



Empire (Grand Niagara) Project GP Inc.

**PHASE ONE
ENVIRONMENTAL SITE ASSESSMENT**

GRAND NIAGARA, NIAGARA FALLS, ONTARIO

**JUNE 21, 2022
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1.0 EXECUTIVE SUMMARY

Terrapex Environmental Ltd. (Terrapex) was retained by Empire (Grand Niagara) Project GP Inc. (Empire) to conduct a Phase One Environmental Site Assessment (ESA) of the Grand Niagara Development Lands located in Niagara Falls, Ontario (hereinafter referred to as the “Site” or the “Phase One Property”). It is understood that this Phase One ESA report is required in support of a Draft Plan of Subdivision and Zoning Amendment application and the subsequent filing of one or more Records of Site Condition (RSCs) under the *Environmental Protection Act* per Ontario Regulation (O. Reg.) 153/04 to facilitate the proposed development of the Site as a mixed-use residential community.

The objective of the study was to identify actual and potential sources of contamination associated with the Site arising from current and/or historical activities on the Site and the Phase One study area in order to satisfy the following Phase One ESA general objectives listed in O. Reg. 153/04:

- to develop a preliminary determination of the likelihood that one or more contaminants have affected any land or water on, in or under the Phase One property;
- to determine the need for a Phase Two ESA;
- to provide a basis for carrying out any Phase Two ESA required; and,
- if necessary, to provide adequate preliminary information about environmental conditions in the land or water on, in or under the Phase One property for the conduct of a Risk Assessment following completion of a Phase Two ESA.

The Grand Niagara Development Lands include approximately 185 hectares of land located north of Biggar Road, south of the Welland River, east of Crowland Avenue, and west of the Queen Elizabeth Way (QEW) highway in the City of Niagara Falls, Ontario. The Site consists of three non-contiguous parcels of land, which are divided by Grassy Brook Road and a Canadian Pacific rail line. The majority of the Grand Niagara Development Lands are presently occupied by the Grand Niagara Golf Course, with some residential lands and active agricultural lands along Grassy Brook Road.

The Site is located within an “area of natural significance” as defined in O. Reg. 153/04 due to the presence of:

- provincially significant wetlands (i.e., the Lower Grassy Brook PSW, Lyons Creek North PSW, and Welland River East PSW complexes);
- significant habitat for threatened and endangered species (i.e., Bobolink, Eastern Meadowlark, Barn Swallow, Chimney Swift, Bank Swallow, and American Water Willow); and,

- environmental protection areas, environmental conservation areas, and potential natural heritage corridors, as identified in the City of Niagara and the Niagara Region Official Plans.

Based on the review, evaluation, and interpretation of the information obtained from the records review, interviews, and site reconnaissance, Terrapex identified seven areas of potential environmental concern (APECs) at the Site, resulting from one on-Site potentially contaminating activity (PCA) and five off-site PCAs or incidents of potential environmental concern with the potential to impact the environmental condition of the Site.

A summary of the PCAs, APECs, and associated contaminants of potential concern (COPCs) identified by the Phase One ESA study is provided in the following table.

APEC ¹	LOCATION OF APEC ON PHASE ONE PROPERTY	POTENTIALLY CONTAMINATING ACTIVITY ²	LOCATION OF PCA (ON-SITE or OFF-SITE)	CONTAMINANTS OF POTENTIAL CONCERN ³	MEDIA POTENTIALLY IMPACTED (Ground water, Soil, and/or Sediment)
APEC 1	Outside of the entrance to the Golf Course Clubhouse and Restaurant at 8547 Grassy Brook Road	55 - Transformer Manufacturing, Processing and Use	On-Site	1.1.7 Polychlorinated Biphenyls (PCBs) 1.1.11 BTEX 1.1.6 Petroleum Hydrocarbons (PHCs)	Soil
APEC 2A	Immediately <u>north</u> of the off-Site CP rail line	46 - Rail Yards, Tracks and Spurs	Off-Site	1.2.2 Metals 1.2.3 Metals, Hydride-Forming 1.3 Other Regulated Parameters (ORPs) PAHs 1.1.11 BTEX 1.1.6 Petroleum Hydrocarbons (PHCs)	Groundwater
APEC 2B	Immediately <u>south</u> of the off-Site CP rail line	46 - Rail Yards, Tracks and Spurs	Off-Site	1.2.2 Metals 1.2.3 Metals, Hydride-Forming 1.3 Other Regulated Parameters (ORPs) PAHs 1.1.11 BTEX 1.1.6 Petroleum Hydrocarbons (PHCs)	Groundwater

APEC ¹	LOCATION OF APEC ON PHASE ONE PROPERTY	POTENTIALLY CONTAMINATING ACTIVITY ²	LOCATION OF PCA (ON-SITE or OFF-SITE)	CONTAMINANTS OF POTENTIAL CONCERN ³	MEDIA POTENTIALLY IMPACTED (Ground water, Soil, and/or Sediment)
APEC 3A	9127 Montrose Road, adjoining property on the west side of Montrose Road, bordering the northeastern Site boundary	29 - Glass Manufacturing	Off-Site	1.2.2 Metals 1.2.3 Metals, Hydride-Forming 1.3 Other Regulated Parameters (ORPs) 1.1.11 BTEX 1.1.6 Petroleum Hydrocarbons (PHCs) 1.1.10 VOCs	Groundwater
APEC 3B		34 - Metal Fabrication	Off-Site	1.2.2 Metals 1.2.3 Metals, Hydride-Forming 1.3 Other Regulated Parameters (ORPs) 1.1.11 BTEX 1.1.6 Petroleum Hydrocarbons (PHCs) 1.1.10 VOCs	Groundwater
APEC 3C		28 - Gasoline and Associated Products Storage in Fixed Tanks	Off-Site	1.1.11 BTEX 1.1.6 Petroleum Hydrocarbons (PHCs)	Groundwater
APEC 4	9733 Crowland Avenue, Golf Course Maintenance Facility located on the western side of Crowland Avenue and approximately 30 m from the central - western Site boundary.	28 - Gasoline and Associated Products Storage in Fixed Tanks	Off-Site	1.1.11 BTEX 1.1.6 Petroleum Hydrocarbons (PHCs)	Groundwater

Based on the findings of the Phase One ESA, several APECs have been identified at the Site; therefore, a Phase Two ESA is required in order to file an RSC for the Phase One Property in accordance with the requirements of O. Reg. 153/04.

An RSC cannot be filed for the Phase One Property based solely on this Phase One ESA.

2.0 INTRODUCTION

Terrapex Environmental Ltd. (Terrapex) was retained by Empire (Grand Niagara) Project GP Inc. (Empire) to conduct a Phase One Environmental Site Assessment (ESA) of the Grand Niagara Development Lands located in Niagara Falls, Ontario (the “Phase One Property”, hereinafter referred to as the “Site”). It is understood that this Phase One ESA report is required in support of a Draft Plan of Subdivision and Zoning Amendment application and the subsequent filing of one or more Records of Site Condition (RSCs) under the *Environmental Protection Act* per Ontario Regulation (O. Reg.) 153/04 to facilitate the proposed development of the Site as a mixed-use residential community.

2.1 OBJECTIVE

The objective of the study was to identify actual and potential sources of contamination associated with the Site arising from current and/or historical activities on the Site and on properties partly or wholly within 250 m of the Site (i.e., the “Phase One Study Area”) in order to satisfy the following Phase One ESA general objectives listed in O. Reg. 153/04:

- to develop a preliminary determination of the likelihood that one or more contaminants have affected any land or water on, in or under the Phase One property;
- to determine the need for a Phase Two ESA;
- to provide a basis for carrying out any Phase Two ESA required; and,
- if necessary, to provide adequate preliminary information about environmental conditions in the land or water on, in or under the Phase One property for the conduct of a Risk Assessment following completion of a Phase Two ESA.

2.2 PHASE ONE PROPERTY INFORMATION

Information regarding the location and identification of the Phase One Property and the party authorizing this study is provided in Table 1 below.

Grand Niagara includes approximately 185 hectares of land located north of Biggar Road, south of the Welland River, east of Crowland Avenue, and west of the Queen Elizabeth Way (QEW) in the City of Niagara Falls, Ontario.

The Site consists of three non-contiguous parcels of land, which are divided by Grassy Brook Road and a Canadian Pacific (CP) rail line. The majority of the Grand Niagara Development Lands are presently occupied by the Grand Niagara Golf Course, with some residential lands and active agricultural lands along Grassy Brook Road.

Refer to Figure 1 for the location of the Site, and to Figure 2 for the general layout of the Site at the time of the site reconnaissance.

TABLE 1: PHASE ONE PROPERTY INFORMATION

Municipal Address:	8218, 8228 and 8547 Grassy Brook Road, Niagara Falls, ON (Please note that municipal addresses have not been assigned to the balance of the lands)
Legal Description:	Part of Lots 1, 2, 3 and 4, Broken Front Concession, Geographic Township of Crowland, now in the City of Niagara Falls, Regional Municipality of Niagara
UTM Coordinates (centre of site, NAD83):	17T East: 651956 North: 4767073
Name and Address of Owner:	Empire (Grand Niagara) Project GP Inc.
Name and Address of Authorizing Party:	John Castro, Empire (Grand Niagara) GP Inc.
Site Area (m ²):	Approximately 1,856,000 m ²
Structures:	Four including the clubhouse and restaurant for Grand Niagara Golf Club at 8547 Grassy Brook Road; residential dwellings at 8218 and 8228 Grassy Brook Road
Occupants (current):	Occupants include the Grand Niagara Golf Club, tenant farmers, and residents at 8218 and 8228 Grassy Brook Road

It is understood that Empire (Grand Niagara) Project GP Inc. is the General Partner of Empire (Grand Niagara) Project LP Inc.; and, Empire (Grand Niagara) LP Inc. is a Limited Partner in Empire (Grand Niagara) Project LP Inc.

2.3 PLAN OF SURVEY

Empire provided a survey plan for the Site titled, "Plan of Survey of Part of Lots 1,2,3 and 4, Broken Front Concession, Geographical Township of Crowland, now in the City of Niagara Falls, prepared by GeoVerra (ON) Ltd. The Plan of Survey was provided in draft format; the Surveyor's Certificate was not signed and dated. A copy of the plan of survey is included in Appendix I.

2.4 ENHANCED INVESTIGATION PROPERTY

An enhanced investigation property is defined in O. Reg. 153/04 as a property that is being used or has been used, in whole or in part, for an industrial use or for commercial use as a garage, a bulk liquid dispensing facility (including a gasoline outlet), or for the operation of dry-cleaning equipment.

The Site is not an enhanced investigation property.

3.0 SCOPE OF INVESTIGATION

3.1 GENERAL

The Phase One ESA was conducted in accordance with the current requirements of O. Reg. 153/04 and as outlined in the Terrapex proposal to Empire dated March, 14, 2022. The Phase One ESA also meets or exceeds the requirements of a Phase I ESA as prescribed by the Canadian Standards Association Standard Z768-01 (R2022). The five main components of the Phase One ESA scope of work are described below.

Records Review: A review was conducted of available historic and current environmental information pertaining to the Site and the Phase One study area in accordance with Schedule D (Phase One Environmental Site Assessments) of O. Reg. 153/04.

Interviews: An interview was conducted with Mr. John Taylor, the property manager of the Grand Niagara Golf Club.

Site Reconnaissance: A reconnaissance of the Site and accessible properties within the Phase One study area was conducted for evidence of potential environmental concerns.

Evaluation: The information obtained from the records review, interviews, and Site reconnaissance was reviewed, evaluated, and interpreted by the Qualified Person (QP) for this project (see Section 3.2 below) in consideration of the Phase One ESA general objectives and any uncertainty associated with the data sources.

Reporting: In accordance with the requirements of Schedule D of O. Reg. 153/04, this report documents the findings, conclusions, and recommendations of the Phase One ESA and includes:

- a table of the current and past uses of the Phase One property;
- a table of identified potentially contaminating activities (PCAs) and a table of associated areas of potential environmental concern (APECs); and,
- conclusions and recommendations made based on the evaluation and interpretation of information obtained for the Phase One ESA.

3.2 QUALIFIED PERSON

The Phase One ESA was supervised by Mr. Chris Roach, Senior Project Manager of Terrapex, located at 90 Scarsdale Road in Toronto, Ontario. Mr. Chris Roach is a licensed Professional Engineer in Ontario and meets the qualifications as a QP with the Ministry of the Environment, Conservation and Parks (MECP, formerly known as the Ministry of Environment and Climate Change, MOECC, and Ministry of the Environment, MOE) for the purpose of preparing and submitting RSCs for filing on the Brownfields Environmental Site Registry (ESR).

3.3 LIMITATIONS

It should be noted that although Terrapex has attempted to verify information wherever possible, except where explicitly noted, we have relied upon the accuracy of information collected during the records review and interview components.

The general limitations of the study are provided in Section 8.3. Specific limitations of this Phase One ESA are as follows:

- a response from the MECP has not been received pursuant to our Freedom (FOI) request; and,
- The interior of the residential dwellings at 8218 and 8228 Grassy Brook Road was not inspected at the time of the Site reconnaissance because of Site access limitations due, in part, to the COVID-19 pandemic. Based on new information, it is understood that the residential houses have since been demolished.

Upon receipt of a response, Terrapex will forward the response as an addendum to this report in the event that any significant environmental issues are identified by MECP.

4.0 RECORDS REVIEW

4.1 GENERAL

Terrapex obtained and reviewed records relating to the Site and surrounding properties within the Phase One Study Area, in accordance with Schedule D (Phase One Environmental Site Assessments) of O. Reg. 153/04. The records and sources of information reviewed are summarized below, and a list of all documents and associated information cited in this report is provided in Section 9.0.

4.1.1. PHASE ONE STUDY AREA DETERMINATION

To determine the Phase One Study Area, Terrapex conducted a preliminary records review to identify any conditions that might warrant an expansion of the Phase One Study Area beyond the minimum required by O. Reg. 153/04. This review included searches / reviews of the following information:

- aerial photographs and satellite images;
- Provincial waste disposal site inventory documents; and,
- reports documenting previously completed environmental investigations of the site.

The preliminary review did not identify any potential concerns warranting an expansion of the Phase One Study Area.

Accordingly, the Phase One Study Area was established to encompass all of the properties that were located in whole or in part, within 250 m of the boundaries of the subject site.

The boundary of the Phase One Study Area is depicted in Figure 3. Note that all distances are calculated from the nearest property boundary of the site to the nearest boundary of the feature/site in question and are approximate.

4.1.2. FIRST DEVELOPED USE DETERMINATION

Information obtained during the records review portion of the work program was used to determine the date of the first developed use of the Site, as defined in O. Reg. 153/04, summarized in Table 2 below:

TABLE 2: FIRST DEVELOPED USE

YEAR	SITE FEATURES	POTENTIALLY CONTAMINATING ACTIVITY ¹	REFERENCE/SOURCE
1934	<p>Agricultural lands with rural residential dwellings appear to be present at four on-Site locations, as follows:</p> <ul style="list-style-type: none">- the northwest portion of the Site (near the current golf course clubhouse and parking lot);- the north-central portion of the Site (near the Welland River);- the central portion of the Site, located on the north side of Grassy Brook Road; and,- the east portion of the Site north of Reixinger Road on the west side of Montrose Road. <p>These four locations are shown on Figure 2.</p>	None Identified	1934 Aerial Photograph (earliest available record)

¹As set out in Table 2 in Schedule D of O. Reg. 153/04.

Based on the above, it was determined that the first developed land use at the Site was prior to 1934 when the Site was developed for rural residential and agricultural purposes.

4.1.3. FIRE INSURANCE PLANS

ERIS Environmental Risk Information Services Ltd. (ERIS) provided an EnviroscanTM search (provided by Opta Information Intelligence) for the site and surrounding properties. No records of FIPs were found for the Site and phase one study area.

4.1.4. CHAIN OF TITLE

A chain of title is not available for review at this time. This information will be included in the final Phase One ESA report.

4.1.5. ENVIRONMENTAL REPORTS

Terrapex was provided with the following previous environmental report for review as part of the scope of the current Phase One ESA.

Phase One Environmental Site Assessment, Grand Niagara Secondary Plan, Niagara Falls, Ontario, prepared for Grand Niagara Co-Owners by WSP Canada Inc. | MMM Group Limited, dated December 2015

WSP MMM, 2015, Phase I ESA	
Objective/Work Program	To assess the Phase One Property and the surrounding lands for PCAs determined to be contributing to or causing APECs within any portion of the Phase One Property.
APECs	<p><u>On-Site:</u></p> <ul style="list-style-type: none"> Sand traps - fill of unknown origin and quality Golf Course Maintenance Facility – three aboveground storage tanks (ASTs) including a 2,200-litre gasoline AST, a 2,200-litre diesel AST and a 1,360-litre waste oil AST, as well as three 205 L drums of used motor oil. Bulk storage and mixing of pesticides, herbicides, and fertilizers. <p><u>Off-Site:</u></p> <ul style="list-style-type: none"> Ford Motor Company of Canada and ES Fox Limited (a steel fabrication company) operated at 9127 Montrose Road, an adjoining property at the northeast portion of the Phase One Property Railway corridor dividing the central and south portions of the Phase One Property <p>It should be noted that the Golf Course Maintenance Facility was investigated by WSP as being “on-Site”.</p>
Comments/Limitations/Other	WSP recommended a Phase Two ESA to investigate soil and groundwater quality at the Phase One Property.

4.1.6. PROPERTY USE RECORDS

A municipal directory search was conducted for the Site and neighbouring properties within 250 m for years between 1961 and 2012; however, there were no property listings between 1961 and 1986. Municipal directory information was obtained from the LGI Copy Service Canada library.

Based on a review of the information obtained, a summary of search results that are considered to be PCAs, or otherwise of potential environmental concern to the Site, is provided in Table 3 below:

TABLE 3 CITY DIRECTORY INFORMATION

ADDRESS	PROXIMITY¹	YEAR(S)	LISTING(S)	POTENTIAL PCAs² / CONCERNS
8547 Grassy Brook Rd	On Site	2012	Grand Niagara Golf Course	None Identified.
9514 Montrose Rd	<u>Off-Site:</u> Approx. 65 m from the central-eastern Site boundary	2007/2008 2012	Crown Trucking Services Crown Trucking Services Peter's Delivery Service	11 - Commercial Trucking and Container Terminals
9515 Montrose Rd	<u>Off-Site:</u>	2007/2008	<u>Daytimers of Canada Ltd.</u>	31 - Ink Manufacturing,

ADDRESS	PROXIMITY ¹	YEAR(S)	LISTING(S)	POTENTIAL PCAs ² / CONCERNS
	Adjoining property on the west side of Montrose Road, bordering the central-eastern Site boundary	2012	Minacs Worldwide Inc. Boudreau Heating Inc. Ciminelli Real Estate	Processing and Bulk Storage
9127 Montrose Rd	<u>Off-Site:</u> Adjoining property on the east side of Montrose Road, bordering the northeastern Site boundary	1991 2007/2008 2012	<u>Ford Motor Company of Canada Ltd.</u> <u>ES Fox Ltd.</u> Kraft Canada Unico Facility Services GNR Property Maintenance Chelwood <u>ES Fox Ltd.</u> Kraft Canada Unico Facility Services GNR Property Maintenance Chelwood CanGro Food Inc. SF Partners Inc	29 - Glass Manufacturing 34 - Metal Fabrication 34 - Metal Fabrication

¹ direction and approximate distance to nearest Site boundary

²As set out in Table 2 in Schedule D of O. Reg. 153/04. (Listings with potential concerns/PCAs are bolded & underlined)

4.2 ENVIRONMENTAL SOURCE INFORMATION

4.2.1. ERIS ENVIRONMENTAL DATABASE

Terrapex ordered an RSC Report (Rural) from Environmental Risk Information Services Information Limited Partnership. (ERIS) for any records associated with properties within the Phase One study area. ERIS searched government and privately owned databases for environmental source information, including the information and documents listed in paragraph 7 of subsection 3 (2) in Schedule D of O. Reg. 153/04. The report included a physical settings report (geologic, topographic, hydrogeologic, and well information), and a map of Areas of Natural and Scientific Interest (ANSIs).

The report from ERIS is included in Appendix III and includes a detailed report which presents information for the records found, a Site diagram which plots the locations of the properties for which records were found (provided sufficient address information was available), as well as an appendix which contains a list and descriptions of the databases ERIS searched.

The ERIS report indicated 19 listing(s) for the Site and 118 relevant listings within the phase one study area. Relevant listings are summarized in Table 4 below.

TABLE 4 - SUMMARY OF RELEVANT ERIS FINDINGS

ADDRESS	PROXIMITY ¹	DATABASE	YEAR(S) ²	DETAILS	PCA ³ s/POTENTIAL CONCERNS
9733 Crowland Avenue (Maintenance Area for Grand Niagara Golf Club)	<u>Off-Site:</u> 30 m from the Site, on the west (far) side of Crowland Avenue	GEN - Ontario Regulation 347 Waste Generators Summary	2005,2007-2010, 2012-2018, 2020-2021	Generator of waste oils and lubricants.	Other – O. Reg. 347 Registered Waste Generator
9514 Montrose Road	<u>Off-Site:</u> Approx. 65 m from the central-eastern Site boundary	SPL - Ontario Spills	1995	138 L spill of diesel to ground near fuelling/storage tank	28 - Gasoline and Associated Products Storage in Fixed Tanks
		GEN - Ontario Regulation 347 Waste Generators Summary	1988-2009	Generator of petroleum distillates, and waste oil & lubricant, paint/pigment/coating residues, oil skimmings & sludges, aliphatic solvents, light fuel	Other – O.Reg 347 Registered Waste Generator
9515 Montrose Road	<u>Off-Site:</u> Adjoining property on the east side of Montrose Road, bordering the central-eastern Site boundary with one building located approx. 20 m from the Site.	SCT - Scott's Manufacturing Directory	1947 1966	Day-timers of Canada Ltd. Sandt Printing Company Ltd.	31 - Ink Manufacturing, Processing and Bulk Storage
		GEN - Ontario Regulation 347 Waste Generators Summary	1986-1990, 1992-1998 2015 – 2016, 2018, 2020-2021	Generator of waste oils and lubricants Aliphatic solvents, paint/pigment/coating residues, waste oil & lubricants, graphic art wastes	Other – O.Reg 347 Registered Waste Generator
		ECA – Environmental Compliance Approval	2009	Backup diesel power generator for Aditya Birla Minacs Worldwide Inc	28 – Gasoline and Associated Products Storage in Fixed Tanks

ADDRESS	PROXIMITY ¹	DATABASE	YEAR(S) ²	DETAILS	PCA ³ s/POTENTIAL CONCERNS
9127 Montrose Road	<u>Off-Site:</u> Adjoining property on the west side on Montrose and north of Grassy Brook Road	NPCB – National PCB Inventory	1996	Storage of 159 kg of askarel for disposal	8 – Chemical Manufacturing, Processing and Bulk Storage
		SPL – Ontario Spills	1988	Oily wash water reported to Welland River	Other – Spill
		OPCB – Inventory of PCB Storage Sites	1995	Storage of low-level PCBs (150 kg)	8 – Chemical Manufacturing, Processing and Bulk Storage
		SCT – Scott's Manufacturing Directory	1994	E.S. Fox Ltd.	34 – Metal Fabrication
		FSTH – Fuel Storage Tank – Historic	1999	25,000L gasoline AST and 15,000 diesel AST	28 – Gasoline and Associated Products Storage in Fixed Tanks
		FST – Fuel Storage Tank	1997	25,000L gasoline AST and 15,000 diesel AST	28 – Gasoline and Associated Products Storage in Fixed Tanks

¹ direction and approximate distance to nearest Site boundary

² For SCT listings, the year the company was reportedly established.

³ As set out in Table 2 in Schedule D of O. Reg. 153/04.

4.2.2. OTHER GOVERNMENT AND REGULATORY DOCUMENTATION

Terrapex contacted representatives of provincial and municipal government agencies to request any environmental information in their files related to the Site, and/or any available information pertaining to nearby water bodies and areas of natural significance within the Phase One Study Area. Terrapex also conducted searches of available information provided on government websites. The responses received from the government agencies, as well as the additional information obtained through website searches, are summarized in the following sections. Copies of relevant documents and maps are included in Appendix IV.

Ontario Ministry of the Environment, Conservation and Parks (MECP): Terrapex submitted a Freedom of Information (FOI) request regarding documented environmental concerns related to the address of Niagara Falls, Ontario including orders, spills, investigations, waste generator registrations and certificates of approval, as well as general environmental concerns. A request was sent to the MECP on August, 12, 2021.

A written response from the MECP has not yet been received. MECP FOI request typically require several weeks; however, response timelines have been significantly delayed, as MECP staff were not in the office to process FOI requests during the COVID-19 pandemic. If upon receipt of the response from the MECP any significant environmental issues are identified, Terrapex will forward the response as an addendum to this report.

MECP Source Water Protection: Terrapex conducted a search of the information provided on the MECP on-line map of Source Water Protection Areas to determine whether the Phase One property is located in a well-head protection area, or another area designated as an area for the protection of groundwater. The Site is location within an area under the jurisdiction of the Niagara Peninsula Conservation Authority (NPCA) . The review indicates the Site in not within a well-head protection area.

Ontario Ministry of Northern Development, Mines, Natural Resources (MNDMRF): Terrapex conducted a search of the information provided on the Ministry of Northern Development, Mines, Natural Resources (MNDMRF) on-line map of Natural Heritage Areas to identify any environmentally sensitive areas or areas of natural significance within the Phase One Study Area.

Search results identified the following:

- Provincially Significant wetlands along Grassy Brook, north portion of the Site along Welland River, central-northern portion of the Site, and along the railway corridor.

Technical Standards & Safety Authority (TSSA): The TSSA was contacted regarding records of fuel storage tanks at the Site and neighbouring sites. Terrapex received a response from TSSA on August, 12, 2021. Three records were found pertaining to 9127 Montrose Road for a private fuel outlet with two liquid fuel tanks.

Niagara Peninsula Conservation Authority (NPCA): A search was conducted on the NPCA interactive mapping website to determine if the Site is within an area regulated by the NPCA. The results indicated the Site is within the NPCA Regulated Areas. The Site is located within the Niagara River Watershed and the nearest water body, Welland River is located immediately north of the Site while Grassy Brook and Lyons Creek transect the central and southern portions of the Site in an east-west orientation.

Official Plan: Terrapex conducted a search of the information provided on the Niagara Region, 2014 Official Plan to determine whether the Phase One property is located in a well-head protection area, or another area designated as an area for the protection of groundwater. The review did not identify the Site being within a well-head protection area or within an area of groundwater protection.

4.3 PHYSICAL SETTING SOURCES

4.3.1. AERIAL PHOTOGRAPHS

Aerial photographs were obtained from the National Air Photo Library and Niagara Region's on-line archives (based on availability, quality, and scale) for review to identify changes to topographic features, as well as development of the site and surrounding properties within the Phase One Study Area over the years. Aerial photographs from 1935, 1954, 1965, 1976, 1982, 1995, 2002, 2010, and 2015 were reviewed.

An approximate 5-year to 15-year intervening time frame between successive photographs/images was considered to be sufficient to permit a reasonable evaluation of the area development and apparent land use history.

The relevant features identified in the aerial photographs and satellite images are summarized in Table 5 below. It should be noted that identification of some specific features at the Site and surrounding areas was precluded by the scale and resolution of the aerial photographs. Copies of the aerial photographs and the satellite images are included in Appendix V.

TABLE 5 SUMMARY OF AERIAL PHOTOGRAPHS AND SATELLITE IMAGES

YEAR	SOURCE	KEY FEATURES – SITE	KEY FEATURES – SURROUNDINGS	POSSIBLE PCA's/APECS
1934	Niagara Region	<p>Agricultural lands with residential dwellings appear to be present at four on-Site locations, as follows:</p> <ol style="list-style-type: none"> 1. the northwest portion of the Site (near the current golf course clubhouse and parking lot); 2. the central-northern portion of the Site (near the Welland River); 3. the central portion of the Site, located on the north side of Grassy Brook Road; and, 4. the east portion of the Site north of Reixinger Road on the west side of Montrose Road. <p>Two creeks were identified to transverse the Site, including Grassy Brook on the central portion of the Site (south of Grassy Brook Road) and Lyons Creek on the southern portion of the Site.</p>	<p>Surrounding areas appears to be consist of large agricultural properties with rural residential dwelling, as well as significant woodlands, wetlands, valley lands and significant areas of natural and scientific interest.</p> <p>Grassy Brook Road and a CP rail line (both off-Site) divide the Site into three non-contiguous parcels of land bordered by the Welland River to the north.</p>	Offsite: 46 – Rail Yards, Tracks and Spurs
1954	Niagara Region	The Site appears similar to the 1934 aerial photo.	Surrounding areas appear similar to the 1934 aerial photo. The QEW highway is visible east of the Site.	None.
1965	Niagara Region	The Site appears similar to the 1954 aerial photo.	Adjoining property located at 9127 Montrose Road appears to be developed for industrial purposes.	Offsite: Other – Industrial Operations
1976	National Air Photo Library of Canada	The Site appears similar to the 1965 aerial photo.	<p>More rural residential dwellings appear to have been constructed central portion of the Site at 8228 Grassy Brook Road.</p> <p>A new parking lot is present on the south portion of the 9127 Montrose Road property.</p> <p>An off-Site property at 9514 Montrose Road appears to be developed as a commercial trucking facility.</p>	Offsite: 11 – Commercial Trucking and Container Terminals
1982	National Air Photo Library of Canada	The Site appears similar to the 1976 aerial photo.	Between 1976 and 1982, the adjoining property known municipally as 9515 Montrose Road appears to be developed for commercial or light industrial property use supported by a 7,500 m ² (approx.) building/facility.	Offsite: Other – Industrial Operations
1995	Niagara Region	The Site appears similar to the 1982 aerial photo.	Surrounding area appears similar to the 1982 aerial photo.	None.
2002	Niagara Region	The Site appears similar to the 1995 aerial photo.	Surrounding area appears similar to the 1995 aerial photo.	None.
2010	Niagara Region	A golf course is present across the majority of the Site. A	Surrounding area appears similar to the 2002 aerial photo.	None.

YEAR	SOURCE	KEY FEATURES – SITE	KEY FEATURES – SURROUNDINGS	POSSIBLE PCA ¹ s/APECs
		clubhouse appears to be present at the western end of Grassy Brook Road.		
2015	Niagara Region	The Site appears similar to the 2010 aerial photo.	Surrounding area appears similar to the 1995 aerial photo.	None.

A Physical Setting Report (PSR) provided by ERIS was reviewed to determine the topography, geology, and hydrogeology characteristics of the Site and the Phase One study area. A summary of reviewed information is presented in Table 6.1 below:

TABLE 6.1 – SUMMARY OF TOPOGRAPHY, HYDROLOGY AND GEOLOGY

SITE FEATURE	DESCRIPTION / DETAILS
REGIONAL TOPOGRAPHY	The Site generally slopes downwards towards the Welland River, which is located north of the Site.
APPROX ELEVATION	Approximately 172 m to 179 masl
PHYSIOGRAPHIC REGION	The Site and Phase One Study Area are located in the physiographic region known as the Haldimand Clay Plain, which borders the Iroquois Plain physiographic region and the Niagara Escarpment.
OVERBURDEN SOIL STRATIGRAPHY	The Haldimand Clay Plain consists of fine-grained silts and clays deposited at the bottom of a deep glacial lake basin.
BEDROCK AND APPROXIMATE DEPTH	Limestone, dolostone, shale, sandstone, gypsum, and salt of the Salina Formation and is anticipated to be more than 40 m below grade.

4.3.2. FILL MATERIALS

Based on a review of borehole logs from past environmental investigations, fill materials were not encountered at the Site. However, Terrapex understands that bunker sand is sourced from commercial suppliers and temporarily stored at the off-Site Golf Course Maintenance Facility. The imported bunker sand is brought onto the Site for placement in sand traps on an “as-needed” basis.

It is understood that the bunker sand is manufactured by crushing silica stones; therefore, this material is not considered to be a “soil” as defined by O. Reg. 153/04. The bunker sand used at the Grand Niagara Golf Course is sourced from Duntroon Quarry, a licensed quarry under the *Aggregate Resources Act*, as well as from the Best Sand Quarry in Chardon, Ohio.

4.3.3. WATER BODIES, AREAS OF NATURAL SIGNIFICANCE AND GROUNDWATER INFORMATION

Based on a review of information and records in the preceding sections, a summary of water bodies, areas of natural significance, if any, and groundwater information within the Phase One study area are summarized in Table 6.2 below:

TABLE 6.2 – SUMMARY OF WATER BODIES, AREAS OF NATURAL SIGNIFICANCE, GROUNDWATER INFORMATION

FEATURE	WITHIN PHASE ONE PROPERTY	WITHIN PHASE ONE STUDY AREA	DESCRIPTION/ DETAILS
WATER BODY	Yes	YES	The Site is located within the Niagara River Watershed and the nearest water body, Welland River is located immediately north of the Site while Grassy Brook and Lyons Creek transect the central and southern portions of the Site in an east-west orientation.
AREA OF NATURAL SIGNIFICANCE	Yes	Yes	There are several provincially significant wetlands located throughout the Site. The Natural Heritage Information Centre indicated endangered, threatened, and species at risk including Round Hickory nut, Northern Bobwhite, Eastern Pond mussel, Grass pickerel, Bobolink, and snapping turtle. Given the Phase One property and Study Area are primarily open fields, wetlands with waterbodies, it is possible that these species may be present.
WELL-HEAD PROTECTION AREA	NO	NO	None Identified
MUNICIPAL DRINKING WATER SYSTEM	YES	NO	Properties along Grassy Brook Road are municipally serviced
WELL FOR CONSUMPTION/ AGRICULTURAL USE	YES	YES	Seven water supply wells were listed within the Phase One Study Area for livestock and domestic use in ERIS PSR. One on-Site well is located at 8218 Grassy Brook Road. Properties along Grassy Brook Road are municipally serviced. It is understood that the on Site well is not being used and will be decommissioned in accordance Reg 903.

4.3.4. WELL RECORDS

Based on a review of information and records in the preceding sections, there are 20 wells on Site within the Phase One Study Area. Seven of the wells were listed as water supply wells. The remaining wells records are reported to be monitoring /test holes. The locations of the wells are shown on Figure 3.

A summary of relevant water well records with sufficient information on the hydrogeological and geological characteristics of the Phase One Study Area are summarized in Table 6.3 below.

TABLE 6.3 – SUMMARY OF SELECTED WATER WELL RECORDS

WELL ID/ TAG	YEAR	TYPE OF WELL	LOCATION	GENERAL STRATIGRAPHY	APPROXIMATE DEPTH TO WATER TABLE
6600616	1960	Domestic Water Supply	<u>Off-Site:</u> Approximately 60 m southeast of the Site at 8107 Biggar Road.	Clay soils to 15 m below ground surface (mbgs), gravel to 18 mbgs, and limestone at 20 mbgs.	8.5 m
6600617	1956	Domestic Water Supply	<u>Off-Site:</u> Adjoining property to the south at 8243 Bigger Road.	Clay soils to 21 mbgs, sand to 23 mbgs, clay to 24 mbgs	3.7 m
6606618	1960	Livestock Water Supply	<u>Off-Site:</u> Adjoining property to the south at 8365 Bigger Road.	Clay soils to 21 mbgs followed by limestone	9.8 m
6600619	1960	Domestic Water Supply	<u>On-Site:</u> Central portion of the Site, known municipally as 8218 Grassy Brook Road	Clay soils to 25 mbgs, sand to 28 mbgs, gravel to 31.5 mbgs followed by limestone	5.2 m
6600625	1956	Domestic /Livestock Water Supply	<u>Off-Site:</u> Southwest of the site, approximately 60 m south of Bigger Road and 120 m east of Crowland Avenue	Clay soils to 18 mbgs followed by limestone	5.8 m
6602673	1972	Domestic Water Supply	<u>Off-Site:</u> approx. 65 m from the central-eastern Site boundary	Clay soils to mbgs followed by limestone	7.0 m
6604508	2000	Domestic Water Supply	<u>Off-Site:</u> Adjoining property to the south at 8074 Biggar Road.	Clay soils to mbgs followed by limestone	7.6 m

4.4 SITE OPERATING RECORDS

As the site was determined not to constitute an Enhanced Investigation Property as defined in O. Reg. 153/04, a review of site operating records was not required by the regulation.

5.0 INTERVIEWS

5.1 SITE REPRESENTATIVE

Empire representative with knowledge of the Site was interviewed by Terrapex. Relevant information obtained during the interview is summarized below.

Mr. John Taylor, Property Manager of Grand Niagara Golf Course: Mr. John Taylor completed an interview in person for this study on July 21, 2021, and provided the following information:

- The Site operates as the Grand Niagara Golf Club, renown as an 18-hole championship golf course with a back tee yardage of 7,425 yards and more than 100 deep bunkers strategically placed around the tree-lined fairways and greensides.
- The maintenance facility associated with the golf course is located west of central portion the Site.
- Imported sand fill from Duntroon Quarry (supplied Walker Aggregates Inc.) and Best Sand Quarry in Chardon, Ohio (supplied by Covia Canada Ltd.).
- Bunker Sand is temporarily stored at the maintenance facility and brought onto the Site to maintain sand traps on an “as-needed” basis.
- As far as **Mr. John Taylor** was aware, the Site has always been a golf course.

The statements and information provided by **Mr. John Taylor** were consistent with information obtained from other sources as part of the Phase One ESA investigation. No additional information pertaining to the site could be provided.

5.2 SURROUNDING PROPERTY REPRESENTATIVE

Representatives from surrounding properties are not available for interview during Site reconnaissance.

6.0 SITE RECONNAISSANCE

6.1 GENERAL REQUIREMENTS

The reconnaissance of the Site and the Phase One Study Area was conducted by Mr. Andrew Durbano of Terrapex, as follows:

TABLE 7.1 - SITE RECONNAISSANCE PARTICULARS

DATE, TIME, and DURATION	WEATHER CONDITIONS	GUIDE	OCCUPANT/ USE OF FACILITY	ENHANCED INVESTIGATION PROPERTY ¹	NAMES and QUALIFICATIONS of PERSONS CONDUCTING INVESTIGATION
July 21, 2021 9:00 am to 6:30 pm	Sunny 25 °C	Mr. John Taylor	Grand Niagara Golf Club	No	Mr. Andrew Durbano, MSc, P.Geo.

¹ As per clause 32 (1) of O. Reg. 153/04.

Cursory observations of the surrounding properties within the Phase One Study Area made during the Site reconnaissance were limited to areas visible from the Site or from publicly accessible areas and vantage points. During the Site reconnaissance, Terrapex photographed the general Site layout, as well as any specific environmental concerns identified on the site or on surrounding properties within the Phase One Study Area. Specific limitations encountered during the Site reconnaissance are provided in Section 3.3.

The Site location and Site layout are shown on Figure 1 and 2, respectively. Selected photographs including general descriptions are provided in Appendix VI.

6.2 SPECIFIC OBSERVATIONS AT PHASE ONE PROPERTY

6.2.1. SITE DESCRIPTION AND STRUCTURES

The Site consists of three non-contiguous parcels of land, which are divided by Grassy Brook Road and a Canadian Pacific (CP) rail line. The majority of the Grand Niagara Development Lands are presently occupied by the Grand Niagara Golf Course, with some residential lands and active agricultural lands along Grassy Brook Road. There are four structures on the Phase One property with a clubhouse and a restaurant for the Grand Niagara Golf Club located at 8547 Grassy Brook Road and two residential dwellings located at the central portion of the Site at 8218 and 8228 Grassy Brook Road.

Summary of observations from the Site reconnaissance presented in Table 7.2 below:

TABLE 7.2 SITE STRUCTURE OBSERVATIONS

SITE FEATURES	QUANTITY	AGE	DESCRIPTION	LOCATION
BUILDINGS	2	Early – 2000s	Grand Niagara Golf Club clubhouse and restaurant	Northwest portion of the Site at 8547 Grassy Brook Road
	1	Mid-1970s	Residential Dwelling	Central portion of the Site at 8218 Grassy Brook Road
	1	Mid-1970s	Residential Dwelling	Central portion of the Site at 8228 Grassy Brook Road

No above ground storage tanks (ASTs) and/or underground storage tanks (USTs) were observed at 8547 Grassy Brook Road during the Site reconnaissance. The residential Dwellings at 8218 and 8228 Grassy Brook Road were inaccessible at the time of the Site reconnaissance due to Site access limitations due, in part, to the COVID-19 pandemic. The interior of the two residential dwellings will be inspected in conjunction with the Phase Two ESA field program.

6.2.2. UNDERGROUND UTILITIES

A summary of underground utilities identified from site observations presented in Table 7.3 below:

TABLE 7.3 UTILITY DETAILS

UTILITY	PRESENCE ON SITE	APPROXIMATE LOCATION
ELECTRICAL	Yes	Underground hydro line to an on-Site transformer, as well as overhead hydroelectric line along Grassy Brook Road.
GAS	Yes	Underground gas line to the clubhouse and parking lot south of the clubhouse
SEWER	Yes	Grassy Brook Road is municipally serviced
WATER	Yes	Grassy Brook Road is municipally serviced

An on-Site pad-mounted transformer was observed near the entrance of the clubhouse. Given the age of the Site was developed as a golf course in the early 2000s, it is unlikely for the transformer to contain PCBs. Nonetheless, any type of transformer is identified by O. Reg. 153/04 to be an on-Site PCA contributing to or causing an APEC.

6.2.3. INTERIOR OF STRUCTURES

Details of structures observed are summarized in the table below.

TABLE 7.4 STRUCTURE DETAILS

ITEM	Clubhouse (Grand Niagara Golf Club)	Restaurant (Grand Niagara Golf Club)
CONSTRUCTION DETAILS	Wood	Wood
HEATING SYSTEM	Gas powered furnace, forced air	Gas powered furnace, forced air

ITEM	Clubhouse (Grand Niagara Golf Club)	Restaurant (Grand Niagara Golf Club)
COOLING SYSTEM	Air conditioning, forced air	Air conditioning, forced air
DRAIN/PITS/SUMPS	None observed	None observed
UNIDENTIFIED SUBSTANCES	None observed	None observed
STAINS/CORROSION ON FLOORS	None observed	None observed

6.2.4. EXTERIOR OBSERVATIONS

Summary of observations of the exterior of the Site are presented in Table 7.5 below:

TABLE 7.5 SITE DETAILS

ITEM	DETAILS	APPROXIMATE LOCATION
SEWAGE WORKS	Municipally serviced for wastewater	Clubhouse and restaurant
OIL/GAS or WATER WELLS	None observed	None observed
RAILWAY LINES/ SPURS	CP Railway	Central portion of the Site (off-Site)
STAINED SOIL/ VEGETATION/ PAVEMENT	None observed	None observed
STRESSED VEGETATION	None observed	None observed
POTENTIAL PCA ¹	46 - Rail Yards, Tracks and Spurs	Central portion of the Site (off-Site)
UNIDENTIFIED SUBSTANCES	N/A	N/A

¹As set out in Table 2 in Schedule D of O. Reg. 153/04.

6.2.5. ENHANCED INVESTIGATION PROPERTY

The Site is not considered an Enhanced Investigation Property.

6.3 PHASE ONE STUDY AREA, OTHER THAN PHASE ONE PROPERTY

Observations from the site reconnaissance of the Phase One Study Area, are listed below.

FEATURE/DETAILS	DESCRIPTION	ADDRESS	PROXIMITY
WATER BODY	Welland River, Grassy Brook, and Lyons Creek	N/A	The Site is located within the Niagara River Watershed and the nearest water body, Welland River is located immediately north of the Site while Grassy Brook and Lyons Creek transect the central and southern portions of the Site in an east-west orientation.
AREA OF NATURAL SIGNIFICANCE	Wetlands	On-Site	Predominantly observed across the central portion of the Site.
MUNICIPAL DRINKING WATER SYSTEM	Supplied by City of Niagara Falls and water wells	On-Site	N/A

FEATURE/DETAILS	DESCRIPTION	ADDRESS	PROXIMITY
WELL FOR CONSUMPTION/ AGRICULTURAL USE	NONE OBSERVED	N/A	N/A
Storage Tanks and containers	Two ASTs for fuel, one AST for waste oil, and two drums of motor oil observed at the maintenance facility for the Grand Niagara Golf Club.	9733 Crowland Avenue	30 m west of the Site

6.4 WRITTEN DESCRIPTION OF INVESTIGATION

The site reconnaissance was conducted to identify, describe, and document specific items at the Site and at surrounding properties within the Phase One Study Area, in accordance with Schedule D of O. Reg. 153/04. Written descriptions detailing the observations made by Terrapex personnel during the site reconnaissance are provided above in Sections 6.2 and 6.3, for the Site and the Phase One Study Area, respectively.

Discussions regarding the identification of PCAs on the Site and on surrounding properties with the Phase One Study Area are provided below in Section 7.2.

7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 CURRENT AND PAST USES

Current and past uses for the Site are provided in Table 8 below:

TABLE 8 CURRENT AND PAST USES OF THE PHASE ONE PROPERTY

YEAR	NAME OF OWNER	DESCRIPTION OF PROPERTY USE	PROPERTY USE ¹	OTHER OBSERVATIONS FROM AERIAL PHOTOGRAPHS, FIRE INSURANCE PLANS, ETC.
1934 - 2002	Several Private Owners	The Site appears to be land used for residential and agricultural purposes Agricultural lands with residential dwellings were identified at four on-Site locations, as follows: 1. the northwest portion of the Site (near the current golf course clubhouse and parking lot); 2. the central-northern portion of the Site (near the Welland River); 3. the central portion of the Site, located on the north side of Grassy Brook Road; and, 4. the east portion of the Site north of Reixinger Road on the west side of Montrose Road.	Residential use	Aerial photographs
2002 - 2021	Grand Niagara Co-Owners	The Site was developed and opened as the Grand Niagara Golf Course in 2005	Commercial use	Aerial Photographs Site reconnaissance Interviews
2021	Empire (Grand Niagara) GP Inc.	The Site was acquired in late-2021 for redevelopment as a residential subdivision. The Site is currently operation as a commercial golf course; however, it is understood the golf course will be closed in October/November 2023.	Commercial use	Site reconnaissance Interviews

¹as defined in O.Reg. 153/04

The Phase One property was used for agricultural/rural residential purposes until the early 2000s when the majority of the land was developed as the Grand Niagara Golf Course, a commercial property use (i.e., Golf course).

7.2 POTENTIALLY CONTAMINATING ACTIVITY

A potentially contaminating activity as defined in O. Reg. 153/04 is a use or activity set out in Column A of Table 2 of Schedule D that is occurring or has occurred in the Phase One property and/or Phase One study area. Details regarding the PCAs that may be contributing to an area of potential environmental concern are provided below in Tables 9.1 and 9.2.

TABLE 9.1 POTENTIALLY CONTAMINATING ACTIVITIES ON, IN OR UNDER THE PHASE ONE PROPERTY

PCA ¹	POTENTIALLY CONTAMINATING ACTIVITY ²	DESCRIPTION	SOURCE/ REFERENCE	LIKELIHOOD TO CONTRIBUTE TO AN APEC ³	UNCERTAINTY
PCA 1	55 - Transformer Manufacturing, Processing and Use	Pad-mounted transformer located near the clubhouse and restaurant area at 8547 Grassy Brook Road.	Site Reconnaissance	Yes	None

¹ As shown on Figure 4.

² As set out in Table 2 in Schedule D of O. Reg. 153/04.

³ Area of potential environmental concern (APEC)

TABLE 9.2 POTENTIALLY CONTAMINATING ACTIVITIES WITHIN THE PHASE ONE STUDY AREA

PCA ¹	POTENTIALLY CONTAMINATING ACTIVITY ²	ADDRESS/ LOCATION	DESCRIPTION	SOURCE/ REFERENCE	LIKELIHOOD TO CONTRIBUTE TO AN APEC ³	UNCERTAINTY
PCA 2A	46 - Rail Yards, Tracks and Spurs	CP rail line transecting the central portion of the Site, resulting in two non-contiguous parcels of land to the north and south that are part of the Site.	Northern portion of the off-Site CP rail line	Aerial photographs Site Reconnaissance	Possible for impacts to be present	None
PCA 2B	46 - Rail Yards, Tracks and Spurs		Southern portion of the off-Site CP rail line	Aerial photographs Site Reconnaissance	Possible for impacts to be present	None
PCA 3A	29 - Glass Manufacturing	9127 Montrose Road,	Former Niagara Glass Plant operated by the Ford Motor Company of Canada Ltd until 2007	Aerial photographs ERIS report City directories	Possible for impacts to be present	Operations & maintenance practices are unknown

PCA ¹	POTENTIALLY CONTAMINATING ACTIVITY ²	ADDRESS/ LOCATION	DESCRIPTION	SOURCE/ REFERENCE	LIKELIHOOD TO CONTRIBUTE TO AN APEC ³	UNCERTAINTY
PCA 3B	34 - Metal Fabrication	adjoining property on the west side of Montrose Road, bordering the northeastern Site boundary	E.S. Fox Ltd., a steel fabrication facility	Aerial photographs ERIS report City directories	Possible for impacts to be present	Operations & maintenance practices are unknown
PCA 3C	28 - Gasoline and Associated Products Storage in Fixed Tanks		Private fuel outlet with two ASTs	ERIS report	Possible for impacts to be present	Operations & maintenance practices are unknown
PCA 4A	31 - Ink Manufacturing, Processing and Bulk Storage	9515 Montrose Road, adjoining property on the west side of Montrose Road, bordering the central-eastern Site boundary.	Daytimers of Canada Ltd and Minacs Worldwide Inc.- Printing facilities	Aerial photographs ERIS report City directories	Unlikely – The ERIS report indicated this property was used as a printing facility in 1947 and 1966. However, the record in the ERIS appears to be inconsistent with the aerial photographs, as no buildings or structures were present on the property until the early 1980s.	Operations & maintenance practices are unknown
PCA 4B	28 - Gasoline and Associated Products Storage in Fixed Tanks		Backup diesel power generator for Aditya Birla Minacs Worldwide Inc	ERIS report	Unlikely – based on an assumption that bulk quantities of fuel were not stored on-Site for the backup diesel power generator did not require bulk quantities of fuel were not stored on-Site, the intervening distance, and negligible groundwater movement due to low permeability of native till.	None
PCA 5A	28 – Gasoline and Associated Products Storage in Fixed Tanks		Bulk storage of gasoline and diesel fuels, and used motor oil in 205L drums	Site inspection Previous report	Possible for impacts to be present	None

PCA ¹	POTENTIALLY CONTAMINATING ACTIVITY ²	ADDRESS/ LOCATION	DESCRIPTION	SOURCE/ REFERENCE	LIKELIHOOD TO CONTRIBUTE TO AN APEC ³	UNCERTAINTY
PCA 5B	22 - Fertilizer Manufacturing, Processing and Bulk Storage	9733 Crowland Avenue, Golf Course Maintenance Facility located approx. 30 m west of the Site.	Bulk storage and mixing of fertilizer	Site inspection Previous report	Unlikely, due to the immobile nature of fertilizers, the intervening distance, and negligible groundwater movement due to low permeability of native till.	None
PCA 5C	40 – Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications		Bulk storage and mixing of pesticides and herbicides	Site inspection Previous report	Unlikely, due to the immobile nature of pesticides and herbicides, the intervening distance, and negligible groundwater movement due to low permeability of native till.	None
PCA 6A	11 - Commercial Trucking and Container Terminals	9514 Montrose Road, located on the eastern side of Montrose Road, approx. 65 m from the central-eastern Site boundary	Trucking facility	Aerial photographs	Unlikely, based on intervening distance negligible groundwater movement due to low permeability of native till.	Operations & maintenance practices are unknown
PCA 6B	28 - Gasoline and Associated Products Storage in Fixed Tanks		138 L spill of diesel to ground near fuelling/storage tank Reported in 1995	ERIS report	Unlikely, based on the age and small size of the spill, the intervening distance and negligible groundwater movement due to low permeability of native till.	Operations & maintenance practices are unknown

¹ As shown on Figure 4.

² As set out in Table 2 in Schedule D of O. Reg. 153/04.

³ Area of potential environmental concern (APEC)

7.3 AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

An area of potential environmental concern, as defined in O. Reg. 153/04, is the area on, in, or under a Phase One property where one or more contaminants are potentially present, as determined through the Phase One environmental site assessment, including through, (a) identification of past or present uses on, in or under the Phase One property and (b) identification of potentially contaminating activity.

APECs are summarized in Table 10 and shown on Figure 4.

TABLE 10 AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

APEC¹	LOCATION OF APEC ON PHASE ONE PROPERTY	POTENTIALLY CONTAMINATING ACTIVITY²	LOCATION OF PCA (ON-SITE or OFF-SITE)	CONTAMINANTS OF POTENTIAL CONCERN³	MEDIA POTENTIALLY IMPACTED (Ground water, Soil, and/or Sediment)
APEC 1	Outside of the entrance to the Golf Course Clubhouse and Restaurant at 8547 Grassy Brook Road	55 - Transformer Manufacturing, Processing and Use	On-Site	1.1.7 Polychlorinated Biphenyls (PCBs) 1.1.11 BTEX 1.1.6 Petroleum Hydrocarbons (PHCs)	Soil
APEC 2A	Immediately north of the off-Site CP rail line	46 - Rail Yards, Tracks and Spurs	Off-Site	1.1.11 BTEX 1.1.6 Petroleum Hydrocarbons (PHCs)	Groundwater
APEC 2B	Immediately south of the off-Site CP rail line	46 - Rail Yards, Tracks and Spurs	Off-Site	1.1.11 BTEX 1.1.6 Petroleum Hydrocarbons (PHCs)	Groundwater
APEC 3A	9127 Montrose Road, adjoining property on the west side of Montrose Road, bordering the northeastern Site boundary	29 - Glass Manufacturing	Off-Site	1.2.2 Metals 1.2.3 Metals, Hydride-Forming 1.3 Other Regulated Parameters (ORPs) 1.1.11 BTEX 1.1.6 Petroleum Hydrocarbons (PHCs) 1.1.10 VOCs	Groundwater

APEC ¹	LOCATION OF APEC ON PHASE ONE PROPERTY	POTENTIALLY CONTAMINATING ACTIVITY ²	LOCATION OF PCA (ON-SITE or OFF-SITE)	CONTAMINANTS OF POTENTIAL CONCERN ³	MEDIA POTENTIALLY IMPACTED (Ground water, Soil, and/or Sediment)
APEC 3B	9127 Montrose Road, adjoining property on the west side of Montrose Road, bordering the northeastern Site boundary	34 - Metal Fabrication	Off-Site	1.2.2 Metals 1.2.3 Metals, Hydride-Forming 1.3 Other Regulated Parameters (ORPs) 1.1.11 BTEX 1.1.6 Petroleum Hydrocarbons (PHCs) 1.1.10 VOCs	Groundwater
APEC 3C	9127 Montrose Road, adjoining property on the west side of Montrose Road, bordering the northeastern Site boundary	28 - Gasoline and Associated Products Storage in Fixed Tanks	Off-Site	1.1.11 BTEX 1.1.6 Petroleum Hydrocarbons (PHCs)	Groundwater
APEC 4	9733 Crowland Avenue, Golf Course Maintenance Facility located on the western side of Crowland Avenue and approximately 30 m from the central -western Site boundary.	28 - Gasoline and Associated Products Storage in Fixed Tanks	Off-Site	1.1.11 BTEX 1.1.6 Petroleum Hydrocarbons (PHCs)	Groundwater

¹ Areas of potential environmental concern (APEC) means the area on, in or under a Phase One property where one or more contaminants are potentially present, as determined through the Phase One environmental site assessment, including through, (a) identification of past or present uses on, in or under the Phase One property, and (b) identification of potentially contaminating activity.

² As set out in Column A of Table 2 of Schedule D.

³ Contaminants of potential concern (COPC) according to the Method Groups as identified in the "Protocol for in the Assessment of Properties under Part XV.1 of the Environmental Protection Act", March 9, 2004, amended as of July 1, 2011:

BTEX: benzene, toluene, ethylbenzene, xylenes	Hg: mercury	As: arsenic	Cl: chloride
PHCs: petroleum hydrocarbons (F1-F4)	B (hws): boron, hot water soluble	Sb: antimony	EC: electrical conductivity
VOCs: volatile organic compounds	Cr (VI): chromium (hexavalent)	Se: selenium	SAR: sodium adsorption ratio
PAHs: polycyclic aromatic hydrocarbons	CN-: cyanide	Na: sodium	PCBs: polychlorinated biphenyls

8.0 CONCLUSIONS

8.1 WHETHER PHASE TWO ESA REQUIRED BEFORE RSC SUBMITTED

Based on the findings of the Phase One ESA, several APECs have been identified at the Site; therefore, a Phase Two ESA is required in order to file an RSC for the Site, in accordance with the requirements of O. Reg. 153/04.

8.2 RSC BASED ON PHASE ONE ESA ALONE

An RSC cannot be filed for the Phase One Property based solely on this Phase One ESA.

8.3 SIGNATURES

The environmental assessment described herein was conducted in accordance with the terms of reference for this project, as agreed upon by Empire (Grand Niagara) Project GP Inc. and Terrapex Environmental Ltd.

The Phase One Environmental Site Assessment of the property located at Niagara Falls, Ontario which included the review, evaluation, and interpretation of the information obtained from the records review, interviews, and site reconnaissance has been conducted in accordance with Ontario Regulation 153/04 (Records of Site Condition – Part XV.1 of the Environmental Protection Act), made under the *Environmental Protection Act*, by or under the supervision of a Qualified Person. The qualifications of the assessors are included in Appendix VII.

Terrapex has exercised due care, diligence, and judgement in the performance of this assessment; however, studies of this nature have inherent limitations. This report is intended to provide only a general assessment of the environmental conditions encountered at the site. By necessity, the findings, and observations regarding actual or potential contamination of the property are based solely on the extent of observations and information gathered during the assessment, and subsequent investigations of differing scope may reveal conflicting results. Findings and observations may also change with the passage of time. Where applicable, observations of nearby properties were limited to areas visible from the site or from publicly accessible areas and vantage points.

Terrapex has relied in good faith on information and representations obtained from the Client and third parties and, except where specifically identified, has made no attempt to verify such information. Terrapex accepts no responsibility for any deficiency or inaccuracy in this report as a result of any misstatement, omission, misrepresentation, or fraudulent act of those providing information. Terrapex shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time of the study.

This report has been prepared for the sole use of Empire (Grand Niagara) Project GP Inc., Terrapex Environmental Ltd. accepts no liability for claims arising from the use of this report, or from actions taken or decisions made as a result of this report, by parties other than Empire (Grand Niagara) Project GP Inc.

Respectfully submitted,
TERRAPEX ENVIRONMENTAL LTD.

A handwritten signature in blue ink, appearing to read 'Alyssa Davis'.

Alyssa Davis, MSc, GIT
Project Manager

A handwritten signature in blue ink, appearing to read 'Chris Roach'.

Chris Roach, P.Eng., QP_{ESA/RA}
Senior Reviewer and Qualified Person

9.0 REFERENCES

Regulations and Guidelines

Ontario Regulation 153/04, *Records of Site Condition – Part XV.1 of the Environmental Protection Act*

Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, April 15, 2011

Property Use Information:

City of Niagara Falls Directories, available through LGI Copy Service, various years, 1961 – 2012.

Environmental Source Information:

Ontario Ministry of the Environment (MOE), Ministry of the Environment and Climate Change (MOECC) and Ministry of the Environment, Conservation and Parks (MECP) documents and databases:

- Inventory of Coal Gasification Plant Waste Sites in Ontario, Volume II (April 1987), prepared for MOE by Intera Technologies Ltd. (Intera)
- Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario, Volume I (November 1988), prepared for MOE by Intera
- Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario, Volume II (November 1988), prepared for MOE by Intera
- Waste Disposal Site Inventory (June 1991)
- MOECC *Brownfields Environmental Site Registry* website

Federal government, provincial government, and private source database records available through ERIS Information Inc. (ERIS) for locations within 300 m of the Site.

Regulatory file information and documentation regarding environmental concerns related to the site, and/or information pertaining to water bodies and areas of natural significance within the Phase One Study Area, available from:

- MECP Freedom of Information and Protection of Privacy Office
- Ontario Ministry of Natural Resources and Forestry (MNR) Natural Heritage Area on-line mapping
- Technical Standards & Safety Authority (TSSA) Fuels Safety Division
- Niagara Peninsula Conservation Authority, Watershed Explorer, available online at: <https://npca.ca/>

Niagara Region, Official Plan Schedule C (Core Natural Heritage); Schedule H (Source Water Protection).

Physical Setting Sources:

Aerial photographs for the years 1934, 1954, 1965, 1995, 2002, 2010, and 2015 available from the Niagara Region, and for the years 1976 and 1982 available from the National Air Photo Library

The Physiography of Southern Ontario, Third Edition, Ontario Geological Survey Special Volume 2 (1984), Chapman and Putnam, map provided by ERIS.

Ontario Geological Survey map entitled *Surficial Geology of Southern Ontario*, provided by ERIS.

Ontario Geological Survey map entitled *Bedrock Geology of Ontario*, provided by ERIS.

Ontario Ministry of Agriculture and Food, Ministry of Natural Resources, Soil Survey Complex (ON Soils), Soil Survey Complex (ON Soils), map provided by ERIS.

Well record information available from ERIS on the Water Well Information System databases and from the MOECC Environmental Monitoring and Reporting Branch Water Well Information System, on-line mapping application

Interviews:

Interview on July 21, 2021, with Mr. John Taylor, Property Manager of Grand Niagara Golf Club, Group., during Terrapex's site reconnaissance

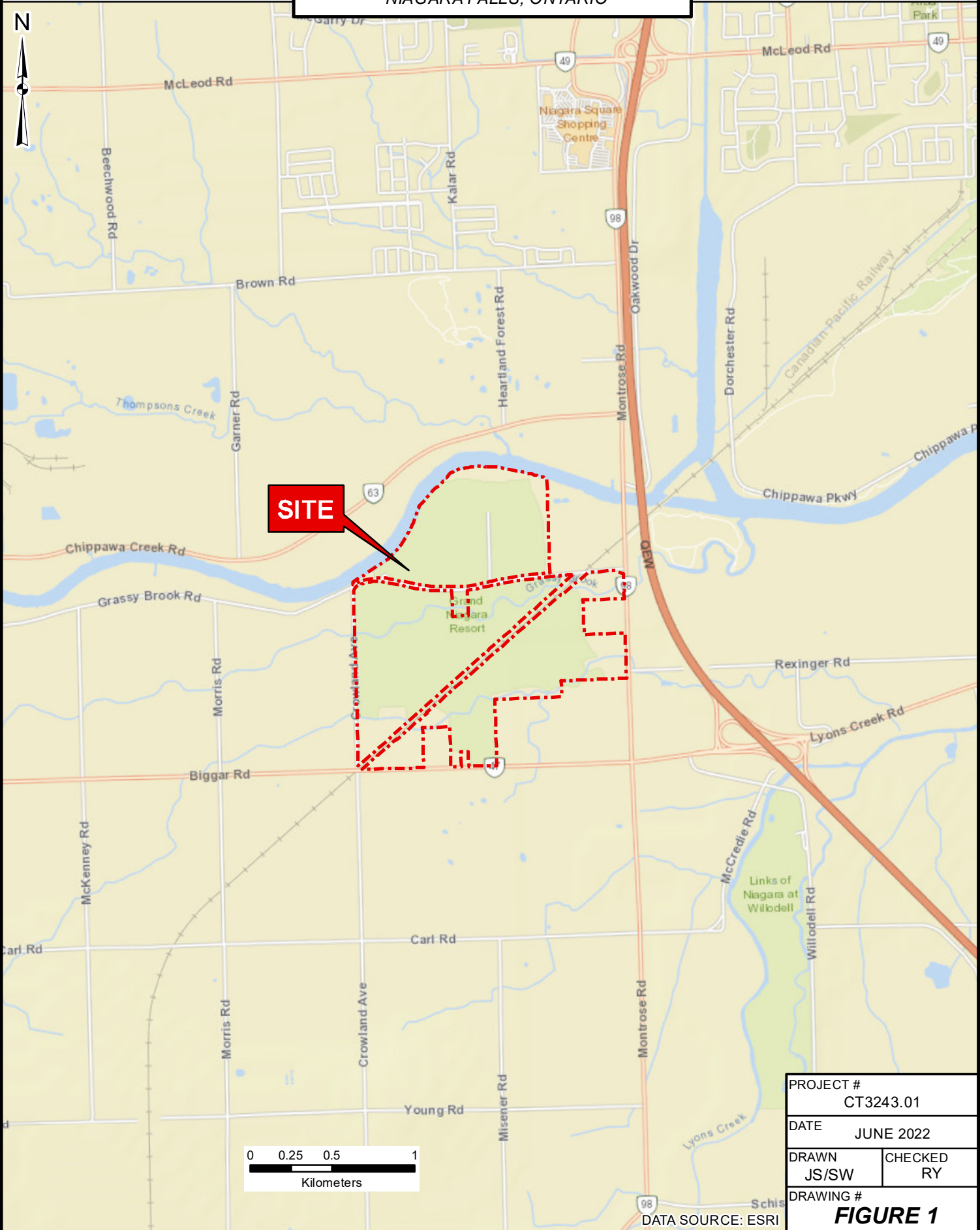
FIGURES

SITE LOCATION

GRAND NIAGARA
NIAGARA FALLS, ONTARIO

CLIENT

EMPIRE (GRAND NIAGARA)
PROJECT GP INC.



j:\errord_W:\p\PROJECTS\Toronto\CT3243.00 Grand Niagara\MXD\CT3243.01 FIG1 SITE LOCATION.mxd

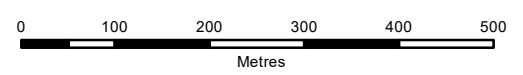
PROJECT #		CT3243.01	
DATE		JUNE 2022	
DRAWN	JS/SW	CHECKED	RY
DRAWING #		FIGURE 1	
DATA SOURCE: ESRI			



LEGEND

SITE BOUNDARY

RAILWAY



DATA SOURCE: ESRI
 MAP PROJECTION: NAD 1983 UTM ZONE 17N

CLIENT:
 EMPIRE (GRAND NIAGARA) PROJECT GP INC.

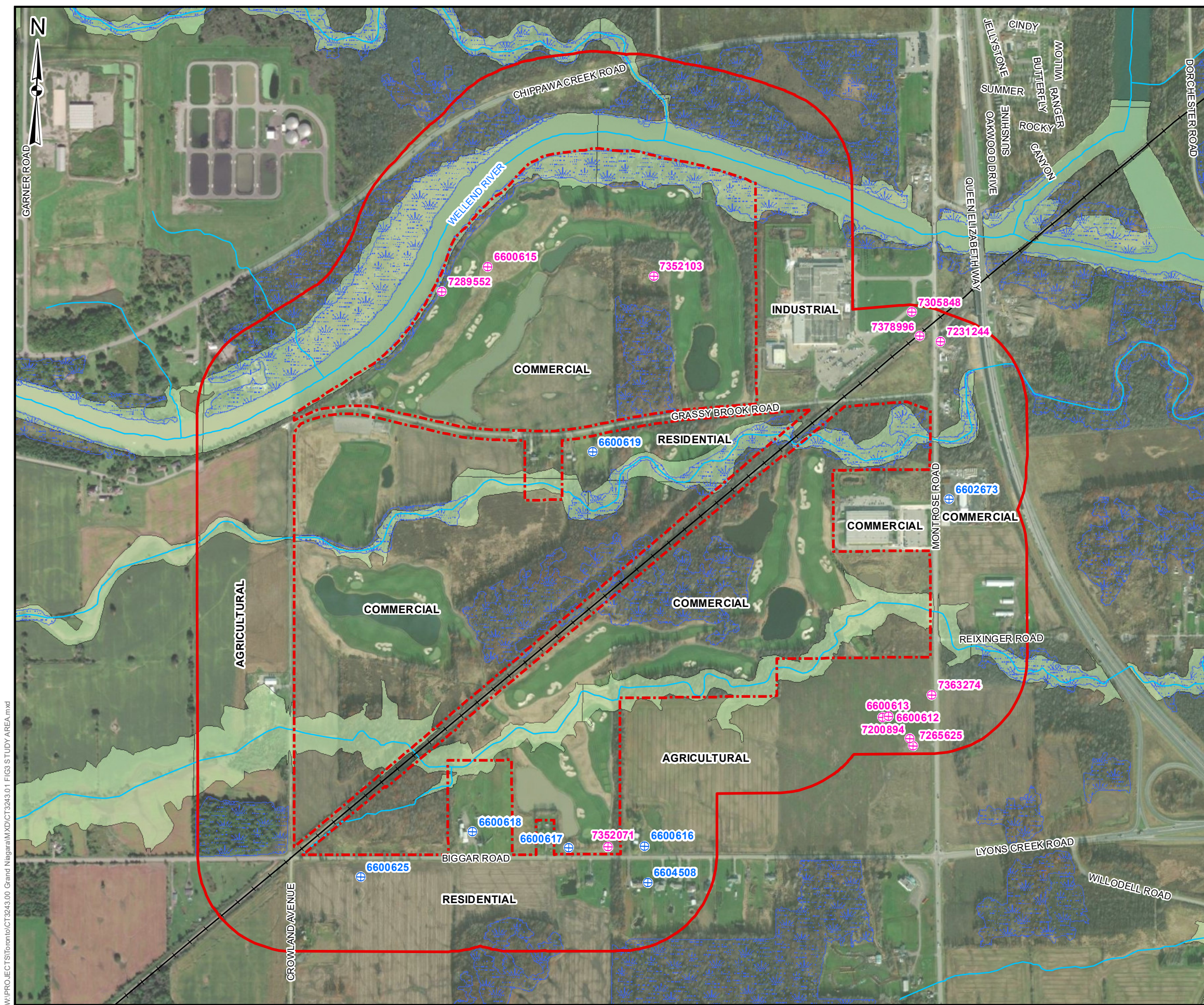
SITE LOCATION:
 GRAND NIAGARA
 NIAGARA FALLS, ONTARIO



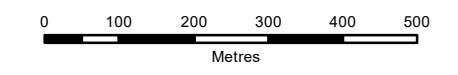
TITLE:
 GENERAL SITE LAYOUT

DRAWN BY: SW	PROJECT NO.: CT3243.01	CHECKED BY: RY
REVISION: 00	DATE: JUNE 2022	FIGURE: 2

W:\PROJECTS\Toronto\CT3243.00 Grand Niagara\MXD\CT3243.01 FIG2 GENERAL SITE LAYOUT.mxd



- LEGEND**
- SITE BOUNDARY
 - PHASE ONE STUDY AREA
 - RAILWAY
 - REGULATED FLOOD PLAIN
 - WETLANDS
 - WATERCOURSES
 - OBSERVATION WELL AND TEST HOLE
 - WATER SUPPLY WELL



DATA SOURCE: ESRI
MAP PROJECTION: NAD 1983 UTM ZONE 17N

CLIENT:
EMPIRE (GRAND NIAGARA) PROJECT GP INC.

