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Phase I Environmental Site Assessment 135 Lusk Street Ottawa, Ontario

KS1076

August 31, 2021

#### **EXECUTIVE SUMMARY**

CM3 Environmental was retained by Yuri Mendez Engineering (for 2441736 Ontario Inc.) to carry out a Phase I Environmental Site Assessment (ESA) for the property located at 135 Lusk Street, Ottawa, Ontario ('site\_ or 'subject property\_). The objective of the Phase I ESA was to identify potential or actual environmental concerns and/or liabilities on the site associated with activities at the site and/or from activities on surrounding properties. The Phase I ESA was completed for the pending development of the property. The Phase I ESA was not completed in support of the filing of a record of site condition (RSC).

The Phase I ESA was completed following the requirements of the Canadian Standards Association (CSA) Standard Z768-01 and Ontario Regulation (O. Reg.) 153/04. The Phase I ESA was completed under the supervision of Mr. Bruce Cochrane. Mr. Cochrane is a Professional Geologist (P.Geo), certified Environmental Practitioner (EP) and Ontario Ministry of Environment, Conservation and Parks, (MECP) Qualified Person (QP) who has practised in environmental site assessment and remediation for over 29 years.

The Phase I ESA was completed through a site inspection, interviews, and a records review consisting of aerial photographs, fire insurance plans, chain of title searches, Freedom of Information requests, and an Environmental Risk Information Services database search.

The subject property is irregular in shape and is bounded by Lusk Street to the north, a developed commercial property to the east (Hampton Inn & Suites), storm water management ponds and designated parks/open space area to the west and Fallowfield Road to the south. The total area of the subject property is approximately 6195 m² (0.62 ha). A portion of the subject lot was used during the construction of the adjacent property to the east (124 Lusk Street). There were several large stockpiles of fill, various construction materials, multiple steel storage containers and a mobile construction trailer on-site during the initial site assessment.

The historic records research did not identify any potentially contaminating activities (PCAs) at the subject property. The on-site assessment revealed multiple stockpiles of excess fill materials. The source and quality of the stockpiled material could not be confirmed and therefore they are considered PCAs. PCAs were not identified within the Phase I study area. PCAs were evaluated with respect to the location of the PCA, the associated contaminants of concern, (COCs), and the potential pathways/migration relative to the subject property. Consideration was also given to higher risk PCAs with respect to potential environmental liability. Areas of potential environmental concern (APEC) and COCs for the subject site were established based on the available information.

CM3 is recommending that a Phase II ESA be completed at the subject site for the on-site PCA. Contamination may be present due to the unknown quality of stockpiled fill that remains on-site. The stockpiled materials were considered the APECs. Metals, petroleum hydrocarbons (PHCs) in the F1 to F4 fractions, volatile organic compounds (VOCs) and polycyclic aromatic hydrocarbons were selected as the COCs.

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#### 1 INTRODUCTION

CM3 Environmental was retained by Yuri Mendez Engineering (for 2441736 Ontario Inc.) to carry out a Phase I ESA for the property located at 135 Lusk Street, Ottawa, Ontario (`site\_or `subject property ).

The objective of the Phase IESA was to identify potential or actual environmental concerns and/or liabilities on the site associated with activities at the site and/or from activities on surrounding properties. The Phase IESA was completed for the development of the subject site. The Phase IESA was not completed in support of the filing of a record of site condition (RSC).

#### 1.1 Phase I Property Information

The subject site is located on the south side of a cul-de-sac at the west end of Lusk Street in Ottawa, Ontario. The property is located between a newly developed commercial property (Hampton Inn & Suites) to the east and storm water management ponds and designated area for parks and open space to the west. Fallowfield Road boarders the south limits of the property. The civic address for the subject property is 135 Lusk Street, Ottawa, Ontario. The geoOttawa online mapping tool identifies the zoning information as IP <sup>-</sup> Business Park, Industrial Zone. A site survey plan was not provided for this Phase IESA. The site location is provided as Figure 1. Photographs of the site are provided in Appendix A.

At the time of the August 2021 Phase I ESA, the owner of the property was 2441736 Ontario Inc. The contact for 2441736 Ontario Inc is Mr. Raj Patel. Mr. Patel's contact information is:

2441736 Ontario Inc. 44 Manning Court Ottawa, Ontario K2K 3N3 613-307-0412

CM3 was retained by Mr. Yuri Mendez from Yuri Mendez Engineering. The contact information for Mr. Mendez is:

Yuri Mendez Engineering 196 Britannia Road Ottawa, Ontario K2B 5W9 613-899-0834

#### 2 SCOPE OF INVESTIGATION

The Phase I ESA was completed at the request of Yuri Mendez Engineering in support of the development of the subject property. The Phase I ESA was not completed in support of filing an RSC. The objective of the Phase I ESA was to evaluate the environmental condition of the subject property and properties within a 250 m radius of the property boundary (Phase I study area). The Phase I ESA included a review of current activities and historic activities/information for the subject property and Phase I study area to identify potentially contaminating activities (PCAs). If a PCA was identified, they were evaluated based on the site conditions to assess if they represented an area of potential environmental concern (APEC) at the subject property.

CM3 completed the Phase I ESA following the general requirements of the Canadian Standards Association (CSA) Standard Z768-01 (R2012) and with Ontario Regulation (O. Reg.) 153/04. The scope of work for the Phase I ESA included:

- ¿ A review of readily available historical documents, aerial photographs, and geology/soils maps,
- ¿ A review of records from municipal, provincial, and federal agencies and private source databases,
- ¿ Reconnaissance of the subject property,
- ¿ Interviews with persons knowledgeable of the history of the subject property, if available, and
- The evaluation of the information and preparation of the Phase IESA report.

#### 3 RECORDS REVIEW

#### 3.1 General

CM3 completed a review of historical records relevant to the subject property, including historical databases, geological maps, aerial photographs, and readily available reports. A radius of 250 m from the subject property was investigated to identify PCAs as provided by O. Reg. 153/04. Environmental Risk Information Services (ERIS), a private environmental information service, provided the majority of the historical records. A standard ERIS historical report was requested to provide records from governmental (Federal and Provincial) databases, and private source records, as outline in O. Reg. 153/04. An ERIS physical setting report (PSR) was also requested to provide physical information about the Phase I study area, including physiography, topography, surficial and bedrock geology and information about areas of natural and scientific interest. The ERIS request included an Opta Enviroscan report to provide fire insurance information relevant to the subject property. The findings of the historical records review are incorporated into the following sections.

#### 3.1.1 Phase I Study Area

The Phase I study area included the subject property and all properties partly or wholly within a 250 m radius of the property boundary. A radius of 250 m was selected based on the requirements provided by O. Reg. 153/04. The 250 m radius from the subject property boundary was determined to be sufficient. The Phase I study area did not include any properties beyond the 250 m radius. The Phase I study area is illustrated on Figure 2.

# 3.1.2 First Developed Use Determination

The first developed land use was determined based on the historical records search and historical aerial photographs from 1948 to 2019. The site remained undeveloped prior to the August 2021 Phase I ESA. The adjacent properties began development as commercial properties after 2017.

#### 3.1.3 Fire Insurance Plans

A fire insurance plan (FIP) search was requested from ERIS. No records were available within the Phase I Study area. The fire insurance documents are provided in Appendix B.

#### 3.1.4 Chain of Title

A chain of title search was requested from ERIS. Records have been ordered but have not been received prior to this report being issued. If additional information becomes available that may affect the findings of this Phase IESA, CM3 will provide an addendum to this report updating the findings.

# 3.1.5 City Directory Search

A city directory search was requested for the subject property but could not be completed due to Covid-19 building access restrictions. ERIS did not have any in-house coverage for this search selection.

#### 3.1.6 Environmental Reports

CM3 was not provided and is unaware of any environmental reports for the subject property.

#### 3.2 Environmental Source Information

# Freedom of Information Request

CM3 completed a freedom of information request for the property from the Ontario Ministry of Environment, Conservation and Parks (MECP). Records have been ordered but have not been received prior to this report being issued. If additional information becomes available that may affect the findings of this Phase I ESA, CM3 will provide an addendum to this report updating the findings. The freedom of information request is provided in Appendix C.

# **ERIS Records Review**

An ERIS historical records database search was requested for the site and the surrounding properties within a 250 m radius to cover the Phase I study area. The databases that were searched are listed in the ERIS documents, Appendix D. The search identified 34 records within the Phase I study area as of August 9, 2021. The records are summarized as follows:

#### **Subject Property**

No records were listed for the subject property.

Phase I Study Area (Surrounding Properties within 250 m radius)

- ¿ One borehole (BORE),
- ¿ Eleven Environmental Compliance Approvals (ECA),
- ¿ Thirteen ERIS historical searches (EHS),
- ¿ One Ontario Regulation 347 Waste Generators Summary (GEN), and
- ¿ Eight well records in the Water Well Information System (WWIS).

Details of the above are included in the ERIS documents, Appendix D.

All 35 of the off-site records were evaluated and determined to not represent PCAs.

A total of thirty-nine database search items were identified within the search radius but were unplottable sites (i.e., location unknown). The unplottable summary is provided in the ERIS report, Appendix D, and included:

- ¿ Seven Certificates of Approvals (CA),
- ¿ One Compliance and Convictions (CONV),
- ¿ Four Delisted Fuel Tanks (DTNK),
- ¿ Two Environmental Registry (EBR),
- ¿ Two Environmental Compliance Approvals (ECA),
- ¿ One ERIS Historical Searches (EHS),
- ¿ Three Ontario Regulation 347 Waste Generators Summaries (GEN),
- ¿ One National Pollutant Release Inventory (NPRI),
- ¿ Two Private and Retail Fuel Storage Tanks (PRT),
- ¿ Two Permit to take water (PTTW),
- ¿ Six Ontario Spills (SPL),
- ¿ One Wastewater Discharger Registration Database (SRDS), and
- ¿ Seven Water Well Information System (WWIS).

PCAs for the unplottable sites were not identified since the locations of the occurrences could not be confirmed. It is not anticipated the unplotted sites would have any negative environmental impact on the subject site.

# 3.3 Physical Setting Sources

#### 3.3.1 Aerial Photographs

Aerial photographs were obtained from the City of Ottawa geoOttawa GIS web application and LGI Copy Service. Air photographs from 1948, 1965, 1976, 1991, 1999, 2002, 2005, 2007, 2008, 2011, 2014, 2015, 2017 and 2019 were reviewed as part of this assessment. Photographs prior to 1948 were not reviewed. Observations from the aerial photographs are provided in the following table:

		Table 1: Aerial Photographs
Property	Date(s)	Observations
Subject	1948 <sup>-</sup> 1991	Site is undeveloped vacant land suspected agricultural land.
Property	1999	The site appeared to have been used during the construction of Hwy 416 and Fallowfield Road.
	2019	Site appears to be used during the construction of the adjacent site at 125 Lusk Street. Visible stockpiles of fill and storage containers and mobile construction offices and vehicles are visible in the 2019 photograph.
North	1948-2017	Adjacent land undeveloped vacant land and suspected agricultural use.
	1991	Sometime after 1991 Fallowfield Road was converted to O Keefe Cresent during the development of Highway 416 to the west (visible in the 1999 photo).  A sports field is visible in the 1991 air photograph at the west end of O Keefe Cresent.  A residential development is also visible in the 1991 photo to present.
	2019	Lusk S treet is visible in the 2019 photo.

		Table 1: Aerial Photographs
Property	Date(s)	Observations
East	1948-2017	Adjacent land undeveloped vacant with a rectangular wooded area.
	1999	Beyond the adjacent property, Fallowfield Road was diverted towards the south and resumes towards Highway 416 to the west prior to the 1999 photo.
	2015	Beyond Fallowfield Road, ongoing residential development has begun.
	2019	Commercial development on the adjacent property (Hampton Inn & Suites).
South	1948 - 1991	Undeveloped vacant land and suspected agricultural adjacent and beyond.
	1999	Fallowfield Road is visible running east to west.
	2015	Beyond Fallowfield Road, Citygate Drive and Cross Key Place are visible.
	2017 <sup>-</sup> Present	Commercial buildings and parking lots are visible beyond Fallowfield Road.
West	1948 <sup>-</sup> 1991	Undeveloped vacant land and suspected agricultural use.
	1999	The area appeared to be to have been used during the construction of Hwy 416 and Fallowfield Road.
	2019	S torm water management system appears to be constructed.

The on-site stockpiles of unknow fill were identified as a PCAs. The air photograph from 1948 is provided in Appendix E. The geoOttawa GIS maps can be found at https://maps.ca/geoottawa/. Air photographs from geoOttawa are not provided due to copyright laws.

# 3.3.2 Topography, Hydrology and Geology

The site is relatively flat lying at an approximate elevation of 102.89 m above sea level (m asl) and slopes south-south-west. The topography is shown on the Ontario Base map provided in the ERIS PSR, Appendix F.

The PSR hydrologic information shows that all identified wetlands were beyond the Study area. The location of the wetland/swamp areas are shown on the Ontario Base map provided in the ERIS PSR, Appendix F.

The regional groundwater flow direction was inferred based on the topography at the subject property and surrounding area and the presence of local water bodies. The regional groundwater flow is inferred to be southeast towards the Jock River that flows east towards the Rideau River. The Jock River and Rideau River are located beyond the study area.

The surficial geology of the subject property was interpreted from the Ontario Geological Survey, 2010, Surficial Geology of Southern Ontario (Miscellaneous Releases) summarized in the ERIS PSR. The surficial geology at the subject property is described as offshore marine deposits, quaternary (Champlain Sea). Materials consist of clay, silty clay and silt, commonly calcareous and fossiliferous; locally overlain by thin sand. Upper parts are generally molted or laminated reddish brown and bluish grey and may contain lenses and pockets of sand, but at depth the clay

is uniform and blue grey. The surficial geology and soils maps are provided in the ERIS PSR, Appendix F.

The bedrock geology of the subject property was interpreted from the Bedrock Geology of Ontario (Miscellaneous Releases) summarized in the ERIS PSR. The subject site is in Unit ID 19237 and consists of limestone, dolostone, shale, arkose, sandstone, Ottawa Group; Simcoe Group; Shadow Lake Formation. The bedrock geology map is provided in the ERIS PSR, Appendix F.

#### 3.3.3 Fill Materials

Information regarding fill materials was not available. However, it is assumed that fill may have been imported from off-site in the 1990's during the development of Highway 416 and Fallowfield Road and during the recent construction of the adjacent property at 124 Lusk Street.

#### 3.3.4 Water Bodies, ANSI and Ground Water Information

There are no water bodies within the Phase I study area. The J ock River is located approximately 2.5 km south of the subject property and flows east to the Rideau River. The Rideau River is approximately 6.8 m east of the site.

The watercourses are visible in the 1976 to 2019 aerial photographs.

Areas of natural and scientific interest (ANSI) were not identified within the Phase I study area.

#### 3.4 Well Records

Eight well records for the Phase I study area were identified in the Ontario Water Well Information System. The well information is summarized in the following table:

	Table 2: Well Records						
Well Record	Use/ Status	Location Relative	Stratigraphy		Depth to Bedrock	Depth to Water	
Record	Status	to Site	Depth (m)	Description	(m)	(m)	
1535406	Observation Well	E ast- S outheast 141.2 m	0 ? 6	Silty, Sandy, Brown Silt, Clayey, Grey Boulders	No Information	No Information	
1527488	Public Cooling and A/C Water Supply	S outh S outhwest 143.5 m	0 <sup>-</sup> 7.62 7.62 <sup>-</sup> 44.2 44.2 <sup>-</sup> 91.4	Clay, Boulders, Grey Limestone, Grey Sandstone	7.62	2.4	
1527489	Public Cooling and A/C Water Supply	S outh S outhwest 143.5 m	0 <sup>-</sup> 7 7 - 44.2 44.2 <sup>-</sup> 88.4	Clay, Boulders, Grey Limestone, Grey S andstone	7	2.7	
1527903	Cooling and A/C Water Test Hole	S outh S outhwest 143.5 m	0 <sup>-</sup> 5.2 5.2 <sup>-</sup> 36 36 <sup>-</sup> 119.8	Clay, Boulders, Grey Limestone, Grey Sandstone, Limestone Fractured	5.2	No Information	

	Table 2: Well Records					
Well	Use/	Location	Stratigraphy		Depth to	Depth to
Record	Status	Relative to Site	Depth (m)	Description	Bedrock (m)	Water (m)
1528157	Commercial Cooling and A/C Water Supply	S outh S outhwest 143.5 m	0 <sup>-</sup> 5.4 5.4 <sup>-</sup> 48.8 48.8 <sup>-</sup> 83.8	S tones, Brown Limestone, Grey S andstone, Limestone, Layered	5.4	2.7
1534314	Not used Abandoned- Quality	S outh S outhwest 144.4 m	No Information	No Information	No Information	No Information
1534317	Not used Abandoned- Quality	S outh S outhwest 144.4 m	No Information	No Information	No Information	No Information
7337709	Domestic Water S upply	S outh S outhwest 144.4 m	0 <sup>-</sup> 1.2 1.2 <sup>-</sup> 4.3 4.3 - 93	Sand, Clay, Boulders, Brown Sand, Gravel, Brown Limestone, Layered, Medium-Grained, Grey	4.3	7.3

The well records are summarized in the ERIS Report, Appendix D.

# 3.5 Site Operating Records

General information regarding site operations was gathered during the site investigation. The information is incorporated into the appropriate sections of this report.

#### 4 INTERVIEWS

CM3 interviewed Mr. Yuri Mendez from Yuri Mendez Engineering by telephone, e-mail and onsite conversations. Mr. Mendez retained CM3 Environmental to complete a Phase I ESA at the subject site. The following information was obtained during the interviews:

- ¿ At the time of the August 2021 Phase I ESA, the subject site (135 Lusk Street) and adjacent site at (125 Lusk Street) were owned by 2441736 Ontario Inc.,
- ¿ The site was used as a staging area during the development of the adjacent site to the east (125 Lusk/Hampton Inn & Suites),
- ¿ Mr. Mendez was unaware of any previous development and/or environmental site assessment completed at the subject site, and
- ¿ Mr. Mendez indicated that the Phase I ESA and geotechnical assessment were being completed for a proposed development of a six-storey hotel building at the site.

#### 5 SITE RECONNAISSANCE

# 5.1 General Requirements

The site is currently undeveloped and appeared to be used during the construction of the Hampton Hotel & Suites on the adjacent property to the east. It appeared to be used for storage, staging and the location of the on-site mobile office.

Based on the past and current land use, the site would not be considered as an enhanced investigation property.

CM3 personnel conducted the initial site visits on August 12, 2021, between 1 pm and 3 pm. The site investigation was conducted by Mr. Kris Snider. Mr. Snider has over 14 years of experience in the environmental consulting industry. The Phase One ESA was supervised by Mr. Bruce Cochrane, P.Geo of CM3. The curriculum vitae for Kris and Bruce are provided in Appendix G.

On August 12, 2021, the weather was 25 degrees Celsius ( $\omega$ ) and partly sunny. CM3 inspected the entire site and adjacent properties. The Phase I study area and surrounding area were included in the site visit.

Photographs taken during the Phase I site investigation are included in Appendix A.

# 5.1.1 Subject Property Description

The subject property is irregular in shape and is bounded by Lusk Street to the north, a developed commercial property to the east (124 Lusk St. / Hampton Inn & Suites), storm water management ponds and designated parks/open space area to the west and Fallowfield Road to the south. The total area of the subject property is approximately 6195 m² (0.62 ha). A portion of the subject lot was used during the recent construction of the adjacent property to the east (Hampton Inn & Suites). There were several large stockpiles of fill, assorted construction materials, four steel storage containers and a mobile construction office trailer on-site.

The northern portion of the property used during the construction of the adjacent was cleared of vegetation and was mainly covered by silty sand, clay and cobbles. The area surrounding the mobile construction office was covered with imported gravel fill. Electrical service had been installed near the northeast corner of the property, providing power to the mobile office trailer. Several separate stockpiles of fill (mix of sand, silt, clay, organic vegetation, cobbles and boulders were located on-site). The south and west portion of the property was primarily covered with trees and vegetation.

The property sits slightly lower than the adjacent properties to the north and east and slopes to the south towards Fallowfield Road and towards the storm water control area to the west.

A site plan is provided as Figure 3. Photographs of the subject property are provided in Appendix A.

# 5.1.2 Adjacent Properties

The subject property is in an area zoned as business park industrial and parks and open space. The properties adjacent to, and surrounding the subject property are provided on Figure 4 and described in the following table:

	Table 3: Adjacent Property Use
Direction	Description
North adjacent	Dead End/Cul-De-Sac of Tusk Street.
North beyond	Undeveloped business park industrial property ¯ residential beyond
E ast adjacent	Hampton Inn & Suites
E ast beyond	Undeveloped business park industrial property <sup>–</sup> Fallowfield Road beyond, residential beyond
S outh adjacent	Fallowfield Road
S outh beyond	Commercial, business park industrial properties
West adjacent	Undeveloped land and storm water management ponds
West beyond	Undeveloped land and storm water management ponds <sup>-</sup> Hwy 416 beyond

Photographs of the adjacent properties are provided in Appendix A.

# 5.2 Specific Observations at the Phase I Property

# Structures and Buildings

There were four steel shipping containers and on mobile construction office trailer on-site during the Phase IESA site investigation. No permanent structures were located on the subject property. Photographs of the property and surrounding land uses are included in Appendix A.

#### Below Ground Structures

No below ground structures were observed during the Phase I ESA site investigation.

#### Storage Tanks

No aboveground or underground storage tanks were observed on the subject property during the Phase IESA site investigation.

#### Water Supply

The water supply for surrounding area is provided by City of Ottawa municipal water supply. However, the site is not currently serviced by a water supply.

The approximate location of the municipal and private water supply lines is illustrated on Figure 3, Site Plan.

# **Underground Utilities**

The subject property is undeveloped, however electrical service has been installed at the northeast corner of the property to service the mobile construction office trailer. There were no private water or sewer lines hooked up to the City of Ottawa municipal systems at the time of the Phase I ESA site investigation.

The approximate locations of the municipal and private underground utilities are illustrated on Figure 3 Site Plan.

# Features of On-Site Structures and Buildings

There were five steel shipping containers and one mobile construction office trailer on-site during the Phase IESA site investigation. No permanent structures were located on the subject property. Photographs of the property and surrounding land uses are included in Appendix A. CM3 did not observe any obvious areas of obvious staining and/or unidentified substances surrounding the structures.

Photographs of the building are included in Appendix A.

#### Wells

CM3 noted three borehole locations where a hight density polyethylene tube was installed. The boreholes and tubing were likely completed during a previous geotechnical survey of the property. CM3 is unaware of the results from any site assessment completed at the site. No other wells were observed on the subject property during the Phase IESA site investigation.

#### Sewage Works and Wastewater

Sewage and wastewater for the surrounding area is discharged to the City of Ottawa municipal sewer system. The subject property was not serviced by the City of Ottawa municipal sewage works at the time of the Phase I ESA site investigation.

#### **Ground Surface**

Ground cover at the site include several trees, ground vegetation (various weeds and grasses), areas of exposed soil (sand silt clay, cobbles, boulders) and imported gravel surrounding the mobile construction office trailer. Photographs of the ground cover are provided in Appendix A.

# Surface Water or Wetlands

Surface water and wetlands were identified within the Phase I study area. Several small puddles of water were observed on site, but no swamps, pond or wetlands were present on the subject property. Hydrologic information is provided in in the ERIS PSR, Appendix F.

# Railway Lines or Spurs

There were no railway lines or spurs at the subject property or within the Phase I study area.

# Areas of Stained Soil, Vegetation or Pavement

Areas of stained soil or vegetation were not identified during the Phase I ESA site investigation. Stressed Vegetation

Areas of stressed vegetation were not identified during the Phase IESA site investigation.

# Fill or Debris

Several stockpiles of fill were identified during the Phase I ESA site visit and are illustrated on Figure 3, Site Plan.

#### Potentially Contaminating Activities

Potentially contaminating activities (PCAs) are listed and numbered in O. Reg. 153/04, Schedule D; Table 2. Several areas of stockpiled soils were observed at the subject site. O. Reg. 153/04, Schedule D; Table 2 Item #30 identifies that importation of fill material of unknown quality is considered a PCA. CM3 is unaware of any documentation showing the quality of on-site stockpiled fill material and therefore the stockpiles are considered a PCA.

#### <u>Unidentified Substances</u>

Unidentified substances were not observed at the subject property.

#### Solid (Non-hazardous) Waste

Solid waste concerns were not observed at the subject property during the Phase I ESA site investigation.

#### Hazardous Waste

Hazardous wastes were not observed at the subject property.

#### Existing Groundwater Issues

Evidence of adverse groundwater conditions were not observed at the subject property.

#### Air Emissions

Negative air emissions were not observed at the subject property.

#### Designated Substances

Evidence of designated substances were not observed at the subject property.

# Polychlorinated Biphenyls (PCBs)

Evidence of PCBs were not observed at the subject property.

# Ozone-Depleting Materials

Evidence of Ozone depleting substances (ODSs) were not observed at the subject property.

# <u>Urea Foam Formaldehyde Insulation</u>

Evidence of Urea foam formaldehyde insulation (UFFI) was not observed at the subject property.

# Mould

Mould was not a concern with the undeveloped property.

# <u>Radon</u>

The radon risk was considered high as indicated in the ERIS PSR, Appendix F. However, radon testing would be required to conclusively rule out radon impacts.

# **Herbicides and Pesticides**

Herbicides and pesticides were not observed at the subject property.

#### **Dry-Cleaning Operations**

Dry-cleaning operations were not observed at the subject property or within the Phase I study area.

#### 5.2.1 Enhanced Investigation Property

The subject property was not considered an enhanced investigation property per O. Reg. 153/04.

#### 6 REVIEW AND EVALUATION OF FINDINGS

#### 6.1 Current and Past Uses

The subject property was likely used for agricultural purposes prior to the development of Highway 416 in the 1990 s. The historic and current property uses are provided in the following table:

	Table 4: Current and Past Property Uses				
Year	Property Use	Source(s)			
1965 - 1990	Undeveloped, possible agricultural use	Aerial photographs			
1990- 1999	Possibly used during the construction of Highway 416	Aerial photograph			
2002 - 2017	Undeveloped	Aerial photographs			
2019	Used during the construction of the Hampton Inn & Suites at 125 Lusk Street	Aerial photograph			

The past property uses prior to 1965 are not an environmental concern.

# 6.2 Potentially Contaminating Activity

Potentially Contaminating Activities (PCAs) are listed and numbered in O.Reg 153/04, Schedule D; Table 2. The PCAs identified at the subject property are provided in the following table and on Figure 5:

		Table 5: Subject P	t Property Potentially Contaminating Activities		
ME C P 153/0 4 R ef. No.	CM3 Loc. Ref. No.	PCA	Phase One ESA Source	Description of Activity and Location	
30	1	Importation of Fill Material of Unknow Quality	Site investigation and historic photographs	Possible use in the 1990's during the development of highway 416. The entire lot appeared to be used as a staging area and possibly stripped and/or backfilled.	
30	2	Importation of Fill Material of Unknow Quality	S ite Investigation and historic photographs	Used during the construction of the adjacent property to the east (Hampton Inn & Suites). Stockpiles of fill material on the north, west and south of the property.	

The PCAs identified on adjacent or off-site properties within the Phase I Study Area are provided in the following table and on Figure 5:

		Table 6: Phase I Stu	udy Area Potentially Contam	ninating Activities
ME C P 153/0 4 R ef. No.	CM3 Loc. Ref. No.	PCA	Phase One ESA Source	Description of Activity and Location
30	3	Importation of Fill Material of Unknow Quality	S ite Investigation and historic photographs	Construction of the adjacent property to the east (Hampton Inn & Suites).

#### 6.3 Areas of Potential Environmental Concern

Areas of potential environmental concern (APECs) were identified based on the findings of this Phase I ESA. The above PCAs were evaluated with respect to the location (source) of the PCA and the potential pathways/migration relative to the subject property and receptors at the subject property. The following APEC and contaminants of concern (COCs) were identified:

	Table 7:	Areas of Potential Environme	ental Concern
APEC	Location	Cause of Concern	COC
1	S ubject S ite	Unknown Fill Quality	VOCs, PHCs F1 <sup>-</sup> F4, PAHs and metals

VOCs Volatile organic compounds

PHCs Petroleum Hydrocarbons F1 to F4 Fractions

PAHs Polycyclic Aromatic Hydrocarbons

The location of the APEC is provided on Figure 6.

#### 6.4 Phase I Conceptual Site Model

A Phase I conceptual site model (CSM) was developed based on the information collected as part of the investigation. The surficial geology of the subject property is likely a sand, silt and clay with cobbles and boulders overlaying the limestone bedrock. The groundwater flow at the site is estimated to be west based on topography and the introduction of stormwater control ponds on the adjacent property to the west.

CM3 identified one PCA that was considered to create an APEC at the site due to unknown fill quality.

#### 7 CONCLUSIONS

The findings of the Phase IESA identified two Potentially Contaminating Activities (PCAs) on-site and one PCA off-site within the subject study area. All three PCAs were related to the unknown quality of fill materials. The PCAs were evaluated with respect to the condition, location (source) of the PCA and the potential pathways/migration relative to the subject property. Consideration was also given to higher risk PCAs with respect to potential environmental liability. Areas of potential environmental concern (APEC) and contaminants of concern (COCs) were established based on the available information. The two on-site PCAs were considered APECs due to the unknown quality of fill material that may have been used and or stockpiled on-site.

Based on the above, CM3 is recommending a Phase II ESA for 135 Lusk Street to address the concerns of potential soil and groundwater contamination related to the unknown fill quality used and or stockpiled on-site.

# 7.1 Requirement for a Phase II ESA

The Phase II would include laboratory testing of soil and groundwater at the APECs located on the subject site for VOCs, PHCs F1 to F4, PAHs and metals.

#### 8 REFERENCES

This Phase One Environmental Site Assessment report was prepared based on the following:

Ontario Ministry of Environment. Ontario Regulation 153/04 - Records of Site Condition - Part XV.1 of the Environmental Protection Act. Consolidated July 1, 2020.

Ontario Ministry of Environment, Conservation and Parks. Guide for completing phase one environmental site assessments under Ontario Regulation 153/04.

Canadian Standards Association Document Z768-01 (R2012). Phase I Environmental Site Assessment.

City of Ottawa geoOttawa GIS web application. https://maps.ottawa.ca/geoottawa/

#### 9 LIMITATIONS

This report has been prepared and the work referred to in this report has been undertaken by CM3 Environmental Inc. for 2441736 Ontario Inc. It is intended for the sole and exclusive use of 2441736 Ontario Inc., its affiliated companies and partners and their respective insurers, agents, employees and advisors. Any use, reliance on, or decision made by any person other than 2441736 Ontario Inc. based on this report is the sole responsibility of such other person. CM3 Environmental Inc. and 2441736 Ontario Inc. make no representation or warranty to any other person with regard to this report and the work referred to in this report, and they accept no duty of care to any other person or any liability or responsibility whatsoever for any losses, expenses, damages, fines, penalties or other harm that may be suffered or incurred by any other person as a result of the use of, reliance on, any decision made or any action taken based on this report or the work referred to in this report.

The investigation undertaken by CM3 Environmental Inc. with respect to this report and any conclusions or recommendations made in this report reflect CM3 Environmental Inc.'s judgement based on the site conditions observed at the time of the site inspection on the date(s) set out in this report and on information available at the time of preparation of this report. This report has been prepared for specific application to this site and it is based, in part, upon visual observation of the site, subsurface investigation at discrete locations and depths, and specific analysis of specific chemical parameters and materials during a specific time interval, all as described in this report. Unless otherwise stated, the findings cannot be extended to previous or future site conditions, portions of the site which were unavailable for direct investigation, subsurface locations which were not investigated directly, or chemical parameters, materials or analysis which were not addressed. Substances other than those addressed by the investigation may exist in areas of the site not investigated and concentrations of substances addressed which are different than those reported may exist in areas other than the location from which samples were taken.

If site conditions or applicable standards change or if any additional information becomes available at a future date, modifications to the findings, conclusions and recommendations in this report may be necessary.

Other than by 2441736 Ontario Inc., copying or distribution of this report or use of or reliance on the information contained herein, in whole or in part, is not permitted without the express written permission of CM3 Environmental Inc. Nothing in this report is intended to constitute or provide a legal opinion.

We trust that the above is satisfactory for your purposes at this time. Please feel free to contact the undersigned if you have any questions.

Yours sincerely,

CM3 Environmental Inc.

Kris Snider Project Manager

Bun Coch

Bruce Cochrane, P.Geo., QP, EP Principal



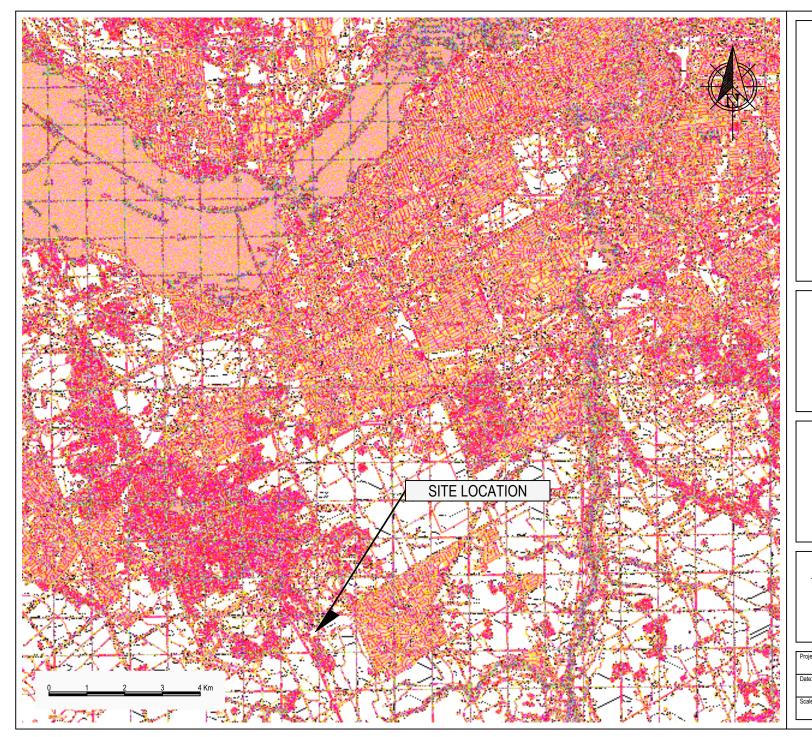
# **FIGURES**

Phase I Environmental Site Assessment

135 Lusk Street

Ottawa, Ontario

KS1076





CM3 ENVIRONMENTAL 5710 AKINS ROAD, OTTAWA, ON K2S 1B8

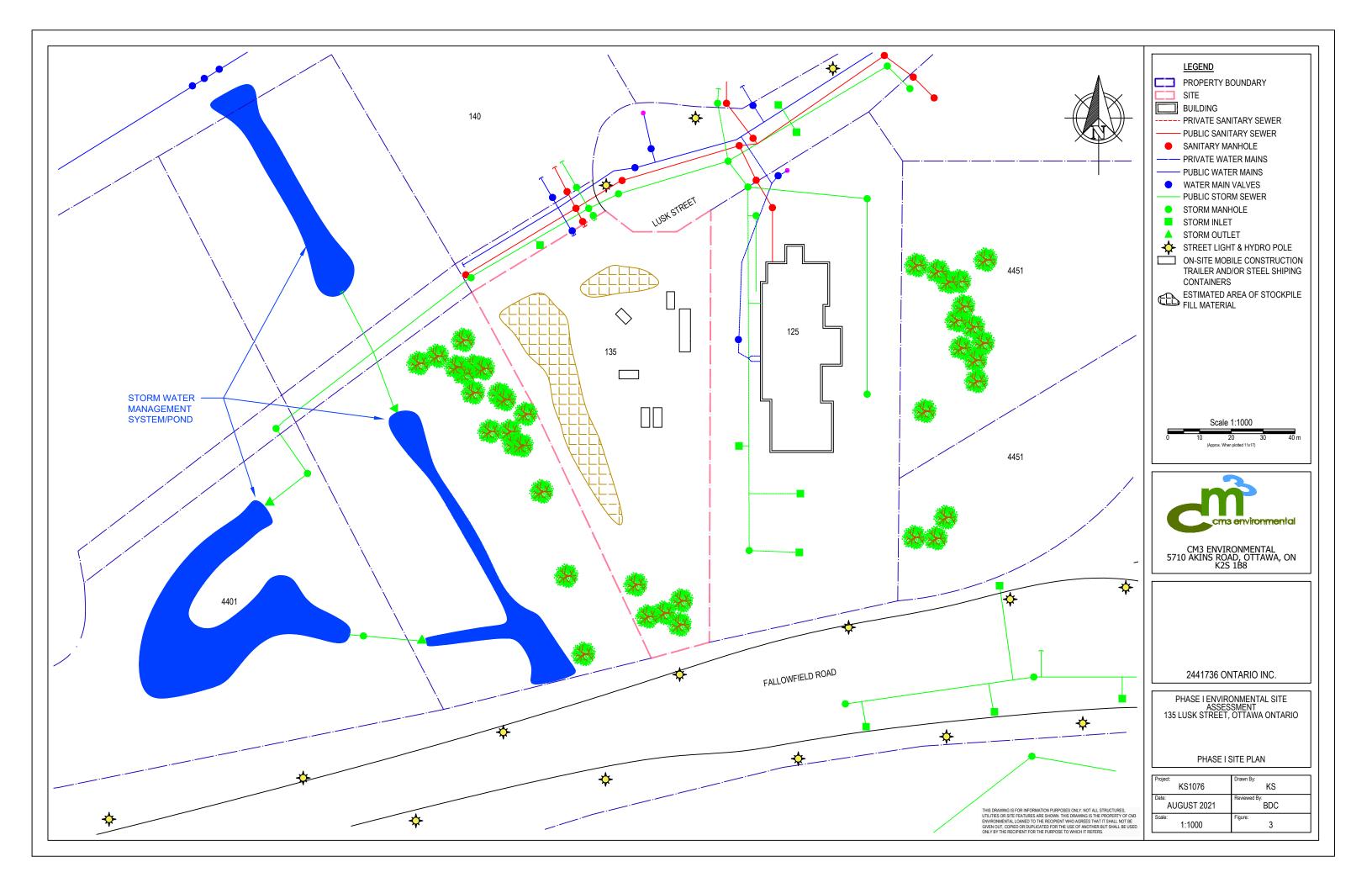
2441736 ONTARIO INC.

