Appendix I – Highway 401 and Power Dam Drive Interchange Environmental Noise Assessment

FINAL REPORT

HIGHWAY 401 AND POWER DAM DRIVE INTERCHANGE

CORNWALL, ONTARIO

ENVIRONMENTAL NOISE ASSESSMENT
RWDI #2104052/ MTO WORK ORDER4017-E-0023
June 28, 2024

SUBMITTED TO

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EXECUTIVE SUMMARY

Morrison Hershfield retained RWDI to complete an environmental noise assessment for the proposed new interchange of Highway 401 and Power Dam Drive in Cornwall, Ontario. The undertaking covers the roadway segment from Brookdale Avenue to McConnell Avenue.

The objective of the study is to predict operational sound levels as it relates to the Project and provide mitigation measures to minimize the potential for noise impacts, along with a feasibility assessment for any mitigation recommendations, if necessary. Construction sound levels were also investigated, and high-level, conceptual mitigation measures were recommended.

The relative increase in future sound levels due to the undertaking was not significant, i.e. less than 5 dB as per MTO, at any of the noise-sensitive receivers. However, future ambient absolute sound levels with the undertaking exceeded 65 dBA at two locations. Thus, noise mitigation was considered but not recommended as it is not economically feasible.

Construction sound is temporary in nature but will be noticeable at times at existing noise sensitive areas in proximity to the activity. The estimated maximum sound level of the construction noise is approximately 73 dBA at locations nearest to the construction activity. This estimated sound level has the potential to be an annoyance to receptors within the study limits of this project. For receptors with a larger separation distance, the anticipated sound level due to construction will be lower. Methods to minimize construction noise impacts could be included in the contract language, as outlined in this report.

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1 INTRODUCTION

Morrison Hershfield retained RWDI to complete an environmental noise assessment for the proposed interchange around the intersection of Highway 401 and Power Dam Drive in Cornwall, Ontario. The project is under the Ontario Ministry of Transportation (MTO) Work Order 4017-E-0023 Large Value Retainer 18; GWP 4092-19-00. The undertaking covers the roadway segment from Brookdale Avenue to McConnell Avenue.

The objective of the assessment is to predict sound levels as related to the project and assess mitigation measures to minimize any potential impacts, if necessary.

A plain language description of the terminology and relationships between everyday sounds to aid the non-technical reader is provided in **Appendix A**.

1.1 Project Description

The Project involves a proposed new interchange at Highway 401 and Power Dam Drive. The intent of the Project is to accommodate future traffic demand. The Study Area covers the interchange around the intersection of Highway 401 and Power Dam Drive as shown in **Figure 1**. There are no existing noise walls, therefore no noise walls were included in the assessment. The future traffic volumes for both the Future build (i.e. new interchange implemented) and Future No-build (i.e. do nothing) scenarios were based on the data provided by MTO.

Noise sensitive areas were identified within the Study Area. Receivers within the noise sensitive areas expected to have worst-case sound levels have been presented in detail.

2 APPLICABLE GUIDELINES

A number of guidelines and documents related to assessing road traffic and construction noise impacts have been reviewed that are applicable to this project and are presented herein.

2.1 Operational Noise Guidelines and Policies

The MTO has two current guidelines and documents related to assessing MTO highway road traffic noise impacts. These documents and policies are:

- Ontario MTO, Environmental Guide for Noise (MTO February 2022)
- Ontario MTO, Environmental Reference for Highway Design (MTO 2009)

These guidelines apply to construction of new provincial highways, and reconstruction of existing provincial highways. The Environmental Guide for Noise includes guidance on roadway construction activities.

Sound impacts are assessed by comparing the future sound levels with and without the proposed undertaking. Sound levels are evaluated as 24-hour equivalent sound level based on the Average Annual Daily Traffic (AADT). If the predicted changes are equal or greater than 5 dBA, or if the future sound levels with the undertaking are equal or greater than 65 dBA, noise mitigation is investigated. Noise control measures have to be technically, economically, and administratively feasible.

2.2 Construction Noise Guidelines

2.2.1 Local Noise Control By-laws

MTO has reviewed and updated its practices related to obtaining noise bylaw exemption permits. Given that MTO is legally exempt from the requirements of municipal noise bylaws, MTO will no longer be applying for these permits. MTO recognizes the impacts construction related noise can have on a community, and MTO will ensure clear and frequent communication with the municipality to work within the spirit of the municipal noise bylaw. All reasonable attempts will be made including as appropriate, public notification and mitigation measures to reduce noise.

2.2.2 MOE Model Municipal Noise Control Bylaw

The Ministry of the Environment, Conservation and Parks (MECP) stipulates limits on sound levels from individual items of equipment, rather than for overall construction noise. In the presence of persistent noise complaints, sound emission standards for the various types of construction equipment used on the project should be checked to ensure that they meet the specified limits contained in MOE Publication NPC-115 - “Construction Equipment”, as noted in **Table 1** (MOE, 1977b) (presented after the report text).

3 NOISE SENSITIVE AREAS

A Noise Sensitive Area (NSA) is defined as the area where the MTO sound objectives apply and should be considered when investigating the sound levels associated with the operational noise of a roadway. The NSAs are the areas that may eventually qualify to receive noise mitigation in the form of noise barriers if the sound levels exceeded the MTO criteria and if the barriers are deemed technically, economically, and administratively feasible.

Under the Environmental Guide for Noise, traditional NSAs include the following land uses, provided they have an outdoor area associated with them (MTO, 2022):

- Private homes (single family units and townhouses)
- Multiple unit buildings such as apartments, provided they have a communal outdoor living area associated with them
- Hospitals and nursing homes for the aged, provided they have an outdoor living area for use by patients

The following land uses are generally not considered NSAs by the either the MTO or the MECP:

- Apartment balconies
- Cemeteries
- All commercial
- All industrial

3.1 Location and Number of NSAs within the Area of Investigation

The general locations of the six identified NSAs within the Area of Investigation for the project are shown in **Figure 1**. The NSAs highlighted consist mainly of residential dwellings on both the north and south sides of the roadway. The maximum area of investigation as defined in the MTO's Environmental Guide for Noise, is 600 m perpendicular from the closest edge of pavement. Once the nearest receiver is identified, within the 600 m search radius, it is considered representative for the worst-case roadway impacts with the sound levels comparably decreasing at larger setbacks. The list of NSAs can be summarized as follows:

- **NSA #1:** Residential dwellings located north of Highway 401 on Highway 36
- **NSA #2**: Residential dwellings located north of Highway 401 on Power Dam Drive and Headline Road
- **NSA #3**: Residential dwellings located north of Highway 401 on Speer Road
- **NSA #4**: Residential dwellings located south of Highway 401 on Cornwall Centre Road
- **NSA #5**: Residential dwellings located south of Highway 401 on Power Dam Drive and Atchison Road
- **NSA #6**: Residential dwellings located south of Highway 401 on Highway 36

3.2 Representative NSAs for Analysis

Receivers within each of the six NSAs have been identified based on updated aerial photography of the area. The receptors included within each NSA is shown in Figures 2. Sound levels at other receivers within the area of investigation are expected to be lower given the shielding effects and larger setbacks. Receivers are modelled at a height of 1.5 m above local grade based on MTO guidance.

4 OPERATIONAL NOISE IMPACTS

4.1 Analysis

Current and future road traffic data were provided for Highway 401 and its main intersecting roads in the traffic study for the Study Area. Ramp traffic data were not provided, however, ramp traffic is not expected to have a large contribution to the overall sound levels. The provided future data were for year 2041 and represents the future horizon. The highest of the AM/PM non-summer weekday peak hour and summer weekend peak hour was used to determine the AADT. The AADT is assumed to be 10 times the peak hour volume which aligns with the Institute of Transportation Engineers hourly traffic distribution (ITE, 2010) and was an approved approach upon communication with MTO. The MTO data included vehicle breakdown and trucks percentages for the roads under investigation. A summary of the traffic data is provided in **Table 2** with the raw traffic data included in **Appendix B**.

The implementation of the United States Federal Highway Administration Traffic Noise Model (TNM) version 2.5 (FHWA, 1998) by Cadna/A was used in the current assessment. The global ground absorption coefficient for Cadna/A is 0.8 which is predominantly grassy areas separating the receivers from the highway. Sound levels at the identified receptors, with and without the undertaking, were predicted and summarized in **Table 3**.

The relative increase in the future sound levels as a result of the undertaking as compared with the no-built scenario did not trigger the 5 dBA criteria. However, the absolute future sound levels exceeded 65 dBA at one receptor in NSA #3 and one receptor in NSA #4. Thus, noise mitigation was considered and is discussed in the followed section.

4.2 Investigation of Noise Mitigation

As part of the scope of the current assessment, noise mitigation was investigated for the future scenario with the undertaking. As previously indicated the sound levels at two receivers are in exceedance of 65 dBA. Barriers are assessed at a height of 5 m, which is typically the maximum height at which MTO constructs noise barrier walls. Mitigation must attempt to achieve levels as close to, or lower than, the objective level which being technically, economically, and administratively feasible. Technically feasible barriers should achieve on average 5 dB noise reduction at the first-row receivers behind the noise barrier. Barriers failing to meet the technical feasibility criteria are not anticipated to provide an acoustical benefit, thus not investigated further. Changes in sound levels become just perceptible at 3 dB difference, whereas at a difference of 5 dB, the change is clearly perceptible. The economic feasibility is determined by estimating the cost per benefited receptor. For the sake of the current analysis, the following assumptions were considered:

- Benefited receptors are the ones that got at least 5 dB noise reduction as a result of the barrier;
- The average cost for a typical concrete wall is approximately $600 per square meter. This cost is assumed to be double for walls on structures such as overpasses; and
- Typical acceptable cost per benefited receptor is $120,000.

Administrative feasibility limits the barrier location to the lands within MTO right-of-way.

4.2.1 Noise Barrier #1 for NSA 3

A noise barrier is proposed to protect the first-row receivers within NSA #3, the closest of which is predicted to experience exceedances over the 65 dBA criteria. However, the barrier wall will provide protection for receivers beyond the first row. The wall is proposed to cover 230 m on the north side of Highway 401 situated on the overpass located at Cornwall Centre Road as shown in Figure 3. The noise wall is predicted to achieve a reduction of 5 dB at the first-row receivers (R3_039) so it is technically feasible. However, the cost of the barrier is deemed not feasible and was not further investigated. **Table 4** (after the report) summarizes the feasibility.

4.2.2 Noise Barrier #2 for NSA 4

A noise barrier is proposed to protect the first-row receivers within NSA #4, the closest of which is predicted to experience exceedances over the 65 dBA criteria. However. The barrier wall will only provide protection for receivers beyond the first row. The wall is proposed to cover 230 m on the south side of Highway 401 located at Cornwall Centre Road as shown in Figure 3. The noise wall is predicted to achieve a reduction of 5 dB at the first-row receivers (R4_049) so it is technically feasible. However, the cost of the barrier is deemed not feasible and was not further investigated. Table 5 (after the report) summarizes the feasibility.

5 CONSTRUCTION NOISE IMPACTS

Construction activities are temporary in nature, and largely unavoidable. With adequate controls, impacts can be minimized. However, for some periods of time and types of work, construction noise will be noticeable. Sound levels from construction at a given receptor location will also vary over time as different activities take place, and as those activities change location within the right-of-way.

A high-level analysis of potential worst-case construction sound levels has been conducted based on generic data (equipment types and activities). The list of equipment used for roadway and bridge construction (i.e. Power Dam Drive overpass), their locations and the anticipated sound levels are summarized in **Appendix C**. The closest receivers to roadway construction are residential homes located on Barnsdale Road approximately 30 meters from the edge of the road and 160 m from the bridge. The sound levels at these receivers resulting from roadway construction are predicted to be approximately 77 dBA and 87 dBA, respectively. The analysis shows that construction sound levels generally decrease as distance to the receiver increases. Moreover, the construction noise is temporary in nature and will vary based on the activities that take place. The presented sound levels are for the parallel operation of all the equipment, with the duty cycles and equipment distribution, provided in **Appendix C**.

The estimated sound levels have the potential to be an annoyance to homes within the study limits of this project. A comparative chart of sound pressure levels and human perception to aid the reader is found in **Appendix A.** There are presently no receptor-based limits for roadway construction noise impacts. MOE NPC-115 should be followed and actions are required if noise sensitive receptors create complaints. Conceptual noise mitigation measures have been provided in the next section to minimize the potential for noise impacts.

5.1 Conceptual Noise Mitigation

Based on the anticipated construction sound levels, mitigation measures are provided below to minimize the potential for construction noise impacts. It is expected that these be written into the contract documentation for the contractor.

- There should be explicit indication that Contractors are expected to comply with all applicable requirements of the contract.
- All equipment should be properly maintained to limit noise emissions. As such, all construction equipment should be operated with effective muffling devices that are in good working order.
- Monitor and maintain haul routes to minimize movement over rough ground and potholes which in turn can generate noise.
- All equipment shall be kept in good working order as deterioration may increase equipment sound levels. A documented, regular inspection and maintenance program must be implemented.
- Vehicle on-site speed limits must be met and will be enforced.
- Idling vehicles will be kept to a minimum.
- In the presence of persistent noise complaints, all construction equipment should be verified to comply with MOE NPC-115 guidelines.

- In the presence of persistent complaints and subject to the results of a field investigation, alternative noise control measured may be required, where reasonably available. In selecting appropriate noise control and mitigation measures, consideration should be given to the technical, administrative, and economic feasibility of the various alternatives.

6 CONCLUSIONS

An environmental noise assessment of the proposed interchange at Highway 401 and Power Dam Drive in Cornwall, Ontario has been completed by RWDI.

The relative increase in the future sound levels as a result of the undertaking as compared with the no-built scenario did not trigger the 5 dBA criteria. Noise mitigation was investigated because the future sound levels attributed to Highway 401 exceeded 65 dBA at two receivers. However, the proposed noise barriers are not economically feasible, thus not recommended.

Construction sound is temporary in nature but will be noticeable at times at existing receptors in proximity to the activity. The estimated construction sound levels have the potential to be an annoyance to receptors within the study limits of this project. It is expected that mitigation measures based on best practices be written into the contract documentation for the contractor.

7 REFERENCES

1. Institute of Transportation Engineers (ITE), 2010, Traffic Engineering Handbook, 6th Edition.
2. City of Ottawa, 2022, By-law 2017-255, Noise By-Law.
3. Ontario Ministry of Transportation (MTO), 2006, Environmental Guide for Noise updated July 2008
4. Ontario Ministry of Transportation (MTO), 2009, Environmental Reference for Highway Design
5. Ontario Ministry of the Environment (MOE), 1977b, Model Municipal Noise Control Bylaw, which includes Publication NPC-115 – Construction Equipment
6. TNM - FHWA Federal Highway Administration Model (http://www.trafficnoise-model.org) TNM Version 2.5, McTrans Center University of Florida, 2088 Northeast Waldo Road, Gainesville, Fl 32609, http://mctrans.ce.ufl.edu

8 STATEMENT OF LIMITATIONS

This report entitled Environmental Noise Assessment - Highway 401 and Power Dam Drive Interchange was prepared by RWDI AIR Inc. (“RWDI”) for Morrison Hershfield (“Client”). The findings and conclusions presented in this report have been prepared for the Client and are specific to the project described herein (“Project”). The conclusions and recommendations contained in this report are based on the information available to RWDI when this report was prepared. Because the contents of this report may not reflect the final design of the Project or subsequent changes made after the date of this report, RWDI recommends that it be retained by Client during the final stages of the project to verify that the results and recommendations provided in this report have been correctly interpreted in the final design of the Project.

The conclusions and recommendations contained in this report have also been made for the specific purpose(s) set out herein. Should the Client or any other third party utilize the report and/or implement the conclusions and recommendations contained therein for any other purpose or project without the involvement of RWDI, the Client or such third party assumes any and all risk of any and all consequences arising from such use and RWDI accepts no responsibility for any liability, loss, or damage of any kind suffered by Client or any other third party arising therefrom.

Finally, it is imperative that the Client and/or any party relying on the conclusions and recommendations in this report carefully review the stated assumptions contained herein and to understand the different factors which may impact the conclusions and recommendations provided.

TABLES

Table 1: NPC-115 Maximum Noise Emission Levels for Typical Construction Equipment

Type of Unit	Maximum Sound Level[1] (dBA)	Distance (m)	Power Rating (kW)
Excavation Equipment[2]	83	15	Less than 75 kW
	85	15	75 kW or Greater
Pneumatic Equipment[3]	85	7	-
Portable Compressors	76	7	-

Notes:

[1] Maximum permissible sound levels presented here are for equipment manufactured after Jan. 1, 1981.

[2] Excavation equipment includes bulldozers, backhoes, front end loaders, graders, excavators, steam rollers and other equipment capable of being used for similar applications.

[3] Pneumatic equipment includes pavement breakers.

Table 2: Summary of Traffic Data

Roadway	Segment	Future No-Built AADT (2041)	Future Built AADT (2041)	% Trucks	Speed Limit (km/h)
Highway 401	401 Moulinette Rd to Power Dam Dr	29,400	29,350	36	100
Highway 401	401 Power Dam Dr to Brookdale Ave	28,600	30,600	36	100
Power Dam Drive	Cornwall Centre Rd to South Intersection	3,000	1,250	9	80
Power Dam Drive	South Intersection to North Intersection	2,900	2,350	9	80
Power Dam Drive	North Intersection to Headline Rd	2,550	2,900	9	80

Table 3: Predicted Road Traffic Sound Levels at Worst-Case Noise-Sensitive Receivers and Comparison with Sound Objectives of the MTO

Receiver ID	Future No-Built (FNB) (dBA)	Future Built (FB) (dBA)	"FB" Increase Over "FNB" (dB)	FB ≥ 65 dBA[1]	Significant Relative Future Increase[2]
R1_001	60	60	0	No	No
R1_002	58	58	0	No	No
R2_003	64	64	0	No	No
R2_004	58	59	1	No	No
R2_005	57	58	1	No	No
R2_006	55	56	1	No	No
R2_007	60	60	0	No	No
R2_008	58	59	0	No	No
R2_009	57	60	3	No	No
R2_010	57	59	3	No	No
R2_011	60	60	0	No	No
R2_012	53	54	0	No	No
R2_013	52	52	0	No	No
R2_014	51	51	0	No	No
R2_015	50	50	0	No	No
R2_016	55	55	1	No	No
R2_017	54	55	1	No	No
R2_018	53	54	1	No	No
R2_019	53	54	1	No	No
R2_020	52	54	2	No	No
R2_021	53	54	1	No	No
R2_022	51	52	1	No	No
R2_023	52	52	1	No	No
R2_024	54	54	0	No	No
R2_025	52	53	0	No	No
R2_026	52	52	0	No	No

Receiver ID	Future No-Built (FNB) (dBA)	Future Built (FB) (dBA)	"FB" Increase Over "FNB" (dB)	FB ≥ 65 dBA[1]	Significant Relative Future Increase[2]
R2_027	51	52	0	No	No
R2_028	53	55	2	No	No
R2_029	53	55	2	No	No
R2_030	53	55	2	No	No
R2_031	54	55	2	No	No
R3_032	65	65	0	No	No
R3_033	60	60	0	No	No
R3_034	57	58	0	No	No
R3_035	60	60	0	No	No
R3_036	61	62	0	No	No
R3_037	60	60	0	No	No
R3_038	61	61	0	No	No
R3_039	66	66	0	Yes	No
R3_040	63	63	0	No	No
R3_041	62	61	0	No	No
R3_042	60	60	0	No	No
R3_043	59	59	0	No	No
R3_044	58	58	0	No	No
R3_045	63	63	0	No	No
R3_046	63	63	0	No	No
R4_047	62	63	0	No	No
R4_048	64	64	0	No	No
R4_049	65	66	0	Yes	No
R4_050	55	55	0	No	No
R4_051	54	54	0	No	No
R4_052	53	54	0	No	No
R4_053	52	53	0	No	No

Receiver ID	Future No-Built (FNB) (dBA)	Future Built (FB) (dBA)	"FB" Increase Over "FNB" (dB)	FB ≥ 65 dBA[1]	Significant Relative Future Increase[2]
R4_054	51	52	0	No	No
R4_055	51	51	0	No	No
R4_056	52	52	0	No	No
R4_057	58	58	0	No	No
R5_058	52	50	-2	No	No
R5_059	53	51	-2	No	No
R5_060	54	53	-1	No	No
R5_061	54	52	-2	No	No
R5_062	54	52	-1	No	No
R5_063	55	53	-2	No	No
R5_064	55	54	-1	No	No
R5_065	55	55	-1	No	No
R5_066	57	56	-1	No	No
R5_067	63	63	0	No	No
R5_068	62	62	0	No	No
R5_069	60	60	0	No	No
R5_070	58	58	0	No	No
R5_071	58	58	0	No	No
R6_072	59	59	0	No	No
R6_073	53	53	0	No	No
R6_074	54	54	0	No	No
R6_075	53	53	0	No	No
R6_076	52	52	0	No	No
R6_077	51	51	0	No	No

Notes:
[1] MTO absolute future sound level objective of 65 dBA.
[2] MTO relative significant increase of 5 dB or higher.

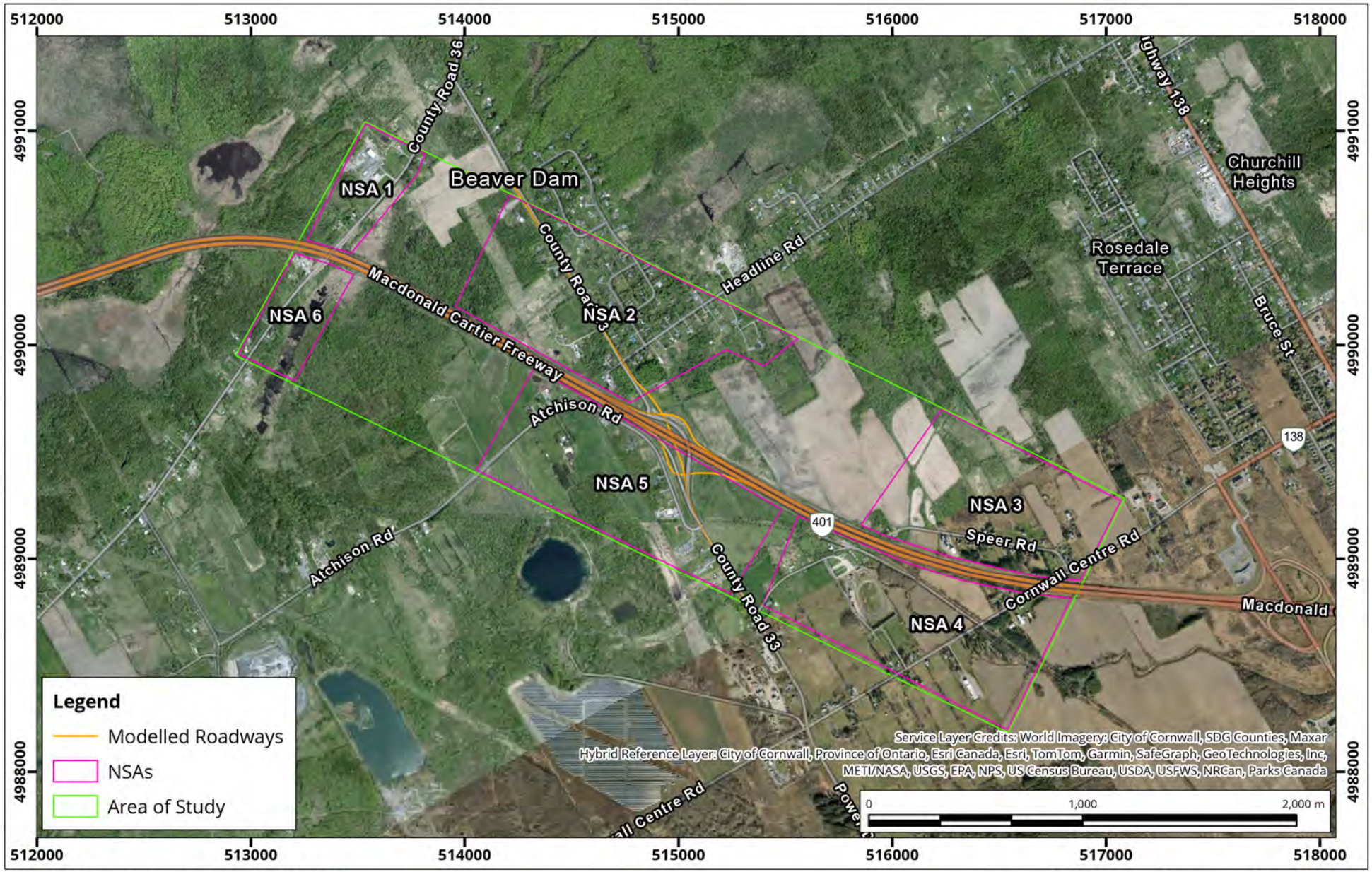
Table 4: Barrier Feasibility Assessment for NSA #3

Receptor	Number of Units Represented	Row	Future Built (dBA)	Future Built with Barrier (dBA)	Attenuation (dB)	Average Attenuation in Row (dB)	Length of 5 m High Barrier (m)	Number of Benefitted Units	Cost of Barrier ($)	Cost of Barrier per Benefitted Unit ($)
R3_039	1	1	66	57	9	9	230	4	$690,000	$172,500
R3_040	1	2	63	56	7	N/A				
R3_041	1	2	61	56	5	N/A				
R3_045	1	2	63	61	2	N/A				
R3_042	1	3	60	55	5	N/A				
R3_043	1	3	59	55	4	N/A				
R3_044	1	3	58	55	3	N/A				

Table 5: Barrier Feasibility Assessment for NSA #4

Receptor	Number of Units Represented	Row	Future Built (dBA)	Future Built with Barrier (dBA)	Attenuation (dB)	Average Attenuation in Row (dB)	Length of 5 m High Barrier (m)	Number of Benefitted Units	Cost of Barrier ($)	Cost of Barrier per Benefitted Unit ($)
R4_047	1	3	63	57	5	9	230	3	$690,000	$230,000
R4_048	1	2	64	58	6	N/A				
R4_049	1	1	66	58	8	N/A				

FIGURES



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Study Area Extent and Key Plan

True North

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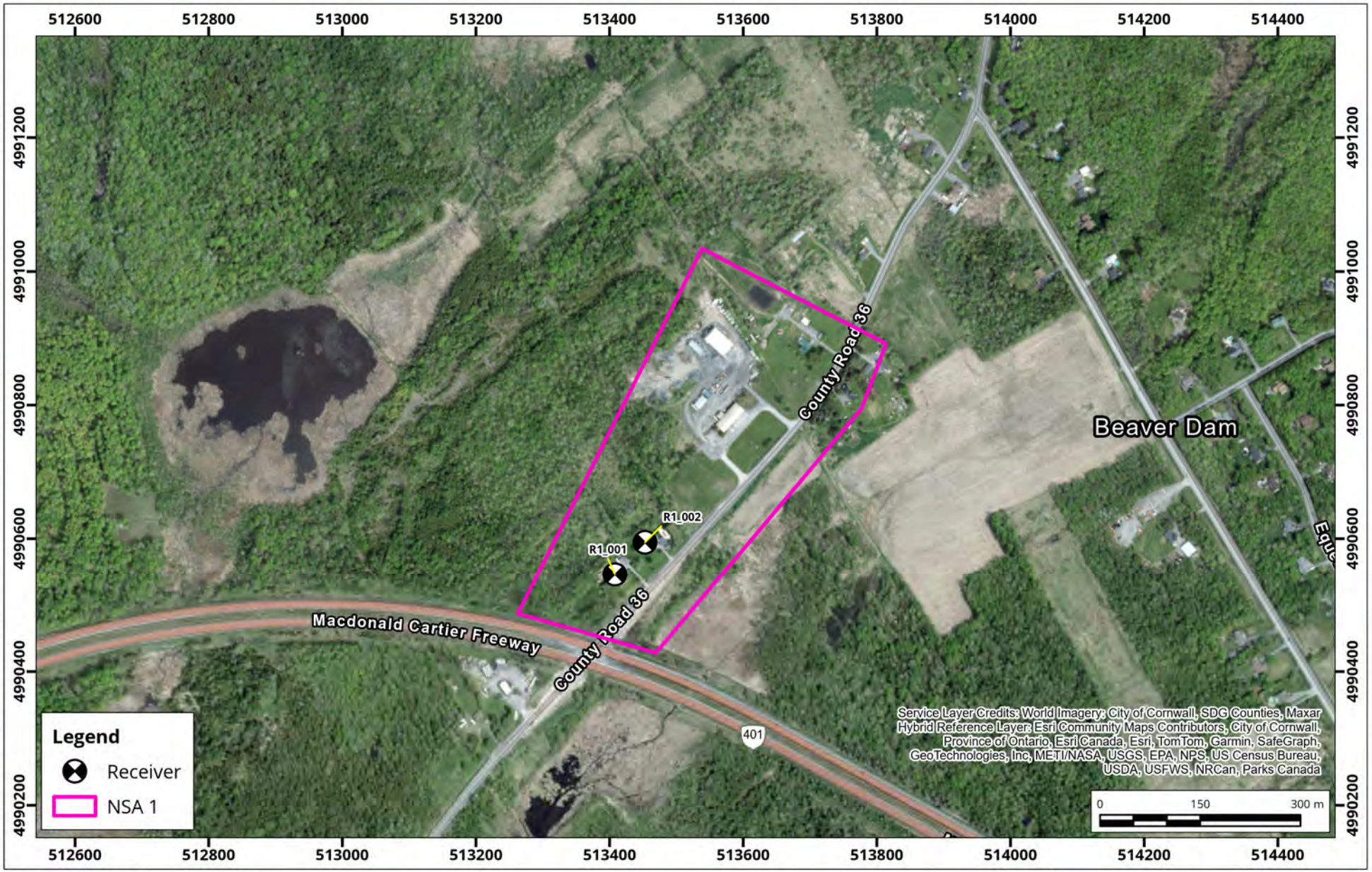
Approx. Scale:	1:25,000
Date Revised:	Jun 26, 2024

Map Projection: WGS 1984 UTM Zone 18N

Highway 401 and Power Dam Drive - Ottawa, Ontario

Project #: 2104052



Noise-Sensitive Area #1

Locations of Noise-Sensitive Receivers

Map Projection: WGS 1984 UTM Zone 18N

Highway 401 and Power Dam Drive - Ottawa, Ontario

True North

Project #: 2104052

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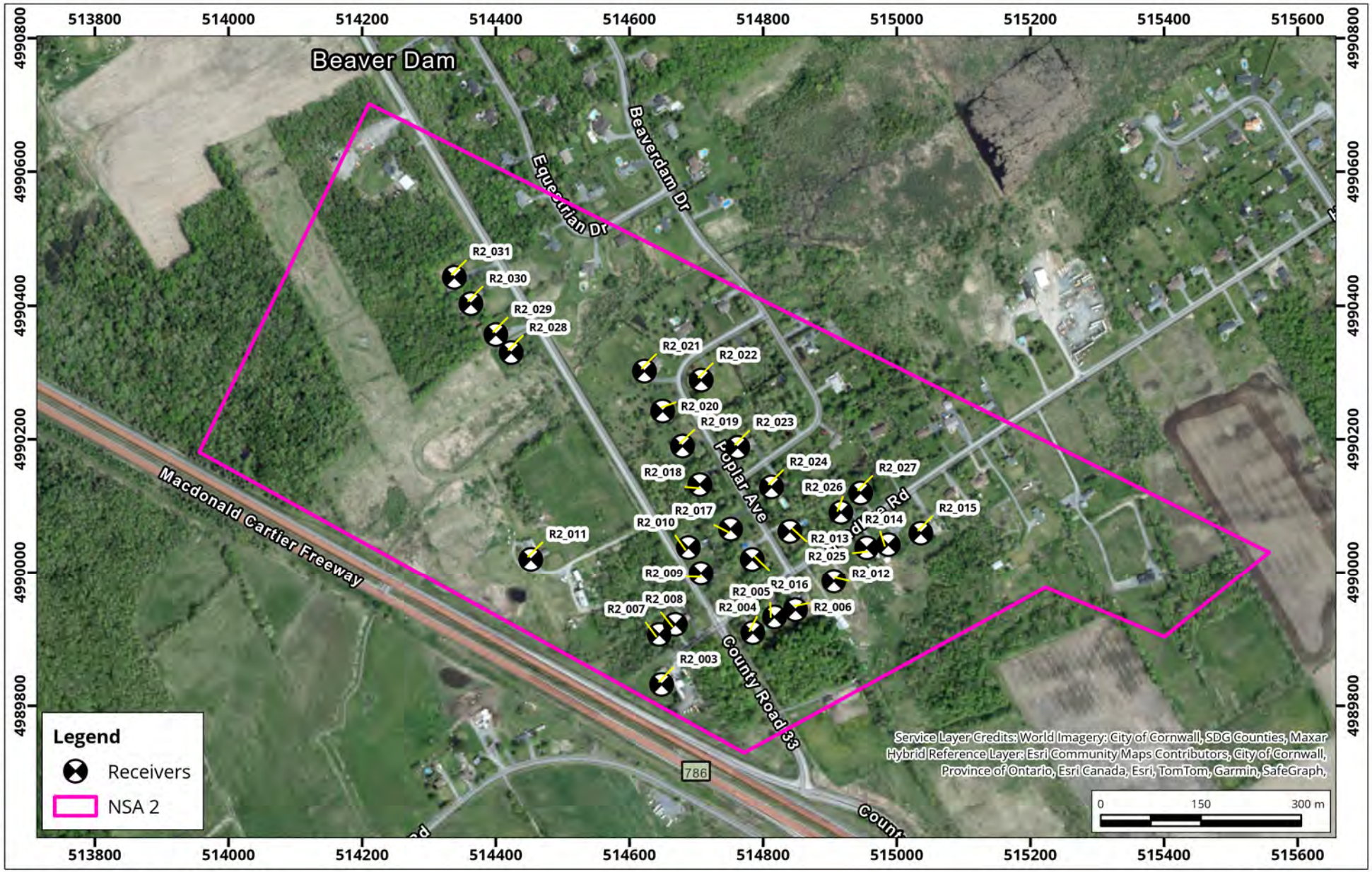
Date Revised:	Jun 26, 2024



Noise-Sensitive Area #2

Locations of Noise-Sensitive Receivers

True North

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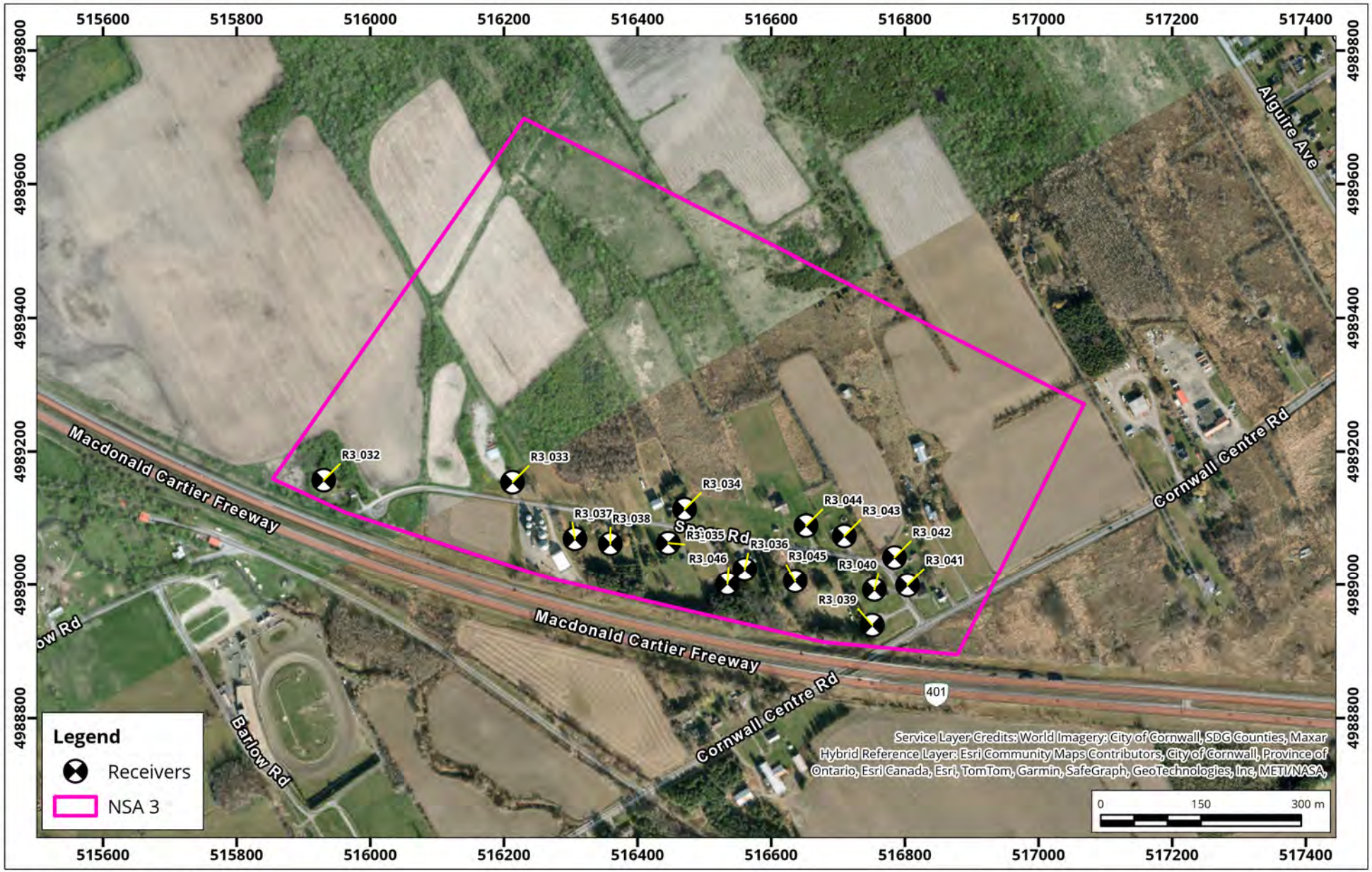
Map Projection: WGS 1984 UTM Zone 18N