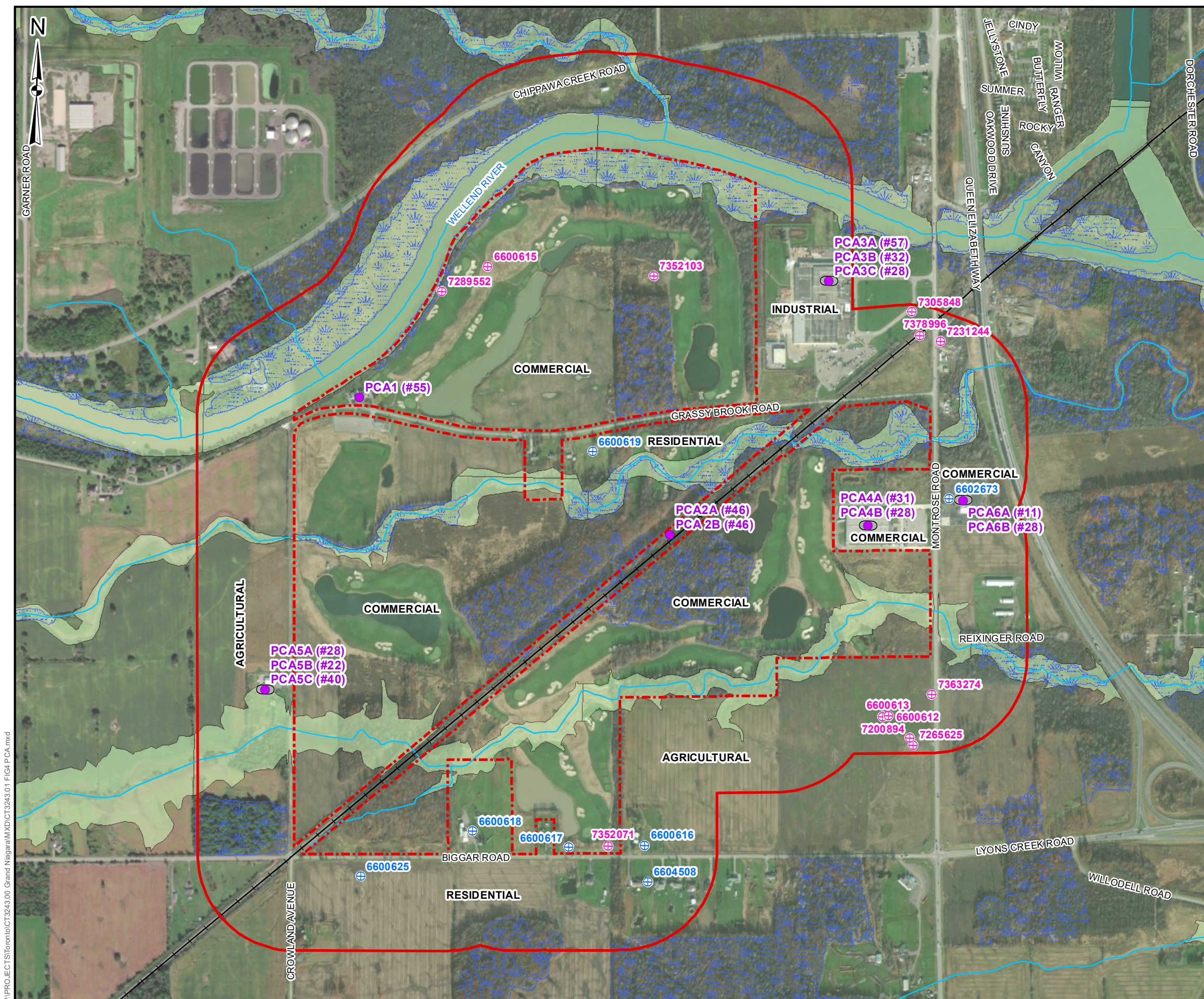
SITE LOCATION:
GRAND NIAGARA
NIAGARA FALLS, ONTARIO



TITLE:
PHASE ONE STUDY AREA AND SURROUNDING LAND USES

DRAWN BY: SW	PROJECT NO.: CT3243.01	CHECKED BY: RY
REVISION: 00	DATE: JUNE 2022	FIGURE: 3

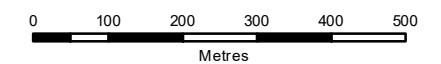
W:\PROJECTS\toronto\CT3243.00 Grand Niagara\MXD\CT3243.01 FIG3 STUDY AREA.mxd



LEGEND

- SITE BOUNDARY
- PHASE ONE STUDY AREA
- RAILWAY
- REGULATED FLOOD PLAIN
- WETLANDS
- WATERCOURSES
- ⊕ OBSERVATION WELL AND TEST HOLE
- ⊕ WATER SUPPLY WELL
- POTENTIALLY CONTAMINATING ACTIVITIES (PCA)
- PCA WITH TANK

POTENTIALLY CONTAMINATING ACTIVITY*
11 - Commercial Trucking and Container Terminals
22 - Fertilizer Manufacturing, Processing and Bulk Storage
28 - Gasoline and Associated Products Storage in Fixed Tanks
31 - Ink Manufacturing, Processing and Bulk Storage
32 - Iron and Steel Manufacturing and Processing
40 - Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications
46 - Rail Yards, Tracks and Spurs
55 - Transformer Manufacturing, Processing and Use
57 - Vehicles and Associated Parts Manufacturing



DATA SOURCE: ESRI
 MAP PROJECTION: NAD 1983 UTM ZONE 17N

CLIENT:
 EMPIRE (GRAND NIAGARA) PROJECT GP INC.

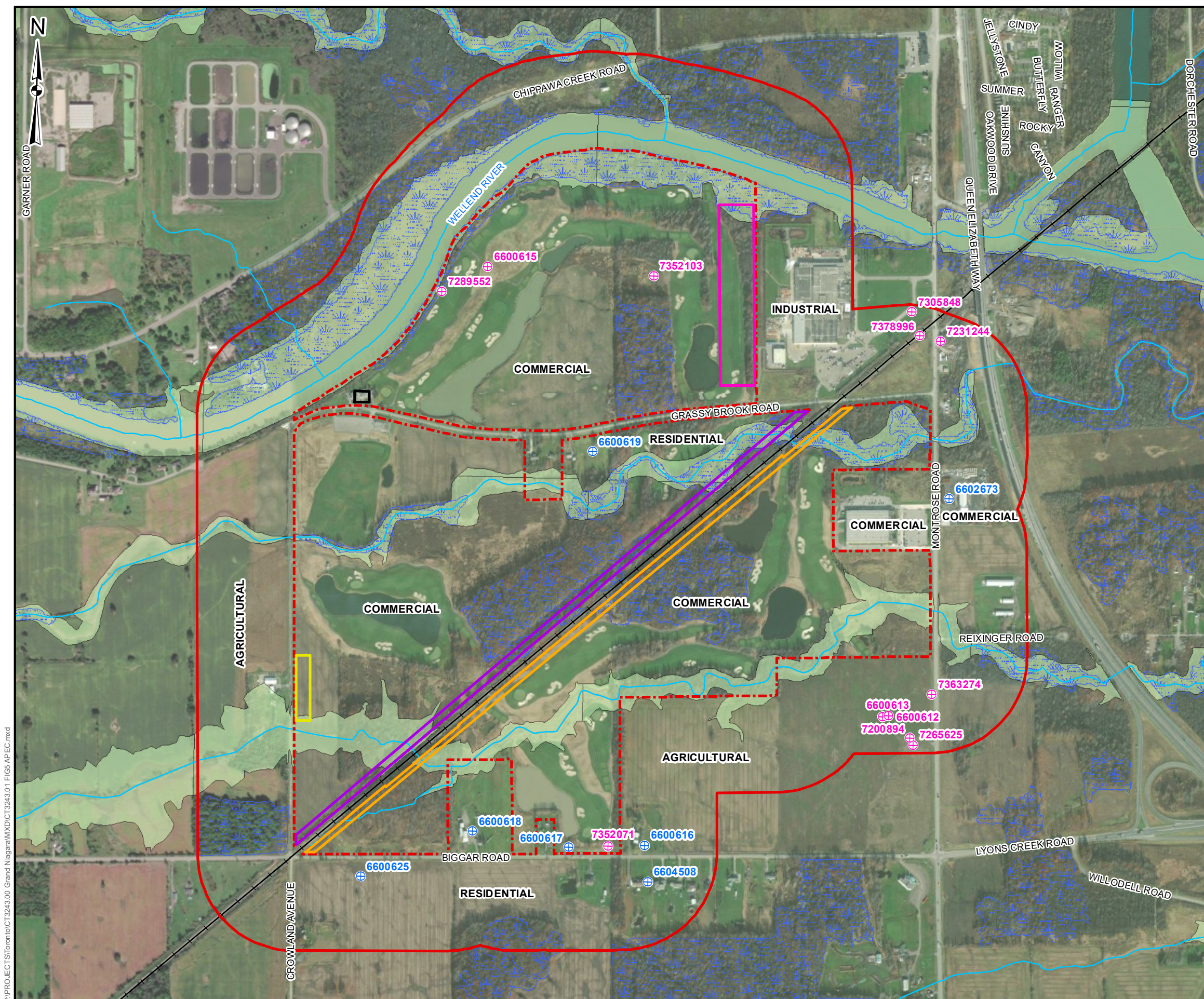
SITE LOCATION:
 GRAND NIAGARA
 NIAGARA FALLS, ONTARIO



TITLE:
**PHASE ONE STUDY AREA AND
 POTENTIALLY CONTAMINATING ACTIVITIES (PCA)**

DRAWN BY: SW	PROJECT NO.: CT3243.01	CHECKED BY: RY
REVISION: 00	DATE: JUNE 2022	FIGURE: 4

W:\PROJECTS\Toronto\CT3243.00 Grand Niagara\MXD\CT3243.01 FIG4.PCA.mxd



LEGEND

- SITE BOUNDARY
- PHASE ONE STUDY AREA
- RAILWAY
- REGULATED FLOODPLAIN
- WETLANDS
- WATERCOURSES
- ⊕ OBSERVATION WELL AND TEST HOLE
- ⊕ WATER SUPPLY WELL

AREA OF POTENTIAL ENVIRONMENTAL CONCERN (APEC)

- APEC 1
- APEC 2A (LANDS ADJECENT TO RAILWAY CORRIDOR)
- APEC 2B (LANDS ADJECENT TO RAILWAY CORRIDOR)
- APEC 3A, 3B, 3C
- APEC 4

APEC	POTENTIALLY CONTAMINATING ACTIVITY*
APEC 1	55 - TRANSFORMER MANUFACTURING, PROCESSING AND USE
APEC 2A	46 - RAIL YARDS, TRACKS AND SPURS
APEC 2B	46 - RAIL YARDS, TRACKS AND SPURS
APEC 3A	11 - COMMERCIAL TRUCKING AND CONTAINER TERMINALS
APEC 3B	34 - METAL FABRICATION
APEC 3C	28 - GASOLINE AND ASSOCIATED PRODUCTS STORAGE IN FIXED TANKS
APEC 4	28 - GASOLINE AND ASSOCIATED PRODUCTS STORAGE IN FIXED TANKS

Refer to Table 9 in Section 7.3 for a full description of the APECs

0 100 200 300 400 500
Metres

NOTE: *AS SET OUT IN TABLE 2 IN SCHEDULE D OF O.REG. 153/04
DATA SOURCE: ESRI
MAP PROJECTION: NAD 1983 UTM ZONE 17N

CLIENT:
EMPIRE (GRAND NIAGARA) PROJECT GP INC.

SITE LOCATION:
**GRAND NIAGARA
NIAGARA FALLS, ONTARIO**

TITLE:
AREAS OF POTENTIAL ENVIRONMENTAL CONCERN (APECs)

DRAWN BY: SW	PROJECT NO.: CT3243.01	CHECKED BY: RY
REVISION: 00	DATE: JUNE 2022	FIGURE: 5

W:\PROJECTS\toronto\CT3243.00 Grand Niagara\MXD\CT3243.01 FIG5 APEC.mxd

APPENDIX I
PLAN OF SURVEY

PLAN OF SURVEY OF
PART OF LOTS 1, 2, 3 AND 4
BROKEN FRONT CONCESSION
 GEOGRAPHIC TOWNSHIP OF CROWLAND
 NOW IN THE
CITY OF NIAGARA FALLS
 REGIONAL MUNICIPALITY OF NIAGARA

SCALE 1:2000
 0 20 40 60 80 100 120 140 160 180 200 metres

GEOVERRA (ON) LTD.
 ONTARIO LAND SURVEYORS
 2022 © Protected by copyright.

METRIC
 DIMENSIONS AND COORDINATES SHOWN ON THIS PLAN ARE IN METERS
 AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

NOTE
 BEARINGS ARE UTM GRID, DERIVED FROM SPECIFIED CONTROL POINTS SD119873605
 AND 1092202094, BY REAL TIME NETWORK (RTN) GPS OBSERVATIONS, UTM ZONE
 17, NAD83 (CSRS) (CSRS-2015.0).
 DISTANCES HEREON ARE GROUND DISTANCES AND CAN BE CONVERTED TO GRID
 DISTANCES BY MULTIPLYING BY A COMBINED SCALE FACTOR 0.999863.

INTEGRATION DATA

POINT ID	NORTHING	EASTING
SD119873605	4768111.736	65227.255
1092202094	4764563.375	652473.663
A	4767764.08	652412.61
B	4767206.43	652430.45
C	4767095.46	651787.08
D	4767201.42	652880.23
E	4766563.72	652897.22
F	4766033.11	652106.35
G	4759610.13	651398.04
H	4767143.23	651334.75

COORDINATES CANNOT IN THEMSELVES, BE USED TO RE-ESTABLISH
 CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.
 SWS/PIN MONUMENTS WERE SET DUE TO LACK OF OVERSIGHT AND/OR PROXIMITY
 OF UNDERGROUND UTILITIES IN ACCORDANCE WITH SECTION 11 (4) OF O.R.G.
 325/91.
 BEARING COMPARISONS SHOWN HEREON ARE NOT ROTATED AND ARE AS SHOWN ON
 DOCUMENT REFERENCED.
 ALL SURVEYED BOUNDARIES ARE NOT FENCED UNLESS NOTED OTHERWISE.

LEGEND

1	DENOTES	SURVEY MONUMENT FOUND
2	DENOTES	SURVEY MONUMENT PLANTED
3	DENOTES	CUT CORNER
4	DENOTES	PLASTIC BAR
5	DENOTES	IRON BAR
6	DENOTES	ROCK BAR
7	DENOTES	ROUND IRON BAR
8	DENOTES	STANDARD IRON BAR
9	DENOTES	SHORT STANDARD IRON BAR
10	DENOTES	ORIGIN UNKNOWN
11	DENOTES	MATERIALS, CAMERON, KEYWOOD
12	DENOTES	BY BLAKE, ERWIN, O.L.S.
13	DENOTES	KERRY T. HOME SURVEYING LIMITED
14	DENOTES	R.H. TUNG, O.L.S.
15	DENOTES	N.J. SUNSTRUM, O.L.S.
16	DENOTES	P.D. BRIDGMAN, O.L.S.
17	DENOTES	PLAN 598-1077
18	DENOTES	PLAN 598-1885
19	DENOTES	PLAN 598-1384
20	DENOTES	PLAN 598-1384A
21	DENOTES	PLAN 598-7308
22	DENOTES	PLAN 598-13258
23	DENOTES	PLAN 598-13258A
24	DENOTES	PLAN 598-6848
25	DENOTES	PLAN 598-1019
26	DENOTES	INSTRUMENT NO. R0678642
27	DENOTES	INSTRUMENT NO. R0682378
28	DENOTES	INSTRUMENT NO. A083221
29	DENOTES	INSTRUMENT NO. A083221A

SURVEYOR'S CERTIFICATE
 I CERTIFY THAT:
 1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS
 ACT AND THE SURVEYORS ACT AND THE REGULATIONS MADE UNDER THEM.
 2. THE SURVEY WAS COMPLETED ON THE DAY OF _____, 2022.

DATE _____
 YURIY BOGDANOV
 ONTARIO LAND SURVEYOR

GeoVerra (ON) Ltd. Ontario Surveyors 21-05107-002-PO501
 SUITE 101, 1875 RICHMOND GATE, MISSISSAUGA, ONTARIO, CANADA, L4X 1S1
 T: 905-803-8847 WEBSITE: WWW.GEOVERRA.COM

DRAWING NUMBER: 21-05107-002-PO501
 SHEET: 1 OF 1
 JOB NUMBER: 21-05107-002
 DATE: 21-05-2022
 DWG FILE NAME: 21-05107-002-PO501.DWG



APPENDIX II
DIRECTORY SEARCH

City Directory Information Source
Vernon's Niagara Falls, ON City Directory

2012	
Project Number: Terrapex Roy	
Site Address: 8547 Grassy Brook Road, Port Robinson (Thorold), Ontario	
Site Listing:	- Grand Niagara Resort
Adjacent Properties:	
Grassy Brook Road (7600-8900)	- All Residential
Biggar Road (7940-8200)	- All Residential
Chippawa Creek Road (7900-8125)	- No Listings In Range
Crowland Avenue (9260-10000)	- No Listings In Range
Montrose Road (9030-9700)	9240- No Return 9304- No Return 9514- Crown Trucking Services - Peter's Delivery Service

2012	
Project Number: Terrapex Roy	
Site Address: 8547 Grassy Brook Road, Port Robinson (Thorold), Ontario	
	9127- CanGro Foods Inc - Chelwood - ES Fox Ltd - GNR Property Maintenance - Sf Partners Inc 9515- Minacs Worldwide Inc - Boudreau Heating Inc - Ciminelli Real Estate Corp of Canada
Rexinger Road (7260-7600)	7473- Residential (1 Tenant) 7573- Queen E Farms

2007/08	
Project Number: Terrapex Roy	
Site Address: 8547 Grassy Brook Road, Port Robinson (Thorold), Ontario	
Site Listing:	- Address Not Listed
Adjacent Properties:	
Grassy Brook Road (7600-8900)	- No Listings In Range
Biggar Road (7940-8200)	- Address Not Listed
Chippawa Creek Road (7900-8125)	- No Listings In Range
Crowland Avenue (9260-10000)	- No Listings In Range

2007/08

Project Number: Terrapex Roy

Site Address: 8547 Grassy Brook Road, Port Robinson (Thorold), Ontario

Montrose Road (9030-9700)	9240- No Return 9304- Residential (1 Tenant) 9514- Crown Trucking Services 9127- Kraft Canada - Unicco Facility Services - ES Fox Ltd - Gnr Property Maintenance - Chelwood 9515- Day-Timers Of Canada Ltd - Minacs Worldwide Inc
Rexinger Road (7260-7600)	7473- Residential (1 Tenant)

2001/02

Project Number: Terrapex Roy

Site Address: 8547 Grassy Brook Road, Port Robinson (Thorold), Ontario

Site Listing:	- Address Not Listed
Adjacent Properties:	
Grassy Brook Road (7600-8900)	- Address Not Listed
Biggar Road (7940-8200)	-Address Not Listed

2001/02

Project Number: Terrapex Roy

Site Address: 8547 Grassy Brook Road, Port Robinson (Thorold), Ontario

Chippawa Creek Road (7900-8125)

- Address Not Listed

Crowland Avenue (9260-10000)

- Address Not Listed

Montrose Road (9030-9700)

- Address Not Listed

Rexinger Road (7260-7600)

- Address No Listed

1996/97

Project Number: Terrapex Roy

Site Address: 8547 Grassy Brook Road, Port Robinson (Thorold), Ontario

Site Listing:

- Address Not Listed

Adjacent Properties:**Grassy Brook Road (7600-8900)**

- Address Not Listed

Biggar Road (7940-8200)

-Address Not Listed

Chippawa Creek Road (7900-8125)

- Address Not Listed

Crowland Avenue (9260-10000)

- Address Not Listed

Montrose Road (9030-9700)

- No Listings In Range

Rexinger Road (7260-7600)

- Address No Listed

1991	
Project Number: Terrapex Roy	
Site Address: 8547 Grassy Brook Road, Port Robinson (Thorold), Ontario	
Site Listing:	- Address Not Listed
Adjacent Properties:	
Grassy Brook Road (7600-8900)	- Address Not Listed
Biggar Road (7940-8200)	-Address Not Listed
Chippawa Creek Road (7900-8125)	- Address Not Listed
Crowland Avenue (9260-10000)	- Address Not Listed
Montrose Road (9030-9700)	9127- Ford Motor Company of Canada Ltd
Rexinger Road (7260-7600)	- Address No Listed

1986	
Project Number: Terrapex Roy	
Site Address: 8547 Grassy Brook Road, Port Robinson (Thorold), Ontario	
Site Listing:	- Address Not Listed
Adjacent Properties:	
Grassy Brook Road (7600-8900)	- Address Not Listed
Biggar Road (7940-8200)	-Address Not Listed

1986	
Project Number: Terrapex Roy	
Site Address: 8547 Grassy Brook Road, Port Robinson (Thorold), Ontario	
Chippawa Creek Road (7900-8125)	- Address Not Listed
Crowland Avenue (9260-10000)	- Address Not Listed
Montrose Road (9030-9700)	- No Listings Within Range
Rexinger Road (7260-7600)	- Address No Listed

1981	
Project Number: Terrapex Roy	
Site Address: 8547 Grassy Brook Road, Port Robinson (Thorold), Ontario	
Site Listing:	- Address Not Listed
Adjacent Properties:	
Grassy Brook Road (7600-8900)	- Address Not Listed
Biggar Road (7940-8200)	-Address Not Listed
Chippawa Creek Road (7900-8125)	- Address Not Listed
Crowland Avenue (9260-10000)	- Address Not Listed
Montrose Road (9030-9700)	- No Listings Within Range

1981	
Project Number: Terrapex Roy	
Site Address: 8547 Grassy Brook Road, Port Robinson (Thorold), Ontario	
Rexinger Road (7260-7600)	- Address No Listed

1976	
Project Number: Terrapex Roy	
Site Address: 8547 Grassy Brook Road, Port Robinson (Thorold), Ontario	
Site Listing:	- Address Not Listed
Adjacent Properties:	
Grassy Brook Road (7600-8900)	- Address Not Listed
Biggar Road (7940-8200)	-Address Not Listed
Chippawa Creek Road (7900-8125)	- Address Not Listed
Crowland Avenue (9260-10000)	- Address Not Listed
Montrose Road (9030-9700)	- No Listings Within Range
Rexinger Road (7260-7600)	- Address No Listed

1971	
Project Number: Terrapex Roy	
Site Address: 8547 Grassy Brook Road, Port Robinson (Thorold), Ontario	
Site Listing:	- Address Not Listed
Adjacent Properties:	

1971	
Project Number: Terrapex Roy	
Site Address: 8547 Grassy Brook Road, Port Robinson (Thorold), Ontario	
Grassy Brook Road (7600-8900)	- Address Not Listed
Biggar Road (7940-8200)	-Address Not Listed
Chippawa Creek Road (7900-8125)	- Address Not Listed
Crowland Avenue (9260-10000)	- Address Not Listed
Montrose Road (9030-9700)	- No Listings Within Range
Rexinger Road (7260-7600)	- Address No Listed

1966	
Project Number: Terrapex Roy	
Site Address: 8547 Grassy Brook Road, Port Robinson (Thorold), Ontario	
Site Listing:	- Address Not Listed
Adjacent Properties:	
Grassy Brook Road (7600-8900)	- Address Not Listed
Biggar Road (7940-8200)	-Address Not Listed
Chippawa Creek Road (7900-8125)	- Address Not Listed
Crowland Avenue (9260-10000)	- Address Not Listed

1966	
Project Number: Terrapex Roy	
Site Address: 8547 Grassy Brook Road, Port Robinson (Thorold), Ontario	
Montrose Road (9030-9700)	- No Listings Within Range
Rexinger Road (7260-7600)	- Address No Listed

1961	
Project Number: Terrapex Roy	
Site Address: 8547 Grassy Brook Road, Port Robinson (Thorold), Ontario	
Site Listing:	- Address Not Listed
Adjacent Properties:	
Grassy Brook Road (7600-8900)	- Address Not Listed
Biggar Road (7940-8200)	-Address Not Listed
Chippawa Creek Road (7900-8125)	- Address Not Listed
Crowland Avenue (9260-10000)	- Address Not Listed
Montrose Road (9030-9700)	- No Listings Within Range
Rexinger Road (7260-7600)	- Address No Listed

**APPENDIX III
ERIS REPORTS**



DATABASE REPORT

Project Property: *8547 Grassy Brook Road
8547 Grassy Brook Road
Port Robinson ON L0S 1K0*

Project No: *CT3243.00*

Report Type: *RSC Report - Quote*

Order No: *21081100468*

Requested by: *Terrapex Environmental Ltd.*

Date Completed: *August 16, 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: 8547 Grassy Brook Road
8547 Grassy Brook Road Port Robinson ON L0S 1K0

Project No: CT3243.00

Order Information:

Order No: 21081100468
Date Requested: August 11, 2021
Requested by: Terrapex Environmental Ltd.
Report Type: RSC Report - Quote

Historical/Products:

ERIS Xplorer [ERIS Xplorer](#)
Insurance Products Fire Insurance Maps/Inspection Reports/Site Plans
Physical Setting Report (PSR) PSR
Topographic Map RSC Maps

Executive Summary: Report Summary

<i>Database</i>	<i>Name</i>	<i>Searched</i>	<i>Project Property</i>	<i>Boundary to 0.30km</i>	<i>Total</i>
AAGR	<i>Abandoned Aggregate Inventory</i>	Y	0	0	0
AGR	<i>Aggregate Inventory</i>	Y	0	0	0
AMIS	<i>Abandoned Mine Information System</i>	Y	0	0	0
ANDR	<i>Anderson's Waste Disposal Sites</i>	Y	0	0	0
AST	<i>Aboveground Storage Tanks</i>	Y	0	0	0
AUWR	<i>Automobile Wrecking & Supplies</i>	Y	0	0	0
BORE	<i>Borehole</i>	Y	0	0	0
CA	<i>Certificates of Approval</i>	Y	0	12	12
CDRY	<i>Dry Cleaning Facilities</i>	Y	0	0	0
CFOT	<i>Commercial Fuel Oil Tanks</i>	Y	0	0	0
CHEM	<i>Chemical Manufacturers and Distributors</i>	Y	0	0	0
CHM	<i>Chemical Register</i>	Y	0	0	0
CNG	<i>Compressed Natural Gas Stations</i>	Y	0	0	0
COAL	<i>Inventory of Coal Gasification Plants and Coal Tar Sites</i>	Y	0	0	0
CONV	<i>Compliance and Convictions</i>	Y	0	0	0
CPU	<i>Certificates of Property Use</i>	Y	0	0	0
DRL	<i>Drill Hole Database</i>	Y	0	0	0
DTNK	<i>Delisted Fuel Tanks</i>	Y	0	0	0
EASR	<i>Environmental Activity and Sector Registry</i>	Y	0	0	0
EBR	<i>Environmental Registry</i>	Y	0	3	3
ECA	<i>Environmental Compliance Approval</i>	Y	0	10	10
EEM	<i>Environmental Effects Monitoring</i>	Y	0	0	0
EHS	<i>ERIS Historical Searches</i>	Y	1	12	13
EIIS	<i>Environmental Issues Inventory System</i>	Y	0	0	0
EMHE	<i>Emergency Management Historical Event</i>	Y	0	0	0
EPAR	<i>Environmental Penalty Annual Report</i>	Y	0	0	0
EXP	<i>List of Expired Fuels Safety Facilities</i>	Y	0	0	0
FCON	<i>Federal Convictions</i>	Y	0	0	0
FCS	<i>Contaminated Sites on Federal Land</i>	Y	0	0	0
FOFT	<i>Fisheries & Oceans Fuel Tanks</i>	Y	0	0	0
FRST	<i>Federal Identification Registry for Storage Tank Systems (FIRSTS)</i>	Y	0	0	0
FST	<i>Fuel Storage Tank</i>	Y	0	2	2
FSTH	<i>Fuel Storage Tank - Historic</i>	Y	0	2	2
GEN	<i>Ontario Regulation 347 Waste Generators Summary</i>	Y	12	45	57
GHG	<i>Greenhouse Gas Emissions from Large Facilities</i>	Y	0	0	0
HINC	<i>TSSA Historic Incidents</i>	Y	0	0	0

Database	Name	Searched	Project Property	Boundary to 0.30km	Total
IAFT	<i>Indian & Northern Affairs Fuel Tanks</i>	Y	0	0	0
INC	<i>Fuel Oil Spills and Leaks</i>	Y	0	0	0
LIMO	<i>Landfill Inventory Management Ontario</i>	Y	0	0	0
MINE	<i>Canadian Mine Locations</i>	Y	0	0	0
MNR	<i>Mineral Occurrences</i>	Y	0	0	0
NATE	<i>National Analysis of Trends in Emergencies System (NATES)</i>	Y	0	0	0
NCPL	<i>Non-Compliance Reports</i>	Y	0	6	6
NDFT	<i>National Defense & Canadian Forces Fuel Tanks</i>	Y	0	0	0
NDSP	<i>National Defense & Canadian Forces Spills</i>	Y	0	0	0
NDWD	<i>National Defence & Canadian Forces Waste Disposal Sites</i>	Y	0	0	0
NEBI	<i>National Energy Board Pipeline Incidents</i>	Y	0	0	0
NEBP	<i>National Energy Board Wells</i>	Y	0	0	0
NEES	<i>National Environmental Emergencies System (NEES)</i>	Y	0	0	0
NPCB	<i>National PCB Inventory</i>	Y	0	2	2
NPRI	<i>National Pollutant Release Inventory</i>	Y	0	0	0
OGWE	<i>Oil and Gas Wells</i>	Y	0	0	0
OOGW	<i>Ontario Oil and Gas Wells</i>	Y	0	3	3
OPCB	<i>Inventory of PCB Storage Sites</i>	Y	0	1	1
ORD	<i>Orders</i>	Y	0	0	0
PAP	<i>Canadian Pulp and Paper</i>	Y	0	0	0
PCFT	<i>Parks Canada Fuel Storage Tanks</i>	Y	0	0	0
PES	<i>Pesticide Register</i>	Y	0	0	0
PINC	<i>Pipeline Incidents</i>	Y	0	0	0
PRT	<i>Private and Retail Fuel Storage Tanks</i>	Y	0	0	0
PTTW	<i>Permit to Take Water</i>	Y	0	0	0
REC	<i>Ontario Regulation 347 Waste Receivers Summary</i>	Y	0	0	0
RSC	<i>Record of Site Condition</i>	Y	0	0	0
RST	<i>Retail Fuel Storage Tanks</i>	Y	0	0	0
SCT	<i>Scott's Manufacturing Directory</i>	Y	0	3	3
SPL	<i>Ontario Spills</i>	Y	0	5	5
SRDS	<i>Wastewater Discharger Registration Database</i>	Y	0	0	0
TANK	<i>Anderson's Storage Tanks</i>	Y	0	0	0
TCFT	<i>Transport Canada Fuel Storage Tanks</i>	Y	0	0	0
VAR	<i>Variances for Abandonment of Underground Storage Tanks</i>	Y	0	0	0
WDS	<i>Waste Disposal Sites - MOE CA Inventory</i>	Y	0	0	0
WDSH	<i>Waste Disposal Sites - MOE 1991 Historical Approval Inventory</i>	Y	0	0	0
WWIS	<i>Water Well Information System</i>	Y	6	12	18
Total:			19	118	137

Executive Summary: Site Report Summary - Project Property

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Dir/Dist (m)</i>	<i>Elev diff (m)</i>	<i>Page Number</i>
1	EHS		n/a Niagara Falls ON	ESE/0.0	4.60	37
2	WWIS		lot 3 ON <i>Well ID:</i> 6600619	NNE/0.0	17.86	37
3	GEN	Grand Niagara Resort Inc.	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	WNW/0.0	3.91	40
3	GEN	Grand Niagara Resort Inc.	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	WNW/0.0	3.91	41
3	GEN	Grand Niagara Resort Inc.	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	WNW/0.0	3.91	41
3	GEN	Grand Niagara Resort Inc.	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	WNW/0.0	3.91	41
3	GEN	Grand Niagara Resort Inc.	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	WNW/0.0	3.91	41
3	GEN	Grand Niagara Resort Inc.	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	WNW/0.0	3.91	42
3	GEN	2285045 Ontario Inc. Grand Niagara Golf Club	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON	WNW/0.0	3.91	42

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
3	GEN	2285045 Ontario Inc. Grand Niagara Golf Club	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	WNW/0.0	3.91	42
3	GEN	2285045 Ontario Inc. Grand Niagara Golf Club	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	WNW/0.0	3.91	42
3	GEN	2285045 Ontario Inc. Grand Niagara Golf Club	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	WNW/0.0	3.91	43
3	GEN	2285045 Ontario Inc. Grand Niagara Golf Club	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	WNW/0.0	3.91	43
3	GEN	2285045 Ontario Inc. Grand Niagara Golf Club	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	WNW/0.0	3.91	43
3	GEN	2285045 Ontario Inc. Grand Niagara Golf Club	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	WNW/0.0	3.91	44
4	WWIS		8547 Grassy Brook Rd lot 2 Port Robinson ON <i>Well ID: 7352103</i>	NNE/0.0	11.18	44
5	WWIS		ON <i>Well ID: 7289552</i>	NW/0.0	-9.73	47
6	WWIS		lot 3 ON <i>Well ID: 6600615</i>	NNW/0.0	-4.07	48
7	WWIS		lot 3 ON	S/0.0	13.19	53

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Dir/Dist (m)</i>	<i>Elev diff (m)</i>	<i>Page Number</i>
			<i>Well ID:</i> 6600617			
<u>8</u>	WWIS		8547 Grassy Brook Rd lot 3 Port Robinson ON	S/0.0	13.19	<u>56</u>
			<i>Well ID:</i> 7352071			

Executive Summary: Site Report Summary - Surrounding Properties

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Dir/Dist (m)</i>	<i>Elev Diff (m)</i>	<i>Page Number</i>
9	EHS		8365 Biggar Rd Niagara Falls ON L0S1K0	SSW/29.6	12.31	59
10	CA	DAY-TIMERS OF CANADA LTD.	9515 MONTROSE ROAD NIAGARA FALLS CITY ON	E/51.7	13.34	59
10	SCT	SANDT PRINTING COMPANY LTD	9515 MONTROSE RD NIAGARA FALLS ON L2E 6X6	E/51.7	13.34	60
10	SCT	DAY-TIMERS OF CANADA LTD.	9515 Montrose Rd Niagara Falls ON L2E 6X6	E/51.7	13.34	60
10	GEN	JOY DISPLAYS	9515 MONTROSE RD. NIAGARA FALLS ON L2E 6V2	E/51.7	13.34	60
10	GEN	JOY DISPLAYS 22-250	9515 MONTROSE RD. NIAGARA FALLS ON L2E 6V2	E/51.7	13.34	60
10	CA	Aditya Birla Minacs Worldwide Inc.	9515 Montrose Rd Niagara Falls ON	E/51.7	13.34	61
10	ECA	Aditya Birla Minacs Worldwide Inc.	9515 Montrose Rd Niagara Falls ON	E/51.7	13.34	61
10	GEN	ARROW GAMES CORPORATION	9515 MONTROSE ROAD UNIT 2 PORT ROBINSON ON L0S 1K0	E/51.7	13.34	61
10	GEN	BAZAAR & NOVELTY LTD	9515 MONTROSE ROAD UNIT 2 PORT ROBINSON ON L0S 1K0	E/51.7	13.34	62
10	GEN	ARROW GAMES CORPORATION	9515 MONTROSE ROAD UNIT 2 PORT ROBINSON ON L0S 1K0	E/51.7	13.34	62
10	EHS		9515 Montrose Rd Niagara Falls ON L0S1K0	E/51.7	13.34	63

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
10	GEN	ARROW GAMES CORPORATION	9515 MONTROSE ROAD UNIT 2 PORT ROBINSON ON L0S 1K0	E/51.7	13.34	63
10	GEN	ARROW GAMES CORPORATION	9515 MONTROSE ROAD UNIT 2 PORT ROBINSON ON L0S 1K0	E/51.7	13.34	63
11	WWIS		lot 4 con 1 ON Well ID: 6600625	SW/56.8	14.19	64
12	WWIS		lot 2 ON Well ID: 6600616	SSE/62.3	13.19	67
13	WWIS		lot 3 ON Well ID: 6600618	SSW/63.3	13.19	69
14	WWIS		lot 10 ON Well ID: 6602673	E/90.1	8.81	72
15	SPL	PRIVATE BUSINESS	9514 MONTROSE RD R.R. #1 PORT ROBINSON STORAGE TANK THOROLD CITY ON	E/94.1	-0.60	76
15	GEN	MOTORWAYS TRANSPORT	9514 MONTROSE RD. C/O PO BOX 772 NIAGARA FALLS ON L2E 6V6	E/94.1	-0.60	77
15	GEN	MOTORWAYS TRANSPORT (OUT OF BUS.)	9514 MONTROSE RD. C/O PO BOX 772 NIAGARA FALLS ON L2E 6V6	E/94.1	-0.60	77
15	GEN	MOTORWAYS TRANSPORT (OUT OF BUS.) 27-492	9514 MONTROSE RD. C/O PO BOX 772 NIAGARA FALLS ON L2E 6V6	E/94.1	-0.60	77
15	GEN	DONALD W MURRAY (MOVERS) 1981 LIMITED	9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	E/94.1	-0.60	77
15	GEN	CROWN TRUCKING SERVICES	9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	E/94.1	-0.60	78
15	GEN	DONALD W. MURRAY MOVERS (1981) LTD	9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	E/94.1	-0.60	78

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Dir/Dist (m)</i>	<i>Elev Diff (m)</i>	<i>Page Number</i>
15	GEN	DONALD W. MURRAY MOVERS (1981) LTD	9514 MONTROSE ROAD NIAGARA FALLS ON	E/94.1	-0.60	79
15	EHS		9514 Montrose Road Niagara Falls ON	E/94.1	-0.60	79
15	GEN	DONALD W. MURRAY MOVERS (1981) LTD	9514 MONTROSE ROAD NIAGARA FALLS ON	E/94.1	-0.60	79
15	GEN	DONALD W. MURRAY MOVERS (1981) LTD	9514 MONTROSE ROAD NIAGARA FALLS ON	E/94.1	-0.60	80
15	GEN	DONALD W. MURRAY MOVERS (1981) LTD	9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	E/94.1	-0.60	80
15	GEN	DONALD W. MURRAY MOVERS (1981) LTD	9514 MONTROSE ROAD NIAGARA FALLS ON	E/94.1	-0.60	81
15	GEN	Crown Transportation Group Limited	9514 Montrose Road Niagara Falls ON	E/94.1	-0.60	81
15	GEN	DONALD W. MURRAY MOVERS (1981) LTD	9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	E/94.1	-0.60	82
15	GEN	DONALD W. MURRAY MOVERS (1981) LTD	9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	E/94.1	-0.60	82
15	GEN	Crown Transportation Group Limited	9514 Montrose Road Niagara Falls ON L0S 1K0	E/94.1	-0.60	83
15	GEN	Crown Transportation Group Limited	9514 Montrose Road Niagara Falls ON L0S 1K0	E/94.1	-0.60	83
15	GEN	DONALD W. MURRAY MOVERS (1981) LTD	9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	E/94.1	-0.60	84
15	GEN	Crown Transportation Group Limited	9514 Montrose Road Niagara Falls ON L0S 1K0	E/94.1	-0.60	84

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
15	GEN	DONALD W. MURRAY MOVERS (1981) LTD	9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	E/94.1	-0.60	84
15	EHS		9514 Montrose Rd Niagara Falls ON L0S1K0	E/94.1	-0.60	85
15	GEN	ES Fox	9514 Montrose Road Niagara Falls ON L0S 1K0	E/94.1	-0.60	85
15	GEN	ES Fox	9514 Montrose Road Niagara Falls ON L0S 1K0	E/94.1	-0.60	86
16	WWIS		lot 2 con 1 ON Well ID: 6604508	SSE/102.6	13.19	86
17	EHS		9515 Montrose Rd Niagara Falls ON	E/105.1	11.58	90
17	EHS		9515 Montrose Rd Niagara Falls ON	E/105.1	11.58	91
17	EHS		9515 Montrose Rd Niagara Falls ON	E/105.1	11.58	91
17	EHS		9515 Montrose Rd Niagara Falls ON	E/105.1	11.58	91
17	EHS		9515 Montrose Rd Niagara Falls ON	E/105.1	11.58	91
18	OOGW	E & A. Cruickshank #1	Crowland ON Licence No: F014193	SW/111.5	14.85	91
19	OOGW	W. C. Patterson Gas Co. A & E Woodgate	Crowland ON Licence No: F014190	S/142.8	13.30	94
20	WWIS		lot 1 ON	ESE/154.0	12.19	97

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
			Well ID: 6600612			
21	WWIS		lot 1 ON Well ID: 6600613	ESE/155.4	12.19	101
22	CA	FORD MOTOR CO. OF CANADA	9127 MONTROSE RD. NIAGARA FALLS CITY ON	ENE/168.9	17.69	104
22	CA	FORD MOTOR COMPANY OF CANADA, LIMITED	9127 MONTROSE ROAD NIAGARA FALLS CITY ON	ENE/168.9	17.69	104
22	CA	FORD MOTOR COMPANY OF CANADA (NIAGARA GL	9127 MONTROSE ROAD NIAGARA FALLS CITY ON	ENE/168.9	17.69	104
22	NPCB	FORD MOTOR COMPANY OF CANADA	9127 MONTROSE ROAD; BOX 1019 NIAGARA FALLS ON L2E 6X3	ENE/168.9	17.69	105
22	NPCB	FORD MOTOR COMPANY OF CANADA, LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6X3	ENE/168.9	17.69	105
22	SPL	FORD MOTOR CO. OF CANADA LTD.	WELLAND RIVER NIAGARA GLASS PLANT 9127 MONTROSE ROAD NIAGARA FALLS CITY ON	ENE/168.9	17.69	105
22	SPL	FORD MOTOR CO. OF CANADA LTD.	9127 MONTROSE RD NIAGARA GLASS PLANT 9127 MONTROSE ROAD NIAGARA FALLS CITY ON	ENE/168.9	17.69	106
22	CA	FORD MOTOR COMPANY OF CANADA, LIMITED	9127 MONTROSE RD. DUPLICATE NIAGARA FALLS CITY ON	ENE/168.9	17.69	106
22	CA		9127 Montrose Avenue Niagara Falls ON	ENE/168.9	17.69	107
22	CA	E.S. Fox Construction	9127 Montrose Rd. Niagara Falls ON	ENE/168.9	17.69	107
22	EBR	E.S. Fox Enterprises Inc.	9127 Montrose Rd. Niagara Falls Ontario L2E 5S6 Niagara Falls ON	ENE/168.9	17.69	107

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
22	OPCB	FORD MOTOR COMPANY OF CANADA, LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6X3	ENE/168.9	17.69	108
22	GEN	FORD MOTOR CO. OF CANADA LTD.	NIAGARA GLASS PLANT P.O. BOX 1019, 9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6X3	ENE/168.9	17.69	108
22	GEN	FORD (OUT OF BUS) 15-110	NIAGARA GLASS PLANT 9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6X3	ENE/168.9	17.69	109
22	GEN	FORD MOTOR COMPANY OF CANADA LTD. 15-110	NIAGARA GLASS PLANT 9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6X3	ENE/168.9	17.69	110
22	GEN	FORD (OUT OF BUS) MOTOR COMPANY	NIAGARA GLASS PLANT 9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6X3	ENE/168.9	17.69	111
22	GEN	E.S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	ENE/168.9	17.69	112
22	GEN	E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	ENE/168.9	17.69	113
22	NCPL	E.S. Fox Enterprises Inc.	9127 Montrose Road Niagara Falls ON	ENE/168.9	17.69	114
22	NCPL	E.S. Fox Enterprises Inc.	9127 Montrose Road Niagara Falls ON	ENE/168.9	17.69	115
22	SCT	E.S. Fox Ltd.	9127 Montrose Rd Niagara Falls ON L2E 6S5	ENE/168.9	17.69	115
22	FSTH	E S FOX LTD	9127 MONTROSE RD NIAGARA FALLS ON	ENE/168.9	17.69	115
22	NCPL	E.S. Fox Enterprises Inc.	9127 Montrose Ave Niagara Falls ON	ENE/168.9	17.69	116
22	NCPL	E.S. Fox Enterprises Inc.	9127 Montrose Ave Niagara Falls ON	ENE/168.9	17.69	116

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Dir/Dist (m)</i>	<i>Elev Diff (m)</i>	<i>Page Number</i>
22	NCPL	E.S. Fox Enterprises Inc.	9127 Montrose Ave Niagara Falls ON	ENE/168.9	17.69	117
22	FSTH	E S FOX LTD	9127 MONTROSE RD NIAGARA FALLS ON	ENE/168.9	17.69	117
22	NCPL	E.S. Fox Enterprises Inc.	9127 Montrose Ave Niagara Falls ON	ENE/168.9	17.69	117
22	CA	E.S. Fox Limited	9127 Montrose Rd Niagara Falls ON	ENE/168.9	17.69	118
22	GEN	E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON	ENE/168.9	17.69	118
22	GEN	E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON	ENE/168.9	17.69	119
22	GEN	E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON	ENE/168.9	17.69	120
22	FST	E.S. FOX LTD **	9127 MONTROSE RD PO BOX 1010 NIAGARA FALLS L2E 7J9 ON CA 9127 MONTROSE RD PO BOX 1010 NIAGARA FALLS L2E 7J9 ON CA ON	ENE/168.9	17.69	121
22	FST	E.S. FOX LTD **	9127 MONTROSE RD PO BOX 1010 NIAGARA FALLS L2E 7J9 ON CA 9127 MONTROSE RD PO BOX 1010 NIAGARA FALLS L2E 7J9 ON CA ON	ENE/168.9	17.69	122
22	GEN	E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	ENE/168.9	17.69	122
22	GEN	E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON	ENE/168.9	17.69	123
22	EBR	E.S. Fox Limited	9127 Montrose Road Niagara Falls, Regional Municipality of Niagara L2E 7J9 CITY OF NIAGARA FALLS	ENE/168.9	17.69	124

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
			ON			
22	EBR	E.S. Fox Limited	9127 Montrose Road Niagara Falls Regional Municipality of Niagara L2E 7J9 CITY OF NIAGARA FALLS ON	ENE/168.9	17.69	125
22	ECA	E.S. Fox Limited	9127 Montrose Rd Niagara Falls ON L2E 7J9	ENE/168.9	17.69	125
22	ECA	E.S. Fox Limited	9127 Montrose Rd Niagara Falls ON L2E 7J9	ENE/168.9	17.69	126
22	ECA	E.S. Fox Enterprises Inc.	9127 Montrose Avenue Niagara Falls ON L2E 5S6	ENE/168.9	17.69	126
22	ECA	E.S. Fox Enterprises Inc.	9127 Montrose Rd. Niagara Falls ON L2E 5S6	ENE/168.9	17.69	126
22	ECA	E.S. Fox Limited	9127 Montrose Rd Niagara Falls ON L2E 7J9	ENE/168.9	17.69	126
22	GEN	E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	ENE/168.9	17.69	127
22	GEN	E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	ENE/168.9	17.69	128
22	GEN	E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	ENE/168.9	17.69	129
22	GEN	E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	ENE/168.9	17.69	130
22	GEN	E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	ENE/168.9	17.69	131
22	GEN	E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	ENE/168.9	17.69	132

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
23	EHS		Montrose Road & Biggar Road Niagara Falls ON	SE/174.3	11.38	133
24	WWIS		MONTROSE RD Niagara Falls ON <i>Well ID: 7231244</i>	ENE/174.5	19.67	133
25	SPL	The Regional Municipality of Niagara	9240 Montrose Rd Niagara Falls ON	ENE/190.4	17.92	138
25	CA	The Corporation of the City of Niagara Falls	9240 Montrose Rd Niagara Falls ON	ENE/190.4	17.92	138
25	CA	The Corporation of the City of Niagara Falls	9240 Montrose Rd Niagara Falls ON	ENE/190.4	17.92	139
25	CA	The Corporation of the City of Niagara Falls	9240 Montrose Rd Niagara Falls ON	ENE/190.4	17.92	139
25	ECA	The Corporation of the City of Niagara Falls	9240 Montrose Rd Niagara Falls ON L2E 6X5	ENE/190.4	17.92	139
25	ECA	The Corporation of the City of Niagara Falls	9240 Montrose Rd Niagara Falls ON L2E 6X5	ENE/190.4	17.92	139
25	ECA	The Corporation of the City of Niagara Falls	9240 Montrose Rd Niagara Falls ON L2E 6X5	ENE/190.4	17.92	140
25	ECA	The Corporation of the City of Niagara Falls	9240 Montrose Rd Niagara Falls ON L2E 6X5	ENE/190.4	17.92	140
25	SPL	The Regional Municipality of Niagara	9240 Montrose Rd; 3450 Stanley Ave Niagara Falls; Niagara Falls ON	ENE/190.4	17.92	140
26	EHS		7047 Reixinger Road Niagara Falls ON	NW/206.4	7.04	141
27	WWIS		MONTROSE RD & KYONS CREEK RD NIAGARA FALLS ON	ESE/211.1	12.19	141

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Dir/Dist (m)</i>	<i>Elev Diff (m)</i>	<i>Page Number</i>
			<i>Well ID:</i> 7200894			
28	OOGW	W.C. Patterson C.A. Biggar #2	Crowland ON <i>Licence No:</i> F014144	W/227.7	14.31	143
29	WWIS		ON <i>Well ID:</i> 7265625	ESE/229.4	12.19	146
30	WWIS		MONROSE RD Niagara Falls ON <i>Well ID:</i> 7305848	ENE/230.0	21.74	147
31	EHS		Montrose Road And Lyons Creek Road Niagara Falls ON	SE/249.8	11.19	149
32	WWIS		lot 1 ON <i>Well ID:</i> 6600614	SE/287.2	12.19	149

Executive Summary: Summary By Data Source

CA - Certificates of Approval

A search of the CA database, dated 1985-Oct 30, 2011* has found that there are 12 CA site(s) within approximately 0.30 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
DAY-TIMERS OF CANADA LTD.	9515 MONTROSE ROAD NIAGARA FALLS CITY ON	51.7	<u>10</u>
Aditya Birla Minacs Worldwide Inc.	9515 Montrose Rd Niagara Falls ON	51.7	<u>10</u>
FORD MOTOR CO. OF CANADA	9127 MONTROSE RD. NIAGARA FALLS CITY ON	168.9	<u>22</u>
FORD MOTOR COMPANY OF CANADA, LIMITED	9127 MONTROSE ROAD NIAGARA FALLS CITY ON	168.9	<u>22</u>
E.S. Fox Limited	9127 Montrose Rd Niagara Falls ON	168.9	<u>22</u>
E.S. Fox Construction	9127 Montrose Rd. Niagara Falls ON	168.9	<u>22</u>
FORD MOTOR COMPANY OF CANADA (NIAGARA GL	9127 MONTROSE ROAD NIAGARA FALLS CITY ON	168.9	<u>22</u>
FORD MOTOR COMPANY OF CANADA, LIMITED	9127 MONTROSE RD. DUPLICATE NIAGARA FALLS CITY ON	168.9	<u>22</u>
	9127 Montrose Avenue Niagara Falls ON	168.9	<u>22</u>

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
The Corporation of the City of Niagara Falls	9240 Montrose Rd Niagara Falls ON	190.4	25
The Corporation of the City of Niagara Falls	9240 Montrose Rd Niagara Falls ON	190.4	25
The Corporation of the City of Niagara Falls	9240 Montrose Rd Niagara Falls ON	190.4	25

EBR - Environmental Registry

A search of the EBR database, dated 1994- Jun 30, 2021 has found that there are 3 EBR site(s) within approximately 0.30 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
E.S. Fox Enterprises Inc.	9127 Montrose Rd. Niagara Falls Ontario L2E 5S6 Niagara Falls ON	168.9	22
E.S. Fox Limited	9127 Montrose Road Niagara Falls Regional Municipality of Niagara L2E 7J9 CITY OF NIAGARA FALLS ON	168.9	22
E.S. Fox Limited	9127 Montrose Road Niagara Falls, Regional Municipality of Niagara L2E 7J9 CITY OF NIAGARA FALLS ON	168.9	22

ECA - Environmental Compliance Approval

A search of the ECA database, dated Oct 2011- Jun 30, 2021 has found that there are 10 ECA site(s) within approximately 0.30 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
Aditya Birla Minacs Worldwide Inc.	9515 Montrose Rd Niagara Falls ON	51.7	10
E.S. Fox Limited	9127 Montrose Rd Niagara Falls ON L2E 7J9	168.9	22

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
E.S. Fox Enterprises Inc.	9127 Montrose Rd. Niagara Falls ON L2E 5S6	168.9	22
E.S. Fox Enterprises Inc.	9127 Montrose Avenue Niagara Falls ON L2E 5S6	168.9	22
E.S. Fox Limited	9127 Montrose Rd Niagara Falls ON L2E 7J9	168.9	22
E.S. Fox Limited	9127 Montrose Rd Niagara Falls ON L2E 7J9	168.9	22
The Corporation of the City of Niagara Falls	9240 Montrose Rd Niagara Falls ON L2E 6X5	190.4	25
The Corporation of the City of Niagara Falls	9240 Montrose Rd Niagara Falls ON L2E 6X5	190.4	25
The Corporation of the City of Niagara Falls	9240 Montrose Rd Niagara Falls ON L2E 6X5	190.4	25
The Corporation of the City of Niagara Falls	9240 Montrose Rd Niagara Falls ON L2E 6X5	190.4	25

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 0.30 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
	n/a Niagara Falls ON	0.0	1

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
	8365 Biggar Rd Niagara Falls ON L0S1K0	29.6	<u>9</u>
	9515 Montrose Rd Niagara Falls ON L0S1K0	51.7	<u>10</u>
	9514 Montrose Rd Niagara Falls ON L0S1K0	94.1	<u>15</u>
	9514 Montrose Road Niagara Falls ON	94.1	<u>15</u>
	9515 Montrose Rd Niagara Falls ON	105.1	<u>17</u>
	9515 Montrose Rd Niagara Falls ON	105.1	<u>17</u>
	9515 Montrose Rd Niagara Falls ON	105.1	<u>17</u>
	9515 Montrose Rd Niagara Falls ON	105.1	<u>17</u>
	9515 Montrose Rd Niagara Falls ON	105.1	<u>17</u>
	Montrose Road & Biggar Road Niagara Falls ON	174.3	<u>23</u>
	7047 Reixinger Road Niagara Falls ON	206.4	<u>26</u>
	Montrose Road And Lyons Creek Road Niagara Falls ON	249.8	<u>31</u>

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
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FST - Fuel Storage Tank

A search of the FST database, dated Jul 31, 2020 has found that there are 2 FST site(s) within approximately 0.30 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
E.S. FOX LTD **	9127 MONTROSE RD PO BOX 1010 NIAGARA FALLS L2E 7J9 ON CA 9127 MONTROSE RD PO BOX 1010 NIAGARA FALLS L2E 7J9 ON CA ON	168.9	<u>22</u>
E.S. FOX LTD **	9127 MONTROSE RD PO BOX 1010 NIAGARA FALLS L2E 7J9 ON CA 9127 MONTROSE RD PO BOX 1010 NIAGARA FALLS L2E 7J9 ON CA ON	168.9	<u>22</u>

FSTH - Fuel Storage Tank - Historic

A search of the FSTH database, dated Pre-Jan 2010* has found that there are 2 FSTH site(s) within approximately 0.30 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
E S FOX LTD	9127 MONTROSE RD NIAGARA FALLS ON	168.9	<u>22</u>
E S FOX LTD	9127 MONTROSE RD NIAGARA FALLS ON	168.9	<u>22</u>

GEN - Ontario Regulation 347 Waste Generators Summary

A search of the GEN database, dated 1986-Apr 30, 2021 has found that there are 57 GEN site(s) within approximately 0.30 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
2285045 Ontario Inc. Grand Niagara Golf Club	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	0.0	<u>3</u>

Site	Address	Distance (m)	Map Key
2285045 Ontario Inc. Grand Niagara Golf Club	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	0.0	<u>3</u>
2285045 Ontario Inc. Grand Niagara Golf Club	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	0.0	<u>3</u>
2285045 Ontario Inc. Grand Niagara Golf Club	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	0.0	<u>3</u>
2285045 Ontario Inc. Grand Niagara Golf Club	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	0.0	<u>3</u>
2285045 Ontario Inc. Grand Niagara Golf Club	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	0.0	<u>3</u>
Grand Niagara Resort Inc.	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	0.0	<u>3</u>
Grand Niagara Resort Inc.	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	0.0	<u>3</u>
Grand Niagara Resort Inc.	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	0.0	<u>3</u>
Grand Niagara Resort Inc.	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	0.0	<u>3</u>
Grand Niagara Resort Inc.	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	0.0	<u>3</u>
Grand Niagara Resort Inc.	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	0.0	<u>3</u>
2285045 Ontario Inc. Grand Niagara Golf Club	8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON	0.0	<u>3</u>
ARROW GAMES CORPORATION	9515 MONTROSE ROAD UNIT 2 PORT ROBINSON ON L0S 1K0	51.7	<u>10</u>

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
JOY DISPLAYS	9515 MONTROSE RD. NIAGARA FALLS ON L2E 6V2	51.7	<u>10</u>
JOY DISPLAYS 22-250	9515 MONTROSE RD. NIAGARA FALLS ON L2E 6V2	51.7	<u>10</u>
ARROW GAMES CORPORATION	9515 MONTROSE ROAD UNIT 2 PORT ROBINSON ON L0S 1K0	51.7	<u>10</u>
BAZAAR & NOVELTY LTD	9515 MONTROSE ROAD UNIT 2 PORT ROBINSON ON L0S 1K0	51.7	<u>10</u>
ARROW GAMES CORPORATION	9515 MONTROSE ROAD UNIT 2 PORT ROBINSON ON L0S 1K0	51.7	<u>10</u>
ARROW GAMES CORPORATION	9515 MONTROSE ROAD UNIT 2 PORT ROBINSON ON L0S 1K0	51.7	<u>10</u>
MOTORWAYS TRANSPORT	9514 MONTROSE RD. C/O PO BOX 772 NIAGARA FALLS ON L2E 6V6	94.1	<u>15</u>
MOTORWAYS TRANSPORT (OUT OF BUS.)	9514 MONTROSE RD. C/O PO BOX 772 NIAGARA FALLS ON L2E 6V6	94.1	<u>15</u>
MOTORWAYS TRANSPORT (OUT OF BUS.) 27-492	9514 MONTROSE RD. C/O PO BOX 772 NIAGARA FALLS ON L2E 6V6	94.1	<u>15</u>
DONALD W MURRAY (MOVERS) 1981 LIMITED	9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	94.1	<u>15</u>
CROWN TRUCKING SERVICES	9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	94.1	<u>15</u>

Site	Address	Distance (m)	Map Key
DONALD W. MURRAY MOVERS (1981) LTD	9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	94.1	15
DONALD W. MURRAY MOVERS (1981) LTD	9514 MONTROSE ROAD NIAGARA FALLS ON	94.1	15
DONALD W. MURRAY MOVERS (1981) LTD	9514 MONTROSE ROAD NIAGARA FALLS ON	94.1	15
DONALD W. MURRAY MOVERS (1981) LTD	9514 MONTROSE ROAD NIAGARA FALLS ON	94.1	15
DONALD W. MURRAY MOVERS (1981) LTD	9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	94.1	15
DONALD W. MURRAY MOVERS (1981) LTD	9514 MONTROSE ROAD NIAGARA FALLS ON	94.1	15
Crown Transportation Group Limited	9514 Montrose Road Niagara Falls ON	94.1	15
DONALD W. MURRAY MOVERS (1981) LTD	9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	94.1	15
DONALD W. MURRAY MOVERS (1981) LTD	9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	94.1	15
Crown Transportation Group Limited	9514 Montrose Road Niagara Falls ON L0S 1K0	94.1	15
Crown Transportation Group Limited	9514 Montrose Road Niagara Falls ON L0S 1K0	94.1	15
DONALD W. MURRAY MOVERS (1981) LTD	9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	94.1	15

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
Crown Transportation Group Limited	9514 Montrose Road Niagara Falls ON L0S 1K0	94.1	<u>15</u>
DONALD W. MURRAY MOVERS (1981) LTD	9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	94.1	<u>15</u>
ES Fox	9514 Montrose Road Niagara Falls ON L0S 1K0	94.1	<u>15</u>
ES Fox	9514 Montrose Road Niagara Falls ON L0S 1K0	94.1	<u>15</u>
FORD MOTOR CO. OF CANADA LTD.	NIAGARA GLASS PLANT P.O. BOX 1019, 9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6X3	168.9	<u>22</u>
FORD (OUT OF BUS) 15-110	NIAGARA GLASS PLANT 9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6X3	168.9	<u>22</u>
FORD MOTOR COMPANY OF CANADA LTD. 15-110	NIAGARA GLASS PLANT 9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6X3	168.9	<u>22</u>
FORD (OUT OF BUS) MOTOR COMPANY	NIAGARA GLASS PLANT 9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6X3	168.9	<u>22</u>
E.S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	168.9	<u>22</u>
E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	168.9	<u>22</u>
E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON	168.9	<u>22</u>

Site	Address	Distance (m)	Map Key
E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON	168.9	<u>22</u>
E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	168.9	<u>22</u>
E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON	168.9	<u>22</u>
E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON	168.9	<u>22</u>
E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	168.9	<u>22</u>
E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	168.9	<u>22</u>
E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	168.9	<u>22</u>
E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	168.9	<u>22</u>
E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	168.9	<u>22</u>
E. S. FOX LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	168.9	<u>22</u>

NCPL - Non-Compliance Reports

A search of the NCPL database, dated Dec 31, 2019 has found that there are 6 NCPL site(s) within approximately 0.30 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
E.S. Fox Enterprises Inc.	9127 Montrose Ave Niagara Falls ON	168.9	<u>22</u>
E.S. Fox Enterprises Inc.	9127 Montrose Ave Niagara Falls ON	168.9	<u>22</u>
E.S. Fox Enterprises Inc.	9127 Montrose Road Niagara Falls ON	168.9	<u>22</u>
E.S. Fox Enterprises Inc.	9127 Montrose Ave Niagara Falls ON	168.9	<u>22</u>
E.S. Fox Enterprises Inc.	9127 Montrose Ave Niagara Falls ON	168.9	<u>22</u>
E.S. Fox Enterprises Inc.	9127 Montrose Road Niagara Falls ON	168.9	<u>22</u>

NPCB - National PCB Inventory

A search of the NPCB database, dated 1988-2008* has found that there are 2 NPCB site(s) within approximately 0.30 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
FORD MOTOR COMPANY OF CANADA, LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6X3	168.9	<u>22</u>
FORD MOTOR COMPANY OF CANADA	9127 MONTROSE ROAD; BOX 1019 NIAGARA FALLS ON L2E 6X3	168.9	<u>22</u>

OOGW - Ontario Oil and Gas Wells

A search of the OOGW database, dated 1800-Jun 2020 has found that there are 3 OOGW site(s) within approximately 0.30 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
E & A. Cruickshank #1	Crowland ON <i>Licence No:</i> F014193	111.5	18
W. C. Patterson Gas Co. A & E Woodgate	Crowland ON <i>Licence No:</i> F014190	142.8	19
W.C. Patterson C.A. Biggar #2	Crowland ON <i>Licence No:</i> F014144	227.7	28

OPCB - Inventory of PCB Storage Sites

A search of the OPCB database, dated 1987-Oct 2004; 2012-Dec 2013 has found that there are 1 OPCB site(s) within approximately 0.30 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
FORD MOTOR COMPANY OF CANADA, LIMITED	9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6X3	168.9	22

SCT - Scott's Manufacturing Directory

A search of the SCT database, dated 1992-Mar 2011* has found that there are 3 SCT site(s) within approximately 0.30 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
SANDT PRINTING COMPANY LTD	9515 MONTROSE RD NIAGARA FALLS ON L2E 6X6	51.7	10
DAY-TIMERS OF CANADA LTD.	9515 Montrose Rd Niagara Falls ON L2E 6X6	51.7	10
E.S. Fox Ltd.	9127 Montrose Rd Niagara Falls ON L2E 6S5	168.9	22

SPL - Ontario Spills

A search of the SPL database, dated 1988-Aug 2020 has found that there are 5 SPL site(s) within approximately 0.30 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
PRIVATE BUSINESS	9514 MONTROSE RD R.R. #1 PORT ROBINSON STORAGE TANK THOROLD CITY ON	94.1	<u>15</u>
FORD MOTOR CO. OF CANADA LTD.	9127 MONTROSE RD NIAGARA GLASS PLANT 9127 MONTROSE ROAD NIAGARA FALLS CITY ON	168.9	<u>22</u>
FORD MOTOR CO. OF CANADA LTD.	WELLAND RIVER NIAGARA GLASS PLANT 9127 MONTROSE ROAD NIAGARA FALLS CITY ON	168.9	<u>22</u>
The Regional Municipality of Niagara	9240 Montrose Rd Niagara Falls ON	190.4	<u>25</u>
The Regional Municipality of Niagara	9240 Montrose Rd; 3450 Stanley Ave Niagara Falls; Niagara Falls ON	190.4	<u>25</u>

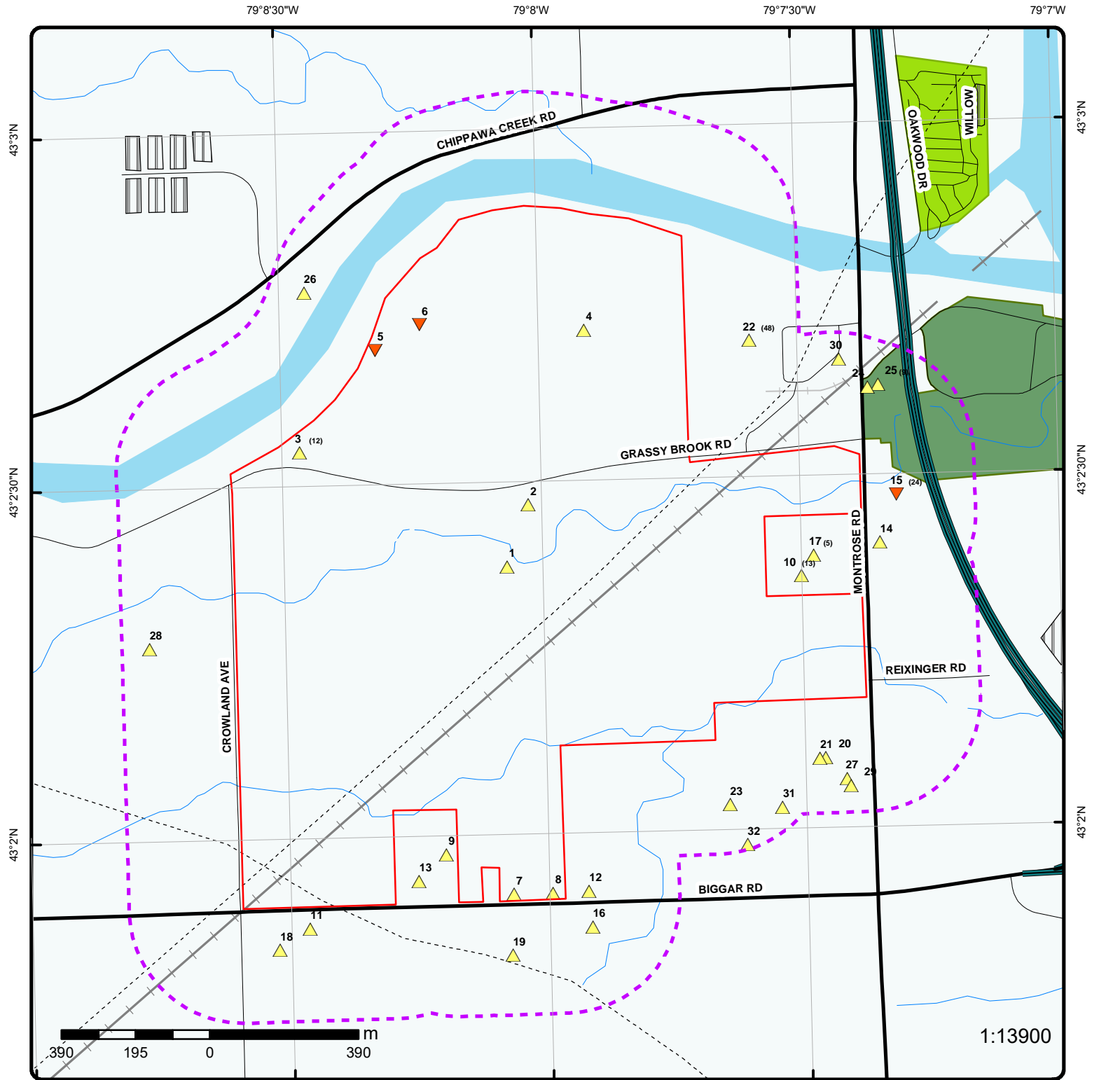
WWIS - Water Well Information System

A search of the WWIS database, dated Apr 30, 2021 has found that there are 18 WWIS site(s) within approximately 0.30 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
	lot 3 ON <i>Well ID: 6600619</i>	0.0	<u>2</u>
	8547 Grassy Brook Rd lot 2 Port Robinson ON <i>Well ID: 7352103</i>	0.0	<u>4</u>
	ON <i>Well ID: 7289552</i>	0.0	<u>5</u>
	lot 3 ON <i>Well ID: 6600615</i>	0.0	<u>6</u>

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
	lot 3 ON <i>Well ID:</i> 6600617	0.0	<u>7</u>
	8547 Grassy Brook Rd lot 3 Port Robinson ON <i>Well ID:</i> 7352071	0.0	<u>8</u>
	lot 4 con 1 ON <i>Well ID:</i> 6600625	56.8	<u>11</u>
	lot 2 ON <i>Well ID:</i> 6600616	62.3	<u>12</u>
	lot 3 ON <i>Well ID:</i> 6600618	63.3	<u>13</u>
	lot 10 ON <i>Well ID:</i> 6602673	90.1	<u>14</u>
	lot 2 con 1 ON <i>Well ID:</i> 6604508	102.6	<u>16</u>
	lot 1 ON <i>Well ID:</i> 6600612	154.0	<u>20</u>
	lot 1 ON <i>Well ID:</i> 6600613	155.4	<u>21</u>
	MONTROSE RD Niagara Falls ON <i>Well ID:</i> 7231244	174.5	<u>24</u>
	MONTROSE RD & KYONS CREEK RD NIAGARA FALLS ON <i>Well ID:</i> 7200894	211.1	<u>27</u>
	ON	229.4	<u>29</u>

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
	<i>Well ID:</i> 7265625		
	MONROSE RD Niagara Falls ON	230.0	<u>30</u>
	<i>Well ID:</i> 7305848		
	lot 1 ON	287.2	<u>32</u>
	<i>Well ID:</i> 6600614		