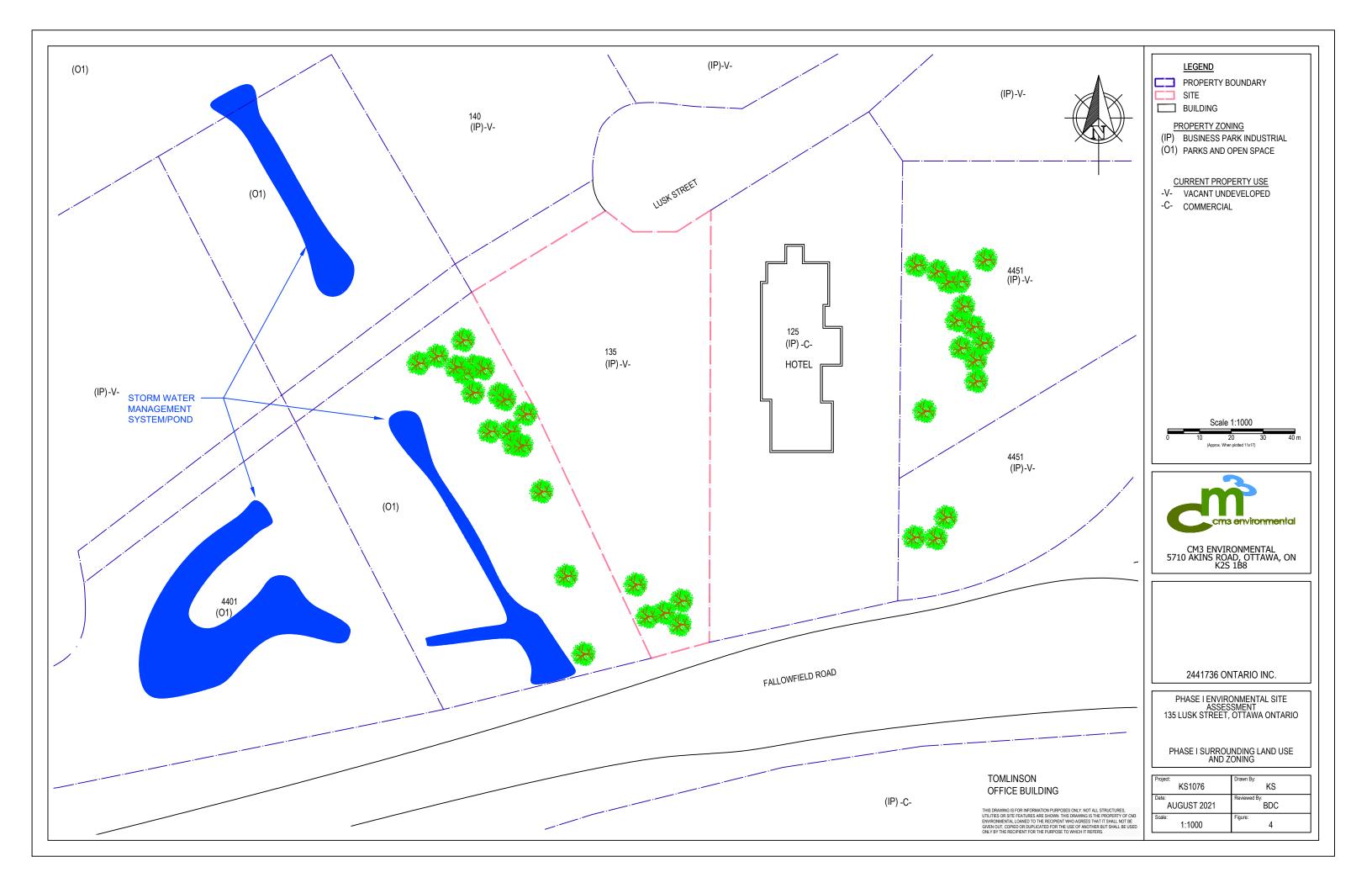
PHASE I ENVIRONMENTAL SITE ASSESSMENT 135 LUSK STREET, OTTAWA ONTARIO

SITE LOCATION

Project: KS1076	Drawn By: KS
Date: AUGUST 2021	Reviewed By: BDC
Scale: AS SHOWN	Figure:











# APPENDIX A PHOTOGRAPHS

Phase I Environmental Site Assessment

135 Lusk Street

Ottawa, Ontario

KS1076

APPENDIX A	m
PHOTOGRAPHS	C. chil mynoryshila
Client: 2441736 Ontario Inc.	Job Number: KS1076
Site Name: 135 Lusk Street,	Location: 135 Lusk Street
Ottawa, Ontario	Ottawa, Ontario
	K2J 6S5
Photographer: Kris Snider	<b>Date:</b> August 12, 2021



Photograph 1: Subject property view from cul-de-sac west end of Lusk St. (Photo facing south)



**Photograph 2:** Subject property view facing south from sidewalk.

APPENDIX A	m
PHOTOGRAPHS	C. chil mynoryshila
Client: 2441736 Ontario Inc.	Job Number: KS1076
Site Name: 135 Lusk Street,	Location: 135 Lusk Street
Ottawa, Ontario	Ottawa, Ontario
	K2J 6S5
Photographer: Kris Snider	<b>Date:</b> August 12, 2021



Photograph 3: Subject property view of two on-site steel shipping containers. (Photo facing south)



**Photograph 4:** Subject property view facing north.

APPENDIX A	m
PHOTOGRAPHS	C. chil mynoryshila
Client: 2441736 Ontario Inc.	Job Number: KS1076
Site Name: 135 Lusk Street,	Location: 135 Lusk Street
Ottawa, Ontario	Ottawa, Ontario
	K2J 6S5
Photographer: Kris Snider	<b>Date:</b> August 12, 2021



Photograph 5: Subject property fill material stockpile on north end of property. (Photo facing southeast)



Photograph 6: Subject property fill material stockpile west side of property. (Photo facing north)

APPENDIX A	m
PHOTOGRAPHS	C. chil mynoryshila
Client: 2441736 Ontario Inc.	Job Number: KS1076
Site Name: 135 Lusk Street,	Location: 135 Lusk Street
Ottawa, Ontario	Ottawa, Ontario
	K2J 6S5
Photographer: Kris Snider	<b>Date:</b> August 12, 2021



**Photograph 7:** Subject property west property line, chain-link fence separating site from storm water management area. (Photo facing southwest)



Photograph 8: Subject property south end of lot. View of slope towards Fallowfield Rd.

APPENDIX A	m
PHOTOGRAPHS	Canal Property Add
Client: 2441736 Ontario Inc.	Job Number: KS1076
Site Name: 135 Lusk Street,	Location: 135 Lusk Street
Ottawa, Ontario	Ottawa, Ontario
	K2J 6S5
Photographer: Kris Snider	<b>Date:</b> August 12, 2021



**Photograph 9:** One of several on-site former boreholes with high density polyethylene tubing .



**Photograph 10:** On-site electrical service located on northeast corner of property adjacent to mobile office trailer.

APPENDIX A	m
PHOTOGRAPHS	C. and a representation
Client: 2441736 Ontario Inc.	Job Number: KS1076
Site Name: 135 Lusk Street,	Location: 135 Lusk Street
Ottawa, Ontario	Ottawa, Ontario
	K2J 6S5
Photographer: Kris Snider	<b>Date:</b> August 12, 2021



**Photograph 11:** Front entrance of Hampton Inn & Suites adjacent property to the east at 124 Lusk St. (Photo facing southeast)



Photograph 12: Hampton Inn & Suites 124 Lusk St. (Photo facing northeast)

APPENDIX A	m
PHOTOGRAPHS	C. chil myresystika
Client: 2441736 Ontario Inc.	Job Number: KS1076
Site Name: 135 Lusk Street,	Location: 135 Lusk Street
Ottawa, Ontario	Ottawa, Ontario
	K2J 6S5
Photographer: Kris Snider	<b>Date:</b> August 12, 2021



**Photograph 13:** Lusk St. facing east from cul-de-sac..



**Photograph 14:** Path leading west from cul-de-sac towards park and storm management system ponds.

APPENDIX A	m
PHOTOGRAPHS	Coll symmetry
Client: 2441736 Ontario Inc.	Job Number: KS1076
Site Name: 135 Lusk Street,	Location: 135 Lusk Street
Ottawa, Ontario	Ottawa, Ontario
	K2J 6S5
Photographer: Kris Snider	<b>Date:</b> August 12, 2021



Photograph 15: Stormwater management pond adjacent to the west side of the subject site. (Photo facing south)



Photograph 16: Stormwater management pond adjacent to the west side of the subject site. (Photo facing west).

APPENDIX A	m
PHOTOGRAPHS	Controversity
Client: 2441736 Ontario Inc.	Job Number: KS1076
Site Name: 135 Lusk Street,	Location: 135 Lusk Street
Ottawa, Ontario	Ottawa, Ontario
	K2J 6S5
Photographer: Kris Snider	<b>Date:</b> August 12, 2021



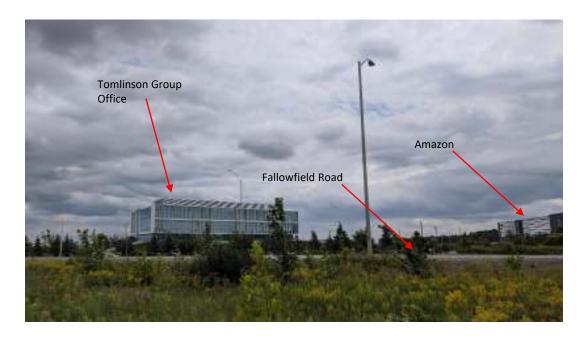
Photograph 17: Fallowfield Rd. adjacent to the south side of the property. (Photo facing west towards Hwy. 416)



**Photograph 18:** Fallowfield Rd. adjacent to the south side of the property. (Photo facing east towards intersection of Fallowfield Rd. & Strandherd Dr.)

## **CM3** Environmental Inc.

APPENDIX A	m
PHOTOGRAPHS	C. and a representation
Client: 2441736 Ontario Inc.	Job Number: KS1076
Site Name: 135 Lusk Street,	Location: 135 Lusk Street
Ottawa, Ontario	Ottawa, Ontario
	K2J 6S5
Photographer: Kris Snider	<b>Date:</b> August 12, 2021



Photograph 19: New office construction south beyond Fallowfield Rd.



Photograph 20: Undeveloped lot north side of Lusk St. across from subject site. (Photo facing north)

# CM3 Environmental Inc. 5710 Akins Road, Ottawa, Ontario, K2S 1B8

APPENDIX A	m
PHOTOGRAPHS	C. chil mynoryshila
Client: 2441736 Ontario Inc.	Job Number: KS1076
Site Name: 135 Lusk Street,	Location: 135 Lusk Street
Ottawa, Ontario	Ottawa, Ontario
	K2J 6S5
Photographer: Kris Snider	<b>Date:</b> August 12, 2021



**Photograph 21:** Beyond east side Hampton Inn & Suites along Lusk St. Undeveloped land with stockpiles of fill. (Photo facing northeast on Lusk St.)



**Photograph 22:** View of residential development east side of Fallowfield Rd. (Photo facing east at the intersection of Lusk and Fallowfield Rd.)

### **CM3** Environmental Inc.

5710 Akins Road, Ottawa, Ontario, K2S 1B8

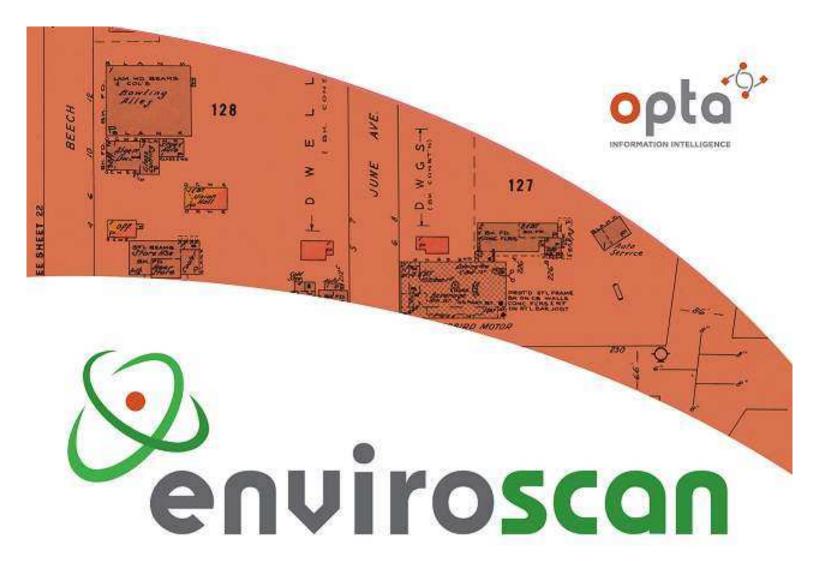
# APPENDIX B FIRE INSURANCE PLANS

Phase I Environmental Site Assessment

135 Lusk Street

Ottawa, Ontario

KS1076









An SCM Company

175 Commerce Valley Drive W Markham, Ontario L3T 7Z3

T: 905-882-6300 W: www.optaintel.ca

Report Completed By:

Midori

Site Address:

135 Lusk Street, Ottawa, ON Project No:

21071900557 Opta Order ID:

93622

Requested by:

Eleanor Goolab ERIS

Date Completed:

8/11/2021 7:49:46 AM

#### Page: 2

Project Name: 135 Lusk Street Ottawa Ontario Phase I ESA

Project #: 21071900557 P.O. #: KS1076

#### **ENVIROSCAN** Report

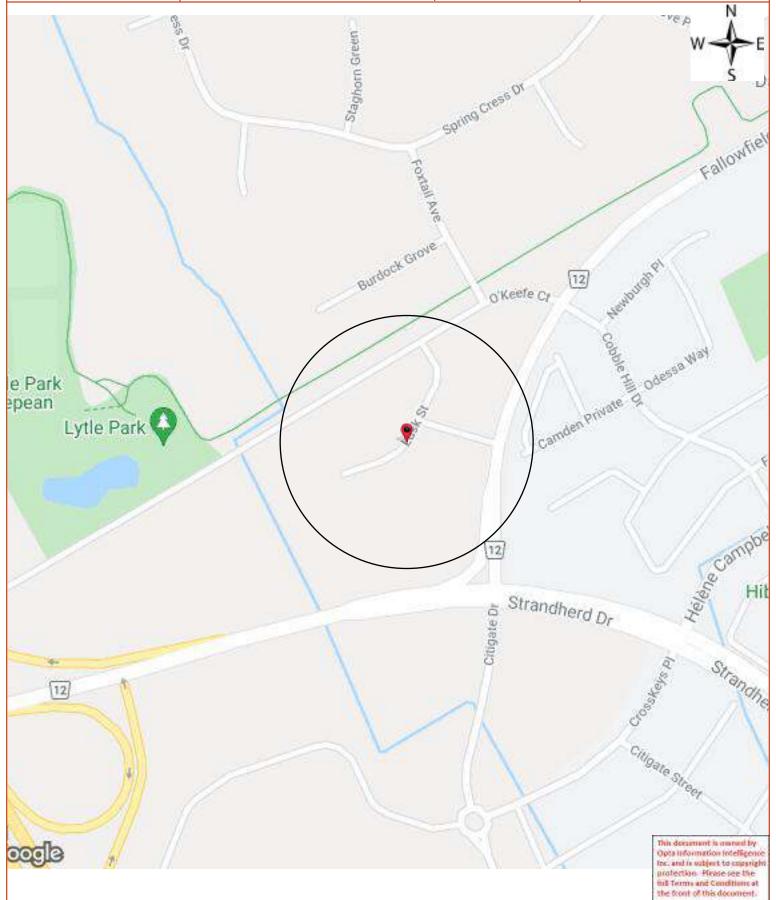
Search Area: 135 Lusk Street, Ottawa, ON

# enviro

OPTA INFORMATION INTELLIGENCE

Requested by:

Eleanor Goolab Date Completed: 08/11/2021 07:49:46



#### Page: 3

Project Name: 135 Lusk Street Ottawa Ontario Phase I ESA

Project #: 21071900557 P.O. #: KS1076

#### **ENVIROSCAN** Report

#### **Opta Historical Environmental Services Enviroscan Terms and Conditions**

Requested by: Eleanor Goolab

Date Completed: 08/11/2021 07:49:46



TΜ

## **Opta Historical Environmental Services Enviroscan Terms and Conditions**

#### Report

The documents (hereinafter referred to as the "Documents") to be released as part of the report (hereinafter referred to as the "Report") to be delivered to the purchaser as set out above are documents in Opta's records relating to the described property (hereinafter referred to as the "Property"). Opta makes no representations or warranties respecting the Documents whatsoever, including, without limitation, with respect to the completeness, accuracy or usefulness of the Documents, and does not represent or warrant that these are the only plans and reports prepared in association with the Property or in Opta's possession at the time of Report delivery to the purchaser. The Documents are current as of the date(s) indicated on them. Interpretation of the Documents, if any, is by inference based upon the information which is apparent and obvious on the face of the Documents only. Opta does not represent, warrant or guarantee that interpretations other than those referred to do not exist from other sources. The Report will be prepared for use by the purchaser of the services as shown above hereof only.

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#### **Entire Agreement**

The parties hereto acknowledge and agree to be bound by the terms and conditions hereof. The request form constitutes the entire agreement between the parties pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, negotiations and discussions, whether oral or written, and there are no representations or warranties, or other agreements between the parties in connection with the subject matter hereof except as specifically set forth herein. No supplement, modification, waiver, or termination of the request shall be binding, unless confirmed in writing by the parties hereto.

#### **Governing Document**

In the event of any conflicts or inconsistencies between the provisions hereof and the Reports, the rights and obligations of the parties shall be deemed to be governed by the request form, which shall be the paramount document.

#### Law

This agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.



175 Commerce Valley Drive W

Markham, Ontario

L3T 7Z3

T: 905.882.6300

**Toll Free:** 905.882.6300

F: 905.882.6300

An SCM Company

www.optaintel.ca

Page: 4
Project Name: 135 Lusk Street
Ottawa Ontario Phase I ESA

Project #: 21071900557 P.O. #: KS1076

#### **ENVIROSCAN** Report

**No Records Found** 

Requested by:

Eleanor Goolab Date Completed: 08/11/2021 07:49:46



## **No Records Found**

This document is morned by Opta information intelligence fre, and is subject to expenight profection. Please see the full Terms and Conditions at the front of this document.



# APPENDIX C

## FREEDOM OF INFORMATION REQUEST

Phase I Environmental Site Assessment

135 Lusk Street

Ottawa, Ontario

KS1076

#### Ministry of the Environment, Conservation and Parks

Access and Privacy Office

12<sup>th</sup> Floor 40 St. Clair Avenue West Toronto ON M4V 1M2

Tel: (416) 314-4075 Fax: (416) 314-4285 Ministère de l'Environnement, de la Protection de la nature et des Parcs

Bureau de l'accès à l'information et de la protection de la vie privée

12e étage 40, avenue St. Clair ouest Toronto ON M4V 1M2 Tél.: (416) 314-4075 Téléc.: (416) 314-4285



July 23, 2021

Kris Snider CM3 Environmental Inc 5710 Akins Rd Ottawa, ON K2S 1B8

Dear Kris Snider:

RE: Freedom of Information and Protection of Privacy Act Request
Our File # A-2021-03603, Your Reference KS1076 /20210723093250478

The Ministry is in receipt of your request made pursuant to the Freedom of Information and Protection of Privacy Act and has received your payment in the amount of \$5.00 (non-refundable application fee).

The search will be conducted on the following: 135 Lusk Street, Barrhaven, Ottawa. If there is any discrepancy please contact us immediately.

You may expect a reply or additional communication as your request is processed. For your information, the Ministry charges for search and preparation time.

Due to the COVID-19 outbreak, requesters may experience some delays with FOI requests at this time.

If you have any questions regarding this matter, please contact Nasreen Salar at or nasreen.salar@ontario.ca.

Yours truly,

Original signed by

Noel Kent Manager, Access and Privacy

# APPENDIX D ERIS REPORT

Phase I Environmental Site Assessment

135 Lusk Street

Ottawa, Ontario

KS1076



**Project Property:** 135 Lusk Street, Ottawa Ontario Phase I

ESA

135 Lusk Street

Ottawa ON K2J

**Project No:** KS1076

**Report Type:** Standard Report Order No: 21071900557

Requested by: CM3 Environmental Inc.

**Date Completed:** August 9, 2021

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#### Notice: IMPORTANT LIMITATIONS and YOUR LIABILITY

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

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## **Executive Summary**

#### **Property Information:**

Project Property: 135 Lusk Street, Ottawa Ontario Phase I ESA

135 Lusk Street Ottawa ON K2J

Project No: KS1076

Coordinates:

 Latitude:
 45.274091

 Longitude:
 -75.7883888

 UTM Northing:
 5,013,627.01

 UTM Easting:
 438,052.69

UTM Zone: 18T

Elevation: 331 FT

100.91 M

**Order Information:** 

 Order No:
 21071900557

 Date Requested:
 July 19, 2021

**Requested by: CM3** Environmental Inc. **Report Type:**Standard Report

**Historical/Products:** 

Aerial Photographs Aerials - National Collection

City Directory Search CD - Subject Site

Insurance Products Fire Insurance Maps/Inspection Reports/Site Plans

Land Title SearchHistorical Land Title SearchLand Title SearchCurrent Land Title Search

Physical Setting Report (PSR) PSR

## Executive Summary: Report Summary

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

Database	Name	Searched	Project Property	Within 0.25 km	Total
INC	Fuel Oil Spills and Leaks	Υ	0	0	0
LIMO	Landfill Inventory Management Ontario	Υ	0	0	0
MINE	Canadian Mine Locations	Υ	0	0	0
MNR	Mineral Occurrences	Υ	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Υ	0	0	0
NCPL	Non-Compliance Reports	Υ	0	0	0
NDFT	National Defense & Canadian Forces Fuel Tanks	Υ	0	0	0
NDSP	National Defense & Canadian Forces Spills	Υ	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal	Υ	0	0	0
NEBI	Sites National Energy Board Pipeline Incidents	Υ	0	0	0
NEBP	National Energy Board Wells	Υ	0	0	0
NEES	National Environmental Emergencies System (NEES)	Υ	0	0	0
NPCB	National PCB Inventory	Υ	0	0	0
NPRI	National Pollutant Release Inventory	Υ	0	0	0
OGWE	Oil and Gas Wells	Υ	0	0	0
OOGW	Ontario Oil and Gas Wells	Υ	0	0	0
OPCB	Inventory of PCB Storage Sites	Υ	0	0	0
ORD	Orders	Υ	0	0	0
PAP	Canadian Pulp and Paper	Υ	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Υ	0	0	0
PES	Pesticide Register	Υ	0	0	0
PINC	Pipeline Incidents	Υ	0	0	0
PRT	Private and Retail Fuel Storage Tanks	Υ	0	0	0
PTTW	Permit to Take Water	Υ	0	0	0
REC	Ontario Regulation 347 Waste Receivers Summary	Υ	0	0	0
RSC	Record of Site Condition	Υ	0	0	0
RST	Retail Fuel Storage Tanks	Υ	0	0	0
SCT	Scott's Manufacturing Directory	Υ	0	0	0
SPL	Ontario Spills	Υ	0	0	0
SRDS	Wastewater Discharger Registration Database	Υ	0	0	0
TANK	Anderson's Storage Tanks	Υ	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Υ	0	0	0
VAR	Variances for Abandonment of Underground Storage Tanks	Y	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Υ	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0
WWIS	Water Well Information System	Y	0	8	8
		Total:	0	34	34

## Executive Summary: Site Report Summary - Project Property

MapDBCompany/Site NameAddressDir/Dist (m)Elev diffPageKey(m)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	EHS		O'keefe Crt Ottawa On Ottawa ON	E/83.8	-0.06	<u>17</u>
<u>2</u>	BORE		ON	WNW/98.7	-0.03	<u>17</u>
<u>3</u>	ECA	2116885 Ontario Inc.	4401 Fallowfield Rd (Part Lot 20, Concession 4) Ottawa ON K2E 6T8	SE/139.4	-0.23	<u>18</u>
<u>3</u>	EHS		4401 Fallowfield Road Nepean ON K2R	SE/139.4	-0.23	<u>18</u>
<u>4</u> .	WWIS		FALLOWFIELD RD OTTAWA ON <i>Well ID</i> : 1535406	ESE/141.2	-0.03	<u>19</u>
<u>5</u> '	WWIS		lot 20 con 4 ON <i>Well ID</i> : 1527488	SSW/143.5	-1.03	<u>21</u>
<u>5</u>	WWIS		lot 20 con 4 ON <i>Well ID:</i> 1527489	SSW/143.5	-1.03	<u>25</u>
<u>5</u> .	WWIS		lot 20 con 4 ON <i>Well ID:</i> 1527903	SSW/143.5	-1.03	<u>29</u>
<u>5</u>	WWIS		lot 20 con 4 ON <i>Well ID</i> : 1528157	SSW/143.5	-1.03	<u>32</u>
<u>6</u>	WWIS		lot 20 con 4 ON <i>Well ID</i> : 1534314	SSW/144.4	-1.03	<u>37</u>
<u>6</u>	WWIS		lot 20 con 4 ON <i>Well ID:</i> 1534317	SSW/144.4	-1.03	<u>38</u>
<u>7</u>	WWIS		lot 20 con 4 ON	SSW/144.4	-1.03	<u>39</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
			<b>Well ID:</b> 1520817			
<u>8</u>	EHS		4451 Fallowfield Rd Nepean ON	ESE/146.5	-0.03	<u>42</u>
<u>9</u>	ECA	City of Ottawa	Lots 20 and 21, Concession 4 Ottawa ON K1P 1J1	SSW/150.0	-1.03	<u>43</u>
<u>10</u>	EHS		100 Lusk Street Ottawa ON K2R	NE/165.5	1.97	<u>43</u>
<u>10</u>	EHS		100 Lusk Street Ottawa ON K2R	NE/165.5	1.97	<u>43</u>
<u>10</u>	EHS		100 Lusk Street Ottawa ON K2R	NE/165.5	1.97	<u>43</u>
<u>10</u>	EHS		100 Lusk Street Ottawa ON K2R	NE/165.5	1.97	<u>44</u>
<u>11</u>	EHS		115 Lusk St Nepean ON K2J 4S2	ENE/169.3	1.97	<u>44</u>
<u>11</u>	EHS		115 Lusk St Nepean ON K2J 4S2	ENE/169.3	1.97	<u>44</u>
<u>11</u>	EHS		115 Lusk St Nepean ON K2J 4S2	ENE/169.3	1.97	<u>44</u>
<u>11</u>	EHS		115 Lusk St Nepean ON K2J 4S2	ENE/169.3	1.97	<u>44</u>
<u>11</u>	EHS		115 Lusk St Nepean ON K2J 4S2	ENE/169.3	1.97	<u>45</u>
<u>12</u>	EHS		Fallowfield Rd & Strandherd Dr Ottawa ON	ESE/205.1	0.66	<u>45</u>
<u>13</u> *	ECA	Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9	SE/232.3	-1.34	<u>45</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>13</u>	ECA	Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Nortel Dr, Crosskey Place, Systemhouse St, Dealership St, Philsar st Ottawa ON K2C 0P9	SE/232.3	-1.34	<u>45</u>
<u>13</u>	ECA	Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9	SE/232.3	-1.34	46
<u>13</u>	ECA	Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9	SE/232.3	-1.34	<u>46</u>
<u>13</u>	ECA	Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9	SE/232.3	-1.34	<u>46</u>
<u>13</u>	ECA	Zena Investment Corporation	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0A6	SE/232.3	-1.34	<u>46</u>
<u>13</u>	ECA	Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr 4175 Strandherd Drive for Sanitary and Storm Amendment Ottawa ON K2C 0P9	SE/232.3	-1.34	<u>47</u>
<u>13</u>	GEN	R.W. TOMLINSON LTD.	100 CITIGATE DRIVE OTTAWA ON K2J6K7	SE/232.3	-1.34	<u>47</u>
<u>13</u>	ECA	Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr 4175 Strandherd Drive for Sanitary and Storm Amendment Ottawa ON K2C 0P9	SE/232.3	-1.34	<u>47</u>
<u>14</u>	ECA	Strandherd Road Inc.	Strandherd Dr and Fallowfield Road Ottawa ON K2C 0P9	ESE/249.9	-0.75	<u>48</u>

## Executive Summary: Summary By Data Source

#### **BORE** - Borehole

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

Lower Elevation	<u>Address</u>	<b>Direction</b>	Distance (m)	Map Key
	ON	WNW	98.71	<u>2</u>

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

A search of the ECA database, dated Oct 2011- Jun 30, 2021 has found that there are 11 ECA site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	<u>Address</u>	<u>Direction</u>	Distance (m)	Map Key
2116885 Ontario Inc.	4401 Fallowfield Rd (Part Lot 20, Concession 4) Ottawa ON K2E 6T8	SE	139.40	<u>3</u>
City of Ottawa	Lots 20 and 21, Concession 4 Ottawa ON K1P 1J1	SSW	149.99	<u>9</u>
Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr 4175 Strandherd Drive for Sanitary and Storm Amendment Ottawa ON K2C 0P9	SE	232.31	<u>13</u>
Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr 4175 Strandherd Drive for Sanitary and Storm Amendment Ottawa ON K2C 0P9	SE	232.31	<u>13</u>
Zena Investment Corporation	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0A6	SE	232.31	<u>13</u>
Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9	SE	232.31	<u>13</u>
Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9	SE	232.31	<u>13</u>

Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9	SE	232.31	<u>13</u>
Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Nortel Dr, Crosskey Place, Systemhouse St, Dealership St, Philsar st Ottawa ON K2C 0P9	SE	232.31	<u>13</u>
Strandherd Road Inc.	4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9	SE	232.31	<u>13</u>
Strandherd Road Inc.	Strandherd Dr and Fallowfield Road Ottawa ON K2C 0P9	ESE	249.89	<u>14</u>

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

A search of the EHS database, dated 1999-Jun 30, 2021 has found that there are 13 EHS site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address 100 Lusk Street Ottawa ON K2R	<b>Direction</b> NE	<b>Distance (m)</b> 165.53	<u>Map Key</u> <u>10</u>
	100 Lusk Street Ottawa ON K2R	NE	165.53	<u>10</u>
	100 Lusk Street Ottawa ON K2R	NE	165.53	<u>10</u>
	100 Lusk Street Ottawa ON K2R	NE	165.53	<u>10</u>
	115 Lusk St Nepean ON K2J 4S2	ENE	169.34	<u>11</u>
	115 Lusk St Nepean ON K2J 4S2	ENE	169.34	<u>11</u>

Equal/Higher Elevation	<u>Address</u>	<u>Direction</u>	Distance (m)	Map Key
	115 Lusk St Nepean ON K2J 4S2	ENE	169.34	<u>11</u>
	115 Lusk St Nepean ON K2J 4S2	ENE	169.34	<u>11</u>
	115 Lusk St Nepean ON K2J 4S2	ENE	169.34	<u>11</u>
	Fallowfield Rd & Strandherd Dr Ottawa ON	ESE	205.15	12
Lower Elevation	<u>Address</u>	<u>Direction</u>	Distance (m)	Map Key
	O'keefe Crt Ottawa On Ottawa ON	E	83.78	1
	4401 Fallowfield Road Nepean ON K2R	SE	139.40	<u>3</u>

#### **GEN** - Ontario Regulation 347 Waste Generators Summary

4451 Fallowfield Rd

Nepean ON

A search of the GEN database, dated 1986-Apr 30, 2021 has found that there are 1 GEN site(s) within approximately 0.25 kilometers of the project property.

ESE

146.52

8

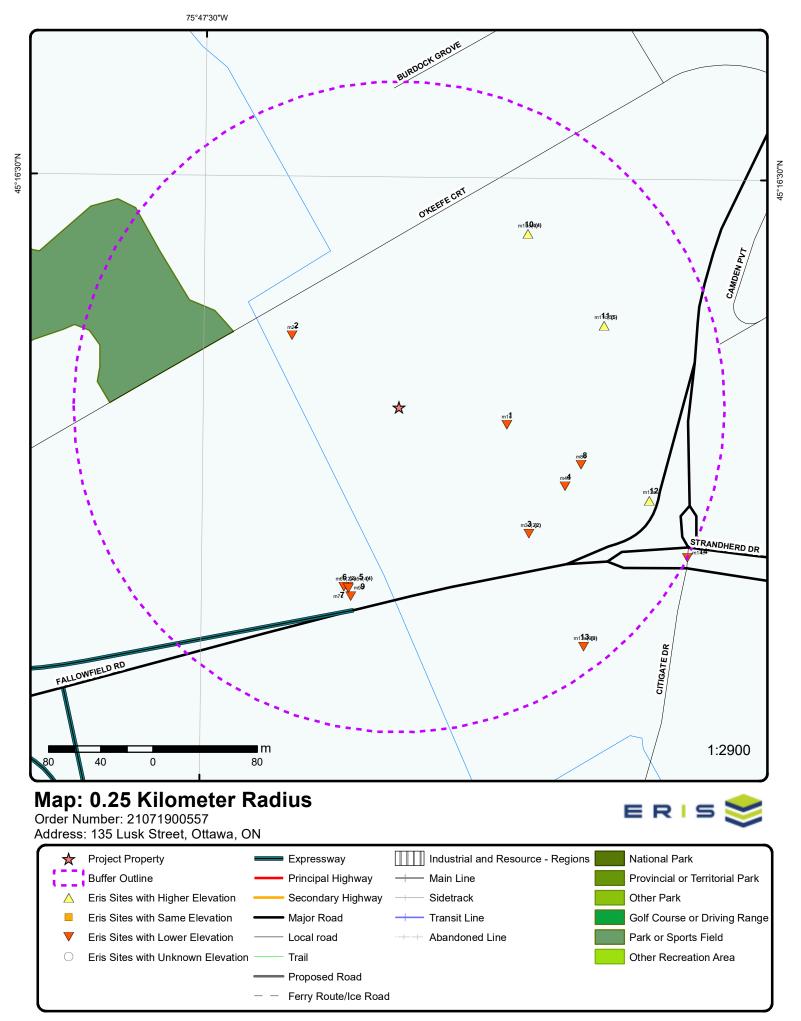
Order No: 21071900557

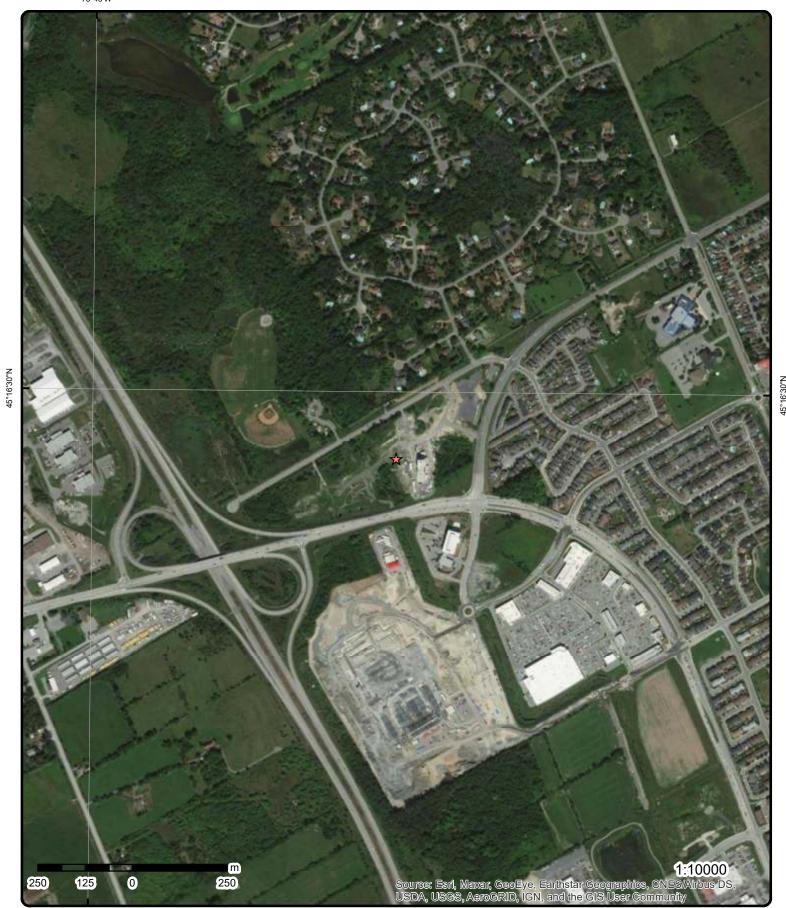
<b>Lower Elevation</b>	<u>Address</u>	<b>Direction</b>	Distance (m)	Map Key
R.W. TOMLINSON LTD.	100 CITIGATE DRIVE OTTAWA ON K2J6K7	SE	232.31	<u>13</u>

#### **WWIS** - Water Well Information System

A search of the WWIS database, dated Apr 30, 2021 has found that there are 8 WWIS site(s) within approximately 0.25 kilometers of the project property.

ower Elevation	<u>Address</u>	<b>Direction</b>	Distance (m)	Map Key
	FALLOWFIELD RD OTTAWA ON	ESE	141.18	<u>4</u>
	<b>Well ID:</b> 1535406			
	lot 20 con 4 ON	SSW	143.52	<u>5</u>
	<b>Well ID:</b> 1527489			
	lot 20 con 4 ON	SSW	143.52	<u>5</u>
	<b>Well ID:</b> 1527903			
	lot 20 con 4 ON	SSW	143.52	<u>5</u>
	<b>Well ID:</b> 1528157			
	lot 20 con 4 ON	SSW	143.52	<u>5</u>
	<b>Well ID:</b> 1527488			
	lot 20 con 4 ON	SSW	144.38	<u>6</u>
	<b>Well ID:</b> 1534317			
	lot 20 con 4 ON	SSW	144.38	<u>6</u>
	<b>Well ID:</b> 1534314			
	lot 20 con 4 ON	SSW	144.38	<u>7</u>
	<b>Well ID:</b> 1520817			





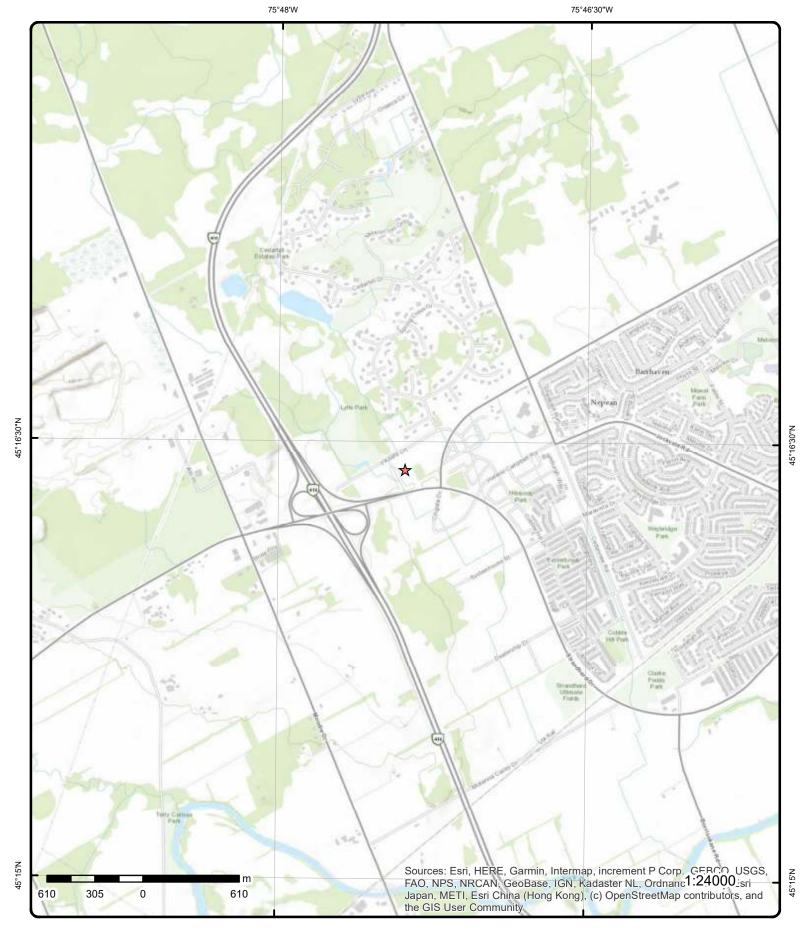
Aerial Year: 2020

Address: 135 Lusk Street, Ottawa, ON

Source: ESRI World Imagery

Order Number: 21071900557





# **Topographic Map**

Address: 135 Lusk Street, ON

Source: ESRI World Topographic Map

Order Number: 21071900557



### **Detail Report**

Map Key Number of Direction/ Elev/Diff Site DB Records Distance (m) (m) 1 1 of 1 E/83.8 100.8 / -0.06 O'keefe Crt Ottawa On **EHS** Ottawa ON Order No: 20170127001 Nearest Intersection: Municipality: Status: Standard Report Client Prov/State: Report Type: ON Report Date: 02-FEB-17 Search Radius (km): .25 Date Received: 27-JAN-17 X: -75.788691 Previous Site Name: Y: 45.273294 Lot/Building Size: 36 acres Fire Insur. Maps and/or Site Plans; Topographic Maps; Aerial Photos Additional Info Ordered:

2 1 of 1 WNW/98.7 100.9 / -0.03 ON BORE

**Borehole ID:** 610530 **OGF ID:** 215512043

Status:

Type: Borehole

Use:

Completion Date: AUG-1970

Static Water Level: Primary Water Use: Sec. Water Use:

Total Depth m: -999

**Depth Ref:** Ground Surface **Depth Elev:** 

Drill Method:

Orig Ground Elev m: 100

Elev Reliabil Note:

**DEM Ground Elev m:** 100

Concession: Location D: Survey D: Comments: Inclin FLG: No

SP Status: Initial Entry
Surv Elev: No
Piezometer: No

Primary Name: Municipality:

Lot: Township:

 Latitude DD:
 45.273899

 Longitude DD:
 -75.790798

 UTM Zone:
 18

 Easting:
 437971

 Northing:
 5013682

Location Accuracy:

Accuracy: Not Applicable

Order No: 21071900557

#### **Borehole Geology Stratum**

Geology Stratum ID:218385823Mat Consistency:Top Depth:1.2Material Moisture:Bottom Depth:4.3Material Texture:Material Color:Non Geo Mat Type:Material 1:UnknownGeologic Formation:Material 2:Geologic Group:

Material 2: Geologic Formation
Material 2: Geologic Group:
Material 3: Geologic Period:
Material 4: Depositional Gen:

Gsc Material Description:

Stratum Description: UNSPECIFIED. SEISMIC VELOCITY = 2200.