Highway 401 and Power Dam Drive - Ottawa, Ontario

Project #: 2104052



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Noise-Sensitive Area #3

Locations of Noise-Sensitive Receivers

Map Projection: NAD 1983 UTM Zone 18N

Highway 401 and Power Dam Drive - Ottawa, Ontario

True North

Project #: 2104052

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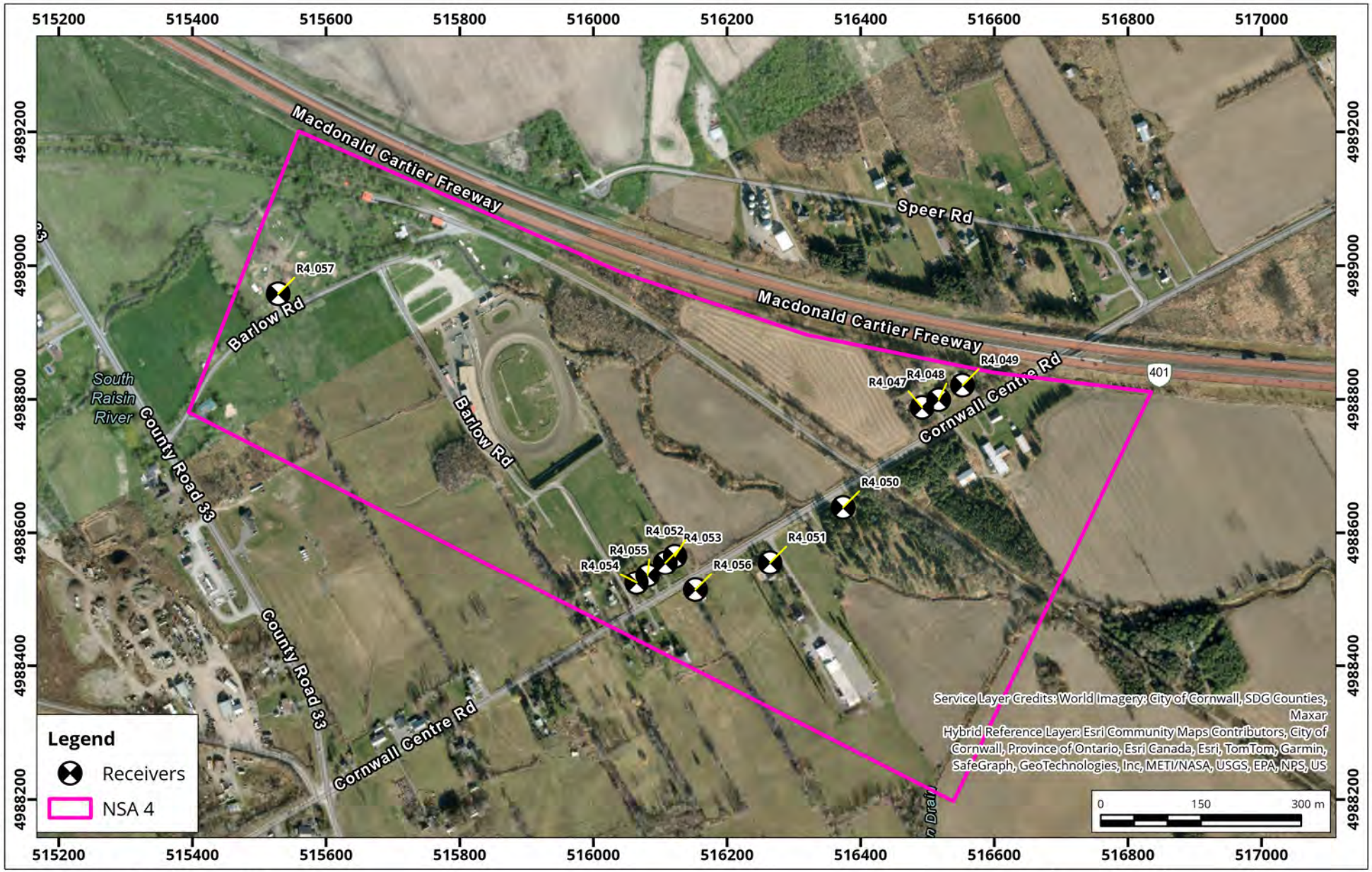

Noise-Sensitive Area #4

Locations of Noise-Sensitive Receivers

Map Projection: WGS 1984 UTM Zone 18N

Highway 401 and Power Dam Drive - Ottawa, Ontario

True North

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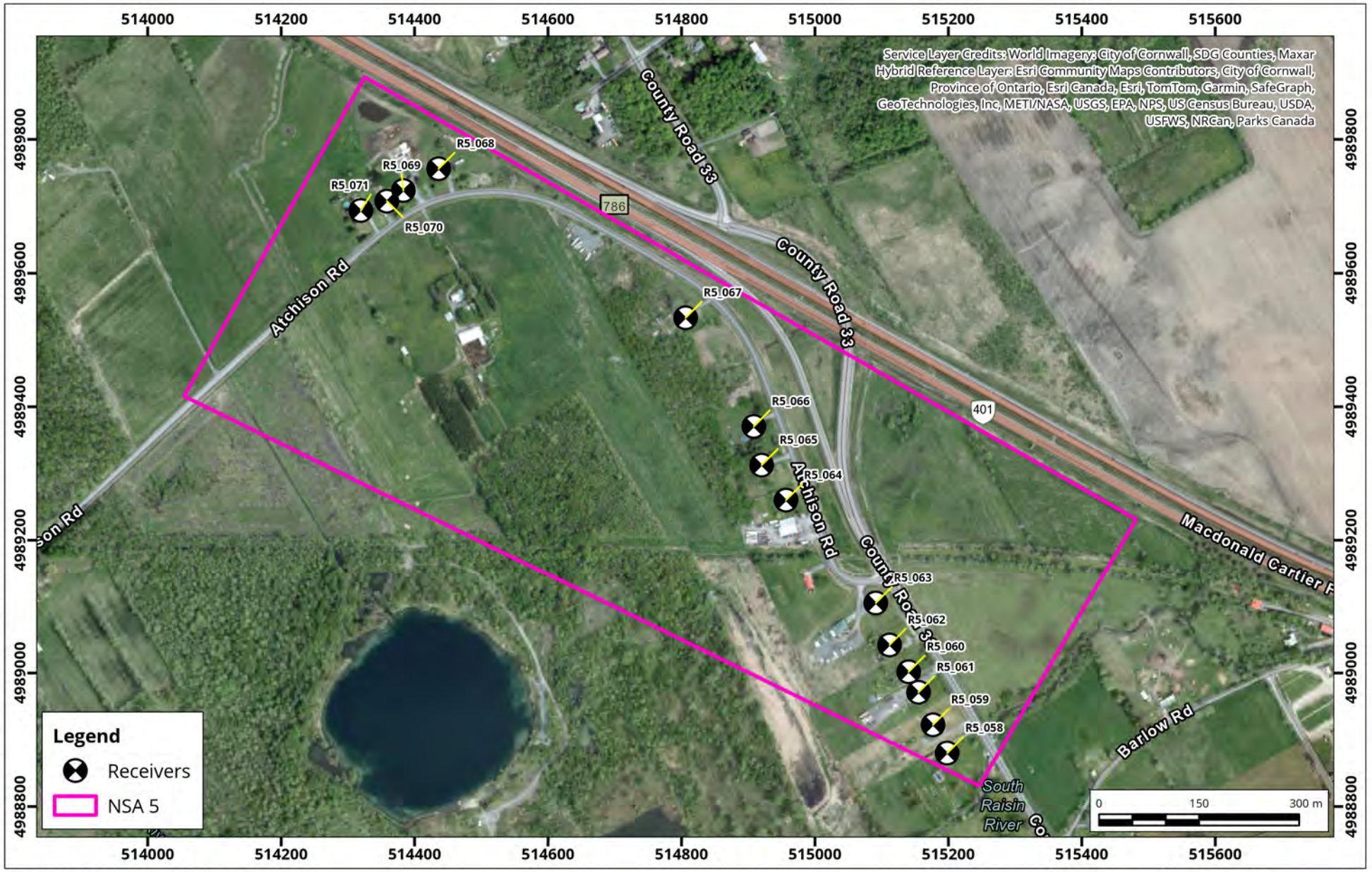

Noise-Sensitive Area #5

Locations of Noise-Sensitive Receivers

Map Projection: WGS 1984 UTM Zone 18N

Highway 401 and Power Dam Drive - Ottawa, Ontario

True North

Project #: 2104052

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Date Revised:		Jun 26, 2024	

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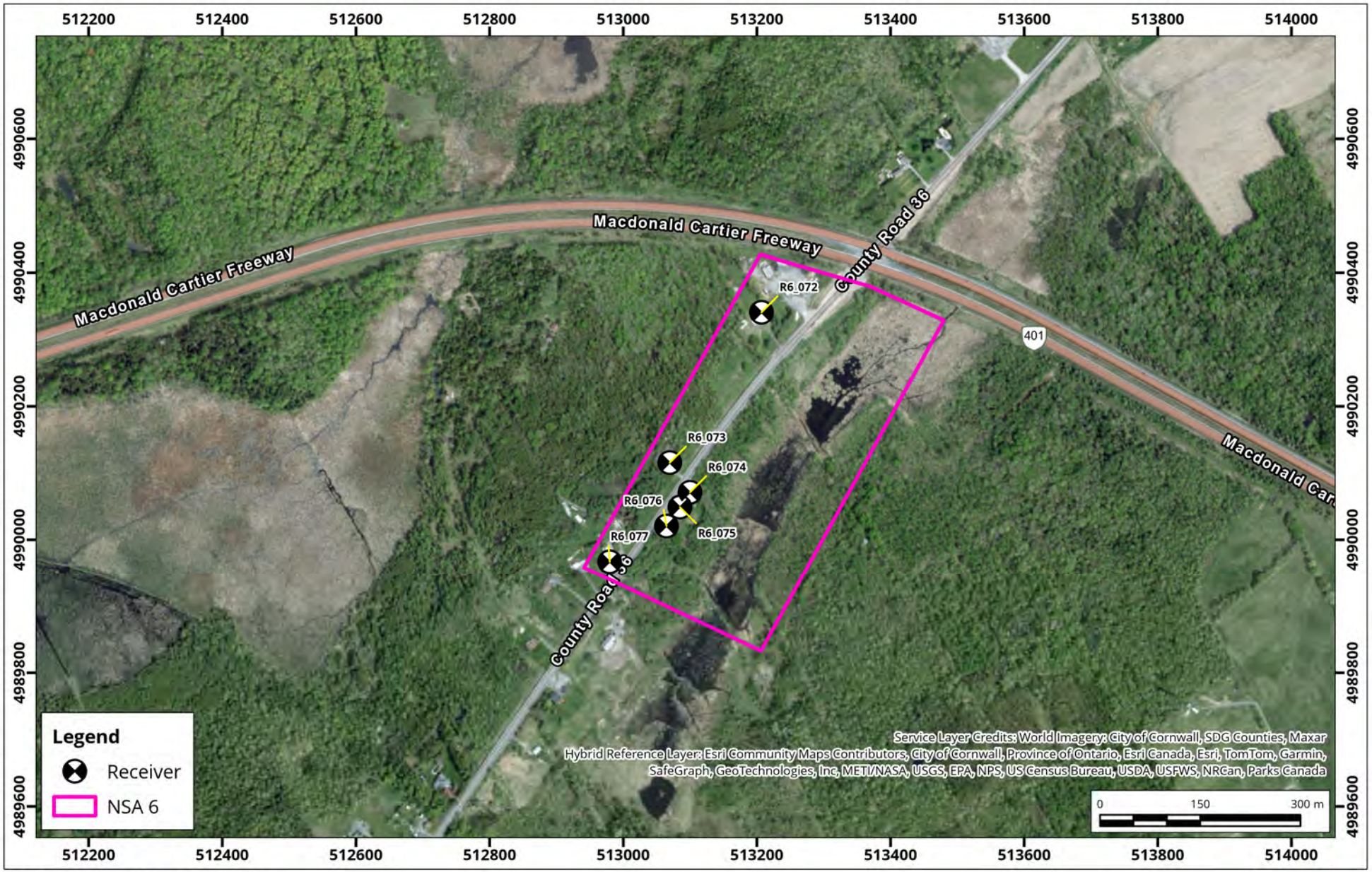


Noise-Sensitive Area #6

Locations of Noise-Sensitive Receivers

True North

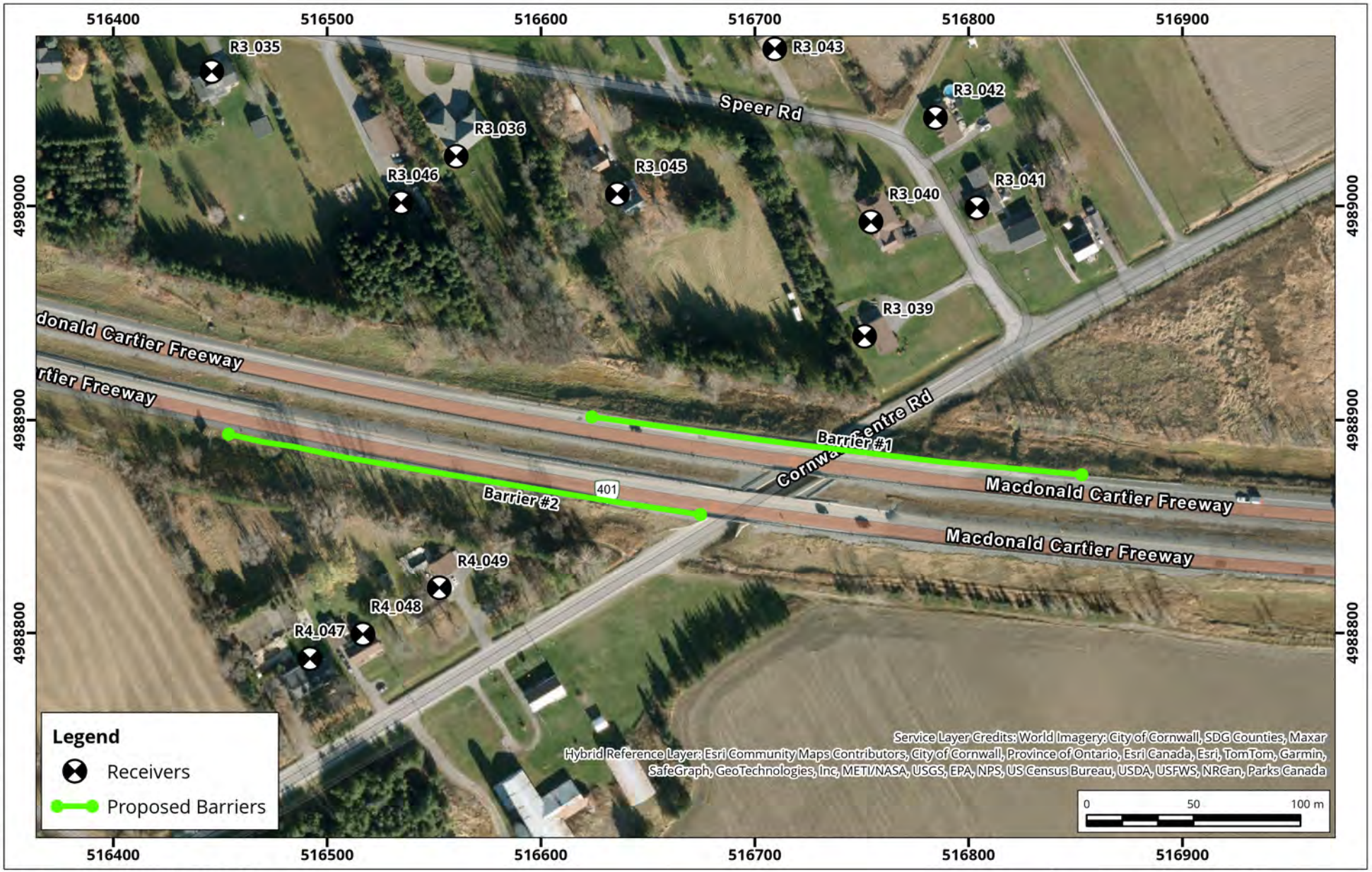
Drawn by: KD	Figure: 2f
Approx. Scale:	1:8,000
Date Revised:	Jun 26, 2024

Map Projection: WGS 1984 UTM Zone 18N

Highway 401 and Power Dam Drive - Ottawa, Ontario

Project #: 2104052

Map Document: \\gue-nsif-fi01\volam-jobs-df$\sjobs\2021\2104052\03WorkItems\20EnvironmentalNoiseAnalysis\05 A:\GIS\SHP\20240626 Highway401PowerDamDr 2104052.aprx



Noise Barrier #1 and #2

Locations of Noise Barriers

Map Projection: WGS 1984 UTM Zone 18N

Highway 401 and Power Dam Drive - Ottawa, Ontario

True North

Project #: 2104052

Drawn by: KD	Figure: 3
Approx. Scale:	1:2,500
Date Revised:	Jun 27, 2024

APPENDIX A

TRANSPORTATION SOUND BASICS

Sound Levels

Sound is, in its simplest form, a dynamic, fluctuating pressure, in a fluid medium. That medium can be air, other gases, or liquids such as water. These fluctuations are transmitted by pressure waves through the medium from the source to the receiver. For the majority of transportation engineering purposes, the primary interest is with sound waves in air, with human beings as the receptor. Noise is defined as unwanted sound. The standard practice within the acoustical industry is to use these two terms interchangeably.

Decibels

A decibel (dB) is a logarithmic ratio of a value to a reference level. The general mathematical format is:

$$\text{Level in dB} = 10 \log (\text{Value} / \text{Reference})$$

Any value can be expressed in decibels. Decibels are very useful in performing comparisons where there are huge ranges in levels. For example, an acoustical engineer can expect to deal with acoustical energy values ranging from 0.00001 W to 100 W (sound power), and pressures ranging from 0.002 Pa to 200 Pa (sound pressure).[1] For completeness, decibels should always be stated with their reference level (e.g., 20 dB re: 20 µPa). However, in practice the reference level is often left out.

Sound Pressure Level

Sound pressure level is what humans experience as sound. Sound waves create small fluctuations around the normal atmospheric pressure. These pressure fluctuations come into contact with eardrums and create the sensation of sound. Sound pressure is measured in decibels, according to the following equation:

$$\text{Sound Pressure Level, dB} = 10 \log (p^2 / p_o^2)$$

Where: p = root mean square (r.m.s.) sound pressure, in Pa
p_o = reference sound pressure, 20 µPa

The reference pressure represents the faintest sound that a "typical" human being can hear. The typical abbreviation for sound pressure level is SPL, although L_p is also often used in equations. "Sound level" or "noise level" are also sometimes used.

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[1] Equivalent to Sound Power Levels ranging from 70 to 140 dB and Sound Pressure Levels ranging from 20 dB to 140 dB

Octave Bands

Sounds are composed of varying frequencies or pitches. Human sensitivity to noise varies by frequency, with a greater sensitivity to higher frequency sounds. The propagation of sound also varies by frequency. The unit of frequency is Hertz (Hz), which refers the number of cycles per second (number of wave peaks per second of the propagating sound wave). The typical human hearing response runs from 20 Hz to 20,000 Hz. Frequencies below 20 Hz are generally inaudible, although response is variable, and some individuals may be able to hear or perceive them.

Sound is typically analysed in octave bands or 1/3-octave bands. An octave band is defined as a band or range of sound frequencies where the frequency range doubles for succeeding octave (alternately, the highest frequency in the range is twice the value of the lowest frequency). Octave band and 1/3-octave band frequencies of interest frequencies of interest are shown in the table on the following page. Road and rail transportation noise sources tend to be broadband in nature, having roughly equal sound energy in many octave bands. Heavy rail traffic and heavy truck traffic may produce significant noise in lower frequencies < 200 Hz.

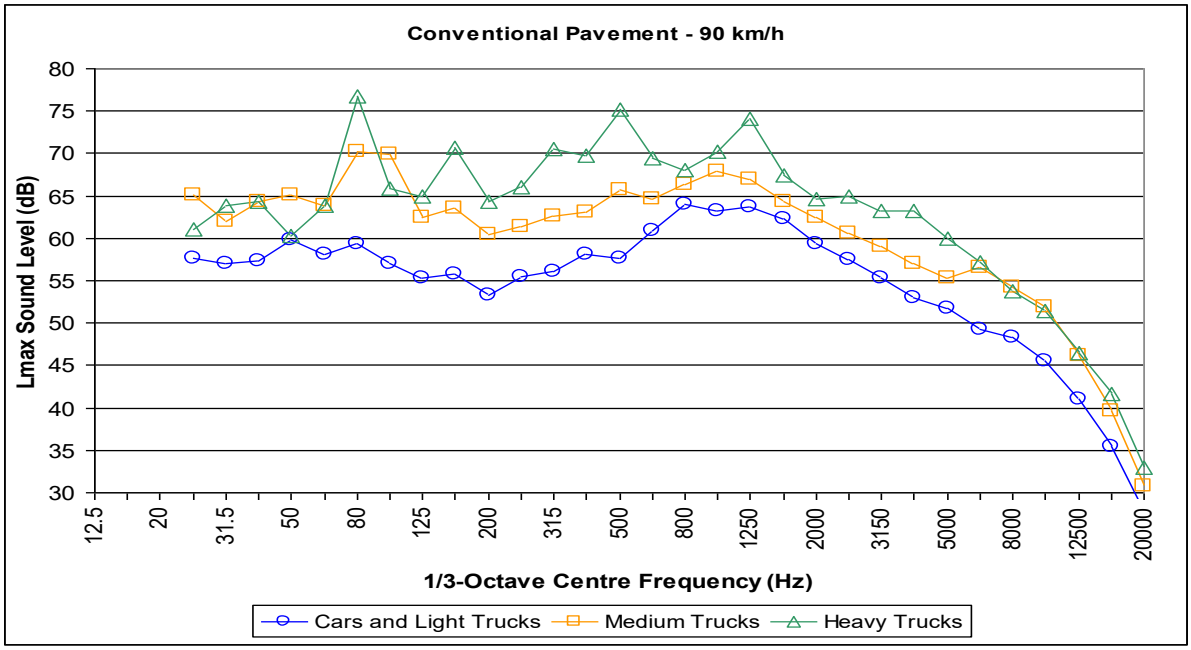
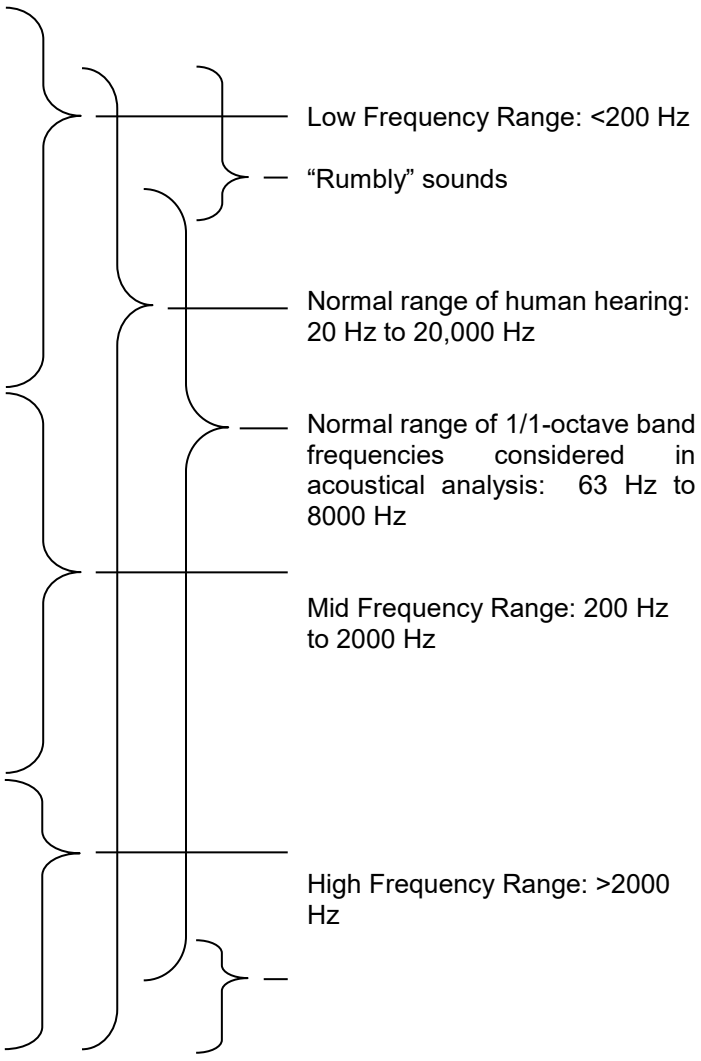


Figure 1: Typical Frequency Spectra of Traffic Noise - Vehicle Pass-bys at 90 km/h

Table 1: Octave Band Frequencies of Interest

Centre-Frequency (Hz)		Band No.	Frequency Range (Hz)
1/3-Octave	1/1-Octave		
12.5	16	N/A	11 to 22
16			
20			
25	31.5	0	22 to 45
31.5			
40			
50	63	1	45 to 89
63			
80			
100	125	2	89 to 177
125			
160			
200	250	3	177 to 345
250			
315			
400	500	4	345 to 707
500			
630			
800	1,000	5	707 to 1,414
1,000			
1,250			
1,600	2,000	6	1,414 to 2,828
2,000			
2,500			
3,150	4,000	7	2,828 to 5,657
4,000			
5,000			
6,300	8,000	8	5,657 to 11,314
8,000			
10,000			
12,500	16,000	N/A	11,314 to 22,627
16,000			
20,000			



Note: Per ISO 266-1975

A-Weighting

When the overall sound pressure level is expressed as a single value (i.e., not expressed in frequency band levels) the variation in human frequency response must be accounted for. People do not hear low frequency noise as well as noise in mid or high frequencies. To account for this, frequency-weighting networks have been developed to better account for human hearing response. The most frequently used networks are the A-Weighting and C-Weighting.

The A-Weighting network was developed to correspond to how humans hear low to medium levels of noise. The A-Weighting is the most frequently used scheme, and the majority of noise guidelines are expressed in A-Weighted decibel values, denoted as "dBA" levels. C-Weighted "dBC" values are sometimes used in assessing low-frequency noise impacts, which are generally not of concern in transportation noise impact assessment. The A-Weighting and C-Weighting values are shown in the following table and figure.

Table 2: A- and C-Weighting Values

1/1-Octave Frequency (Hz)	A-Weighting Value (dB)	C-Weighting Value (dB)
31.5	-39.4	-3.0
63	-26.2	-0.8
125	-16.1	-0.2
250	-8.6	0
500	-3.2	0
1,000	0	0
2,000	1.2	-0.2
4,000	1.0	-0.8
8,000	-1.1	-3.0

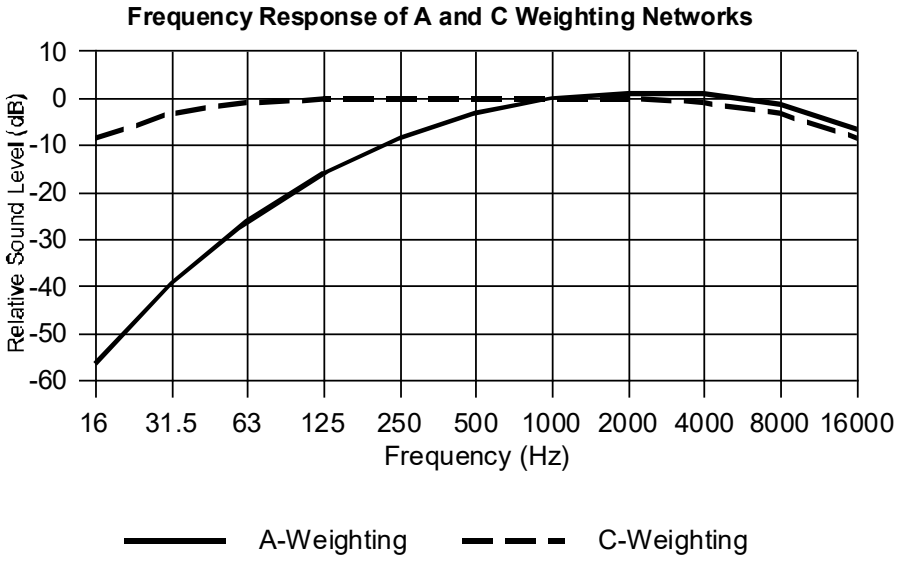


Figure 2: A-Weighting and C-Weighting Networks

Ranges of Sound Levels

People experience a wide range of sound levels in their daily activities. The table below presents a graphical comparison of "typical" noise levels which might be encountered, and the general human perception of the level.

Table 3: Ranges of Sound Levels

Sound Levels		Sources of Noise
Human Perception	**SPL, in dBA**	
Deafening	125	Sonic booms
	120	Threshold of Feeling / Pain
	115	Maximum level, hard rock band concert
	110	Accelerating Motorcycle at a few feet away
Very Loud	105	Loud auto horn at 3 m (10 ft) away
	100	Dance club / maximum human vocal output at 1 m (3 ft) distance
	95	Jack hammer at 15 m (50 ft) distance
	90	Indoors in a noisy factory
Loud	85	Heavy truck pass-by at 15 m (50 ft) distance
	80	School cafeteria / noisy bar; Vacuum Cleaner at 1.5 m (5 ft)
	75	Near edge of major Highway
	70	Inside automobile at 60 km/h
	65	Normal human speech (unraised voice) at 1 m (3 ft) distance
Moderate	60	Typical background noise levels in a large department store
	55	General objective for outdoor sound levels; typical urban sound level
	50	Typical suburban / semi-rural sound level (24h)
	45	Typical noise levels in an office due to HVAC; typical rural levels (24h)
Faint	40	Typical background noise levels in a library
	35	
	30	Broadcast Studio
	25	Average whisper
Very Faint	20	Deep woods on a very calm day
	15	
	10	
	5	Human breathing
	0	Quietest sound that can be heard

Sound levels from 40 to 65 dBA are in the faint to moderate range. The vast majority of the outdoor noise environment, even within the busiest city cores, will lie within this area. Sound levels from 65 to 90 are perceived as loud. This area includes very noisy commercial and industrial spaces. Sound levels greater than 90 dB are very loud to deafening, and may result in hearing damage.

Transportation noise events, which vary with time, can also be considered in terms of their maximum noise level (L_{max}) during a vehicle pass-by, as shown in the following table:

Table 4: Typical Pass-By Noise Levels at 15 m from Noise Source

Event	Range of Noise Levels (dBA) at 15 m
Semi-Trailer Trucks	75 - 85
Aircraft	69 – 85 [1]
Conventional Light Rapid Transit (Streetcars)	72 – 80 [2]
Large Trucks	71 - 78
Street Motorcycle	76
Diesel or Natural Gas Bus	70 - 78
Trolley Bus	69 - 73
Small Motorcycle	67
General Busy Auto Traffic	66 - 70
Individual Automobiles	63 - 69

Notes: Source: BKL Consultants Ltd.

[1] Aircraft flyover not at 15 m distance

[2] Based on data provided for the Calgary, Edmonton and Portland LRT systems.

Noise Descriptors – Leq Values

At this time, the best available research indicates that long-term human responses to noise are best evaluated using energy equivalent sound exposure levels (L_{eq} values), in A-Weighted decibels (L_{eq} values in dBA)[2, 3] including adjustments to account for particularly annoying characteristics of the sounds being analyzed.

Sound levels in the ambient environment vary each instant. In a downtown urban environment, the background noise is formed by an "urban hum", composed of noise from distant road traffic and from commercial sources. As traffic passes near a noise receptor, the instantaneous sound level may increase as a vehicle approaches, and then decrease as it passes and travels farther away. The energy equivalent sound exposure level L_{eq} is the average sound level over the same period of time with same acoustical energy as the actual environment (i.e., it is the average of the sound energy measured over a time period T). As a time-average, all L_{eq} values must have a time period associated with them. This is typically placed in brackets beside the L_{eq} tag. For example, a thirty-minute L_{eq} measurement would be reported as an L_{eq} (30 min) value.

The L_{eq} concept is illustrated in Figure 3, showing noise levels beside a small roadway, over a 100 second time period, with two vehicle pass-bys:

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2 Berglund and Lindvall, Community Noise, 1995.

3 ISO 1996:2003(E), *Acoustics – Description, measurement and assessment of environmental noise – Part 1: Basic quantities and assessment procedures*.

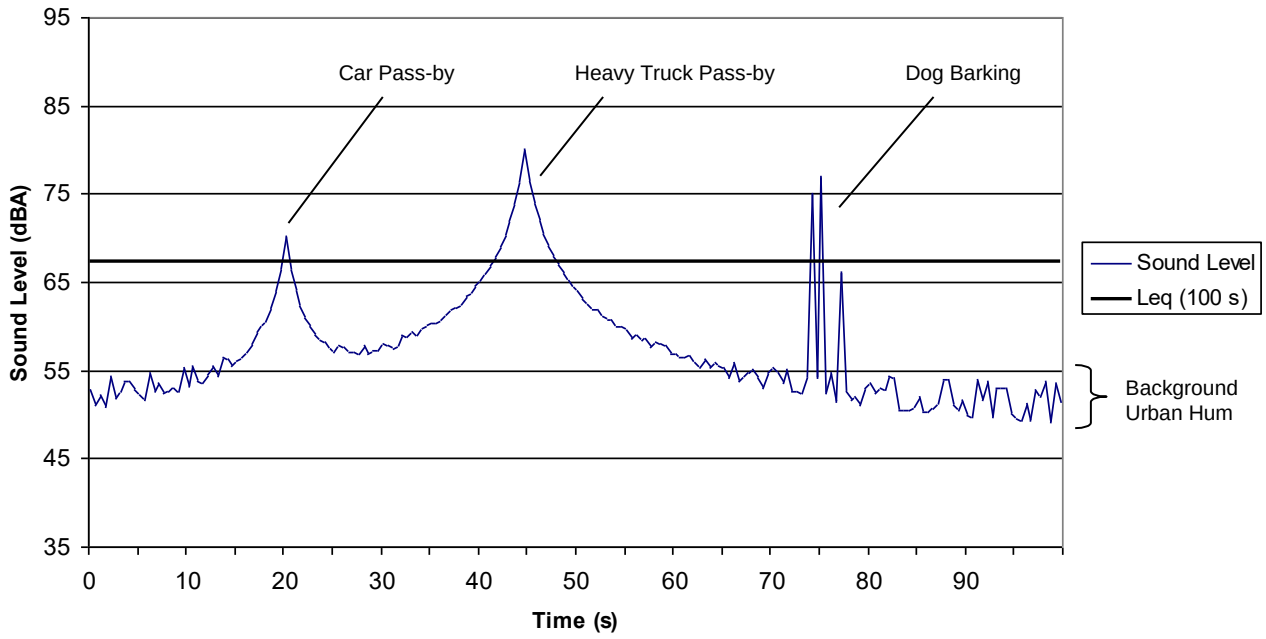

Figure 3: Example of the L_{eq} Concept

In this example, the background "urban hum" is between 47 and 53 dBA. A car passes by at 20 seconds. As it approaches, the noise level increases to a maximum, and then decreases as it speeds away. At 45 seconds, a heavy truck passes by. Near 75 seconds, a dog barks three times. The maximum sound level (L_{max}) over the period is 80 dBA and the minimum is 47 dBA. For almost 50% of the time, the sound level is lower than 55 dBA.

The L_{eq} (100s) for the above example is 67 dBA, which is much higher than the statistical mean sound level of 55 dBA. This illustrates that the L_{eq} value is very sensitive to loud noise events, which contain much more sound energy (as sound is ranked on a logarithmic scale) than the normal background. It is also sensitive to the number of events during the time period, and the duration of those events. If only the truck had passed by during the measurement (no car and no dog barks), the L_{eq} (100s) would be 66 dBA. If only the car and dog barks had occurred, the L_{eq} (100s) would have been 61 dBA. This shows that the truck pass-by is the dominant event in our example, due to its level and duration.

The ability of the L_{eq} metric to account for the three factors of level, duration and frequency of events makes it a robust predictor of human response to noise. It is for this reason that the vast majority of noise standards are based on L_{eq} values.

Typical Durations for Leq Analyses

For transportation noise impact analyses, the following durations are typically used:

L_{eq} (24h) – The sound exposure level over then entire 24-hour day

L_{eq} Day – Either: L_{eq} (15h), from 7am to 10 pm; or
L_{eq} (16h), from 7am to 11 am

L_{eq} Night – Either: L_{eq} (9h), from 10 pm to 7 am; or
L_{eq} (8h), from 11 pm to 7 am

L_{dn} – A special L_{eq} (24h) value with a 10 dB night-time penalty applied to overnight sound levels (10pm to 7am)

L_{eq} (1-h) – The sound exposure over a 1-hour time period

L_{eq} (24h) values are appropriate for examining impacts of transportation noise sources with small changes in sound exposure levels over the 24-hour day. For example, freeway noise levels are generally consistent over the 24-hour day. Therefore, for freeways, there is little difference between L_{eq} (24h) values and the corresponding L_{eq} Day and L_{eq} Night values.

L_{eq} Day values, covering off the AM-peak and PM-peak travel periods, are generally appropriate for examining the impacts of non-freeway highways and municipal arterial roadways. The vast majority of noise associated with these sources is concentrated in the daytime hours, where typically, 85% to 90% of the daily road traffic will occur.[4] Thus, if reasonable sound levels occur during the daytime (and appropriate guideline limits are met), they will also occur (and be met) at night.

To account for increased annoyance with noise overnight in a single value, the U.S. Environmental Protection Agency (U.S. EPA) developed the L_{dn} metric. It is a special form of the L_{eq} (24h) with a +10 dB night-time penalty. L_{dn} values and a related metric, the day-evening-night level (L_{den}) are also used in some European guidelines. L_{dn} values are not used in Canadian Provincial jurisdictions in evaluating transportation noise. Instead, guideline limits for separate L_{eq} Day and L_{eq} Night periods are generally used.

L_{eq} (1-h) values are the average sound levels over a one-hour time period. These tend to fluctuate more over the day, as traffic levels can fluctuate significantly hour to hour. L_{eq} (1-h) values are useful in assessing the impact of transportation sources which also vary hourly, and which may vary in a different manner than the background traffic. These values are often used to assess haul route noise impacts, for example.

[4] Based on research conducted by Ontario Ministry of Transportation, and provided in the *MTO Environmental Office Manual Technical Areas – Noise*. Daytime refers to a 16 hour day from 7am to 11 pm.

Some transportation noise sources may have significant traffic levels occurring over-night. For example, freight rail traffic in heavily used corridors can be shifted to over-night periods, with daytime track use being reserved for freight switcher traffic and passenger traffic. In situations such as this, an assessment of both daytime and night-time noise impacts may be appropriate.

Decibel Addition

Decibels are logarithmic numbers, and therefore have special properties of addition. Decibel values must be added logarithmically. If two sources, each emitting the same amount of sound energy, are placed side-by-side, then the total increase in sound level will only be 3 dB. If the difference in sound energy emitted is greater than 10 dB, then effectively the sound level will be the same as for the loudest unit (i.e., the increase in noise will be less than a decibel). This is shown in Table 5.

