Overfill Prot Creation Da Next Period	: 1090518 EXPIRE 51355 pe: FS Pipin eation Dt: tall Dt: ption: er: rd: sure: Type: te: ic Str DT:	55 D		Expired Date: Max Hazard Rank: Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item: Piping Steel: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:	

Map Key Number Records	of Direction/ Distance (m)	Elev/Diff (m)	Site	DB
TSSA Base Sched Cycle TSSAMax Hazard Rank TSSA Risk Based Period TSSA Volume of Directiv TSSA Periodic Exempt: TSSA Statutory Interval TSSA Recd Insp Interva TSSA Recd Tolerance: TSSA Program Area: TSSA Program Area 2: Description: Original Source: Record Date:	e 2: 1: dic Yn: ves: : : : : : : : : : : : : : : : : : :			
<u>19</u> 10 of 19	ESE/160.7	72.8/-1.03	PIONEER ENERGY MANAGEMENT INC. 1134 OGILVIE RD OTTAWA ON	DTNK
<u>Delisted Expired Fuel Sa</u> Facilities	afety			
Instance No: Status: Instance ID: Instance Type: Instance Creation Dt: Instance Install Dt: Item Description: Manufacturer: Model: Serial No: ULC Standard: Quantity: Unit of Measure: Overfill Prot Type: Creation Date: Next Periodic Str DT: TSSA Base Sched Cycle TSSA Periodic Str DT: TSSA Base Sched Cycle TSSA Risk Based Period TSSA Volume of Directin TSSA Periodic Exempt: TSSA Statutory Interval: TSSA Recd Insp Interval: TSSA Program Area: TSSA Program Area 2: Description: Original Source: Record Date:	10905118 EXPIRED 52544 FS Piping		Expired Date: Max Hazard Rank: Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:	
<u>19</u> 11 of 19	ESE/160.7	72.8 / -1.03	PARKLAND CORPORATION 1134 OGILVIE RD OTTAWA K1J 8V1 ON CA ON	FST
Instance No: Status: Cont Name: Instance Type: Item: Item Description: Tank Type:	10905127 FS Liquid Fuel Tank FS Liquid Fuel Tank Single Wall UST		Manufacturer: Serial No: Ulc Standard: Quantity: Unit of Measure: Fuel Type: Gasoline Fuel Type2: NULL	

Map Key	Number Records	of	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Install Date: Install Year: Years in Servi Model: Description: Capacity: Tank Material: Corrosion Pro Overfill Protect Facility Type: Parent Facility Facility Locate Device Install	ice: : :tect: ct: / Type: ion: ed Location	5/14/2009 1991 NULL 22730 Fiberglass Fiberglass	(FRP) FS Liquid Fuel Tank FS Gasoline Station 1134 OGILVIE RD (	c - Self Serve DTTAWA K1J 8V1	Fuel Type3: Piping Steel: Piping Galvanized: Tanks Single Wall St: Piping Underground: No Underground: Panam Related: Panam Venue:	NULL	
l iquid Fuel Ta	ank Dotails						
Overfill Protec Owner Accou Item:	ction: nt Name:	F	PARKLAND CORPO	ORATION ANK			
<u>19</u>	12 of 19		ESE/160.7	72.8/-1.03	PARKLAND CORPOR 1134 OGILVIE RD OTT ON	ATION TAWA K1J 8V1 ON CA	FST
Instance No: Status: Cont Name: Instance Type Item Descripti Tank Type: Install Date: Install Year: Years in Servi Model: Description: Capacity: Tank Material. Corrosion Pro Overfill Protect Facility Type: Parent Facility Facility Locati	e: ion: ice: tect: ct: y Type: ion: ed Location	10905142 FS Liquid I Single Wal 5/14/2009 1991 NULL 13630 Fiberglass Fiberglass	Fuel Tank Fuel Tank I UST (FRP) FS Liquid Fuel Tank FS Gasoline Station	c - Self Serve DTTAWA K1J 8V1	Manufacturer: Serial No: Ulc Standard: Quantity: Unit of Measure: Fuel Type: Fuel Type2: Fuel Type3: Piping Steel: Piping Galvanized: Tanks Single Wall St: Piping Underground: No Underground: Panam Related: Panam Venue:	Diesel NULL NULL	
Liquid Fuel Ta Overfill Protec Owner Accou Item:	ank Details ction: nt Name:	F	PARKLAND CORPO	ORATION ANK			
<u>19</u>	13 of 19		ESE/160.7	72.8/-1.03	PARKLAND CORPOR 1134 OGILVIE RD OTT ON	ATION TAWA K1J 8V1 ON CA	FST
Instance No: Status: Cont Name: Instance Type Item: Item Descripti Tank Type: Install Date:	e: ion:	10905109 FS Liquid I FS Liquid I Single Wal 5/14/2009	⁻ uel Tank - uel Tank I UST		Manufacturer: Serial No: Ulc Standard: Quantity: Unit of Measure: Fuel Type: Fuel Type2: Fuel Type3:	Gasoline NULL NULL	

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Order No: 23022400359

Мар Кеу	Number Records	of S	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Install Year: Years in Servi Model: Description: Capacity: Tank Material. Corrosion Pro Overfill Protect Facility Type: Parent Facility Facility Locate Device Install	ice: : ttect: ct: / Type: ion: ed Locatio	1991 NULL 45460 Fiberglass Fiberglass F F F n: 1	(FRP) S Liquid Fuel Tan S Gasoline Station 134 OGILVIE RD	k n - Self Serve OTTAWA K1J 8V1	Piping Steel: Piping Galvanized: Tanks Single Wall St: Piping Underground: No Underground: Panam Related: Panam Venue:		
<u>Liquid Fuel Ta</u> Overfill Protec Owner Accour Item:	ank Details ction: nt Name:	F F	PARKLAND CORP S LIQUID FUEL T	ORATION ANK			
<u>19</u>	14 of 19		ESE/160.7	72.8/-1.03	PIONEER PETROLEU 1134 OGILVIE RD GLOUCESTER ON K1	/J8V1	RST
Headcode: Headcode Des Phone: List Name: Description:	sc:	0 S 6	1186800 SERVICE STATIOI 137418911	NS GASOLINE OII	_ & NATURAL		
<u>19</u>	15 of 19		ESE/160.7	72.8 / -1.03	Triangle Pump Servic 1134 Ogilvie Road Ottawa ON K1J 8V1	e Limited	SPL
Ref No: Site No: Incident Dt: Year: Incident Causs Incident Even Contaminant Contaminant Contaminant Contaminant Contaminant Contaminant Contaminant Contaminant Contaminant Contaminant Contaminant Contaminant Nature of Imp Receiving Met Receiving Met Receiving Met Receiving Met Receiving Met Receiving Met Receiving Met Receiving Met MOE Response Dt MOE Resported Dt Document Incident Reas Site Name: Site County/D Municipality N Site Geo Ref I Incident Sumi	e: t: Code: Name: Limit 1: Freq 1: UN No 1: Impact: act: dium: v: se: on Scn: d Dt: Closed: on: closed: on: istrict: lo: Meth: mary: Qty:	7201-9KX2 NA 2014/06/09 Operator/H 13 DIESEL FL Possible Soil Contar No Field Ra 2014/06/09 2014/10/22 Operator/H F	2M7 Juman error JEL mination esponse Pioneer Gas STn < Pioneer Gas Stn 40	UNOFFICIAL> DL Diesel Cln	Discharger Report: Material Group: Health/Env Conseq: Client Type: Sector Type: Agency Involved: Nearest Watercourse: Site Address: Site District Office: Site Postal Code: Site Region: Site Region: Site Municipality: Site Lot: Site Conc: Northing: Easting: Site Geo Ref Accu: Site Geo Ref Accu: Site Map Datum: SAC Action Class: Source Type:	Service Station 1134 Ogilvie Road K1J 8V1 Ottawa Land Spills	

mber of cords	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
f 19	ESE/160.7	72.8/-1.03	Pioneer Energy LP 1134 Ogilvie Road Gloucester ON K1J 8V1	GEN
	ON5440275 447110 447110 2014			
	Canada			
: ility:	Alyssa Santiago CO_ADMIN 905-567-4444 Ext.1 No No	494		
9:	251 OIL SKIMMINGS &	SLUDGES		
): 	221 LIGHT FUELS			
f 19	ESE/160.7	72.8/-1.03	PIONEER PETROLEUMS 1134 OGILVIE RD GLOUCESTER ON K1J8V1	RST
	01186800 SERVICE STATION 6137418911 INFO-DIRECT(TM)	NS GASOLINE OI BUSINESS FILE	L & NATURAL GAS	
f 19	ESE/160.7	72.8 / -1.03	PARKLAND CORPORATION 1134 OGILVIE RD,,OTTAWA,ON,K1J 8V1,CA ON	INC
1413186	3		Any Health Impact: Any Enviro Impact: Service Interrupted: Wea Fran Democratic	
r: FS-Incid	lent		Reside App. Type: Commer App. Type:	
e: 6/10/201 ce: Dn: Dt: cate: cate: c: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cate: cat	14		Indus App. Type: Institut App. Type: Venting Type: Vent Conn Mater: Vent Chimney Mater: Pipeline Type: Pipeline Involved: Pipe Material: Depth Ground Cover: Regulator Location: Regulator Location: Regulator Type: Operation Pressure: Liquid Prop Make: Liquid Prop Model: Liquid Prop Notes: Equipment Type:	
	mber of         cords         f 19         ility:         ility:         f 19         i         i:         : </th <th>mber of cords       Direction/ Distance (m)         f 19       ESE/160.7         f 19       ESE/160.7         QN5440275       447110         447110       2014         Canada       Alyssa Santiago         CO_ADMIN       905-567-4444 Ext.1         gots-567-4444 Ext.1       905-567-4444 Ext.1         ility:       No         No       No         se:       251         OIL SKIMMINGS &amp;       221         LIGHT FUELS       01186800         SERVICE STATION 6137418911       NFO-DIRECT(TM)         f 19       ESE/160.7         1413186       FS-Incident         e:       6/10/2014         e:       6/10/2014         iate:       Service station 6137418911         iate:       Service station 6137418911         iate:       Service station 6137418911         iate:       Service station 6137418911         gots       Service station 6137418911         iste:       Service station 6137</th> <th>mber of cords       Direction/ Distance (m)       Elev/Diff (m)         f 19       ESE/160.7       72.8 / -1.03         if 19       ESE/160.7       72.8 / -1.03         ON5440275 447110 447110 2014      </th> <th>mber of Direction/ Elev/Diff Site cords Distance (m) (m)  F19 ESE/160.7 72.8/-1.03 Pioneer Energy LP 1134 Oglivie Road Gloucester ON K1J 8V1 ONS440275 447110 44710 2014 Canada Aysea Santiago CO. ADMIN 905-567-444 Ext.1494 Wiffy: No No  251 221 LIGHT FUELS  F19 ESE/160.7 72.8/-1.03 PIONEER PETROLEUMS 1134 OGL/VIE RD GLOUCESTER ON K1J8V1 OI186800 SERVICE STATIONS GASOLINE OIL &amp; NATURAL GAS 6137418911 INFO-DIRECT(TM) BUSINESS FILE  F19 ESE/160.7 72.8/-1.03 PARKLAND CORPORATION 11413186 Any Health Impact: Any Enviro Impact: Service Stations GASOLINE OIL &amp; NATURAL GAS 6137418911 INFO-DIRECT(TM) BUSINESS FILE  F19 ESE/160.7 72.8/-1.03 PARKLAND CORPORATION 11413186 Any Health Impact: Any Enviro Impact: Service Interrupted: Was Prop Damaged: Was Prop Damaged:</th>	mber of cords       Direction/ Distance (m)         f 19       ESE/160.7         f 19       ESE/160.7         QN5440275       447110         447110       2014         Canada       Alyssa Santiago         CO_ADMIN       905-567-4444 Ext.1         gots-567-4444 Ext.1       905-567-4444 Ext.1         ility:       No         No       No         se:       251         OIL SKIMMINGS &       221         LIGHT FUELS       01186800         SERVICE STATION 6137418911       NFO-DIRECT(TM)         f 19       ESE/160.7         1413186       FS-Incident         e:       6/10/2014         e:       6/10/2014         iate:       Service station 6137418911         iate:       Service station 6137418911         iate:       Service station 6137418911         iate:       Service station 6137418911         gots       Service station 6137418911         iste:       Service station 6137	mber of cords       Direction/ Distance (m)       Elev/Diff (m)         f 19       ESE/160.7       72.8 / -1.03         if 19       ESE/160.7       72.8 / -1.03         ON5440275 447110 447110 2014	mber of Direction/ Elev/Diff Site cords Distance (m) (m)  F19 ESE/160.7 72.8/-1.03 Pioneer Energy LP 1134 Oglivie Road Gloucester ON K1J 8V1 ONS440275 447110 44710 2014 Canada Aysea Santiago CO. ADMIN 905-567-444 Ext.1494 Wiffy: No No  251 221 LIGHT FUELS  F19 ESE/160.7 72.8/-1.03 PIONEER PETROLEUMS 1134 OGL/VIE RD GLOUCESTER ON K1J8V1 OI186800 SERVICE STATIONS GASOLINE OIL & NATURAL GAS 6137418911 INFO-DIRECT(TM) BUSINESS FILE  F19 ESE/160.7 72.8/-1.03 PARKLAND CORPORATION 11413186 Any Health Impact: Any Enviro Impact: Service Stations GASOLINE OIL & NATURAL GAS 6137418911 INFO-DIRECT(TM) BUSINESS FILE  F19 ESE/160.7 72.8/-1.03 PARKLAND CORPORATION 11413186 Any Health Impact: Any Enviro Impact: Service Interrupted: Was Prop Damaged: Was Prop Damaged:

Order No: 23022400359

Map Key Nu Re	Imber of ecords	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Drainage System: Sub Surface Cont Aff Prop Use Wate Contam. Migrated Contact Natural E Incident Location. Occurence Narrat Operation Type In Item: Item Description: Device Installed L	am.: er: : nv: : ive: ive: volved: ocation:	1134 OGILVIE RD, FS GASOLINE ST	,OTTAWA,ON,K1 ATION - SELF SE	Serial No: Cylinder Capacity: Cylinder Cap Units: Cylinder Mat Type: Near Body of Water: J 8V1,CA		
<u>19</u> 19 c	of 19	ESE/160.7	72.8/-1.03	1134 OGILVIE RD GLOUCESTER ON K1	IJ 8V1	DTNK
Delisted Fuel Stor Instance No: Status: Instance Type: Fuel Type: Cont Name: Capacity: Tank Material: Corrosion Prot: Tank Type: Install Year: Facility Type: Device Installed L Fuel Type 2: Fuel Type 3: Item: Item Description: Instance Creation Instance Creation Instance Install Dd Manufacturer: Serial No: ULC Standard: Quantity: Unit of Measure: Parent Fac Type: TSSA Base Scheo Original Source: Record Date:	rage Tank 103403 Active oc: FS GAS Dt: t: f Cycle 1: f Cycle 2:	01 SOLINE STATION - S FST 31-MAY-2021	ELF SERVE	Creation Date: Overfill Prot Type: Facility Location: Piping SW Steel: Piping SW Galvan: Tanks SW Steel: Piping Underground: No Underground: Max Hazard Rank 1: Nat Period Start Dt: Program Area 1: Program Area 1: Program Area 2: Nxt Period Start Dt 2: Risk Based Periodic: Vol of Directives: Years in Service: Created Date: Federal Device: Periodic Exempt: Statutory Interval: Recommended Toler: Panam Venue Name: External Identifier:	0 0 3 3	
20 1 of Well ID: Construction Date Use 1st: Use 2nd: Final Well Status: Water Type: Casing Material: Audit No: Tag: Constructn Metho	722435 Monitor 0 Monitor Z18900 A16477	<i>ESE/166.8</i> 8 ing and Test Hole ing and Test Hole 4 8	72.9/-1.00	1134 OGILVIE RD. Ottawa ON Flowing (Y/N): Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner:	21-Jul-2014 00:00:00 TRUE 7241 7	WWIS

Map Key Number Record	r of Direction/ s Distance (m)	Elev/Diff (m)	Site		DB
Elevation (m): Elevatn Reliabilty: Depth to Bedrock: Well Depth: Overburden/Bedrock: Pump Rate: Static Water Level: Clear/Cloudy: Municipality: Site Info:	OTTAWA CITY		County: Lot: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	OTTAWA-CARLETON	
PDF URL (Map):					
<u>Additional Detail(s) (Ma</u> Well Completed Date: Year Completed: Depth (m): Latitude: Longitude: Path:	<u>p)</u> 2014/06/10 2014 3.1 45.4261182175659 -75.6307771766537				
Bore Hole Information					
Bore Hole ID: DP2BR: Spatial Status: Code OB: Code OB Desc: Open Hole: Cluster Kind: Date Completed: Remarks: Loc Method Desc: Elevrc Desc: Location Source Date: Improvement Location S Improvement Location S Source Revision Comm Supplier Comment:	1004957476 10-Jun-2014 00:00:00 on Water Well Reco Source: Method: ient:	rd	Elevation: Elevrc: Zone: East83: North83: Org CS: UTMRC: UTMRC Desc: Location Method:	18 450655.00 5030482.00 UTM83 4 margin of error : 30 m - 100 m wwr	
<u>Overburden and Bedroo Materials Interval</u>	<u>ck</u>				
Formation ID: Layer: Color: General Color: Mat1: Most Common Material: Mat2: Mat2 Desc: Mat3: Mat3 Desc: Formation Top Depth: Formation End Depth U	1005233156 2 6 BROWN 06 SILT 05 CLAY 66 DENSE 0.610000014305114 1.5 <b>'OM:</b> m	17			
<u>Overburden and Bedroo Materials Interval</u>	<u>ck</u>				
Formation ID:	1005233155				

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Layer: Color: General Color Mat1: Most Common Mat2: Mat2 Desc: Mat3 Desc: Formation Top Formation End Formation End	: n Material: o Depth: d Depth: d Depth UOM:	1 6 BROWN 01 FILL 11 GRAVEL 77 LOOSE 0.0 0.610000014305114 m	17			
<u>Overburden a</u> <u>Materials Inter</u>	<u>nd Bedrock</u> rval					
Formation ID: Layer: Color: General Color Mat1: Most Common Mat2: Mat2 Desc: Mat3: Mat3 Desc: Formation Top Formation End	: n Material: o Depth: d Depth: d Depth UOM:	1005233157 3 2 GREY 06 SILT 05 CLAY 66 DENSE 1.5 3.099999904632568 m	34			
<u>Annular Space</u> Sealing Recor	<u>e/Abandonment</u> ' <u>d</u>					
Plug ID: Layer: Plug From: Plug To: Plug Depth U0	ОМ:	1005233166 2 0.300000011920928 1.220000028610228 m	396 95			
<u>Annular Space</u> Sealing Recor	e/Abandonment_ rd					
Plug ID: Layer: Plug From: Plug To: Plug Depth U0	DM:	1005233165 1 0.0 0.300000011920928 m	396			
<u>Annular Space</u> Sealing Recor	e/Abandonment_ 'd					
Plug ID: Layer: Plug From: Plug To: Plug Depth UC	DM:	1005233167 3 1.220000028610229 3.099999904632568 m	95 34			
<u>Method of Cor</u> <u>Use</u>	nstruction & Well					
Method Const Method Const	truction ID: truction Code:	1005233164 E				

Records	Distance (m)	(m)	Che		υb		
struction: d Construction:	Auger						
<u>tion</u>							
	1005233154 0						
Record - Casing							
r Material: eter: eter UOM: h UOM:	1005233160 1 5 PLASTIC 0.0 1.5 5.199999809265137 cm m	,					
Record - Screen							
Depth: Depth: rial: h UOM: eter UOM: eter:	1005233161 1 10 1.5 3.099999904632568 5 m cm 6.03000020980835	34					
2							
Depth: Depth UOM:	1005233159 m						
er							
IOM: er UOM:	1005233158 15.23999977111816 0.0 3.099999904632568 m cm	54 34					
: 10049 3.1 ted: 2014 ted Dt: 2014/ Z1890	957476 06/10 004		Tag No: Contractor: Path: Latitude: Longitude:	A164778 7241 722\7224358.pdf 45.4261182175659 -75.6307771766537			
	Records         struction:         d Construction:         tion         n Record - Casing         n Material:         eter:         operth:         Depth:         Depth:         eter:         Depth:         Depth:         Poepth:         eter:         Depth:         eter:         Depth:         Depth:         eter:         Depth:         eter:         Depth:         Depth:         eter:         OM:         eter:         OM:         eter:         OM:         eter:         2014         ted:       2014         z1890	Records         Distance (m)           struction:         Auger           d Construction:         1005233154           ition         1005233154           necord - Casing         1005233160           necord - Casing         1005233160           neterial:         PLASTIC           0.0         1.5           eter:         5.199999809265137           m         m           Popth:         10           popth:         3.099999904632568           rial:         5           h'UOM:         m           eter:         6.03000020980835           indifference         1005233158           15.23999977111816         0.0           0.0         3.099999904632568           indifference         1005233158           15.23999977111816         0.0           0.0         3.099999904632568           indifference         m	Records         Distance (m) (m)           struction:         Auger           dConstruction:         1005233154           tion         1005233154           PRecord - Casing         1005233160           r Material:         1005233160           r Material:         PLASTIC           0.0         1.5           eter:         5.199999809265137           eter:         5.199999809265137           eter:         5.1999999046325684           h UOM:         m           Record - Screen         1005233161           1         10           Depth:         5           h UOM:         m           trai:         5           h UOM:         m           eter:         6.03000020980835           i         1005233159           Depth:         m           i         1005233158           15.239999771118164         0.0           3.0999999046325684         0.0           3.0999999046325684         0.0           i         1005233158           i         15.239999771118164           0.0         3.0999999046325684           i         1005233158 <td>Records         Distance (m)         (m)           struction:         Auger           id Construction:         Auger           tion         1005233154           0         0           I Record - Casing         1005233160           i         5           r Material:         PLASTIC           0.0         1.5           eter:         5.199999809265137           eter:         5.1999999046325684           10         10           Pepth:         15           Depth:         1.5           Depth:         1.5           Depth:         1.5           Depth:         1.5           Depth:         1.5           Depth:         1.5           Depth:         6.03000020980835           2         1005233159           Depth:         m           21         1005233158           15.239999771118164         0.0           0.0         3.099999046325684           VOM:         m           arr         1004957476         Tag No:           Contractor:         Path:           eter UOM:         m           arr</td> <td>Records         Distance (m)         (m)           struction:         Auger           donstruction:         Auger           1005223154         0           1005233160         1           s         1005233160           f         5           rMaterial:         0           0         1.5           eter:         5.199998900265137           otro         1.5           eter:         5.199998900265137           otro         1.5           eter:         5.199998900265137           otro         0.5           eter:         5.199998900265137           otro         0.5           eter:         5.19999890046325684           1005233150         1           105203159         1005233156           istruction:         m           eter:         6.0300002080835           i         1005233156           i5.239999771118164         0.0           0.3099999046325684         0.0           0.004957476         Tog No:::::::::::::::::::::::::::::::::::</td>	Records         Distance (m)         (m)           struction:         Auger           id Construction:         Auger           tion         1005233154           0         0           I Record - Casing         1005233160           i         5           r Material:         PLASTIC           0.0         1.5           eter:         5.199999809265137           eter:         5.1999999046325684           10         10           Pepth:         15           Depth:         1.5           Depth:         1.5           Depth:         1.5           Depth:         1.5           Depth:         1.5           Depth:         1.5           Depth:         6.03000020980835           2         1005233159           Depth:         m           21         1005233158           15.239999771118164         0.0           0.0         3.099999046325684           VOM:         m           arr         1004957476         Tag No:           Contractor:         Path:           eter UOM:         m           arr	Records         Distance (m)         (m)           struction:         Auger           donstruction:         Auger           1005223154         0           1005233160         1           s         1005233160           f         5           rMaterial:         0           0         1.5           eter:         5.199998900265137           otro         1.5           eter:         5.199998900265137           otro         1.5           eter:         5.199998900265137           otro         0.5           eter:         5.199998900265137           otro         0.5           eter:         5.19999890046325684           1005233150         1           105203159         1005233156           istruction:         m           eter:         6.0300002080835           i         1005233156           i5.239999771118164         0.0           0.3099999046325684         0.0           0.004957476         Tog No:::::::::::::::::::::::::::::::::::		
Мар Кеу	Number Records	of	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------	------------------------------------------------------------------------	-------------------------------------------------------------------	------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------
<u>21</u>	1 of 1		ESE/168.4	72.9/-1.00	1134 ON		wwis
Well ID: Construction Use 1st: Use 2nd: Final Well St Water Type: Casing Mate Audit No: Tag: Constructn I Elevation (m Elevatin Relia Depth to Bed Well Depth: Overburden/ Pump Rate: Static Water Clear/Cloudy Municipality Site Info:	n Date: atus: rial: Method: ): abilty: drock: /Bedrock: /Bedrock: /:	7224187 Monitoring Test Hole Monitoring Z189001 A164779	g and Test Hole GLOUCESTER TC	OWNSHIP	Flowing (Y/N): Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	21-Jul-2014 00:00:00 TRUE 7241 7 OTTAWA-CARLETON	
PDF URL (M	ар):						
<u>Additional D</u>	etail(s) (Map	D D					
Well Comple Year Comple Depth (m): Latitude: Longitude: Path:	eted Date: eted:		2014/06/10 2014 3.1 45.4260187156382 -75.630865549340	2 3			
Bore Hole In	formation						
Bore Hole ID DP2BR: Spatial Statu Code OB: Code OB De Open Hole: Cluster Kind Date Comple Remarks: Loc Method Elevrc Desc: Location So Improvemen Source Revi Supplier Col <u>Overburden</u> <u>Materials Int</u>	9: IS: SC: 2: 2: 2: 2: 2: 2: 2: 2: 2: 2: 2: 2: 2:	10049504 10-Jun-20 Source: Method: Sent:	58 014 00:00:00 on Water Well Rec	ord	Elevation: Elevrc: Zone: East83: North83: Org CS: UTMRC: UTMRC Desc: Location Method:	18 450648.00 5030471.00 UTM83 4 margin of error : 30 m - 100 m wwr	
Formation IL Layer: Color: General Colo Mat1: Most Commo	D: or: on Material:		1006697630 3 2 GREY 06 SILT				

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Mat2:		05			
Mat2 Desc:		CLAY			
lat3:		66			
lat3 Desc:		DENSE			
ormation To	op Depth:	1.5			
ormation E	nd Depth:	3.099999904632568	4		
ormation E	nd Depth UOM:	m			
<u>Overburden</u> Materials Inte	<u>and Bedrock</u> erval				
Formation ID	):	1006697628			
.ayer:		1			
Color:		6			
Seneral Colo	or:	BROWN			
lat1:		01			
Most Comme	on Material:				
latz:					
Mata:		77			
Mat3 Desc:		LOOSE			
Formation To	op Depth:	0.0			
ormation E	nd Depth:	0.610000014305114	7		
Formation E	nd Depth UOM:	m			
Overburden Materials Inte	and Bedrock erval				
Formation ID	):	1006697629			
.ayer:		2			
Color:		6			
General Cold	or:	BROWN			
Mat1:		06			
Most Commo	on Material:	SILI			
Mat2:					
Watz Desc:		CLAY 66			
Wals: Mate Doco:					
als Desc. Formation Tr	on Denth	0 610000014305114	7		
Formation Fi	nd Depth:	1.5	1		
Formation E	nd Depth UOM:	m			
A <u>nnular Spa</u> Sealing Reco	<u>ce/Abandonment</u> ord				
Plua ID:	-	1006697635			
ayer:		3			
Plug From:		1.220000028610229	5		
Plug To:		3.099999904632568	4		
Plug Depth L	IOM:	m			
<u>Annular Spa</u> Sealing Reco	ce/Abandonment ord				
Plug ID:		1006697633			
ayer:		1			
riug From:		0.0	06		
riug 10: Dug Donik I	IOM-	0.300000011920928	90		
nug Depth C					
<u>Annular Spa</u> Sealing Reco	<u>ce/Abandonment</u> ord				
	originfo com L Em	vironmontal Dials laf-	motion Comica	•	Order No. 00000 400050
116		vironinentai RISK Infor	manon Service	3	UIUEI NO. 23022400359

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Plug ID: Layer: Plug From: Plug To: Plug Depth U	IOM:	1006697634 2 0.300000011920928 1.220000028610229 m	896 95			
<u>Method of Co</u> <u>Use</u>	onstruction & Well					
Method Cons Method Cons Method Cons Other Method	struction ID: struction Code: struction: d Construction:	1005235010 E Auger				
<u>Pipe Informa</u> Pipe ID: Casing No: Comment: Alt Name:	<u>tion</u>	1005235004 0				
<u>Construction</u>	Record - Casing					
Casing ID: Layer: Material: Open Hole or Depth From: Depth To: Casing Diam Casing Diam Casing Depth	r Material: eter: eter UOM: n UOM:	1005235008 1 5 PLASTIC 0.0 1.5 5.199999809265137 cm m	,			
<b>Construction</b>	Record - Screen					
Screen ID: Layer: Slot: Screen Top I Screen End I Screen Mater Screen Diam Screen Diam	Depth: Depth: rial: 1 UOM: eter UOM: eter:	1005235009 1 10 1.5 3.099999904632568 5 m cm 6.03000020980835	34			
Water Details	<u>i</u>					
Water ID: Layer: Kind Code: Kind: Water Found	Donth	1005235007				
Water Found Water Found	Depth UOM:	m				
Hole Diamete	er					
Hole ID: Diameter: Depth From: Depth To:		1005235006 15.23999977111816 0.0 3.099999904632568	34 34			
117	erisinfo.com   Env	ironmental Risk Info	rmation Service	2S	Order No: 23022	2400359

Мар Кеу	Numbe Record	r of 's	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Hole Depth U Hole Diamete	OM: r UOM:	m CI	n			
<u>Links</u>						
Bore Hole ID: Depth M: Year Complet Well Complet Audit No:	ed: ed Dt:	1004950456 3.1 2014 2014/06/10 Z189001	3		Tag No: Contractor: Path: Latitude: Longitude:	A164779 7241 722\7224187.pdf 45.4260187156382 -75.6308655493403
22	1 of 1		ESE/168.9	72.9/-1.00	ON	BORE
Borehole ID: OGF ID: Status: Type: Use: Completion D Static Water L Primary Water Sec. Water Us Total Depth Ref: Depth Ref: Depth Elev: Drill Method: Orig Ground I Elev Reliabil I DEM Ground Concession: Location D: Survey D: Comments:	Pate: .evel: r Use: se: 1: Elev m: Note: Elev m:	615076 215516018 Borehole AUG-1960 24.4 Ground Sur 70.1 72.6	face		Inclin FLG: SP Status: Surv Elev: Piezometer: Primary Name: Municipality: Lot: Township: Latitude DD: Longitude DD: UTM Zone: Easting: Northing: Location Accuracy: Accuracy:	No Initial Entry No No 45.426301 -75.630579 18 450671 5030502 Not Applicable
Borehole Geo	ology Strat	tum				
Geology Strat Top Depth: Bottom Depth Material Color Material 1: Material 2: Material 3: Material 4: Gsc Material 4:	tum ID: n: r: Descriptio	218400344 1.5 24.4 Red Shale			Mat Consistency: Material Moisture: Material Texture: Non Geo Mat Type: Geologic Formation: Geologic Group: Geologic Period: Depositional Gen:	
Stratum Desc	ription:	n: S re	HALE. 00046. BE	DROCK. 00035 0 the department l	10 WEATHERED. 0001001 have a truncated [Stratum D	40008910030RED. 000050040 **Note: Many Description] field.
Geology Strat Top Depth: Bottom Depth Material Color Material 1: Material 2: Material 3: Material 4: Gsc Material 1 Stratum Desc	tum ID: n: r: Descriptio ription:	218400343 0 1.5 Brown Soil <i>n:</i> S	OIL. BROWN.		Mat Consistency: Material Moisture: Material Texture: Non Geo Mat Type: Geologic Formation: Geologic Group: Geologic Period: Depositional Gen:	

## <u>Source</u>

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Source Type: Source Orig: Source Date: Confidence: Observatio: Source Name: Source Details: Confiden 1:	Data Sur Geologic 1956-19	rvey :al Survey of Canada 72 Urban Geology Au File: OTTAWA2.txt	a tomated Informati t RecordID: 07584	Source Appl: Source Iden: Scale or Res: Horizontal: Verticalda: on System (UGAIS) NTS_Sheet:	Spatial/Tabular 1 Varies NAD27 Mean Average Sea Level	
Source List						
Source Identifie Source Type: Source Date: Scale or Resolu Source Name: Source Originat	er: 1 Data Sun 1956-19 ution: Varies tors:	rvey 72 Urban Geology Au Geological Survey	tomated Information of Canada	Horizontal Datum: Vertical Datum: Projection Name: on System (UGAIS)	NAD27 Mean Average Sea Level Universal Transverse Mercator	
<u>23</u> 1	of 1	ESE/169.0	72.9/-1.00	lot 26 con 2 ON		WWIS
Well ID: Construction Da Use 1st: Use 2nd: Final Well Statu Water Type: Casing Material Audit No: Tag: Constructn Met Elevation (m): Elevation (m): Elevation (m): Elevation (m): Elevation Met Depth to Bedroo Well Depth: Overburden/Bed Pump Rate: Static Water Let Clear/Cloudy: Municipality: Site Info: PDF URL (Map).	1501363 ate: Domesti 0 us: Water Si thod: thod: tty: ck: drock: vel:	GLOUCESTER TC	DWNSHIP 33rdv.cloudfront.ne	Flowing (Y/N): Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	1 07-Sep-1960 00:00:00 TRUE 2311 1 OTTAWA-CARLETON 026 02 OF	
Additional Deta	il(s) (Map)					
Well Completed Year Completed Depth (m): Latitude: Longitude: Path:	1 Date: d:	1960/08/22 1960 24.384 45.4262993397699 -75.630578500067 150\1501363.pdf	9 78			
Bore Hole Infor	mation					
Bore Hole ID: DP2BR: Spatial Status: Code OB: Code OB Desc: Open Hole: Cluster Kind:	1002340	6		Elevation: Elevrc: Zone: East83: North83: Org CS: UTMRC:	18 450670.70 5030502.00 5	

	Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
-	Date Complete Remarks: Loc Method D Elevrc Desc: Location Sour Improvement Source Revisi Supplier Com	ed: 22-Aug- esc: ce Date: Location Source: Location Method: on Comment: ment:	1960 00:00:00 Original Pre1985 U⊺	ГМ Rel Code 5: r	UTMRC Desc: Location Method: nargin of error : 100 m - 300	margin of error : 100 m - 300 m p5 m	
	<u>Overburden al</u> <u>Materials Inter</u>	nd Bedrock_ val					
	Formation ID: Layer: Color: General Color Mat1: Most Commor Mat2: Mat2 Desc: Mat3 Mat3 Desc:	: n Material:	930991645 2 17 SHALE				
	Formation Top Formation End Formation End	o Depth: 1 Depth: 1 Depth UOM:	5.0 80.0 ft				
	<u>Overburden al</u> <u>Materials Inter</u>	<u>nd Bedrock</u> <u>val</u>					
	Formation ID: Layer: Color: General Color Mat1: Most Commor Mat2: Mat2 Desc: Mat3: Mat3 Desc: Formation Tot	: Material:	930991644 1 6 BROWN 02 TOPSOIL				
	Formation End Formation End	d Depth: d Depth UOM:	5.0 ft				
	<u>Method of Cor</u> <u>Use</u>	nstruction & Well					
	Method Const Method Const Method Const Other Method	ruction ID: ruction Code: ruction: Construction:	961501363 1 Cable Tool				
	<u>Pipe Informati</u>	<u>on</u>	40574070				
	Pipe ID: Casing No: Comment: Alt Name:		105/1976 1				
	<b>Construction</b>	Record - Casing					