 Map Key Number of Direction/ Elev/Diff Site DB

Records Distance (m) (m)

Material 1:UnknownGeologic Formation:Material 2:Geologic Group:Material 3:Geologic Period:Material 4:Depositional Gen:

Gsc Material Description:

Stratum Description: UNSPECIFIED. SEISMIC VELOCITY = 1000.

Geology Stratum ID: 218385824 Mat Consistency: Firm

Top Depth: 4.3 Material Moisture:

Bottom Depth: Material Color: Grey Non Geo Mat Type:

Material 1: Bedrock Geologic Formation:

Material 2: Geologic Group:

Material 3: Geologic Period:

Gsc Material Description:

Stratum Description: BEDROCK. SEISMIC VELOCITY = 13000. SILT. GREY,FIRM. 00035004. 000080110010000200128 \*\*Note: Many

records provided by the department have a truncated [Stratum Description] field.

Depositional Gen:

Source

Material 4:

Source Type: Data Survey Source Appl: Spatial/Tabular

Source Orig:Geological Survey of CanadaSource Iden:1Source Date:1956-1972Scale or Res:VariesConfidence:LHorizontal:NAD27

Observatio: Verticalda: Mean Average Sea Level

Source Name: Urban Geology Automated Information System (UGAIS)
Source Details: File: OTTAWA1.txt RecordID: 03038 NTS\_Sheet:

Confiden 1: Gives some indication of sub-surface condition but material is unknown.

Source List

Source Identifier: 1 Horizontal Datum: NAD27

Source Type:Data SurveyVertical Datum:Mean Average Sea LevelSource Date:1956-1972Projection Name:Universal Transverse Mercator

Scale or Resolution: Varies

Source Name: Urban Geology Automated Information System (UGAIS)

Source Originators: Geological Survey of Canada

3 1 of 2 SE/139.4 100.7 / -0.23 2116885 Ontario Inc.

4401 Fallowfield Rd (Part Lot 20, Concession 4)

**ECA** 

Order No: 21071900557

Ottawa ON K2E 6T8

Nepean ON K2R

Approval No: 3871-B3PKE8 **MOE District:** 2018-08-28 Approval Date: City: Status: Approved Longitude: Record Type: **ECA** Latitude: Link Source: IDS Geometry X: SWP Area Name: Geometry Y:

Approval Type:ECA-MUNICIPAL AND PRIVATE SEWAGE WORKSProject Type:MUNICIPAL AND PRIVATE SEWAGE WORKS

Business Name: 2116885 Ontario Inc.

Address: 4401 Fallowfield Rd (Part Lot 20, Concession 4)

Full Address:

Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/1242-B3FJW7-14.pdf

3 2 of 2 SE/139.4 100.7 / -0.23 4401 Fallowfield Road EHS

Order No:20181217027Nearest Intersection:Status:CMunicipality:

Report Type: Standard Report Client Prov/State: ON

Number of Direction/ Elev/Diff Site DΒ Map Key

.25

Order No: 21071900557

18-DEC-18 Search Radius (km):

(m)

Report Date: Date Received: 17-DEC-18 -75.78857 X: Y: 45.273255 Previous Site Name:

Lot/Building Size: Additional Info Ordered:

Records

4 1 of 1 ESE/141.2 100.9 / -0.03 **FALLOWFIELD RD WWIS** OTTAWA ON

Well ID: 1535406 Data Entry Status:

Distance (m)

**Construction Date:** Data Src: Primary Water Use: 3/23/2005 Date Received: Sec. Water Use: Selected Flag: True Final Well Status: **Observation Wells** Abandonment Rec:

Water Type: 1844 Contractor: Casing Material: Form Version: 3

Z27107 Audit No: Owner: A020615 FALLOWFIELD RD Tag: Street Name:

**Construction Method:** County: **OTTAWA NEPEAN TOWNSHIP** Municipality: Elevation (m): Elevation Reliability: Site Info:

Depth to Bedrock: Lot: 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:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe\_mapping/downloads/2Water/Wells\_pdfs/153\1535406.pdf

#### Additional Detail(s) (Map)

2005/03/05 Well Completed Date: Year Completed: 2005 Depth (m):

Latitude: 45.2728735392024 Longitude: -75.7881155149896 153\1535406.pdf Path:

#### **Bore Hole Information**

Bore Hole ID: 11315945 Elevation: 101.941482

DP2RR Elevro:

Spatial Status: Zone: 18

438180.00 Code OB: East83: Overburden North83: 5013566.00 Code OB Desc: UTM83

Open Hole: Org CS: Cluster Kind: **UTMRC:** 

Date Completed: 05-Mar-2005 00:00:00 UTMRC Desc: margin of error: 30 m - 100 m

Remarks: Location Method: Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock

**Materials Interval** 

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

**Formation ID:** 932996251

 Layer:
 1

 Color:
 6

 General Color:
 BROWN

 Mat1:
 06

 Most Common Material:
 SILT

 Mat2:
 81

 Mat2 Desc:
 SANDY

Mat3: Mat3 Desc:

Formation Top Depth: 0.0
Formation End Depth:
Formation End Depth UOM: m

Overburden and Bedrock

Materials Interval

**Formation ID:** 932996253

Layer:

Color: General Color:

*Mat1:* 13

Most Common Material: BOULDERS

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth:
Formation End Depth:
6.0
Formation End Depth UOM:

Overburden and Bedrock

**Materials Interval** 

**Formation ID:** 932996252

 Layer:
 2

 Color:
 2

 General Color:
 GREY

 Mat1:
 06

 Most Common Material:
 SILT

 Mat2:
 61

 Mat2 Desc:
 CLAYEY

Mat3: Mat3 Desc:

Formation Top Depth:
Formation End Depth:
Formation End Depth UOM: m

Annular Space/Abandonment

Sealing Record

**Plug ID:** 933266318

 Layer:
 1

 Plug From:
 0

 Plug To:
 1

 Plug Depth UOM:
 m

Method of Construction & Well

Use

Method Construction ID: 961535406

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

**Method Construction Code:** 

**Method Construction:** 

Other Method Construction:

Other Method

В

#### Pipe Information

Pipe ID: 11330800

Casing No: Comment:

Alt Name:

#### **Construction Record - Casing**

930855170 Casing ID:

Layer:

Material: 5

**PLASTIC** Open Hole or Material: Depth From: 0 Depth To: 1.25 Casing Diameter: 5 Casing Diameter UOM: cm Casing Depth UOM: m

#### Construction Record - Screen

Screen ID: 933412084

Layer: Slot: #10 Screen Top Depth: 1.25 Screen End Depth:

Screen Material:

Screen Depth UOM: m Screen Diameter UOM: cm Screen Diameter: 6.5

#### **Hole Diameter**

Hole ID: 11533421 Diameter: 21.0 Depth From: 0.0 Depth To: 6.0 Hole Depth UOM: m Hole Diameter UOM: cm

lot 20 con 4 5 1 of 4 SSW/143.5 99.9 / -1.03 **WWIS** ON

1527488 Data Entry Status: Well ID:

**Construction Date:** 

Primary Water Use: **Public** 

Cooling And A/C Sec. Water Use: Final Well Status: Water Supply

Water Type: Casing Material:

Audit No: 126285

Tag:

**Construction Method:** Elevation (m): Elevation Reliability: Depth to Bedrock:

Well Depth: Overburden/Bedrock: Data Src:

Date Received:

10/6/1993 Selected Flag: True

Abandonment Rec: Contractor:

4006 Form Version: 1 Owner:

Street Name:

County: **OTTAWA** 

Municipality: **NEPEAN TOWNSHIP** 

Order No: 21071900557

Site Info:

Lot: 020 Concession: 04 Concession Name: RF

9

Order No: 21071900557

Easting NAD83:
Level: Northing NAD83:

Static Water Level: Flowing (Y/N):

Flowing (Y/N): Zone:
Flow Rate: UTM Reliability:

Clear/Cloudy:

Pump Rate:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe\_mapping/downloads/2Water/Wells\_pdfs/152\1527488.pdf

#### Additional Detail(s) (Map)

 Well Completed Date:
 1993/09/24

 Year Completed:
 1993

 Depth (m):
 91.44

 Latitude:
 45.2721658064668

 Longitude:
 -75.7902308774097

 Path:
 152\1527488.pdf

#### **Bore Hole Information**

**Bore Hole ID:** 10049127 **Elevation:** 99.607299

DP2BR: 25.00 Elevrc:

Spatial Status: Zone: 18

 Code OB:
 r
 East83:
 438013.30

 Code OB Desc:
 Bedrock
 North83:
 5013489.00

Open Hole: Org CS: Cluster Kind: UTMRC:

Date Completed: 24-Sep-1993 00:00:00 UTMRC Desc: unknown UTM

Remarks: Location Method:

Elevrc Desc: Location Source Date:

Location Source Date.

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

#### Overburden and Bedrock

## Materials Interval

**Formation ID:** 931066801

 Layer:
 1

 Color:
 2

 General Color:
 GREY

 Mat1:
 05

 Most Common Material:
 CLAY

 Mat2:
 13

Mat2 Desc:BOULDERSMat3:79Mat3 Desc:PACKEDFormation Top Depth:0.0Formation End Depth:25.0Formation End Depth UOM:ft

#### Overburden and Bedrock

#### **Materials Interval**

 Formation ID:
 931066802

 Layer:
 2

 Color:
 2

 Color:
 2

 General Color:
 GREY

 Mat1:
 15

Most Common Material: LIMESTONE

*Mat2:* 73

Mat2 Desc: HARD

Mat3: Mat3 Desc:

Formation Top Depth: 25.0 Formation End Depth: 145.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

**Formation ID:** 931066803

Layer:

Color:

General Color:

*Mat1:* 18

Most Common Material: SANDSTONE

Mat2: 73 Mat2 Desc: HARD

Mat2 Desc: Mat3:

Mat3 Desc:

Formation Top Depth: 145.0 Formation End Depth: 300.0 Formation End Depth UOM: ft

Annular Space/Abandonment

Sealing Record

**Plug ID:** 933112494

 Layer:
 1

 Plug From:
 0

 Plug To:
 29

 Plug Depth UOM:
 ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961527488

Method Construction Code: 4

Method Construction: Rotary (Air)

Other Method Construction:

Pipe Information

**Pipe ID:** 10597697

Casing No:

Comment: Alt Name:

Construction Record - Casing

**Casing ID:** 930085792

Layer: 1
Material: 1
Open Hele or Meterial: ST

Open Hole or Material: STEEL
Depth From:

Depth To: 29
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930085794

Layer: 3 Material:

Open Hole or Material: **OPEN HOLE** 

Depth From:

Depth To: 300 Casing Diameter: Casing Diameter UOM: inch Casing Depth UOM: ft

#### **Construction Record - Casing**

930085793 Casing ID:

Layer: Material: Open Hole or Material: STEEL

Depth From:

Depth To: 29 Casing Diameter: Casing Diameter UOM: inch Casing Depth UOM: ft

#### Results of Well Yield Testing

Pump Test ID: 991527488

Pump Set At:

8.0 Static Level: Final Level After Pumping: 20.0 Recommended Pump Depth: 175.0 Pumping Rate: 90.0

Flowing Rate:

90.0 Recommended Pump Rate: Levels UOM: ft Rate UOM: **GPM** Water State After Test Code: 1 **CLEAR** Water State After Test: Pumping Test Method: Pumping Duration HR: 6

Pumping Duration MIN: 0 No Flowing:

## **Draw Down & Recovery**

934903663 Pump Test Detail ID: Test Type: Draw Down Test Duration: 60 Test Level: 20.0 Test Level UOM: ft

## **Draw Down & Recovery**

Pump Test Detail ID: 934385543 Test Type: Draw Down Test Duration: 30 Test Level: 17.0 Test Level UOM: ft

#### **Draw Down & Recovery**

Pump Test Detail ID: 934654869 Draw Down Test Type:

45 Test Duration: Test Level: 19.0 Test Level UOM: ft

#### **Draw Down & Recovery**

Pump Test Detail ID: 934110728 Draw Down Test Type: Test Duration: 15 Test Level: 12.0 Test Level UOM: ft

#### Water Details

Water ID: 933486959 Layer: 2 Kind Code: 5

Not stated Kind: Water Found Depth: 145.0 Water Found Depth UOM:

#### Water Details

933486958 Water ID:

Layer: Kind Code: 5

Kind: Not stated Water Found Depth: 75.0 Water Found Depth UOM: ft

#### Water Details

Water ID: 933486960

Layer: 3 Kind Code:

5

Kind: Not stated Water Found Depth: 275.0 Water Found Depth UOM:

SSW/143.5 99.9 / -1.03 5 2 of 4 lot 20 con 4 **WWIS** ON

Well ID: 1527489

**Construction Date:** 

Primary Water Use: **Public** 

Cooling And A/C Sec. Water Use: Final Well Status: Water Supply

Water Type: Casing Material:

Audit No: 126284

Tag:

**Construction Method:** Elevation (m):

Elevation Reliability: Depth to Bedrock: Well Depth: Overburden/Bedrock:

Pump Rate: Static Water Level: Flowing (Y/N): Flow Rate:

Data Entry Status:

Data Src: Date Received:

10/6/1993 Selected Flag: True

Abandonment Rec:

Contractor: 4006 1 Form Version:

Owner: Street Name:

County: **OTTAWA** 

NEPEAN TOWNSHIP Municipality:

Order No: 21071900557

Site Info: Lot:

020 Concession: 04 Concession Name: RF

Easting NAD83: Northing NAD83:

Zone:

UTM Reliability:

Clear/Cloudy:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe\_mapping/downloads/2Water/Wells\_pdfs/152\1527489.pdf

Additional Detail(s) (Map)

 Well Completed Date:
 1993/09/24

 Year Completed:
 1993

 Depth (m):
 88.392

 Latitude:
 45.2721658064668

 Longitude:
 -75.7902308774097

 Path:
 152\1527489.pdf

**Bore Hole Information** 

**Bore Hole ID:** 10049128 **Elevation:** 99.607299

DP2BR: 23.00 Elevro: Spatial Status: Zone:

 Spatial Status:
 Zone:
 18

 Code OB:
 r
 East83:
 438013.30

 Code OB:
 r
 East83:
 438013.30

 Code OB Desc:
 Bedrock
 North83:
 5013489.00

Open Hole: Org CS: Cluster Kind: UTMRC:

Date Completed: 24-Sep-1993 00:00:00 UTMRC Desc: unknown UTM

Remarks: Location Method:

Elevrc Desc: Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Overburden and Bedrock Materials Interval

**Formation ID:** 931066806

Layer: 3

Color:

General Color:

*Mat1*: 18

Most Common Material: SANDSTONE

Mat2: 73
Mat2 Desc: HARD

Mat3: Mat3 Desc:

Formation Top Depth: 145.0 Formation End Depth: 290.0

Formation End Depth: 29
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

**Formation ID:** 931066805

 Layer:
 2

 Color:
 2

 General Color:
 GREY

 Mat1:
 15

Most Common Material: LIMESTONE

 Mat2:
 73

 Mat2 Desc:
 HARD

Mat3: Mat3 Desc:

Formation Top Depth: 23.0 Formation End Depth: 145.0

Formation End Depth UOM:

Overburden and Bedrock

**Materials Interval** 

**Formation ID:** 931066804

 Layer:
 1

 Color:
 2

 General Color:
 GREY

 Mat1:
 05

 Most Common Material:
 CLAY

 Mat2:
 13

Mat2 Desc:BOULDERSMat3:79Mat3 Desc:PACKEDFormation Top Depth:0.0Formation End Depth:23.0Formation End Depth UOM:ft

Annular Space/Abandonment

Sealing Record

**Plug ID:** 933112495

 Layer:
 1

 Plug From:
 0

 Plug To:
 27

 Plug Depth UOM:
 ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961527489

Method Construction Code: 4

Method Construction: Rotary (Air)

Other Method Construction:

Pipe Information

**Pipe ID:** 10597698

Casing No: 1
Comment:

Alt Name:

Construction Record - Casing

**Casing ID:** 930085797

Layer: 3 Material: 4

Open Hole or Material: OPEN HOLE

Depth From:

Depth To: 290
Casing Diameter: 10
Casing Diameter UOM: inch
Casing Depth UOM: ft

**Construction Record - Casing** 

**Casing ID:** 930085796

Layer: 2 Material: 4

Open Hole or Material: OPEN HOLE

Depth From:
Depth To: 27
Casing Diameter: 15
Casing Diameter UOM: inch
Casing Depth UOM: ft

#### **Construction Record - Casing**

**Casing ID:** 930085795

Layer: 1
Material: 1
Open Hole or Material: STEEL

Depth From:

Depth To: 27
Casing Diameter: 10
Casing Diameter UOM: inch
Casing Depth UOM: ft

#### Results of Well Yield Testing

**Pump Test ID:** 991527489

Pump Set At:

Static Level:9.0Final Level After Pumping:112.0Recommended Pump Depth:250.0Pumping Rate:200.0Flowing Rate:200.0

Recommended Pump Rate: 200.0 Levels UOM: ft Rate UOM: **GPM** Water State After Test Code: **CLEAR** Water State After Test: Pumping Test Method: 8 **Pumping Duration HR: Pumping Duration MIN:** 0 Flowing: No

#### **Draw Down & Recovery**

Pump Test Detail ID: 934110729

Test Type:

 Test Duration:
 15

 Test Level:
 20.0

 Test Level UOM:
 ft

#### **Draw Down & Recovery**

Pump Test Detail ID: 934654870

Test Type:

 Test Duration:
 45

 Test Level:
 75.0

 Test Level UOM:
 ft

## **Draw Down & Recovery**

Pump Test Detail ID: 934903664

Test Type:

 Test Duration:
 60

 Test Level:
 110.0

 Test Level UOM:
 ft

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

**Draw Down & Recovery** 

Pump Test Detail ID: 934385544

Test Type:

Test Duration: 30 50.0 Test Level: Test Level UOM:

Water Details

Water ID: 933486961

Layer: Kind Code: 5

Kind. Not stated Water Found Depth: 75.0 Water Found Depth UOM: ft

Water Details

Water ID: 933486962

Layer: 2 Kind Code: 5

Kind: Not stated 145.0 Water Found Depth: Water Found Depth UOM:

Water Details

933486963 Water ID:

Layer: Kind Code: 5

Kind. Not stated Water Found Depth: 275.0 Water Found Depth UOM: ft

3 of 4 SSW/143.5 99.9 / -1.03 lot 20 con 4 5 ON

Well ID: 1527903 **Construction Date:** 

Cooling And A/C Primary Water Use:

Sec. Water Use:

Final Well Status: Test Hole

Water Type: Casing Material:

Audit No: 126272

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:

PDF URL (Map):

Contractor: Form Version: Owner:

Street Name:

Data Entry Status:

Abandonment Rec:

Date Received:

Selected Flag:

Data Src:

County: **OTTAWA** 

Municipality: **NEPEAN TOWNSHIP** 

4/25/1994

True

6004

**WWIS** 

Order No: 21071900557

Site Info:

020 Lot: Concession: 04 Concession Name: RF

Easting NAD83: Northing NAD83: Zone: UTM Reliability:

https://d2khazk8e83rdv.cloudfront.net/moe\_mapping/downloads/2Water/Wells\_pdfs/152\1527903.pdf

Additional Detail(s) (Map)

Well Completed Date: 1994/09/24 Year Completed: 1994 119.7864 Depth (m):

Latitude: 45.2721658064668 -75.7902308774097 Longitude: Path: 152\1527903.pdf

#### **Bore Hole Information**

10049458 Bore Hole ID: DP2BR: 17.00

Spatial Status:

Code OB: Code OB Desc: **Bedrock** 

Open Hole:

Cluster Kind:

Date Completed: 24-Sep-1994 00:00:00

Remarks: Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

## Overburden and Bedrock

Materials Interval

Formation ID: 931067953

Layer: 3

Color:

General Color:

Mat1: 18

Most Common Material: SANDSTONE

Mat2: 15 Mat2 Desc:

LIMESTONE Mat3: **FRACTURED** Mat3 Desc:

Formation Top Depth: 120.0 Formation End Depth: 393.0 Formation End Depth UOM: ft

#### Overburden and Bedrock

**Materials Interval** 

Formation ID: 931067952

Layer: 2 Color: **GREY** General Color: Mat1: 15

LIMESTONE Most Common Material:

Mat2: Mat2 Desc: SHALE Mat3: 68 DRY Mat3 Desc: Formation Top Depth: 17.0 Formation End Depth: 120.0 Formation End Depth UOM: ft

#### Overburden and Bedrock

Materials Interval

99.607299 Elevation:

Elevrc:

Zone: 18

East83: 438013.30 North83: 5013489.00

Org CS:

**UTMRC**:

UTMRC Desc: unknown UTM

Location Method: lot

Formation ID: 931067951

Layer: Color: 2 General Color: **GREY** 05 Mat1: Most Common Material: CLAY Mat2: 13

Mat2 Desc: **BOULDERS** Mat3: PACKED Mat3 Desc: Formation Top Depth: 0.0 Formation End Depth: 17.0 Formation End Depth UOM: ft

#### Annular Space/Abandonment

Sealing Record

Plug ID: 933112780

Layer: 0 Plug From: 25 Plug To: Plug Depth UOM: ft

## Method of Construction & Well

<u>Use</u>

**Method Construction ID:** 961527903

**Method Construction Code:** 

**Method Construction:** Air Percussion

Other Method Construction:

#### Pipe Information

Pipe ID: 10598028 Casing No:

Comment: Alt Name:

#### **Construction Record - Casing**

Casing ID: 930086400 Layer: Material:

Open Hole or Material: STEEL Depth From: 25 Depth To: Casing Diameter: 10 Casing Diameter UOM: inch Casing Depth UOM: ft

## Construction Record - Casing

Casing ID: 930086401

Layer: 3

Material: **OPEN HOLE** 

Open Hole or Material:

Depth From:

393 Depth To: Casing Diameter: 10 Casing Diameter UOM: inch Casing Depth UOM: ft

**Construction Record - Casing** 

Casing ID: 930086399

Layer:

Material:

Open Hole or Material: **OPEN HOLE** 

Depth From:

Depth To: 25 Casing Diameter: 15 inch Casing Diameter UOM: Casing Depth UOM: ft

Water Details

Water ID: 933487447

Layer: 1 Kind Code: 5

Not stated Kind: Water Found Depth: 175.0 Water Found Depth UOM: ft

5 4 of 4 SSW/143.5 99.9 / -1.03 lot 20 con 4 **WWIS** ON

**OTTAWA** 

Order No: 21071900557

Well ID: 1528157 Data Entry Status:

**Construction Date:** Data Src:

9/27/1994 Commerical Primary Water Use: Date Received: Sec. Water Use: Cooling And A/C Selected Flag: True

Final Well Status: Water Supply Abandonment Rec:

4006 Water Type: Contractor: Casing Material: Form Version:

Audit No: 126243 Owner: Street Name: Tag: **Construction Method:** County:

**NEPEAN TOWNSHIP** Elevation (m): Municipality: Elevation Reliability: Site Info: Depth to Bedrock: Lot: 020

Well Depth: Concession: 04 Overburden/Bedrock: Concession Name: RF

Easting NAD83: Pump Rate: Static Water Level: Northing NAD83:

Flowing (Y/N): Zone:

UTM Reliability: Flow Rate: Clear/Cloudy:

https://d2khazk8e83rdv.cloudfront.net/moe\_mapping/downloads/2Water/Wells\_pdfs/152\1528157.pdf PDF URL (Map):

Additional Detail(s) (Map)

Well Completed Date: 1994/08/25 1994 Year Completed: Depth (m): 90.5256

45.2721658064668 Latitude: Longitude: -75.7902308774097 Path: 152\1528157.pdf

**Bore Hole Information** 

Bore Hole ID: 10049696 Elevation: 99.607299

DP2BR: 18.00 Elevrc:

Spatial Status: Zone: 18

East83:

North83:

Org CS: UTMRC:

UTMRC Desc:

Location Method:

438013.30

5013489.00

unknown UTM

Order No: 21071900557

lot

Code OB:

Code OB Desc: **Bedrock** 

Open Hole: Cluster Kind:

Date Completed: 25-Aug-1994 00:00:00

Remarks: Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment: Supplier Comment:

## Overburden and Bedrock

#### **Materials Interval**

Formation ID: 931068763

Layer: Color: 6

General Color: **BROWN** Mat1: 25

Most Common Material: **OVERBURDEN** 

Mat2: 12 **STONES** Mat2 Desc:

Mat3: Mat3 Desc:

0.0 Formation Top Depth: Formation End Depth: 18.0 Formation End Depth UOM: ft

#### Overburden and Bedrock

#### **Materials Interval**

Formation ID: 931068769

Laver: Color: WHITE General Color: Mat1: 18

Most Common Material: SANDSTONE

Mat2:

Mat2 Desc: MEDIUM-GRAINED

Mat3: Mat3 Desc:

Formation Top Depth: 275.0 Formation End Depth: 297.0 Formation End Depth UOM:

#### Overburden and Bedrock

#### Materials Interval

Formation ID: 931068764

Layer: Color: General Color: **GREY** Mat1: 15

LIMESTONE Most Common Material:

Mat2:

**FRACTURED** Mat2 Desc:

Mat3:

Mat3 Desc:

Formation Top Depth: 18.0 Formation End Depth: 27.0 Formation End Depth UOM:

Overburden and Bedrock

Materials Interval

 Formation ID:
 931068767

 Layer:
 5

 Color:
 2

 General Color:
 GREY

 Mat1:
 15

Most Common Material: LIMESTONE

 Mat2:
 90

 Mat2 Desc:
 VERY

 Mat3:
 73

 Mat3 Desc:
 HARD

 Formation Top Depth:
 140.0

 Formation End Depth:
 160.0

 Formation End Depth UOM:
 ft

Overburden and Bedrock Materials Interval

**Formation ID:** 931068768

 Layer:
 6

 Color:
 2

 General Color:
 GREY

 Mat1:
 18

Most Common Material: SANDSTONE

*Mat2:* 15

Mat2 Desc: LIMESTONE

Mat3:74Mat3 Desc:LAYEREDFormation Top Depth:160.0Formation End Depth:275.0Formation End Depth UOM:ft

Overburden and Bedrock

**Materials Interval** 

**Formation ID:** 931068765

 Layer:
 3

 Color:
 2

 General Color:
 GREY

 Mat1:
 15

Most Common Material: LIMESTONE

*Mat2:* 78

Mat2 Desc: MEDIUM-GRAINED

Mat3:

Mat3 Desc:

Formation Top Depth: 27.0 Formation End Depth: 85.0 Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

**Formation ID:** 931068766

 Layer:
 4

 Color:
 2

 General Color:
 GREY

 Mat1:
 18

Most Common Material: SANDSTONE

*Mat2:* 15

Mat2 Desc: LIMESTONE

Mat3: Mat3 Desc:

Formation Top Depth: 85.0 Formation End Depth: 140.0 Formation End Depth UOM: ft

Annular Space/Abandonment

Sealing Record

 Plug ID:
 933113012

 Layer:
 1

 Plug From:
 0

 Plug To:
 33

Plug To: 33
Plug Depth UOM: ft

Method of Construction & Well

<u>Use</u>

Method Construction ID: 961528157

**Method Construction Code:** 5

Method Construction: Air Percussion

Other Method Construction:

Pipe Information

**Pipe ID:** 10598266

Casing No:

Comment: Alt Name:

**Construction Record - Casing** 

**Casing ID:** 930086856

Layer: 1
Material: 4

Open Hole or Material: OPEN HOLE

Depth From:

Depth To: 33
Casing Diameter: 15
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

**Casing ID:** 930086857

Layer: 2
Material: 1
Open Hole or Material: STEEL

Depth From:

Depth To: 33
Casing Diameter: 10
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

**Casing ID:** 930086858

Layer: 3 Material: 4

Open Hole or Material: OPEN HOLE

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

Depth From: Depth To: 297 Casing Diameter: 10 Casing Diameter UOM: inch Casing Depth UOM: ft

#### Results of Well Yield Testing

Pump Test ID: 991528157

Pump Set At:

9.0 Static Level: Final Level After Pumping: 111.0 Recommended Pump Depth: 250.0 Pumping Rate: 200.0

Flowing Rate:

200.0 Recommended Pump Rate: Levels UOM: **GPM** Rate UOM: Water State After Test Code: 1 Water State After Test: **CLEAR** Pumping Test Method: **Pumping Duration HR:** 8 **Pumping Duration MIN:** 0 No Flowing:

#### **Draw Down & Recovery**

Pump Test Detail ID: 934112413

Test Type: Test Duration: 15 22.0 Test Level: Test Level UOM: ft

#### **Draw Down & Recovery**

Pump Test Detail ID: 934656550

Test Type: Test Duration: 45 72.0 Test Level: Test Level UOM: ft

#### **Draw Down & Recovery**

934387222 Pump Test Detail ID:

Test Type:

Test Duration: 30 53.0 Test Level: Test Level UOM:

## **Draw Down & Recovery**

Pump Test Detail ID: 934905342

Test Type:

Test Duration: 60 Test Level: 111.0 Test Level UOM: ft

## Water Details

Water ID: 933487747 Layer:

Number of Direction/ Elev/Diff Site DΒ Map Key

Kind Code: 5

Records

Not stated Kind: Water Found Depth: 275.0 Water Found Depth UOM: ft

Water Details

933487746 Water ID:

Layer: 1 Kind Code: 5

Not stated Kind: Water Found Depth: 50.0 Water Found Depth UOM: ft

SSW/144.4 1 of 2 99.9 / -1.03 lot 20 con 4 6 **WWIS** ON

Well ID: 1534314 Data Entry Status:

Distance (m)

(m)

Construction Date: Data Src:

11/13/2003 Primary Water Use: Not Used Date Received: Sec. Water Use:

Selected Flag: True Final Well Status: Abandoned-Quality Abandonment Rec:

1558 Water Type: Contractor: Casing Material: Form Version: 2

267001 Audit No: Owner: Street Name: Tag:

Construction Method: County: **OTTAWA** NEPEAN TOWNSHIP Elevation (m): Municipality:

Elevation Reliability: Site Info: Depth to Bedrock: Lot: 020 Well Depth: Concession: 04

Overburden/Bedrock: Concession Name: RF Easting NAD83: Pump Rate: Static Water Level: Northing NAD83:

Flowing (Y/N): Zone:

UTM Reliability: Flow Rate:

Clear/Cloudy:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe\_mapping/downloads/2Water/Wells\_pdfs/153\1534314.pdf

Additional Detail(s) (Map)

Well Completed Date: 2003/09/23 2003 Year Completed:

Depth (m):

Latitude: 45.2721655418592 -75.7902691189386 Longitude: 153\1534314.pdf Path:

**Bore Hole Information** 

11097364 99.736259 Bore Hole ID: Elevation:

DP2BR: Elevrc:

Spatial Status: Zone: 18

Code OB: East83: 438010.30 Code OB Desc: No formation data North83: 5013489.00

Open Hole: Org CS: Cluster Kind: UTMRC:

Date Completed: 23-Sep-2003 00:00:00 UTMRC Desc: unknown UTM

Order No: 21071900557

Remarks: Location Method:

Elevrc Desc:

Location Source Date:

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

Improvement Location Source: Improvement Location Method: Source Revision Comment: **Supplier Comment:** 

Method of Construction & Well

Use

Method Construction ID: 961534314

**Method Construction Code:** 

Not Known Method Construction:

Other Method Construction:

Pipe Information

Pipe ID: 11101079

Casing No:

Comment: Alt Name:

> 6 2 of 2 SSW/144.4 99.9 / -1.03 lot 20 con 4 **WWIS** ON

Well ID: 1534317 Data Entry Status:

Construction Date: Data Src:

11/13/2003 Primary Water Use: Not Used Date Received:

Sec. Water Use: Selected Flag: True

Abandonment Rec: Final Well Status: Abandoned-Other Water Type: Contractor: 1558

Casing Material: Form Version: 2 Audit No: 267006 Owner:

Street Name: Tag: **Construction Method: OTTAWA** County:

NEPEAN TOWNSHIP Elevation (m): Municipality:

Elevation Reliability: Site Info: 020 Depth to Bedrock: Lot: Well Depth: Concession: 04

Overburden/Bedrock: Concession Name: RF 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/153\1534317.pdf

Additional Detail(s) (Map)

Well Completed Date: 2003/11/05 Year Completed: 2003

Depth (m):

45.2721655418592 Latitude: Longitude: -75.7902691189386 153\1534317.pdf Path:

**Bore Hole Information** 

Bore Hole ID: 11097367 Elevation: 99.736259

DP2BR: Elevrc:

Spatial Status: Zone: 18

Code OB: East83: 438010.30 Code OB Desc: No formation data North83: 5013489.00

Map Key Number of Direction/ Elev/Diff Site DΒ

Org CS:

**UTMRC**:

**UTMRC Desc:** 

Location Method:

unknown UTM

**WWIS** 

Order No: 21071900557

Open Hole: Cluster Kind:

05-Nov-2003 00:00:00 Date Completed:

Records

Remarks: Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment: Supplier Comment:

Method of Construction & Well

<u>Use</u>

**Method Construction ID:** 961534317

**Method Construction Code: Method Construction:** 

Other Method Construction:

Pipe Information

Pipe ID: 11101082 Casing No:

Comment: Alt Name:

> 7 SSW/144.4 lot 20 con 4 1 of 1 99.9 / -1.03

Distance (m)

Not Known

(m)

Well ID: 1520817

**Construction Date:** Primary Water Use: Domestic

Sec. Water Use:

Final Well Status: Water Supply

Water Type: Casing Material:

Audit No: NA

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:

ON

Data Entry Status:

Data Src:

Date Received: 9/5/1986 Selected Flag: True

Abandonment Rec:

Contractor: 1558 Form Version: 1 Owner:

Street Name:

County: **OTTAWA** 

Municipality: **NEPEAN TOWNSHIP** 

Site Info:

Lot: 020 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/152\1520817.pdf

Additional Detail(s) (Map)

Well Completed Date: 1986/03/21 Year Completed: 1986 92.964 Depth (m):

45.2721568411081 Latitude: -75.790225653626 Longitude: Path: 152\1520817.pdf

**Bore Hole Information** 

Elevation:

Elevrc:

East83:

North83:

Org CS:

UTMRC:

UTMRC Desc:

Location Method:

Zone:

99.600891

438013.70

5013488.00

unknown UTM

Order No: 21071900557

18

Bore Hole ID: 10042658

DP2BR: 14.00 Spatial Status:

Code OB:

Bedrock Code OB Desc:

Open Hole: Cluster Kind:

Date Completed: 21-Mar-1986 00:00:00

Remarks: Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: **Source Revision Comment:** 

Supplier Comment:

## Overburden and Bedrock

**Materials Interval** 

931045913 Formation ID:

Layer: Color: 6 General Color: **BROWN** Mat1: 28 SAND Most Common Material: Mat2: 05 CLAY Mat2 Desc: Mat3: 13

Mat3 Desc: **BOULDERS** 

Formation Top Depth: 0.0 Formation End Depth: 4.0 Formation End Depth UOM: ft

#### Overburden and Bedrock

**Materials Interval** 

Formation ID: 931045915

Layer: 3 Color: 2 General Color: **GREY** Mat1: 15

LIMESTONE Most Common Material:

Mat2: 74 Mat2 Desc: **LAYERED** Mat3: 78

Mat3 Desc:

**MEDIUM-GRAINED** 

Formation Top Depth: 14.0 305.0 Formation End Depth: Formation End Depth UOM: ft

## Overburden and Bedrock

**Materials Interval** 

931045914 Formation ID:

Layer: 2 Color: General Color:

**BROWN** 28 Mat1: SAND Most Common Material: Mat2: Mat2 Desc: **GRAVEL** 

Mat3:

erisinfo.com | Environmental Risk Information Services

Mat3 Desc: PACKED Formation Top Depth: 4.0 14.0 Formation End Depth: Formation End Depth UOM: ft

#### Method of Construction & Well

<u>Use</u>

Method Construction ID: 961520817 **Method Construction Code:** 

**Method Construction:** Cable Tool

Other Method Construction:

#### Pipe Information

Pipe ID: 10591228 Casing No:

Comment: Alt Name:

#### **Construction Record - Casing**

Casing ID: 930074456

Layer: 1 Material: STEEL Open Hole or Material:

Depth From: Depth To: 22 Casing Diameter: 6 Casing Diameter UOM: inch Casing Depth UOM: ft

## **Construction Record - Casing**

Casing ID: 930074457

Layer: 2

Material:

Open Hole or Material: **OPEN HOLE** 

Depth From:

305 Depth To: Casing Diameter: 5 Casing Diameter UOM: inch Casing Depth UOM:

#### Results of Well Yield Testing

991520817 Pump Test ID:

Pump Set At:

24.0 Static Level: Final Level After Pumping: 120.0 Recommended Pump Depth: 200.0 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: Pumping Duration HR: 1 **Pumping Duration MIN:** 0 No Flowing:

#### **Draw Down & Recovery**

934104857 Pump Test Detail ID: Test Type: Draw Down Test Duration: 15 Test Level: 55.0 Test Level UOM: ft

#### **Draw Down & Recovery**

Pump Test Detail ID: 934906634 Test Type: Draw Down Test Duration: 60 Test Level: 120.0 Test Level UOM: ft

#### **Draw Down & Recovery**

Pump Test Detail ID: 934388396 Test Type: Draw Down Test Duration: 30 Test Level: 120.0 Test Level UOM: ft

#### **Draw Down & Recovery**

934649553 Pump Test Detail ID: Draw Down Test Type: Test Duration: 45 120.0 Test Level: Test Level UOM: ft

#### Water Details

Water ID: 933478184 Layer: Kind Code: Kind: **FRESH** Water Found Depth: 195.0 Water Found Depth UOM: ft

## Water Details

933478185 Water ID: Layer: 2 Kind Code: 1 Kind: **FRESH** Water Found Depth: 297.0 Water Found Depth UOM: ft

100.9 / -0.03 4451 Fallowfield Rd 8 1 of 1 ESE/146.5 **EHS** Nepean ON

Nearest Intersection:

ON

Client Prov/State:

Municipality:

Order No: 20150508123

Status:

Report Type: Standard Report Report Date: 14-MAY-15 08-MAY-15 Date Received:

Search Radius (km): .25 -75.787961 X: Previous Site Name: Y: 45.273023

Lot/Building Size: Additional Info Ordered:

Full PDF Link:

Additional Info Ordered:

9 1 of 1 SSW/150.0 99.9 / -1.03 City of Ottawa Lots 20 and 21, Concession 4

Ottawa ON K1P 1J1

Approval No:1308-4WQSW8MOE District:OttawaApproval Date:2001-05-18City:

 Status:
 Approved
 Longitude:
 -75.7902

 Record Type:
 ECA
 Latitude:
 45.2721

 Link Source:
 IDS
 Geometry X:

SWP Area Name: Rideau Valley Geometry Y:

Approval Type: ECA-Municipal and Private Water Works

Project Type: Municipal and Private Water Works

Project Type: Municipal and Private Water Works
Business Name: City of Ottawa

Address: Lots 20 and 21, Concession 4

Full Address:

10 1 of 4 NE/165.5 102.9 / 1.97 100 Lusk Street
Ottawa ON K2R

EHS

 Order No:
 20200721215
 Nearest Intersection:

 Status:
 C
 Municipality:

Report Type: Standard Report Client Prov/State: ON Report Date: 24-JUL-20 Search Radius (km): .25

 Date Received:
 21-JUL-20
 X:
 -75.7885019

 Previous Site Name:
 Y:
 45.274615

 Lot/Building Size:
 45.274615

10 2 of 4 NE/165.5 102.9 / 1.97 100 Lusk Street

Ottawa ON K2R

Order No: 21071900557

Order No: 20200721215 Nearest Intersection:

Status:CMunicipality:Report Type:Standard ReportClient Prov/State:ON

 Report Date:
 24-JUL-20
 Search Radius (km):
 .25

 Date Received:
 21-JUL-20
 X:
 -75.7885019

 Provious Site Name:
 V:
 45.274615

Previous Site Name:

Lot/Building Size:

Additional Info Ordered:

10 3 of 4 NE/165.5 102.9 / 1.97 100 Lusk Street Ottawa ON K2R

Order No: 20200721215 Nearest Intersection:

Status:CMunicipality:Report Type:Standard ReportClient Prov/State:ONReport Date:24-JUL-20Search Radius (km):.25

 Date Received:
 21-JUL-20
 X:
 -75.7885019

 Previous Site Name:
 Y:
 45.274615

 Lot/Building Size:
 45.274615

Additional Info Ordered:

Map Key	Number Records		Elev/Diff (m)	Site		DE
<u>10</u>	4 of 4	NE/165.5	102.9 / 1.97	100 Lusk Street Ottawa ON K2R		EHS
Order No: Status: Report Type Report Date Date Receiv Previous Sit Lot/Building Additional In	: ed: te Name: ı Size:	20200721215 C Standard Report 24-JUL-20 21-JUL-20		Nearest Intersection: Municipality: Client Prov/State: Search Radius (km): X: Y:	ON .25 -75.7885019 45.274615	
<u>11</u>	1 of 5	ENE/169.3	102.9 / 1.97	115 Lusk St Nepean ON K2J 4S2		EHS
Order No: Status: Report Type Report Date. Date Receiv. Previous Sit Lot/Building Additional In	: ed: te Name: ı Size:	20200406070 C Standard Report 09-APR-20 06-APR-20		Nearest Intersection: Municipality: Client Prov/State: Search Radius (km): X: Y:	ON .25 -75.7877465 45.273986	
<u>11</u>	2 of 5	ENE/169.3	102.9 / 1.97	115 Lusk St Nepean ON K2J 4S2		EHS
Order No: Status: Report Type Report Date Date Receiv Previous Sit Lot/Building Additional In	: ed: te Name: ı Size:	20200406070 C Standard Report 09-APR-20 06-APR-20		Nearest Intersection: Municipality: Client Prov/State: Search Radius (km): X: Y:	ON .25 -75.7877465 45.273986	
<u>11</u>	3 of 5	ENE/169.3	102.9 / 1.97	115 Lusk St Nepean ON K2J 4S2		EHS
Order No: Status: Report Type Report Date Date Receiv Previous Sit Lot/Building Additional In	: ed: te Name: ı Size:	20200406070 C Standard Report 09-APR-20 06-APR-20		Nearest Intersection: Municipality: Client Prov/State: Search Radius (km): X: Y:	ON .25 -75.7877465 45.273986	
<u>11</u>	4 of 5	ENE/169.3	102.9 / 1.97	115 Lusk St Nepean ON K2J 4S2		EHS
Order No: Status: Report Type Report Date Date Receiv Previous Sit Lot/Building Additional Ir	: ed: te Name: ı Size:	20200406070 C Standard Report 09-APR-20 06-APR-20		Nearest Intersection: Municipality: Client Prov/State: Search Radius (km): X: Y:	ON .25 -75.7877465 45.273986	

Number of Direction/ Elev/Diff Site DΒ Map Key (m)

Records Distance (m)

5 of 5 ENE/169.3 102.9 / 1.97 115 Lusk St 11 **EHS** Nepean ON K2J 4S2

20200406070 Order No: Nearest Intersection: Status: С

Municipality: Standard Report Client Prov/State: ON Report Type: Report Date: 09-APR-20 Search Radius (km): .25

-75.7877465 06-APR-20 Date Received: X: Previous Site Name: Y: 45.273986 Lot/Building Size: Additional Info Ordered:

12 1 of 1 ESE/205.1 101.6 / 0.66 Fallowfield Rd & Strandherd Dr

Ottawa ON

Order No: 20050222008 Nearest Intersection:

Status: Municipality:

Client Prov/State: Report Type: Report Date: 2/28/2005 Search Radius (km): 0.25 2/22/2005 Date Received: X:

-75.787289 Previous Site Name: Y: 45.272779 Lot/Building Size:

Additional Info Ordered: Fire Insur. Maps and/or Site Plans

1 of 9 SE/232.3 99.6 / -1.34 Strandherd Road Inc. 13

4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9

Approval No: 7146-9PNJXJ **MOE District:** Ottawa

Approval Date: 2014-10-07 City: Status: -75.77895 Revoked and/or Replaced Longitude: Record Type: **ECA** Latitude: 45.27079

Link Source: **IDS** SWP Area Name: Rideau Valley Geometry Y: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS Approval Type: MUNICIPAL AND PRIVATE SEWAGE WORKS Project Type:

**Business Name:** Strandherd Road Inc.

4123, 4225, 4337, 4433, and 4501 Strandherd Dr Address:

Nortel Dr. Crosskey Place, Systemhouse St,

Dealership St, Philsar st Ottawa ON K2C 0P9

Approval No: 1671-9RXT6P Approval Date: 2014-12-19 City: Longitude: Status: Approved Record Type: **ECA** Latitude: IDS Link Source: Geometry X: SWP Area Name:

ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS Approval Type: Project Type:

**Business Name:** Strandherd Road Inc.

**EHS** 

ON

**ECA** 

**ECA** 

Geometry X:

Full Address:

Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/8421-9PMGPP-14.pdf

2 of 9 SE/232.3 99.6 / -1.34 Strandherd Road Inc. 13

4123, 4225, 4337, 4433, and 4501 Strandherd Dr

**MOE District:** Geometry Y:

MUNICIPAL AND PRIVATE SEWAGE WORKS

4123, 4225, 4337, 4433, and 4501 Strandherd Dr Nortel Dr, Crosskey Place, Systemhouse St, Dealership St, Address:

Philsar st

Number of Direction/ Elev/Diff Site DΒ Map Key Records Distance (m) (m) Full Address: **Full PDF Link:** https://www.accessenvironment.ene.gov.on.ca/instruments/7870-9PAJ8J-14.pdf 3 of 9 SE/232.3 99.6 / -1.34 Strandherd Road Inc. 13 **ECA** 4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9 Approval No: 9988-9SPJL7 **MOE District:** Ottawa Approval Date: 2015-01-14 City: Status: Approved Longitude: -75.77895 Record Type: **ECA** Latitude: 45.27079 Link Source: **IDS** Geometry X: SWP Area Name: Geometry Y: Rideau Valley ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS Approval Type: MUNICIPAL AND PRIVATE SEWAGE WORKS Project Type: Business Name: Strandherd Road Inc. Address: 4123, 4225, 4337, 4433, and 4501 Strandherd Dr Full Address: Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/4246-9PXRH5-14.pdf 13 4 of 9 SE/232.3 99.6 / -1.34 Strandherd Road Inc. **ECA** 4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9 3899-9SLPAP **MOE District:** Ottawa Approval No: Approval Date: 2015-01-14 City: Status: Approved Longitude: -75.77895 45.27079 Record Type: **ECA** Latitude: Link Source: **IDS** Geometry X: SWP Area Name: Rideau Valley Geometry Y: Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS **Business Name:** Strandherd Road Inc. 4123, 4225, 4337, 4433, and 4501 Strandherd Dr Address: Full Address: https://www.accessenvironment.ene.gov.on.ca/instruments/4016-9PXRD7-14.pdf Full PDF Link: 99.6 / -1.34 5 of 9 SE/232.3 Strandherd Road Inc. 13 **ECA** 4123, 4225, 4337, 4433, and 4501 Strandherd Dr Ottawa ON K2C 0P9 3156-9SPPR3 **MOE District:** Ottawa Approval No: Approval Date: 2015-01-14 City: Revoked and/or Replaced -75.77895 Status: Longitude: Record Type: **ECA** Latitude: 45.27079 Link Source: **IDS** Geometry X: SWP Area Name: Rideau Valley Geometry Y: Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS

MUNICIPAL AND PRIVATE SEWAGE WORKS Project Type:

**Business Name:** Strandherd Road Inc.

Address: 4123, 4225, 4337, 4433, and 4501 Strandherd Dr

Full Address:

Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/2089-9PVKCA-14.pdf

13 6 of 9 SE/232.3 99.6 / -1.34 Zena Investment Corporation

4123, 4225, 4337, 4433, and 4501 Strandherd Dr

**ECA** 

Order No: 21071900557

Ottawa ON K2C 0A6

Approval No: 8156-9YNRQG **MOE District:** Ottawa

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

City:

Approval Date: 2015-07-23

Revoked and/or Replaced Longitude: -75.77895 Status: **ECA** 45.27079 Record Type: Latitude:

IDS Link Source: Geometry X: SWP Area Name: Rideau Valley Geometry Y: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS Approval Type: Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS **Business Name:** Zena Investment Corporation

Address: 4123, 4225, 4337, 4433, and 4501 Strandherd Dr

Full Address:

Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/8463-9WPP6T-14.pdf

7 of 9 SE/232.3 99.6 / -1.34 Strandherd Road Inc. 13

4123, 4225, 4337, 4433, and 4501 Strandherd Dr

**ECA** 

4175 Strandherd Drive for Sanitary and Storm Amendment

Ottawa ON K2C 0P9

Approval No: 3198-AY8KJJ **MOE District:** Ottawa

2018-05-22 Approval Date: City:

Status: Revoked and/or Replaced Longitude: -75.77895 Record Type: **ECA** Latitude: 45.27079

Link Source: **IDS** Geometry X: Rideau Valley SWP Area Name: Geometry Y: Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS

**Business Name:** Strandherd Road Inc.

4123, 4225, 4337, 4433, and 4501 Strandherd Dr 4175 Strandherd Drive for Sanitary and Storm Amendment Address:

Full Address:

Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/2489-AXSHE6-14.pdf

SE/232.3 13 8 of 9 99.6 / -1.34 R.W. TOMLINSON LTD. **GEN** 100 CITIGATE DRIVE

OTTAWA ON K2J6K7

ON6160447 Generator No: PO Box No:

Registered Country: Canada Status: As of Dec 2018

Approval Years: Choice of Contact: Contam. Facility: Co Admin: MHSW Facility: Phone No Admin: SIC Code:

Detail(s)

SIC Description:

Waste Class: 241 H

Waste Class Desc: Halogenated solvents and residues

SE/232.3 99.6 / -1.34 13 9 of 9 Strandherd Road Inc. **ECA** 

4123, 4225, 4337, 4433, and 4501 Strandherd Dr 4175 Strandherd Drive for Sanitary and Storm

Order No: 21071900557

**Amendment** Ottawa ON K2C 0P9

1689-BPZPFP Approval No: MOE District: Ottawa Approval Date: City:

2020-06-02

Status: Approved Longitude: -75.77895 ECA Latitude: 45.27079 Record Type:

Link Source: **IDS** Geometry X: SWP Area Name: Rideau Valley Geometry Y: Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS

DB Map Key Number of Direction/ Elev/Diff Site Records Distance (m) (m) MUNICIPAL AND PRIVATE SEWAGE WORKS Project Type: **Business Name:** Strandherd Road Inc. 4123, 4225, 4337, 4433, and 4501 Strandherd Dr 4175 Strandherd Drive for Sanitary and Storm Amendment Address: Full Address: Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/9962-BPMPMP-14.pdf 14 1 of 1 ESE/249.9 100.2 / -0.75 Strandherd Road Inc.

Strandherd Dr and Fallowfield Road

Ottawa ON K2C 0P9

**ECA** 

Order No: 21071900557

2386-9SZJ6S Approval No: **MOE District:** 2015-01-26 Approval Date: City: Status: Revoked and/or Replaced Longitude: Record Type: ECA Latitude: IDS Link Source: Geometry X:

SWP Area Name: Geometry Y: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS Approval Type: Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS

**Business Name:** Strandherd Road Inc.

Strandherd Dr and Fallowfield Road Address:

Full Address:

Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/6723-9PAHWZ-14.pdf

# Unplottable Summary

Total: 39 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
CA	PUBLIC WORKS CANADA	FALLOWFIELD RD.	NEPEAN CITY ON	
CA	DCR/PHOENIX DEVELOPMENMT CORP.	STRANDHERD DRIVE	NEPEAN CITY ON	
CA	PETRO-CANADA PRODUCTS	FALLOWFIELD RD., BLK.113 (SWM)	NEPEAN CITY ON	
CA	TDL GROUP LIMITED	BLK. 114 FALLOWFIELD RD., SWM	NEPEAN ON	
CA	City of Ottawa	Strandherd Drive	Ottawa ON	
CA	R.W. Tomlinson Limited	Mobile Facility	Ottawa ON	
CA	City of Ottawa	Strandherd Drive	Ottawa ON	
CONV	R.W. TOMLINSON LIMITED		ON	
DTNK	SUPERIOR PROPANE INC	FALLOWFIELD RD	OTTAWA ON	
DTNK	SUPERIOR PROPANE ATTN WARREN HAYES	FALLOWFIELD RD PRT LOT 20 4 RF	OTTAWA ON	
DTNK	SUPERIOR PROPANE INC	FALLOWFIELD RD	NEPEAN ON	
DTNK	Bell Canada	Strandherd Dr, Nepean (Jockvale) ON	NEPEAN ON	
EBR	Regional Group of Companies Inc.	Lots 18-20, Concession 4, Geographic Township of Nepean East side of Highway 416, south of Fallowfield Road, west of Strandherd Drive. CITY OF OTTAWA	ON	
EBR	R.W. Tomlinson Limited	Mobile Facility Ottawa CITY OF OTTAWA	ON	
ECA	City of Ottawa	Strandherd Drive	Ottawa ON	K2G 6J8
ECA	R.W. Tomlinson Limited	Mobile Facility	Ottawa ON	K1G 3N4
EHS		Fallowfield Road	Ottawa (Former Township of Goulburn) ON	
GEN	R.W Tomlinson Heavy Civil	Alta Vista Hospital Link Jobsite	Ottawa ON	K1G 3N4

GEN	R.W Tomlinson	Alta Vista Hospital Link Jobsite	Ottawa ON	K1G 3N4
GEN	R.W Tomlinson	Alta Vista Hospital Link Jobsite	Ottawa ON	K1G 3N4
NPRI	R.W. TOMLINSON LIMITED		Ottawa ON	
PRT	I C G PROPANE INC	FALLOWFIELD RD PRT LOT 20 4 RF	OTTAWA ON	
PRT	SUPERIOR PROPANE	FALLOWFIELD RD	NEPEAN ON	
PTTW	R.W. Tomlinson Limited		ON	
PTTW	Findlay Creek Properties Ltd. and 1374537 Ontario Ltd.	Lots 19, 20, Concession 4 and Lot 20, Concession 5, Ottawa	ON	
SPL	Geo. W. Drummond Excavating Inc <unofficial></unofficial>	Strandherd Dr and Temporary	Ottawa ON	
SPL	R.W. Tomlinson Limited		Ottawa ON	
SPL	OC Transpo/ City of Ottawa <unofficial></unofficial>	@ Fallowfield	Ottawa ON	
SPL	DEPARTMENT OF AGRICULTURE	ANIMAL DISEASE CONTROL CENTRE FALLOWFIELD ROAD	OTTAWA CITY ON	
SPL	PUBLIC WORKS CANADA	AGRICULTURE CANADA FALLOWFIELD ROAD STORAGE TANK	NEPEAN CITY ON	
SPL	PRIVATE OWNER	GENERAL WELDING, FALLOWFIELD RD. STITTSVILLE STORAGE TANK/BARREL	OTTAWA CITY ON	
SRDS	R.W. TOMLINSON LTD.		ON	
wwis		lot 20 con 4	ON	
wwis		FALLOWFIELD RD	OTTAWA ON	
wwis		lot 20 con 4	ON	
wwis		lot 21	ON	
wwis		lot 21	ON	
wwis		lot 20 con 4	ON	
WWIS		lot 20	ON	

## Unplottable Report

Site: **PUBLIC WORKS CANADA** 

FALLOWFIELD RD. NEPEAN CITY ON

Database: CA

8-4023-88-Certificate #: Application Year:

9/12/1988 Issue Date: Approval Type: Industrial air Cancelled Status:

Application Type: Client Name: Client Address: Client City: Client Postal Code:

Project Description: CHEMICAL STORAGE FAC.

Contaminants: **Emission Control:** 

DCR/PHOENIX DEVELOPMENMT CORP. Site: STRANDHERD DRIVE NEPEAN CITY ON

Certificate #: 3-1122-90-Application Year: 90

6/26/1990 Issue Date: Approval Type: Municipal sewage Status: Approved

Application Type: Client Name: Client Address: Client City: Client Postal Code:

Project Description: Contaminants: **Emission Control:** 

Site: PETRO-CANADA PRODUCTS

FALLOWFIELD RD., BLK.113 (SWM) NEPEAN CITY ON

Certificate #: 3-1223-94-Application Year: 94

Issue Date: 10/5/1994 Approval Type: Municipal sewage Approved Status:

Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: **Emission Control:** 

Site: **TDL GROUP LIMITED** 

BLK. 114 FALLOWFIELD RD., SWM NEPEAN ON

Certificate #: 3-0846-98-Application Year: 98

Database:

Database:

Database:

Order No: 21071900557

erisinfo.com | Environmental Risk Information Services

Issue Date:7/22/1998Approval Type:Municipal sewageStatus:Approved

Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: Emission Control:

Site: City of Ottawa

Strandherd Drive Ottawa ON

Database:

 Certificate #:
 1254-73VKL4

 Application Year:
 2007

 Issue Date:
 6/17/2007

Approval Type: Municipal and Private Sewage Works

Status: Approved

Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: Emission Control:

Site: R.W. Tomlinson Limited

Mobile Facility Ottawa ON

Database: CA

 Certificate #:
 4667-7VVM63

 Application Year:
 2009

 Issue Date:
 10/30/2009

 Approval Type:
 Air

 Status:
 Approved

Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: Emission Control:

Site: City of Ottawa

Strandherd Drive Ottawa ON

Database:

Order No: 21071900557

 Certificate #:
 5791-77LJ85

 Application Year:
 2007

 Issue Date:
 10/2/2007

Approval Type: Municipal and Private Sewage Works

Status: Revoked and/or Replaced

Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: Emission Control:

R.W. TOMLINSON LIMITED Database: Site: CONV

**Ministry District:** 

**OTTAWA** 

Database:

Order No: 21071900557

File No: Location:

Crown Brief No: **EASTERN REGION** 01-0198-0415 Region:

**Court Location: Publication City: Publication Title:** 

Act: Act(s): First Matter: Second Matter: Investigation 1: Investigation 2:

Penalty Imposed:

Description: FAIL TO COMPLY SAFETY TRAINING, FAIL TO SUBMIT REPORTS TO DIRECTOR, COMMIT OFFENCE OF

TRANSFERRING WASTE OIL WITHOUT GEN. REG. DOCUMENT

Background:

URL:

**Additional Details** 

**Publication Date:** 

Count: EPA Act: Regulation: 347 Section: 18 (1)

EPA 347 18 (1) Act/Regulation/Section:

Date of Offence:

Date of Conviction:

Date Charged: 2/25/2003 **FINED** Charge Disposition: Fine: \$3500

Synopsis:

SUPERIOR PROPANE INC Site:

**DTNK** FALLOWFIELD RD OTTAWA ON

**Delisted Expired Fuel Safety** 

**Facilities** 

Instance No: 9558985 Status: **EXPIRED** Instance ID: 390259 Instance Type: FS Facility

Description: Fuels Safety Propane Filling Plant > 5000 USW

TSSA Program Area: Maximum Hazard Rank:

Facility Type: Expired Date:

Original Source: **EXP** 

Record Date: Up to Mar 2012

Site: SUPERIOR PROPANE ATTN WARREN HAYES Database: DTNK

FALLOWFIELD RD PRT LOT 20 4 RF OTTAWA ON

**Delisted Expired Fuel Safety** 

**Facilities** 

Instance No: 9631753 **EXPIRED** Status: Instance ID: 391550 Instance Type: FS Facility

Fuels Safety Propane Filling Plant > 5000 USW Description:

TSSA Program Area: Maximum Hazard Rank:

Facility Type: Expired Date: Original Source:

EXP

Record Date: Up to Mar 2012

Site: SUPERIOR PROPANE INC FALLOWFIELD RD NEPEAN ON

Database: DTNK

**Delisted Expired Fuel Safety** 

**Facilities** 

 Instance No:
 9669823

 Status:
 EXPIRED

 Instance ID:
 392708

 Instance Type:
 FS Facility

**Description:** FS Propane Vehicle Conv Centre

TSSA Program Area: Maximum Hazard Rank: Facility Type:

Expired Date:

Original Source: EXP

Record Date: Up to Mar 2012

Site: Bell Canada

Strandherd Dr, Nepean (Jockvale) ON NEPEAN ON

Database: DTNK

Database:

**EBR** 

Order No: 21071900557

**Delisted Commercial Fuel Oil** 

**Tanks** 

Licence No:Facility Type:Registration No:200204-1515Letter Sent:

Posse File No: Corrosion Protection:

Posse Reg No: Fuel Type:
Instance No: Province:
Status Name: Nbr:
Tank Type: Instance Type:

Tank Size: 5072 L Original Source: CFOT

Tank Material: Fiberglass reinforced plastic Record Date: Up to Apr 2013

Instance Install Date: Description: Item Description:

Item: Context:

Instance Creation Date: Device Installed Location:

Tk Age (as of 05/1992): 9 yrs

Tank Address: Strandherd Dr, Nepean (Jockvale) ON

Distributor: Esso

Contact Name: c/o Alain Naud

Contact Address: 3685 Aylmer - Bureau 200

Contact Address2: Contact Suite:

Contact City:MontrealContact Prov:QCContact Postal:H2X 2C5

Comments:

Site: Regional Group of Companies Inc.

Lots 18-20, Concession 4, Geographic Township of Nepean East side of Highway 416, south of Fallowfield Road,

west of Strandherd Drive. CITY OF OTTAWA ON

EBR Registry No: 012-4505 Decision Posted:

Ministry Ref No: MNRF INST 51/15 Exception Posted:

Notice Type:Instrument DecisionSection:Notice Stage:Act 1:Notice Date:December 13, 2016Act 2:

Proposal Date: July 02, 2015 Site Location Map:

**Year:** 2015

Instrument Type: (ESA s.17(2) (c)) - Permit for activities with conditions to achieve overall benefit to the species

Off Instrument Name:

Posted By:

Company Name: Regional Group of Companies Inc.

Site Address: Location Other: Proponent Name: Proponent Address:

1737 Woodward Drive, 2nd Floor, Ottawa Ontario, Canada K2C 0P9

**Comment Period:** 

URL:

#### Site Location Details:

Lots 18-20, Concession 4, Geographic Township of Nepean East side of Highway 416, south of Fallowfield Road, west of Strandherd Drive. CITY OF OTTAWA

Site: R.W. Tomlinson Limited

Mobile Facility Ottawa CITY OF OTTAWA ON

Database: EBR

 EBR Registry No:
 010-4078
 Decision Posted:

 Ministry Ref No:
 2891-7FVQ5M
 Exception Posted:

 Notice Type:
 Instrument Decision
 Section:

Notice Type:Instrument DecisionSectionNotice Stage:Act 1:Notice Date:November 06, 2009Act 2:

Proposal Date: July 03, 2008 Site Location Map:

Year: 2008

Instrument Type: (EPA s. 9) - Approval for discharge into the natural environment other than water (i.e. Air)

Off Instrument Name:

Posted By:

Company Name: R.W. Tomlinson Limited

Site Address: Location Other: Proponent Name:

Proponent Address: 5597 Power Road, Ottawa Ontario, Canada K1G 3N4

Comment Period:

URL:

## Site Location Details:

Mobile Facility Ottawa CITY OF OTTAWA

Site: City of Ottawa

Strandherd Drive Ottawa ON K2G 6J8

Database: ECA

Order No: 21071900557

Approval No: 2068-BQ6RQX **MOE District:** 2020-06-04 Approval Date: City: Status: Approved Longitude: Record Type: **ECA** Latitude: Link Source: IDS Geometry X: SWP Area Name: Geometry Y:

Approval Type:ECA-MUNICIPAL AND PRIVATE SEWAGE WORKSProject Type:MUNICIPAL AND PRIVATE SEWAGE WORKS

Business Name: City of Ottawa
Address: Strandherd Drive

Full Address:

Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/4653-BPDQTP-14.pdf

R.W. Tomlinson Limited Site:

Database: **ECA** Mobile Facility Ottawa ON K1G 3N4

MOE District:

Longitude:

Geometry X:

Geometry Y:

Latitude:

City:

Approval No: 4667-7VVM63 2009-10-30 Approval Date:

Status: Revoked and/or Replaced Record Type: **ECA** Link Source: IDS

SWP Area Name:

**ECA-AIR** Approval Type: AIR Project Type:

R.W. Tomlinson Limited **Business Name:** 

Address: Mobile Facility Full Address:

Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/2891-7FVQ5M-14.pdf

Site: Fallowfield Road Ottawa (Former Township of Goulburn) ON

Order No: 20060922004

Status: C

Complete Report Report Type: Report Date: 9/25/2006 9/22/2006 Date Received: Previous Site Name:

Lot/Building Size: Additional Info Ordered: Nearest Intersection:

Database: **EHS** 

Database: **GEN** 

Database: **GEN** 

Order No: 21071900557

Municipality: Client Prov/State: ON Search Radius (km): 0.25

X: 0 **Y**: 0

Site: R.W Tomlinson Heavy Civil

Alta Vista Hospital Link Jobsite Ottawa ON K1G 3N4

ON8156580 PO Box No:

Status: Registered Country: Canada Choice of Contact:

Approval Years: As of Dec 2017 Contam. Facility: MHSW Facility:

SIC Code: SIC Description:

Generator No:

Co Admin: Phone No Admin:

Detail(s)

Waste Class: 146 L

Waste Class Desc: Other specified inorganic sludges, slurries or solids

Site: R.W Tomlinson Alta Vista Hospital Link Jobsite Ottawa ON K1G 3N4

Generator No: ON8156580 PO Box No:

Status: Country: Canada 2016 CO\_ADMIN Approval Years: Choice of Contact: Contam. Facility: No Co Admin: nick gianetto MHSW Facility: 6139132412 Ext. No Phone No Admin:

SIC Code: 237310

HIGHWAY, STREET AND BRIDGE CONSTRUCTION SIC Description:

Detail(s)

Waste Class:

OTHER SPECIFIED INORGANICS Waste Class Desc:

Site: R.W Tomlinson Database: **GEN** Alta Vista Hospital Link Jobsite Ottawa ON K1G 3N4

Generator No: ON8156580 PO Box No: Status:Country:CanadaApproval Years:2015Choice of Contact:CO\_ADMINContam. Facility:NoCo Admin:nick gianettoMHSW Facility:NoPhone No Admin:6139132412 Ext.

**SIC Code:** 237310

SIC Description: HIGHWAY, STREET AND BRIDGE CONSTRUCTION

Detail(s)

Waste Class: 146

Waste Class Desc: OTHER SPECIFIED INORGANICS

Site: R.W. TOMLINSON LIMITED Database: Ottawa ON NPRI

 NPRI ID:
 7200011897
 Org ID:

 Other ID:
 Submit Date:

 No Other ID:
 Last Modified:

 Track ID:
 Contact ID:

Report ID: 826 Cont Type: MED

Report Type: Contact Title:
Rpt Type ID: Cont First Name:

Report Year: 2011 Cont First Name:

Not-Current Rpt?: Contact Position:

Yr of Last Filed Rpt: Contact Fax:

 Yr of Last Filed Rpt:
 Contact Fax:

 Fac ID:
 Contact Ph.:

 Fac Name:
 CRM CARP
 Cont Area Code

Fac Name: CRM CARP Cont Area Code:
Fac Address1: Contact Tel.:
Fac Address2: Contact Ext.:
Fac Postal Zip: Cont Fax Area Cde:
Facility Lat: Contact Fax:
Facility Long: Contact Email:
DLS (Last Filed Rpt): Latitude:
Facility DLS: Longitude:

 Facility DLS:
 Longitude:

 Datum:
 UTM Zone:

 Facility Cmnts:
 UTM Northing:

 URL:
 UTM Easting:

 No of Empl.:
 8

 Parent Co.:
 No Streams:

 No Parent Co.:
 Waste Off Sites:

Pollut Prev Cmnts:
Stacks:
No of Stacks:
No of Stacks:
No of Shutdown:

Canadian SIC Code (2 digit): Canadian SIC Code: SIC Code Description: American SIC Code:

NAICS Code (2 digit): 32

NAICS 2 Description: Manufacturing

NAICS Code (4 digit): 3273

NAICS 4 Description: Cement and Concrete Product Manufacturing

**NAICS Code (6 digit):** 327320

NAICS 6 Description: Ready-Mix Concrete Manufacturing

Site: I C G PROPANE INC Database: FALLOWFIELD RD PRT LOT 20 4 RF OTTAWA ON PRT

 Location ID:
 11051

 Type:
 retail

 Expiry Date:
 1990-12-31

 Capacity (L):
 30000

 Licence #:
 0033255001

Site: SUPERIOR PROPANE Database: FALLOWFIELD RD NEPEAN ON PRT

Location ID: 9601 Type: private 1992-01-31 Expiry Date: 0.00 Capacity (L): 0038379001 Licence #:

R.W. Tomlinson Limited Site:

Database: PTTW

Database: PTTW

Database: SPL

EBR Registry No: 010-5329 Decision Posted: Ministry Ref No: 3248-7LXR8J Exception Posted: Section:

Notice Type: Instrument Decision Notice Stage:

Notice Date: April 14, 2009 Act 2: Site Location Map:

Proposal Date: December 04, 2008

2008 Year:

(OWRA s. 34) - Permit to Take Water Instrument Type:

Off Instrument Name:

Posted By:

Company Name: R.W. Tomlinson Limited

Site Address: Location Other: Proponent Name:

5597 Power Road, Ottawa Ontario, Canada K1G 3N4 Proponent Address:

Comment Period:

URL:

Site Location Details:

R.W. Tomlinson Limited Address: Lot: 20, Concession: 7, Ottawa, City District Office: Ottawa GeoReference: Map Datum: NAD83, Zone: 18, Accuracy Estimate: 10-30 metres eg. Medium Quality GPS, Method: Map, UTM Easting: 470954, UTM Northing: 5024837 CITY OF OTTAWA

Act 1:

Site: Findlay Creek Properties Ltd. and 1374537 Ontario Ltd.

Lots 19, 20, Concession 4 and Lot 20, Concession 5, Ottawa ON

IA06E1038 **Decision Posted:** EBR Registry No: Ministry Ref No: 6114-6SQHA7 Exception Posted:

Notice Type: Notice Stage: Instrument Final Decision Section: Act 1: November 30, 2006 Act 2:

Notice Date: Proposal Date: August 17, 2006 Site Location Map:

2006 Year:

(OWRA s. 34) - Permit to Take Water Instrument Type:

Off Instrument Name:

Posted By:

Findlay Creek Properties Ltd. and 1374537 Ontario Ltd. Company Name:

Site Address: Location Other: **Proponent Name:** Proponent Address: Comment Period:

**URL**:

Ref No:

58

Site Location Details:

Lots 19, 20, Concession 4 and Lot 20, Concession 5, Ottawa

Site: Geo. W. Drummond Excavating Inc<UNOFFICIAL>

Strandherd Dr and Temporary Ottawa ON

0 6067-6EASVT Discharger Report: Material Group: Oil

Site No: Incident Dt: 7/14/2005 Health/Env Conseq:

erisinfo.com | Environmental Risk Information Services

Year: Client Type:

Overturn - Truck Or Trailer Other Motor Vehicle Incident Cause: Sector Type: Incident Event:

Agency Involved: Nearest Watercourse:

Contaminant Code: **DIESEL FUEL** Contaminant Name:

Site Address:

Contaminant Limit 1: Site District Office: Ottawa Contam Limit Freg 1:

Site Postal Code: Site Region:

Environment Impact: Not Anticipated Site Municipality: Ottawa

Nature of Impact: Soil Contamination Site Lot: Receiving Medium: Site Conc: Land Receiving Env: Northing: MOE Response: Easting:

Dt MOE Arvl on Scn: Site Geo Ref Accu: MOE Reported Dt: 7/14/2005 Site Map Datum:

Dt Document Closed: SAC Action Class:

Incident Reason: Source Type:

Spills to Highways (usually highway accidents)

Land Spills

Order No: 21071900557

Site Name: Roadway<UNOFFICIAL>

Site County/District: Site Geo Ref Meth:

Contaminant UN No 1:

Incident Summary: Ottawa: MVA 300 L diesel to road, cleaning

unknown L Contaminant Qty:

Site: R.W. Tomlinson Limited Database: Ottawa ON

Ref No: 5848-9W4RW6 Discharger Report: Material Group: Site No: NA 5/1/2015 Incident Dt: Health/Env Conseq: Year: Client Type: Incident Cause: Leak/Break 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:

Site Municipality: Ottawa **Environment Impact:** Site Lot: Nature of Impact: Land

Receiving Medium: Site Conc: Northing: Receiving Env: MOE Response: Easting:

Dt MOE Arvl on Scn: Site Geo Ref Accu: 5/1/2015 **MOE** Reported Dt: Site Map Datum:

**Dt Document Closed:** SAC Action Class:

Incident Reason: Operator/Human Error Source Type:

Site Name: Bearbrook bridge on Hwy 417 east bound<UNOFFICIAL>

Site County/District: Site Geo Ref Meth:

Incident Summary: R.W. Tomlinson: Sediment release to Bearbrook tributary

Contaminant Qty:

OC Transpo/ City of Ottawa<UNOFFICIAL> Site: Database: @ Fallowfield Ottawa ON SPL

Nearest Watercourse:

Discharger Report: Ref No: 0663-9BQ7ZM Site No: Material Group: Incident Dt: 2013/09/20 Health/Env Conseq: Year: Client Type:

Unknown / N/A Incident Cause: Sector Type: Unknown / N/A Incident Event: Agency Involved:

Contaminant Code:

HYDRAULIC OIL Contaminant Name: Site Address: @ Fallowfield

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: Ottawa 

 Nature of Impact:
 Other Impact(s)
 Site Lot:

 Receiving Medium:
 Site Conc:

Receiving Env: Northing: Northing: MOE Response: No Field Response Easting:

 Dt MOE Arvl on Scn:
 Site Geo Ref Accu:

 MOE Reported Dt:
 2013/09/20

 Site Map Datum:

 Dt Document Closed:
 SAC Action Class:

Incident Reason: Unknown / N/A Source Type:

Site Name: Woodroffe Transitway<UNOFFICIAL>

Site County/District: Site Geo Ref Meth:

Incident Summary: OC Transpo: Bus accident, EGR requested

Contaminant Qty: 300 L

Site: DEPARTMENT OF AGRICULTURE

ANIMAL DISEASE CONTROL CENTRE FALLOWFIELD ROAD OTTAWA CITY ON

Ref No:44068Discharger Report:Site No:Material Group:

Incident Dt:11/26/1990Health/Env Conseq:Year:Client Type:

 Incident Cause:
 UNDERGROUND TANK 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: POSSIBLE Site Municipality:

Nature of Impact:Soil contaminationSite Lot:Receiving Medium:LANDSite Conc:Receiving Env:Northing:

MOE Response: Easting: ENVIRONMENT CANADA

Land Spills

20101

Database:

Database:

SPL

Order No: 21071900557

SPL

Dt MOE Arvl on Scn:Site Geo Ref Accu:MOE Reported Dt:11/29/1990Dt Document Closed:SAC Action Class:

Incident Reason: CORROSION Source Type:

Site Name:

Site County/District: Site Geo Ref Meth:

Incident Summary: DEPARTMENT OF AGRICULTURE-UNDERGROUND FURNACE OIL TANK LEAKING.