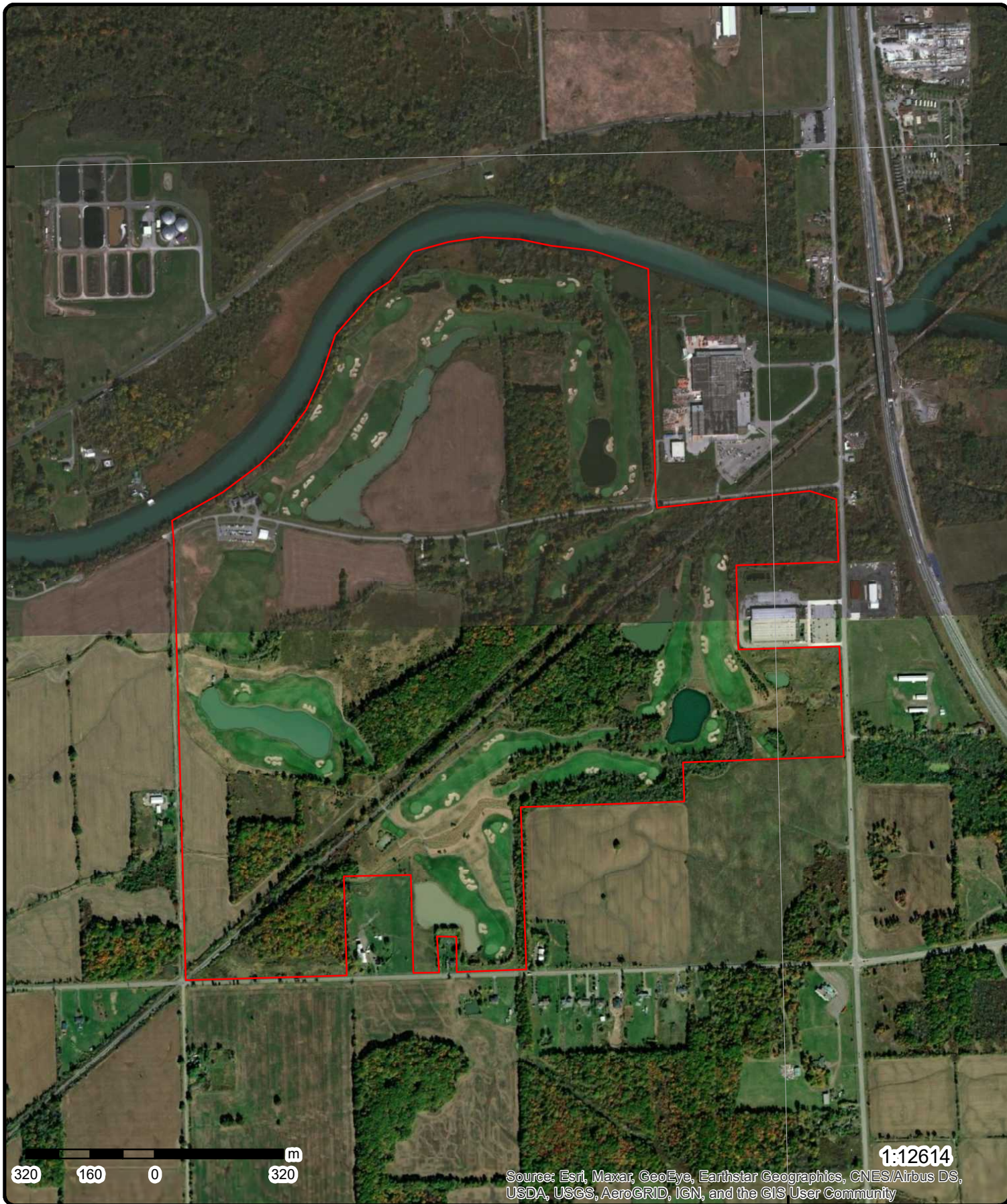
Map: 0.3 Kilometer Radius

Order Number: 21081100468

Address: 8547 Grassy Brook Road, Port Robinson, ON



Project Property	Expressway	Industrial and Resource - Regions	National Park
Buffer Outline	Principal Highway	Main Line	Provincial or Territorial Park
Eris Sites with Higher Elevation	Secondary Highway	Sidetrack	Other Park
Eris Sites with Same Elevation	Major Road	Transit Line	Golf Course or Driving Range
Eris Sites with Lower Elevation	Local road	Abandoned Line	Park or Sports Field
Eris Sites with Unknown Elevation	Trail	Proposed Road	Other Recreation Area
	Proposed Road		
	Ferry Route/Ice Road		



Aerial Year: 2020

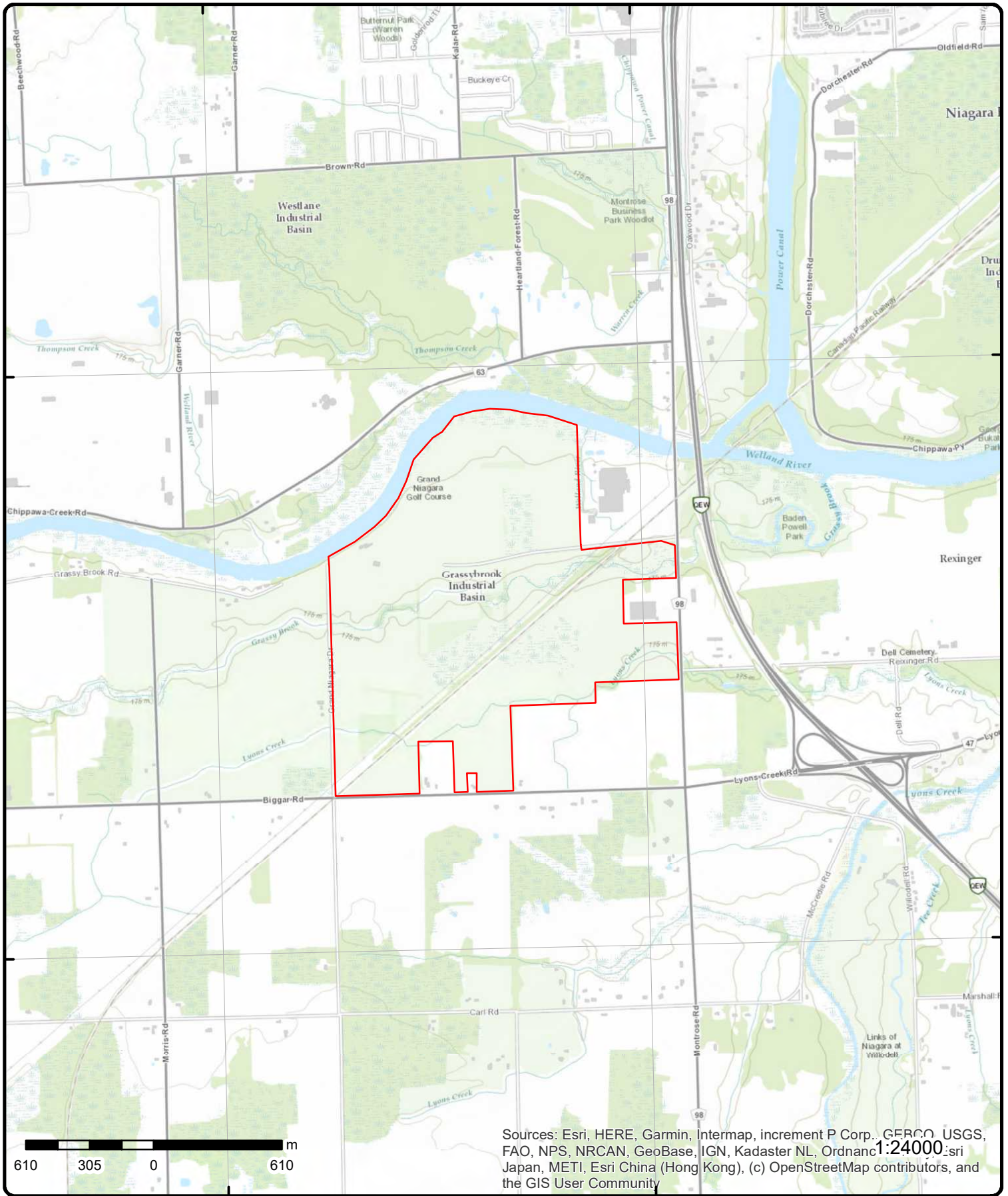
Order Number: 21081100468

Address: 8547 Grassy Brook Road, Port Robinson, ON



Source: ESRI World Imagery

© ERIS Information Limited Partnership



Topographic Map

Address: 8547 Grassy Brook Road, ON

Source: ESRI World Topographic Map

Order Number: 21081100468



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Detail Report

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	1 of 1	ESE/0.0	168.2 / 4.60	n/a Niagara Falls ON	EHS
Order No: 20151029056 Status: C Report Type: Custom Report Report Date: 04-NOV-15 Date Received: 29-OCT-15 Previous Site Name: Lot/Building Size: Additional Info Ordered:		Nearest Intersection: Municipality: Client Prov/State: ON Search Radius (km): .25 X: -79.134539 Y: 43.039667			

2	1 of 1	NNE/0.0	181.5 / 17.86	lot 3 ON	WWIS
Well ID: 6600619 Construction Date: Primary Water Use: Domestic Sec. Water Use: 0 Final Well Status: Water Supply Water Type: Casing Material: Audit No: Tag: Construction Method: Elevation (m): Elevation Reliability: Depth to Bedrock: Well Depth: Overburden/Bedrock: Pump Rate: Static Water Level: Flowing (Y/N): Flow Rate: Clear/Cloudy:		Data Entry Status: Data Src: 1 Date Received: 12/7/1960 Selected Flag: True Abandonment Rec: Contractor: 5425 Form Version: 1 Owner: Street Name: County: NIAGARA Municipality: NIAGARA FALLS CITY (CROWLAND) Site Info: Lot: 003 Concession: Concession Name: BF Easting NAD83: Northing NAD83: Zone: UTM Reliability:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/660\6600619.pdf

Additional Detail(s) (Map)

Well Completed Date: 1960/08/26
Year Completed: 1960
Depth (m): 31.3944
Latitude: 43.041119492753
Longitude: -79.1338171511863
Path: 660\6600619.pdf

Bore Hole Information

Bore Hole ID: 10460353
DP2BR: 92.00
Elevation: 175.633911
Elevrc:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Spatial Status:				Zone:	17
Code OB:	r			East83:	652009.90
Code OB Desc:	Bedrock			North83:	4767071.00
Open Hole:				Org CS:	
Cluster Kind:				UTMRC:	5
Date Completed:	26-Aug-1960 00:00:00			UTMRC Desc:	margin of error : 100 m - 300 m
Remarks:				Location Method:	p5
Elevrc Desc:					
Location Source Date:					
Improvement Location Source:					
Improvement Location Method:					
Source Revision Comment:					
Supplier Comment:					

Overburden and Bedrock
Materials Interval

Formation ID: 932589424
Layer: 2
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 1.0
Formation End Depth: 17.0
Formation End Depth UOM: ft

Overburden and Bedrock
Materials Interval

Formation ID: 932589423
Layer: 1
Color:
General Color:
Mat1: 02
Most Common Material: TOPSOIL
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 1.0
Formation End Depth UOM: ft

Overburden and Bedrock
Materials Interval

Formation ID: 932589425
Layer: 3
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 17.0
Formation End Depth: 50.0

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932589428			
Layer:		6			
Color:					
General Color:					
Mat1:		15			
Most Common Material:		LIMESTONE			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		92.0			
Formation End Depth:		103.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932589426			
Layer:		4			
Color:					
General Color:					
Mat1:		09			
Most Common Material:		MEDIUM SAND			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		50.0			
Formation End Depth:		83.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932589427			
Layer:		5			
Color:					
General Color:					
Mat1:		11			
Most Common Material:		GRAVEL			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		83.0			
Formation End Depth:		92.0			
Formation End Depth UOM:		ft			
<u>Method of Construction & Well Use</u>					
Method Construction ID:		966600619			
Method Construction Code:		1			
Method Construction:		Cable Tool			
Other Method Construction:					

Pipe Information

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Pipe ID: 11008923
 Casing No: 1
 Comment:
 Alt Name:

Construction Record - Casing

Casing ID: 930747644
 Layer: 1
 Material: 1
 Open Hole or Material: STEEL
 Depth From:
 Depth To: 92
 Casing Diameter: 6
 Casing Diameter UOM: inch
 Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930747645
 Layer: 2
 Material: 4
 Open Hole or Material: OPEN HOLE
 Depth From:
 Depth To: 103
 Casing Diameter: 6
 Casing Diameter UOM: inch
 Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 996600619
 Pump Set At:
 Static Level: 17.0
 Final Level After Pumping: 80.0
 Recommended Pump Depth: 80.0
 Pumping Rate: 2.0
 Flowing Rate:
 Recommended Pump Rate: 2.0
 Levels UOM: ft
 Rate UOM: GPM
 Water State After Test Code: 2
 Water State After Test: CLOUDY
 Pumping Test Method: 1
 Pumping Duration HR: 0
 Pumping Duration MIN: 30
 Flowing: No

Water Details

Water ID: 933947887
 Layer: 1
 Kind Code: 3
 Kind: SULPHUR
 Water Found Depth: 100.0
 Water Found Depth UOM: ft

3	1 of 12	WNW/0.0	167.6 / 3.91	Grand Niagara Resort Inc. 8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	GEN
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Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<p>Generator No: ON3004914 PO Box No:</p> <p>Status: Country:</p> <p>Approval Years: 04,07,08 Choice of Contact:</p> <p>Contam. Facility: Co Admin:</p> <p>MHSW Facility: Phone No Admin:</p> <p>SIC Code: 713910</p> <p>SIC Description: Golf Courses and Country Clubs</p>					
3	2 of 12	WNW/0.0	167.6 / 3.91	Grand Niagara Resort Inc. 8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	GEN
<p>Generator No: ON3004914 PO Box No:</p> <p>Status: Country:</p> <p>Approval Years: 05,07,08 Choice of Contact:</p> <p>Contam. Facility: Co Admin:</p> <p>MHSW Facility: Phone No Admin:</p> <p>SIC Code: 713910</p> <p>SIC Description: Golf Courses and Country Clubs</p>					
Detail(s)					
<p>Waste Class: 252</p> <p>Waste Class Desc: WASTE OILS & LUBRICANTS</p>					
3	3 of 12	WNW/0.0	167.6 / 3.91	Grand Niagara Resort Inc. 8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	GEN
<p>Generator No: ON3004914 PO Box No:</p> <p>Status: Country:</p> <p>Approval Years: 2009 Choice of Contact:</p> <p>Contam. Facility: Co Admin:</p> <p>MHSW Facility: Phone No Admin:</p> <p>SIC Code: 713910</p> <p>SIC Description: Golf Courses and Country Clubs</p>					
Detail(s)					
<p>Waste Class: 252</p> <p>Waste Class Desc: WASTE OILS & LUBRICANTS</p>					
3	4 of 12	WNW/0.0	167.6 / 3.91	Grand Niagara Resort Inc. 8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	GEN
<p>Generator No: ON3004914 PO Box No:</p> <p>Status: Country:</p> <p>Approval Years: 2010 Choice of Contact:</p> <p>Contam. Facility: Co Admin:</p> <p>MHSW Facility: Phone No Admin:</p> <p>SIC Code: 713910</p> <p>SIC Description: Golf Courses and Country Clubs</p>					
Detail(s)					
<p>Waste Class: 252</p> <p>Waste Class Desc: WASTE OILS & LUBRICANTS</p>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>3</u>	5 of 12	WNW/0.0	167.6 / 3.91	Grand Niagara Resort Inc. 8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	GEN
Generator No:	ON3004914			PO Box No:	
Status:				Country:	
Approval Years:	2012			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:	713910				
SIC Description:	Golf Courses and Country Clubs				
Detail(s)					
Waste Class:	252				
Waste Class Desc:	WASTE OILS & LUBRICANTS				
<u>3</u>	6 of 12	WNW/0.0	167.6 / 3.91	2285045 Ontario Inc. Grand Niagara Golf Club 8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON	GEN
Generator No:	ON3004914			PO Box No:	
Status:				Country:	
Approval Years:	2013			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:	713910				
SIC Description:	GOLF COURSES AND COUNTRY CLUBS				
Detail(s)					
Waste Class:	252				
Waste Class Desc:	WASTE OILS & LUBRICANTS				
<u>3</u>	7 of 12	WNW/0.0	167.6 / 3.91	2285045 Ontario Inc. Grand Niagara Golf Club 8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	GEN
Generator No:	ON3004914			PO Box No:	
Status:				Country:	Canada
Approval Years:	2016			Choice of Contact:	CO_OFFICIAL
Contam. Facility:	No			Co Admin:	
MHSW Facility:	No			Phone No Admin:	
SIC Code:	713910				
SIC Description:	GOLF COURSES AND COUNTRY CLUBS				
Detail(s)					
Waste Class:	252				
Waste Class Desc:	WASTE OILS & LUBRICANTS				
<u>3</u>	8 of 12	WNW/0.0	167.6 / 3.91	2285045 Ontario Inc. Grand Niagara Golf Club 8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	GEN
Generator No:	ON3004914			PO Box No:	
Status:				Country:	Canada
Approval Years:	2015			Choice of Contact:	CO_OFFICIAL
Contam. Facility:	No			Co Admin:	
MHSW Facility:	No			Phone No Admin:	
SIC Code:	713910				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
SIC Description:		GOLF COURSES AND COUNTRY CLUBS			
<u>Detail(s)</u>					
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
<u>3</u>	9 of 12	WNW/0.0	167.6 / 3.91	2285045 Ontario Inc. Grand Niagara Golf Club 8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	GEN
Generator No:		ON3004914		PO Box No:	
Status:				Country: Canada	
Approval Years:		2014		Choice of Contact: CO_OFFICIAL	
Contam. Facility:		No		Co Admin:	
MHSW Facility:		No		Phone No Admin:	
SIC Code:		713910			
SIC Description:		GOLF COURSES AND COUNTRY CLUBS			
<u>Detail(s)</u>					
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
<u>3</u>	10 of 12	WNW/0.0	167.6 / 3.91	2285045 Ontario Inc. Grand Niagara Golf Club 8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	GEN
Generator No:		ON3004914		PO Box No:	
Status:		Registered		Country: Canada	
Approval Years:		As of Dec 2018		Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:					
SIC Description:					
<u>Detail(s)</u>					
Waste Class:		252 L			
Waste Class Desc:		Waste crankcase oils and lubricants			
<u>3</u>	11 of 12	WNW/0.0	167.6 / 3.91	2285045 Ontario Inc. Grand Niagara Golf Club 8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	GEN
Generator No:		ON3004914		PO Box No:	
Status:		Registered		Country: Canada	
Approval Years:		As of Jul 2020		Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:					
SIC Description:					
<u>Detail(s)</u>					
Waste Class:		252 L			
Waste Class Desc:		Waste crankcase oils and lubricants			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>3</u>	12 of 12	WNW/0.0	167.6 / 3.91	2285045 Ontario Inc. Grand Niagara Golf Club 8547 GRASSY BROOK RD. RR1 PORT ROBINSON ON L0S 1K0	GEN
Generator No:	ON3004914			PO Box No:	
Status:	Registered			Country:	Canada
Approval Years:	As of Apr 2021			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:					
SIC Description:					
Detail(s)					
Waste Class:	252 L				
Waste Class Desc:	Waste crankcase oils and lubricants				

<u>4</u>	1 of 1	NNE/0.0	174.8 / 11.18	8547 Grassy Brook Rd lot 2 Port Robinson ON	WWIS
Well ID:	7352103			Data Entry Status:	
Construction Date:				Data Src:	
Primary Water Use:	Monitoring			Date Received:	1/27/2020
Sec. Water Use:				Selected Flag:	True
Final Well Status:	Observation Wells			Abandonment Rec:	
Water Type:				Contractor:	6607
Casing Material:				Form Version:	9
Audit No:	YDGYB4DO			Owner:	
Tag:	A286752			Street Name:	8547 Grassy Brook Rd
Construction Method:				County:	NIAGARA
Elevation (m):				Municipality:	NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:				Site Info:	BW 19-1
Depth to Bedrock:				Lot:	002
Well Depth:				Concession:	
Overburden/Bedrock:				Concession Name:	BF
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/735\7352103.pdf				

Additional Detail(s) (Map)

Well Completed Date:	2019/12/10
Year Completed:	2019
Depth (m):	8.8
Latitude:	43.0452213411566
Longitude:	-79.1318990727809
Path:	735\7352103.pdf

Bore Hole Information

Bore Hole ID:	1007988085	Elevation:	
DP2BR:		Elevrc:	
Spatial Status:		Zone:	17
Code OB:		East83:	652156.00
Code OB Desc:		North83:	4767530.00
Open Hole:		Org CS:	UTM83
Cluster Kind:		UTMRC:	4

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Date Completed: 10-Dec-2019 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

**Overburden and Bedrock
Materials Interval**

Formation ID: 1007988974
Layer: 1
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3: 73
Mat3 Desc: HARD
Formation Top Depth: 0.0
Formation End Depth: 3.0
Formation End Depth UOM: m

**Overburden and Bedrock
Materials Interval**

Formation ID: 1007988975
Layer: 2
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3: 73
Mat3 Desc: HARD
Formation Top Depth: 3.0
Formation End Depth: 7.599999904632568
Formation End Depth UOM: m

**Overburden and Bedrock
Materials Interval**

Formation ID: 1007988976
Layer: 3
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3: 85
Mat3 Desc: SOFT
Formation Top Depth: 7.599999904632568
Formation End Depth: 8.800000190734863
Formation End Depth UOM: m

**Annular Space/Abandonment
Sealing Record**

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Plug ID:		1007989830			
Layer:		1			
Plug From:		0			
Plug To:		0.300000011920929			
Plug Depth UOM:		m			
<u>Annular Space/Abandonment Sealing Record</u>					
Plug ID:		1007989520			
Layer:		1			
Plug From:					
Plug To:					
Plug Depth UOM:		m			
<u>Annular Space/Abandonment Sealing Record</u>					
Plug ID:		1007989831			
Layer:		2			
Plug From:		0.300000011920929			
Plug To:		6.69999980926514			
Plug Depth UOM:		m			
<u>Method of Construction & Well Use</u>					
Method Construction ID:		1007988499			
Method Construction Code:		6			
Method Construction:		Boring			
Other Method Construction:					
<u>Pipe Information</u>					
Pipe ID:		1007988380			
Casing No:		0			
Comment:					
Alt Name:					
<u>Construction Record - Screen</u>					
Screen ID:		1007989255			
Layer:		1			
Slot:		10			
Screen Top Depth:		7.30000019073486			
Screen End Depth:		8.80000019073486			
Screen Material:		5			
Screen Depth UOM:		m			
Screen Diameter UOM:		cm			
Screen Diameter:		6.40000009536743			
<u>Results of Well Yield Testing</u>					
Pump Test ID:		1007988381			
Pump Set At:					
Static Level:					
Final Level After Pumping:					
Recommended Pump Depth:					
Pumping Rate:					
Flowing Rate:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Recommended Pump Rate:					
Levels UOM:		m			
Rate UOM:		LPM			
Water State After Test Code:					
Water State After Test:					
Pumping Test Method:					
Pumping Duration HR:					
Pumping Duration MIN:					
Flowing:					
<u>Hole Diameter</u>					
Hole ID:		1007989374			
Diameter:		21.0			
Depth From:		0.0			
Depth To:		8.800000190734863			
Hole Depth UOM:		m			
Hole Diameter UOM:		cm			

5	1 of 1	NW/0.0	153.9 / -9.73	ON	WWIS
Well ID:	7289552			Data Entry Status:	Yes
Construction Date:				Data Src:	
Primary Water Use:				Date Received:	7/5/2017
Sec. Water Use:				Selected Flag:	True
Final Well Status:				Abandonment Rec:	
Water Type:				Contractor:	7215
Casing Material:				Form Version:	8
Audit No:	C37316			Owner:	
Tag:				Street Name:	
Construction Method:				County:	NIAGARA
Elevation (m):				Municipality:	NIAGARA FALLS CITY (CROWLAND)
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):					
<u>Additional Detail(s) (Map)</u>					
Well Completed Date:	2017/05/18				
Year Completed:	2017				
Depth (m):					
Latitude:	43.0448357335389				
Longitude:	-79.1386263828336				
Path:					
<u>Bore Hole Information</u>					
Bore Hole ID:	1006602828			Elevation:	151.436645
DP2BR:				Elevrc:	
Spatial Status:				Zone:	17
Code OB:				East83:	651609.00
Code OB Desc:				North83:	4767475.00

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Open Hole: Cluster Kind: Date Completed: Remarks: Elevrc Desc: Location Source Date: Improvement Location Source: Improvement Location Method: Source Revision Comment: Supplier Comment:	18-May-2017 00:00:00			Org CS: UTMRC: UTMRC Desc: Location Method:	UTM83 4 margin of error : 30 m - 100 m wwr

6	1 of 1	NNW/0.0	159.6 / -4.07	lot 3 ON	WWIS
Well ID:	6600615			Data Entry Status:	
Construction Date:				Data Src:	1
Primary Water Use:	Not Used			Date Received:	1/6/1961
Sec. Water Use:	0			Selected Flag:	True
Final Well Status:	Test Hole			Abandonment Rec:	
Water Type:				Contractor:	2801
Casing Material:				Form Version:	1
Audit No:				Owner:	
Tag:				Street Name:	
Construction Method:				County:	NIAGARA
Elevation (m):				Municipality:	NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:				Site Info:	
Depth to Bedrock:				Lot:	003
Well Depth:				Concession:	
Overburden/Bedrock:				Concession Name:	BF
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/660\6600615.pdf

Additional Detail(s) (Map)

Well Completed Date: 1960/07/08
Year Completed: 1960
Depth (m): 25.6032
Latitude: 43.0454244026738
Longitude: -79.1371733651039
Path: 660\6600615.pdf

Bore Hole Information

Bore Hole ID:	10460349	Elevation:	162.610549
DP2BR:	83.00	Elevrc:	
Spatial Status:		Zone:	17
Code OB:	r	East83:	651725.90
Code OB Desc:	Bedrock	North83:	4767543.00
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	5
Date Completed:	08-Jul-1960 00:00:00	UTMRC Desc:	margin of error : 100 m - 300 m
Remarks:		Location Method:	p5
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<i>Supplier Comment:</i>					
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932589403			
Layer:		5			
Color:					
General Color:					
Mat1:		05			
Most Common Material:		CLAY			
Mat2:		11			
Mat2 Desc:		GRAVEL			
Mat3:		13			
Mat3 Desc:		BOULDERS			
Formation Top Depth:		42.0			
Formation End Depth:		45.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932589399			
Layer:		1			
Color:					
General Color:					
Mat1:		02			
Most Common Material:		TOPSOIL			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		0.0			
Formation End Depth:		1.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932589408			
Layer:		10			
Color:					
General Color:					
Mat1:		05			
Most Common Material:		CLAY			
Mat2:		13			
Mat2 Desc:		BOULDERS			
Mat3:					
Mat3 Desc:					
Formation Top Depth:		81.0			
Formation End Depth:		83.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932589401			
Layer:		3			
Color:		7			
General Color:		RED			
Mat1:		05			
Most Common Material:		CLAY			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		9.0			
Formation End Depth:		26.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:		932589406			
Layer:		8			
Color:					
General Color:					
Mat1:		05			
Most Common Material:		CLAY			
Mat2:		11			
Mat2 Desc:		GRAVEL			
Mat3:		13			
Mat3 Desc:		BOULDERS			
Formation Top Depth:		64.0			
Formation End Depth:		76.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:		932589402			
Layer:		4			
Color:		3			
General Color:		BLUE			
Mat1:		05			
Most Common Material:		CLAY			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		26.0			
Formation End Depth:		42.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:		932589407			
Layer:		9			
Color:					
General Color:					
Mat1:		11			
Most Common Material:		GRAVEL			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		76.0			
Formation End Depth:		81.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Formation ID:		932589404			
Layer:		6			
Color:		7			
General Color:		RED			
Mat1:		05			
Most Common Material:		CLAY			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		45.0			
Formation End Depth:		50.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:		932589400			
Layer:		2			
Color:		3			
General Color:		BLUE			
Mat1:		05			
Most Common Material:		CLAY			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		1.0			
Formation End Depth:		9.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:		932589405			
Layer:		7			
Color:					
General Color:					
Mat1:		05			
Most Common Material:		CLAY			
Mat2:		11			
Mat2 Desc:		GRAVEL			
Mat3:					
Mat3 Desc:					
Formation Top Depth:		50.0			
Formation End Depth:		64.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:		932589409			
Layer:		11			
Color:					
General Color:					
Mat1:		15			
Most Common Material:		LIMESTONE			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		83.0			
Formation End Depth:		84.0			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Formation End Depth UOM:		ft			
<u>Method of Construction & Well Use</u>					
Method Construction ID:		966600615			
Method Construction Code:		1			
Method Construction:		Cable Tool			
Other Method Construction:					
<u>Pipe Information</u>					
Pipe ID:		11008919			
Casing No:		1			
Comment:					
Alt Name:					
<u>Construction Record - Casing</u>					
Casing ID:		930747638			
Layer:		1			
Material:		1			
Open Hole or Material:		STEEL			
Depth From:					
Depth To:		75			
Casing Diameter:		5			
Casing Diameter UOM:		inch			
Casing Depth UOM:		ft			
<u>Construction Record - Screen</u>					
Screen ID:		933385506			
Layer:		1			
Slot:					
Screen Top Depth:		75			
Screen End Depth:		78			
Screen Material:					
Screen Depth UOM:		ft			
Screen Diameter UOM:		inch			
Screen Diameter:					
<u>Results of Well Yield Testing</u>					
Pump Test ID:		996600615			
Pump Set At:					
Static Level:		10.0			
Final Level After Pumping:		30.0			
Recommended Pump Depth:					
Pumping Rate:		14.0			
Flowing Rate:					
Recommended Pump Rate:					
Levels UOM:		ft			
Rate UOM:		GPM			
Water State After Test Code:		2			
Water State After Test:		CLOUDY			
Pumping Test Method:		1			
Pumping Duration HR:		8			
Pumping Duration MIN:		0			
Flowing:		No			
<u>Water Details</u>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Water ID:		933947883			
Layer:		1			
Kind Code:		1			
Kind:		FRESH			
Water Found Depth:		75.0			
Water Found Depth UOM:		ft			

[7](#) 1 of 1 S/0.0 176.8 / 13.19 lot 3 ON WWIS

Well ID:	6600617	Data Entry Status:	
Construction Date:		Data Src:	1
Primary Water Use:	Domestic	Date Received:	7/19/1956
Sec. Water Use:	0	Selected Flag:	True
Final Well Status:	Water Supply	Abandonment Rec:	
Water Type:		Contractor:	5425
Casing Material:		Form Version:	1
Audit No:		Owner:	
Tag:		Street Name:	
Construction Method:		County:	NIAGARA
Elevation (m):		Municipality:	NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:		Site Info:	
Depth to Bedrock:		Lot:	003
Well Depth:		Concession:	
Overburden/Bedrock:		Concession Name:	BF
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/660\6600617.pdf

Additional Detail(s) (Map)

Well Completed Date: 1956/05/29
Year Completed: 1956
Depth (m): 24.0792
Latitude: 43.031910440721
Longitude: -79.1345381736084
Path: 660\6600617.pdf

Bore Hole Information

Bore Hole ID:	10460351	Elevation:	177.264419
DP2BR:		Elevrc:	
Spatial Status:		Zone:	17
Code OB:	o	East83:	651973.90
Code OB Desc:	Overburden	North83:	4766047.00
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	9
Date Completed:	29-May-1956 00:00:00	UTMRC Desc:	unknown UTM
Remarks:		Location Method:	p9
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:			932589413		
Layer:			1		
Color:					
General Color:					
Mat1:			02		
Most Common Material:			TOPSOIL		
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:			0.0		
Formation End Depth:			1.0		
Formation End Depth UOM:			ft		
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:			932589416		
Layer:			4		
Color:					
General Color:					
Mat1:			09		
Most Common Material:			MEDIUM SAND		
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:			33.0		
Formation End Depth:			70.0		
Formation End Depth UOM:			ft		
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:			932589417		
Layer:			5		
Color:					
General Color:					
Mat1:			05		
Most Common Material:			CLAY		
Mat2:			12		
Mat2 Desc:			STONES		
Mat3:					
Mat3 Desc:					
Formation Top Depth:			70.0		
Formation End Depth:			75.0		
Formation End Depth UOM:			ft		
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:			932589414		
Layer:			2		
Color:			6		
General Color:			BROWN		
Mat1:			05		
Most Common Material:			CLAY		
Mat2:					
Mat2 Desc:					
Mat3:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Mat3 Desc:					
Formation Top Depth:			1.0		
Formation End Depth:			17.0		
Formation End Depth UOM:			ft		
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:			932589415		
Layer:			3		
Color:			3		
General Color:			BLUE		
Mat1:			05		
Most Common Material:			CLAY		
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:			17.0		
Formation End Depth:			33.0		
Formation End Depth UOM:			ft		
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:			932589418		
Layer:			6		
Color:					
General Color:					
Mat1:			11		
Most Common Material:			GRAVEL		
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:			75.0		
Formation End Depth:			79.0		
Formation End Depth UOM:			ft		
<u>Method of Construction & Well</u>					
<u>Use</u>					
Method Construction ID:			966600617		
Method Construction Code:			1		
Method Construction:			Cable Tool		
Other Method Construction:					
<u>Pipe Information</u>					
Pipe ID:			11008921		
Casing No:			1		
Comment:					
Alt Name:					
<u>Construction Record - Casing</u>					
Casing ID:			930747641		
Layer:			1		
Material:			1		
Open Hole or Material:			STEEL		
Depth From:					
Depth To:			79		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Casing Diameter:		6			
Casing Diameter UOM:		inch			
Casing Depth UOM:		ft			
<u>Results of Well Yield Testing</u>					
Pump Test ID:		996600617			
Pump Set At:					
Static Level:		12.0			
Final Level After Pumping:		19.0			
Recommended Pump Depth:					
Pumping Rate:		12.0			
Flowing Rate:					
Recommended Pump Rate:					
Levels UOM:		ft			
Rate UOM:		GPM			
Water State After Test Code:		2			
Water State After Test:		CLOUDY			
Pumping Test Method:		1			
Pumping Duration HR:		0			
Pumping Duration MIN:		30			
Flowing:		No			
<u>Water Details</u>					
Water ID:		933947885			
Layer:		1			
Kind Code:		3			
Kind:		SULPHUR			
Water Found Depth:		79.0			
Water Found Depth UOM:		ft			

8	1 of 1	S/0.0	176.8 / 13.19	8547 Grassy Brook Rd lot 3 Port Robinson ON	WWIS
Well ID:	7352071			Data Entry Status:	
Construction Date:				Data Src:	
Primary Water Use:	Monitoring			Date Received:	1/27/2020
Sec. Water Use:				Selected Flag:	True
Final Well Status:	Observation Wells			Abandonment Rec:	
Water Type:				Contractor:	6607
Casing Material:				Form Version:	9
Audit No:	JJVIA8GX			Owner:	
Tag:	A286754			Street Name:	8547 Grassy Brook Rd
Construction Method:				County:	NIAGARA
Elevation (m):				Municipality:	NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:				Site Info:	BW 19-2
Depth to Bedrock:				Lot:	003
Well Depth:				Concession:	
Overburden/Bedrock:				Concession Name:	BF
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/735\7352071.pdf				

Additional Detail(s) (Map)

Well Completed Date: 2019/12/11

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Year Completed:		2019			
Depth (m):		8.8			
Latitude:		43.0319260108499			
Longitude:		-79.1332844671665			
Path:		735\7352071.pdf			

Bore Hole Information

Bore Hole ID:	1007987989	Elevation:	
DP2BR:		Elevrc:	
Spatial Status:		Zone:	17
Code OB:		East83:	652076.00
Code OB Desc:		North83:	4766051.00
Open Hole:		Org CS:	UTM83
Cluster Kind:		UTMRC:	4
Date Completed:	11-Dec-2019 00:00:00	UTMRC Desc:	margin of error : 30 m - 100 m
Remarks:		Location Method:	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock

Materials Interval

Formation ID:	1007988884
Layer:	3
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Mat2 Desc:	
Mat3:	85
Mat3 Desc:	SOFT
Formation Top Depth:	6.0
Formation End Depth:	8.800000190734863
Formation End Depth UOM:	m

Overburden and Bedrock

Materials Interval

Formation ID:	1007988883
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Mat2 Desc:	
Mat3:	73
Mat3 Desc:	HARD
Formation Top Depth:	3.0
Formation End Depth:	6.0
Formation End Depth UOM:	m

Overburden and Bedrock

Materials Interval

Formation ID:	1007988882
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Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Layer:		1			
Color:		6			
General Color:		BROWN			
Mat1:		05			
Most Common Material:		CLAY			
Mat2:					
Mat2 Desc:					
Mat3:		73			
Mat3 Desc:		HARD			
Formation Top Depth:		0.0			
Formation End Depth:		3.0			
Formation End Depth UOM:		m			
<u>Annular Space/Abandonment Sealing Record</u>					
Plug ID:		1007989705			
Layer:		2			
Plug From:		0.300000011920929			
Plug To:		6.69999980926514			
Plug Depth UOM:		m			
<u>Annular Space/Abandonment Sealing Record</u>					
Plug ID:		1007989704			
Layer:		1			
Plug From:		0			
Plug To:		0.300000011920929			
Plug Depth UOM:		m			
<u>Annular Space/Abandonment Sealing Record</u>					
Plug ID:		1007989488			
Layer:		1			
Plug From:		0			
Plug To:		0.300000011920929			
Plug Depth UOM:		m			
<u>Method of Construction & Well Use</u>					
Method Construction ID:		1007988469			
Method Construction Code:		6			
Method Construction:		Boring			
Other Method Construction:					
<u>Pipe Information</u>					
Pipe ID:		1007988316			
Casing No:		0			
Comment:					
Alt Name:					
<u>Construction Record - Screen</u>					
Screen ID:		1007989226			
Layer:		1			
Slot:		10			
Screen Top Depth:		7.30000019073486			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Screen End Depth: 8.80000019073486 Screen Material: 5 Screen Depth UOM: m Screen Diameter UOM: cm Screen Diameter: 6.40000009536743					
Results of Well Yield Testing					
Pump Test ID: 1007988317 Pump Set At: Static Level: Final Level After Pumping: Recommended Pump Depth: Pumping Rate: Flowing Rate: Recommended Pump Rate: Levels UOM: m Rate UOM: LPM Water State After Test Code: Water State After Test: Pumping Test Method: Pumping Duration HR: Pumping Duration MIN: Flowing:					
Hole Diameter					
Hole ID: 1007989340 Diameter: 21.0 Depth From: 0.0 Depth To: 8.800000190734863 Hole Depth UOM: m Hole Diameter UOM: cm					
9	1 of 1	SSW/29.6	176.0 / 12.31	8365 Biggar Rd Niagara Falls ON L0S1K0	EHS
Order No: 20180212135 Status: C Report Type: Custom Report Report Date: 19-FEB-18 Date Received: 12-FEB-18 Previous Site Name: Lot/Building Size: 3 acres Additional Info Ordered: Topographic Maps; Aerial Photos					
Nearest Intersection: Municipality: Niagara Falls Client Prov/State: ON Search Radius (km): .25 X: -79.136693 Y: 43.032888					
10	1 of 13	E/51.7	177.0 / 13.34	DAY-TIMERS OF CANADA LTD. 9515 MONTROSE ROAD NIAGARA FALLS CITY ON	CA
Certificate #: 8-2014-93- Application Year: 93 Issue Date: 4/7/1993 Approval Type: Industrial air Status: Approved Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: (1) CLEAVER BROOKS GAS FIRED BOILER					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Contaminants:		Nitrogen Oxides			
Emission Control:		No Controls			
10	2 of 13	E/51.7	177.0 / 13.34	SANDT PRINTING COMPANY LTD 9515 MONTROSE RD NIAGARA FALLS ON L2E 6X6	SCT
Established:		1966			
Plant Size (ft²):		40			
Employment:					
--Details--					
Description:		COMMERCIAL PRINTING, LITHOGRAPHIC			
SIC/NAICS Code:		2752			
10	3 of 13	E/51.7	177.0 / 13.34	DAY-TIMERS OF CANADA LTD. 9515 Montrose Rd Niagara Falls ON L2E 6X6	SCT
Established:		1947			
Plant Size (ft²):		0			
Employment:		150			
--Details--					
Description:		Other Printing			
SIC/NAICS Code:		323119			
Description:		Commercial and Service Industry Machinery Manufacturing			
SIC/NAICS Code:		333310			
10	4 of 13	E/51.7	177.0 / 13.34	JOY DISPLAYS 9515 MONTROSE RD. NIAGARA FALLS ON L2E 6V2	GEN
Generator No:		ON0920300		PO Box No:	
Status:				Country:	
Approval Years:		86,87,88,89,90		Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:		0000			
SIC Description:		*** NOT DEFINED ***			
Detail(s)					
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
10	5 of 13	E/51.7	177.0 / 13.34	JOY DISPLAYS 22-250 9515 MONTROSE RD. NIAGARA FALLS ON L2E 6V2	GEN
Generator No:		ON0920300		PO Box No:	
Status:				Country:	
Approval Years:		92,93,94,95,96,97,98		Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:		1699			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
SIC Description:		OTHER PLASTIC PROD.			
Detail(s)					
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
10	6 of 13	E/51.7	177.0 / 13.34	Aditya Birla Minacs Worldwide Inc. 9515 Montrose Rd Niagara Falls ON	CA
Certificate #:		0502-7XUKPC			
Application Year:		2009			
Issue Date:		11/25/2009			
Approval Type:		Air			
Status:		Approved			
Application Type:					
Client Name:					
Client Address:					
Client City:					
Client Postal Code:					
Project Description:					
Contaminants:					
Emission Control:					
10	7 of 13	E/51.7	177.0 / 13.34	Aditya Birla Minacs Worldwide Inc. 9515 Montrose Rd Niagara Falls ON	ECA
Approval No:		0502-7XUKPC		MOE District: Niagara	
Approval Date:		2009-11-25		City:	
Status:		Approved		Longitude: -79.12464	
Record Type:		ECA		Latitude: 43.039783	
Link Source:		IDS		Geometry X:	
SWP Area Name:		Niagara Peninsula		Geometry Y:	
Approval Type:		ECA-AIR			
Project Type:		AIR			
Business Name:		Aditya Birla Minacs Worldwide Inc.			
Address:		9515 Montrose Rd			
Full Address:					
Full PDF Link:		https://www.accessenvironment.ene.gov.on.ca/instruments/6439-7WFSDH-14.pdf			
10	8 of 13	E/51.7	177.0 / 13.34	ARROW GAMES CORPORATION 9515 MONTROSE ROAD UNIT 2 PORT ROBINSON ON L0S 1K0	GEN
Generator No:		ON6873775			
Status:					
Approval Years:		2016			
Contam. Facility:		No			
MHSW Facility:		No			
SIC Code:		323119			
SIC Description:		OTHER PRINTING			
Detail(s)					
Waste Class:		212			
Waste Class Desc:		ALIPHATIC SOLVENTS			
Waste Class:		145			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class Desc:		PAINT/PIGMENT/COATING RESIDUES			
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
Waste Class:		265			
Waste Class Desc:		GRAPHIC ART WASTES			
10	9 of 13	E/51.7	177.0 / 13.34	BAZAAR & NOVELTY LTD 9515 MONTROSE ROAD UNIT 2 PORT ROBINSON ON L0S 1K0	GEN
Generator No:		ON6873775		PO Box No:	
Status:				Country: Canada	
Approval Years:		2015		Choice of Contact: CO_ADMIN	
Contam. Facility:		No		Co Admin: CAROLINE WARKENTIN	
MHSW Facility:		No		Phone No Admin: 905-354-7300 Ext.236	
SIC Code:		323119			
SIC Description:		OTHER PRINTING			
<u>Detail(s)</u>					
Waste Class:		265			
Waste Class Desc:		GRAPHIC ART WASTES			
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
Waste Class:		212			
Waste Class Desc:		ALIPHATIC SOLVENTS			
Waste Class:		145			
Waste Class Desc:		PAINT/PIGMENT/COATING RESIDUES			
10	10 of 13	E/51.7	177.0 / 13.34	ARROW GAMES CORPORATION 9515 MONTROSE ROAD UNIT 2 PORT ROBINSON ON L0S 1K0	GEN
Generator No:		ON6873775		PO Box No:	
Status:		Registered		Country: Canada	
Approval Years:		As of Dec 2018		Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:					
SIC Description:					
<u>Detail(s)</u>					
Waste Class:		145 H			
Waste Class Desc:		Wastes from the use of pigments, coatings and paints			
Waste Class:		145 L			
Waste Class Desc:		Wastes from the use of pigments, coatings and paints			
Waste Class:		212 I			
Waste Class Desc:		Aliphatic solvents and residues			
Waste Class:		252 L			
Waste Class Desc:		Waste crankcase oils and lubricants			
Waste Class:		265 L			
Waste Class Desc:		Graphic arts wastes			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
10	11 of 13	E/51.7	177.0 / 13.34	9515 Montrose Rd Niagara Falls ON L0S1K0	EHS
Order No:	20161115135			Nearest Intersection:	
Status:	C			Municipality:	NIAGARA FALLS
Report Type:	Site Report			Client Prov/State:	ON
Report Date:	16-NOV-16			Search Radius (km):	.001
Date Received:	15-NOV-16			X:	-79.125048
Previous Site Name:	Unknown			Y:	43.039299
Lot/Building Size:	NA				
Additional Info Ordered:					

10	12 of 13	E/51.7	177.0 / 13.34	ARROW GAMES CORPORATION 9515 MONTROSE ROAD UNIT 2 PORT ROBINSON ON L0S 1K0	GEN
Generator No:	ON6873775			PO Box No:	
Status:	Registered			Country:	Canada
Approval Years:	As of Jul 2020			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:					
SIC Description:					
<u>Detail(s)</u>					
Waste Class:	145 L				
Waste Class Desc:	Wastes from the use of pigments, coatings and paints				
Waste Class:	212 I				
Waste Class Desc:	Aliphatic solvents and residues				
Waste Class:	145 H				
Waste Class Desc:	Wastes from the use of pigments, coatings and paints				
Waste Class:	252 L				
Waste Class Desc:	Waste crankcase oils and lubricants				
Waste Class:	265 L				
Waste Class Desc:	Graphic arts wastes				

10	13 of 13	E/51.7	177.0 / 13.34	ARROW GAMES CORPORATION 9515 MONTROSE ROAD UNIT 2 PORT ROBINSON ON L0S 1K0	GEN
Generator No:	ON6873775			PO Box No:	
Status:	Registered			Country:	Canada
Approval Years:	As of Jan 2021			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:					
SIC Description:					
<u>Detail(s)</u>					
Waste Class:	145 L				
Waste Class Desc:	Wastes from the use of pigments, coatings and paints				
Waste Class:	212 I				
Waste Class Desc:	Aliphatic solvents and residues				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class:		145 H			
Waste Class Desc:		Wastes from the use of pigments, coatings and paints			
Waste Class:		252 L			
Waste Class Desc:		Waste crankcase oils and lubricants			
Waste Class:		265 L			
Waste Class Desc:		Graphic arts wastes			

11	1 of 1	SW/56.8	177.8 / 14.19	lot 4 con 1 ON	WWIS
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Well ID:	6600625	Data Entry Status:	
Construction Date:		Data Src:	1
Primary Water Use:	Livestock	Date Received:	7/19/1956
Sec. Water Use:	Domestic	Selected Flag:	True
Final Well Status:	Water Supply	Abandonment Rec:	
Water Type:		Contractor:	5425
Casing Material:		Form Version:	1
Audit No:		Owner:	
Tag:		Street Name:	
Construction Method:		County:	NIAGARA
Elevation (m):		Municipality:	NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:		Site Info:	
Depth to Bedrock:		Lot:	004
Well Depth:		Concession:	01
Overburden/Bedrock:		Concession Name:	CON
Pump Rate:		Easting NAD83:	
Static Water Level:		Northing NAD83:	
Flowing (Y/N):		Zone:	
Flow Rate:		UTM Reliability:	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/660\6600625.pdf

Additional Detail(s) (Map)

Well Completed Date: 1956/05/14
Year Completed: 1956
Depth (m): 17.6784
Latitude: 43.0312074467121
Longitude: -79.1411385713267
Path: 660\6600625.pdf

Bore Hole Information

Bore Hole ID:	10460359	Elevation:	178.962265
DP2BR:	47.00	Elevrc:	
Spatial Status:		Zone:	17
Code OB:	r	East83:	651437.90
Code OB Desc:	Bedrock	North83:	4765957.00
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	9
Date Completed:	14-May-1956 00:00:00	UTMRC Desc:	unknown UTM
Remarks:		Location Method:	p9
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:			932589451		
Layer:			3		
Color:			3		
General Color:			BLUE		
Mat1:			05		
Most Common Material:			CLAY		
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:			17.0		
Formation End Depth:			47.0		
Formation End Depth UOM:			ft		
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:			932589449		
Layer:			1		
Color:					
General Color:					
Mat1:			02		
Most Common Material:			TOPSOIL		
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:			0.0		
Formation End Depth:			2.0		
Formation End Depth UOM:			ft		
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:			932589452		
Layer:			4		
Color:			6		
General Color:			BROWN		
Mat1:			15		
Most Common Material:			LIMESTONE		
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:			47.0		
Formation End Depth:			58.0		
Formation End Depth UOM:			ft		
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:			932589450		
Layer:			2		
Color:			6		
General Color:			BROWN		
Mat1:			05		
Most Common Material:			CLAY		
Mat2:					
Mat2 Desc:					
Mat3:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Mat3 Desc:					
Formation Top Depth:		2.0			
Formation End Depth:		17.0			
Formation End Depth UOM:		ft			
<u>Method of Construction & Well Use</u>					
Method Construction ID:		966600625			
Method Construction Code:		1			
Method Construction:		Cable Tool			
Other Method Construction:					
<u>Pipe Information</u>					
Pipe ID:		11008929			
Casing No:		1			
Comment:					
Alt Name:					
<u>Construction Record - Casing</u>					
Casing ID:		930747656			
Layer:		2			
Material:		4			
Open Hole or Material:		OPEN HOLE			
Depth From:					
Depth To:		58			
Casing Diameter:		6			
Casing Diameter UOM:		inch			
Casing Depth UOM:		ft			
<u>Construction Record - Casing</u>					
Casing ID:		930747655			
Layer:		1			
Material:		1			
Open Hole or Material:		STEEL			
Depth From:					
Depth To:		48			
Casing Diameter:		6			
Casing Diameter UOM:		inch			
Casing Depth UOM:		ft			
<u>Results of Well Yield Testing</u>					
Pump Test ID:		996600625			
Pump Set At:					
Static Level:		19.0			
Final Level After Pumping:		24.0			
Recommended Pump Depth:					
Pumping Rate:		8.0			
Flowing Rate:					
Recommended Pump Rate:					
Levels UOM:		ft			
Rate UOM:		GPM			
Water State After Test Code:		2			
Water State After Test:		CLOUDY			
Pumping Test Method:		1			
Pumping Duration HR:		0			
Pumping Duration MIN:		30			
Flowing:		No			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Water Details					
Water ID:		933947893			
Layer:		1			
Kind Code:		1			
Kind:		FRESH			
Water Found Depth:		56.0			
Water Found Depth UOM:		ft			

12	1 of 1	SSE/62.3	176.8 / 13.19	lot 2 ON	WWIS
Well ID:	6600616			Data Entry Status:	
Construction Date:				Data Src:	1
Primary Water Use:	Domestic			Date Received:	11/21/1960
Sec. Water Use:	0			Selected Flag:	True
Final Well Status:	Water Supply			Abandonment Rec:	
Water Type:				Contractor:	4720
Casing Material:				Form Version:	1
Audit No:				Owner:	
Tag:				Street Name:	
Construction Method:				County:	NIAGARA
Elevation (m):				Municipality:	NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:				Site Info:	
Depth to Bedrock:				Lot:	002
Well Depth:				Concession:	
Overburden/Bedrock:				Concession Name:	BF
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/660\6600616.pdf

Additional Detail(s) (Map)

Well Completed Date: 1960/11/16
Year Completed: 1960
Depth (m): 20.4216
Latitude: 43.031952009658
Longitude: -79.1321188207846
Path: 660\6600616.pdf

Bore Hole Information

Bore Hole ID:	10460350	Elevation:	177.788757
DP2BR:	62.00	Elevrc:	
Spatial Status:		Zone:	17
Code OB:	r	East83:	652170.90
Code OB Desc:	Bedrock	North83:	4766056.00
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	5
Date Completed:	16-Nov-1960 00:00:00	UTMRC Desc:	margin of error : 100 m - 300 m
Remarks:		Location Method:	p5
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932589411			
Layer:		2			
Color:					
General Color:					
Mat1:		11			
Most Common Material:		GRAVEL			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		49.0			
Formation End Depth:		62.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932589412			
Layer:		3			
Color:					
General Color:					
Mat1:		15			
Most Common Material:		LIMESTONE			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		62.0			
Formation End Depth:		67.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932589410			
Layer:		1			
Color:		3			
General Color:		BLUE			
Mat1:		05			
Most Common Material:		CLAY			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		0.0			
Formation End Depth:		49.0			
Formation End Depth UOM:		ft			
<u>Method of Construction & Well Use</u>					
Method Construction ID:		966600616			
Method Construction Code:		1			
Method Construction:		Cable Tool			
Other Method Construction:					
<u>Pipe Information</u>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Pipe ID:		11008920			
Casing No:		1			
Comment:					
Alt Name:					
<u>Construction Record - Casing</u>					
Casing ID:		930747640			
Layer:		2			
Material:		4			
Open Hole or Material:		OPEN HOLE			
Depth From:					
Depth To:		67			
Casing Diameter:		6			
Casing Diameter UOM:		inch			
Casing Depth UOM:		ft			
<u>Construction Record - Casing</u>					
Casing ID:		930747639			
Layer:		1			
Material:		1			
Open Hole or Material:		STEEL			
Depth From:					
Depth To:		62			
Casing Diameter:		6			
Casing Diameter UOM:		inch			
Casing Depth UOM:		ft			
<u>Results of Well Yield Testing</u>					
Pump Test ID:		996600616			
Pump Set At:					
Static Level:		28.0			
Final Level After Pumping:		28.0			
Recommended Pump Depth:		28.0			
Pumping Rate:		10.0			
Flowing Rate:					
Recommended Pump Rate:		10.0			
Levels UOM:		ft			
Rate UOM:		GPM			
Water State After Test Code:		1			
Water State After Test:		CLEAR			
Pumping Test Method:		1			
Pumping Duration HR:		1			
Pumping Duration MIN:		0			
Flowing:		No			
<u>Water Details</u>					
Water ID:		933947884			
Layer:		1			
Kind Code:		1			
Kind:		FRESH			
Water Found Depth:		67.0			
Water Found Depth UOM:		ft			

[13](#) 1 of 1 SSW/63.3 176.8 / 13.19 lot 3 ON WWIS

Well ID: 6600618 Data Entry Status:
Construction Date: Data Src: 1

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Primary Water Use:	Livestock			Date Received:	3/23/1960
Sec. Water Use:	Domestic			Selected Flag:	True
Final Well Status:	Water Supply			Abandonment Rec:	
Water Type:				Contractor:	4720
Casing Material:				Form Version:	1
Audit No:				Owner:	
Tag:				Street Name:	
Construction Method:				County:	NIAGARA
Elevation (m):				Municipality:	NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:				Site Info:	
Depth to Bedrock:				Lot:	003
Well Depth:				Concession:	
Overburden/Bedrock:				Concession Name:	BF
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/660\6600618.pdf

Additional Detail(s) (Map)

Well Completed Date: 1960/01/22
Year Completed: 1960
Depth (m): 21.336
Latitude: 43.0322752193854
Longitude: -79.1375835101189
Path: 660\6600618.pdf

Bore Hole Information

Bore Hole ID:	10460352	Elevation:	177.681243
DP2BR:	65.00	Elevrc:	
Spatial Status:		Zone:	17
Code OB:	r	East83:	651724.90
Code OB Desc:	Bedrock	North83:	4766082.00
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	5
Date Completed:	22-Jan-1960 00:00:00	UTMRC Desc:	margin of error : 100 m - 300 m
Remarks:		Location Method:	p5
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID: 932589421
Layer: 3
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 40.0
Formation End Depth: 65.0

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932589422			
Layer:		4			
Color:					
General Color:					
Mat1:		15			
Most Common Material:		LIMESTONE			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		65.0			
Formation End Depth:		70.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932589419			
Layer:		1			
Color:		7			
General Color:		RED			
Mat1:		05			
Most Common Material:		CLAY			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		0.0			
Formation End Depth:		24.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932589420			
Layer:		2			
Color:					
General Color:					
Mat1:		14			
Most Common Material:		HARDPAN			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		24.0			
Formation End Depth:		40.0			
Formation End Depth UOM:		ft			
<u>Method of Construction & Well Use</u>					
Method Construction ID:		966600618			
Method Construction Code:		1			
Method Construction:		Cable Tool			
Other Method Construction:					

Pipe Information

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Pipe ID: 11008922
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930747642
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 65
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930747643
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 70
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 996600618
Pump Set At:
Static Level: 32.0
Final Level After Pumping: 38.0
Recommended Pump Depth: 38.0
Pumping Rate: 10.0
Flowing Rate:
Recommended Pump Rate: 10.0
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: No

Water Details

Water ID: 933947886
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 70.0
Water Found Depth UOM: ft

14	1 of 1	E/90.1	172.5 / 8.81	lot 10 ON	WWIS
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Well ID: 6602673 **Data Entry Status:**

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Construction Date:				Data Src:	1
Primary Water Use:	Domestic			Date Received:	8/8/1972
Sec. Water Use:	0			Selected Flag:	True
Final Well Status:	Water Supply			Abandonment Rec:	
Water Type:				Contractor:	3608
Casing Material:				Form Version:	1
Audit No:				Owner:	
Tag:				Street Name:	
Construction Method:				County:	NIAGARA
Elevation (m):				Municipality:	NIAGARA FALLS CITY (WILLOUGHBY)
Elevation Reliability:				Site Info:	
Depth to Bedrock:				Lot:	010
Well Depth:				Concession:	
Overburden/Bedrock:				Concession Name:	BF WR
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/660\6602673.pdf

Additional Detail(s) (Map)

Well Completed Date: 1972/07/17
Year Completed: 1972
Depth (m): 24.9936
Latitude: 43.0400517727672
Longitude: -79.1224940371783
Path: 660\6602673.pdf

Bore Hole Information

Bore Hole ID:	10462400	Elevation:	175.578491
DP2BR:	79.00	Elevrc:	
Spatial Status:		Zone:	17
Code OB:	r	East83:	652934.90
Code OB Desc:	Bedrock	North83:	4766973.00
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	4
Date Completed:	17-Jul-1972 00:00:00	UTMRC Desc:	margin of error : 30 m - 100 m
Remarks:		Location Method:	p4
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID: 932595886
Layer: 3
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 11
Mat2 Desc: GRAVEL
Mat3:
Mat3 Desc:
Formation Top Depth: 77.0

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Formation End Depth:		79.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932595884			
Layer:		1			
Color:		6			
General Color:		BROWN			
Mat1:		05			
Most Common Material:		CLAY			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		0.0			
Formation End Depth:		15.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932595885			
Layer:		2			
Color:		7			
General Color:		RED			
Mat1:		05			
Most Common Material:		CLAY			
Mat2:		06			
Mat2 Desc:		SILT			
Mat3:					
Mat3 Desc:					
Formation Top Depth:		15.0			
Formation End Depth:		77.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932595887			
Layer:		4			
Color:		2			
General Color:		GREY			
Mat1:		15			
Most Common Material:		LIMESTONE			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		79.0			
Formation End Depth:		82.0			
Formation End Depth UOM:		ft			
<u>Method of Construction & Well Use</u>					
Method Construction ID:		966602673			
Method Construction Code:		1			
Method Construction:		Cable Tool			
Other Method Construction:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Pipe Information</u>					
Pipe ID:		11010970			
Casing No:		1			
Comment:					
Alt Name:					
<u>Construction Record - Casing</u>					
Casing ID:		930751313			
Layer:		2			
Material:		4			
Open Hole or Material:		OPEN HOLE			
Depth From:					
Depth To:		82			
Casing Diameter:					
Casing Diameter UOM:		inch			
Casing Depth UOM:		ft			
<u>Construction Record - Casing</u>					
Casing ID:		930751312			
Layer:		1			
Material:		1			
Open Hole or Material:		STEEL			
Depth From:					
Depth To:		79			
Casing Diameter:		6			
Casing Diameter UOM:		inch			
Casing Depth UOM:		ft			
<u>Results of Well Yield Testing</u>					
Pump Test ID:		996602673			
Pump Set At:					
Static Level:		23.0			
Final Level After Pumping:		45.0			
Recommended Pump Depth:		75.0			
Pumping Rate:		10.0			
Flowing Rate:					
Recommended Pump Rate:		10.0			
Levels UOM:		ft			
Rate UOM:		GPM			
Water State After Test Code:		1			
Water State After Test:		CLEAR			
Pumping Test Method:		2			
Pumping Duration HR:		2			
Pumping Duration MIN:		0			
Flowing:		No			
<u>Draw Down & Recovery</u>					
Pump Test Detail ID:		934341801			
Test Type:		Recovery			
Test Duration:		15			
Test Level:		23.0			
Test Level UOM:		ft			
<u>Draw Down & Recovery</u>					
Pump Test Detail ID:		935128156			
Test Type:		Recovery			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Test Duration:		60			
Test Level:		23.0			
Test Level UOM:		ft			
<u>Draw Down & Recovery</u>					
Pump Test Detail ID:		934609159			
Test Type:		Recovery			
Test Duration:		30			
Test Level:		23.0			
Test Level UOM:		ft			
<u>Draw Down & Recovery</u>					
Pump Test Detail ID:		934863383			
Test Type:		Recovery			
Test Duration:		45			
Test Level:		23.0			
Test Level UOM:		ft			
<u>Water Details</u>					
Water ID:		933949992			
Layer:		1			
Kind Code:		3			
Kind:		SULPHUR			
Water Found Depth:		81.0			
Water Found Depth UOM:		ft			

15	1 of 24	E/94.1	163.0 / -0.60	PRIVATE BUSINESS 9514 MONTROSE RD R.R. #1 PORT ROBINSON STORAGE TANK THOROLD CITY ON	SPL
Ref No:	109684			Discharger Report:	
Site No:				Material Group:	
Incident Dt:	1/27/1995			Health/Env Conseq:	
Year:				Client Type:	
Incident Cause:	VALVE/FITTING LEAK OR FAILURE			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:	18105
Nature of Impact:	Soil contamination			Site Lot:	
Receiving Medium:	LAND			Site Conc:	
Receiving Env:				Northing:	
MOE Response:				Easting:	MCCR
Dt MOE Arvl on Scn:				Site Geo Ref Accu:	
MOE Reported Dt:	2/1/1995			Site Map Datum:	
Dt Document Closed:				SAC Action Class:	
Incident Reason:	DAMAGE BY MOVING EQUIPMENT			Source Type:	
Site Name:					
Site County/District:					
Site Geo Ref Meth:					
Incident Summary:	CROWN TRUCKING SERVICES- 136 L DIESEL TO CONCRETE PAD,TANK LEAK,CLEANED UP				
Contaminant Qty:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
15	2 of 24	E/94.1	163.0 / -0.60	MOTORWAYS TRANSPORT 9514 MONTROSE RD. C/O PO BOX 772 NIAGARA FALLS ON L2E 6V6	GEN
Generator No:	ON1074100			PO Box No:	
Status:				Country:	
Approval Years:	88			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:	4561				
SIC Description:	GEN. FREIGHT TRUCK.				
<u>Detail(s)</u>					
Waste Class:		213			
Waste Class Desc:		PETROLEUM DISTILLATES			
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
15	3 of 24	E/94.1	163.0 / -0.60	MOTORWAYS TRANSPORT (OUT OF BUS.) 9514 MONTROSE RD. C/O PO BOX 772 NIAGARA FALLS ON L2E 6V6	GEN
Generator No:	ON1074100			PO Box No:	
Status:				Country:	
Approval Years:	89,90			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:	4561				
SIC Description:	GEN. FREIGHT TRUCK.				
<u>Detail(s)</u>					
Waste Class:		213			
Waste Class Desc:		PETROLEUM DISTILLATES			
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
15	4 of 24	E/94.1	163.0 / -0.60	MOTORWAYS TRANSPORT (OUT OF BUS.) 27-492 9514 MONTROSE RD. C/O PO BOX 772 NIAGARA FALLS ON L2E 6V6	GEN
Generator No:	ON1074100			PO Box No:	
Status:				Country:	
Approval Years:	92,93,94,95,96,97,98			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:	4561				
SIC Description:	GEN. FREIGHT TRUCK.				
15	5 of 24	E/94.1	163.0 / -0.60	DONALD W MURRAY (MOVERS) 1981 LIMITED 9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	GEN
Generator No:	ON1835800			PO Box No:	
Status:				Country:	
Approval Years:	94,95,96,97			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
SIC Code:	3231				
SIC Description:		MOTOR VEHICLE IND.			
<u>Detail(s)</u>					
Waste Class:	213				
Waste Class Desc:		PETROLEUM DISTILLATES			
Waste Class:	252				
Waste Class Desc:		WASTE OILS & LUBRICANTS			
15	6 of 24	E/94.1	163.0 / -0.60	CROWN TRUCKING SERVICES 9514 MONTROSE ROAD NIAGARA FALLS ON LOS 1K0	GEN
Generator No:	ON1835800			PO Box No:	
Status:				Country:	
Approval Years:	98,99,00,01			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:	3231				
SIC Description:		MOTOR VEHICLE IND.			
<u>Detail(s)</u>					
Waste Class:	145				
Waste Class Desc:		PAINT/PIGMENT/COATING RESIDUES			
Waste Class:	213				
Waste Class Desc:		PETROLEUM DISTILLATES			
Waste Class:	252				
Waste Class Desc:		WASTE OILS & LUBRICANTS			
15	7 of 24	E/94.1	163.0 / -0.60	DONALD W. MURRAY MOVERS (1981) LTD 9514 MONTROSE ROAD NIAGARA FALLS ON LOS 1K0	GEN
Generator No:	ON1835800			PO Box No:	
Status:				Country:	
Approval Years:	02,03,04,05,06,07,08			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:					
SIC Description:					
<u>Detail(s)</u>					
Waste Class:	251				
Waste Class Desc:		OIL SKIMMINGS & SLUDGES			
Waste Class:	145				
Waste Class Desc:		PAINT/PIGMENT/COATING RESIDUES			
Waste Class:	213				
Waste Class Desc:		PETROLEUM DISTILLATES			
Waste Class:	252				
Waste Class Desc:		WASTE OILS & LUBRICANTS			
Waste Class:	212				
Waste Class Desc:		ALIPHATIC SOLVENTS			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class:		221			
Waste Class Desc:		LIGHT FUELS			

15	8 of 24	E/94.1	163.0 / -0.60	DONALD W. MURRAY MOVERS (1981) LTD 9514 MONTROSE ROAD NIAGARA FALLS ON	GEN
Generator No:		ON1835800		PO Box No:	
Status:				Country:	
Approval Years:		2009		Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:		484110			
SIC Description:		General Freight Trucking Local			

Detail(s)

Waste Class:		145			
Waste Class Desc:		PAINT/PIGMENT/COATING RESIDUES			
Waste Class:		212			
Waste Class Desc:		ALIPHATIC SOLVENTS			
Waste Class:		213			
Waste Class Desc:		PETROLEUM DISTILLATES			
Waste Class:		221			
Waste Class Desc:		LIGHT FUELS			
Waste Class:		251			
Waste Class Desc:		OIL SKIMMINGS & SLUDGES			
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			

15	9 of 24	E/94.1	163.0 / -0.60	9514 Montrose Road Niagara Falls ON	EHS
Order No:		20130206001		Nearest Intersection:	
Status:		C		Municipality:	Niagara Falls
Report Type:		Standard Report		Client Prov/State:	ON
Report Date:		14-FEB-13		Search Radius (km):	.25
Date Received:		06-FEB-13		X:	-79.122103
Previous Site Name:				Y:	43.03993
Lot/Building Size:					
Additional Info Ordered:		Fire Insur. Maps and/or Site Plans			

15	10 of 24	E/94.1	163.0 / -0.60	DONALD W. MURRAY MOVERS (1981) LTD 9514 MONTROSE ROAD NIAGARA FALLS ON	GEN
Generator No:		ON1835800		PO Box No:	
Status:				Country:	
Approval Years:		2010		Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:		484110			
SIC Description:		General Freight Trucking Local			

Detail(s)

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class:		213			
Waste Class Desc:		PETROLEUM DISTILLATES			
Waste Class:		251			
Waste Class Desc:		OIL SKIMMINGS & SLUDGES			
Waste Class:		221			
Waste Class Desc:		LIGHT FUELS			
Waste Class:		145			
Waste Class Desc:		PAINT/PIGMENT/COATING RESIDUES			
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
Waste Class:		212			
Waste Class Desc:		ALIPHATIC SOLVENTS			

15	11 of 24	E/94.1	163.0 / -0.60	DONALD W. MURRAY MOVERS (1981) LTD 9514 MONTROSE ROAD NIAGARA FALLS ON	GEN
Generator No:	ON1835800			PO Box No:	
Status:				Country:	
Approval Years:	2011			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:	484110				
SIC Description:	General Freight Trucking Local				
Detail(s)					
Waste Class:		213			
Waste Class Desc:		PETROLEUM DISTILLATES			
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
Waste Class:		145			
Waste Class Desc:		PAINT/PIGMENT/COATING RESIDUES			
Waste Class:		251			
Waste Class Desc:		OIL SKIMMINGS & SLUDGES			
Waste Class:		212			
Waste Class Desc:		ALIPHATIC SOLVENTS			
Waste Class:		221			
Waste Class Desc:		LIGHT FUELS			

15	12 of 24	E/94.1	163.0 / -0.60	DONALD W. MURRAY MOVERS (1981) LTD 9514 MONTROSE ROAD NIAGARA FALLS ON LOS 1K0	GEN
Generator No:	ON1835800			PO Box No:	
Status:				Country:	
Approval Years:	2012			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:	484110				
SIC Description:	General Freight Trucking Local				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Detail(s)</u>					
Waste Class:		221			
Waste Class Desc:		LIGHT FUELS			
Waste Class:		251			
Waste Class Desc:		OIL SKIMMINGS & SLUDGES			
Waste Class:		212			
Waste Class Desc:		ALIPHATIC SOLVENTS			
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
Waste Class:		213			
Waste Class Desc:		PETROLEUM DISTILLATES			
Waste Class:		145			
Waste Class Desc:		PAINT/PIGMENT/COATING RESIDUES			

15	13 of 24	<i>E/94.1</i>	163.0 / -0.60	DONALD W. MURRAY MOVERS (1981) LTD 9514 MONTROSE ROAD NIAGARA FALLS ON	GEN
Generator No:	ON1835800			PO Box No:	
Status:				Country:	
Approval Years:	2013			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:	484110				
SIC Description:	GENERAL FREIGHT TRUCKING, LOCAL				

<u>Detail(s)</u>					
Waste Class:		213			
Waste Class Desc:		PETROLEUM DISTILLATES			
Waste Class:		221			
Waste Class Desc:		LIGHT FUELS			
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
Waste Class:		145			
Waste Class Desc:		PAINT/PIGMENT/COATING RESIDUES			
Waste Class:		251			
Waste Class Desc:		OIL SKIMMINGS & SLUDGES			
Waste Class:		212			
Waste Class Desc:		ALIPHATIC SOLVENTS			

15	14 of 24	<i>E/94.1</i>	163.0 / -0.60	Crown Transportation Group Limited 9514 Montrose Road Niagara Falls ON	GEN
Generator No:	ON4337057			PO Box No:	
Status:				Country:	
Approval Years:	2013			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:	484110				
SIC Description:	GENERAL FREIGHT TRUCKING, LOCAL				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Detail(s)</u>					
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
Waste Class:		251			
Waste Class Desc:		OIL SKIMMINGS & SLUDGES			
Waste Class:		213			
Waste Class Desc:		PETROLEUM DISTILLATES			

15	15 of 24	E/94.1	163.0 / -0.60	DONALD W. MURRAY MOVERS (1981) LTD 9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	GEN
Generator No:	ON1835800			PO Box No:	
Status:				Country:	Canada
Approval Years:	2016			Choice of Contact:	CO_OFFICIAL
Contam. Facility:	No			Co Admin:	
MHSW Facility:	No			Phone No Admin:	
SIC Code:	484110				
SIC Description:	GENERAL FREIGHT TRUCKING, LOCAL				

<u>Detail(s)</u>					
Waste Class:		212			
Waste Class Desc:		ALIPHATIC SOLVENTS			
Waste Class:		145			
Waste Class Desc:		PAINT/PIGMENT/COATING RESIDUES			
Waste Class:		221			
Waste Class Desc:		LIGHT FUELS			
Waste Class:		251			
Waste Class Desc:		OIL SKIMMINGS & SLUDGES			
Waste Class:		213			
Waste Class Desc:		PETROLEUM DISTILLATES			
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			