Table 5: Decibel Addition Chart

dB Difference Of	dB Value to Add to Highest Number
0	3.0
1	2.5
2	2.1
3	1.8
4	1.5
5	1.2
6	1.0
7	0.8
8	0.6
9	0.5
10	0.4

This affects transportation noise from projects, as noise emission is logarithmically related to traffic volume. Doubling the traffic volume (essentially the same as adding a source with the same sound emission) will only result in a 3 dB increase over the original levels. The decibel increase in noise due to the increase in traffic volume, assuming all other factors remain the same, can be estimated by:

$$\text{dB increase} = 10 \log (\text{new volume} / \text{original volume}).$$

Human Response to Changes in Sound Levels

The human ear does not interpret changes in sound level in a linear manner. The general subjective human perception of changes in sound level is shown in the following table.

Table 6: Subjective Human Perception of Changes in Sound Level [5,6]

Change in Broadband Sound Level (dB)	Human Perception of Change
< 3	Imperceptible change
3	Just-perceptible change
4 to 5	Cleary noticeable change
6 to 9	Substantial change
> 10 and more	Very substantial change (half or twice as loud)
> 20 and more	Very substantial change (much quieter or louder)

Notes: Adapted from Bies and Hansen, p53, and MOE Noise Guidelines for Landfill Sites, 1998. Applies to changes in broadband noise sources only (i.e., increases or decreases in the same noise or same type of noise only). Changes in frequency content or the addition of tonal or temporal changes would affect the perception of the change.

The above table is directly applicable to changes in sound level where the noise sources are of the same general character. For example, existing road traffic noise levels can be directly compared to future road traffic noise levels, using the above relationships. In comparing road traffic noise to road plus rail traffic noise, the different frequency and temporal nature of the noise means that the rail noise may be more noticeable. Adjustments for the nature of the new sound can be applied to better account for temporal and frequency differences.

For transportation noise sources, research conducted by the U.S. Environmental Protection Agency indicates that a 5 dB change in sound levels is required to trigger a change in large-scale community response to noise. This correlates to a clearly noticeable increase in noise levels.

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5 Bies, D.A., and C.H. Hansen 1988. *Engineering Noise Control – Theory and Practice, 2nd Ed.* E & FN Spon, London, p 53.

6 Ontario Ministry of the Environment 1998. Noise Guidelines for Landfill Sites. Queen's Printer for Ontario.

Decay of Noise with Distance

Noise levels decrease with increasing distance from a source of noise. The rate of decay is partially dependent on the nature of the ground between the source: whether it is hard (acoustically reflective) or soft (acoustically absorptive). Transportation noise sources in general act as *line sources* of sound. For line sources, the rate of decay is approximately:

- Hard ground: 3 dB for each doubling of distance from the source
- Soft ground: 5 dB for each doubling of distance from the source

This is shown graphically in Figure 6, based on a reference distance of 15 m from the source:

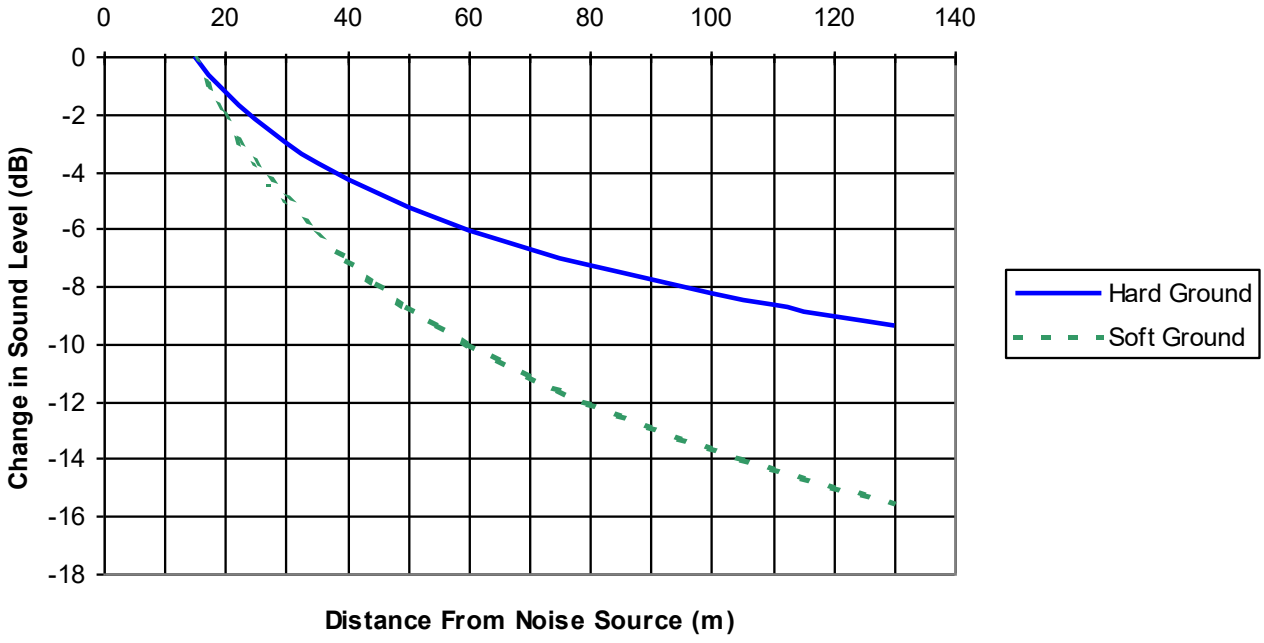


Figure 4: Decay of Noise Versus Distance for Line Sources

APPENDIX B

2104052 Highway 401 and Power Dam Drive

Highway 401 No-Build (Existing)	Year 2041			
	EB		WB	
	AM	PM	AM	PM
401 Dickinson Dr to Moulinette Rd	970	1,370	910	1,500
401 Moulinette Rd to Power Dam Dr	1,035	1,360	850	1,580
401 Power Dam Dr to Brookdale Ave	995	1,325	825	1,535
401 Brookdale Ave to McConnell Ave	950	1,315	825	1,500

Highway 401 Build (Alt 5)	Year 2041			
	EB		WB	
	AM	PM	AM	PM
401 Dickinson Dr to Moulinette Rd	970	1,365	835	1,460
401 Moulinette Rd to Power Dam Dr	1,040	1,360	845	1,575
401 Power Dam Dr to Brookdale Ave	1,100	1,420	900	1,640
401 Brookdale Ave to McConnell Ave	965	1,325	835	1,505

Power Dam Dr No-Build (Existing)	Year 2041			
	NB		SB	
	AM	PM	AM	PM
Cornwall Centre Rd to South Intersection	80	145	155	145
South Intersection to North Intersection	75	145	125	110
North Intersection to Headline Rd	55	115	140	120

Power Dam Dr Build (Alt 5)	Year 2041			
	NB		SB	
	AM	PM	AM	PM
Cornwall Centre Rd to South Intersection	45	50	75	50
South Intersection to North Intersection	40	90	145	130
North Intersection to Headline Rd	85	145	140	120

APPENDIX C

Highway Construction Noise Assessment - Interchange Construction

Job No: 2104052
Job Name: Highway 401 and Power Dam Drive

1. Interchange Construction - Piles and Footings

Type	Amt	Act. PWL[1]	Max. SPL[2]	Equipment Modelled	Equipment Actual
13	4	113	79	Concrete trucks	Concrete Placer (Concrete Truck)
17	1	109	81	Excavators	Hydraulic Excavator, Crawler Mounted
20	1	109	81	Generator	Generator, Gas or Diesel
31	10	93	55	Pickup Truck	Pickup, Four-Wheel Drive
24	2	107	76	Haul truck (Typical 3-axle)	Rear Dump, Triaxle, Diesel
4	1	104	76	Boom (Hoist) Trucks	Boom Truck
39	1	131	101	Pile Driver - Vibratory	Driver/Extractor, Vibratory Centrifugal, Including Power Pack, Excluding Crane
38	1	138	101	Pile Driver - Impact	Hammer, Open End, Diesel
59	1	102	74	Welder/Torch	Oxygen/Acetylene Torch, Including Gas, Excluding Rods
0	0	0	0		
0	0	0	0		
0	0	0	0		
0	0	0	0		
0	0	0	0		
0	0	0	0		
0	0	0	0		
0	0	0	0		
0	0	0	0		
0	0	0	0		
0	0	0	0		
TOTAL	**22**	**138**			

Notes:
-- All values in dBA
1. Equivalent Activity PWL, including duty cycle and penalty adjustments
2. Maximum SPL at 15 m produced by the equipment

Predicted Construction Noise Levels

Distance to Centre-line *R* (m)	L_{eq} (1h) [1.]
25	102
50	96
100	90
150	87
200	84
250	82
300	81
350	79
400	78
450	77
500	76
600	75

Notes:
- All values are in dBA unless otherwise noted
1. Equivalent Activty PWL for the group (includes duty cycle, penalties and no of vehicle adjustments) + 10 log (2 / (4*3.14* S-R dist2))

Highway Construction Noise Assessment - Roadway Construction

Job No: 2104052
Job Name: Highway 401 and Power Dam Drive

1. Removal of Overburden

Amt	Act. PWL[1]	Max. SPL[2]	Equipment
1	109	81	Excavators
3	108	76	Haul truck (Typical 3-axle)
1	110	82	Bulldozers
1	112	84	Scrapers
TOTAL **6**	**116**		

2. Compaction of Subgrade

Amt	Act. PWL[1]	Max. SPL[2]	Equipment
2	111	83	Compactor
TOTAL **2**	**111**		

3. Base Course

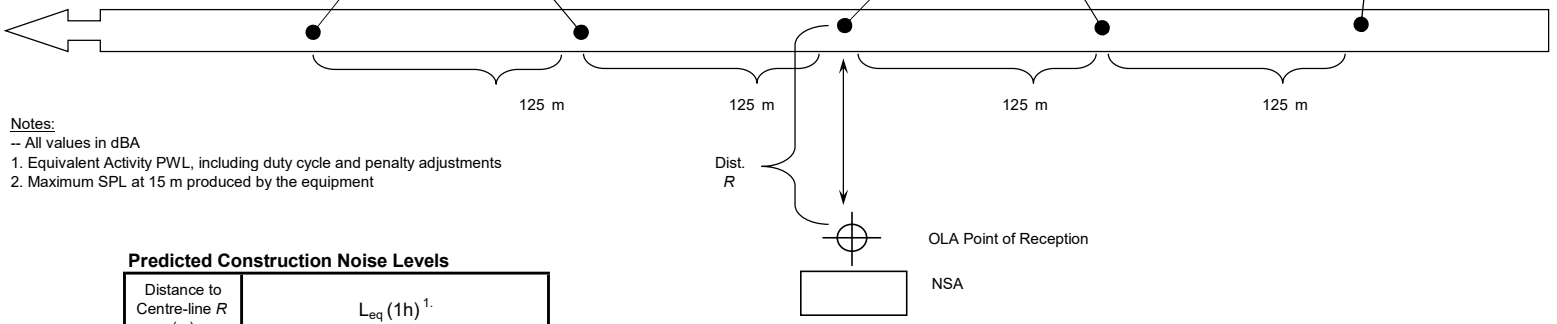
Amt	Act. PWL[1]	Max. SPL[2]	Equipment
2	110	79	Backhoes / Wheeled Loaders
1	110	82	Bulldozers
4	110	76	Haul truck (Typical 3-axle)
TOTAL **7**	**114**		

4. Compaction of Base Course

Amt	Act. PWL[1]	Max. SPL[2]	Equipment
1	108	83	Compactor
1	108	80	Graders
TOTAL **2**	**111**		

5. Surface Course

Amt	Act. PWL[1]	Max. SPL[2]	Equipment
2	110	79	Backhoes / Wheeled Loaders
3	108	76	Haul truck (Typical 3-axle)
1	105	77	Asphalt Spreader
1	98	73	Road Roller
TOTAL **7**	**113**		



Notes:
-- All values in dBA
1. Equivalent Activity PWL, including duty cycle and penalty adjustments
2. Maximum SPL at 15 m produced by the equipment

Predicted Construction Noise Levels

Distance to Centre-line *R* (m)	L_{eq} (1h) [1.]
15	83
30	77
50	73
100	68
150	66
200	64
250	63
300	61
350	60
400	59
450	59
500	58
600	56

Notes:
- All values are in dBA unless otherwise noted
1. Equivalent Activty PWL for the group (includes duty cycle, penalties and no of vehicle adjustments) + 10 log (2 / (4*3.14* S-R dist^2))

Appendix J - Contamination Overview Study (COS) – Highway 401 Power Dam Bridge Replacement

MORRISON HERSHFIELD

FINAL REPORT

Contamination Overview Study (COS) - Highway 401 Power Dam Bridge Replacement

G.W.P 4092-19-00

Township of South Stormont, Ontario

Presented to:

Ministry of Transportation
1355 John Counter Blvd. P.O. 4000
Kingston, ON

Project No. 201979404 November 14, 2023

\\EGNYTEDRIVE\MH CLOUD\PROJ\2020\201979404-MTO-HIGHWAY 401 POWER DAM DRIVE\08. WORKING\ENVIRONMENTAL\04. GEO-ENVIRONMENTAL\COS\FINAL\201979404_POWERDAM_COS_FINAL.DOCX

EXECUTIVE SUMMARY

Morrison Hershfield Limited (MH) completed a Contamination Overview Study (COS) for the proposed bridge replacement at Highway 401 and Power Dam Road interchange and the surrounding area in the Township of South Stormont, Ontario.

The COS was conducted as per generally accepted professional practices for such studies, and followed the Ministry of Transportation of Ontario (MTO) *Environmental Guide for Contaminated Property Identification and Management*, *October 2006*, aspects of the Canadian Standards Association (CSA) Standard *Z768-01 – Phase I Environmental Site Assessment*, and aspects of *Ontario Regulation 153/04 (as amended)*.

The scope of work for the COS included a site history and records review, data evaluation, and generation of this report. The records review included historical aerial photographs, Environmental Risk Information Services (ERIS) records, and information from the Federal Contaminated Sites Inventory. A site reconnaissance was completed on April 28, 2022.

Based on the findings of the COS, there are two (2) areas of potential environmental concern (APECs) identified on the Site and two (2) APEC identified offsite within the study area, as summarized below:

- APEC 1 (onsite)– Northern approach/abutment of Power Dam Drive bridge – PCA #30: Importation of Fill Material of Unknown Quality
- APEC 2 (onsite) – Southern approach/abutment of Power Dam Drive bridge – PCA #30: Importation of Fill Material of Unknown Quality
- APEC 3 (offsite) – 16892 Atchison Road - PCA #10: Commercial Autobody Shops; PCA #58: Waste Disposal and Waste Management, including thermal treatment, landfilling, and transfer of waste, other than the use of bio soils as soil conditioners
- APEC 4 (offsite) – 16900 Atchison Road - PCA #34: Metal Fabrication

The APECs are considered as having a “high” risk for contamination. In addition, five (5) significant spills were identified within the study area. The spills consisted of diesel fuel with volumes ranging from 50 L to 780 L and dates ranging from 1988 to 2018. The significant spill locations are also considered as having a “high” risk for contamination. There are no properties rated as having “medium” potential for contamination. The remaining properties within the study area are considered as having a “low” potential for contamination.

Further environmental assessments/investigations are recommended for the APECs that will be directly impacted by the construction of the bridge replacement work to confirm the environmental conditions of soil and groundwater on those lands in support of property acquisition, excess soil management, and/or environmental due diligence.The environmental assessments/investigations may include Phase I/II Environmental Site Assessments (ESAs), and planning and soil sampling requirements in accordance with Ontario Regulation 406/19 Onsite and Excess Soil Management if deemed necessary.If actual contamination is identified during the environmental assessments/investigations, additional delineation investigations and/or remediation may also be required.

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APPENDICES

1. INTRODUCTION

Morrison Hershfield Limited (MH) completed a Contamination Overview Study (COS) for the proposed bridge replacement at Highway 401 and Power Dam Road interchange in the Township of South Stormont, Ontario. The project site is shown in Figure 1, in Appendix A.

The project in general includes:

- The replacement of Bridge Site 13X-180/BO that carries Power Dam Drive over Highway 401.
- Developing a long-term plan for the interchange
- Establishing the footprint for the future widening of Highway 401 to six lanes

This COS was completed for the Ministry of Transportation Ontario (MTO). The purpose of the COS is for project planning and design purposes and to identify potential or actual environmental concerns resulting from current or past activities on the bridge site or neighboring properties.

1.1 Site Location and Study Area

The Highway 401 Power Dam Bridge and Interchange is located in the Township of South Stormont, within the United Counties of Stormont, Dundas, and Glengarry. The Township of South Stormont is on the north shore of the St. Lawrence River.

For this COS, the land containing all the alternative alignments is considered as the Site. The study area for the COS is defined as comprising lands within 250 m of the Site. The Site and COS study area are shown in Figure 1, in Appendix A.

Highway 401 is a four-lane divided rural freeway at the Power Dam Road interchange. The land use in the area is a combination of farmland, undeveloped wooded land, residential properties, and limited commercial properties along the local roads.

1.2 Scope of Work

The general approach for assessing contamination within a transportation corridor and the title of the study, “Contamination Overview Study”, was adopted from the Ministry of Transportation of Ontario (MTO) *Environmental Guide for Contaminated Property Identification and Management, October 2006*.

In addition, to the extent possible for a corridor or study area rather than a site, this COS conformed to *Canadian Standards Association (CSA) Standard Z768-01 – Phase I Environmental Site Assessment*.

The nomenclature for Potentially Contaminating Activities (PCAs) and Areas of Potential Environmental Concern (APECs) is adopted from *Ontario Regulation 153/04*, as amended. A PCA is an activity on the Site or within the study area with the potential to affect the soil and/or groundwater quality, whereas an APEC is an area on the Site or within the study area that is potentially contaminated. This COS identifies both PCAs and APECs on the Site and within the study area. The APECs

identified will be the properties/areas that are rated as having a “high” potential for contamination.

A detailed scope of work is provided below.

Records Review

The records review consisted of a desktop review of the following data sources:

a) Physiographic, geological, and hydrogeological maps and reports

b) Historical and current aerial photographs and satellite imagery

c) The Federal Contaminated Sites Inventory (FCSI)

d) Environmental Risk Information Services (ERIS) report

Site Reconnaissance

This assessment included a “windshield” level site reconnaissance of the study area to broadly identify operations (e.g., gasoline retail outlets), land use (e.g., industrial), or conditions (e.g., evidence of actual contamination) with the potential to cause contamination which could have an impact on soil and/or groundwater quality. The “windshield” level site reconnaissance does not constitute a detailed walk-through inspection of the study area and does not include a site-specific inspection of private properties. All observations were made from publicly accessible lands.

Analysis

In conducting the COS, APECs were identified according to the identified PCAs and their likelihood of impacting soil and/or groundwater quality. Rankings of “low”, “medium” or “high” have been assigned based on several factors including information about the potential source, the physical setting, and the contemplated construction activities. This is, by definition, a subjective exercise that is undertaken based on the available information and the professional judgment of the assessor. The APECs are properties/areas that are considered as having a “high” potential for contamination.

Reporting

Reporting was carried out in general conformance with the MTO guide, as discussed above.

Exclusions

The COS specifically excludes any property-specific inspections and intrusive investigations.

2. PHYSICAL SETTINGS

2.1 Topography and Drainage

The study area ranges in elevation from approximately 70 to 80 meters above sea level (masl). The topography at the existing Highway 401/Power Dam Drive intersection slopes gently southward towards South Raisin River located, approximately 600 m south of the Site, and the St. Lawrence River located approximately 3.5 kilometers (km) south of the Site.

There are no water bodies within the study area. Drainage on the roads and surrounding areas are collected by roadside ditches and drains. No catch basins or manhole covers were observed in the study area during site reconnaissance.

2.2 Physiography and Geology

According to “The Physiography of Southern Ontario” (Chapman and Putman, 1984), the study area falls within the Lancaster Flats.

In the southern part of Glengarry County, for about 10 km back from St. Lawrence, lies a lowland in which the till plain has been buried under water-laid deposits leaving exposed only the stony crests of a few drumlins and ridges. The water-laid materials range from clay to very fine sand in much the same as they do on the margins of the Winchester clay plain. The soils are generally poorly drained and have rather deep black surface soils underlain by rusty, mottled subsoils (Chapman and Putnam, 1984). The surficial geology is described as a Till comprised of stone-poor, sandy silt to silty sand-textured till on Paleozoic terrain (Ontario Geological Survey, 2003).

The study area is located on the Bobcaygeon Formation within the Simcoe Group and is made up of limestone, with minor shales in the upper part (Ontario Geological Survey, 2011).

2.3 Hydrogeology

The inferred local groundwater direction is likely southerly towards the St. Lawrence River.

2.3.1 Water Well Records

The Ministry of the Environment, Conservation, and Parks (MECP) Water Well Information System (WWIS) database were queried for records of water supply wells within 500 m of the Site (MECP, 2020). A total of nineteen (19) water supply well records were identified, including seventeen (17) domestic, one (1) commercial, and one (1) livestock. The well installation dates range from 1970 to 2017.

The map of MECP water well locations is provided in Figure 3 in Appendix B. It is noted that the margin of error of the locations of MECP well records ranges from 100 to 300 meters. The well totals differ slightly from those identified in the Environmental

Risk Information Services (ERIS) report due to minor differences in the project area boundary. This will not affect the conclusions in this report.

According to the MECP Source Water Protection online mapping (http://www.applications.ene.gov.on.ca/swp/en/index.php), there are no Well Head Protection Areas (WHPA) located within or in the vicinity (within a 1 km radius) of the study area.

2.4 Waterbodies and Areas of Natural Significance

A tributary of South Raisin River crosses the study area in an east-west orientation approximately 650 m south of Highway 401 and Power Dam Drive intersection.

There are no areas of natural and scientific interest (ANSI) located within the Site or study area.

3. RECORDS REVIEW

3.1 Previous Environmental Reports

No existing environmental reports were available for the study area.

3.2 Aerial Photography Review

Aerial photographs dated 1954, 1974, 1987, and 1994 were obtained from the Environmental Risk Information Services (ERIS) database. Aerial photographs dated 2006, 2011, and 2018 of the study area were obtained from Google Earth™, a computer program that provides geo-referenced satellite imagery.

A summary of the aerial photo observations is provided in Table 1, and annotated versions of the photographs are included in Appendix B.

Table 3-1:Historical Aerial Photograph Findings

Date	Site (General)	Study Area – east, west, south, and north
1954	The land was used for agricultural purposes with limited residential dwellings. Highway 401 is not present. Power Dam Drive appears to be a gravel road	The land was used for agricultural purposes; several farmhouses and residences are present in the area. Few areas to the north and west of the intersection appear to be undeveloped
1974	Highway 401 and Power Dam Drive are present and in the same alignment as present day	A few more farmsteads and residential properties have been developed in the surrounding area
1987	No change	A few more farmsteads and residential properties have been developed in the surrounding area
1994	No change	A few more farmsteads and residential properties have been developed in the surrounding area
2006	No change	The auto garage located at 16892 Atchison Road appears to be developed. A few more residential properties have been developed in the surrounding area
2011	No change	No change since 2006
2018	No change	No change since 2011

3.3 Government and Private Databases

As part of the COS, the Contaminated Sites on Federal Land Inventory (FCSI), maintained by the Treasury Board of Canada Secretariat was reviewed. No known

contaminated sites held by a federal department were identified on the Site or within the study area.

3.4 Environmental Databases

A standard search of provincial, federal and private databases for records pertaining to the Site and the adjacent properties within a 250-meter radius was completed by Environmental Risk Information Services (ERIS). A copy of the ERIS report is provided in Appendix C.

The following databases searched by ERIS contained information pertaining to properties within a 250-meter radius from the center of the Site.

- Borehole – 2 records
- Environmental Compliance Approval - 1 record
- ERIS Historical Searches – 2 records
- Ontario Regulation 347 Waste Generators Summary – 1 record
- Ontario Oil and Gas Wells – 1 record
- Ontario Spills – 6 records
- Water Well Information System – 18 records

For complete details on any of the above records, refer to the full ERIS report provided in Appendix C.

Borehole

A search of the Borehole database found two (2) borehole records located approximately 450 meters from the Site. The first borehole was drilled on April 6, 1960, for a geotechnical/geological investigation to a depth of 10.7 m, with a reported static water level of 0.8 m. The second borehole was drilled on April 7, 1960, for a geotechnical/geological investigation to a depth of 7.0 m, with a reported static water level of 0.8 m.

Environmental Compliance Approval (ECA)

A search of the Environmental Compliance Approval database found that an ECA had been approved on August 1, 2000, for West Front Construction for waste management systems, on Lot 18, Concession 4 (16892 Atchison Road).

ERIS Historical Searches

A search of the ERIS Historical Searches database found that there are two (2) ERIS historical search sites within the study area. One record for a historical search was for 16890 and 16892 Atchison Road, requesting an RSC Report on June 6, 2016. Another record for a historical search was for Ontario-401 in Cornwall, requesting a custom report and aerial photos on November 12, 2021.

Ontario Regulation 347 Waste Generators Summary

A search of the Ontario Regulation 347 Waste Generators database found one (1) record listed for properties within the study area. One (1) record was listed under

Kyla Kroon, located at 16892 Atchinson Road, for light fuels and polymeric resins in 2014.

Ontario Oil and Gas Wells (OOGW)

A search of the Ontario Oil and Gas Wells database found one (1) OOGW site approximately 600 m south of the intersection of Highway 401 and Power Dam Drive. This well was drilled with the purpose of geological evaluation or testing and is located in the St. Lawerence Seaway Cornwall Centre, and has a depth of 31.1m.

Ontario Spills

Within the COS Study Area, six (6) entries were found in the SPL databases. Incidents where the MECP has described the situation as “Contained” or “Cleaned up”, or where the environmental impact is described as “Not Anticipated”, are not considered a concern. Also, air releases are unlikely to result in soil or groundwater contamination. In addition, oil spills that are only released into watercourses/sewer systems may result in “Surface Water Pollution” as noted in the ERIS report, but would not impact groundwater (based on the temporary nature of the spill, and the oil being less dense and immiscible with water). The remaining five (5) spills are identified as significant and the locations are shown in Figure 4 in Appendix B.

The Ontario Spills database found five (5) records of significant spills within the study area:

1. One (1) record for a spill of 50 L of diesel to the ground, due to an accident of a truck rolling over on the highway 401 west of Power Dam Drive. It occurred on May 5, 2018.

2. One (1) record for a spill of 135 L of diesel fuel to the ground, due to an accident of a truck rolling over on highway 401 on the off-ramp at Power Dam Drive. It occurred on January 24, 1990.

3. One (1) record for a spill of 787.5 L of diesel fuel to the ground, from a truck under the company name of Mattu Trucking Inc. The reason for spillage is unknown. It occurred on Highway 401 at County Road 33 on December 8, 2007.

4. One (1) record for a spill of an unknown volume of diesel fuel and radiation fluid to a ditch, from a truck under the company name of LMB Transport. The reason for spillage is due to a transport truck rollover. It occurred on Highway 401 mile marker 786, on March 18, 2021.

5. One (1) record for a spill of 400 L of diesel fuel to the ground, from a truck under the company name of LECLAIR FUELS LTD. The reason for spillage is due to equipment failure. It occurred at the intersection of Power Dam Drive and Headline Roads, on September 12, 1988.

Water Well Information System

According to the Water Well Information System database twenty-four (24) wells are located within the 500 m of the Site, including twenty-two (22) domestic supply wells, one (1) commercial supply well, and one (1) monitoring well. It should be noted that the margin of error for the location of these well records ranges from 100 to 300 meters.

4. STUDY AREA RECONNAISSANCE

A study area reconnaissance was completed on April 28, 2022. It included a windshield reconnaissance of selected properties identified from the desktop information review. It did not include a detailed inspection of the properties in the study area. The purpose of the study area reconnaissance was to confirm the property uses in the area and the locations of several activities of potential concern that were noted from the desktop information review and to document current land uses.

The findings of the study area reconnaissance are summarized in Table 3 and select site photographs are provided in Appendix D.

Table 4-2: Summary of Current Land Uses Identified During the Site Reconnaissance

Address or Location	Establishment	Potential Concerns	Relative Potential Risk	Photograph Reference (in Appendix D)
16900 Atchison Road	Rosedale Mechanical – Facility is involved in sheet metal work, custom fabrication, and steel sales	Metals, PHCs, VOCs, PAHs	High	Photo #1, 2
16892 Atchison Road	Fix Auto Cornwall	Metals., PHCs, VOCs, PAHs, PCBs	High	Photo #3
Southwest region, beside Fix Auto shop	Residential area - Houses	None	None	Photo #4
16868 Atchison Road	Truck parking yard	None	None	Photo #5
North of Hwy 401 and Power Dam Drive intersection (<100m from the highway)	Farmhouse with horses and a barn	None	None	Photo #6
Northeast region of the study area	Farmlands	Pesticides	Low	Photo #7

PHCs – Petroleum Hydrocarbons
PAHs – Polycyclic Aromatic Hydrocarbons
VOCs – Volatile Organic Compounds
PCBs – Polychlorinated Biphenyls

5. REVIEW AND EVALUATION OF INFORMATION

5.1.1 Current and Past Uses of the Site and Surrounding Properties

According to the information that was collected during the current investigation, the Site was first developed as MTO-operated roadways in the 1960s. Based on aerial photographs of the area during this time, the Site and surrounding area were used primarily for agricultural purposes.

Historically, surrounding properties have primarily been used for agricultural and residential purposes. The properties to the north, south, west, and east were developed as farmsteads or for residential purposes before 1954 and also gradually from the 1960s to the early 2000s, based on the WWIS domestic well installation dates and aerial photos.

5.1.2 Potentially Contaminating Activities

Four (4) PCA were identified within the study area during this investigation. In addition, five (5) significant spills were identified within the study area. The spills consisted of diesel fuel with volumes ranging from 50 L to 780 L and dates ranging from 1988 to 2018. The details are described in Table 5-3

Table 5-1: Potentially Contaminating Activities

PCA	Location	Description	Risk Rating
PCA #30: Importation of Fill Material of Unknown	On-Site No address	Fill of an unknown quality used to construct the Power Dam Drive bridge approaches and abutments.	High
PCA #10: Commercial Autobody Shops	Off-Site 16892 Atchison Road	Fix Auto Cornwall is an auto garage that has been in operation since at least 2006.	High
PCA #58: Waste Disposal and Waste Management, including thermal treatment, landfilling, and transfer of waste, other than the use of bio soils as soil conditioners	Off-Site 16892 Atchison Road	West Front Construction was approved for an Environmental Compliance Approval for 'waste management systems on August 1st, 2000.	High
PCA #34: Metal Fabrication	Off-Site 16900 Atchison Road	Rosedale Mechanical is a facility involved in sheet metal work, custom fabrication, and steel sales. This facility was observed during the site visit.	High
Multiple diesel spills	On-Site/Off-Site No address	Multiple diesel spills identified in the ERIS report	High

.The location of the PCA and significant spill locations are shown in Figure 4, in Appendix A.

5.1.3 Areas of Potential Environmental Concern

Based on the findings from the records review, four areas of potential environmental concern (APEC) were identified at the Site, as summarized below in Table 5-2.

Table 5-2: Areas of Potential Environmental Concern

Area of Potential Environmental Concern	Potentially Contaminating Activities	Location	Contaminants of Concern	Media Potentially Impacted	Risk Rating
APEC 1	PCA #30: Importation of Fill Material of Unknown	Northern approach/ abutment/onsite	Petroleum Hydrocarbons (PHC) fractions F1 to F4, Volatile Organic Compounds (VOC), Polycyclic Aromatic Hydrocarbons (PAH), and Metals and Inorganics	Soil	High
APEC 2	PCA #30: Importation of Fill Material of Unknown	Southern approach/ abutment/onsite	PHC, VOC, PAH and Metals and Inorganics	Soil	High
APEC 3	PCA #10: Commercial Autobody Shops PCA #58: Waste Disposal and Waste Management, including thermal treatment, landfilling, and transfer of waste, other than the use of bio soils as soil conditioners	16892 Atchison Road/offsite within the study area	PHC, VOC, PAH, Polychlorinated Biphenyls(PCB), and Metals and Inorganics	Soil + Groundwater	High
APEC 4	PCA #34: Metal Fabrication	16900 Atchison Road/off-site, within the study area	Metals, PHCs, VOCs, PAHs	Soil + Groundwater	High

In addition to the above-listed APEC, five (5) significant spills are also considered as having a “high” potential for contamination.

The findings that are of *de minimis* concern are listed below.

Table 5-3: Summary of Findings Considered as *De Minimis* Concern

Finding	Rationale
Various ERIS report listings (waste generators, minor spills, etc.)	Based on the nature of the activities reported, dates, and/or distances and locations relative to the Site, the potential impact on the Site from any of these sources is considered unlikely.
Agricultural Lands	Pesticide applications have been occurring on the agricultural lands located within the Site boundary. The agricultural lands/application of pesticides are not specifically included in the APECs and PCAs based on the low leachability and mobility of pesticides in shallow soil. However, if soils are to be excavated from the agricultural lands and managed on or offsite, the soil shall be tested to confirm the presence and/or absence of pesticides in soil.
De-icing Salt Application along Road Surface	Potential salt impacts are present along the roadways within the study area. De-icing salt application is not considered a PCA and salt-related parameters with concentrations above the applicable MECP standards due to winter de-icing activities are not considered contaminants as per O. Reg. 153/04. However, the likelihood of salt impacts shall be noted, and the presence of salt impacts shall be confirmed if the soil is to be excavated in the vicinity of the roadways. Restrictions for the reuse of salt-impacted soil shall be implemented as per O. Reg. 406/19 and its technical supporting document entitled “Rules for Soil Management and Excess Soil Quality Standards” (MECP, 2020).
Truck Parking Yard	Based on the distance relative to the site and site reconnaissance findings, the potential impact on the Site from this source is unlikely

6. CONCLUSIONS

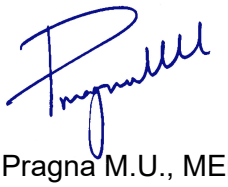
Based on the findings of the COS, there are two (2) areas of potential environmental concern (APECs) identified on the Site and two (2) APEC identified offsite within the study area, as discussed in Section 5.1.3. The APECs are considered as having a “high” risk for contamination. In addition, five (5) significant spills were identified within the study area. The significant spill locations are also considered as having a “high” risk for contamination. There are no properties rated as having “medium” potential for contamination. The remaining properties within the study area are considered as having a “low” potential for contamination.

Further environmental assessments/investigations are recommended for the APECs that will be directly impacted by the construction of the bridge replacement work to confirm the environmental conditions of soil and groundwater on those lands in support of property acquisition, excess soil management, and/or environmental due diligence. The environmental assessments/investigations may include Phase I/II Environmental Site Assessments (ESAs), and planning and soil sampling requirements in accordance with Ontario Regulation 406/19 Onsite and Excess Soil Management if deemed necessary. If actual contamination is identified during the environmental assessments/investigations, additional delineation investigations and/or remediation may also be required.

7. CLOSURE

We trust the above meets with your current requirements. Should you have any comments, questions, or require additional information, please do not hesitate to contact this office.

Prepared By:



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8. LIMITATIONS AND USE OF THE REPORT

This report has been prepared for the exclusive use of the Ministry of Transportation (the Client) and Approved Users by Morrison Hershfield Limited (Morrison Hershfield). Morrison Hershfield hereby disclaims any liability or responsibility to any person or party, other than the Client and Approved Users, for any loss, damage, expense, fines, or penalties that may arise from the use of any information or recommendations contained in this report.

In preparing this report Morrison Hershfield has relied in good faith on information provided by individuals and companies noted in this report. Morrison Hershfield assumes that the information provided is factual and accurate, and accepts no responsibility for any deficiency, misstatements, or inaccuracies contained in this report as a result of omissions, misinterpretations, or fraudulent acts of the persons interviewed or contacted.

The report, which specifically includes all tables, figures, and appendices are based on data and information collected during investigations conducted by Morrison Hershfield and is based solely on the conditions of the Site at the time of the investigation, supplemented by historical information and data obtained by Morrison Hershfield as described in this report. Limitations of the data and information include the fact that conditions between and beyond the limited number of sampling locations may vary; that the assessment is dependent upon the accuracy of the analytical data generated through sample analysis; and that contaminants may exist for which no analyses have been conducted. Furthermore, no assurance is made regarding changes in conditions and/or the regulatory regime (standards, guidelines, etc.), subsequent to the time of the investigation.

Morrison Hershfield has exercised professional judgment in collecting and analyzing the information and formulating recommendations based on the results of the study. The services performed as described in this report were conducted in a manner consistent with that level of care and skill normally exercised by other members of the engineering and science professions currently practicing under similar conditions, subject to the time limits and financial and physical constraints applicable to this study. No other warranty or representation, either expressed or implied, as to the accuracy of the information or recommendations included or intended in this report.

9. REFERENCES

Armstrong, D.K. and Dodge, J.E.P. 2007. Paleozoic geology of southern Ontario; Ontario Geological Survey, Miscellaneous Release-Data 219

Chapman, L.J and Putman, D.F., 1984. The Physiography of Southern Ontario, Ontario Geological Survey, Special Volume 2.

Environmental Guide for Contaminated Property Identification and Management, October 2006. Ministry of Transportation Ontario.

Environmental Risk information Services (ERIS), Highway 401 and Power Dam Drive.

Google Earth™ and Google Street View™.

Government of Canada, Treasury board of Canada Secretariat. Federal Contaminated Sites Inventory (FCSI), v. 11.

Ministry of the Environment and Climate Change (MOECC), 2016. Water Well Information System, accessed through “Ontario Groundwater” and online tool of the OGSR Library.