Contaminant Qty:

Site: PUBLIC WORKS CANADA

AGRICULTURE CANADA FALLOWFIELD ROAD STORAGE TANK NEPEAN CITY ON

Ref No: 79801 Discharger Report:
Site No: Material Group:
Incident Dt: // Health/Env Conseq:

Year:
Incident Cause:
UNDERGROUND TANK LEAK
Sector Type:

Incident Event:Agency Involved:Contaminant Code:Nearest Watercourse:Contaminant Name:Site Address:

Contaminant Name:

Contaminant Limit 1:

Contam Limit Freq 1:

Contam Limit Freq 1:

Contaminant UP No 1:

Site Postal Code:

Site Region:

Site Region:

Environment Impact: CONFIRMED Site Municipality: 20104

Nature of Impact:<br/>Receiving Medium:Soil contamination<br/>LANDSite Lot:<br/>Site Conc:<br/>Northing:Receiving Env:<br/>MOE Response:Northing:<br/>Easting:

Dt MOE Arvl on Scn:Site Geo Ref Accu:MOE Reported Dt:12/11/1992Dt Document Closed:SAC Action Class:

Incident Reason: CORROSION Source Type:

Site Name:

Site County/District: Site Geo Ref Meth: Incident Summary: Contaminant Qty:

AGRICULTURE CANADA - SOIL CONTAMINATION DUE TO UNDERGROUND TANKS

Discharger Report:

Health/Env Conseq:

Agency Involved: Nearest Watercourse:

Site District Office:

Site Geo Ref Accu:

SAC Action Class:

Site Map Datum:

Source Type:

20107

Site Postal Code:

Material Group:

Client Type:

Sector Type:

Site Address:

Site Region: Site Municipality:

Site Lot:

Site Conc:

Northing:

Easting:

Sector:

Region: District:

UTM Zone:

**UTM Easting: UTM Northing:** 

Maior Basin:

Report Year:

**UTM Precision:** Minor Basin:

Site: PRIVATE OWNER

GENERAL WELDING, FALLOWFIELD RD. STITTSVILLE STORAGE TANK/BARREL OTTAWA CITY ON

Database:

Database:

**SRDS** 

Ref No: 213503

Site No: Incident Dt: 10/10/2001

Year:

Incident Cause: Incident Event: Contaminant Code:

Contaminant Name: Contaminant Limit 1: Contam Limit Freq 1: Contaminant UN No 1:

**Environment Impact:** Possible Nature of Impact: Soil contamination

Land

10/10/2001

**OTHER** 

Receiving Medium: Receiving Env: MOE Response:

Dt MOE Arvl on Scn: **MOE** Reported Dt: **Dt Document Closed:** 

Incident Reason:

Site Name: Site County/District:

Site Geo Ref Meth: Incident Summary:

SPILL OF 2-3 L FUEL OIL TO GROUND FROM TANK. CLEANED. Contaminant Qty:

OTHER CONTAINER LEAK

R.W. TOMLINSON LTD. Site:

ON

Company Code: Works ID: SIC:

SIC1: SIC1 Desc: SIC2: SIC2 Desc: SIC3: SIC3 Desc: Body of Water:

Terminal Stream: SIC Desc:

Mailing Address:

Corp Address:

Site:

Well ID:

**NEPEAN** 

lot 20 con 4 ON

1536188 Data Entry Status:

**Construction Date:** Data Src: 1/17/2006 Primary Water Use: Date Received: Sec. Water Use: Selected Flag: True

Final Well Status: Abandonment Rec: Water Type: Contractor: 6907 Casing Material: Form Version: 3

Audit No: Z17661 Owner: Street Name: Tag:

**Construction Method:** County: **OTTAWA** 

**NEPEAN TOWNSHIP** Elevation (m): Municipality:

erisinfo.com | Environmental Risk Information Services

**WWIS** 

Order No: 21071900557

Database:

1990-1994

61

Elevation Reliability: Depth to Bedrock:

Well Depth:
Overburden/Bedrock:

Pump Rate: Static Water Level:

Flowing (Y/N): Flow Rate: Clear/Cloudy: Site Info:

 Lot:
 020

 Concession:
 04

Concession Name: Easting NAD83: Northing NAD83:

Zone:

UTM Reliability:

#### **Bore Hole Information**

**Bore Hole ID:** 11550254

DP2BR: Spatial Status:

Code OB:

Code OB Desc: all layers are unknown type

Open Hole: Cluster Kind:

**Date Completed:** 22-Dec-2005 00:00:00

Remarks: Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

Elevation: Elevrc: Zone: East83: North83: Org CS:

UTMRC: 9

UTMRC Desc: unknown UTM

Order No: 21071900557

Location Method: na

# Overburden and Bedrock

**Materials Interval** 

**Formation ID:** 933043020

Layer: 1

Color:

General Color:

Mat1:

Most Common Material:

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 0.0 Formation End Depth: 80.0 Formation End Depth UOM: ft

# Method of Construction & Well

Use

Method Construction ID: 961536188

Method Construction Code:

Method Construction: Other Method

Other Method Construction:

#### Pipe Information

**Pipe ID:** 11559861

Casing No: Comment: Alt Name:

# Results of Well Yield Testing

 Pump Test ID:
 11569337

 Pump Set At:
 75.0

 Static Level:
 12.0

Final Level After Pumping:

Recommended Pump Depth:

Pumping Rate: Flowing Rate:

Recommended Pump Rate:

Levels UOM: ft **GPM** Rate UOM:

Water State After Test Code: Water State After Test: Pumping Test Method: **Pumping Duration HR: Pumping Duration MIN:** 

Flowing:

Site:

FALLOWFIELD RD OTTAWA ON

Well ID: 1535676

**Construction Date:** Primary Water Use: Sec. Water Use:

Final Well Status: Abandoned-Other

Water Type: Casing Material:

Audit No: Z33652

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:

**Bore Hole Information** 

Bore Hole ID: 11316215

DP2BR: Spatial Status: Code OB:

No formation data Code OB Desc:

Open Hole: Cluster Kind:

Date Completed: 08-Jun-2005 00:00:00

Remarks: Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment: Supplier Comment:

Annular Space/Abandonment

Sealing Record

Plug ID: 933273995

Layer: 1 Plug From:

1.89999997615814 Plug To:

Plug Depth UOM: m

Annular Space/Abandonment

Sealing Record

Data Entry Status:

Data Src:

8/4/2005 Date Received: Selected Flag: True Abandonment Rec: Yes 6894 Contractor: Form Version: 3

Owner:

Street Name: FALLOWFIELD RD Database: **WWIS** 

Order No: 21071900557

County: **OTTAWA** Municipality: **OTTAWA CITY** Site Info:

Lot: Concession: Concession Name: Easting NAD83:

Zone:

UTM Reliability:

Northing NAD83:

Elevation: Elevrc: Zone:

East83: North83: Org CS: UTMRC: **UTMRC Desc:** 

Location Method: na Plug ID: 933273996

Layer: 2

1.89999997615814 Plug From:

0 Plug To: Plug Depth UOM:

#### Method of Construction & Well

<u>Use</u>

**Method Construction ID:** 961535676

**Method Construction Code: Method Construction: Other Method Construction:** 

#### Pipe Information

Pipe ID: 11331070 Casing No:

Comment: Alt Name:

#### Hole Diameter

Hole ID: Diameter: 20.0 Depth From: 0.0 Depth To: 18.0 Hole Depth UOM: m Hole Diameter UOM: cm

#### Hole Diameter

Hole ID: Diameter: 6.0 Depth From: 0.0 Depth To: 7.0 Hole Depth UOM: m Hole Diameter UOM: cm

#### Site: lot 20 con 4 ON

1534313 Well ID:

**Construction Date:** 

Primary Water Use: Not Used

Sec. Water Use:

Final Well Status: Abandoned-Quality

Water Type: Casing Material:

267002 Audit No:

Tag:

Construction Method: Elevation (m):

Elevation Reliability: Depth to Bedrock: Well Depth:

Overburden/Bedrock: Pump Rate:

Static Water Level: Flowing (Y/N):

Clear/Cloudy:

Flow Rate:

11533760

11533761

Data Entry Status:

Data Src:

Date Received: 11/13/2003

Selected Flag: True

Abandonment Rec:

Contractor: 1558 Form Version: 2

Owner: Street Name:

**OTTAWA** County:

NEPEAN TOWNSHIP Municipality: Site Info:

Database:

Order No: 21071900557

**WWIS** 

Lot:

020 Concession: 04

Concession Name: Easting NAD83: Northing NAD83:

Zone:

UTM Reliability:

#### **Bore Hole Information**

Bore Hole ID: 11097363

DP2BR: Spatial Status:

Code OB:

No formation data Code OB Desc:

Open Hole: Cluster Kind:

Date Completed: 18-Sep-2003 00:00:00

Remarks: Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment: Supplier Comment:

Method of Construction & Well

Use

**Method Construction ID:** 961534313 **Method Construction Code:** 0 **Method Construction:** Not Known

**Other Method Construction:** 

Pipe Information

Pipe ID: 11101078

Casing No: Comment: Alt Name:

Site: Database: **WWIS** lot 21 ON

Zone:

UTM Reliability:

Elevation:

18

na

unknown UTM

Order No: 21071900557

Elevrc:

Zone:

East83:

North83:

Org CS: UTMRC:

**UTMRC Desc:** 

Location Method:

Well ID: 1519738 Data Entry Status:

**Construction Date:** Data Src:

6/24/1985 Primary Water Use: **Domestic** Date Received:

Sec. Water Use: Selected Flag: True Final Well Status:

Water Supply Abandonment Rec: Contractor: 3644 Water Type: Casing Material: Form Version: Audit No: Owner:

Street Name: Tag: Construction Method: County:

**OTTAWA** Municipality: **NEPEAN TOWNSHIP** Elevation (m): Elevation Reliability: Site Info:

Depth to Bedrock: Lot: 021

Well Depth: Concession: Overburden/Bedrock: Concession Name: Easting NAD83: Pump Rate: Static Water Level: Northing NAD83:

Flowing (Y/N): Flow Rate: Clear/Cloudy:

**Bore Hole Information** 

10041591 Bore Hole ID: Elevation: DP2BR: 112.00 Elevrc:

Spatial Status: 18 Zone:

Code OB: East83: Code OB Desc: **Bedrock** North83: Open Hole: Org CS:

Cluster Kind: UTMRC:

03-Jun-1985 00:00:00 UTMRC Desc: unknown UTM Date Completed: na

Remarks: Location Method: Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment:

Supplier Comment:

# Overburden and Bedrock

**Materials Interval** 

Formation ID: 931042558

Layer: Color: 2 General Color: **GREY** 05 Mat1: Most Common Material: CLAY

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 0.0 Formation End Depth: 88.0 Formation End Depth UOM: ft

#### Overburden and Bedrock

Materials Interval

Formation ID: 931042560

Layer: 2 Color: General Color: **GREY** Mat1: 15

LIMESTONE Most Common Material:

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 112.0 Formation End Depth: 165.0 Formation End Depth UOM:

# Overburden and Bedrock

**Materials Interval** 

931042559 Formation ID:

Layer: 2 Color: General Color: **GREY** Mat1: 14 **HARDPAN** Most Common Material:

Mat2: 12 **STONES** Mat2 Desc:

Mat3:

Mat3 Desc:

Formation Top Depth: 0.88 Formation End Depth: 112.0 Formation End Depth UOM:

# Method of Construction & Well

<u>Use</u>

**Method Construction ID:** 961519738

**Method Construction Code:** 

Method Construction: Air Percussion

Other Method Construction:

#### Pipe Information

**Pipe ID:** 10590161

Casing No: Comment: Alt Name:

#### **Construction Record - Casing**

**Casing ID:** 930072629

Layer: 1
Material: 1

Open Hole or Material: STEEL

Depth From:

Depth To:113Casing Diameter:6Casing Diameter UOM:inchCasing Depth UOM:ft

#### Construction Record - Casing

**Casing ID:** 930072630

Layer: 2 Material: 4

Open Hole or Material: OPEN HOLE

Depth From:

Depth To:165Casing Diameter:6Casing Diameter UOM:inchCasing Depth UOM:ft

#### Results of Well Yield Testing

**Pump Test ID:** 991519738

Pump Set At: Static Level:

Final Level After Pumping: 30.0
Recommended Pump Depth: 30.0
Pumping Rate: 10.0

Flowing Rate:

Recommended Pump Rate: 6.0
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2
Water State After Test: CLOUDY

Water State After Test: CLC
Pumping Test Method: 1
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: No

# Draw Down & Recovery

Pump Test Detail ID: 934894680

Test Type:

 Test Duration:
 60

 Test Level:
 30.0

 Test Level UOM:
 ft

# **Draw Down & Recovery**

Pump Test Detail ID: 934654896

Test Type:

 Test Duration:
 45

 Test Level:
 30.0

 Test Level UOM:
 ft

#### **Draw Down & Recovery**

934384356 Pump Test Detail ID:

Test Type:

Test Duration: 30 30.0 Test Level: Test Level UOM: ft

#### **Draw Down & Recovery**

934108646 Pump Test Detail ID:

Test Type:

Test Duration: 15 30.0 Test Level: Test Level UOM:

#### Water Details

Water ID: 933476797

Layer: 2 Kind Code: **FRESH** Kind. Water Found Depth: 160.0 Water Found Depth UOM: ft

#### Water Details

Water ID: 933476796

Layer: Kind Code:

Kind: **FRESH** Water Found Depth: 140.0 Water Found Depth UOM:

Site: Database: lot 21 ON

Zone:

18

Order No: 21071900557

Well ID: 1519741

Data Entry Status: **Construction Date:** Data Src:

6/3/1985 Primary Water Use: Domestic Date Received:

Sec. Water Use: Selected Flag: True Final Well Status: Water Supply Abandonment Rec:

3142 Water Type: Contractor: Casing Material: Form Version:

Audit No: Owner: Tag: Street Name:

**OTTAWA Construction Method:** County:

Municipality: **NEPEAN TOWNSHIP** Elevation (m):

Elevation Reliability: Site Info: Depth to Bedrock: 021 Lot:

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: 10041594 Elevation: DP2BR: 81.00 Elevrc:

Spatial Status:

Code OB: East83: Code OB Desc: Bedrock North83: Open Hole: Org CS:

Cluster Kind:

Date Completed: 16-May-1985 00:00:00

UTMRC:

UTMRC Desc:

Location Method:

unknown UTM

na

Remarks: Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment: Supplier Comment:

#### Overburden and Bedrock

Materials Interval

**Formation ID:** 931042567

 Layer:
 1

 Color:
 6

 General Color:
 BROWN

 Mat1:
 05

 Most Common Material:
 CLAY

 Mat2:
 79

 Mat2 Desc:
 PACKED

Mat3:

Mat3 Desc:

Formation Top Depth: 0.0
Formation End Depth: 16.0
Formation End Depth UOM: ft

#### Overburden and Bedrock

**Materials Interval** 

**Formation ID:** 931042568

 Layer:
 2

 Color:
 3

 General Color:
 BLUE

 Mat1:
 05

 Most Common Material:
 CLAY

 Mat2:
 77

 Mat2 Desc:
 LOOSE

Mat3:

Mat3 Desc:

Formation Top Depth: 16.0 Formation End Depth: 65.0 Formation End Depth UOM: ft

# Overburden and Bedrock

Materials Interval

**Formation ID:** 931042569

Layer: 3 Color: 2 **GREY** General Color: Mat1: 28 Most Common Material: SAND Mat2: 11 Mat2 Desc: **GRAVEL** Mat3: 13 **BOULDERS** Mat3 Desc:

Formation Top Depth: 65.0
Formation End Depth: 81.0
Formation End Depth UOM: ft

# Overburden and Bedrock

Materials Interval

**Formation ID:** 931042570

Layer:

erisinfo.com | Environmental Risk Information Services

69

 Color:
 2

 General Color:
 GREY

 Mat1:
 15

Most Common Material: LIMESTONE

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 81.0
Formation End Depth: 84.0
Formation End Depth UOM: ft

#### Method of Construction & Well

<u>Use</u>

Method Construction ID:961519741Method Construction Code:1

Method Construction: Cable Tool

Other Method Construction:

#### Pipe Information

 Pipe ID:
 10590164

 Casing No:
 1

Comment: Alt Name:

# Construction Record - Casing

 Casing ID:
 930072634

 Layer:
 2

 Material:
 4

Open Hole or Material: OPEN HOLE

Depth From: Depth To:

Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

## **Construction Record - Casing**

**Casing ID:** 930072633

Layer: 1
Material: 1
Open Hole or Material: STEEL

Depth From:

Depth To:86Casing Diameter:6Casing Diameter UOM:inchCasing Depth UOM:ft

#### Results of Well Yield Testing

**Pump Test ID:** 991519741

Pump Set At:

Static Level:0.0Final Level After Pumping:0.0Recommended Pump Depth:30.0Pumping Rate:30.0Flowing Rate:30.0

Recommended Pump Rate: 8.0
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 2

Pumping Duration HR:2Pumping Duration MIN:0Flowing:No

#### **Draw Down & Recovery**

Pump Test Detail ID: 934654899

Test Type:

 Test Duration:
 45

 Test Level:
 0.0

 Test Level UOM:
 ft

#### **Draw Down & Recovery**

Pump Test Detail ID: 934894683

Test Type:

 Test Duration:
 60

 Test Level:
 0.0

 Test Level UOM:
 ft

#### **Draw Down & Recovery**

Pump Test Detail ID: 934108649

Test Type:

 Test Duration:
 15

 Test Level:
 0.0

 Test Level UOM:
 ft

#### Water Details

*Water ID:* 933476800

Layer: 1
Kind Code: 1

Kind: FRESH
Water Found Depth: 84.0
Water Found Depth UOM: ft

Site:

| lot 20 con 4 | ON | Database: WWIS

Order No: 21071900557

Well ID: Data Entry Status:

Construction Date: Data Src:

Primary Water Use:DomesticDate Received:2/18/1987Sec. Water Use:Selected Flag:True

Final Well Status: Water Supply Abandonment Rec:

Water Type: Contractor: 3142

Casing Material: Form Version: 1

Audit No: 07417 Owner:
Tag: Street Name:

Construction Method: County: OTTAWA

Elevation (m):Municipality:NEPEAN TOWNSHIPElevation Reliability:Site Info:

Depth to Bedrock: Lot: 020

Well Depth: Concession: 04
Overburden/Redrock: Concession Name:

Overburden/Bedrock: Concession Name:
Pump Rate: Easting NAD83:
Contain Marking NAD83:

Static Water Level: Northing NAD83: Flowing (Y/N): Zone:

Flow Rate: UTM Reliability:

# **Bore Hole Information**

Clear/Cloudy:

 Bore Hole ID:
 10043024
 Elevation:

 DP2BR:
 23.00
 Elevrc:

Spatial Status: Zone:

18

unknown UTM

Order No: 21071900557

UTMRC: UTMRC Desc:

Location Method:

Code OB: Fast83:

Code OB Desc: Bedrock North83:
Open Hole: Org CS:

Cluster Kind:
Date Completed: 17-Jan-1987 00:00:00

Remarks:
Elevro Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment: Supplier Comment:

#### Overburden and Bedrock

#### **Materials Interval**

 Formation ID:
 931047128

 Layer:
 2

 Color:
 2

 General Color:
 GREY

 Mat1:
 05

Most Common Material: CLAY
Mat2: 13
Mat2 Desc: BOULDERS

Mat3: Mat3 Desc:

Formation Top Depth: 8.0
Formation End Depth: 16.0
Formation End Depth UOM: ft

# Overburden and Bedrock

Materials Interval

**Formation ID:** 931047127 **Layer:** 1

Color: 6

General Color: BROWN

Mat1: 05

Most Common Material: CLAY

Most Common Material: CLAY
Mat2: 79
Mat2 Desc: PACKED
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:** 931047129

 Layer:
 3

 Color:
 2

 General Color:
 GREY

 Mat1:
 14

 Most Common Material:
 HARDPAN

Mat2 Desc: BOULDERS

Mat2: Mat2 D Mat3:

Mat3 Desc:

Formation Top Depth: 16.0 Formation End Depth: 23.0 Formation End Depth UOM: ft

## Overburden and Bedrock

13

#### **Materials Interval**

**Formation ID:** 931047130

 Layer:
 4

 Color:
 2

 General Color:
 GREY

 Mat1:
 15

Most Common Material: LIMESTONE

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 23.0 Formation End Depth: 78.0 Formation End Depth UOM: ft

#### Method of Construction & Well

<u>Use</u>

Method Construction ID:961521188Method Construction Code:1Method Construction:Cable Tool

**Other Method Construction:** 

#### Pipe Information

 Pipe ID:
 10591594

 Casing No:
 1

Comment: Alt Name:

#### **Construction Record - Casing**

**Casing ID:** 930075103

Layer: 1
Material: 1

Open Hole or Material: STEEL

Depth From:

Depth To:24Casing Diameter:6Casing Diameter UOM:inchCasing Depth UOM:ft

#### **Construction Record - Casing**

**Casing ID:** 930075104

Layer: 2 Material: 4

Open Hole or Material: OPEN HOLE

Depth From:
Depth To: 78
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

#### Results of Well Yield Testing

**Pump Test ID:** 991521188

Pump Set At:

Static Level:4.0Final Level After Pumping:18.0Recommended Pump Depth:50.0Pumping Rate:40.0Flowing Rate:

Recommended Pump Rate: 10.0 Levels UOM: ft

Rate UOM: **GPM** Water State After Test Code: 2 CLOUDY Water State After Test: Pumping Test Method: 2 **Pumping Duration HR:** 0 **Pumping Duration MIN:** No Flowing:

#### **Draw Down & Recovery**

934651135 Pump Test Detail ID:

Test Type:

Test Duration: 45 18.0 Test Level: Test Level UOM:

# **Draw Down & Recovery**

934908364 Pump Test Detail ID:

Test Type: Test Duration: 60 18.0 Test Level: Test Level UOM: ft

#### **Draw Down & Recovery**

934389007 Pump Test Detail ID:

Test Type: 30 Test Duration: Test Level: 18.0 Test Level UOM: ft

#### **Draw Down & Recovery**

Pump Test Detail ID: 934105888

Test Type:

Test Duration: 15 Test Level: 18.0 Test Level UOM: ft

#### Water Details

Water ID: 933478675

Layer: 2 Kind Code:

Kind: **FRESH** Water Found Depth: 76.0 Water Found Depth UOM: ft

# Water Details

933478674 Water ID:

Layer: Kind Code:

Kind: **FRESH** Water Found Depth: 40.0 Water Found Depth UOM: ft

Site: Database: lot 20 ON **WWIS** 

Order No: 21071900557

1527942 Well ID:

Data Entry Status: Construction Date: Data Src:

Primary Water Use: Date Received: 6/9/1994 Sec. Water Use: Final Well Status: Water Type: Casing Material:

Audit No: 139317

Tag:

**Construction Method:** Elevation (m): Elevation Reliability: Depth to Bedrock:

Well Depth:

Clear/Cloudy:

. Overburden/Bedrock: Pump Rate: Static Water Level: Flowing (Y/N): Flow Rate:

Selected Flag: True Abandonment Rec: 3142 Contractor: Form Version:

Owner: Street Name:

**OTTAWA** County:

**NEPEAN TOWNSHIP** Municipality:

1

Site Info:

Lot: 020

Concession: Concession Name: Easting NAD83: Northing NAD83:

Zone:

UTM Reliability:

#### **Bore Hole Information**

Bore Hole ID: 10049484 DP2BR: 16.00

Spatial Status:

Code OB:

Code OB Desc: Bedrock

Open Hole:

Cluster Kind:

Date Completed: 03-Jun-1994 00:00:00

Remarks: Elevrc Desc:

Location Source Date:

Improvement Location Source: Improvement Location Method: Source Revision Comment: **Supplier Comment:** 

# Overburden and Bedrock

**Materials Interval** 

931068040 Formation ID:

Layer: Color: 2 General Color: **GREY** Mat1: 05 Most Common Material: CLAY Mat2: 13

Mat2 Desc: **BOULDERS** Mat3: 79 **PACKED** Mat3 Desc: Formation Top Depth: 0.0 Formation End Depth: 16.0 Formation End Depth UOM: ft

# Overburden and Bedrock

Materials Interval

931068041 Formation ID: Layer: 2

Color: 2 General Color: **GREY** Mat1:

LIMESTONE Most Common Material:

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

16.0 Formation Top Depth:

Elevation: Elevrc:

Zone: 18

East83: North83: Org CS:

UTMRC: 9

**UTMRC Desc:** unknown UTM

Order No: 21071900557

Location Method: na Formation End Depth: 70.0 ft

# Overburden and Bedrock

Materials Interval

**Formation ID:** 931068042

Layer: 3
Color: 8
Conoral Color: Bl

**General Color:** BLACK **Mat1:** 15

Most Common Material: LIMESTONE

Mat2: Mat2 Desc: Mat3: Mat3 Desc:

Formation Top Depth: 70.0 Formation End Depth: 97.0 Formation End Depth UOM: ft

# Annular Space/Abandonment

Sealing Record

**Plug ID:** 933112804

 Layer:
 1

 Plug From:
 0

 Plug To:
 21

 Plug Depth UOM:
 ft

# Method of Construction & Well

<u>Use</u>

Method Construction ID: 961527942

**Method Construction Code:** 0

Method Construction: Not Known

Other Method Construction:

# Pipe Information

**Pipe ID:** 10598054

Casing No:

Comment: Alt Name:

# Construction Record - Casing

**Casing ID:** 930086442

Layer: 1
Material: 1
Open Hole or Material: STEEL

Depth From:

Depth To:22Casing Diameter:6Casing Diameter UOM:inchCasing Depth UOM:ft

#### **Construction Record - Casing**

**Casing ID:** 930086443

Layer: 2 Material: 4

Open Hole or Material: OPEN HOLE

Depth From:

**Depth To:** 97 **Casing Diameter:** 6

Casing Diameter UOM: inch Casing Depth UOM: ft

#### Results of Well Yield Testing

**Pump Test ID:** 991527942

Pump Set At:

Static Level:4.0Final Level After Pumping:60.0Recommended Pump Depth:80.0Pumping Rate:25.0Flowing 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: 2
Pumping Duration HR: 1
Pumping Duration MIN: 0

#### **Draw Down & Recovery**

Pump Test Detail ID: 934386620

No

Test Type:

Flowing:

 Test Duration:
 30

 Test Level:
 60.0

 Test Level UOM:
 ft

#### **Draw Down & Recovery**

Pump Test Detail ID: 934655949

Test Type:

 Test Duration:
 45

 Test Level:
 60.0

 Test Level UOM:
 ft

# **Draw Down & Recovery**

Pump Test Detail ID: 934904319

Test Type:

Test Duration: 60
Test Level: 60.0
Test Level UOM: ft

#### **Draw Down & Recovery**

Pump Test Detail ID: 934111811

Test Type:

Test Duration: 15
Test Level: 60.0
Test Level UOM: ft

#### Water Details

 Water ID:
 933487482

 Layer:
 1

 Kind Code:
 1

 Kind:
 FRESH

 Water Found Depth:
 84.0

 Water Found Depth UOM:
 ft

#### Water Details

933487483

Water ID: Layer: 2 Kind Code:

Kind: **FRESH** Water Found Depth: Water Found Depth UOM: 93.0 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

AGR

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 Sep 2020

#### 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** 

Order No: 21071900557

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-Dec 31, 2020

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 2018

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

<u>Chemical Register:</u> 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-Dec 31, 2020

#### 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 -Apr 2021

#### **Inventory of Coal Gasification Plants and Coal Tar Sites:**

Provincial COAL

Order No: 21071900557

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-Nov 2020

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- Jun 30, 2021

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- Jun 30, 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- Jun 30, 2021

#### **Environmental Compliance Approval:**

Provincial FCA

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- Jun 30, 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-Jun 30, 2021

#### **Environmental Issues Inventory System:**

Federal

EIIS

Order No: 21071900557

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:**

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

Government Publication Date: Dec 31, 2016

#### **Environmental Penalty Annual Report:**

Provincial

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.

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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: Jul 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

ECS.

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-Apr 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

Order No: 21071900557

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: Jul 31, 2020

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-Apr 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

NC

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

Order No: 21071900557

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, 2019

#### 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-Mar 31, 2021

#### National Energy Board Wells:

Federal

**NEBP** 

Order No: 21071900557

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

Government Publication Date: 1920-Feb 2003\*

#### National Environmental Emergencies System (NEES):

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for previous Environment Canada spill datasets. NEES is composed of the historic datasets ' or Trends ' which dates from approximately 1974 to present. NEES Trends is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

Government Publication Date: 1974-2003\*

National PCB Inventory: 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

Federal

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-Feb 28, 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-Jun 2020

#### 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-Apr 30, 2021

#### Canadian Pulp and Paper:

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

Order No: 21071900557

PAP

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- Jun 30, 2021

Provincial PINC 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- Jun 30, 2021

#### 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, 1992-2018

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-Jun 2021

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-Dec 31, 2020

# Scott's Manufacturing Directory:

Private

SCT

Order No: 21071900557

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.

Government Publication Date: 1988-Aug 2020

#### Wastewater Discharger Registration Database:

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, 2018

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

Provincial

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- Jun 30, 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** 

Order No: 21071900557

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: Apr 30, 2021

# **Definitions**

<u>Database Descriptions:</u> This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

<u>Detail Report</u>: 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.

<u>Distance:</u> The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

<u>Direction</u>: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

<u>Elevation:</u> The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

**Executive Summary:** This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

<u>Map Key:</u> The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

<u>Unplottables:</u> These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

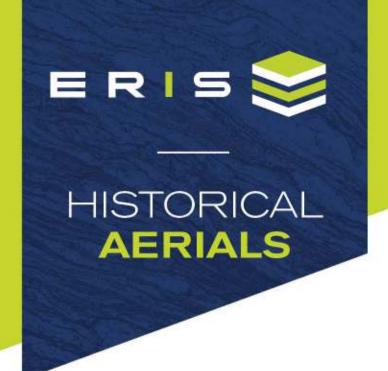
# APPENDIX E AERIAL PHOTOGRAPHS

Phase I Environmental Site Assessment

135 Lusk Street

Ottawa, Ontario

KS1076



**Project Property:** 135 Lusk Street, Ottawa Ontario Phase I ESA

135 Lusk Street

Ottawa ON K2J

**Project No:** KS1076

Requested By: CM3 Environmental Inc.

Order No: 21071900557 **Date Completed:** July 20, 2021

Decade	Year	Image Scale	Source
1940	1945	15000	NAPL

Aerial Maps included in this report are produced by the sources listed above and are to be used for research purposes including a phase I report. Maps are not to be resold as commercial property. No warranty of Accuracy or Liability for ERIS: The information contained in this report has been produced by ERIS Information Inc.(in the US) and ERIS Information Limited Partnership (in Canada), both doing business and ERIS Information Limited Partnership (in Canada), both doing business as 'ERIS', using aerial photos listed in above sources. The maps contained in this report does not purport to be and does not constitute a guarantee of the accuracy of the information contained herein. Although ERIS has endeavored to present you with information that is accurate, ERIS disclaims, any and all liability for any errors, omissions, or inaccuracies in such information and data, whether attributable to inadvertence, negligence or otherwise, and for any consequences arising therefrom. Liability on the part of ERIS is limited to the monetary value paid for this report.

# **Environmental Risk Information Services**

A division of Glacier Media Inc.



Year: 1945 Source: NAPL Map Scale: 1: 10000

Comments:



# APPENDIXF

# ERIS PHYSICAL SETTING REPORT AND MAPS

Phase I Environmental Site Assessment

135 Lusk Street

Ottawa, Ontario

KS1076



## **Property Information**

Order Number: 21071900557p

Date Completed: July 22, 2021

Project Number: KS1076

Project Property: 135 Lusk Street, Ottawa Ontario Phase I ESA

135 Lusk Street Ottawa ON K2J

Coordinates:

Latitude: 45.274091 Longitude: -75.7883888

 UTM Northing:
 5013701.4603 Metres

 UTM Easting:
 438159.885769 Metres

UTM Zone: UTM Zone 18T Elevation: 102.89 m Slope Direction: SSW

Property Information	1
Topographic Information	2
Hydrologic Information	
Geologic Information	
Soil Information	
Wells and Additional Sources	
Report Summary	50
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The ERIS *Physical Setting Report - PSR* provides comprehensive information about the physical setting around a site and includes a complete overview of topography as well as hydrologic, geologic and soil characteristics. The location and detailed attributes of oil and gas wells, water wells, and radon are also included for review.

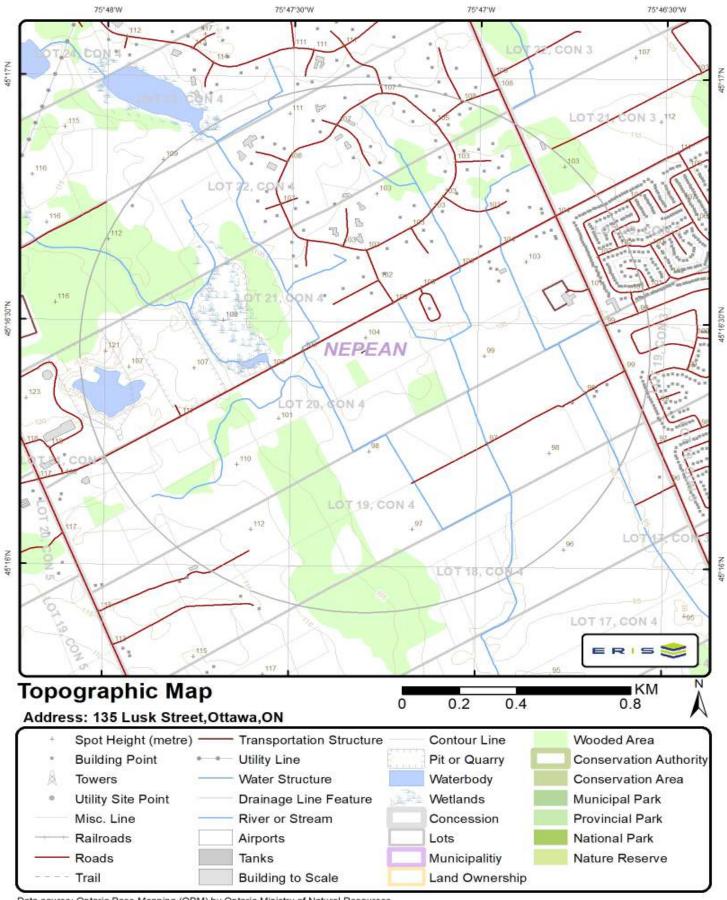
The compilation of both physical characteristics of a site and additional attribute data is useful in assessing the impact of migration of contaminants and subsequent impact on soils and groundwater.

#### Disclaimer

This Report does not provide a full environmental evaluation for the site or adjacent properties. Please see the terms and disclaimer at the end of the Report for greater detail.

Order No: 21071900557p

# **Topographic Information**



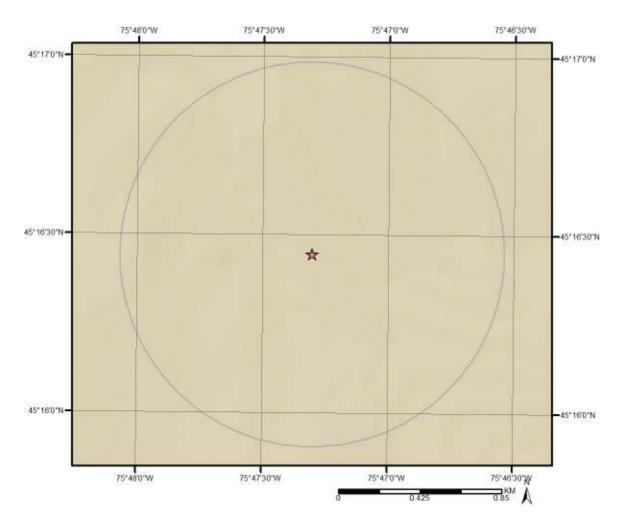
Data source: Ontario Base Mapping (OBM) by Ontario Ministry of Natural Resources.