15	16 of 24	E/94.1	163.0 / -0.60	DONALD W. MURRAY MOVERS (1981) LTD 9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	GEN
Generator No:	ON1835800			PO Box No:	
Status:				Country:	Canada
Approval Years:	2015			Choice of Contact:	CO_OFFICIAL
Contam. Facility:	No			Co Admin:	
MHSW Facility:	No			Phone No Admin:	
SIC Code:	484110				
SIC Description:	GENERAL FREIGHT TRUCKING, LOCAL				

<u>Detail(s)</u>					
Waste Class:		212			
Waste Class Desc:		ALIPHATIC SOLVENTS			
Waste Class:		145			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class Desc:		PAINT/PIGMENT/COATING RESIDUES			
Waste Class:		221			
Waste Class Desc:		LIGHT FUELS			
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
Waste Class:		213			
Waste Class Desc:		PETROLEUM DISTILLATES			
Waste Class:		251			
Waste Class Desc:		OIL SKIMMINGS & SLUDGES			

[15](#) 17 of 24 **E/94.1** **163.0 / -0.60** **Crown Transportation Group Limited**
9514 Montrose Road
Niagara Falls ON L0S 1K0 **GEN**

Generator No:	ON4337057	PO Box No:	
Status:		Country:	Canada
Approval Years:	2016	Choice of Contact:	CO_OFFICIAL
Contam. Facility:	No	Co Admin:	Josh Dobson
MHSW Facility:	No	Phone No Admin:	905-357-7500 Ext.
SIC Code:	484110		
SIC Description:	GENERAL FREIGHT TRUCKING, LOCAL		

Detail(s)

Waste Class:	213
Waste Class Desc:	PETROLEUM DISTILLATES
Waste Class:	212
Waste Class Desc:	ALIPHATIC SOLVENTS
Waste Class:	251
Waste Class Desc:	OIL SKIMMINGS & SLUDGES
Waste Class:	252
Waste Class Desc:	WASTE OILS & LUBRICANTS

[15](#) 18 of 24 **E/94.1** **163.0 / -0.60** **Crown Transportation Group Limited**
9514 Montrose Road
Niagara Falls ON L0S 1K0 **GEN**

Generator No:	ON4337057	PO Box No:	
Status:		Country:	Canada
Approval Years:	2015	Choice of Contact:	CO_OFFICIAL
Contam. Facility:	No	Co Admin:	Josh Dobson
MHSW Facility:	No	Phone No Admin:	905-357-7500 Ext.
SIC Code:	484110		
SIC Description:	GENERAL FREIGHT TRUCKING, LOCAL		

Detail(s)

Waste Class:	252
Waste Class Desc:	WASTE OILS & LUBRICANTS
Waste Class:	213
Waste Class Desc:	PETROLEUM DISTILLATES
Waste Class:	212
Waste Class Desc:	ALIPHATIC SOLVENTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class:		251			
Waste Class Desc:		OIL SKIMMINGS & SLUDGES			
15	19 of 24	E/94.1	163.0 / -0.60	DONALD W. MURRAY MOVERS (1981) LTD 9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	GEN
Generator No:	ON1835800			PO Box No:	
Status:				Country:	Canada
Approval Years:	2014			Choice of Contact:	CO_OFFICIAL
Contam. Facility:	No			Co Admin:	
MHSW Facility:	No			Phone No Admin:	
SIC Code:	484110				
SIC Description:	GENERAL FREIGHT TRUCKING, LOCAL				
<u>Detail(s)</u>					
Waste Class:	213				
Waste Class Desc:	PETROLEUM DISTILLATES				
Waste Class:	221				
Waste Class Desc:	LIGHT FUELS				
Waste Class:	145				
Waste Class Desc:	PAINT/PIGMENT/COATING RESIDUES				
Waste Class:	251				
Waste Class Desc:	OIL SKIMMINGS & SLUDGES				
Waste Class:	212				
Waste Class Desc:	ALIPHATIC SOLVENTS				
Waste Class:	252				
Waste Class Desc:	WASTE OILS & LUBRICANTS				
15	20 of 24	E/94.1	163.0 / -0.60	Crown Transportation Group Limited 9514 Montrose Road Niagara Falls ON L0S 1K0	GEN
Generator No:	ON4337057			PO Box No:	
Status:				Country:	Canada
Approval Years:	2014			Choice of Contact:	CO_OFFICIAL
Contam. Facility:	No			Co Admin:	Josh Dobson
MHSW Facility:	No			Phone No Admin:	905-357-7500 Ext.
SIC Code:	484110				
SIC Description:	GENERAL FREIGHT TRUCKING, LOCAL				
<u>Detail(s)</u>					
Waste Class:	252				
Waste Class Desc:	WASTE OILS & LUBRICANTS				
Waste Class:	213				
Waste Class Desc:	PETROLEUM DISTILLATES				
Waste Class:	251				
Waste Class Desc:	OIL SKIMMINGS & SLUDGES				
15	21 of 24	E/94.1	163.0 / -0.60	DONALD W. MURRAY MOVERS (1981) LTD 9514 MONTROSE ROAD NIAGARA FALLS ON L0S 1K0	GEN

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Generator No: ON1835800 Status: Registered Approval Years: As of Jun 2018 Contam. Facility: MHSW Facility: SIC Code: SIC Description:					
PO Box No: Country: Canada Choice of Contact: Co Admin: Phone No Admin:					
Detail(s)					
Waste Class: 221 L					
Waste Class Desc: Light fuels					
Waste Class: 213 L					
Waste Class Desc: Petroleum distillates					
Waste Class: 213 I					
Waste Class Desc: Petroleum distillates					
Waste Class: 252 L					
Waste Class Desc: Waste crankcase oils and lubricants					
Waste Class: 212 L					
Waste Class Desc: Aliphatic solvents and residues					
Waste Class: 251 L					
Waste Class Desc: Waste oils/sludges (petroleum based)					
15	22 of 24	E/94.1	163.0 / -0.60	9514 Montrose Rd Niagara Falls ON L0S1K0	EHS
Order No: 20161025104 Status: C Report Type: Standard Report Report Date: 01-NOV-16 Date Received: 25-OCT-16 Previous Site Name: Lot/Building Size: Additional Info Ordered:					
Nearest Intersection: Municipality: Client Prov/State: ON Search Radius (km): .25 X: -79.122057 Y: 43.040033					
15	23 of 24	E/94.1	163.0 / -0.60	ES Fox 9514 Montrose Road Niagara Falls ON L0S 1K0	GEN
Generator No: ON9462571 Status: Registered Approval Years: As of Dec 2018 Contam. Facility: MHSW Facility: SIC Code: SIC Description:					
PO Box No: Country: Canada Choice of Contact: Co Admin: Phone No Admin:					
Detail(s)					
Waste Class: 251 L					
Waste Class Desc: Waste oils/sludges (petroleum based)					
Waste Class: 253 L					
Waste Class Desc: Emulsified oils					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
15	24 of 24	E/94.1	163.0 / -0.60	ES Fox 9514 Montrose Road Niagara Falls ON L0S 1K0	GEN
Generator No:	ON9462571			PO Box No:	
Status:	Registered			Country:	Canada
Approval Years:	As of Oct 2019			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:					
SIC Description:					
<u>Detail(s)</u>					
Waste Class:	253 L				
Waste Class Desc:	Emulsified oils				
Waste Class:	251 L				
Waste Class Desc:	Waste oils/sludges (petroleum based)				

16	1 of 1	SSE/102.6	176.8 / 13.19	lot 2 con 1 ON	WWIS
Well ID:	6604508			Data Entry Status:	
Construction Date:				Data Src:	1
Primary Water Use:	Domestic			Date Received:	1/8/2001
Sec. Water Use:				Selected Flag:	True
Final Well Status:	Water Supply			Abandonment Rec:	
Water Type:				Contractor:	3640
Casing Material:				Form Version:	1
Audit No:	213677			Owner:	
Tag:				Street Name:	
Construction Method:				County:	NIAGARA
Elevation (m):				Municipality:	NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:				Site Info:	
Depth to Bedrock:				Lot:	002
Well Depth:				Concession:	01
Overburden/Bedrock:				Concession Name:	CON
Pump Rate:				Easting NAD83:	
Static Water Level:				Northing NAD83:	
Flowing (Y/N):				Zone:	
Flow Rate:				UTM Reliability:	
Clear/Cloudy:					
PDF URL (Map):	https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/660\6604508.pdf				

Additional Detail(s) (Map)

Well Completed Date: 2000/09/04
Year Completed: 2000
Depth (m): 25.2984
Latitude: 43.0311039634278
Longitude: -79.1320205751532
Path: 660\6604508.pdf

Bore Hole Information

Bore Hole ID:	10464105	Elevation:	178.030990
DP2BR:	71.00	Elevrc:	
Spatial Status:	Improved	Zone:	17
Code OB:	r	East83:	652181.00
Code OB Desc:	Bedrock	North83:	4765962.00
Open Hole:		Org CS:	N83

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Cluster Kind:				UTMRC:	3
Date Completed:	04-Sep-2000 00:00:00			UTMRC Desc:	margin of error : 10 - 30 m
Remarks:				Location Method:	
Elevrc Desc:					
Location Source Date:					
Improvement Location Source:	1999-2004 MOE Water Well Data Improvement Project				
Improvement Location Method:	GIS				
Source Revision Comment:	Northing and/or Easting field has been changed. Location estimated from sketch map.				
Supplier Comment:	Determined to be an improvement rather than a Lot Centroid in December 2009.				
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:	932602923				
Layer:	4				
Color:	6				
General Color:	BROWN				
Mat1:	05				
Most Common Material:	CLAY				
Mat2:	79				
Mat2 Desc:	PACKED				
Mat3:					
Mat3 Desc:					
Formation Top Depth:	40.0				
Formation End Depth:	50.0				
Formation End Depth UOM:	ft				
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:	932602921				
Layer:	2				
Color:	2				
General Color:	GREY				
Mat1:	05				
Most Common Material:	CLAY				
Mat2:	66				
Mat2 Desc:	DENSE				
Mat3:					
Mat3 Desc:					
Formation Top Depth:	15.0				
Formation End Depth:	20.0				
Formation End Depth UOM:	ft				
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:	932602925				
Layer:	6				
Color:	6				
General Color:	BROWN				
Mat1:	11				
Most Common Material:	GRAVEL				
Mat2:	12				
Mat2 Desc:	STONES				
Mat3:	79				
Mat3 Desc:	PACKED				
Formation Top Depth:	65.0				
Formation End Depth:	71.0				
Formation End Depth UOM:	ft				
<u>Overburden and Bedrock</u>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Materials Interval</u>					
Formation ID:		932602922			
Layer:		3			
Color:		7			
General Color:		RED			
Mat1:		05			
Most Common Material:		CLAY			
Mat2:		66			
Mat2 Desc:		DENSE			
Mat3:					
Mat3 Desc:					
Formation Top Depth:		20.0			
Formation End Depth:		40.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:		932602926			
Layer:		7			
Color:		2			
General Color:		GREY			
Mat1:		15			
Most Common Material:		LIMESTONE			
Mat2:		74			
Mat2 Desc:		LAYERED			
Mat3:					
Mat3 Desc:					
Formation Top Depth:		71.0			
Formation End Depth:		83.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:		932602920			
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:		15.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:		932602924			
Layer:		5			
Color:		6			
General Color:		BROWN			
Mat1:		05			
Most Common Material:		CLAY			
Mat2:		13			
Mat2 Desc:		BOULDERS			
Mat3:		79			
Mat3 Desc:		PACKED			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Formation Top Depth:		50.0			
Formation End Depth:		65.0			
Formation End Depth UOM:		ft			
<u>Method of Construction & Well Use</u>					
Method Construction ID:		966604508			
Method Construction Code:		1			
Method Construction:		Cable Tool			
Other Method Construction:					
<u>Pipe Information</u>					
Pipe ID:		11012675			
Casing No:		1			
Comment:					
Alt Name:					
<u>Construction Record - Casing</u>					
Casing ID:		930753860			
Layer:		2			
Material:					
Open Hole or Material:					
Depth From:					
Depth To:					
Casing Diameter:		6			
Casing Diameter UOM:		inch			
Casing Depth UOM:		ft			
<u>Construction Record - Casing</u>					
Casing ID:		930753859			
Layer:		1			
Material:		1			
Open Hole or Material:		STEEL			
Depth From:					
Depth To:					
Casing Diameter:		6			
Casing Diameter UOM:		inch			
Casing Depth UOM:		ft			
<u>Results of Well Yield Testing</u>					
Pump Test ID:		996604508			
Pump Set At:					
Static Level:		25.0			
Final Level After Pumping:		68.0			
Recommended Pump Depth:		70.0			
Pumping Rate:		6.0			
Flowing Rate:					
Recommended Pump Rate:		5.0			
Levels UOM:		ft			
Rate UOM:		GPM			
Water State After Test Code:		2			
Water State After Test:		CLOUDY			
Pumping Test Method:		2			
Pumping Duration HR:		2			
Pumping Duration MIN:					
Flowing:		No			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Draw Down & Recovery

Pump Test Detail ID: 934612520
Test Type: Draw Down
Test Duration: 30
Test Level: 68.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934345165
Test Type: Draw Down
Test Duration: 15
Test Level: 68.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935122708
Test Type: Draw Down
Test Duration: 60
Test Level: 68.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934866708
Test Type: Draw Down
Test Duration: 45
Test Level: 68.0
Test Level UOM: ft

Water Details

Water ID: 933951890
Layer: 2
Kind Code: 3
Kind: SULPHUR
Water Found Depth: 75.0
Water Found Depth UOM: ft

Water Details

Water ID: 933951889
Layer: 1
Kind Code: 3
Kind: SULPHUR
Water Found Depth: 71.0
Water Found Depth UOM: ft

<u>17</u>	1 of 5	<i>E/105.1</i>	<i>175.2 / 11.58</i>	<i>9515 Montrose Rd Niagara Falls ON</i>	EHS
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Order No: 20200219057 Status: C Report Type: RSC Report - Quote Report Date: 24-FEB-20 Date Received: 19-FEB-20 Previous Site Name: Lot/Building Size:	Nearest Intersection: Municipality: Client Prov/State: OH Search Radius (km): .3 X: -79.12464291 Y: 43.03978149
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Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Additional Info Ordered:		Fire Insur. Maps and/or Site Plans; Topographic Maps; City Directory; Aerial Photos			
17	2 of 5	E/105.1	175.2 / 11.58	9515 Montrose Rd Niagara Falls ON	EHS
Order No:	20200219057			Nearest Intersection:	
Status:	C			Municipality:	
Report Type:	RSC Report - Quote			Client Prov/State:	OH
Report Date:	24-FEB-20			Search Radius (km):	.3
Date Received:	19-FEB-20			X:	-79.12464291
Previous Site Name:				Y:	43.03978149
Lot/Building Size:					
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans; Topographic Maps; City Directory; Aerial Photos				
17	3 of 5	E/105.1	175.2 / 11.58	9515 Montrose Rd Niagara Falls ON	EHS
Order No:	20200219057			Nearest Intersection:	
Status:	C			Municipality:	
Report Type:	RSC Report - Quote			Client Prov/State:	OH
Report Date:	24-FEB-20			Search Radius (km):	.3
Date Received:	19-FEB-20			X:	-79.12464291
Previous Site Name:				Y:	43.03978149
Lot/Building Size:					
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans; Topographic Maps; City Directory; Aerial Photos				
17	4 of 5	E/105.1	175.2 / 11.58	9515 Montrose Rd Niagara Falls ON	EHS
Order No:	20200219057			Nearest Intersection:	
Status:	C			Municipality:	
Report Type:	RSC Report - Quote			Client Prov/State:	OH
Report Date:	24-FEB-20			Search Radius (km):	.3
Date Received:	19-FEB-20			X:	-79.12464291
Previous Site Name:				Y:	43.03978149
Lot/Building Size:					
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans; Topographic Maps; City Directory; Aerial Photos				
17	5 of 5	E/105.1	175.2 / 11.58	9515 Montrose Rd Niagara Falls ON	EHS
Order No:	20200219057			Nearest Intersection:	
Status:	C			Municipality:	
Report Type:	RSC Report - Quote			Client Prov/State:	OH
Report Date:	24-FEB-20			Search Radius (km):	.3
Date Received:	19-FEB-20			X:	-79.12464291
Previous Site Name:				Y:	43.03978149
Lot/Building Size:					
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans; Topographic Maps; City Directory; Aerial Photos				
18	1 of 1	SW/111.5	178.5 / 14.85	E & A. Cruickshank #1 Crowland ON	OOGW
Licence No:	F014193			Well Compl:	26049
Well ID:	26116			County:	Welland
Well Compl ID:	26049			Block:	NULL

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
W Class ID:	2362			Lot:	4
UWI Code:	F014193			Conc:	I
Permit Date:	NULL			Surface Lat NAD83:	43.03070861
Depth(m):	152.70			Surface Long NAD83:	-79.14211222
Well Pool:	Welland Pool			Bottom Lat NAD83:	43.03070861
Completion Date:	NULL			Bottom Long NAD83:	-79.14211222
Depth Reached:	1948-06-09 00:00:00			Lot Sides (m):	91.44 S
Capped Date:	NULL			E/W (m):	91.44 E
Class ID:				Latitude Nad27:	
DB Source:				Longitude Nad27:	
Status as of:	June 2020			bottom lat27:	
Start Date:	1948-05-29 00:00:00			bottom long27:	
SPUD Date:	1948-05-29 00:00:00			Lateral:	No
Class:	DEV			Accuracy:	50
Grnd Elev:	178.60			Method:	Well Records (1921 to 1954)
KB Elev:	178.90			Parent:	NULL
TVD:	152.70			Prod Top:	121.31
PBTD:	NULL			Prod Bot:	138.07
TD Form:	Queenston			PROPD Depth:	520.00
Workover D:	NULL			Location Method:	Well Records (1921 to 1954)
Operator:	W. C. Patterson Gas Co. Ltd.			Location Accuracy:	Within 50 metres
Township:	Crowland			Dt Obtained:	NULL
Well Name:	E & A. Cruickshank #1				
Target:	SIL				
Target Desc:	UNSUBDIVIDED				
Well Status Type:	Natural Gas Well				
Status Type Desc:	A WELL PRESENTLY OR FORMERLY USED TO PRODUCE NATURAL GAS FROM A RESERVOIR				
Well Status Mode:	Unknown				
Status Mode Desc:					
Classification:	DEVELOPMENT				
Classification Desc:	"DEVELOPMENT WELL" MEANS A WELL THAT IS DRILLED FOR THE PURPOSE OF PRODUCING FROM OR EXTENDING A POOL OF OIL OR GAS INTO WHICH ANOTHER WELL HAS ALREADY BEEN DRILLED				
Cement Rec:	NULL				
Comments:	Accuracy is approximate and not verified. Ground Elev from DEM in PetroGIS (A. Lenny, 7 August 2013), KB = Ground + 0.3m.				

Details

License No:	F014193	Source:	FORM 7
Top (m):	111.25	Static Level (m):	n/a
Elevation (m):	67.65	Geology/Water:	Geology
Geology Formation:	Irondequoit	Elevation / Top (m):	67.65 / 111.25
Type of Water:	n/a		
License No:	F014193	Source:	FORM 7
Top (m):	151.79	Static Level (m):	n/a
Elevation (m):	27.11	Geology/Water:	Geology
Geology Formation:	Queenston	Elevation / Top (m):	27.11 / 151.79
Type of Water:	n/a		
License No:	F014193	Source:	FORM 7
Top (m):	144.78	Static Level (m):	n/a
Elevation (m):	34.12	Geology/Water:	Geology
Geology Formation:	Whirlpool	Elevation / Top (m):	34.12 / 144.78
Type of Water:	n/a		
License No:	F014193	Source:	FORM 7
Top (m):	138.07	Static Level (m):	n/a
Elevation (m):	40.83	Geology/Water:	Geology
Geology Formation:	Cabot Head	Elevation / Top (m):	40.83 / 138.07
Type of Water:	n/a		
License No:	F014193	Source:	MNR
Top (m):	36.58	Static Level (m):	n/a
Elevation (m):	142.32	Geology/Water:	Geology

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Geology Formation: Type of Water:	Guelph n/a			Elevation / Top (m):	142.32 / 36.58
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014193 36.58 142.32 Guelph n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	FORM 7 n/a Geology 142.32 / 36.58
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014193 111.25 67.65 Irondequoit n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	MNR n/a Geology 67.65 / 111.25
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014193 12.19 166.71 Marcellus n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	FORM 7 n/a Geology 166.71 / 12.19
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014193 0.03 178.87 Drift n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	FORM 7 n/a Geology 178.87 / 0.03
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014193 121.31 57.59 Grimsby n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	FORM 7 n/a Geology 57.59 / 121.31
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014193 20.73 158.17 B Anhydrite n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	MNR n/a Geology 158.17 / 20.73
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014193 NULL n/a Guelph Sulphur			Source: Static Level (m): Geology/Water: Elevation / Top (m):	n/a 5.49 Water n/a / NULL
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014193 121.31 57.59 Grimsby n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	MNR n/a Geology 57.59 / 121.31
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014193 144.78 34.12 Whirlpool n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	MNR n/a Geology 34.12 / 144.78
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014193 12.19 166.71 Marcellus n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	MNR n/a Geology 166.71 / 12.19
License No: Top (m): Elevation (m):	F014193 138.07 40.83			Source: Static Level (m): Geology/Water:	MNR n/a Geology

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Geology Formation: Type of Water:	Cabot Head n/a			Elevation / Top (m):	40.83 / 138.07
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014193 151.79 27.11 Queenston n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	MNR n/a Geology 27.11 / 151.79
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014193 20.73 158.17 B Anhydrite n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	FORM 7 n/a Geology 158.17 / 20.73
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014193 0.03 178.87 Drift n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	MNR n/a Geology 178.87 / 0.03
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014193 92.96 85.94 Rochester n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	MNR n/a Geology 85.94 / 92.96
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014193 NULL n/a B Anhydrite Fresh			Source: Static Level (m): Geology/Water: Elevation / Top (m):	n/a 6.71 Water n/a / NULL
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014193 NULL n/a Marcellus Fresh			Source: Static Level (m): Geology/Water: Elevation / Top (m):	n/a 6.71 Water n/a / NULL
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014193 92.96 85.94 Rochester n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	FORM 7 n/a Geology 85.94 / 92.96

19 1 of 1 S/142.8 176.9 / 13.30 W. C. Patterson Gas Co. A & E Woodgate OOGW

Crowland ON

Licence No:	F014190	Well Compl:	26081
Well ID:	26113	County:	Welland
Well Compl ID:	26081	Block:	NULL
W Class ID:	2362	Lot:	3
UWI Code:	F014190	Conc:	I
Permit Date:	NULL	Surface Lat NAD83:	43.03047361
Depth(m):	153.92	Surface Long NAD83:	-79.13461694
Well Pool:	NULL	Bottom Lat NAD83:	43.03047361
Completion Date:	NULL	Bottom Long NAD83:	-79.13461694
Depth Reached:	1948-05-19 00:00:00	Lot Sides (m):	121.92 S
Capped Date:	1948-05-19 00:00:00	E/W (m):	121.92 W
Class ID:		Latitude Nad27:	
DB Source:		Longitude Nad27:	
Status as of:	June 2020	bottom lat27:	
Start Date:	1948-05-01 00:00:00	bottom long27:	
SPUD Date:	1948-05-01 00:00:00	Lateral:	No

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Class:	DEV			Accuracy:	50
Grnd Elev:	153.92			Method:	Well Records (1921 to 1954)
KB Elev:	153.92			Parent:	NULL
TVD:	153.92			Prod Top:	NULL
PBTD:	NULL			Prod Bot:	NULL
TD Form:	Queenston			PROPD Depth:	213.36
Workover D:	NULL			Location Method:	Well Records (1921 to 1954)
Operator:	W. C. Patterson Gas Co. Ltd.			Location Accuracy:	Within 50 metres
Township:	Crowland			Dt Obtained:	NULL
Well Name:	W. C. Patterson Gas Co. A & E Woodgate				
Target:	NULL				
Target Desc:					
Well Status Type:	Dry Hole				
Status Type Desc:	A WELL CLASSED AS EXPLORATORY OR DEVELOPMENT IN WHICH NO HYDROCARBONS HAVE BEEN ENCOUNTERED				
Well Status Mode:	Abandoned Well				
Status Mode Desc:	A WELL WHICH IS OFFICIALLY PLUGGED AND ABANDONED				
Classification:	DEVELOPMENT				
Classification Desc:	"DEVELOPMENT WELL" MEANS A WELL THAT IS DRILLED FOR THE PURPOSE OF PRODUCING FROM OR EXTENDING A POOL OF OIL OR GAS INTO WHICH ANOTHER WELL HAS ALREADY BEEN DRILLED				
Cement Rec:	NULL				
Comments:	Accuracy is approximate and not verified.				

Details

License No:	F014190	Source:	MNR
Top (m):	96.62	Static Level (m):	n/a
Elevation (m):	57.30	Geology/Water:	Geology
Geology Formation:	Rochester	Elevation / Top (m):	57.30 / 96.62
Type of Water:	n/a		
License No:	F014190	Source:	MNR
Top (m):	152.70	Static Level (m):	n/a
Elevation (m):	1.22	Geology/Water:	Geology
Geology Formation:	Queenston	Elevation / Top (m):	1.22 / 152.70
Type of Water:	n/a		
License No:	F014190	Source:	MNR
Top (m):	138.38	Static Level (m):	n/a
Elevation (m):	15.54	Geology/Water:	Geology
Geology Formation:	Cabot Head	Elevation / Top (m):	15.54 / 138.38
Type of Water:	n/a		
License No:	F014190	Source:	FORM 7
Top (m):	96.62	Static Level (m):	n/a
Elevation (m):	57.30	Geology/Water:	Geology
Geology Formation:	Rochester	Elevation / Top (m):	57.30 / 96.62
Type of Water:	n/a		
License No:	F014190	Source:	FORM 7
Top (m):	21.34	Static Level (m):	n/a
Elevation (m):	132.59	Geology/Water:	Geology
Geology Formation:	B Anhydrite	Elevation / Top (m):	132.59 / 21.34
Type of Water:	n/a		
License No:	F014190	Source:	MNR
Top (m):	123.14	Static Level (m):	n/a
Elevation (m):	30.78	Geology/Water:	Geology
Geology Formation:	Grimsby	Elevation / Top (m):	30.78 / 123.14
Type of Water:	n/a		
License No:	F014190	Source:	MNR
Top (m):	36.58	Static Level (m):	n/a
Elevation (m):	117.34	Geology/Water:	Geology
Geology Formation:	Guelph	Elevation / Top (m):	117.34 / 36.58

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Type of Water:	n/a				
License No:	F014190			Source:	FORM 7
Top (m):	111.86			Static Level (m):	n/a
Elevation (m):	42.06			Geology/Water:	Geology
Geology Formation:	Irondequoit			Elevation / Top (m):	42.06 / 111.86
Type of Water:	n/a				
License No:	F014190			Source:	n/a
Top (m):	12.19			Static Level (m):	NULL
Elevation (m):	n/a			Geology/Water:	Water
Geology Formation:	Drift			Elevation / Top (m):	n/a / 12.19
Type of Water:	Fresh				
License No:	F014190			Source:	MNR
Top (m):	111.86			Static Level (m):	n/a
Elevation (m):	42.06			Geology/Water:	Geology
Geology Formation:	Irondequoit			Elevation / Top (m):	42.06 / 111.86
Type of Water:	n/a				
License No:	F014190			Source:	n/a
Top (m):	12.12			Static Level (m):	6.40
Elevation (m):	n/a			Geology/Water:	Water
Geology Formation:	Drift			Elevation / Top (m):	n/a / 12.12
Type of Water:	Fresh				
License No:	F014190			Source:	MNR
Top (m):	21.34			Static Level (m):	n/a
Elevation (m):	132.58			Geology/Water:	Geology
Geology Formation:	B Anhydrite			Elevation / Top (m):	132.58 / 21.34
Type of Water:	n/a				
License No:	F014190			Source:	FORM 7
Top (m):	152.70			Static Level (m):	n/a
Elevation (m):	1.22			Geology/Water:	Geology
Geology Formation:	Queenston			Elevation / Top (m):	1.22 / 152.70
Type of Water:	n/a				
License No:	F014190			Source:	MNR
Top (m):	147.52			Static Level (m):	n/a
Elevation (m):	6.40			Geology/Water:	Geology
Geology Formation:	Whirlpool			Elevation / Top (m):	6.40 / 147.52
Type of Water:	n/a				
License No:	F014190			Source:	FORM 7
Top (m):	123.14			Static Level (m):	n/a
Elevation (m):	30.78			Geology/Water:	Geology
Geology Formation:	Grimsby			Elevation / Top (m):	30.78 / 123.14
Type of Water:	n/a				
License No:	F014190			Source:	FORM 7
Top (m):	147.52			Static Level (m):	n/a
Elevation (m):	6.40			Geology/Water:	Geology
Geology Formation:	Whirlpool			Elevation / Top (m):	6.40 / 147.52
Type of Water:	n/a				
License No:	F014190			Source:	FORM 7
Top (m):	36.58			Static Level (m):	n/a
Elevation (m):	117.35			Geology/Water:	Geology
Geology Formation:	Guelph			Elevation / Top (m):	117.35 / 36.58
Type of Water:	n/a				
License No:	F014190			Source:	FORM 7
Top (m):	138.38			Static Level (m):	n/a
Elevation (m):	15.54			Geology/Water:	Geology
Geology Formation:	Cabot Head			Elevation / Top (m):	15.54 / 138.38

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Type of Water:		n/a			
License No:	F014190			Source:	n/a
Top (m):	20.73			Static Level (m):	NULL
Elevation (m):	n/a			Geology/Water:	Water
Geology Formation:	A-2 Carbonate			Elevation / Top (m):	n/a / 20.73
Type of Water:	Sulphur				

[20](#) 1 of 1 **ESE/154.0** **175.8 / 12.19** **lot 1 ON** **WWIS**

Well ID:	6600612	Data Entry Status:	
Construction Date:		Data Src:	1
Primary Water Use:	Not Used	Date Received:	1/6/1961
Sec. Water Use:	0	Selected Flag:	True
Final Well Status:	Test Hole	Abandonment Rec:	
Water Type:		Contractor:	2801
Casing Material:		Form Version:	1
Audit No:		Owner:	
Tag:		Street Name:	
Construction Method:		County:	NIAGARA
Elevation (m):		Municipality:	NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:		Site Info:	
Depth to Bedrock:		Lot:	001
Well Depth:		Concession:	
Overburden/Bedrock:		Concession Name:	BF
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/660\6600612.pdf

Additional Detail(s) (Map)

Well Completed Date: 1960/06/22
Year Completed: 1960
Depth (m): 24.6888
Latitude: 43.0349864423041
Longitude: -79.1244038681013
Path: 660\6600612.pdf

Bore Hole Information

Bore Hole ID:	10460346	Elevation:	177.350769
DP2BR:	80.00	Elevrc:	
Spatial Status:		Zone:	17
Code OB:	r	East83:	652791.90
Code OB Desc:	Bedrock	North83:	4766407.00
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	5
Date Completed:	22-Jun-1960 00:00:00	UTMRC Desc:	margin of error : 100 m - 300 m
Remarks:		Location Method:	p5
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Materials Interval</u>					
Formation ID:			932589374		
Layer:			4		
Color:			3		
General Color:			BLUE		
Mat1:			05		
Most Common Material:			CLAY		
Mat2:			11		
Mat2 Desc:			GRAVEL		
Mat3:			13		
Mat3 Desc:			BOULDERS		
Formation Top Depth:			39.0		
Formation End Depth:			50.0		
Formation End Depth UOM:			ft		
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:			932589376		
Layer:			6		
Color:					
General Color:					
Mat1:			06		
Most Common Material:			SILT		
Mat2:			08		
Mat2 Desc:			FINE SAND		
Mat3:			09		
Mat3 Desc:			MEDIUM SAND		
Formation Top Depth:			55.0		
Formation End Depth:			63.0		
Formation End Depth UOM:			ft		
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:			932589372		
Layer:			2		
Color:			7		
General Color:			RED		
Mat1:			05		
Most Common Material:			CLAY		
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:			1.0		
Formation End Depth:			15.0		
Formation End Depth UOM:			ft		
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:			932589373		
Layer:			3		
Color:			2		
General Color:			GREY		
Mat1:			05		
Most Common Material:			CLAY		
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Formation Top Depth:		15.0			
Formation End Depth:		39.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932589377			
Layer:		7			
Color:					
General Color:					
Mat1:		05			
Most Common Material:		CLAY			
Mat2:		06			
Mat2 Desc:		SILT			
Mat3:					
Mat3 Desc:					
Formation Top Depth:		63.0			
Formation End Depth:		77.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932589379			
Layer:		9			
Color:					
General Color:					
Mat1:		15			
Most Common Material:		LIMESTONE			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		80.0			
Formation End Depth:		81.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932589378			
Layer:		8			
Color:					
General Color:					
Mat1:		05			
Most Common Material:		CLAY			
Mat2:		11			
Mat2 Desc:		GRAVEL			
Mat3:		13			
Mat3 Desc:		BOULDERS			
Formation Top Depth:		77.0			
Formation End Depth:		80.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932589375			
Layer:		5			
Color:					
General Color:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Mat1:		05			
Most Common Material:		CLAY			
Mat2:		06			
Mat2 Desc:		SILT			
Mat3:					
Mat3 Desc:					
Formation Top Depth:		50.0			
Formation End Depth:		55.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		932589371			
Layer:		1			
Color:					
General Color:					
Mat1:		02			
Most Common Material:		TOPSOIL			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		0.0			
Formation End Depth:		1.0			
Formation End Depth UOM:		ft			
<u>Method of Construction & Well Use</u>					
Method Construction ID:		966600612			
Method Construction Code:		1			
Method Construction:		Cable Tool			
Other Method Construction:					
<u>Pipe Information</u>					
Pipe ID:		11008916			
Casing No:		1			
Comment:					
Alt Name:					
<u>Construction Record - Casing</u>					
Casing ID:		930747635			
Layer:		1			
Material:		1			
Open Hole or Material:		STEEL			
Depth From:					
Depth To:		51			
Casing Diameter:		5			
Casing Diameter UOM:		inch			
Casing Depth UOM:		ft			
<u>Construction Record - Screen</u>					
Screen ID:		933385504			
Layer:		1			
Slot:					
Screen Top Depth:		51			
Screen End Depth:		61			
Screen Material:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Screen Depth UOM:		ft			
Screen Diameter UOM:		inch			
Screen Diameter:					
<u>Results of Well Yield Testing</u>					
Pump Test ID:		996600612			
Pump Set At:					
Static Level:		8.0			
Final Level After Pumping:		10.0			
Recommended Pump Depth:					
Pumping Rate:		8.0			
Flowing Rate:					
Recommended Pump Rate:					
Levels UOM:		ft			
Rate UOM:		GPM			
Water State After Test Code:		2			
Water State After Test:		CLOUDY			
Pumping Test Method:		1			
Pumping Duration HR:		8			
Pumping Duration MIN:		0			
Flowing:		No			
<u>Water Details</u>					
Water ID:		933947881			
Layer:		1			
Kind Code:		1			
Kind:		FRESH			
Water Found Depth:		55.0			
Water Found Depth UOM:		ft			

21	1 of 1	ESE/155.4	175.8 / 12.19	lot 1 ON	WWIS
Well ID:	6600613			Data Entry Status:	
Construction Date:				Data Src:	1
Primary Water Use:	Not Used			Date Received:	1/6/1961
Sec. Water Use:	0			Selected Flag:	True
Final Well Status:	Test Hole			Abandonment Rec:	
Water Type:				Contractor:	2801
Casing Material:				Form Version:	1
Audit No:				Owner:	
Tag:				Street Name:	
Construction Method:				County:	NIAGARA
Elevation (m):				Municipality:	NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:				Site Info:	
Depth to Bedrock:				Lot:	001
Well Depth:				Concession:	
Overburden/Bedrock:				Concession Name:	BF
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/660\6600613.pdf				
<u>Additional Detail(s) (Map)</u>					
Well Completed Date:	1960/06/24				
Year Completed:	1960				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Depth (m):		16.764			
Latitude:		43.03497145881			
Longitude:		-79.1245884523311			
Path:		660\6600613.pdf			

Bore Hole Information

Bore Hole ID:	10460347	Elevation:	177.428237
DP2BR:		Elevrc:	
Spatial Status:		Zone:	17
Code OB:	o	East83:	652776.90
Code OB Desc:	Overburden	North83:	4766405.00
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	5
Date Completed:	24-Jun-1960 00:00:00	UTMRC Desc:	margin of error : 100 m - 300 m
Remarks:		Location Method:	p5
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock

Materials Interval

Formation ID:	932589381
Layer:	2
Color:	7
General Color:	RED
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	1.0
Formation End Depth:	15.0
Formation End Depth UOM:	ft

Overburden and Bedrock

Materials Interval

Formation ID:	932589380
Layer:	1
Color:	
General Color:	
Mat1:	02
Most Common Material:	TOPSOIL
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	0.0
Formation End Depth:	1.0
Formation End Depth UOM:	ft

Overburden and Bedrock

Materials Interval

Formation ID:	932589383
Layer:	4

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Color:		3			
General Color:		BLUE			
Mat1:		05			
Most Common Material:		CLAY			
Mat2:		11			
Mat2 Desc:		GRAVEL			
Mat3:		13			
Mat3 Desc:		BOULDERS			
Formation Top Depth:		39.0			
Formation End Depth:		50.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:		932589382			
Layer:		3			
Color:		2			
General Color:		GREY			
Mat1:		05			
Most Common Material:		CLAY			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		15.0			
Formation End Depth:		39.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:		932589384			
Layer:		5			
Color:					
General Color:					
Mat1:		05			
Most Common Material:		CLAY			
Mat2:		06			
Mat2 Desc:		SILT			
Mat3:					
Mat3 Desc:					
Formation Top Depth:		50.0			
Formation End Depth:		55.0			
Formation End Depth UOM:		ft			
<u>Method of Construction & Well</u>					
<u>Use</u>					
Method Construction ID:		966600613			
Method Construction Code:		1			
Method Construction:		Cable Tool			
Other Method Construction:					
<u>Pipe Information</u>					
Pipe ID:		11008917			
Casing No:		1			
Comment:					
Alt Name:					
<u>Construction Record - Casing</u>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Casing ID: 930747636 Layer: 1 Material: Open Hole or Material: Depth From: Depth To: Casing Diameter: 5 Casing Diameter UOM: inch Casing Depth UOM: ft					
22	1 of 48	ENE/168.9	181.3 / 17.69	FORD MOTOR CO. OF CANADA 9127 MONTROSE RD. NIAGARA FALLS CITY ON	CA
Certificate #: 8-2081-86- Application Year: 86 Issue Date: 6/6/1986 Approval Type: Industrial air Status: Approved Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: SCREEN CLEANING EXHAUST Contaminants: Methane (Incl. Hydrocarbons Expr. As Ch4 Emission Control: No Controls					
22	2 of 48	ENE/168.9	181.3 / 17.69	FORD MOTOR COMPANY OF CANADA, LIMITED 9127 MONTROSE ROAD NIAGARA FALLS CITY ON	CA
Certificate #: 8-2078-89- Application Year: 89 Issue Date: 10/27/1989 Approval Type: Industrial air Status: Approved Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: RELOC. OF SILK SCREEN CLEANING OPERATION Contaminants: Methane (Incl. Hydrocarbons Expr. As Ch4 Emission Control: No Controls					
22	3 of 48	ENE/168.9	181.3 / 17.69	FORD MOTOR COMPANY OF CANADA (NIAGARA GL 9127 MONTROSE ROAD NIAGARA FALLS CITY ON	CA
Certificate #: 8-2215-92- Application Year: 92 Issue Date: 11/26/1992 Approval Type: Industrial air Status: Approved Application Type: Client Name: Client Address: Client City:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Client Postal Code:					
Project Description:		AIR AUTOCLAVE FOR LAM. AUTO W-SHIELDS			
Contaminants:		Other Organic Compounds, Other Organic Compounds			
Emission Control:		No Controls			
22	4 of 48	ENE/168.9	181.3 / 17.69	FORD MOTOR COMPANY OF CANADA 9127 MONTROSE ROAD; BOX 1019 NIAGARA FALLS ON L2E 6X3	NPCB
Company Code:		O0300A			
Industry:					
Site Status:					
Transaction Date:		9/7/1990			
Inspection Date:		9/15/1989			
22	5 of 48	ENE/168.9	181.3 / 17.69	FORD MOTOR COMPANY OF CANADA, LIMITED 9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6X3	NPCB
Company Code:		F0597			
Industry:					
Site Status:					
Transaction Date:		1/29/1996			
Inspection Date:					
--Details--					
Label:					
Serial No.:					
PCB Type/Code:		Askarel			
Location:					
Item/State:					
No. of Items:					
Manufacturer:					
Status:		Stored for Disposal			
Contents:		0.00 KG			
Label:					
Serial No.:					
PCB Type/Code:		Askarel			
Location:					
Item/State:					
No. of Items:					
Manufacturer:					
Status:		Stored for Disposal			
Contents:		159.00 KG			
22	6 of 48	ENE/168.9	181.3 / 17.69	FORD MOTOR CO. OF CANADA LTD. WELLAND RIVER NIAGARA GLASS PLANT 9127 MONTROSE ROAD NIAGARA FALLS CITY ON	SPL
Ref No:		4524		Discharger Report:	
Site No:				Material Group:	
Incident Dt:		5/31/1988		Health/Env Conseq:	
Year:				Client Type:	
Incident Cause:		WASTEWATER DISCHARGE TO WATERCOURSE		Sector Type:	
Incident Event:				Agency Involved:	
Contaminant Code:				Nearest Watercourse:	
Contaminant Name:				Site Address:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Contaminant Limit 1: Contam Limit Freq 1: Contaminant UN No 1: Environment Impact: Nature of Impact: Receiving Medium: WATER Receiving Env: MOE Response: Dt MOE Arvl on Scn: MOE Reported Dt: 5/31/1988 Dt Document Closed: Incident Reason: EQUIPMENT FAILURE Site Name: Site County/District: Site Geo Ref Meth: Incident Summary: Contaminant Qty:				Site District Office: Site Postal Code: Site Region: Site Municipality: 18101 Site Lot: Site Conc: Northing: 4767300.00 Easting: 652600.00 Site Geo Ref Accu: Site Map Datum: SAC Action Class: Source Type:	
FORD GLASS - OILY WASH WATER TO WELLAND RIVER WHEN SUMP PUMP FAILED.					
22	7 of 48	ENE/168.9	181.3 / 17.69	FORD MOTOR CO. OF CANADA LTD. 9127 MONTROSE RD NIAGARA GLASS PLANT 9127 MONTROSE ROAD NIAGARA FALLS CITY ON	SPL
Ref No: 85695 Site No: Incident Dt: 5/17/1993 Year: Incident Cause: OTHER CAUSE (N.O.S.) Incident Event: Contaminant Code: Contaminant Name: Contaminant Limit 1: Contam Limit Freq 1: Contaminant UN No 1: Environment Impact: POSSIBLE Nature of Impact: Water course or lake Receiving Medium: WATER Receiving Env: MOE Response: Dt MOE Arvl on Scn: MOE Reported Dt: 5/17/1993 Dt Document Closed: Incident Reason: INTENTIONAL/PLANNED Site Name: Site County/District: Site Geo Ref Meth: Incident Summary: Contaminant Qty:				Discharger Report: Material Group: Health/Env Conseq: Client Type: Sector Type: Agency Involved: Nearest Watercourse: Site Address: Site District Office: Site Postal Code: Site Region: Site Municipality: 18101 Site Lot: Site Conc: Northing: 4767300.00 Easting: 652600.00 Site Geo Ref Accu: Site Map Datum: SAC Action Class: Source Type:	
FORD: OIL SHEEN TO RIVER.SUSPECT SOMEONE DUMPED 10 LTR TO DRAIN IN ERROR.					
22	8 of 48	ENE/168.9	181.3 / 17.69	FORD MOTOR COMPANY OF CANADA, LIMITED 9127 MONTROSE RD. DUPLICATE NIAGARA FALLS CITY ON	CA
Certificate #: 8-2084-89-000 Application Year: 89 Issue Date: 4/26/89 Approval Type: Industrial air Status: Application Cancelled Application Type: Client Name: Client Address: Client City:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Client Postal Code:					
Project Description:		SILK SCREEN CLEANING PROCESS			
Contaminants:					
Emission Control:					
22	9 of 48	ENE/168.9	181.3 / 17.69	9127 Montrose Avenue Niagara Falls ON	CA
Certificate #:		4-058-77-786			
Application Year:		00			
Issue Date:		10/10/00			
Approval Type:		Municipal & Private sewage			
Status:		Approved			
Application Type:		Notice			
Client Name:		E. S. Fox Enterprises Inc.			
Client Address:		9127 Montrose Rd.			
Client City:		Niagara Falls			
Client Postal Code:		L2E 5S6			
Project Description:		Addition of Phosphorous removal using Alum to an existing package sewage treatment plant.			
Contaminants:					
Emission Control:					
22	10 of 48	ENE/168.9	181.3 / 17.69	E.S. Fox Construction 9127 Montrose Rd. Niagara Falls ON	CA
Certificate #:		0028-4LRSUX			
Application Year:		00			
Issue Date:		7/17/00			
Approval Type:		Industrial air			
Status:		Approved			
Application Type:		New Certificate of Approval			
Client Name:		E. S. Fox Enterprises Inc.			
Client Address:		9127 Montrose Rd.			
Client City:		Niagara Falls			
Client Postal Code:		L2E 5S6			
Project Description:		This application is for a certificate of approval for emissions to the atmosphere from a dust collector and associated duct work and hoods for a tool cleaning station.			
Contaminants:					
Emission Control:					
22	11 of 48	ENE/168.9	181.3 / 17.69	E.S. Fox Enterprises Inc. 9127 Montrose Rd. Niagara Falls Ontario L2E 5S6 Niagara Falls ON	EBR
EBR Registry No:		IA00E0797		Decision Posted:	
Ministry Ref No:		1381-4JKR3Z		Exception Posted:	
Notice Type:		Instrument Decision		Section:	
Notice Stage:				Act 1:	
Notice Date:		July 24, 2000		Act 2:	
Proposal Date:		May 09, 2000		Site Location Map:	
Year:		2000			
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:		E. S. Fox Enterprises Inc.			
Site Address:					
Location Other:					
Proponent Name:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Proponent Address: 9127 Montrose Rd., Niagara Falls Ontario, L2E 5S6
Comment Period:
URL:

Site Location Details:

9127 Montrose Rd. Niagara Falls Ontario L2E 5S6 Niagara Falls

22	12 of 48	ENE/168.9	181.3 / 17.69	FORD MOTOR COMPANY OF CANADA, LIMITED 9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6X3	OPCB
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Year: 1995
Site Number: 20392A043
Name Owner:
Additional Site Information:

--Details--

Quantity: 6.00
Address Site:
Description: Number of Drums of Ballasts with High Level PCBs (>1000 ppm)

Quantity: 1200.00
Address Site:
Description: Weight of Drums of Ballasts with High Level PCBs (>1000 ppm) kg

Quantity: 20.00
Address Site:
Description: Number of Capacitors with High Level PCBs (>1000 ppm)

Quantity: 1.00
Address Site:
Description: Number of Drums of Other Material with Low Level PCBs (< 1000 ppm) kg

Quantity: 150.00
Address Site:
Description: Weight of Drums of Other Material with Low Level PCBs (< 1000 ppm) kg

22	13 of 48	ENE/168.9	181.3 / 17.69	FORD MOTOR CO. OF CANADA LTD. NIAGARA GLASS PLANT P.O. BOX 1019, 9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6X3	GEN
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Generator No: ON0000205
Status:
Approval Years: 86,87,88,89,90
Contam. Facility:
MHSW Facility:
SIC Code: 3259
SIC Description: OTHER VEHICLE ACCES.

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 213

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class Desc:		PETROLEUM DISTILLATES			
Waste Class:		232			
Waste Class Desc:		POLYMERIC RESINS			

22	14 of 48	ENE/168.9	181.3 / 17.69	FORD (OUT OF BUS) 15-110 NIAGARA GLASS PLANT 9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6X3	GEN
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Generator No:	ON0000205	PO Box No:	
Status:		Country:	
Approval Years:	92,93,95,96,97	Choice of Contact:	
Contam. Facility:		Co Admin:	
MHSW Facility:		Phone No Admin:	
SIC Code:	3259		
SIC Description:	OTHER VEHICLE ACCES.		

Detail(s)

Waste Class:	112
Waste Class Desc:	ACID WASTE - HEAVY METALS
Waste Class:	122
Waste Class Desc:	ALKALINE WASTES - OTHER METALS
Waste Class:	133
Waste Class Desc:	BRINES, CHLOR-ALKALI WASTES
Waste Class:	145
Waste Class Desc:	PAINT/PIGMENT/COATING RESIDUES
Waste Class:	146
Waste Class Desc:	OTHER SPECIFIED INORGANICS
Waste Class:	148
Waste Class Desc:	INORGANIC LABORATORY CHEMICALS
Waste Class:	212
Waste Class Desc:	ALIPHATIC SOLVENTS
Waste Class:	213
Waste Class Desc:	PETROLEUM DISTILLATES
Waste Class:	221
Waste Class Desc:	LIGHT FUELS
Waste Class:	222
Waste Class Desc:	HEAVY FUELS
Waste Class:	232
Waste Class Desc:	POLYMERIC RESINS
Waste Class:	233
Waste Class Desc:	OTHER POLYMERIC WASTES
Waste Class:	241
Waste Class Desc:	HALOGENATED SOLVENTS
Waste Class:	243
Waste Class Desc:	PCB'S
Waste Class:	251
Waste Class Desc:	OIL SKIMMINGS & SLUDGES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
Waste Class:		253			
Waste Class Desc:		EMULSIFIED OILS			
Waste Class:		262			
Waste Class Desc:		DETERGENTS/SOAPS			
Waste Class:		263			
Waste Class Desc:		ORGANIC LABORATORY CHEMICALS			
Waste Class:		267			
Waste Class Desc:		ORGANIC ACIDS			
Waste Class:		270			
Waste Class Desc:		OTHER SPECIFIED ORGANICS			
Waste Class:		312			
Waste Class Desc:		PATHOLOGICAL WASTES			

22	15 of 48	ENE/168.9	181.3 / 17.69	FORD MOTOR COMPANY OF CANADA LTD. 15-110 NIAGARA GLASS PLANT 9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6X3	GEN
Generator No:	ON0000205			PO Box No:	
Status:				Country:	
Approval Years:	94			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:	3259				
SIC Description:	OTHER VEHICLE ACCES.				

Detail(s)

Waste Class:	145				
Waste Class Desc:	PAINT/PIGMENT/COATING RESIDUES				
Waste Class:	112				
Waste Class Desc:	ACID WASTE - HEAVY METALS				
Waste Class:	122				
Waste Class Desc:	ALKALINE WASTES - OTHER METALS				
Waste Class:	133				
Waste Class Desc:	BRINES, CHLOR-ALKALI WASTES				
Waste Class:	146				
Waste Class Desc:	OTHER SPECIFIED INORGANICS				
Waste Class:	148				
Waste Class Desc:	INORGANIC LABORATORY CHEMICALS				
Waste Class:	212				
Waste Class Desc:	ALIPHATIC SOLVENTS				
Waste Class:	213				
Waste Class Desc:	PETROLEUM DISTILLATES				
Waste Class:	221				
Waste Class Desc:	LIGHT FUELS				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class:		222			
Waste Class Desc:		HEAVY FUELS			
Waste Class:		232			
Waste Class Desc:		POLYMERIC RESINS			
Waste Class:		233			
Waste Class Desc:		OTHER POLYMERIC WASTES			
Waste Class:		241			
Waste Class Desc:		HALOGENATED SOLVENTS			
Waste Class:		243			
Waste Class Desc:		PCB'S			
Waste Class:		267			
Waste Class Desc:		ORGANIC ACIDS			
Waste Class:		270			
Waste Class Desc:		OTHER SPECIFIED ORGANICS			
Waste Class:		312			
Waste Class Desc:		PATHOLOGICAL WASTES			
Waste Class:		251			
Waste Class Desc:		OIL SKIMMINGS & SLUDGES			
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
Waste Class:		253			
Waste Class Desc:		EMULSIFIED OILS			
Waste Class:		262			
Waste Class Desc:		DETERGENTS/SOAPS			
Waste Class:		263			
Waste Class Desc:		ORGANIC LABORATORY CHEMICALS			

22	16 of 48	ENE/168.9	181.3 / 17.69	FORD (OUT OF BUS) MOTOR COMPANY NIAGARA GLASS PLANT 9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6X3	GEN
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Generator No:	ON0000205	PO Box No:	
Status:		Country:	
Approval Years:	98	Choice of Contact:	
Contam. Facility:		Co Admin:	
MHSW Facility:		Phone No Admin:	
SIC Code:	3259		
SIC Description:	OTHER VEHICLE ACCES.		

Detail(s)

Waste Class:	112
Waste Class Desc:	ACID WASTE - HEAVY METALS
Waste Class:	122
Waste Class Desc:	ALKALINE WASTES - OTHER METALS
Waste Class:	133
Waste Class Desc:	BRINES, CHLOR-ALKALI WASTES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class: Waste Class Desc:		145 PAINT/PIGMENT/COATING RESIDUES			
Waste Class: Waste Class Desc:		146 OTHER SPECIFIED INORGANICS			
Waste Class: Waste Class Desc:		148 INORGANIC LABORATORY CHEMICALS			
Waste Class: Waste Class Desc:		212 ALIPHATIC SOLVENTS			
Waste Class: Waste Class Desc:		213 PETROLEUM DISTILLATES			
Waste Class: Waste Class Desc:		221 LIGHT FUELS			
Waste Class: Waste Class Desc:		222 HEAVY FUELS			
Waste Class: Waste Class Desc:		232 POLYMERIC RESINS			
Waste Class: Waste Class Desc:		233 OTHER POLYMERIC WASTES			
Waste Class: Waste Class Desc:		241 HALOGENATED SOLVENTS			
Waste Class: Waste Class Desc:		243 PCB'S			
Waste Class: Waste Class Desc:		251 OIL SKIMMINGS & SLUDGES			
Waste Class: Waste Class Desc:		252 WASTE OILS & LUBRICANTS			
Waste Class: Waste Class Desc:		253 EMULSIFIED OILS			
Waste Class: Waste Class Desc:		262 DETERGENTS/SOAPS			
Waste Class: Waste Class Desc:		263 ORGANIC LABORATORY CHEMICALS			
Waste Class: Waste Class Desc:		267 ORGANIC ACIDS			
Waste Class: Waste Class Desc:		270 OTHER SPECIFIED ORGANICS			
Waste Class: Waste Class Desc:		312 PATHOLOGICAL WASTES			

[22](#)

17 of 48

ENE/168.9

181.3 / 17.69

E.S. FOX LIMITED
9127 MONTROSE ROAD
NIAGARA FALLS ON L2E 6S5

GEN

Generator No: ON0214904
Status:
Approval Years: 96,97
Contam. Facility:

PO Box No:
Country:
Choice of Contact:
Co Admin:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
MHSW Facility:				Phone No Admin:	
SIC Code:	4244				
SIC Description:		SHEET METAL & DUCT.			
<u>Detail(s)</u>					
Waste Class:		145			
Waste Class Desc:		PAINT/PIGMENT/COATING RESIDUES			
Waste Class:		122			
Waste Class Desc:		ALKALINE WASTES - OTHER METALS			
Waste Class:		148			
Waste Class Desc:		INORGANIC LABORATORY CHEMICALS			
Waste Class:		212			
Waste Class Desc:		ALIPHATIC SOLVENTS			
Waste Class:		221			
Waste Class Desc:		LIGHT FUELS			
Waste Class:		232			
Waste Class Desc:		POLYMERIC RESINS			
Waste Class:		241			
Waste Class Desc:		HALOGENATED SOLVENTS			
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
Waste Class:		253			
Waste Class Desc:		EMULSIFIED OILS			
Waste Class:		263			
Waste Class Desc:		ORGANIC LABORATORY CHEMICALS			

<u>22</u>	18 of 48	ENE/168.9	181.3 / 17.69	E. S. FOX LIMITED 9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	GEN
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Generator No:	ON0214904	PO Box No:	
Status:		Country:	
Approval Years:	98,99,00,01,02,03,04,05,06,07,08	Choice of Contact:	
Contam. Facility:		Co Admin:	
MHSW Facility:		Phone No Admin:	
SIC Code:	4244		
SIC Description:	SHEET METAL & DUCT.		

Detail(s)

Waste Class:	213
Waste Class Desc:	PETROLEUM DISTILLATES
Waste Class:	331
Waste Class Desc:	WASTE COMPRESSED GASES
Waste Class:	331
Waste Class Desc:	WASTE COMPRESSED GASES
Waste Class:	262
Waste Class Desc:	DETERGENTS/SOAPS
Waste Class:	268

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class Desc:		AMINES			
Waste Class:		232			
Waste Class Desc:		POLYMERIC RESINS			
Waste Class:		241			
Waste Class Desc:		HALOGENATED SOLVENTS			
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
Waste Class:		253			
Waste Class Desc:		EMULSIFIED OILS			
Waste Class:		146			
Waste Class Desc:		OTHER SPECIFIED INORGANICS			
Waste Class:		263			
Waste Class Desc:		ORGANIC LABORATORY CHEMICALS			
Waste Class:		112			
Waste Class Desc:		ACID WASTE - HEAVY METALS			
Waste Class:		122			
Waste Class Desc:		ALKALINE WASTES - OTHER METALS			
Waste Class:		145			
Waste Class Desc:		PAINT/PIGMENT/COATING RESIDUES			
Waste Class:		148			
Waste Class Desc:		INORGANIC LABORATORY CHEMICALS			
Waste Class:		212			
Waste Class Desc:		ALIPHATIC SOLVENTS			
Waste Class:		221			
Waste Class Desc:		LIGHT FUELS			
22	19 of 48	ENE/168.9	181.3 / 17.69	E.S. Fox Enterprises Inc. 9127 Montrose Road Niagara Falls ON	NCPL
Year:		2003			
Site Name:					
Facility Owner:					
Discharge Type:		Industrial Sewage			
Sector:		Miscellaneous			
District Area:		Niagara			
Type of Concern:		C of A Non-Compliance			
Contaminant:		Phosphorus			
Status Report:					
<u>Details</u>					
Incident Date:		8/14/2003			
Exceedance Start Date:					
Exceedance End Date:					
Limit/Unit/Freq:		1 mg/L /annum			
Quantity Min/Max:		1.07/			
Facility Action:		Other			
Ministry Action:		Assessment Complete - No Further Action Required			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
22	20 of 48	ENE/168.9	181.3 / 17.69	E.S. Fox Enterprises Inc. 9127 Montrose Road Niagara Falls ON	NCPL
Year:		2003			
Site Name:					
Facility Owner:					
Discharge Type:		Industrial Sewage			
Sector:		Miscellaneous			
District Area:		Niagara			
Type of Concern:		C of A Non-Compliance			
Contaminant:		Total Suspended Solids			
Status Report:					
<u>Details</u>					
Incident Date:		8/14/2003			
Exceedance Start Date:					
Exceedance End Date:					
Limit/Unit/Freq:		25 mg/L /annum			
Quantity Min/Max:		32/			
Facility Action:		Other			
Ministry Action:		Assessment Complete - No Further Action Required			
22	21 of 48	ENE/168.9	181.3 / 17.69	E.S. Fox Ltd. 9127 Montrose Rd Niagara Falls ON L2E 6S5	SCT
Established:		01-AUG-34			
Plant Size (ft²):					
Employment:					
--Details--					
Description:		Other Plate Work and Fabricated Structural Product Manufacturing			
SIC/NAICS Code:		332319			
Description:		Industrial Building and Structure Construction			
SIC/NAICS Code:		236210			
Description:		Mining and Oil and Gas Field Machinery Manufacturing			
SIC/NAICS Code:		333130			
Description:		Other Ornamental and Architectural Metal Product Manufacturing			
SIC/NAICS Code:		332329			
Description:		Engineering Services			
SIC/NAICS Code:		541330			
Description:		Metal Tank (Heavy Gauge) Manufacturing			
SIC/NAICS Code:		332420			
22	22 of 48	ENE/168.9	181.3 / 17.69	E S FOX LTD 9127 MONTROSE RD NIAGARA FALLS ON	FSTH
License Issue Date:		1/8/1999			
Tank Status:		Licensed			
Tank Status As Of:		August 2007			
Operation Type:		Private Fuel Outlet			
Facility Type:		Gasoline Station - Self Serve			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
--Details--					
Status:		Active			
Year of Installation:					
Corrosion Protection:					
Capacity:		25000			
Tank Fuel Type:		Liquid Fuel Single Wall AST - Gasoline			
Status:		Active			
Year of Installation:					
Corrosion Protection:					
Capacity:		15000			
Tank Fuel Type:		Liquid Fuel Single Wall AST - Diesel			
22	23 of 48	ENE/168.9	181.3 / 17.69	E.S. Fox Enterprises Inc. 9127 Montrose Ave Niagara Falls ON	NCPL
Year:		2007			
Site Name:					
Facility Owner:					
Discharge Type:		Municipal Private Sewage			
Sector:		Miscellaneous			
District Area:		Niagara			
Type of Concern:		C of A/Permit Non-Compliance			
Contaminant:		LOW PH EFFLUENT			
Status Report:					
Details					
Incident Date:		1/1/2007			
Exceedance Start Date:		1/1/2007			
Exceedance End Date:		12/31/2007			
Limit/Unit/Freq:		6 pH			
Quantity Min/Max:		0/5.1			
Facility Action:		Ceased Operations			
Ministry Action:		Other Abatement Action Taken			
22	24 of 48	ENE/168.9	181.3 / 17.69	E.S. Fox Enterprises Inc. 9127 Montrose Ave Niagara Falls ON	NCPL
Year:		2007			
Site Name:					
Facility Owner:					
Discharge Type:		Municipal Private Sewage			
Sector:		Miscellaneous			
District Area:		Niagara			
Type of Concern:		C of A/Permit Non-Compliance			
Contaminant:		PHOSPHORUS			
Status Report:					
Details					
Incident Date:		12/31/2007			
Exceedance Start Date:		2/28/2007			
Exceedance End Date:		12/31/2007			
Limit/Unit/Freq:		1 mg/L			
Quantity Min/Max:		1.3/3.88			
Facility Action:		Ceased Operations			
Ministry Action:		Other Abatement Action Taken			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
22	25 of 48	ENE/168.9	181.3 / 17.69	E.S. Fox Enterprises Inc. 9127 Montrose Ave Niagara Falls ON	NCPL
Year:		2007			
Site Name:					
Facility Owner:					
Discharge Type:		Municipal Private Sewage			
Sector:		Miscellaneous			
District Area:		Niagara			
Type of Concern:		C of A/Permit Non-Compliance			
Contaminant:		SUSPENDED SOLIDS			
Status Report:					
Details					
Incident Date:		12/31/2007			
Exceedance Start Date:		1/1/2007			
Exceedance End Date:		12/31/2007			
Limit/Unit/Freq:		25 mg/L			
Quantity Min/Max:		125.2/125.2			
Facility Action:		Ceased Operations			
Ministry Action:		Other Abatement Action Taken			
22	26 of 48	ENE/168.9	181.3 / 17.69	E S FOX LTD 9127 MONTROSE RD NIAGARA FALLS ON	FSTH
License Issue Date:		1/8/1999			
Tank Status:		Licensed			
Tank Status As Of:		December 2008			
Operation Type:		Private Fuel Outlet			
Facility Type:		Gasoline Station - Self Serve			
--Details--					
Status:		Active			
Year of Installation:					
Corrosion Protection:					
Capacity:		25000			
Tank Fuel Type:		Liquid Fuel Single Wall AST - Gasoline			
Status:		Active			
Year of Installation:					
Corrosion Protection:					
Capacity:		15000			
Tank Fuel Type:		Liquid Fuel Single Wall AST - Diesel			
22	27 of 48	ENE/168.9	181.3 / 17.69	E.S. Fox Enterprises Inc. 9127 Montrose Ave Niagara Falls ON	NCPL
Year:		2008			
Site Name:					
Facility Owner:					
Discharge Type:		Private Sewage			
Sector:		Miscellaneous Communal			
District Area:		Niagara			
Type of Concern:		CofA/Permit Non-Compliance			
Contaminant:		PHOSPHORUS			
Status Report:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Details					
Incident Date:		2/29/2008			
Exceedance Start Date:		1/1/2008			
Exceedance End Date:		2/29/2008			
Limit/Unit/Freq:		1 mg/L			
Quantity Min/Max:		1.3/3.88			
Facility Action:		Ceased Operations			
Ministry Action:		Other Abatement Action Taken			
22	28 of 48	ENE/168.9	181.3 / 17.69	E.S. Fox Limited 9127 Montrose Rd Niagara Falls ON	CA
Certificate #:		5161-7SEKCC			
Application Year:		2009			
Issue Date:		5/31/2009			
Approval Type:		Air			
Status:		Approved			
Application Type:					
Client Name:					
Client Address:					
Client City:					
Client Postal Code:					
Project Description:					
Contaminants:					
Emission Control:					
22	29 of 48	ENE/168.9	181.3 / 17.69	E. S. FOX LIMITED 9127 MONTROSE ROAD NIAGARA FALLS ON	GEN
Generator No:		ON0214904		PO Box No:	
Status:				Country:	
Approval Years:		2009		Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:		238990			
SIC Description:		All Other Specialty Trade Contractors			
Detail(s)					
Waste Class:		112			
Waste Class Desc:		ACID WASTE - HEAVY METALS			
Waste Class:		122			
Waste Class Desc:		ALKALINE WASTES - OTHER METALS			
Waste Class:		145			
Waste Class Desc:		PAINT/PIGMENT/COATING RESIDUES			
Waste Class:		146			
Waste Class Desc:		OTHER SPECIFIED INORGANICS			
Waste Class:		148			
Waste Class Desc:		INORGANIC LABORATORY CHEMICALS			
Waste Class:		150			
Waste Class Desc:		INERT INORGANIC WASTES			
Waste Class:		212			
Waste Class Desc:		ALIPHATIC SOLVENTS			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class:		213			
Waste Class Desc:		PETROLEUM DISTILLATES			
Waste Class:		221			
Waste Class Desc:		LIGHT FUELS			
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
Waste Class:		232			
Waste Class Desc:		POLYMERIC RESINS			
Waste Class:		241			
Waste Class Desc:		HALOGENATED SOLVENTS			
Waste Class:		253			
Waste Class Desc:		EMULSIFIED OILS			
Waste Class:		262			
Waste Class Desc:		DETERGENTS/SOAPS			
Waste Class:		263			
Waste Class Desc:		ORGANIC LABORATORY CHEMICALS			
Waste Class:		331			
Waste Class Desc:		WASTE COMPRESSED GASES			
Waste Class:		268			
Waste Class Desc:		AMINES			

[22](#) 30 of 48 **ENE/168.9** **181.3 / 17.69** **E. S. FOX LIMITED**
9127 MONTROSE ROAD
NIAGARA FALLS ON **GEN**

Generator No:	ON0214904	PO Box No:	
Status:		Country:	
Approval Years:	2010	Choice of Contact:	
Contam. Facility:		Co Admin:	
MHSW Facility:		Phone No Admin:	
SIC Code:	238990		
SIC Description:	All Other Specialty Trade Contractors		

Detail(s)

Waste Class:	231
Waste Class Desc:	LATEX WASTES
Waste Class:	212
Waste Class Desc:	ALIPHATIC SOLVENTS
Waste Class:	112
Waste Class Desc:	ACID WASTE - HEAVY METALS
Waste Class:	122
Waste Class Desc:	ALKALINE WASTES - OTHER METALS
Waste Class:	148
Waste Class Desc:	INORGANIC LABORATORY CHEMICALS
Waste Class:	253
Waste Class Desc:	EMULSIFIED OILS
Waste Class:	221

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class Desc:		LIGHT FUELS			
Waste Class:		145			
Waste Class Desc:		PAINT/PIGMENT/COATING RESIDUES			
Waste Class:		331			
Waste Class Desc:		WASTE COMPRESSED GASES			
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
Waste Class:		150			
Waste Class Desc:		INERT INORGANIC WASTES			
Waste Class:		146			
Waste Class Desc:		OTHER SPECIFIED INORGANICS			
Waste Class:		268			
Waste Class Desc:		AMINES			
Waste Class:		232			
Waste Class Desc:		POLYMERIC RESINS			
Waste Class:		262			
Waste Class Desc:		DETERGENTS/SOAPS			
Waste Class:		241			
Waste Class Desc:		HALOGENATED SOLVENTS			
Waste Class:		263			
Waste Class Desc:		ORGANIC LABORATORY CHEMICALS			
Waste Class:		213			
Waste Class Desc:		PETROLEUM DISTILLATES			

22	31 of 48	ENE/168.9	181.3 / 17.69	E. S. FOX LIMITED 9127 MONTROSE ROAD NIAGARA FALLS ON	GEN
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Generator No:	ON0214904	PO Box No:	
Status:		Country:	
Approval Years:	2011	Choice of Contact:	
Contam. Facility:		Co Admin:	
MHSW Facility:		Phone No Admin:	
SIC Code:	238990		
SIC Description:	All Other Specialty Trade Contractors		

Detail(s)

Waste Class:	221
Waste Class Desc:	LIGHT FUELS
Waste Class:	231
Waste Class Desc:	LATEX WASTES
Waste Class:	252
Waste Class Desc:	WASTE OILS & LUBRICANTS
Waste Class:	212
Waste Class Desc:	ALIPHATIC SOLVENTS
Waste Class:	253
Waste Class Desc:	EMULSIFIED OILS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class:		148			
Waste Class Desc:		INORGANIC LABORATORY CHEMICALS			
Waste Class:		146			
Waste Class Desc:		OTHER SPECIFIED INORGANICS			
Waste Class:		263			
Waste Class Desc:		ORGANIC LABORATORY CHEMICALS			
Waste Class:		331			
Waste Class Desc:		WASTE COMPRESSED GASES			
Waste Class:		262			
Waste Class Desc:		DETERGENTS/SOAPS			
Waste Class:		112			
Waste Class Desc:		ACID WASTE - HEAVY METALS			
Waste Class:		268			
Waste Class Desc:		AMINES			
Waste Class:		122			
Waste Class Desc:		ALKALINE WASTES - OTHER METALS			
Waste Class:		150			
Waste Class Desc:		INERT INORGANIC WASTES			
Waste Class:		232			
Waste Class Desc:		POLYMERIC RESINS			
Waste Class:		213			
Waste Class Desc:		PETROLEUM DISTILLATES			
Waste Class:		241			
Waste Class Desc:		HALOGENATED SOLVENTS			
Waste Class:		145			
Waste Class Desc:		PAINT/PIGMENT/COATING RESIDUES			

22	32 of 48	ENE/168.9	181.3 / 17.69	E.S. FOX LTD ** 9127 MONTROSE RD PO BOX 1010 NIAGARA FALLS L2E 7J9 ON CA 9127 MONTROSE RD PO BOX 1010 NIAGARA FALLS L2E 7J9 ON CA ON	FST
Instance No:	11485869	Manufacturer:	NULL		
Status:	Active	Serial No:	NULL		
Cont Name:		Ulc Standard:	NULL		
Instance Type:	FS Liquid Fuel Tank	Quantity:	1		
Item:	FS LIQUID FUEL TANK	Unit of Measure:	EA		
Item Description:	FS Liquid Fuel Tank	Fuel Type:	Diesel		
Tank Type:	Single Wall Horizontal AST	Fuel Type2:	NULL		
Install Date:	4/16/1997	Fuel Type3:	NULL		
Install Year:	NULL	Piping Steel:			
Years in Service:	14	Piping Galvanized:			
Model:	NULL	Tanks Single Wall St:			
Description:		Piping Underground:			
Capacity:	15000	Num Underground:			
Tank Material:	Steel	Panam Related:	NULL		
Corrosion Protect:	Coating	Panam Venue:	NULL		
Overfill Protect:					
Facility Type:	FS Liquid Fuel Tank				
Parent Facility Type:	Fuels Safety Private Fuel Outlet - Self Serve				
Facility Location:	9127 MONTROSE RD PO BOX 1010 NIAGARA FALLS L2E 7J9 ON CA				
Device Installed Location:	9127 MONTROSE RD PO BOX 1010 NIAGARA FALLS L2E 7J9 ON CA				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Fuel Storage Tank Details</u>					
Owner Account Name:		E.S. FOX LTD **			
<u>Liquid Fuel Tank Details</u>					
Overfill Protection:	NULL				
Owner Account Name:		E.S. FOX LTD **			