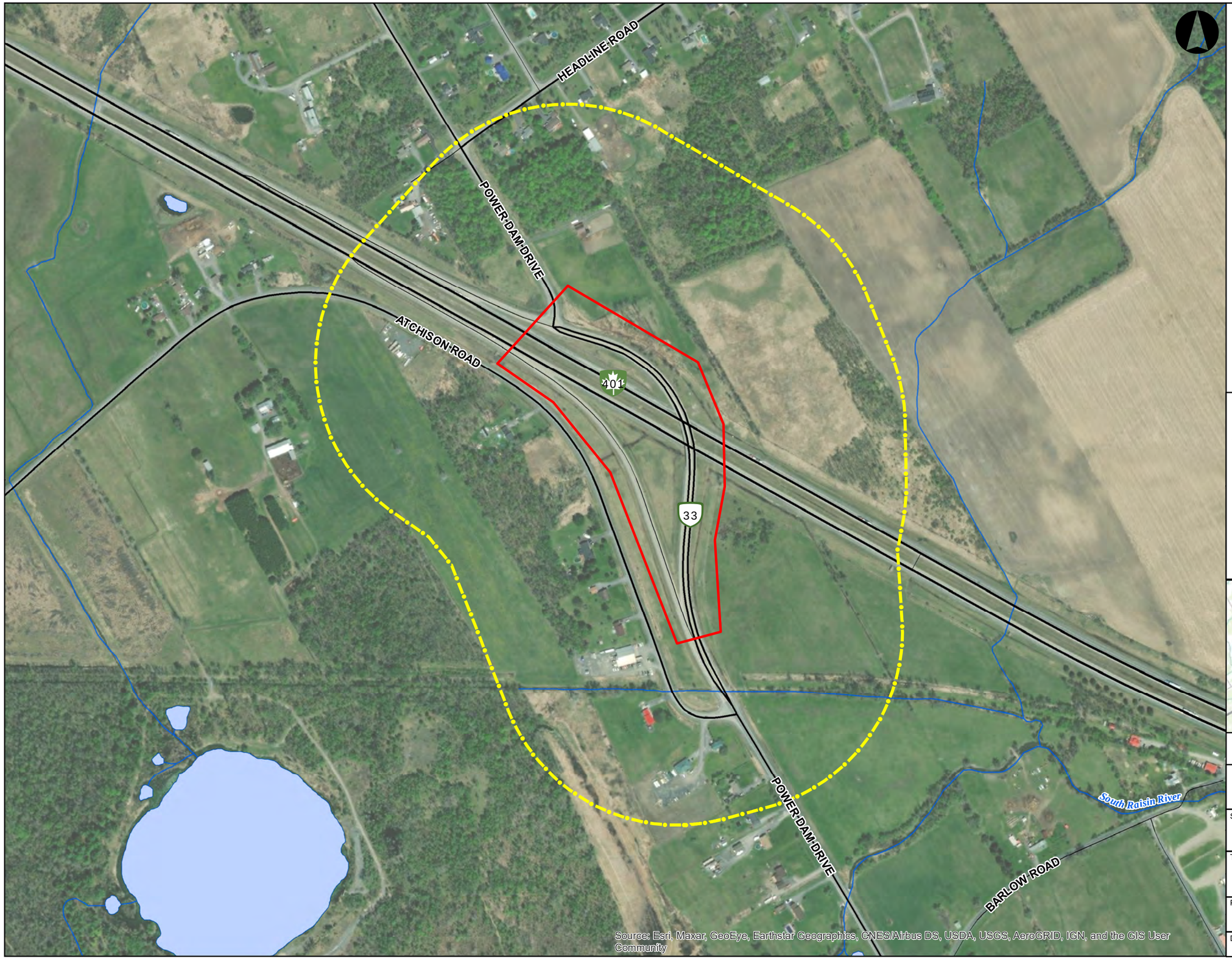
Natural Resources Canada. National Earth Observation Data Framework Catalogue and National Air Photo Library. Accessed August 8th and 31st, 2018. <https://neodf.nrcan.gc.ca/neodf_cat3/index.php?lang=en>

Ontario Geological Survey (OGS), 2011. Scale Bedrock Geology of Ontario. http://www.mndm.gov.on.ca/en/mines-and-minerals/applications/ogsearth/bedrock-geology

Richards, S. H., 1982. Surficial geology, Ottawa, Ontario-Québec/Geologie de surface, Ottawa, Ontario-Québec. Geological Survey of Canada, “A” Series Map 1506A. doi:10.4095/109231

Ontario Power Generation and Ontario Ministry of Natural Resources (MNR), 2009. Madawaska River Water Managements Plan.<https://www.opg.com/generating-power/hydro/ottawa-st-lawrence/river-systems/Documents/Madawaska_WaterMgtPlan.pdf>

APPENDIX A: FIGURES



LEGEND

- Site Boundary
- Study Area (250 m Buffer)

Land Information Ontario Data

- Watercourses
- Waterbodies

Transportation Network

- Expressway / Highway / Freeway
- Arterial / Collector
- Local Roads

NOTES:
- NDMNRF Raisin Region Conservation Authority

Coordinate System: NAD 1983 UTM Zone 18N
Sources: NDMNRF

MORRISON HERSHFIELD

SCALE: 1:5,000
0 85 170 340
Meters

TITLE:

Site Locality

PROJECT NO.: 201979404
Highway 401 at Power Dam Drive, Bridge Replacement

DATE: March, 2022

Figure 1

ENVIRONMENTAL SERVICES DEPARTMENT

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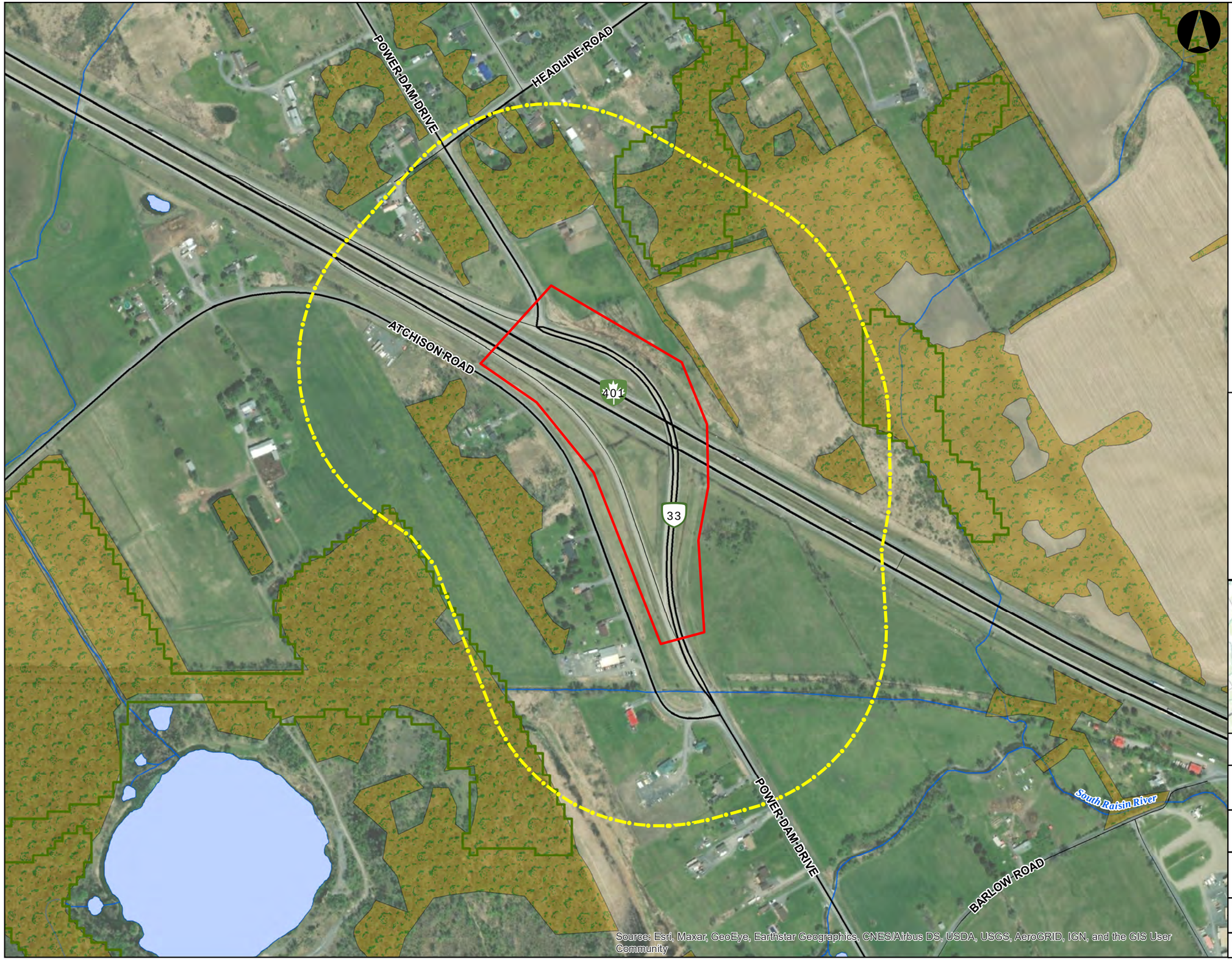

LEGEND

- Site Boundary
- Study Area (250 m Buffer)

Land Information Ontario Data

- Watercourses
- Waterbodies
- Significant Ecological Area
- Wooded Areas

Transportation Network

- Expressway / Highway / Freeway
- Arterial / Collector
- Local Roads

NOTES:
- NDMNRF Raisin Region Conservation Authority

Coordinate System: NAD 1983 UTM Zone 18N
Sources: NDMNRF

MORRISON HERSHFIELD

SCALE: 1:5,000
0 85 170 340
Meters

TITLE:
Waterbodies and Areas of Natural Significance

PROJECT NO.: 201979404
Highway 401 at Power Dam Drive, Bridge Replacement

DATE: March, 2022

Figure 2

ENVIRONMENTAL SERVICES DEPARTMENT

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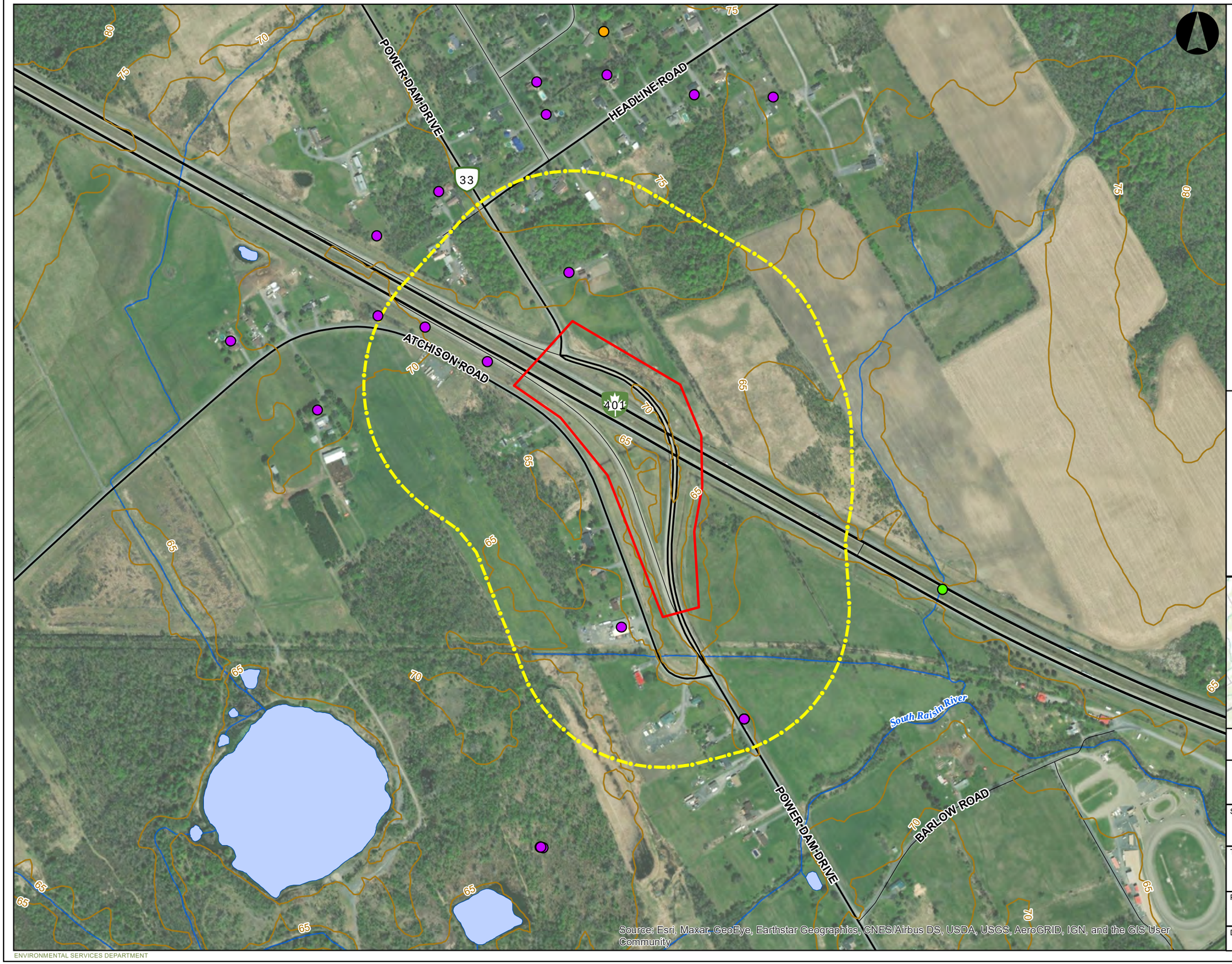

LEGEND

Water Wells in Provincial System (WWIS)

- Commerical
- Domestic
- Livestock
- Site Boundary
- Study Area (250 m Buffer)

Land Information Ontario Data

- Topographic Contour (mASL)
- Watercourses
- Waterbodies

Transportation Network

- Expressway / Highway / Freeway
- Arterial / Collector
- Local Roads

NOTES:
- NDMNRF Raisin Region Conservation Authority

Coordinate System: NAD 1983 UTM Zone 18N
Sources: NDMNRF

MORRISON HERSHFIELD

SCALE: 1:6,000
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Meters

TITLE:

Topography and WWIS Locations

PROJECT NO.: 201979404

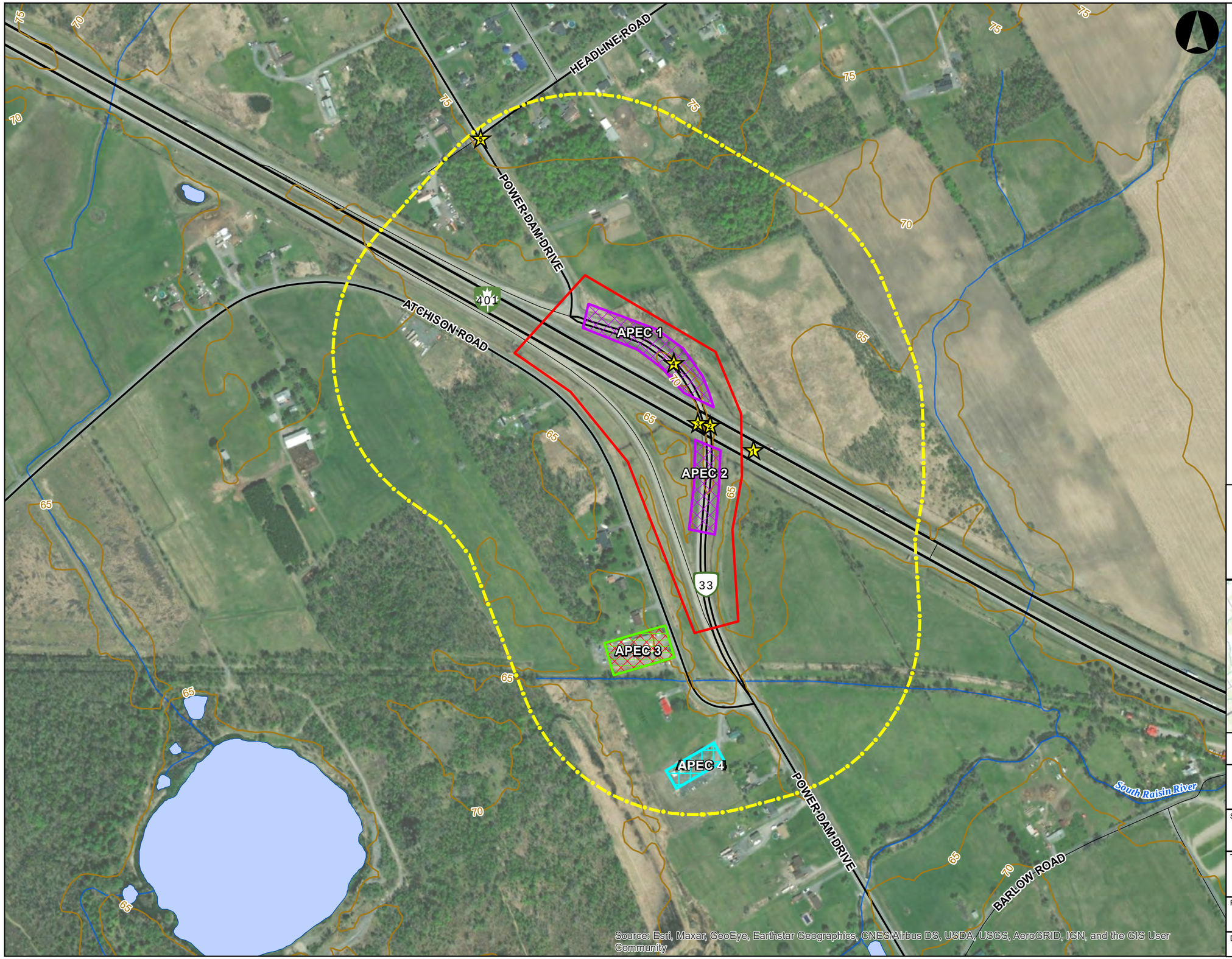
Highway 401 at Power Dam Drive, Bridge Replacement

DATE: March, 2022

Figure 3

ENVIRONMENTAL SERVICES DEPARTMENT

G:\2020\201979404\Maps\Geo_Env_Maps\Fig_3_Topography_WWIS_201979404.mxd



LEGEND

- Spill Locations
- Site Boundary
- Study Area (250m Buffer)

Potentially Contaminating Activities

- PCA #10: Commercial Autobody Shop
- PCA #30: Importation of Fill Material of Unknown Quality
- PCA #58: Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of bio soils and soil conditioners
- PCA #34: Metal Fabrication

Land Information Ontario Data

- Topographic Contour (mASL)
- Watercourses
- Waterbodies

Transportation Network

- Expressway / Highway / Freeway
- Arterial / Collector
- Local Roads

NOTES:
- NDMNRF Raisin Region Conservation Authority

Coordinate System: NAD 1983 UTM Zone 18N
Sources: NDMNRF

MORRISON HERSHFIELD

SCALE: 1:5,000
0 85 170 340
Meters

TITLE:
Potentially Contaminating Activities and Areas of Potential Environmental Concern

PROJECT NO.: 201979404
Highway 401 at Power Dam Drive, Bridge Replacement

DATE: April, 2022

Figure 4

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ENVIRONMENTAL SERVICES DEPARTMENT

G:\2020\201979404\Maps\Geo_Env_Maps\Fig_4_PCA_201979404.mxd

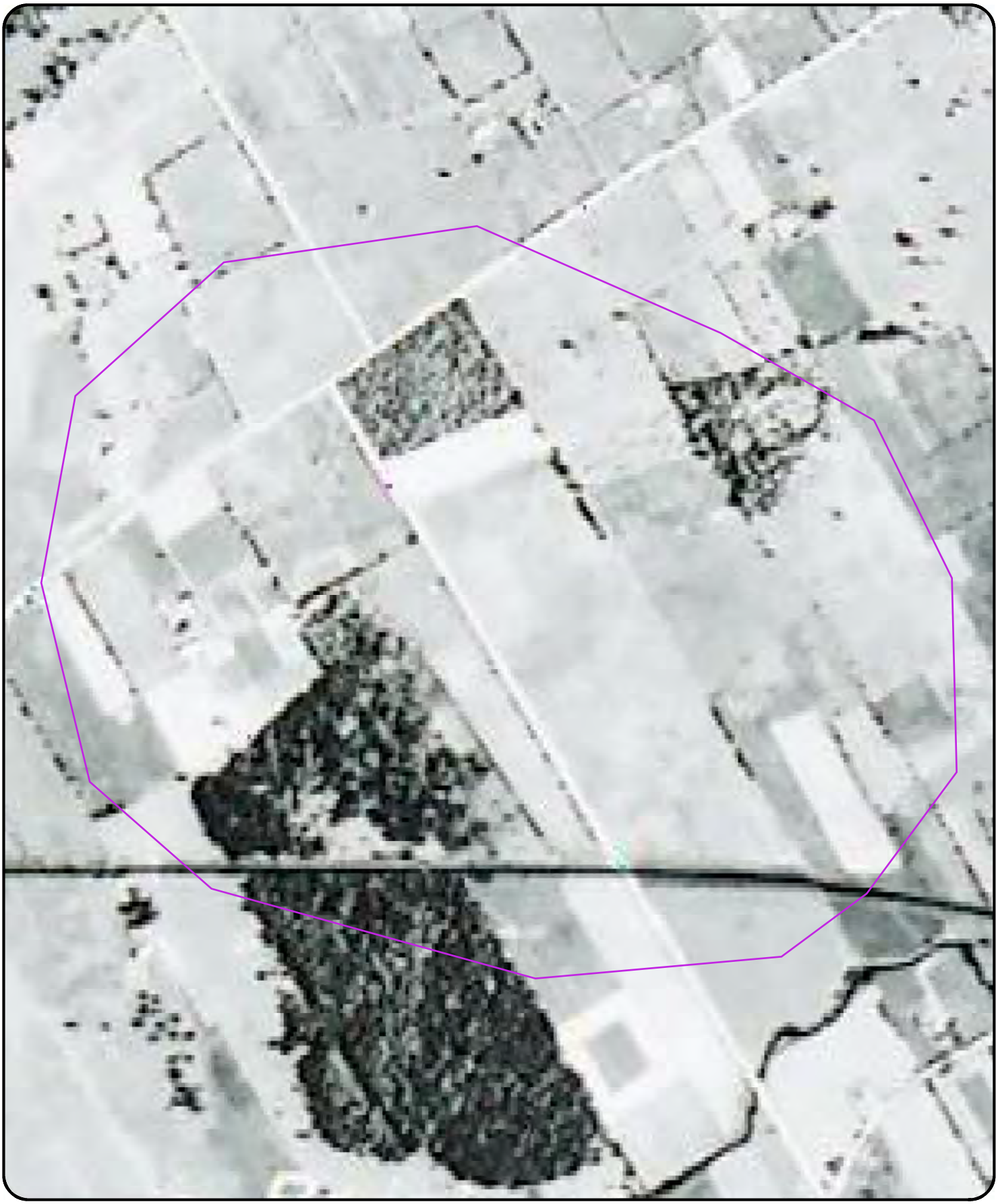
APPENDIX B: AERIAL PHOTOGRAPHS

HISTORICAL AERIALS

Project Property:	Power Dam Power Dam Long Sault ON
Project No:	201979404
Requested By:	Morrison Hershfield
Order No:	22022800462
Date Completed:	February 28, 2022

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

Decade	Year	Image Scale	Source
1950	1954	10000	Hunting Survey Corporation Limited
1960	Not Available		
1970	1974	25000	NAPL
1980	1987	50000	NAPL
1990	1994	50000	NAPL



0 0.125 0.25 0.5
Kilometers

Order Number: 22022800462

Year: 1954
Source: Hunting Survey Corporation Limited
Map Scale: 1: 10000
Comments: Best Copy Available

ERIS

0 0.125 0.25 0.5 Kilometers

Order Number: 22022800462

Year: 1974
Source: NAPL
Map Scale: 1: 10000
Comments:

0 0.125 0.25 0.5
Kilometers

Order Number: 22022800462

Year: 1987
Source: NAPL
Map Scale: 1: 10000
Comments:

0 0.125 0.25 0.5
Kilometers

Order Number: 22022800462

Year: 1994
Source: NAPL
Map Scale: 1: 10000
Comments:


5/2006
Cornwall Towing
33
Poplar Ave
Hwy 401
33
Atchison Rd
Atchison Rd
Image © 2021 Maxar Technologies
Google Earth
1985
Imagery Date: 5/24/2006 45°03'41.02" N 74°48'42.52" W elev 71 m eye alt 1.64 km


11/2011
Pecore Electric Inc
Beaver Dam Dr
Cornwall Towing
33
Poplar Ave
Hwy 401
Atchison Rd
Atchison Rd
33
FIX AUTO CORNWALL
33
Home Of Evans Bus Lines Ltd. Racing Team
401
Barlow Rd
Image USDA Farm Service Agency
Image © 2021 CNES / Airbus
Google Earth
1985
45°04'03.85" N 74°48'31.92" W elev 72 m eye alt 2.58 km


9/2018
Pecore Electric Inc
Beaver Dam Dr
Poplar Ave
33
Cornwall Towing
Hwy 401
Atchison Rd
Atchison Rd
33
FIX AUTO CORNWALL
Home Of Evans Bus Lines Ltd. Racing Team
401
Barlow Rd
Google Earth
1985
45°03'55.88" N 74°49'20.25" W elev 83 m eye alt 2.58 km

APPENDIX C: ERIS REPORT

DATABASE REPORT

Project Property:	*Hwy 401/Power Dam Dr* *Power Dam Drive* *South Stormont ON*
Project No:	*201979404*
Report Type:	*Quote - Custom-Build Your Own Report*
Order No:	*22022300474*
Requested by:	*Morrison Hershfield*
Date Completed:	*February 28, 2022*

Environmental Risk Information Services
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1.866.517.5204 | info@erisinfo.com | erisinfo.com

Table of Contents

Executive Summary

Property Information:

Project Property:	*Hwy 401/Power Dam Dr* *Power Dam Drive South Stormont ON*
Project No:	*201979404*

Order Information:

Order No:	*22022300474*
Date Requested:	*February 23, 2022*
Requested by:	*Morrison Hershfield*
Report Type:	*Quote - Custom-Build Your Own Report*

Historical/Products:

Executive Summary: Report Summary

Database	Name	Searched	Project Property	Boundary to 0.50km	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	2	2
CA	Certificates of Approval	Y	0	0	0
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	0	0
EASR	Environmental Activity and Sector Registry	Y	0	0	0
EBR	Environmental Registry	Y	0	0	0
ECA	Environmental Compliance Approval	Y	0	1	1
EEM	Environmental Effects Monitoring	Y	0	0	0
EHS	ERIS Historical Searches	Y	0	2	2
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	0	0
FSTH	Fuel Storage Tank - Historic	Y	0	0	0
GEN	Ontario Regulation 347 Waste Generators Summary	Y	0	1	1
GHG	Greenhouse Gas Emissions from Large Facilities	Y	0	0	0
HINC	TSSA Historic Incidents	Y	0	0	0

Database	Name	Searched	Project Property	Boundary to 0.50km	Total
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0
INC	Fuel Oil Spills and Leaks	Y	0	0	0
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 (NATES)	Y	0	0	0
NCPL	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 Sites	Y	0	0	0
NEBI	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	1	1
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	0	0
PTTW	Permit to Take Water	Y	0	0	0
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	0	0
SCT	Scott's Manufacturing Directory	Y	0	0	0
SPL	Ontario Spills	Y	0	6	6
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	0	24	24
	Total:		0	37	37

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number

No records found in the selected databases for the project property.

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
1	SPL	ERB Transport Limited	HWY 401 W. at KM 784 Just West of Power Dam Dr. Cornwall ON	ESE/9.5	-0.45	18
2	SPL	TRANSPORT TRUCK	ON 401 OFF RAMP AT POWER DAM DRIVE TRANSPORT TRUCK (CARGO) CORNWALL CITY ON	WNW/16.3	0.55	18
2	SPL		Hwy 401 at County Rd. 33 South Stormont ON	WNW/16.3	0.55	19
3	SPL	LMB Transport Inc. <UNOFFICIAL>	Hwy 401 mile marker 786 South Stormont ON	NW/51.4	1.55	19
4	SPL	SD&G Milk Transport Ltd	Cornwall ON	WNW/0.9	1.55	20
5	GEN	Danosh Construction	16892 Atchinson Road Cornwall ON K6H 7J3	SSW/291.2	-1.45	20
6	WWIS		lot 18 con 4 ON ***Well ID:*** 5803280	SW/308.1	-1.45	20
7	EHS		16892 Atchison Rd South Stormont ON K0C1P0	SW/312.6	-1.45	25
8	WWIS		lot 18 con 4 LONG SAULT ON ***Well ID:*** 7168165	NW/164.8	7.21	25
9	WWIS		lot 20 con 5 ON ***Well ID:*** 5802462	WNW/30.3	2.59	31
10	ECA	West Front Construction (Canada) Ltd.	P.O. Box 428 (Lot 18, Concession 4) Cornwall ON K6H 5T2	S/337.7	-4.17	34
11	WWIS		lot 18 con 4 ON	SSE/343.3	-4.45	34

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
			Well ID: 5804289			
12	WWIS		lot 18 con 4 ON ***Well ID:*** 5802782	SSE/343.1	-4.45	38
12	WWIS		lot 18 con 4 ON ***Well ID:*** 5803092	SSE/343.1	-4.45	42
12	WWIS		lot 18 con 4 ON ***Well ID:*** 5803282	SSE/343.1	-4.45	46
12	WWIS		lot 18 con 4 ON ***Well ID:*** 5803854	SSE/343.1	-4.45	49
13	WWIS		lot 17 con 4 ON ***Well ID:*** 5803553	ESE/5.0	-2.78	53
14	WWIS		lot 20 con 5 ON ***Well ID:*** 5802461	WNW/31.5	3.55	56
15	SPL	LECLAIR FUELS LTD.	POWER DAM & HEAD LINE RDS. TANK TRUCK (CARGO) SOUTH STORMONT TOWNSHIP ON	NW/194.3	7.56	60
16	OOGW	St. Lawrence Seaway, Cornwall Centre, D.D.H. No. 770	Cornwall ON ***Licence No:*** N002643	SSE/459.5	-5.45	60
17	WWIS		lot 18 con 4 ON ***Well ID:*** 5803084	WNW/53.1	3.55	61
18	BORE		ON	SSE/454.0	-5.45	65
19	WWIS		lot 20 con 5 ON ***Well ID:*** 5803039	NW/176.8	4.09	66
20	WWIS		lot 19 con 5 ON ***Well ID:*** 5804097	NNW/376.1	7.68	70
21	BORE		ON	SSE/451.5	-5.45	73

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
22	WWIS		lot 19 con 4 ON **Well ID:** 7272468	W/239.3	3.55	75
23	WWIS		lot 19 con 5 ON **Well ID:** 5802572	NNW/483.1	6.51	81
24	WWIS		lot 17 con 4 ON **Well ID:** 5803274	WNW/74.3	3.55	85
25	WWIS		lot 19 con 5 ON **Well ID:** 5803283	NNW/415.3	8.12	89
26	WWIS		lot 16 con 4 ON **Well ID:** 5804560	E/339.3	5.42	92
27	WWIS		lot 16 con 4 ON **Well ID:** 5802634	E/341.1	5.42	96
28	EHS		ON-401 Cornwall ON	ESE/160.5	-0.55	99
29	WWIS		16819 ATCHIMSON RD lot 20 con 5 LONG SAULT ON **Well ID:** 5805233	W/268.8	2.42	100
30	WWIS		lot 20 con 5 ON **Well ID:** 5803759	NW/311.2	3.55	105
31	WWIS		lot 19 con 5 ON **Well ID:** 5803287	NW/460.2	2.56	109
32	WWIS		lot 16 con 4 ON **Well ID:** 5800351	ESE/388.3	-5.84	112
33	WWIS		401 CULVERT, 1KM EAST OF POST ROAD ON **Well ID:** 7357620	WNW/376.1	0.55	115

Executive Summary: Summary By Data Source

BORE - Borehole

A search of the BORE database, dated 1875-Jul 2018 has found that there are 2 BORE site(s) within approximately 0.50 kilometers of the project property.

Site	Address	Distance (m)	Map Key
	ON	454.0	18
	ON	451.5	21

ECA - Environmental Compliance Approval

A search of the ECA database, dated Oct 2011- Jan 31, 2021 has found that there are 1 ECA site(s) within approximately 0.50 kilometers of the project property.

Site	Address	Distance (m)	Map Key
West Front Construction (Canada) Ltd.	P.O. Box 428 (Lot 18, Concession 4) Cornwall ON K6H 5T2	337.7	10

EHS - ERIS Historical Searches

A search of the EHS database, dated 1999-Nov 30, 2021 has found that there are 2 EHS site(s) within approximately 0.50 kilometers of the project property.

Site	Address	Distance (m)	Map Key
	16892 Atchison Rd South Stormont ON K0C1P0	312.6	7
	ON-401 Cornwall ON	160.5	28

GEN - Ontario Regulation 347 Waste Generators Summary

A search of the GEN database, dated 1986-Nov 30, 2021 has found that there are 1 GEN site(s) within approximately 0.50 kilometers of the project property.

Site	Address	Distance (m)	Map Key
Danosh Construction	16892 Atchinson Road Cornwall ON K6H 7J3	291.2	5

OOGW - Ontario Oil and Gas Wells

A search of the OOGW database, dated 1800-Jan 2021 has found that there are 1 OOGW site(s) within approximately 0.50 kilometers of the project property.

Site	Address	Distance (m)	Map Key
St. Lawrence Seaway, Cornwall Centre, D.D.H. No. 770	Cornwall ON ***Licence No:*** N002643	459.5	16

SPL - Ontario Spills

A search of the SPL database, dated 1988-Sep 2020; Feb 2021-Mar 2021 has found that there are 6 SPL site(s) within approximately 0.50 kilometers of the project property.

Site	Address	Distance (m)	Map Key
ERB Transport Limited	HWY 401 W. at KM 784 Just West of Power Dam Dr. Cornwall ON	9.5	1
TRANSPORT TRUCK	ON 401 OFF RAMP AT POWER DAM DRIVE TRANSPORT TRUCK (CARGO) CORNWALL CITY ON	16.3	2
	Hwy 401 at County Rd. 33 South Stormont ON	16.3	2
LMB Transport Inc. <UNOFFICIAL>	Hwy 401 mile marker 786 South Stormont ON	51.4	3
SD&G Milk Transport Ltd	Cornwall ON	0.9	4

Site	Address	Distance (m)	Map Key
LECLAIR FUELS LTD.	POWER DAM & HEAD LINE RDS. TANK TRUCK (CARGO) SOUTH STORMONT TOWNSHIP ON	194.3	15

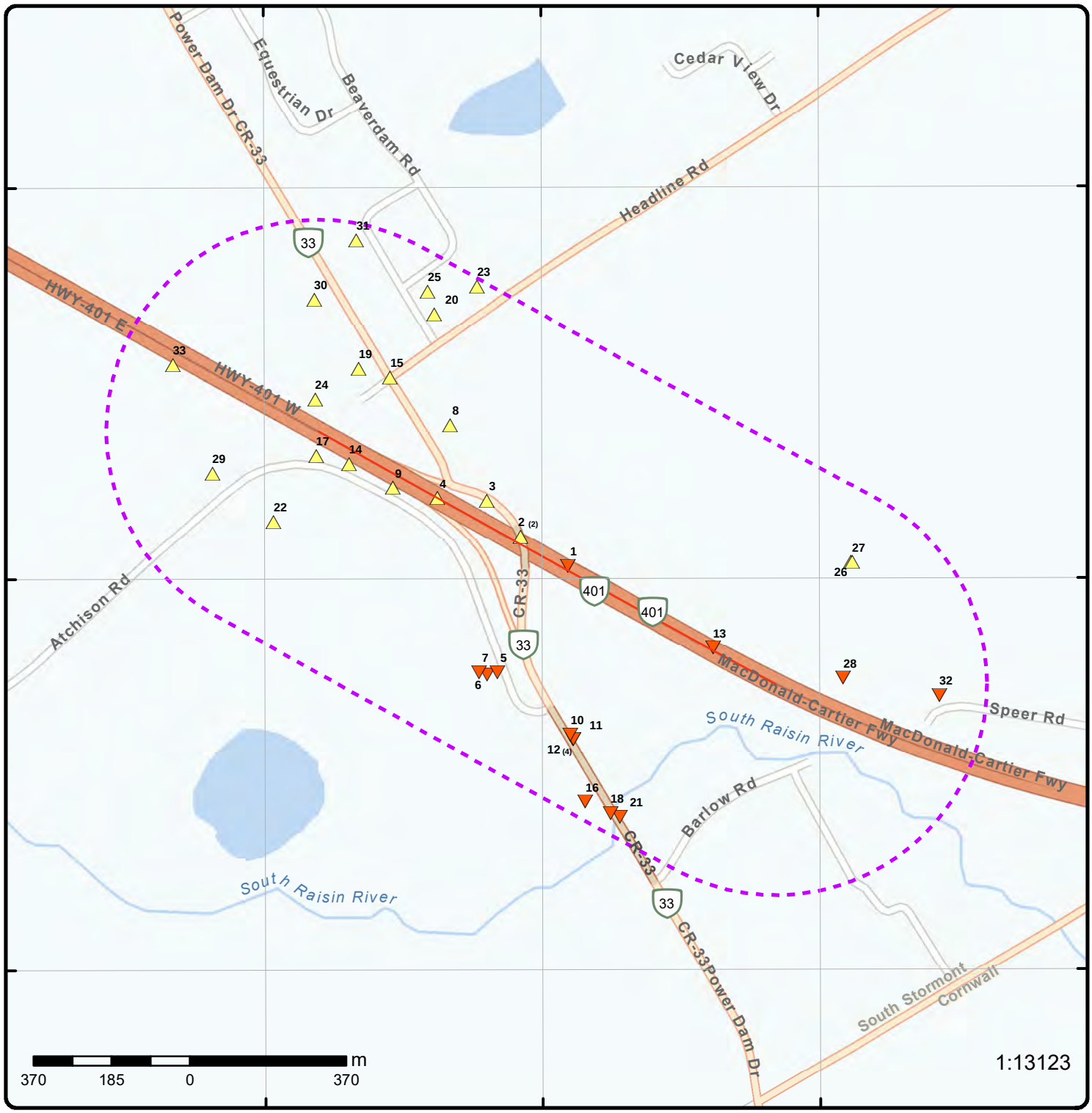
WWIS - Water Well Information System

A search of the WWIS database, dated Sep 30, 2021 has found that there are 24 WWIS site(s) within approximately 0.50 kilometers of the project property.