# **Topographic Information**

The previous topographic map(s) show general topographic information in the surrounding area of the project property, using Toporama data or a provincial source when available. Below are shaded relief map(s), derived from Digital Elevation data to depict terrain in further detail.

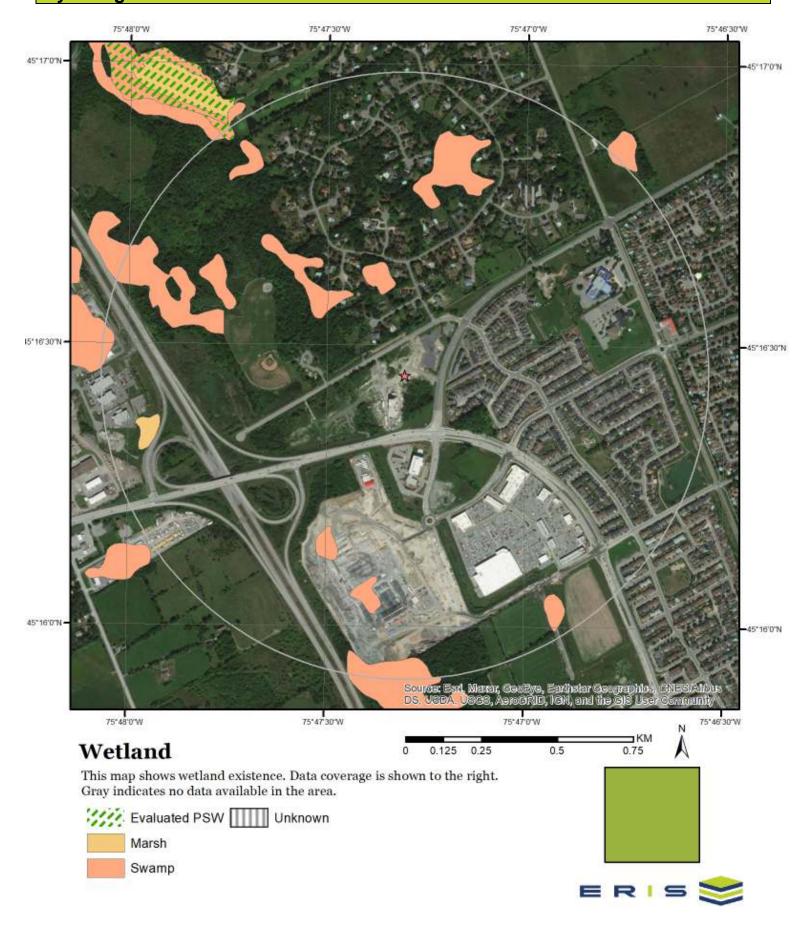
Topographic information at project property:

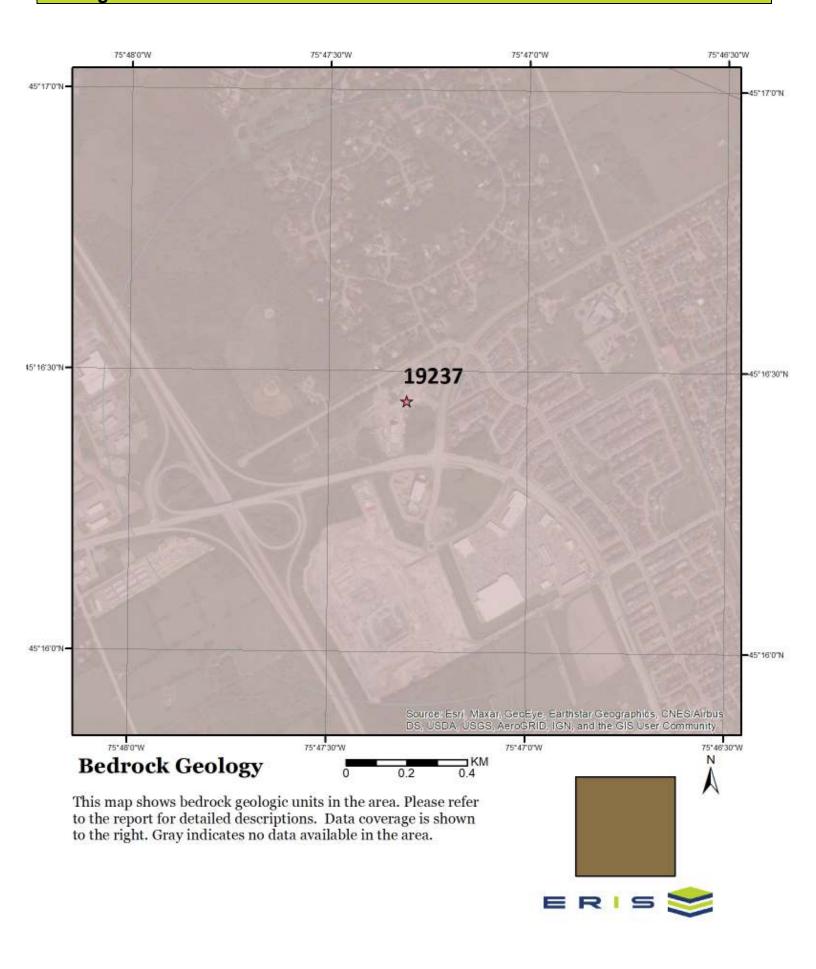
Elevation: 102.89 m Slope Direction: SSW



Order No: 21071900557p

# **Hydrologic Information**





Detailed bedrock geology information about each unit within the search radius is provided below.

Unit ID 19237

Unit Name:

Rock Type: Limestone, dolostone, shale, arkose, sandstone

Strata: Ottawa Group; Simcoe Group; Shadow Lake Formation

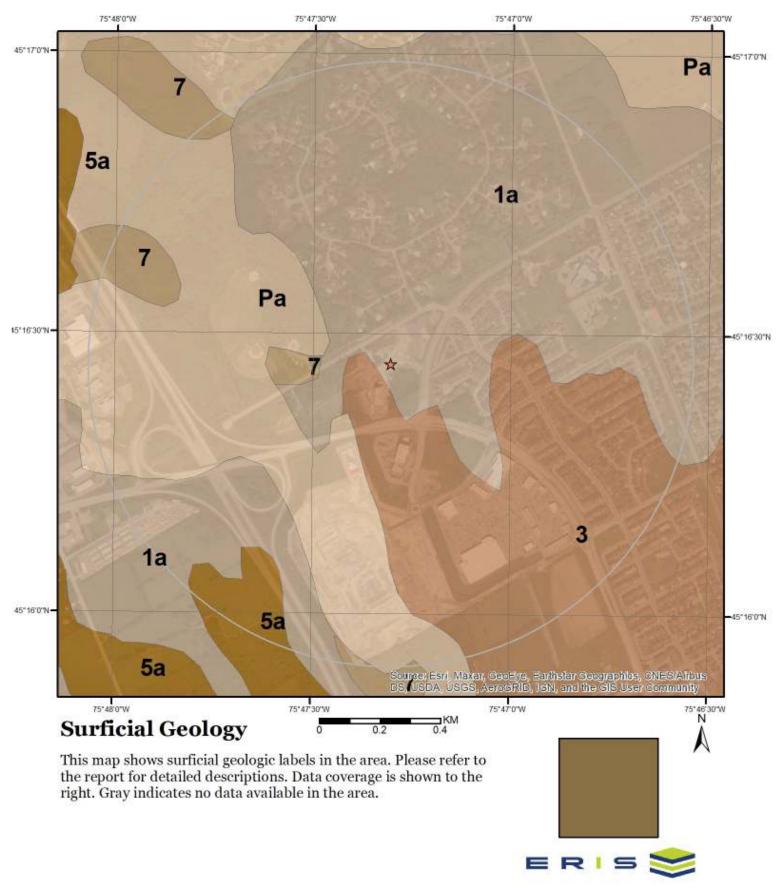
Super Eon:

Eon: PHANEROZOIC (Present to 542.0 Ma)
Era: PALEOZOIC (251.0 Ma to 542.0 Ma)
Period: ORDOVICIAN (443.7 Ma to 488.3 Ma)

Epoch: MIDDLE ORDOVICIAN (now considered UPPER DEVONIAN)

Province: Tectonic Zone:

Order No: 21071900557p



Detailed surficial geology information about each unit within the search radius is provided below.

**Unit ID Pa** 

Geological Deposit: Bedrock
Deposit Age: Paleozoic

Primary Material: Paleozoic Bedrock

Secondary Material:

Primary General:

Primary General Modifier:

Veneer: clay, silt, sand, gravel, diamicton

Episode:

Sub Episode:

Strata Modifier: Surface

Provenance: Carbon Content:

Formation:

Permeability: Variable

Material Description: Limestone, dolomite, sandstone, and locally shale; relatively flat lying; mainly

occuring as bare, tabular outcrops; includes areas thinly veneered by

unconsolidated Quaternary sediments up to 1 m (3 ft) thick.

Unit ID 1a

Geological Deposit: Till

Deposit Age: Quaternary Primary Material: diamicton

Secondary Material:

Primary General: glacial

Primary General Modifier:

Veneer:

Episode: Wisconsin
Sub Episode: Michigan
Strata Modifier: Surface
Provenance: N-NE

Carbon Content:

Formation: Undifferentiated silty-sandy till on Paleozoic terrain

Permeability: Low-Medium

Material Description: Sandy and silty compact diamicton, grey at depth but brown where oxidized;

calcareous where derived from sedimentary rocks and not leached; consists dominantly of lodgment till. In areas that lie below marine limit (198 m a.s.l.) it is overlain by a discontinuous lag consisting of gravel, sand and boulders

Order No: 21071900557p

Unit ID 5a

Geological Deposit: Nearshore sediments

Deposit Age: Quaternary (Champlain Sea)

Primary Material: sand, gravel Secondary Material:

Primary General: glaciomarine
Primary General Modifier: littoral/foreshore

Veneer:

Episode: Wisconsin
Sub Episode: Michigan
Strata Modifier: Surface

Provenance:
Carbon Content:
Formation:

Permeability: High

Material Description: Gravel, sand and boulders; beaches commonly fossiliferous; nature of

sediment controlled by underlying material (gravel, sand and boulders where developed from till and glaciofluvial deposits; slabs and shingles where

developed from sedimentary bedrock).

Unit ID 7

Geological Deposit: Organic deposits

Deposit Age: Recent

Primary Material: organic deposits

Secondary Material:

Primary General: wetland

Primary General Modifier:

Veneer:

Episode: Hudson

Sub Episode:

Strata Modifier: Surface

Provenance:
Carbon Content:

Formation:

Permeability: High

Material Description: Mainly muck and peat in bogs, fens, swamps and poorly drained areas.

Unit ID 3

Geological Deposit:

Deposit Age:

Offshore marine deposits

Quaternary (Champlain Sea)

Primary Material: clay, silt Secondary Material: sand

Primary General: glaciomarine
Primary General Modifier: foreshore/basinal

Veneer:

Episode: Wisconsin
Sub Episode: Michigan
Strata Modifier: Surface

Provenance: Carbon Content:

Formation:

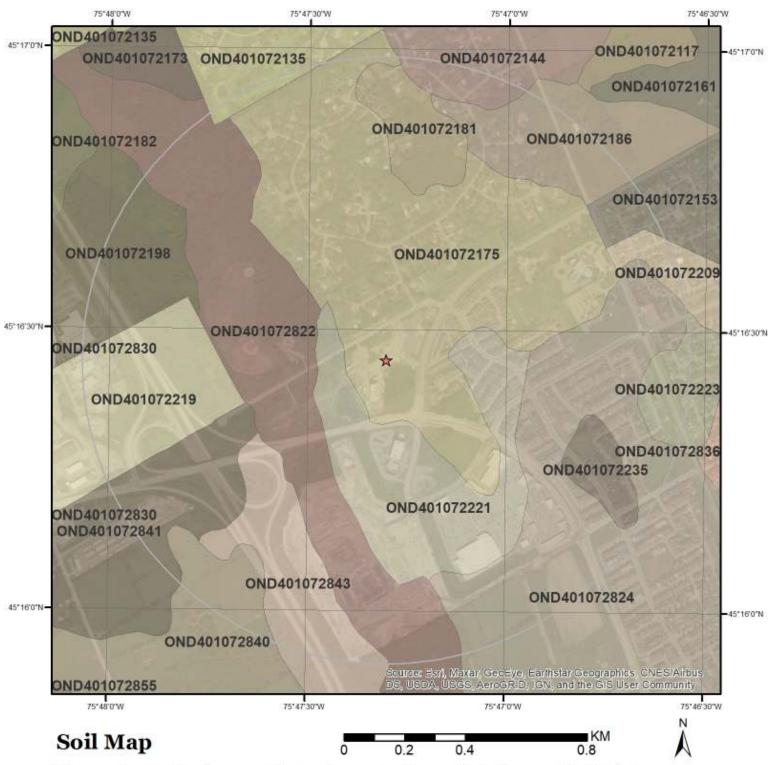
Permeability:

Material Description:

Low

Clay, silty clay and silt, commonly calcareous and fossiliferous; locally overlain by thin sands. Upper parts are generally mottled or laminated reddish brown and bluish grey and may contain lenses and pockets of sand, but at depth the clay is uniform and blue-grey.

Order No: 21071900557p



This map shows soil units around the target property. Please refer to the report for detailed soil descriptions.



Detailed soil information about each unit within the search radius is provided below.

### **Ontario Detailed Soil Survey (DSS3)**

**Polygon ID:** OND401072840

Component

 Component ID:
 OND40107284001
 Components(%):
 100

 Soil Name ID:
 ONOKA~~~~A
 Slope Steepness(%):
 7

 Component No:
 1
 Slope Length(m):
 -9

Surface Stoniness Slightly stony

Class:

**Component Rating** 

**Field Crops Capability:** Severe limitations on use for crops.

First CLI Limitation Low inherent soil Fertility

Subclass:

Second CLI Limitation Low inherent Moisture holding capacity

Subclass:

Drainage: Well

Soil Texture of A

Horizon:

**Hydrological Soil** 

Groups:

Soils that have a low runoff potential and high infiltration rate, as the soils typically are sands and gravel.

Order No: 21071900557p

Soil Name

Soil Name: OKA
Kind of Surface Material: Mineral
Soil Drainage Class: Well drained

Water Table Never

**Charateristics:** 

Layer that Restricts Root No root restricting layer

Growth:

Type of Root Restricting n/a

Layer:

Parent Material 1, 2, 3: Very Coarse; Not Applicable; Not Applicable

Mode of Deposition Marine; Not Applicable; Not Applicable

1,2,3:

Parent Material Chemical Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Property 1,2,3:

Soil Layer

 Layer No:
 1
 Very Fine Sand(%):
 9

 Horizon:
 Apk
 Total Sand(%):
 70

0-12 Depth(cm): Total Silt(%): 22 pH in Calc Chloride: 6.9 Total Clay(%): 8 **Saturated Hydraulic** 5.409 Organic Carbon(%): 4 Conductivity(cm/h):

**Electrical Conductivity** 0

(dS/m):

2 9 Layer No: Very Fine Sand(%): Horizon: Bmk Total Sand(%): 71 20 Depth(cm): 12-30 Total Silt(%): 7.2 9 pH in Calc Chloride: Total Clay(%): **Saturated Hydraulic** 3.079 Organic Carbon(%): 0.6

Conductivity(cm/h): **Electrical Conductivity** 

(dS/m):

3 3 Layer No: Very Fine Sand(%): Ck Total Sand(%): 91 Horizon: 30-100 6 Depth(cm): Total Silt(%): 3 pH in Calc Chloride: 7.3 Total Clay(%): **Saturated Hydraulic** 6.109 Organic Carbon(%): 0.1

Conductivity(cm/h): **Electrical Conductivity** 0

(dS/m):

Polygon ID: OND401072175

0

### Component

OND40107217501 70 **Component ID:** Components(%): Soil Name ID: ONGVI~~~~A Slope Steepness(%): 3.5 **Component No:** Slope Length(m): -9

**Surface Stoniness** 

Class:

Moderately stony

#### **Component Rating**

Field Crops Capability: moderate limitations on use for crops

**First CLI Limitation** 

Subclass:

Presence of surface stones > 15 cm diameter.

**Second CLI Limitation** 

Presence of adverse Topography

Subclass: Drainage:

Well

Soil Texture of A

medium - moderately fine loam

Horizon:

**Hydrological Soil** 

Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately

**Groups:** fine to moderately coarse textures.

#### Soil Name

Soil Name: **GRENVILLE** Kind of Surface Material: Mineral Well drained **Soil Drainage Class: Water Table** Unspecified period **Charateristics: Layer that Restricts Root** No root restricting layer Growth: Type of Root Restricting n/a Layer: Parent Material 1, 2, 3: Medium; Not Applicable; Not Applicable Till (Morainal); Not Applicable; Not Applicable **Mode of Deposition** 1,2,3: **Parent Material Chemical** Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable Property 1,2,3: Soil Layer Layer No: 1 Very Fine Sand(%): 18 Horizon: Aр 59 Total Sand(%): Depth(cm): 0-19 Total Silt(%): 30 pH in Calc Chloride: 7.2 Total Clay(%): 11 2.565 **Saturated Hydraulic** Organic Carbon(%): 2.3 Conductivity(cm/h): 0 **Electrical Conductivity** (dS/m): Layer No: 2 Very Fine Sand(%): 18 62 Horizon: Aр Total Sand(%): 19-35 Total Silt(%): 33 Depth(cm): 7.4 5 pH in Calc Chloride: Total Clay(%): 5.087 **Saturated Hydraulic** Organic Carbon(%): 1.5 Conductivity(cm/h): **Electrical Conductivity** 0 (dS/m): 3 21 Layer No: Very Fine Sand(%): Ae 63 Horizon: Total Sand(%): 32 Depth(cm): 35-55 Total Silt(%): pH in Calc Chloride: 7.4 Total Clay(%): 5 4.441 **Saturated Hydraulic** Organic Carbon(%): 0.5 Conductivity(cm/h): 0 **Electrical Conductivity** (dS/m): Layer No: 4 Very Fine Sand(%): 19 Horizon: Bt Total Sand(%): 56 Depth(cm): 55-77 Total Silt(%): 26 7.1 18 pH in Calc Chloride: Total Clay(%): **Saturated Hydraulic** 0.856 Organic Carbon(%): 0.4 Conductivity(cm/h):

Order No: 21071900557p

0

(dS/m):

**Electrical Conductivity** 

Layer No: 5 Very Fine Sand(%): 20 ВС Horizon: Total Sand(%): 61 77-92 28 Depth(cm): Total Silt(%): pH in Calc Chloride: 7.3 Total Clay(%): 11 **Saturated Hydraulic** 1.805 Organic Carbon(%): 0.3

Conductivity(cm/h): 0 **Electrical Conductivity** 

(dS/m):

6 22 Layer No: Very Fine Sand(%): Horizon: Ck Total Sand(%): 65 Total Silt(%): Depth(cm): 92-100 30 pH in Calc Chloride: 7.6 Total Clay(%): 5 **Saturated Hydraulic** 3.082 Organic Carbon(%): 0

Conductivity(cm/h): **Electrical Conductivity** 

(dS/m):

Component

**Component ID:** OND40107217502 30 Components(%): ONMTDSH~~~A Slope Steepness(%): Soil Name ID: 1.2 **Component No:** Slope Length(m): -9

**Surface Stoniness** 

Class:

Moderately stony

0

**Component Rating** 

Field Crops Capability: moderately severe limitations on use for crops.

**First CLI Limitation** Presence of consolidated bedrock within one metre of the soil surface

Subclass:

**Second CLI Limitation** 

Subclass:

Drainage: Imperfectly

**Horizon:** 

Soil Texture of A medium - moderately fine loam

**Hydrological Soil** Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately fine to moderately coarse textures. **Groups:** 

**Soil Name** 

Soil Name: **MATILDA** Kind of Surface Material: Mineral

**Soil Drainage Class:** Imperfectly drained

**Water Table** Always

**Charateristics:** 

Layer that Restricts Root No root restricting layer

Growth:

Order No: 21071900557p

Type of Root Restricting

n/a

0

2

Layer:

Medium; Not Applicable; Not Applicable

Parent Material 1, 2, 3: **Mode of Deposition** 

Till (Morainal); Not Applicable; Not Applicable

1,2,3:

**Parent Material Chemical** 

Property 1,2,3:

Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

### Soil Layer

Layer No:	1	Very Fine Sand(%): 1	5
Horizon:	Ар	Total Sand(%): 4	1
Depth(cm):	0-17	Total Silt(%): 3	88
pH in Calc Chloride:	6.5	Total Clay(%): 2	11
Saturated Hydraulic	0.88	Organic Carbon(%): 3	3.3

Conductivity(cm/h): **Electrical Conductivity** 

(dS/m):

Layer No:

Very Fine Sand(%): 10

Organic Carbon(%):

0.8

Horizon: **Bmg** Total Sand(%): 29 43 Depth(cm): 17-38 Total Silt(%): 28 pH in Calc Chloride: 6.8 Total Clay(%):

**Saturated Hydraulic** 0.341 Conductivity(cm/h):

**Electrical Conductivity** 0

(dS/m):

3 Layer No: Very Fine Sand(%): 11

Horizon: BCg Total Sand(%): 39 38 Depth(cm): 38-50 Total Silt(%): 7 23 pH in Calc Chloride: Total Clay(%): 0.407 1.5 **Saturated Hydraulic** Organic Carbon(%):

Conductivity(cm/h): **Electrical Conductivity** 0

(dS/m):

4 -9 Layer No: Very Fine Sand(%): R Horizon: Total Sand(%): -9 Depth(cm): 50-100 Total Silt(%): -9 -9 pH in Calc Chloride: Not applicable Total Clay(%):

**Saturated Hydraulic** 

Conductivity(cm/h):

Not applicable

Organic Carbon(%): Not applicable

**Electrical Conductivity** Not applicable

(dS/m):

Polygon ID: OND401072843

### Component

Component ID:OND40107284301Components(%):Soil Name ID:ONGVI~~~ASlope Steepness(%):Component No:1Slope Length(m):

**Surface Stoniness** 

Class:

Moderately stony

#### **Component Rating**

Field Crops Capability: moderate limitations on use for crops

**First CLI Limitation** 

Presence of surface stones > 15 cm diameter.

Subclass:

Second CLI Limitation

Presence of adverse Topography

Subclass:

Drainage: Well

Soil Texture of A

medium - moderately fine loam

Horizon: Hydrolog Groups:

Hydrological Soil Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately

100

3.5

-9

Order No: 21071900557p

fine to moderately coarse textures.

#### **Soil Name**

Soil Name:GRENVILLEKind of Surface Material:MineralSoil Drainage Class:Well drained

Water Table

Unspecified period

**Charateristics:** 

**Layer that Restricts Root** 

Growth:

No root restricting layer

Type of Root Restricting

Layer:

n/a
Medium; Not Applicable; Not Applicable

Parent Material 1, 2, 3: Mode of Deposition

Till (Morainal); Not Applicable; Not Applicable

1,2,3:

**Parent Material Chemical** 

Property 1,2,3:

Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

#### Soil Laver

Layer No: 1 Very Fine Sand(%): 18 59 **Horizon:** Aр Total Sand(%): 30 Depth(cm): 0-19 Total Silt(%): 7.2 pH in Calc Chloride: Total Clay(%): 11 **Saturated Hydraulic** 2.565 Organic Carbon(%): 2.3

Conductivity(cm/h):

Electrical Conductivity 0

(dS/m):

 Layer No:
 2
 Very Fine Sand(%):
 18

 Horizon:
 Ap
 Total Sand(%):
 62

 Depth(cm):
 19-35
 Total Silt(%):
 33

pH in Calc Chloride:	7.4	Total Clay(%):	5
Saturated Hydraulic	5.087	Organic Carbon(%):	1.5
Conductivity(cm/h):		• ( )	
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	21
Horizon:	Ae	Total Sand(%):	63
Depth(cm):	35-55	Total Silt(%):	32
pH in Calc Chloride:	7.4	Total Clay(%):	5
Saturated Hydraulic Conductivity(cm/h):	4.441	Organic Carbon(%):	0.5
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	19
Horizon:	Bt	Total Sand(%):	56
Depth(cm):	55-77	Total Silt(%):	26
pH in Calc Chloride:	7.1	Total Clay(%):	18
Saturated Hydraulic Conductivity(cm/h):	0.856	Organic Carbon(%):	0.4
Electrical Conductivity (dS/m):	0		
Layer No:	5	Very Fine Sand(%):	20
Horizon:	BC	Total Sand(%):	61
Depth(cm):	77-92	Total Silt(%):	28
pH in Calc Chloride:	7.3	Total Clay(%):	11
Saturated Hydraulic Conductivity(cm/h):	1.805	Organic Carbon(%):	0.3
Electrical Conductivity (dS/m):	0		
Layer No:	6	Very Fine Sand(%):	22
Horizon:	Ck	Total Sand(%):	65
Depth(cm):	92-100	Total Silt(%):	30
pH in Calc Chloride:	7.6	Total Clay(%):	5
Saturated Hydraulic Conductivity(cm/h):	3.082	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND401072144

### Component

 Component ID:
 OND40107214401
 Components(%):
 70

 Soil Name ID:
 ONZUN~~~~N
 Slope Steepness(%):
 3.5

 Component No:
 1
 Slope Length(m):
 -9

Order No: 21071900557p

Surface Stoniness Very stony

Class:

#### **Component Rating**

Field Crops Capability: Natural grazing only; no improvements feasible.

Presence of consolidated bedrock within one metre of the soil surface

Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately

**First CLI Limitation** 

Subclass:

**Second CLI Limitation** 

Subclass:

Drainage: Well

Soil Texture of A

Horizon:

**Hydrological Soil** 

**Groups:** 

fine to moderately coarse textures.

#### **Soil Name**

**UNCLASSIFIED** Soil Name: Kind of Surface Material: Unclassified Not applicable **Soil Drainage Class: Water Table** Unspecified period

**Charateristics:** 

**Layer that Restricts Root** 

Growth:

No root restricting layer

Type of Root Restricting

Layer:

Not Applicable; Not Applicable; Not Applicable Parent Material 1, 2, 3: **Mode of Deposition** Not Applicable; Not Applicable; Not Applicable 1,2,3:

**Parent Material Chemical** 

**Property 1,2,3:** 

Not Applicable; Not Applicable; Not Applicable

### Component

Component ID: OND40107214402 30 Components(%): ONFWF~~~~N 3.5 Soil Name ID: Slope Steepness(%): 2 -9 **Component No:** Slope Length(m):

**Surface Stoniness** 

Class:

Very stony

#### **Component Rating**

Natural grazing only; no improvements feasible. Field Crops Capability:

**First CLI Limitation** 

Subclass:

**Second CLI Limitation** 

Subclass:

Drainage: Imperfectly

Soil Texture of A

Horizon:

**Hydrological Soil** Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately

Order No: 21071900557p

Presence of consolidated bedrock within one metre of the soil surface

**Groups:** fine to moderately coarse textures.

#### **Soil Name**

Soil Name: FALLOWFIELD

Kind of Surface Material: Mineral

Soil Drainage Class: Imperfectly drained Water Table Growing season

**Charateristics:** 

Layer that Restricts Root No root restricting layer

Growth:

Type of Root Restricting n

Layer:

Parent Material 1, 2, 3: Fragmental; Not Applicable; Not Applicable

Mode of Deposition Till (Morainal); Not Applicable; Not Applicable

0

0

1,2,3:

**Parent Material Chemical** 

Property 1,2,3:

Medium Acid to Neutral; Not Applicable; Not Applicable

#### Soil Layer

Layer No:	1	Very Fine Sand(%):	9
Horizon:	Ah	Total Sand(%):	56
Depth(cm):	0-22	Total Silt(%):	35
pH in Calc Chloride:	6.3	Total Clay(%):	9
Saturated Hydraulic	3.33	Organic Carbon(%):	2.8

Conductivity(cm/h): Electrical Conductivity

(dS/m):

Layer No:	2	Very Fine Sand(%): 8	
Horizon:	Bm	Total Sand(%): 53	3
Depth(cm):	22-38	Total Silt(%): 36	6
pH in Calc Chloride:	6.9	Total Clay(%):	1
Saturated Hydraulic	1.748	Organic Carbon(%): 1.	.1

Conductivity(cm/h):

**Electrical Conductivity** 0

(dS/m):

3 Layer No: Very Fine Sand(%): 17 Horizon: Bmgj Total Sand(%): 70 22 38-56 Total Silt(%): Depth(cm): pH in Calc Chloride: 7.2 Total Clay(%): 8 **Saturated Hydraulic** 3.405 Organic Carbon(%): 0.5

Conductivity(cm/h):

Electrical Conductivity

(dS/m):

 Layer No:
 4
 Very Fine Sand(%):
 16

 Horizon:
 Cg
 Total Sand(%):
 71

Order No: 21071900557p

56-60 Total Silt(%): 22 Depth(cm): 7 pH in Calc Chloride: 7.3 Total Clay(%): Organic Carbon(%): 0.5

**Saturated Hydraulic** 2.494 Conductivity(cm/h):

**Electrical Conductivity** (dS/m):

5 -9 Layer No: Very Fine Sand(%): -9 Horizon: R Total Sand(%): 60-100 -9 Depth(cm): Total Silt(%):

Not applicable pH in Calc Chloride: **Saturated Hydraulic** Not applicable

0

Conductivity(cm/h):

**Electrical Conductivity** Not applicable

(dS/m):

OND401072135 Polygon ID:

Component

**Component ID:** OND40107213501 Components(%): 100

Soil Name ID: ONZUN~~~~N Slope Steepness(%): Unknown or Not applicable

Total Clay(%):

Organic Carbon(%):

Slope Length(m):

-9

-9

Order No: 21071900557p

Not applicable

1 **Component No:** 

**Surface Stoniness** 

Not Applicable

Class:

**Component Rating** 

Field Crops Capability: **First CLI Limitation** 

Subclass:

**Second CLI Limitation** 

Subclass:

Drainage: Not Applicable

Soil Texture of A

Horizon:

**Hydrological Soil** 

**Groups:** 

**Soil Name** 

Soil Name: **UNCLASSIFIED** Unclassified Kind of Surface Material: **Soil Drainage Class:** Not applicable **Water Table** Unspecified period

**Charateristics:** 

**Layer that Restricts Root** No root restricting layer

Growth:

Type of Root Restricting n/a

Layer:

Parent Material 1, 2, 3: **Mode of Deposition** 

Not Applicable; Not Applicable; Not Applicable Not Applicable; Not Applicable; Not Applicable

1,2,3:

**Parent Material Chemical** 

Property 1,2,3:

Not Applicable; Not Applicable; Not Applicable

OND401072841 Polygon ID:

Component

Component ID: OND40107284101 Components(%): 70 1.2 Soil Name ID: ONMTD~~~~A Slope Steepness(%): 1 -9 **Component No:** Slope Length(m):

Presence of surface stones > 15 cm diameter.

**Surface Stoniness** 

Class:

Moderately stony

**Component Rating** 

Field Crops Capability: moderate limitations on use for crops

**First CLI Limitation** 

Subclass:

**Second CLI Limitation** 

Subclass:

Imperfectly Drainage:

Soil Texture of A

Horizon:

medium - moderately fine loam

**Hydrological Soil** 

**Groups:** 

Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately fine to moderately coarse textures.

Order No: 21071900557p

**Soil Name** 

Soil Name: **MATILDA Kind of Surface Material:** Mineral

Imperfectly drained **Soil Drainage Class: Water Table** Unspecified period

**Charateristics:** 

**Layer that Restricts Root** 

Growth:

No root restricting layer

Type of Root Restricting

Layer:

Parent Material 1, 2, 3: **Mode of Deposition** 

Medium; Not Applicable; Not Applicable Till (Morainal); Not Applicable; Not Applicable

1,2,3:

**Parent Material Chemical** 

Property 1,2,3:

Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No: 1 35 Very Fine Sand(%):

Horizon:	Ар	Total Sand(%):	47
Depth(cm):	0-22	Total Silt(%):	39
pH in Calc Chloride:	7.3	Total Clay(%):	14
Saturated Hydraulic Conductivity(cm/h):	1.383	Organic Carbon(%):	2.1
Electrical Conductivity	0		

(dS/m): Layer No: 2

Very Fine Sand(%): 34 Horizon: **Bmgj** Total Sand(%): 49 22-35 43 Depth(cm): Total Silt(%): pH in Calc Chloride: 7.6 Total Clay(%): 8 **Saturated Hydraulic** 2.361 Organic Carbon(%): 0.4

Conductivity(cm/h): **Electrical Conductivity** (dS/m):

3 12 Layer No: Very Fine Sand(%): Ckgj 48 Horizon: Total Sand(%): Depth(cm): 35-100 Total Silt(%): 44 7.7 Total Clay(%): 8 pH in Calc Chloride: 1.46 Organic Carbon(%): 0.3

**Saturated Hydraulic** Conductivity(cm/h): 0 **Electrical Conductivity** (dS/m):

#### Component

OND40107284102 30 Component ID: Components(%): Soil Name ID: ONLYS~~~A Slope Steepness(%): 1.2 **Component No:** 2 Slope Length(m): -9

**Surface Stoniness** 

Class:

Moderately stony

### **Component Rating**

Field Crops Capability: moderately severe limitations on use for crops.

**First CLI Limitation** 

Subclass:

**Second CLI Limitation** 

Subclass:

Drainage: Poorly

Soil Texture of A medium - moderately fine loam

Horizon:

**Hydrological Soil** 

Soils with slow infiltration rates when thoroughly wetted and these soils typically are silty-loam soils with

an impeding layer or soils with moderately fine to fine texture. **Groups:** 

Order No: 21071900557p

# **Soil Name**

LYONS Soil Name: Kind of Surface Material: Mineral

Soil Drainage Class: Poorly drained Unspecified period **Water Table** 

**Charateristics:** 

Layer that Restricts Root

Growth:

No root restricting layer

Type of Root Restricting

Layer:

Medium; Not Applicable; Not Applicable

Parent Material 1, 2, 3: **Mode of Deposition** 

Till (Morainal); Not Applicable; Not Applicable

1,2,3:

**Parent Material Chemical** 

Property 1,2,3:

Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

#### Soil Layer

Layer No:	1	Very Fine Sand(%):	9
Horizon:	Ар	Total Sand(%):	69
Depth(cm):	0-15	Total Silt(%):	20
pH in Calc Chloride:	7.1	Total Clay(%):	11
Saturated Hydraulic	3.066	Organic Carbon(%):	2.3

Conductivity(cm/h):

**Electrical Conductivity** 0

(dS/m):

Layer No: 2 Very Fine Sand(%): 8 72 Horizon: Aр Total Sand(%): Total Silt(%): 22 Depth(cm): 15-23 pH in Calc Chloride: 7.3 Total Clay(%): 6 4.797 **Saturated Hydraulic** Organic Carbon(%): 1.3

Conductivity(cm/h):

**Electrical Conductivity** 

(dS/m):

Layer No: 3 Very Fine Sand(%): 11 73 Horizon: **Bmgi** Total Sand(%): 23-35 Total Silt(%): 20 Depth(cm): 7 pH in Calc Chloride: 7.5 Total Clay(%):

Organic Carbon(%):

0.4

Order No: 21071900557p

**Saturated Hydraulic** 3.985

0

0

Conductivity(cm/h): **Electrical Conductivity** 0

(dS/m):

4 Layer No: Very Fine Sand(%): 16 Horizon: Total Sand(%): 59 Ckg Depth(cm): 35-100 Total Silt(%): 34 7 pH in Calc Chloride: 7.6 Total Clay(%): 2.123 **Saturated Hydraulic** Organic Carbon(%): 0.1

Conductivity(cm/h):

**Electrical Conductivity** 

(dS/m):

Polygon ID: OND401072209

#### Component

 Component ID:
 OND40107220901
 Components(%):
 70

 Soil Name ID:
 ONGVI~~~A
 Slope Steepness(%):
 3.5

 Component No:
 1
 Slope Length(m):
 -9

Surface Stoniness

Class:

Moderately stony

### **Component Rating**

Field Crops Capability: moderate limitations on use for crops

First CLI Limitation

Presence of surface stones > 15 cm diameter.