22	33 of 48	ENE/168.9	181.3 / 17.69	E.S. FOX LTD ** 9127 MONTROSE RD PO BOX 1010 NIAGARA FALLS L2E 7J9 ON CA 9127 MONTROSE RD PO BOX 1010 NIAGARA FALLS L2E 7J9 ON CA ON	FST
Instance No:	11485849			Manufacturer:	NULL
Status:	Active			Serial No:	NULL
Cont Name:				Ulc Standard:	NULL
Instance Type:	FS Liquid Fuel Tank			Quantity:	1
Item:	FS LIQUID FUEL TANK			Unit of Measure:	EA
Item Description:	FS Liquid Fuel Tank			Fuel Type:	Gasoline
Tank Type:	Single Wall Horizontal AST			Fuel Type2:	NULL
Install Date:	4/16/1997			Fuel Type3:	NULL
Install Year:	NULL			Piping Steel:	
Years in Service:	14			Piping Galvanized:	
Model:	NULL			Tanks Single Wall St:	
Description:				Piping Underground:	
Capacity:	25000			Num Underground:	
Tank Material:	Steel			Panam Related:	NULL
Corrosion Protect:	Coating			Panam Venue:	NULL
Overfill Protect:					
Facility Type:	FS Liquid Fuel Tank				
Parent Facility Type:	Fuels Safety Private Fuel Outlet - Self Serve				
Facility Location:	9127 MONTROSE RD PO BOX 1010 NIAGARA FALLS L2E 7J9 ON CA				
Device Installed Location:	9127 MONTROSE RD PO BOX 1010 NIAGARA FALLS L2E 7J9 ON CA				

<u>Fuel Storage Tank Details</u>					
Owner Account Name:		E.S. FOX LTD **			
<u>Liquid Fuel Tank Details</u>					
Overfill Protection:	NULL				
Owner Account Name:		E.S. FOX LTD **			

22	34 of 48	ENE/168.9	181.3 / 17.69	E. S. FOX LIMITED 9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	GEN
Generator No:	ON0214904			PO Box No:	
Status:				Country:	
Approval Years:	2012			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:	238990				
SIC Description:	All Other Specialty Trade Contractors				

Detail(s)

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<i>Waste Class:</i>		263			
<i>Waste Class Desc:</i>		ORGANIC LABORATORY CHEMICALS			
<i>Waste Class:</i>		150			
<i>Waste Class Desc:</i>		INERT INORGANIC WASTES			
<i>Waste Class:</i>		232			
<i>Waste Class Desc:</i>		POLYMERIC RESINS			
<i>Waste Class:</i>		253			
<i>Waste Class Desc:</i>		EMULSIFIED OILS			
<i>Waste Class:</i>		213			
<i>Waste Class Desc:</i>		PETROLEUM DISTILLATES			
<i>Waste Class:</i>		262			
<i>Waste Class Desc:</i>		DETERGENTS/SOAPS			
<i>Waste Class:</i>		231			
<i>Waste Class Desc:</i>		LATEX WASTES			
<i>Waste Class:</i>		146			
<i>Waste Class Desc:</i>		OTHER SPECIFIED INORGANICS			
<i>Waste Class:</i>		241			
<i>Waste Class Desc:</i>		HALOGENATED SOLVENTS			
<i>Waste Class:</i>		268			
<i>Waste Class Desc:</i>		AMINES			
<i>Waste Class:</i>		252			
<i>Waste Class Desc:</i>		WASTE OILS & LUBRICANTS			
<i>Waste Class:</i>		145			
<i>Waste Class Desc:</i>		PAINT/PIGMENT/COATING RESIDUES			
<i>Waste Class:</i>		331			
<i>Waste Class Desc:</i>		WASTE COMPRESSED GASES			
<i>Waste Class:</i>		122			
<i>Waste Class Desc:</i>		ALKALINE WASTES - OTHER METALS			
<i>Waste Class:</i>		148			
<i>Waste Class Desc:</i>		INORGANIC LABORATORY CHEMICALS			
<i>Waste Class:</i>		112			
<i>Waste Class Desc:</i>		ACID WASTE - HEAVY METALS			
<i>Waste Class:</i>		212			
<i>Waste Class Desc:</i>		ALIPHATIC SOLVENTS			
<i>Waste Class:</i>		221			
<i>Waste Class Desc:</i>		LIGHT FUELS			

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ENE/168.9

181.3 / 17.69

*E. S. FOX LIMITED
9127 MONTROSE ROAD
NIAGARA FALLS ON*

GEN

Generator No: ON0214904
Status:
Approval Years: 2013
Contam. Facility:
MHSW Facility:
SIC Code: 238990
SIC Description: ALL OTHER SPECIALTY TRADE CONTRACTORS

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Detail(s)</u>					
Waste Class:		241			
Waste Class Desc:		HALOGENATED SOLVENTS			
Waste Class:		150			
Waste Class Desc:		INERT INORGANIC WASTES			
Waste Class:		213			
Waste Class Desc:		PETROLEUM DISTILLATES			
Waste Class:		145			
Waste Class Desc:		PAINT/PIGMENT/COATING RESIDUES			
Waste Class:		122			
Waste Class Desc:		ALKALINE WASTES - OTHER METALS			
Waste Class:		268			
Waste Class Desc:		AMINES			
Waste Class:		221			
Waste Class Desc:		LIGHT FUELS			
Waste Class:		112			
Waste Class Desc:		ACID WASTE - HEAVY METALS			
Waste Class:		263			
Waste Class Desc:		ORGANIC LABORATORY CHEMICALS			
Waste Class:		231			
Waste Class Desc:		LATEX WASTES			
Waste Class:		232			
Waste Class Desc:		POLYMERIC RESINS			
Waste Class:		252			
Waste Class Desc:		WASTE OILS & LUBRICANTS			
Waste Class:		148			
Waste Class Desc:		INORGANIC LABORATORY CHEMICALS			
Waste Class:		331			
Waste Class Desc:		WASTE COMPRESSED GASES			
Waste Class:		262			
Waste Class Desc:		DETERGENTS/SOAPS			
Waste Class:		212			
Waste Class Desc:		ALIPHATIC SOLVENTS			
Waste Class:		146			
Waste Class Desc:		OTHER SPECIFIED INORGANICS			
Waste Class:		253			
Waste Class Desc:		EMULSIFIED OILS			

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ENE/168.9

181.3 / 17.69

**E.S. Fox Limited
9127 Montrose Road Niagara Falls, Regional
Municipality of Niagara L2E 7J9 CITY OF
NIAGARA FALLS
ON**

EBR

EBR Registry No:

012-3028

Decision Posted:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Ministry Ref No:	1281-9P2KU8			Exception Posted:	
Notice Type:	Instrument Decision			Section:	
Notice Stage:				Act 1:	
Notice Date:	October 06, 2015			Act 2:	
Proposal Date:	November 20, 2014			Site Location Map:	
Year:	2014				
Instrument Type:	(EPA Part II.1-air) - Environmental Compliance Approval (project type: air)				
Off Instrument Name:					
Posted By:					
Company Name:	E.S. Fox Limited				
Site Address:					
Location Other:					
Proponent Name:					
Proponent Address:	9127 Montrose Road, Niagara Falls Ontario, Canada L2E 7J9				
Comment Period:					
URL:					
Site Location Details:					
9127 Montrose Road Niagara Falls, Regional Municipality of Niagara L2E 7J9 CITY OF NIAGARA FALLS					

22	37 of 48	ENE/168.9	181.3 / 17.69	E.S. Fox Limited 9127 Montrose Road Niagara Falls Regional Municipality of Niagara L2E 7J9 CITY OF NIAGARA FALLS ON	EBR
EBR Registry No:	012-4672			Decision Posted:	
Ministry Ref No:	7256-9PNJ2W			Exception Posted:	
Notice Type:	Instrument Decision			Section:	
Notice Stage:				Act 1:	
Notice Date:	April 25, 2016			Act 2:	
Proposal Date:	July 17, 2015			Site Location Map:	
Year:	2015				
Instrument Type:	(EPA Part II.1-air) - Environmental Compliance Approval (project type: air)				
Off Instrument Name:					
Posted By:					
Company Name:	E.S. Fox Limited				
Site Address:					
Location Other:					
Proponent Name:					
Proponent Address:	9127 Montrose Road, Niagara Falls Ontario, Canada L2E 7J9				
Comment Period:					
URL:					
Site Location Details:					
9127 Montrose Road Niagara Falls Regional Municipality of Niagara L2E 7J9 CITY OF NIAGARA FALLS					

22	38 of 48	ENE/168.9	181.3 / 17.69	E.S. Fox Limited 9127 Montrose Rd Niagara Falls ON L2E 7J9	ECA
Approval No:	9177-9ZJJFQ			MOE District:	Niagara
Approval Date:	2015-09-28			City:	
Status:	Approved			Longitude:	-79.067856
Record Type:	ECA			Latitude:	43.10657
Link Source:	IDS			Geometry X:	
SWP Area Name:	Niagara Peninsula			Geometry Y:	
Approval Type:	ECA-AIR				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Project Type:		AIR			
Business Name:		E.S. Fox Limited			
Address:		9127 Montrose Rd			
Full Address:					
Full PDF Link:		https://www.accessenvironment.ene.gov.on.ca/instruments/1281-9P2KU8-14.pdf			
22	39 of 48	ENE/168.9	181.3 / 17.69	E.S. Fox Limited 9127 Montrose Rd Niagara Falls ON L2E 7J9	ECA
Approval No:		1032-A8XP6J		MOE District: Niagara	
Approval Date:		2016-04-18		City:	
Status:		Approved		Longitude: -79.067856	
Record Type:		ECA		Latitude: 43.10657	
Link Source:		IDS		Geometry X:	
SWP Area Name:		Niagara Peninsula		Geometry Y:	
Approval Type:		ECA-AIR			
Project Type:		AIR			
Business Name:		E.S. Fox Limited			
Address:		9127 Montrose Rd			
Full Address:					
Full PDF Link:		https://www.accessenvironment.ene.gov.on.ca/instruments/7256-9PNJ2W-14.pdf			
22	40 of 48	ENE/168.9	181.3 / 17.69	E.S. Fox Enterprises Inc. 9127 Montrose Avenue Niagara Falls ON L2E 5S6	ECA
Approval No:		4-058-77-786		MOE District: Niagara	
Approval Date:		2000-10-10		City:	
Status:		Revoked and/or Replaced		Longitude: -79.067856	
Record Type:		ECA		Latitude: 43.10657	
Link Source:		IDS		Geometry X:	
SWP Area Name:		Niagara Peninsula		Geometry Y:	
Approval Type:		ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS			
Project Type:		MUNICIPAL AND PRIVATE SEWAGE WORKS			
Business Name:		E.S. Fox Enterprises Inc.			
Address:		9127 Montrose Avenue			
Full Address:					
Full PDF Link:		https://www.accessenvironment.ene.gov.on.ca/instruments/6004-4L9JVH-14.pdf			
22	41 of 48	ENE/168.9	181.3 / 17.69	E.S. Fox Enterprises Inc. 9127 Montrose Rd. Niagara Falls ON L2E 5S6	ECA
Approval No:		0028-4LRSUX		MOE District: Niagara	
Approval Date:		2000-07-17		City:	
Status:		Revoked and/or Replaced		Longitude: -79.067856	
Record Type:		ECA		Latitude: 43.10657	
Link Source:		IDS		Geometry X:	
SWP Area Name:		Niagara Peninsula		Geometry Y:	
Approval Type:		ECA-AIR			
Project Type:		AIR			
Business Name:		E.S. Fox Enterprises Inc.			
Address:		9127 Montrose Rd.			
Full Address:					
Full PDF Link:		https://www.accessenvironment.ene.gov.on.ca/instruments/1381-4JKR3Z-14.pdf			
22	42 of 48	ENE/168.9	181.3 / 17.69	E.S. Fox Limited 9127 Montrose Rd	ECA

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Niagara Falls ON L2E 7J9					
Approval No:	5161-7SEKCCQ			MOE District:	Niagara
Approval Date:	2009-05-31			City:	
Status:	Revoked and/or Replaced			Longitude:	-79.067856
Record Type:	ECA			Latitude:	43.10657
Link Source:	IDS			Geometry X:	
SWP Area Name:	Niagara Peninsula			Geometry Y:	
Approval Type:	ECA-AIR				
Project Type:	AIR				
Business Name:	E. S. Fox Limited				
Address:	9127 Montrose Rd				
Full Address:					
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/4512-7RCPL9-14.pdf				

22	43 of 48	ENE/168.9	181.3 / 17.69	E. S. FOX LIMITED 9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	GEN
Generator No:	ON0214904			PO Box No:	
Status:				Country:	Canada
Approval Years:	2015			Choice of Contact:	CO_ADMIN
Contam. Facility:	No			Co Admin:	Cory Young
MHSW Facility:	No			Phone No Admin:	905-354-3700 Ext.260
SIC Code:	238990				
SIC Description:	ALL OTHER SPECIALTY TRADE CONTRACTORS				
<u>Detail(s)</u>					
Waste Class:	252				
Waste Class Desc:	WASTE OILS & LUBRICANTS				
Waste Class:	212				
Waste Class Desc:	ALIPHATIC SOLVENTS				
Waste Class:	112				
Waste Class Desc:	ACID WASTE - HEAVY METALS				
Waste Class:	221				
Waste Class Desc:	LIGHT FUELS				
Waste Class:	232				
Waste Class Desc:	POLYMERIC RESINS				
Waste Class:	231				
Waste Class Desc:	LATEX WASTES				
Waste Class:	148				
Waste Class Desc:	INORGANIC LABORATORY CHEMICALS				
Waste Class:	122				
Waste Class Desc:	ALKALINE WASTES - OTHER METALS				
Waste Class:	145				
Waste Class Desc:	PAINT/PIGMENT/COATING RESIDUES				
Waste Class:	331				
Waste Class Desc:	WASTE COMPRESSED GASES				
Waste Class:	253				
Waste Class Desc:	EMULSIFIED OILS				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class:		241			
Waste Class Desc:		HALOGENATED SOLVENTS			
Waste Class:		262			
Waste Class Desc:		DETERGENTS/SOAPS			
Waste Class:		146			
Waste Class Desc:		OTHER SPECIFIED INORGANICS			
Waste Class:		263			
Waste Class Desc:		ORGANIC LABORATORY CHEMICALS			
Waste Class:		213			
Waste Class Desc:		PETROLEUM DISTILLATES			
Waste Class:		268			
Waste Class Desc:		AMINES			
Waste Class:		150			
Waste Class Desc:		INERT INORGANIC WASTES			

22	44 of 48	ENE/168.9	181.3 / 17.69	E. S. FOX LIMITED 9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	GEN
Generator No:	ON0214904			PO Box No:	
Status:				Country:	Canada
Approval Years:	2016			Choice of Contact:	CO_ADMIN
Contam. Facility:	No			Co Admin:	Cory Young
MHSW Facility:	No			Phone No Admin:	905-354-3700 Ext.260
SIC Code:	238990				
SIC Description:	ALL OTHER SPECIALTY TRADE CONTRACTORS				

Detail(s)

Waste Class:	263
Waste Class Desc:	ORGANIC LABORATORY CHEMICALS
Waste Class:	150
Waste Class Desc:	INERT INORGANIC WASTES
Waste Class:	212
Waste Class Desc:	ALIPHATIC SOLVENTS
Waste Class:	253
Waste Class Desc:	EMULSIFIED OILS
Waste Class:	252
Waste Class Desc:	WASTE OILS & LUBRICANTS
Waste Class:	148
Waste Class Desc:	INORGANIC LABORATORY CHEMICALS
Waste Class:	268
Waste Class Desc:	AMINES
Waste Class:	112
Waste Class Desc:	ACID WASTE - HEAVY METALS
Waste Class:	145
Waste Class Desc:	PAINT/PIGMENT/COATING RESIDUES
Waste Class:	232
Waste Class Desc:	POLYMERIC RESINS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class:		241			
Waste Class Desc:		HALOGENATED SOLVENTS			
Waste Class:		262			
Waste Class Desc:		DETERGENTS/SOAPS			
Waste Class:		331			
Waste Class Desc:		WASTE COMPRESSED GASES			
Waste Class:		231			
Waste Class Desc:		LATEX WASTES			
Waste Class:		221			
Waste Class Desc:		LIGHT FUELS			
Waste Class:		213			
Waste Class Desc:		PETROLEUM DISTILLATES			
Waste Class:		122			
Waste Class Desc:		ALKALINE WASTES - OTHER METALS			
Waste Class:		146			
Waste Class Desc:		OTHER SPECIFIED INORGANICS			

22	45 of 48	ENE/168.9	181.3 / 17.69	E. S. FOX LIMITED 9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	GEN
Generator No:	ON0214904			PO Box No:	
Status:				Country:	Canada
Approval Years:	2014			Choice of Contact:	CO_ADMIN
Contam. Facility:	No			Co Admin:	Cory Young
MHSW Facility:	No			Phone No Admin:	905-354-3700 Ext.260
SIC Code:	238990				
SIC Description:	ALL OTHER SPECIALTY TRADE CONTRACTORS				

Detail(s)

Waste Class:	268
Waste Class Desc:	AMINES
Waste Class:	252
Waste Class Desc:	WASTE OILS & LUBRICANTS
Waste Class:	148
Waste Class Desc:	INORGANIC LABORATORY CHEMICALS
Waste Class:	145
Waste Class Desc:	PAINT/PIGMENT/COATING RESIDUES
Waste Class:	331
Waste Class Desc:	WASTE COMPRESSED GASES
Waste Class:	112
Waste Class Desc:	ACID WASTE - HEAVY METALS
Waste Class:	213
Waste Class Desc:	PETROLEUM DISTILLATES
Waste Class:	221
Waste Class Desc:	LIGHT FUELS
Waste Class:	263

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class Desc:		ORGANIC LABORATORY CHEMICALS			
Waste Class:		146			
Waste Class Desc:		OTHER SPECIFIED INORGANICS			
Waste Class:		150			
Waste Class Desc:		INERT INORGANIC WASTES			
Waste Class:		231			
Waste Class Desc:		LATEX WASTES			
Waste Class:		212			
Waste Class Desc:		ALIPHATIC SOLVENTS			
Waste Class:		232			
Waste Class Desc:		POLYMERIC RESINS			
Waste Class:		253			
Waste Class Desc:		EMULSIFIED OILS			
Waste Class:		122			
Waste Class Desc:		ALKALINE WASTES - OTHER METALS			
Waste Class:		262			
Waste Class Desc:		DETERGENTS/SOAPS			
Waste Class:		241			
Waste Class Desc:		HALOGENATED SOLVENTS			

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ENE/168.9

181.3 / 17.69

E. S. FOX LIMITED
9127 MONTROSE ROAD
NIAGARA FALLS ON L2E 6S5

GEN

Generator No:
Status:
Approval Years:
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

ON0214904
Registered
As of Dec 2018

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class:	112 C
Waste Class Desc:	Acid solutions - containing heavy metals
Waste Class:	122 C
Waste Class Desc:	Alkaline slutions - containing other metals and non-metals (not cyanide)
Waste Class:	145 I
Waste Class Desc:	Wastes from the use of pigments, coatings and paints
Waste Class:	145 L
Waste Class Desc:	Wastes from the use of pigments, coatings and paints
Waste Class:	148 I
Waste Class Desc:	Misc. wastes and inorganic chemicals
Waste Class:	150 L
Waste Class Desc:	Inert organic wastes
Waste Class:	212 L
Waste Class Desc:	Aliphatic solvents and residues

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class: Waste Class Desc:		221 I Light fuels			
Waste Class: Waste Class Desc:		231 L Latex wastes			
Waste Class: Waste Class Desc:		232 C Polymeric resins			
Waste Class: Waste Class Desc:		241 H Halogenated solvents and residues			
Waste Class: Waste Class Desc:		251 L Waste oils/sludges (petroleum based)			
Waste Class: Waste Class Desc:		252 L Waste crankcase oils and lubricants			
Waste Class: Waste Class Desc:		262 L Detergents and soaps			
Waste Class: Waste Class Desc:		263 B Misc. waste organic chemicals			
Waste Class: Waste Class Desc:		263 I Misc. waste organic chemicals			
Waste Class: Waste Class Desc:		268 C Amines			
Waste Class: Waste Class Desc:		331 I Waste compressed gases including cylinders			

22	47 of 48	ENE/168.9	181.3 / 17.69	E. S. FOX LIMITED 9127 MONTROSE ROAD NIAGARA FALLS ON L2E 6S5	GEN
Generator No:	ON0214904			PO Box No:	
Status:	Registered			Country:	Canada
Approval Years:	As of Jul 2020			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No Admin:	
SIC Code:					
SIC Description:					

Detail(s)

Waste Class: Waste Class Desc:	262 L Detergents and soaps
Waste Class: Waste Class Desc:	241 H Halogenated solvents and residues
Waste Class: Waste Class Desc:	231 L Latex wastes
Waste Class: Waste Class Desc:	145 I Wastes from the use of pigments, coatings and paints
Waste Class: Waste Class Desc:	145 L Wastes from the use of pigments, coatings and paints
Waste Class: Waste Class Desc:	263 I Misc. waste organic chemicals

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class:		148 I			
Waste Class Desc:		Misc. wastes and inorganic chemicals			
Waste Class:		150 L			
Waste Class Desc:		Inert organic wastes			
Waste Class:		268 C			
Waste Class Desc:		Amines			
Waste Class:		331 I			
Waste Class Desc:		Waste compressed gases including cylinders			
Waste Class:		221 I			
Waste Class Desc:		Light fuels			
Waste Class:		263 B			
Waste Class Desc:		Misc. waste organic chemicals			
Waste Class:		122 C			
Waste Class Desc:		Alkaline slutions - containing other metals and non-metals (not cyanide)			
Waste Class:		112 C			
Waste Class Desc:		Acid solutions - containing heavy metals			
Waste Class:		251 L			
Waste Class Desc:		Waste oils/sludges (petroleum based)			
Waste Class:		232 C			
Waste Class Desc:		Polymeric resins			
Waste Class:		252 L			
Waste Class Desc:		Waste crankcase oils and lubricants			
Waste Class:		212 L			
Waste Class Desc:		Aliphatic solvents and residues			

[22](#) 48 of 48 **ENE/168.9** **181.3 / 17.69** **E. S. FOX LIMITED**
9127 MONTROSE ROAD
NIAGARA FALLS ON L2E 6S5 **GEN**

Generator No:	ON0214904	PO Box No:	
Status:	Registered	Country:	Canada
Approval Years:	As of Apr 2021	Choice of Contact:	
Contam. Facility:		Co Admin:	
MHSW Facility:		Phone No Admin:	
SIC Code:			
SIC Description:			

Detail(s)

Waste Class:	252 L
Waste Class Desc:	Waste crankcase oils and lubricants
Waste Class:	148 I
Waste Class Desc:	Misc. wastes and inorganic chemicals
Waste Class:	268 C
Waste Class Desc:	Amines
Waste Class:	112 C
Waste Class Desc:	Acid solutions - containing heavy metals
Waste Class:	241 H

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Class Desc:		Halogenated solvents and residues			
Waste Class:		263 I			
Waste Class Desc:		Misc. waste organic chemicals			
Waste Class:		212 L			
Waste Class Desc:		Aliphatic solvents and residues			
Waste Class:		221 I			
Waste Class Desc:		Light fuels			
Waste Class:		263 B			
Waste Class Desc:		Misc. waste organic chemicals			
Waste Class:		251 L			
Waste Class Desc:		Waste oils/sludges (petroleum based)			
Waste Class:		331 I			
Waste Class Desc:		Waste compressed gases including cylinders			
Waste Class:		145 L			
Waste Class Desc:		Wastes from the use of pigments, coatings and paints			
Waste Class:		122 C			
Waste Class Desc:		Alkaline slutions - containing other metals and non-metals (not cyanide)			
Waste Class:		232 C			
Waste Class Desc:		Polymeric resins			
Waste Class:		232 L			
Waste Class Desc:		Polymeric resins			
Waste Class:		262 L			
Waste Class Desc:		Detergents and soaps			
Waste Class:		231 L			
Waste Class Desc:		Latex wastes			
Waste Class:		145 I			
Waste Class Desc:		Wastes from the use of pigments, coatings and paints			
Waste Class:		150 L			
Waste Class Desc:		Inert organic wastes			

[23](#) 1 of 1 **SE/174.3** **175.0 / 11.38** **Montrose Road & Biggar Road
Niagara Falls ON** **EHS**

Order No:	20160128098	Nearest Intersection:	
Status:	C	Municipality:	niagara falls
Report Type:	Custom Report	Client Prov/State:	ON
Report Date:	04-FEB-16	Search Radius (km):	.25
Date Received:	28-JAN-16	X:	-79.127516
Previous Site Name:	former airstrip	Y:	43.033917
Lot/Building Size:	36 hectares		
Additional Info Ordered:	City Directory		

[24](#) 1 of 1 **ENE/174.5** **183.3 / 19.67** **MONTROSE RD
Niagara Falls ON** **WWIS**

Well ID:	7231244	Data Entry Status:	
Construction Date:		Data Src:	
Primary Water Use:	Monitoring	Date Received:	11/10/2014
Sec. Water Use:		Selected Flag:	True

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Final Well Status:	Observation Wells			Abandonment Rec:	
Water Type:				Contractor:	7238
Casing Material:				Form Version:	7
Audit No:	Z193941			Owner:	
Tag:	A169956			Street Name:	MONTROSE RD
Construction Method:				County:	NIAGARA
Elevation (m):				Municipality:	NIAGARA FALLS CITY (WILLOUGHBY)
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/723\7231244.pdf

Additional Detail(s) (Map)

Well Completed Date: 2014/10/03
Year Completed: 2014
Depth (m): 28.8545016
Latitude: 43.043721471185
Longitude: -79.1227860069005
Path: 723\7231244.pdf

Bore Hole Information

Bore Hole ID:	1005209905	Elevation:	176.760848
DP2BR:		Elevrc:	
Spatial Status:		Zone:	17
Code OB:		East83:	652902.00
Code OB Desc:		North83:	4767380.00
Open Hole:		Org CS:	UTM83
Cluster Kind:		UTMRC:	4
Date Completed:	03-Oct-2014 00:00:00	UTMRC Desc:	margin of error : 30 m - 100 m
Remarks:		Location Method:	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock

Materials Interval

Formation ID: 1005283679
Layer: 4
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 06
Mat2 Desc: SILT
Mat3: 06
Mat3 Desc: SILT
Formation Top Depth: 10.0
Formation End Depth: 30.0
Formation End Depth UOM: ft

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		1005283678			
Layer:		3			
Color:		6			
General Color:		BROWN			
Mat1:		05			
Most Common Material:		CLAY			
Mat2:		06			
Mat2 Desc:		SILT			
Mat3:		05			
Mat3 Desc:		CLAY			
Formation Top Depth:		4.0			
Formation End Depth:		10.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		1005283684			
Layer:		9			
Color:		2			
General Color:		GREY			
Mat1:		15			
Most Common Material:		LIMESTONE			
Mat2:					
Mat2 Desc:					
Mat3:		15			
Mat3 Desc:		LIMESTONE			
Formation Top Depth:		88.0			
Formation End Depth:		94.66699981689453			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		1005283677			
Layer:		2			
Color:		6			
General Color:		BROWN			
Mat1:		28			
Most Common Material:		SAND			
Mat2:		11			
Mat2 Desc:		GRAVEL			
Mat3:		11			
Mat3 Desc:		GRAVEL			
Formation Top Depth:		1.0			
Formation End Depth:		4.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		1005283680			
Layer:		5			
Color:		7			
General Color:		RED			
Mat1:		05			
Most Common Material:		CLAY			
Mat2:		06			
Mat2 Desc:		SILT			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Mat3:		06			
Mat3 Desc:		SILT			
Formation Top Depth:		30.0			
Formation End Depth:		52.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		1005283676			
Layer:		1			
Color:		8			
General Color:		BLACK			
Mat1:		06			
Most Common Material:		SILT			
Mat2:		05			
Mat2 Desc:		CLAY			
Mat3:		02			
Mat3 Desc:		TOPSOIL			
Formation Top Depth:		0.0			
Formation End Depth:		1.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		1005283682			
Layer:		7			
Color:		7			
General Color:		RED			
Mat1:		05			
Most Common Material:		CLAY			
Mat2:		06			
Mat2 Desc:		SILT			
Mat3:		05			
Mat3 Desc:		CLAY			
Formation Top Depth:		57.0			
Formation End Depth:		75.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		1005283683			
Layer:		8			
Color:		2			
General Color:		GREY			
Mat1:		06			
Most Common Material:		SILT			
Mat2:		11			
Mat2 Desc:		GRAVEL			
Mat3:		06			
Mat3 Desc:		SILT			
Formation Top Depth:		75.0			
Formation End Depth:		88.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:		1005283681			
Layer:		6			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Color:		7			
General Color:		RED			
Mat1:		06			
Most Common Material:		SILT			
Mat2:		05			
Mat2 Desc:		CLAY			
Mat3:		05			
Mat3 Desc:		CLAY			
Formation Top Depth:		52.0			
Formation End Depth:		57.0			
Formation End Depth UOM:		ft			
<u>Annular Space/Abandonment Sealing Record</u>					
Plug ID:		1005283692			
Layer:		1			
Plug From:		0			
Plug To:		88			
Plug Depth UOM:		ft			
<u>Method of Construction & Well Use</u>					
Method Construction ID:		1005283691			
Method Construction Code:		6			
Method Construction:		Boring			
Other Method Construction:					
<u>Pipe Information</u>					
Pipe ID:		1005283675			
Casing No:		0			
Comment:					
Alt Name:					
<u>Construction Record - Screen</u>					
Screen ID:		1005283689			
Layer:		1			
Slot:		10			
Screen Top Depth:		90			
Screen End Depth:					
Screen Material:		5			
Screen Depth UOM:		ft			
Screen Diameter UOM:		inch			
Screen Diameter:		2.5			
<u>Water Details</u>					
Water ID:		1005283687			
Layer:					
Kind Code:					
Kind:					
Water Found Depth:					
Water Found Depth UOM:		ft			
<u>Hole Diameter</u>					
Hole ID:		1005283685			
Diameter:		8.0			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Depth From: Depth To: Hole Depth UOM: Hole Diameter UOM:		0.0 8.666999816894531 ft inch			
<u>Hole Diameter</u>					
Hole ID: Diameter: Depth From: Depth To: Hole Depth UOM: Hole Diameter UOM:		1005283686 4.0 8.0 94.66699981689453 ft inch			
25	1 of 9	ENE/190.4	181.6 / 17.92	The Regional Municipality of Niagara 9240 Montrose Rd Niagara Falls ON	SPL
Ref No: Site No: Incident Dt: Year: Incident Cause: Incident Event: Contaminant Code: Contaminant Name: Contaminant Limit 1: Contam Limit Freq 1: Contaminant UN No 1: Environment Impact: Nature of Impact: 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: Contaminant Qty:		3453-7SXX5M Discharge Or Bypass To A Watercourse SEWAGE,RAW UNCHLORINATED Not Anticipated Surface Water Pollution Deferred Field Response 6/12/2009 Frost Heave Grassy Brook Niagara Falls WPCP: Unkn Vol Sewage to Ditch		Discharger Report: Material Group: Health/Env Conseq: Client Type: Sector Type: Agency Involved: Nearest Watercourse: Site Address: Site District Office: Site Postal Code: Site Region: Site Municipality: Site Lot: Site Conc: Northing: Easting: Site Geo Ref Accu: Site Map Datum: SAC Action Class: Source Type:	
				Sewage Treatment Niagara Falls NA NA Watercourse Spills	

25	2 of 9	ENE/190.4	181.6 / 17.92	The Corporation of the City of Niagara Falls 9240 Montrose Rd Niagara Falls ON	CA
Certificate #: Application Year: Issue Date: Approval Type: Status: Application Type: Client Name: Client Address: Client City: Client Postal Code: Project Description: Contaminants: Emission Control:		2948-6XKLQQ 2007 2/1/2007 Air Revoked and/or Replaced			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
25	3 of 9	ENE/190.4	181.6 / 17.92	The Corporation of the City of Niagara Falls 9240 Montrose Rd Niagara Falls ON	CA
Certificate #: 7563-6ZLNQ9A Application Year: 2007 Issue Date: 4/5/2007 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:					
25	4 of 9	ENE/190.4	181.6 / 17.92	The Corporation of the City of Niagara Falls 9240 Montrose Rd Niagara Falls ON	CA
Certificate #: 7765-6XGS37 Application Year: 2007 Issue Date: 3/1/2007 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:					
25	5 of 9	ENE/190.4	181.6 / 17.92	The Corporation of the City of Niagara Falls 9240 Montrose Rd Niagara Falls ON L2E 6X5	ECA
Approval No: 2948-6XKLQQ Approval Date: 2007-02-01 Status: Revoked and/or Replaced Record Type: ECA Link Source: IDS SWP Area Name: Niagara Peninsula Approval Type: ECA-AIR Project Type: AIR Business Name: The Corporation of the City of Niagara Falls Address: 9240 Montrose Rd Full Address: Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/4938-6V5SNW-14.pdf		MOE District: Niagara City: Longitude: -79.12241 Latitude: 43.043842 Geometry X: Geometry Y:			
25	6 of 9	ENE/190.4	181.6 / 17.92	The Corporation of the City of Niagara Falls 9240 Montrose Rd Niagara Falls ON L2E 6X5	ECA
Approval No: 7563-6ZLNQ9A Approval Date: 2007-04-05 Status: Approved		MOE District: Niagara City: Longitude: -79.12241			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Record Type: ECA Latitude: 43.043842 Link Source: IDS Geometry X: SWP Area Name: Niagara Peninsula Geometry Y: Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS Business Name: The Corporation of the City of Niagara Falls Address: 9240 Montrose Rd Full Address: Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/4461-6ZNP6-14.pdf					
25	7 of 9	ENE/190.4	181.6 / 17.92	The Corporation of the City of Niagara Falls 9240 Montrose Rd Niagara Falls ON L2E 6X5	ECA
Approval No: 7765-6XGS37 MOE District: Niagara Approval Date: 2007-03-01 City: Status: Revoked and/or Replaced Longitude: -79.12241 Record Type: ECA Latitude: 43.043842 Link Source: IDS Geometry X: SWP Area Name: Niagara Peninsula Geometry Y: Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS Business Name: The Corporation of the City of Niagara Falls Address: 9240 Montrose Rd Full Address: Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/0700-6V5SRT-14.pdf					
25	8 of 9	ENE/190.4	181.6 / 17.92	The Corporation of the City of Niagara Falls 9240 Montrose Rd Niagara Falls ON L2E 6X5	ECA
Approval No: 8120-72DGYB MOE District: Niagara Approval Date: 2007-06-10 City: Status: Approved Longitude: -79.12241 Record Type: ECA Latitude: 43.043842 Link Source: IDS Geometry X: SWP Area Name: Niagara Peninsula Geometry Y: Approval Type: ECA-AIR Project Type: AIR Business Name: The Corporation of the City of Niagara Falls Address: 9240 Montrose Rd Full Address: Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/7439-72BMN7-14.pdf					
25	9 of 9	ENE/190.4	181.6 / 17.92	The Regional Municipality of Niagara 9240 Montrose Rd; 3450 Stanley Ave Niagara Falls; Niagara Falls ON	SPL
Ref No: 0536-AUXNAA Discharger Report: Site No: 9082-6V5SPS; 2652-5E2MNX Material Group: Incident Dt: 2018/01/12 Health/Env Conseq: 2 - Minor Environment Year: Client Type: Municipal Government Incident Cause: Sector Type: Miscellaneous Industrial Incident Event: Process Upset/Malfunction Agency Involved: Contaminant Code: 44 Nearest Watercourse: Contaminant Name: SEWAGE,RAW UNCHLORINATED Site Address: 9240 Montrose Rd; 3450 Stanley Ave Contaminant Limit 1: Site District Office: Niagara; Niagara Contam Limit Freq 1: Site Postal Code: NA; L2E 6V8 Contaminant UN No 1: n/a Site Region: West Central Environment Impact: Site Municipality: Niagara Falls; Niagara Falls					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Nature of Impact:				Site Lot:	
Receiving Medium:				Site Conc:	NA; NA
Receiving Env:	Land			Northing:	NA; 4776463
MOE Response:	No			Easting:	NA; 655732
Dt MOE Arvl on Scn:				Site Geo Ref Accu:	NA; NA
MOE Reported Dt:	2018/01/12			Site Map Datum:	NA; NAD83
Dt Document Closed:	2018/03/08			SAC Action Class:	Land Spills
Incident Reason:	Equipment Failure			Source Type:	Valve/Fitting/Piping
Site Name:	Grassy Brook; WW Niagara Falls - Stamford WPCP				
Site County/District:	Regional Municipality of Niagara; Regional Municipality of Niagara				
Site Geo Ref Meth:	NA; 10 -100 metres eg. Topographic Map				
Incident Summary:	DWMD WW Spills - Niagara Falls - Grassy Brook SPS - Sewage - Jan 12 2018				
Contaminant Qty:	0.1 m ³				

26	1 of 1	NW/206.4	170.7 / 7.04	7047 Reixinger Road Niagara Falls ON	EHS
Order No:	20120906019			Nearest Intersection:	
Status:	C			Municipality:	Niagara Falls
Report Type:	Custom Report			Client Prov/State:	ON
Report Date:	14-SEP-12			Search Radius (km):	.25
Date Received:	06-SEP-12			X:	-79.140888
Previous Site Name:				Y:	43.046238
Lot/Building Size:					
Additional Info Ordered:					

27	1 of 1	ESE/211.1	175.8 / 12.19	MONTROSE RD & KYONS CREEK RD NIAGARA FALLS ON	WWIS
Well ID:	7200894			Data Entry Status:	
Construction Date:				Data Src:	
Primary Water Use:	Monitoring			Date Received:	4/30/2013
Sec. Water Use:				Selected Flag:	True
Final Well Status:	Test Hole			Abandonment Rec:	
Water Type:				Contractor:	7464
Casing Material:				Form Version:	7
Audit No:	Z157984			Owner:	
Tag:	A143216			Street Name:	MONTROSE RD & KYONS CREEK RD
Construction Method:				County:	NIAGARA
Elevation (m):				Municipality:	NIAGARA FALLS CITY (CROWLAND)
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):

Additional Detail(s) (Map)

Well Completed Date:	2013/02/26
Year Completed:	2013
Depth (m):	6.1
Latitude:	43.0344799443071
Longitude:	-79.1237183909028
Path:	

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

Bore Hole ID:	1004278469	Elevation:	177.237548
DP2BR:		Elevrc:	
Spatial Status:		Zone:	17
Code OB:		East83:	652849.00
Code OB Desc:		North83:	4766352.00
Open Hole:		Org CS:	UTM83
Cluster Kind:		UTMRC:	4
Date Completed:	26-Feb-2013 00:00:00	UTMRC Desc:	margin of error : 30 m - 100 m
Remarks:		Location Method:	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock

Materials Interval

Formation ID:	1004847196
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	2.440000057220459
Formation End Depth:	6.099999904632568
Formation End Depth UOM:	m

Overburden and Bedrock

Materials Interval

Formation ID:	1004847195
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	06
Mat2 Desc:	SILT
Mat3:	84
Mat3 Desc:	SILTY
Formation Top Depth:	0.0
Formation End Depth:	2.440000057220459
Formation End Depth UOM:	m

Annular Space/Abandonment

Sealing Record

Plug ID:	1004847203
Layer:	1
Plug From:	0
Plug To:	2.74000000953674
Plug Depth UOM:	m

Method of Construction & Well

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Use</u>					
Method Construction ID:		1004847202			
Method Construction Code:		9			
Method Construction:		Driving			
Other Method Construction:					
<u>Pipe Information</u>					
Pipe ID:		1004847194			
Casing No:		0			
Comment:					
Alt Name:					
<u>Construction Record - Casing</u>					
Casing ID:		1004847199			
Layer:		1			
Material:		5			
Open Hole or Material:		PLASTIC			
Depth From:		0			
Depth To:		3.04999995231628			
Casing Diameter:		5			
Casing Diameter UOM:		cm			
Casing Depth UOM:		m			
<u>Construction Record - Screen</u>					
Screen ID:		1004847200			
Layer:		1			
Slot:		10			
Screen Top Depth:		3.04999995231628			
Screen End Depth:		6.09999990463257			
Screen Material:		5			
Screen Depth UOM:		m			
Screen Diameter UOM:		cm			
Screen Diameter:		6			
<u>Water Details</u>					
Water ID:		1004847198			
Layer:					
Kind Code:					
Kind:					
Water Found Depth:					
Water Found Depth UOM:		m			
<u>Hole Diameter</u>					
Hole ID:		1004847197			
Diameter:		12.5			
Depth From:		0.0			
Depth To:		6.099999904632568			
Hole Depth UOM:		m			
Hole Diameter UOM:		cm			

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1 of 1

W/227.7

178.0 / 14.31

W.C. Patterson C.A. Biggar #2

OOGW

Crowland ON

Licence No:

F014144

Well Compl:

26072

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Well ID:	26063			County:	Welland
Well Compl ID:	26072			Block:	NULL
W Class ID:	2362			Lot:	5
UWI Code:	F014144			Conc:	ABF
Permit Date:	NULL			Surface Lat NAD83:	43.03789500
Depth(m):	141.43			Surface Long NAD83:	-79.14611111
Well Pool:	NULL			Bottom Lat NAD83:	43.03789500
Completion Date:	NULL			Bottom Long NAD83:	-79.14611111
Depth Reached:	1948-08-20 00:00:00			Lot Sides (m):	698.80 N
Capped Date:	NULL			E/W (m):	212.80 W
Class ID:				Latitude Nad27:	
DB Source:				Longitude Nad27:	
Status as of:	June 2020			bottom lat27:	
Start Date:	1948-07-28 00:00:00			bottom long27:	
SPUD Date:	1948-07-28 00:00:00			Lateral:	No
Class:	DEV			Accuracy:	50
Grnd Elev:	141.43			Method:	Well Records (1921 to 1954)
KB Elev:	141.43			Parent:	NULL
TVD:	141.43			Prod Top:	110.03
PBTD:	NULL			Prod Bot:	125.27
TD Form:	Queenston			PROPD Depth:	152.40
Workover D:	NULL			Location Method:	Well Records (1921 to 1954)
Operator:	W. C. Patterson Gas Co. Ltd.			Location Accuracy:	Within 50 metres
Township:	Crowland			Dt Obtained:	NULL
Well Name:	W.C. Patterson C.A. Biggar #2				
Target:	CLI				
Target Desc:	TARGETS WITHIN THE CLINTON AND CATARACT (OR MEDINA) GROUPS (WHIRLPOOL TO IRONDEQUOIT FORMATIONS INCLUSIVE)				
Well Status Type:	Natural Gas Well				
Status Type Desc:	A WELL PRESENTLY OR FORMERLY USED TO PRODUCE NATURAL GAS FROM A RESERVOIR				
Well Status Mode:	Unknown				
Status Mode Desc:					
Classification:	DEVELOPMENT				
Classification Desc:	"DEVELOPMENT WELL" MEANS A WELL THAT IS DRILLED FOR THE PURPOSE OF PRODUCING FROM OR EXTENDING A POOL OF OIL OR GAS INTO WHICH ANOTHER WELL HAS ALREADY BEEN DRILLED				
Cement Rec:	NULL				
Comments:	Accuracy is approximate and not verified.				

Details

License No:	F014144	Source:	FORM 7
Top (m):	125.27	Static Level (m):	n/a
Elevation (m):	16.15	Geology/Water:	Geology
Geology Formation:	Cabot Head	Elevation / Top (m):	16.15 / 125.27
Type of Water:	n/a		
License No:	F014144	Source:	n/a
Top (m):	12.80	Static Level (m):	NULL
Elevation (m):	n/a	Geology/Water:	Water
Geology Formation:	Drift	Elevation / Top (m):	n/a / 12.80
Type of Water:	Fresh		
License No:	F014144	Source:	MNR
Top (m):	32.60	Static Level (m):	n/a
Elevation (m):	108.83	Geology/Water:	Geology
Geology Formation:	Guelph	Elevation / Top (m):	108.83 / 32.60
Type of Water:	n/a		
License No:	F014144	Source:	n/a
Top (m):	0.00	Static Level (m):	NULL
Elevation (m):	n/a	Geology/Water:	Water
Geology Formation:	Drift	Elevation / Top (m):	n/a / 0.00
Type of Water:	Fresh		
License No:	F014144	Source:	MNR

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Top (m): Elevation (m): Geology Formation: Type of Water:	81.08 60.35 Rochester n/a			Static Level (m): Geology/Water: Elevation / Top (m):	n/a Geology 60.35 / 81.08
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014144 29.26 n/a Drift Sulphur			Source: Static Level (m): Geology/Water: Elevation / Top (m):	n/a NULL Water n/a / 29.26
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014144 132.59 8.84 Whirlpool n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	MNR n/a Geology 8.84 / 132.59
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014144 81.08 60.35 Rochester n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	FORM 7 n/a Geology 60.35 / 81.08
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014144 132.59 8.84 Whirlpool n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	FORM 7 n/a Geology 8.84 / 132.59
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014144 29.60 111.83 A-2 Carbonate n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	FORM 7 n/a Geology 111.83 / 29.60
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014144 99.36 42.06 Irondequoit n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	MNR n/a Geology 42.06 / 99.36
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014144 140.21 1.22 Queenston n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	MNR n/a Geology 1.22 / 140.21
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014144 21.95 n/a Drift Sulphur			Source: Static Level (m): Geology/Water: Elevation / Top (m):	n/a NULL Water n/a / 21.95
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014144 29.60 111.83 A-2 Carbonate n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	MNR n/a Geology 111.83 / 29.60
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014144 110.03 31.39 Grimsby n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	MNR n/a Geology 31.39 / 110.03
License No:	F014144			Source:	FORM 7

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Top (m): Elevation (m): Geology Formation: Type of Water:	99.36 42.06 Irondequoit n/a			Static Level (m): Geology/Water: Elevation / Top (m):	n/a Geology 42.06 / 99.36
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014144 140.21 1.22 Queenston n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	FORM 7 n/a Geology 1.22 / 140.21
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014144 32.61 108.81 Guelph n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	FORM 7 n/a Geology 108.81 / 32.61
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014144 110.03 31.39 Grimsby n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	FORM 7 n/a Geology 31.39 / 110.03
License No: Top (m): Elevation (m): Geology Formation: Type of Water:	F014144 125.27 16.15 Cabot Head n/a			Source: Static Level (m): Geology/Water: Elevation / Top (m):	MNR n/a Geology 16.15 / 125.27

[29](#)

1 of 1

ESE/229.4

175.8 / 12.19

ON

WWIS

Well ID:	7265625	Data Entry Status:	Yes
Construction Date:		Data Src:	
Primary Water Use:		Date Received:	6/24/2016
Sec. Water Use:		Selected Flag:	True
Final Well Status:		Abandonment Rec:	
Water Type:		Contractor:	7464
Casing Material:		Form Version:	8
Audit No:	C31786	Owner:	
Tag:	A192016	Street Name:	NIAGARA
Construction Method:		County:	NIAGARA FALLS CITY (CROWLAND)
Elevation (m):		Municipality:	
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):

Additional Detail(s) (Map)

Well Completed Date:	2016/03/02
Year Completed:	2016
Depth (m):	
Latitude:	43.0343159285812
Longitude:	-79.1236006388104
Path:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Bore Hole Information</u>					
Bore Hole ID:	1006078360			Elevation:	177.318710
DP2BR:				Elevrc:	
Spatial Status:				Zone:	17
Code OB:				East83:	652859.00
Code OB Desc:				North83:	4766334.00
Open Hole:				Org CS:	UTM83
Cluster Kind:				UTMRC:	4
Date Completed:	02-Mar-2016 00:00:00			UTMRC Desc:	margin of error : 30 m - 100 m
Remarks:				Location Method:	wwr
Elevrc Desc:					
Location Source Date:					
Improvement Location Source:					
Improvement Location Method:					
Source Revision Comment:					
Supplier Comment:					

30	1 of 1	ENE/230.0	185.4 / 21.74	MONROSE RD Niagara Falls ON	WWIS
Well ID:	7305848			Data Entry Status:	
Construction Date:				Data Src:	
Primary Water Use:	Test Hole			Date Received:	2/14/2018
Sec. Water Use:	Monitoring			Selected Flag:	True
Final Well Status:	Abandoned-Other			Abandonment Rec:	Yes
Water Type:				Contractor:	7295
Casing Material:				Form Version:	7
Audit No:	Z272946			Owner:	
Tag:	A192016			Street Name:	MONROSE RD
Construction Method:				County:	NIAGARA
Elevation (m):				Municipality:	NIAGARA FALLS CITY (CROWLAND)
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/730\7305848.pdf				

Additional Detail(s) (Map)

Well Completed Date:	2017/12/21
Year Completed:	2017
Depth (m):	
Latitude:	43.044402783071
Longitude:	-79.1236982831687
Path:	730\7305848.pdf

Bore Hole Information

Bore Hole ID:	1006988604	Elevation:	
DP2BR:		Elevrc:	
Spatial Status:		Zone:	17
Code OB:		East83:	652826.00
Code OB Desc:		North83:	4767454.00
Open Hole:		Org CS:	UTM83
Cluster Kind:		UTMRC:	4

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Date Completed:	21-Dec-2017 00:00:00			UTMRC Desc:	margin of error : 30 m - 100 m
Remarks:				Location Method:	cnrev
Elevrc Desc:					
Location Source Date:					
Improvement Location Source:					
Improvement Location Method:					
Source Revision Comment:					
Supplier Comment:					
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:	1007154281				
Layer:					
Color:					
General Color:					
Mat1:					
Most Common Material:					
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:					
Formation End Depth:					
Formation End Depth UOM:	ft				
<u>Annular Space/Abandonment</u>					
<u>Sealing Record</u>					
Plug ID:	1007154289				
Layer:	1				
Plug From:					
Plug To:					
Plug Depth UOM:	ft				
<u>Method of Construction & Well</u>					
<u>Use</u>					
Method Construction ID:	1007154288				
Method Construction Code:	6				
Method Construction:	Boring				
Other Method Construction:					
<u>Pipe Information</u>					
Pipe ID:	1007154280				
Casing No:	0				
Comment:					
Alt Name:					
<u>Construction Record - Screen</u>					
Screen ID:	1007154285				
Layer:					
Slot:					
Screen Top Depth:					
Screen End Depth:					
Screen Material:					
Screen Depth UOM:	ft				
Screen Diameter UOM:	inch				
Screen Diameter:					

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

Water ID: 1007154283
 Layer:
 Kind Code:
 Kind:
 Water Found Depth:
 Water Found Depth UOM: ft

Hole Diameter

Hole ID: 1007154282
 Diameter:
 Depth From:
 Depth To:
 Hole Depth UOM: ft
 Hole Diameter UOM: inch

[31](#) 1 of 1 SE/249.8 174.8 / 11.19 **Montrose Road And Lyons Creek Road
Niagara Falls ON** **EHS**

Order No:	20121002031	Nearest Intersection:	
Status:	C	Municipality:	City of Niagara Falls
Report Type:	Custom Report	Client Prov/State:	ON
Report Date:	12-OCT-12	Search Radius (km):	.9
Date Received:	02-OCT-12	X:	-79.125821
Previous Site Name:		Y:	43.033831
Lot/Building Size:			
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans; Title Searches; City Directory		

[32](#) 1 of 1 SE/287.2 175.8 / 12.19 **lot 1
ON** **WWIS**

Well ID:	6600614	Data Entry Status:	
Construction Date:		Data Src:	1
Primary Water Use:	Not Used	Date Received:	1/6/1961
Sec. Water Use:	0	Selected Flag:	True
Final Well Status:	Test Hole	Abandonment Rec:	
Water Type:		Contractor:	2801
Casing Material:		Form Version:	1
Audit No:		Owner:	
Tag:		Street Name:	
Construction Method:		County:	NIAGARA
Elevation (m):		Municipality:	NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:		Site Info:	
Depth to Bedrock:		Lot:	001
Well Depth:		Concession:	
Overburden/Bedrock:		Concession Name:	BF
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/660\6600614.pdf

Additional Detail(s) (Map)

Well Completed Date: 1960/07/04
 Year Completed: 1960
 Depth (m): 28.6512

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Latitude:		43.0329665982859			
Longitude:		-79.1269817300293			
Path:		660\6600614.pdf			

Bore Hole Information

Bore Hole ID:	10460348	Elevation:	178.330993
DP2BR:	93.00	Elevrc:	
Spatial Status:		Zone:	17
Code OB:	r	East83:	652586.90
Code OB Desc:	Bedrock	North83:	4766178.00
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	5
Date Completed:	04-Jul-1960 00:00:00	UTMRC Desc:	margin of error : 100 m - 300 m
Remarks:		Location Method:	p5
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock

Materials Interval

Formation ID:	932589390
Layer:	6
Color:	
General Color:	
Mat1:	05
Most Common Material:	CLAY
Mat2:	06
Mat2 Desc:	SILT
Mat3:	
Mat3 Desc:	
Formation Top Depth:	48.0
Formation End Depth:	53.0
Formation End Depth UOM:	ft

Overburden and Bedrock

Materials Interval

Formation ID:	932589391
Layer:	7
Color:	
General Color:	
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	53.0
Formation End Depth:	59.0
Formation End Depth UOM:	ft

Overburden and Bedrock

Materials Interval

Formation ID:	932589394
Layer:	10
Color:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
General Color:					
Mat1:		06			
Most Common Material:		SILT			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		68.0			
Formation End Depth:		70.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:		932589392			
Layer:		8			
Color:					
General Color:					
Mat1:		06			
Most Common Material:		SILT			
Mat2:		08			
Mat2 Desc:		FINE SAND			
Mat3:					
Mat3 Desc:					
Formation Top Depth:		59.0			
Formation End Depth:		62.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:		932589396			
Layer:		12			
Color:					
General Color:					
Mat1:		09			
Most Common Material:		MEDIUM SAND			
Mat2:		11			
Mat2 Desc:		GRAVEL			
Mat3:					
Mat3 Desc:					
Formation Top Depth:		75.0			
Formation End Depth:		87.0			
Formation End Depth UOM:		ft			
<u>Overburden and Bedrock</u>					
<u>Materials Interval</u>					
Formation ID:		932589387			
Layer:		3			
Color:		3			
General Color:		BLUE			
Mat1:		05			
Most Common Material:		CLAY			
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:		9.0			
Formation End Depth:		40.0			
Formation End Depth UOM:		ft			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:			932589386		
Layer:			2		
Color:			7		
General Color:			RED		
Mat1:			05		
Most Common Material:			CLAY		
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:			1.0		
Formation End Depth:			9.0		
Formation End Depth UOM:			ft		
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:			932589385		
Layer:			1		
Color:					
General Color:					
Mat1:			02		
Most Common Material:			TOPSOIL		
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:			0.0		
Formation End Depth:			1.0		
Formation End Depth UOM:			ft		
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:			932589389		
Layer:			5		
Color:					
General Color:					
Mat1:			05		
Most Common Material:			CLAY		
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:			44.0		
Formation End Depth:			48.0		
Formation End Depth UOM:			ft		
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:			932589395		
Layer:			11		
Color:					
General Color:					
Mat1:			05		
Most Common Material:			CLAY		
Mat2:					
Mat2 Desc:					
Mat3:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Mat3 Desc:					
Formation Top Depth:			70.0		
Formation End Depth:			75.0		
Formation End Depth UOM:			ft		
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:			932589388		
Layer:			4		
Color:					
General Color:					
Mat1:			05		
Most Common Material:			CLAY		
Mat2:			11		
Mat2 Desc:			GRAVEL		
Mat3:			13		
Mat3 Desc:			BOULDERS		
Formation Top Depth:			40.0		
Formation End Depth:			44.0		
Formation End Depth UOM:			ft		
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:			932589398		
Layer:			14		
Color:					
General Color:					
Mat1:			15		
Most Common Material:			LIMESTONE		
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:			93.0		
Formation End Depth:			94.0		
Formation End Depth UOM:			ft		
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:			932589393		
Layer:			9		
Color:					
General Color:					
Mat1:			05		
Most Common Material:			CLAY		
Mat2:					
Mat2 Desc:					
Mat3:					
Mat3 Desc:					
Formation Top Depth:			62.0		
Formation End Depth:			68.0		
Formation End Depth UOM:			ft		
<u>Overburden and Bedrock Materials Interval</u>					
Formation ID:			932589397		
Layer:			13		
Color:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
General Color:					
Mat1:		05			
Most Common Material:		CLAY			
Mat2:		11			
Mat2 Desc:		GRAVEL			
Mat3:					
Mat3 Desc:					
Formation Top Depth:		87.0			
Formation End Depth:		93.0			
Formation End Depth UOM:		ft			
<u>Method of Construction & Well Use</u>					
Method Construction ID:		966600614			
Method Construction Code:		1			
Method Construction:		Cable Tool			
Other Method Construction:					
<u>Pipe Information</u>					
Pipe ID:		11008918			
Casing No:		1			
Comment:					
Alt Name:					
<u>Construction Record - Casing</u>					
Casing ID:		930747637			
Layer:		1			
Material:		1			
Open Hole or Material:		STEEL			
Depth From:					
Depth To:		79			
Casing Diameter:		5			
Casing Diameter UOM:		inch			
Casing Depth UOM:		ft			
<u>Construction Record - Screen</u>					
Screen ID:		933385505			
Layer:		1			
Slot:					
Screen Top Depth:		79			
Screen End Depth:		89			
Screen Material:					
Screen Depth UOM:		ft			
Screen Diameter UOM:		inch			
Screen Diameter:					
<u>Results of Well Yield Testing</u>					
Pump Test ID:		996600614			
Pump Set At:					
Static Level:		14.0			
Final Level After Pumping:		18.0			
Recommended Pump Depth:					
Pumping Rate:		25.0			
Flowing Rate:					
Recommended Pump Rate:					
Levels UOM:		ft			
Rate UOM:		GPM			

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
<i>Water State After Test Code:</i>	2				
<i>Water State After Test:</i>		CLOUDY			
<i>Pumping Test Method:</i>	1				
<i>Pumping Duration HR:</i>	8				
<i>Pumping Duration MIN:</i>	0				
<i>Flowing:</i>	No				
<u>Water Details</u>					
<i>Water ID:</i>		933947882			
<i>Layer:</i>		1			
<i>Kind Code:</i>		1			
<i>Kind:</i>		FRESH			
<i>Water Found Depth:</i>		75.0			
<i>Water Found Depth UOM:</i>		ft			

Unplottable Summary

Total: **59** Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
AAGR		Lot 1 Con BF	Niagara Falls - Willoughby ON	
AAGR		Lot 5	Niagara Falls - Stamford ON	
AAGR		Lot 5	Niagara Falls - Stamford ON	
CA	NIAGARA FALLS CITY	MONTROSE RD.	NIAGARA FALLS CITY ON	
CA	R.M. OF NIAGARA	MONTROSE RD.	NIAGARA FALLS CITY ON	
CA	NIAGARA FALLS CITY	MONTROSE RD	NIAGARA FALLS CITY ON	
CA	ONTARIO HYDRO (NIAGARA PLANT GROUP)	LOT 1, SIR ADAM BECK G.S.	NIAGARA FALLS CITY ON	
CA	FERNANDO PINGUE	SOUTH DR./R #98(MONTROSE RD.)	NIAGARA FALLS CITY ON	L2E 6S4
CA	FERNANDO PINGUE	SOUTH DR./RR #98(MONTROSE RD.)	NIAGARA FALLS CITY ON	L2E 6S4
CA	ONTARIO HYDRO (NIAGARA PLANT GROUP)	GORE LOT 1,SIR ADAM BECK COMP.	NIAGARA FALLS CITY ON	
CA	ONTARIO HYDRO (SIR ADAM BECK G.S.)	LOT #1, BROKEN FRONTAGE	NIAGARA FALLS CITY ON	
CA	ONTARIO HYDRO (NIAGARA PLANT GROUP)	GORE LOT 1, STAMFORD TWP.	NIAGARA FALLS CITY ON	
CA	NIAGARA FALLS CITY	MONTROSE RD.	NIAGARA FALLS CITY ON	
CA	NIAGARA FALLS CITY	MONTROSE RD.	NIAGARA FALLS CITY ON	
CA	NIAGARA FALLS CITY	MONTROSE RD.	NIAGARA FALLS CITY ON	
CA	ONTARIO HYDRO, SIR ADAM BECK II GS	GORE LOT 1, BF., STAMFORD TWP.	NIAGARA FALLS ON	

CA	ONTARIO HYDRO, SIR ADAM BECK II GS	LOT 1, BROKEN FRONTAGE	NIAGARA FALLS ON	
CA	The Corporation of the City of Niagara Falls	Part of Lot 210, Stamford Twp. Parts 2 and 3 on Reference Plan, Blackburn Parkwa	Niagara Falls ON	
CA	ONTARIO HYDRO, SIR ADAM BECK II GS	LOT 1, STANFORD, STATION #2	NIAGARA FALLS CITY ON	
CA	ONTARIO HYDRO, SIR ADAM BECK II GS	GORE LOT 1/BROKEN FRONTAGE	NIAGARA FALLS CITY ON	
CA	ONTARIO HYDRO, SIR ADAM BECK II GS	GORE LOT 1/BROKEN FRONTAGE	NIAGARA FALLS CITY ON	
CA		Montrose Road	Niagara Falls ON	
CA		Montrose Road	Niagara Falls ON	
CA	The Corporation of the City of Niagara Falls	Montrose Road	Niagara Falls ON	
CA	The Regional Municipality of Niagara	Montrose Rd	Niagara Falls ON	
CONV	IAN HERD	Reixinger Road	Niagara Falls ON	
EBR	Cytec Canada Inc.	Niagara Falls Lot:Twp. Lot 4 Concession: Stamford Regional Municipality of Niagara CITY OF NIAGARA FALLS	ON	
ECA	The Corporation of the City of Niagara Falls	Part of Lot 210, Stamford Twp. Parts 2 and 3 on Reference Plan, Blackburn Parkway off Montrose Road	Niagara Falls ON	L2E 6X5
ECA	The Corporation of the City of Niagara Falls	Montrose Rd	Niagara Falls ON	
ECA	The Corporation of the City of Niagara Falls	from Montrose Road to 100 metres west	Niagara Falls ON	L2E 6X5
ECA	The Regional Municipality of Niagara	Montrose Rd	Niagara Falls ON	
ECA	The Regional Municipality of Niagara	Montrose Rd	Niagara Falls ON	
ECA	The Corporation of the City of Niagara Falls	Montrose Rd	Niagara Falls ON	L2E 6X5
EHS		Montrose Road	Niagara Falls ON	
GEN	ONTARIO POWER GENERATION	SIR ADAM BECK II GENERATING STATION GORE LOT 1, LOT 1	NIAGARA FALLS ON	
GEN	ONTARIO HYDRO	PUMP GENERATING STATION LOT 1	NIAGARA FALLS ON	
GEN	ONTARIO POWER GENERATION	PUMP GENERATING STATION LOT 1	NIAGARA FALLS ON	

GEN	ONTARIO HYDRO	SIR ADAM BECK II GENERATING STATION GORE LOT 1, LOT 1	NIAGARA FALLS ON	
GEN	WATERLOO COUNTY BOARD OF EDUCATION42-439	WINTERBOURNE P.S.,PT LOT4,BROKEN FRONT CONC.,R.R.#2,WEST MONTROSE, C/O BOX 68	KITCHENER ON	N2G 3X5
GEN	ONTARIO HYDRO 45-068	SIR ADAM BECK II GENERATING STATION GORE LOT 1, LOT 1	NIAGARA FALLS ON	
NCPL	Ford Motor Company of Canada		Niagara Falls (Welland) ON	
NPCB	FORD MOTOR COMPANY OF CANADA	NIAGARA GLASS PLANT	NIAGARA FALLS ON	
PTTW	2285045 Ontario Inc.	Ponds 1,2,3,4,5, Main Irrigation Pond and Welland River Lot: 1-6, Concession: Broken Front, Geographic Township: CROWLAND, Niagara Falls, City, Regional	Municipality of Niagara CROWLAND ON	
PTTW	Grand Niagara Golf Corporation	Part of Lots 1-6, Broken Front of Welland River, City of Niagara, Regional Municipality of Niagara CITY OF NIAGARA FALLS	ON	
PTTW	Oaklands Golf Club	Lot 3, Broken Front Concession, Geographic Township of Willoughby, City of Niagara Falls, Regional Municipality of Niagara CITY OF NIAGARA FALLS	ON	
PTTW	909225 Ontario Ltd.	Lot 1, City of Thorold CITY OF THOROLD	ON	
PTTW	Grand Niagara Resort Corporation	Part Lots 1 through 6 Broken Front of Welland River City of Niagara Falls, Regional Municipality of Niagara CITY OF NIAGARA FALLS	ON	
PTTW	Grand Niagara Golf Corporation	Part Lots 1 through 6, Broken Front of Welland River, City of Niagara Falls, Regional Municipality of Niagara CITY OF NIAGARA FALLS	ON	
SCT	DAY-TIMERS OF CANADA LTD		NIAGARA FALLS ON	L2E 6X6
SCT	MORNINGSTAR LUMBER LIMITED	MONTROSE RD	NIAGARA FALLS ON	L2H
SPL	TRANSPORT TRUCK	ON THE Q.E.W IN NIAGARA FALLS AT MONTROSE RD. MOTOR VEHICLE (OPERATING FLUID)	NIAGARA FALLS CITY ON	
SPL	UNKNOWN	SOUTH BOUND QEW AT SANDHILL PLANT	NIAGARA FALLS CITY ON	
SPL	OCCIDENTAL CHEMICAL	NIAGARA RIVER NEAR GRAND ISLAND ACROSS FROM CHIPPAWA CREEK NIAGARA FALLS, NEW YORK PLANT	NIAGARA FALLS CITY ON	
SPL	SM Freight Inc.	Fort Erie Bound at Biggar Rd.	Niagara Falls ON	
SRDS	FORD MOTOR COMPANY		NIAGARA FALLS ON	

SRDS	FORD MOTOR COMPANY		NIAGARA FALLS ON
WWIS		lot 3	ON
WWIS		lot 5	ON
WWIS		lot 4	ON

Unplottable Report

Site: Lot 1 Con BF Niagara Falls - Willoughby ON

Database:
AAGR

Type: Pit
Region/County: Niagara
Township: Niagara Falls - Willoughby
Concession: BF
Lot: 1
Size (ha): 3
Landuse:
Comments: pond

Site: Lot 5 Niagara Falls - Stamford ON

Database:
AAGR

Type: Pit
Region/County: Niagara
Township: Niagara Falls - Stamford
Concession:
Lot: 5
Size (ha): 1.1
Landuse:
Comments: remote site off Bruce Trail; significant natural revegetation occurring

Site: Lot 5 Niagara Falls - Stamford ON

Database:
AAGR

Type: Pit
Region/County: Niagara
Township: Niagara Falls - Stamford
Concession:
Lot: 5
Size (ha): 1.4
Landuse:
Comments: rehabilitated by owner

Site: NIAGARA FALLS CITY
MONTROSE RD. NIAGARA FALLS CITY ON

Database:
CA

Certificate #: 7-0691-86-
Application Year: 86
Issue Date: 7/4/1986
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: R.M. OF NIAGARA
MONTRSE RD. NIAGARA FALLS CITY ON

Database:
CA

Certificate #: 7-0664-86-
Application Year: 86
Issue Date: 6/27/1986
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: NIAGARA FALLS CITY
MONTRSE RD NIAGARA FALLS CITY ON

Database:
CA

Certificate #: 3-1394-86-
Application Year: 86
Issue Date: 9/11/1986
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ONTARIO HYDRO (NIAGARA PLANT GROUP)
LOT 1, SIR ADAM BECK G.S. NIAGARA FALLS CITY ON

Database:
CA

Certificate #: 8-2137-94-
Application Year: 94
Issue Date: 8/12/1994
Approval Type: Industrial air
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: SOUTH TUNNEL INTAKE GATE PAINTING
Contaminants: Suspended Particulate Matter
Emission Control: Other - Air

Site: FERNANDO PINGUE
SOUTH DR./R #98(MONTRSE RD.) NIAGARA FALLS CITY ON L2E 6S4

Database:
CA

Certificate #: 3-1544-94-
Application Year: 94
Issue Date: 11/30/1994
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:

Project Description:
Contaminants:
Emission Control:

Site: **FERNANDO PINGUE**
SOUTH DR./RR #98(MONTRORSE RD.) NIAGARA FALLS CITY ON L2E 6S4

Database:
CA

Certificate #: 7-1137-94-
Application Year: 94
Issue Date: 11/30/1994
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: **ONTARIO HYDRO (NIAGARA PLANT GROUP)**
GORE LOT 1,SIR ADAM BECK COMP. NIAGARA FALLS CITY ON

Database:
CA

Certificate #: 4-0075-94-
Application Year: 94
Issue Date: 8/18/1994
Approval Type: Industrial wastewater
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: PUMP GEN. STATION OIL TANK FARM CONT.
Contaminants:
Emission Control:

Site: **ONTARIO HYDRO (SIR ADAM BECK G.S.)**
LOT #1, BROKEN FRONTAGE NIAGARA FALLS CITY ON

Database:
CA

Certificate #: 4-0078-94-
Application Year: 94
Issue Date: 9/27/1994
Approval Type: Industrial wastewater
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: SPILL CONT.SYS. FOR OIL-FILLED TRANS.
Contaminants:
Emission Control:

Site: **ONTARIO HYDRO (NIAGARA PLANT GROUP)**
GORE LOT 1, STAMFORD TWP. NIAGARA FALLS CITY ON

Database:
CA

Certificate #: 4-0122-94-
Application Year: 94
Issue Date: 9/13/1995
Approval Type: Industrial wastewater

Status: Approved in 1995
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: PUMP GEN. STATION SUMP OIL SKIMMERS
Contaminants:
Emission Control:

Site: NIAGARA FALLS CITY
MONTROSE RD. NIAGARA FALLS CITY ON

Database:
CA

Certificate #: 7-0809-86-
Application Year: 86
Issue Date: 7/22/1986
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: NIAGARA FALLS CITY
MONTROSE RD. NIAGARA FALLS CITY ON

Database:
CA

Certificate #: 7-1388-86-
Application Year: 86
Issue Date: 11/24/1986
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: NIAGARA FALLS CITY
MONTROSE RD. NIAGARA FALLS CITY ON

Database:
CA

Certificate #: 7-0950-88-
Application Year: 88
Issue Date: 7/7/1988
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ONTARIO HYDRO, SIR ADAM BECK II GS

Database:
CA

GORE LOT 1, BF., STAMFORD TWP. NIAGARA FALLS ON

Certificate #: 8-2307-95-
Application Year: 95
Issue Date: //
Approval Type: Industrial air
Status: RE1
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: OVEN FOR MACHINE SHOP, AMEND C OF A
Contaminants:
Emission Control:

Site: **ONTARIO HYDRO, SIR ADAM BECK II GS**
LOT 1, BROKEN FRONTAGE NIAGARA FALLS ON

Database:
CA

Certificate #: 8-2006-98-
Application Year: 98
Issue Date: 2/27/1998
Approval Type: Industrial air
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: STANDBY BLACK START DIESEL GENERATOR
Contaminants: Nitrogen Oxides
Emission Control: No Controls

Site: **The Corporation of the City of Niagara Falls**
Part of Lot 210, Stamford Twp. Parts 2 and 3 on Reference Plan, Blackburn Parkwa Niagara Falls ON

Database:
CA

Certificate #: 9097-7HNNG6
Application Year: 2008
Issue Date: 9/24/2008
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: **ONTARIO HYDRO, SIR ADAM BECK II GS**
LOT 1, STANFORD, STATION #2 NIAGARA FALLS CITY ON

Database:
CA

Certificate #: 4-0065-97-
Application Year: 97
Issue Date: 7/21/1997
Approval Type: Industrial wastewater
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: OIL CONTAINMENT SYSTEM

Contaminants:
Emission Control:

Site: ONTARIO HYDRO, SIR ADAM BECK II GS
GORE LOT 1/BROKEN FRONTAGE NIAGARA FALLS CITY ON

Database:
CA

Certificate #: 8-2307-95-006
Application Year: 95
Issue Date: 10/2/95
Approval Type: Industrial air
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: 11) NEDERMAN FLEXIBLE HOSES & FANS
Contaminants:
Emission Control: No Controls

Site: ONTARIO HYDRO, SIR ADAM BECK II GS
GORE LOT 1/BROKEN FRONTAGE NIAGARA FALLS CITY ON

Database:
CA

Certificate #: 8-2312-95-966
Application Year: 95
Issue Date: 1/12/96
Approval Type: Industrial air
Status: Received in 1995, Issued in 1996
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: (6) VENTS FOR WELDING OPERATIONS
Contaminants: Suspended Particulate Matter
Emission Control: Panel Filter

Site: Montrose Road Niagara Falls ON

Database:
CA

Certificate #: 3874-4KUSJZ
Application Year: 00
Issue Date: 6/5/00
Approval Type: Municipal & Private water
Status: Approved
Application Type: New Certificate of Approval
Client Name: The Corporation of the City of Niagara Falls
Client Address: 4310 Queen Street
Client City: Niagara Falls
Client Postal Code:
Project Description: Installation of 610m of 300m diameter PVC watermain to replace 150mm and 200mm D watermain (including appurtenances). Installation of the watermain along Montrose Road (from Industrial Street to Chorozy Street).
Contaminants:
Emission Control:

Site: Montrose Road Niagara Falls ON

Database:
CA

Certificate #: 7074-4KPQZX
Application Year: 00
Issue Date: 6/5/00
Approval Type: Municipal & Private sewage

Status: Approved
Application Type: New Certificate of Approval
Client Name: Corporation of the Regional Municipality of Niagara
Client Address: 2201 St. David's Road, PO Box 1042
Client City: Thorold
Client Postal Code: L2V 4T7
Project Description: Storm Sewers
Contaminants:
Emission Control:

Site: *The Corporation of the City of Niagara Falls*
Montrose Road Niagara Falls ON

Database:
CA

Certificate #: 3382-6V5RB3
Application Year: 2006
Issue Date: 11/9/2006
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: *The Regional Municipality of Niagara*
Montrose Rd Niagara Falls ON

Database:
CA

Certificate #: 6146-7RLK55
Application Year: 2009
Issue Date: 5/1/2009
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: *IAN HERD*
Reixinger Road Niagara Falls ON

Database:
CONV

File No: 050104
Crown Brief No:
Court Location:
Publication City:
Publication Title:
Act:
Act(s):
First Matter:
Second Matter:
Investigation 1:
Investigation 2:
Penalty Imposed:
Description:

Location:
Region:
Ministry District:

On March 20, 2009, ian M. Herd was sentenced ex parte, to six months in jail after being convicted on August 15, 2008 for failing to have oil-contaminated soil transported to an approved waste management facility by an approved waste hauler and failing to submit copies of all manifests and receipts to the ministry. An order was also issued to Mr. Herd and 1499974 Ontario Inc. to clean up the site in St. Catharines. Since Mr. Herd was not in attendance at the time of sentencing, a committal warrant was issued for his arrest. The Court heard that Mr. Herd

is the sole director of 1499974 Ontario Inc. In April of 2006, the company purchased a property on Reixinger Road in Niagara Falls that contained an abundance of scrap metal, tires and liquid automobile wastes in barrels. In August of 2006, ministry staff issued an order to the company and Mr. Herd, requiring the removal of the oil-contaminated soil at the property and submission of all receipts related to the clean-up. Mr. Herd failed to comply with the order. Mr. Herd and the company were charged following an investigation by the Ministry of the Environment's Investigations and Enforcement Branch. Mr. Herd had previously been convicted of two other offences under the Environmental Protection Act. In 2004, he was convicted of operating a waste disposal site for tires in Belleville without a Certificate of Approval. A fine of \$13,000 was imposed, as well as a court order to clean up the site. He was then charged with failing to comply with the court order and pleaded guilty to the charge in June 2008. In September 2008, he was sentenced to sixty days in jail to be served intermittently, and two years of probation. His fine was suspended and a second court order was issued.