Site	Address	Distance (m)	Map Key
	lot 18 con 4 ON ***Well ID:*** 5803280	308.1	6
	lot 18 con 4 LONG SAULT ON ***Well ID:*** 7168165	164.8	8
	lot 20 con 5 ON ***Well ID:*** 5802462	30.3	9
	lot 18 con 4 ON ***Well ID:*** 5804289	343.3	11
	lot 18 con 4 ON ***Well ID:*** 5802782	343.1	12
	lot 18 con 4 ON ***Well ID:*** 5803092	343.1	12
	lot 18 con 4 ON ***Well ID:*** 5803282	343.1	12
	lot 18 con 4 ON ***Well ID:*** 5803854	343.1	12
	lot 17 con 4 ON	5.0	13

Site	Address	Distance (m)	Map Key
	Well ID: 5803553		
	lot 20 con 5 ON ***Well ID:*** 5802461	31.5	14
	lot 18 con 4 ON ***Well ID:*** 5803084	53.1	17
	lot 20 con 5 ON ***Well ID:*** 5803039	176.8	19
	lot 19 con 5 ON ***Well ID:*** 5804097	376.1	20
	lot 19 con 4 ON ***Well ID:*** 7272468	239.3	22
	lot 19 con 5 ON ***Well ID:*** 5802572	483.1	23
	lot 17 con 4 ON ***Well ID:*** 5803274	74.3	24
	lot 19 con 5 ON ***Well ID:*** 5803283	415.3	25
	lot 16 con 4 ON ***Well ID:*** 5804560	339.3	26
	lot 16 con 4 ON ***Well ID:*** 5802634	341.1	27
	16819 ATCHIMSON RD lot 20 con 5 LONG SAULT ON ***Well ID:*** 5805233	268.8	29

Site	Address	Distance (m)	Map Key
	lot 20 con 5 ON ***Well ID:*** 5803759	311.2	30
	lot 19 con 5 ON ***Well ID:*** 5803287	460.2	31
	lot 16 con 4 ON ***Well ID:*** 5800351	388.3	32
	401 CULVERT, 1KM EAST OF POST ROAD ON ***Well ID:*** 7357620	376.1	33



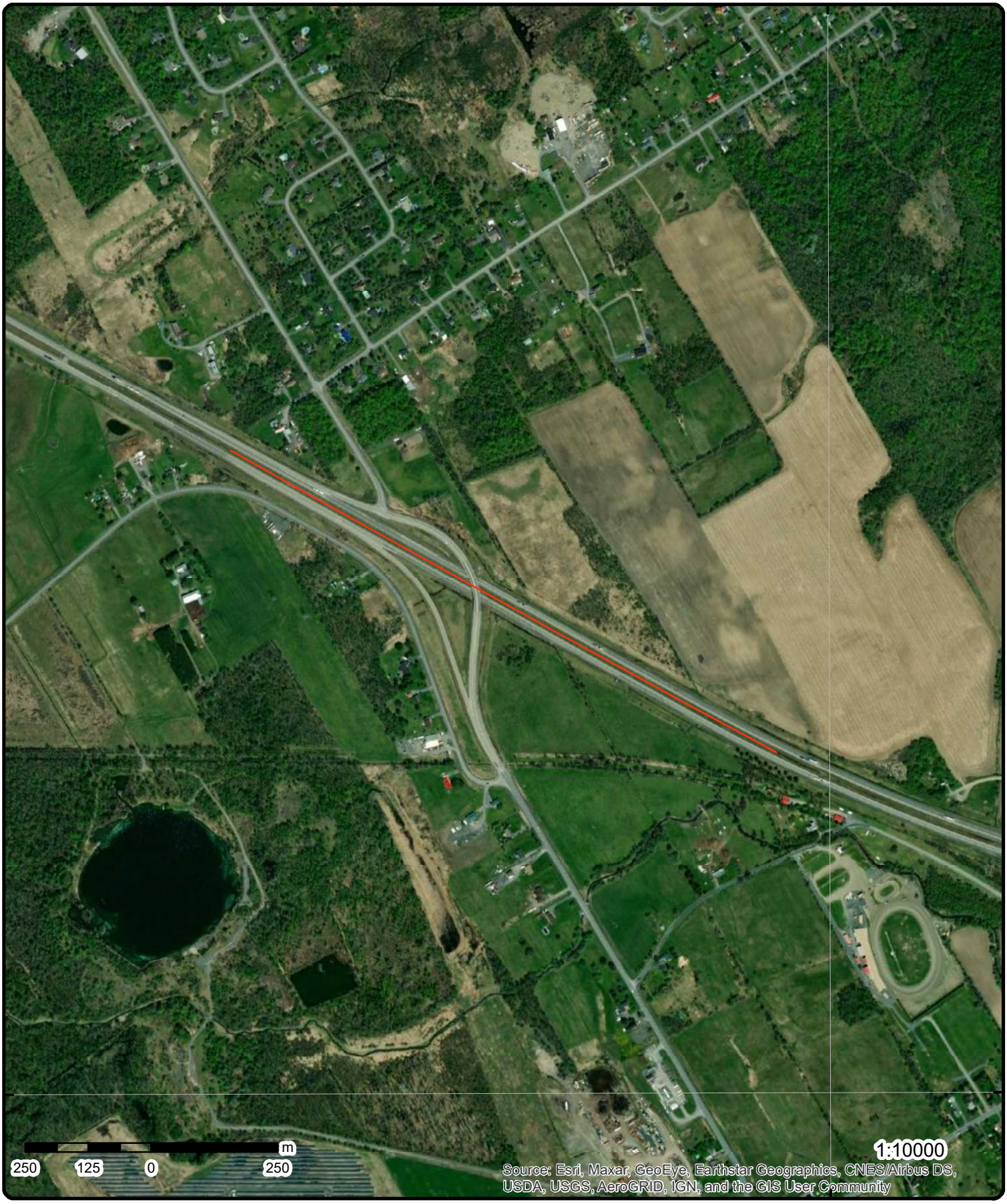
Map: 0.5 Kilometer Radius

Order Number: 22022300474

Address: Power Dam Drive, South Stormont, ON

- Project Property
- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major Arterial; Minor Arterial
- Local Road
- Service Road; Traffic Circle; Ramp
- Rail
- Beach
- Airport
- Industrial Area
- Military Base
- Aircraft Roads
- Native Reservation
- Hospital
- Shopping & Sports Area
- University/College
- Cemetery; Golf Course
- Parkt (National)
- Park (City/County)

74°48'W

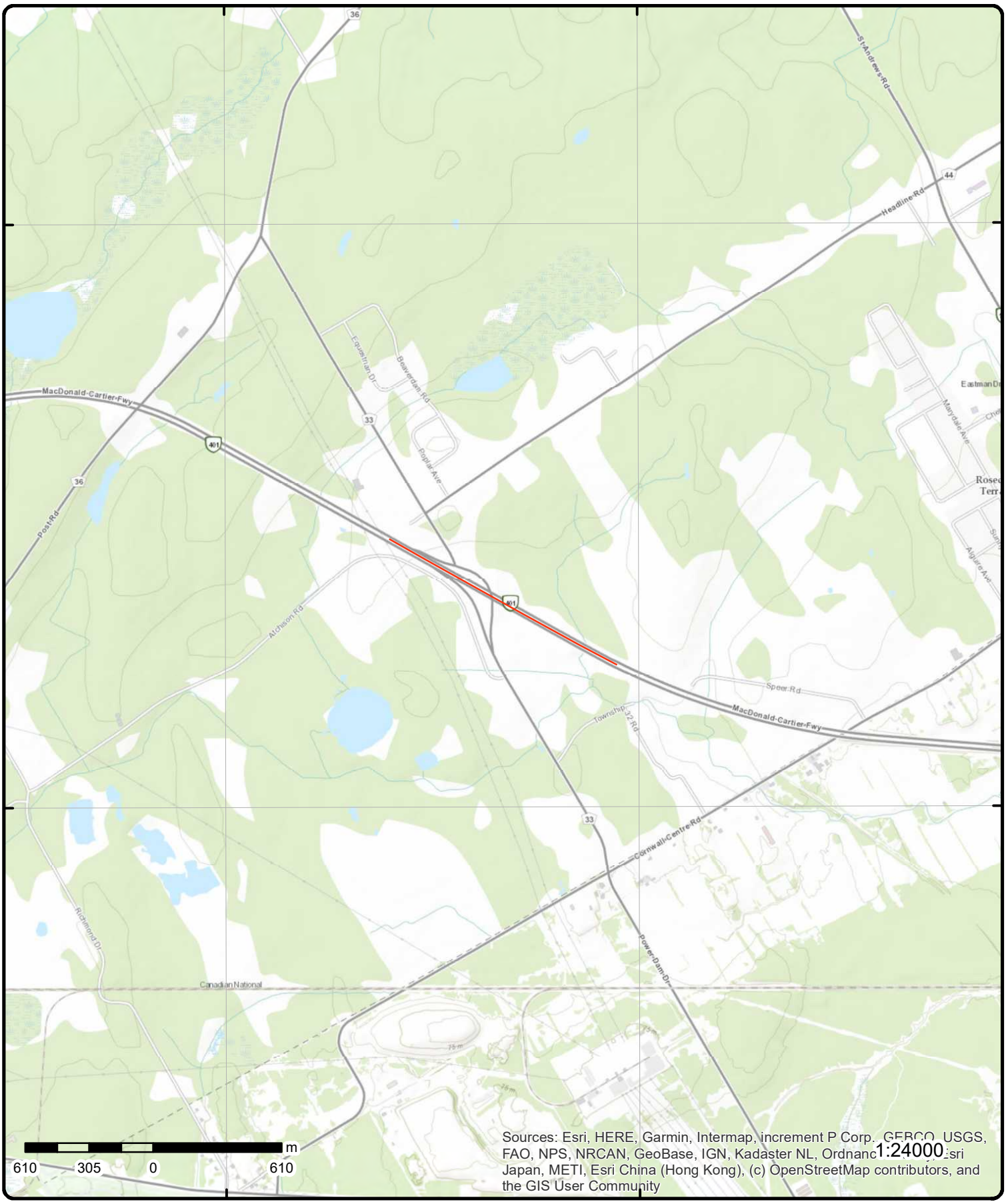


Aerial **Year: 2020**

Order Number: 22022300474

Address: Power Dam Drive, South Stormont, ON

Source: ESRI World Imagery



Topographic Map

Address: Power Dam Drive, ON

Source: ESRI World Topographic Map

Order Number: 22022300474

Detail Report

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	1 of 1	ESE/9.5	65.9 / -0.45	ERB Transport Limited HWY 401 W. at KM 784 Just West of Power Dam Dr. Cornwall ON	SPL

Ref No:	6453-AYECYY	**Discharger Report:**	
Site No:	NA	**Material Group:**	
Incident Dt:	2018/05/03	**Health/Env Conseq:**	2 - Minor Environment
Year:		**Client Type:**	Corporation
Incident Cause:		**Sector Type:**	Unknown / N/A
Incident Event:	Collision/Accident	**Agency Involved:**	
Contaminant Code:	13	**Nearest Watercourse:**	
Contaminant Name:	DIESEL FUEL	**Site Address:**	HWY 401 W. at KM 784 Just West of Power Dam Dr.
Contaminant Limit 1:		**Site District Office:**	Cornwall
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:	1202	**Site Region:**	Eastern
Environment Impact:		**Site Municipality:**	Cornwall
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:	Land; Surface Water	**Northing:**	4989478.08
MOE Response:	No	**Easting:**	515151.86
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	2018/05/03	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	Highway Spills (usually highway accidents)
Incident Reason:	Operator/Human Error	**Source Type:**	Truck - Only Saddle Tanks
Site Name:	TT Rollover<UNOFFICIAL>		
Site County/District:	United Counties of Stormont, Dundas and Glengarry		
Site Geo Ref Meth:			
Incident Summary:	Erb Transport: HWY 401 MVA - 50L of Diesel to grd - Cleaning		
Contaminant Qty:	50 L		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
2	1 of 2	WNW/16.3	66.9 / 0.55	TRANSPORT TRUCK ON 401 OFF RAMP AT POWER DAM DRIVE TRANSPORT TRUCK (CARGO) CORNWALL CITY ON	SPL

Ref No:	30204	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:	1/24/1990	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	TRUCK/TRAILER OVERTURN	**Sector Type:**	
Incident Event:		**Agency Involved:**	
Contaminant Code:		**Nearest Watercourse:**	
Contaminant Name:		**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:		**Site Municipality:**	71101
Nature of Impact:		**Site Lot:**	
Receiving Medium:	LAND	**Site Conc:**	
Receiving Env:		**Northing:**	
MOE Response:		**Easting:**	MTO
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

MOE Reported Dt:	1/24/1990	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	
Incident Reason:	ERROR	**Source Type:**	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	TRANSPORT TRUCK - 135 L OF DIESEL FUEL TO HWY. FROM SADDLE TANKS.		
Contaminant Qty:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
2	2 of 2	WNW/16.3	66.9 / 0.55	Hwy 401 at County Rd. 33 South Stormont ON	SPL

Ref No:	2542-79PGHH	**Discharger Report:**	
Site No:		**Material Group:**	Oil
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Unknown	**Sector Type:**	Transport Truck
Incident Event:		**Agency Involved:**	
Contaminant Code:	13	**Nearest Watercourse:**	
Contaminant Name:	DIESEL FUEL	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Confirmed	**Site Municipality:**	South Stormont
Nature of Impact:	Human Health/Safety; Other Impact(s); Soil Contamination	**Site Lot:**	
Receiving Medium:	Land	**Site Conc:**	
Receiving Env:		**Northing:**	
MOE Response:		**Easting:**	
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	12/8/2007	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	
Incident Reason:	Unknown - Reason not determined	**Source Type:**	
Site Name:	Hwy 401 @ mile marker 788<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Mattu Trucking Inc.: 175gal diesel to hwy401(contained)		
Contaminant Qty:	787.5 L		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
3	1 of 1	NW/51.4	67.9 / 1.55	LMB Transport Inc. <UNOFFICIAL> Hwy 401 mile marker 786 South Stormont ON	SPL

Ref No:	4267-BZ8F63	**Discharger Report:**	
Site No:	NA	**Material Group:**	
Incident Dt:	2021/03/18	**Health/Env Conseq:**	2 - Minor Environment
Year:		**Client Type:**	
Incident Cause:		**Sector Type:**	Miscellaneous Industrial
Incident Event:	Collision/Accident	**Agency Involved:**	
Contaminant Code:	13	**Nearest Watercourse:**	
Contaminant Name:	DIESEL FUEL	**Site Address:**	Hwy 401 mile marker 786
Contaminant Limit 1:		**Site District Office:**	Cornwall
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:	1202	**Site Region:**	Eastern
Environment Impact:		**Site Municipality:**	South Stormont
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:	Land	**Northing:**	4989633.23
MOE Response:	No	**Easting:**	514959.26
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	2021/03/18	**Site Map Datum:**	
Dt Document Closed:	2021/06/03	**SAC Action Class:**	Highway Spills (usually highway accidents)

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Incident Reason:	Operator/Human Error	**Source Type:**	Truck - Transport/Hauling
Site Name:	spill location<UNOFFICIAL>		
Site County/District:	United Counties of Stormont, Dundas and Glengarry		
Site Geo Ref Meth:			
Incident Summary:	LMB Transport: TT rollover; uknown vol. diesel and rad fluid to ditch		
Contaminant Qty:	0 L		

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4 | **1 of 1** | **WNW/0.9** | **67.9 / 1.55** | **SD&G Milk Transport Ltd**
Cornwall ON | **SPL**

Ref No:	6862-BGUK97	**Discharger Report:**	
Site No:	NA	**Material Group:**	
Incident Dt:	10/11/2019	**Health/Env Conseq:**	2 - Minor Environment
Year:		**Client Type:**	Corporation
Incident Cause:		**Sector Type:**	Other
Incident Event:	Collision/Accident	**Agency Involved:**	
Contaminant Code:	96	**Nearest Watercourse:**	
Contaminant Name:	MILK PRODUCT	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	Cornwall
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:	n/a	**Site Region:**	Eastern
Environment Impact:		**Site Municipality:**	Cornwall
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:	Land	**Northing:**	4989638.33
MOE Response:	No	**Easting:**	514842.56
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	10/11/2019	**Site Map Datum:**	
Dt Document Closed:	12/24/2019	**SAC Action Class:**	Primary Assessment of Spills
Incident Reason:	Unknown / N/A	**Source Type:**	Truck - Tanker
Site Name:	Hwy 401 West<UNOFFICIAL>		
Site County/District:	United Counties of Stormont, Dundas and Glengarry		
Site Geo Ref Meth:			
Incident Summary:	Spill: MVA TT 32,700L milk to roadway and ditch		
Contaminant Qty:	20000 L		

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5 | **1 of 1** | **SSW/291.2** | **64.9 / -1.45** | **Danosh Construction**
16892 Atchinson Road
Cornwall ON K6H 7J3 | **GEN**

Generator No:	ON3340864	**Status:**	
SIC Code:	814110	**Co Admin:**	Kyla Kroon
SIC Description:	814110	**Choice of Contact:**	CO_ADMIN
Approval Years:	2014	**Phone No Admin:**	9054736883 Ext.
PO Box No:		**Contam. Facility:**	No
Country:	Canada	**MHSW Facility:**	No

Detail(s)

Waste Class:	221
Waste Class Desc:	LIGHT FUELS
Waste Class:	232
Waste Class Desc:	POLYMERIC RESINS

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6 | **1 of 1** | **SW/308.1** | **64.9 / -1.45** | **lot 18 con 4**
ON | **WWIS**

Well ID:	5803280	**Data Entry Status:**	
Construction Date:		**Data Src:**	1

Primary Water Use:	Domestic	**Date Received:**	12/4/1990
Sec. Water Use:		**Selected Flag:**	TRUE
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	4609
Casing Material:		**Form Version:**	1
Audit No:	48898	**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	STORMONT DUNDAS GLENGARRY
Elevation (m):		**Municipality:**	CORNWALL TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	018
Well Depth:		**Concession:**	04
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5803280.pdf

Additional Detail(s) (Map)

Well Completed Date:	1989/03/02
Year Completed:	1989
Depth (m):	15.24
Latitude:	45.0562891486863
Longitude:	-74.8099953850126
Path:	580\5803280.pdf

Bore Hole Information

Bore Hole ID:	10416615	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	514960.60
Code OB Desc:		**North83:**	4989221.00
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	5
Date Completed:	02-Mar-1989 00:00:00	**UTMRC Desc:**	margin of error : 100 m - 300 m
Remarks:		**Location Method:**	gis
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932425959
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	02
Most Common Material:	TOPSOIL
Mat2:	77
Mat2 Desc:	LOOSE
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	2.0

Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425962
Layer: 4
Color: 2
General Color: GREY
Mat1: 11
Most Common Material: GRAVEL
Mat2: 79
Mat2 Desc: PACKED
Mat3:
Mat3 Desc:
Formation Top Depth: 15.0
Formation End Depth: 16.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425964
Layer: 6
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 74
Mat2 Desc: LAYERED
Mat3:
Mat3 Desc:
Formation Top Depth: 20.0
Formation End Depth: 50.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425961
Layer: 3
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2: 77
Mat2 Desc: LOOSE
Mat3:
Mat3 Desc:
Formation Top Depth: 10.0
Formation End Depth: 15.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425963
Layer: 5
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE

Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 16.0
Formation End Depth: 20.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425960
Layer: 2
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 77
Mat2 Desc: LOOSE
Mat3:
Mat3 Desc:
Formation Top Depth: 2.0
Formation End Depth: 10.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933198981
Layer: 1
Plug From: 2.0
Plug To: 20.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965803280
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10965185
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930677434
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 50.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID:	930677433
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

Results of Well Yield Testing

Pump Test ID:	995803280
Pump Set At:	
Static Level:	10.0
Final Level After Pumping:	18.0
Recommended Pump Depth:	20.0
Pumping Rate:	25.0
Flowing Rate:	
Recommended Pump Rate:	25.0
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:	934590860
Test Type:	Draw Down
Test Duration:	30
Test Level:	14.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	935105992
Test Type:	Draw Down
Test Duration:	60
Test Level:	18.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934847843
Test Type:	Draw Down
Test Duration:	45
Test Level:	15.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934316990
Test Type:	Draw Down
Test Duration:	15
Test Level:	12.0
Test Level UOM:	ft

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Water Details

Water ID:	933899382
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	45.0
Water Found Depth UOM:	ft

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7 ***1 of 1*** ***SW/312.6*** ***64.9 / -1.45*** ***16892 Atchison Rd South Stormont ON K0C1P0*** ***EHS***

Order No:	20160530077	***Nearest Intersection:***	
Status:	C	***Municipality:***	Part Lot 18, Conc Prt 6 52R2893
Report Type:	RSC Report (Rural)	***Client Prov/State:***	ON
Report Date:	06-JUN-16	***Search Radius (km):***	.3
Date Received:	30-MAY-16	***X:***	-74.810228
Previous Site Name:	Purchasing 16890 and 16892 Atchison Rd together	***Y:***	45.056335
Lot/Building Size:	Part Lot 18		
Additional Info Ordered:			

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8 ***1 of 1*** ***NW/164.8*** ***73.6 / 7.21*** ***lot 18 con 4 LONG SAULT ON*** ***WWIS***

Well ID:	7168165	***Data Entry Status:***	
Construction Date:		***Data Src:***	
Primary Water Use:	Domestic	***Date Received:***	9/1/2011
Sec. Water Use:		***Selected Flag:***	TRUE
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	7417
Casing Material:		***Form Version:***	7
Audit No:	Z131513	***Owner:***	
Tag:	A116251	***Street Name:***	
Construction Method:		***County:***	STORMONT DUNDAS GLENGARRY
Elevation (m):		***Municipality:***	CORNWALL TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	018
Well Depth:		***Concession:***	04
Overburden/Bedrock:		***Concession Name:***	CON
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/716\7168165.pdf

Additional Detail(s) (Map)

Well Completed Date:	2011/08/03
Year Completed:	2011
Depth (m):	24.9
Latitude:	45.0616020472152
Longitude:	-74.811090440633
Path:	716\7168165.pdf

Bore Hole Information

Bore Hole ID:	1003558806	***Elevation:***	

DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	514873.00
Code OB Desc:		**North83:**	4989811.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	3
Date Completed:	03-Aug-2011 00:00:00	**UTMRC Desc:**	margin of error : 10 - 30 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1003920903
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	06
Mat2 Desc:	SILT
Mat3:	12
Mat3 Desc:	STONES
Formation Top Depth:	0.0
Formation End Depth:	3.4000000953674316
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	1003920904
Layer:	2
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	06
Mat2 Desc:	SILT
Mat3:	12
Mat3 Desc:	STONES
Formation Top Depth:	3.4000000953674316
Formation End Depth:	12.100000381469727
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	1003920905
Layer:	3
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	
Mat2 Desc:	
Mat3:	74
Mat3 Desc:	LAYERED
Formation Top Depth:	12.100000381469727

Formation End Depth: 24.899999618530273
Formation End Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1003920933
Layer: 1
Plug From: 0.0
Plug To: 12.100000381469727
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID: 1003920932
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 1003920901
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003920909
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From: -0.6000000238418579
Depth To: 12.100000381469727
Casing Diameter: 15.550000190734863
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Casing

Casing ID: 1003920910
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From: 12.100000381469727
Depth To: 24.899999618530273
Casing Diameter: 15.550000190734863
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1003920911
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM: cm

Screen Diameter:

Results of Well Yield Testing

Pump Test ID:	1003920902
Pump Set At:	20.0
Static Level:	7.940000057220459
Final Level After Pumping:	13.9399995803833
Recommended Pump Depth:	20.0
Pumping Rate:	30.0
Flowing Rate:	40.0
Recommended Pump Rate:	30.0
Levels UOM:	m
Rate UOM:	LPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	0
Pumping Duration HR:	1
Pumping Duration MIN:	
Flowing:	

Draw Down & Recovery

Pump Test Detail ID:	1003920920
Test Type:	Draw Down
Test Duration:	5
Test Level:	11.390000343322754
Test Level UOM:	m

Draw Down & Recovery

Pump Test Detail ID:	1003920912
Test Type:	Draw Down
Test Duration:	1
Test Level:	9.680000305175781
Test Level UOM:	m

Draw Down & Recovery

Pump Test Detail ID:	1003920916
Test Type:	Draw Down
Test Duration:	3
Test Level:	11.569999694824219
Test Level UOM:	m

Draw Down & Recovery

Pump Test Detail ID:	1003920918
Test Type:	Draw Down
Test Duration:	4
Test Level:	11.510000228881836
Test Level UOM:	m

Draw Down & Recovery

Pump Test Detail ID:	1003920919
Test Type:	Recovery
Test Duration:	4
Test Level:	10.609999656677246
Test Level UOM:	m

Draw Down & Recovery

Pump Test Detail ID: 1003920926
Test Type: Draw Down
Test Duration: 25
Test Level: 13.199999809265137
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1003920927
Test Type: Draw Down
Test Duration: 30
Test Level: 13.449999809265137
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1003920914
Test Type: Draw Down
Test Duration: 2
Test Level: 10.770000457763672
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1003920915
Test Type: Recovery
Test Duration: 2
Test Level: 11.619999885559082
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1003920925
Test Type: Draw Down
Test Duration: 20
Test Level: 13.029999732971191
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1003920930
Test Type: Draw Down
Test Duration: 60
Test Level: 13.9399995803833
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1003920913
Test Type: Recovery
Test Duration: 1
Test Level: 12.359999656677246
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1003920917

Test Type: Recovery
Test Duration: 3
Test Level: 11.010000228881836
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1003920921
Test Type: Recovery
Test Duration: 5
Test Level: 10.220000267028809
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1003920923
Test Type: Recovery
Test Duration: 10
Test Level: 8.050000190734863
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1003920924
Test Type: Draw Down
Test Duration: 15
Test Level: 12.670000076293945
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1003920922
Test Type: Draw Down
Test Duration: 10
Test Level: 12.270000457763672
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1003920928
Test Type: Draw Down
Test Duration: 40
Test Level: 13.649999618530273
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1003920929
Test Type: Draw Down
Test Duration: 50
Test Level: 13.8100004196167
Test Level UOM: m

Water Details

Water ID: 1003920908
Layer: 1
Kind Code: 8
Kind: Untested
Water Found Depth: 16.0

Water Found Depth UOM: m

Hole Diameter

Hole ID: 1003920906
Diameter: 21.229999542236328
Depth From: 0.0
Depth To: 12.100000381469727
Hole Depth UOM: m
Hole Diameter UOM: cm

Hole Diameter

Hole ID: 1003920907
Diameter: 15.550000190734863
Depth From: 12.100000381469727
Depth To: 24.899999618530273
Hole Depth UOM: m
Hole Diameter UOM: cm

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9 | ***1 of 1*** | ***WNW/30.3*** | ***68.9 / 2.59*** | ***lot 20 con 5 ON*** | ***WWIS***

Well ID: 5802462
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No:
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 8/3/1982
Selected Flag: TRUE
Abandonment Rec:
Contractor: 4609
Form Version: 1
Owner:
Street Name:
County: STORMONT DUNDAS GLENGARRY
Municipality: CORNWALL TOWNSHIP
Site Info:
Lot: 020
Concession: 05
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5802462.pdf

Additional Detail(s) (Map)

Well Completed Date: 1981/04/21
Year Completed: 1981
Depth (m): 18.288
Latitude: 45.0602726151197
Longitude: -74.8128145630854
Path: 580\5802462.pdf

Bore Hole Information

Bore Hole ID: 10415807
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:

Elevation:
Elevrc:
Zone: 18
East83: 514737.60
North83: 4989663.00

Open Hole:
Cluster Kind:
Date Completed: 21-Apr-1981 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Org CS:
UTMRC: 5
UTMRC Desc: margin of error : 100 m - 300 m
Location Method: gis

Overburden and Bedrock Materials Interval

Formation ID: 932423354
Layer: 1
Color: 6
General Color: BROWN
Mat1: 14
Most Common Material: HARDPAN
Mat2: 12
Mat2 Desc: STONES
Mat3: 73
Mat3 Desc: HARD
Formation Top Depth: 0.0
Formation End Depth: 10.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932423356
Layer: 3
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 74
Mat2 Desc: LAYERED
Mat3:
Mat3 Desc:
Formation Top Depth: 40.0
Formation End Depth: 60.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932423355
Layer: 2
Color: 2
General Color: GREY
Mat1: 14
Most Common Material: HARDPAN
Mat2: 12
Mat2 Desc: STONES
Mat3: 73
Mat3 Desc: HARD
Formation Top Depth: 10.0
Formation End Depth: 40.0
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:	965802462
Method Construction Code:	4
Method Construction:	Rotary (Air)
Other Method Construction:	

Pipe Information

Pipe ID:	10964377
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930676076
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	42.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930676077
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

Results of Well Yield Testing

Pump Test ID:	995802462
Pump Set At:	
Static Level:	10.0
Final Level After Pumping:	25.0
Recommended Pump Depth:	35.0
Pumping Rate:	7.0
Flowing Rate:	
Recommended Pump Rate:	7.0
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:	934587577
Test Type:	Draw Down

Test Duration: 30
Test Level: 20.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934844561
Test Type: Draw Down
Test Duration: 45
Test Level: 25.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935111481
Test Type: Draw Down
Test Duration: 60
Test Level: 25.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934322477
Test Type: Draw Down
Test Duration: 15
Test Level: 15.0
Test Level UOM: ft

Water Details

Water ID: 933898547
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 56.0
Water Found Depth UOM: ft

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10 | ***1 of 1*** | ***S/337.7*** | ***62.2 / -4.17*** | ***West Front Construction (Canada) Ltd.***
P.O. Box 428 (Lot 18, Concession 4)
Cornwall ON K6H 5T2 | ***ECA***

Approval No: 860262
Approval Date: 2000-08-01
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name: Raisin Region
MOE District: Cornwall
City:
Longitude: -74.8075
Latitude: 45.055
Geometry X:
Geometry Y:
Approval Type: ECA-WASTE MANAGEMENT SYSTEMS
Project Type: WASTE MANAGEMENT SYSTEMS
Business Name: West Front Construction (Canada) Ltd.
Address: P.O. Box 428 (Lot 18, Concession 4)
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/2588-4MMRDX-14.pdf
PDF Site Location:

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11 | ***1 of 1*** | ***SSE/343.3*** | ***61.9 / -4.45*** | ***lot 18 con 4***
ON | ***WWIS***

Well ID: 5804289
Construction Date:
Data Entry Status:
Data Src: 1

Primary Water Use:	Domestic	**Date Received:**	2/18/1999
Sec. Water Use:		**Selected Flag:**	TRUE
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	1414
Casing Material:		**Form Version:**	1
Audit No:	197067	**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	STORMONT DUNDAS GLENGARRY
Elevation (m):		**Municipality:**	CORNWALL TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	018
Well Depth:		**Concession:**	04
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5804289.pdf

Additional Detail(s) (Map)

Well Completed Date:	1999/02/03
Year Completed:	1999
Depth (m):	19.2024
Latitude:	45.0549075374937
Longitude:	-74.8074104244711
Path:	580\5804289.pdf

Bore Hole Information

Bore Hole ID:	10417615	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	515164.50
Code OB Desc:		**North83:**	4989068.00
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	9
Date Completed:	03-Feb-1999 00:00:00	**UTMRC Desc:**	unknown UTM
Remarks:		**Location Method:**	lot
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932429177
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	34
Most Common Material:	TILL
Mat2:	13
Mat2 Desc:	BOULDERS
Mat3:	73
Mat3 Desc:	HARD
Formation Top Depth:	0.0
Formation End Depth:	11.0

Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932429179
Layer: 3
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 74
Mat2 Desc: LAYERED
Mat3:
Mat3 Desc:
Formation Top Depth: 48.0
Formation End Depth: 63.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932429178
Layer: 2
Color: 2
General Color: GREY
Mat1: 34
Most Common Material: TILL
Mat2: 73
Mat2 Desc: HARD
Mat3:
Mat3 Desc:
Formation Top Depth: 11.0
Formation End Depth: 48.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933199944
Layer: 1
Plug From: 0.0
Plug To: 20.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965804289
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10966185
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930679257
Layer: 1
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 38.0
Casing Diameter: 8.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930679258
Layer: 2
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 48.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930679259
Layer: 3
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 63.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 995804289
Pump Set At:
Static Level: 20.0
Final Level After Pumping: 60.0
Recommended Pump Depth: 48.0
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

Draw Down & Recovery

Pump Test Detail ID: 934320382
Test Type: Recovery
Test Duration: 15
Test Level: 20.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934843023
Test Type: Recovery
Test Duration: 45
Test Level: 20.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935109364
Test Type: Recovery
Test Duration: 60
Test Level: 20.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934594249
Test Type: Recovery
Test Duration: 30
Test Level: 20.0
Test Level UOM: ft

Water Details

Water ID: 933900505
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 60.0
Water Found Depth UOM: ft

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12 | ***1 of 4*** | ***SSE/343.1*** | ***61.9 / -4.45*** | ***lot 18 con 4 ON*** | ***WWIS***

Well ID:	5802782	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	3/13/1987
Sec. Water Use:		***Selected Flag:***	TRUE
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	4609
Casing Material:		***Form Version:***	1
Audit No:	NA	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	STORMONT DUNDAS GLENGARRY
Elevation (m):		***Municipality:***	CORNWALL TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	018
Well Depth:		***Concession:***	04
Overburden/Bedrock:		***Concession Name:***	CON
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5802782.pdf

Additional Detail(s) (Map)

Well Completed Date: 1986/05/16

Year Completed:	1986
Depth (m):	18.288
Latitude:	45.0549075289272
Longitude:	-74.8074053444886
Path:	580\5802782.pdf

Bore Hole Information

Bore Hole ID:	10416121	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	515164.90
Code OB Desc:		**North83:**	4989068.00
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	9
Date Completed:	16-May-1986 00:00:00	**UTMRC Desc:**	unknown UTM
Remarks:		**Location Method:**	lot
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932424314
Layer:	2
Color:	2
General Color:	GREY
Mat1:	14
Most Common Material:	HARDPAN
Mat2:	12
Mat2 Desc:	STONES
Mat3:	73
Mat3 Desc:	HARD
Formation Top Depth:	15.0
Formation End Depth:	41.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932424313
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	14
Most Common Material:	HARDPAN
Mat2:	12
Mat2 Desc:	STONES
Mat3:	73
Mat3 Desc:	HARD
Formation Top Depth:	0.0
Formation End Depth:	15.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932424315

Layer:	3
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	74
Mat2 Desc:	LAYERED
Mat3:	
Mat3 Desc:	
Formation Top Depth:	41.0
Formation End Depth:	60.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	933198522
Layer:	1
Plug From:	5.0
Plug To:	40.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	965802782
Method Construction Code:	4
Method Construction:	Rotary (Air)
Other Method Construction:	

Pipe Information

Pipe ID:	10964691
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930676569
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	42.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930676570
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

Results of Well Yield Testing

Pump Test ID:	995802782
Pump Set At:	
Static Level:	12.0
Final Level After Pumping:	22.0
Recommended Pump Depth:	45.0
Pumping Rate:	10.0
Flowing Rate:	
Recommended Pump Rate:	10.0
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:	935112620
Test Type:	Draw Down
Test Duration:	60
Test Level:	22.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934845698
Test Type:	Draw Down
Test Duration:	45
Test Level:	21.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934588716
Test Type:	Draw Down
Test Duration:	30
Test Level:	20.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934314845
Test Type:	Draw Down
Test Duration:	15
Test Level:	18.0
Test Level UOM:	ft

Water Details

Water ID:	933898870
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	58.0
Water Found Depth UOM:	ft

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
12	2 of 4	SSE/343.1	61.9 / -4.45	lot 18 con 4 ON	WWIS

Well ID:	5803092	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Domestic	**Date Received:**	6/13/1989
Sec. Water Use:		**Selected Flag:**	TRUE
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	1414
Casing Material:		**Form Version:**	1
Audit No:	40181	**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	STORMONT DUNDAS GLENGARRY
Elevation (m):		**Municipality:**	CORNWALL TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	018
Well Depth:		**Concession:**	04
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5803092.pdf

Additional Detail(s) (Map)

Well Completed Date:	1989/06/01
Year Completed:	1989
Depth (m):	16.764
Latitude:	45.0549075289272
Longitude:	-74.8074053444886
Path:	580\5803092.pdf

Bore Hole Information

Bore Hole ID:	10416430	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	515164.90
Code OB Desc:		**North83:**	4989068.00
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	9
Date Completed:	01-Jun-1989 00:00:00	**UTMRC Desc:**	unknown UTM
Remarks:		**Location Method:**	lot
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932425379
Layer:	3
Color:	6
General Color:	BROWN
Mat1:	34
Most Common Material:	TILL
Mat2:	13

Mat2 Desc: BOULDERS
Mat3:
Mat3 Desc:
Formation Top Depth: 25.0
Formation End Depth: 30.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425381
Layer: 5
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 33.0
Formation End Depth: 55.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425377
Layer: 1
Color: 7
General Color: RED
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 2.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425378
Layer: 2
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 2.0
Formation End Depth: 25.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425380

Layer:	4
Color:	2
General Color:	GREY
Mat1:	11
Most Common Material:	GRAVEL
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	30.0
Formation End Depth:	33.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	933198814
Layer:	1
Plug From:	0.0
Plug To:	22.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	965803092
Method Construction Code:	4
Method Construction:	Rotary (Air)
Other Method Construction:	

Pipe Information

Pipe ID:	10965000
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930677126
Layer:	2
Material:	
Open Hole or Material:	
Depth From:	
Depth To:	56.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930677125
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	33.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	995803092
Pump Set At:	
Static Level:	6.0
Final Level After Pumping:	48.0
Recommended Pump Depth:	45.0
Pumping Rate:	7.0
Flowing Rate:	
Recommended Pump Rate:	5.0
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:	934589848
Test Type:	Draw Down
Test Duration:	30
Test Level:	55.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934315978
Test Type:	Draw Down
Test Duration:	15
Test Level:	20.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934846831
Test Type:	Draw Down
Test Duration:	45
Test Level:	45.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	935105402
Test Type:	Draw Down
Test Duration:	60
Test Level:	48.0
Test Level UOM:	ft

Water Details

Water ID:	933899193
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	50.0
Water Found Depth UOM:	ft

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
12	3 of 4	SSE/343.1	61.9 / -4.45	lot 18 con 4 ON	WWIS

Well ID: 5803282
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 48902
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 12/4/1990
Selected Flag: TRUE
Abandonment Rec:
Contractor: 4609
Form Version: 1
Owner:
Street Name:
County: STORMONT DUNDAS GLENGARRY
Municipality: CORNWALL TOWNSHIP
Site Info:
Lot: 018
Concession: 04
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5803282.pdf

Additional Detail(s) (Map)

Well Completed Date: 1989/03/21
Year Completed: 1989
Depth (m): 15.24
Latitude: 45.0549075289272
Longitude: -74.8074053444886
Path: 580\5803282.pdf

Bore Hole Information

Bore Hole ID: 10416617
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 21-Mar-1989 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 18
East83: 515164.90
North83: 4989068.00
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: lot

Overburden and Bedrock Materials Interval

Formation ID: 932425969
Layer: 2
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2: 85

Mat2 Desc:	SOFT
Mat3:	
Mat3 Desc:	
Formation Top Depth:	5.0
Formation End Depth:	12.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932425970
Layer:	3
Color:	2
General Color:	GREY
Mat1:	11
Most Common Material:	GRAVEL
Mat2:	12
Mat2 Desc:	STONES
Mat3:	79
Mat3 Desc:	PACKED
Formation Top Depth:	12.0
Formation End Depth:	15.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932425968
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	85
Mat2 Desc:	SOFT
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	5.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932425971
Layer:	4
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	15
Mat2 Desc:	LIMESTONE
Mat3:	
Mat3 Desc:	
Formation Top Depth:	15.0
Formation End Depth:	50.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	933198983