Мар Кеу	Number Records	of G	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Layer:		1	1				
Material: Open Hole of Depth From:	r Material:	S	STEEL				
Depth To:		1	12.0				
Casing Diam	eter:	2	4.0				
Casing Diam	eter UOM:	i 2	nch				
Casing Depti		I	l				
Construction	Record - C	asing					
Casing ID:		ç	930039696				
Layer:		2	2				
Material:	r Matorial:	2					
Depth From:	wateriar.	,					
Depth To:		8	30.0				
Casing Diam	eter:	2	4.0				
Casing Diam	eter UOM:	i	nch				
Casing Deptl	h UOM:	f	t				
<u>Results of W</u>	ell Yield Te	<u>sting</u>					
Pumping Tes	st Method D	esc: F	PUMP				
Pump Test IL	):	ę	991501363				
Pump Set At.	:						
Static Level:	fter Dummin	1	10.0				
Recommend	ed Pump De	ng. (	55.0 55.0				
Pumping Rat	te:	<b>.pu</b> . (	1.0				
Flowing Rate	);		-				
Recommend	ed Pump Ra	ate: 1	1.0				
Levels UOM:		f	ť				
Rate UOM:		(	GPM				
Water State	After Test C	ode: 1					
Pumping Tes	Aller Test.	1					
Pumping Tes	ration HR:	1	1				
Pumping Du	ration MIN:	(	)				
Flowing:		1	No				
Water Details	5						
Water ID:		c	933454062				
Laver:		1	1				
Kind Code:		1	1				
Kind:		F	FRESH				
Water Found	Depth:		46.0				
Water Found	Depth UON	<i>1:</i> f	t				
<u>Links</u>							
Bore Hole ID	:	10023406			Tag No:		
Depth M:		24.384			Contractor:	2311	
Year Comple	ted:	1960	_		Path:	150\1501363.pdf	
Well Comple	ted Dt:	1960/08/22	2		Latitude:	45.4262993397699	
AUGIT NO:					Longituae:	-13.0001000010010	
<u>24</u>	1 of 1		ESE/177.9	74.0 / 0.08	lot 26 con 2		WWIS
Well ID:		1501355			Flowing (Y/N)-		
		1001000			, iowing ( i/i <b>v</b> ).		
121	erisinfo.co	m   Enviro	nmental Risk In	formation Servio	ces	Order No:	23022400359

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Construction Use 1st: Use 2nd: Final Well Sta Water Type: Casing Mater Audit No: Tag: Constructn M Elevation (m) Elevation (m) E	Date: Dom 0 atus: Wat rial: //ethod: ): bility: lrock: Bedrock: Level: :	nestic er Supply GLOUCESTER TO\	WNSHIP	Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	1 16-May-1956 00:00:00 TRUE 2311 1 OTTAWA-CARLETON 026 02 OF	
PDF URL (Ma	ap):	https://d2khazk8e83	rdv.cloudfront.ne	et/moe_mapping/downloads	/2Water/Wells_pdfs/150\1501355.pdf	
Additional De Well Complet Year Comple Depth (m): Latitude: Longitude: Path: Bore Hole Inf DP2BR: Spatial Status	etail(s) (Map) ted Date: ted: f <u>ormation</u> : 100: <b>s</b> :	1956/05/08 1956 22.86 45.4263000453708 -75.6304506774367 150\1501355.pdf		Elevation: Elevrc: Zone:	18	
Code OB: Code OB Des Open Hole: Cluster Kind: Date Comple Remarks: Loc Method I Elevrc Desc: Location Sou Improvement Source Revis Supplier Con	sc: ted: 08-M Desc: trce Date: t Location Sourc t Location Metho sion Comment: nment:	May-1956 00:00:00 Original Pre1985 UT se: od:	⁻M Rel Code 9: t	East83: North83: Org CS: UTMRC: UTMRC Desc: Location Method: unknown UTM	450680.70 5030502.00 9 unknown UTM p9	
Overburden a Materials Inte Formation ID Layer: Color: General Colo Mat1: Most Commo Mat2: Mat2 Desc: Mat3 Desc:	and Bedrock erval : or: on Material:	930991628 1 02 TOPSOIL 12 STONES				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Formation To Formation Er Formation Er	op Depth: nd Depth: nd Depth UOM:	0.0 12.0 ft			
<u>Overburden a</u> <u>Materials Inte</u>	and Bedrock erval				
Formation ID Layer: Color: Conoral Colo	: •	930991629 2			
Mat1: Most Commo Mat2: Mat2 Desc: Mat3: Mat3 Desc:	n Material:	26 ROCK			
Formation To Formation Er Formation Er	op Depth: nd Depth: nd Depth UOM:	12.0 75.0 ft			
<u>Method of Co</u> <u>Use</u>	onstruction & Well				
Method Cons Method Cons Method Cons Other Method	truction ID: truction Code: truction: I Construction:	961501355 1 Cable Tool			
<u>Pipe Information Pipe Information Pipe Information Pipe Pipe Pipe Pipe Pipe Pipe Pipe Pipe</u>	<u>tion</u>				
Pipe ID: Casing No: Comment: Alt Name:		10571968 1			
Construction	Record - Casing				
Casing ID: Layer: Material: Open Hole or	Material:	930039680 2 4 OPEN HOLE			
Depth From: Depth To: Casing Diame Casing Diame Casing Depth	eter: eter UOM: n UOM:	75.0 4.0 inch ft			
<u>Construction</u>	Record - Casing				
Casing ID: Layer: Material: Open Hole or Depth From:	Material:	930039679 1 1 STEEL 16.0			
Depth 10: Casing Diamo Casing Diamo Casing Depth	eter: eter UOM: 1 UOM:	4.0 inch ft			

## Results of Well Yield Testing

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Map Key	Number Records	of Dir 5 Dis	ection/ tance (m)	Elev/Diff (m)	Site		DB
Pumping Test Pump Test II Pump Set At Static Level: Final Level A Recommend Pumping Rate Recommend Levels UOM: Rate UOM: Water State A Pumping Tes Pumping Du Flowing:	st Method D D: Ster Pumpin led Pump De te: S: led Pump Ra Ster Test C After Test C After Test: St Method: ration HR: ration MIN:	esc: PUMP 99150 7.0 7.0 5pth: 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0	1355				
<u>Water Details</u>	<u>s</u>						
Water ID: Layer: Kind Code: Kind: Water Found Water Found	l Depth: I Depth UON	93345/ 1 3 SULPH 70.0 <b>//</b> : ft	4054 HUR				
<u>Links</u>							
Bore Hole ID Depth M: Year Comple Well Comple Audit No:	eted: eted Dt:	10023398 22.86 1956 1956/05/08			Tag No: Contractor: Path: Latitude: Longitude:	2311 150\1501355.pdf 45.4263000453708 -75.6304506774367	
<u>25</u>	1 of 13	ESE/	178.7	74.0 / 0.08	1085091 ONTAR 1154 OGLIVIE RI GLOUCESTER C	IO LTD D DN K1J 8V1	PRT
Location ID: Type: Expiry Date: Capacity (L): Licence #:		5309 retail 1995-0 23097 007642	)8-31 28457				
<u>25</u>	2 of 13	ESE/	178.7	74.0 / 0.08	TROPIC SQUAR 1154 OGILVIE RI GLOUCESTER C	E D DN K1J8V1	RST
Headcode: Headcode De Phone: List Name: Description:	esc:	11868/ Servic 61374/	00 e Stations-Ga 25552	asoline, Oil & Natu	ıral Gas		
<u>25</u>	3 of 13	ESE/	178.7	74.0 / 0.08	FENELON'S GAZ 1154 OGILVIE RI GLOUCESTER C	Z D DN K1J 8V1	RST
124	erisinfo.cc	m   Environmen	tal Risk Info	ormation Service	es	Order No	: 23022400359

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Headcode: Headcode De Phone: List Name: Description:	esc:	1186800 Service Stations-Ga 6138429864	asoline, Oil & Nat	ural Gas		
<u>25</u>	4 of 13	ESE/178.7	74.0 / 0.08	TROPIC SQUARE LTD 1154 OGILVIE RD GLOUCESTER ON K1J	8V1	DTNK
<u>Delisted Expi</u> <u>Facilities</u>	red Fuel Safety					
Instance No: Status: Instance ID: Instance Typ Instance Creat Instance Creat Instance Insta Item Descripti Manufacturer Model: Serial No: ULC Standard Quantity: Unit of Measu Overfill Prot Creation Date Next Periodic TSSA Base S TSSAMax Ha TSSA Risk Ba TSSA Volume TSSA Periodic TSSA Recd II TSSA Recd II TSSA Recd I TSSA Recd I TSSA Progra TSSA Progra Description: Original Sour Record Date:	9841329 EXPIRE e: FS Facilitation Dt: all Dt: tion: :: d: ure: Type: :: : Str DT: ched Cycle 2: zard Rank 1: ased Periodic Yn: : e of Directives: ic Exempt: ory Interval: nsp Interva: colerance: m Area 2: rce:	e D lity EXP Up to May 2013		Expired Date: Max Hazard Rank: Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:	3/23/2010 9:23	
<u>25</u>	5 of 13	ESE/178.7	74.0 / 0.08	TROPIC SQUARE LTD 1154 OGILVIE RD GLOUCESTER ON		DTNK
<u>Delisted Expi</u> <u>Facilities</u>	red Fuel Safety					
Instance No: Status: Instance ID: Instance Type Instance Creat Instance Insta Item Descript Manufacturer Model: Serial No:	1142219 EXPIRE 83287 e: FS Pipir ation Dt: all Dt: tion: ;	93 iD ng		Expired Date: Max Hazard Rank: Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item:		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
ULC Standard Quantity: Unit of Measu Overfill Prot T Creation Date Next Periodic TSSA Base S TSSAMax Hai TSSA Risk Ba TSSA Volume TSSA Periodi TSSA Periodi TSSA Recd Ir TSSA Recd T TSSA Recd T TSSA Prograf Description: Original Sour Record Date:	d: Type: Str DT: ched Cycle 2: zard Rank 1: ased Periodic of Directives c Exempt: ry Interval: olerance: m Area: m Area 2: ce:	<b>Yn:</b> FS Piping EXP Up to Mar 2012		Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:	
<u>25</u>	6 of 13	ESE/178.7	74.0 / 0.08	TROPIC SQUARE LTD 1154 OGILVIE RD GLOUCESTER ON	DTNK
<u>Delisted Expi</u> <u>Facilities</u>	red Fuel Safet	<u>v</u>			
Instance No: Status: Instance ID: Instance Type Instance Creat Instance Creat Instance Insta Item Descript Manufacturer Model: Serial No: ULC Standard Quantity: Unit of Measu Overfill Prot T Creation Date Next Periodic TSSA Base S TSSAMax Has TSSA Volume TSSA Periodi TSSA Statuto TSSA Recd Ir TSSA Recd Ir TSSA Prograu Description: Original Sour Record Date:	11 E) 84 e: FS attion Dt: all Dt: ion: : : d: ure: Type: e: s Str DT: ched Cycle 2: zard Rank 1: ased Periodic e of Directives. c Exempt: ory Interval: nsp Interva: olerance: m Area 2: ce:	422176 (PIRED 0055 S Piping Yn: : FS Piping EXP Up to Mar 2012		Expired Date: Max Hazard Rank: Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:	
<u>25</u>	7 of 13	ESE/178.7	74.0 / 0.08	TROPIC SQUARE LTD 1154 OGILVIE RD GLOUCESTER ON	DTNK

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Delisted Expi</u> Facilities	red Fuel Safety				
Instance No: Status: Instance ID: Instance Type Instance Type Instance Creat Instance Insta Item Descript Manufacturer Model: Serial No: ULC Standard Quantity: Unit of Measu Overfill Prot T Creation Date Next Periodic TSSA Base S TSSA Max Hat TSSA Resc Ba TSSA Periodi TSSA Periodi TSSA Recd In TSSA Recd In TSSA Prograt Description: Original Sour Record Date:	11422 EXPIR 84057 e: FS Pi ation Dt: all Dt: ion: : d: ure: Type: : : : Str DT: cched Cycle 2: zard Rank 1: ased Periodic Yn: cof Directives: ic Exempt: ory Interval: asp Interva: olerance: m Area 2: rce:	FS Piping EXP Up to Mar 2012		Expired Date: Max Hazard Rank: Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:	
<u>25</u>	8 of 13	ESE/178.7	74.0 / 0.08	TROPIC SQUARE LT 1154 OGILVIE RD GL ON	D OUCESTER K1J 8V1 ON CA
<u>Delisted Expi</u> Facilities	red Fuel Safety				
Instance No: Status: Instance ID: Instance Type Instance Creat Instance Insta Item Descript Manufacturer Model: Serial No: ULC Standard Quantity: Unit of Measu Overfill Prot To Creation Date Next Periodic	e: ation Dt: 7/19/2 all Dt: 5/19/2 ion: FS Lia : NULL NULL S: NULL d: NULL d: NULL f: NULL f: EA Type: NULL c: T/5/20 Str DT: NULL	2955 RED 2000 8:15:15 PM 2009 quid Fuel Tank 009 1:20:44 AM		Expired Date: Max Hazard Rank: Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:	NULL 1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA FS LIQUID FUEL TANK NULL NULL NULL NULL NULL SVLL
TSSA Base S TSSAMax Hai TSSA Risk Ba TSSA Volume TSSA Periodi TSSA Statuto	ched Cycle 2: zard Rank 1: ased Periodic Yn: e of Directives: c Exempt: ory Interval:	NULL NULL NULL NULL NULL NULL			

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Map Key Nu Re	umber of ecords	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
TSSA Recd Insp I TSSA Recd Tolera TSSA Program Ai TSSA Program Ai Description: Original Source: Record Date:	nterva: ance: rea: rea 2:	NULL NULL NULL 2009VBSRegular G EXP 31-JUL-2020	asoline		
<u>25</u> 9 or	f 13	ESE/178.7	74.0 / 0.08	TROPIC SQUARE LT 1154 OGILVIE RD GL ON	D OUCESTER K1J 8V1 ON CA DTNK
<u>Delisted Expired   Facilities</u>	Fuel Safety				
Instance No: Status: Instance ID: Instance Creation Instance Creation Instance Install D Item Description: Manufacturer: Model: Serial No: ULC Standard: Quantity: Unit of Measure: Overfill Prot Type Creation Date: Next Periodic Str TSSA Base Sched TSSA Nolume of I TSSA Risk Based TSSA Volume of I TSSA Periodic Exx TSSA Statutory Ir TSSA Recd Inler TSSA Program Au Description: Original Source: Record Date:	1129276 EXPIRE <b>Dt:</b> 7/19/200 <b>t:</b> 5/19/200 FS Liqui NULL NULL NULL 1 EA <b>:</b> NULL 2 <b>Cycle 2:</b> <b>Rank 1:</b> <b>!</b> Periodic Yn: Directives: <b>terval:</b> <b>interva:</b> <b>ance:</b> <b>rea 2:</b>	35 D 00 8:15:15 PM 99 d Fuel Tank NULL NULL NULL NULL NULL NULL NULL NUL	_	Expired Date: Max Hazard Rank: Facility Location: Facility Type: Fuel Type 2: Fuel Type 3: Panam Related: Panam Venue Nm: External Identifier: Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground: Tank Underground: Source:	NULL 1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA FS LIQUID FUEL TANK NULL NULL NULL NULL FS Liquid Fuel Tank
<u>25</u> 10 d	of 13	ESE/178.7	74.0 / 0.08	TROPIC SQUARE LT 1154 OGILVIE RD GL ON	D OUCESTER K1J 8V1 ON CA DTNK
<u>Delisted Expired   Facilities</u>	Fuel Safety				
Instance No: Status: Instance ID:	1129279 EXPIRE	02 D		Expired Date: Max Hazard Rank: Facility Location:	NULL 1154 OGILVIE RD GLOUCESTER K1J 8V1 ON CA
Instance Type: Instance Creation Instance Install D Item Description:	<i>Dt:</i> 7/19/200 <i>t:</i> 5/19/200 FS Liqui	00 8:15:15 PM 09 d Fuel Tank		Facility Type: Fuel Type 2: Fuel Type 3: Panam Related:	FS LIQUID FUEL TANK NULL NULL NULL

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Мар Кеу	Number Records	of	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Manufacturer Model: Serial No: ULC Standard Quantity: Unit of Measu Overfill Prot 1	: d: ire: Type:	NULL NULL NULL 1 EA NULL	4-24-40 AM		Panam Venue Nm: External Identifier: Item: Piping Steel: Piping Galvanized: Tank Single Wall St: Piping Underground:	NULL NULL	
Creation Date Next Periodic TSSA Base Se	e: Str DT: ched Cycle	NULL 9 <b>2:</b>	NULL		Tank Underground: Source:	FS Liquid Fuel Tank	
TSSAMax Haa TSSA Risk Ba TSSA Volume TSSA Periodi TSSA Statuto	zard Rank ased Perioc of Directiv c Exempt:	1: lic Yn: /es:	NULL NULL NULL NULL				
TSSA Statuto TSSA Recd In TSSA Recd To TSSA Program TSSA Program	ny Interval olerance: m Area: m Area 2:		NULL NULL NULL				
Description: Original Sour Record Date:	ce:		2009VBSPreviously EXP 31-JUL-2020	a diesel tank, nov	v filled with super gasoline		
<u>25</u>	11 of 13		ESE/178.7	74.0 / 0.08	TROPIC SQUARE LTL 1154 OGILVIE RD GLO ON	D DUCESTER K1J 8V1 ON CA	FST
Instance No: Status: Cont Name: Instance Type Item: Item Descript Tank Type: Install Date: Install Year: Years in Serv. Model: Description: Capacity: Tank Material Corrosion Pro Overfill Protee	e: ion: ice: ': otect: ct:	FS Liquic Single W 5/19/2009 1990 NULL 35000 Steel Sacrificia	5 I Fuel Tank all UST 9 I anode		Manufacturer: Serial No: Ulc Standard: Quantity: Unit of Measure: Fuel Type: Fuel Type2: Fuel Type3: Piping Steel: Piping Galvanized: Tanks Single Wall St: Piping Underground: No Underground: Panam Related: Panam Venue:	Gasoline NULL NULL	
Facility Type: Parent Facility Facility Locat	y Type: ion:	n-	FS Liquid Fuel Tank		1 8\/1 ON CA		
l iquid Fuel Ta	ank Details	<i>n.</i>		SECOCESTER RI	3 80 I ON CA		
Overfill Protec Owner Accou Item:	ction: Int Name:		TROPIC SQUARE L FS LIQUID FUEL T/	_TD ANK			
<u>25</u>	12 of 13		ESE/178.7	74.0 / 0.08	TROPIC SQUARE LTL 1154 OGILVIE RD GLO ON	D DUCESTER K1J 8V1 ON CA	FST
Instance No: Status: Cont Name: Instance Type Item:	9:	1129276	5		Manufacturer: Serial No: Ulc Standard: Quantity: Unit of Measure:		

Мар Кеу	Numbe Record	r of 's	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Item Descript Tank Type: Install Date: Install Year: Years in Serv Model: Description: Capacity: Tank Material Corrosion Pro Overfill Prote Facility Type: Parent Facilit Facility Locat Device Instal	tion: tice: l: otect: ct: ty Type: tion: led Locatio	FS Liquid F Single Wal 5/19/2009 1990 NULL 35000 Steel Sacrificial a F	Fuel Tank I UST anode FS Liquid Fuel Tank I154 OGILVIE RD G	SLOUCESTER K1	Fuel Type: Fuel Type2: Fuel Type3: Piping Steel: Piping Galvanized: Tanks Single Wall St: Piping Underground: No Underground: Panam Related: Panam Venue: J 8V1 ON CA	Gasoline NULL NULL	
<u>Liquid Fuel T</u>	ank Detail	<u>s</u>					
Overnii Prote Owner Accou Item:	int Name:	T F	FROPIC SQUARE L FS LIQUID FUEL TA	TD NK			
<u>25</u>	13 of 13		ESE/178.7	74.0 / 0.08	TROPIC SQUARE LTI 1154 OGILVIE RD GLO ON	D DUCESTER K1J 8V1 ON CA	FST
Instance No: Status: Cont Name: Instance Type Item: Item Descript Tank Type: Install Date: Install Year: Years in Serv Model: Description: Capacity: Tank Material Corrosion Pre Overfill Prote Facility Type: Parent Facility	e: tion: tice: l: otect: ct: y Type: tion:	11292792 FS Liquid I Single Wal 5/19/2009 1990 NULL 25000 Steel Sacrificial a	Fuel Tank I UST anode FS Liquid Fuel Tank		Manufacturer: Serial No: Ulc Standard: Quantity: Unit of Measure: Fuel Type: Fuel Type3: Piping Steel: Piping Galvanized: Tanks Single Wall St: Piping Underground: No Underground: Panam Related: Panam Venue:	Gasoline NULL NULL	
Device Instal	led Locatio	on: 1	1154 OGILVIE RD G	LOUCESTER K1	J 8V1 ON CA		
Liquid Fuel T Overfill Prote Owner Accou Item:	<u>ank Detail</u> ection: ınt Name:	<u>s</u> T	FROPIC SQUARE L FS LIQUID FUEL TA	TD NK			
<u>26</u>	1 of 1		E/183.2	74.9 / 1.00	lot 25 con 1 ON		WWIS
Well ID: Construction Use 1st: Use 2nd: Final Well Sta Water Type: Casing Mater	Date: atus: ial:	1501123 Domestic 0 Water Sup	ply		Flowing (Y/N): Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec:	1 16-May-1956 00:00:00 TRUE	

Map Key Numb Reco	per of rds	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Audit No: Tag: Constructn Method: Elevation (m): Elevatn Reliabilty: Depth to Bedrock: Well Depth: Overburden/Bedrock: Pump Rate: Static Water Level: Clear/Cloudy: Municipality: Site Info:		GLOUCESTER TOV	WNSHIP	Contractor: Form Version: Owner: County: Lot: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	2311 1 OTTAWA-CARLETON 025 01 OF	
PDF URL (Map):		https://d2khazk8e83	rdv.cloudfront.net/	/moe_mapping/downloads	/2Water/Wells_pdfs/150\1501123.pdf	
Additional Detail(s) (N	<u>Map)</u>	1050/04/20				
Well Completed Date: Year Completed: Depth (m): Latitude: Longitude: Path:		1956/04/30 1956 27.432 45.4270218652671 -75.630139132531 150\1501123.pdf				
Bore Hole Information	<u>n</u>					
Bore Hole ID: DP2BR: Spatial Status: Code OB: Code OB Desc: Open Hole: Cluster Kind: Date Completed: Remarks: Loc Method Desc: Elevrc Desc: Location Source Date Improvement Locatio Improvement Locatio Source Revision Com Supplier Comment:	1002316 30-Apr a: n Source: n Method: ament:	56 1956 00:00:00 Original Pre1985 UT	⁻ M Rel Code 9: un	Elevation: Elevrc: Zone: East83: North83: Org CS: UTMRC: UTMRC Desc: Location Method: known UTM	18 450705.70 5030582.00 9 unknown UTM p9	
<u>Overburden and Bedı</u> <u>Materials Interval</u>	<u>rock</u>					
Formation ID: Layer: Color: General Color: Mat1: Most Common Materi Mat2: Mat2 Desc: Mat3 Desc: Formation Top Depth Formation End Depth Formation End Depth	al: : : UOM:	930991036 2 26 ROCK 10.0 90.0 ft				

# Overburden and Bedrock

Materials Interval 930991035   Layer: 1   Color: 02   General Color: 03   Matt: TOPSOUL   Matt: TOPSOUL   Matt: 19   Matt: 10   Matt: 10   Formation Top Depth: 0.0   Vehod Construction & Well Use   Use Construction Color:   Cable Tool Other Method Construction:   Construction Record - Casing Construction Record - Casing   Construction Record - Casing 1   Open Hole or Material: 0   Open Hole or Material:	Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	D	B
Formation (D: traper:     930091035       Color:     1       Color:     1       Matri:     02       Matri:     02       Matri:     02       Matri:     19       Matri:     19       Matri:     19       Matri:     19       Matri:     10       Matri:     10       Formation Fan Daph:     10       Formation End Daph UOM:     1       Method Construction & Well     1       Method Construction Code:     1       Method Construction Ope:     1       Method Construction ID:     961501123       Method Construction:     1       Pipe Information     1       Other Method Construction:     1       Distriction Record - Casing     1       Continuent:     1       Materiai:     1       Materiai:     1       Construction Record - Casing     30009238       Layer:     1       At Name:     1       Construction Record - Casing	Materials Inte	rval					
Mart: Definition Material: 170PSOIL Mar2 Desc: 19 Mar2 Desc: 19 Formation Top Depth: 0.0 Formation End Construction: Cable Tool Other Method Construction: Cable Tool Other Method Construction: 1 Fipe Information Fipe Information Fipe Information Fipe Information Fipe Information Fipe Dic: 10571736 Casing Dic: 930039238 Layer: 1 Material: 3 Construction Record - Casing Casing Dic: 930039238 Layer: 4.0 Casing Dic: 14.0 Casing Dic: 14.0 Casing Dic: 14.0 Casing Dic: 2 Material: 4 Construction Record - Casing Casing Dic: 930039239 Layer: 2 Material: 4 Construction Record - Casing Casing Dic: 900039239 Layer: 2 Material: 4 Construction Record - Casing Casing Dic: 900039239 Layer: 2 Material: 4 Depth Form: 2 PumP Test Wethod Desc: PUMP Pump Test Method Desc: PUMP Pump Test Method Desc: PUMP	Formation ID: Layer: Color: General Color	r:	930991035 1				
Formation Top Depth: 0.0 Formation End Depth: 10.0 Formation End Depth UOM: t t Method Construction A: Well Use Method Construction ID: 961501123 Method Construction: Cable Tool Other Method Construction: Cable Tool Casing Dic: 10571736 Casing Dic: 10571736 Casing Dic: 11 Open Hole or Material: 1 Open Hole or Material: STEEL Depth Too: 14.0 Casing Diameter: 4.0 Casing Diameter: 4.0 Casin	Mat1: Most Commo Mat2: Mat2 Desc: Mat3: Mat3 Desc:	n Material:	02 TOPSOIL 19 SLATE				
Method of Construction & Well     Wethod Construction Code:   1     Method Construction:   1     Cable Tool     Drher Method Construction:   1     Cable Tool     Depth formation     Pipe ID:   10571736     Casing No:   1     Comment:   1     Att Name:   1     Casing ID:   930039238     Layer:   1     Meterial:   1     Open Hole or Material:   STEEL     Depth Troin:   14.0     Casing Dimeter:   4.0     Casing Dimeter:   4.0     Casing Dimeter:   9.0039239     Layer:   2     Material:   1     Open Hole or Material:   1     Casing Dimeter:   4.0     Casing Dimeter:   4.0     Casing Dimeter:   9.0     Casing Dimeter:   4.0	Formation To Formation En Formation En	p Depth: Id Depth: Id Depth UOM:	0.0 10.0 ft				
Method Construction ID: Method Construction Code: T961501123 1 Cable ToolDiffer Method Construction:Cable ToolDiffer Method Construction:Cable ToolDiffer Method Construction:10571736 Casing No: Comment: Att Name:Construction Record - Casing Casing ID: Layer: Depth Form: Casing Dameter UOM: Casing Dimeter: Casing Dimeter: Cas	<u>Method of Co</u> <u>Use</u>	nstruction & Well					
Pipe ID:   00571736     Casing No:   1     Comment:   1     Alt Name:   1     Construction Record - Casing   930039238     Layer:   1     Dept Nois or Material:   1     Open Hole or Material:   STEEL     Depth From:   1     Casing Diameter:   14.0     Casing Diameter:   4.0     Casing Diameter:   4.0     Casing Diameter:   930039239     Layer:   2     Material:   0     Casing Diameter:   4     Open Hole or Material:   OPEN HOLE     Depth From:   2     Material:   4     Open Hole or Material:   0PEN HOLE     Depth From:   90.0     Casing Diameter:   4.0     Casing Diameter:   4.0     Open Hole or Material:   0PEN HOLE     Depth From:   90.0     Casing Diameter:   4.0     Casing Diameter:   4.0     Casing Diameter:   9.0     Casing Diameter:   10.0     Casing	Method Cons Method Cons Method Cons Other Method	truction ID: truction Code: truction: I Construction:	961501123 1 Cable Tool				
Pipe ID:   10571736     Casing No:   1     Att Name:   1     Construction Record - Casing   1     Casing ID:   930039238     Layer:   1     Material:   1     Open Hole or Material:   STEEL     Depth From:   14.0     Casing Diameter:   4.0     Casing Diameter UOM:   inch     Casing Diameter UOM:   1     Depth From:   9.00     Casing Diameter:   4.0     Open Hole or Material:   OPEN HOLE     Depth From:   9.00     Casing Diameter:   4.0     Casing Diameter:   4.0     Casing Diameter:   4.0     Casing Diameter:   4.0     Casing Diameter: <td< th=""><th><u>Pipe Informat</u></th><th>ion</th><th></th><th></th><th></th><th></th><th></th></td<>	<u>Pipe Informat</u>	ion					
Construction Record - CasingCasing ID:930039238Layer:1Material:1Open Hole or Material:STEELDepth From:Depth To:14.0Casing Diameter UOM:inchCasing Diameter UOM:tCasing Diameter UOM:930039239Layer:2Material:4Open Hole or Material:OPEN HOLEDepth From:90.0Casing Diameter:4.0Casing Diameter:90.0Casing Diameter:4.0Casing Diameter:4.0Casing Diameter:4.0Casing Diameter:90.0Casing Diameter:4.0Casing Diameter:4.0Casing Diameter:9.0Casing Diameter:4.0Casing Diameter:9.0Casing Diameter:9.	Pipe ID: Casing No: Comment: Alt Name:		10571736 1				
Casing ID:930039238Layer:1Material:1Open Hole or Material:STEELDepth From:-Depth To:14.0Casing Diameter:4.0Casing Diameter UOM:inchCasing Depth UOM:ftConstruction Record - CasingMaterial:930039239Layer:2Material:4Open Hole or Material:OPEN HOLEDepth From:90.0Casing Diameter:4.0Casing Diameter:4.0Casing Diameter:4.0Casing Diameter:4.0Casing Diameter:90.0Casing Diameter:4.0Casing Diameter:4.0Casing Diameter:90.0Casing Diameter:4.0Casing Diameter:90.0Casing Diameter:4.0Casing Diameter:90.0Casing D	<b>Construction</b>	Record - Casing					
Construction Record - CasingCasing ID:930039239Layer:2Material:4Open Hole or Material:OPEN HOLEDepth From:90.0Casing Diameter:4.0Casing Diameter:4.0Casing Diameter:1.0Casing Depth UOM:inchCasing Depth UOM:91.0Casing Diameter UDM:90.0Casing Diameter:90.0Casing Diameter:	Casing ID: Layer: Material: Open Hole or Depth From: Depth To: Casing Diame Casing Diame Casing Depth	Material: eter: eter UOM: 1 UOM:	930039238 1 1 STEEL 14.0 4.0 inch ft				
Casing ID:930039239Layer:2Material:4Open Hole or Material:OPEN HOLEDepth From:90.0Casing Diameter:4.0Casing Diameter:tinchCasing Depth UOM:inchResults of Well Yield TestingPumping Test Method Desc:PUMP 991501123	<b>Construction</b>	<u> Record - Casing</u>					
Results of Well Yield Testing     Pumping Test Method Desc:   PUMP     Pump Test ID:   991501123	Casing ID: Layer: Material: Open Hole or Depth From: Depth To: Casing Diame Casing Diame Casing Depth	Material: eter: eter UOM: UOM:	930039239 2 4 OPEN HOLE 90.0 4.0 inch ft				
Pumping Test Method Desc:PUMPPump Test ID:991501123	Results of We	ell Yield Testing					
Pump Set At:     Static Level:   5.0     Final Level After Pumping:   10.0	Pumping Tes Pump Test ID Pump Set At: Static Level: Final Level At	t Method Desc: : fter Pumpina:	PUMP 991501123 5.0 10.0				

Мар Кеу	Number Records	of G	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Recommend Pumping Rat Flowing Rate Recommend Levels UOM: Rate UOM: Water State A Water State A Pumping Tes Pumping Dun Pumping Dun Flowing:	ed Pump De e: ed Pump Ra After Test C After Test: at Method: ration HR: ration MIN:	epth: ate: ode:	10.0 ft GPM 1 CLEAR 1 1 0 No				
Water Details	5						
Water ID: Layer: Kind Code: Kind: Water Found Water Found	Depth: Depth UON	Л:	933453808 1 1 FRESH 76.0 ft				
Water Details	i						
Water ID: Layer: Kind Code: Kind: Water Found Water Found	Depth: Depth UON	1:	933453809 2 1 FRESH 83.0 ft				
<u>Links</u>							
Bore Hole ID Depth M: Year Comple Well Comple Audit No:	: ted: ted Dt:	10023166 27.432 1956 1956/04/3	0		Tag No: Contractor: Path: Latitude: Longitude:	2311 150\1501123.pdf 45.4270218652671 -75.630139132531	
<u>27</u>	1 of 4		ESE/185.3	74.0 / 0.08	6037682 CANADA INC. 1150 OGIL VIE ROAD OTTAWA ON K1J 8V1		GEN
Generator No SIC Code:	o:		ON2090726				
SIC Descripti Approval Yea PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ao Contaminate MHSW Facili	ion: ars: ntact: Imin: d Facility: tv:		03,04				
27	2 of 4		ESE/185.3	/4.0 / 0.08	6037682 CANADA INC. 1150 OGILVIE RD OTTAWA ON K1J 8V1		GEN
Generator No SIC Code:	): 		ON1001810 447190				
133	erisinfo.co	m   Enviro	nmental Risk Info	rmation Servic	es	Ord	er No: 23022400359

Map Key	Number Records	of	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
SIC Descripti Approval Yea PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ad Contaminate MHSW Facilia	ion: ars: ontact: Imin: d Facility: ty:		Other Gasoline Sta 04	ations			
<u>27</u>	3 of 4		ESE/185.3	74.0 / 0.08	1150 Chemin Ogilvie Ottawa ON K1J 8V1		EHS
Order No: Status: Report Type: Report Date: Date Receive Previous Site Lot/Building Additional Int	ed: > Name: Size: fo Ordered:	20051229 C Complete 1/2/2006 12/29/200	028 Report 5 Fire Insur. Maps ar	nd/or Site Plans,	Nearest Intersection: Municipality: Client Prov/State: Search Radius (km): X: Y: City Directory Search	ON 0.25 -75.630738 45.426276	
27	4 of 4		ESE/185.3	74.0 / 0.08	6037682 Canada Inc. 1150 OGILVIE ROAD OTTAWA ON K1J 8V1		GEN
Generator No SIC Code: SIC Descripti Approval Yea PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ad Contaminate MHSW Facilia	o: ion: ars: ontact: Imin: d Facility: ty:		ON8677710 447190 Other Gasoline Sta 05	ations			
<u>Detail(s)</u>							
Waste Class: Waste Class	Name:		252 WASTE OILS & LU	JBRICANTS			
<u>28</u>	1 of 1		ESE/193.7	73.8 / -0.06	1182 OGILIVE ROAD Ottawa ON		wwis
Well ID: Construction Use 1st: Use 2nd: Final Well Sta Water Type: Casing Mater Audit No: Tag: Constructn N Elevation (m) Elevatn Relia Depth to Bed Well Depth:	n Date: atus: rial: /ethod: ): hbilty: Irock:	7157668 Monitoring 0 Monitoring Z120905 A097240	g and Test Hole g and Test Hole		Flowing (Y/N): Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession: Concession Name:	14-Jan-2011 00:00:00 TRUE 7241 7 OTTAWA-CARLETON	