Background:

URL:

Additional Details

Publication Date:

Count: 1

Act:

Regulation:

Section:

Act/Regulation/Section:

Date of Offence:

Date of Conviction:

Date Charged: March 20, 2009

Charge Disposition: jail

Fine: 6 months

Synopsis:

Site: *Cytec Canada Inc.*

Niagara Falls Lot:Twp. Lot 4 Concession:Stamford Regional Municipality of Niagara CITY OF NIAGARA FALLS ON

Database:

[EBR](#)

EBR Registry No: 012-4724

Ministry Ref No: 6137-9URRJD

Notice Type: Instrument Decision

Notice Stage:

Notice Date: December 02, 2015

Proposal Date: July 23, 2015

Year: 2015

Instrument Type: (EPA Part II.1-sewage) - Environmental Compliance Approval (project type: sewage)

Off Instrument Name:

Posted By:

Company Name: Cytec Canada Inc.

Site Address:

Location Other:

Proponent Name:

Proponent Address: 9061 Garner Road, Niagara Falls Ontario, Canada L2E 6S5

Comment Period:

URL:

Decision Posted:

Exception Posted:

Section:

Act 1:

Act 2:

Site Location Map:

Site Location Details:

Niagara Falls Lot:Twp. Lot 4 Concession:Stamford Regional Municipality of Niagara CITY OF NIAGARA FALLS

Site: *The Corporation of the City of Niagara Falls*

Part of Lot 210, Stamford Twp. Parts 2 and 3 on Reference Plan, Blackburn Parkway off Montrose Road Niagara Falls ON L2E 6X5

Database:

[ECA](#)

Approval No: 9097-7HNNG6

Approval Date: 2008-09-24

Status: Approved

Record Type: ECA

Link Source: IDS

SWP Area Name:

Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS

MOE District:

City:

Longitude:

Latitude:

Geometry X:

Geometry Y:

Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name: The Corporation of the City of Niagara Falls
Address: Part of Lot 210, Stamford Twp. Parts 2 and 3 on Reference Plan, Blackburn Parkway off Montrose Road
Full Address:
Full PDF Link: <https://www.accessenvironment.ene.gov.on.ca/instruments/4265-7GSMT9-14.pdf>

Site: *The Corporation of the City of Niagara Falls
Montrose Rd Niagara Falls ON*

Database:
[ECA](#)

Approval No: 3874-4KUSJZ
Approval Date: 2000-06-05
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name:
Approval Type: ECA-Municipal and Private Water Works
Project Type: Municipal and Private Water Works
Business Name: The Corporation of the City of Niagara Falls
Address: Montrose Rd
Full Address:
Full PDF Link:

MOE District:
City:
Longitude:
Latitude:
Geometry X:
Geometry Y:

Site: *The Corporation of the City of Niagara Falls
from Montrose Road to 100 metres west Niagara Falls ON L2E 6X5*

Database:
[ECA](#)

Approval No: 9879-6G6J7K
Approval Date: 2005-09-13
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name:
Approval Type: ECA-Municipal Drinking Water Systems
Project Type: Municipal Drinking Water Systems
Business Name: The Corporation of the City of Niagara Falls
Address: from Montrose Road to 100 metres west
Full Address:
Full PDF Link:

MOE District:
City:
Longitude:
Latitude:
Geometry X:
Geometry Y:

Site: *The Regional Municipality of Niagara
Montrose Rd Niagara Falls ON*

Database:
[ECA](#)

Approval No: 6146-7RLK55
Approval Date: 2009-05-01
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name:
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name: The Regional Municipality of Niagara
Address: Montrose Rd
Full Address:
Full PDF Link: <https://www.accessenvironment.ene.gov.on.ca/instruments/4355-7REMBJ-14.pdf>

MOE District:
City:
Longitude:
Latitude:
Geometry X:
Geometry Y:

Site: *The Regional Municipality of Niagara
Montrose Rd Niagara Falls ON*

Database:
[ECA](#)

Approval No: 7074-4KPQZX
Approval Date: 2000-06-05
Status: Approved
Record Type: ECA
Link Source: IDS

MOE District:
City:
Longitude:
Latitude:
Geometry X:

SWP Area Name: **Geometry Y:**
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name: The Regional Municipality of Niagara
Address: Montrose Rd
Full Address:
Full PDF Link: <https://www.accessenvironment.ene.gov.on.ca/instruments/6007-4KERD6-14.pdf>

Site: **The Corporation of the City of Niagara Falls**
Montrose Rd Niagara Falls ON L2E 6X5

Database:
ECA

Approval No: 3382-6V5RB3 **MOE District:**
Approval Date: 2006-11-09 **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 WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Business Name: The Corporation of the City of Niagara Falls
Address: Montrose Rd
Full Address:
Full PDF Link: <https://www.accessenvironment.ene.gov.on.ca/instruments/8558-6TMTDM-14.pdf>

Site: **Montrose Road Niagara Falls ON**

Database:
EHS

Order No: 20130321024 **Nearest Intersection:**
Status: C **Municipality:**
Report Type: Custom Report **Client Prov/State:** ON
Report Date: 28-MAR-13 **Search Radius (km):** .25
Date Received: 21-MAR-13 **X:** 0
Previous Site Name: **Y:** 0
Lot/Building Size:
Additional Info Ordered:

Site: **ONTARIO POWER GENERATION**
SIR ADAM BECK II GENERATING STATION GORE LOT 1, LOT 1 NIAGARA FALLS ON

Database:
GEN

Generator No: ON0490124 **PO Box No:**
Status: **Country:**
Approval Years: 00,01 **Choice of Contact:**
Contam. Facility: **Co Admin:**
MHSW Facility: **Phone No Admin:**
SIC Code: 4911
SIC Description: ELECT. POWER SYS.

Detail(s)

Waste Class: 114
Waste Class Desc: OTHER INORGANIC ACID WASTES

Waste Class: 121
Waste Class Desc: ALKALINE WASTES - HEAVY METALS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 122
Waste Class Desc: ALKALINE WASTES - OTHER METALS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 253
Waste Class Desc: EMULSIFIED OILS

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 266
Waste Class Desc: PHENOLIC WASTES

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 221
Waste Class Desc: LIGHT FUELS

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Waste Class: 243
Waste Class Desc: PCB'S

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Site: ONTARIO HYDRO
 PUMP GENERATING STATION LOT 1 NIAGARA FALLS ON

Database:
 GEN

Generator No:	ON0490137	PO Box No:	
Status:		Country:	
Approval Years:	95,96,97,98,99	Choice of Contact:	
Contam. Facility:		Co Admin:	
MHSW Facility:		Phone No Admin:	
SIC Code:	4911		
SIC Description:	ELECT. POWER SYS.		

Detail(s)

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 243
Waste Class Desc: PCB'S

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Site: **ONTARIO POWER GENERATION**
PUMP GENERATING STATION LOT 1 NIAGARA FALLS ON

Database:
GEN

Generator No: ON0490137
Status:
Approval Years: 00,01
Contam. Facility:
MHSW Facility:
SIC Code: 4911
SIC Description: ELECT. POWER SYS.

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 121
Waste Class Desc: ALKALINE WASTES - HEAVY METALS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Waste Class: 243
Waste Class Desc: PCB'S

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Site: **ONTARIO HYDRO**
SIR ADAM BECK II GENERATING STATION GORE LOT 1, LOT 1 NIAGARA FALLS ON

Database:
GEN

Generator No: ON0490124
Status:
Approval Years: 97,98,99
Contam. Facility:
MHSW Facility:

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

SIC Code: 4911
SIC Description: ELECT. POWER SYS.

Detail(s)

Waste Class: 114
Waste Class Desc: OTHER INORGANIC ACID WASTES

Waste Class: 122
Waste Class Desc: ALKALINE WASTES - OTHER METALS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Waste Class: 243
Waste Class Desc: PCB'S

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 253
Waste Class Desc: EMULSIFIED OILS

Waste Class: 266
Waste Class Desc: PHENOLIC WASTES

Site: WATERLOO COUNTY BOARD OF EDUCATION42-439
WINTERBOURNE P.S.,PT LOT4,BROKEN FRONT CONC.,R.R.#2,WEST MONTROSE, C/O BOX 68 KITCHENER ON
N2G 3X5

Database:
GEN

Generator No: ON0184218
Status:
Approval Years: 94,95,96
Contam. Facility:
MHSW Facility:
SIC Code: 8511
SIC Description: ELEMNT./SECON. EDUC.

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 221
Waste Class Desc: LIGHT FUELS

Site: ONTARIO HYDRO 45-068
SIR ADAM BECK II GENERATING STATION GORE LOT 1, LOT 1 NIAGARA FALLS ON

Database:
GEN

Generator No: ON0490124
Status:
Approval Years: 92,93,95,96
Contam. Facility:
MHSW Facility:
SIC Code: 4911
SIC Description: ELECT. POWER SYS.

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Waste Class: 243
Waste Class Desc: PCB'S

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 266
Waste Class Desc: PHENOLIC WASTES

Waste Class: 114
Waste Class Desc: OTHER INORGANIC ACID WASTES

Waste Class: 122
Waste Class Desc: ALKALINE WASTES - OTHER METALS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Site: **Ford Motor Company of Canada**
Niagara Falls (Welland) ON

Database:
NCPL

Year: 1992
Site Name:
Facility Owner:
Discharge Type: Wastewater
Sector: Glass Plant
District Area:
Type of Concern: Policy and Guidelines
Contaminant: see "Status Report"
Status Report: Exceeded guidelines for biochemical oxygen demand and total suspended solids once each during the reporting period. Both exceedances were attributed to operational problems of the wastewater treatment plant. Company has improved operation and compliance is expected in 1993. This plant will be closed in early 1994, and all direct wastewater discharges will cease at that time.

Site: **FORD MOTOR COMPANY OF CANADA**
NIAGARA GLASS PLANT NIAGARA FALLS ON

Database:
NPCB

Company Code: O0300A
Industry: CEMENT
Site Status: STORAGE ONLY (NON FEDERAL)
Transaction Date: 3/4/1996
Inspection Date: 9/15/1989

Site: 2285045 Ontario Inc.
Ponds 1,2,3,4,5, Main Irrigation Pond and Welland River Lot: 1-6, Concession: Broken Front, Geographic Township: CROWLAND, Niagara Falls, City, Regional Municipality of Niagara CROWLAND ON

Database:
PTTW

EBR Registry No: 011-8555
Ministry Ref No: 5100-95KLCZ
Notice Type: Instrument Decision
Notice Stage:
Notice Date: July 04, 2016
Proposal Date: March 12, 2013
Year: 2013
Instrument Type: (OWRA s. 34) - Permit to Take Water
Off Instrument Name:
Posted By:
Company Name: 2285045 Ontario Inc.
Site Address:
Location Other:
Proponent Name:
Proponent Address: 8547 Grassy Brook Road, Niagara Falls Ontario, Canada L0S 1K0
Comment Period:
URL:

Decision Posted:
Exception Posted:
Section:
Act 1:
Act 2:
Site Location Map:

Site Location Details:

Ponds 1,2,3,4,5, Main Irrigation Pond and Welland River Lot: 1-6, Concession: Broken Front, Geographic Township: CROWLAND, Niagara Falls, City, Regional Municipality of Niagara CROWLAND

Site: Grand Niagara Golf Corporation
Part of Lots 1-6, Broken Front of Welland River, City of Niagara, Regional Municipality of Niagara CITY OF NIAGARA FALLS ON

Database:
PTTW

EBR Registry No: 010-5157
Ministry Ref No: 2676-7L9KRG
Notice Type: Instrument Decision
Notice Stage:
Notice Date: May 06, 2010
Proposal Date: November 12, 2008
Year: 2008
Instrument Type: (OWRA s. 34) - Permit to Take Water
Off Instrument Name:
Posted By:
Company Name: Grand Niagara Golf Corporation
Site Address:
Location Other:
Proponent Name:
Proponent Address: 377 Burnhamthorpe Road East , 117, Mississauga Ontario, L5A 3Y1
Comment Period:
URL:

Decision Posted:
Exception Posted:
Section:
Act 1:
Act 2:
Site Location Map:

Site Location Details:

Part of Lots 1-6, Broken Front of Welland River, City of Niagara, Regional Municipality of Niagara CITY OF NIAGARA FALLS

Site: Oaklands Golf Club
Lot 3, Broken Front Concession, Geographic Township of Willoughby, City of Niagara Falls, Regional Municipality of Niagara CITY OF NIAGARA FALLS ON

Database:
PTTW

EBR Registry No: IA05E0682
Ministry Ref No: 0254-6BWKGB
Notice Type: Instrument Decision
Notice Stage:
Notice Date: September 07, 2005
Proposal Date: May 02, 2005
Decision Posted:
Exception Posted:
Section:
Act 1:
Act 2:
Site Location Map:

Year: 2005
Instrument Type: (OWRA s. 34) - Permit to Take Water
Off Instrument Name:
Posted By:
Company Name: Oaklands Golf Club
Site Address:
Location Other:
Proponent Name:
Proponent Address: 8970 Stanley Ave. South, Niagara Falls Ontario, L2E 6T8
Comment Period:
URL:

Site Location Details:

Lot 3, Broken Front Concession, Geographic Township of Willoughby, City of Niagara Falls, Regional Municipality of Niagara CITY OF NIAGARA FALLS

Site: 909225 Ontario Ltd.
Lot 1, City of Thorold CITY OF THOROLD ON

Database:
PTTW

EBR Registry No: IA9E0216
Ministry Ref No: 23005612
Notice Type: Instrument Decision
Notice Stage:
Notice Date: June 28, 2000
Proposal Date: February 22, 1999
Year: 1999
Instrument Type: (OWRA s. 34) - Permit to Take Water
Off Instrument Name:
Posted By:
Company Name: 909225 Ontario Ltd.
Site Address:
Location Other:
Proponent Name:
Proponent Address: c/o Ted Baker & Associates, 10 Kingsbridge Garden Circle , 810, Mississauga Ontario, L5R 3K6
Comment Period:
URL:

Decision Posted:
Exception Posted:
Section:
Act 1:
Act 2:
Site Location Map:

Site Location Details:

Lot 1, City of Thorold CITY OF THOROLD

Site: Grand Niagara Resort Corporation
Part Lots 1 through 6 Broken Front of Welland River City of Niagara Falls, Regional Municipality of Niagara CITY OF NIAGARA FALLS ON

Database:
PTTW

EBR Registry No: IA01E0352
Ministry Ref No: 23014730
Notice Type: Instrument Decision
Notice Stage:
Notice Date: December 04, 2008
Proposal Date: March 14, 2001
Year: 2001
Instrument Type: (OWRA s. 34) - Permit to Take Water
Off Instrument Name:
Posted By:
Company Name: Grand Niagara Resort Corporation
Site Address:
Location Other:
Proponent Name:
Proponent Address: 377 Burnhamthorpe Road East, Suite 117, Mississauga Ontario, L5A 3Y1
Comment Period:
URL:

Decision Posted:
Exception Posted:
Section:
Act 1:
Act 2:
Site Location Map:

Site Location Details:

Site: *Grand Niagara Golf Corporation*
Part Lots 1 through 6, Broken Front of Welland River, City of Niagara Falls, Regional Municipality of Niagara CITY OF NIAGARA FALLS ON

Database:
PTTW

EBR Registry No: IA03E0010
Ministry Ref No: 23024331
Notice Type: Instrument Decision
Notice Stage:
Notice Date: December 18, 2003
Proposal Date: January 02, 2003
Year: 2003

Decision Posted:
Exception Posted:
Section:
Act 1:
Act 2:
Site Location Map:

Instrument Type: (OWRA s. 34) - Permit to Take Water
Off Instrument Name:
Posted By:
Company Name: Grand Niagara Golf Corporation
Site Address:
Location Other:
Proponent Name:
Proponent Address: 377 Burnhamthorpe Road East , 117, Mississauga Ontario, L5A 3Y1
Comment Period:
URL:

Site Location Details:

Part Lots 1 through 6, Broken Front of Welland River, City of Niagara Falls, Regional Municipality of Niagara CITY OF NIAGARA FALLS

Site: *DAY-TIMERS OF CANADA LTD*
NIAGARA FALLS ON L2E 6X6

Database:
SCT

Established: 1947
Plant Size (ft²): 0
Employment: 150

--Details--

Description: BLANKBOOKS, LOOSELEAF BINDERS AND DEVICES
SIC/NAICS Code: 2782

Site: *MORNINGSTAR LUMBER LIMITED*
MONTROSE RD NIAGARA FALLS ON L2H

Database:
SCT

Established: 0000
Plant Size (ft²): 1400
Employment: 1

--Details--

Description: HARDWOOD DIMENSION AND FLOORING MILLS
SIC/NAICS Code: 2426

Description: Other Millwork
SIC/NAICS Code: 321919

Site: *TRANSPORT TRUCK*
ON THE Q.E.W IN NIAGARA FALLS AT MONTROSE RD. MOTOR VEHICLE (OPERATING FLUID) NIAGARA FALLS CITY ON

Database:
SPL

Ref No: 113009

Discharger Report:

Site No:
Incident Dt: 5/11/1995
Year:
Incident Cause: OTHER CONTAINER LEAK
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
Receiving Medium: LAND
Receiving Env:
MOE Response:
Dt MOE Arvl on Scn:
MOE Reported Dt: 5/11/1995
Dt Document Closed:
Incident Reason: EQUIPMENT FAILURE
Site Name:
Site County/District:
Site Geo Ref Meth:
Incident Summary: CRAGCO LTD. - 450 L OF DIESEL FUEL TO GROUND FROM TRANSPORT TRUCK.
Contaminant Qty:

Material Group:
Health/Env Conseq:
Client Type:
Sector Type:
Agency Involved:
Nearest Watercourse:
Site Address:
Site District Office:
Site Postal Code:
Site Region:
Site Municipality: 18101
Site Lot:
Site Conc:
Northing:
Easting: MTO
Site Geo Ref Accu:
Site Map Datum:
SAC Action Class:
Source Type:

Site: UNKNOWN
 SOUTH BOUND QEW AT SANDHILL PLANT NIAGARA FALLS CITY ON

Database:
 SPL

Ref No: 8753
Site No:
Incident Dt: 8/26/1988
Year:
Incident Cause: OTHER TRANSPORTATION ACCIDENT
Incident Event:
Contaminant Code:
Contaminant Name:
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Environment Impact:
Nature of Impact:
Receiving Medium: LAND
Receiving Env:
MOE Response:
Dt MOE Arvl on Scn:
MOE Reported Dt: 8/26/1988
Dt Document Closed:
Incident Reason: UNKNOWN
Site Name:
Site County/District:
Site Geo Ref Meth:
Incident Summary: 450 LITRES DIESEL FUEL TOLAND FROM TRUCK ACCIDENT.
Contaminant Qty:

Discharger Report:
Material Group:
Health/Env Conseq:
Client Type:
Sector Type:
Agency Involved:
Nearest Watercourse:
Site Address:
Site District Office:
Site Postal Code:
Site Region:
Site Municipality: 18101
Site Lot:
Site Conc:
Northing:
Easting:
Site Geo Ref Accu:
Site Map Datum:
SAC Action Class:
Source Type:

Site: OCCIDENTAL CHEMICAL
 NIAGARA RIVER NEAR GRAND ISLAND ACROSS FROM CHIPPAWA CREEK NIAGARA FALLS, NEW YORK PLANT
 NIAGARA FALLS CITY ON

Database:
 SPL

Ref No: 22327
Site No:
Incident Dt: 7/20/1989
Year:
Incident Cause: WASTEWATER DISCHARGE TO WATERCOURSE
Incident Event:
Contaminant Code:

Discharger Report:
Material Group:
Health/Env Conseq:
Client Type:
Sector Type:
Agency Involved:
Nearest Watercourse:

Contaminant Name:
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Environment Impact:
Nature of Impact:
Receiving Medium: WATER
Receiving Env:
MOE Response:
Dt MOE Arvl on Scn:
MOE Reported Dt: 7/20/1989
Dt Document Closed:
Incident Reason: UNKNOWN
Site Name:
Site County/District:
Site Geo Ref Meth:
Incident Summary:
Contaminant Qty:

Site Address:
Site District Office:
Site Postal Code:
Site Region:
Site Municipality: 18101
Site Lot:
Site Conc:
Northing:
Easting:
Site Geo Ref Accu:
Site Map Datum:
SAC Action Class:
Source Type:

OCCIDENTAL CHEMICAL-SPILLOF UNKNOWN MATERIAL & QUANTITY TO NIAGARA RIVER

Site: SM Freight Inc.
Fort Erie Bound at Biggar Rd. Niagara Falls ON

Database:
SPL

Ref No: 7640-9EMT62
Site No:
Incident Dt: 2013/12/22
Year:
Incident Cause: Leak/Break
Incident Event:
Contaminant Code: 13
Contaminant Name: DIESEL FUEL
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Environment Impact: Possible
Nature of Impact: Soil Contamination
Receiving Medium:
Receiving Env:
MOE Response: Deferred Field Response
Dt MOE Arvl on Scn: 2013/12/23
MOE Reported Dt: 2013/12/22
Dt Document Closed:
Incident Reason: Road Conditions
Site Name: QEW <UNOFFICIAL>
Site County/District:
Site Geo Ref Meth:
Incident Summary: Transport Truck - diesel to QEW from saddle tank.
Contaminant Qty: 500 L

Discharger Report:
Material Group:
Health/Env Conseq:
Client Type:
Sector Type: Truck - Transport/Hauling
Agency Involved:
Nearest Watercourse:
Site Address: Fort Erie Bound at Biggar Rd.
Site District Office:
Site Postal Code:
Site Region:
Site Municipality: Niagara Falls
Site Lot:
Site Conc:
Northing:
Easting:
Site Geo Ref Accu:
Site Map Datum:
SAC Action Class: Highway Spills (usually highway accidents)
Source Type:

Site: FORD MOTOR COMPANY
NIAGARA FALLS ON

Database:
SRDS

Company Code: 0000020503
Works ID:
SIC: 325
SIC1: 325
SIC1 Desc:
SIC2:
SIC2 Desc:
SIC3:
SIC3 Desc:
Body of Water:
Terminal Stream:
SIC Desc:
Mailing Address: NIAGARA FALLS
Corp Address:

Sector:
Region:
District:
UTM Zone:
UTM Easting:
UTM Northing:
UTM Precision:
Minor Basin:
Major Basin:
Report Year: 1990-1994

Site: FORD MOTOR COMPANY
NIAGARA FALLS ON

Database:
SRDS

Company Code:		Sector:	
Works ID:	11	Region:	MOE WEST CENTRAL REGION
SIC:	3259	District:	MOE WELLAND DISTRICT
SIC1:	3259	UTM Zone:	17
SIC1 Desc:	OTHER VEHICLE ACCES.	UTM Easting:	653500
SIC2:		UTM Northing:	4767300
SIC2 Desc:		UTM Precision:	
SIC3:		Minor Basin:	LAKE ONTARIO
SIC3 Desc:		Major Basin:	GREAT LAKES
Body of Water:		Report Year:	1990-1994
Terminal Stream:			
SIC Desc:	OTHER MOTOR VEHICLE ACCESS PARTS & ASSEM IND		
Mailing Address:	9127 MONTROSE ROAD, NIAGARA FALLS L2E6X3		
Corp Address:	9127 MONTROSE ROAD		

MISA Industrial Wastewater Discharge

Company Code:		Result Structure:	
Control Point ID:	29	Param Reported As:	
Sample Date:		Frequency:	
Regulation:		Sector:	MISCELLANEOUS
Value:		Component Type:	
Unit of Measure:			
Control Point Name:	FINAL DISCHARGE - GROSS DATA		
Parameter Name:			

Site: lot 3 ON

Database:
WWIS

Well ID:	6603952	Data Entry Status:	
Construction Date:		Data Src:	1
Primary Water Use:	Domestic	Date Received:	7/27/1990
Sec. Water Use:		Selected Flag:	True
Final Well Status:	Water Supply	Abandonment Rec:	
Water Type:		Contractor:	4795
Casing Material:		Form Version:	1
Audit No:	69116	Owner:	
Tag:		Street Name:	
Construction Method:		County:	NIAGARA
Elevation (m):		Municipality:	NIAGARA FALLS CITY (WILLOUGHBY)
Elevation Reliability:		Site Info:	
Depth to Bedrock:		Lot:	003
Well Depth:		Concession:	
Overburden/Bedrock:		Concession Name:	CON
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:	10463549	Elevation:	
DP2BR:		Elevrc:	
Spatial Status:		Zone:	17
Code OB:	o	East83:	
Code OB Desc:	Overburden	North83:	
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	9
Date Completed:	17-Jul-1990 00:00:00	UTMRC Desc:	unknown UTM
Remarks:		Location Method:	na
Elevrc Desc:			

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

**Overburden and Bedrock
Materials Interval**

Formation ID: 932600508
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: 38.0
Formation End Depth UOM: ft

**Overburden and Bedrock
Materials Interval**

Formation ID: 932600509
Layer: 2
Color: 2
General Color: GREY
Mat1: 31
Most Common Material: COARSE GRAVEL
Mat2:
Mat3:
Mat3 Desc:
Formation Top Depth: 38.0
Formation End Depth: 45.0
Formation End Depth UOM: ft

**Method of Construction & Well
Use**

Method Construction ID: 966603952
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 11012119
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930753071
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 45
Casing Diameter: 6
Casing Diameter UOM: inch

Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930753070
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 44
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 996603952
Pump Set At:
Static Level: 14.0
Final Level After Pumping: 14.0
Recommended Pump Depth: 30.0
Pumping Rate: 21.0
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2
Water State After Test: CLOUDY
Pumping Test Method: 2
Pumping Duration HR: 2
Pumping Duration MIN: 0
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 934344089
Test Type: Recovery
Test Duration: 15
Test Level: 14.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934611864
Test Type: Recovery
Test Duration: 30
Test Level: 14.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934865635
Test Type: Recovery
Test Duration: 45
Test Level: 14.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935121635
Test Type: Recovery
Test Duration: 60
Test Level: 14.0
Test Level UOM: ft

Water Details

Water ID: 933951275
Layer: 1
Kind Code: 3
Kind: SULPHUR
Water Found Depth: 45.0
Water Found Depth UOM: ft

Site:
lot 5 ON

Database:
WWIS

Well ID: 6603611
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Abandoned-Quality
Water Type:
Casing Material:
Audit No:
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 4/4/1984
Selected Flag: True
Abandonment Rec:
Contractor: 2123
Form Version: 1
Owner:
Street Name:
County: NIAGARA
Municipality: NIAGARA FALLS CITY (STAMFORD)
Site Info:
Lot: 005
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10463211
DP2BR: 29.00
Spatial Status:
Code OB: r
Code OB Desc: Bedrock
Open Hole:
Cluster Kind:
Date Completed: 18-Aug-1983 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock
Materials Interval

Formation ID: 932598916
Layer: 1
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0

Formation End Depth: 8.0
Formation End Depth UOM: ft

**Overburden and Bedrock
Materials Interval**

Formation ID: 932598919
Layer: 4
Color:
General Color:
Mat1: 26
Most Common Material: ROCK
Mat2: 15
Mat2 Desc: LIMESTONE
Mat3:
Mat3 Desc:
Formation Top Depth: 29.0
Formation End Depth: 50.0
Formation End Depth UOM: ft

**Overburden and Bedrock
Materials Interval**

Formation ID: 932598917
Layer: 2
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 28
Mat2 Desc: SAND
Mat3:
Mat3 Desc:
Formation Top Depth: 8.0
Formation End Depth: 22.0
Formation End Depth UOM: ft

**Overburden and Bedrock
Materials Interval**

Formation ID: 932598918
Layer: 3
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 11
Mat2 Desc: GRAVEL
Mat3:
Mat3 Desc:
Formation Top Depth: 22.0
Formation End Depth: 29.0
Formation End Depth UOM: ft

**Method of Construction & Well
Use**

Method Construction ID: 966603611
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 11011781

Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930752579
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 50
Casing Diameter: 7
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 996603611
Pump Set At:
Static Level: 32.0
Final Level After Pumping: 45.0
Recommended Pump Depth:
Pumping Rate: 2.0
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2
Water State After Test: CLOUDY
Pumping Test Method: 2
Pumping Duration HR: 2
Pumping Duration MIN: 0
Flowing: No

Water Details

Water ID: 933950902
Layer: 1
Kind Code: 3
Kind: SULPHUR
Water Found Depth: 44.0
Water Found Depth UOM: ft

Site: lot 4 ON

Database:
WWIS

Well ID: 6603735
Construction Date:
Primary Water Use: Municipal
Sec. Water Use:
Final Well Status: Observation Wells
Water Type:
Casing Material:
Audit No: 10192
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: 1
Date Received: 4/14/1987
Selected Flag: True
Abandonment Rec:
Contractor: 4005
Form Version: 1
Owner:
Street Name:
County: NIAGARA
Municipality: NIAGARA FALLS CITY
Site Info:
Lot: 004
Concession:
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Clear/Cloudy:

Bore Hole Information

Bore Hole ID: 10463334
DP2BR:
Spatial Status:
Code OB: o
Code OB Desc: Overburden
Open Hole:
Cluster Kind:
Date Completed: 18-Mar-1987 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock

Materials Interval

Formation ID: 932599451
Layer: 3
Color: 6
General Color: BROWN
Mat1: 08
Most Common Material: FINE SAND
Mat2: 77
Mat2 Desc: LOOSE
Mat3:
Mat3 Desc:
Formation Top Depth: 57.0
Formation End Depth: 120.0
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 932599456
Layer: 8
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 77
Mat2 Desc: LOOSE
Mat3:
Mat3 Desc:
Formation Top Depth: 176.0
Formation End Depth: 179.0
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 932599449
Layer: 1
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 28
Mat2 Desc: SAND

Mat3: 77
Mat3 Desc: LOOSE
Formation Top Depth: 0.0
Formation End Depth: 6.0
Formation End Depth UOM: ft

Overburden and Bedrock
Materials Interval

Formation ID: 932599452
Layer: 4
Color: 6
General Color: BROWN
Mat1: 10
Most Common Material: COARSE SAND
Mat2: 77
Mat2 Desc: LOOSE
Mat3:
Mat3 Desc:
Formation Top Depth: 120.0
Formation End Depth: 151.0
Formation End Depth UOM: ft

Overburden and Bedrock
Materials Interval

Formation ID: 932599455
Layer: 7
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 08
Mat2 Desc: FINE SAND
Mat3: 77
Mat3 Desc: LOOSE
Formation Top Depth: 173.0
Formation End Depth: 176.0
Formation End Depth UOM: ft

Overburden and Bedrock
Materials Interval

Formation ID: 932599454
Layer: 6
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 77
Mat2 Desc: LOOSE
Mat3:
Mat3 Desc:
Formation Top Depth: 160.0
Formation End Depth: 173.0
Formation End Depth UOM: ft

Overburden and Bedrock
Materials Interval

Formation ID: 932599453
Layer: 5
Color: 6
General Color: BROWN
Mat1: 28

Most Common Material: SAND
Mat2: 29
Mat2 Desc: FINE GRAVEL
Mat3: 77
Mat3 Desc: LOOSE
Formation Top Depth: 151.0
Formation End Depth: 160.0
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 932599450
Layer: 2
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2: 28
Mat2 Desc: SAND
Mat3: 77
Mat3 Desc: LOOSE
Formation Top Depth: 6.0
Formation End Depth: 57.0
Formation End Depth UOM: ft

Method of Construction & Well

Use

Method Construction ID: 966603735
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 11011904
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930752761
Layer: 2
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 173
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930752760
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 65
Casing Diameter: 8
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 933385589
Layer: 1
Slot: 010
Screen Top Depth: 173
Screen End Depth: 176
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 5

Results of Well Yield Testing

Pump Test ID: 996603735
Pump Set At:
Static Level: 128.0
Final Level After Pumping: 177.0
Recommended Pump Depth:
Pumping Rate: 1.0
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1
Pumping Duration HR: 8
Pumping Duration MIN: 0
Flowing: No

Draw Down & Recovery

Pump Test Detail ID: 934865534
Test Type: Draw Down
Test Duration: 45
Test Level: 177.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934611344
Test Type: Draw Down
Test Duration: 30
Test Level: 177.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934343986
Test Type: Draw Down
Test Duration: 15
Test Level: 177.0
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935129902
Test Type: Draw Down
Test Duration: 60
Test Level: 177.0
Test Level UOM: ft

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. **Note:** Databases denoted with " * " indicates that the database will no longer be updated. See the individual database description for more information.

Abandoned Aggregate Inventory:

Provincial [AAGR](#)

The MAAP Program maintains a database of abandoned pits and quarries. Please note that the database is only referenced by lot and concession and city/town location. The database provides information regarding the location, type, size, land use, status and general comments.*

Government Publication Date: Sept 2002*

Aggregate Inventory:

Provincial [AGR](#)

The Ontario Ministry of Natural Resources maintains a database of all active pits and quarries. The database provides information regarding the registered owner/operator, location name, operation type, approval type, and maximum annual tonnage.

Government Publication Date: Up to 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](#)

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

Chemical Register:

Private CHM

This database includes a listing of locations of facilities within the Province or Territory that either manufacture and/or distributes chemicals.

Government Publication Date: 1999-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

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 [ECA](#)

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. In the past, a business had to apply for multiple approvals (known as certificates of approval) for individual processes and pieces of equipment. Today, a business either registers itself, or applies for a single approval, depending on the types of activities it conducts. Businesses whose activities aren't subject to the EASR may apply for an ECA. A single ECA addresses all of a business's emissions, discharges and wastes. Separate approvals for air, noise and waste are no longer required. This database will also include Renewable Energy Approvals. For certificates of approval prior to Nov 1st, 2011, please refer to the CA database. For all Waste Disposal Sites please refer to the WDS database.

Government Publication Date: Oct 2011- 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](#)

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed.

Government Publication Date: 1992-2001*

Emergency Management Historical Event:

Provincial **EMHE**

List of locations of historical occurrences of emergency events, including those assigned to the Ministry of Natural Resources by Order-In-Council (OIC) under the Emergency Management and Civil Protection Act, as well as events where MNR provided requested emergency response assistance. Many of these events will have involved community evacuations, significant structural loss, and/or involvement of MNR emergency response staff. These events fall into one of ten (10) type categories: Dam Failure; Drought / Low Water; Erosion; Flood; Forest Fire; Soil and Bedrock Instability; Petroleum Resource Center Event, EMO Requested Assistance, Continuity of Operations Event, Other Requested Assistance. EMHE record details are reproduced by ERIS under License with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2017.

Government Publication Date: Dec 31, 2016

Environmental Penalty Annual Report:

Provincial **EPAR**

This database contains data from Ontario's annual environmental penalty report published by the Ministry of the Environment and Climate Change. These reports provide information on environmental penalties for land / water violations issued to companies in one of the nine industrial sectors covered by the Municipal Industrial Strategy for Abatement (MISA) regulations.

Government Publication Date: Jan 1, 2011 - Dec 31, 2020

List of Expired Fuels Safety Facilities:

Provincial **EXP**

List of facilities and tanks for which there was once a fuel registration. This is not a comprehensive or complete inventory of expired tanks/tank facilities in the province; this listing is a copy of previously registered tanks and facilities obtained under Access to Public Information. Includes private fuel outlets, bulk plants, fuel oil tanks, gasoline stations, marinas, propane filling stations, liquid fuel tanks, piping systems, etc; includes tanks which have been removed from the ground.

Notes: registration was not required for private fuel underground/aboveground storage tanks prior to January 1990, nor for furnace oil tanks prior to May 1, 2002; registration is not required for waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: 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 **FCS**

The Federal Contaminated Sites Inventory includes information on known federal contaminated sites under the custodianship of departments, agencies and consolidated Crown corporations as well as those that are being or have been investigated to determine whether they have contamination arising from past use that could pose a risk to human health or the environment. The inventory also includes non-federal contaminated sites for which the Government of Canada has accepted some or all financial responsibility. It does not include sites where contamination has been caused by, and which are under the control of, enterprise Crown corporations, private individuals, firms or other levels of government. Includes fire training sites and sites at which Per- and Polyfluoroalkyl Substances (PFAS) are a concern.

Government Publication Date: Jun 2000-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**

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

[INC](#)

Listing of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen reported to the Spills Action Centre (SAC). This is not a comprehensive or complete inventory of fuel-related leaks, spills, and incidents in the province; this listing is a copy of incidents reported to the SAC, obtained under Access to Public Information. Includes incidents from fuel-related hazards such as spills, fires, and explosions. Records are not verified for accuracy or completeness.

Government Publication Date: May 31, 2021

Landfill Inventory Management Ontario:

Provincial

[LIMO](#)

The Landfill Inventory Management Ontario (LIMO) database is updated every year, as the Ministry of the Environment, Conservation and Parks compiles new and updated information. Includes small and large landfills currently operating as well as those which are closed and historic. Operators of larger landfills provide landfill information for the previous operating year to the ministry for LIMO including: estimated amount of total waste received, landfill capacity, estimated total remaining landfill capacity, fill rates, engineering designs, reporting and monitoring details, size of location, service area, approved waste types, leachate of site treatment, contaminant attenuation zone and more. The small landfills include information such as site owner, site location and certificate of approval # and status.

Government Publication Date: Feb 28, 2019

Canadian Mine Locations:

Private

[MINE](#)

This information is collected from the Canadian & American Mines Handbook. The Mines database is a national database that provides over 290 listings on mines (listed as public companies) dealing primarily with precious metals and hard rocks. Listed are mines that are currently in operation, closed, suspended, or are still being developed (advanced projects). Their locations are provided as geographic coordinates (x, y and/or longitude, latitude). As of 2002, data pertaining to Canadian smelters and refineries has been appended to this database.

Government Publication Date: 1998-2009*

Mineral Occurrences:

Provincial

[MNR](#)

In the early 70's, the Ministry of Northern Development and Mines created an inventory of approximately 19,000 mineral occurrences in Ontario, in regard to metallic and industrial minerals, as well as some information on building stones and aggregate deposits. Please note that the "Horizontal Positional Accuracy" is approximately +/- 200 m. Many reference elements for each record were derived from field sketches using pace or chain/tape measurements against claim posts or topographic features in the area. The primary limiting factor for the level of positional accuracy is the scale of the source material. The testing of horizontal accuracy of the source materials was accomplished by comparing the plan metric (X and Y) coordinates of that point with the coordinates of the same point as defined from a source of higher accuracy.

Government Publication Date: 1846-Dec 2020

National Analysis of Trends in Emergencies System (NATES):

Federal

[NATE](#)

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of significant spill incidents. The data was to be used to assist in directing the work of the emergencies program. NATES ran from 1974 to 1994. Extensive information is available within this database including company names, place where the spill occurred, date of spill, cause, reason and source of spill, damage incurred, and amount, concentration, and volume of materials released.

Government Publication Date: 1974-1994*

Non-Compliance Reports:

Provincial

[NCPL](#)

The Ministry of the Environment provides information about non-compliant discharges of contaminants to air and water that exceed legal allowable limits, from regulated industrial and municipal facilities. A reported non-compliance failure may be in regard to a Control Order, Certificate of Approval, Sectoral Regulation or specific regulation/act.

Government Publication Date: Dec 31, 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](#)

The NEBW database contains information on onshore & offshore oil and gas wells that are outside provincial jurisdiction(s) and are thereby regulated by the National Energy Board. Data is provided regarding the operator, well name, well ID No./UWI, status, classification, well depth, spud and release date.

Government Publication Date: 1920-Feb 2003*

National Environmental Emergencies System (NEES):

Federal

NEES

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

Government Publication Date: 1974-2003*

National PCB Inventory:

Federal

NPCB

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. Federal out-of-service PCB containing equipment and PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites. Some addresses provided may be Head Office addresses and are not necessarily the location of where the waste is being used or stored.

Government Publication Date: 1988-2008*

National Pollutant Release Inventory:

Federal

NPRI

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances.

Government Publication Date: 1993-May 2017

Oil and Gas Wells:

Private

OGWE

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickle's database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Government Publication Date: 1988-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:

Private

PAP

This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

Government Publication Date: 1999, 2002, 2004, 2005, 2009-2014

Parks Canada Fuel Storage Tanks:

Federal

PCFT

Canadian Heritage maintains an inventory of known fuel storage tanks operated by Parks Canada, in both National Parks and at National Historic Sites. The database details information on site name, location, tank install/removal date, capacity, fuel type, facility type, tank design and owner/operator.

Government Publication Date: 1920-Jan 2005*

Pesticide Register:

Provincial PES

The Ontario Ministry of the Environment and Climate Change maintains a database of licensed operators and vendors of registered pesticides.

Government Publication Date: Oct 2011- Jun 30, 2021

Pipeline Incidents:

Provincial PINC

List of pipeline incidents (strikes, leaks, spills). This is not a comprehensive or complete inventory of pipeline incidents in the province; this listing in an historical copy of records previously obtained under Access to Public Information. Records are not verified for accuracy or completeness.

Government Publication Date: May 31, 2021

Private and Retail Fuel Storage Tanks:

Provincial PRT

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks and licensed retail fuel outlets. This database includes an inventory of locations that have gasoline, oil, waste oil, natural gas and/or propane storage tanks on their property. The MCCR no longer collects this information. This information is now collected by the Technical Standards and Safety Authority (TSSA).

Government Publication Date: 1989-1996*

Permit to Take Water:

Provincial PTTW

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all PTTW's on the registry such as OWRA s. 34 - Permit to take water.

Government Publication Date: 1994- 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

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:

Provincial [SRDS](#)

Information under this heading is combination of the following 2 programs. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment maintained a database of all direct dischargers of toxic pollutants within nine sectors including: Electric Power Generation; Mining; Petroleum Refining; Organic Chemicals; Inorganic Chemicals; Pulp & Paper; Metal Casting; Iron & Steel; and Quarries. All sampling information is now collected and stored within the Sample Result Data Store (SRDS).

Government Publication Date: 1990-Dec 31, 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](#)

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

Variations 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 30th, 1990. For each "active" site as of October 31st 1990, information is provided on site location, site/CA number, waste type, site status and site classification. For each "closed" site as of October 31st 1990, information is provided on site location, site/CA number, closure date and site classification. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number.

Government Publication Date: Up to Oct 1990*

Water Well Information System:

Provincial [WWIS](#)

This database describes locations and characteristics of water wells found within Ontario in accordance with Regulation 903. It includes such information as coordinates, construction date, well depth, primary and secondary use, pump rate, static water level, well status, etc. Also included are detailed stratigraphy information, approximate depth to bedrock and the approximate depth to the water table.

Government Publication Date: Apr 30, 2021

Definitions

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

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

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

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

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

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

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

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

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

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

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

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



Property Information

Order Number: 21081100468p
 Date Completed: August 13, 2021
 Project Number: CT3243.00
 Project Property: 8547 Grassy Brook Road
 8547 Grassy Brook Road Port Robinson ON L0S 1K0
 Coordinates:
 Latitude: 43.03968265
 Longitude: -79.13456677
 UTM Northing: 4766910.07711 Metres
 UTM Easting: 651952.38652 Metres
 UTM Zone: UTM Zone 17T
 Elevation: 163.64 m
 Slope Direction: NE

Property Information.....1
 Topographic Information.....2
 Hydrologic Information.....12
 Geologic Information.....17
 Soil Information.....30
 Wells and Additional Sources.....173
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 Detail Report.....178
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 Appendix.....256
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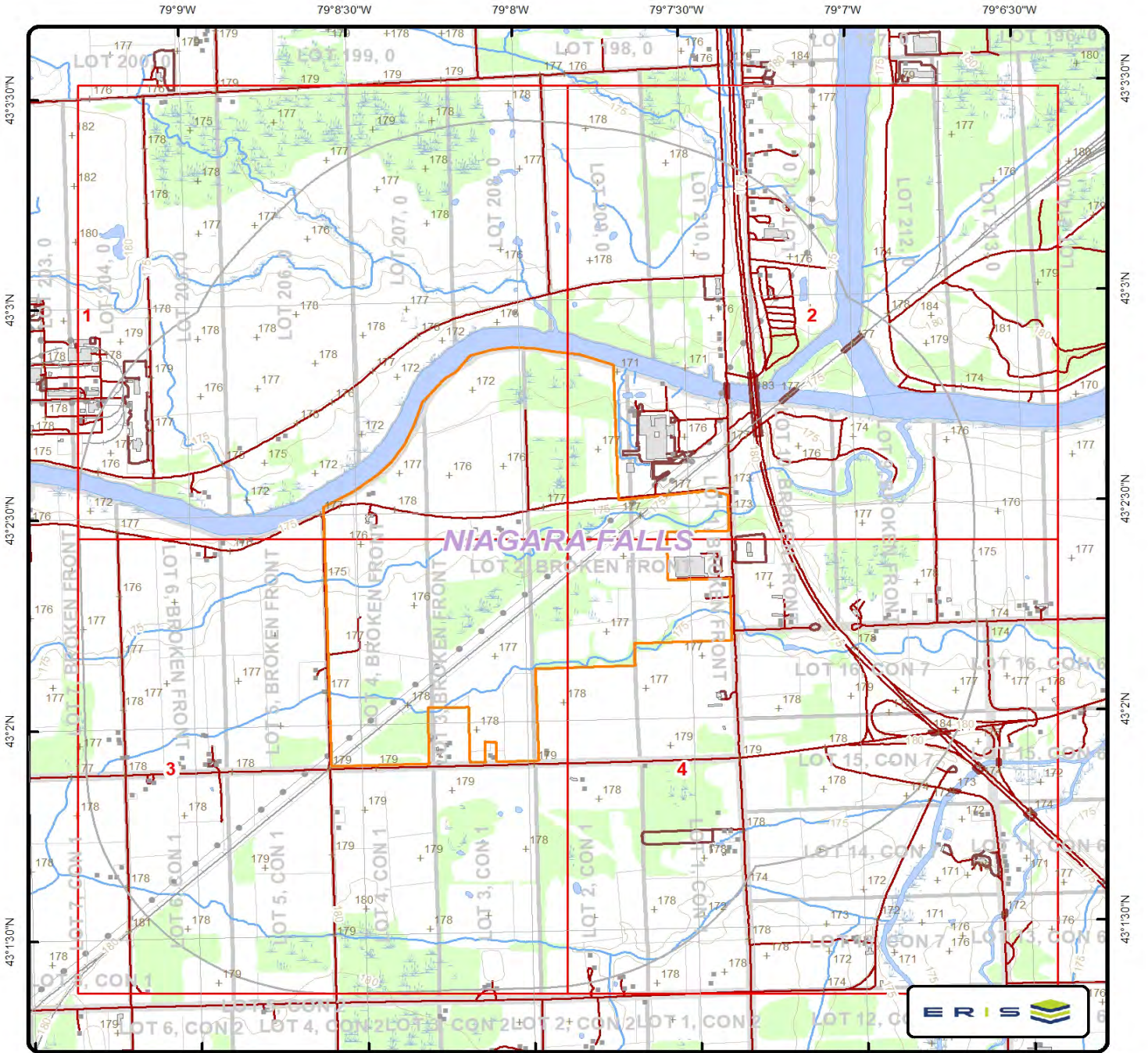
The ERIS **Physical Setting Report - PSR** provides comprehensive information about the physical setting around a site and includes a complete overview of topography as well as hydrologic, geologic and soil characteristics. The location and detailed attributes of oil and gas wells, water wells, and radon 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.

Topographic Information



Topographic Map

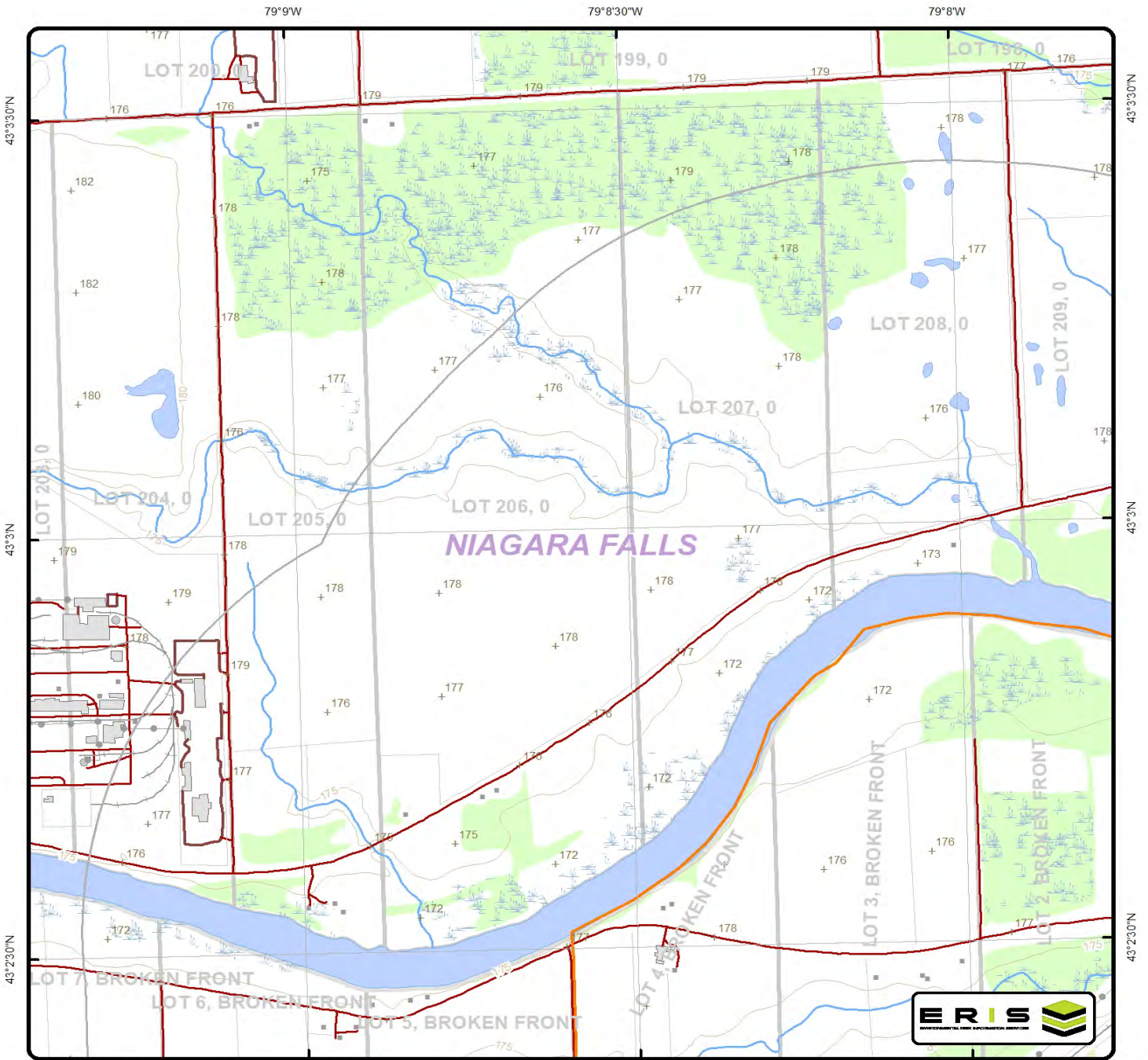
Address: 8547 Grassy Brook Road, Port Robinson, ON



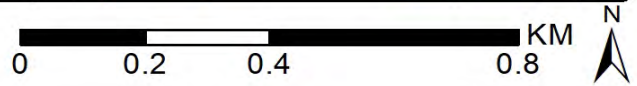
+ Spot Height (metre)	— Transportation Structure	— Contour Line	■ Wooded Area
■ Building Point	●—● Utility Line	□ Pit or Quarry	■ Conservation Authority
⚡ Towers	— Water Structure	■ Waterbody	■ Conservation Area
● Utility Site Point	— Drainage Line Feature	■ Wetlands	■ Municipal Park
— Misc. Line	— River or Stream	■ Concession	■ Provincial Park
— Railroads	□ Airports	■ Lots	■ National Park
— Roads	■ Tanks	■ Municipality	■ Nature Reserve
- - - Trail	■ Building to Scale	■ Land Ownership	

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

Topographic Information



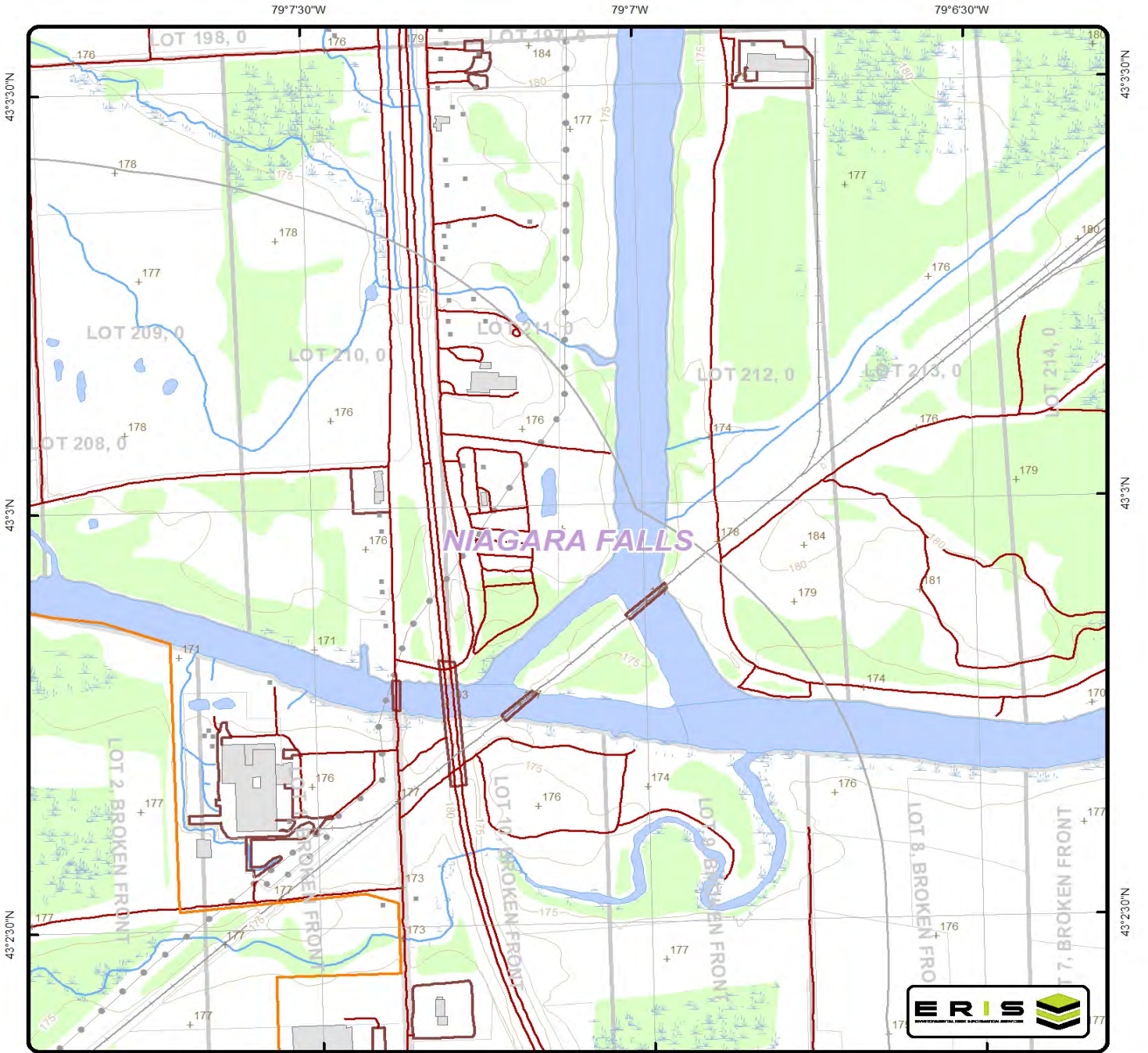
Topographic Map - Page 1



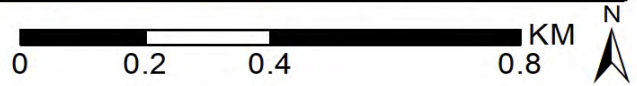
+ Spot Height (metre)	— Transportation Structure	— Contour Line	■ Wooded Area
■ Building Point	— Utility Line	□ Pit or Quarry	■ Conservation Authority
⊕ Towers	— Water Structure	■ Waterbody	■ Conservation Area
● Utility Site Point	— Drainage Line Feature	■ Wetlands	■ Municipal Park
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— Roads	■ Tanks	■ Municipality	■ Nature Reserve
- - - Trail	■ Building to Scale	■ Land Ownership	

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

Topographic Information



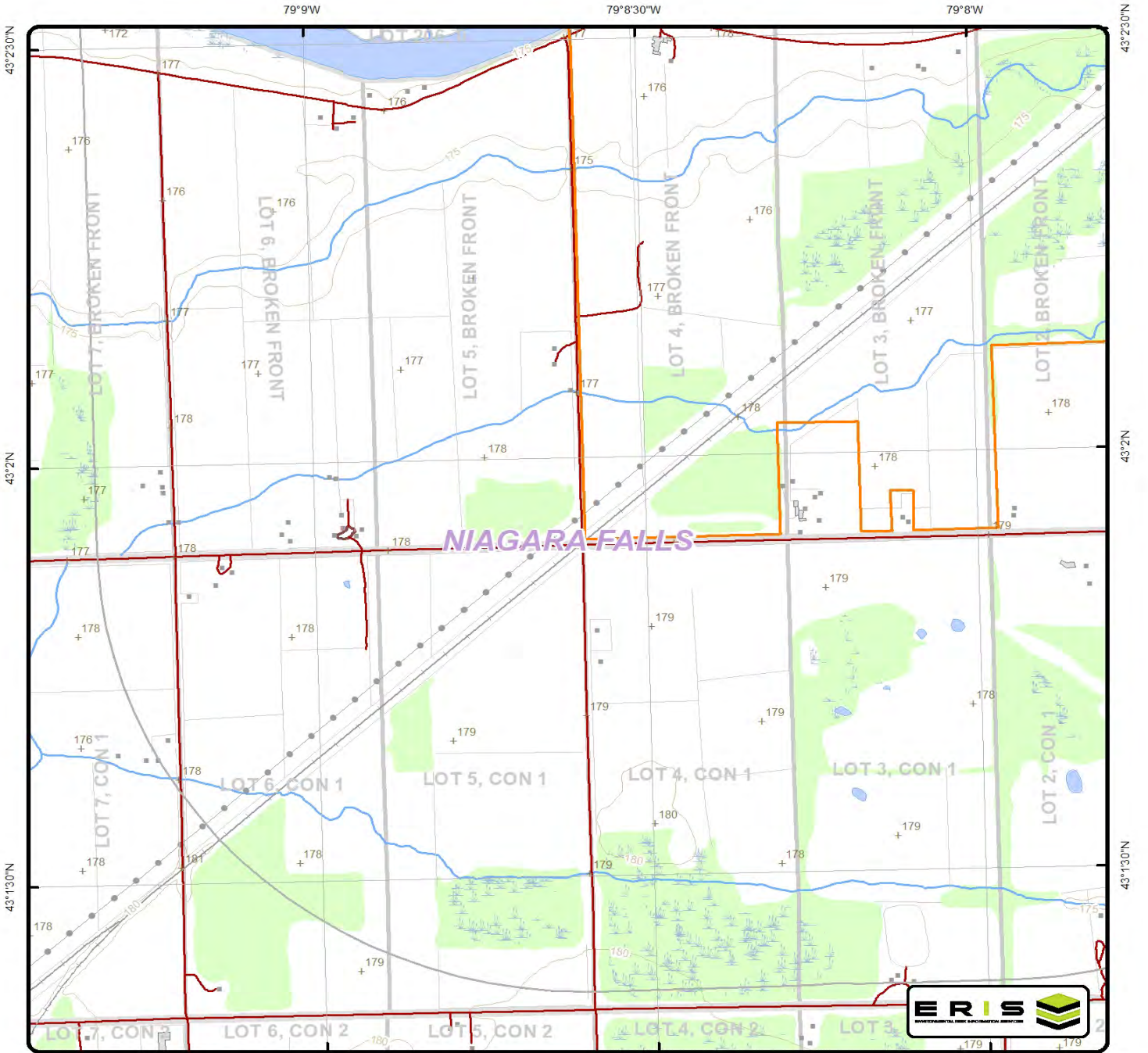
Topographic Map - Page 2



+ Spot Height (metre)	— Transportation Structure	— Contour Line	Wooded Area
■ Building Point	— Utility Line	□ Pit or Quarry	□ Conservation Authority
⊕ Towers	— Water Structure	■ Waterbody	■ Conservation Area
● Utility Site Point	— Drainage Line Feature	■ Wetlands	■ Municipal Park
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— Roads	■ Tanks	□ Municipality	■ Nature Reserve
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Data source: Ontario Base Mapping (OBM) by Ontario Ministry of Natural Resources.