Subclass:

Second CLI Limitation

Presence of adverse Topography

Subclass:

Drainage: Well

**Soil Texture of A** medium - moderately fine loam

Horizon:

Hydrological Soil Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately

**Groups:** fine to moderately coarse textures.

### **Soil Name**

Soil Name: GRENVILLE
Kind of Surface Material: Mineral
Soil Drainage Class: Well drained

Water Table Unspecified period

**Charateristics:** 

Layer that Restricts Root No root restricting layer

Growth:

Type of Root Restricting n/a

Layer:

Parent Material 1, 2, 3: Medium; Not Applicable; Not Applicable

Mode of Deposition Till (Morainal); Not Applicable; Not Applicable

1,2,3:

Parent Material Chemical Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Property 1,2,3:

### Soil Layer

18 Layer No: 1 Very Fine Sand(%): Horizon: Aр Total Sand(%): 59 Depth(cm): 0-19 Total Silt(%): 30 7.2 pH in Calc Chloride: Total Clay(%): 11 **Saturated Hydraulic** 2.565 Organic Carbon(%): 2.3

Order No: 21071900557p

Conductivity(cm/h):

Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	18
Horizon:	Ар	Total Sand(%):	62
Depth(cm):	19-35	Total Silt(%):	33
pH in Calc Chloride:	7.4	Total Clay(%):	5
Saturated Hydraulic Conductivity(cm/h):	5.087	Organic Carbon(%):	1.5
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	21
Horizon:	Ae	Total Sand(%):	63
Depth(cm):	35-55	Total Silt(%):	32
pH in Calc Chloride:	7.4	Total Clay(%):	5
Saturated Hydraulic	4.441	Organic Carbon(%):	0.5
Conductivity(cm/h): Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	19
Horizon:	Bt	Total Sand(%):	56
Depth(cm):	55-77	Total Silt(%):	26
pH in Calc Chloride:	7.1	Total Clay(%):	18
Saturated Hydraulic	0.856	Organic Carbon(%):	0.4
Conductivity(cm/h): Electrical Conductivity (dS/m):	0		
Layer No:	5	Very Fine Sand(%):	20
Horizon:	ВС	Total Sand(%):	61
Depth(cm):	77-92	Total Silt(%):	28
pH in Calc Chloride:	7.3	Total Clay(%):	11
Saturated Hydraulic Conductivity(cm/h):	1.805	Organic Carbon(%):	0.3
Electrical Conductivity (dS/m):	0		
Layer No:	6	Very Fine Sand(%):	22
Horizon:	Ck	Total Sand(%):	65
Depth(cm):	92-100	Total Silt(%):	30
pH in Calc Chloride:	7.6	Total Clay(%):	5
Saturated Hydraulic	3.082	Organic Carbon(%):	0
Conductivity(cm/h): Electrical Conductivity (dS/m):	0		
Component			

OND40107220902

Components(%):

30

Component ID:

ONGVI~~~~A Soil Name ID:

Slope Steepness(%): 1.2 -9 Slope Length(m):

**Component No: Surface Stoniness** 

Class:

Moderately stony

2

### **Component Rating**

Field Crops Capability: moderate limitations on use for crops

**First CLI Limitation** Presence of surface stones > 15 cm diameter.

Subclass:

**Second CLI Limitation** 

Subclass:

Drainage: Well

Soil Texture of A medium - moderately fine loam

Horizon:

**Hydrological Soil** Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately

fine to moderately coarse textures. **Groups:** 

#### **Soil Name**

**GRENVILLE** Soil Name: Kind of Surface Material: Mineral

**Soil Drainage Class:** Well drained

Unspecified period **Water Table** 

**Charateristics:** 

**Layer that Restricts Root** No root restricting layer

Growth:

Type of Root Restricting

Layer:

Parent Material 1, 2, 3: Medium; Not Applicable; Not Applicable Till (Morainal); Not Applicable; Not Applicable

**Mode of Deposition** 

1,2,3:

**Parent Material Chemical** 

**Property 1,2,3:** 

Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Order No: 21071900557p

### Soil Layer

1 18 Layer No: Very Fine Sand(%): Horizon: Ap Total Sand(%): 59 0-19 Total Silt(%): 30 Depth(cm): 7.2 pH in Calc Chloride: Total Clay(%): 11 2.565 2.3 **Saturated Hydraulic** Organic Carbon(%):

Conductivity(cm/h):

**Electrical Conductivity** 0

(dS/m):

2 Layer No: Very Fine Sand(%): 18 Horizon: Total Sand(%): 62 Aр 33 Depth(cm): 19-35 Total Silt(%): pH in Calc Chloride: 7.4 Total Clay(%): 5

Saturated Hydraulic Conductivity(cm/h):	5.087	Organic Carbon(%):	1.5
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	21
Horizon:	Ae	Total Sand(%):	63
Depth(cm):	35-55	Total Silt(%):	32
pH in Calc Chloride:	7.4	Total Clay(%):	5
Saturated Hydraulic Conductivity(cm/h):	4.441	Organic Carbon(%):	0.5
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	19
Horizon:	Bt	Total Sand(%):	56
Depth(cm):	55-77	Total Silt(%):	26
pH in Calc Chloride:	7.1	Total Clay(%):	18
Saturated Hydraulic Conductivity(cm/h):	0.856	Organic Carbon(%):	0.4
Electrical Conductivity (dS/m):	0		
Layer No:	5	Very Fine Sand(%):	20
Horizon:	BC	Total Sand(%):	61
Depth(cm):	77-92	Total Silt(%):	28
pH in Calc Chloride:	7.3	Total Clay(%):	11
Saturated Hydraulic Conductivity(cm/h):	1.805	Organic Carbon(%):	0.3
Electrical Conductivity (dS/m):	0		
Layer No:	6	Very Fine Sand(%):	22
Horizon:	Ck	Total Sand(%):	65
Depth(cm):	92-100	Total Silt(%):	30
pH in Calc Chloride:	7.6	Total Clay(%):	5
Saturated Hydraulic Conductivity(cm/h):	3.082	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND401072822

### Component

 Component ID:
 OND40107282201
 Components(%):
 70

 Soil Name ID:
 ONGVISH~~A
 Slope Steepness(%):
 3.5

 Component No:
 1
 Slope Length(m):
 -9

Order No: 21071900557p

Surface Stoniness Moderately stony

Class:

#### Component Rating

Field Crops Capability: moderately severe limitations on use for crops.

**First CLI Limitation** Presence of consolidated bedrock within one metre of the soil surface

Subclass:

**Second CLI Limitation** 

Subclass:

Drainage: Well

Soil Texture of A medium - moderately fine loam

Horizon:

**Hydrological Soil** Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately

**Groups:** fine to moderately coarse textures.

#### **Soil Name**

**GRENVILLE** Soil Name: Kind of Surface Material: Mineral **Soil Drainage Class:** Well drained Never

**Water Table** 

**Charateristics:** 

**Layer that Restricts Root** No root restricting layer

Growth:

Type of Root Restricting n/a

Layer:

Parent Material 1, 2, 3: Medium; Not Applicable; Not Applicable **Mode of Deposition** Till (Morainal); Not Applicable; Not Applicable

1,2,3:

**Parent Material Chemical** 

Property 1,2,3:

Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

#### Soil Layer

Layer No: 1 Very Fine Sand(%): 15 Horizon: Aр Total Sand(%): 61 31 Depth(cm): 0-37 Total Silt(%): 7.2 8 pH in Calc Chloride: Total Clay(%): **Saturated Hydraulic** 3.765 Organic Carbon(%): 2.4

Conductivity(cm/h):

**Electrical Conductivity** 0

(dS/m):

2 15 Layer No: Very Fine Sand(%): Bm Horizon: Total Sand(%): 59 37-53 Total Silt(%): 33 Depth(cm): pH in Calc Chloride: 7.3 Total Clay(%): 8 **Saturated Hydraulic** 2.843 Organic Carbon(%): 1.1

Conductivity(cm/h):

**Electrical Conductivity** 0

(dS/m):

Layer No: 15 Very Fine Sand(%):

CK Horizon: Total Sand(%): 45 Depth(cm): 53-70 Total Silt(%): 48 pH in Calc Chloride: 7.5 Total Clay(%): 7 1.568 0.6 Organic Carbon(%):

**Saturated Hydraulic** Conductivity(cm/h):

**Electrical Conductivity** 

(dS/m):

0

Layer No: 4 Very Fine Sand(%): -9 R Horizon: Total Sand(%): -9 70-100 -9 Depth(cm): Total Silt(%): -9 pH in Calc Chloride: Not applicable Total Clay(%):

**Saturated Hydraulic** 

Conductivity(cm/h):

**Electrical Conductivity** 

(dS/m):

Not applicable

Not applicable

### Component

OND40107282202 30 Component ID: Components(%): ONMTDSH~~~A Soil Name ID: Slope Steepness(%): 1.2 -9 **Component No:** Slope Length(m):

**Surface Stoniness** 

Class:

Moderately stony

### **Component Rating**

Field Crops Capability: moderately severe limitations on use for crops.

**First CLI Limitation** 

Subclass:

**Second CLI Limitation** 

Subclass:

Drainage: Imperfectly

Soil Texture of A

**Horizon:** 

medium - moderately fine loam

**Hydrological Soil** 

Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately

Presence of consolidated bedrock within one metre of the soil surface

Organic Carbon(%):

Not applicable

Order No: 21071900557p

**Groups:** fine to moderately coarse textures.

#### **Soil Name**

Soil Name: **MATILDA** Kind of Surface Material: Mineral

**Soil Drainage Class:** Imperfectly drained

**Water Table** Always

**Charateristics:** 

**Layer that Restricts Root** 

No root restricting layer

Growth:

Type of Root Restricting n/a

Layer:

Parent Material 1, 2, 3: Medium; Not Applicable; Not Applicable

**Mode of Deposition** Till (Morainal); Not Applicable; Not Applicable 1,2,3: **Parent Material Chemical** Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable Property 1,2,3: Soil Layer Layer No: 1 Very Fine Sand(%): 15 41 Horizon: Aр Total Sand(%): 0-17 38 Depth(cm): Total Silt(%): pH in Calc Chloride: 6.5 Total Clay(%): 21 **Saturated Hydraulic** 0.88 Organic Carbon(%): 3.3 Conductivity(cm/h): **Electrical Conductivity** (dS/m): 2 10 Layer No: Very Fine Sand(%): 29 Horizon: Bmg Total Sand(%): 43 Depth(cm): 17-38 Total Silt(%): 6.8 28 pH in Calc Chloride: Total Clay(%): **Saturated Hydraulic** 0.341 Organic Carbon(%): 8.0 Conductivity(cm/h): 0 **Electrical Conductivity** (dS/m): Layer No: 3 Very Fine Sand(%): 11 Horizon: BCg Total Sand(%): 39 38-50 38 Depth(cm): Total Silt(%): 7 23 pH in Calc Chloride: Total Clay(%): **Saturated Hydraulic** 0.407 Organic Carbon(%): 1.5 Conductivity(cm/h): 0 **Electrical Conductivity** (dS/m): Layer No: 4 Very Fine Sand(%): -9 R -9 Horizon: Total Sand(%): -9 Depth(cm): 50-100 Total Silt(%): pH in Calc Chloride: Not applicable Total Clay(%): -9 **Saturated Hydraulic** Not applicable Organic Carbon(%): Not applicable Conductivity(cm/h): **Electrical Conductivity** Not applicable (dS/m): OND401072223 Polygon ID: Component

70

1.2

-9

Order No: 21071900557p

Components(%): Slope Steepness(%):

Slope Length(m):

OND40107222301

ONGVI~~~~A

1

Component ID:

**Component No:** 

Soil Name ID:

**Surface Stoniness** 

Class:

Moderately stony

#### **Component Rating**

Field Crops Capability: moderate limitations on use for crops

**First CLI Limitation** 

Presence of surface stones > 15 cm diameter.

Subclass:

**Second CLI Limitation** 

Subclass:

Well Drainage:

Soil Texture of A

medium - moderately fine loam

Horizon:

**Hydrological Soil** 

**Groups:** 

Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately

fine to moderately coarse textures.

### **Soil Name**

Soil Name: **GRENVILLE** Kind of Surface Material: Mineral Well drained **Soil Drainage Class: Water Table** Unspecified period

**Charateristics:** 

**Layer that Restricts Root** 

Growth:

No root restricting layer

Type of Root Restricting

Layer:

Parent Material 1, 2, 3: Medium; Not Applicable; Not Applicable Till (Morainal); Not Applicable; Not Applicable **Mode of Deposition** 

1,2,3:

**Parent Material Chemical** 

**Property 1,2,3:** 

Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

#### Soil Layer

Layer No:	1	Very Fine Sand(%):	18
Horizon:	Ар	Total Sand(%):	59
Depth(cm):	0-19	Total Silt(%):	30
pH in Calc Chloride:	7.2	Total Clay(%):	11
Saturated Hydraulic	2.565	Organic Carbon(%):	2.3

Conductivity(cm/h):

0 **Electrical Conductivity** 

(dS/m):

Layer No: 2 Very Fine Sand(%): 18 62 Horizon: Ap Total Sand(%): Depth(cm): 19-35 Total Silt(%): 33 pH in Calc Chloride: 7.4 Total Clay(%): 5 5.087 1.5 **Saturated Hydraulic** Organic Carbon(%):

Conductivity(cm/h): **Electrical Conductivity** 

(dS/m):

Layer No:	3	Very Fine Sand(%):	21
Horizon:	Ae	Total Sand(%):	63
Depth(cm):	35-55	Total Silt(%):	32
pH in Calc Chloride:	7.4	Total Clay(%):	5
Saturated Hydraulic Conductivity(cm/h):	4.441	Organic Carbon(%):	0.5
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	19
Horizon:	Bt	Total Sand(%):	56
Depth(cm):	55-77	Total Silt(%):	26
pH in Calc Chloride:	7.1	Total Clay(%):	18
Saturated Hydraulic Conductivity(cm/h):	0.856	Organic Carbon(%):	0.4
Electrical Conductivity (dS/m):	0		
Layer No:	5	Very Fine Sand(%):	20
Horizon:	BC	Total Sand(%):	61
Depth(cm):	77-92	Total Silt(%):	28
pH in Calc Chloride:	7.3	Total Clay(%):	11
Saturated Hydraulic Conductivity(cm/h):	1.805	Organic Carbon(%):	0.3
Electrical Conductivity (dS/m):	0		
Layer No:	6	Very Fine Sand(%):	22
Horizon:	Ck	Total Sand(%):	65
Depth(cm):	92-100	Total Silt(%):	30
pH in Calc Chloride:	7.6	Total Clay(%):	5
Saturated Hydraulic Conductivity(cm/h):	3.082	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Component			

#### Component

 Component ID:
 OND40107222302
 Components(%):
 30

 Soil Name ID:
 ONNGW~~~~A
 Slope Steepness(%):
 1.2

 Component No:
 2
 Slope Length(m):
 -9

Order No: 21071900557p

Surface Stoniness Nonstony

Class:

### **Component Rating**

Field Crops Capability: moderate limitations on use for crops

**First CLI Limitation** 

Subclass:

**Second CLI Limitation** 

Subclass:

Drainage: Poorly
Soil Texture of A silt loam

Horizon:

**Hydrological Soil** 

Groups:

Soils have a high runoff potential and very slow infiltration rate when thoroughly wetted. Soils include clay soils with high swelling potential, soils in a permanent high water table and shallow soils over nearly

Order No: 21071900557p

impervious material.

#### **Soil Name**

Soil Name: NORTH GOWER

Kind of Surface Material: Mineral

Soil Drainage Class: Poorly drained
Water Table Unspecified period

**Charateristics:** 

**Layer that Restricts Root** 

Growth:

No root restricting layer

Type of Root Restricting

Layer:

n/a

Parent Material 1, 2, 3: Fine; Not Applicable; Not Applicable

Mode of Deposition Marine; Not Applicable; Not Applicable

1,2,3:

**Parent Material Chemical** 

Property 1,2,3:

Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

### Soil Layer

Layer No:	1	Very Fine Sand(%):	9
Horizon:	Ар	Total Sand(%):	43
Depth(cm):	0-25	Total Silt(%):	41
pH in Calc Chloride:	7.3	Total Clay(%):	16
Saturated Hydraulic	1.375	Organic Carbon(%):	3.9

Conductivity(cm/h):

Electrical Conductivity

(dS/m):

Layer No:	2	Very Fine Sand(%):	9
Horizon:	Bgj	Total Sand(%):	45
Depth(cm):	25-37	Total Silt(%):	40
pH in Calc Chloride:	7.4	Total Clay(%):	15
Saturated Hydraulic	0.752	Organic Carbon(%):	3.3

Conductivity(cm/h):

**Electrical Conductivity** 0

(dS/m):

3 5 Layer No: Very Fine Sand(%): Horizon: Cg Total Sand(%): 20 Depth(cm): 37-100 Total Silt(%): 63 17 pH in Calc Chloride: 7.3 Total Clay(%):

**Saturated Hydraulic** Conductivity(cm/h): **Electrical Conductivity**  0.29

0

Organic Carbon(%):

0.5

(dS/m):

Polygon ID: OND401072221

Component

OND40107222101 Component ID: Soil Name ID: ONNGW~~~~A

100 Components(%): Slope Steepness(%):

1.2

**Component No:** 

Slope Length(m):

-9

**Surface Stoniness** 

Class:

Nonstony

Component Rating

Field Crops Capability: moderate limitations on use for crops

**First CLI Limitation** 

Subclass:

**Second CLI Limitation** 

Subclass:

Drainage: Poorly Soil Texture of A silt loam

**Horizon:** 

**Hydrological Soil** 

**Groups:** 

Soils have a high runoff potential and very slow infiltration rate when thoroughly wetted. Soils include clay soils with high swelling potential, soils in a permanent high water table and shallow soils over nearly

impervious material.

**Soil Name** 

**NORTH GOWER** Soil Name:

**Kind of Surface Material:** Mineral

**Soil Drainage Class:** Poorly drained Unspecified period **Water Table** 

**Charateristics:** 

**Layer that Restricts Root** No root restricting layer

Growth:

Type of Root Restricting

Layer:

Parent Material 1, 2, 3: Fine; Not Applicable; Not Applicable **Mode of Deposition** Marine; Not Applicable; Not Applicable

1,2,3:

**Parent Material Chemical** 

**Property 1,2,3:** 

Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No: 1 Very Fine Sand(%): 9

Horizon:	Ap	Total Sand(%):	43
Depth(cm):	0-25	Total Silt(%):	41
pH in Calc Chloride:	7.3	Total Clay(%):	16
Saturated Hydraulic Conductivity(cm/h):	1.375	Organic Carbon(%):	3.9
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	9
Horizon:	Bgj	Total Sand(%):	45
Depth(cm):	25-37	Total Silt(%):	40
pH in Calc Chloride:	7.4	Total Clay(%):	15
Saturated Hydraulic Conductivity(cm/h):	0.752	Organic Carbon(%):	3.3
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	5
Horizon:	Cg	Total Sand(%):	20
Depth(cm):	37-100	Total Silt(%):	63
pH in Calc Chloride:	7.3	Total Clay(%):	17
Saturated Hydraulic Conductivity(cm/h):	0.29	Organic Carbon(%):	0.5
Electrical Conductivity (dS/m):	0		

Polygon ID: OND401072219

### Component

Component ID: OND40107221901 Components(%): 100

ONZUN~~~~N Unknown or Not applicable Soil Name ID: Slope Steepness(%):

1 **Component No:** Slope Length(m):

**Surface Stoniness** Not Applicable

Class:

### **Component Rating**

Field Crops Capability:

**First CLI Limitation** 

Subclass:

**Second CLI Limitation** 

Subclass:

Not Applicable Drainage:

Soil Texture of A

Horizon:

**Hydrological Soil** 

Groups:

36

-9

#### **Soil Name**

Soil Name: **UNCLASSIFIED** Kind of Surface Material: Unclassified **Soil Drainage Class:** Not applicable **Water Table** Unspecified period

**Charateristics:** 

**Layer that Restricts Root** 

Growth:

Type of Root Restricting

Layer:

Not Applicable; Not Applicable; Not Applicable Parent Material 1, 2, 3: Not Applicable; Not Applicable; Not Applicable **Mode of Deposition** 

n/a

No root restricting layer

1,2,3:

**Parent Material Chemical** 

Property 1,2,3:

Not Applicable; Not Applicable; Not Applicable

Polygon ID: OND401072153

Component

100 Component ID: OND40107215301 Components(%):

ONZUN~~~~N Slope Steepness(%): Soil Name ID: Unknown or Not applicable

Slope Length(m):

-9

**Component No:** 

**Surface Stoniness** 

Class:

Not Applicable

**Component Rating** 

Field Crops Capability:

First CLI Limitation

Subclass:

**Second CLI Limitation** 

Subclass:

Not Applicable Drainage:

Soil Texture of A

**Horizon:** 

**Hydrological Soil** 

**Groups:** 

Soil Name

Soil Name: **UNCLASSIFIED** Kind of Surface Material: Unclassified **Soil Drainage Class:** Not applicable **Water Table** Unspecified period

**Charateristics:** 

**Layer that Restricts Root** 

No root restricting layer

Growth:

Type of Root Restricting n/a

Layer: 37

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Parent Material 1, 2, 3:

**Mode of Deposition** 1,2,3:

Not Applicable; Not Applicable; Not Applicable Not Applicable; Not Applicable; Not Applicable

**Parent Material Chemical** 

Property 1,2,3:

Not Applicable; Not Applicable; Not Applicable

OND401072186 Polygon ID:

Component

Component ID: OND40107218601 Components(%): 70 ONGVISH~~~A 1.2 Soil Name ID: Slope Steepness(%): -9 Slope Length(m):

1 **Component No:** 

**Surface Stoniness** 

Class:

Moderately stony

**Component Rating** 

Field Crops Capability: moderately severe limitations on use for crops.

**First CLI Limitation** 

Subclass:

**Second CLI Limitation** 

Subclass:

Well Drainage:

Soil Texture of A

Horizon:

medium - moderately fine loam

**Hydrological Soil** 

**Groups:** 

Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately fine to moderately coarse textures.

**Soil Name** 

Soil Name: **GRENVILLE Kind of Surface Material:** Mineral Well drained **Soil Drainage Class: Water Table** Never

**Charateristics:** 

**Layer that Restricts Root** 

Growth:

No root restricting layer

Type of Root Restricting

Layer:

Parent Material 1, 2, 3:

Medium; Not Applicable; Not Applicable **Mode of Deposition** Till (Morainal); Not Applicable; Not Applicable

1,2,3:

**Parent Material Chemical** 

Property 1,2,3:

Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Presence of consolidated bedrock within one metre of the soil surface

Soil Layer

Layer No: 1 15 Very Fine Sand(%):

Horizon:	Ap	Total Sand(%):	61
Depth(cm):	0-37	Total Silt(%):	31
pH in Calc Chloride:	7.2	Total Clay(%):	8
Saturated Hydraulic	3.765	Organic Carbon(%):	2.4
Conductivity(cm/h): Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	15
Horizon:	Bm	Total Sand(%):	59
Depth(cm):	37-53	Total Silt(%):	33
pH in Calc Chloride:	7.3	Total Clay(%):	8
Saturated Hydraulic	2.843	Organic Carbon(%):	1.1
Conductivity(cm/h): Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	15
Horizon:	CK	Total Sand(%):	45
Depth(cm):	53-70	Total Silt(%):	48
pH in Calc Chloride:	7.5	Total Clay(%):	7
Saturated Hydraulic Conductivity(cm/h):	1.568	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	-9
Horizon:	R	Total Sand(%):	-9
Depth(cm):	70-100	Total Silt(%):	-9
pH in Calc Chloride:	Not applicable	Total Clay(%):	-9
Saturated Hydraulic Conductivity(cm/h):	Not applicable	Organic Carbon(%):	Not applicable
Electrical Conductivity (dS/m):	Not applicable		
Component			

OND40107218602 Components(%): 30 Component ID: Soil Name ID: ONQWYSH~~~A Slope Steepness(%): 3.5 **Component No:** Slope Length(m):

**Surface Stoniness** Slightly stony

Class:

#### **Component Rating**

Field Crops Capability: moderately severe limitations on use for crops.

**First CLI Limitation** 

Subclass:

**Second CLI Limitation** 

Subclass:

Presence of consolidated bedrock within one metre of the soil surface

Well Drainage:

Soil Texture of A moderately coarse sandy loam

**Horizon:** 

**Hydrological Soil** Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately

fine to moderately coarse textures. **Groups:** 

#### **Soil Name**

Soil Name: **QUEENSWAY** 

**Kind of Surface Material:** Mineral **Soil Drainage Class:** Well drained **Water Table** Never

**Charateristics:** 

**Layer that Restricts Root** No root restricting layer

Growth:

Type of Root Restricting n/a

Layer:

Fragmental; Not Applicable; Not Applicable Parent Material 1, 2, 3:

Till (Morainal); Not Applicable; Not Applicable **Mode of Deposition** 

1,2,3:

**Parent Material Chemical** 

Property 1,2,3:

Medium Acid to Neutral; Not Applicable; Not Applicable

#### Soil Layer

Layer No:	1	Very Fine Sand(%):	15
Horizon:	Ар	Total Sand(%):	61
Depth(cm):	0-37	Total Silt(%):	31
pH in Calc Chloride:	7.2	Total Clay(%):	8
Saturated Hydraulic	3.765	Organic Carbon(%):	2.4

Conductivity(cm/h):

**Electrical Conductivity** 

0

(dS/m):

Layer No:	2	Very Fine Sand(%): 15
Horizon:	Bm	Total Sand(%): 59
Depth(cm):	37-53	Total Silt(%): 33
pH in Calc Chloride:	7.3	Total Clay(%): 8
Saturated Hydraulic	2.843	Organic Carbon(%): 1.1

Conductivity(cm/h):

0 **Electrical Conductivity** 

(dS/m):

Layer No:	3	Very Fine Sand(%): 15
Horizon:	CK	Total Sand(%): 46
Depth(cm):	53-70	Total Silt(%): 47
pH in Calc Chloride:	7.5	Total Clay(%): 7
Saturated Hydraulic	1.568	Organic Carbon(%): 0.6

Order No: 21071900557p

Conductivity(cm/h):

**Electrical Conductivity** 0

(dS/m):

Layer No: 4 Very Fine Sand(%): -9 Horizon: R Total Sand(%): -9 Depth(cm): 70-100 Total Silt(%): -9 -9 pH in Calc Chloride: Not applicable Total Clay(%):

**Saturated Hydraulic** 

Conductivity(cm/h):

Not applicable

Organic Carbon(%):

Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately

Not applicable

Order No: 21071900557p

**Electrical Conductivity** 

(dS/m):

Not applicable

Polygon ID: OND401072235

Component

**Component ID:** OND40107223501 100 Components(%): ONCEGM~~~A Soil Name ID: Slope Steepness(%): 1.2 **Component No:** Slope Length(m): -9

**Surface Stoniness** 

Class:

Nonstony

**Component Rating** 

Field Crops Capability: No significant limitations in use for Crops

**First CLI Limitation** 

**Hydrological Soil** 

Subclass:

**Second CLI Limitation** 

Subclass:

Drainage: Imperfectly Soil Texture of A silt loam

**Horizon:** 

fine to moderately coarse textures. **Groups:** 

**Soil Name** 

**CHATEAUGUAY** Soil Name:

Kind of Surface Material: Mineral

**Soil Drainage Class:** Imperfectly drained **Water Table** Non growing season

**Charateristics:** 

**Layer that Restricts Root** 

No root restricting layer

Growth:

Type of Root Restricting n/a

Layer:

Parent Material 1, 2, 3: Medium; Fine; Not Applicable

**Mode of Deposition** 

Glaciofluvial; Till (Morainal); Not Applicable

1,2,3:

**Parent Material Chemical** 

Property 1,2,3:

Moderately / Very Strongly Calcareous; Medium Acid to Neutral; Not Applicable

#### Soil Layer

Laver No.	1	Varus Fina Canal(0/)	8
Layer No:		Very Fine Sand(%):	_
Horizon:	Ah	Total Sand(%):	17
Depth(cm):	0-28	Total Silt(%):	48
pH in Calc Chloride:	6.8	Total Clay(%):	35
Saturated Hydraulic Conductivity(cm/h): Electrical Conductivity	0.404	Organic Carbon(%):	2.8
(dS/m):			
Layer No:	2	Very Fine Sand(%):	5
Horizon:	Bm	Total Sand(%):	20
Depth(cm):	28-45	Total Silt(%):	55
pH in Calc Chloride:	6.3	Total Clay(%):	25
Saturated Hydraulic Conductivity(cm/h):	0.293	Organic Carbon(%):	1.9
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ae	Total Sand(%):	19
Depth(cm):	45-56	Total Silt(%):	64
pH in Calc Chloride:	6	Total Clay(%):	17
Saturated Hydraulic Conductivity(cm/h):	0.306	Organic Carbon(%):	4.2
Electrical Conductivity (dS/m):	0		
( ,			
	4	Very Fine Sand(%):	6
Layer No: Horizon:		Very Fine Sand(%): Total Sand(%):	6 21
Layer No: Horizon:	Btj	Total Sand(%):	21
Layer No: Horizon: Depth(cm):	Btj 56-69	Total Sand(%): Total Silt(%):	21 69
Layer No: Horizon: Depth(cm): pH in Calc Chloride:	Btj 56-69 6	Total Sand(%): Total Silt(%): Total Clay(%):	21 69 10
Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic Conductivity(cm/h): Electrical Conductivity	Btj 56-69	Total Sand(%): Total Silt(%):	21 69
Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic Conductivity(cm/h):	Btj 56-69 6 0.504	Total Sand(%): Total Silt(%): Total Clay(%):	21 69 10
Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic Conductivity(cm/h): Electrical Conductivity	Btj 56-69 6 0.504	Total Sand(%): Total Silt(%): Total Clay(%):	21 69 10
Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic Conductivity(cm/h): Electrical Conductivity (dS/m):	Btj 56-69 6 0.504	Total Sand(%): Total Silt(%): Total Clay(%): Organic Carbon(%):	21 69 10 1.6
Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic Conductivity(cm/h): Electrical Conductivity (dS/m): Layer No: Horizon:	Btj 56-69 6 0.504 0	Total Sand(%): Total Silt(%): Total Clay(%): Organic Carbon(%):  Very Fine Sand(%): Total Sand(%):	21 69 10 1.6
Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic Conductivity(cm/h): Electrical Conductivity (dS/m): Layer No:	Btj 56-69 6 0.504 0 5 BCg	Total Sand(%): Total Silt(%): Total Clay(%): Organic Carbon(%):  Very Fine Sand(%): Total Sand(%): Total Silt(%):	21 69 10 1.6
Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic Conductivity(cm/h): Electrical Conductivity (dS/m):  Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic	Btj 56-69 6 0.504 0 5 BCg 69-85	Total Sand(%): Total Silt(%): Total Clay(%): Organic Carbon(%):  Very Fine Sand(%): Total Sand(%):	21 69 10 1.6
Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic Conductivity(cm/h): Electrical Conductivity (dS/m):  Layer No: Horizon: Depth(cm): pH in Calc Chloride:	Btj 56-69 6 0.504 0 5 BCg 69-85 6.9	Total Sand(%): Total Silt(%): Total Clay(%): Organic Carbon(%):  Very Fine Sand(%): Total Sand(%): Total Silt(%): Total Clay(%):	21 69 10 1.6 5 16 64 20
Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic Conductivity(cm/h): Electrical Conductivity (dS/m):  Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic Conductivity(cm/h): Electrical Conductivity (dS/m):	Btj 56-69 6 0.504 0 5 BCg 69-85 6.9 0.248	Total Sand(%): Total Silt(%): Total Clay(%): Organic Carbon(%):  Very Fine Sand(%): Total Sand(%): Total Silt(%): Total Clay(%): Organic Carbon(%):	21 69 10 1.6 5 16 64 20 0.7
Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic Conductivity(cm/h): Electrical Conductivity (dS/m):  Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic Conductivity(cm/h): Electrical Conductivity (dS/m):  Layer No:	Btj 56-69 6 0.504 0 5 BCg 69-85 6.9 0.248 0	Total Sand(%): Total Silt(%): Total Clay(%): Organic Carbon(%):  Very Fine Sand(%): Total Sand(%): Total Silt(%): Total Clay(%): Organic Carbon(%):  Very Fine Sand(%):	21 69 10 1.6 5 16 64 20 0.7
Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic Conductivity(cm/h): Electrical Conductivity (dS/m):  Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic Conductivity(cm/h): Electrical Conductivity (dS/m):  Layer No: Horizon:	Btj 56-69 6 0.504 0 5 BCg 69-85 6.9 0.248 0	Total Sand(%): Total Silt(%): Total Clay(%): Organic Carbon(%):  Very Fine Sand(%): Total Sand(%): Total Silt(%): Total Clay(%): Organic Carbon(%):  Very Fine Sand(%): Total Sand(%):	21 69 10 1.6 5 16 64 20 0.7
Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic Conductivity(cm/h): Electrical Conductivity (dS/m):  Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic Conductivity(cm/h): Electrical Conductivity (dS/m):  Layer No: Horizon: Depth(cm): Depth(cm):	Btj 56-69 6 0.504 0 5 BCg 69-85 6.9 0.248 0 6 Cg 85-100	Total Sand(%): Total Silt(%): Total Clay(%): Organic Carbon(%):  Very Fine Sand(%): Total Sand(%): Total Silt(%): Total Clay(%): Organic Carbon(%):  Very Fine Sand(%): Total Sand(%): Total Sand(%): Total Sand(%):	21 69 10 1.6 5 16 64 20 0.7
Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic Conductivity(cm/h): Electrical Conductivity (dS/m):  Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic Conductivity(cm/h): Electrical Conductivity (dS/m):  Layer No: Horizon: Depth(cm): pH in Calc Chloride:	Btj 56-69 6 0.504 0 5 BCg 69-85 6.9 0.248 0 6 Cg 85-100 7.4	Total Sand(%): Total Silt(%): Total Clay(%): Organic Carbon(%):  Very Fine Sand(%): Total Sand(%): Total Clay(%): Organic Carbon(%):  Very Fine Sand(%): Total Sand(%): Total Sand(%): Total Clay(%): Total Clay(%):	21 69 10 1.6 5 16 64 20 0.7 6 10 77 13
Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic Conductivity(cm/h): Electrical Conductivity (dS/m):  Layer No: Horizon: Depth(cm): pH in Calc Chloride: Saturated Hydraulic Conductivity(cm/h): Electrical Conductivity (dS/m):  Layer No: Horizon: Depth(cm): Depth(cm):	Btj 56-69 6 0.504 0 5 BCg 69-85 6.9 0.248 0 6 Cg 85-100	Total Sand(%): Total Silt(%): Total Clay(%): Organic Carbon(%):  Very Fine Sand(%): Total Sand(%): Total Silt(%): Total Clay(%): Organic Carbon(%):  Very Fine Sand(%): Total Sand(%): Total Sand(%): Total Sand(%):	21 69 10 1.6 5 16 64 20 0.7

Conductivity(cm/h):

**Electrical Conductivity** 

(dS/m):

0

Polygon ID: OND401072824

Component

OND40107282401 Component ID: Soil Name ID: ONBDO~~~A

Slope Steepness(%): 1.2 -9 Slope Length(m):

Components(%):

100

**Component No: Surface Stoniness** 

Class:

Nonstony

1

**Component Rating** 

Field Crops Capability: moderately severe limitations on use for crops.

**First CLI Limitation** 

Subclass:

**Second CLI Limitation** 

Subclass:

Poorly Drainage:

Soil Texture of A

Horizon:

**Hydrological Soil** 

**Groups:** 

Soils have a high runoff potential and very slow infiltration rate when thoroughly wetted. Soils include clay soils with high swelling potential, soils in a permanent high water table and shallow soils over nearly

impervious material.

Soil Name

Soil Name: **BRANDON** Kind of Surface Material: Mineral

**Soil Drainage Class:** Poorly drained **Water Table** Unspecified period

**Charateristics:** 

**Layer that Restricts Root** No root restricting layer

Growth:

Type of Root Restricting n/a

Layer:

Parent Material 1, 2, 3: Moderately Fine; Not Applicable; Not Applicable

**Mode of Deposition** Marine; Not Applicable; Not Applicable

1,2,3:

**Parent Material Chemical** 

Medium Acid to Neutral; Not Applicable; Not Applicable

Property 1,2,3:

Soil Layer

Layer No: Very Fine Sand(%): 11

**Horizon:** Apg Total Sand(%): 14

Depth(cm):	0-12	Total Silt(%):	52
pH in Calc Chloride:	5.7	Total Clay(%):	34
Saturated Hydraulic Conductivity(cm/h):	0.223	Organic Carbon(%):	2.1
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	7
Horizon:	Bg	Total Sand(%):	11
Depth(cm):	12-38	Total Silt(%):	46
pH in Calc Chloride:	6.6	Total Clay(%):	43
Saturated Hydraulic Conductivity(cm/h):	0.211	Organic Carbon(%):	0.5
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	7
Horizon:	Bg	Total Sand(%):	11
Depth(cm):	38-70	Total Silt(%):	47
pH in Calc Chloride:	6.9	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.211	Organic Carbon(%):	0.2
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Cg	Total Sand(%):	8
Depth(cm):	70-105	Total Silt(%):	45
pH in Calc Chloride:	7.1	Total Clay(%):	47
Saturated Hydraulic Conductivity(cm/h):	0.197	Organic Carbon(%):	0.2
Electrical Conductivity (dS/m):	0		

Polygon ID: OND401072198

#### Component

 Component ID:
 OND40107219801
 Components(%):
 70

 Soil Name ID:
 ONFRM~~~~N
 Slope Steepness(%):
 1.2

 Component No:
 1
 Slope Length(m):
 -9

**Surface Stoniness** 

Class:

Moderately stony

#### **Component Rating**

**Field Crops Capability:** Natural grazing only; no improvements feasible.

First CLI Limitation

Subclass:

**Second CLI Limitation** 

Presence of consolidated bedrock within one metre of the soil surface

Subclass:

Drainage: Well

Soil Texture of A medium - moderately fine loam

Horizon:

**Hydrological Soil** Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately

fine to moderately coarse textures. **Groups:** 

#### Soil Name

Soil Name: **FARMINGTON** 

Kind of Surface Material: Mineral **Soil Drainage Class:** Well drained **Water Table** Unspecified period

**Charateristics:** 

**Layer that Restricts Root** 

Growth:

Type of Root Restricting n/a

Layer:

Fragmental; Not Applicable; Not Applicable Parent Material 1, 2, 3: **Mode of Deposition** Till (Morainal); Not Applicable; Not Applicable

No root restricting layer

1,2,3:

**Parent Material Chemical** 

Property 1,2,3:

Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

#### Soil Layer

Layer No:	1	Very Fine Sand(%): 19
Horizon:	Ah	Total Sand(%): 44
Depth(cm):	0-21	Total Silt(%): 44
pH in Calc Chloride:	7.2	Total Clay(%): 12
Saturated Hydraulic	1.969	Organic Carbon(%): 3.7

Conductivity(cm/h): **Electrical Conductivity** 

0

(dS/m):

Layer No:	2	Very Fine Sand(%):	13
Horizon:	Bm	Total Sand(%):	49
Depth(cm):	21-38	Total Silt(%):	45
pH in Calc Chloride:	7.1	Total Clay(%):	6
Saturated Hydraulic	3.014	Organic Carbon(%):	3.1

Conductivity(cm/h):

(dS/m):

**Electrical Conductivity** 0

Layer No: 3 С Horizon: 38-50 Depth(cm): pH in Calc Chloride: 7

Conductivity(cm/h): **Electrical Conductivity** (dS/m):

**Saturated Hydraulic** 

Very Fine Sand(%): 19 Total Sand(%): 57

36 Total Silt(%): 7 Total Clay(%): Organic Carbon(%): 1.3

Order No: 21071900557p

1.979

0

Layer No: 4 Very Fine Sand(%): -9 Horizon: R Total Sand(%): -9 -9 50-100 Depth(cm): Total Silt(%): pH in Calc Chloride: Not applicable Total Clay(%): -9

Saturated Hydraulic

Conductivity(cm/h):

Electrical Conductivity (dS/m):

Not applicable

Not applicable

Component

 Component ID:
 OND40107219802
 Components(%):
 30

 Soil Name ID:
 ONZUN~~~~N
 Slope Steepness(%):
 1.2

 Component No:
 2
 Slope Length(m):
 -9

**Surface Stoniness** 

Class:

Moderately stony

**Component Rating** 

Field Crops Capability: Natural grazing only; no improvements feasible.