Map Key Numbe Record	r of Is	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Overburden/Bedrock: Pump Rate: Static Water Level: Clear/Cloudy: Municipality: Site Info:		GLOUCESTER TOV	VNSHIP	Easting NAD83: Northing NAD83: Zone: UTM Reliability:		
PDF URL (Map):		https://d2khazk8e83	rdv.cloudfront.net/	/moe_mapping/downloads/	2Water/Wells_pdfs/715\7157668.pdf	
<u>Additional Detail(s) (Ma</u>	<u>(q)</u>					
Well Completed Date: Year Completed: Depth (m): Latitude: Longitude: Path:		2010/12/08 2010 3.1 45.4264006261219 -75.6301667346025 715\7157668.pdf				
Bore Hole Information						
Bore Hole ID: DP2BR: Spatial Status: Code OB: Code OB Desc: Open Hole: Cluster Kind: Date Completed: Remarks: Loc Method Desc: Elevrc Desc: Location Source Date: Improvement Location Improvement Location Source Revision Comm Supplier Comment:	10034558 08-Dec-2 Source: Method: ient:	874 010 00:00:00 on Water Well Reco	rd	Elevation: Elevrc: Zone: East83: North83: Org CS: UTMRC: UTMRC Desc: Location Method:	18 450703.00 5030513.00 UTM83 3 margin of error : 10 - 30 m wwr	
<u>Overburden and Bedroo Materials Interval</u>	<u>ck</u>					
Formation ID: Layer: Color: General Color: Mat1: Most Common Material Mat2: Mat2 Desc: Mat3 Desc: Formation Top Depth: Formation End Depth: Formation End Depth	: IOM:	1003772804 3 3.0999999904632568 m	34			
<u>Overburden and Bedroo Materials Interval</u>	<u>ck</u>					
Formation ID: Layer: Color: General Color: Mat1:		1003772802 1 6 BROWN 28				

Map Key Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Most Common Material: Mat2: Mat2 Desc: Mat3: Mat3 Desc: Formation Top Depth: Formation End Depth: Formation End Depth UOM:	SAND 11 GRAVEL 05 CLAY 0.0 2.440000057220459 m			
<u>Overburden and Bedrock</u> <u>Materials Interval</u>				
Formation ID: Layer: Color: General Color: Mat1: Most Common Material: Mat2: Mat2 Desc: Mat3: Mat3 Desc: Formation Top Depth: Formation End Depth Formation End Depth UOM:	1003772803 2 6 BROWN 28 SAND 85 SOFT 91 WATER-BEARING 2.440000057220459 3.099999904632568 m	4		
<u>Annular Space/Abandonment</u> <u>Sealing Record</u>				
Plug ID: Layer: Plug From: Plug To: Plug Depth UOM:	1003772813 1 0.0 0.310000002384185 m	8		
<u>Annular Space/Abandonment</u> <u>Sealing Record</u>				
Plug ID: Layer: Plug From: Plug To: Plug Depth UOM:	1003772815 3 1.220000028610229 3.099999904632568 m	5 4		
<u>Annular Space/Abandonment</u> Sealing Record				
Plug ID: Layer: Plug From: Plug To: Plug Depth UOM:	1003772814 2 0.310000002384185 1.220000028610229 m	8 5		
Method of Construction & Well Use				
Method Construction ID: Method Construction Code: Method Construction: Other Method Construction:	1003772811 B Other Method DIRECT PUSH			

Мар Кеу	Number Records	of Direction/ Distance (r	Elev/Diff n) (m)	Site		DB
Pipe Informa	ation					
Pipe ID: Casing No: Comment: Alt Name:		1003772801 0				
<u>Construction</u>	n Record - C	asing				
Casing ID:		1003772807				
Layer: Material		1				
Open Hole o	or Material:	PLASTIC				
Depth From:		0.0				
Depth 10: Casing Diam	neter:	4.03000020980	835			
Casing Diam	neter UOM:	cm				
Casing Dept	h UOM:	m				
<u>Construction</u>	n Record - Se	creen				
Screen ID:		1003772808				
Layer:		1				
Siot: Screen Top	Depth:	1.5				
Screen End	Depth:	3.09999990463	25684			
Screen Mate	erial: h UOM:	5 m				
Screen Dept	neter UOM:	cm				
Screen Diam	neter:	4.82000017166	1377			
<u>Water Detail</u>	<u>s</u>					
Water ID:		1003772806				
Layer:						
Kina Coae: Kind:						
Water Found	d Depth:					
Water Found	d Depth UON	l: m				
<u>Hole Diamet</u>	<u>er</u>					
Hole ID:		1003772805				
Diameter:		8.25				
Depth From: Depth To:	Ĩ	0.0 3.09999990463	25684			
Hole Depth l	UOM:	m				
Hole Diamet	er UOM:	cm				
<u>Links</u>						
Bore Hole ID	):	1003455874		Tag No:	A097240	
Depth M:	- 4 - d	3.1		Contractor:	7241	
Year Comple Well Comple	eted: eted Dt:	2010/12/08		Path: Latitude:	45.4264006261219	
Audit No:		Z120905		Longitude:	-75.6301667346025	
<u>29</u>	1 of 1	S/194.7	72.9/-1.00	01		WWIS
Wall ID-		7388761		UN Elowing (V/M)-		
		1000101		Flowing ( 1/N):		
137	erisinfo.co	m   Environmental Risk	Information Servic	ces	Order No: 2	23022400359

Map Key Numbe Record	er of Direction/ ds Distance (m)	Elev/Diff (m)	Site		DB
Construction Date: Use 1st: Use 2nd: Final Well Status: Water Type: Casing Material: Audit No: Tag: Constructn Method: Elevation (m): Elevatin Reliabilty: Depth to Bedrock: Well Depth: Overburden/Bedrock: Pump Rate: Static Water Level: Clear/Cloudy: Municipality: Site Info:	C32281 A202124 GLOUCESTER TO	DWNSHIP	Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession: Concession: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	Yes 03-Jun-2021 00:00:00 TRUE 1844 8 OTTAWA-CARLETON	
Bore Hole Information Bore Hole ID: DP2BR: Spatial Status: Code OB: Code OB Desc: Open Hole: Cluster Kind: Date Completed: Remarks: Loc Method Desc: Elevrc Desc: Location Source Date: Improvement Location	1008667703 25-Sep-2019 00:00:00 on Water Well Red	cord	Elevation: Elevrc: Zone: East83: North83: Org CS: UTMRC: UTMRC: UTMRC Desc: Location Method:	18 450500.00 5030390.00 UTM83 4 margin of error : 30 m - 100 m wwr	
Improvement Location Source Revision Comr Supplier Comment: <u>Links</u> Bore Hole ID: Depth M:	Method: nent: 1008667703		Tag No: Contractor:	A202124 1844	
Year Completed: Well Completed Dt: Audit No:	2019 2019/09/25 C32281		Path: Latitude: Longitude:	45.4252791943293 -75.632749168996	
<u>30</u> 1 of 1	SSW/201.2	72.0/-1.86	AFSC Future Securi 1088 Ogilvie Rd Gloucester ON K1J 7	ty Controls 7P8	SCT
Established: Plant Size (ft²): Employment:	01-SEP-82 8000				
<u>Details</u> Description: SIC/NAICS Code:	Electronic Compor 417320	nents, Navigationa	I and Communications Equi	pment and Supplies Wholesaler-Dist	ributors
Description: SIC/NAICS Code:	Security Systems 561621	Services (except L	ocksmiths)		

Map Key	Number Records	of S	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Description: SIC/NAICS C	Code:		Industrial Design S 541420	Services			
Description: SIC/NAICS (	Code:		Electrical Wiring an 416110	nd Construction Su	upplies Wholesaler-Distributo	rs	
<u>31</u>	1 of 1		S/203.1	72.9 / -0.97	1098 Ogilvie Road Gloucester ON K1J 7	P8	EHS
Order No: Status: Report Type Report Date Date Receiv Previous Sit Lot/Building Additional In	:: ed: e Name: I Size: nfo Ordered:	20190813 C Standard 20-AUG- ⁻ 13-AUG- ⁻	3196 Report 19 19		Nearest Intersection: Municipality: Client Prov/State: Search Radius (km): X: Y:	ON .25 -75.63245 45.425193	
<u>32</u>	1 of 1		WSW/204.5	72.6/-1.25	4297 WELDON DR, O ON	TTAWA	INC
Incident No: Incident ID: Instance No. Status Code Attribute Ca Context: Date of Occu Time of Occu Incident Cre Instance Cre Instance Ins Occur Insp 3 Approx Qua Tank Capacu Fuels Occur Fuels Occur Fuel Type In Enforcemen Prc Escalati Tank Materia Tank Storag Tank Locatie Pump Flow I Task No: Notes: Drainage Sy Sub Surface Aff Prop Use Contam. Mig Contact Natu Incident Loc Occurence I Operation T Item: Item Descrip	tegory: tegory: urrence: ated On: ated On: ated On: tall Dt: Start Date: nt Rel: ity: 'Type: volved: t Policy: on Req: al Type: volved: t Policy: on Type: volved: t Policy: volved: t Policy: volved: t Policy: volved: t Policy: volved: t Policy: volved: t Policy: volved: t Policy: volved: t Policy: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: volved: vo	1576702 FS-Perfor 2015/02/1 18:21:00 2015/02/1 CO Relea Natural G NULL NULL 5367418	rm L1 Incident Insp 16 00:00:00 18 00:00:00 ase as as 4297 WELDON DF CO Release comir Multi-unit Resident	R, OTTAWA - CO Ig from NG fired fu	Any Health Impact: Any Enviro Impact: Service Interrupted: Was Prop Damaged: Reside App. Type: Commer App. Type: Indus App. Type: Institut App. Type: Vent Conn Mater: Vent Conn Mater: Vent Conn Mater: Pipeline Type: Pipeline Type: Pipeline Involved: Pipe Material: Depth Ground Cover: Regulator Location: Regulator Type: Operation Pressure: Liquid Prop Make: Liquid Prop Make: Liquid Prop Model: Liquid Prop Notes: Equipment Type: Equipment Model: Serial No: Cylinder Capacity: Cylinder Capacity: Cylinder Capacity: Cylinder Mat Type: Near Body of Water: RELEASE Imace	No Yes No	
33	1 of 1		S/204.6	72.9 / -0.97	9456-5082 Quebec Ind	., as general partner for	DTTW

and on behalf of Lux Place L.P.

1098 Ogilvie Road and 1178 Cummings Avenue

PTTW

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Map Key	Number Records	of Directio Distance	n/ e (m)	Elev/Diff (m)	Site	Ľ	ЭB
					Ottawa, ON Canada		
EBR Registry Ministry Ref N Notice Type: Notice Stage: Notice Date:	No: 'o:	019-5394 0432-CDMNAA Instrument Decision			Decision Posted: Exception Posted: Section: Act 1: Act 2:	August 15, 2022 Section 34 Ontario Water Resources Act, R.S.O. 1990 Ontario Water Resources Act	D
Proposal Date Year: Instrument Ty, Off Instrument Posted By: Company Nan Site Address: Location Othe Proponent Nan Proponent Add Comment Perf URL: Site Location I	: pe: t Name: ne: r: me: dress: iod: Details:	April 29, 2022 2022 Permit to tak Permit to Ta Ministry of th 1098 Ogilvie Ottawa, ON Canada 9456-5082 C 9456-5082 C 155 Wellingt Unit 40 Toronto, ON M5V 3J7 Canada April 29, 202 https://ero.or	e water ke Water e Enviro Road ar Quebec In Quebec In Quebec In Stree 22 - May Intario.ca/	r (OWRA s. 34) nment, Conserva nd 1178 Cumming nc., as general pa nc., as general pa t West 29, 2022 (30 days notice/019-5394	tion and Parks gs Avenue artner for and on behalf of Lu rtner for and on behalf of Lu	ux Place L.P. ux Place L.P. ux Place L.P.	
<u>34</u>	1 of 1	ESE/205.6		73.9 / 0.00	1162 Ogilvie Road Gloucester ON K1J 8V	/1 EH.	S
Order No: Status: Report Type: Report Date: Date Received Previous Site Lot/Building S Additional Info	l: Name: iize: o Ordered:	20190628212 C Standard Report 08-JUL-19 28-JUN-19 City Director	У		Nearest Intersection: Municipality: Client Prov/State: Search Radius (km): X: Y:	ON .25 -75.630053 45.426311	
<u>35</u>	1 of 1	ESE/207.7		74.2 / 0.31	1162 Ogilvie Road Ottawa ON	EH	S
Order No: Status: Report Type: Report Date: Date Received Previous Site Lot/Building S Additional Info	l: Name: Size: 5 Ordered:	20101102009 C Standard Report 11/8/2010 11/2/2010 11:09:01 AM Fire Insur. M	M Iaps and,	′or Site Plans; Cit	Nearest Intersection: Municipality: Client Prov/State: Search Radius (km): X: Y: y Directory	ON 0.25 -75.62996 45.426433	

<u>36</u>	1 of 1	ENE/211.7	75.9 / 2.00	lot 25 con 1 ON	WWIS
Well ID:		1501130		Flowing (Y/N):	

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Construction Use 1st: Use 2nd: Final Well Sta Water Type: Casing Materi Audit No: Tag: Constructn M Elevation (m): Elevatn Relial Depth to Bedr Well Depth: Overburden/E Pump Rate: Static Water L Clear/Cloudy: Municipality: Site Info:	Date: Domes 0 itus: Water ial: ethod: bilty: rock: Bedrock: .evel:	tic Supply GLOUCESTER TO	WNSHIP	Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	1 27-Aug-1963 00:00:00 TRUE 1802 1 OTTAWA-CARLETON 025 01 OF	
PDF URL (Maj	p):	https://d2khazk8e83	Brdv.cloudfront.ne	et/moe_mapping/downloads	/2Water/Wells_pdfs/150\1501130.pdf	
Additional De Well Complete Year Complete Depth (m): Latitude: Longitude: Path: Bore Hole Infe	<u>tail(s) (Map)</u> ed Date: ed: ormation	1963/06/04 1963 79.248 45.4281908989274 -75.6303438925385 150\1501130.pdf	;			
Bore Hole ID: DP2BR: Spatial Status Code OB: Code OB Desc Open Hole: Cluster Kind: Date Complet Remarks: Loc Method D Elevrc Desc: Location Sour Improvement Source Revisi Supplier Com	10023 ⁻ 10023 ⁻ c: ed: 04-Jun Desc: rce Date: Location Source: Location Method: ion Comment: ment:	173 -1963 00:00:00 Original Pre1985 UT	ΓM Rel Code 5: r	Elevation: Elevrc: Zone: East83: North83: Org CS: UTMRC: UTMRC Desc: Location Method: margin of error : 100 m - 300	18 450690.70 5030712.00 5 margin of error : 100 m - 300 m p5 0 m	
Overburden a Materials Inter Formation ID: Layer: Color: General Color Mat1: Most Common Mat2: Mat2 Desc: Mat3 Desc:	nd Bedrock rval r: n Material:	930991048 1 05 CLAY 13 BOULDERS				

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Formation To Formation En Formation En	p Depth: d Depth: d Depth UOM:	0.0 15.0 ft				
<u>Overburden a</u> <u>Materials Inte</u>	nd Bedrock rval					
Formation ID. Layer: Color: General Colo. Mat1: Most Commo Mat2:	r: n Material:	930991050 3 2 GREY 15 LIMESTONE				
Mat2 Desc: Mat3: Mat3 Desc: Formation To Formation En Formation En	p Depth: d Depth: d Depth UOM:	165.0 260.0 ft				
<u>Overburden a</u> Materials Inte	nd Bedrock rval					
Formation ID. Layer: Color: General Color Mat1: Most Commo Mat2: Mat2 Desc: Mat3 Desc: Formation To Formation En	r: n Material: p Depth: d Depth: d Depth: d Depth:	930991049 2 8 BLACK 17 SHALE 15.0 165.0 ft				
<u>Method of Co</u> <u>Use</u>	nstruction & Well					
Method Cons Method Cons Method Cons Other Method	truction ID: truction Code: truction: Construction:	961501130 1 Cable Tool				
<u>Pipe Informat</u> Pipe ID: Casing No: Comment: Alt Name:	<u>ion</u>	10571743 1				
<u>Construction</u>	<u>Record - Casing</u>					
Casing ID: Layer: Material: Open Hole or Depth From:	Material:	930039252 1 1 STEEL				
Depth To: Casing Diame	eter:	18.0 6.0				

Map Key	Number Record	r of s	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Casing Diam Casing Depti	eter UOM: h UOM:		inch ft				
<u>Construction</u>	Record - C	Casing					
Casing ID: Layer:			930039253 2				
Material: Open Hole o Depth From:	r Material:		4 OPEN HOLE				
Depth To: Casing Diam	otor:		260.0 6 0				
Casing Diam Casing Diam Casing Depti	eter UOM: h UOM:		inch ft				
<u>Results of W</u>	ell Yield Te	esting					
Pumping Tes Pump Test IL Pump Set At	st Method E D: :	Desc:	PUMP 991501130				
Static Level:	ftor Dumpi		30.0				
Recommend	ed Pump D	hg. epth:	200.0				
Pumping Rat	te: h:		2.0				
Recommend	ed Pump R	ate:	2.0				
Levels UOM: Rate UOM:			π GPM				
Water State /	After Test C	Code:	2 CLOUDY				
Pumping Tes	st Method:		1				
Pumping Du Pumpina Du	ration HR: ration MIN:		1 0				
Flowing:			No				
Water Details	5						
Water ID:			933453817				
Kind Code:			1				
Kind: Water Found	Denth [.]		FRESH 255.0				
Water Found	Depth UO	М:	ft				
<u>Links</u>							
Bore Hole ID	:	1002317	73		Tag No:	1000	
Depth M: Year Comple	ted:	79.248 1963			Contractor: Path:	1802 150\1501130.pdf	
Well Comple Audit No:	ted Dt:	1963/06	/04		Latitude: Longitude:	45.4281908989274 -75.6303438925385	
<u>37</u>	1 of 1		ESE/218.4	73.9/0.00	1162 OGILIVE ROAD Ottawa ON		WWIS
Well ID:		7157667	7		Flowing (Y/N):		
Construction Use 1st:	Date:	Monitori	ng and Test Hole		Flow Rate: Data Entry Status:		
Use 2nd:	- 4	0			Data Src:	14 los 0011 00 00 00	
Final Well Sta Water Type:	atus:	ivionitorii	ng and Test Hole		Date Received: Selected Flag:	14-Jan-2011 00:00:00 TRUE	
Casing Mater	rial:				Abandonment Rec:		

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Audit No: Tag: Constructn Me Elevation (m): Elevatn Reliat Depth to Bedr Well Depth: Overburden/B Pump Rate: Static Water L Clear/Cloudy: Municipality: Site Info:	Z12090 A09724 ethod: iilty: ock: edrock: evel:	6  2 GLOUCESTER TO\	WNSHIP	Contractor: Form Version: Owner: County: Lot: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	7241 7 OTTAWA-CARLETON	
PDF URL (Map	<i>):</i>	https://d2khazk8e83	rdv.cloudfront.ne	et/moe_mapping/downloads	s/2Water/Wells_pdfs/715\7157667.pdf	
Additional Det	tail(s) (Map)					
Well Complete Year Complete Depth (m): Latitude: Longitude: Path:	ed Date: ed:	2010/12/08 2010 4.27 45.4261586646808 -75.6299722970786 715\7157667.pdf				
<u>Bore Hole Info</u>	ormation					
Bore Hole ID: DP2BR: Spatial Status Code OB: Code OB Desc Open Hole: Cluster Kind: Date Complete Remarks: Loc Method D Elevrc Desc: Location Sour Improvement Source Revisi Supplier Com	100345 : : ed: 08-Dec- esc: esc: Location Source: Location Method: on Comment: ment: ment: val	5872 -2010 00:00:00 on Water Well Reco	rd	Elevation: Elevrc: Zone: East83: North83: Org CS: UTMRC: UTMRC Desc: Location Method:	18 450718.00 5030486.00 UTM83 3 margin of error : 10 - 30 m wwr	
Formation ID: Layer: Color: General Color Mat1: Most Commor Mat2: Mat2 Desc: Mat3: Mat3 Desc: Formation Top Formation End Formation End	: n Material: o Depth: d Depth: d Depth UOM: nd Bedrock	1003768436 2 6 BROWN 09 MEDIUM SAND 85 SOFT 91 WATER-BEARING 2.440000057220455 4.269999980926514 m	9			

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Materials Inter	val				
Formation ID: Layer: Color: General Color. Mat1: Most Commor Mat2: Mat2 Desc: Mat3 Desc: Formation Top Formation End Formation End	: n Material: o Depth: d Depth: d Depth UOM:	1003768435 1 6 BROWN 11 GRAVEL 28 SAND 05 CLAY 0.0 2.440000057220459 m			
<u>Annular Space</u> <u>Sealing Recor</u>	e/Abandonment d				
Plug ID: Layer: Plug From: Plug To: Plug Depth UC	DM:	1003768445 1 0.0 0.3100000023841858 m	8		
<u>Annular Space</u> Sealing Recor	e/Abandonment_ d				
Plug ID: Layer: Plug From: Plug To: Plug Depth UC	DM:	1003768447 3 0.9100000262260433 4.269999980926514 m	7		
<u>Annular Space</u> <u>Sealing Recor</u>	e/Abandonment_ d				
Plug ID: Layer: Plug From: Plug To: Plug Depth UC	DM:	1003768446 2 0.3100000023841858 0.9100000262260433 m	8 7		
<u>Method of Cor</u> <u>Use</u>	nstruction & Well				
Method Const Method Const Method Const Other Method	ruction ID: ruction Code: ruction: Construction:	1003768443 B Other Method DIRECT PUSH			
<u>Pipe Informati</u>	<u>on</u>				
Pipe ID: Casing No: Comment: Alt Name:		1003768434 0			
Construction	Record - Casing				
Casing ID:		1003768439			

Map Key Numbe Record	r of Direction/ s Distance (m)	Elev/Diff (m)	Site		DB
Layer: Material: Open Hole or Material: Depth From: Depth To: Casing Diameter: Casing Diameter UOM: Casing Depth UOM:	1 5 PLASTIC 0.0 1.220000028610229 4.03000020980835 cm m	95			
Construction Record -	Screen				
Screen ID: Layer: Slot: Screen Top Depth: Screen End Depth: Screen Material: Screen Depth UOM: Screen Diameter UOM: Screen Diameter:	1003768440 1 10 1.220000028610225 4.269999980926514 5 m cm 4.820000171661377	95 1 7			
<u>Water Details</u>					
Water ID: Layer: Kind Code: Kind: Water Found Depth: Water Found Depth UO	1003768438 <b>M:</b> m				
Hole Diameter					
Hole ID: Diameter: Depth From: Depth To: Hole Depth UOM: Hole Diameter UOM:	1003768437 8.25 0.0 4.269999980926514 m cm	1			
Links					
Bore Hole ID: Depth M: Year Completed: Well Completed Dt: Audit No:	1003455872 4.27 2010 2010/12/08 Z120906		Tag No: Contractor: Path: Latitude: Longitude:	A097242 7241 715\7157667.pdf 45.4261586646808 -75.6299722970786	
38 1 of 1	N/218.5	74.9 / 1.00	1055 Cummings Ave Gloucester (Ottawa)	ON K1J 7S2	EHS
Order No: Status: Report Type: Report Date: Date Received: Previous Site Name: Lot/Building Size: Additional Info Ordered	20040407012 C Complete Report 4/13/04 4/7/04		Nearest Intersection: Municipality: Client Prov/State: Search Radius (km): X: Y:	Donald Regional Municipality of Ottawa ON 0.25 -75.633036 45.429095	-Carleton

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>39</u>	1 of 2	SSW/226.3	72.0 / -1.86	FAIRVIEW FUNERAL &CREMATION SERVICES INC 1092 OGILVIE ROAD GLOUCESTER ON K1J 7P8	GEN
Generator No SIC Code: SIC Descript Approval Yea PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ac Contaminate MHSW Facili	o: ion: ars: ntact: Imin: d Facility: ty:	ONF055900 9731 FUNERAL HOMES 95,96,97,98,99			
<u>Detail(s)</u>					
Waste Class Waste Class	Name:	312 PATHOLOGICAL W	ASTES		
<u>39</u>	2 of 2	SSW/226.3	72.0 / -1.86	FAIRVIEW FUNERAL AND CREMATION 1092 OGILVIE ROAD GLOUCESTER ON K1J 7P8	GEN
Generator No SIC Code: SIC Descript Approval Yea PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ac Contaminate MHSW Facili	o: ion: ars: ntact: Imin: d Facility: ty:	ONF055900 9731 FUNERAL HOMES 00,01			
<u>Detail(s)</u>					
Waste Class Waste Class	Name:	312 PATHOLOGICAL W	ASTES		
<u>40</u>	1 of 1	SSE/231.6	72.6 / -1.31	EDIFICE BEAUFORT BUILDING INC. 1178 CUMMINGS OTTAWA ON K1J 7R8	GEN
Generator No SIC Code: SIC Descript Approval Yee PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ac Contaminate MHSW Facili	o: ion: ars: ntact: Imin: d Facility: ty:	ON7246315 03,04			

N 7163232 Abandoned-C	/ <b>235.9</b> Dther	74.9 / 1.00	1043 CUMMINGS AVE OTTAWA ON Flowing (Y/N): Flow Rate: Data Entry Status: Data Src:		wwis
7163232 Abandoned-C	Dther		Flowing (Y/N): Flow Rate: Data Entry Status: Data Src:		
Abandoned-C	Dther		Data Entry Status: Data Src:		
Abandoned-C	Other		Data Src:		
Abandoned-C	Other				
			Date Received:	18-May-2011 00:00:00	
			Selected Flag:	TRUE	
			Abandonment Rec:	Yes	
Z119783			Contractor:	1119	
			Form Version:	7	
			Owner:		
			County:	OTTAWA-CARLETON	
			Lot:		
			Concession:		
			Concession Name:		
			Easting NAD83:		
			Northing NAD83:		
			Zone:		
			UTM Reliability:		
GL	OUCESTER TO	VINSHIP			
http	os://d2khazk8e83	rdv.cloudfront.n	et/moe_mapping/downloads/2	Water/Wells_pdfs/716\7163232.pdf	
	GL http	GLOUCESTER TOV https://d2khazk8e83	GLOUCESTER TOWNSHIP https://d2khazk8e83rdv.cloudfront.n	Easting NAD83: Northing NAD83: Zone: UTM Reliability: GLOUCESTER TOWNSHIP https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2	Easting NAD83: Northing NAD83: Zone: UTM Reliability: GLOUCESTER TOWNSHIP https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/716\7163232.pdf

Well Completed Date:	2011/04/06
Year Completed:	2011
Depth (m):	
Latitude:	45.4291313527472
Longitude:	-75.6328177774273
Path:	716\7163232.pdf

### Bore Hole Information

Bore Hole ID: DP2BR: Spatial Status: Code OB: Code OB Desc: Open Hole: Cluster Kind:	1003510536	Elevation: Elevrc: Zone: East83: North83: Org CS: UTMRC:	18 450498.00 5030818.00 UTM83 3
Date Completed: Remarks:	06-Apr-2011 00:00:00	UTMRC Desc: Location Method:	margin of error : 10 - 30 m wwr
Loc Method Desc: Elevrc Desc: Location Source Date Improvement Location Improvement Location Source Revision Com Supplier Comment:	on Water Well Record : n Source: n Method: ment:		
Annular Chase (Aband	le n me n t		

#### <u>Annular Space/Abandonment</u> <u>Sealing Record</u>

Plug ID:	1003900155
Layer:	2
Plug From:	4.0
Plug To:	12.0
Plug Depth UOM:	ft

Map Key Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Annular Space/Abandonment Sealing Record				
Plug ID: Layer: Plug From: Plug To: Plug Depth UOM:	1003900154 1 0.0 4.0 ft			
<u>Method of Construction &amp; Well</u> <u>Use</u>				
Method Construction ID: Method Construction Code: Method Construction: Other Method Construction:	1003900153			
Pipe Information				
<i>Pipe ID: Casing No: Comment: Alt Name:</i>	1003900147 0			
Construction Record - Casing	400000454			
Casing ID: Layer: Material: Open Hole or Material: Depth From: Depth To: Casing Diameter: Casing Diameter: UOM:	1003900151			
Casing Depth UOM:	ft			
Screen ID: Layer: Slot: Screen Top Depth: Screen End Depth:	1003900152			
Screen Material: Screen Depth UOM: Screen Diameter UOM: Screen Diameter:	ft inch			
Water Details				
Water ID: Layer: Kind Code: Kind: Water Found Depth:	1003900150			
water Found Depth UOM:	π			
<u>Hole Diameter</u> Hole ID: Diameter:	1003900149			

Map Key	Number Records	of	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Depth From: Depth To: Hole Depth U Hole Diameter	OM: r UOM:	f i	ít nch				
<u>Links</u>							
Bore Hole ID: Depth M: Year Complete Well Complete Audit No:	ed: ed Dt:	100351053 2011 2011/04/06 Z119783	36 6		Tag No: Contractor: Path: Latitude: Longitude:	1119 716\7163232.pdf 45.4291313527472 -75.6328177774273	
<u>42</u>	1 of 27		NW/241.5	73.9 / 0.00	Ambico Limited 1120 Cummings Ave Gloucester ON K1J 7R	88	SCT
Established: Plant Size (ft²) Employment:	):	7	7/1/1961				
<u>Details</u> Description: SIC/NAICS Co	ode:	1	Metal Window and [ 332321	Door Manufacturing			
Description: SIC/NAICS Co	ode:	0	Other Ornamental a 332329	nd Architectural Met	tal Product Manufacturing		
<u>42</u>	2 of 27		NW/241.5	73.9/0.00	AMBICO LIMITED 1120 Cummings Ave Ottawa ON K1J 7R8		SCT
Established: Plant Size (ft²) Employment:	):	2	1961 16100 40				
<u>Details</u> Description: SIC/NAICS Co	ode:		Wood Window and I 321911	Door Manufacturing			
Description: SIC/NAICS Co	ode:	1	Metal Window and [ 332321	Door Manufacturing			
<u>42</u>	3 of 27		NW/241.5	73.9/0.00	MANIS METAL MANUH 1120 CUMMINGS AVE OTTAWA ON K1J 7R8	FACTURING LTD. ENUE	GEN
Generator No. SIC Code: SIC Descriptio Approval Yeat PO Box No: Country: Status: Co Admin: Choice of Cor Phone No Add Contaminated MHSW Facility	: on: rs: ntact: min: I Facility: y:		ON0526500 3031 METAL DOOR & W 36,87	INDOW			
Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB		
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------	----------------------------------------------	------------------	-----------------------------------------------------------------------------	-----		
<u>Detail(s)</u>							
Waste Class. Waste Class	: Name:	212 ALIPHATIC SOLV	ENTS				
Waste Class. Waste Class	: Name:	233 OTHER POLYME	RIC WASTES				
Waste Class. Waste Class	: Name:	241 HALOGENATED S	SOLVENTS				
Waste Class. Waste Class	: Name:	252 WASTE OILS & LU	JBRICANTS				
Waste Class. Waste Class	: Name:	123 ALKALINE PHOSF	PHATES				
Waste Class. Waste Class	: Name:	211 AROMATIC SOLV	ENTS				
<u>42</u>	4 of 27	NW/241.5	73.9 / 0.00	MANIS METAL MANUFACTURING LTD. 1120 CUMMINGS AVENUE OTTAWA ON K1J 7R8	GEN		
Generator No SIC Code: SIC Descript Approval Yea PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ac Contaminate MHSW Facili	o: ion: ars: ontact: dmin: rd Facility: ity:	ON0526500 3031 METAL DOOR & V 88,89	VINDOW				
<u>Detail(s)</u>							
Waste Class. Waste Class	: Name:	123 ALKALINE PHOSF	PHATES				
Waste Class. Waste Class	: Name:	145 PAINT/PIGMENT/	COATING RESIDU	ES			
Waste Class. Waste Class	: Name:	211 AROMATIC SOLV	ENTS				
Waste Class. Waste Class	: Name:	212 ALIPHATIC SOLV	ENTS				
Waste Class. Waste Class	: Name:	232 POLYMERIC RES	INS				
Waste Class. Waste Class	: Name:	233 OTHER POLYME	RIC WASTES				
Waste Class. Waste Class	: Name:	241 HALOGENATED S	SOLVENTS				
Waste Class. Waste Class	: Name:	252 WASTE OILS & LU	JBRICANTS				

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>42</u>	5 of 27	NW/241.5	73.9 / 0.00	AMBICO LIMITED 25-161 1120 CUMMINGS AVENUE OTTAWA ON K1J 7R8	GEN
Generator N SIC Code: SIC Descrip Approval Ye PO Box No: Country: Status: Co Admin: Choice of Co Phone No A Contaminato MHSW Facil	lo: tion: pars: ontact: dmin: ed Facility: ity:	ON0526500 3031 METAL DOOR & W 92,93,96,97,98	/INDOW		
<u>Detail(s)</u>					
Waste Class Waste Class	: Name:	123 ALKALINE PHOSP	HATES		
Waste Class Waste Class	: Name:	145 PAINT/PIGMENT/C	COATING RESIDU	ES	
Waste Class Waste Class	: Name:	211 AROMATIC SOLVE	ENTS		
Waste Class Waste Class	: Name:	241 HALOGENATED S	OLVENTS		
Waste Class Waste Class	: Name:	212 ALIPHATIC SOLVE	ENTS		
Waste Class Waste Class	: Name:	232 POLYMERIC RESI	NS		
Waste Class Waste Class	: Name:	233 OTHER POLYMER	IC WASTES		
Waste Class Waste Class	: Name:	252 WASTE OILS & LU	BRICANTS		
<u>42</u>	6 of 27	NW/241.5	73.9/0.00	MANIS METAL MANUFACTURING LTD. 25-161 1120 CUMMINGS AVENUE OTTAWA ON K1J 7R8	GEN
Generator N SIC Code: SIC Descrip Approval Ye PO Box No: Country: Status: Co Admin: Choice of Co Phone No A Contaminate MHSW Facil	lo: tion: pars: ontact: dmin: ed Facility: ity:	ON0526500 3031 METAL DOOR & W 94,95	/INDOW		