Layer:	1
Plug From:	5.0
Plug To:	22.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	965803282
Method Construction Code:	4
Method Construction:	Rotary (Air)
Other Method Construction:	

Pipe Information

Pipe ID:	10965187
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930677437
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	22.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930677438
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	50.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	995803282
Pump Set At:	
Static Level:	10.0
Final Level After Pumping:	25.0
Recommended Pump Depth:	30.0
Pumping Rate:	50.0
Flowing Rate:	
Recommended Pump Rate:	40.0
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:	934590861
Test Type:	Draw Down
Test Duration:	30
Test Level:	20.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	935105993
Test Type:	Draw Down
Test Duration:	60
Test Level:	25.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934316991
Test Type:	Draw Down
Test Duration:	15
Test Level:	15.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934847844
Test Type:	Draw Down
Test Duration:	45
Test Level:	23.0
Test Level UOM:	ft

Water Details

Water ID:	933899385
Layer:	2
Kind Code:	1
Kind:	FRESH
Water Found Depth:	45.0
Water Found Depth UOM:	ft

Water Details

Water ID:	933899384
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	35.0
Water Found Depth UOM:	ft

12	***4 of 4***	***SSE/343.1***	***61.9 / -4.45***	***lot 18 con 4 ON***	***WWIS***

Well ID:	5803854	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	6/17/1994
Sec. Water Use:		***Selected Flag:***	TRUE
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	6241

Casing Material:		***Form Version:***	1
Audit No:	141752	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	STORMONT DUNDAS GLENGARRY
Elevation (m):		***Municipality:***	CORNWALL TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	018
Well Depth:		***Concession:***	04
Overburden/Bedrock:		***Concession Name:***	CON
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5803854.pdf

Additional Detail(s) (Map)

Well Completed Date:	1994/04/23
Year Completed:	1994
Depth (m):	24.384
Latitude:	45.0549075289272
Longitude:	-74.8074053444886
Path:	580\5803854.pdf

Bore Hole Information

Bore Hole ID:	10417184	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	18
Code OB:		***East83:***	515164.90
Code OB Desc:		***North83:***	4989068.00
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	23-Apr-1994 00:00:00	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	lot
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932427866
Layer:	1
Color:	8
General Color:	BLACK
Mat1:	02
Most Common Material:	TOPSOIL
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	1.0
Formation End Depth UOM:	ft

Overburden and Bedrock

Materials Interval

Formation ID:	932427867
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	14
Most Common Material:	HARDPAN
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	1.0
Formation End Depth:	52.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932427868
Layer:	3
Color:	6
General Color:	BROWN
Mat1:	26
Most Common Material:	ROCK
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	52.0
Formation End Depth:	80.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	933199514
Layer:	1
Plug From:	0.0
Plug To:	52.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	965803854
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	10965754
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930678450
Layer:	1
Material:	1

Open Hole or Material: STEEL
Depth From:
Depth To:
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 995803854
Pump Set At:
Static Level: 20.0
Final Level After Pumping: 80.0
Recommended Pump Depth:
Pumping Rate: 7.0
Flowing Rate:
Recommended Pump Rate:
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: 0
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 934592631
Test Type: Draw Down
Test Duration: 30
Test Level: 50.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935107749
Test Type: Draw Down
Test Duration: 60
Test Level: 80.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934841404
Test Type: Draw Down
Test Duration: 45
Test Level: 65.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934318762
Test Type: Draw Down
Test Duration: 15
Test Level: 35.0
Test Level UOM: ft

Water Details

Water ID: 933900046

Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	77.0
Water Found Depth UOM:	ft

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
13	1 of 1	ESE/5.0	63.6 / -2.78	lot 17 con 4 ON	WWIS

Well ID:	5803553	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Commerical	**Date Received:**	7/23/1992
Sec. Water Use:		**Selected Flag:**	TRUE
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	4609
Casing Material:		**Form Version:**	1
Audit No:	113213	**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	STORMONT DUNDAS GLENGARRY
Elevation (m):		**Municipality:**	CORNWALL TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	017
Well Depth:		**Concession:**	04
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5803553.pdf

Additional Detail(s) (Map)

Well Completed Date:	1992/04/21
Year Completed:	1992
Depth (m):	15.24
Latitude:	45.056844770179
Longitude:	-74.8032076908753
Path:	580\5803553.pdf

Bore Hole Information

Bore Hole ID:	10416888	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	515494.90
Code OB Desc:		**North83:**	4989284.00
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	9
Date Completed:	21-Apr-1992 00:00:00	**UTMRC Desc:**	unknown UTM
Remarks:		**Location Method:**	lot
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932426884
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	14
Most Common Material:	HARDPAN
Mat2:	11
Mat2 Desc:	GRAVEL
Mat3:	01
Mat3 Desc:	FILL
Formation Top Depth:	0.0
Formation End Depth:	5.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932426886
Layer:	3
Color:	6
General Color:	BROWN
Mat1:	11
Most Common Material:	GRAVEL
Mat2:	79
Mat2 Desc:	PACKED
Mat3:	
Mat3 Desc:	
Formation Top Depth:	12.0
Formation End Depth:	15.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932426887
Layer:	4
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	74
Mat2 Desc:	LAYERED
Mat3:	
Mat3 Desc:	
Formation Top Depth:	15.0
Formation End Depth:	50.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932426885
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	77
Mat2 Desc:	LOOSE
Mat3:	
Mat3 Desc:	
Formation Top Depth:	5.0
Formation End Depth:	12.0

Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933199232
Layer: 1
Plug From: 2.0
Plug To: 18.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965803553
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10965458
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930677920
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 18.0
Casing Diameter: 8.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930677921
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 50.0
Casing Diameter: 8.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 995803553
Pump Set At:
Static Level: 12.0
Final Level After Pumping: 40.0
Recommended Pump Depth: 45.0
Pumping Rate: 15.0
Flowing Rate:
Recommended Pump Rate: 15.0
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:	935107076
Test Type:	Draw Down
Test Duration:	60
Test Level:	40.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934848512
Test Type:	Draw Down
Test Duration:	45
Test Level:	34.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934317659
Test Type:	Draw Down
Test Duration:	15
Test Level:	20.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934591946
Test Type:	Draw Down
Test Duration:	30
Test Level:	27.0
Test Level UOM:	ft

Water Details

Water ID:	933899689
Layer:	1
Kind Code:	5
Kind:	Not stated
Water Found Depth:	45.0
Water Found Depth UOM:	ft

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14 ***1 of 1*** ***WNW/31.5*** ***69.9 / 3.55*** ***lot 20 con 5 ON*** ***WWIS***

Well ID:	5802461	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	8/3/1982
Sec. Water Use:		***Selected Flag:***	TRUE
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	4609
Casing Material:		***Form Version:***	1
Audit No:		***Owner:***	
Tag:		***Street Name:***	

Construction Method:		**County:**	STORMONT DUNDAS GLENGARRY
Elevation (m):		**Municipality:**	CORNWALL TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	020
Well Depth:		**Concession:**	05
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5802461.pdf

Additional Detail(s) (Map)

Well Completed Date:	1981/04/23
Year Completed:	1981
Depth (m):	18.288
Latitude:	45.0607878741421
Longitude:	-74.8141338201146
Path:	580\5802461.pdf

Bore Hole Information

Bore Hole ID:	10415806	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	514633.60
Code OB Desc:		**North83:**	4989720.00
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	5
Date Completed:	23-Apr-1981 00:00:00	**UTMRC Desc:**	margin of error : 100 m - 300 m
Remarks:		**Location Method:**	gis
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932423351
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	14
Most Common Material:	HARDPAN
Mat2:	12
Mat2 Desc:	STONES
Mat3:	73
Mat3 Desc:	HARD
Formation Top Depth:	0.0
Formation End Depth:	12.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932423353

Layer: 3
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 74
Mat2 Desc: LAYERED
Mat3:
Mat3 Desc:
Formation Top Depth: 30.0
Formation End Depth: 60.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932423352
Layer: 2
Color: 2
General Color: GREY
Mat1: 14
Most Common Material: HARDPAN
Mat2: 12
Mat2 Desc: STONES
Mat3: 73
Mat3 Desc: HARD
Formation Top Depth: 12.0
Formation End Depth: 30.0
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965802461
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10964376
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930676075
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: 930676074
Layer: 1
Material: 1

Open Hole or Material: STEEL
Depth From:
Depth To: 34.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 995802461
Pump Set At:
Static Level: 8.0
Final Level After Pumping:
Recommended Pump Depth: 35.0
Pumping Rate:
Flowing Rate:
Recommended Pump Rate: 3.0
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2
Water State After Test: CLOUDY
Pumping Test Method:
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 935111480
Test Type: Draw Down
Test Duration: 60
Test Level: 30.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934844560
Test Type: Draw Down
Test Duration: 45
Test Level: 28.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934322476
Test Type: Draw Down
Test Duration: 15
Test Level: 20.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934587576
Test Type: Draw Down
Test Duration: 30
Test Level: 25.0
Test Level UOM: ft

Water Details

Water ID: 933898546

Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	60.0
Water Found Depth UOM:	ft

15 *1 of 1* *NW/194.3* *73.9 / 7.56* **LECLAIR FUELS LTD.**
POWER DAM & HEAD LINE RDS. TANK TRUCK (CARGO)
SOUTH STORMONT TOWNSHIP ON **SPL**

Ref No:	9238	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:	9/12/1988	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	OTHER TRANSPORTATION ACCIDENT	**Sector Type:**	
Incident Event:		**Agency Involved:**	
Contaminant Code:		**Nearest Watercourse:**	
Contaminant Name:		**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	NOT ANTICIPATED	**Site Municipality:**	71618
Nature of Impact:		**Site Lot:**	
Receiving Medium:	LAND	**Site Conc:**	
Receiving Env:		**Northing:**	
MOE Response:		**Easting:**	
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	9/12/1988	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	
Incident Reason:	EQUIPMENT FAILURE	**Source Type:**	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	OPP REQUEST ERP FOR 400 LTR. DIESEL TO SOIL FROM TRUCK SADDLE TANKS.		
Contaminant Qty:			

16 *1 of 1* *SSE/459.5* *60.9 / -5.45* **St. Lawrence Seaway, Cornwall Centre, D.D.H. No. 770**

Cornwall ON **OOGW**

Licence No:	N002643	**Well Compl:**	23176
Well ID:	23444	**County:**	Stormont/Dundas/Glengarry
Well Compl ID:	23176	**Block:**	NULL
W Class ID:	2372	**Lot:**	18
UWI Code:	N002643	**Conc:**	IV
Permit Date:	NULL	**Surface Lat NAD83:**	45.05357028
Depth(m):	31.09	**Surface Long NAD83:**	-74.80705000
Well Pool:	NULL	**Bottom Lat NAD83:**	45.05357028
Completion Date:	NULL	**Bottom Long NAD83:**	-74.80705000
Depth Reached:	1954-02-01 00:00:00	**Lot Sides (m):**	1076.10 S
Capped Date:	NULL	**E/W (m):**	156.25 E
Class ID:		**Latitude Nad27:**	
DB Source:		**Longitude Nad27:**	
Status as of:	January 2021	**bottom lat27:**	
Start Date:	1954-02-01 00:00:00	**bottom long27:**	
SPUD Date:	1954-02-01 00:00:00	**Lateral:**	No
Class:	STR	**Accuracy:**	NULL
Grnd Elev:	60.66	**Method:**	Well Records (1954 to 1997)
KB Elev:	60.96	**Parent:**	NULL
TVD:	31.09	**Prod Top:**	NULL
PBTD:	NULL	**Prod Bot:**	NULL

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

TD Form:	NULL	**PROPD Depth:**	31.09
Workover D:	NULL	**Location Method:**	Well Records (1954 to 1997)
Operator:	Department of Transport	**Location Accuracy:**	Unknown
Township:	Cornwall	**Dt Obtained:**	2006-04-20 00:00:00
Well Name:	St. Lawrence Seaway, Cornwall Centre, D.D.H. No. 770		
Target:	NULL		
Target Desc:			
Well Status Type:	Stratigraphic Test		
Status Type Desc:	A WELL DRILLED FOR THE PURPOSE OF GEOLOGICAL EVALUATION OR TESTING		
Well Status Mode:	Unknown		
Status Mode Desc:			
Classification:	STRATIGRAPHIC TEST		
Classification Desc:	A WELL DRILLED FOR THE PURPOSE OF GEOLOGICAL EVALUATION OR TESTING		
Cement Rec:	NULL		
Comments:	By S.Kilby [OGSR] using PetroGIS.		

Details

License No:	N002643	**Source:**	FORM 7
Top (m):	6.71	**Static Level (m):**	n/a
Elevation (m):	54.25	**Geology/Water:**	Geology
Geology Formation:	Top of Bedrock	**Elevation / Top (m):**	54.25 / 6.71
Type of Water:	n/a		

License No:	N002643	**Source:**	MNR
Top (m):	6.71	**Static Level (m):**	n/a
Elevation (m):	54.25	**Geology/Water:**	Geology
Geology Formation:	Trenton Group	**Elevation / Top (m):**	54.25 / 6.71
Type of Water:	n/a		

License No:	N002643	**Source:**	FORM 7
Top (m):	0.30	**Static Level (m):**	n/a
Elevation (m):	60.66	**Geology/Water:**	Geology
Geology Formation:	Drift	**Elevation / Top (m):**	60.66 / 0.30
Type of Water:	n/a		

License No:	N002643	**Source:**	MNR
Top (m):	0.30	**Static Level (m):**	n/a
Elevation (m):	60.66	**Geology/Water:**	Geology
Geology Formation:	Drift	**Elevation / Top (m):**	60.66 / 0.30
Type of Water:	n/a		

License No:	N002643	**Source:**	MNR
Top (m):	6.71	**Static Level (m):**	n/a
Elevation (m):	54.25	**Geology/Water:**	Geology
Geology Formation:	Top of Bedrock	**Elevation / Top (m):**	54.25 / 6.71
Type of Water:	n/a		

License No:	N002643	**Source:**	FORM 7
Top (m):	6.71	**Static Level (m):**	n/a
Elevation (m):	54.25	**Geology/Water:**	Geology
Geology Formation:	Trenton Group	**Elevation / Top (m):**	54.25 / 6.71
Type of Water:	n/a		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
17	1 of 1	WNW/53.1	69.9 / 3.55	lot 18 con 4 ON	WWIS

Well ID:	5803084	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Domestic	**Date Received:**	5/17/1989
Sec. Water Use:		**Selected Flag:**	TRUE
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	1414
Casing Material:		**Form Version:**	1

Audit No:	52573	**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	STORMONT DUNDAS GLENGARRY
Elevation (m):		**Municipality:**	CORNWALL TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	018
Well Depth:		**Concession:**	04
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5803084.pdf

Additional Detail(s) (Map)

Well Completed Date:	1989/04/24
Year Completed:	1989
Depth (m):	13.716
Latitude:	45.0609605160445
Longitude:	-74.8151239674632
Path:	580\5803084.pdf

Bore Hole Information

Bore Hole ID:	10416422	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	514555.60
Code OB Desc:		**North83:**	4989739.00
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	5
Date Completed:	24-Apr-1989 00:00:00	**UTMRC Desc:**	margin of error : 100 m - 300 m
Remarks:		**Location Method:**	gis
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932425356
Layer:	3
Color:	2
General Color:	GREY
Mat1:	26
Most Common Material:	ROCK
Mat2:	73
Mat2 Desc:	HARD
Mat3:	
Mat3 Desc:	
Formation Top Depth:	29.0
Formation End Depth:	45.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID: 932425355
Layer: 2
Color: 2
General Color: GREY
Mat1: 34
Most Common Material: TILL
Mat2: 13
Mat2 Desc: BOULDERS
Mat3: 73
Mat3 Desc: HARD
Formation Top Depth: 8.0
Formation End Depth: 29.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425354
Layer: 1
Color: 7
General Color: RED
Mat1: 05
Most Common Material: CLAY
Mat2: 85
Mat2 Desc: SOFT
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 8.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933198806
Layer: 1
Plug From: 0.0
Plug To: 22.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965803084
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 10964992
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930677109
Layer: 1
Material: 1
Open Hole or Material: STEEL

Depth From:
Depth To: 29.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930677110
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 45.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 995803084
Pump Set At:
Static Level: 8.0
Final Level After Pumping: 25.0
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: 2
Water State After Test: CLOUDY
Pumping Test Method: 2
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 934589840
Test Type: Draw Down
Test Duration: 30
Test Level: 25.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935105394
Test Type: Draw Down
Test Duration: 60
Test Level: 25.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934846823
Test Type: Draw Down
Test Duration: 45
Test Level: 25.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID:	934315970
Test Type:	Draw Down
Test Duration:	15
Test Level:	20.0
Test Level UOM:	ft

Water Details

Water ID:	933899183
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	40.0
Water Found Depth UOM:	ft

---

18 ***1 of 1*** ***SSE/454.0*** ***60.9 / -5.45*** ***ON*** ***BORE***

Borehole ID:	880620	***Inclin FLG:***	No
OGF ID:	215587430	***SP Status:***	Initial Entry
Status:	Decommissioned	***Surv Elev:***	No
Type:	Borehole	***Piezometer:***	No
Use:	Geotechnical/Geological Investigation	***Primary Name:***	
Completion Date:	07-APR-1960	***Municipality:***	
Static Water Level:	0.8	***Lot:***	LOT 18
Primary Water Use:		***Township:***	CORNWALL
Sec. Water Use:		***Latitude DD:***	45.05333
Total Depth m:	10.7	***Longitude DD:***	-74.806292
Depth Ref:	Ground Surface	***UTM Zone:***	18
Depth Elev:		***Easting:***	515253
Drill Method:	Diamond Drill	***Northing:***	4988893
Orig Ground Elev m:	59.8	***Location Accuracy:***	
Elev Reliabil Note:		***Accuracy:***	Within 20 metres
DEM Ground Elev m:	62.6		
Concession:	CON 4		
Location D:			
Survey D:			
Comments:			

Borehole Geology Stratum

Geology Stratum ID:	8002464	***Mat Consistency:***	
Top Depth:	.9	***Material Moisture:***	
Bottom Depth:	3	***Material Texture:***	
Material Color:	Grey-Brown	***Non Geo Mat Type:***	
Material 1:	Clay	***Geologic Formation:***	
Material 2:		***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	marine
Gsc Material Description:			
Stratum Description:	MEDIUM GREY-BROWN MARINE CLAY **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	8002462	***Mat Consistency:***	
Top Depth:	0	***Material Moisture:***	
Bottom Depth:	.3	***Material Texture:***	
Material Color:		***Non Geo Mat Type:***	
Material 1:	Topsoil	***Geologic Formation:***	
Material 2:		***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	

Gsc Material Description:
Stratum Description: FROZEN TOPSOIL **Note: Many records provided by the department have a truncated [Stratum Description] field.

Geology Stratum ID:	8002465	**Mat Consistency:**	Very Soft
Top Depth:	3	**Material Moisture:**	
Bottom Depth:	6.4	**Material Texture:**	
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Clay	**Geologic Formation:**	
Material 2:		**Geologic Group:**	
Material 3:		**Geologic Period:**	
Material 4:		**Depositional Gen:**	marine

Gsc Material Description:
Stratum Description: VERY SOFT BLUISH-GREY MARINE CLAY **Note: Many records provided by the department have a truncated [Stratum Description] field.

Geology Stratum ID:	8002463	**Mat Consistency:**	
Top Depth:	.3	**Material Moisture:**	
Bottom Depth:	.9	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	Fill-Misc
Material 1:	Fill	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:	Gravel	**Geologic Period:**	
Material 4:		**Depositional Gen:**	

Gsc Material Description:
Stratum Description: SAND AND GRAVEL FILL **Note: Many records provided by the department have a truncated [Stratum Description] field.

Geology Stratum ID:	8002466	**Mat Consistency:**	Soft
Top Depth:	6.4	**Material Moisture:**	
Bottom Depth:	9.1	**Material Texture:**	
Material Color:	Grey	**Non Geo Mat Type:**	
Material 1:	Clay	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:	Gravel	**Geologic Period:**	
Material 4:		**Depositional Gen:**	marine

Gsc Material Description:
Stratum Description: SOFT BLUISH-GREY MARINE CLAY WITH SAND AND GRAVEL **Note: Many records provided by the department have a truncated [Stratum Description] field.

Geology Stratum ID:	8002467	**Mat Consistency:**	Dense
Top Depth:	9.1	**Material Moisture:**	
Bottom Depth:	10.7	**Material Texture:**	
Material Color:		**Non Geo Mat Type:**	
Material 1:	Till	**Geologic Formation:**	
Material 2:	Sand	**Geologic Group:**	
Material 3:	Gravel	**Geologic Period:**	
Material 4:		**Depositional Gen:**	glacial

Gsc Material Description:
Stratum Description: DENSE GLACIAL TILL OF SAND AND GRAVEL **Note: Many records provided by the department have a truncated [Stratum Description] field.

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
19	1 of 1	NW/176.8	70.4 / 4.09	lot 20 con 5 ON	WWIS

Well ID:	5803039	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Domestic	**Date Received:**	1/19/1989
Sec. Water Use:		**Selected Flag:**	TRUE
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	1414
Casing Material:		**Form Version:**	1
Audit No:	40155	**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	STORMONT DUNDAS GLENGARRY
Elevation (m):		**Municipality:**	CORNWALL TOWNSHIP

Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	020
Well Depth:		**Concession:**	05
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5803039.pdf

Additional Detail(s) (Map)

Well Completed Date:	1989/01/09
Year Completed:	1989
Depth (m):	16.764
Latitude:	45.0628218010049
Longitude:	-74.813835088928
Path:	580\5803039.pdf

Bore Hole Information

Bore Hole ID:	10416377	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	514656.60
Code OB Desc:		**North83:**	4989946.00
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	5
Date Completed:	09-Jan-1989 00:00:00	**UTMRC Desc:**	margin of error : 100 m - 300 m
Remarks:		**Location Method:**	gis
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932425205
Layer:	2
Color:	2
General Color:	GREY
Mat1:	34
Most Common Material:	TILL
Mat2:	73
Mat2 Desc:	HARD
Mat3:	
Mat3 Desc:	
Formation Top Depth:	8.0
Formation End Depth:	39.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932425204
Layer:	1
Color:	6

General Color:	BROWN
Mat1:	34
Most Common Material:	TILL
Mat2:	73
Mat2 Desc:	HARD
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	8.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932425206
Layer:	3
Color:	2
General Color:	GREY
Mat1:	26
Most Common Material:	ROCK
Mat2:	73
Mat2 Desc:	HARD
Mat3:	
Mat3 Desc:	
Formation Top Depth:	39.0
Formation End Depth:	55.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	933198759
Layer:	1
Plug From:	0.0
Plug To:	22.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	965803039
Method Construction Code:	4
Method Construction:	Rotary (Air)
Other Method Construction:	

Pipe Information

Pipe ID:	10964947
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930677025
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	39.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch

Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930677026
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 55.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 995803039
Pump Set At:
Static Level: 12.0
Final Level After Pumping: 45.0
Recommended Pump Depth: 45.0
Pumping Rate: 6.0
Flowing Rate:
Recommended Pump Rate: 5.0
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: 934315926
Test Type: Draw Down
Test Duration: 15
Test Level: 25.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934589797
Test Type: Draw Down
Test Duration: 30
Test Level: 40.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935104933
Test Type: Draw Down
Test Duration: 60
Test Level: 45.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934846780
Test Type: Draw Down

Test Duration: 45
Test Level: 45.0
Test Level UOM: ft

Water Details

Water ID: 933899135
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 51.0
Water Found Depth UOM: ft

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20 | **1 of 1** | **NNW/376.1** | **74.0 / 7.68** | **lot 19 con 5 ON** | **WWIS**

Well ID: 5804097
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 153889
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 8/22/1996
Selected Flag: TRUE
Abandonment Rec:
Contractor: 4609
Form Version: 1
Owner:
Street Name:
County: STORMONT DUNDAS GLENGARRY
Municipality: CORNWALL TOWNSHIP
Site Info:
Lot: 019
Concession: 05
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5804097.pdf

Additional Detail(s) (Map)

Well Completed Date: 1996/07/02
Year Completed: 1996
Depth (m): 18.288
Latitude: 45.0639702998427
Longitude: -74.811557697275
Path: 580\5804097.pdf

Bore Hole Information

Bore Hole ID: 10417423
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 02-Jul-1996 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:

Elevation:
Elevrc:
Zone: 18
East83: 514835.60
North83: 4990074.00
Org CS:
UTMRC: 5
UTMRC Desc: margin of error : 100 m - 300 m
Location Method: gis

Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID:	932428580
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	14
Most Common Material:	HARDPAN
Mat2:	12
Mat2 Desc:	STONES
Mat3:	79
Mat3 Desc:	PACKED
Formation Top Depth:	0.0
Formation End Depth:	13.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932428581
Layer:	2
Color:	2
General Color:	GREY
Mat1:	14
Most Common Material:	HARDPAN
Mat2:	79
Mat2 Desc:	PACKED
Mat3:	
Mat3 Desc:	
Formation Top Depth:	13.0
Formation End Depth:	49.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932428582
Layer:	3
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	74
Mat2 Desc:	LAYERED
Mat3:	
Mat3 Desc:	
Formation Top Depth:	49.0
Formation End Depth:	60.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	933199764
Layer:	1
Plug From:	2.0
Plug To:	49.0

Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965804097
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10965993
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930678889
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: 930678888
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 49.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 995804097
Pump Set At:
Static Level: 18.0
Final Level After Pumping: 60.0
Recommended Pump Depth: 50.0
Pumping Rate: 3.0
Flowing Rate:
Recommended Pump Rate: 3.0
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:	935108786
Test Type:	Recovery
Test Duration:	60
Test Level:	18.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934319802
Test Type:	Recovery
Test Duration:	15
Test Level:	41.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934593669
Test Type:	Recovery
Test Duration:	30
Test Level:	25.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934842442
Test Type:	Recovery
Test Duration:	45
Test Level:	20.0
Test Level UOM:	ft

Water Details

Water ID:	933900310
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	57.0
Water Found Depth UOM:	ft

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21 ***1 of 1*** ***SSE/451.5*** ***60.9 / -5.45*** ***ON*** ***BORE***

Borehole ID:	880619	**Inclin FLG:**	No
OGF ID:	215587429	**SP Status:**	Initial Entry
Status:	Decommissioned	**Surv Elev:**	No
Type:	Borehole	**Piezometer:**	No
Use:	Geotechnical/Geological Investigation	**Primary Name:**	
Completion Date:	06-APR-1960	**Municipality:**	
Static Water Level:	0.8	**Lot:**	LOT 18
Primary Water Use:		**Township:**	CORNWALL
Sec. Water Use:		**Latitude DD:**	45.053249
Total Depth m:	7	**Longitude DD:**	-74.806013
Depth Ref:	Ground Surface	**UTM Zone:**	18
Depth Elev:		**Easting:**	515275
Drill Method:	Diamond Drill	**Northing:**	4988884
Orig Ground Elev m:	59.7	**Location Accuracy:**	
Elev Reliabil Note:		**Accuracy:**	Within 20 metres
DEM Ground Elev m:	62.9		
Concession:	CON 4		
Location D:			
Survey D:			

Comments:

Borehole Geology Stratum

Geology Stratum ID:	8002458	***Mat Consistency:***	Loose
Top Depth:	.3	***Material Moisture:***	
Bottom Depth:	.9	***Material Texture:***	
Material Color:	Grey-Brown	***Non Geo Mat Type:***	
Material 1:	Fine Sand	***Geologic Formation:***	
Material 2:	Silt	***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	
Gsc Material Description:			
Stratum Description:	LOOSE GREY/BROWN V. FINE SILTY SAND **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	8002460	***Mat Consistency:***	Very Soft
Top Depth:	2.7	***Material Moisture:***	
Bottom Depth:	6.4	***Material Texture:***	
Material Color:	Grey	***Non Geo Mat Type:***	
Material 1:	Clay	***Geologic Formation:***	
Material 2:		***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	marine
Gsc Material Description:			
Stratum Description:	VERY SOFT BLUISH-GREY MARINE CLAY **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	8002459	***Mat Consistency:***	Soft
Top Depth:	.9	***Material Moisture:***	
Bottom Depth:	2.7	***Material Texture:***	
Material Color:	Grey-Brown	***Non Geo Mat Type:***	
Material 1:	Clay	***Geologic Formation:***	
Material 2:		***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	
Gsc Material Description:			
Stratum Description:	SOFT TO MEDIUM GREY/BROWN MEDIUM CLAY **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	8002461	***Mat Consistency:***	Soft
Top Depth:	6.4	***Material Moisture:***	
Bottom Depth:	7	***Material Texture:***	
Material Color:		***Non Geo Mat Type:***	
Material 1:	Clay	***Geologic Formation:***	
Material 2:	Sand	***Geologic Group:***	
Material 3:	Gravel	***Geologic Period:***	
Material 4:		***Depositional Gen:***	marine
Gsc Material Description:			
Stratum Description:	SOFT MARINE CLAY WITH SAND & GRAVEL **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Geology Stratum ID:	8002457	***Mat Consistency:***	
Top Depth:	0	***Material Moisture:***	
Bottom Depth:	.3	***Material Texture:***	
Material Color:		***Non Geo Mat Type:***	
Material 1:	Topsoil	***Geologic Formation:***	
Material 2:		***Geologic Group:***	
Material 3:		***Geologic Period:***	
Material 4:		***Depositional Gen:***	
Gsc Material Description:			
Stratum Description:	FROZEN TOPSOIL **Note: Many records provided by the department have a truncated [Stratum Description] field.		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
22	1 of 1	W/239.3	69.9 / 3.55	lot 19 con 4 ON	WWIS

Well ID:	7272468	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:	Domestic	**Date Received:**	9/30/2016
Sec. Water Use:		**Selected Flag:**	TRUE
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	7417
Casing Material:		**Form Version:**	7
Audit No:	Z234690	**Owner:**	
Tag:	A213113	**Street Name:**	
Construction Method:		**County:**	STORMONT DUNDAS GLENGARRY
Elevation (m):		**Municipality:**	CORNWALL TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	019
Well Depth:		**Concession:**	04
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/727\7272468.pdf

Additional Detail(s) (Map)

Well Completed Date:	2016/09/10
Year Completed:	2016
Depth (m):	30.8
Latitude:	45.0595492969743
Longitude:	-74.8164062414858
Path:	727\7272468.pdf

Bore Hole Information

Bore Hole ID:	1006260610	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	514455.00
Code OB Desc:		**North83:**	4989582.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	10-Sep-2016 00:00:00	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1006385726
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	06

Mat2 Desc: SILT
Mat3: 12
Mat3 Desc: STONES
Formation Top Depth: 0.0
Formation End Depth: 4.099999904632568
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1006385728
Layer: 3
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Mat2 Desc:
Mat3: 74
Mat3 Desc: LAYERED
Formation Top Depth: 12.199999809265137
Formation End Depth: 30.799999237060547
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1006385727
Layer: 2
Color: 2
General Color: GREY
Mat1: 06
Most Common Material: SILT
Mat2: 05
Mat2 Desc: CLAY
Mat3: 12
Mat3 Desc: STONES
Formation Top Depth: 4.099999904632568
Formation End Depth: 12.199999809265137
Formation End Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1006385763
Layer: 1
Plug From: 0.0
Plug To: 12.199999809265137
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID: 1006385762
Method Construction Code: 5
Method Construction: Air Percussion
Other Method Construction:

Pipe Information

Pipe ID: 1006385724
Casing No: 0

Comment:
Alt Name:

Construction Record - Casing

Casing ID:	1006385733
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	12.199999809265137
Depth To:	30.799999237060547
Casing Diameter:	15.550000190734863
Casing Diameter UOM:	cm
Casing Depth UOM:	m

Construction Record - Casing

Casing ID:	1006385732
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	1.600000023841858
Depth To:	12.199999809265137
Casing Diameter:	15.550000190734863
Casing Diameter UOM:	cm
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1006385734
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	cm
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1006385725
Pump Set At:	30.0
Static Level:	6.5
Final Level After Pumping:	10.3100004196167
Recommended Pump Depth:	30.0
Pumping Rate:	20.0
Flowing Rate:	
Recommended Pump Rate:	20.0
Levels UOM:	m
Rate UOM:	LPM
Water State After Test Code:	0
Water State After Test:	
Pumping Test Method:	0
Pumping Duration HR:	1
Pumping Duration MIN:	
Flowing:	No

Draw Down & Recovery

Pump Test Detail ID:	1006385743
Test Type:	Draw Down

Test Duration: 5
Test Level: 8.630000114440918
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385748
Test Type: Recovery
Test Duration: 15
Test Level: 8.180000305175781
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385741
Test Type: Draw Down
Test Duration: 4
Test Level: 8.420000076293945
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385754
Test Type: Recovery
Test Duration: 30
Test Level: 7.099999904632568
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385750
Test Type: Recovery
Test Duration: 20
Test Level: 8.0
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385753
Test Type: Draw Down
Test Duration: 30
Test Level: 10.09000015258789
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385737
Test Type: Draw Down
Test Duration: 2
Test Level: 8.119999885559082
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385747
Test Type: Draw Down
Test Duration: 15
Test Level: 9.710000038146973
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385760
Test Type: Recovery
Test Duration: 60
Test Level: 6.800000190734863
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385736
Test Type: Recovery
Test Duration: 1
Test Level: 9.640000343322754
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385738
Test Type: Recovery
Test Duration: 2
Test Level: 9.3100004196167
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385740
Test Type: Recovery
Test Duration: 3
Test Level: 9.210000038146973
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385746
Test Type: Recovery
Test Duration: 10
Test Level: 8.420000076293945
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385751
Test Type: Draw Down
Test Duration: 25
Test Level: 10.109999656677246
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385756
Test Type: Recovery
Test Duration: 40
Test Level: 6.800000190734863
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385757

Test Type: Draw Down
Test Duration: 50
Test Level: 10.260000228881836
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385759
Test Type: Draw Down
Test Duration: 60
Test Level: 10.3100004196167
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385735
Test Type: Draw Down
Test Duration: 1
Test Level: 8.050000190734863
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385739
Test Type: Draw Down
Test Duration: 3
Test Level: 8.199999809265137
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385745
Test Type: Draw Down
Test Duration: 10
Test Level: 9.34000015258789
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385749
Test Type: Draw Down
Test Duration: 20
Test Level: 10.0
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385752
Test Type: Recovery
Test Duration: 25
Test Level: 7.619999885559082
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 1006385755
Test Type: Draw Down
Test Duration: 40
Test Level: 10.1899995803833
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID:	1006385742
Test Type:	Recovery
Test Duration:	4
Test Level:	9.020000457763672
Test Level UOM:	m

Draw Down & Recovery

Pump Test Detail ID:	1006385744
Test Type:	Recovery
Test Duration:	5
Test Level:	8.84000015258789
Test Level UOM:	m

Draw Down & Recovery

Pump Test Detail ID:	1006385758
Test Type:	Recovery
Test Duration:	50
Test Level:	6.800000190734863
Test Level UOM:	m

Water Details

Water ID:	1006385731
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	15.0
Water Found Depth UOM:	m

Hole Diameter

Hole ID:	1006385730
Diameter:	15.550000190734863
Depth From:	12.199999809265137
Depth To:	30.799999237060547
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Hole Diameter

Hole ID:	1006385729
Diameter:	24.899999618530273
Depth From:	0.0
Depth To:	12.199999809265137
Hole Depth UOM:	m
Hole Diameter UOM:	cm

23	***1 of 1***	***NNW/483.1***	***72.8 / 6.51***	***lot 19 con 5 ON***	***WWIS***

Well ID:	5802572	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	8/7/1984
Sec. Water Use:		***Selected Flag:***	TRUE
Final Well Status:	Water Supply	***Abandonment Rec:***	

Water Type:		**Contractor:**	1414
Casing Material:		**Form Version:**	1
Audit No:		**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	STORMONT DUNDAS GLENGARRY
Elevation (m):		**Municipality:**	CORNWALL TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	019
Well Depth:		**Concession:**	05
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5802572.pdf

Additional Detail(s) (Map)

Well Completed Date:	1984/07/19
Year Completed:	1984
Depth (m):	19.812
Latitude:	45.0645622930669
Longitude:	-74.810272833669
Path:	580\5802572.pdf

Bore Hole Information

Bore Hole ID:	10415916	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	514936.60
Code OB Desc:		**North83:**	4990140.00
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	5
Date Completed:	19-Jul-1984 00:00:00	**UTMRC Desc:**	margin of error : 100 m - 300 m
Remarks:		**Location Method:**	gis
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932423679
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	34
Most Common Material:	TILL
Mat2:	13
Mat2 Desc:	BOULDERS
Mat3:	73
Mat3 Desc:	HARD
Formation Top Depth:	0.0
Formation End Depth:	51.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932423681
Layer:	3
Color:	1
General Color:	WHITE
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	73
Mat2 Desc:	HARD
Mat3:	
Mat3 Desc:	
Formation Top Depth:	52.0
Formation End Depth:	65.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932423680
Layer:	2
Color:	2
General Color:	GREY
Mat1:	11
Most Common Material:	GRAVEL
Mat2:	73
Mat2 Desc:	HARD
Mat3:	
Mat3 Desc:	
Formation Top Depth:	51.0
Formation End Depth:	52.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	933198398
Layer:	1
Plug From:	5.0
Plug To:	20.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	965802572
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	10964486
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930676248
Layer:	1

Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 52.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930676249
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

Results of Well Yield Testing

Pump Test ID: 995802572
Pump Set At:
Static Level: 12.0
Final Level After Pumping: 50.0
Recommended Pump Depth: 48.0
Pumping Rate: 5.0
Flowing Rate:
Recommended Pump Rate: 5.0
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: 0
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 934323002
Test Type: Draw Down
Test Duration: 15
Test Level: 35.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934845086
Test Type: Draw Down
Test Duration: 45
Test Level: 50.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934588104
Test Type: Draw Down
Test Duration: 30
Test Level: 45.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID:	935112006
Test Type:	Draw Down
Test Duration:	60
Test Level:	50.0
Test Level UOM:	ft

Water Details

Water ID:	933898660
Layer:	1
Kind Code:	3
Kind:	SULPHUR
Water Found Depth:	62.0
Water Found Depth UOM:	ft

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24 ***1 of 1*** ***WNW/74.3*** ***69.9 / 3.55*** ***lot 17 con 4 ON*** ***WWIS***