First CLI Limitation Presence of consolidated bedrock within one metre of the soil surface

Subclass:

**Second CLI Limitation** 

Subclass:

Drainage: Imperfectly

**Soil Texture of A** medium - moderately fine loam

Horizon:

Hydrological Soil Soils with moderate infiltration rates when completely wetted. Soils are sandy loam soils with moderately

Organic Carbon(%):

Not applicable

Order No: 21071900557p

**Groups:** fine to moderately coarse textures.

Soil Name

Soil Name: UNCLASSIFIED
Kind of Surface Material: Unclassified
Soil Drainage Class: Not applicable
Water Table Unspecified period

**Charateristics:** 

**Layer that Restricts Root** 

No root restricting layer

Growth:

Type of Root Restricting n/a

Layer:

Not Applicable; Not Applicable; Not Applicable

Parent Material 1, 2, 3: Mode of Deposition

Not Applicable; Not Applicable; Not Applicable

1.2.3:

Parent Material Chemical Not Applicable; Not Applicable; Not Applicable

Property 1,2,3:

Polygon ID: OND401072181

#### Component

OND40107218101 100 Component ID: Components(%): ONNGW~~~~A Soil Name ID: Slope Steepness(%): 1.2 1 -9 **Component No:** Slope Length(m):

**Surface Stoniness** 

Class:

Nonstony

#### **Component Rating**

Field Crops Capability: moderate limitations on use for crops

**First CLI Limitation** 

Subclass:

**Second CLI Limitation** 

Subclass:

Poorly Drainage: Soil Texture of A silt loam

**Horizon:** 

**Hydrological Soil** 

Soils have a high runoff potential and very slow infiltration rate when thoroughly wetted. Soils include **Groups:** clay soils with high swelling potential, soils in a permanent high water table and shallow soils over nearly

impervious material.

No root restricting layer

#### **Soil Name**

**NORTH GOWER** Soil Name:

Kind of Surface Material: Mineral

**Soil Drainage Class:** Poorly drained **Water Table** Unspecified period

**Charateristics:** 

**Layer that Restricts Root** 

Growth:

Type of Root Restricting

n/a

Layer:

Fine; Not Applicable; Not Applicable Parent Material 1, 2, 3: **Mode of Deposition** Marine; Not Applicable; Not Applicable

1,2,3:

**Parent Material Chemical** 

Property 1,2,3:

Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Order No: 21071900557p

#### Soil Layer

Layer No: Very Fine Sand(%): 9 Horizon: Aр Total Sand(%): 43 Depth(cm): 0-25 Total Silt(%): 41 7.3 Total Clay(%): 16 pH in Calc Chloride: **Saturated Hydraulic** 1.375 Organic Carbon(%): 3.9

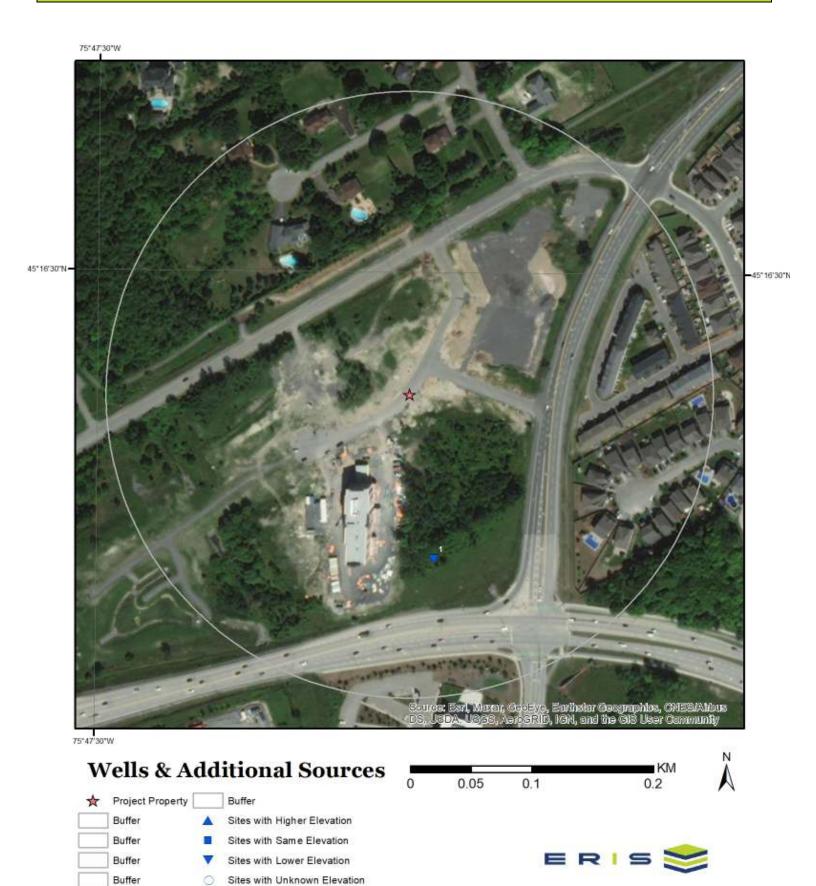
Conductivity(cm/h): **Electrical Conductivity** 

(dS/m):

0

Layer No:	2	Very Fine Sand(%):	9
Horizon:	Bgj	Total Sand(%):	45
Depth(cm):	25-37	Total Silt(%):	40
pH in Calc Chloride:	7.4	Total Clay(%):	15
Saturated Hydraulic Conductivity(cm/h):	0.752	Organic Carbon(%):	3.3
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	5
Horizon:	Cg	Total Sand(%):	20
Depth(cm):	37-100	Total Silt(%):	63
pH in Calc Chloride:	7.3	Total Clay(%):	17
Saturated Hydraulic Conductivity(cm/h):	0.29	Organic Carbon(%):	0.5
Electrical Conductivity (dS/m):	0		

## **Wells and Additional Sources**



## **Wells and Additional Sources Summary**

### **Federal Sources**

**National Energy Board Wells** 

Map Key ID Distance (m) Direction

No records found

### **Provincial Sources**

**Ontario Oil and Gas Wells** 

Map Key ID Distance (m) Direction

No records found

**Provincial Groundwater Monitoring Network** 

Map Key ID Distance (m) Direction

No records found

**Water Well Information System** 

 Map Key
 Well ID
 Distance (m)
 Direction

 1
 1535406
 136.95
 S

#### **Private Sources**

Oil and Gas Wells

Map Key ID Distance (m) Direction

Order No: 21071900557p

No records found

## Water Well Information System

Мар Кеу	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
1	S	0.14	136.95	100.88	WWIS
Well ID:	1535	406	Data Entry Status:		
Construction Date	:		Data Src:		
Primary Water Us	e:		Date Received:	3/23/2005	
Sec. Water Use:			Selected Flag:	True	
Final Well Status:	Obse	rvation Wells	Abandonment Rec:		
Water Type:			Contractor:	1844	
Casing Material:			Form Version:	3	
Audit No:	Z271	07	Owner:		
Tag:	A020	615	Street Name:	FALLOWFIELD RD	
Construction Meth	iod:		County:	OTTAWA	
Elevation (m):			Municipality:	NEPEAN TOWNSHI	IP
Elevation Reliabili	ty:		Site Info:		
Depth to Bedrock:			Lot:		
Well Depth:			Concession:		
Overburden/Bedro	ock:		Concession Name:		
Pump Rate:			Easting NAD83:		
Static Water Leve	l:		Northing NAD83:		
Flowing (Y/N):			Zone:		
Flow Rate:			UTM Reliability:		
Clear/Cloudy:					
PDF URL (Map):	https	://d2khazk8e83rdv.cloud	front.net/moe_mapping/down	nloads/2Water/Wells_pdfs/153\1	1535406.pdf
Well Completed D	ate: 2005	/03/05			
Year Completed:	2005				
Depth (m):	6				
Latitude:	45.27	28735392024			
Longitude:	-75.7	881155149896			
Path:	153\1	535406.pdf			
Bore Hole ID:	1131	5945	Elevation:	101.941482	
DP2BR:			Elevrc:		
Spatial Status:			Zone:	18	
Code OB:	0		East83:	438180.00	
Code OB Desc:	Over	burden	North83:	5013566.00	
Open Hole:			Org CS:	UTM83	
Cluster Kind:			UTMRC:	4	
Date Completed:	05-M	ar-2005 00:00:00	UTMRC Desc:	margin of error: 30 r	m - 100 m
Remarks:			Location Method:	wwr	

Elevrc Desc:

Location Source Date:

Improvement Location

Source:

Improvement Location

Method:

Source Revision

Comment:

Supplier Comment:

Formation ID: 932996251

Layer: 1 Color: 6

General Color: BROWN

Mat1: 06
Most Common Material: SILT
Mat2: 81
Mat2 Desc: SANDY

Mat3:

Mat3 Desc:

Formation Top Depth: 0.0

Formation End Depth:

Formation End Depth m

UOM:

Formation ID: 932996253

Layer: 3

Color:

General Color:

Mat1: 13

Most Common Material: BOULDERS

Mat2:

Mat2 Desc: Mat3:

Mat3 Desc:

Formation Top Depth:

Formation End Depth: 6.0 Formation End Depth m

UOM:

Formation ID: 932996252

 Layer:
 2

 Color:
 2

 General Color:
 GREY

 Mat1:
 06

 Most Common Material:
 SILT

 Mat2:
 61

Mat2 Desc: CLAYEY

Mat3: Mat3 Desc:

Formation Top Depth: Formation End Depth:

Formation End Depth

UOM:

m

Plug ID: 933266318

 Layer:
 1

 Plug From:
 0

 Plug To:
 1

 Plug Depth UOM:
 m

Method Construction ID: 961535406

Method Construction B

Code:

Method Construction: Other Method

Other Method Construction:

Pipe ID: 11330800

Casing No: 1

Comment: Alt Name:

Casing ID: 930855170

Layer: 1 Material: 5

Open Hole or Material: PLASTIC

Depth From: 0
Depth To: 1.25
Casing Diameter: 5
Casing Diameter UOM: cm
Casing Depth UOM: m

Screen ID: 933412084

 Layer:
 1

 Slot:
 #10

 Screen Top Depth:
 1.25

 Screen End Depth:
 6

Screen Material:

Screen Depth UOM: m
Screen Diameter UOM: cm

Screen Diameter: 6.5

Hole ID: 11533421

Diameter: 21.0

Depth From: 0.0

Depth To: 6.0

Hole Depth UOM: m

Hole Diameter UOM: cm

## **Radon Information**

Detailed radon information for the project property is provided below.

#### **Radon Zone Information**

**ID**: 144850 **Radon Rank**: HIGH

#### **Health Canada Radon Information**

Health Region: 3551

Health Region Name: City of Ottawa Health Unit

Province or Territory: ON Number Homes in 64

Survey:

% Below 200 Bq/m3: 93.8 % Above 200 Bq/m3: 6.2 200 to 600 Bq/m3: 6.2 % Above 600 Bq/m3: 0

## **Area of Natural and Scientific Interest Information**

Thora	ic no	IDIAN	unit a	vailable	in this	area
There	IS HO	AINOI	umu a	vaname	III IIII	3 2102

## **Area of Natural and Scientific Interest Information**

Detailed ANSI information is provided below.

No records found for the project property or surrounding properties.

#### **Federal Sources**

#### **Bedrock Geology of Canada**

BEDROCK GEOLOGY

The Geological Map of Canada is scaled at 1:5,000,000. This map is created by Geological Survey of Canada and published by Natural Resources Canada.

#### **Health Canada Radon Information**

**RADON** 

This source is the results from the Cross-Canada Survey of Radon Concentrations in Homes, a two-year study conducted by Health Canada's National Radon Program. The aims of this study were to obtain an estimate of the proportion of the Canadian population living in homes with radon gas levels above the guideline of 200 Bq/m3, to identify previously unknown areas where radon gas exposure may constitute a health risk, and to build, over time, a map of indoor radon gas exposure levels across Canada.

#### **National Energy Board Wells**

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

#### Soil Landscapes of Canada (SLC)

SLC

Major characteristics of soil and land such as surface form, slope, water table depth, permafrost and lakes.

#### Surficial Geology of Canada

SURFICIAL GEOLOGY

This map contains information on surficial materials and associated landforms left by the retreat of the last glaciers and non glacial environments. It is based on compilation of existing maps. This data was authored by the Geological Survey of Canada and published by Natural Resources Canada.

<u>Toporama</u>

**TOPORAMA** 

Toporama covers the entire area of Canada's landmass and provides topographic, geo-referenced, and symbolic information in a raster format at 1:50,000 scale. This is a digital topographic reference product made available by Natural Resources Canada (NRCan).

#### **Provincial Sources**

#### **Area of Natural and Scientific Interest**

ANSI

Areas of Natural and Scientific Interest (ANSIs) are lands and waters with features that are important for natural heritage protection, appreciation, scientific study or education. This dataset is made available by Ontario Ministry of Natural Resources.

#### **Bedrock Geology of Ontario**

**BEDROCK GEOLOGY** 

The Bedrock Geology layer shows the distribution of bedrock units underlying Ontario at a 1:250,000 scale. The geology of the province consists of Precambrian rocks of the Canadian Shield and Phanerozoic sedimentary rocks that overlie the Canadian Shield. This layer was compiled by the Precambrian Geoscience Section of Ontario Geological Survey.

#### Ontario Detailed Soil Survey (DSS3)

**SOIL SURVEY** 

Soil surveys have been published for most of the agricultural areas, and many surrounding areas, across Canada. Data from these surveys comprise the most detailed soil inventory information in the National Soil DataBase. Data is made available by Agriculture and Agri-Food Canada

#### Ontario Oil and Gas Wells

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.

#### **Provincial Groundwater Monitoring Network**

**GROUNDWATER** 

## **Appendix**

Groundwater level and chemistry data from monitoring wells that are part of the Provincial Groundwater Monitoring Network (PGMN) Program. Precipitation data (rain) is also available for some sites. This data is provided by 'Ontario Ministry of Environment and Climate Change.

#### **Surficial Geology of Ontario**

SURFICIAL GEOLOGY

The Surficial Geology dataset contains a layer depicting the distribution and characteristics of surficial deposits across southern Ontario. This data set is authored by the Ontario Geological Survey.

#### **Topographic Map of Ontario**

**TOPOGRAPHIC MAP** 

Order No: 21071900557p

The Ontario Basic Mapping program provides a relationship between topographic information and the provincial geographical referencing grid, thereby forming the foundation for a comprehensive provincial geographical referencing system. This data is made available by the Ontario Ministry of Natural Resources and Forestry. This is ERIS self-designed topographic map template at 1:10,000.

#### **Water Well Information System**

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.

Wetlands of Ontario WETLAND

The Ministry of Natural Resources and Forestry has made available a database of wetlands in Ontario. Certain attributes identify wetlands that have been evaluated with the Ontario Wetland Evaluation System (OWES), and of those which ones have been designated as Provincially Significant Wetlands (PSW).

#### **Private Sources**

Oil and Gas Wells 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.

RADON RADON

The Radon Potential Map is developed by Radon Environmental Management Corporation. Its objective was to illustrate the relative variation of radon risk across the country, and in 2011 it published its first geologic Radon Potential Map of Canada.

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# APPENDIX G CURRICULUM VITAE 2021

Phase I Environmental Site Assessment

135 Lusk Street

Ottawa, Ontario

KS1076



Bruce@cm3environmental.com 613.979.2093 (mobile)

#### **EDUCATION**

 B.Sc. Geology, Saint Mary's University Halifax, Nova Scotia 1988

#### YEARS OF EXPERIENCE

- 30 years of experience
- 10 years with CM3

#### **TRAINING**

- Bioremediation: Feasibility, Design and Applications, International Network for Environmental Training, San Diego, September 10-11, 1993
- Bioventing; Principles, Applications and Case Studies, International Network for Environmental Training, San Diego, April 28-29, 1995
- LPST Corrective Action Project Manager, Texas Natural Resource Conservation Commission, San Antonio, December 8, 1995

#### **HEALTH AND SAFETY TRAINING**

- OSHA 40 Hour Training for Hazardous Waste, Groundwater Technology, Orlando, November 16, 1990
- First Aid, CPR, WHMIS, TDG, Petroleum Oriented Safety Training

#### **PROFESSIONAL AFFILIATIONS**

 Professional Geologist, Associations of Professional Geoscientists of Ontario, Toronto, March 19, 2003

#### **CERTIFICATION**

 Environmental Professional, Environmental Careers Organization of Canada, Calgary, December 28, 2011

#### **LANGUAGES**

English

#### **ROLE**

- Overall Project Management and QA/QC oversight of all project deliverables,
- Health and Safety
- Providing expert technical guidance and expertise to field staff including subcontractors
- Senior Review, Budget Control



#### **EXPERTISE**

- Phase I & II Environmental Site Assessments
- Remedial Option Evaluation
- Remediation Design and Project Oversight / Management
- Environmental Assessments in support of Site Control Plans and Demolition Control Permits
- Litigative Support as Expert Witness
- Hydrogeological Investigation

#### RELEVANT INDUSTRY EXPERIENCE

- Insurance
- Real Estate
- Federal, Provincial and Municipal Government
- Property Management
- Health Care Facilities
- Educational Facilities

#### **PROFESSIONAL PROFILE**

Mr. Cochrane is a principal consultant with 30 years of experience in the environmental consulting industry. He has designed and implemented Phase I and II Environmental Site Assessments and remediation projects for contaminated sites in the Ottawa area since 1994 (26 years).

Experienced with chemical oxidation, ex situ and in situ bioremediation techniques, bioslurping or dual phase extraction, free product recovery, pump and treat, bioventing, soil vapour extraction, air sparging and intrinsic remediation or natural attenuation.



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#### PROJECT EXPERIENCE

#### Phase I/II ESA Project Experience

Mr. Cochrane has managed and completed field work for environmental site assessments since 1991. This work has been completed across Canada, the southern United States and Alaska. Mr. Cochrane has worked in Ontario since 1992 and has completed hundreds of projects in the National Capital Region since he moved here in 1994. The work has included Phase I and II environmental site assessments (ESAs) following the Canadian Standards Association Z768-01 and Z769-00 documents and Phase One and Two ESAs Ontario Regulation 153/04. Mr. Cochrane prefers to conduct the site interviews and field inspections for all Phase I ESAs he manages so he can gain a fell for the property and fully evaluate potentially contaminating activities (PCAs) and areas of potential environmental concern (APECs). Mr. Cochrane has extensive experience in assessing petroleum hydrocarbon contamination but has also worked with metals, chlorinated solvents and Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS). Mr. Cochrane prepares work plans for ESAs and QA/QC programs to ensure that the data is accurate and reliable. A list of environmental site assessment experience is as follows:

**Senior Consultant** – Phase I and II Environmental Site Assessments for a former steel fabrication facility in support of a real estate transaction. Completed Phase I ESA site visit and interviews, assisted with Phase I ESA report preparation and development of Phase II ESA program. Assisted with recommendations for remediation and provided final review of Phase II ESA report. Cornwall, Ontario. Completed 2018.

Senior Project Manager — Phase II environmental site assessment to delineate the extent of a petroleum hydrocarbon contamination extending across two properties in Arnprior, Ontario. The initial work involved the use of traditional test pits, boreholes and monitoring well installations to delineate the horizontal and vertical extent of the five-meter-deep and estimated 570 square meter area of petroleum impacted soil. The project was under a strict schedule and the remediation contractor and client needed to know the exact boundaries of the contamination for the planned remedial excavation as it was under one building and potentially under a second. CM3 employed high resolution site characterization (HRSC) techniques using Laser Induced Fluorescence (LIF) to rapidly determine the edges of the contamination. The HRSC



work clearly identified that the contaminated soil was under both buildings to the extent that both buildings would have to be removed for the excavation work to proceed safely. The HRSC work was completed in June of 2016 and the site remediation was completed in May of 2019.

Senior Project Manager – Phase II environmental site assessment of Apartment Complex consisting of Ten Properties. Developed a Conceptual Site Model (CSM) from forty-seven environmental reports by other consultants to determine source(s) of petroleum hydrocarbon contamination on the subject site from the adjacent properties. The CSM identified several areas of known environmental concern and several Areas of Potential Environmental Concern (APECs) related to petroleum hydrocarbon Potentially Contaminating Activities (PCAs) on the subject site and three adjacent properties to the south of the subject site. Developed a Phase II ESA program to fill in data gaps identified by the CSM. Coordinated the field activities and directed the on-time and on-budget completion of the ESA. The ESA refined CSM was used to identify the most likely sources of the on-site PHC contaminated soil and groundwater. Ranges of potential environmental liabilities were provided based on the several different remedial approaches. Carling-Queensway area, Ottawa, Ontario. Completed in 2018.



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Senior Consultant – Phase II environmental site investigation and remediation of a former gas station and automotive repair garage that had been developed into a commercial restaurant. Completed Phase I ESA site visit and interviews, assisted with Phase I ESA report preparation. Assisted with development of the site investigation to address multiple on and off-site PCAs that represent several APECs on the site. Assisted with Phase I ESA report preparation and provided final review of Phase II ESA report, (issued in draft). Arnprior, Ontario. Completed 2020.

Senior Project Manager/Consultant – Phase I and II Environmental Site Assessments for two adjacent properties, one commercial automotive repair in support of sale, and other one vacant former industrial lot in support of RSC filing and sale. Identified several PCAs on and off-site and multiple APECs to be addressed for both properties. Conducted Phase II ESA for commercial property that reported no contaminants of concern (COCs) above the site condition standards (SCSs). This Phase II ESA report was used to sell the property in 2017. Conducted a Phase Two ESA and remedial program for the vacant industrial property in support of filing a Record of Site Condition (RSC). The RSC 227193 was filed on October 14, 2020. Arnprior, Ontario.

Senior Project Manager/Consultant – Phase II Environmental Site Assessment and Remedial program for 3 not-in-use large PCB oil containing hydro transformers at an active high school. The Phase II ESA was completed to delineate the extent of the contamination from the leaking transformers and provide remedial options. Developed a technical specification for tender package for the transformer removal and site remediation program. Managed the technical aspects of the remedial program and oversaw the final soil and confirmatory groundwater sampling program. Provided technical review of final report and all liaison with client. Eganville, Ontario. Completed 2019.

**Senior Project Manager/Consultant** —Phase I and II Site Assessments, Designated Substance Surveys, Demolition Control Plans and Tree Protection Plans for the redevelopment of two residential properties. Provided review of Phase I ESA reports that identified two similar PCAs and two APECs on the properties. Provided technical direction and management of Phase II ESA, DSS, DCP and TPP. Glebe area, Ottawa, Ontario. Started December 2016 and completed October 2020.

#### **Remediation and Monitoring Project Experience**

Mr. Cochrane's remedial experience includes the design, pilot testing, full-scale implementation, maintenance and operation and of various remedial systems including multi-phase extraction, passive petroleum hydrocarbon recovery, air sparging and soil vapour extraction. Mr. Cochrane also has experience with *in situ* and *ex situ* technologies including, chemical oxidation, enhanced bioremediation, landfarming, bio-piles, and excavation. A list of recent remediation experience is as follows

**Senior Consultant** – Senior consultant for chemical oxidation/bioremediation remediation of contaminated bedrock and groundwater. A recalcitrant clay lens located at depth within the bedrock aquifer was a residual source of localized groundwater contamination and Mr. Cochrane evaluated the use of more aggressive oxidants to address the clay lens and evaluate other remedial options. Groundwater monitoring completed in January 2020 has shown compliance with the MECP Standards and site closure is pending MECP review of the risk assessment.

Senior Consultant – Mr. Cochrane is the alternate contact, senior project manager and senior consultant for CM3's SOA with the OCDSB since June 2011 to conduct ESAs, remediation consulting services, indoor air quality testing and site monitoring. The ESAs are conducted to the CSA and O.Reg 153/04 Standards often in support of property divestures and Site Control Plan applications. The site monitoring and IAQ testing is completed for nine Board owned contaminated properties where contaminated management plans involving groundwater monitoring, IAQ testing,



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liquid phase hydrocarbon (LPH) recovery and in situ remediation by oxygen releasing compound (ORC) sock maintenance.

Senior Project Manager/Consultant —Phase II ESA for former dry-cleaning facility to delineate groundwater contamination and ongoing monitoring and treatment of chlorinated solvent contaminated groundwater. In situ oxidation techniques were used to decrease trichloroethylene concentrations to non-detectable and in situ liquid activated carbon injections are planned for November 2020 to treat residual chloroform concentrations to site condition standards. Project started in 2015 and is anticipated to be completed by the end of 2021, Merivale Road, Ottawa.

Senior Consultant – CM3 was retained by an Ottawa based retail auto parts dealer to provide environmental consulting services in advance of the sale of their property, historically used as a gasoline and automotive service station. A prior consultant completed a Phase I ESA, partial delineation of contamination, and in situ remediation. Post remediation monitoring indicated that the selected approach did not meet the remedial goal. Mr. Cochrane was the client contact, project manager and senior technical consultant for the project and his roles and responsibilities included the review of previous environmental work to develop a Conceptual Site Model (CSM) and identify data gaps. Development of a Phase II ESA to delineate the extent of contamination and define the site geology and hydrogeological conditions with the goal of addressing the data gaps to update the CSM and provide an effective remedial solution. Supervision of the Phase II ESA including coordination of CM3 staff, field work and subtrades. Updated the client weekly and at the completion of major project milestones, regarding the work progress and project budget. Interpretation of the results of the Phase II ESA and updated CSM, showing that the previous remedial actions limited the migration of contaminants in groundwater but were not effective at treating the soil contamination due to the type of soil at the site. Senior review of the Phase II ESA report and the preparation of a remedial options evaluation with cost estimates. Remedial options included excavation, risk assessment, contaminant management and site monitoring. The Phase II ESA was completed in a short timeframe and within the client's budget. The updated CSM and remedial options were provided to the client on time and at budget. Merivale Road, Ottawa – Auto Parts Dealer – 29-Nov-2019 to 14-Feb-2020

Senior Consultant –CM3 was retained by the property insurer to delineate and remediate petroleum hydrocarbon contamination at a site in response to a TSSA order. CM3's work included a Phase II ESA, the oversight of the preferred remedial option and post-remediation monitoring. The contamination was present beneath the on-site building within the soil and in bedrock. Mr. Cochrane was the client contact, project manager and senior technical consultant for the project and his roles and responsibilities included the preparation of work plans for each stage of the project including a Phase II ESA, remedial action plan and post monitoring plan with specified goals for the closure of the site. Technical oversight of all aspects of the field work, including the preparation of specifications for the preferred remedial approach of source area excavation, LPH recovery and in situ chemical oxidation and biodegradation. Review of all outgoing correspondence and reports. Communication with the property owner, client and the TSSA. Project status updates were provided to the client and TSSA following each stage of work and each groundwater monitoring event. The client was also provided regular budget updates. Braeside, Ontario – Excavation and in situ Remediation – 18-Nov-2014 to 17-Apr-2020.

Senior Project Manager/Consultant – Liquid phase hydrocarbon (LPH) recovery and enhanced in situ bioremediation of fuel oil impacted bedrock aquifer using oxidation techniques. The project was in a small rural community of rural Ontario in a shallow bedrock situation with multiple water supply wells being impacted or at risk from the release. Mr. Cochrane developed the local well monitoring program and site-specific remedial program while working in conjunction with the local MECP representatives and MECP hydrogeologist. The project was completed with final groundwater monitoring in the fall of 2009.



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Senior Project Manager/Consultant - Source removal by excavation with enhanced oxidation techniques for a fuel oil release at a shallow bedrock and potable water site in rural Ontario. The delineation assessment had shown that the released fuel oil was trapped within the soil and upper bedrock horizon beneath a residential dwelling following an accidental fuel release. The initial remediation phase involved the removal of the residential structure and affected soils and underlying bedrock. The bedrock was removed with large hydraulic breakers and excavation equipment to the shallow water table located at an approximate depth of two metres below grade. The initial work was successful in removing over 90% of the contaminant and the remaining impacts were treated in place with oxygen releasing compounds (ORC). An on-site monitoring program was completed to ensure the safety of the on-site potable water source. This project was started in 2007 and was completed in the summer of 2009.

Senior Project Manager and Remediation Specialist – Source removal by excavation, LPH recovery followed by ORC injections at a non-potable bedrock site. The results of the delineation work at this fuel spill site were used to develop a conceptual site model (CSM) of the distribution of the spill within the soil, bedrock, and local water table. Mass balance calculations indicated that most of the fuel was resident in the upper shallow soils with limited LPH present with the bedrock water table. Bedrock fracture mapping was used to determine best possible monitoring well locations. The groundwater monitoring well network was used to document that most of the impact was contained to a series of interconnected vertical bedrock fractures. Initial LPH recovery was undertaken with vacuum methods to remove the LPH from the fractures and then hydro-excavation techniques were used to clean out the up to 30 cm wide bedrock fractures that were primarily filled with soil and loose rock. The bedrock fractures were sealed, and percolation piping was set in the bedrock for ORC application. This site is currently under post remediation groundwater monitoring with the last round of water samples to be collected in December 2020.

**Senior Project Manager and Remediation Specialist** — Familiar with various remediation technologies and requirements of pilot testing. Has significant experience working with geotechnical and structural consultants with respect to excavations and excavation around/beneath structures.

**Project Manager and Remediation Specialist** - Used risk assessment techniques to evaluate the actual environmental risk and negotiate technically sound and responsible remedial objectives. Experience dates to 1997 to 1999 in South Texas under their Leaking Petroleum Storage Tank (LPST) state program where Risk Based Corrective Action (RBCA) risk assessments were used to develop site specific goals and remedial standards.

**Project Manager and Remediation Specialist** - Monitored remedial systems, developed effective remediation plans and the use of mass balance calculations for them.

## Kris Snider Senior Field Technician

Kris@cm3environmental.com 613.979.7974 (mobile)

#### **EDUCATION**

• Horticulture 1995, Algonquin College, Ottawa, Ontario

#### YEARS OF EXPERIENCE

- 14 years of experience
- 10 years with CM3

#### **TRAINING**

- Project Management Workshop (SLR Consulting), 2010
- Contaminated and Hazardous Waste Site Management Course (Gowen Environmental), Toronto, 2011
- Introduction to AutoCAD, Algonquin College, Ottawa, 2019

#### **HEALTH AND SAFETY TRAINING**

- Hazardous Waste Operations and Emergency Response OSHA 1910.120 (HAZWOPER)
- First Aid, CPR, TDG and WHIMIS
- Working at Heights and Fall Arrest

#### **LANGUAGES**

- English
- French (limited)

## PROPOSED ROLE AND RESPONSIBILITIES

Senior Field Technician, Project Manager, Draftsperson



- Media sampling including soil, groundwater, and sediments
- Groundwater and LPH monitoring
- Air and soil gas sampling
- Direction of subcontractors and CM3 Staff for field sampling and remedial activities
- Data compilation and report preparation
- Report preparation and drafting
- Project management

#### **EXPERTISE**

- Phase I, II and III Environmental Site Assessments
- Oversight/management of field activities for Remediation Projects
- Indoor Air Quality Assessments
- Soil Gas Sampling

#### RELEVANT INDUSTRY EXPERIENCE

- Federal, Provincial, Municipal and Indigenous Governments and Agencies
- Insurance, Property Management
- Federal, Provincial and Municipal Government
- Health Care Facilities
- Educational Facilities

#### **PROFESSIONAL PROFILE**

Mr. Snider has been involved with over 350 contaminated site projects, including Phase I and Phase II Environmental Site Assessments, numerous underground storage tank removals, a multitude of large loss petroleum claims, landfill monitoring, hydro transformer releases and field sampling in support of risk assessments.

Mr. Snider has work closely with Federal and Provincial agencies as well as Indigenous communities in Ontario to ensure that projects remain on schedule and comply with the applicable standards and guidelines.



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#### **PROJECT EXPERIENCE**

#### Phase I/Phase II ESA Experience

Senior Environmental Technician – Phase I and II Environmental Site Assessments for two adjacent properties, one commercial automotive repair in support of sale, and other one vacant former industrial lot in support of RSC filing and sale. Conducted groundwater sampling and surveying for a Phase Two ESA for industrial property in support of filing a Record of Site Condition (RSC). The RSC 227193 was filed on October 14, 2020. Arnprior, Ontario, (RFSO Project Example 2).

**Project Manager and Senior Environmental Field Technician** - Phase I ESA, Ottawa, Ontario 2019. Served a main contact with client. Reviewed relevant and historical documents, performed site survey/inspection of the mixed residential and commercial property. Prepared a detailed Phase I report identifying areas of potential environmental concern (APEC). The project was completed in preparation for a potential real estate transaction.

**Project Manager and Senior Environmental Field Technician** - Phase II ESA, Ottawa, Ontario 2019-2020. Developed a cost-conscious budget and work plan based on APECs identified in a Phase I ESA. Coordinating multiple subcontractors, supervised field testing, borehole drilling, test pitting, soil sampling and groundwater monitoring. Assessed analytical data and prepared a Phase II ESA report along with a remedial action plan based on the discovery of subsurface PHC and metal contamination.

**Senior Environmental Field Technician** – Phase II ESA, various location Eastern Ontario 2006 -2020. Completed hundreds of petroleum spill investigations and site remediations for Insurance clients. Tasked with site assessment, impact delineation and soil and groundwater remediation. Coordinated with project managers, stakeholders, subcontractors and regulatory agencies. Helped to develop site specific monitoring and remediation options based on field testing and analytical data. Provided on-site supervision of multiple subcontractors and junior staff to ensure QA/QC.

**Project Manager and Senior Environmental Field Technician** – Phase II ESA, Athens, Ontario, 2020. On and off-site environmental assessment gasoline impacts. Coordinated with municipal and county agencies to secure permits and approvals for subsurface testing. Assessed potential off-site migration through borehole and monitoring well drilling. Logging of soil quality, field screening samples for combustible vapors and selecting samples for laboratory analysis for contaminates of concern (COCs). Prepared a Phase II report along with recommendations.

#### **Site Remediation Experience**

Assistant Project Manager and Senior Environmental Field Technician - PCB containing Hydro transformer release and subsequent remediation, Cobden Ontario, 2018. Assessed the condition of the several disconnected hydro transformers, collected samples for each unit, provide containment solutions and organizing the removal of the PCB containing waste. Supervised borehole drilling and monitoring well installation. Collected soil and groundwater samples, presented cost-effective remedial solutions, supervised the remedial excavation and conducted post remedial soil and groundwater sampling. Prepared drafting and final reporting.

**Senior Environmental Field Technician** – Phase II ESA Williamsburg, Ontario. Involved with of the delineation of impacts through the installation of groundwater monitoring wells in a bedrock situation. Supervised on-site activities,



## Kris Snider Senior Field Technician

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completed borehole logging and field sampling and prepared figures for Phase II ESA and site monitoring, (RFSO Project Example 3).

**Senior Environmental Field Technician** - Site remediation, emergency spill actions -gasoline tanker spill 2017. Performed the initial site assessment, determined the level for immediate environmental concern. Conducted site meetings with the client, contractors, the Ontario Ministry of the Environment (MECP) and the TSSA. Oversaw on-site staff during field activities. Coordinating and directed environmental drilling, delineation and remedial activities. Tested soil and groundwater quality throughout the delineation and remedial work. Ensured that all health and safety protocols were being observed. Conducted daily correspondence with project manager, and other stakeholders to ensure schedules and budgets were maintained.

**Project Manager, Senior Environmental Field Technician** – Glasgow Station, Ontario site remediation 2017- 2018. Responsibilities included coordinating site meetings, managing a common schedule with out of town contractors and accredited landfill sites. Delineated PHC impacts through borehole drilling and test pit excavations. Guided the remedial excavation of impacted soil, supervised the enhanced bioremediation/In-Situ remediation for groundwater impacts. Tested soil and groundwater throughout the delineation and remedial activities. Drafted site models and site plans and prepared the final report preparation 2016 - 2019.

**Senior Environmental Field Technician** – Remediation of a former gasoline service station Elgin, Ontario, 2019. Completed field activities developed by the project manager that included directing the remedial excavation of contaminated overburden and guidance and confirmatory sampling for COCs.

#### **Site Monitoring Experience**

For 14 years, Mr. Snider has continually been involved with a variety of site monitoring programs. His experience extends from field sampling and site evaluation to overseeing the entire projects. Sites have ranged from small residential site to large commercial and school board properties. Most of the projects have included monitoring of groundwater and/or indoor air quality due to existing contamination.

**Senior Environmental Field Technician** – Monitoring and remediation Ottawa 2006-2020. Completed scheduled indoor air and completed groundwater monitoring for multiple schoolboard properties. Responsibilities have included the collection of indoor air quality samples, groundwater quality samples, hydrogeological pump tests, data analysis, preparing figures for conceptual site models and reporting. The monitoring was completed for due diligence, in support of contaminant management plans, (**RFSO Project Example 4**).

**Project Manager and Senior Environmental Field Technician** – Former gasoline service station Elgin, Ontario, 2019. Conducted on and off-site groundwater monitoring to satisfy MECP requirements. Tasks included elevation surveys, groundwater elevation measurements, liquid phase hydrocarbon (LPH) measurements, sample collection for analysis and reporting.

**Senior Environmental Field Technician** – Conducted multiple indoor air quality (IAQ) monitoring, multiple sites eastern Ontario, 2018 -2020. The process included the acquisition of proper sampling equipment and sampling media to ensure accurate results. Collecting indoor samples and a background for comparative analysis for contaminates of concern. Assessed all results to the applicable regulatory standard and reporting.

**Senior Environmental Field Technician** – Risk assessment Ottawa 2018-2019. Completed site assessment for a multi-unit residential building following the discovery of subsurface petroleum contamination below the building. Conducted



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all field work and sampling, scheduled supervised multiple sub-contractors, recorded field data prepared figures and report for risk assessment, (RFSO Project Example 5).

**Senior Environmental Technician** – Remediation and Close-Out Monitoring; Conducted groundwater sampling and monitoring of field parameters including Redox, temperature and dissolved oxygen in support of a chemical oxidation/biodegradation of petroleum contaminated groundwater within bedrock. Completed soil gas monitoring of carbon dioxide, oxygen and total combustible vapours to monitor the remedial progress and conducted quarterly groundwater sampling for PAHs, BTEX and PHCs for the 27 groundwater monitoring wells on-site. Braeside, Ontario 2015 to 2020.

#### **Project Management**

Mr. Snider has managed less complex Phase I and Phase II ESAs, subsurface environmental assessments following above ground and below ground storage tank decommissioning and oil spills since 2006. Mr. Snider's responsibilities have included full personal responsibility for the delivery of Phase I and Phase II ESAs, serving as a main contact with the client and regulatory agencies, devising and presenting comprehensive workplans and budgets, coordinating field staff and sub-contractors, ensuring schedules and deliverables are maintained, reviewing analytical data and providing technical and support. Technical direction for Kris's projects is provided by CM3 QP's (ESA) as required for projects under TSSA orders and O.Reg 153/04.