## <u>Detail(s)</u>

Map Key Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class: Waste Class Name:	123 ALKALINE PHOSP	HATES		
Waste Class: Waste Class Name:	145 PAINT/PIGMENT/C	OATING RESIDUES	3	
Waste Class: Waste Class Name:	211 AROMATIC SOLVE	ENTS		
Waste Class: Waste Class Name:	212 ALIPHATIC SOLVE	INTS		
Waste Class: Waste Class Name:	232 POLYMERIC RESI	NS		
Waste Class: Waste Class Name:	233 OTHER POLYMER	IC WASTES		
Waste Class: Waste Class Name:	241 HALOGENATED S	OLVENTS		
Waste Class: Waste Class Name:	252 WASTE OILS & LU	BRICANTS		
42 7 of 27	NW/241.5	73.9 / 0.00	Ambico Limited 1120 Cummings Ave Gloucester ON K1J 7R8	SCT
Established: Plant Size (ft²): Employment:	01-AUG-55			
<u>Details</u> Description: SIC/NAICS Code:	Metal Window and I 332321	Door Manufacturing		
Description: SIC/NAICS Code:	Other Ornamental a 332329	and Architectural Met	al Product Manufacturing	
42 8 of 27	NW/241.5	73.9 / 0.00	Ambico Limited 1120 Cummings Avenue Ottawa ON	GEN
Generator No: SIC Code: SIC Description: Approval Years: PO Box No: Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:	ON5821952 321911 Wood Window and 06	Door Manufacturing		
<u>Detail(s)</u>				
Waste Class: Waste Class Name:	211 AROMATIC SOLVE	ENTS		
Waste Class:	252			

Мар Кеу	Numbe Record	r of Direction/ Is Distance (m)	Elev/Diff (m)	Site	DB
Waste Clas	s Name:	WASTE OILS & LU	JBRICANTS		
<u>42</u>	9 of 27	NW/241.5	73.9 / 0.00	Ambico Limited 1120 Cummings Avenue Ottawa K1J 7R8 CITY OF OTTAWA ON	EBR
EBR Regist Ministry Re Notice Type Notice Stag Proposal D Year: Instrument Off Instrum Posted By: Company M Site Addres Location O Proponent Proponent Comment F	try No: of No: e: ge: ate: ate: Type: nent Name: lame: ss: ther: Name: Address: Period:	011-5449 5049-8PDMPE Instrument Decision September 09, 2014 December 23, 2011 2011 (EPA Part II.1-air) Ambico Limited 1120 Cummings a	- Environmental C venue, Ottawa On	Decision Posted: Exception Posted: Section: Act 1: Act 2: Site Location Map: ompliance Approval (project type: air)	

Site Location Details:

1120 Cummings Avenue Ottawa K1J 7R8 CITY OF OTTAWA

<u>42</u>	10 of 27	NW/241.5	73.9 / 0.00	Ambico Limited 1120 Cummings Avenue Ottawa ON	GEN
Generator SIC Code: SIC Descri Approval Y PO Box No Country: Status: Co Admin: Choice of ( Phone No Contamina MHSW Fac	No: ears: : Contact: Admin: ted Facility: ility:	ON5821952 321911 Wood Window and 2009	Door Manufacturing		
<u>Detail(s)</u>					
Waste Clas Waste Clas	s: s Name:	145 PAINT/PIGMENT/C	COATING RESIDUES		
Waste Clas Waste Clas	s: s Name:	211 AROMATIC SOLVI	ENTS		
Waste Clas Waste Clas	s: s Name:	252 WASTE OILS & LU	IBRICANTS		
<u>42</u>	11 of 27	NW/241.5	73.9 / 0.00	Ambico Limited 1120 Cummings Avenue Ottawa ON	GEN

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Generator No SIC Code: SIC Descripti Approval Yea PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ad Contaminated MHSW Facilit	: on: rs: ntact: min: d Facility: y:	ON5821952 321911 Wood Window and 2010	Door Manufacturing		
<u>Detail(s)</u>					
Waste Class: Waste Class	Name:	145 PAINT/PIGMENT/C	OATING RESIDUES		
Waste Class: Waste Class	Name:	252 WASTE OILS & LUI	BRICANTS		
Waste Class: Waste Class	Name:	211 AROMATIC SOLVE	INTS		
<u>42</u>	12 of 27	NW/241.5	73.9 / 0.00	Ambico Limited 1120 Cummings Avenue Ottawa ON	GEN
Generator No SIC Code: SIC Descripti Approval Yea PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ad Contaminatee MHSW Facilit	: on: rs: ntact: min: d Facility: y:	ON5821952 321911 Wood Window and 2011	Door Manufacturing		
<u>Detail(s)</u>					
Waste Class: Waste Class	Name:	252 WASTE OILS & LUI	BRICANTS		
Waste Class: Waste Class	Name:	145 PAINT/PIGMENT/C	OATING RESIDUES		
Waste Class: Waste Class	Name:	211 AROMATIC SOLVE	INTS		
<u>42</u>	13 of 27	NW/241.5	73.9 / 0.00	Ambico Limited 1120 Cummings Avenue Ottawa ON	GEN
Generator No SIC Code: SIC Descripti Approval Yea PO Box No: Country: Status:	: on: rs:	ON5821952 321911 Wood Window and 2012	Door Manufacturing		
155	erisinfo.com   En	vironmental Risk Info	rmation Services		Order No: 23022400359

Map Key	Number Records	r of S	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Co Admin: Choice of Cor Phone No Adi Contaminated MHSW Facility	ntact: min: I Facility: y:					
<u>Detail(s)</u>						
Waste Class: Waste Class I	Name:		145 PAINT/PIGMENT/C	OATING RESID	UES	
Waste Class: Waste Class I	Name:		211 AROMATIC SOLVE	NTS		
Waste Class: Waste Class I	Name:		252 WASTE OILS & LUI	BRICANTS		
<u>42</u>	14 of 27		NW/241.5	73.9 / 0.00	Ambico Limited 1120 Cummings Ave Ottawa ON K1J 7R8	ECA
Approval No: Approval Date Status:	<del>9</del> :	3400-94X 8/22/14 Approved	LJ4		MOE District: City: Longitude:	Ottawa -75.6358333333333376913287793286144733 428955078125
Record Type: Link Source: SWP Area Na Approval Typ Project Type: Business Nan Address: Full Address: Full PDF Link PDF Site Loca	me: e: ne: : ation:		Air/Noise Ambico Limited Ambico Ltd. 1120 C	ummings A ve O	Latitude: Geometry X: Geometry Y: Pttawa City K1J 7R8	45.43138888888888888888970996049465611577033 99658203125
<u>42</u>	15 of 27		NW/241.5	73.9 / 0.00	Ambico Limited 1120 Cummings Aven Ottawa ON	ue GEN
Generator No SIC Code: SIC Descriptio Approval Yea PO Box No: Country: Status: Co Admin: Choice of Con Phone No Add Contaminated MHSW Facility	: rs: ntact: min: I Facility: y:		ON5821952 321911 WOOD WINDOW A 2013	ND DOOR MAN	UFACTURING	
<u>Detail(s)</u>						
Waste Class: Waste Class I	Name:		211 AROMATIC SOLVE	NTS		
Waste Class: Waste Class I	Name:		148 INORGANIC LABO	RATORY CHEM	ICALS	

Map Key	Number Record	r of Direction/ s Distance (m	Elev/Diff ) (m)	Site	DB
Waste Clas Waste Clas	ss: ss Name:	145 PAINT/PIGMENT	COATING RESID	UES	
Waste Clas Waste Clas	ss: ss Name:	252 WASTE OILS & I	LUBRICANTS		
Waste Clas Waste Clas	ss: ss Name:	232 POLYMERIC RE	SINS		
Waste Clas Waste Clas	ss: ss Name:	263 ORGANIC LABC	RATORY CHEMIC	ALS	
<u>42</u>	16 of 27	NW/241.5	73.9/0.00	Ambico Limited 1120 Cummings Avenue Ottawa K1J 7R8 CITY OF OTTAWA ON	EBR
EBR Regis Ministry Re Notice Typ Notice Stag	try No: ef No: e: ge: o:	012-2917 5484-9P3QL3 Instrument Decision		Decision Posted: Exception Posted: Section: Act 1:	
Proposal D Year:	e. Date:	October 28, 2014 2014		Site Location Map:	
Instrument Off Instrum Posted By:	t Type: nent Name:	(EPA Part II.1-air	) - Environmental C	Compliance Approval (project type: air)	
Company I Site Addre Location O Proponent	Name: ss: )ther: Name:	Ambico Limited			
Proponent Comment I URL:	Address: Period:	1120 Cummings	avenue, Ottawa Or	itario, Canada K1J 7R8	
Site Locati	on Details:				

1120 Cummings Avenue Ottawa K1J 7R8 CITY OF OTTAWA

ECA	Avenue R8	Ambico Limited 1120 Cummings A Ottawa ON K1J 7l	73.9/0.00	NW/241.5	17 of 27	<u>42</u>
		MOE District:		5887-9SHN85	No:	Approval N
	Ottawa	City:		1/8/15	Date:	Approval L
333333337691328779328614473 125	-75.63583333 42895507812	Longitude:		Approved		Status:
888888897099604946561157703 25	45.431388888 99658203125	Latitude:			pe:	Record Ty
		Geometry X:			ce:	Link Sourc
		Geometry Y:			Name:	SWP Area
					Гуре:	Approval 1
				Air/Noise	pe:	Project Typ
				Ambico Limited	Name:	Business I Address:
	J 7R8	venue Ottawa, Ontario K1	1120 Cummings A	Ambico Limited 1	ss: ink:	Full Addre Full PDF L
					ocation:	PDF Site L
ECA		Ambico Limited	73.9/0.00	NW/241.5	18 of 27	42

Мар Кеу	Number Record	r of Direction/ s Distance (	Elev/Diff m) (m)	Site		DB
				1120 Cummings Ottawa ON K1J 7	Ave TR8	
Approval No: Approval Date Status: Record Type: Link Source: SWP Area Na Approval Typ Project Type: Business Nar Address: Full Address: Full Address: Full PDF Link PDF Site Loca	e: me: me: ne: ation:	5887-9SHN85 2015-01-08 Approved ECA IDS Rideau Valley ECA-AIR AIR Ambico Limited 1120 Cumming https://www.ac	d js Ave cessenvironment.ene	MOE District: City: Longitude: Latitude: Geometry X: Geometry Y:	Ottawa -75.6358 45.43152 5484-9P3QL3-14.pdf	
<u>42</u>	19 of 27	NW/241.5	73.9 / 0.00	Ambico Limited 1120 Cummings Ottawa ON K1J 7	Ave 7R8	ECA
Approval No: Approval Date Status: Record Type: Link Source: SWP Area Na Approval Typ Project Type: Business Nar Address: Full Address: Full Address: Full PDF Link PDF Site Loce	e: me: e: me:  ation:	3400-94XLJ4 2014-08-22 Revoked and/or Replace ECA IDS Rideau Valley ECA-AIR AIR Ambico Limited 1120 Cumming https://www.ac	d gs Ave cessenvironment.ene	MOE District: City: Longitude: Latitude: Geometry X: Geometry Y:	Ottawa -75.6358 45.43152 5049-8PDMPE-14.pdf	
<u>42</u>	20 of 27	NW/241.5	73.9/0.00	Ambico Limited 1120 Cummings Ottawa ON K1J 7	Avenue 7R8	GEN
Generator No SIC Code: SIC Description Approval Yea PO Box No: Country: Status: Co Admin: Choice of Con Phone No Adm Contaminated MHSW Facility	: on: rs: ntact: min: d Facility: y:	ON5821952 321911 WOOD WINDO 2016 Canada CO_OFFICIAL No No	DW AND DOOR MAN	NUFACTURING		
<u>Detail(s)</u>						
Waste Class: Waste Class I	Name:	263 ORGANIC LAE	BORATORY CHEMIC	CALS		
Waste Class: Waste Class I	Name:	232 POLYMERIC F	RESINS			
Waste Class: Waste Class I	Name:	148 INORGANIC L	ABORATORY CHEM	1ICALS		

Map Key Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class: Waste Class Name:	252 WASTE OILS & LUI	BRICANTS		
Waste Class: Waste Class Name:	211 AROMATIC SOLVE	NTS		
Waste Class: Waste Class Name:	145 PAINT/PIGMENT/C	OATING RESIDUE	S	
42 21 of 27	NW/241.5	73.9 / 0.00	Ambico Limited 1120 Cummings Avenue Ottawa ON K1J 7R8	GEN
Generator No: SIC Code: SIC Description: Approval Years: PO Box No: Country: Status:	ON5821952 321911 WOOD WINDOW A 2015 Canada	ND DOOR MANUF	ACTURING	
Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:	CO_OFFICIAL No No			
<u>Detail(s)</u>				
Waste Class: Waste Class Name:	145 PAINT/PIGMENT/C	OATING RESIDUE	S	
Waste Class: Waste Class Name:	252 WASTE OILS & LUI	BRICANTS		
Waste Class: Waste Class Name:	148 INORGANIC LABO	RATORY CHEMICA	ALS	
Waste Class: Waste Class Name:	211 AROMATIC SOLVE	INTS		
Waste Class: Waste Class Name:	263 ORGANIC LABORA	TORY CHEMICAL	5	
Waste Class: Waste Class Name:	232 POLYMERIC RESII	NS		
42 22 of 27	NW/241.5	73.9 / 0.00	Ambico Limited 1120 Cummings Avenue Ottawa ON K1J 7R8	GEN
Generator No: SIC Code: SIC Description: Approval Years: PO Box No: Country: Status:	ON5821952 321911 WOOD WINDOW A 2014 Canada	ND DOOR MANUF.	ACTURING	
Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:	CO_OFFICIAL No No			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Detail(s)</u>					
Waste Class Waste Class	: Name:	263 ORGANIC LABORA	TORY CHEMICA	LS	
Waste Class Waste Class	: Name:	148 INORGANIC LABO	RATORY CHEMIC	CALS	
Waste Class Waste Class	: Name:	145 PAINT/PIGMENT/C	OATING RESIDUI	ES	
Waste Class Waste Class	: Name:	232 POLYMERIC RESII	NS		
Waste Class Waste Class	: Name:	211 AROMATIC SOLVE	INTS		
Waste Class Waste Class	: Name:	252 WASTE OILS & LUI	BRICANTS		
<u>42</u>	23 of 27	NW/241.5	73.9 / 0.00	Ambico Limited 1120 Cummings Avenue Ottawa ON K1J 7R8	GEN
Generator No SIC Code:	o:	ON5821952			
Approval Yes PO Box No:	ion: ars:	As of Dec 2018			
Country: Status: Co Admin: Choice of Cc Phone No Ad Contaminate MHSW Facili	ontact: Imin: Id Facility: ity:	Canada Registered			
<u>Detail(s)</u>					
Waste Class Waste Class	: Name:	145 H Wastes from the use	e of pigments, coa	tings and paints	
Waste Class Waste Class	: Name:	145 I Wastes from the use	e of pigments, coa	tings and paints	
Waste Class Waste Class	: Name:	148 L Misc. wastes and in	organic chemicals		
Waste Class Waste Class	: Name:	211 B Aromatic solvents a	nd residues		
Waste Class Waste Class	: Name:	232 C Polymeric resins			
Waste Class Waste Class	: Name:	232 L Polymeric resins			
Waste Class Waste Class	: Name:	252 L Waste crankcase oi	ls and lubricants		
Waste Class Waste Class	: Name:	263 I Misc. waste organic	chemicals		

Map Key	Numbe Record	r of Direction/ s Distance (m)	Elev/Diff (m)	Site		DB
<u>42</u>	24 of 27	NW/241.5	73.9 / 0.00	AMBICO LIMITED 1120 CUMMINGS GLOUCESTER ON	AVE N K1J 7R8	EASR
Approval No Status: Date: Record Type Link Source: Project Type Full Address Approval Ty SWP Area N PDF URL: PDF Site Loo	o: : : : : : : : : : : : : : : : : : :	R-010-1110351691 REGISTERED 2018-01-31 EASR MOFA Air Emissions EASR-Air Emission Rideau Valley	15	MOE District: Municipality: Latitude: Longitude: Geometry X: Geometry Y:	Ottawa GLOUCESTER 45.42916667 -75.63416667	
<u>42</u>	25 of 27	NW/241.5	73.9/0.00	Ambico Limited 1120 Cummings A Ottawa ON K1J 7H	Avenue R8	GEN
Generator No SIC Code: SIC Descript Approval Ye PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ad Contaminate MHSW Facili	o: tion: ars: ontact: dmin: ed Facility: ity:	ON5821952 As of Jul 2020 Canada Registered				
<u>Detail(s)</u>						
Waste Class Waste Class	: Name:	211 B Aromatic solvents a	and residues			
Waste Class Waste Class	: Name:	263 L Misc. waste organio	c chemicals			
Waste Class Waste Class	: Name:	232 L Polymeric resins				
Waste Class Waste Class	: Name:	145 H Wastes from the us	se of pigments, co	patings and paints		
Waste Class Waste Class	: Name:	148 L Misc. wastes and ir	norganic chemica	s		
Waste Class Waste Class	: Name:	232 C Polymeric resins				
Waste Class Waste Class	: Name:	263 I Misc. waste organie	c chemicals			
Waste Class Waste Class	: Name:	145 I Wastes from the us	se of pigments, co	atings and paints		
Waste Class Waste Class	: Name:	252 L Waste crankcase o	ils and lubricants			

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>42</u>	26 of 27	NW/241.5	73.9 / 0.00	Ambico Limited 1120 Cummings Avenue Ottawa ON K1J 7R8	GEN
Generator N SIC Code:	lo:	ON5821952			
SIC Descrip Approval Ye PO Box No:	tion: ears:	As of Nov 2021			
Country: Status: Co Admin: Choice of Co Phone No A Contaminate MHSW Facil	ontact: dmin: ed Facility: ity:	Canada Registered			
<u>Detail(s)</u>					
Waste Class Waste Class	s: s Name:	145 H Wastes from the us	se of pigments, coa	tings and paints	
Waste Class Waste Class	s: s Name:	263 I Misc. waste organie	c chemicals		
Waste Class Waste Class	s: s Name:	232 L Polymeric resins			
Waste Class Waste Class	s: s Name:	145 I Wastes from the us	se of pigments, coa	tings and paints	
Waste Class Waste Class	s: s Name:	148 L Misc. wastes and ir	norganic chemicals		
Waste Class Waste Class	s: s Name:	263 L Misc. waste organio	c chemicals		
Waste Class Waste Class	s: s Name:	252 L Waste crankcase o	ils and lubricants		
Waste Class Waste Class	s: s Name:	232 C Polymeric resins			
Waste Class Waste Class	s: s Name:	211 B Aromatic solvents a	and residues		
<u>42</u>	27 of 27	NW/241.5	73.9 / 0.00	Ambico Limited 1120 Cummings Avenue Ottawa ON K1J 7R8	GEN
Generator N SIC Code:	lo:	ON5821952			
SIC Descrip Approval Ye PO Box No:	tion: ears:	As of Oct 2022			
Country: Status: Co Admin: Choice of Co Phone No A Contaminate MHSW Facil	ontact: dmin: ed Facility: ity:	Canada Registered			

Мар Кеу	Number Records	of Direction/ Distance (m)	Elev/Diff (m)	Site		DB		
<u>Detail(s)</u>								
Waste Class: Waste Class	Name:	232 C POLYMERIC RESIN	٧S					
Waste Class: Waste Class	Name:	145 H PAINT/PIGMENT/C	OATING RESIDU	ES				
Waste Class: Waste Class	Name:	211 B AROMATIC SOLVE	NTS					
Waste Class: Waste Class	Name:	148 L INORGANIC LABOI	RATORY CHEMIC	CALS				
Waste Class: Waste Class	Name:	145 I PAINT/PIGMENT/C	OATING RESIDU	ES				
Waste Class: Waste Class	Name:	232 L POLYMERIC RESIN	NS					
Waste Class:252 LWaste Class Name:WASTE OILS & LUBRICANTS								
Waste Class: 263 L   Waste Class Name: ORGANIC LABORATORY CHEMICALS								
Waste Class: Waste Class	Name:	263 I ORGANIC LABORA	263 I ORGANIC LABORATORY CHEMICALS					
<u>43</u>	1 of 2	WSW/242.3	71.9/-2.00	1059 Ogilvie Road Gloucester ON K1J 75	56	EHS		
Order No: Status: Report Type: Report Date: Date Receive Previous Site Lot/Building Additional In	ed: e Name: Size: fo Ordered:	21062900038 C RSC Report (Urban) 05-JUL-21 29-JUN-21		Nearest Intersection: Municipality: Client Prov/State: Search Radius (km): X: Y:	ON .3 -75.63529262 45.42610701			
<u>43</u>	2 of 2	WSW/242.3	71.9/-2.00	1059 Ogilvie Road Gloucester ON K1J 75	56	EHS		
Order No: Status: Report Type: Report Date: Date Receive Previous Site Lot/Building Additional In	ed: e Name: Size: fo Ordered:	21062900038 C RSC Report (Urban) 05-JUL-21 29-JUN-21		Nearest Intersection: Municipality: Client Prov/State: Search Radius (km): X: Y:	ON .3 -75.63529262 45.42610701			
<u>44</u>	1 of 2	S/243.3	72.2 / -1.68	1098 Ogilvie Road and Gloucester ON K1J 7F	d 1178 Cummings Avenue 28	EHS		
Order No: Status: Report Type: Report Date: Date Receive	ed:	21071700001 C Standard Report 21-JUL-21 17-JUL-21		Nearest Intersection: Municipality: Client Prov/State: Search Radius (km): X:	ON .25 -75.6322221			

erisinfo.com | Environmental Risk Information Services

Order No: 23022400359

Map Key	Number Records	of Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Previous Site Lot/Building Additional In	e Name: Size: Ifo Ordered:	Aerial Photos		Y:	45.424839	
<u>44</u>	2 of 2	S/243.3	72.2 / -1.68	1098 Ogilvie Road an Gloucester ON K1J 7l	d 1178 Cummings Avenue P8	EHS
Order No: Status: Report Type. Report Date: Date Receive Previous Site Lot/Building Additional In	ed: e Name: Size: fo Ordered:	21071700001 C Standard Report 21-JUL-21 17-JUL-21 Aerial Photos		Nearest Intersection: Municipality: Client Prov/State: Search Radius (km): X: Y:	ON .25 -75.6322221 45.424839	
Additional in	no ordered.	Achar hous				
<u>45</u>	1 of 11	E/246.4	74.8 / 0.88	ST. LAURENT FUNER 1200 OGILVIE ROAD GLOUCESTER ON K1	PAL HOME	GEN
Generator No SIC Code: SIC Descript Approval Yea PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ao Contaminate MHSW Facili	o: ion: ars: ontact: dmin: ed Facility: ity:	ONF008100 0008 EXEMPT 88,89,90				
<u>45</u>	2 of 11	E/246.4	74.8 / 0.88	ST. LAURENT FUNER 1200 OGILVIE ROAD GLOUCESTER ON K1	2AL HOME 44-081 J 8V1	GEN
Generator No SIC Code: SIC Descript Approval Ye PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ad Contaminate MHSW Facili	o: ion: ars: ontact: dmin: ed Facility: ity:	ONF008100 0008 EXEMPT 92,93,94				
<u>45</u>	3 of 11	E/246.4	74.8 / 0.88	HULSE PLAYFAIR & I 1200 OGILVIE ROAD GLOUCESTER ON K1	MCGARRY J 8V1	GEN
Generator No SIC Code: SIC Descript Approval Ye PO Box No: Country: Status:	o: ion: ars:	ONF022701 9731 FUNERAL HOMES 95,96,97,98,99				

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Co Admin: Choice of Co Phone No Ao Contaminate MHSW Facili	ntact: Imin: d Facility: ty:				
<u>Detail(s)</u>					
Waste Class Waste Class	Name:	312 PATHOLOGICAL W	ASTES		
<u>45</u>	4 of 11	E/246.4	74.8 / 0.88	HULSE, PLAYFAIR & MCGARRY 1200 OGILVIE ROAD GLOUCESTER ON K1J 8V1	GEN
Generator No SIC Code: SIC Descript Approval Yea PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ad Contaminate MHSW Facili	o: ion: ars: ntact: Imin: d Facility: ty:	ONF022701 9731 FUNERAL HOMES 00,01			
<u>Detail(s)</u>					
Waste Class Waste Class	Name:	312 PATHOLOGICAL W	ASTES		
<u>45</u>	5 of 11	E/246.4	74.8 / 0.88	HULSE, PLAYFAIR & MCGARRY INC. 1200 OGILVIE ROAD OTTAWA ON K1J 8V1	GEN
Generator No SIC Code:	o:	ONF022701			
SIC Descript Approval Yee PO Box No: Country: Status: Co Admin: Choice of Co Phone No Ad Contaminate MHSW Facili	ion: ars: ontact: Imin: d Facility: ty:	02,03,04,05,06,07,0	8		
<u>Detail(s)</u>					
Waste Class Waste Class	Name:	312 PATHOLOGICAL W	ASTES		
<u>45</u>	6 of 11	E/246.4	74.8 / 0.88	HULSE, PLAYFAIR & MCGARRY INC. 1200 OGILVIE ROAD OTTAWA ON K1J 8V1	GEN
Generator No SIC Code:	D:	ONF022701 812210			
165	erisinfo.com   En	vironmental Risk Info	rmation Service	5	Order No: 23022400359

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
SIC Descripti Approval Yea PO Box No: Country: Status: Co Admin: Choice of Con Phone No Ad Contaminated MHSW Facilit	on: rs: ntact: min: d Facility: y:	Funeral Homes 2010			
<u>Detail(s)</u>					
Waste Class: Waste Class	Name:	312 PATHOLOGICAL W	ASTES		
<u>45</u>	7 of 11	E/246.4	74.8 / 0.88	HULSE, PLAYFAIR & MCGARRY INC. 1200 OGILVIE ROAD OTTAWA ON K1J 8V1	GEN
Generator No SIC Code: SIC Descripti Approval Yea PO Box No: Country: Status: Co Admin: Choice of Con Phone No Ad Contaminated MHSW Facilit	: on: rs: ntact: min: d Facility: y:	ONF022701 812210 Funeral Homes 2011			
<u>Detail(s)</u>					
Waste Class: Waste Class	Name:	312 PATHOLOGICAL W	ASTES		
<u>45</u>	8 of 11	E/246.4	74.8 / 0.88	HULSE, PLAYFAIR & MCGARRY INC. 1200 OGILVIE ROAD OTTAWA ON K1J 8V1	GEN
Generator No SIC Code: SIC Descripti Approval Yea PO Box No: Country: Status: Co Admin: Choice of Cou Phone No Ad Contaminated MHSW Facilit	: on: rs: ntact: min: d Facility: y:	ONF022701 812210 Funeral Homes 2012			
<u>Detail(s)</u>					
Waste Class: Waste Class	Name:	312 PATHOLOGICAL W	ASTES		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>45</u>	9 of 11	E/246.4	74.8 / 0.88	Hulse, Playfair & McGarry 1200 Ogilvie Rd. Ottawa ON K1J 8V1	GEN
Generator No SIC Code: SIC Descript Approval Yea	o: ion: ars:	ON7369472 812210 812210 2016			
Country: Status:		Canada			
Choice of Co Phone No Ac	ontact: Imin:	CO_OFFICIAL			
Contaminate MHSW Facili	d Facility: ty:	No No			
<u>Detail(s)</u>					
Waste Class Waste Class	: Name:	312 PATHOLOGICAL V	VASTES		
Waste Class Waste Class	: Name:	252 WASTE OILS & LU	BRICANTS		
<u>45</u>	10 of 11	E/246.4	74.8 / 0.88	Hulse, Playfair & McGarry 1200 Ogilvie Rd. Ottawa ON K1J 8V1	GEN
Generator No SIC Code: SIC Descript	o: ion:	ON7369472			
Approval Yea PO Box No: Country:	ars:	As of Dec 2018 Canada			
Status: Co Admin: Choice of Co Phone No Ao Contaminate MHSW Facili	ontact: Imin: d Facility: ty:	Registered			
<u>Detail(s)</u>					
Waste Class Waste Class	: Name:	252 H Waste crankcase o	ils and lubricants		
Waste Class Waste Class	: Name:	312 P Pathological wastes	5		
<u>45</u>	11 of 11	E/246.4	74.8 / 0.88	Hulse, Playfair & McGarry 1200 Ogilvie Rd. Ottawa ON K1J 8V1	GEN
Generator No SIC Code: SIC Descript	o: ion:	ON7369472			
Approval Yea PO Box No:	ars:	As of Oct 2022			
Country: Status: Co Admin: Choice of Co	ontact:	Canada Registered			

Мар Кеу	Number Records	r of S	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Phone No Ad Contaminated MHSW Facilit	lmin: d Facility: ty:						
<u>Detail(s)</u>							
Waste Class: Waste Class	Name:		312 P PATHOLOGICAL W	ASTES			
Waste Class: Waste Class	Name:		252 H WASTE OILS & LU	BRICANTS			
<u>46</u>	1 of 1		N/248.8	74.9 / 1.00	Gignul Non Profit Hou 1043 Cummings Aven Ottawa ON K1J 7R8	using Corporation ue	GEN
Generator No SIC Code: SIC Descripti Approval Yea PO Box No: Country: Status: Co Admin: Choice of Co. Phone No Ad Contaminate MHSW Facilit	o: ion: ars: ntact: Imin: d Facility: ty:		ON8012313 531112 531112 2016 Canada jim Smith CO_ADMIN 6137452444 Ext.24 No No	1			
<u>Detail(s)</u>							
Waste Class: Waste Class	Name:		251 OIL SKIMMINGS &	SLUDGES			
<u>47</u>	1 of 2		NNW/248.9	74.9 / 1.00	1043 CUMMINGS AVE Ottawa ON		WWIS
Well ID: Construction Use 1st: Use 2nd: Final Well Sta Water Type: Casing Mater Audit No: Tag: Constructn IN Elevation (m) Elevation (m) Eleva	Date: atus: rial: lethod: bilty: lrock: Bedrock: Level: :	7159001 Test Hole Test Hole Z127791 A108203	OTTAWA CITY		Flowing (Y/N): Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	10-Feb-2011 00:00:00 TRUE 6964 7 OTTAWA-CARLETON	
PDF URL (Ma	np):		https://d2khazk8e83	Brdv.cloudfront.ne	et/moe_mapping/downloads/2	Water/Wells_pdfs/715\7159001.pdf	

Additional Detail(s) (Map)

	Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
_	Well Complete Year Complete Depth (m): Latitude: Longitude: Path:	ed Date: ed:	2011/01/06 2011 4.77 45.4292011621791 -75.6332148523521 715\7159001.pdf				
	Bore Hole Info	ormation					
	Bore Hole ID: DP2BR: Spatial Status Code OB: Code OB Desc Open Hole: Cluster Kind: Date Complete Remarks: Loc Method DD Elevrc Desc: Location Sour Improvement Source Revisi Supplier Com	1003472 : ed: 06-Jan-2 esc: esc: Location Source: Location Method: on Comment: ment:	2030 2011 00:00:00 on Water Well Reco	rd	Elevation: Elevrc: Zone: East83: North83: Org CS: UTMRC: UTMRC Desc: Location Method:	18 450467.00 5030826.00 UTM83 3 margin of error : 10 - 30 m wwr	
	<u>Overburden al</u> Materials Inter	nd Bedrock rval					
	Formation ID: Layer: Color: General Color, Mat1: Most Commor Mat2: Mat2 Desc: Mat3: Mat3 Desc: Formation End Formation End	: n Material: o Depth: d Depth: d Depth UOM:	1003768748 1 02 TOPSOIL 0.0 0.079999998211860 m	66			
	<u>Overburden al</u> Materials Inter	nd Bedrock wal					
	Formation ID: Layer: Color: General Color Mat1: Most Commor Mat2: Mat2 Desc: Mat3: Mat3 Desc: Formation Top Formation End	: n Material: o Depth: d Depth: d Depth UOM:	1003768749 2 6 BROWN 28 SAND 84 SILTY 0.079999998211860 1.470000028610229 m	66 5			
	<u>Overburden al</u>	nd Bedrock					

Materials Interval

Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Formation ID: Layer: Color: General Color Mat1: Most Commol	: n Material:	1003768750 3 8 BLACK 17 SHALE			
Mat2: Mat2 Desc: Mat3: Mat3 Desc:		26 ROCK			
Formation Top Formation End Formation End	o Depth: d Depth: d Depth UOM:	1.470000028610229 4.769999980926514 m			
<u>Annular Space</u> <u>Sealing Recor</u>	e/Abandonment_ d				
Plug ID: Layer: Plug From: Plug To: Plug Depth U0	DM:	1003768759 1 0.0 2.160000085830688 m	5		
<u>Annular Space</u> Sealing Recor	e/Abandonment d				
Plug ID: Layer: Plug From: Plug To: Plug Depth U0	DM:	1003768760 2 2.160000085830688 4.769999980926514 m	5		
<u>Method of Col Use</u>	nstruction & Well				
Method Const Method Const Method Const Other Method	ruction ID: ruction Code: ruction: Construction:	1003768757 7 Diamond			
<u>Pipe Informati</u>	<u>on</u>				
<i>Pipe ID: Casing No: Comment: Alt Name:</i>		1003768747 0			
<b>Construction</b>	Record - Casing				
Casing ID: Layer: Material: Open Hole or Depth From: Depth To: Casing Diame Casing Diame Casing Depth	Material: ter: ter UOM: UOM:	1003768754 1 5 PLASTIC 0.0 2.450000047683716 3.5 cm m	i -		

## Construction Record - Screen

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Мар Кеу	Number Records	of Direct Distar	ion/ nce (m)	Elev/Diff (m)	Site		DB
Screen ID: Layer: Slot: Screen Top L Screen End L Screen Mater Screen Deptf Screen Diam Screen Diam	Depth: Depth: rial: n UOM: eter UOM: eter:	10037687 1 10 2.450000 4.769999 5 m cm 4.0999999	55 047683716 080926514 904632568				
Water Details	2						
Water ID: Layer: Kind Code: Kind:		10037687	53				
Water Found Water Found	Depth: Depth UON	<b>1</b> : m					
Hole Diamete	<u>er</u>						
Hole ID: Diameter: Depth From: Depth To: Hole Depth U Hole Diamete	IOM: er UOM:	10037687 7.5 0.0 1.5 m cm	51				
Hole Diamete	er						
Hole ID: Diameter: Depth From: Depth To: Hole Depth U Hole Diamete	IOM: er UOM:	10037687 5.6999999 1.5 4.7699999 m cm	52 309265137 980926514				
<u>Links</u>							
Bore Hole ID: Depth M: Year Comple Well Complet Audit No:	ted: ted Dt:	1003472030 4.77 2011 2011/01/06 Z127791			Tag No: Contractor: Path: Latitude: Longitude:	A108203 6964 715\7159001.pdf 45.4292011621791 -75.6332148523521	
<u>47</u>	2 of 2	NNW/24	8.9	74.9 / 1.00	1043 CUMMINGS AVE OTTAWA ON		WWIS
Well ID: Construction Use 1st: Use 2nd: Final Well Sta Water Type: Casing Mater Audit No: Tag: Constructn M Elevation (m) Elevatn Relia Depth to Bed	Date: atus: rial: lethod: ): bilty: lrock:	7163230 Abandoned-Other Z119818			Flowing (Y/N): Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession:	18-May-2011 00:00:00 TRUE Yes 1119 7 OTTAWA-CARLETON	