Topographic Information



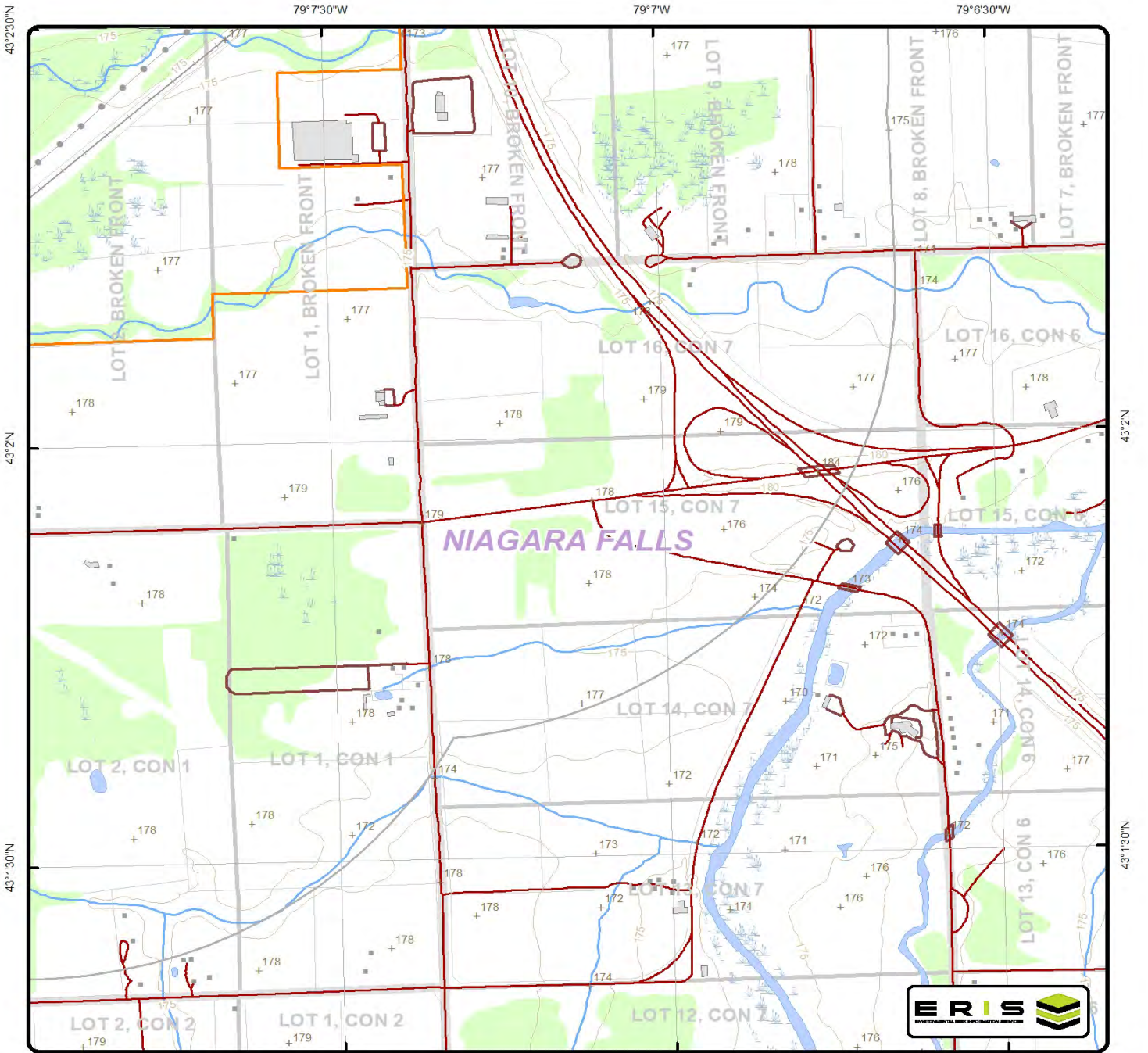
Topographic Map - Page 3



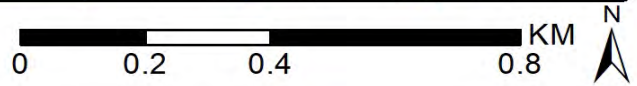
+ Spot Height (metre)	— Transportation Structure	— Contour Line	■ Wooded Area
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— Roads	■ Tanks	■ Municipality	■ Nature Reserve
- - - Trail	■ Building to Scale	■ Land Ownership	

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

Topographic Information



Topographic Map - Page 4



+ Spot Height (metre)	— Transportation Structure	— Contour Line	■ Wooded Area
■ Building Point	— Utility Line	■ Pit or Quarry	■ Conservation Authority
⚙ Towers	— Water Structure	■ Waterbody	■ Conservation Area
● Utility Site Point	— Drainage Line Feature	■ Wetlands	■ Municipal Park
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— Railroads	■ Airports	■ Lots	■ National Park
— Roads	■ Tanks	■ Municipality	■ Nature Reserve
- - - Trail	■ Building to Scale	■ Land Ownership	

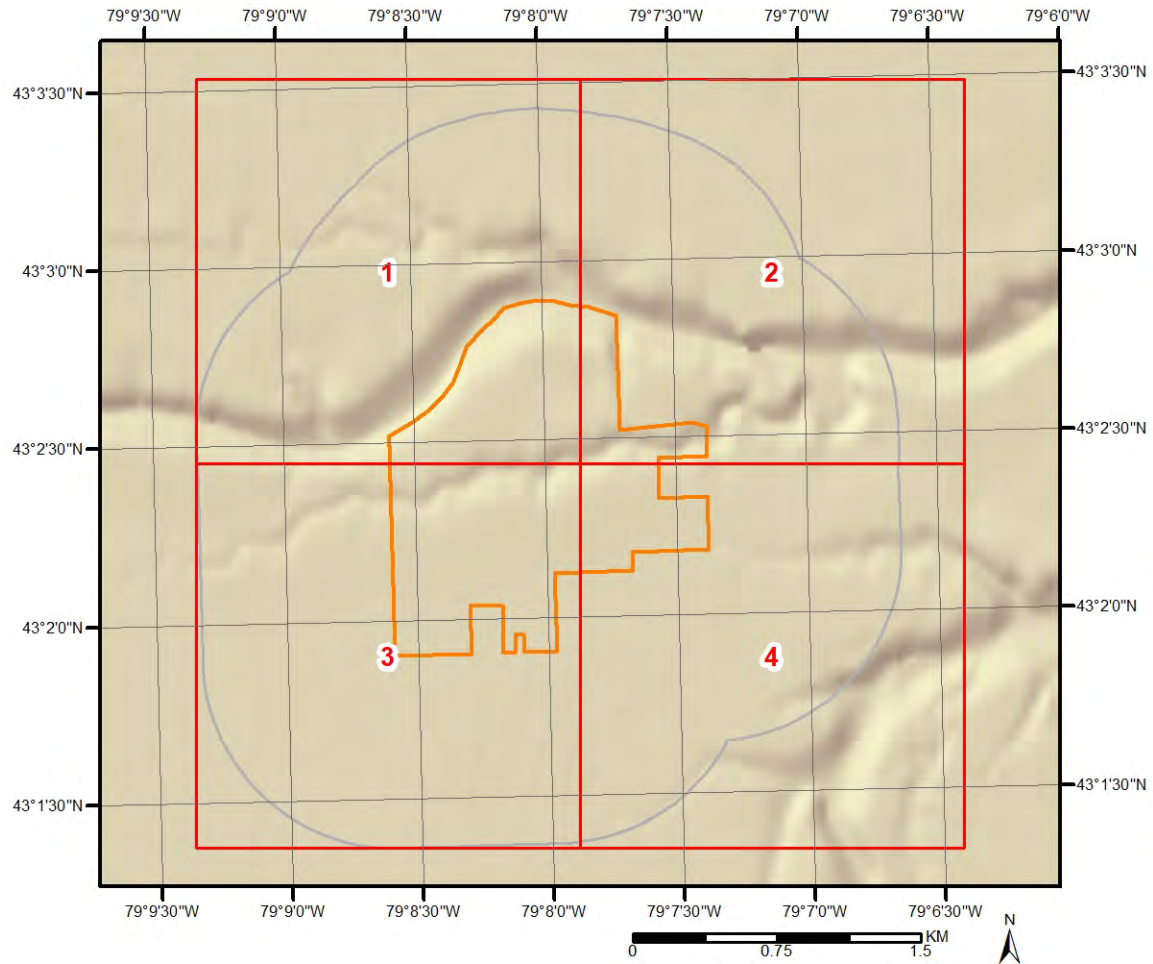
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Topographic Information

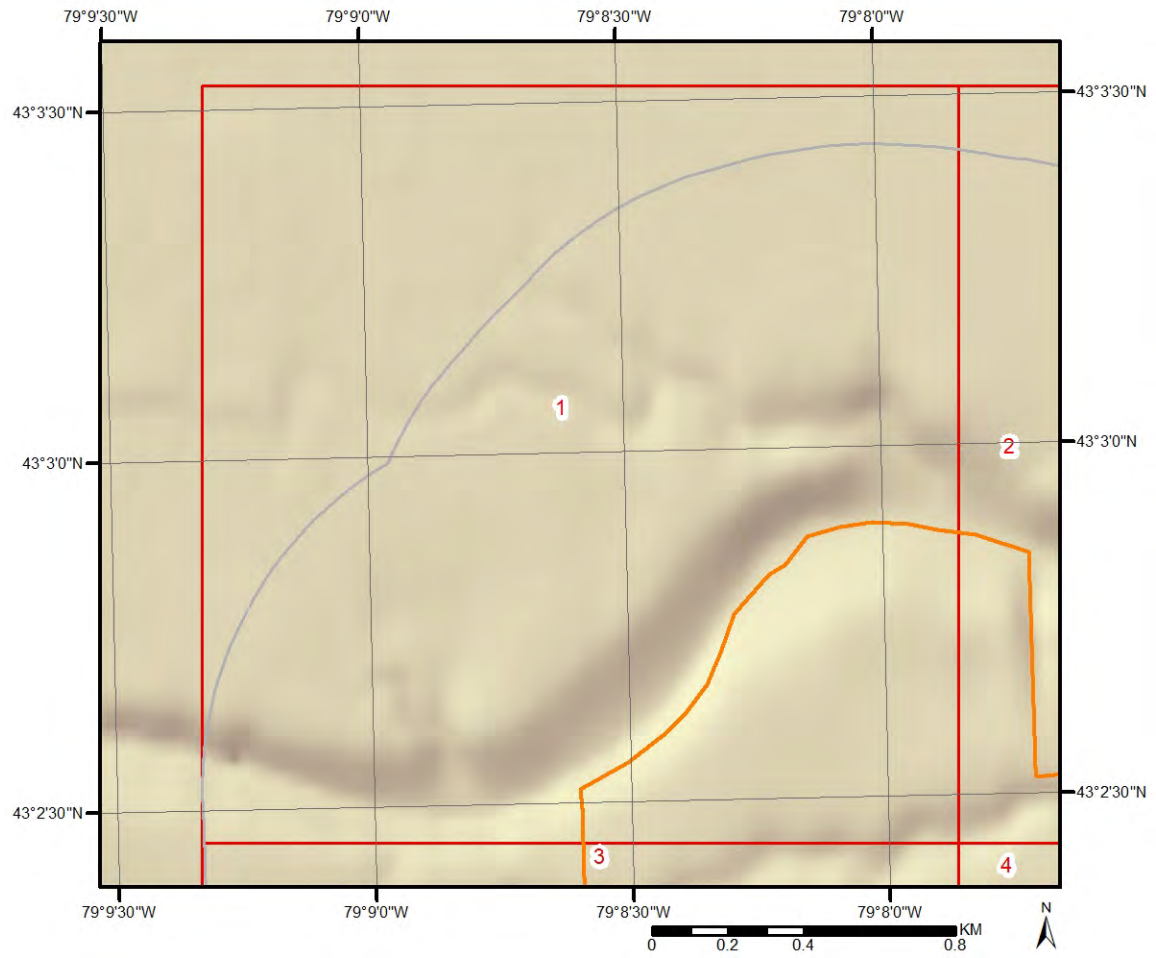
The previous topographic map(s) show general topographic information in the surrounding area of the project property, using Toporama data or a provincial source when available. Below are shaded relief map(s), derived from Digital Elevation data to depict terrain in further detail.

Topographic information at project property:

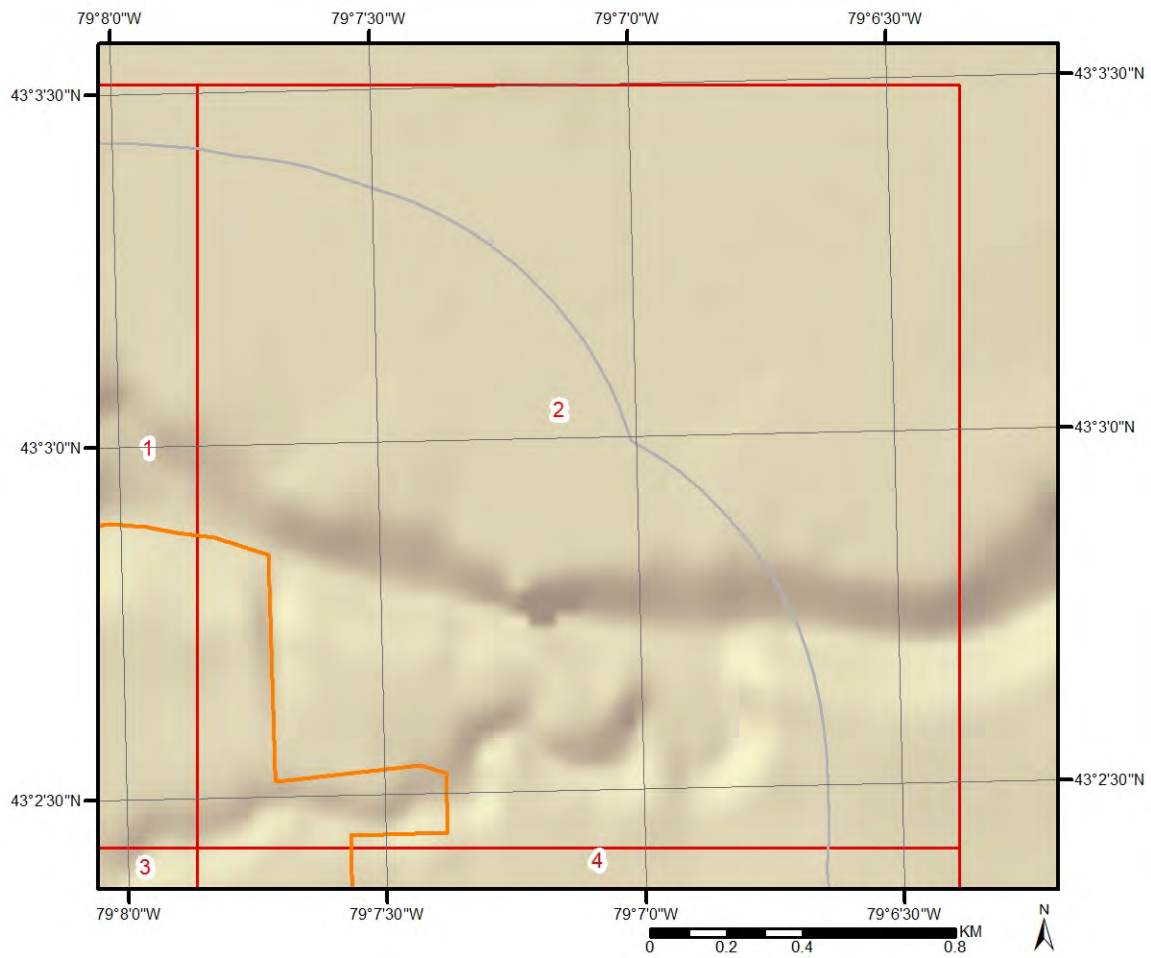
Elevation: 163.64 m
Slope Direction: NE



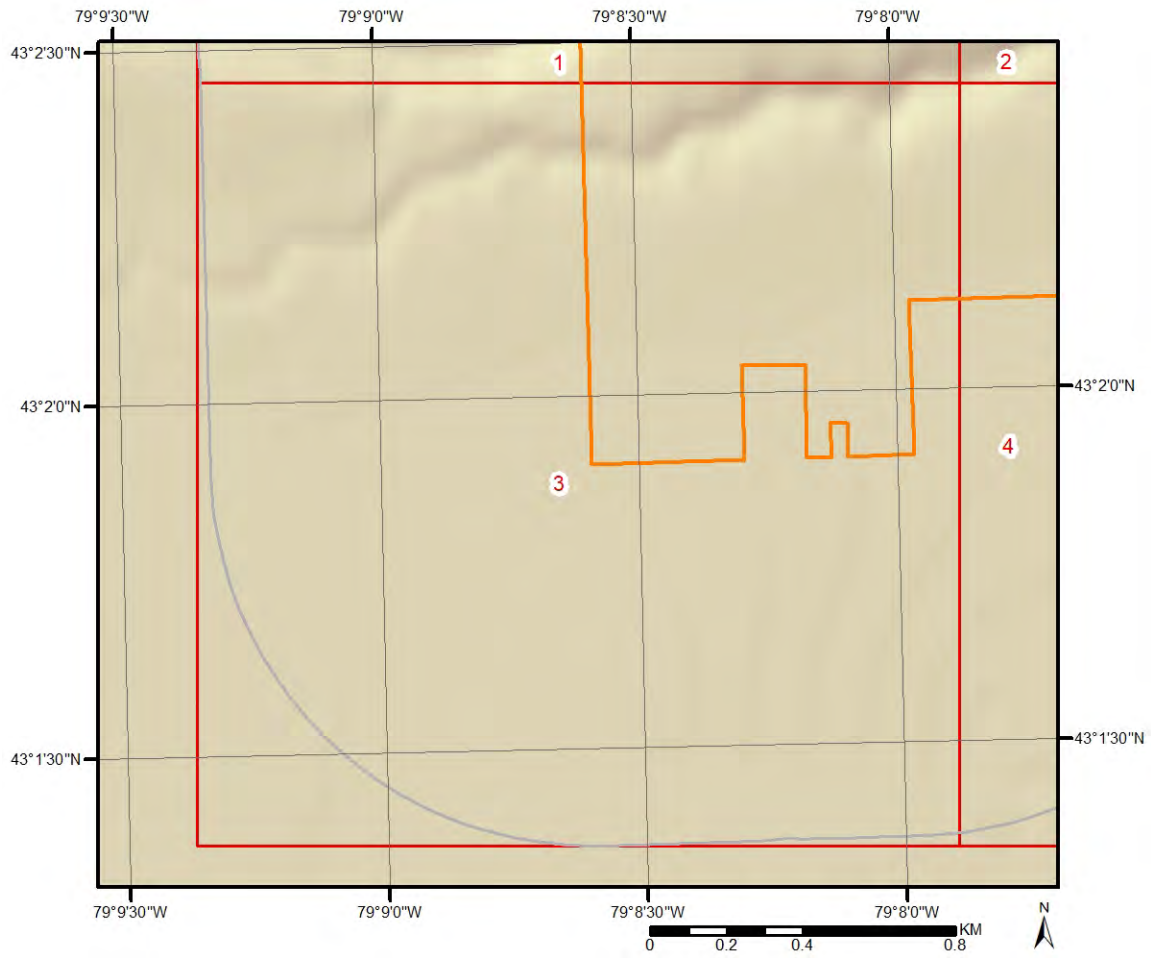
Topographic Information



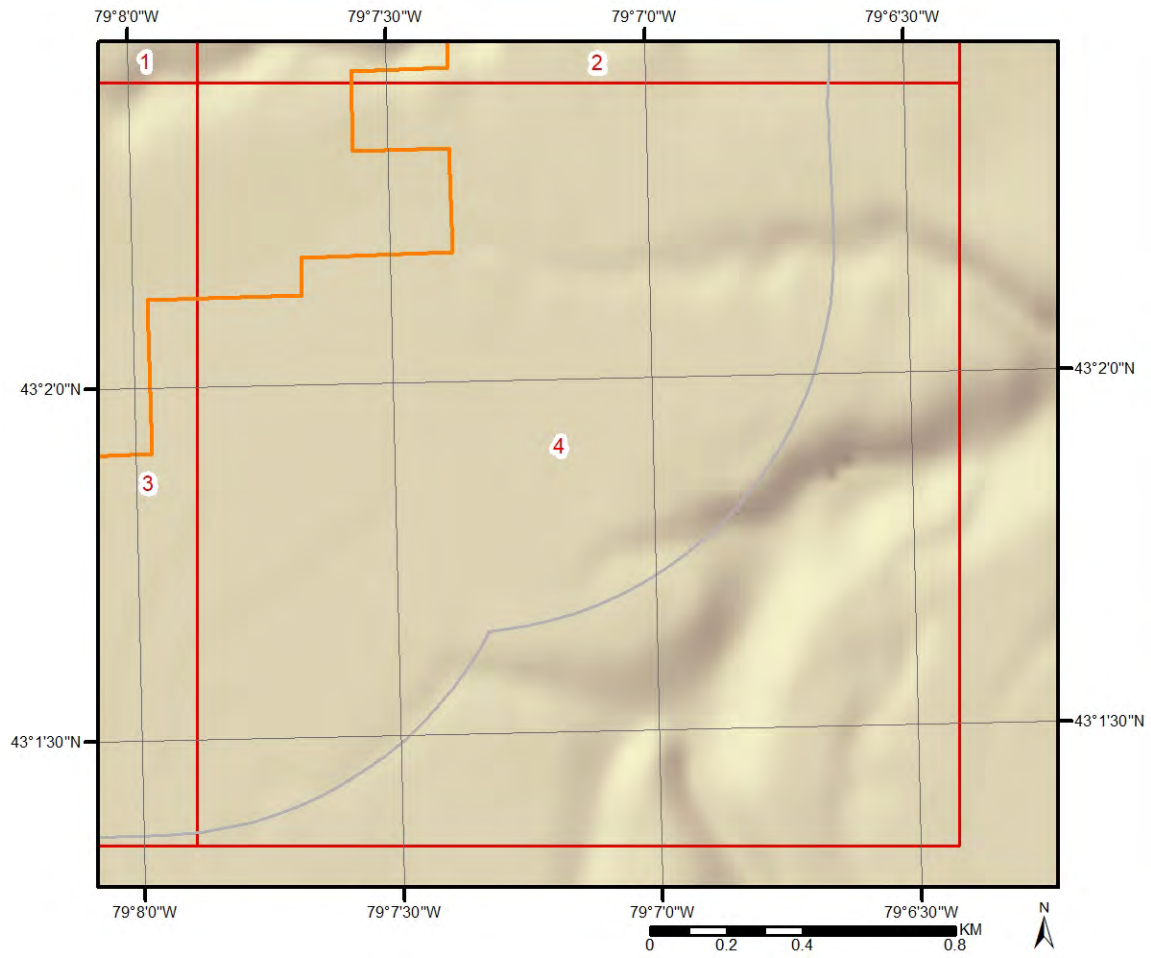
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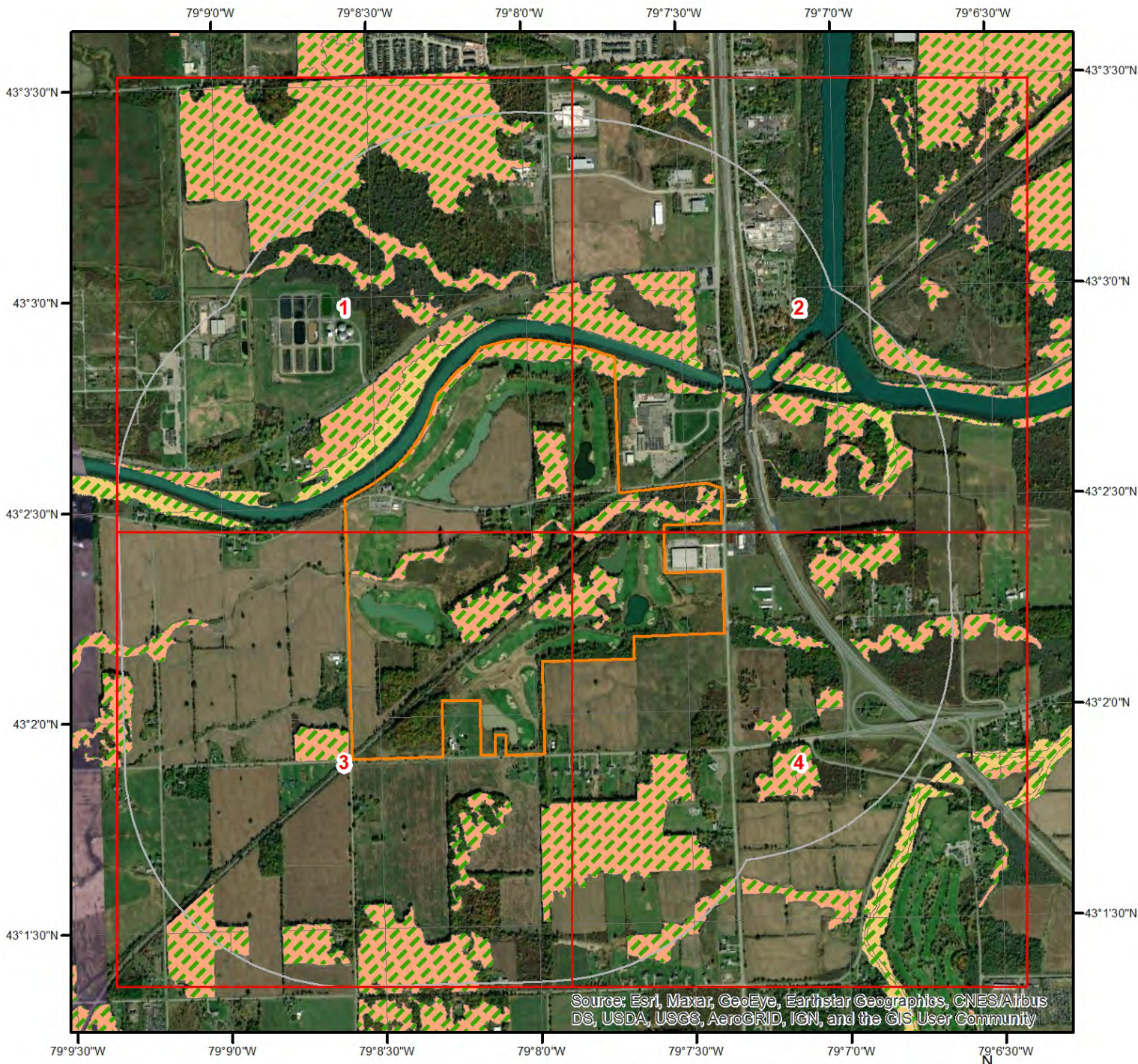
Topographic Information



Topographic Information





Hydrologic Information

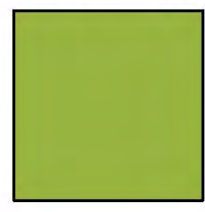


Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Wetland

This map shows wetland existence. Data coverage is shown to the right. Gray indicates no data available in the area.

-  Evaluated PSW
-  Marsh
-  Swamp






Wetland Information



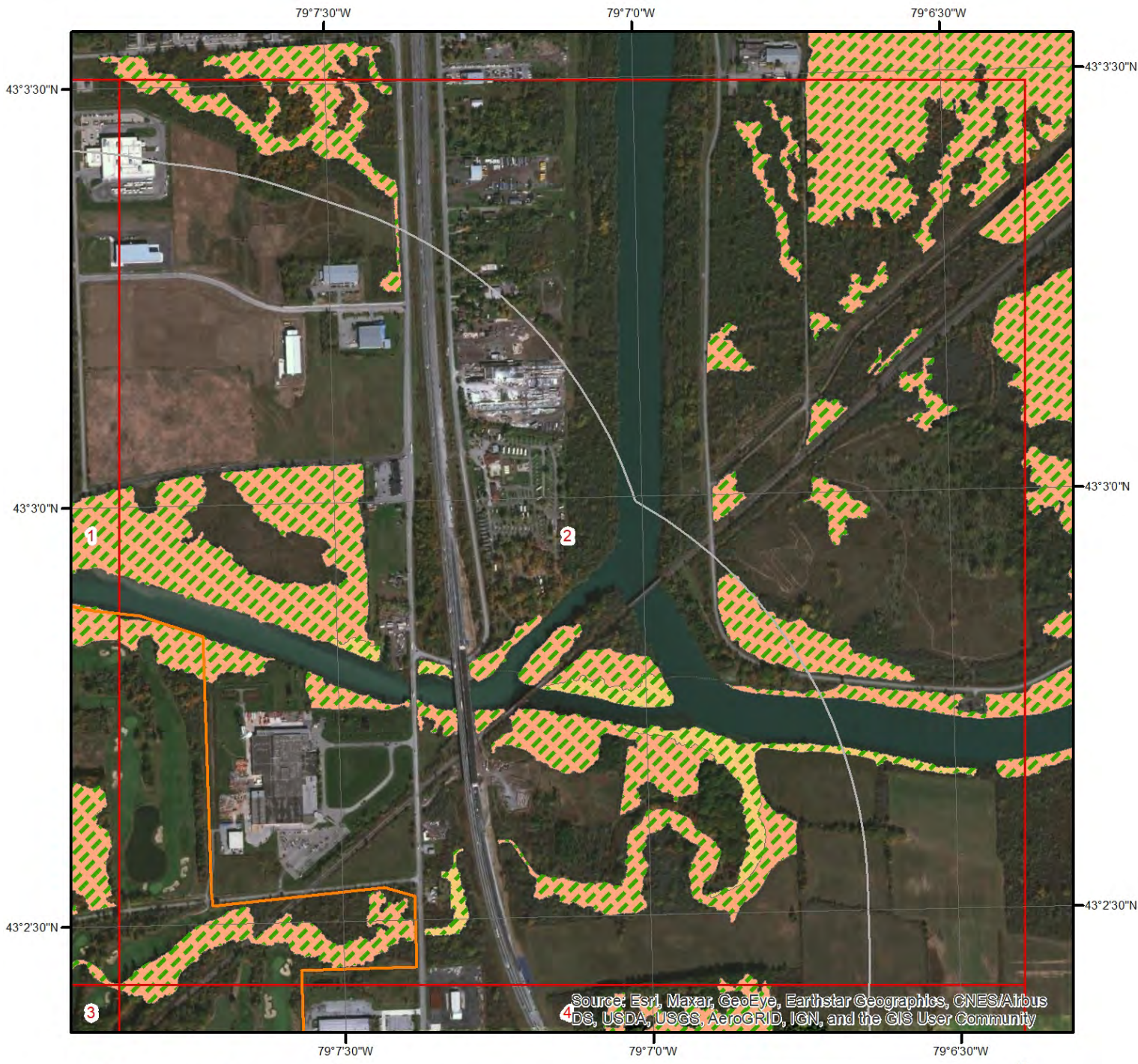
Wetland

This map shows wetland existence. Data coverage is shown to the right. Gray indicates no data available in the area.

-  Evaluated PSW
-  Marsh
-  Swamp



Wetland Information

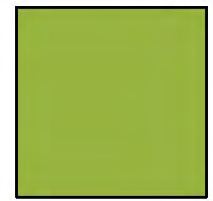
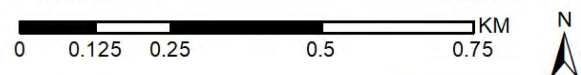


Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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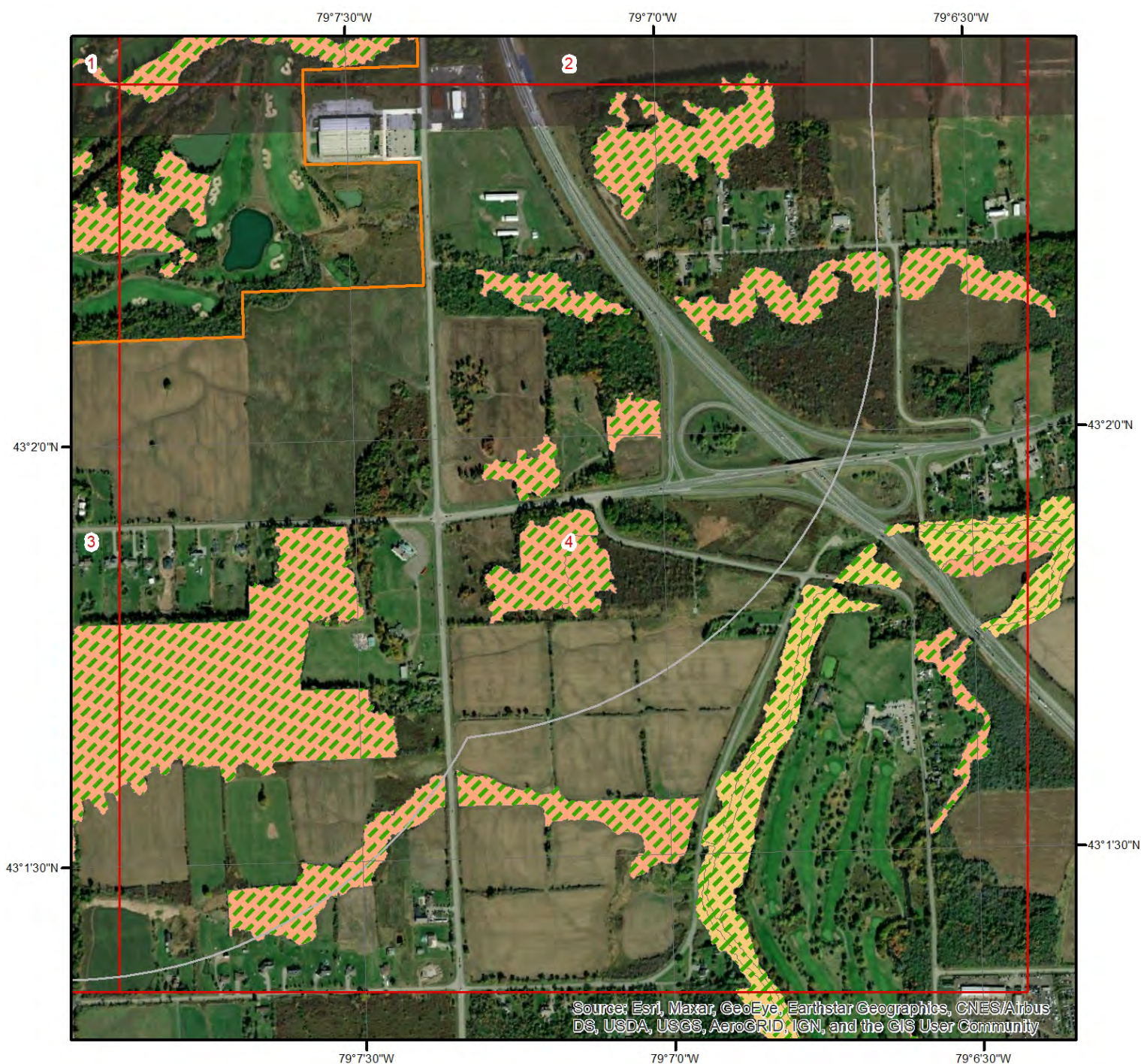
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- Evaluated PSW
- Marsh
- Swamp

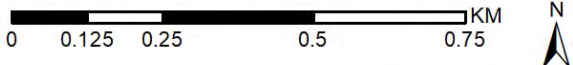


Wetland Information






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

Wetland

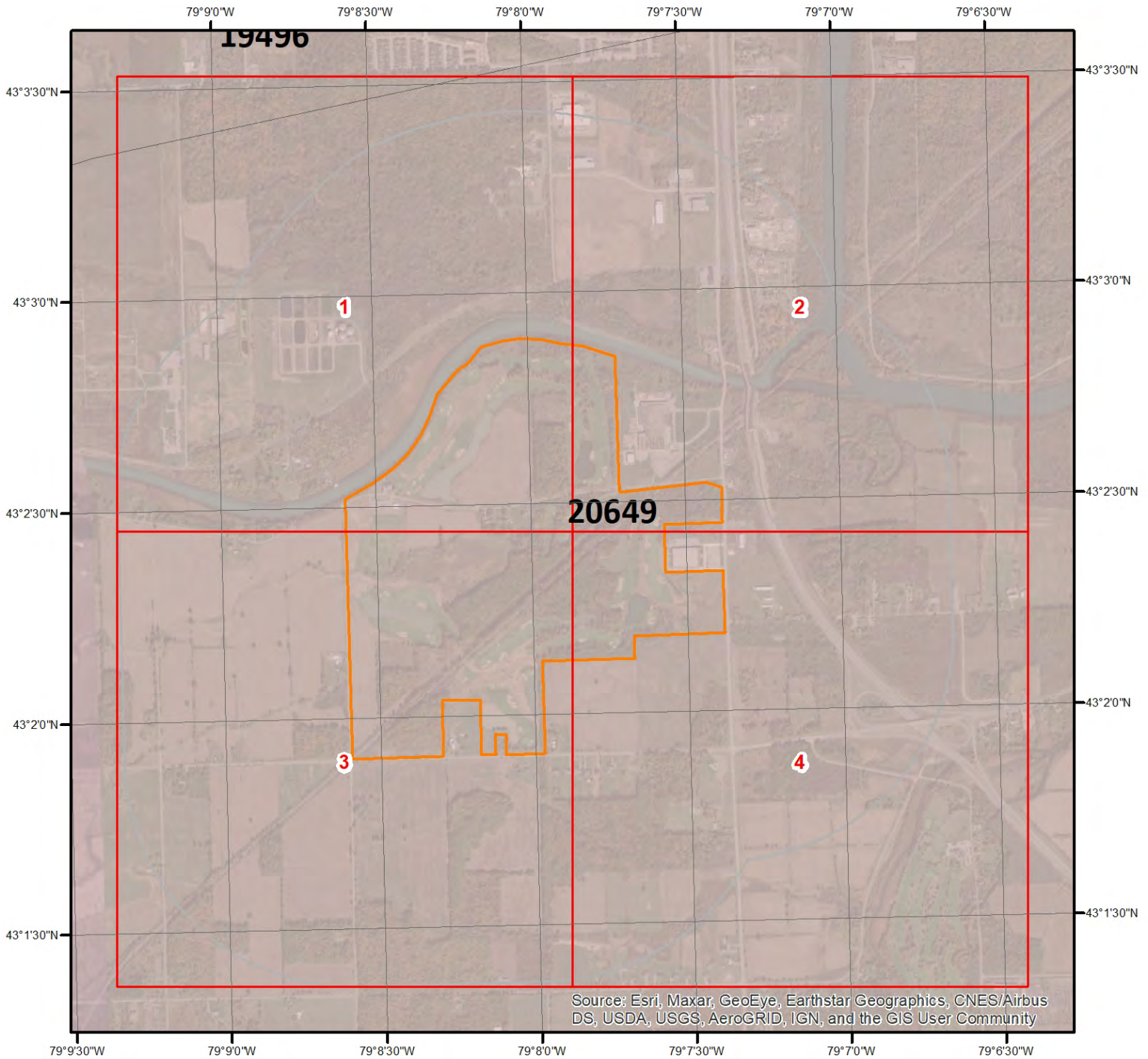


This map shows wetland existence. Data coverage is shown to the right. Gray indicates no data available in the area.

-  Evaluated PSW
-  Marsh
-  Swamp



Geologic Information



Bedrock Geology



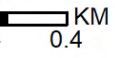
This map shows bedrock geologic units in the area. Please refer to the report for detailed descriptions. Data coverage is shown to the right. Gray indicates no data available in the area.



Geologic Information

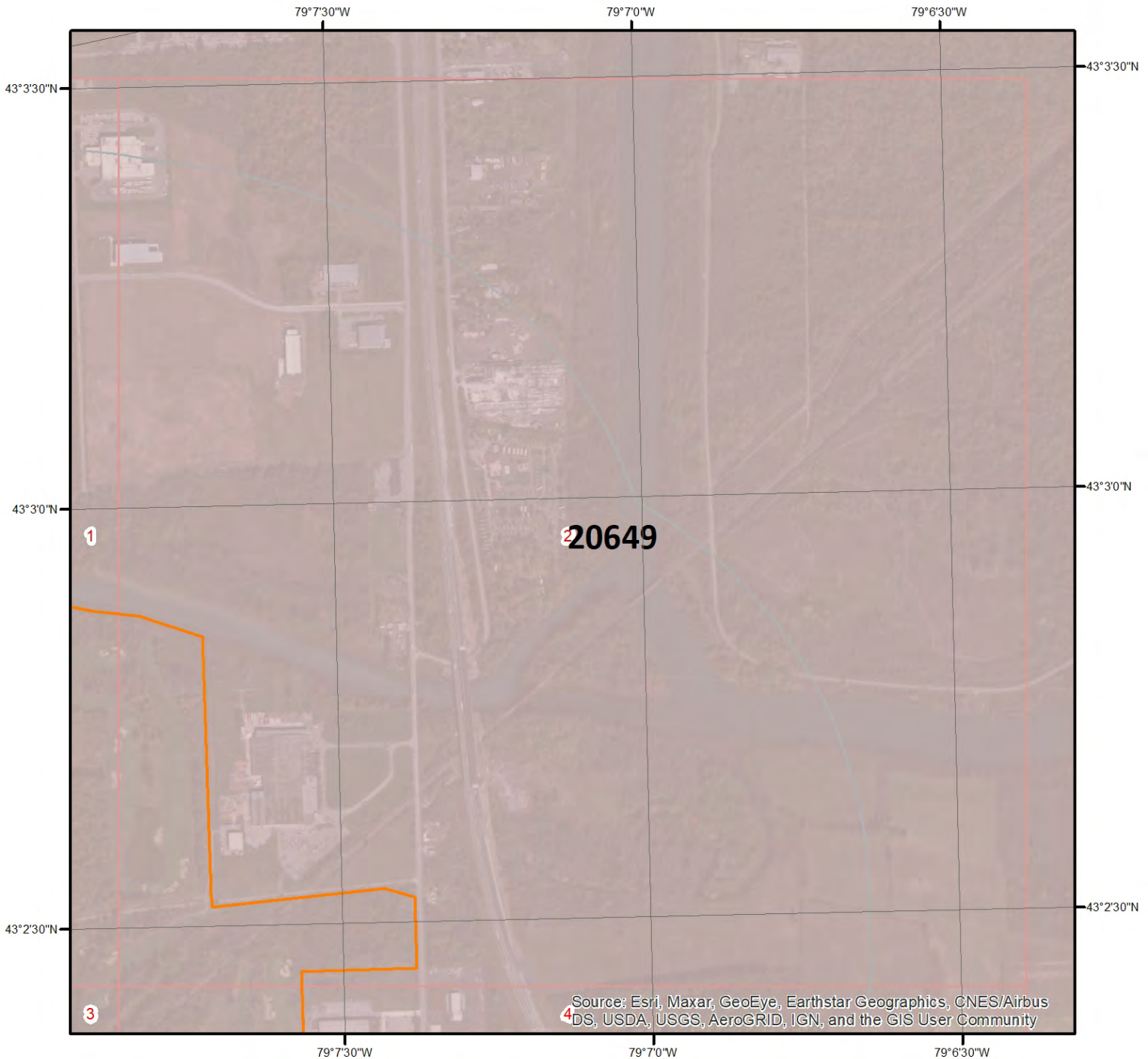


Bedrock Geologic Types - Page 1



This map shows bedrock geologic units in the area. Please refer to the report for detailed descriptions. Data coverage is shown to the right. Gray indicates no data available in the area.

Geologic Information

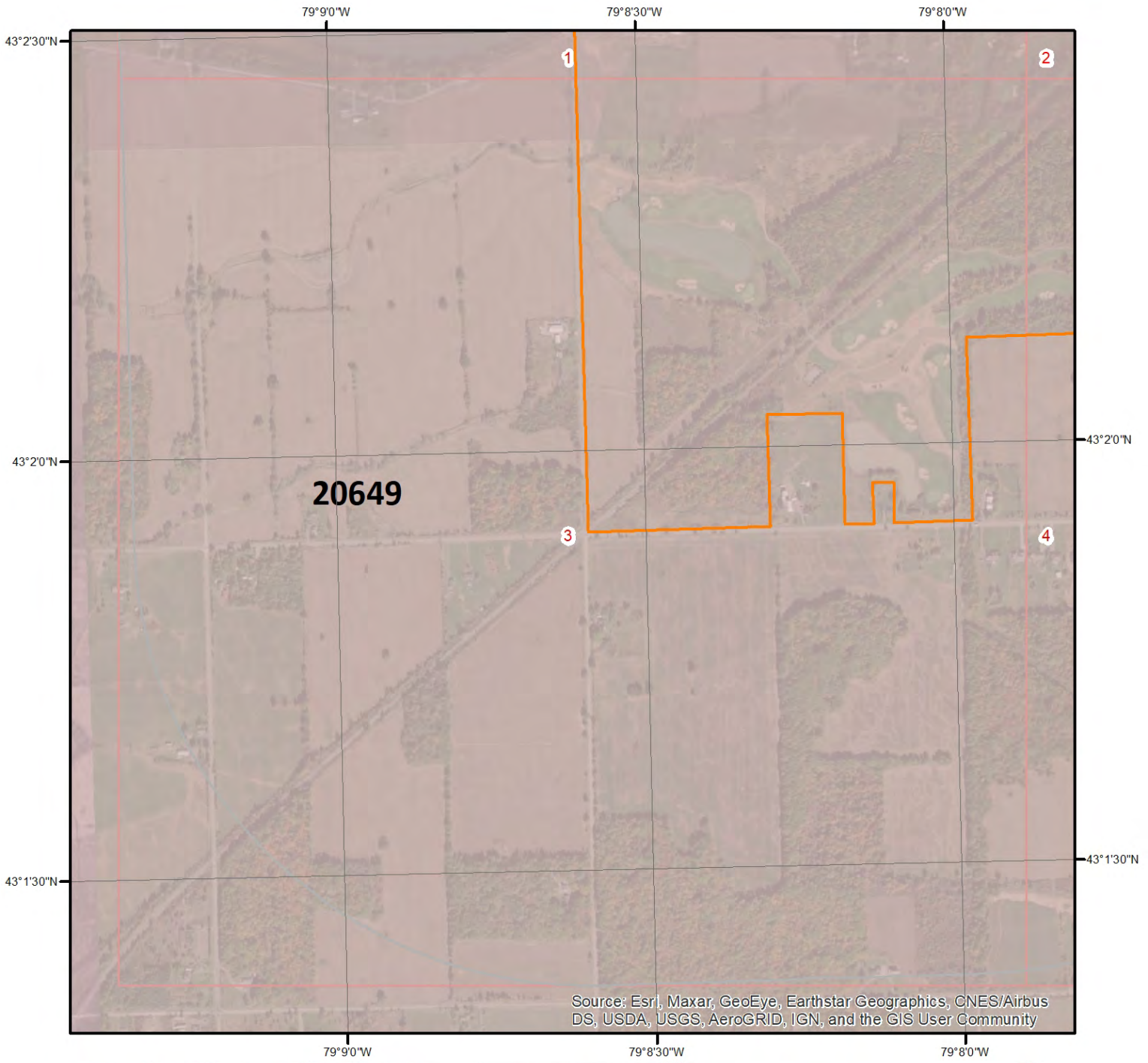


Bedrock Geologic Types - Page 2

This map shows bedrock geologic units in the area. Please refer to the report for detailed descriptions. Data coverage is shown to the right. Gray indicates no data available in the area.

ERIS

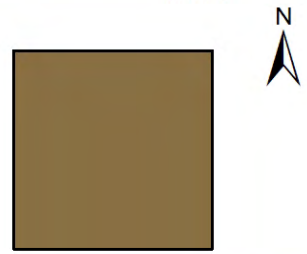
Geologic Information



Bedrock Geologic Types - Page 3



This map shows bedrock geologic units in the area. Please refer to the report for detailed descriptions. Data coverage is shown to the right. Gray indicates no data available in the area.



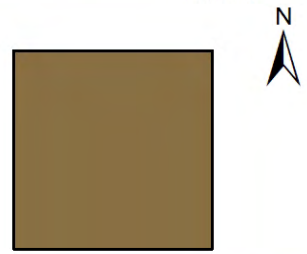
Geologic Information



Bedrock Geologic Types - Page 4



This map shows bedrock geologic units in the area. Please refer to the report for detailed descriptions. Data coverage is shown to the right. Gray indicates no data available in the area.



Geologic Information

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

Unit ID 20649

Unit Name:

Rock Type:

Limestone, dolostone, shale, sandstone, gypsum, salt

Strata:

Salina Formation

Super Eon:

Eon:

PHANEROZOIC (Present to 542.0 Ma)

Era:

PALEOZOIC (251.0 Ma to 542.0 Ma)

Period:

SILURIAN (416.0 Ma to 443.7 Ma)

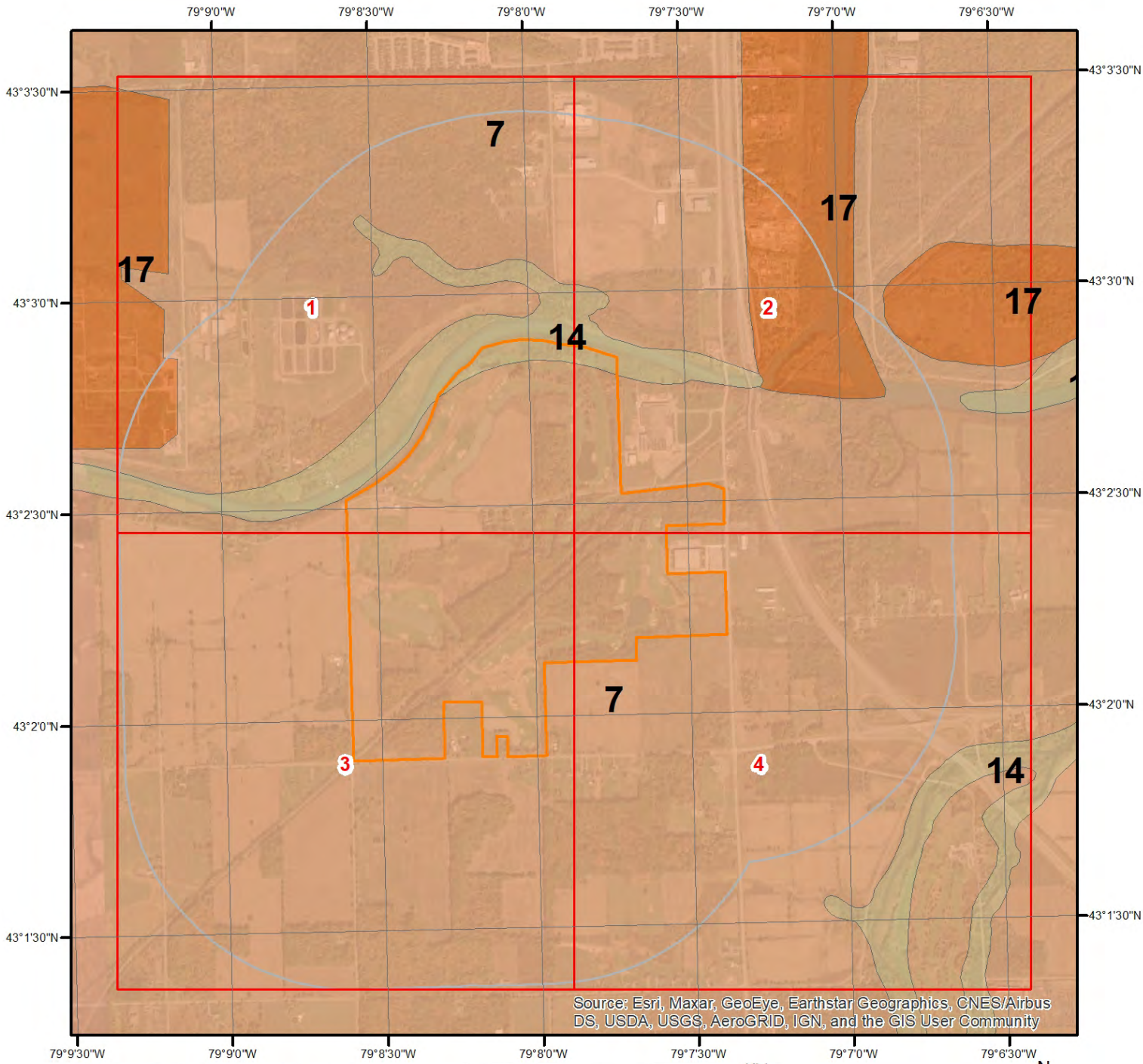
Epoch:

UPPER SILURIAN

Province:

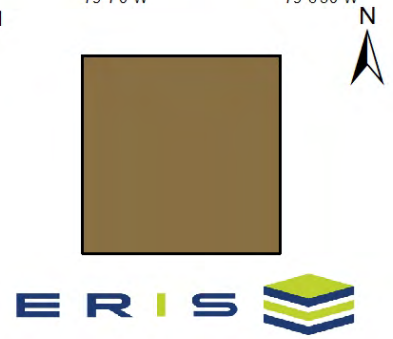
Tectonic Zone:

Geologic Information

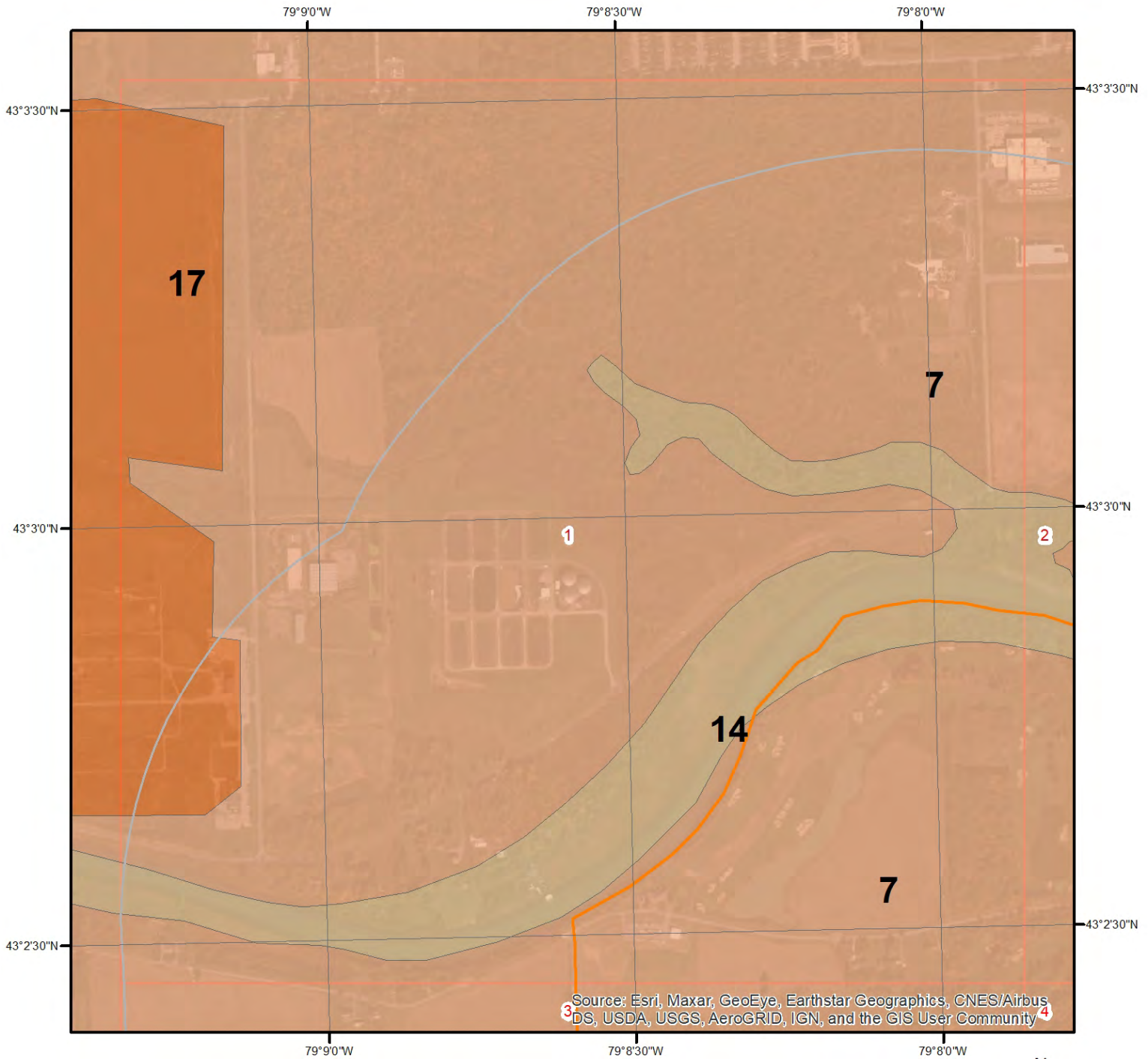


Surficial Geology

This map shows surficial geologic labels in the area. Please refer to the report for detailed descriptions. Data coverage is shown to the right. Gray indicates no data available in the area.

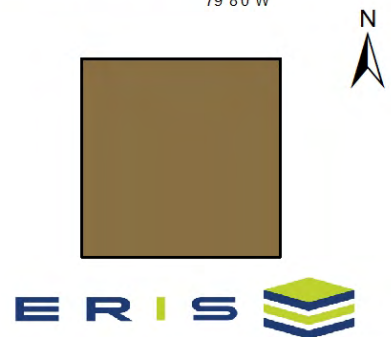


Geologic Information

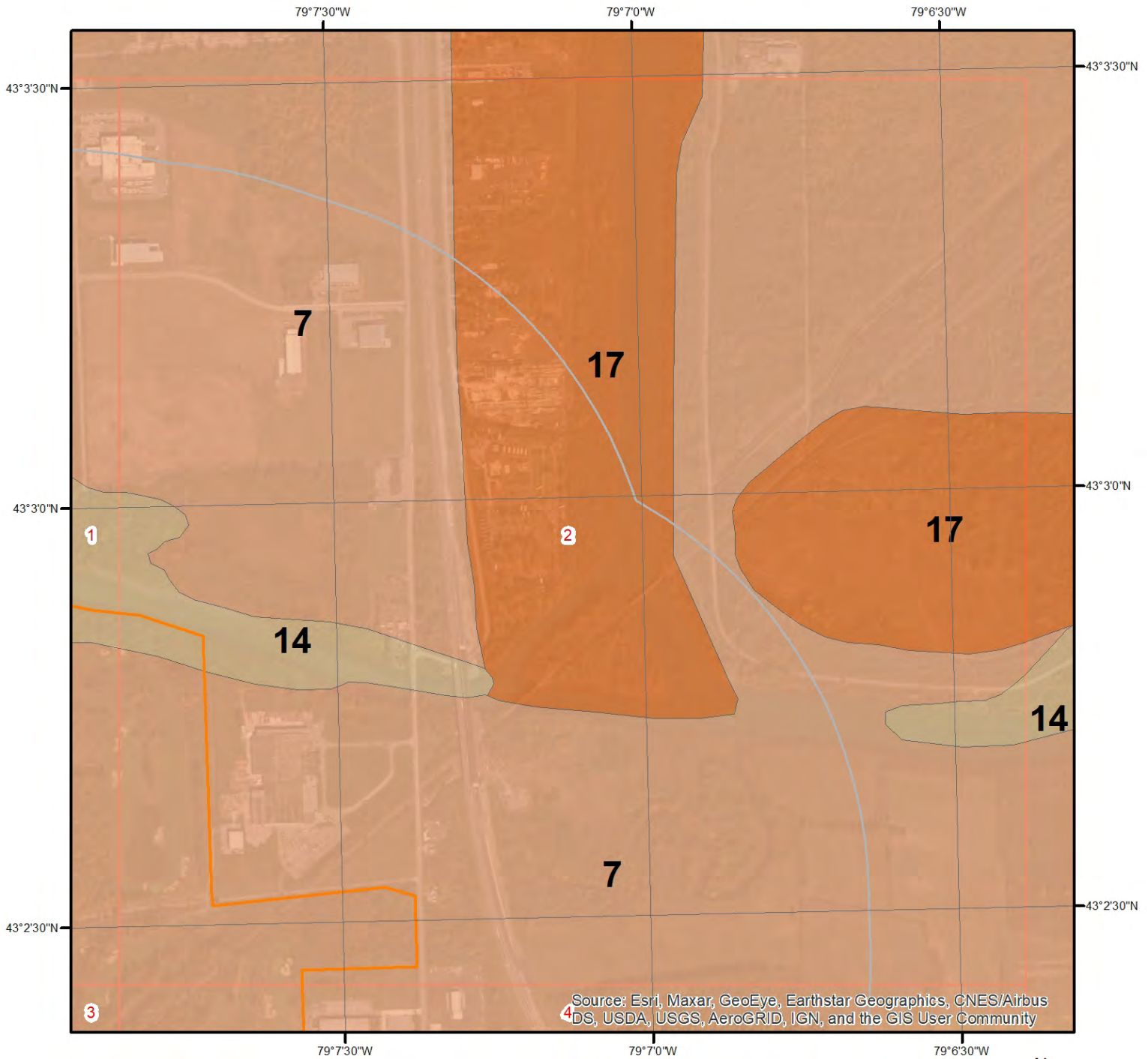


Surficial Geology - Page 1

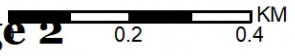
This map shows surficial geologic labels in the area. Please refer to the report for detailed descriptions. Data coverage is shown to the right. Gray indicates no data available in the area.



Geologic Information



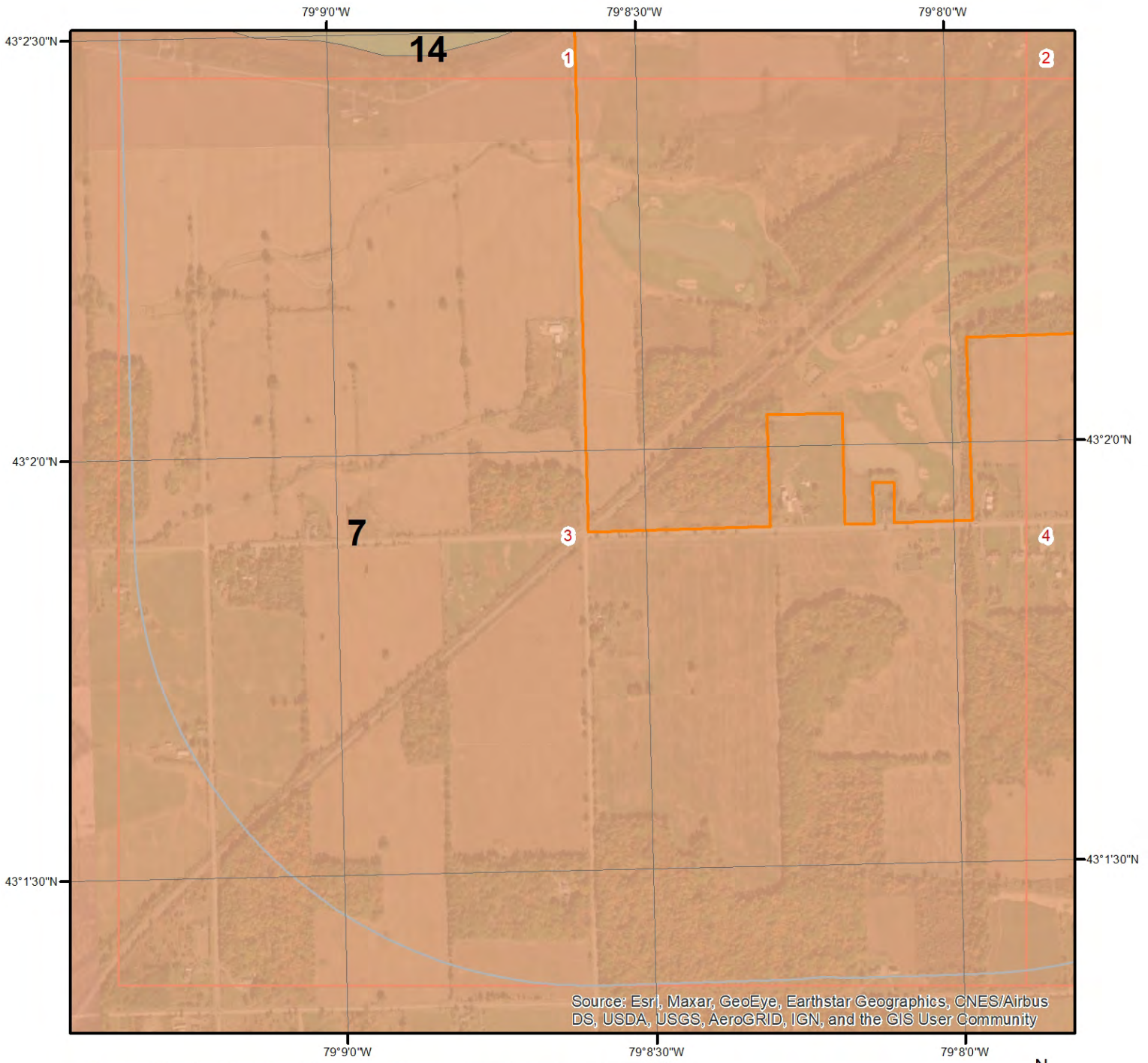
Surficial Geology - Page 2



This map shows surficial geologic labels in the area. Please refer to the report for detailed descriptions. Data coverage is shown to the right. Gray indicates no data available in the area.



Geologic Information

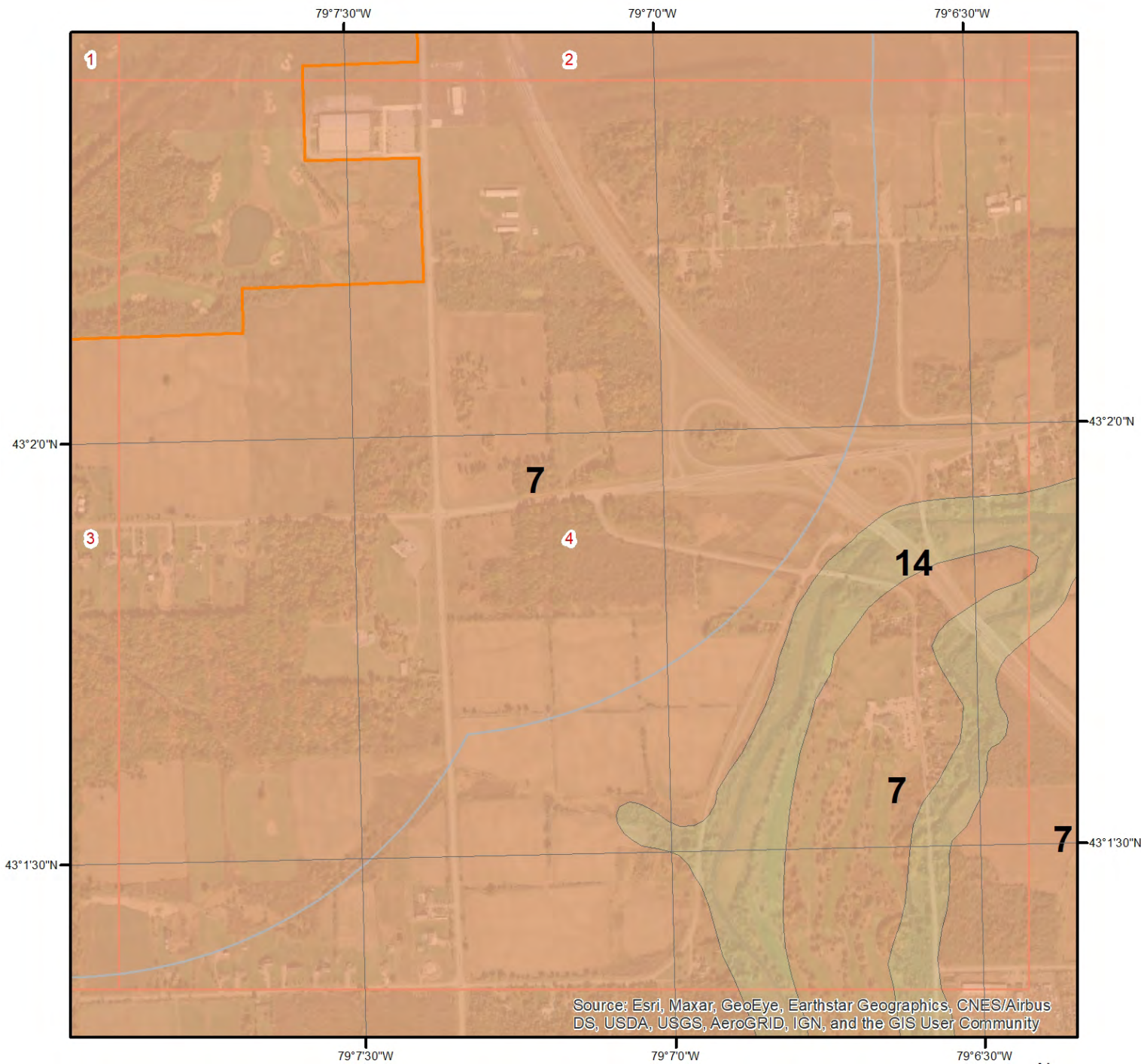


Surficial Geology - Page 3

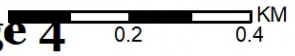
This map shows surficial geologic labels in the area. Please refer to the report for detailed descriptions. Data coverage is shown to the right. Gray indicates no data available in the area.



Geologic Information



Surficial Geology - Page 4



This map shows surficial geologic labels in the area. Please refer to the report for detailed descriptions. Data coverage is shown to the right. Gray indicates no data available in the area.

Geologic Information

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

Unit ID 7

Geological Deposit:	Glaciolacustrine deep water deposits
Deposit Age:	Late Wisconsinan
Primary Material:	clay, silt
Secondary Material:	
Primary General:	glaciolacustrine
Primary General Modifier:	foreshore/basinal
Veneer:	
Episode:	Wisconsin
Sub Episode:	Michigan
Strata Modifier:	Surface
Provenance:	
Carbon Content:	
Formation:	
Permeability:	Low
Material Description:	Clay and silt

Unit ID 17

Geological Deposit:	Fill
Deposit Age:	Recent
Primary Material:	fill
Secondary Material:	
Primary General:	anthropogenic
Primary General Modifier:	
Veneer:	
Episode:	Hudson
Sub Episode:	
Strata Modifier:	Surface
Provenance:	
Carbon Content:	
Formation:	
Permeability:	Variable
Material Description:	Fill

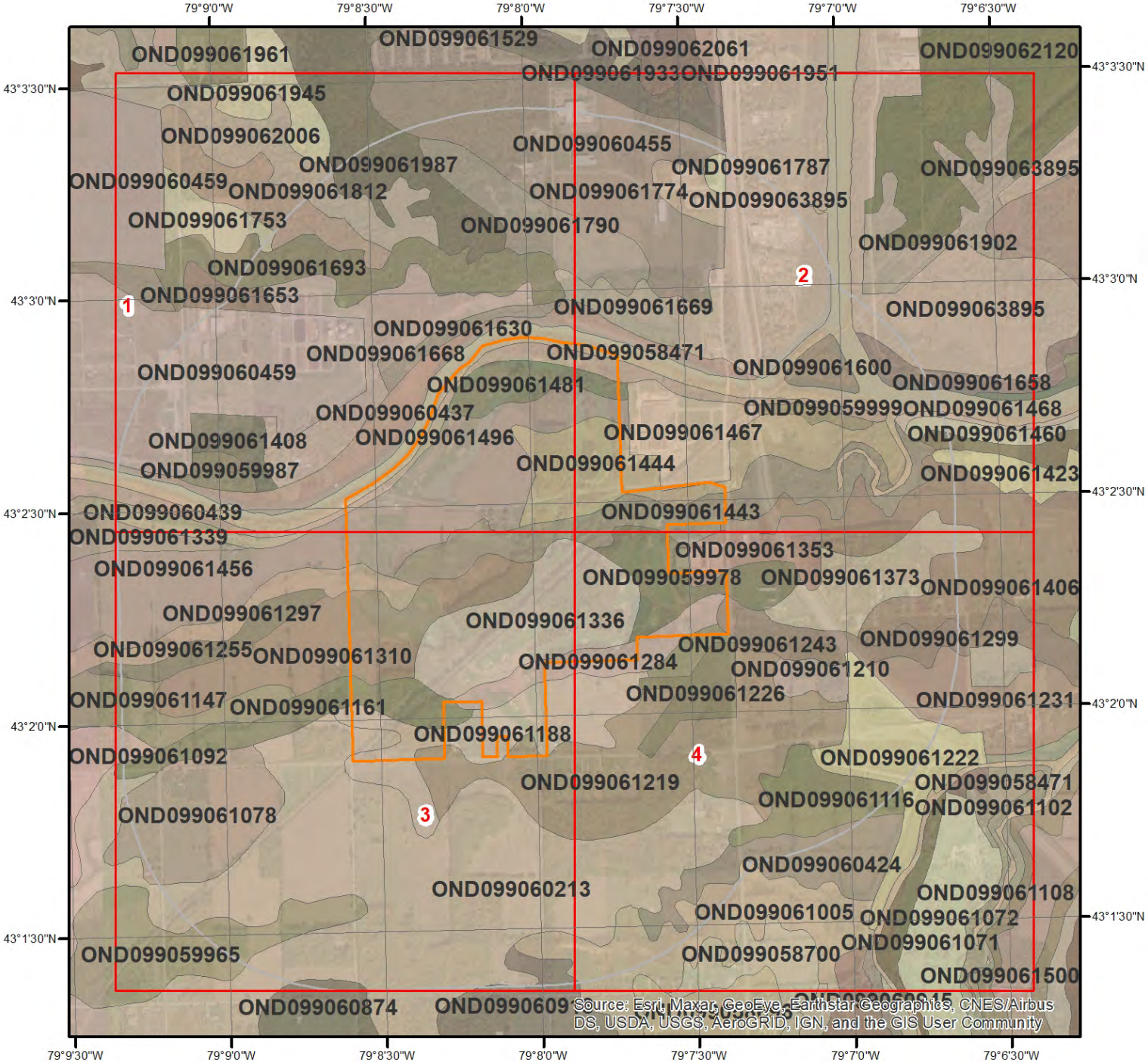
Unit ID 14

Geological Deposit:	Modern alluvium
Deposit Age:	Recent
Primary Material:	clay, silt, sand, gravel
Secondary Material:	
Primary General:	fluvial

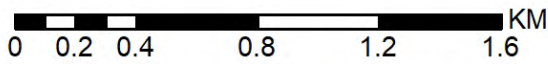
Geologic Information

Primary General Modifier:	modern floodplain
Veneer:	
Episode:	Hudson
Sub Episode:	
Strata Modifier:	Surface
Provenance:	
Carbon Content:	
Formation:	
Permeability:	Variable
Material Description:	Clay, silt, sand and gravel, with organic matter

Soil Information



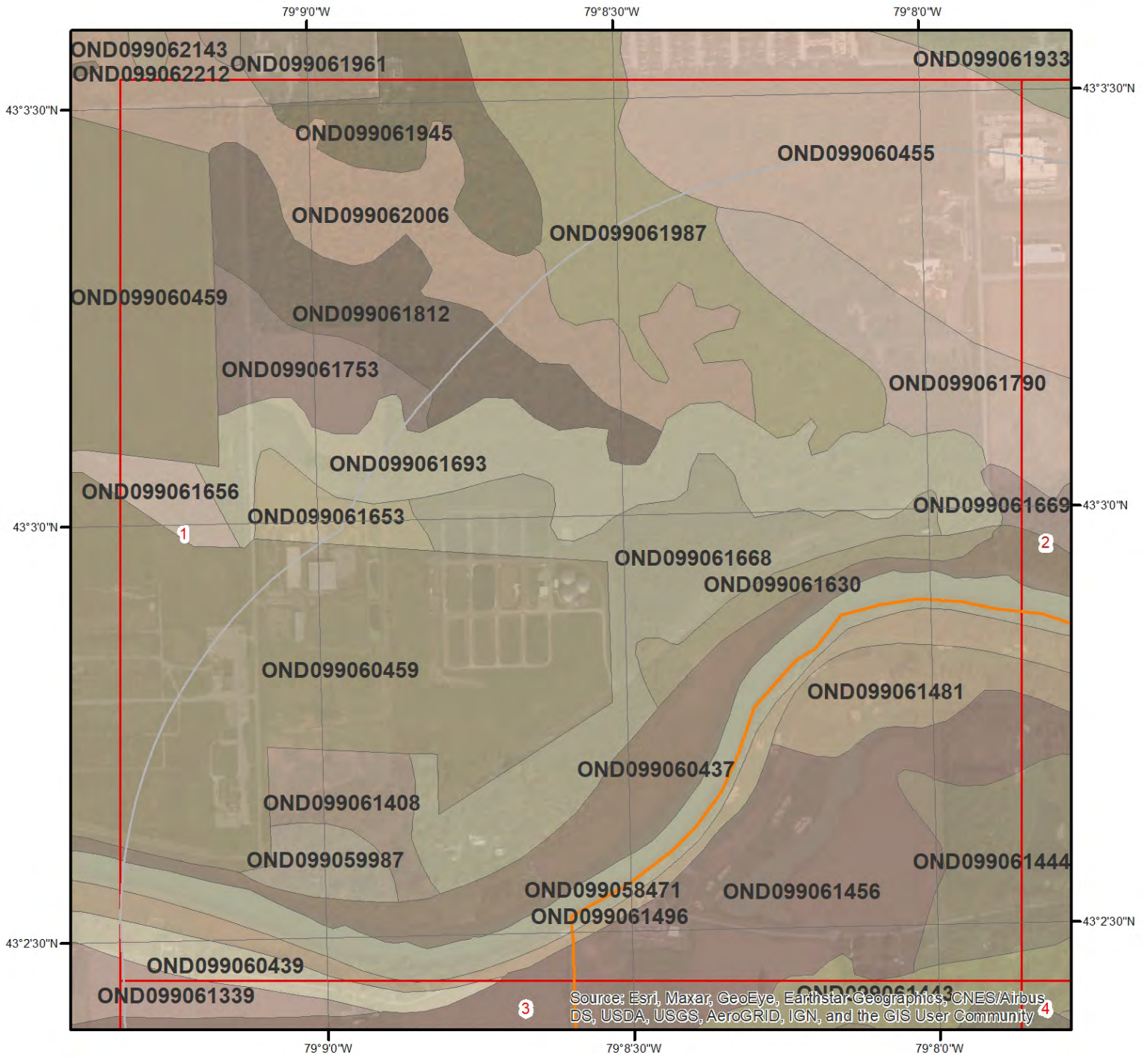
Soil Map



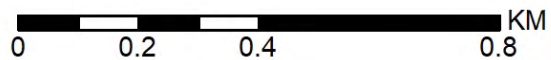
This map shows soil units around the target property. Please refer to the report for detailed soil descriptions.