Well ID:	5803274	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	11/28/1990
Sec. Water Use:		***Selected Flag:***	TRUE
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	1414
Casing Material:		***Form Version:***	1
Audit No:	88858	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	STORMONT DUNDAS GLENGARRY
Elevation (m):		***Municipality:***	CORNWALL TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	017
Well Depth:		***Concession:***	04
Overburden/Bedrock:		***Concession Name:***	CON
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5803274.pdf

Additional Detail(s) (Map)

Well Completed Date:	1990/11/19
Year Completed:	1990
Depth (m):	19.2024
Latitude:	45.0621577942669
Longitude:	-74.8151455120877
Path:	580\5803274.pdf

Bore Hole Information

Bore Hole ID:	10416609	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	18
Code OB:		***East83:***	514553.60
Code OB Desc:		***North83:***	4989872.00
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	5

Date Completed: 19-Nov-1990 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
UTMRC Desc: margin of error : 100 m - 100 m
Location Method: gis

Overburden and Bedrock Materials Interval

Formation ID: 932425940
Layer: 1
Color: 6
General Color: BROWN
Mat1: 01
Most Common Material: FILL
Mat2: 85
Mat2 Desc: SOFT
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 5.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425941
Layer: 2
Color: 2
General Color: GREY
Mat1: 34
Most Common Material: TILL
Mat2: 73
Mat2 Desc: HARD
Mat3:
Mat3 Desc:
Formation Top Depth: 5.0
Formation End Depth: 45.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425943
Layer: 4
Color: 2
General Color: GREY
Mat1: 26
Most Common Material: ROCK
Mat2: 73
Mat2 Desc: HARD
Mat3:
Mat3 Desc:
Formation Top Depth: 47.0
Formation End Depth: 63.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425942
Layer: 3
Color: 2
General Color: GREY
Mat1: 11
Most Common Material: GRAVEL
Mat2: 73
Mat2 Desc: HARD
Mat3:
Mat3 Desc:
Formation Top Depth: 45.0
Formation End Depth: 47.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933198976
Layer: 1
Plug From: 0.0
Plug To: 22.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965803274
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10965179
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930677423
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 47.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930677424
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 63.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID:	995803274
Pump Set At:	
Static Level:	10.0
Final Level After Pumping:	50.0
Recommended Pump Depth:	50.0
Pumping Rate:	18.0
Flowing Rate:	
Recommended Pump Rate:	5.0
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:	934590854
Test Type:	
Test Duration:	30
Test Level:	48.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	935105986
Test Type:	
Test Duration:	60
Test Level:	50.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934316984
Test Type:	
Test Duration:	15
Test Level:	35.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934847837
Test Type:	
Test Duration:	45
Test Level:	50.0
Test Level UOM:	ft

Water Details

Water ID:	933899375
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	60.0
Water Found Depth UOM:	ft

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
25	1 of 1	NNW/415.3	74.5 / 8.12	lot 19 con 5 ON	WWIS

Well ID:	5803283	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Domestic	**Date Received:**	12/4/1990
Sec. Water Use:		**Selected Flag:**	TRUE
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	4609
Casing Material:		**Form Version:**	1
Audit No:	53986	**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	STORMONT DUNDAS GLENGARRY
Elevation (m):		**Municipality:**	CORNWALL TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	019
Well Depth:		**Concession:**	05
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5803283.pdf

Additional Detail(s) (Map)

Well Completed Date:	1989/05/10
Year Completed:	1989
Depth (m):	24.384
Latitude:	45.064456730941
Longitude:	-74.8117593334789
Path:	580\5803283.pdf

Bore Hole Information

Bore Hole ID:	10416618	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	514819.60
Code OB Desc:		**North83:**	4990128.00
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	5
Date Completed:	10-May-1989 00:00:00	**UTMRC Desc:**	margin of error : 100 m - 300 m
Remarks:		**Location Method:**	gis
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932425974
Layer:	3
Color:	2
General Color:	GREY
Mat1:	11
Most Common Material:	GRAVEL

Mat2: 79
Mat2 Desc: PACKED
Mat3:
Mat3 Desc:
Formation Top Depth: 42.0
Formation End Depth: 48.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425972
Layer: 1
Color: 6
General Color: BROWN
Mat1: 14
Most Common Material: HARDPAN
Mat2: 12
Mat2 Desc: STONES
Mat3: 79
Mat3 Desc: PACKED
Formation Top Depth: 0.0
Formation End Depth: 8.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425973
Layer: 2
Color: 2
General Color: GREY
Mat1: 14
Most Common Material: HARDPAN
Mat2: 79
Mat2 Desc: PACKED
Mat3:
Mat3 Desc:
Formation Top Depth: 8.0
Formation End Depth: 42.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425975
Layer: 4
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 74
Mat2 Desc: LAYERED
Mat3:
Mat3 Desc:
Formation Top Depth: 48.0
Formation End Depth: 80.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID:	933198984
Layer:	1
Plug From:	2.0
Plug To:	48.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	965803283
Method Construction Code:	4
Method Construction:	Rotary (Air)
Other Method Construction:	

Pipe Information

Pipe ID:	10965188
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930677440
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	80.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930677439
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	48.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	995803283
Pump Set At:	
Static Level:	20.0
Final Level After Pumping:	60.0
Recommended Pump Depth:	60.0
Pumping Rate:	10.0
Flowing Rate:	
Recommended Pump Rate:	10.0
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: 935105994
Test Type: Draw Down
Test Duration: 60
Test Level: 60.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934316992
Test Type: Draw Down
Test Duration: 15
Test Level: 30.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934590862
Test Type: Draw Down
Test Duration: 30
Test Level: 40.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934847845
Test Type: Draw Down
Test Duration: 45
Test Level: 50.0
Test Level UOM: ft

Water Details

Water ID: 933899386
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 70.0
Water Found Depth UOM: ft

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26 | ***1 of 1*** | ***E/339.3*** | ***71.8 / 5.42*** | ***lot 16 con 4 ON*** | ***WWIS***

Well ID: 5804560
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 232381
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:

Data Entry Status:
Data Src: 1
Date Received: 10/26/2001
Selected Flag: TRUE
Abandonment Rec:
Contractor: 1414
Form Version: 1
Owner:
Street Name:
County: STORMONT DUNDAS GLENGARRY
Municipality: CORNWALL TOWNSHIP
Site Info:
Lot: 016
Concession: 04
Concession Name: CON

Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5804560.pdf

Additional Detail(s) (Map)

Well Completed Date:	2001/10/18
Year Completed:	2001
Depth (m):	27.432
Latitude:	45.0586739307443
Longitude:	-74.7990647459086
Path:	580\5804560.pdf

Bore Hole Information

Bore Hole ID:	10522156	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	515820.60
Code OB Desc:		**North83:**	4989488.00
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	9
Date Completed:	18-Oct-2001 00:00:00	**UTMRC Desc:**	unknown UTM
Remarks:		**Location Method:**	lot
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932851606
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	34
Most Common Material:	TILL
Mat2:	73
Mat2 Desc:	HARD
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	8.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932851608
Layer:	3
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	74

Mat2 Desc:	LAYERED
Mat3:	
Mat3 Desc:	
Formation Top Depth:	50.0
Formation End Depth:	90.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932851607
Layer:	2
Color:	2
General Color:	GREY
Mat1:	34
Most Common Material:	TILL
Mat2:	73
Mat2 Desc:	HARD
Mat3:	
Mat3 Desc:	
Formation Top Depth:	8.0
Formation End Depth:	50.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	933224098
Layer:	1
Plug From:	0.0
Plug To:	25.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	965804560
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	11070726
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930679835
Layer:	3
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID: 930679833
Layer: 1
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To:
Casing Diameter: 8.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930679834
Layer: 2
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To:
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 995804560
Pump Set At:
Static Level: 32.0
Final Level After Pumping: 89.0
Recommended Pump Depth: 80.0
Pumping Rate: 3.0
Flowing Rate:
Recommended Pump Rate: 3.0
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: 0
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 934321437
Test Type: Recovery
Test Duration: 15
Test Level: 40.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934586536
Test Type: Recovery
Test Duration: 30
Test Level: 32.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935110419
Test Type: Recovery

Test Duration:	60
Test Level:	32.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934844077
Test Type:	Recovery
Test Duration:	45
Test Level:	32.0
Test Level UOM:	ft

Water Details

Water ID:	934014523
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	86.0
Water Found Depth UOM:	ft

---

27 | ***1 of 1*** | ***E/341.1*** | ***71.8 / 5.42*** | ***lot 16 con 4 ON*** | ***WWIS***

Well ID:	5802634	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Domestic	**Date Received:**	9/3/1985
Sec. Water Use:		**Selected Flag:**	TRUE
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	1414
Casing Material:		**Form Version:**	1
Audit No:		**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	STORMONT DUNDAS GLENGARRY
Elevation (m):		**Municipality:**	CORNWALL TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	016
Well Depth:		**Concession:**	04
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5802634.pdf

Additional Detail(s) (Map)

Well Completed Date:	1985/04/17
Year Completed:	1985
Depth (m):	17.0688
Latitude:	45.058673856996
Longitude:	-74.7990228333229
Path:	580\5802634.pdf

Bore Hole Information

Bore Hole ID:	10415977	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	515823.90

Code OB Desc:		***North83:***	4989488.00
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	17-Apr-1985 00:00:00	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	lot
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932423846
Layer:	2
Color:	2
General Color:	GREY
Mat1:	34
Most Common Material:	TILL
Mat2:	73
Mat2 Desc:	HARD
Mat3:	
Mat3 Desc:	
Formation Top Depth:	21.0
Formation End Depth:	42.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932423847
Layer:	3
Color:	2
General Color:	GREY
Mat1:	11
Most Common Material:	GRAVEL
Mat2:	73
Mat2 Desc:	HARD
Mat3:	
Mat3 Desc:	
Formation Top Depth:	42.0
Formation End Depth:	56.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932423845
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	34
Most Common Material:	TILL
Mat2:	73
Mat2 Desc:	HARD
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	21.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	933198424
Layer:	1
Plug From:	5.0
Plug To:	20.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	965802634
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	10964547
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930676337
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	56.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930676336
Layer:	1
Material:	
Open Hole or Material:	
Depth From:	
Depth To:	45.0
Casing Diameter:	6.0
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	995802634
Pump Set At:	
Static Level:	9.0
Final Level After Pumping:	50.0
Recommended Pump Depth:	50.0
Pumping Rate:	4.0
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:	0
Flowing:	No

Draw Down & Recovery

Pump Test Detail ID:	935112061
Test Type:	Draw Down
Test Duration:	60
Test Level:	50.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934323057
Test Type:	Draw Down
Test Duration:	15
Test Level:	34.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934845141
Test Type:	Draw Down
Test Duration:	45
Test Level:	50.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934588159
Test Type:	Draw Down
Test Duration:	30
Test Level:	40.0
Test Level UOM:	ft

Water Details

Water ID:	933898723
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	55.0
Water Found Depth UOM:	ft

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28 ***1 of 1*** ***ESE/160.5*** ***65.8 / -0.55*** ***ON-401 Cornwall ON*** ***EHS***

Order No:	21110900498	***Nearest Intersection:***	
Status:	C	***Municipality:***	
Report Type:	Custom Report	***Client Prov/State:***	ON
Report Date:	12-NOV-21	***Search Radius (km):***	.15
Date Received:	09-NOV-21	***X:***	-74.79929153
Previous Site Name:		***Y:***	45.05619734
Lot/Building Size:			
Additional Info Ordered:	Aerial Photos		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
29	1 of 1	W/268.8	68.8 / 2.42	16819 ATCHIMSON RD lot 20 con 5 LONG SAULT ON	WWIS

Well ID:	5805233	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:	Domestic	**Date Received:**	11/16/2006
Sec. Water Use:		**Selected Flag:**	TRUE
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	1414
Casing Material:		**Form Version:**	3
Audit No:	Z52021	**Owner:**	
Tag:	A046114	**Street Name:**	16819 ATCHIMSON RD
Construction Method:		**County:**	STORMONT DUNDAS GLENGARRY
Elevation (m):		**Municipality:**	CORNWALL TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	020
Well Depth:		**Concession:**	05
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5805233.pdf

Additional Detail(s) (Map)

Well Completed Date:	2006/09/05
Year Completed:	2006
Depth (m):	28.95
Latitude:	45.0605874481206
Longitude:	-74.8182446054606
Path:	580\5805233.pdf

Bore Hole Information

Bore Hole ID:	11695264	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	514310.00
Code OB Desc:		**North83:**	4989697.00
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	3
Date Completed:	05-Sep-2006 00:00:00	**UTMRC Desc:**	margin of error : 10 - 30 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	933081032
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	34
Most Common Material:	TILL
Mat2:	

Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 3.4000000953674316
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 933081033
Layer: 2
Color: 2
General Color: GREY
Mat1: 34
Most Common Material: TILL
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 3.4000000953674316
Formation End Depth: 10.0
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 933081034
Layer: 3
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 10.0
Formation End Depth: 28.950000762939453
Formation End Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 933307343
Layer: 1
Plug From: 0.0
Plug To: 10.0
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID: 965805233
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 11700130
Casing No: 1

Comment:
Alt Name:

Construction Record - Casing

Casing ID:	930891579
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	10.0
Depth To:	28.950000762939453
Casing Diameter:	
Casing Diameter UOM:	cm
Casing Depth UOM:	m

Construction Record - Casing

Casing ID:	930891578
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	-0.6000000238418579
Depth To:	10.0
Casing Diameter:	15.550000190734863
Casing Diameter UOM:	cm
Casing Depth UOM:	m

Results of Well Yield Testing

Pump Test ID:	11703880
Pump Set At:	22.0
Static Level:	3.700000047683716
Final Level After Pumping:	7.260000228881836
Recommended Pump Depth:	22.0
Pumping Rate:	22.0
Flowing Rate:	
Recommended Pump Rate:	22.0
Levels UOM:	m
Rate UOM:	LPM
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	

Draw Down & Recovery

Pump Test Detail ID:	11734804
Test Type:	Draw Down
Test Duration:	10
Test Level:	6.119999885559082
Test Level UOM:	m

Draw Down & Recovery

Pump Test Detail ID:	11734809
Test Type:	Recovery
Test Duration:	20
Test Level:	3.9100000858306885
Test Level UOM:	m

Draw Down & Recovery

Pump Test Detail ID: 11734811
Test Type: Draw Down
Test Duration: 30
Test Level: 7.099999904632568
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 11734798
Test Type: Recovery
Test Duration: 2
Test Level: 6.400000095367432
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 11734803
Test Type: Recovery
Test Duration: 5
Test Level: 5.400000095367432
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 11734805
Test Type: Recovery
Test Duration: 10
Test Level: 4.599999904632568
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 11734796
Test Type: Recovery
Test Duration: 1
Test Level: 6.800000190734863
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 11734797
Test Type: Draw Down
Test Duration: 2
Test Level: 5.199999809265137
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 11734802
Test Type: Draw Down
Test Duration: 5
Test Level: 5.869999885559082
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 11734806

Test Type: Draw Down
Test Duration: 15
Test Level: 6.5
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 11734800
Test Type: Recovery
Test Duration: 3
Test Level: 6.0
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 11734808
Test Type: Draw Down
Test Duration: 20
Test Level: 6.800000190734863
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 11734813
Test Type: Draw Down
Test Duration: 50
Test Level: 7.230000019073486
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 11734795
Test Type: Draw Down
Test Duration: 1
Test Level: 5.0
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 11734801
Test Type: Recovery
Test Duration: 4
Test Level: 5.699999809265137
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 11734814
Test Type: Draw Down
Test Duration: 60
Test Level: 7.260000228881836
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID: 11734812
Test Type: Draw Down
Test Duration: 40
Test Level: 7.199999809265137
Test Level UOM: m

Draw Down & Recovery

Pump Test Detail ID:	11734799
Test Type:	Draw Down
Test Duration:	3
Test Level:	5.420000076293945
Test Level UOM:	m

Draw Down & Recovery

Pump Test Detail ID:	11734807
Test Type:	Recovery
Test Duration:	15
Test Level:	4.050000190734863
Test Level UOM:	m

Draw Down & Recovery

Pump Test Detail ID:	11734810
Test Type:	Draw Down
Test Duration:	25
Test Level:	7.0
Test Level UOM:	m

Water Details

Water ID:	934081748
Layer:	1
Kind Code:	3
Kind:	SULPHUR
Water Found Depth:	28.0
Water Found Depth UOM:	m

Hole Diameter

Hole ID:	11759377
Diameter:	15.550000190734863
Depth From:	10.0
Depth To:	28.950000762939453
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Hole Diameter

Hole ID:	11759378
Diameter:	21.229999542236328
Depth From:	0.0
Depth To:	10.0
Hole Depth UOM:	m
Hole Diameter UOM:	cm

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30 ***1 of 1*** ***NW/311.2*** ***69.9 / 3.55*** ***lot 20 con 5 ON*** ***WWIS***

Well ID:	5803759	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	9/21/1993
Sec. Water Use:		***Selected Flag:***	TRUE
Final Well Status:	Water Supply	***Abandonment Rec:***	

Water Type:		**Contractor:**	1414
Casing Material:		**Form Version:**	1
Audit No:	139083	**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	STORMONT DUNDAS GLENGARRY
Elevation (m):		**Municipality:**	CORNWALL TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	020
Well Depth:		**Concession:**	05
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5803759.pdf

Additional Detail(s) (Map)

Well Completed Date:	1993/09/03
Year Completed:	1993
Depth (m):	24.384
Latitude:	45.0642912572677
Longitude:	-74.815164040823
Path:	580\5803759.pdf

Bore Hole Information

Bore Hole ID:	10417092	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	514551.60
Code OB Desc:		**North83:**	4990109.00
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	5
Date Completed:	03-Sep-1993 00:00:00	**UTMRC Desc:**	margin of error : 100 m - 300 m
Remarks:		**Location Method:**	gis
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932427584
Layer:	2
Color:	2
General Color:	GREY
Mat1:	34
Most Common Material:	TILL
Mat2:	13
Mat2 Desc:	BOULDERS
Mat3:	73
Mat3 Desc:	HARD
Formation Top Depth:	9.0
Formation End Depth:	37.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932427583
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	34
Most Common Material:	TILL
Mat2:	73
Mat2 Desc:	HARD
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	9.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932427585
Layer:	3
Color:	2
General Color:	GREY
Mat1:	26
Most Common Material:	ROCK
Mat2:	73
Mat2 Desc:	HARD
Mat3:	
Mat3 Desc:	
Formation Top Depth:	37.0
Formation End Depth:	80.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	933199433
Layer:	1
Plug From:	0.0
Plug To:	25.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	965803759
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	10965662
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930678286
Layer:	2

Material:
Open Hole or Material:
Depth From:
Depth To: 80.0
Casing Diameter: 7.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930678285
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 37.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 995803759
Pump Set At:
Static Level: 12.0
Final Level After Pumping: 70.0
Recommended Pump Depth: 72.0
Pumping Rate: 4.0
Flowing Rate:
Recommended Pump Rate: 3.0
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: 0
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 934841320
Test Type: Draw Down
Test Duration: 45
Test Level: 70.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934318678
Test Type: Draw Down
Test Duration: 15
Test Level: 35.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934592547
Test Type: Draw Down
Test Duration: 30
Test Level: 58.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID:	935107669
Test Type:	Draw Down
Test Duration:	60
Test Level:	70.0
Test Level UOM:	ft

Water Details

Water ID:	933899932
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	
Water Found Depth UOM:	ft

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31 ***1 of 1*** ***NW/460.2*** ***68.9 / 2.56*** ***lot 19 con 5 ON*** ***WWIS***

Well ID:	5803287	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	12/4/1990
Sec. Water Use:		***Selected Flag:***	TRUE
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	4609
Casing Material:		***Form Version:***	1
Audit No:	48953	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	STORMONT DUNDAS GLENGARRY
Elevation (m):		***Municipality:***	CORNWALL TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	019
Well Depth:		***Concession:***	05
Overburden/Bedrock:		***Concession Name:***	CON
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5803287.pdf

Additional Detail(s) (Map)

Well Completed Date:	1989/07/29
Year Completed:	1989
Depth (m):	16.764
Latitude:	45.065549463925
Longitude:	-74.8139024501803
Path:	580\5803287.pdf

Bore Hole Information

Bore Hole ID:	10416622	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	18
Code OB:		***East83:***	514650.60
Code OB Desc:		***North83:***	4990249.00
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	5

Date Completed: 29-Jul-1989 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
UTMRC Desc: margin of error : 100 m - 300 m
Location Method: gis

Overburden and Bedrock Materials Interval

Formation ID: 932425987
Layer: 2
Color: 2
General Color: GREY
Mat1: 14
Most Common Material: HARDPAN
Mat2: 79
Mat2 Desc: PACKED
Mat3:
Mat3 Desc:
Formation Top Depth: 12.0
Formation End Depth: 42.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425988
Layer: 3
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 74
Mat2 Desc: LAYERED
Mat3:
Mat3 Desc:
Formation Top Depth: 42.0
Formation End Depth: 55.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425986
Layer: 1
Color: 6
General Color: BROWN
Mat1: 11
Most Common Material: GRAVEL
Mat2: 79
Mat2 Desc: PACKED
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 12.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933198988
Layer: 1
Plug From: 2.0
Plug To: 42.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965803287
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10965192
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930677448
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 55.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930677447
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 42.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 995803287
Pump Set At:
Static Level: 15.0
Final Level After Pumping: 45.0
Recommended Pump Depth: 50.0
Pumping Rate: 10.0
Flowing Rate:
Recommended Pump Rate: 10.0
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: 935105998
Test Type:
Test Duration: 60
Test Level: 45.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934847849
Test Type:
Test Duration: 45
Test Level: 40.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934316996
Test Type:
Test Duration: 15
Test Level: 25.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934590866
Test Type:
Test Duration: 30
Test Level: 35.0
Test Level UOM: ft

Water Details

Water ID: 933899390
Layer: 1
Kind Code: 3
Kind: SULPHUR
Water Found Depth: 51.0
Water Found Depth UOM: ft

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32 | ***1 of 1*** | ***ESE/388.3*** | ***60.5 / -5.84*** | ***lot 16 con 4 ON*** | ***WWIS***

Well ID: 5800351
Construction Date:
Primary Water Use: Domestic
Sec. Water Use: 0
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No:
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:

Data Entry Status:
Data Src: 1
Date Received: 1/10/1961
Selected Flag: TRUE
Abandonment Rec:
Contractor: 1411
Form Version: 1
Owner:
Street Name:
County: STORMONT DUNDAS GLENGARRY
Municipality: CORNWALL TOWNSHIP
Site Info:
Lot: 016
Concession: 04

Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/580\5800351.pdf

Additional Detail(s) (Map)

Well Completed Date:	1960/12/27
Year Completed:	1960
Depth (m):	9.7536
Latitude:	45.0558246378806
Longitude:	-74.7964038659554
Path:	580\5800351.pdf

Bore Hole Information

Bore Hole ID:	10413969	**Elevation:**	
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:		**East83:**	516030.90
Code OB Desc:		**North83:**	4989172.00
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	5
Date Completed:	27-Dec-1960 00:00:00	**UTMRC Desc:**	margin of error : 100 m - 300 m
Remarks:		**Location Method:**	p5
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932417903
Layer:	2
Color:	2
General Color:	GREY
Mat1:	26
Most Common Material:	ROCK
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	17.0
Formation End Depth:	32.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932417902
Layer:	1
Color:	
General Color:	
Mat1:	11
Most Common Material:	GRAVEL

Mat2: 09
Mat2 Desc: MEDIUM SAND
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 17.0
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965800351
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 10962539
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930672780
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 17.0
Casing Diameter: 5.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930672781
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 32.0
Casing Diameter: 5.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 995800351
Pump Set At:
Static Level: 10.0
Final Level After Pumping: 10.0
Recommended Pump Depth:
Pumping Rate: 5.0
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: 1
Pumping Duration MIN: 0
Flowing: No

Water Details

Water ID: 933896567
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 22.0
Water Found Depth UOM: ft

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33 | **1 of 1** | **WNW/376.1** | **66.9 / 0.55** | **401 CULVERT, 1KM EAST OF POST ROAD ON** | **WWIS**

Well ID: 7357620
Construction Date:
Primary Water Use: Monitoring
Sec. Water Use:
Final Well Status: 0
Water Type:
Casing Material:
Audit No: Z231083
Tag: A279035
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src:
Date Received: 5/4/2020
Selected Flag: TRUE
Abandonment Rec:
Contractor: 1844
Form Version: 7
Owner:
Street Name: 401 CULVERT, 1KM EAST OF POST ROAD
County: STORMONT DUNDAS GLENGARRY
Municipality: CORNWALL TOWNSHIP
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date: 2020/01/17
Year Completed: 2020
Depth (m): 6.4
Latitude: 45.0629027804939
Longitude: -74.8194185365648
Path:

Bore Hole Information

Bore Hole ID: 1008266550
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 17-Jan-2020 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:

Elevation:
Elevrc:
Zone: 18
East83: 514217.00
North83: 4989954.00
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID:	1008271058
Layer:	1
Color:	
General Color:	
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	6.400000095367432
Formation End Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	1008271065
Layer:	1
Plug From:	0.0
Plug To:	4.260000228881836
Plug Depth UOM:	m

Method of Construction & Well Use

Method Construction ID:	1008271064
Method Construction Code:	
Method Construction:	
Other Method Construction:	HSA

Pipe Information

Pipe ID:	1008271057
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1008271061
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0.0
Depth To:	4.880000114440918
Casing Diameter:	5.079999923706055
Casing Diameter UOM:	cm
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1008271062
Layer:	1

Slot:	25
Screen Top Depth:	4.880000114440918
Screen End Depth:	6.400000095367432
Screen Material:	5
Screen Depth UOM:	m
Screen Diameter UOM:	cm
Screen Diameter:	5.860000133514404

Water Details

Water ID:	1008271060
Layer:	1
Kind Code:	8
Kind:	Untested
Water Found Depth:	3.049999952316284
Water Found Depth UOM:	m

Hole Diameter

Hole ID:	1008271059
Diameter:	20.299999237060547
Depth From:	0.0
Depth To:	6.400000095367432
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Unplottable Summary

Total: 34 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
AAGR		Lot 20 Con 5	Cornwall ON	
AUWR	LKQ HEADLINE AUTO PARTS	HEADLINE RD E CORNWALL	CORNWALL ON	
CA	West Front Construction (Canada) Ltd.	P.O. Box 428 (Lot 18, Concession 4)	Cornwall ON	K6H 5T2
CONV	West Front Construction Ltd		South Stormont ON	
CONV	WEST FRONT CONSTRUCTION LIMITE		ON	
GEN	ONTARIO HYDRO	POWER DAM DRIVE C/O P.O. BOX 999	CORNWALL ON	K6H 5V1
GEN	ONTARIO HYDRO	ST. LAWRENCE TS POWER DAM DRIVE	CORNWALL ON	K6J 2N4
GEN	WEST FRONT CONSTRUCTION LIMITED	NW CORNER POWER DAM DRIVE & CORNWALL CENTER ROAD LOT 18 CONC. 4	CORNWALL TOWNSHIP ON	K6H 5T2
GEN	WEST FRONT CONSTRUCTION LIMITED 41-287	NW CORNER POWER DAM DRIVE & CORNWALL CENTER ROAD LOT 18 CONC. 4	CORNWALL TOWNSHIP ON	K6H 5T2
LIMO		Lot 19 Concession 5 Cornwall	ON	
NPCB	ONTARIO HYDRO-ST. LAWRENCE T.S.	POWER DAM DRIVE	CORNWALL ON	K6H 5V1
NPCB	ONTARIO HYDRO - ST. LAWRENCE T.S.	POWER DAM DRIVE	CORNWALL ON	K6H 5V1
NPCB	ONTARIO HYDRO - ST. LAWRENCE T.S.	POWER DAM DRIVE POWER DAM DRIVE	CORNWALL ON	K6H 5V1
OPCB	ONTARIO HYDRO - ST. LAWRENCE T.S.	POWER DAM DRIVE	CORNWALL ON	K6H 5V1
OPCB	ONTARIO HYDRO - ST. LAWRENCE T.S.	POWER DAM DRIVE	CORNWALL ON	K6H 5V1
OPCB	ONTARIO HYDRO - ST. LAWRENCE T.S.	POWER DAM DRIVE	CORNWALL ON	K6H 5V1
OPCB	ONTARIO HYDRO - ST.	POWER DAM DRIVE	CORNWALL ON	K6H 5V1

	LAWRENCE T.S.		
REC	ONTARIO HYDRO	POWER DAM DRIVE	CORNWALL ON
SPL	HYDRO ONE	ST LAWRENCE T.S.,POWER DAM ROAD. TRANSFORMER	CORNWALL CITY ON
SPL	Aecon Construction Group Inc.	Hwy 401	Cornwall ON
SPL	Travelers Transportation Services Inc.	Hwy 401	South Stormont ON
SPL	WEST FRONT CONSTRUCTION SALVAG	ST. LAWRENCE RIVER BARGE	SOUTH STORMONT TOWNSHIP ON
SPL	LEISCO	HWY 401 TRANSPORT TRUCK (CARGO)	SOUTH STORMONT TOWNSHIP ON
SPL	ONTARIO HYDRO	POWER DAM ROAD TRANSFORMER	CORNWALL CITY ON
WWIS		lot 18	ON
WWIS		lot 16	ON
WWIS		lot 16	ON
WWIS		lot 18	ON
WWIS		lot 19	ON
WWIS		lot 19	ON
WWIS		lot 16	ON
WWIS		lot 18	ON
WWIS		lot 18	ON
WWIS		lot 18	ON

Unplottable Report

Site: ***Database:*** ***AAGR***

Lot 20 Con 5 Cornwall ON

Type:	Pit
Region/County:	Stormont, Dundas, Glengarry
Township:	Cornwall
Concession:	5
Lot:	20
Size (ha):	0.55
Landuse:	
Comments:	

Site: ***LKQ HEADLINE AUTO PARTS*** ***Database:*** ***AUWR***

HEADLINE RD E CORNWALL CORNWALL ON

Headcode:	00096400
Headcode Desc:	AUTOMOBILE PARTS & SUPPLIES USED & REBU
Phone:	6139383527
List Name:	
Description:	

Site: ***West Front Construction (Canada) Ltd.*** ***Database:*** ***CA***

P.O. Box 428 (Lot 18, Concession 4) Cornwall ON K6H 5T2

Certificate #:	860262
Application Year:	2000
Issue Date:	8/1/2000
Approval Type:	Waste Management Systems
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***West Front Construction Ltd*** ***Database:*** ***CONV***

South Stormont ON

File No:	098964	***Location:***	
Crown Brief No:		***Region:***	
Court Location:		***Ministry District:***	
Publication City:			
Publication Title:			
Act:			
Act(s):			
First Matter:			
Second Matter:			
Investigation 1:			
Investigation 2:			
Penalty Imposed:			
Description:	On July 31, 2012, West Front Construction (Canada) Ltd. and Allen McDonald pleaded guilty to one violation under the Environmental Protection Act for establishing a waste disposal site or waste management system for the		

incineration of waste without ministry approval. The Court heard that the company is located in South Stormont Township. Mr. McDonald is a director of the company. In 2011, the ministry received a complaint with respect to a fire at the company site. The ministry attended the scene and observed that waste including oil filers, solvent and paint cans, batteries and hydraulic hoses had been deposited and burned on the property. The company and Mr. McDonald were charged following an investigation by the ministry's Investigations and Enforcement Branch. The company was fined $6,500 plus a victim fine surcharge, and was given 90 days to pay the fine. Mr. McDonald also received a suspended sentence, and a one year probation that requires him not to conduct or direct open air burning without a valid burn permit.

Background:
URL:

Additional Details

Publication Date:
Count: 1
Act: EPA
Regulation:
Section:
Act/Regulation/Section: EPA
Date of Offence:
Date of Conviction:
Date Charged: July 31, 2012
Charge Disposition: fine, victim fine surcharge
Fine: $6,500
Synopsis:

Site: ***WEST FRONT CONSTRUCTION LIMITE ON***

Database: ***CONV***

File No:
Crown Brief No: 99-0038-0251
Court Location:
Publication City:
Publication Title:
Act:
Act(s):
First Matter:
Second Matter:
Investigation 1:
Investigation 2:
Penalty Imposed:
Description: USING, OPERATING OR ESTABLISHING A WASTE DISPOSAL SITE AND DEPOSITING CONSTRUCTION/DEMOLITION WASTE WITHOUT A CERTIFICATE OF APPROVAL.

Location:
Region: EASTERN REGION
Ministry District: CORNWALL

Background:
URL:

Additional Details

Publication Date:
Count: 1
Act: EPA
Regulation:
Section: 27 (1) (B)
Act/Regulation/Section: EPA- -27 (1) (B)
Date of Offence:
Date of Conviction:
Date Charged: 5/31/00
Charge Disposition: SUSPENDED SENTENCE
Fine: $5,000.00
Synopsis:

Site: ***ONTARIO HYDRO***
POWER DAM DRIVE C/O P.O. BOX 999 CORNWALL ON K6H 5V1

Database: ***GEN***

Generator No: 403-85A023
SIC Code: 030

Status:
Co Admin:

SIC Description:		***Choice of Contact:***	
Approval Years:	86	***Phone No Admin:***	
PO Box No:		***Contam. Facility:***	
Country:		***MHSW Facility:***	

Site: ***ONTARIO HYDRO***
ST. LAWRENCE TS POWER DAM DRIVE CORNWALL ON K6J 2N4

Database: ***GEN***

Generator No:	ON0490313	***Status:***	
SIC Code:	4911	***Co Admin:***	
SIC Description:	ELECT. POWER SYS.	***Choice of Contact:***	
Approval Years:	86,87,88	***Phone No Admin:***	
PO Box No:		***Contam. Facility:***	
Country:		***MHSW Facility:***	

Detail(s)

Waste Class:	148
Waste Class Desc:	INORGANIC LABORATORY CHEMICALS
Waste Class:	213
Waste Class Desc:	PETROLEUM DISTILLATES
Waste Class:	241
Waste Class Desc:	HALOGENATED SOLVENTS
Waste Class:	251
Waste Class Desc:	OIL SKIMMINGS & SLUDGES
Waste Class:	252
Waste Class Desc:	WASTE OILS & LUBRICANTS

Site: ***WEST FRONT CONSTRUCTION LIMITED***
NW CORNER POWER DAM DRIVE & CORNWALL CENTER ROAD LOT 18 CONC. 4 CORNWALL TOWNSHIP ON K6H 5T2

Database: ***GEN***

Generator No:	ON1077800	***Status:***	
SIC Code:	4219	***Co Admin:***	
SIC Description:	OTHER SITE WORK	***Choice of Contact:***	
Approval Years:	88,89,90	***Phone No Admin:***	
PO Box No:		***Contam. Facility:***	
Country:		***MHSW Facility:***	

Detail(s)

Waste Class:	213
Waste Class Desc:	PETROLEUM DISTILLATES

Site: ***WEST FRONT CONSTRUCTION LIMITED 41-287***
NW CORNER POWER DAM DRIVE & CORNWALL CENTER ROAD LOT 18 CONC. 4 CORNWALL TOWNSHIP ON K6H 5T2

Database: ***GEN***

Generator No:	ON1077800	***Status:***	
SIC Code:	4219	***Co Admin:***	
SIC Description:	OTHER SITE WORK	***Choice of Contact:***	
Approval Years:	94,95,96	***Phone No Admin:***	
PO Box No:		***Contam. Facility:***	
Country:		***MHSW Facility:***	

Detail(s)

Waste Class:	213
Waste Class Desc:	PETROLEUM DISTILLATES

Site:
Lot 19 Concession 5 Cornwall ON

Database:
LIMO

ECA/Instrument No:	X1041	***Natural Attenuation:***	
Oper Status 2016:	Historic	***Liners:***	
C of A Issue Date:		***Cover Material:***	
C of A Issued to:		***Leachate Off-Site:***	
Lndfl Gas Mgmt (P):		***Leachate On Site:***	
Lndfl Gas Mgmt (F):		***Req Coll Lndfll Gas:***	
Lndfl Gas Mgmt (E):		***Lndfll Gas Coll:***	
Lndfl Gas Mgmt Sys:		***Total Waste Rec:***	
Landfill Gas Mntr:		***TWR Methodology:***	
Leachate Coll Sys:		***TWR Unit:***	
ERC Est Vol (m3):		***Tot Aprv Cap Unit:***	
ERC Volume Unit:		***Financial Assurance:***	
ERC Dt Last Det:		***Last Report Year:***	
Landfill Type:		***MOE Region:***	
Source File Type:	Historic and Closed Landfills	***MOE District:***	
Fill Rate:		***Site County:***	
Fill Rate Unit:		***Lot:***	
Tot Fill Area (ha):		***Concession:***	
Tot Site Area (ha):		***Latitude:***	
Footprint:		***Longitude:***	
Tot Apprv Cap (m3):		***Easting:***	
Contam Atten Zone:		***Northing:***	
Grndwtr Mntr:		***UTM Zone:***	
Surf Wtr Mntr:		***Data Source:***	
Air Emis Monitor:			
Approved Waste Type:			
Client Site Name:			
ERC Methodology:			
Site Name:			
Site Location Details:	Lot 19 Concession 5 Cornwall		
Service Area:			
Page URL:			

Site: ***ONTARIO HYDRO-ST.LAWRENCE T.S.***
POWER DAM DRIVE CORNWALL ON K6H 5V1

Database:
NPCB

Company Code:	F1376
Industry:	UNDEFINED
Site Status:	
Transaction Date:	
Inspection Date:	

--Details--

Label:	F137600
Serial No.:	
PCB Type/Code:	MINERAL OIL/UNKNOWN
Location:	
Item/State:	BARREL MINERAL OIL/FULL
No. of Items:	17
Manufacturer:	
Status:	STORED FOR DISPOSAL
Contents:	3000 KG

Site: ***ONTARIO HYDRO - ST. LAWRENCE T.S.***
POWER DAM DRIVE CORNWALL ON K6H 5V1

Database:
NPCB

Company Code:	F1539
Industry:	
Site Status:	
Transaction Date:	1/29/1996
Inspection Date:	

--Details--
Label:
Serial No.:
PCB Type/Code: Askarel
Location:
Item/State:
No. of Items:
Manufacturer:
Status: Stored for Disposal
Contents: 24.00 KG

Site: ***ONTARIO HYDRO - ST. LAWRENCE T.S.***
POWER DAM DRIVE POWER DAM DRIVE CORNWALL ON K6H 5V1

Database: ***NPCB***

Company Code: F1356
Industry:
Site Status:
Transaction Date:
Inspection Date:

--Details--
Label:
Serial No.:
PCB Type/Code:
Location:
Item/State:
No. of Items:
Manufacturer:
Status: In-Storage
Contents:

Site: ***ONTARIO HYDRO - ST. LAWRENCE T.S.***
POWER DAM DRIVE CORNWALL ON K6H 5V1

Database: ***OPCB***

Year: 1998
Site Number: 40385A023
Name Owner:
Additional Site Information:

--Details--
Quantity: 3000.00
Address Site:
Description: Weight of Bulk Liquid with Low Level PCBs (< 1000 ppm) kg

Quantity: 6.00
Address Site:
Description: Number of Transformers with Low Level PCBs (< 1000 ppm) kg

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Site: ***ONTARIO HYDRO - ST. LAWRENCE T.S.***
POWER DAM DRIVE CORNWALL ON K6H 5V1

Database: ***OPCB***

Year: 1999
Site Number: 40385A023
Name Owner:
Additional Site Information:

--Details--
Quantity: 3.00
Address Site:
Description: Number of Drums of Ballasts with High Level PCBs (>1000 ppm)

Quantity: 600.00
Address Site:
Description: Calculated Weight (Kg) of Drums of Ballasts with High Level PCBs (>1000 ppm)

Quantity: 3000.00
Address Site:
Description: Weight of Bulk Liquid with Low Level PCBs (< 1000 ppm) kg

Quantity: 6.00
Address Site:
Description: Number of Transformers with Low Level PCBs (< 1000 ppm) kg

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Site: ***ONTARIO HYDRO - ST. LAWRENCE T.S.***
POWER DAM DRIVE CORNWALL ON K6H 5V1

Database: ***OPCB***

Year: 2000
Site Number: 40385A023
Name Owner:
Additional Site Information:

--Details--
Quantity: 3000.00
Address Site:
Description: Weight of Bulk Liquid with Low Level PCBs (< 1000 ppm) kg

Quantity: 6.00
Address Site:
Description: Number of Transformers with Low Level PCBs (< 1000 ppm) kg

Quantity: 3.00
Address Site:
Description: Number of Drums of Ballasts with High Level PCBs (>1000 ppm)

Quantity: 1.00
Address Site:
Description: Number of Drums of Soil with Low Level PCBs (< 1000 ppm) kg

Quantity: 600.00
Address Site:
Description: Calculated Weight (Kg) of Drums of Ballasts with High Level PCBs (>1000 ppm)

Quantity: 400.00
Address Site:
Description: Calculated Weight (Kg) of Drums of Soil with Low Level PCBs (< 1000 ppm) kg

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Site: ***ONTARIO HYDRO - ST. LAWRENCE T.S.***
POWER DAM DRIVE CORNWALL ON K6H 5V1

Database: ***OPCB***

Year: 1995
Site Number: 40385A023
Name Owner:
Additional Site Information:

--Details--
Quantity: 156.00
Address Site:
Description: Weight of Bulk Liquid with High Level PCBs (>1000 ppm) kg

Quantity: 1.00
Address Site:
Description: Weight of Liquid in Transformer with High Level PCBs (>1000 ppm) kg

Quantity: 1.00

Address Site:
Description: Number of Transformers with High Level PCBs (>1000 ppm)

Quantity: 6.00
Address Site:
Description: Number of Drums of Ballasts with High Level PCBs (>1000 ppm)

Quantity: 1200.00
Address Site:
Description: Weight of Drums of Ballasts with High Level PCBs (>1000 ppm) kg

Quantity: 12.00
Address Site:
Description: Number of Capacitors with High Level PCBs (>1000 ppm)

Quantity: 70.00
Address Site:
Description: Weight of Capacitors with High Level PCBs (>1000 ppm) kg

Quantity: 2673.00
Address Site:
Description: Weight of Bulk Liquid with Low Level PCBs (< 1000 ppm) kg

Quantity: 7.00
Address Site:
Description: Number of Transformers with Low Level PCBs (< 1000 ppm) kg

Quantity: 5.00
Address Site:
Description: Number of Drums of Soil with Low Level PCBs (< 1000 ppm) kg

Quantity: 2000.00
Address Site:
Description: Weight of Drums of Soil with Low Level PCBs (< 1000 ppm) kg

Quantity: 6.00
Address Site:
Description: Number of Drums of Other Material with Low Level PCBs (< 1000 ppm) kg

Quantity: 900.00
Address Site:
Description: Weight of Drums of Other Material with Low Level PCBs (< 1000 ppm) kg

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Site: ***ONTARIO HYDRO***
POWER DAM DRIVE CORNWALL ON

Database: ***REC***

ID:
Company ID:
Receiver No: 403-85A023
County Out:
Mail Addr:
Site PO Box:
Rec Div:
Rec Op Div:
Rec Op Name:
Site Bldg:
Facility Type: PCB STORAGE SITE
Approval Yrs: 2001; 2002; 2003; 2004; 2005; 2006; 2007; 2008

Phone No:
Province In: ONTARIO
Province Out:
Co Admin:
Choice of Contact:

Site: ***HYDRO ONE***
ST LAWRENCE T.S.,POWER DAM ROAD. TRANSFORMER CORNWALL CITY ON

Database: ***SPL***

Ref No: 200129
Site No:
Incident Dt: 5/7/2001
Year:
Incident Cause: PIPE/HOSE LEAK

Discharger Report:
Material Group:
Health/Env Conseq:
Client Type:
Sector Type:

Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	Possible	***Site Municipality:***	71101
Nature of Impact:	Soil contamination	***Site Lot:***	
Receiving Medium:	Land	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	5/7/2001	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	ERROR	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	HYDRO 0NE-UNKNOWN QTY TRANSFORMER OIL TO GROUNDCONTAINED.		
Contaminant Qty:			

Site: ***Aecon Construction Group Inc.***
Hwy 401 Cornwall ON

Database: ***SPL***

Ref No:	0377-97ZNCT	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	21-MAY-13	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	Leak/Break	***Sector Type:***	Other
Incident Event:		***Agency Involved:***	
Contaminant Code:	15	***Nearest Watercourse:***	
Contaminant Name:	HYDRAULIC OIL	***Site Address:***	Hwy 401
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	Not Anticipated	***Site Municipality:***	Cornwall
Nature of Impact:	Other Impact(s); Surface Water Pollution	***Site Lot:***	
Receiving Medium:		***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:	No Field Response	***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	24-MAY-13	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	Land Spills
Incident Reason:	Equipment Failure	***Source Type:***	
Site Name:	Highway 401 - east of Boundary Road - near MM 799<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Aecon Cnstr. Ltd: ~ 40 L hyd oil to grnd; cntnd & clnd		
Contaminant Qty:	40 L		

Site: ***Travelers Transportation Services Inc.***
Hwy 401 South Stormont ON

Database: ***SPL***

Ref No:	7176-8F2CQE	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	3/17/2011	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:		***Sector Type:***	Transport Truck
Incident Event:		***Agency Involved:***	
Contaminant Code:	13	***Nearest Watercourse:***	
Contaminant Name:	DIESEL FUEL	***Site Address:***	Hwy 401
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	Confirmed	***Site Municipality:***	South Stormont
Nature of Impact:	Soil Contamination	***Site Lot:***	

Receiving Medium:		***Site Conc:***	
Receiving Env:		***Northing:***	NA
MOE Response:	No Field Response	***Easting:***	NA
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	3/17/2011	***Site Map Datum:***	
Dt Document Closed:	3/29/2011	***SAC Action Class:***	Highway Spills (usually highway accidents)
Incident Reason:		***Source Type:***	
Site Name:	Eastbound 401 Highway, Mile Marker 779, Cornwall Township		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Travelers Transportation: 100L diesel to median		
Contaminant Qty:	100 L		

Site: ***WEST FRONT CONSTRUCTION SALVAG***
ST. LAWRENCE RIVER BARGE SOUTH STORMONT TOWNSHIP ON

Database: ***SPL***

Ref No:	47725	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	3/17/1991	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	UNKNOWN	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	POSSIBLE	***Site Municipality:***	71618
Nature of Impact:	Water course or lake	***Site Lot:***	
Receiving Medium:	LAND / WATER	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	OPP,MOE,CCG,MTO,FD,D.BROWN CONSTR.
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	3/17/1991	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	UNKNOWN	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	WEST FRONT CONSTRUC. SAL-VAGE-BARGE LEAKING 7L/MINCONT.H2O TO GRND & ST.LAW		
Contaminant Qty:			

Site: ***LEISCO***
HWY 401 TRANSPORT TRUCK (CARGO) SOUTH STORMONT TOWNSHIP ON

Database: ***SPL***

Ref No:	19880	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	9/14/1988	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	TRUCK/TRAILER OVERTURN	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	NOT ANTICIPATED	***Site Municipality:***	71618
Nature of Impact:		***Site Lot:***	
Receiving Medium:	LAND	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	OPP
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	9/14/1988	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	UNKNOWN	***Source Type:***	

Site Name:
Site County/District:
Site Geo Ref Meth:
Incident Summary: BACKENTRY - LEISCO 140 KG OF RESIN ON HWY FROM TRANSPORT
Contaminant Qty:

Site: ***ONTARIO HYDRO***
POWER DAM ROAD TRANSFORMER CORNWALL CITY ON

Database: ***SPL***

Ref No:	11111	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	10/31/1988	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	COOLING SYSTEM LEAK	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:		***Site Municipality:***	71101
Nature of Impact:		***Site Lot:***	
Receiving Medium:	LAND	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	10/31/1988	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	POWER INTERRUPTION	***Source Type:***	

Site Name:
Site County/District:
Site Geo Ref Meth:
Incident Summary: ONT. HYDRO - 150 LITRES MINERAL OIL TO GROUND < 2 PPM BY LAB. TEST.
Contaminant Qty:

Site:
lot 18 ON

Database: ***WWIS***

Well ID:	5803198	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	4/3/1990
Sec. Water Use:		***Selected Flag:***	TRUE
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	1414
Casing Material:		***Form Version:***	1
Audit No:	48646	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	STORMONT DUNDAS GLENGARRY
Elevation (m):		***Municipality:***	CORNWALL TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	018
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10416534	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	18
Code OB:		***East83:***	

Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 13-Mar-1990 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 932425716
Layer: 3
Color: 2
General Color: GREY
Mat1: 26
Most Common Material: ROCK
Mat2: 73
Mat2 Desc: HARD
Mat3:
Mat3 Desc:
Formation Top Depth: 39.0
Formation End Depth: 60.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425715
Layer: 2
Color: 2
General Color: GREY
Mat1: 34
Most Common Material: TILL
Mat2: 73
Mat2 Desc: HARD
Mat3:
Mat3 Desc:
Formation Top Depth: 19.0
Formation End Depth: 39.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425714
Layer: 1
Color: 6
General Color: BROWN
Mat1: 34
Most Common Material: TILL
Mat2: 73
Mat2 Desc: HARD
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 19.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933198909
Layer: 1
Plug From: 0.0
Plug To: 25.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965803198
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10965104
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930677306
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 39.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930677307
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

Results of Well Yield Testing

Pump Test ID: 995803198
Pump Set At:
Static Level: 20.0
Final Level After Pumping: 49.0
Recommended Pump Depth: 50.0
Pumping Rate: 5.0
Flowing Rate:
Recommended Pump Rate: 5.0
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: 934590367
Test Type:
Test Duration: 30
Test Level: 45.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934847350
Test Type:
Test Duration: 45
Test Level: 49.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935105500
Test Type:
Test Duration: 60
Test Level: 49.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934316497
Test Type:
Test Duration: 15
Test Level: 35.0
Test Level UOM: ft

Water Details

Water ID: 933899299
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 55.0
Water Found Depth UOM: ft

Site:
lot 16 ON

Database:
WWIS

Well ID: 5802838
Construction Date:
Primary Water Use: Cooling And A/C
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 06354
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 9/10/1987
Selected Flag: TRUE
Abandonment Rec:
Contractor: 4609
Form Version: 1
Owner:
Street Name:
County: STORMONT DUNDAS GLENGARRY
Municipality: CORNWALL TOWNSHIP
Site Info:
Lot: 016
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID:	10416177	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	18
Code OB:		***East83:***	
Code OB Desc:		***North83:***	
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	19-Jun-1987 00:00:00	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	na
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932424523
Layer:	8
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	74
Mat2 Desc:	LAYERED
Mat3:	
Mat3 Desc:	
Formation Top Depth:	120.0
Formation End Depth:	275.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932424522
Layer:	7
Color:	8
General Color:	BLACK
Mat1:	17
Most Common Material:	SHALE
Mat2:	74
Mat2 Desc:	LAYERED
Mat3:	
Mat3 Desc:	
Formation Top Depth:	105.0
Formation End Depth:	120.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932424517
Layer:	2
Color:	3
General Color:	BLUE
Mat1:	05
Most Common Material:	CLAY
Mat2:	77
Mat2 Desc:	LOOSE
Mat3:	

Mat3 Desc:
Formation Top Depth: 5.0
Formation End Depth: 11.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932424520
Layer: 5
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 71
Mat2 Desc: FRACTURED
Mat3:
Mat3 Desc:
Formation Top Depth: 73.0
Formation End Depth: 77.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932424519
Layer: 4
Color: 2
General Color: GREY
Mat1: 14
Most Common Material: HARDPAN
Mat2: 79
Mat2 Desc: PACKED
Mat3:
Mat3 Desc:
Formation Top Depth: 44.0
Formation End Depth: 73.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932424516
Layer: 1
Color: 6
General Color: BROWN
Mat1: 01
Most Common Material: FILL
Mat2: 28
Mat2 Desc: SAND
Mat3: 77
Mat3 Desc: LOOSE
Formation Top Depth: 0.0
Formation End Depth: 5.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932424521
Layer: 6
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE

Mat2: 74
Mat2 Desc: LAYERED
Mat3:
Mat3 Desc:
Formation Top Depth: 77.0
Formation End Depth: 105.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932424518
Layer: 3
Color: 2
General Color: GREY
Mat1: 11
Most Common Material: GRAVEL
Mat2: 73
Mat2 Desc: HARD
Mat3:
Mat3 Desc:
Formation Top Depth: 11.0
Formation End Depth: 44.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933198575
Layer: 1
Plug From: 2.0
Plug To: 77.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965802838
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10964747
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930676678
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To:
Casing Diameter: 8.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930676677

Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 77.0
Casing Diameter: 8.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 995802838
Pump Set At:
Static Level: 30.0
Final Level After Pumping: 30.0
Recommended Pump Depth: 200.0
Pumping Rate: 100.0
Flowing Rate:
Recommended Pump Rate: 100.0
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: 934589188
Test Type: Draw Down
Test Duration: 30
Test Level: 30.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934315317
Test Type: Draw Down
Test Duration: 15
Test Level: 30.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935104322
Test Type: Draw Down
Test Duration: 60
Test Level: 30.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934846170
Test Type: Draw Down
Test Duration: 45
Test Level: 30.0
Test Level UOM: ft

Water Details

Water ID: 933898928
Layer: 1

Kind Code: 2
Kind: SALTY
Water Found Depth: 171.0
Water Found Depth UOM: ft

Site:
lot 16 ON

Database:
WWIS

Well ID: 5804608
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 232433
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 12/7/2001
Selected Flag: TRUE
Abandonment Rec:
Contractor: 1414
Form Version: 1
Owner:
Street Name:
County: STORMONT DUNDAS GLENGARRY
Municipality: CORNWALL TOWNSHIP
Site Info:
Lot: 016
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10522204
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 08-Oct-2001 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 18
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 932851743
Layer: 1
Color: 6
General Color: BROWN
Mat1: 34
Most Common Material: TILL
Mat2: 73
Mat2 Desc: HARD
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: 932851745
Layer: 3
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 74
Mat2 Desc: LAYERED
Mat3:
Mat3 Desc:
Formation Top Depth: 49.0
Formation End Depth: 83.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932851744
Layer: 2
Color: 2
General Color: GREY
Mat1: 34
Most Common Material: TILL
Mat2: 73
Mat2 Desc: HARD
Mat3:
Mat3 Desc:
Formation Top Depth: 11.0
Formation End Depth: 49.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933224145
Layer: 1
Plug From: 0.0
Plug To: 20.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965804608
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 11070774
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930679946
Layer: 2
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To:
Casing Diameter: 6.0

Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930679947
Layer: 3
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To:
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930679945
Layer: 1
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To:
Casing Diameter: 9.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 995804608
Pump Set At:
Static Level: 28.0
Final Level After Pumping: 78.0
Recommended Pump Depth: 73.0
Pumping Rate: 6.0
Flowing Rate:
Recommended Pump Rate: 5.0
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: 934321484
Test Type: Recovery
Test Duration: 15
Test Level: 28.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934586583
Test Type: Recovery
Test Duration: 30
Test Level: 28.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934844124
Test Type: Recovery
Test Duration: 45
Test Level: 28.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935110466
Test Type: Recovery
Test Duration: 60
Test Level: 28.0
Test Level UOM: ft

Water Details

Water ID: 934014587
Layer: 1
Kind Code:
Kind:
Water Found Depth: 78.0
Water Found Depth UOM: ft

Site:
lot 18 ON

Database:
WWIS

Well ID: 5804411
Construction Date:
Primary Water Use:
Sec. Water Use:
Final Well Status:
Water Type:
Casing Material:
Audit No: 217140
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 5/2/2000
Selected Flag: TRUE
Abandonment Rec:
Contractor: 1414
Form Version: 1
Owner:
Street Name:
County: STORMONT DUNDAS GLENGARRY
Municipality: CORNWALL CITY
Site Info:
Lot: 018
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10417737
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 25-Mar-2000 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 18
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 932429547
Layer: 2
Color: 2
General Color: GREY
Mat1: 34
Most Common Material: TILL
Mat2: 73
Mat2 Desc: HARD
Mat3:
Mat3 Desc:
Formation Top Depth: 9.0
Formation End Depth: 40.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932429546
Layer: 1
Color: 6
General Color: BROWN
Mat1: 34
Most Common Material: TILL
Mat2: 73
Mat2 Desc: HARD
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 9.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932429548
Layer: 3
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 74
Mat2 Desc: LAYERED
Mat3:
Mat3 Desc:
Formation Top Depth: 40.0
Formation End Depth: 55.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933200061
Layer: 1
Plug From: 0.0
Plug To: 40.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965804411
Method Construction Code: 0

Method Construction: Not Known
Other Method Construction:

Pipe Information

Pipe ID: 10966307
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930679516
Layer: 1
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 40.0
Casing Diameter: 8.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930679518
Layer: 3
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 55.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930679517
Layer: 2
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 40.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 995804411
Pump Set At:
Static Level: 18.0
Final Level After Pumping: 50.0
Recommended Pump Depth: 50.0
Pumping Rate: 5.0
Flowing Rate:
Recommended Pump Rate: 5.0
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: 934843546
Test Type: Recovery
Test Duration: 45
Test Level: 18.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934594773
Test Type: Recovery
Test Duration: 30
Test Level: 18.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935109887
Test Type: Recovery
Test Duration: 60
Test Level: 18.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934320905
Test Type: Recovery
Test Duration: 15
Test Level: 18.0
Test Level UOM: ft

Water Details

Water ID: 933900648
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 50.0
Water Found Depth UOM: ft

Site:
lot 19 ON

Database:
WWIS

Well ID: 5804410
Construction Date:
Primary Water Use: Not Used
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 217145
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 5/2/2000
Selected Flag: TRUE
Abandonment Rec:
Contractor: 1414
Form Version: 1
Owner:
Street Name:
County: STORMONT DUNDAS GLENGARRY
Municipality: CORNWALL CITY
Site Info:
Lot: 019
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID:	10417736	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	18
Code OB:		***East83:***	
Code OB Desc:		***North83:***	
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	26-Mar-2000 00:00:00	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	na
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932429543
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	34
Most Common Material:	TILL
Mat2:	73
Mat2 Desc:	HARD
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	8.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932429545
Layer:	3
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	74
Mat2 Desc:	LAYERED
Mat3:	
Mat3 Desc:	
Formation Top Depth:	40.0
Formation End Depth:	80.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932429544
Layer:	2
Color:	2
General Color:	GREY
Mat1:	34
Most Common Material:	TILL
Mat2:	73
Mat2 Desc:	HARD
Mat3:	

Mat3 Desc:
Formation Top Depth: 8.0
Formation End Depth: 40.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933200060
Layer: 1
Plug From: 0.0
Plug To: 40.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965804410
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10966306
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930679514
Layer: 2
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 40.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930679515
Layer: 3
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 80.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930679513
Layer: 1
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 40.0
Casing Diameter: 8.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID:	995804410
Pump Set At:	
Static Level:	20.0
Final Level After Pumping:	78.0
Recommended Pump Depth:	70.0
Pumping Rate:	2.0
Flowing Rate:	
Recommended Pump Rate:	2.0
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:	934843545
Test Type:	Recovery
Test Duration:	45
Test Level:	25.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	935109886
Test Type:	Recovery
Test Duration:	60
Test Level:	24.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934320904
Test Type:	Recovery
Test Duration:	15
Test Level:	40.0
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934594772
Test Type:	Recovery
Test Duration:	30
Test Level:	35.0
Test Level UOM:	ft

Water Details

Water ID:	933900647
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	70.0
Water Found Depth UOM:	ft

Site:
lot 19 ON

Database:
WWIS

Well ID:	5802777	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	3/16/1987
Sec. Water Use:		***Selected Flag:***	TRUE
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	4609
Casing Material:		***Form Version:***	1
Audit No:	NA	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	STORMONT DUNDAS GLENGARRY
Elevation (m):		***Municipality:***	CORNWALL TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	019
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10416116	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	18
Code OB:		***East83:***	
Code OB Desc:		***North83:***	
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	10-Jul-1986 00:00:00	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	na
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932424298
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	14
Most Common Material:	HARDPAN
Mat2:	12
Mat2 Desc:	STONES
Mat3:	12
Mat3 Desc:	STONES
Formation Top Depth:	0.0
Formation End Depth:	9.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932424300
Layer:	3
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE

Mat2: 74
Mat2 Desc: LAYERED
Mat3:
Mat3 Desc:
Formation Top Depth: 51.0
Formation End Depth: 85.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932424299
Layer: 2
Color: 2
General Color: GREY
Mat1: 14
Most Common Material: HARDPAN
Mat2: 12
Mat2 Desc: STONES
Mat3: 12
Mat3 Desc: STONES
Formation Top Depth: 9.0
Formation End Depth: 51.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933198517
Layer: 1
Plug From: 5.0
Plug To: 50.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965802777
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10964686
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930676560
Layer: 2
Material:
Open Hole or Material:
Depth From:
Depth To: 85.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930676559

Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 52.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 995802777
Pump Set At:
Static Level: 15.0
Final Level After Pumping: 55.0
Recommended Pump Depth: 60.0
Pumping Rate: 8.0
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:
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 934588711
Test Type: Draw Down
Test Duration: 30
Test Level: 40.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934845693
Test Type: Draw Down
Test Duration: 45
Test Level: 50.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934314840
Test Type: Draw Down
Test Duration: 15
Test Level: 30.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935112615
Test Type: Draw Down
Test Duration: 60
Test Level: 55.0
Test Level UOM: ft

Water Details

Water ID: 933898865
Layer: 1

Kind Code: 1
Kind: FRESH
Water Found Depth: 80.0
Water Found Depth UOM: ft

Site:
lot 16 ON

Database:
WWIS

Well ID: 5803187
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 48273
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 3/20/1990
Selected Flag: TRUE
Abandonment Rec:
Contractor: 1414
Form Version: 1
Owner:
Street Name:
County: STORMONT DUNDAS GLENGARRY
Municipality: CORNWALL CITY
Site Info:
Lot: 016
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10416523
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 09-Mar-1990 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 18
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 932425686
Layer: 3
Color: 2
General Color: GREY
Mat1: 26
Most Common Material: ROCK
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 32.0
Formation End Depth: 60.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425684
Layer: 1
Color: 6
General Color: BROWN
Mat1: 34
Most Common Material: TILL
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 8.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425685
Layer: 2
Color: 2
General Color: GREY
Mat1: 26
Most Common Material: ROCK
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 8.0
Formation End Depth: 32.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933198898
Layer: 1
Plug From: 0.0
Plug To: 22.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965803187
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10965093
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930677284
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: 930677285
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

Results of Well Yield Testing

Pump Test ID: 995803187
Pump Set At:
Static Level: 20.0
Final Level After Pumping: 50.0
Recommended Pump Depth: 50.0
Pumping Rate: 3.0
Flowing Rate:
Recommended Pump Rate: 3.0
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: 934847339
Test Type: Draw Down
Test Duration: 45
Test Level: 50.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935105489
Test Type: Draw Down
Test Duration: 60
Test Level: 50.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934316486
Test Type: Draw Down
Test Duration: 15
Test Level: 35.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934590356
Test Type: Draw Down
Test Duration: 30
Test Level: 45.0

Test Level UOM: ft

Water Details

Water ID: 933899288
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 55.0
Water Found Depth UOM: ft

Site:
lot 18 ON

Database:
WWIS

Well ID: 5803162
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 48605
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 12/27/1989
Selected Flag: TRUE
Abandonment Rec:
Contractor: 1414
Form Version: 1
Owner:
Street Name:
County: STORMONT DUNDAS GLENGARRY
Municipality: CORNWALL TOWNSHIP
Site Info:
Lot: 018
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10416498
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 20-Nov-1989 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 18
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 932425613
Layer: 2
Color: 2
General Color: GREY
Mat1: 26
Most Common Material: ROCK
Mat2: 73
Mat2 Desc: HARD
Mat3:
Mat3 Desc:

Formation Top Depth: 51.0
Formation End Depth: 64.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425612
Layer: 1
Color: 6
General Color: BROWN
Mat1: 34
Most Common Material: TILL
Mat2: 73
Mat2 Desc: HARD
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 51.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933198875
Layer: 1
Plug From: 0.0
Plug To: 25.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965803162
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10965068
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930677247
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

Construction Record - Casing

Casing ID: 930677248
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:

Depth To: 64.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 995803162
Pump Set At:
Static Level: 17.0
Final Level After Pumping: 54.0
Recommended Pump Depth: 55.0
Pumping Rate: 5.0
Flowing Rate:
Recommended Pump Rate: 5.0
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: 934847315
Test Type: Draw Down
Test Duration: 45
Test Level: 54.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934590332
Test Type: Draw Down
Test Duration: 30
Test Level: 50.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935105468
Test Type: Draw Down
Test Duration: 60
Test Level: 54.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934316462
Test Type: Draw Down
Test Duration: 15
Test Level: 42.0
Test Level UOM: ft

Water Details

Water ID: 933899262
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 62.0
Water Found Depth UOM: ft

Site:
lot 18 ON

Database:
WWIS

Well ID:	5803040	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	1/19/1989
Sec. Water Use:		***Selected Flag:***	TRUE
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	1414
Casing Material:		***Form Version:***	1
Audit No:	40184	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	STORMONT DUNDAS GLENGARRY
Elevation (m):		***Municipality:***	CORNWALL TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	018
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10416378	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	18
Code OB:		***East83:***	
Code OB Desc:		***North83:***	
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	12-Jan-1987 00:00:00	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	na
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932425210
Layer:	4
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	73
Mat2 Desc:	HARD
Mat3:	
Mat3 Desc:	
Formation Top Depth:	56.0
Formation End Depth:	83.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932425208
Layer:	2
Color:	2

General Color: GREY
Mat1: 34
Most Common Material: TILL
Mat2: 73
Mat2 Desc: HARD
Mat3:
Mat3 Desc:
Formation Top Depth: 8.0
Formation End Depth: 51.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425209
Layer: 3
Color: 2
General Color: GREY
Mat1: 11
Most Common Material: GRAVEL
Mat2: 73
Mat2 Desc: HARD
Mat3:
Mat3 Desc:
Formation Top Depth: 51.0
Formation End Depth: 56.0
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932425207
Layer: 1
Color: 6
General Color: BROWN
Mat1: 34
Most Common Material: TILL
Mat2: 73
Mat2 Desc: HARD
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 8.0
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933198760
Layer: 1
Plug From: 0.0
Plug To: 20.0
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965803040
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 10964948

Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930677028
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 83.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930677027
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 56.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 995803040
Pump Set At:
Static Level: 22.0
Final Level After Pumping: 70.0
Recommended Pump Depth: 75.0
Pumping Rate: 11.0
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: 2
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 934589798
Test Type: Draw Down
Test Duration: 30
Test Level: 65.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935104934
Test Type: Draw Down
Test Duration: 60
Test Level: 70.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934846781
Test Type: Draw Down
Test Duration: 45
Test Level: 70.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934315927
Test Type: Draw Down
Test Duration: 15
Test Level: 35.0
Test Level UOM: ft

Water Details

Water ID: 933899136
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 81.0
Water Found Depth UOM: ft

Site:
lot 18 ON

Database:
WWIS

Well ID: 5802991
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 25511
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 8/15/1988
Selected Flag: TRUE
Abandonment Rec:
Contractor: 1517
Form Version: 1
Owner:
Street Name:
County: STORMONT DUNDAS GLENGARRY
Municipality: CORNWALL TOWNSHIP
Site Info:
Lot: 018
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10416329
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 13-Jul-1988 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 18
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID:	932425048
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	02
Mat2 Desc:	TOPSOIL
Mat3:	05
Mat3 Desc:	CLAY
Formation Top Depth:	0.0
Formation End Depth:	8.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932425050
Layer:	3
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	25.0
Formation End Depth:	110.0
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932425049
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	14
Most Common Material:	HARDPAN
Mat2:	12
Mat2 Desc:	STONES
Mat3:	11
Mat3 Desc:	GRAVEL
Formation Top Depth:	8.0
Formation End Depth:	25.0
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	933198713
Layer:	1
Plug From:	4.0
Plug To:	25.0
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	965802991
Method Construction Code:	4

Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10964899
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930676940
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 25.0
Casing Diameter: 6.0
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 995802991
Pump Set At:
Static Level: 4.0
Final Level After Pumping: 100.0
Recommended Pump Depth: 105.0
Pumping Rate: 2.0
Flowing Rate:
Recommended Pump Rate: 2.0
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code:
Water State After Test:
Pumping Test Method: 1
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 934589751
Test Type:
Test Duration: 30
Test Level: 80.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934315880
Test Type:
Test Duration: 15
Test Level: 65.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934846734
Test Type:
Test Duration: 45
Test Level: 100.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID:	935104887
Test Type:	
Test Duration:	60
Test Level:	100.0
Test Level UOM:	ft

Water Details

Water ID:	933899086
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	60.0
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: Provincial AAGR

The MAAP Program maintains a database of abandoned pits and quarries. 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*

Aggregate Inventory: Provincial AGR

The Ontario Ministry of Natural Resources maintains a database of all active 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 Nov 2021

Abandoned Mine Information System: Provincial 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-Oct 2018

Anderson's Waste Disposal Sites: Private 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

Aboveground Storage Tanks: Provincial AST

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: Private AUWR

This database provides an inventory of known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts & supplies industry. Information is provided on the company name, location and business type.

Government Publication Date: 1999-Sep 30, 2021

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 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

Certificates of Approval: Provincial CA

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). Please refer to those individual databases for any information after Oct.31, 2011.

Government Publication Date: 1985-Oct 30, 2011*

Dry Cleaning Facilities: Federal CDRY

List of dry cleaning facilities made available by Environment and Climate Change Canada. Environment and Climate Change Canada's Tetrachloroethylene (Use in Dry Cleaning and Reporting Requirements) Regulations (SOR/2003-79) are intended to reduce releases of tetrachloroethylene to the environment from dry cleaning facilities.

Government Publication Date: Jan 2004-Dec 2019

Commercial Fuel Oil Tanks: Provincial CFOT

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.

Government Publication Date: May 31, 2021

Chemical Manufacturers and Distributors: Private CHEM

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 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

Chemical Register: Private CHM

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-Sep 30, 2021

Compressed Natural Gas Stations: Private CNG

Canada has a network of public access compressed natural gas (CNG) refuelling stations. These stations dispense natural gas in compressed form at 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 Canadian Natural Gas Vehicle Alliance.

Government Publication Date: Dec 2012 -Nov 2021

Inventory of Coal Gasification Plants and Coal Tar Sites: Provincial COAL

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 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: Apr 1987 and Nov 1988*

Compliance and Convictions: Provincial CONV

This database summarizes the fines and convictions handed down by the Ontario courts beginning in 1989. Companies and individuals named here have been found guilty of environmental offenses in Ontario courts of law.

Government Publication Date: 1989-Jul 2021

Certificates of Property Use: Provincial CPU

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all CPU's on the registry such as (EPA s. 168.6) - Certificate of Property Use.

Government Publication Date: 1994 - Jan 31, 2022

Drill Hole Database: Provincial DRL

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 company map; or from submitted a "Report of Work".

Government Publication Date: 1886 - Sep 2020

Delisted Fuel Tanks: Provincial DTNK

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 regulatory agency under Access to Public Information.

Government Publication Date: May 31, 2021

Environmental Activity and Sector Registry: Provincial EASR

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. The EASR allows businesses to register certain 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 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- Jan 31, 2021

Environmental Registry: Provincial EBR

The Environmental Registry lists proposals, decisions and exceptions regarding policies, Acts, instruments, or regulations that could significantly affect 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, 2022

Environmental Compliance Approval: Provincial ECA

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- Jan 31, 2021

Environmental Effects Monitoring: Federal EEM

The Environmental Effects Monitoring program assesses the effects of effluent from industrial or other sources on fish, fish habitat and human usage of 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 Historical Searches: Private EHS

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-Nov 30, 2021

Environmental Issues Inventory System: Federal EIIS

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*

Emergency Management Historical Event: Provincial EMHE

List of locations of historical occurrences of emergency events, including those assigned to the Ministry of Natural Resources by Order-In-Council (OIC) 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: Dec 31, 2016

Environmental Penalty Annual Report: Provincial EPAR

This database contains data from Ontario's annual environmental penalty report published by the Ministry of the Environment and Climate Change. 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, 2020

List of Expired Fuels Safety Facilities: Provincial EXP

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: May 31, 2020

Federal Convictions: Federal FCON

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*

Contaminated Sites on Federal Land: Federal 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-Nov 2021

Fisheries & Oceans Fuel Tanks: Federal FOFT

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): Federal FRST

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: Provincial FST

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: May 31, 2021

Fuel Storage Tank - Historic: Provincial FSTH

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: Provincial GEN

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-Nov 30, 2021

Greenhouse Gas Emissions from Large Facilities: Federal GHG

List of greenhouse gas emissions from large facilities made available by Environment Canada. Greenhouse gas emissions in kilotonnes of carbon dioxide equivalents (kt CO2 eq).

Government Publication Date: 2013-Dec 2019

TSSA Historic Incidents: Provincial 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: Federal IAFT

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*

Fuel Oil Spills and Leaks: Provincial INC

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: May 31, 2021

Landfill Inventory Management Ontario: Provincial LIMO

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: Feb 28, 2019

Canadian Mine Locations: Private 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*

Mineral Occurrences: Provincial MNR

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-Dec 2020

National Analysis of Trends in Emergencies System (NATES): Federal NATE

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of 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: Provincial 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.

Government Publication Date: Dec 31, 2020

National Defense & Canadian Forces Fuel Tanks: Federal NDFT

The Department of National Defense and the Canadian Forces maintains an inventory of all aboveground & underground fuel storage tanks located on 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*

National Defense & Canadian Forces Spills: Federal NDSP

The Department of National Defense and the Canadian Forces maintains an inventory of spills to land and water. All spill sites have been classified 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

National Defence & Canadian Forces Waste Disposal Sites: Federal NDWD

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: Federal NEBI

Locations of pipeline incidents from 2008 to present, made available by the Canada Energy Regulator (CER) - previously the National Energy Board (NEB). Includes incidents reported under the Onshore Pipeline Regulations and the Processing Plant Regulations related to pipelines under federal jurisdiction, does not include incident data related to pipelines under provincial or territorial jurisdiction.

Government Publication Date: 2008-Jun 30, 2021

National Energy Board Wells: Federal NEBP

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.

Government Publication Date: 1920-Feb 2003*

National Environmental Emergencies System (NEES): Federal 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: Federal 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: Federal NPRI

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: Private OGWE

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, 2021

Ontario Oil and Gas Wells: Provincial 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 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 geology/stratigraphy table information, plus all water table information is also provide for each well record.

Government Publication Date: 1800-Jan 2021

Inventory of PCB Storage Sites: Provincial 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: Provincial ORD

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all Orders on the registry such as (EPA s. 17) - Order for 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, 2022

Canadian Pulp and Paper: Private 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: Federal PCFT

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*

Pesticide Register: Provincial PES

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- Jan 31, 2021

Pipeline Incidents: Provincial PINC

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: May 31, 2021

Private and Retail Fuel Storage Tanks: Provincial PRT

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).

Government Publication Date: 1989-1996*

Permit to Take Water: Provincial PTTW

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all PTTW's on the registry such as OWRA s. 34 - Permit to take water.

Government Publication Date: 1994 - Jan 31, 2022

Ontario Regulation 347 Waste Receivers Summary: Provincial 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.

Government Publication Date: 1986-1990, 1992-2019

Record of Site Condition: Provincial RSC

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-Jan 2022

Retail Fuel Storage Tanks: Private RST

This database includes an inventory of retail fuel outlet locations (including marinas) that have on their property gasoline, oil, waste oil, natural gas and / or propane storage tanks.

Government Publication Date: 1999-Sep 30, 2021

Scott's Manufacturing Directory: Private SCT

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.

Government Publication Date: 1992-Mar 2011*

Ontario Spills: Provincial SPL

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; Feb 2021-Mar 2021

Wastewater Discharger Registration Database: Provincial SRDS

Information under this heading is combination of the following 2 programs. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment maintained a database of all direct dischargers of toxic pollutants within nine sectors including: Electric Power Generation; Mining; Petroleum Refining; Organic Chemicals; Inorganic Chemicals; Pulp & Paper; Metal Casting; Iron & Steel; and Quarries. All sampling information is now collected and stored within the Sample Result Data Store (SRDS).

Government Publication Date: 1990-Dec 31, 2019

Anderson's Storage Tanks: Private 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.

Government Publication Date: 1915-1953*

Transport Canada Fuel Storage Tanks: Federal TCFT

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 - Dec 2020

Variances for Abandonment of Underground Storage Tanks: Provincial VAR

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: May 31, 2021

Waste Disposal Sites - MOE CA Inventory: Provincial WDS

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- Jan 31, 2021

Waste Disposal Sites - MOE 1991 Historical Approval Inventory: Provincial WDSH

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, 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*

Water Well Information System: 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: Sep 30, 2021

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.

Map Key: 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.'

Unplottables: 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.

APPENDIX D: SITE RECONNAISSANCE PHOTOGRAPHS

Photo #1 Rosedale Mechanical

Photo #2 Rosedale Mechanical

Photo #3 Fix Auto Collision Cornwall

Photo #4 Residential houses
and roadside ditches

Photo #5 Truck yard

Photo #6 Barn with horses

Photo #7
Farmlands