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Мар Кеу	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Well Depth: Overburden/E Pump Rate: Static Water I Clear/Cloudy. Municipality: Site Info:	Bedrock: .evel:	GLOUCESTER TOV	VNSHIP	Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:		
PDF URL (Ma	p):	https://d2khazk8e83	rdv.cloudfront.n	et/moe_mapping/downloads/	/2Water/Wells_pdfs/716\7163230.pdf	
Additional De	<u>tail(s) (Map)</u>					
Well Complet Year Complet Depth (m): Latitude: Longitude: Path:	ed Date: ed:	2011/04/06 2011 45.4292011621791 -75.6332148523521 716\7163230.pdf				
Bore Hole Inf	ormation					
Bore Hole ID: DP2BR: Spatial Status Code OB: Code OB Des Open Hole: Cluster Kind: Date Complet Remarks: Loc Method I Elevrc Desc: Location Sou Improvement Improvement Source Revis Supplier Com	1003510 :: c: ed: 06-Apr-2 Desc: rce Date: Location Source: Location Method: ion Comment: ment:	532 011 00:00:00 on Water Well Reco	rd	Elevation: Elevrc: Zone: East83: North83: Org CS: UTMRC: UTMRC Desc: Location Method:	18 450467.00 5030826.00 UTM83 3 margin of error : 10 - 30 m wwr	
<u>Annular Spac</u> Sealing Reco	<u>e/Abandonment</u> r <u>d</u>					
Plug ID: Layer: Plug From: Plug To: Plug Depth U	ОМ:	1003900062 1 0.0 4.0 ft				
<u>Annular Spac</u> Sealing Reco	e/Abandonment rd					
Plug ID: Layer: Plug From: Plug To: Plug Depth U	ОМ:	1003900063 2 4.0 15.0 ft				
<u>Method of Co</u> <u>Use</u>	nstruction & Well					
Method Cons Method Cons Method Cons	truction ID: truction Code: truction:	1003900061				
172	erisinfo.com   Envir	ronmental Risk Info	mation Servic	es	Order No: 2302240	0359

Мар Кеу	Numbe Record	r of s	Direction/ Distance (m)	Elev/Diff (m)	Site		DB
Other Metho	d Construc	tion:					
<u>Pipe Informa</u>	<u>tion</u>						
Pipe ID: Casing No: Comment: Alt Name:			1003900055 0				
<b>Construction</b>	n Record - (	Casing					
Casing ID: Layer: Material: Open Hole of	r Material:		1003900059				
Depth From: Depth To: Casing Diam Casing Diam Casing Dept	eter: eter UOM: h UOM:		inch ft				
<b>Construction</b>	Record - S	Screen					
Screen ID: Layer: Slot:	Doméha		1003900060				
Screen Top I Screen End I Screen Mate Screen Depti Screen Diam Screen Diam	Depth: Depth: rial: h UOM: eter UOM: eter:		ft inch				
Water Details	5						
Water ID: Layer: Kind Code:			1003900058				
Kind: Water Found Water Found	l Depth: l Depth UO	М:	ft				
Hole Diamete	<u>er</u>						
Hole ID: Diameter: Depth From:			1003900057				
Hole Depth L Hole Depth L Hole Diamete	IOM: er UOM:		ft inch				
<u>Links</u>							
Bore Hole ID Depth M: Year Comple Well Comple Audit No:	: eted: ted Dt:	1003510 2011 2011/04 Z119818	)532 /06 }		Tag No: Contractor: Path: Latitude: Longitude:	1119 716\7163230.pdf 45.4292011621791 -75.6332148523521	

## Unplottable Summary

## Total: 42 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
CA	CARL W. MADIGAN	CUMMINGS AVE.	GLOUCESTER CITY ON	
СА	CARL W. MADIGAN	CUMMINGS AVE.	GLOUCESTER CITY ON	
СА	EASTERN ONTARIO LAND TRUST INC.	OGILVIE RD.	GLOUCESTER CITY ON	
CA	CITY	CUMMINGS AVE.	GLOUCESTER CITY ON	
СА		Ogilvie Rd., Part of Rd. Allowance	Gloucester ON	
CA		Lot 25 & 26, Concession 1	Ottawa ON	
CA		Lot 25 & 26, Concession 1	Ottawa ON	
CA	GLOUCESTER CITY	CUMMINGS AVE	GLOUCESTER CITY ON	
CA	CARL W. MADIGAN	CUMMINGS AVE.	GLOUCESTER CITY ON	
CA	670669 ONTARIO LTD.	CUMMINGS AVE. NON PROFIT HOUS	GLOUCESTER CITY ON	
CA	BEAUFORT BUILDING INC.	E. S. OF CUMMINGS AVE.	GLOUCESTER CITY ON	
CA	EASTERN ONTARIO LAND TRUST INC.	OGILVIE RD.	GLOUCESTER CITY ON	
CA	CARL W. MADIGAN	CUMMINGS AVE.	GLOUCESTER CITY ON	
CA	Triangle Pump Service Limited	Mobile Unit	Ottawa ON	
CA	670669 ONTARIO LTD.	CUMMINGS AVE. NON PROFIT HOUSI	GLOUCESTER CITY ON	
CA	St. Joseph Print Shop	Part of Lots 25 and 26, Concession 2	Ottawa ON	
EBR	Triangle Pump Service Limited	Mobile Unit Ottawa CITY OF OTTAWA	ON	
ECA	Triangle Pump Service Limited	Mobile Unit	Ottawa ON	K1T 3V6

GEN	NATIONAL CAPITAL COMMISSION	LOT 25,26,27	OTTAWA ON	K1P 1C7
SPL	Eric Olmsted <unofficial></unofficial>	At Cummings Ave	Ottawa ON	
SPL	TEXACO	OTTAWA RIVER, OUTFALL AT END OF OGILVIE RD. BULK STATION	GLOUCESTER CITY ON	
SPL	Triangle Pump Service Limited		Ottawa ON	
SPL	BUS	OGILVIE RD. & OTHERS MOTOR VEHICLE (OPERATING FLUID)	GLOUCESTER CITY ON	
SPL	UNKNOWN	NORTH END OF OGILVIE RD. AT THE OTTAWA RIVER OUTFALL.	GLOUCESTER CITY ON	
WWIS		lot 27	ON	
WWIS		con 1	ON	
WWIS		lot 27	ON	
WWIS		lot 25	ON	
WWIS		lot 25	ON	
WWIS		lot 27	ON	
WWIS		con 1	ON	
WWIS		lot 27	ON	
WWIS		lot 25	ON	
WWIS		lot 25	ON	
WWIS		con 1	ON	
WWIS		lot 26	ON	
WWIS		lot 26	ON	
WWIS		lot 26	ON	
WWIS		lot 27	ON	
WWIS		lot 27	ON	
WWIS		lot 26	ON	

## **Unplottable Report**

#### <u>Site:</u> CARL W. MADIGAN CUMMINGS AVE. GLOUCESTER CITY ON

Certificate #: Application Year: Issue Date: Approval Type: Status: Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: Emission Control:

# CARL W. MADIGAN

CUMMINGS AVE. GLOUCESTER CITY ON

Certificate #: Application Year: Issue Date: Approval Type: Status: Application Type: Client Name: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: Emission Control:

Site:

7-0958-88-88 7/5/1988 Municipal water Approved

7-0081-88-

Municipal water Approved

88 2/9/1988

#### <u>Site:</u> EASTERN ONTARIO LAND TRUST INC. OGILVIE RD. GLOUCESTER CITY ON

Certificate #: Application Year: Issue Date: Approval Type: Status: Application Type: Client Name: Client Address: Client Address: Client City: Client Postal Code: Project Description: Contaminants: Emission Control: 7-1485-88-88 9/13/1988 Municipal water Approved

Database:

Database: CA

Database:

<u>Site:</u>	CITY CUMMINGS AVE.	GLOUCESTER CITY ON	Database: CA
Certific Applica	ate #: ntion Year:	3-0371-85-006 85	



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Order No: 23022400359

Issue Date: Approval Type: Status: Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: Emission Control: 5/2/85 Municipal sewage Approved

#### Site:

#### Ogilvie Rd., Part of Rd. Allowance Gloucester ON

Certificate #: 7032-4H8TJA Application Year: 00 3/11/00 Issue Date: Municipal & Private sewage Approval Type: Status: Approved Application Type: New Certificate of Approval Client Name: Anglican Church Of The Epiphany Client Address: 24 Steel St. Client City: Gloucester **Client Postal Code: Project Description:** Construction of sanitary sewers along Ogilvie Rd.. Contaminants: Emission Control:

#### Site:

#### Lot 25 & 26, Concession 1 Ottawa ON

Certificate #:	6524-4QHTM6
Application Year:	00
Issue Date:	10/30/00
Approval Type:	Municipal & Private sewage
Status:	Approved
Application Type:	New Certificate of Approval
Client Name:	1270449 Ontario Inc.
Client Address:	1187 Bank Street
Client City:	Ottawa
Client Postal Code:	K1S 3X7
Project Description:	storm sewers construction on Saundres Ave; sanitary sewers construction on Pooler Ave, Orvigale Road, Porter St.
Contaminants:	

Emission Control:

#### Site:

#### Lot 25 & 26, Concession 1 Ottawa ON

Certificate #: Application Year: Issue Date: Approval Type: Status: Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: Emission Control: 3510-4QHTRG 00 10/30/00 Municipal & Private water Approved New Certificate of Approval 1270449 Ontario Inc. 1187 Bank Street Ottawa K1S 3X7 watermain construction on pooler ave, orvigale road, porter st.

Database: CA



Database:

#### <u>Site:</u> GLOUCESTER CITY CUMMINGS AVE GLOUCESTER CITY ON

Certificate #: Application Year: Issue Date: Approval Type: Status: Application Type: Client Name: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: Emission Control: 3-1611-86-86 10/23/1986 Municipal sewage Approved

#### <u>Site:</u> CARL W. MADIGAN CUMMINGS AVE. GLOUCESTER CITY ON

Certificate #: Application Year: Issue Date: Approval Type: Status: Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: Emission Control: 3-1114-88-88 7/5/1988 Municipal sewage Approved

### <u>Site:</u> 670669 ONTARIO LTD. CUMMINGS AVE. NON PROFIT HOUS GLOUCESTER CITY ON

Certificate #: Application Year: Issue Date: Approval Type: Status: Application Type: Client Name: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: Emission Control: 7-1300-87-87 9/4/1987 Municipal water Approved

#### <u>Site:</u> BEAUFORT BUILDING INC. E. S. OF CUMMINGS AVE. GLOUCESTER CITY ON

Certificate #: Application Year: Issue Date: Approval Type: Status: Application Type: Client Name: Client Address: Client City: Client Postal Code: 3-1989-88-88 4/6/1989 Municipal sewage Approved in 1989



Database: CA

Database:

Database: CA

#### <u>Site:</u> EASTERN ONTARIO LAND TRUST INC. OGILVIE RD. GLOUCESTER CITY ON

Certificate #: Application Year: Issue Date: Approval Type: Status: Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: Emission Control: 3-1727-88-88 9/13/1988 Municipal sewage Approved

#### <u>Site:</u> CARL W. MADIGAN CUMMINGS AVE. GLOUCESTER CITY ON

Certificate #: Application Year: Issue Date: Approval Type: Status: Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: Emission Control: 3-0090-88-88 2/9/1988 Municipal sewage Approved

#### <u>Site:</u> Triangle Pump Service Limited Mobile Unit Ottawa ON

Certificate #: Application Year: Issue Date: Approval Type: Status: Application Type: Client Name: Client Address: Client Address: Client City: Client Postal Code: Project Description: Contaminants: Emission Control: 7640-7H4H53 2008 9/26/2008 Industrial Sewage Works Approved

#### <u>Site:</u> 670669 ONTARIO LTD. CUMMINGS AVE. NON PROFIT HOUSI GLOUCESTER CITY ON

Certificate #: Application Year: Issue Date: Approval Type: Status: 3-1553-87-87 9/4/1987 Municipal sewage Approved

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Database: CA

Database:

Database: CA





Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: Emission Control:

<u>Site:</u>

#### St. Joseph Print Shop Part of Lots 25 and 26, Concession 2 Ottawa ON



Database:

EBR

Certificate #:	4747-52XKCD
Application Year:	01
Issue Date:	10/22/01
Approval Type:	Industrial sewage
Status:	Approved
Application Type:	New Certificate of Approval
Client Name:	St. Joseph Print Group Inc.
Client Address:	50 Macintosh Boulevard
Client City:	Concord
Client Postal Code:	L4K 4P3
Project Description:	On-site stormwater storage provided by ponding on the roof, in parking and loading areas and in super-pipes below the parking area. An orifice control will be used to control the release of stormwater from the whole site prior to entering the City's existing storm sewer system in Kenaston Road. Stormwater quality control will be provided through a Stormceptor STC9000 for the whole site area prior to release into the City's existing storm sewer system in Kenaston Road. The site will be serviced using existing watermain and sanitary sewer systems in Kenaston Road. Where possible grass swales will be used to provide erosion and sediment control.
Contaminants:	

Emission Control:

#### <u>Site:</u> Triangle Pump Service Limited Mobile Unit Ottawa CITY OF OTTAWA ON

EBR Registry No: Ministry Ref No: Notice Type: Natice Stage:	010-3624 0746-7EFKGT Instrument Decision	Decision Posted: Exception Posted: Section: Act 1:
Notice Date:	October 20, 2008	Act 2:
Proposal Date:	May 21, 2008	Site Location Map:
Year:	2008	
Instrument Type:	(OWRA s. 53(1)) - Appro	val for sewage works
Off Instrument Name:		
Posted By:		
Company Name:	Triangle Pump Service Li	imited
Site Address:		
Location Other:		
Proponent Name:		
Proponent Address:	2565 Delzotto Avenue, G	loucester Ontario, Canada K1T 3V6
Comment Period:		
URL:		

Site Location Details:

Mobile Unit Ottawa CITY OF OTTAWA

<u>Site:</u> Triangle Pu	mp Service Limited		Database:
Mobile Unit	Ottawa ON K1T 3V6		ECA
Approval No:	7640-7H4H53	<i>MOE District:</i>	
Approval Date:	2008-09-26	City:	
Status:	Approved	Longitude:	
Record Type:	ECA	Latitude:	
Link Source:	IDS	Geometry X:	

#### Geometry Y:

SWP Area Name: Approval Type: Project Type: Business Name: Address: Full Address: Full Address: Full PDF Link: PDF Site Location:

ECA-INDUSTRIAL SEWAGE WORKS INDUSTRIAL SEWAGE WORKS Triangle Pump Service Limited Mobile Unit

https://www.accessenvironment.ene.gov.on.ca/instruments/0746-7EFKGT-14.pdf

#### <u>Site:</u> NATIONAL CAPITAL COMMISSION LOT 25,26,27 OTTAWA ON K1P 1C7

ON9920165

Other Heritage Institutions

712190

2010



Database:

SPL

Generator No: SIC Code: SIC Description: Approval Years: PO Box No: Country: Status: Co Admin: Choice of Contact: Phone No Admin: Contaminated Facility: MHSW Facility:

Detail(s)

Waste Class:	221
Waste Class Name:	LIGHT FUELS

Site:	Eric Olmsted <unofficial></unofficial>		
	At Cummings Ave Ottawa ON		

Ref No: Site No: Incident Dt: Year: Incident Cause:	3407-65HSEE 10/6/2004	Discharger Report: Material Group: Health/Env Conseq: Client Type:	Oil
Incident Event: Incident Event: Contaminant Code: Contaminant Name: Contaminant Limit 1:	15 ENGINE OIL	Agency Involved: Nearest Watercourse: Site Address: Site District Office:	Ottawa
Contam Limit Freq 1: Contaminant UN No 1: Environment Impact: Nature of Impact:	Not Anticipated	Site Postal Code: Site Region: Site Municipality: Site Lot:	Eastern Ottawa
Receiving Medium: Receiving Env: MOE Response: Dt MOE Arvl on Scn	Land	Site Conc: Northing: Easting: Site Geo Ref Accu:	
MOE Reported Dt: Dt Document Closed: Incident Reason: Site Name: Site County/District: Municipality No: Site Geo Ref Meth:	10/6/2004 1152-1160 OGILVIE RD <unofficial< th=""><th>Site Map Datum: SAC Action Class: Source Type: &gt;</th><th>Spill to Land</th></unofficial<>	Site Map Datum: SAC Action Class: Source Type: >	Spill to Land
Incident Summary: Contaminant Qty:	Unknown Source: Dumping to Vacant F 75 L	laza	

<u>Site:</u>	TEXACO OTTAWA RIVER, OUTFALL AT END OF O	Database: SPL	
Ref No: Site No:	21520	Discharger Report: Material Group:	
	arisinfa som I Environmental Disk I	aformation Comisso	Order Nev 2202240025

Incident Dt: Year: Incident Cause:	7/4/1989 WASTEWATE WATERCOUR	R DISCHARGE TO SE	Health/Env Conseq: Client Type: Sector Type:	
Incident Event: Contaminant Code: Contaminant Name: Contaminant Limit 1: Contam Limit Freq 1: Contaminant UN No 1:			Agency Involved: Nearest Watercourse: Site Address: Site District Office: Site Postal Code: Site Region:	F.D., PUC, EPS, MCCR
Environment Impact: Nature of Impact: Receiving Medium: Receiving Env: MOE Response: Dt MOE Arvl on Scn: MOE Reported Dt:	WATER 7/4/1989		Site Municipality: Site Lot: Site Conc: Northing: Easting: Site Geo Ref Accu: Site Map Datum:	GLOUCESTER CITY
Dt Document Closed: Incident Reason: Site Name: Site County/District: Municipality No: Site Geo Ref Meth: Incident Summary: Contaminant Qty:	UNKNOWN 2010 TEX	95 ACO - UNKNOWN AMOUNT OF (	SAC Action Class: Source Type: GASOLINE TO OTTAWA RI	VER FROM OUTFALL.

<u>Site:</u>	Triangle Pump Service Limited	d
	Ottawa ON	

Ref No: Site No: Incident Dt:	0255-9VJS4B NA 4/13/2015	Discharger Report: Material Group: Health/Env Conseq:	
Year: Incident Cause: Incident Event:	Leak/Break	Client Type: Sector Type: Agency Involved:	
Contaminant Code: Contaminant Name: Contaminant Limit 1:	13 DIESEL FUEL	Nearest Watercourse: Site Address: Site District Office:	
Contam Limit Freq 1: Contaminant UN No 1: Environment Impact:		Site Postal Code: Site Region: Site Municipality:	Ottawa
Nature of Impact: Receiving Medium: Receiving Env:	Land	Site Lot: Site Conc: Northing:	
MOE Response: Dt MOE Arvl on Scn: MOE Reported Dt:	N 4/13/2015	Easting: Site Geo Ref Accu: Site Map Datum:	
Dt Document Closed: Incident Reason: Sito Namo:	5/25/2015 Unknown / N/A 114 Preston Street / INOFFICIAL	SAC Action Class: Source Type:	Land Spills
Site County/District: Municipality No: Site Geo Ref Meth:			
Incident Summary: Contaminant Qty:	DUPLICATE REPORT - SEE 0738-9V 0 other - see incident description	JPN6	

Site: BUS

### OGILVIE RD. & OTHERS MOTOR VEHICLE (OPERATING FLUID) GLOUCESTER CITY ON

KS

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Order No: 23022400359

Database: SPL

Database: SPL

<u>Site:</u> UNKNOWN NORTH END O	F OGILVIE RD. AT THE OTTAWA	RIVER OUTFALL. GLOUCESTER CITY ON	Database: SPL
Incident Summary: Contaminant Qty:	OTTAWA/CARLETON	TRANSPORTATION - DIESEL FUEL TO ROADS FROM BUS	). 
Municipality No: Site Geo Ref Meth:	20105		
Site Name: Site County/District:			
Dt Document Closed: Incident Reason:	UNKNOWN	SAC Action Class: Source Type:	
MOE Reported Dt:	8/21/1992	Site Geo Rei Accu: Site Map Datum:	
Receiving Env: MOE Response: Dt MOE Arvi on Soni		Northing: Easting: Site Coo Bef Acous	
Nature of Impact: Receiving Medium:	LAND	Site Lot: Site Conc:	
Environment Impact:	NOT ANTICIPATED	Site Municipality: GLOUCESTER C	ITY
Contam Limit Freq 1:		Site Postal Code:	
Contaminant Limit 1:		Site District Office:	

Ref No: Site No: Incident Dt: Year: Incident Cause:	44105 11/30/19 UNKNO	90 VN	Discharger Report: Material Group: Health/Env Conseq: Client Type: Sector Type:	
Contaminant Code: Contaminant Name: Contaminant Limit 1: Contam Limit Freq 1: Contaminant UN No 1:			Agency Involved: Nearest Watercourse: Site Address: Site District Office: Site Postal Code: Site Region:	CITY OF GLOUCESTER
Environment Impact: Nature of Impact: Receiving Medium: Receiving Env: MOE Response: Dt MOE Arvl on Scn:	POSSIBI Water cc WATER	LE urse or lake	Site Municipality: Site Lot: Site Conc: Northing: Easting: Site Geo Ref Accu:	GLOUCESTER CITY
MOE Reported Dt: Dt Document Closed: Incident Reason: Site Name: Site County/District: Municipality No:	11/30/19 UNKNO\	90 VN 20105	Site Map Datum: SAC Action Class: Source Type:	
Site Geo Ref Meth: Incident Summary: Contaminant Qty:		OTTAWA RIVER OUTFALL - FUE	EL OIL SPILLING INTO RIVER.	SOURCE UNKNOWN.

<u>Site:</u>				Database:
lot 27 ON				WWIS
Well ID:	1520415	Flowing (Y/N):		
Construction Date:		Flow Rate:		
Use 1st:	Domestic	Data Entry Status:		
Use 2nd:		Data Src:	1	
Final Well Status:	Water Supply	Date Received:	09-Jan-1986 00:00:00	
Water Type:		Selected Flag:	TRUE	
Casing Material:		Abandonment Rec:		
Audit No:		Contractor:	3323	
Tag:		Form Version:	1	
Constructn Method:		Owner:		
Elevation (m):		County:	OTTAWA-CARLETON	
Elevatn Reliabilty:		Lot:	027	
Depth to Bedrock:		Concession:		
Well Depth:		Concession Name:		
Overburden/Bedrock:		Easting NAD83:		

Pump Rate: Static Water Level: Clear/Cloudy: Municipality: Site Info:

GLOUCESTER TOWNSHIP

#### Bore Hole Information

Bore Hole ID:	10042258	Elevation:	
DP2BR:		Elevrc:	
Spatial Status:		Zone:	18
Code OB:		East83:	
Code OB Desc:		North83:	
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	9
Date Completed:	04-Oct-1984 00:00:00	UTMRC Desc:	unknown UTM
Remarks:		Location Method:	na
Loc Method Desc:	Not Applicable i.e. no UTM		
Elevrc Desc:			
Location Source Date:			

Northing NAD83:

UTM Reliability:

Zone:

#### <u>Overburden and Bedrock</u> <u>Materials Interval</u>

Improvement Location Source: Improvement Location Method: Source Revision Comment: Supplier Comment:

Formation ID:	931044690
Layer:	2
Color:	2
General Color:	GREY
Mat1:	18
Most Common Material:	SANDSTONE
Mat2:	73
Mat2 Desc:	HARD
Mat3:	
Mat3 Desc:	
Formation Top Depth:	18.0
Formation End Depth:	68.0
Formation End Depth UOM:	ft

#### <u>Overburden and Bedrock</u> <u>Materials Interval</u>

Formation ID:	021011600
Formation ID:	951044009
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	77
Mat2 Desc:	LOOSE
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	18.0
Formation End Depth UOM:	ft

#### Method of Construction & Well Use

Method Construction ID:	961520415
Method Construction Code:	5
Method Construction:	Air Percussion
Other Method Construction:	

#### Pipe Information

Pipe ID:	10590828
Casing No:	1
Comment:	
Alt Name:	

#### Construction Record - Casing

Casing ID:	930073767
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	21.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

#### Results of Well Yield Testing

Pumping Test Method Desc:	PUMP
Pump Test ID:	991520415
Pump Set At:	
Static Level:	27.0
Final Level After Pumping:	60.0
Recommended Pump Depth:	50.0
Pumping Rate:	25.0
Flowing Rate:	
Recommended Pump Rate:	10.0
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	No

#### Draw Down & Recovery

Pump Test Detail ID:	934111908
Test Type:	Recovery
Test Duration:	15
Test Level:	27.0
Test Level UOM:	ft

#### Draw Down & Recovery

Pump Test Detail ID:	934648930
Test Type:	Recovery
Test Duration:	45
Test Level:	27.0
Test Level UOM:	ft

#### Draw Down & Recovery

Pump Test Detail ID:	934386772
Test Type:	Recovery
Test Duration:	30
Test Level:	27.0
Test Level UOM:	ft
Pump Test Detail ID:	934905590
----------------------	-----------
Test Type:	Recovery
Test Duration:	60
Test Level:	27.0
Test Level UOM:	ft

# Water Details

Water ID:	933477657
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	60.0
Water Found Depth UOM:	ft

Site:

con 1 ON

Database: WWIS

	1510865		
Construction Date:	1319003	Flowing (1/N).	
Uso 1st:	Domestic	Piow Rale.	
Use Ist.	Domestic	Data Entry Status. Data Sro:	1
Einal Woll Status:	Water Supply	Data Bosoivod:	16-Sep-1985 00:00:00
Water Type:	Water Supply	Selected Elag:	TRUE
Casing Material:		Abandonment Pec:	INOE
Audit No:		Contractor:	1558
Taa:		Form Version:	1
Constructn Method:		Owner:	·
Elevation (m):		County:	OTTAWA-CARLETON
Elevatn Reliabilty:		Lot:	of the of a certain
Depth to Bedrock:		Concession:	01
Well Depth:		Concession Name	RF
Overburden/Bedrock		Fasting NAD83	
Pump Rate:		Northing NAD83	
Static Water Level:		Zone:	
Clear/Cloudy:		UTM Reliability	
Municipality:	GLOUCESTER TOWNSHIP	e mintenasinty:	
Site Info:			

# Bore Hole Information

Bore Hole ID: DP2BR: Spatial Status: Code OB: Code OB Desc: Open Hole:	10041718	Elevation: Elevrc: Zone: East83: North83: Ora CS:	18
Cluster Kind: Date Completed: Remarks:	01-Aug-1985 00:00:00	UTMRC: UTMRC Desc: Location Method:	9 unknown UTM na
Loc Method Desc: Elevrc Desc: Location Source Date: Improvement Location S Improvement Location M Source Revision Comme	Not Applicable i.e. no UTM Cource: Method: ent:		

# Overburden and Bedrock Materials Interval

Supplier Comment:

Formation ID:	931042996
Layer:	1
Color:	6
General Color:	BROWN

Mat1: Most Common Material: Mat2: Mat2 Desc: Mat3:	05 CLAY
<i>Mat3 Desc: Formation Top Depth: Formation End Depth: Formation End Depth UOM:</i>	0.0 5.0 ft
<u>Overburden and Bedrock</u> <u>Materials Interval</u>	
Formation ID: Layer: Color: General Color: Mat1: Most Common Material:	931042998 3 2 GREY 15 LIMESTONE
Mat2: Mat2 Desc: Mat3:	
Mats Desc: Formation Top Depth: Formation End Depth: Formation End Depth UOM:	60.0 75.0 ft
<u>Overburden and Bedrock</u> Materials Interval	
Formation ID: Layer: Color: General Color: Mat1: Most Common Material: Mat2: Mat2 Desc: Mat3: Formation Top Depth: Formation End Depth: Formation End Depth UOM:	931042997 2 GREY 05 CLAY 81 SANDY 11 GRAVEL 5.0 60.0 ft
Method of Construction & Well Use	
Method Construction ID: Method Construction Code: Method Construction: Other Method Construction:	961519865 5 Air Percussion
Pipe Information	
Pipe ID: Casing No: Comment: Alt Name:	10590288 1
Construction Record - Casing	
Casing ID: Layer: Material: Open Hole or Material: Denth From:	930072830 1 1 STEEL

Depth To:	62.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

# Construction Record - Casing

Casing ID:	930072831
Laver:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	75.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

# Results of Well Yield Testing

Pumping Test Method Desc:	PUMP
Pump Test ID:	991519865
Pump Set At:	
Static Level:	25.0
Final Level After Pumping:	30.0
Recommended Pump Depth:	50.0
Pumping Rate:	10.0
Flowing Rate:	
Recommended Pump Rate:	5.0
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	No

# Draw Down & Recovery

Pump Test Detail ID:	934895214
Test Type:	Draw Down
Test Duration:	60
Test Level:	30.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934109742
Test Type:	Draw Down
Test Duration:	15
Test Level:	30.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934384474
Test Type:	Draw Down
Test Duration:	30
Test Level:	30.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934655014
Test Type:	Draw Down

Test Duration:	45
Test Level:	30.0
Test Level UOM:	ft

# Water Details

Water ID:	933476954
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	70.0
Water Found Depth UOM:	ft

# Site:

lot 27 ON

Well ID: 1518033 Flowing (Y/N): Construction Date: Flow Rate: Cooling And A/C Data Entry Status: Use 1st: Use 2nd: Data Src: 1 13-Dec-1982 00:00:00 Final Well Status: Water Supply Date Received: Water Type: Selected Flag: TRUE Casing Material: Abandonment Rec: Audit No: Contractor: 1558 Form Version: Tag: 1 Constructn Method: Owner: Elevation (m): OTTAWA-CARLETON County: Elevatn Reliabilty: Lot: 027 Depth to Bedrock: Concession: Well Depth: Concession Name: Overburden/Bedrock: Easting NAD83: Pump Rate: Northing NAD83: Static Water Level: Zone: UTM Reliability: Clear/Cloudy: Municipality: OTTAWA CITY Site Info:

# Bore Hole Information

Bore Hole ID:	10039904	Elevation:	
DP2BR:		Elevrc:	
Spatial Status:		Zone:	18
Code OB:		East83:	
Code OB Desc:		North83:	
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	9
Date Completed:	29-Jan-1982 00:00:00	UTMRC Desc:	unknown UTM
Remarks:		Location Method:	na
Loc Method Desc:	Not Applicable i.e. no UTM		
Elevrc Desc:			
Location Source Date:			

Overburden and Bedrock Materials Interval

Improvement Location Source: Improvement Location Method: Source Revision Comment: Supplier Comment:

Formation ID:	931037131
Layer:	4
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	
Mat2 Desc:	

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Order No: 23022400359

Database: WWIS

# Mat3:Mat3 Desc:Formation Top Depth:27.0Formation End Depth:100.0Formation End Depth UOM:ft

# Overburden and Bedrock Materials Interval

Formation ID:	931037130
Layer:	3
Color:	8
General Color:	BLACK
Mat1:	17
Most Common Material:	SHALE
Mat2:	85
Mat2 Desc:	SOFT
Mat3:	
Mat3 Desc:	
Formation Top Depth:	15.0
Formation End Depth:	27.0
Formation End Depth UOM:	ft

# <u>Overburden and Bedrock</u> <u>Materials Interval</u>

Formation ID:	931037128
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	10.0
Formation End Depth UOM:	ft

# Overburden and Bedrock Materials Interval

Formation ID:	931037129
Layer:	2
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	10.0
Formation End Depth:	15.0
Formation End Depth UOM:	ft

# Method of Construction & Well Use

Method Construction ID:	961518033
Method Construction Code:	5
Method Construction:	Air Percussion
Other Method Construction:	

# Pipe Information

Pipe ID:10588474Casing No:1Comment:4Alt Name:

# Construction Record - Casing

930069713
2
4
OPEN HOLE
100.0
6.0
inch
ft

# Construction Record - Casing

Casing ID:	930069712
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	23.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

# Results of Well Yield Testing

Pumping Test Method Desc:	PUMP
Pump Test ID:	991518033
Pump Set At:	
Static Level:	15.0
Final Level After Pumping:	50.0
Recommended Pump Depth:	60.0
Pumping Rate:	10.0
Flowing Rate:	
Recommended Pump Rate:	5.0
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	No

# Draw Down & Recovery

Pump Test Detail ID:	934377689	
Test Type:	Draw Down	
Test Duration:	30	
Test Level:	50.0	
Test Level UOM:	ft	

# Draw Down & Recovery

Pump Test Detail ID:	934896797
Test Type:	Draw Down
Test Duration:	60
Test Level:	50.0
Test Level UOM:	ft

Pump Test Detail ID:	934103360
Test Type:	Draw Down
Test Duration:	15
Test Level:	50.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934647523	
Test Type:	Draw Down	
Test Duration:	45	
Test Level:	50.0	
Test Level UOM:	ft	

# Water Details

Water ID:	933474659
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	97.0
Water Found Depth UOM:	ft

# Site:

lot 25 ON			
Well ID: Construction Date:	1522184	Flowing (Y/N): Flow Rate:	
Use 1st: Use 2nd:	Domestic	Data Entry Status: Data Src:	1
Final Well Status: Water Type:	Water Supply	Date Received: Selected Flag:	01-Feb-1988 00:00:00 TRUE
Casing Material:	25073	Abandonment Rec: Contractor:	1558
Tag: Constructn Method:		Form Version:	1
Elevation (m):		County:	OTTAWA-CARLETON
Depth to Bedrock:		Concession:	020
Overburden/Bedrock:		Easting NAD83:	
Static Water Level:		Zone:	
Municipality: Site Info:	GLOUCESTER TOWNSHIP	оти kellability:	

# Bore Hole Information

Bore Hole ID: DP2BR ·	10043997	Elevation: Elevro:	
Spatial Status:		Zone:	18
Code OB:		East83:	
Code OB Desc:		North83:	
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	9
Date Completed:	08-Dec-1987 00:00:00	UTMRC Desc:	unknown UTM
Remarks:		Location Method:	na
Loc Method Desc:	Not Applicable i.e. no UTM		
Elevrc Desc:			
Location Source Date:			

Improvement Location Source: Improvement Location Method: Source Revision Comment:

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# Supplier Comment:

# Overburden and Bedrock Materials Interval

Formation ID:	931050500
Laver:	2
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	13
Mat2 Desc:	BOULDERS
Mat3:	
Mat3 Desc:	
Formation Top Depth:	14.0
Formation End Depth:	23.0
Formation End Depth UOM:	ft

# Overburden and Bedrock Materials Interval

Formation ID:	931050501
Layer:	3
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	78
Mat2 Desc:	MEDIUM-GRAINED
Mat3:	
Mat3 Desc:	
Formation Top Depth:	23.0
Formation End Depth:	60.0
Formation End Depth UOM:	ft

# Overburden and Bedrock Materials Interval

Formation ID:	931050499
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	79
Mat2 Desc:	PACKED
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	14.0
Formation End Depth UOM:	ft

# Method of Construction & Well Use

Method Construction ID:	961522184
Method Construction Code:	5
Method Construction:	Air Percussion
Other Method Construction:	

# Pipe Information

Pipe ID:	10592567
Casing No:	1
Comment:	

# Alt Name:

# Construction Record - Casing

Casing ID:	930076928
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	60.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

# Construction Record - Casing

Casing ID:	930076927
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	30.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

# Results of Well Yield Testing

Pumping Test Method Desc:	PUMP
Pump Test ID:	991522184
Pump Set At:	
Static Level:	15.0
Final Level After Pumping:	30.0
Recommended Pump Depth:	40.0
Pumping Rate:	20.0
Flowing Rate:	
Recommended Pump Rate:	5.0
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	No

# Draw Down & Recovery

Pump Test Detail ID:	934654534
Test Type:	Draw Down
Test Duration:	45
Test Level:	30.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934109298
Test Type:	Draw Down
Test Duration:	15
Test Level:	30.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test L	Detail ID:	934392983	
195	erisinfo.com   Envi	onmental Risk Information Services	Order No: 23022400359

Test Type:	Draw Down
Test Duration:	30
Test Level:	30.0
Test Level UOM:	ft

Pump Test Detail ID:	934903366
Test Type:	Draw Down
Test Duration:	60
Test Level:	30.0
Test Level UOM:	ft

# Water Details

Water ID:	933479978
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	55.0
Water Found Depth UOM:	ft

lot 25 ON

# Site:

Well ID: Flowing (Y/N): 1523747 Flow Rate: **Construction Date:** Use 1st: Industrial Data Entry Status: Use 2nd: Data Src: Final Well Status: Water Supply 04-Aug-1989 00:00:00 Date Received: Water Type: Selected Flag: TRUE Casing Material: Abandonment Rec: Audit No: 49862 Contractor: 3644 Form Version: Tag: 1 Constructn Method: Owner: OTTAWA-CARLETON Elevation (m): County: Elevatn Reliabilty: 025 Lot: Depth to Bedrock: Concession: Well Depth: **Concession Name:** Overburden/Bedrock: Easting NAD83: Pump Rate: Northing NAD83: Static Water Level: Zone: Clear/Cloudy: UTM Reliability: Municipality: OTTAWA CITY Site Info:

# Bore Hole Information

Bore Hole ID:	10045521	Elevation:	
Spatial Status		Zone:	18
Code OB:		East83:	10
Code OB Desc:		North83:	
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	9
Date Completed:	12-Jun-1989 00:00:00	UTMRC Desc:	unknown UTM
Remarks:		Location Method:	na
Loc Method Desc:	Not Applicable i.e. no UTM		
Elevrc Desc:			
Location Source Date Improvement Location	: n Source:		

# **Overburden and Bedrock**

Improvement Location Method: Source Revision Comment: Supplier Comment:

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Database:

WWIS

# Materials Interval

Formation ID:	931055593
Layer:	2
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	82
Mat2 Desc:	SHALY
Mat3:	
Mat3 Desc:	
Formation Top Depth:	32.0
Formation End Depth:	250.0
Formation End Depth UOM:	ft

# Overburden and Bedrock Materials Interval

Formation ID:	931055592
Layer:	1
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	32.0
Formation End Depth UOM:	ft

# Method of Construction & Well Use

Method Construction ID:	961523747
Method Construction Code:	5
Method Construction:	Air Percussion
Other Method Construction:	

# Pipe Information

Pipe ID:	10594091
Casing No:	1
Comment:	
Alt Name:	

# Construction Record - Casing

Casing ID:	930079667
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	36.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

# Construction Record - Casing

Casing ID:	930079668		
Layer:	2		
Material:	4		
Open Hole or Material:	OPEN HOLE		

Depth From:	
Depth To:	250.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

# Results of Well Yield Testing

Pumping Test Method Desc: Pump Test ID:	PUMP 991523747
Pump Set At:	
Static Level:	19.0
Final Level After Pumping:	100.0
Recommended Pump Depth:	100.0
Pumping Rate:	14.0
Flowing Rate:	
Recommended Pump Rate:	14.0
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	2
Water State After Test:	CLOUDY
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	No

# Draw Down & Recovery

Pump Test Detail ID:	934908516
Test Type:	
Test Duration:	60
Test Level:	100.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934106105
Test Type:	
Test Duration:	15
Test Level:	100.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934651310
Test Type:	
Test Duration:	45
Test Level:	100.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934390332
Test Type:	
Test Duration:	30
Test Level:	100.0
Test Level UOM:	ft

# Water Details

Water ID:	933482122	
Layer:	1	
Kind Code:	1	
Kind:	FRESH	
Water Found Depth:	60.0	

# Water Found Depth UOM:

### Water Details

Water ID:	933482123
Layer:	2
Kind Code:	1
Kind:	FRESH
Water Found Depth:	225.0
Water Found Depth UOM:	ft

ft

# Site:

```
lot 27 ON
```

Well ID: 1524742 Flowing (Y/N): **Construction Date:** Flow Rate: Use 1st: Domestic Data Entry Status: Use 2nd: Data Src: 1 Final Well Status: 17-Sep-1990 00:00:00 Water Supply Date Received: Water Type: Selected Flag: TRUE Casing Material: Abandonment Rec: Audit No: 80312 Contractor: 1558 Tag: Form Version: 1 Constructn Method: Owner: OTTAWA-CARLETON Elevation (m): County: Elevatn Reliabilty: Lot: 027 Depth to Bedrock: Concession: Well Depth: Concession Name: ΒF Overburden/Bedrock: Easting NAD83: Pump Rate: Northing NAD83: Static Water Level: Zone: Clear/Cloudy: UTM Reliability: Municipality: GLOUCESTER TOWNSHIP Site Info:

# Bore Hole Information

Bore Hole ID: DP2BR:	10046490	Elevation: Elevrc:	
Spatial Status:		Zone:	18
Code OB:		East83:	
Code OB Desc:		North83:	
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	9
Date Completed:	19-Jul-1990 00:00:00	UTMRC Desc:	unknown UTM
Remarks:		Location Method:	na
Loc Method Desc:	Not Applicable i.e. no UTM		
Elevrc Desc:			

Overburden and Bedrock Materials Interval

Location Source Date: Improvement Location Source: Improvement Location Method: Source Revision Comment: Supplier Comment:

931058934 Formation ID: Layer: 4 Color: 2 General Color: GREY Mat1: 11 GRAVEL Most Common Material: Mat2: Mat2 Desc: Mat3: Mat3 Desc:

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Database:

Formation Top Depth: Formation End Depth: Formation End Depth UOM:	29.0 31.0 ft	
<u>Overburden and Bedrock</u> Materials Interval		
Formation ID:	931058935	
Layer:	5	
Color:	2	
General Color:	GREY 18	
Most Common Material:	SANDSTONE	
Mat2:		
Mat2 Desc:		
Mata: Mata Desc:		
Formation Top Depth:	31.0	
Formation End Depth:	75.0	
Formation End Depth UOM:	ft	
Overburden and Bedrock Materials Interval		
Formation ID:	931058932	
Layer:	2	
Color: General Color:	6 BROWN	
Mat1:	05	
Most Common Material:	CLAY	
Mat2:		
Mat2 Desc: Mat3:		
Mat3 Desc:		
Formation Top Depth:	1.0	
Formation End Depth:	11.0	
Formation End Depth COM:	it.	
<u>Overburden and Bedrock</u> Materials Interval		
Formation ID:	931058933	
Layer:	3	
Color: General Color:	Z GREY	
Mat1:	05	
Most Common Material:	CLAY	
Mat2: Mat2 Desc:		
Mat3:	DOULDENG	
Mat3 Desc:		
Formation Top Depth:	11.0	
Formation End Depth:	29.0 ft	
r ormation End Depth OOM:	ĸ	
<u>Overburden and Bedrock</u> <u>Materials Interval</u>		
Formation ID:	931058931	
Layer:	1	
Color:	6 PROWN	
General Color: Mat1:	BRUWN 28	
Most Common Material:	SAND	
Mat2:		
Mat2 Desc:		

# Mat3:Mat3 Desc:Formation Top Depth:0.0Formation End Depth:1.0Formation End Depth UOM:ft

# Method of Construction & Well Use

Method Construction ID:	961524742
Method Construction Code:	5
Method Construction:	Air Percussion
Other Method Construction:	

# Pipe Information

Pipe ID:	10595060
Casing No:	1
Comment:	
Alt Name:	

# Construction Record - Casing

Casing ID:	930081384
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	32.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

# Construction Record - Casing

Casing ID:	930081385
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	75.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

# Results of Well Yield Testing

PUMP 991524742
10.0
20.0
30.0
50.0
5.0
ft
GPM
1
CLEAR
1
1
0
No

Pump Test Detail ID:	934109929
Test Type:	Draw Down
Test Duration:	15
Test Level:	20.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934654699
Test Type:	Draw Down
Test Duration:	45
Test Level:	20.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934385338
Test Type:	Draw Down
Test Duration:	30
Test Level:	20.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934903074
Test Type:	Draw Down
Test Duration:	60
Test Level:	20.0
Test Level UOM:	ft

# Water Details

Water ID:	933483473
Layer:	2
Kind Code:	5
Kind:	Not stated
Water Found Depth:	70.0
Water Found Depth UOM:	ft

# Water Details

Water ID:	022/02/72
	955465472
Layer:	1
Kind Code:	5
Kind:	Not stated
Water Found Depth:	45.0
Water Found Depth UOM:	ft

con 1 ON

# <u>Site:</u>

Well ID: Construction Date:	1525673	Flowing (Y/N): Flow Rate:	
Use 1st:	Domestic	Data Entry Status:	
Use 2nd:		Data Src:	1
Final Well Status:	Water Supply	Date Received:	21-Oct-1991 00:00:00
Water Type:		Selected Flag:	TRUE
Casing Material:		Abandonment Rec:	
Audit No:	68558	Contractor:	3644
Tag:		Form Version:	1
Constructn Method:		Owner:	
Elevation (m):		County:	OTTAWA-CARLETON
Elevatn Reliabilty:		Lot:	

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Database: WWIS Depth to Bedrock: Well Depth: Overburden/Bedrock: Pump Rate: Static Water Level: Clear/Cloudy: Municipality: Site Info:

GLOUCESTER TOWNSHIP

# Bore Hole Information

Elevrc Desc:

Location Source Date: Improvement Location Source: Improvement Location Method: Source Revision Comment: Supplier Comment:

Bore Hole ID: DP2BR: Spatial Status: Code OB:	10047408	Elevation: Elevrc: Zone: East83:	18
Code OB Desc: Open Hole: Cluster Kind:		North83: Org CS: UTMRC:	9
Date Completed: Remarks:	27-Feb-1991 00:00:00	UTMRC Desc: Location Method:	unknown UTM na
Loc Method Desc:	Not Applicable i.e. no UTM		

Concession:

Zone:

Concession Name:

Easting NAD83:

UTM Reliability:

Northing NAD83:

01

RF

<u>Overburden and Bedrock</u> <u>Materials Interval</u>

Formation ID:	931061986
Layer:	3
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	45.0
Formation End Depth:	103.0
Formation End Depth UOM:	ft

# Overburden and Bedrock Materials Interval

Formation ID:	031061085
	0
Layer:	Z
Color:	2
General Color:	GREY
Mat1:	14
Most Common Material:	HARDPAN
Mat2:	12
Mat2 Desc:	STONES
Mat3:	
Mat3 Desc:	
Formation Top Depth:	32.0
Formation End Depth:	45.0
Formation End Depth UOM:	ft

# <u>Overburden and Bedrock</u> <u>Materials Interval</u>

Formation ID:

931061984

Layer: Color: General Color: Mat1: Most Common Material: Mat2: Mat2 Desc: Mat3:	1 2 GREY 05 CLAY
Mats Desc: Formation Top Depth: Formation End Depth: Formation End Depth UOM:	0.0 32.0 ft
Method of Construction & Well Use	
Method Construction ID: Method Construction Code: Method Construction: Other Method Construction:	961525673 5 Air Percussion
Pipe Information	
Pipe ID: Casing No: Comment: Alt Name:	10595978 1
Construction Record - Casing	
Casing ID: Layer: Material: Open Hole or Material:	930082984 2 4 OPEN HOLE
Depth From: Depth To: Casing Diameter: Casing Diameter UOM: Casing Depth UOM:	103.0 6.0 inch ft
Construction Record - Casing	
Casing ID: Layer: Material: Open Hole or Material: Denth From:	930082983 1 1 STEEL
Depth To: Casing Diameter: Casing Diameter UOM: Casing Depth UOM:	49.0 6.0 inch ft

# Results of Well Yield Testing

Pumping Test Method Desc:	PUMP
Pump Test ID:	991525673
Pump Set At:	
Static Level:	35.0
Final Level After Pumping:	55.0
Recommended Pump Depth:	55.0
Pumping Rate:	10.0
Flowing Rate:	
Recommended Pump Rate:	8.0
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	2

Water State After Test:	CLOUDY
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	No

Pump Test Detail ID:	934388707
Test Type:	
Test Duration:	30
Test Level:	55.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934906425
Test Type:	
Test Duration:	60
Test Level:	55.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934649245
Test Type:	
Test Duration:	45
Test Level:	55.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934105048
Test Type:	
Test Duration:	15
Test Level:	55.0
Test Level UOM:	ft

# Water Details

Water ID:	933484725
Layer:	2
Kind Code:	1
Kind:	FRESH
Water Found Depth:	98.0
Water Found Depth UOM:	ft

# Water Details

Water ID:	933484724
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	70.0
Water Found Depth UOM:	ft

<u>Site:</u>		
	lot 27	0

# lot 27 ON

<u>Site:</u> lot 27	ON		Database: WWIS
Well ID: Construction D	1525793 Pate:	Flowing (Y/N): Flow Rate:	
Use 1st: Use 2nd:	Domestic	Data Entry Status: Data Src: 1	
Final Well Statu	us: Water Supply	Date Received: 22-Nov-1991 00:	:00:00

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Water Type:		Selected Flag:	TRUE
Casing Material:		Abandonment Rec:	
Audit No:	100112	Contractor:	1558
Tag:		Form Version:	1
Constructn Method:		Owner:	
Elevation (m):		County:	OTTAWA-CARLETON
Elevatn Reliabilty:		Lot:	027
Depth to Bedrock:		Concession:	
Well Depth:		Concession Name:	BF
Overburden/Bedrock:		Easting NAD83:	
Pump Rate:		Northing NAD83:	
Static Water Level:		Zone:	
Clear/Cloudy:		UTM Reliability:	
Municipality:	GLOUCESTER TOWNSHIP	-	
Site into:			

# Bore Hole Information

Bore Hole ID: DP2BR: Spatial Status: Code OB: Code OB Dasa:	10047528	Elevation: Elevrc: Zone: East83: North92:	18
Code OB Desc: Open Hole: Cluster Kind: Date Completed:	20-Aug-1991 00:00:00	North83: Org CS: UTMRC: UTMRC Desc:	9 unknown UTM
Remarks: Loc Method Desc: Elevrc Desc: Location Source Date:	Not Applicable i.e. no UTM	Location Method:	na

# Overburden and Bedrock Materials Interval

Improvement Location Source: Improvement Location Method: Source Revision Comment: Supplier Comment:

Formation ID:	931062302
Layer:	2
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	12.0
Formation End Depth:	40.0
Formation End Depth UOM:	ft

# Overburden and Bedrock Materials Interval

Formation ID: Layer: Color: General Color: Mat1: Most Common Material: Mat2: Mat2 Desc: Mat3:	931062301 1 6 BROWN 05 CLAY
<i>Mat3 Desc: Formation Top Depth: Formation End Depth:</i>	0.0 12.0

# Overburden and Bedrock Materials Interval

Formation ID:	031062304
Formation ID.	931002304
Layer:	4
Color:	2
General Color:	GREY
Mat1:	28
Most Common Material:	SAND
Mat2:	11
Mat2 Desc:	GRAVEL
Mat3:	79
Mat3 Desc:	PACKED
Formation Top Depth:	73.0
Formation End Depth:	77.0
Formation End Depth UOM:	ft

ft

# Overburden and Bedrock Materials Interval

Formation ID:	931062303
Layer:	3
Color:	2
General Color:	GREY
Mat1:	28
Most Common Material:	SAND
Mat2:	12
Mat2 Desc:	STONES
Mat3:	
Mat3 Desc:	
Formation Top Depth:	40.0
Formation End Depth:	73.0
Formation End Depth UOM:	ft

# Method of Construction & Well Use

Method Construction ID:	961525793
Method Construction Code:	5
Method Construction:	Air Percussion
Other Method Construction:	

# Pipe Information

Pipe ID:	10596098
Casing No:	1
Comment:	
Alt Name:	

# Construction Record - Casing

Casing ID:	930083198
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	77.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

# Construction Record - Casing

Casing ID:	930083197
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	75.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

# Results of Well Yield Testing

Pumping Test Method Desc:	PUMP
Pump Test ID:	991525793
Pump Set At:	
Static Level:	6.0
Final Level After Pumping:	10.0
Recommended Pump Depth:	20.0
Pumping Rate:	50.0
Flowing Rate:	
Recommended Pump Rate:	5.0
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	No

# Draw Down & Recovery

Pump Test Detail ID:	934906944
Test Type:	Draw Down
Test Duration:	60
Test Level:	10.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934649766
Test Type:	Draw Down
Test Duration:	45
Test Level:	10.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934105160
Test Type:	Draw Down
Test Duration:	15
Test Level:	10.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934389236
Test Type:	Draw Down
Test Duration:	30
Test Level:	10.0
Test Level UOM:	ft

# Water Details

Water ID:	933484901	

# Site:

# lot 25 ON

Database: WWIS

Well ID:	1528229	Flowing (Y/N):	
Construction Date: Use 1st:	Domestic	Flow Rate: Data Entry Status:	
Use 2nd:		Data Src:	1
Final Well Status:	Water Supply	Date Received:	21-Oct-1994 00:00:00
Water Type:		Selected Flag:	TRUE
Casing Material:		Abandonment Rec:	
Audit No:	144848	Contractor:	1414
Tag:		Form Version:	1
Constructn Method:		Owner:	
Elevation (m):		County:	OTTAWA-CARLETON
Elevatn Reliabilty:		Lot:	025
Depth to Bedrock:		Concession:	
Well Depth:		Concession Name:	
Overburden/Bedrock:		Easting NAD83:	
Pump Rate:		Northing NAD83:	
Static Water Level:		Zone:	
Clear/Cloudy:		UTM Reliability:	
Municipality:	GLOUCESTER TOWNSHIP		
Site Info:			

# Bore Hole Information

Bore Hole ID:	10049768	Elevation:	
DP2BR:		Elevrc:	
Spatial Status:		Zone:	18
Code OB:		East83:	
Code OB Desc:		North83:	
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	9
Date Completed:	22-Sep-1994 00:00:00	UTMRC Desc:	unknown UTM
Remarks:		Location Method:	na
Loc Method Desc:	Not Applicable i.e. no UTM		
Elevrc Desc:			
Location Source Date:			
Improvement Location S	Source:		

# Overburden and Bedrock Materials Interval

Improvement Location Method: Source Revision Comment: Supplier Comment:

Layer: 2   Color: 2   General Color: GREY   Mat1: 15   Most Common Material: LIMESTONE   Mat2: 17   Mat2 Desc: SHALE   Mat3 Desc: LAYERED   Formation Top Depth: 13.0   Formation End Depth: 100.0   Formation End Depth UOM: ft	Formation ID:	931069009
Color: 2   General Color: GREY   Mat1: 15   Most Common Material: LIMESTONE   Mat2: 17   Mat2 Desc: SHALE   Mat3: 74   Mat3 Desc: LAYERED   Formation Top Depth: 13.0   Formation End Depth: 100.0   Formation End Depth UOM: ft	Layer:	2
General Color:GREYMat1:15Most Common Material:LIMESTONEMat2:17Mat2 Desc:SHALEMat3:74Mat3 Desc:LAYEREDFormation Top Depth:13.0Formation End Depth:100.0Formation End Depth UOM:ft	Color:	2
Mat1:15Most Common Material:LIMESTONEMat2:17Mat2 Desc:SHALEMat3:74Mat3 Desc:LAYEREDFormation Top Depth:13.0Formation End Depth:100.0Formation End Depth UOM:ft	General Color:	GREY
Most Common Material:LIMESTONEMat2:17Mat2 Desc:SHALEMat3:74Mat3 Desc:LAYEREDFormation Top Depth:13.0Formation End Depth:100.0Formation End Depth UOM:ft	Mat1:	15
Mat2: 17   Mat2 Desc: SHALE   Mat3: 74   Mat3 Desc: LAYERED   Formation Top Depth: 13.0   Formation End Depth: 100.0   Formation End Depth UOM: ft	Most Common Material:	LIMESTONE
Mat2 Desc:SHALEMat3:74Mat3 Desc:LAYEREDFormation Top Depth:13.0Formation End Depth:100.0Formation End Depth UOM:ft	Mat2:	17
Mat3:74Mat3 Desc:LAYEREDFormation Top Depth:13.0Formation End Depth:100.0Formation End Depth UOM:ft	Mat2 Desc:	SHALE
Mat3 Desc:LAYEREDFormation Top Depth:13.0Formation End Depth:100.0Formation End Depth UOM:ft	Mat3:	74
Formation Top Depth:13.0Formation End Depth:100.0Formation End Depth UOM:ft	Mat3 Desc:	LAYERED
Formation End Depth:100.0Formation End Depth UOM:ft	Formation Top Depth:	13.0
Formation End Depth UOM: ft	Formation End Depth:	100.0
	Formation End Depth UOM:	ft

# **Overburden and Bedrock**

# Materials Interval

Formation ID:	931069008
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	14
Most Common Material:	HARDPAN
Mat2:	13
Mat2 Desc:	BOULDERS
Mat3:	73
Mat3 Desc:	HARD
Formation Top Depth:	0.0
Formation End Depth:	13.0
Formation End Depth UOM:	ft

# Annular Space/Abandonment Sealing Record

Plug ID:	933113096
Layer:	1
Plug From:	0.0
Plug To:	20.0
Plug Depth UOM:	ft

# Method of Construction & Well Use

Method Construction ID:	961528229
Method Construction Code:	4
Method Construction:	Rotary (Air)
Other Method Construction:	

# Pipe Information

Pipe ID:	10598338
Casing No:	1
Comment:	
Alt Name:	

# Construction Record - Casing

Casing ID:	930086988
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	20.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

# Construction Record - Casing

Casing ID:	930086989
Layer:	2
Material:	
Open Hole or Material:	
Depth From:	
Depth To:	100.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

# Results of Well Yield Testing

Pumping Test Method Desc:	BAILER
Pump Test ID:	991528229
Pump Set At:	
Static Level:	14.0
Final Level After Pumping:	100.0
Recommended Pump Depth:	90.0
Pumping Rate:	6.0
Flowing Rate:	
Recommended Pump Rate:	4.0
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	2
Water State After Test:	CLOUDY
Pumping Test Method:	2
Pumping Duration HR:	1
Pumping Duration MIN:	
Flowing:	No
Draw Down & Recovery	
Pump Test Detail ID:	934387694
Test Type:	Draw Down

Test Type:	Draw Down
Test Duration:	30
Test Level:	40.0
Test Level UOM:	ft

Pump Test Detail ID:	934905393
Test Type:	Draw Down
Test Duration:	60
Test Level:	14.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934104069
Test Type:	Draw Down
Test Duration:	15
Test Level:	50.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934648209
Test Type:	Draw Down
Test Duration:	45
Test Level:	20.0
Test Level UOM:	ft

# Water Details

Water ID:	933487838
Laver:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	30.0
Water Found Depth UOM:	ft

# <u>Site:</u>

<u>Site:</u> lot 25 ON		Database: WWIS
Well ID: Construction Date:	1528230	Flowing (Y/N): Flow Rate:

Use 1st:	Industrial	Data Entry Status:	
Use 2nd:		Data Src:	1
Final Well Status:	Water Supply	Date Received:	21-Oct-1994 00:00:00
Water Type:		Selected Flag:	TRUE
Casing Material:		Abandonment Rec:	
Audit No:	149882	Contractor:	1414
Tag:		Form Version:	1
Constructn Method:		Owner:	
Elevation (m):		County:	OTTAWA-CARLETON
Elevatn Reliabilty:		Lot:	025
Depth to Bedrock:		Concession:	
Well Depth:		Concession Name:	
Overburden/Bedrock:		Easting NAD83:	
Pump Rate:		Northing NAD83:	
Static Water Level:		Zone:	
Clear/Cloudy:		UTM Reliability:	
Municipality:	GLOUCESTER TOWNSHIP	-	
Site Info:			

# Bore Hole Information

Bore Hole ID: DP2BR:	10049769	Elevation: Elevrc:	
Spatial Status:		Zone:	18
Code OB:		East83:	
Code OB Desc:		North83:	
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	9
Date Completed:	13-Sep-1994 00:00:00	UTMRC Desc:	unknown UTM
Remarks:		Location Method:	na
Loc Method Desc:	Not Applicable i.e. no UTM		
Elevrc Desc:			
Location Source Date:			

# Overburden and Bedrock Materials Interval

Improvement Location Source: Improvement Location Method: Source Revision Comment: Supplier Comment:

Formation ID:	931069011
Layer:	2
Color:	2
General Color:	GREY
Mat1:	14
Most Common Material:	HARDPAN
Mat2:	13
Mat2 Desc:	BOULDERS
Mat3:	79
Mat3 Desc:	PACKED
Formation Top Depth:	2.0
Formation End Depth:	8.0
Formation End Depth UOM:	ft

# Overburden and Bedrock Materials Interval

Formation ID:	931069012
Layer:	3
Color:	2
General Color:	GREY
Mat1:	17
Most Common Material:	SHALE
Mat2:	74
Mat2 Desc:	LAYERED
Mat3:	80

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Mat3 Desc:	POROUS
Formation Top Depth:	8.0
Formation End Depth:	11.0
Formation End Depth UOM:	ft

# <u>Overburden and Bedrock</u> <u>Materials Interval</u>

Formation ID:	931069013
Layer:	4
Color:	2
General Color:	GREY
Mat1:	17
Most Common Material:	SHALE
Mat2:	85
Mat2 Desc:	SOFT
Mat3:	
Mat3 Desc:	
Formation Top Depth:	11.0
Formation End Depth:	103.0
Formation End Depth UOM:	ft

# Overburden and Bedrock Materials Interval

Formation ID:	931069010
Layer:	1
Color:	2
General Color:	GREY
Mat1:	12
Most Common Material:	STONES
Mat2:	79
Mat2 Desc:	PACKED
Mat3:	73
Mat3 Desc:	HARD
Formation Top Depth:	0.0
Formation End Depth:	2.0
Formation End Depth UOM:	ft

# <u>Annular Space/Abandonment</u> <u>Sealing Record</u>

Plug ID:	933113097
Layer:	1
Plug From:	0.0
Plug To:	20.0
Plug Depth UOM:	ft

# Method of Construction & Well Use

Method Construction ID:	961528230
Method Construction Code:	4
Method Construction:	Rotary (Air)
Other Method Construction:	

# Pipe Information

Pipe ID:	10598339
Casing No:	1
Comment:	
Alt Name:	

# Construction Record - Casing

Casing ID:	930086991
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	103.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

# Construction Record - Casing

Casing ID:	930086990
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	20.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
5	

# Results of Well Yield Testing

Pumping Test Method Desc:	PUMP
Pump Test ID:	991528230
Pump Set At:	
Static Level:	14.0
Final Level After Pumping:	103.0
Recommended Pump Depth:	95.0
Pumping Rate:	5.0
Flowing Rate:	
Recommended Pump Rate:	4.0
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	
Flowing:	No

# Draw Down & Recovery

Pump Test Detail ID:	934648210
Test Type:	Recovery
Test Duration:	45
Test Level:	20.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934104070
Test Type:	Recovery
Test Duration:	15
Test Level:	60.0
Test Level UOM:	ft

# Draw Down & Recovery

Pump Test Detail ID:	934387695
Test Type:	Recovery
Test Duration:	30
Test Level:	40.0
Test Level UOM:	ft

934905394
Recovery
60
14.0
ft

# Water Details

Water ID:	933487839
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	25.0
Water Found Depth UOM:	ft

# Site:

con 1 ON

Database: WWIS

Well ID:	1529330	Flowing (Y/N):	
Construction Date:		Flow Rate:	
Use 1st:	Commerical	Data Entry Status:	
Use 2nd:		Data Src:	1
Final Well Status:	Abandoned-Other	Date Received:	14-Feb-1997 00:00:00
Water Type:		Selected Flag:	TRUE
Casing Material:		Abandonment Rec:	
Audit No:	169507	Contractor:	6844
Tag:		Form Version:	1
Constructn Method:		Owner:	
Elevation (m):		County:	OTTAWA-CARLETON
Elevatn Reliabilty:		Lot:	
Depth to Bedrock:		Concession:	01
Well Depth:		Concession Name:	OF
Overburden/Bedrock:		Easting NAD83:	
Pump Rate:		Northing NAD83:	
Static Water Level:		Zone:	
Clear/Cloudy:		UTM Reliability:	
Municipality:	GLOUCESTER TOWNSHIP		
Site Info:			

# Bore Hole Information

Bore Hole ID: DP2BR	10050866	Elevation: Elevro:	
Spatial Status:		Zone:	18
Code OB:		East83:	
Code OB Desc:		North83:	
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	9
Date Completed:	06-Dec-1996 00:00:00	UTMRC Desc:	unknown UTM
Remarks:		Location Method:	na
Loc Method Desc:	Not Applicable i.e. no UTM		
Elevrc Desc:			
Location Source Date: Improvement Location S Improvement Location N	Source: Nethod:		

# Overburden and Bedrock Materials Interval

Source Revision Comment: Supplier Comment:

Formation ID: Layer: Color:

215

931072413

General Color: Mat1: Most Common Material: Mat2: Mat2 Desc: Mat3:	23 PREVIOUSLY DUG
Mat3 Desc: Formation Top Depth: Formation End Depth: Formation End Depth UOM:	0.0 17.0 ft
<u>Annular Space/Abandonment</u> Sealing Record	
Plug ID: Layer: Plug From: Plug To: Plug Depth UOM:	933114303 2 2.0 17.0 ft
<u>Annular Space/Abandonment</u> <u>Sealing Record</u>	
Plug ID: Layer: Plug From: Plug To: Plug Depth UOM:	933114302 1 0.0 2.0 ft
Method of Construction & Well Use	
Method Construction ID: Method Construction Code: Method Construction: Other Method Construction:	961529330 A Digging
Pipe Information	
Pipe ID: Casing No: Comment: Alt Name:	10599436 1
Construction Record - Casing	
Casing ID: Layer: Material: Open Hole or Material: Depth From: Depth To: Casing Diameter:	930088795 1 5 PLASTIC 17.0 36.0
Casing Diameter UOM: Casing Depth UOM:	inch ft
Construction Record - Screen	

# Screen ID:933326678Layer:1Slot:1Screen Top Depth:5Screen End Depth:5Screen Material:ft

Screen Diameter UOM:	inch
Screen Diameter:	36.0

# Water Details

933489269
1
5
Not stated
6.0
ft

Site:

lot 26 ON

Database: WWIS

Well ID: Construction Date: Use 1st: Use 2nd: Final Well Status: Water Type: Casing Material: Audit No: Tag: Constructn Method: Elevation (m): Elevatn Reliabilty: Depth to Bedrock: Well Depth: Overburden/Bedrock: Pump Rate: Static Water Level: Clear/Cloudy: Municipality: Site Info:	1529709 Domestic Water Supply 182706 GLOUCESTER TOWNSHIP	Flowing (Y/N): Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	1 22-Dec-1997 00:00:00 TRUE 1558 1 OTTAWA-CARLETON 026 LI	
Bore Hole Information				
Bore Hole ID: DP2BR: Spatial Status:	10051244	Elevation: Elevrc: Zone:	18	

East83:

North83:

Org CS:

UTMRC:

UTMRC Desc:

Location Method:

9

na

unknown UTM

Spatial Status: Code OB: Code OB Desc: Open Hole: Cluster Kind: Date Completed: 11-Nov-1997 00:00:00 Remarks: Loc Method Desc: Not Applicable i.e. no UTM Elevrc Desc: Location Source Date: Improvement Location Source: Improvement Location Method: Source Revision Comment: Supplier Comment:

# <u>Overburden and Bedrock</u> <u>Materials Interval</u>

Formation ID:	931073580
Layer:	3
Color:	2
General Color:	GREY
Mat1:	14
Most Common Material:	HARDPAN
Mat2:	11
Mat2 Desc:	GRAVEL
Mat3:	79

PACKED
13.0
16.0
ft

# Overburden and Bedrock Materials Interval

Formation ID:	931073582
Layer:	5
Color:	1
General Color:	WHITE
Mat1:	18
Most Common Material:	SANDSTONE
Mat2:	73
Mat2 Desc:	HARD
Mat3:	
Mat3 Desc:	
Formation Top Depth:	35.0
Formation End Depth:	75.0
Formation End Depth UOM:	ft

# Overburden and Bedrock Materials Interval

Formation ID:	931073581
Layer:	4
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material: Mat2: Mat2 Desc: Mat3: Mat3 Desc:	LIMESTONE 73 HARD
Formation Top Depth:	16.0
Formation End Depth:	35.0
Formation End Depth UOM:	ft

# Overburden and Bedrock Materials Interval

Formation ID:	931073578
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	79
Mat2 Desc:	PACKED
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	4.0
Formation End Depth UOM:	ft

# Overburden and Bedrock Materials Interval

Formation ID:	931073579
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	14
Most Common Material:	HARDPAN
Mat2:	13

BOULDERS
79
PACKED
4.0
13.0
ft

# <u>Annular Space/Abandonment</u> <u>Sealing Record</u>

Plug ID:	933114772
Layer:	1
Plug From:	22.0
Plug To:	0.0
Plug Depth UOM:	ft

# Method of Construction & Well Use

Method Construction ID:	961529709
Method Construction Code:	5
Method Construction:	Air Percussion
Other Method Construction:	

# Pipe Information

Pipe ID:	10599814
Casing No:	1
Comment:	
Alt Name:	

# Construction Record - Casing

Casing ID:	930089441
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	75.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

# Construction Record - Casing

Casing ID: Layer:	930089440 1
Material:	
Depth From:	SIEEL
Depth To:	27.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

# Results of Well Yield Testing

Pumping Test Method Desc:	PUMP
Pump Test ID:	991529709
Pump Set At:	
Static Level:	12.0
Final Level After Pumping:	35.0
Recommended Pump Depth:	35.0
Pumping Rate:	30.0
Flowing Rate:	

S	4	0
~		J

Recommended Pump Rate: Levels UOM: Rate UOM: Water State After Test Code: Water State After Test: Pumping Test Method: Pumping Duration HR: Pumping Duration MIN: Flowing:	5.0 ft GPM 1 1 0 No
Draw Down & Recovery	
Pump Test Detail ID:	934660796
Test Type:	45
Test Duration:	45 12.0
Test Level UOM:	ft
Draw Down & Recovery	
Pump Test Detail ID:	934909333
Test Type:	
Test Duration:	60
Test Level: Test Level LIOM:	12.0 ft
Test Level COM.	π
Draw Down & Recovery	
Pump Test Detail ID:	934391634
Test Type:	
Test Duration:	30
Test Level:	12.0
Test Level OOM:	п
Draw Down & Recovery	
Pump Test Detail ID:	934116660
Test Type: Test Duration:	15
Test Level:	12.0
Test Level UOM:	ft
Water Details	
Water ID:	933489740
Layer:	1
Kind Code:	5 Not otrain
Kind: Water Found Depthy	Not stated
Water Found Depth: Water Found Depth UOM	ft
<u>Site:</u> lot 26 ON	

Well ID: Construction Date:	1530327	Flowing (Y/N): Flow Rate:	
Use 1st:	Domestic	Data Entry Status:	
Use 2nd:		Data Src:	1
Final Well Status:	Water Supply	Date Received:	08-Dec-1998 00:00:00
Water Type:		Selected Flag:	TRUE
Casing Material:		Abandonment Rec:	
Audit No:	194764	Contractor:	1558
Tag:		Form Version:	1
Constructn Method:		Owner:	
Elevation (m):		County:	OTTAWA-CARLETON

220

Order No: 23022400359

Database: WWIS Elevatn Reliabilty: Depth to Bedrock: Well Depth: . Overburden/Bedrock: Pump Rate: Static Water Level: Clear/Cloudy: Municipality: Site Info:

GLOUCESTER TOWNSHIP

# **Bore Hole Information**

Bore Hole ID: DP2BR:	10051862	Elevation: Elevrc:	
Spatial Status:		Zone:	18
Code OB:		East83:	
Code OB Desc:		North83:	
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	9
Date Completed:	16-Oct-1998 00:00:00	UTMRC Desc:	unknown UTM
Remarks:		Location Method:	na
Loc Method Desc: Elevrc Desc:	Not Applicable i.e. no UTM		

Lot:

Zone:

Concession:

Concession Name:

Easting NAD83:

Northing NAD83:

UTM Reliability:

026

ΒF

# Overburden and Bedrock Materials Interval

Location Source Date: Improvement Location Source: Improvement Location Method: Source Revision Comment: Supplier Comment:

Formation ID:	931075169
Layer:	6
Color:	2
General Color:	GREY
Mat1:	18
Most Common Material:	SANDSTONE
Mat2:	73
Mat2 Desc:	HARD
Mat3:	
Mat3 Desc:	
Formation Top Depth:	71.0
Formation End Depth:	223.0
Formation End Depth UOM:	ft

# **Overburden and Bedrock** Materials Interval

Formation ID:	931075164
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	79
Mat2 Desc:	PACKED
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	11.0
Formation End Depth UOM:	ft

# **Overburden and Bedrock** Materials Interval

Formation ID:	931075168
Layer:	5
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	73
Mat2 Desc:	HARD
Mat3:	
Mat3 Desc:	
Formation Top Depth:	57.0
Formation End Depth:	71.0
Formation End Depth UOM:	ft

# Overburden and Bedrock

Materi	als I	nter	/al

Formation ID:	931075165
Layer:	2
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	86
Mat2 Desc:	STICKY
Mat3:	
Mat3 Desc:	
Formation Top Depth:	11.0
Formation End Depth:	32.0
Formation End Depth UOM:	ft

# Overburden and Bedrock Materials Interval

Formation ID:	931075166
Layer:	3
Color:	2
General Color:	GREY
Mat1:	14
Most Common Material:	HARDPAN
Mat2:	13
Mat2 Desc:	BOULDERS
Mat3:	79
Mat3 Desc:	PACKED
Formation Top Depth:	32.0
Formation End Depth:	53.0
Formation End Depth UOM:	ft

# Overburden and Bedrock Materials Interval

Formation ID:	931075167
Layer:	4
Color:	2
General Color:	GREY
Mat1:	28
Most Common Material:	SAND
Mat2:	11
Mat2 Desc:	GRAVEL
Mat3:	77
Mat3 Desc:	LOOSE
Formation Top Depth:	53.0
Formation End Depth:	57.0
Formation End Depth UOM:	ft

# Annular Space/Abandonment
### Sealing Record

Plug ID:	933115461
Layer:	1
Plug From:	53.0
Plug To:	45.0
Plug Depth UOM:	ft

### Method of Construction & Well Use

Method Construction ID:	961530327
Method Construction Code:	5
Method Construction:	Air Percussion
Other Method Construction:	

### Pipe Information

Pipe ID:	10600432
Casing No:	1
Comment:	
Alt Name:	

### Construction Record - Casing

Casing ID:	930090407
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	125.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

### Construction Record - Casing

Casing ID:	930090408
Layer:	3
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	175.0
Casing Diameter:	5.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

### Construction Record - Casing

Casing ID:	930090406
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	59.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

### Results of Well Yield Testing

		Q   N 00000 4000 50
Static Level:	21.0	
Pump Set At:		
Pumping Tes Pump Test ID	t <b>Method Desc:</b> PUMP : 991530327	

55.0
90.0
6.0
5.0
ft
GPM
2
CLOUDY
1
1
0
No

### Draw Down & Recovery

Pump Test Detail ID:	934393315
Test Type:	Recovery
Test Duration:	30
Test Level:	24.0
Test Level UOM:	ft

### Draw Down & Recovery

Pump Test Detail ID:	934662465
Test Type:	Recovery
Test Duration:	45
Test Level:	22.0
Test Level UOM:	ft

### Draw Down & Recovery

Pump Test Detail ID:	934911009
Test Type:	Recovery
Test Duration:	60
Test Level:	21.0
Test Level UOM:	ft

### Draw Down & Recovery

Pump Test Detail ID:	934118327
Test Type:	Recovery
Test Duration:	15
Test Level:	26.0
Test Level UOM:	ft

### Water Details

Water ID:	933490420
Layer:	2
Kind Code:	1
Kind:	FRESH
Water Found Depth:	148.0
Water Found Depth UOM:	ft

### Water Details

Water ID:	933490419
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	115.0
Water Found Depth UOM:	ft

Water Details

Water ID:	933490421
Layer:	3
Kind Code:	1
Kind:	FRESH
Water Found Depth:	211.0
Water Found Depth UOM:	ft

### Site:

lot 26 ON

### Database: WWIS

Well ID: Construction Data:	1530328	Flowing (Y/N):	
Use 1st:	Livestock	Data Entry Status:	
Use 2nd:		Data Src:	1
Final Well Status:	Abandoned-Quality	Date Received:	08-Dec-1998 00:00:00
Water Type:		Selected Flag:	TRUE
Casing Material:		Abandonment Rec:	
Audit No:	194762	Contractor:	1558
Tag:		Form Version:	1
Constructn Method:		Owner:	
Elevation (m):		County:	OTTAWA-CARLETON
Elevatn Reliabilty:		Lot:	026
Depth to Bedrock:		Concession:	
Well Depth:		Concession Name:	BF
Overburden/Bedrock:		Easting NAD83:	
Pump Rate:		Northing NAD83:	
Static Water Level:		Zone:	
Clear/Cloudy:		UTM Reliability:	
Municipality:	GLOUCESTER TOWNSHIP	-	
Site Info:			

### Bore Hole Information

Bore Hole ID: DP2BR: Spatial Status: Code OB: Code OB Desc: Open Hole: Cluster Kind:	10051863	Elevation: Elevrc: Zone: East83: North83: Org CS: UTMRC:	18 9
Date Completed:	19-Oct-1998 00:00:00	UTMRC Desc:	unknown UTM
Remarks:		Location Method:	na
Loc Method Desc:	Not Applicable i.e. no UTM		
Elevrc Desc:			
Location Source Date:			
Improvement Location S	ource:		
Improvement Location N	lethod:		
Source Revision Comme	ent:		

### <u>Annular Space/Abandonment</u> <u>Sealing Record</u>

Supplier Comment:

Plug ID:	933115462
Layer:	1
Plug From:	36.0
Plug To:	0.0
Plug Depth UOM:	ft

### Method of Construction & Well Use

Method Construction ID: 961530328 Method Construction Code: Method Construction:

225

### **Pipe Information**

Pipe ID: Casing No: Comment: Alt Name: 10600433 1

### Site:

Well ID:

Use 1st:

Use 2nd:

Water Type:

Audit No:

Tag:

lot 27 ON

**Construction Date:** 

Final Well Status:

Casing Material:

Elevation (m):

Well Depth:

Pump Rate:

Clear/Cloudy:

Municipality:

Site Info:

Constructn Method:

Elevatn Reliabilty:

Depth to Bedrock:

Static Water Level:

Overburden/Bedrock:

1532390 Abandoned-Other 230289

### Flowing (Y/N): Flow Rate: Data Entry Status: Data Src: 1 28-Nov-2001 00:00:00 Date Received: Selected Flag: TRUE Abandonment Rec: Contractor: 1558 Form Version: 1 Owner: County: OTTAWA-CARLETON Lot: 027 Concession: ΒF Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:

**Bore Hole Information** 

Bore Hole ID:	10516840	Elevation:	
Spatial Status:		Zone:	18
Code OB:		East83:	
Code OB Desc:		North83:	
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	9
Date Completed:	17-Oct-2001 00:00:00	UTMRC Desc:	unknown UTM
Remarks:		Location Method:	na
Loc Method Desc:	Not Applicable i.e. no UTM		
Elevrc Desc:			
Location Source Date	:		
Improvement Location	n Source:		
Improvement Location	n Method:		

GLOUCESTER TOWNSHIP

### <u>Annular Space/Abandonment</u> <u>Sealing Record</u>

Source Revision Comment: Supplier Comment:

933219833
1
61.0
7.0
ft

### Method of Construction & Well Use

Method Construction ID:961532390Method Construction Code:B

226

### Database: WWIS

# Method Construction: Other Method Other Method Construction:

### Pipe Information

Pipe ID: Casing No: Comment: Alt Name: 11065410 1

Site:

### lot 27 ON

Database: WWIS

Well ID: Construction Date: Use 1st: Use 2nd: Final Well Status: Water Type: Casing Material: Audit No: Tag: Constructn Method: Elevation (m): Elevation (m): Elevation (m): Elevation (m): Elevation (m): Depth to Bedrock: Well Depth: Overburden/Bedrock: Pump Rate: Static Water Level: Clear/Cloudy: Municipality: Site Info:	1533744 Domestic Water Supply 255805 GLOUCESTER TOWNSHIP	Flowing (Y/N): Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	1 21-May-2003 00:00:00 TRUE 6565 1 OTTAWA-CARLETON 027 BF
Bore Hole Information	40507570	Florentier	
Bore Hole ID: DP2BR:	10537578	Elevation: Elevrc:	
Spatial Status: Code OB: Code OB Desc: Open Hole:		Zone: East83: North83: Org CS:	18
Cluster Kind:		UTMRC:	9
Date Completed:	22-Feb-2003 00:00:00	UTMRC Desc:	unknown UTM
Kemarks: Loc Method Desc: Elevrc Desc: Location Source Date: Improvement Location S Improvement Location N	Not Applicable i.e. no UTM Source: Method:	Location Method:	па
Source Revision Comm	ent:		

### Overburden and Bedrock Materials Interval

Supplier Comment:

000005004
932905631
2
2
GREY
15
LIMESTONE
54.0

Formation End Depth: Formation End Depth UOM:	61.0 ft
Overburden and Bedrock Materials Interval	
Formation ID: Layer: Color: General Color: Mat1: Most Common Material: Mat2: Mat2 Desc: Mat2:	932905632 3 2 GREY 15 LIMESTONE
Mat3 Desc: Formation Top Depth: Formation End Depth: Formation End Depth UOM:	61.0 105.0 ft
Overburden and Bedrock Materials Interval	
Formation ID: Layer: Color: General Color: Mat1: Most Common Material: Mat2: Mat2 Desc: Mat3:	932905630 1 2 GREY 05 CLAY 14 HARDPAN
Mat3 Desc: Formation Top Depth: Formation End Depth: Formation End Depth UOM:	0.0 54.0 ft
Annular Space/Abandonment Sealing Record	
Plug ID: Layer: Plug From: Plug To: Plug Depth UOM:	933236271 1 0.0 61.0 ft
Method of Construction & Well Use	
Method Construction ID: Method Construction Code: Method Construction: Other Method Construction:	961533744 4 Rotary (Air)
Pipe Information	
Pipe ID: Casing No: Comment: Alt Name:	11086148 1
Construction Record - Casing	
	000007507

Casing ID: Layer:	930097537 1	
228	erisinfo.com   Environmental Risk Information Services	Order No: 23022400359

Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	61.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

### Results of Well Yield Testing

Pumping Test Method Desc:	PUMP
Pump Test ID:	991533744
Pump Set At:	
Static Level:	14.0
Final Level After Pumping:	20.0
Recommended Pump Depth:	80.0
Pumping Rate:	35.0
Flowing Rate:	
Recommended Pump Rate:	6.0
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	2
Water State After Test:	CLOUDY
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	No

### Draw Down & Recovery

Pump Test Detail ID:	934396111
Test Type:	Recovery
Test Duration:	30
Test Level:	14.0
Test Level UOM:	ft

### Draw Down & Recovery

Pump Test Detail ID:	934665391
Test Type:	Recovery
Test Duration:	45
Test Level:	14.0
Test Level UOM:	ft

### Draw Down & Recovery

Pump Test Detail ID:	934913518
Test Type:	Recovery
Test Duration:	60
Test Level:	14.0
Test Level UOM:	ft

### Draw Down & Recovery

934121258
Recovery
15
14.0
ft

### Water Details

Water ID:	934031084
Layer:	1
Kind Code:	5

229

Not stated 90.0

ft

14-May-1985 00:00:00

Not Applicable i.e. no UTM

<u>Site:</u> lot 26 ON				Database: WWIS
Well ID: Construction Date: Use 1st:	1519599 Domestic	Flowing (Y/N): Flow Rate: Data Entry Status:		
Use 2nd: Final Well Status: Water Type: Casing Material: Audit No: Tag: Constructn Method: Elevation (m): Elevation (m): Eleva	Water Supply	Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	1 28-May-1985 00:00:00 TRUE 1558 1 OTTAWA-CARLETON 026 BF	
Bore Hole Information				
Bore Hole ID: DP2BR: Spatial Status: Code OB: Code OB Desc:	10041469	Elevation: Elevrc: Zone: East83: North83:	18	

Org CS: UTMRC:

UTMRC Desc:

Location Method:

9

na

unknown UTM

### Overburden and Bedrock Materials Interval

**Open Hole:** 

Remarks:

Elevrc Desc:

Cluster Kind:

Date Completed:

Loc Method Desc:

Location Source Date: Improvement Location Source: Improvement Location Method: Source Revision Comment: Supplier Comment:

Formation ID:	931042174
Layer:	3
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	11
Mat2 Desc:	GRAVEL
Mat3:	13
Mat3 Desc:	BOULDERS
Formation Top Depth:	40.0
Formation End Depth:	49.0
Formation End Depth UOM:	ft

### **Overburden and Bedrock** Materials Interval

Formation ID:	931042175
Layer:	4
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	49.0
Formation End Depth:	65.0
Formation End Depth UOM:	ft

### Overburden and Bedrock Materials Interval

Formation ID: Layer: Color: General Color: Mat1: Most Common Material: Mat2:	931042172 1 6 BROWN 05 CLAY
Mat2 Desc: Mat3: Mat3 Desc: Formation Top Depth: Formation End Depth: Formation End Depth UOM:	0.0 17.0 ft

### Overburden and Bedrock Materials Interval

Formation ID:	931042173
Layer:	2
Color:	2
General Color:	GREY
Mat1:	14
Most Common Material:	HARDPAN
Mat2:	13
Mat2 Desc:	BOULDERS
Mat3:	
Mat3 Desc:	
Formation Top Depth:	17.0
Formation End Depth:	40.0
Formation End Depth UOM:	ft

### Method of Construction & Well Use

Method Construction ID:	961519599
Method Construction Code:	5
Method Construction:	Air Percussion
Other Method Construction:	

### Pipe Information

Pipe ID:	10590039
Casing No:	1
Comment:	
Alt Name:	

### Construction Record - Casing

Casiliy ID
------------

### 930072412

Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	65.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

### Construction Record - Casing

Casing ID:	930072411
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	51.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

### Results of Well Yield Testing

Pumping Test Method Desc:	PUMP
Pump Test ID:	991519599
Pump Set At:	
Static Level:	14.0
Final Level After Pumping:	20.0
Recommended Pump Depth:	30.0
Pumping Rate:	20.0
Flowing Rate:	
Recommended Pump Rate:	5.0
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	No

### Draw Down & Recovery

Pump Test Detail ID:	934653801
Test Type:	Draw Down
Test Duration:	45
Test Level:	20.0
Test Level UOM:	ft

### Draw Down & Recovery

Pump Test Detail ID:	934108530
Test Type:	Draw Down
Test Duration:	15
Test Level:	20.0
Test Level UOM:	ft

### Draw Down & Recovery

Pump Test Detail ID:	934383821
Test Type:	Draw Down
Test Duration:	30
Test Level:	20.0
Test Level UOM:	ft

### Draw Down & Recovery

Pump Test Detail ID:	934894144
Test Type:	Draw Down
Test Duration:	60
Test Level:	20.0
Test Level UOM:	ft

### Water Details

Water ID:	933476639
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	55.0
Water Found Depth UOM:	ft

<u>Site:</u>

<del>.</del>.

con 1 ON

Database: WWIS

Well ID: Construction Date: Use 1st: Use 2nd: Final Well Status: Water Type: Casing Material: Audit No: Tag: Constructn Method: Elevation (m): Elevatin Reliabilty: Depth to Bedrock: Well Depth: Overburden/Bedrock: Pump Rate: Static Water Level: Clear/Cloudy: Municipality: Site Info:	1501587 Domestic 0 Water Supply GLOUCESTER TOWNSHIP	Flowing (Y/N): Flow Rate: Data Entry Status: Data Src: Date Received: Selected Flag: Abandonment Rec: Contractor: Form Version: Owner: County: Lot: Concession: Concession Name: Easting NAD83: Northing NAD83: Zone: UTM Reliability:	1 06-Jan-1947 00:00:00 TRUE 3566 1 OTTAWA-CARLETON 01 OF
Site info:			

### Bore Hole Information

Bore Hole ID: DP2BR: Spatial Status: Code OB: Code OB Desc:	10023630	Elevation: Elevrc: Zone: East83: North83:	18
Open Hole: Cluster Kind: Date Completed:	15-Nov-1946 00:00:00	Org CS: UTMRC: UTMRC Desc:	9 unknown UTM
Remarks:		Location Method:	na
Loc Method Desc: Elevrc Desc: Location Source Date: Improvement Location S Improvement Location N	Not Applicable i.e. no UTM Source: Method:		
Source Revision Comme	ent:		

### <u>Overburden and Bedrock</u> <u>Materials Interval</u>

Supplier Comment:

Formation ID:	930992251
Layer:	1
Color:	2
General Color:	GREY

233

Mat1: Most Common Material: Mat2: Mat2 Desc:	05 CLAY
<i>Mat3: Mat3 Desc: Formation Top Depth: Formation End Depth: Formation End Depth UOM:</i>	0.0 90.0 ft
<u>Overburden and Bedrock</u> <u>Materials Interval</u>	
Formation ID: Layer: Color: General Color:	930992252 2
Mat1: Most Common Material: Mat2: Mat2:	17 SHALE
Mat3: Mat3 Desc: Formation Top Depth: Formation End Depth: Formation End Depth UOM:	90.0 167.0 ft
Method of Construction & Well Use	
Method Construction ID: Method Construction Code: Method Construction: Other Method Construction:	961501587 1 Cable Tool
Pipe Information	
Pipe ID: Casing No: Comment: Alt Name:	10572200 1
Construction Record - Casing	
Casing ID: Layer: Material: Open Hole or Material:	930040106 1 1 STEEL
Depth From: Depth To: Casing Diameter: Casing Diameter UOM: Casing Depth UOM:	92.0 5.0 inch ft
Construction Record - Casing	
Casing ID: Layer: Material:	930040107 2 4
Open Hole or Material:	OPEN HOLE

Open Hole or Material:	OPEN I
Depth From:	
Depth To:	167.0
Casing Diameter:	5.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

### Results of Well Yield Testing

Pumping Test Method Desc:	PUMP
Pump Test ID: Pump Set At:	991501587
Static Loval:	10.0
Static Level.	30.0
Recommended Pump Depth:	50.0
Pumping Rate:	30.0
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	2
Pumping Duration MIN:	0
Flowing:	No

### Water Details

Water ID:	933454305
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	
Water Found Depth UOM:	ft

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. Note: Databases denoted with " * " indicates that the database will no longer be updated. See the individual database description for more information.

Abandoned Aggregate Inventory: AAGR The MAAP Program maintains a database of abandoned pits and guarries. Please note that the database is only referenced by lot and concession and city/town location. The database provides information regarding the location, type, size, land use, status and general comments.* Government Publication Date: Sept 2002*

Provincial Aggregate Inventory: AGR The Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry (ONDMNRF) maintains this database of pits and quarries. The database provides information regarding the registered owner/operator, location name, operation type, approval type, and maximum annual tonnage. Government Publication Date: Up to Oct 2022

Provincial Abandoned Mine Information System: AMIS The Abandoned Mines Information System contains data on known abandoned and inactive mines located on both Crown and privately held lands. The information was provided by the Ministry of Northern Development and Mines (MNDM), with the following disclaimer: "the database provided has been compiled from various sources, and the Ministry of Northern Development and Mines makes no representation and takes no responsibility that such information is accurate, current or complete". Reported information includes official mine name, status, background information, mine start/end date, primary commodity, mine features, hazards and remediation. Government Publication Date: 1800-Mar 2022

ANDR The information provided in this database was collected by examining various historical documents which aimed to characterize the likely position of former waste disposal sites from 1860 to present. The research initiative behind the creation of this database was to identify those sites that are missing from the Ontario MOE Waste Disposal Site Inventory, as well as to provide revisions and corrections to the positions and descriptions of sites currently listed in the MOE inventory. In addition to historic waste disposal facilities, the database also identifies certain auto wreckers and scrap yards that have been extrapolated from documentary sources. Please note that the data is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1860s-Present

Anderson's Waste Disposal Sites:

Aboveground Storage Tanks: Historical listing of aboveground storage tanks made available by the Department of Natural Resources and Forestry. Includes tanks used to hold water

or petroleum. This dataset has been retired as of September 25, 2014 and will no longer be updated. Government Publication Date: May 31, 2014

Automobile Wrecking & Supplies:

Government Publication Date: 1999-May 31, 2022

Borehole: Provincial BORE A borehole is the generalized term for any narrow shaft drilled in the ground, either vertically or horizontally. The information here includes geotechnical

This database provides an inventory of known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts &

investigations or environmental site assessments, mineral exploration, or as a pilot hole for installing piers or underground utilities. Information is from many sources such as the Ministry of Transportation (MTO) boreholes from engineering reports and projects from the 1950 to 1990's in Southern Ontario. Boreholes from the Ontario Geological Survey (OGS) including The Urban Geology Analysis Information System (UGAIS) and the York Peel Durham Toronto (YPDT) database of the Conservation Authority Moraine Coalition. This database will include fields such as location, stratigraphy, depth, elevation, year drilled, etc. For all water well data or oil and gas well data for Ontario please refer to WWIS and OOGW. Government Publication Date: 1875-Jul 2018

Private

Provincial

Provincial

Private

supplies industry. Information is provided on the company name, location and business type.

AUWR

AST

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### Certificates of Approval:

### Dry Cleaning Facilities:

# Commercial Fuel Oil Tanks:

Government Publication Date: 1985-Oct 30, 2011*

Government Publication Date: Jan 2004-Dec 2020

Please refer to those individual databases for any information after Oct.31, 2011.

tetrachloroethylene to the environment from dry cleaning facilities.

Locations of commercial underground fuel oil tanks. This is not a comprehensive or complete inventory of commercial fuel tanks in the province; this listing is a copy of records of registered commercial underground fuel oil tanks obtained under Access to Public Information. Note that the following types of tanks do not require registration: waste oil tanks in apartments, office buildings, residences, etc.; aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

This database includes information from both a one time study conducted in 1992 and private source and is a listing of facilities that manufacture or

3,000 pounds per square inch (psi), the pressure which is allowed within the current Canadian codes and standards. The majority of natural gas refuelling is located at existing retail gasoline that have a separate refuelling island for natural gas. This list of stations is made available by the

This database contains the following types of approvals: Air & Noise, Industrial Sewage, Municipal & Private Sewage, Waste Management Systems and Renewable Energy Approvals. The MOE in Ontario states that any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste, must have a Certificate of Approval before it can operate lawfully. Fields include approval number, business name, address, approval date, approval type and status. This database will no longer be updated, as CofA's have been replaced by either Environmental Activity and Sector Registry (EASR) or Environmental Compliance Approval (ECA).

### Government Publication Date: Feb 28, 2022

### Chemical Manufacturers and Distributors:

distribute chemicals. The production of these chemical substances may involve one or more chemical reactions and/or chemical separation processes (i.e. fractionation, solvent extraction, crystallization, etc.). Government Publication Date: 1999-Jan 31, 2020

Tetrachloroethylene (Use in Dry Cleaning and Reporting Requirements) Regulations (SOR/2003-79) are intended to reduce releases of

# This database includes a listing of locations of facilities within the Province or Territory that either manufacture and/or distributes chemicals.

Government Publication Date: 1999-May 31, 2022

### Compressed Natural Gas Stations:

Canadian Natural Gas Vehicle Alliance.

**Chemical Register:** 

# Government Publication Date: Dec 2012 -Sep 2022

### Inventory of Coal Gasification Plants and Coal Tar Sites: This inventory includes both the "Inventory of Coal Gasification Plant Waste Sites in Ontario-April 1987" and the Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario-November 1988) collected by the MOE. It identifies industrial sites that produced and continue to produce

# Government Publication Date: Apr 1987 and Nov 1988*

have been found guilty of environmental offenses in Ontario courts of law.

### **Compliance and Convictions:** This database summarizes the fines and convictions handed down by the Ontario courts beginning in 1989. Companies and individuals named here

# Certificates of Property Use:

237

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include CPU's on the registry such as (EPA s. 168.6) - Certificate of Property Use.

or use coal tar and other related tars. Detailed information is available and includes: facility type, size, land use, information on adjoining properties, soil condition, site operators/occupants, site description, potential environmental impacts and historic maps available. This was a one-time inventory.*

Government Publication Date: 1994 - Jan 31, 2023

Government Publication Date: 1989-Nov 2022

Provincial

CA

CDRY

CFOT

### Federal List of dry cleaning facilities made available by Environment and Climate Change Canada. Environment and Climate Change Canada's

Provincial

CHEM

CHM

CNG

Private Canada has a network of public access compressed natural gas (CNG) refuelling stations. These stations dispense natural gas in compressed form at

Provincial

Private

Private

COAL

CONV

Provincial

Provincial

CPU

erisinfo.com | Environmental Risk Information Services

Drill Hole Database:

### **Delisted Fuel Tanks:**

### Environmental Activity and Sector Registry:

company map; or from submitted a "Report of Work".

regulatory agency under Access to Public Information.

Government Publication Date: 1886 - Oct 2022

Government Publication Date: Feb 28, 2022

## activities aren't subject to the EASR may apply for an ECA (Environmental Compliance Approval), Please see our ECA database. Government Publication Date: Oct 2011- Dec 31, 2022

### The Environmental Registry lists proposals, decisions and exceptions regarding policies, Acts, instruments, or regulations that could significantly affect

Environmental Registry:

the environment. Through the Registry, thirteen provincial ministries notify the public of upcoming proposals and invite their comments. For example, if a local business is requesting a permit, license, or certificate of approval to release substances into the air or water; these are notified on the registry. Data includes: Approval for discharge into the natural environment other than water (i.e. Air) - EPA s. 9, Approval for sewage works - OWRA s. 53(1), and EPA s. 27 - Approval for a waste disposal site. For information regarding Permit to Take Water (PTTW), Certificate of Property Use (CPU) and (ORD) Orders please refer to those individual databases. Government Publication Date: 1994 - Jan 31, 2023

activities with the ministry, rather than apply for an approval. The registry is available for common systems and processes, to which preset rules of operation can be applied. The EASR is currently available for: heating systems, standby power systems and automotive refinishing. Businesses whose

The Ontario Drill Hole Database contains information on more than 113,000 percussion, overburden, sonic and diamond drill holes from assessment files on record with the department of Mines and Minerals. Please note that limited data is available for southern Ontario, as it was the last area to be completed. The database was created when surveys submitted to the Ministry were converted in the Assessment File Research Image Database (AFRI) project. However, the degree of accuracy (coordinates) as to the exact location of drill holes is dependent upon the source document submitted to the MNDM. Levels of accuracy used to locate holes are: centering on the mining claim; a sketch of the mining claim; a 1:50,000 map; a detailed

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. In the past, a business had to apply for multiple approvals (known as certificates of approval) for individual processes and pieces of equipment. Today, a business either registers itself, or applies for a single approval, depending on the types of activities it conducts. Businesses whose activities aren't subject to the EASR may apply for an ECA. A single ECA addresses all of a business's emissions, discharges and wastes. Separate approvals for air, noise and waste are no longer required. This database will also include Renewable Energy Approvals. For certificates of approval prior to Nov 1st, 2011, please refer to the CA database. For all Waste Disposal Sites please refer to the WDS database.

Government Publication Date: Oct 2011- Dec 31, 2022

### Environmental Effects Monitoring:

ERIS Historical Searches:

238

Environmental Compliance Approval:

fisheries resources. Since 1992, pulp and paper mills have been required to conduct EEM studies under the Pulp and Paper Effluent Regulations. This database provides information on the mill name, geographical location and sub-lethal toxicity data. Government Publication Date: 1992-2007*

ERIS has compiled a database of all environmental risk reports completed since March 1999. Available fields for this database include: site location, date of report, type of report, and search radius. As per all other databases, the ERIS database can be referenced on both the map and "Statistical Profile" page.

Government Publication Date: 1999-Jul 31, 2022

### Environmental Issues Inventory System:

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed. Government Publication Date: 1992-2001*

### Provincial

Provincial List of fuel storage tank sites that were once found in - and have since been removed from - the list of fuel storage tanks made available by the

DRI

DTNK

EASR

EBR

**FCA** 

EEM

EHS

FIIS

Provincial On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. The EASR allows businesses to register certain

Provincial

Provincial

Federal The Environmental Effects Monitoring program assesses the effects of effluent from industrial or other sources on fish, fish habitat and human usage of

Private

Federal

### Emergency Management Historical Event:

### under the Emergency Management and Civil Protection Act, as well as events where MNR provided requested emergency response assistance. Many of these events will have involved community evacuations, significant structural loss, and/or involvement of MNR emergency response staff. These events fall into one of ten (10) type categories: Dam Failure; Drought / Low Water; Erosion; Flood; Forest Fire; Soil and Bedrock Instability; Petroleum Resource Center Event, EMO Requested Assistance, Continuity of Operations Event, Other Requested Assistance. EMHE record details are reproduced by ERIS under License with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2017. Government Publication Date: Apr 30, 2022

### Environmental Penalty Annual Report:

List of Expired Fuels Safety Facilities:

### These reports provide information on environmental penalties for land or water violations issued to companies in one of the nine industrial sectors covered by the Municipal Industrial Strategy for Abatement (MISA) regulations. Government Publication Date: Jan 1, 2011 - Dec 31, 2021

List of facilities and tanks for which there was once a fuel registration. This is not a comprehensive or complete inventory of expired tanks/tank facilities in the province; this listing is a copy of previously registered tanks and facilities obtained under Access to Public Information. Includes private fuel outlets, bulk plants, fuel oil tanks, gasoline stations, marinas, propane filling stations, liquid fuel tanks, piping systems, etc; includes tanks which have been removed from the ground.

Notes: registration was not required for private fuel underground/aboveground storage tanks prior to January 1990, nor for furnace oil tanks prior to May 1, 2002; registration is not required for waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2022

Federal Convictions:

Environment Canada maintains a database referred to as the "Environmental Registry" that details prosecutions under the Canadian Environmental Protection Act (CEPA) and the Fisheries Act (FA). Information is provided on the company name, location, charge date, offence and penalty. Government Publication Date: 1988-Jun 2007*

Federal Contaminated Sites on Federal Land: FCS The Federal Contaminated Sites Inventory includes information on known federal contaminated sites under the custodianship of departments, agencies and consolidated Crown corporations as well as those that are being or have been investigated to determine whether they have contamination arising from past use that could pose a risk to human health or the environment. The inventory also includes non-federal contaminated sites for which the Government of Canada has accepted some or all financial responsibility. It does not include sites where contamination has been caused by, and which are under the control of, enterprise Crown corporations, private individuals, firms or other levels of government. Includes fire training sites and sites at which Per- and Polyfluoroalkyl Substances (PFAS) are a concern.

Government Publication Date: Jun 2000-Dec 2022

### Fisheries & Oceans Fuel Tanks:

Fisheries & Oceans Canada maintains an inventory of aboveground & underground fuel storage tanks located on Fisheries & Oceans property or controlled by DFO. Our inventory provides information on the site name, location, tank owner, tank operator, facility type, storage tank location, tank contents & capacity, and date of tank installation. Government Publication Date: 1964-Sep 2019

Federal Identification Registry for Storage Tank Systems (FIRSTS):

# A list of federally regulated Storage tanks from the Federal Identification Registry for Storage Tank Systems (FIRSTS). FIRSTS is Environment and

Climate Change Canada's database of storage tank systems subject to the Storage Tank for Petroleum Products and Allied Petroleum Products Regulations. The main objective of the Regulations is to prevent soil and groundwater contamination from storage tank systems located on federal and aboriginal lands. Storage tank systems that do not have a valid identification number displayed in a readily visible location on or near the storage tank system may be refused product delivery.

Government Publication Date: May 31, 2018

### Fuel Storage Tank:

239

List of registered private and retail fuel storage tanks. This is not a comprehensive or complete inventory of private and retail fuel storage tanks in the province; this listing is a copy of registered private and retail fuel storage tanks, obtained under Access to Public Information. Notes: registration was not required for private fuel underground/aboveground storage tanks prior to January 1990, nor for furnace oil tanks prior to May 1, 2002; registration is not required for waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2022

FCON

FOFT

FRST

FST

Federal

Federal

Provincial



EPAR

EXP

## Provincial

Provincial This database contains data from Ontario's annual environmental penalty report published by the Ministry of the Environment and Climate Change.

Federal

Provincial

### Order No: 23022400359

### Fuel Storage Tank - Historic:

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks. Public records of private fuel storage tanks are only available since the registration became effective in September 1989. This information is now collected by the Technical Standards and Safety Authority.

Government Publication Date: Pre-Jan 2010*

### Ontario Regulation 347 Waste Generators Summary:

Regulation 347 of the Ontario EPA defines a waste generation site as any site, equipment and/or operation involved in the production, collection, handling and/or storage of regulated wastes. A generator of regulated waste is required to register the waste generation site and each waste produced, collected, handled, or stored at the site. This database contains the registration number, company name and address of registered generators including the types of hazardous wastes generated. It includes data on waste generating facilities such as: drycleaners, waste treatment and disposal facilities, machine shops, electric power distribution etc. This information is a summary of all years from 1986 including the most currently available data. Some records may contain, within the company name, the phrase "See & Use..." followed by a series of letters and numbers. This occurs when one company is amalgamated with or taken over by another registered company. The number listed as "See & Use", refers to the new ownership and the other identification number refers to the original ownership. This phrase serves as a link between the 2 companies until operations have been fully transferred.

### Government Publication Date: 1986-Oct 31, 2022

### Greenhouse Gas Emissions from Large Facilities:

## dioxide equivalents (kt CO2 eq). Government Publication Date: 2013-Dec 2019

Provincial **TSSA Historic Incidents:** HINC List of historic incidences of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen recorded by the TSSA in their previous incident tracking system. The TSSA's Fuels Safety Program administers the Technical Standards & Safety Act 2000, providing fuel-related safety services associated with the safe transportation, storage, handling and use of fuels such as gasoline, diesel, propane, natural gas and hydrogen. Under this Act, the TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of historical fuel spills and leaks in the province. This listing is a copy of the data captured at one moment in time and is hence limited by the record date provided here. Government Publication Date: 2006-June 2009*

### Indian & Northern Affairs Fuel Tanks:

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of aboveground & underground fuel storage tanks located on both federal and crown land. Our inventory provides information on the reserve name, location, facility type, site/facility name, tank type, material & ID number, tank contents & capacity, and date of tank installation. Government Publication Date: 1950-Aug 2003*

Listing of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen reported to the Spills Action Centre (SAC). This is not a comprehensive or complete inventory of fuel-related leaks, spills, and incidents in the province; this listing in a copy of incidents reported to the SAC, obtained under Access to Public Information. Includes incidents from fuel-related hazards such as spills, fires, and explosions. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2022

Fuel Oil Spills and Leaks:

### Landfill Inventory Management Ontario:

The Landfill Inventory Management Ontario (LIMO) database is updated every year, as the Ministry of the Environment, Conservation and Parks compiles new and updated information. Includes small and large landfills currently operating as well as those which are closed and historic. Operators of larger landfills provide landfill information for the previous operating year to the ministry for LIMO including: estimated amount of total waste received, landfill capacity, estimated total remaining landfill capacity, fill rates, engineering designs, reporting and monitoring details, size of location, service area, approved waste types, leachate of site treatment, contaminant attenuation zone and more. The small landfills include information such as site owner, site location and certificate of approval # and status.

Government Publication Date: Mar 21, 2022

### Canadian Mine Locations:

240

MINE This information is collected from the Canadian & American Mines Handbook. The Mines database is a national database that provides over 290 listings on mines (listed as public companies) dealing primarily with precious metals and hard rocks. Listed are mines that are currently in operation, closed, suspended, or are still being developed (advanced projects). Their locations are provided as geographic coordinates (x, y and/or longitude, latitude). As of 2002, data pertaining to Canadian smelters and refineries has been appended to this database. Government Publication Date: 1998-2009*

Provincial

Private

Federal List of greenhouse gas emissions from large facilities made available by Environment Canada. Greenhouse gas emissions in kilotonnes of carbon

IAFT

INC

LIMO

GHG

**FSTH** 

GEN

Provincial

Federal

Provincial

### Mineral Occurrences:

### In the early 70's, the Ministry of Northern Development and Mines created an inventory of approximately 19,000 mineral occurrences in Ontario, in regard to metallic and industrial minerals, as well as some information on building stones and aggregate deposits. Please note that the "Horizontal Positional Accuracy" is approximately +/- 200 m. Many reference elements for each record were derived from field sketches using pace or chain/tape measurements against claim posts or topographic features in the area. The primary limiting factor for the level of positional accuracy is the scale of the source material. The testing of horizontal accuracy of the source materials was accomplished by comparing the plan metric (X and Y) coordinates of that point with the coordinates of the same point as defined from a source of higher accuracy.

Government Publication Date: 1846-Feb 2022

### National Analysis of Trends in Emergencies System (NATES):

### significant spill incidents. The data was to be used to assist in directing the work of the emergencies program. NATES ran from 1974 to 1994. Extensive information is available within this database including company names, place where the spill occurred, date of spill, cause, reason and source of spill, damage incurred, and amount, concentration, and volume of materials released. Government Publication Date: 1974-1994*

Non-Compliance Reports: NCPL The Ministry of the Environment provides information about non-compliant discharges of contaminants to air and water that exceed legal allowable limits, from regulated industrial and municipal facilities. A reported non-compliance failure may be in regard to a Control Order, Certificate of Approval, Sectoral Regulation or specific regulation/act.

The Department of National Defense and the Canadian Forces maintains an inventory of all aboveground & underground fuel storage tanks located on

Government Publication Date: Dec 31, 2021

### National Defense & Canadian Forces Fuel Tanks:

DND lands. Our inventory provides information on the base name, location, tank type & capacity, tank contents, tank class, date of tank installation, date tank last used, and status of tank as of May 2001. This database will no longer be updated due to the new National Security protocols which have prohibited any release of this database. Government Publication Date: Up to May 2001*

The Department of National Defense and the Canadian Forces maintains an inventory of spills to land and water. All spill sites have been classified

### National Defense & Canadian Forces Spills:

### under the "Transportation of Dangerous Goods Act - 1992". Our inventory provides information on the facility name, location, spill ID #, spill date, type of spill, as well as the quantity of substance spilled & recovered. Government Publication Date: Mar 1999-Apr 2018

### The Department of National Defence and the Canadian Forces maintains an inventory of waste disposal sites located on DND lands. Where available, our inventory provides information on the base name, location, type of waste received, area of site, depth of site, year site opened/closed and status.

Government Publication Date: 2001-Apr 2007*

### National Energy Board Pipeline Incidents:

### jurisdiction, does not include incident data related to pipelines under provincial or territorial jurisdiction. Government Publication Date: 2008-Jun 30, 2021

National Defence & Canadian Forces Waste Disposal Sites:

### National Energy Board Wells:

241

The NEBW database contains information on onshore & offshore oil and gas wells that are outside provincial jurisdiction(s) and are thereby regulated by the National Energy Board. Data is provided regarding the operator, well name, well ID No./UWI, status, classification, well depth, spud and release date.

(NEB). Includes incidents reported under the Onshore Pipeline Regulations and the Processing Plant Regulations related to pipelines under federal

Government Publication Date: 1920-Feb 2003*

Federal

Provincial

Provincial

Federal

Federal

Federal

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of

**MNR** 

NATE

NDFT

NDSP

NDWD

NFBI

NEBP

Federal Locations of pipeline incidents from 2008 to present, made available by the Canada Energy Regulator (CER) - previously the National Energy Board

Federal

### National Environmental Emergencies System (NEES):

### In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for previous Environment Canada spill datasets. NEES is composed of the historic datasets ' or Trends ' which dates from approximately 1974 to present. NEES Trends is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

Government Publication Date: 1974-2003*

National PCB Inventory: NPCB Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. Federal out-of-service PCB containing equipment and PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites. Some addresses provided may be Head Office addresses and are not necessarily the location of where the waste is being used or stored.

Government Publication Date: 1988-2008*

### National Pollutant Release Inventory:

### Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances. Government Publication Date: 1993-May 2017

Oil and Gas Wells: The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickle's database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Government Publication Date: 1988-Nov 30, 2022

### Ontario Oil and Gas Wells:

### geology/stratigraphy table information, plus all water table information is also provide for each well record. Government Publication Date: 1800-Aug 2021

Inventory of PCB Storage Sites: OPCB The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of PCB storage sites within the province. Ontario Regulation 11/82 (Waste Management - PCB) and Regulation 347 (Generator Waste Management) under the Ontario EPA requires the registration of inactive PCB storage equipment and/or disposal sites of PCB waste with the Ontario Ministry of Environment. This database contains information on: 1) waste quantities; 2) major and minor sites storing liquid or solid waste; and 3) a waste storage inventory.

Government Publication Date: 1987-Oct 2004; 2012-Dec 2013

### Orders:

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### remedial work, (EPA s. 18) - Order for preventative measures, (EPA s. 43) - Order for removal of waste and restoration of site, (EPA s. 44) - Order for conformity with Act for waste disposal sites, (EPA s. 136) - Order for performance of environmental measures. Government Publication Date: 1994 - Jan 31, 2023

Canadian Pulp and Paper: PAP This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

Government Publication Date: 1999, 2002, 2004, 2005, 2009-2014

### Parks Canada Fuel Storage Tanks:

Canadian Heritage maintains an inventory of known fuel storage tanks operated by Parks Canada, in both National Parks and at National Historic Sites. The database details information on site name, location, tank install/removal date, capacity, fuel type, facility type, tank design and owner/operator. Government Publication Date: 1920-Jan 2005

erisinfo.com | Environmental Risk Information Services

OGWF

**NPRI** 

### OOGW In 1998, the MNR handed over to the Ontario Oil, Gas and Salt Resources Corporation, the responsibility of maintaining a database of oil and gas wells

Provincial

Provincial

Private

Federal

NFFS

Federal

Federal

Private

Provincial

Federal

drilled in Ontario. The OGSR Library has over 20,000+ wells in their database. Information available for all wells in the ERIS database include well owner/operator, location, permit issue date, and well cap date, license No., status, depth and the primary target (rock unit) of the well being drilled. All

ORD

PCFT

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include Orders on the registry such as (EPA s. 17) - Order for

### **Pipeline Incidents:**

List of pipeline incidents (strikes, leaks, spills). This is not a comprehensive or complete inventory of pipeline incidents in the province; this listing in an historical copy of records previously obtained under Access to Public Information. Records are not verified for accuracy or completeness. Government Publication Date: Feb 28, 2021

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks and licensed retail fuel outlets. This database includes an inventory of locations that have gasoline, oil, waste oil, natural gas and/or propane storage tanks on their property. The MCCR no longer collects this information. This information is now collected by the Technical Standards and Safety Authority (TSSA).

Permit to Take Water: **PTTW** This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include PTTW's on the registry such as OWRA s. 34 - Permit to take water. Government Publication Date: 1994 - Jan 31, 2023

Ontario Regulation 347 Waste Receivers Summary: REC Part V of the Ontario Environmental Protection Act ("EPA") regulates the disposal of regulated waste through an operating waste management system or a waste disposal site operated or used pursuant to the terms and conditions of a Certificate of Approval or a Provisional Certificate of Approval. Regulation 347 of the Ontario EPA defines a waste receiving site as any site or facility to which waste is transferred by a waste carrier. A receiver of regulated waste is required to register the waste receiving facility. This database represents registered receivers of regulated wastes, identified by registration number, company name and address, and includes receivers of waste such as: landfills, incinerators, transfer stations, PCB storage sites, sludge farms and water pollution control plants. This information is a summary of all years from 1986 including the most currently available data.

The Record of Site Condition (RSC) is part of the Ministry of the Environment's Brownfields Environmental Site Registry. Protection from environmental cleanup orders for property owners is contingent upon documentation known as a record of site condition (RSC) being filed in the Environmental Site Registry. In order to file an RSC, the property must have been properly assessed and shown to meet the soil, sediment and groundwater standards appropriate for the use (such as residential) proposed to take place on the property. The Record of Site Condition Regulation (O. Reg. 153/04) details requirements related to site assessment and clean up.

RSCs filed after July 1, 2011 will also be included as part of the new (O.Reg. 511/09).

Government Publication Date: 1997-Sept 2001, Oct 2004-Dec 2022

Retail Fuel Storage Tanks:

Record of Site Condition:

or propane storage tanks. Government Publication Date: 1999-May 31, 2022

Scott's Directories is a data bank containing information on over 200,000 manufacturers across Canada. Even though Scott's listings are voluntary, it is the most comprehensive database of Canadian manufacturers available. Information concerning a company's address, plant size, and main products are included in this database.

List of spills and incidents made available the Ministry of the Environment, Conservation and Parks. This database identifies information such as location (approximate), type and quantity of contaminant, date of spill, environmental impact, cause, nature of impact, etc. Information from 1988-2002 was part of the ORIS (Occurrence Reporting Information System). The SAC (Spills Action Centre) handles all spills reported in Ontario. Regulations for spills in Ontario are part of the MOE's Environmental Protection Act, Part X. The Ministry of the Environment, Conservation and Parks cites the coronavirus pandemic as an explanation for delays in releasing data pursuant to requests.

Government Publication Date: 1988-Sep 2020; Dec 2020-Mar 2021

Pesticide Register:

The Ontario Ministry of the Environment and Climate Change maintains a database of licensed operators and vendors of registered pesticides.

Government Publication Date: Oct 2011- Dec 31, 2022

# Private and Retail Fuel Storage Tanks:

# Government Publication Date: 1989-1996*

Government Publication Date: 1986-1990, 1992-2019

This database includes an inventory of retail fuel outlet locations (including marinas) that have on their property gasoline, oil, waste oil, natural gas and /

### Scott's Manufacturing Directory:

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### Government Publication Date: 1992-Mar 2011*

# **Ontario Spills:**

# Provincial

Provincial

# Private

### Private

### Provincial

Provincial

Provincial

PES

PINC

PRT

Provincial

Provincial

RSC

RST

SCT

SPL

## Order No: 23022400359

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### erisinfo.com | Environmental Risk Information Services

site/CA number, closure date and site classification. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number. Government Publication Date: Up to Oct 1990* Provincial **WWIS** 

This database describes locations and characteristics of water wells found within Ontario in accordance with Regulation 903. It includes such information as coordinates, construction date, well depth, primary and secondary use, pump rate, static water level, well status, etc. Also included are detailed stratigraphy information, approximate depth to bedrock and the approximate depth to the water table.

Government Publication Date: Jun 30 2022

### Wastewater Discharger Registration Database: Facilities that report either municipal treated wastewater effluent or industrial wastewater discharges under the Effluent Monitoring and Effluent Limits

Refining, Organic Chemicals, Inorganic Chemicals, Pulp & Paper, Metal Casting, Iron & Steel, and Quarries. Government Publication Date: 1990-Dec 31, 2020

Anderson's Storage Tanks: TANK The information provided in this database was collected by examining various historical documents, which identified the location of former storage tanks, containing substances such as fuel, water, gas, oil, and other various types of miscellaneous products. Information is available in regard to business operating at tank site, tank location, permit year, permit & installation type, no. of tanks installed & configuration and tank capacity. Data contained within this database pertains only to the city of Toronto and is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

(EMEL) and Municipal/Industrial Strategy for Abatement Regulations. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment keeps record of direct dischargers of toxic pollutants within nine sectors including: Electric Power Generation, Mining, Petroleum

Government Publication Date: 1915-1953*

### Transport Canada Fuel Storage Tanks:

List of fuel storage tanks currently or previously owned or operated by Transport Canada. This inventory also includes tanks on The Pickering Lands, which refers to 7,530 hectares (18,600 acres) of land in Pickering, Markham, and Uxbridge owned by the Government of Canada since 1972; properties on this land has been leased by the government since 1975, and falls under the Site Management Policy of Transport Canada, but is administered by Public Works and Government Services Canada. This inventory provides information on the site name, location, tank age, capacity and fuel type. Government Publication Date: 1970 - Apr 2020

### Variances for Abandonment of Underground Storage Tanks:

Listing of variances granted for storage tank abandonment. This is not a comprehensive or complete inventory of tank abandonment variances in the province; this listing is a copy of tank abandonment variance records previously obtained under Access to Public Information. In Ontario, registered underground storage tanks must be removed within two years of disuse; if removal of a tank is not feasible, an application may be sought for a variance from this code requirement.

Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2022

Waste Disposal Sites - MOE CA Inventory:

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of known open (active or inactive) and closed disposal sites in the Province of Ontario. Active sites maintain a Certificate of Approval, are approved to receive and are receiving waste. Inactive sites maintain Certificate(s) of Approval but are not receiving waste. Closed sites are not receiving waste. The data contained within this database was compiled from the MOE's Certificate of Approval database. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number. All new Environmental Compliance Approvals handed out after Oct 31, 2011 for Waste Disposal Sites will still be found in this database.

Government Publication Date: Oct 2011- Dec 31. 2022

# Waste Disposal Sites - MOE 1991 Historical Approval Inventory:

In June 1991, the Ontario Ministry of Environment, Waste Management Branch, published the "June 1991 Waste Disposal Site Inventory", of all known active and closed waste disposal sites as of October 30st, 1990. For each "active" site as of October 31st 1990, information is provided on site location, site/CA number, waste type, site status and site classification. For each "closed" site as of October 31st 1990, information is provided on site location,

Water Well Information System:

Provincial

Provincial

Provincial

SRDS

TCFT

VAR

Private

Federal

Provincial

WDS

**WDSH** 

# Definitions

**Database Descriptions:** This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

**Detail Report**. This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

*Elevation:* The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

*Executive Summary:* This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

<u>Map Key:</u> The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

<u>Unplottables:</u> These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

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# **APPENDIX 3**

**QUALIFICATIONS OF ASSESSORS** 



# Jeremy Camposarcone, B.Eng. Junior Environmental Engineer

Jeremy joined Paterson Group in 2020 as part of the Environmental Group. Jeremy received his Bachelor of Engineering in Environmental Engineering from Carleton University in 2019. Jeremy completed his studies while researching water treatment processes for the wastewater effluent of a hydrothermal carbonization reactor. His responsibilities as a field engineer have brought him to various projects throughout the Ottawa-Valley. In his time with Paterson, Jeremy has been involved with residential and commercial development within Ottawa and the surrounding area. His scope of work consists of environmental investigation and reporting, field inspection, field testing, quality control and quality assurance.

### **EDUCATION**

Bachelor of Engineering in Environmental Engineering, 2019 Carleton University Ottawa, Ontario

# LICENCE/PROSSFEIONAL AFFILIATIONS

PEO Engineer in Training

YEARS OF EXPERIENCE

With Paterson: 2

### **OFFICE LOCATION**

9 Auriga Drive, Ottawa, Ontario, K2E 7T9

### SELECT LIST OF PROJECTS

- PSPC, Confederation Heights Redevelopment, Ottawa, ON - Phase I and II ESA program for site redevelopment.
- Travelodge Hotel, Carling Avenue, Ottawa, ON – Remediation Program, Phase I and II ESA, Underground Storage Tank Pull and Remediation (Site Remediation Coordinator & Supervisor)
- Caivan Residential Development, Navan, ON - Large-Scale Remediation, Groundwater Monitoring, Phase I and II ESA, Remedial Action Plan (Site Remediation Coordinator & Supervisor)
- Rideau Centre Expansion, Ottawa, ON Phase I and II ESA, Soil Remediation Program
- Ottawa Trainyards, Ottawa, ON Large-Scale Remediation, Phase I and II ESA (Site Remediation Coordinator & Supervisor)
- Major Building, Downtown Ottawa, ON Phase I and II ESA



## **PROFESSIONAL EXPERIENCE**

### 2019 to present, Junior Environmental Engineer, Paterson Group, Ottawa, Ontario

- Conduct Phase I and Phase II Environmental Site Assessments (ESAs), Soil and Groundwater Remediation Programs and the preparation of Records of Site Condition
  - Manage excavation contractors to ensure soil quality control; daily reporting to project manager
- Present analytical test results, interpretations, assessments, recommendation and/or conclusion in a final technical report
- Oversee geotechnical investigations for test pitting on numerous proposed utility installations, residential and commercial developments.
- Conduct laboratory testing program of soils and water for detail recommendations
- Problem solving to complete analysis required
- Adapt to unforeseen on-site challenges and provide first-hand insights to help collaborate toward a solution
- Oversee large-scale remediation projects and monitor material being excavated
- Monitor and sample multiple groundwater wells with a high degree of precision regarding the quality and parameters of the sample
- On-site settlement plate surveying of future residential developments





# Mark S. D'Arcy, P.Eng., QP_{ESA} Senior Environmental/Geotechnical Engineer

After receiving his Bachelors of Applied Science from Queen's University in 1991 in Geological Engineering, Mark joined Paterson Group Inc. During the first 10 years of Mark's career, he was heavily involved in all aspects of field work, including drilling boreholes, excavating test pits, conducting phase I site inspections, environmental sampling and analysis and inspection of environmental remediations. During Mark's field experience, he gained invaluable field and office experience, which would prepare Mark to become the Environmental Division Manager. Mark's field experience ranges from Phase I Environmental Site Assessments (ESAs) to on-site soil and groundwater remediations, as well as, environmental/geotechnical borehole investigations. Mark's field experience has provided extensive knowledge of subsurface conditions, contractor relations and project management. These skills would provide Mark with the ability to understand a variety of situations, which has lead Paterson to an extremely successful Environmental Department. Mark became the Environmental Manager in 2006, which consisted of two engineers and two field technicians. Mark has been an integral part in growing the Environmental Division, which now consists of nine engineers and three field technicians. Mark is the Senior Project Manager for a wide variety of environmental projects within the Eastern Ontario area including Phase I ESAs, Phase II ESAs, remediations for filing Records of Site Condition in the Ontario Ministry of the Environment and Climate Change (MOECC) Environmental Site Registry, Brownfield Applications and Landfill Monitoring Programs. As the Senior Project Manager, Mark is responsible for directing project personnel, final report review and overall project success. Mark has proven leadership and ability to manage small to large scale projects within the allotted time and budget.

### **EDUCATION**

B.A.Sc. 1991, Geological Engineering Queen's University Kingston, ON

### LICENCE / PROFESSIONAL AFFILIATIONS

Professional Engineers of Ontario

Ottawa Geotechnical Group

ESA Qualified Person with MECP

Consulting Engineers of Ontario

### **YEARS OF EXPERIENCE**

With Paterson: 31

### **OFFICE LOCATION**

9 Auriga Drive, Ottawa, Ontario, K2E 7T9

### **SELECT LIST OF PROJECTS**

- 222 Beechwood Avenue, Ottawa, Ontario (Senior Project Manager for Phase I ESA, Phase II ESA, Environmental Remediation)
- 409 MacKay Street, Ottawa, Ontario (Senior Project Manager for Phase I ESA, Phase II ESA, Phase III ESA, Environmental Remediation)
- Art's Court Redevelopment, Ottawa, Ontario (Senior Project Manager for Phase I ESA, Phase II ESA, Phase III ESA, Environmental Remediation)
- Visitor Welcome Centre, Phase II and Phase III, Parliament Hill, Ottawa, Ontario (Senior Project Manager for Environmental Remediation)
- Mattawa Landfill, Mattawa, Ontario (Senior Project Manager, Annual Water Quality Monitoring report)
- Multi-Phase Redevelopment of the Ottawa Train Yards, Ottawa, Ontario (Senior Project Manager)
- Rideau Centre Expansion, Ottawa, Ontario (Senior Project Manager for Phase I ESA, Phase II ESA, Phase III ESA, Environmental Remediation)
- 26 Stanley Avenue, Ottawa, Ontario, Phase I ESA, Phase II ESA(Senior Project Manager)
- Riverview Development Kingston, Ontario, Phase I ESA, Phase II ESA, and filing of an RSC in the MOECC Environmental Site Registry (Senior Project Manager)
- Monitoring Landfills for River Valley, Kipling and Lavagine (Senior Project Manager)
- Energy Services Acquisition Program–Modernization Project- Ottawa; Environmental Services (Senior Project Manager)



## **PROFESSIONAL EXPERIENCE**

### May 2001 to present, Manager of Environmental Division, Paterson Group, Ottawa, Ontario

- Manage all aspects of the environmental division (management of personnel, budgeting, invoicing, scheduling, business development, reporting, marketing, and fieldwork).
- Review day to day operations within the environmental division.
- Design, perform, and lead Phase I, II and Phase III ESAs, Remediation's, Brownfield Applications and Record of Site conditions, fieldwork surveys, excavation, monitoring, laboratory analysis, and interpretation.
- Write, present, and publish reports with methodology and laboratory analysis results, along with recommendations for environmental findings.
- Responsible for ensuring projects meet Ministry of Environment and Climate Change Standards and Guidelines.
- Building and fostering relationships with clients, stakeholders, and Ministry officials.
- Supervise and continuous training of staff in environmental methods (environmental sampling techniques, technical expertise and guidance).
- Applied due diligence in ensuring the health and safety of staff and the public in field locations.

### 1991 to 2001, Geotechnical and Environmental Engineer, Paterson Group, Ottawa, Ontario

- Provide on-site geotechnical and environmental expertise to various clients.
- Oversee geotechnical and environmental investigations for drilling and test pitting on numerous proposed utility installations, residential and commercial developments.
- Problem solving to help advance or maintain project schedules.
- Complete environmental reports with recommendations to meet environmental standards set by MOE and CCME standards.
- Conduct site inspections, bearing medium evaluations, bearing surface inspections, concrete testing and field density testing.
- Liaising with contractors, consultants and government officials.
- Provide cost estimates for geotechnical and environmental field programs and construction costs.
- Review RFI's, submittals, monthly progress reports and other various construction related work.

Appendix F Pre-consultation

Pre-application Consultation PC2023-0001 1184, 1188 and 1196 Cummings Avenue

### Zoning By-law Amendment and Site Plan Control

Follow up Meeting Notes (revised), sent on 8 February 2023

Meeting Date: 13 January 2023

Attendees:

Location: Virtual meeting via Teams software

TCU Dev. Corp. -Dylan Desjardins, Vice President Operations -Brendan Kuffner, Assoc., Acquisition & Private Equity

Project 1 Studio -Ryan Koolwine

Fotenn Planning + Design -Tamara Nahal, Planner -Brian Casagrande, Partner -Timothy Beed, Senior Planner

City of Ottawa

ROW, Heritage and UD -Moise Christopher, Urban Designer

Parks and Facilities Planning -Phil Castro, Parks Planner

Development Review -Alex Polyak, Project Manager -Michael Boughton, Senior Planner -Patrick McMahon, Transportation Eng. -Evode Rwagasore, Planner

### **Proposal summary**

The proposal is in a form of a residential development that will consist of a six (6) storey apartment building. The three existing detached dwellings located on 1184, 1188 and 1196 Cummings Avenue will be demolished

The properties southern side lot line abuts local commercial - a gas station and car wash. The northern side lot line abuts a detached residential dwelling. The rear lot line abuts Ogilvie Court a Planned Unit Development made up of townhouses and apartment building. Across the street there is currently local commercial. The property has frontage on Cummings Avenue, a major collector road. Approximately 40 metres south of the property, Cummings Avenue intersects with Ogilvie Road, an arterial road.

As part of Planning review, we will evaluate the proposed development against the Ottawa Official Plan, Zoning By-law 2008-250, and other relevant guidelines.

### PLANNING COMMENTS _ Evode Rwagasore - Evode.Rwagasore@ottawa.ca

**Official Plan** - The City's *Official Plan* (OP) designates the subject site "Mixed-Use Centre". The Mixed-Use Centre designation supports higher densities, and compact and mixed-use development oriented to rapid transit.

**Secondary Plan -** The property is in the planning area of the Tremblay, St. Laurent and Cyrville Secondary Plan, which provides direction on maximum building heights and minimum densities. According to Schedule C of the Secondary Plan- Cyrville Transit-Oriented Development – Maximum Building Heights – the maximum number of storeys is 6 storeys and the minimum density is 150 units per net hectare (residential) and/or 0.5 floor space index (non-residential).Based on the preliminary plan between 32 to 40 unites are proposed. At 32 units the density for the site is 229 dwelling units/hectare and at 40 units the density for the site is 287 dwelling unites/hectare.

**Community Design Plan (CDP)** - Transit-Oriented Development Plans are a form of CDP. The property is in the *Cyrville TOD plan*. All six TOD studies are included in one document entitled, Transit-Oriented Development (TOD) Plans – Lees, Hurdman, Tremblay, St. Laurent, Cyrville Blair. The study area boundaries for the Transit Oriented Development (TOD) Plans were established based on an approximate 10-minute (800 metre) walking distance from the transit stations. The CDPs build upon previous plans and complement other general design guidelines prepared by the City and which may be applied to the area. Where a CDP conflicts with previously adopted guidelines, the guidelines in the CDP shall prevail. All TOD Plans are within a Design Priority Area as defined in the *Official Plan*.

**Guidelines** - The City has adopted Transit-Oriented Development (TOD) Guidelines for use in the Mixed Use Centres to assist applicants in submitting well-designed, context-sensitive development applications.

**Zoning** - The site is currently zone Residential Third Density, Subzone Y, Urban Exception 708 (R3Y [708]). The Planning Rationale and proposed site plan will need to demonstrate compliance with the proposed Transit Oriented Development Subzone 1 (TD1) provisions. Buildings in the TD1 zone are to have a minimum density of 150 units per net hectare for residential or a minimum Floor Space Index (FSI) 0.5 for non-residential land use. Proponents are encouraged to provide higher than the minimum densities required in the applicable TOD zone to bolster transit supportability. Buildings in this Zone shall range in height from two storeys to six storeys, and will be comprised of one or more of stacked dwellings, townhouses, apartment dwellings, or mixed-use and commercial uses. New single and semi-detached dwellings are not permitted. The maximum building height in any area up to and including 15 metres from a property line abutting a R3 zone is 14.5 metres.

To move forward a Major Zoning Amendment Application is required, and this proposal will be treated through a Site Plan Control Application - New Complex requiring an agreement.

Application forms, timeline and fees can be found through **Development applications | City of Ottawa** 

### **Planning Application Fees**

Please note fees increase each year.

1. Zoning By-law Amendment: Major Zoning Amendment fee + Conservation Authority Fee 2. Site Plan Control Approval: New Complex + Initial Engineering Design Review and Inspection Fee, Ranges from \$1000 to \$10,000 dependent on value of hard and soft servicing + Conservation Authority Fee

**Note 1**: Additional Engineering Design Review and Inspection Fees of 4.5 % of the value of the hard servicing (road, sewers, watermains, sidewalks, curbs, stormwater, etc.) and 2.25 % of the soft servicing (landscaping, parking lot construction, etc.) are payable prior to the registration and should be forwarded to the Assigned Staff. The Engineering Design Review and Inspection Flat Rate Fee collected at submission will be credited to these fees. If the Site Plan process does not involve an agreement the Engineering Design Review and Inspection, Fee is required prior to Site Plan Approval.

**Note 2:** Each planning fee will be reduced by 10 % if two or more planning application are submitted at the same time and for the same lands. Conservation Authority, Engineering Design Review, Inspection fees and applications for Municipal Review and Concurrence of an Antenna System are not subject to this reduction.

### **Parkland Dedication**

Any development application to which cash-in-lieu of parkland is applicable and for which an appraisal is required, will be subject to a fee for appraisal services as per the Parkland Dedication By-law.

### ENGINEERING COMMENTS _ Alex Polyak - Alex.Polyak@ottawa.ca

### Zoning By-Law Amendment

Confirm if existing services (storm, water, sanitary) are adequate to service the site.

Submission Documents:

- General Plan of Services
- Design Brief
- Geotechnical Report including a slope stability analysis

### Services fronting the property:

- 250mm diameter AC Sanitary
- 600mm diameter concrete Storm
- 305mm diameter Ductile Iron Watermain

Some Engineering Design Criteria to consider under a site plan control process:

Design Criteria - Civil Engineer to contact Alex Polyak directly

Storm post to pre, C of .5 or existing (whichever is more restrictive), Pre tc 20; post tc 10

Onsite, 5-year pipe minimum and store up to 100-year on site. No 2-year ponding onsite. Permissible ponding of 350mm for 100-year. No spilling to adjacent properties. At 100-year ponding elevation you must spill to City ROW 100-year Spill elevation must be 300mm lower than any building opening

<u>Water Boundary condition</u> requests must include the location of the service and the expected loads required by the proposed development. Please provide the following information:

- Location of service connections (MAP)
- Type of development and the amount of fire flow required (as per FUS).
- Average daily demand: _____ l/s.
- Maximum daily demand: ___l/s.
- Maximum hourly daily demand: ____ l/s

### Asset Management

There is an existing constraint in the downstream existing sanitary sewer on St. Laurent under the 417.

### TRANSPORTATION _ Patrick McMahon - Patrick.McMahon@ottawa.ca

- Follow Traffic Impact Assessment Guidelines
  - Start this process as soon as possible.
  - Applicant advised that their application will not be deemed complete until the submission of the draft step 1-4.
- Cummings has a right of way protection of 26m as per the Official Plan. The existing ROW is approximately 20m, therefore a widening of approximately 3m will be required along the site frontage. Show this widening on future plans. Cummings is also being evaluated for cycling facilities within the draft Transportation Master Plan. If funding for the City project and timing align, opportunities should be sought to coordinate construction efforts.
- Ensure that sufficient accessible parking spaces are provided as per AODA requirements.

Future site plan considerations:

- Access location further away from Ogilvie is preferred, however any queueing impacts can be assessed within the TIA to determine whether a northbound left-turn would be warranted.
- Clear throat requirements for 100-200 apartment units accessing from a collector road are 15m which is met as proposed.
- Given TOD status and cycling infrastructure nearby, meeting one bicycle parking space per unit is recommended as well as other TDM measures given then the site is at the edge of the TOD zone.
- A noise study will be required due to proximity to Cummings and Ogilvie. Stationary noise may also need review if there is exposed mechanical equipment.
- Emsure that all previous accesses are removed and the sidewalk and curb are reinstated to full height.

### FORESTRY _ Mark Richardson - Mark.Richardson@ottawa.ca

• A Tree Conservation Report is not mandatory but recommended at this stage; it will be required for Site Plan

### ENVIRONMENTAL PLANNING _ Sami Rehman - Sami.Rehman@ottawa.ca

"I don't see any major environmental concerns with the proposed development on the subject property.

However, since this proposal is over 4-storeys, I would suggest they review and incorporate design elements from the City's Bird-safe Design Guidelines into their proposal. I would also encourage them to plan as many locally appropriate native trees and shrubs as they can to help reach our urban canopy target."

### URBAN DESIGN _ Christopher Moise - Christopher.Moise@ottawa.ca

- The site is within a Design Priority Area and the proposal is subject to review by the City's Urban Design Review Panel prior to the application being deemed complete. Note this will be an Informal visit (prior to a full submission and is not a public meeting). Please contact udrp@ottawa.ca for details on submission requirements and scheduling.
- We recommend additional information to better understand the light well into the basement amenity space.
- We recommend a plan that illustrates the setback alignment with neighbouring properties to better understand the building placement in relation to the streetscape and surrounding existing and future development.
- We recommend investigating grade accessible units to the street if appropriate on one or both street frontages.
- We recommend tree planting in front of the buildings street facing facades.
- A scoped Design Brief is a required submittal (and separate from any UDRP submission) for all Site Plan/Re-zoning applications and can be combined with the Planning Rationale. Please see the Design Brief Terms of Reference provided for reference.
  - It is important to study the broader existing and future contexts.
  - It is important to explore and analyze alternative site planning and massing options.
    Alternative options explored and the analysis should be documented in the Design Brief.
  - A shadow study is required. Please refer to the Terms of Reference for the <u>shadow</u> <u>analysis</u> to conduct the study and evaluate the impacts.
  - Note. The Design Brief submittal should have a section which addresses these preconsultation comments.

### SUBMISSION REQUIREMENTS

- Site Plan.
- Landscape Plan / Tree Conservation Report
- Planning Rationale (including Design Statement)
- Coloured Elevations
- Site Survey Plan
- Phase 1 ESA
- General Plan of Services
- Design Brief
- Geotechnical Report including a slope stability analysis
- USB stick (all submitted plans and reports in .pdf format).

### Other points to note:

1. Contact the Conservation Authority (RVCA) Office for their requirements

2. As a suggestion, if you have not already done so, please contact and brief the Ward Councillor on your proposed application.

3. Minimum drawing and file requirements - All plans

Plans are to be submitted on standard A1 size (594mm x 841mm) sheets, utilizing an appropriate Metric scale (1:200, 1:250, 1:300, 1:400, or 1:500).

4. Please use the standard border (below)

A0.1 Place on all plans; DWG # and D07 # as per sample



Use Bold Black text:

Your Numbers are as per the colours listed here. DWG XXXXX (place number on the bottom right) D07 Number D07-12-23-

5. For information/question related to Development Charge, please contact AJ Mohmmand, Development Information Officer, Suburban East at <u>DIOCentrum@ottawa.ca</u> or 613-580-2424, ext. 29674

If you have any questions or require clarification with the above information, please contact me.

Sincerely,

Evode Rwagasore