Soil Information



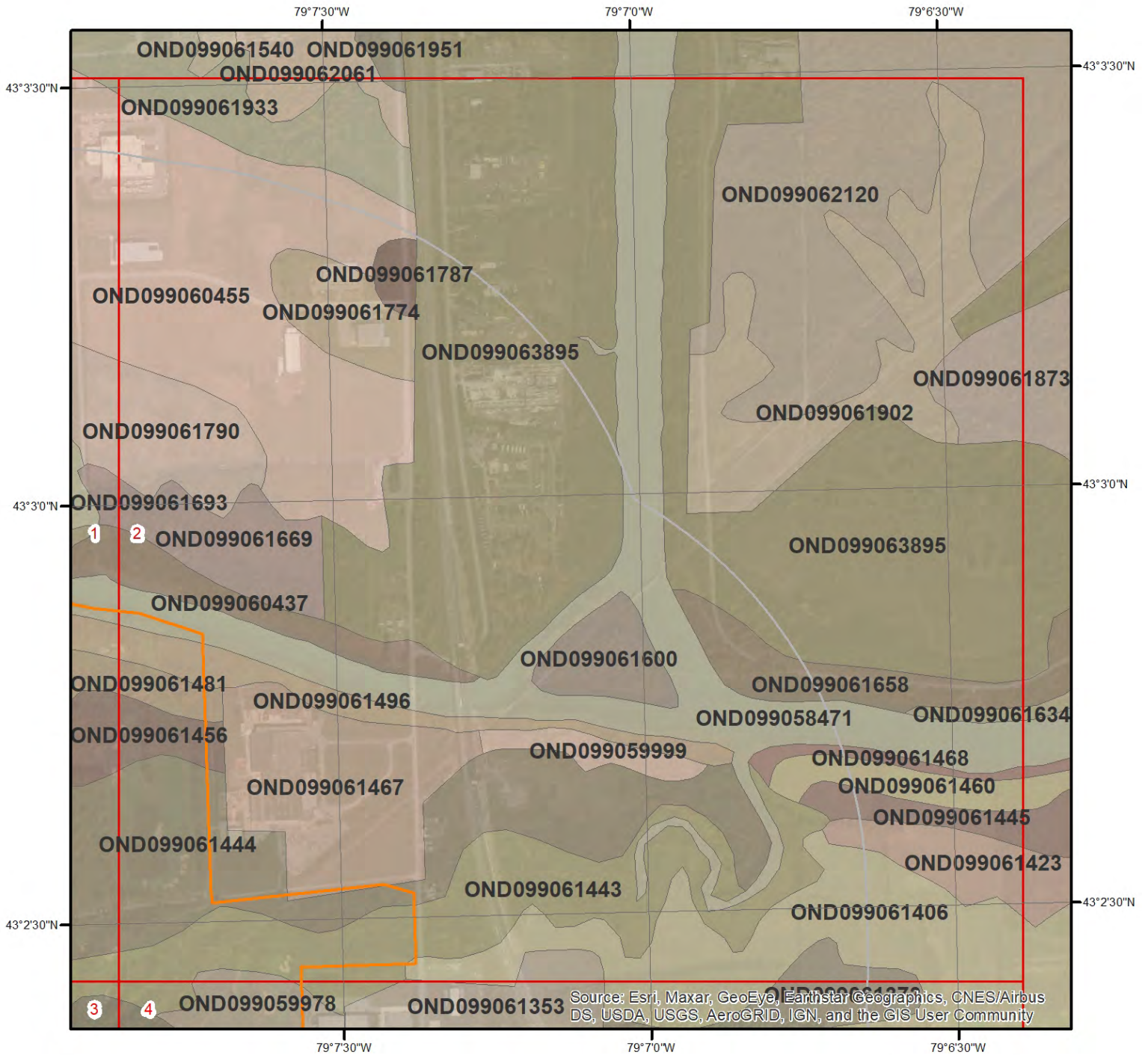
Soil Map - Page 1



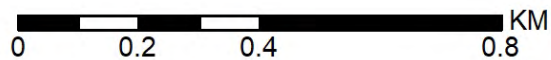
This maps shows soil units around the target property. Please refer to the report for detailed soil descriptions.



Soil Information



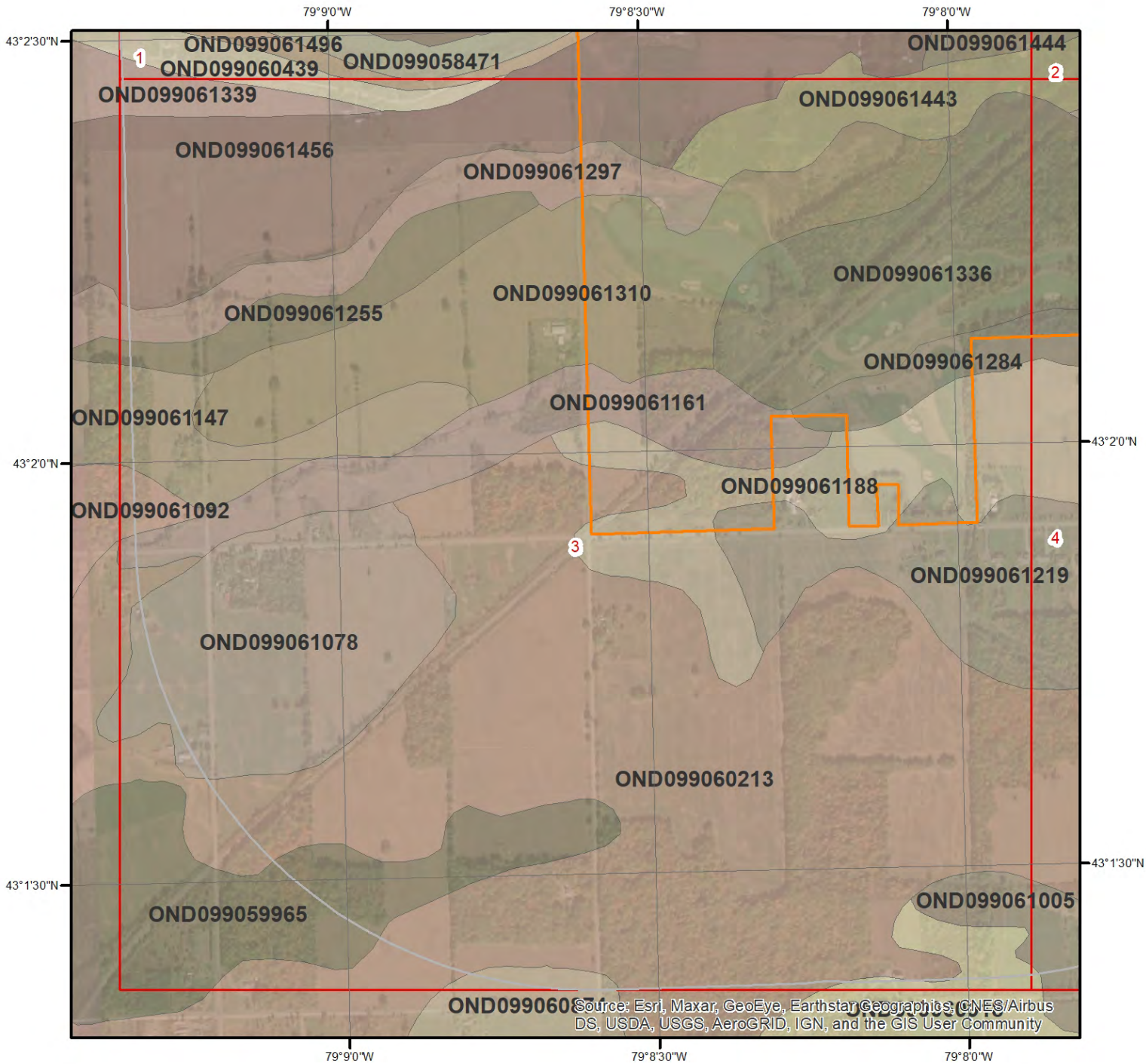
Soil Map - Page 2



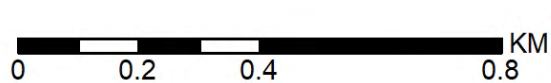
This maps shows soil units around the target property. Please refer to the report for detailed soil descriptions.



Soil Information



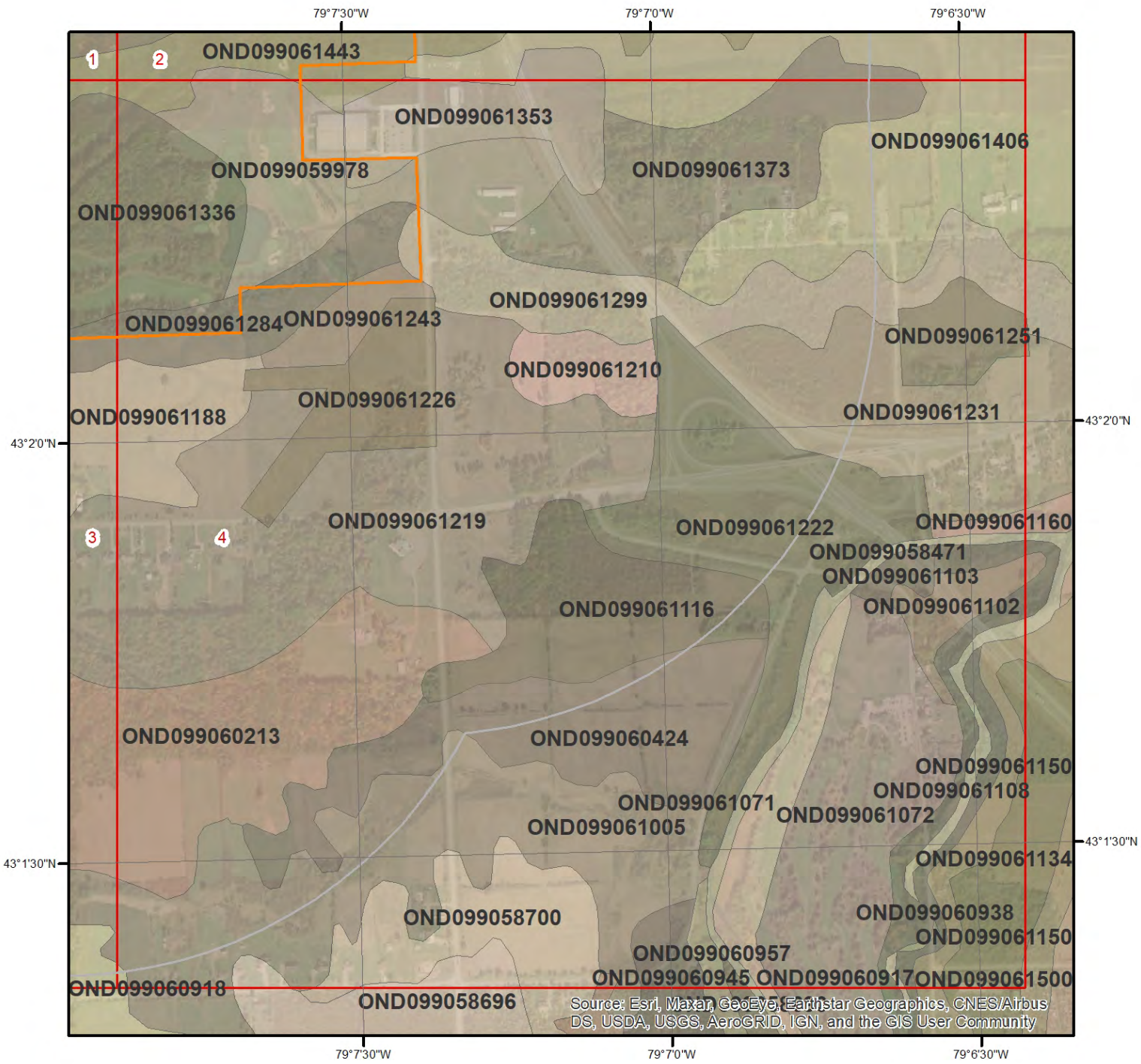
Soil Map - Page 3



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



Soil Information



Soil Map - Page 4



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



Soil Information

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

Ontario Detailed Soil Survey (DSS3)

Polygon ID: OND099061774

Component

Component ID:	OND09906177401	Components(%):	100
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: moderately severe limitations on use for crops.
First CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:
Drainage: Imperfectly
Soil Texture of A Horizon:
Hydrological Soil Groups: 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.

Soil Name

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15

Soil Information

Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099059999

Component

Component ID:	OND09905999901	Components(%):	100
Soil Name ID:	ONCSHHR~~~A	Slope Steepness(%):	12
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	Severe limitations on use for crops.
First CLI Limitation Subclass:	Presence of adverse Topography
Second CLI Limitation	

Soil Information

Subclass:

Drainage: Moderately Well

Soil Texture of A Horizon: clay

Hydrological Soil Groups: 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.

Soil Name

Soil Name: CASHEL

Kind of Surface Material: Mineral

Soil Drainage Class: Moderately well drained

Water Table: Unspecified period

Charateristics:

Layer that Restricts Root Growth: Second layer

Type of Root Restricting Layer: Undifferentiated

Parent Material 1, 2, 3: Moderately Fine; Fine; Not Applicable

Mode of Deposition 1,2,3: Glaciolacustrine; Till (Morainal); Not Applicable

Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Moderately / Very Strongly Calcareous; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	5
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-22	Total Silt(%):	35
pH in Calc Chloride:	5.8	Total Clay(%):	50
Saturated Hydraulic Conductivity(cm/h):	0.739	Organic Carbon(%):	7.1
Electrical Conductivity (dS/m):	0		

Layer No:	2	Very Fine Sand(%):	6
Horizon:	Bm	Total Sand(%):	16
Depth(cm):	22-55	Total Silt(%):	35
pH in Calc Chloride:	5.4	Total Clay(%):	49
Saturated Hydraulic Conductivity(cm/h):	0.251	Organic Carbon(%):	1.5
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	7
Horizon:	Bm	Total Sand(%):	20
Depth(cm):	55-100	Total Silt(%):	40
pH in Calc Chloride:	5.1	Total Clay(%):	40
Saturated Hydraulic Conductivity(cm/h):	0.271	Organic Carbon(%):	0.4
Electrical Conductivity (dS/m):	0		

Soil Information

Polygon ID: OND099061444

Component

Component ID:	OND09906144401	Components(%):	70
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: moderately severe limitations on use for crops.
First CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:
Drainage: Imperfectly
Soil Texture of A Horizon:
Hydrological Soil Groups: 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.

Soil Name

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic	0.256	Organic Carbon(%):	0.7

Soil Information

Conductivity(cm/h):

Electrical Conductivity (dS/m): 0

Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906144402	Components(%):	30
Soil Name ID:	ONWLL~~~~~A	Slope Steepness(%):	1
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

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

First CLI Limitation

Subclass:

Second CLI Limitation Adverse soil structure (i.e. Depth of rooting zone is restricted)

Subclass:

Drainage: Poorly

Soil Texture of A silty clay

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

Soil Information

impervious material.

Soil Name

Soil Name: WELLAND
Kind of Surface Material: Mineral
Soil Drainage Class: Poorly drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	0
Horizon:	Ap	Total Sand(%):	7
Depth(cm):	0-15	Total Silt(%):	45
pH in Calc Chloride:	5.2	Total Clay(%):	48
Saturated Hydraulic Conductivity(cm/h):	0.341	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	3
Depth(cm):	15-34	Total Silt(%):	28
pH in Calc Chloride:	6.5	Total Clay(%):	69
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	1
Depth(cm):	34-43	Total Silt(%):	22
pH in Calc Chloride:	7.3	Total Clay(%):	77
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckg	Total Sand(%):	1

Soil Information

Depth(cm):	43-100	Total Silt(%):	26
pH in Calc Chloride:	7.7	Total Clay(%):	73
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	1		

Polygon ID: OND099061653

Component

Component ID:	OND09906165301	Components(%):	100
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	NIAGARA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Soil Information

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061669

Component

Component ID:	OND09906166901	Components(%):	100
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	7
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

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

Soil Information

First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	Presence of adverse Topography
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	NIAGARA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0

Soil Information

Conductivity(cm/h):

Electrical Conductivity (dS/m): 0

Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061753

Component

Component ID:	OND09906175301	Components(%):	70
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: moderately severe limitations on use for crops.
First CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:
Drainage: Imperfectly
Soil Texture of A Horizon:
Hydrological Soil Groups: 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.

Soil Name

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable

Soil Information

Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		

Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906175302	Components(%):	30
Soil Name ID:	ONWLL~~~~~A	Slope Steepness(%):	1
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Soil Information

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Drainage:	Poorly
Soil Texture of A Horizon:	silty clay
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:	WELLAND
Kind of Surface Material:	Mineral
Soil Drainage Class:	Poorly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	0
Horizon:	Ap	Total Sand(%):	7
Depth(cm):	0-15	Total Silt(%):	45
pH in Calc Chloride:	5.2	Total Clay(%):	48
Saturated Hydraulic Conductivity(cm/h):	0.341	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	3
Depth(cm):	15-34	Total Silt(%):	28
pH in Calc Chloride:	6.5	Total Clay(%):	69
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0

Soil Information

Horizon:	Btg	Total Sand(%):	1
Depth(cm):	34-43	Total Silt(%):	22
pH in Calc Chloride:	7.3	Total Clay(%):	77
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckg	Total Sand(%):	1
Depth(cm):	43-100	Total Silt(%):	26
pH in Calc Chloride:	7.7	Total Clay(%):	73
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	1		

Polygon ID: OND099060437

Component

Component ID:	OND09906043701	Components(%):	100
Soil Name ID:	ONALU~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	Very severe limitations preclude annual cultivation; improvements feasible.
First CLI Limitation Subclass:	Subject to occasional flooding (Inundation) from adjacent streams or waterbodies
Second CLI Limitation Subclass:	
Drainage:	Not Applicable
Soil Texture of A Horizon:	
Hydrological Soil Groups:	

Soil Name

Soil Name:	ALLUVIUM
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer

Soil Information

Type of Root Restricting Layer: n/a
 Parent Material 1, 2, 3: Medium; Not Applicable; Not Applicable
 Mode of Deposition 1,2,3: Fluvial; Not Applicable; Not Applicable
 Parent Material Chemical Property 1,2,3: Weakly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	10
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-19	Total Silt(%):	60
pH in Calc Chloride:	6.4	Total Clay(%):	25
Saturated Hydraulic Conductivity(cm/h):	0.494	Organic Carbon(%):	3.9
Electrical Conductivity (dS/m):	0		

Layer No:	2	Very Fine Sand(%):	14
Horizon:	Bmgj	Total Sand(%):	20
Depth(cm):	19-27	Total Silt(%):	57
pH in Calc Chloride:	6.7	Total Clay(%):	23
Saturated Hydraulic Conductivity(cm/h):	0.311	Organic Carbon(%):	1
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	20
Horizon:	Bmgj	Total Sand(%):	27
Depth(cm):	27-42	Total Silt(%):	52
pH in Calc Chloride:	6.8	Total Clay(%):	21
Saturated Hydraulic Conductivity(cm/h):	0.391	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		

Layer No:	4	Very Fine Sand(%):	8
Horizon:	Ckg	Total Sand(%):	18
Depth(cm):	42-100	Total Silt(%):	50
pH in Calc Chloride:	7.7	Total Clay(%):	32
Saturated Hydraulic Conductivity(cm/h):	0.218	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061481

Component

Soil Information

Component ID:	OND09906148101	Components(%):	100
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

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

First CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)

Second CLI Limitation Subclass:

Drainage: Imperfectly

Soil Texture of A Horizon:

Hydrological Soil Groups: 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.

Soil Name

Soil Name: NIAGARA

Kind of Surface Material: Mineral

Soil Drainage Class: Imperfectly drained

Water Table Characteristics: Unspecified period

Layer that Restricts Root Growth: No root restricting layer

Type of Root Restricting Layer: n/a

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

Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable

Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33

Soil Information

pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099059987

Component

Component ID:	OND09905998701	Components(%):	100
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Name

Soil Information

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Soil Information

Polygon ID: OND099061408

Component

Component ID:	OND09906140801	Components(%):	70
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	7
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: moderately severe limitations on use for crops.
First CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass: Presence of adverse Topography
Drainage: Imperfectly
Soil Texture of A Horizon:
Hydrological Soil Groups: 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.

Soil Name

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7

Soil Information

Electrical Conductivity (dS/m): 0

Layer No: 2
Horizon: Btgj
Depth(cm): 15-31
pH in Calc Chloride: 6.5
Saturated Hydraulic Conductivity(cm/h): 0.189
Electrical Conductivity (dS/m): 0

Very Fine Sand(%): 0
Total Sand(%): 4
Total Silt(%): 33
Total Clay(%): 63
Organic Carbon(%): 2.4

Layer No: 3
Horizon: Ckgj
Depth(cm): 31-50
pH in Calc Chloride: 7.7
Saturated Hydraulic Conductivity(cm/h): 0.193
Electrical Conductivity (dS/m): 0

Very Fine Sand(%): 0
Total Sand(%): 1
Total Silt(%): 35
Total Clay(%): 64
Organic Carbon(%): 0

Layer No: 4
Horizon: Ckgj
Depth(cm): 50-100
pH in Calc Chloride: 7.7
Saturated Hydraulic Conductivity(cm/h): 0.193
Electrical Conductivity (dS/m): 0

Very Fine Sand(%): 0
Total Sand(%): 1
Total Silt(%): 36
Total Clay(%): 63
Organic Carbon(%): 0

Component

Component ID: OND09906140802
Soil Name ID: ONALU~~~~~A
Component No: 2
Surface Stoniness Class: Nonstony

Components(%): 30
Slope Steepness(%): 1
Slope Length(m): -9

Component Rating

Field Crops Capability: Very severe limitations preclude annual cultivation; improvements feasible.
First CLI Limitation Subclass: Subject to occasional flooding (Inundation) from adjacent streams or waterbodies
Second CLI Limitation Subclass:
Drainage: Not Applicable
Soil Texture of A Horizon:
Hydrological Soil Groups:

Soil Information

Soil Name

Soil Name: ALLUVIUM
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Medium; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Fluvial; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Weakly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	10
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-19	Total Silt(%):	60
pH in Calc Chloride:	6.4	Total Clay(%):	25
Saturated Hydraulic Conductivity(cm/h):	0.494	Organic Carbon(%):	3.9
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	14
Horizon:	Bmgj	Total Sand(%):	20
Depth(cm):	19-27	Total Silt(%):	57
pH in Calc Chloride:	6.7	Total Clay(%):	23
Saturated Hydraulic Conductivity(cm/h):	0.311	Organic Carbon(%):	1
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	20
Horizon:	Bmgj	Total Sand(%):	27
Depth(cm):	27-42	Total Silt(%):	52
pH in Calc Chloride:	6.8	Total Clay(%):	21
Saturated Hydraulic Conductivity(cm/h):	0.391	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	8
Horizon:	Ckg	Total Sand(%):	18
Depth(cm):	42-100	Total Silt(%):	50
pH in Calc Chloride:	7.7	Total Clay(%):	32

Soil Information

Saturated Hydraulic Conductivity(cm/h):	0.218	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061668

Component

Component ID:	OND09906166801	Components(%):	70
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: moderately severe limitations on use for crops.
First CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:
Drainage: Imperfectly
Soil Texture of A Horizon:
Hydrological Soil Groups: 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.

Soil Name

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15

Soil Information

Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		

Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906166802	Components(%):	30
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	1
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

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

First CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)

Second CLI Limitation Subclass:

Drainage: Imperfectly

Soil Information

Soil Texture of A

Horizon:

Hydrological Soil Groups:

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.

Soil Name

Soil Name:	NIAGARA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		

Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Layer No:	4	Very Fine Sand(%):	0
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Soil Information

Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061987

Component

Component ID:	OND09906198701	Components(%):	100
Soil Name ID:	ONWLL~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

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

First CLI Limitation

Subclass:

Second CLI Limitation Adverse soil structure (i.e. Depth of rooting zone is restricted)

Subclass:

Drainage: Poorly

Soil Texture of A silty clay

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:	WELLAND
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:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition	Glaciolacustrine; Not Applicable; Not Applicable
1,2,3:	
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Information

Soil Layer

Layer No:	1	Very Fine Sand(%)	0
Horizon:	Ap	Total Sand(%)	7
Depth(cm):	0-15	Total Silt(%)	45
pH in Calc Chloride:	5.2	Total Clay(%)	48
Saturated Hydraulic Conductivity(cm/h):	0.341	Organic Carbon(%)	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%)	0
Horizon:	Btg	Total Sand(%)	3
Depth(cm):	15-34	Total Silt(%)	28
pH in Calc Chloride:	6.5	Total Clay(%)	69
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%)	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%)	0
Horizon:	Btg	Total Sand(%)	1
Depth(cm):	34-43	Total Silt(%)	22
pH in Calc Chloride:	7.3	Total Clay(%)	77
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%)	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%)	0
Horizon:	Ckg	Total Sand(%)	1
Depth(cm):	43-100	Total Silt(%)	26
pH in Calc Chloride:	7.7	Total Clay(%)	73
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%)	0
Electrical Conductivity (dS/m):	1		

Polygon ID: OND099060459

Component

Component ID:	OND09906045901	Components(%)	100
Soil Name ID:	ONZUN~~~~~N	Slope Steepness(%)	Unknown or Not applicable
Component No:	1	Slope Length(m)	-9
Surface Stoniness Class:	Not Applicable		

Component Rating

Soil Information

Field Crops Capability:

First CLI Limitation

Subclass:

Second CLI Limitation

Subclass:

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 Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Not Applicable; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Not Applicable; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Not Applicable; Not Applicable; Not Applicable

Polygon ID: OND099061188

Component

Component ID:	OND09906118801	Components(%):	100
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: moderately severe limitations on use for crops.
First CLI Limitation Adverse soil structure (i.e. Depth of rooting zone is restricted)
Subclass:
Second CLI Limitation
Subclass:
Drainage: Imperfectly
Soil Texture of A
Horizon:
Hydrological Soil Groups: 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.

Soil Information

Soil Name

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly 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: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36

Soil Information

pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061353

Component

Component ID:	OND09906135301	Components(%):	100
Soil Name ID:	ONZUN~~~~N	Slope Steepness(%):	Unknown or Not applicable
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Not Applicable		

Component Rating

Field Crops Capability:
First CLI Limitation Subclass:
Second CLI Limitation Subclass:
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 Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Not Applicable; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Not Applicable; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Not Applicable; Not Applicable; Not Applicable

Polygon ID: OND099061299

Component

Soil Information

Component ID:	OND09906129901	Components(%):	70
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	7
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	Presence of adverse Topography
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	NIAGARA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4

Soil Information

Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906129902	Components(%):	30
Soil Name ID:	ONALU~~~~~A	Slope Steepness(%):	1
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	Very severe limitations preclude annual cultivation; improvements feasible.
First CLI Limitation Subclass:	Subject to occasional flooding (Inundation) from adjacent streams or waterbodies
Second CLI Limitation Subclass:	
Drainage:	Not Applicable
Soil Texture of A Horizon:	
Hydrological Soil Groups:	

Soil Name

Soil Name: ALLUVIUM

Soil Information

Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly 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: Medium; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Fluvial; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Weakly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	10
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-19	Total Silt(%):	60
pH in Calc Chloride:	6.4	Total Clay(%):	25
Saturated Hydraulic Conductivity(cm/h):	0.494	Organic Carbon(%):	3.9
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	14
Horizon:	Bmgj	Total Sand(%):	20
Depth(cm):	19-27	Total Silt(%):	57
pH in Calc Chloride:	6.7	Total Clay(%):	23
Saturated Hydraulic Conductivity(cm/h):	0.311	Organic Carbon(%):	1
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	20
Horizon:	Bmgj	Total Sand(%):	27
Depth(cm):	27-42	Total Silt(%):	52
pH in Calc Chloride:	6.8	Total Clay(%):	21
Saturated Hydraulic Conductivity(cm/h):	0.391	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	8
Horizon:	Ckg	Total Sand(%):	18
Depth(cm):	42-100	Total Silt(%):	50
pH in Calc Chloride:	7.7	Total Clay(%):	32
Saturated Hydraulic Conductivity(cm/h):	0.218	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099060439

Soil Information

Component

Component ID:	OND09906043901	Components(%):	100
Soil Name ID:	ONOTI~-----A	Slope Steepness(%):	12
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	Severe limitations on use for crops.
First CLI Limitation Subclass:	Presence of adverse Topography
Second CLI Limitation Subclass:	
Drainage:	Moderately Well
Soil Texture of A Horizon:	silty clay
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	ONTARIO
Kind of Surface Material:	Mineral
Soil Drainage Class:	Well drained
Water Table Characteristics:	Unspecified period
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 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	6
Horizon:	Ap	Total Sand(%):	55
Depth(cm):	0-15	Total Silt(%):	25
pH in Calc Chloride:	7	Total Clay(%):	20
Saturated Hydraulic Conductivity(cm/h):	3.621	Organic Carbon(%):	2.1
Electrical Conductivity (dS/m):	0		

Soil Information

Layer No:	2	Very Fine Sand(%):	6
Horizon:	Bm	Total Sand(%):	31
Depth(cm):	15-18	Total Silt(%):	24
pH in Calc Chloride:	8	Total Clay(%):	45
Saturated Hydraulic Conductivity(cm/h):	1.873	Organic Carbon(%):	0.5
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	6
Horizon:	Bt	Total Sand(%):	45
Depth(cm):	18-45	Total Silt(%):	5
pH in Calc Chloride:	8	Total Clay(%):	50
Saturated Hydraulic Conductivity(cm/h):	1.873	Organic Carbon(%):	0.5
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	4
Horizon:	Ck	Total Sand(%):	8
Depth(cm):	45-100	Total Silt(%):	30
pH in Calc Chloride:	8	Total Clay(%):	62
Saturated Hydraulic Conductivity(cm/h):	3.083	Organic Carbon(%):	0.3
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099059965

Component

Component ID:	OND09905996501	Components(%):	70
Soil Name ID:	ONWLL~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Drainage:	Poorly
Soil Texture of A Horizon:	silty clay
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 Information

Soil Name

Soil Name: WELLAND
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: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	0
Horizon:	Ap	Total Sand(%):	7
Depth(cm):	0-15	Total Silt(%):	45
pH in Calc Chloride:	5.2	Total Clay(%):	48
Saturated Hydraulic Conductivity(cm/h):	0.341	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	3
Depth(cm):	15-34	Total Silt(%):	28
pH in Calc Chloride:	6.5	Total Clay(%):	69
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	1
Depth(cm):	34-43	Total Silt(%):	22
pH in Calc Chloride:	7.3	Total Clay(%):	77
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckg	Total Sand(%):	1
Depth(cm):	43-100	Total Silt(%):	26

Soil Information

pH in Calc Chloride:	7.7	Total Clay(%):	73
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	1		

Component

Component ID:	OND09905996502	Components(%):	30
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	Presence of adverse Topography
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	NIAGARA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43

Soil Information

pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061243

Component

Component ID:	OND09906124301	Components(%):	100
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	

Soil Information

Drainage: Imperfectly

Soil Texture of A Horizon:

Hydrological Soil Groups: 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.

Soil Name

Soil Name: NIAGARA

Kind of Surface Material: Mineral

Soil Drainage Class: Imperfectly drained

Water Table Characteristics: Unspecified period

Layer that Restricts Root Growth: No root restricting layer

Type of Root Restricting Layer: n/a

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

Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable

Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		

Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Soil Information

Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061226

Component

Component ID:	OND09906122601	Components(%):	100
Soil Name ID:	ONZUN~~~~~N	Slope Steepness(%):	Unknown or Not applicable
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Not Applicable		

Component Rating

Field Crops Capability:

First CLI Limitation

Subclass:

Second CLI Limitation

Subclass:

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 Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Not Applicable; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Not Applicable; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Not Applicable; Not Applicable; Not Applicable

Polygon ID: OND099061219

Soil Information

Component

Component ID:	OND09906121901	Components(%):	70
Soil Name ID:	ONWLL~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Drainage:	Poorly
Soil Texture of A Horizon:	silty clay
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:	WELLAND
Kind of Surface Material:	Mineral
Soil Drainage Class:	Poorly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	0
Horizon:	Ap	Total Sand(%):	7
Depth(cm):	0-15	Total Silt(%):	45
pH in Calc Chloride:	5.2	Total Clay(%):	48
Saturated Hydraulic Conductivity(cm/h):	0.341	Organic Carbon(%):	2.4
Electrical Conductivity	0		

Soil Information

(dS/m):

Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	3
Depth(cm):	15-34	Total Silt(%):	28
pH in Calc Chloride:	6.5	Total Clay(%):	69
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	1
Depth(cm):	34-43	Total Silt(%):	22
pH in Calc Chloride:	7.3	Total Clay(%):	77
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		

Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckg	Total Sand(%):	1
Depth(cm):	43-100	Total Silt(%):	26
pH in Calc Chloride:	7.7	Total Clay(%):	73
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	1		

Component

Component ID:	OND09906121902	Components(%):	30
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	1
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Information

Soil Name

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63

Soil Information

Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061005

Component

Component ID:	OND09906100501	Components(%):	70
Soil Name ID:	ONCSHHR~~~A	Slope Steepness(%):	7
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: moderately severe limitations on use for crops.
First CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass: Presence of adverse Topography
Drainage: Moderately Well
Soil Texture of A Horizon: clay
Hydrological Soil Groups: 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.

Soil Name

Soil Name: CASHEL
Kind of Surface Material: Mineral
Soil Drainage Class: Moderately well drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: Second layer
Type of Root Restricting Layer: Undifferentiated
Parent Material 1, 2, 3: Moderately Fine; Fine; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Till (Morainal); Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Moderately / Very Strongly Calcareous; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	5
Horizon:	Ap	Total Sand(%):	15

Soil Information

Depth(cm):	0-22	Total Silt(%):	35
pH in Calc Chloride:	5.8	Total Clay(%):	50
Saturated Hydraulic Conductivity(cm/h):	0.739	Organic Carbon(%):	7.1
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	6
Horizon:	Bm	Total Sand(%):	16
Depth(cm):	22-55	Total Silt(%):	35
pH in Calc Chloride:	5.4	Total Clay(%):	49
Saturated Hydraulic Conductivity(cm/h):	0.251	Organic Carbon(%):	1.5
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	7
Horizon:	Bm	Total Sand(%):	20
Depth(cm):	55-100	Total Silt(%):	40
pH in Calc Chloride:	5.1	Total Clay(%):	40
Saturated Hydraulic Conductivity(cm/h):	0.271	Organic Carbon(%):	0.4
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906100502	Components(%):	30
Soil Name ID:	ONALU~~~~~A	Slope Steepness(%):	1
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	Very severe limitations preclude annual cultivation; improvements feasible.
First CLI Limitation Subclass:	Subject to occasional flooding (Inundation) from adjacent streams or waterbodies
Second CLI Limitation Subclass:	
Drainage:	Not Applicable
Soil Texture of A Horizon:	
Hydrological Soil Groups:	

Soil Name

Soil Name: ALLUVIUM

Soil Information

Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly 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: Medium; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Fluvial; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Weakly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	10
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-19	Total Silt(%):	60
pH in Calc Chloride:	6.4	Total Clay(%):	25
Saturated Hydraulic Conductivity(cm/h):	0.494	Organic Carbon(%):	3.9
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	14
Horizon:	Bmgj	Total Sand(%):	20
Depth(cm):	19-27	Total Silt(%):	57
pH in Calc Chloride:	6.7	Total Clay(%):	23
Saturated Hydraulic Conductivity(cm/h):	0.311	Organic Carbon(%):	1
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	20
Horizon:	Bmgj	Total Sand(%):	27
Depth(cm):	27-42	Total Silt(%):	52
pH in Calc Chloride:	6.8	Total Clay(%):	21
Saturated Hydraulic Conductivity(cm/h):	0.391	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	8
Horizon:	Ckg	Total Sand(%):	18
Depth(cm):	42-100	Total Silt(%):	50
pH in Calc Chloride:	7.7	Total Clay(%):	32
Saturated Hydraulic Conductivity(cm/h):	0.218	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099060213

Soil Information

Component

Component ID:	OND09906021301	Components(%):	100
Soil Name ID:	ONWLL~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Drainage:	Poorly
Soil Texture of A Horizon:	silty clay
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:	WELLAND
Kind of Surface Material:	Mineral
Soil Drainage Class:	Poorly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	0
Horizon:	Ap	Total Sand(%):	7
Depth(cm):	0-15	Total Silt(%):	45
pH in Calc Chloride:	5.2	Total Clay(%):	48
Saturated Hydraulic Conductivity(cm/h):	0.341	Organic Carbon(%):	2.4
Electrical Conductivity	0		

Soil Information

(dS/m):

Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	3
Depth(cm):	15-34	Total Silt(%):	28
pH in Calc Chloride:	6.5	Total Clay(%):	69
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	1
Depth(cm):	34-43	Total Silt(%):	22
pH in Calc Chloride:	7.3	Total Clay(%):	77
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		

Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckg	Total Sand(%):	1
Depth(cm):	43-100	Total Silt(%):	26
pH in Calc Chloride:	7.7	Total Clay(%):	73
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	1		

Polygon ID: OND099061787

Component

Component ID:	OND09906178701	Components(%):	50
Soil Name ID:	ONALU~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: Very severe limitations preclude annual cultivation; improvements feasible.

First CLI Limitation Subclass: Subject to occasional flooding (Inundation) from adjacent streams or waterbodies

Second CLI Limitation Subclass:

Drainage: Not Applicable

Soil Texture of A Horizon:

Hydrological Soil

Soil Information

Groups:

Soil Name

Soil Name: ALLUVIUM
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly 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: Medium; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Fluvial; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Weakly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	10
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-19	Total Silt(%):	60
pH in Calc Chloride:	6.4	Total Clay(%):	25
Saturated Hydraulic Conductivity(cm/h):	0.494	Organic Carbon(%):	3.9
Electrical Conductivity (dS/m):	0		

Layer No:	2	Very Fine Sand(%):	14
Horizon:	Bmgj	Total Sand(%):	20
Depth(cm):	19-27	Total Silt(%):	57
pH in Calc Chloride:	6.7	Total Clay(%):	23
Saturated Hydraulic Conductivity(cm/h):	0.311	Organic Carbon(%):	1
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	20
Horizon:	Bmgj	Total Sand(%):	27
Depth(cm):	27-42	Total Silt(%):	52
pH in Calc Chloride:	6.8	Total Clay(%):	21
Saturated Hydraulic Conductivity(cm/h):	0.391	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		

Layer No:	4	Very Fine Sand(%):	8
Horizon:	Ckg	Total Sand(%):	18

Soil Information

Depth(cm):	42-100	Total Silt(%):	50
pH in Calc Chloride:	7.7	Total Clay(%):	32
Saturated Hydraulic Conductivity(cm/h):	0.218	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906178702	Components(%):	50
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	Presence of adverse Topography
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	NIAGARA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15

Soil Information

Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061812

Component

Component ID:	OND09906181201	Components(%):	50
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: moderately severe limitations on use for crops.
First CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation

Soil Information

Subclass:

Drainage: Imperfectly

Soil Texture of A

Horizon:

Hydrological Soil

Groups:

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.

Soil Name

Soil Name: NIAGARA

Kind of Surface Material: Mineral

Soil Drainage Class: Imperfectly 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: Very Fine; Not Applicable; Not Applicable

Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable

Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		

Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Soil Information

Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906181202	Components(%):	50
Soil Name ID:	ONWLL~~~~~A	Slope Steepness(%):	1
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Drainage:	Poorly
Soil Texture of A Horizon:	silty clay
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:	WELLAND
Kind of Surface Material:	Mineral
Soil Drainage Class:	Poorly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Information

Soil Layer

Layer No:	1	Very Fine Sand(%):	0
Horizon:	Ap	Total Sand(%):	7
Depth(cm):	0-15	Total Silt(%):	45
pH in Calc Chloride:	5.2	Total Clay(%):	48
Saturated Hydraulic Conductivity(cm/h):	0.341	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		

Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	3
Depth(cm):	15-34	Total Silt(%):	28
pH in Calc Chloride:	6.5	Total Clay(%):	69
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	1
Depth(cm):	34-43	Total Silt(%):	22
pH in Calc Chloride:	7.3	Total Clay(%):	77
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		

Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckg	Total Sand(%):	1
Depth(cm):	43-100	Total Silt(%):	26
pH in Calc Chloride:	7.7	Total Clay(%):	73
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	1		

Polygon ID: OND099063895

Component

Component ID:	OND09906389501	Components(%):	100
Soil Name ID:	ONZUN~~~~~N	Slope Steepness(%):	Unknown or Not applicable
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Not Applicable		

Component Rating

Soil Information

Field Crops Capability:

First CLI Limitation
Subclass:
Second CLI Limitation
Subclass:
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 Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Not Applicable; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Not Applicable; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Not Applicable; Not Applicable; Not Applicable

Polygon ID: OND099061467

Component

Component ID:	OND09906146701	Components(%):	100
Soil Name ID:	ONZUN~~~~N	Slope Steepness(%):	Unknown or Not applicable
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Not Applicable		

Component Rating

Field Crops Capability:

First CLI Limitation
Subclass:
Second CLI Limitation
Subclass:
Drainage:
Soil Texture of A
Horizon:
Hydrological Soil
Groups:

Soil Information

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: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Not Applicable; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Not Applicable; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Not Applicable; Not Applicable; Not Applicable

Polygon ID: OND099061406

Component

Component ID:	OND09906140601	Components(%):	100
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: moderately severe limitations on use for crops.
First CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:
Drainage: Imperfectly
Soil Texture of A Horizon:
Hydrological Soil Groups: 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.

Soil Name

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly drained
Water Table Unspecified period
Charateristics:

Soil Information

Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061255

Component

Soil Information

Component ID:	OND09906125501	Components(%):	100
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	Presence of adverse Topography
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	NIAGARA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4

Soil Information

Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061297

Component

Component ID:	OND09906129701	Components(%):	50
Soil Name ID:	ONALU~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	Very severe limitations preclude annual cultivation; improvements feasible.
First CLI Limitation Subclass:	Subject to occasional flooding (Inundation) from adjacent streams or waterbodies
Second CLI Limitation Subclass:	
Drainage:	Not Applicable
Soil Texture of A Horizon:	
Hydrological Soil Groups:	

Soil Name

Soil Information

Soil Name: ALLUVIUM
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly 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: Medium; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Fluvial; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Weakly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	10
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-19	Total Silt(%):	60
pH in Calc Chloride:	6.4	Total Clay(%):	25
Saturated Hydraulic Conductivity(cm/h):	0.494	Organic Carbon(%):	3.9
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	14
Horizon:	Bmgj	Total Sand(%):	20
Depth(cm):	19-27	Total Silt(%):	57
pH in Calc Chloride:	6.7	Total Clay(%):	23
Saturated Hydraulic Conductivity(cm/h):	0.311	Organic Carbon(%):	1
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	20
Horizon:	Bmgj	Total Sand(%):	27
Depth(cm):	27-42	Total Silt(%):	52
pH in Calc Chloride:	6.8	Total Clay(%):	21
Saturated Hydraulic Conductivity(cm/h):	0.391	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	8
Horizon:	Ckg	Total Sand(%):	18
Depth(cm):	42-100	Total Silt(%):	50
pH in Calc Chloride:	7.7	Total Clay(%):	32
Saturated Hydraulic Conductivity(cm/h):	0.218	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Soil Information

Component

Component ID:	OND09906129702	Components(%):	50
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	7
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	Presence of adverse Topography
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	NIAGARA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		

Soil Information

Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061496

Component

Component ID:	OND09906149601	Components(%):	100
Soil Name ID:	ONALU~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: Very severe limitations preclude annual cultivation; improvements feasible.

First CLI Limitation Subclass: Subject to occasional flooding (Inundation) from adjacent streams or waterbodies

Second CLI Limitation Subclass:

Drainage: Not Applicable

Soil Texture of A Horizon:

Hydrological Soil Groups:

Soil Information

Soil Name

Soil Name: ALLUVIUM
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly 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: Medium; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Fluvial; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Weakly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	10
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-19	Total Silt(%):	60
pH in Calc Chloride:	6.4	Total Clay(%):	25
Saturated Hydraulic Conductivity(cm/h):	0.494	Organic Carbon(%):	3.9
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	14
Horizon:	Bmgj	Total Sand(%):	20
Depth(cm):	19-27	Total Silt(%):	57
pH in Calc Chloride:	6.7	Total Clay(%):	23
Saturated Hydraulic Conductivity(cm/h):	0.311	Organic Carbon(%):	1
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	20
Horizon:	Bmgj	Total Sand(%):	27
Depth(cm):	27-42	Total Silt(%):	52
pH in Calc Chloride:	6.8	Total Clay(%):	21
Saturated Hydraulic Conductivity(cm/h):	0.391	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	8
Horizon:	Ckg	Total Sand(%):	18
Depth(cm):	42-100	Total Silt(%):	50

Soil Information

pH in Calc Chloride:	7.7	Total Clay(%):	32
Saturated Hydraulic Conductivity(cm/h):	0.218	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061790

Component

Component ID:	OND09906179001	Components(%):	50
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	NIAGARA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
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Soil Information

Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906179002	Components(%):	50
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	Presence of adverse Topography

Soil Information

Drainage: Imperfectly

Soil Texture of A Horizon:

Hydrological Soil Groups: 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.

Soil Name

Soil Name: NIAGARA

Kind of Surface Material: Mineral

Soil Drainage Class: Imperfectly drained

Water Table Characteristics: Unspecified period

Layer that Restricts Root Growth: No root restricting layer

Type of Root Restricting Layer: n/a

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

Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable

Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		

Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Soil Information

Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099062006

Component

Component ID:	OND09906200601	Components(%):	70
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	Presence of adverse Topography
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	NIAGARA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Information

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		

Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906200602	Components(%):	30
Soil Name ID:	ONALU~~~~~A	Slope Steepness(%):	1
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: Very severe limitations preclude annual cultivation; improvements feasible.

Soil Information

First CLI Limitation Subject to occasional flooding (Inundation) from adjacent streams or waterbodies
Subclass:
Second CLI Limitation
Subclass:
Drainage: Not Applicable
Soil Texture of A
Horizon:
Hydrological Soil
Groups:

Soil Name

Soil Name: ALLUVIUM
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly 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 Fluvial; Not Applicable; Not Applicable
1,2,3:
Parent Material Chemical Weakly Calcareous; Not Applicable; Not Applicable
Property 1,2,3:

Soil Layer

Layer No:	1	Very Fine Sand(%):	10
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-19	Total Silt(%):	60
pH in Calc Chloride:	6.4	Total Clay(%):	25
Saturated Hydraulic	0.494	Organic Carbon(%):	3.9
Conductivity(cm/h):			
Electrical Conductivity	0		
(dS/m):			
Layer No:	2	Very Fine Sand(%):	14
Horizon:	Bmgj	Total Sand(%):	20
Depth(cm):	19-27	Total Silt(%):	57
pH in Calc Chloride:	6.7	Total Clay(%):	23
Saturated Hydraulic	0.311	Organic Carbon(%):	1
Conductivity(cm/h):			
Electrical Conductivity	0		
(dS/m):			
Layer No:	3	Very Fine Sand(%):	20
Horizon:	Bmgj	Total Sand(%):	27
Depth(cm):	27-42	Total Silt(%):	52
pH in Calc Chloride:	6.8	Total Clay(%):	21
Saturated Hydraulic	0.391	Organic Carbon(%):	0.7
Conductivity(cm/h):			
Electrical Conductivity			
(dS/m):			

Soil Information

Conductivity(cm/h):

Electrical Conductivity (dS/m): 0

Layer No:	4	Very Fine Sand(%):	8
Horizon:	Ckg	Total Sand(%):	18
Depth(cm):	42-100	Total Silt(%):	50
pH in Calc Chloride:	7.7	Total Clay(%):	32
Saturated Hydraulic Conductivity(cm/h):	0.218	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061630

Component

Component ID:	OND09906163001	Components(%):	100
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	7
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: moderately severe limitations on use for crops.
First CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass: Presence of adverse Topography
Drainage: Imperfectly
Soil Texture of A Horizon:
Hydrological Soil Groups: 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.

Soil Name

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable

Soil Information

Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099060424

Component

Component ID:	OND09906042401	Components(%):	70
Soil Name ID:	ONPELHR~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Soil Information

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	
Drainage:	Imperfectly
Soil Texture of A Horizon:	silty clay
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	PEEL
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	Second layer
Type of Root Restricting Layer:	Undifferentiated
Parent Material 1, 2, 3:	Fine; Moderately Fine; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Till (Morainal); Not Applicable
Parent Material Chemical Property 1,2,3:	Weakly Calcareous; Moderately / Very Strongly Calcareous; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	4
Horizon:	Ap	Total Sand(%):	14
Depth(cm):	0-10	Total Silt(%):	42
pH in Calc Chloride:	6.9	Total Clay(%):	44
Saturated Hydraulic Conductivity(cm/h):	0.337	Organic Carbon(%):	2.1
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	7
Horizon:	Bmgj	Total Sand(%):	18
Depth(cm):	10-30	Total Silt(%):	35
pH in Calc Chloride:	5.9	Total Clay(%):	47
Saturated Hydraulic Conductivity(cm/h):	0.258	Organic Carbon(%):	1
Electrical Conductivity (dS/m):	0		

Soil Information

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	30-48	Total Silt(%):	27
pH in Calc Chloride:	7.1	Total Clay(%):	69
Saturated Hydraulic Conductivity(cm/h):	0.201	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	5
Horizon:	Ckg	Total Sand(%):	18
Depth(cm):	48-100	Total Silt(%):	38
pH in Calc Chloride:	7.7	Total Clay(%):	44
Saturated Hydraulic Conductivity(cm/h):	0.207	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906042402	Components(%):	30
Soil Name ID:	ONMATHR~~~A	Slope Steepness(%):	1
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Drainage:	Poorly
Soil Texture of A Horizon:	silty clay
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:	MALTON
Kind of Surface Material:	Mineral
Soil Drainage Class:	Poorly drained
Water Table Characteristics:	Always
Layer that Restricts Root Growth:	Third layer
Type of Root Restricting	Compact Till

Soil Information

Layer:

Parent Material 1, 2, 3: Moderately Fine; Fine; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Till (Morainal); Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Weakly Calcareous; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	8
Horizon:	Ap	Total Sand(%):	25
Depth(cm):	0-28	Total Silt(%):	25
pH in Calc Chloride:	6	Total Clay(%):	50
Saturated Hydraulic Conductivity(cm/h):	0.373	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Bg	Total Sand(%):	6
Depth(cm):	28-60	Total Silt(%):	49
pH in Calc Chloride:	5	Total Clay(%):	45
Saturated Hydraulic Conductivity(cm/h):	0.196	Organic Carbon(%):	1.5
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Bmgj	Total Sand(%):	7
Depth(cm):	60-72	Total Silt(%):	48
pH in Calc Chloride:	7	Total Clay(%):	45
Saturated Hydraulic Conductivity(cm/h):	0.25	Organic Carbon(%):	0.5
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	2
Horizon:	Ckg	Total Sand(%):	21
Depth(cm):	72-100	Total Silt(%):	45
pH in Calc Chloride:	8	Total Clay(%):	34
Saturated Hydraulic Conductivity(cm/h):	0.157	Organic Carbon(%):	0.1
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061284

Component

Component ID: OND09906128401 **Components(%):** 50

Soil Information

Soil Name ID:	ONALU~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: Very severe limitations preclude annual cultivation; improvements feasible.

First CLI Limitation Subclass: Subject to occasional flooding (Inundation) from adjacent streams or waterbodies

Second CLI Limitation Subclass:

Drainage: Not Applicable

Soil Texture of A Horizon:

Hydrological Soil Groups:

Soil Name

Soil Name: ALLUVIUM

Kind of Surface Material: Mineral

Soil Drainage Class: Imperfectly drained

Water Table Characteristics: Unspecified period

Layer that Restricts Root Growth: No root restricting layer

Type of Root Restricting Layer: n/a

Parent Material 1, 2, 3: Medium; Not Applicable; Not Applicable

Mode of Deposition 1,2,3: Fluvial; Not Applicable; Not Applicable

Parent Material Chemical Property 1,2,3: Weakly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	10
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-19	Total Silt(%):	60
pH in Calc Chloride:	6.4	Total Clay(%):	25
Saturated Hydraulic Conductivity(cm/h):	0.494	Organic Carbon(%):	3.9
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	14
Horizon:	Bmgj	Total Sand(%):	20
Depth(cm):	19-27	Total Silt(%):	57
pH in Calc Chloride:	6.7	Total Clay(%):	23

Soil Information

Saturated Hydraulic Conductivity(cm/h):	0.311	Organic Carbon(%):	1
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	20
Horizon:	Bmgj	Total Sand(%):	27
Depth(cm):	27-42	Total Silt(%):	52
pH in Calc Chloride:	6.8	Total Clay(%):	21
Saturated Hydraulic Conductivity(cm/h):	0.391	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	8
Horizon:	Ckg	Total Sand(%):	18
Depth(cm):	42-100	Total Silt(%):	50
pH in Calc Chloride:	7.7	Total Clay(%):	32
Saturated Hydraulic Conductivity(cm/h):	0.218	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906128402	Components(%):	50
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	Presence of adverse Topography
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	NIAGARA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained

Soil Information

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:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099060874

Soil Information

Component

Component ID:	OND09906087401	Components(%):	70
Soil Name ID:	ONWLL~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Drainage:	Poorly
Soil Texture of A Horizon:	silty clay
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:	WELLAND
Kind of Surface Material:	Mineral
Soil Drainage Class:	Poorly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	0
Horizon:	Ap	Total Sand(%):	7
Depth(cm):	0-15	Total Silt(%):	45
pH in Calc Chloride:	5.2	Total Clay(%):	48
Saturated Hydraulic Conductivity(cm/h):	0.341	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		

Soil Information

Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	3
Depth(cm):	15-34	Total Silt(%):	28
pH in Calc Chloride:	6.5	Total Clay(%):	69
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	1
Depth(cm):	34-43	Total Silt(%):	22
pH in Calc Chloride:	7.3	Total Clay(%):	77
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckg	Total Sand(%):	1
Depth(cm):	43-100	Total Silt(%):	26
pH in Calc Chloride:	7.7	Total Clay(%):	73
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	1		

Component

Component ID:	OND09906087402	Components(%):	30
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	1
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Name

Soil Information

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly 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: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Soil Information

Polygon ID: OND099058471

Component

Component ID:	OND09905847101	Components(%):	100
Soil Name ID:	ONZZZ~~~~~N	Slope Steepness(%):	Unknown or Not applicable
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Not Applicable		

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:	WATER
Kind of Surface Material:	True Non-soil
Soil Drainage Class:	Not applicable
Water Table	Not applicable
Charateristics:	
Layer that Restricts Root Growth:	Not applicable
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Not Applicable; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Not Applicable; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Not Applicable; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	-9
Horizon:	--	Total Sand(%):	-9
Depth(cm):	0-100	Total Silt(%):	-9
pH in Calc Chloride:	Not applicable	Total Clay(%):	-9
Saturated Hydraulic	Not applicable	Organic Carbon(%):	Not applicable

Soil Information

Conductivity(cm/h):

Electrical Conductivity (dS/m): Not applicable

Polygon ID: OND099061373

Component

Component ID:	OND09906137301	Components(%):	50
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: moderately severe limitations on use for crops.
First CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:
Drainage: Imperfectly
Soil Texture of A Horizon:
Hydrological Soil Groups: 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.

Soil Name

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15

Soil Information

Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		

Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906137302	Components(%):	50
Soil Name ID:	ONWLL~~~~~A	Slope Steepness(%):	1
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

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

First CLI Limitation Subclass:

Second CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)

Drainage: Poorly

Soil Information

Soil Texture of A Horizon: silty clay

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: WELLAND

Kind of Surface Material: Mineral

Soil Drainage Class: Poorly drained

Water Table Characteristics: Unspecified period

Layer that Restricts Root Growth: No root restricting layer

Type of Root Restricting Layer: n/a

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

Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable

Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	0
Horizon:	Ap	Total Sand(%):	7
Depth(cm):	0-15	Total Silt(%):	45
pH in Calc Chloride:	5.2	Total Clay(%):	48
Saturated Hydraulic Conductivity(cm/h):	0.341	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	3
Depth(cm):	15-34	Total Silt(%):	28
pH in Calc Chloride:	6.5	Total Clay(%):	69
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	1
Depth(cm):	34-43	Total Silt(%):	22
pH in Calc Chloride:	7.3	Total Clay(%):	77
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		

Soil Information

Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckg	Total Sand(%):	1
Depth(cm):	43-100	Total Silt(%):	26
pH in Calc Chloride:	7.7	Total Clay(%):	73
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	1		

Polygon ID: OND099061456

Component

Component ID:	OND09906145601	Components(%):	50
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	NIAGARA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Information

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		

Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906145602	Components(%):	50
Soil Name ID:	ONWLL~~~~~A	Slope Steepness(%):	1
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

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

Soil Information

First CLI Limitation

Subclass:

Second CLI Limitation Adverse soil structure (i.e. Depth of rooting zone is restricted)

Subclass:

Drainage: Poorly

Soil Texture of A

silty clay

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:

WELLAND

Kind of Surface Material:

Mineral

Soil Drainage Class:

Poorly drained

Water Table

Unspecified period

Characteristics:

Layer that Restricts Root Growth:

No root restricting layer

Type of Root Restricting Layer:

n/a

Parent Material 1, 2, 3:

Very Fine; Not Applicable; Not Applicable

Mode of Deposition 1,2,3:

Glaciolacustrine; Not Applicable; Not Applicable

Parent Material Chemical Property 1,2,3:

Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	0
Horizon:	Ap	Total Sand(%):	7
Depth(cm):	0-15	Total Silt(%):	45
pH in Calc Chloride:	5.2	Total Clay(%):	48
Saturated Hydraulic Conductivity(cm/h):	0.341	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	3
Depth(cm):	15-34	Total Silt(%):	28
pH in Calc Chloride:	6.5	Total Clay(%):	69
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	1
Depth(cm):	34-43	Total Silt(%):	22
pH in Calc Chloride:	7.3	Total Clay(%):	77

Soil Information

Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckg	Total Sand(%):	1
Depth(cm):	43-100	Total Silt(%):	26
pH in Calc Chloride:	7.7	Total Clay(%):	73
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	1		

Polygon ID: OND099061116

Component

Component ID:	OND09906111601	Components(%):	70
Soil Name ID:	ONPELHR~~~A	Slope Steepness(%):	3.5
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	
Drainage:	Imperfectly
Soil Texture of A Horizon:	silty clay
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	PEEL
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	Second layer
Type of Root Restricting Layer:	Undifferentiated
Parent Material 1, 2, 3:	Fine; Moderately Fine; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Till (Morainal); Not Applicable

Soil Information

Parent Material Chemical Property 1,2,3: Weakly Calcareous; Moderately / Very Strongly Calcareous; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	4
Horizon:	Ap	Total Sand(%):	14
Depth(cm):	0-10	Total Silt(%):	42
pH in Calc Chloride:	6.9	Total Clay(%):	44
Saturated Hydraulic Conductivity(cm/h):	0.337	Organic Carbon(%):	2.1
Electrical Conductivity (dS/m):	0		

Layer No:	2	Very Fine Sand(%):	7
Horizon:	Bmgj	Total Sand(%):	18
Depth(cm):	10-30	Total Silt(%):	35
pH in Calc Chloride:	5.9	Total Clay(%):	47
Saturated Hydraulic Conductivity(cm/h):	0.258	Organic Carbon(%):	1
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	30-48	Total Silt(%):	27
pH in Calc Chloride:	7.1	Total Clay(%):	69
Saturated Hydraulic Conductivity(cm/h):	0.201	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		

Layer No:	4	Very Fine Sand(%):	5
Horizon:	Ckg	Total Sand(%):	18
Depth(cm):	48-100	Total Silt(%):	38
pH in Calc Chloride:	7.7	Total Clay(%):	44
Saturated Hydraulic Conductivity(cm/h):	0.207	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906111602	Components(%):	30
Soil Name ID:	ONMATHR~~~A	Slope Steepness(%):	1
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Soil Information

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Drainage:	Poorly
Soil Texture of A Horizon:	silty clay
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:	MALTON
Kind of Surface Material:	Mineral
Soil Drainage Class:	Poorly drained
Water Table Characteristics:	Always
Layer that Restricts Root Growth:	Third layer
Type of Root Restricting Layer:	Compact Till
Parent Material 1, 2, 3:	Moderately Fine; Fine; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Till (Morainal); Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Weakly Calcareous; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	8
Horizon:	Ap	Total Sand(%):	25
Depth(cm):	0-28	Total Silt(%):	25
pH in Calc Chloride:	6	Total Clay(%):	50
Saturated Hydraulic Conductivity(cm/h):	0.373	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Bg	Total Sand(%):	6
Depth(cm):	28-60	Total Silt(%):	49
pH in Calc Chloride:	5	Total Clay(%):	45
Saturated Hydraulic Conductivity(cm/h):	0.196	Organic Carbon(%):	1.5
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0

Soil Information

Horizon:	Bmj	Total Sand(%):	7
Depth(cm):	60-72	Total Silt(%):	48
pH in Calc Chloride:	7	Total Clay(%):	45
Saturated Hydraulic Conductivity(cm/h):	0.25	Organic Carbon(%):	0.5
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	2
Horizon:	Ckg	Total Sand(%):	21
Depth(cm):	72-100	Total Silt(%):	45
pH in Calc Chloride:	8	Total Clay(%):	34
Saturated Hydraulic Conductivity(cm/h):	0.157	Organic Carbon(%):	0.1
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061092

Component

Component ID:	OND09906109201	Components(%):	50
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	Presence of adverse Topography
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	NIAGARA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer

Soil Information

Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		

Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906109202	Components(%):	50
Soil Name ID:	ONWLL~~~~~A	Slope Steepness(%):	1

Soil Information

Component No: 2 **Slope Length(m):** -9
Surface Stoniness Class: Nonstony

Component Rating

Field Crops Capability: moderately severe limitations on use for crops.
First CLI Limitation Subclass:
Second CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)
Drainage: Poorly
Soil Texture of A Horizon: silty clay
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: WELLAND
Kind of Surface Material: Mineral
Soil Drainage Class: Poorly drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	0
Horizon:	Ap	Total Sand(%):	7
Depth(cm):	0-15	Total Silt(%):	45
pH in Calc Chloride:	5.2	Total Clay(%):	48
Saturated Hydraulic Conductivity(cm/h):	0.341	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	3
Depth(cm):	15-34	Total Silt(%):	28
pH in Calc Chloride:	6.5	Total Clay(%):	69

Soil Information

Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	1
Depth(cm):	34-43	Total Silt(%):	22
pH in Calc Chloride:	7.3	Total Clay(%):	77
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckg	Total Sand(%):	1
Depth(cm):	43-100	Total Silt(%):	26
pH in Calc Chloride:	7.7	Total Clay(%):	73
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	1		

Polygon ID: OND099061078

Component

Component ID:	OND09906107801	Components(%):	70
Soil Name ID:	ONWLL~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Drainage:	Poorly
Soil Texture of A Horizon:	silty clay
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: WELLAND

Soil Information

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: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	0
Horizon:	Ap	Total Sand(%):	7
Depth(cm):	0-15	Total Silt(%):	45
pH in Calc Chloride:	5.2	Total Clay(%):	48
Saturated Hydraulic Conductivity(cm/h):	0.341	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	3
Depth(cm):	15-34	Total Silt(%):	28
pH in Calc Chloride:	6.5	Total Clay(%):	69
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	1
Depth(cm):	34-43	Total Silt(%):	22
pH in Calc Chloride:	7.3	Total Clay(%):	77
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckg	Total Sand(%):	1
Depth(cm):	43-100	Total Silt(%):	26
pH in Calc Chloride:	7.7	Total Clay(%):	73
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	1		

Soil Information

Component

Component ID:	OND09906107802	Components(%):	30
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	1
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	NIAGARA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0

Soil Information

Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061161

Component

Component ID:	OND09906116101	Components(%):	70
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	Presence of adverse Topography
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Information

Soil Name

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly 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: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0

Soil Information

Electrical Conductivity (dS/m): 0

Component

Component ID:	OND09906116102	Components(%):	30
Soil Name ID:	ONALU~~~~~A	Slope Steepness(%):	1
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: Very severe limitations preclude annual cultivation; improvements feasible.
First CLI Limitation Subclass: Subject to occasional flooding (Inundation) from adjacent streams or waterbodies
Second CLI Limitation Subclass:
Drainage: Not Applicable
Soil Texture of A Horizon:
Hydrological Soil Groups:

Soil Name

Soil Name: ALLUVIUM
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly 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: Medium; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Fluvial; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Weakly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	10
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-19	Total Silt(%):	60
pH in Calc Chloride:	6.4	Total Clay(%):	25
Saturated Hydraulic Conductivity(cm/h):	0.494	Organic Carbon(%):	3.9

Soil Information

Electrical Conductivity (dS/m): 0

Layer No:	2	Very Fine Sand(%):	14
Horizon:	Bmgj	Total Sand(%):	20
Depth(cm):	19-27	Total Silt(%):	57
pH in Calc Chloride:	6.7	Total Clay(%):	23
Saturated Hydraulic Conductivity(cm/h):	0.311	Organic Carbon(%):	1
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	20
Horizon:	Bmgj	Total Sand(%):	27
Depth(cm):	27-42	Total Silt(%):	52
pH in Calc Chloride:	6.8	Total Clay(%):	21
Saturated Hydraulic Conductivity(cm/h):	0.391	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		

Layer No:	4	Very Fine Sand(%):	8
Horizon:	Ckg	Total Sand(%):	18
Depth(cm):	42-100	Total Silt(%):	50
pH in Calc Chloride:	7.7	Total Clay(%):	32
Saturated Hydraulic Conductivity(cm/h):	0.218	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061147

Component

Component ID:	OND09906114701	Components(%):	50
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: moderately severe limitations on use for crops.
 First CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)
 Second CLI Limitation Subclass:
 Drainage: Imperfectly
 Soil Texture of A Horizon:

Soil Information

Hydrological Soil Groups:

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.

Soil Name

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1

Soil Information

Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906114702	Components(%):	50
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	Presence of adverse Topography
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	NIAGARA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15

Soil Information

Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061310

Component

Component ID:	OND09906131001	Components(%):	70
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: moderately severe limitations on use for crops.
First CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation

Soil Information

Subclass:

Drainage: Imperfectly

Soil Texture of A

Horizon:

Hydrological Soil

Groups:

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.

Soil Name

Soil Name: NIAGARA

Kind of Surface Material: Mineral

Soil Drainage Class: Imperfectly 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: Very Fine; Not Applicable; Not Applicable

Mode of Deposition Glaciolacustrine; 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(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic	0.256	Organic Carbon(%):	0.7
Conductivity(cm/h):			
Electrical Conductivity	0		
(dS/m):			

Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic	0.189	Organic Carbon(%):	2.4
Conductivity(cm/h):			
Electrical Conductivity	0		
(dS/m):			

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic	0.193	Organic Carbon(%):	0
Conductivity(cm/h):			
Electrical Conductivity	0		
(dS/m):			

Soil Information

Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906131002	Components(%):	30
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	NIAGARA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Soil Information

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099060918

Component

Component ID:	OND09906091801	Components(%):	70
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Soil Information

Field Crops Capability: moderately severe limitations on use for crops.
First CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:
Drainage: Imperfectly
Soil Texture of A Horizon:
Hydrological Soil Groups: 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.

Soil Name

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64

Soil Information

Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906091802	Components(%):	30
Soil Name ID:	ONWLL~~~~~A	Slope Steepness(%):	3.5
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Drainage:	Poorly
Soil Texture of A Horizon:	silty clay
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:	WELLAND
Kind of Surface Material:	Mineral
Soil Drainage Class:	Poorly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Information

Property 1,2,3:

Soil Layer

Layer No:	1	Very Fine Sand(%)	0
Horizon:	Ap	Total Sand(%)	7
Depth(cm):	0-15	Total Silt(%)	45
pH in Calc Chloride:	5.2	Total Clay(%)	48
Saturated Hydraulic Conductivity(cm/h):	0.341	Organic Carbon(%)	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%)	0
Horizon:	Btg	Total Sand(%)	3
Depth(cm):	15-34	Total Silt(%)	28
pH in Calc Chloride:	6.5	Total Clay(%)	69
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%)	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%)	0
Horizon:	Btg	Total Sand(%)	1
Depth(cm):	34-43	Total Silt(%)	22
pH in Calc Chloride:	7.3	Total Clay(%)	77
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%)	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%)	0
Horizon:	Ckg	Total Sand(%)	1
Depth(cm):	43-100	Total Silt(%)	26
pH in Calc Chloride:	7.7	Total Clay(%)	73
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%)	0
Electrical Conductivity (dS/m):	1		

Polygon ID: OND099059978

Component

Component ID:	OND09905997801	Components(%)	100
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%)	3.5
Component No:	1	Slope Length(m)	-9
Surface Stoniness Class:	Nonstony		

Soil Information

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	NIAGARA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		

Soil Information

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061339

Component

Component ID:	OND09906133901	Components(%):	50
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	NIAGARA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table	Unspecified period
Charateristics:	
Layer that Restricts Root	No root restricting layer

Soil Information

Growth:

Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906133902	Components(%):	50
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Soil Information

Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: moderately severe limitations on use for crops.
First CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:
Drainage: Imperfectly
Soil Texture of A Horizon:
Hydrological Soil Groups: 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.

Soil Name

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63

Soil Information

Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061336

Component

Component ID:	OND09906133601	Components(%):	100
Soil Name ID:	ONWLL~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Drainage:	Poorly
Soil Texture of A Horizon:	silty clay
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: WELLAND

Soil Information

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: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	0
Horizon:	Ap	Total Sand(%):	7
Depth(cm):	0-15	Total Silt(%):	45
pH in Calc Chloride:	5.2	Total Clay(%):	48
Saturated Hydraulic Conductivity(cm/h):	0.341	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	3
Depth(cm):	15-34	Total Silt(%):	28
pH in Calc Chloride:	6.5	Total Clay(%):	69
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	1
Depth(cm):	34-43	Total Silt(%):	22
pH in Calc Chloride:	7.3	Total Clay(%):	77
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckg	Total Sand(%):	1
Depth(cm):	43-100	Total Silt(%):	26
pH in Calc Chloride:	7.7	Total Clay(%):	73
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	1		

Polygon ID: OND099060455

Soil Information

Component

Component ID:	OND09906045501	Components(%):	70
Soil Name ID:	ONWLL~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	
Second CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Drainage:	Poorly
Soil Texture of A Horizon:	silty clay
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:	WELLAND
Kind of Surface Material:	Mineral
Soil Drainage Class:	Poorly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	0
Horizon:	Ap	Total Sand(%):	7
Depth(cm):	0-15	Total Silt(%):	45
pH in Calc Chloride:	5.2	Total Clay(%):	48
Saturated Hydraulic Conductivity(cm/h):	0.341	Organic Carbon(%):	2.4
Electrical Conductivity	0		

Soil Information

(dS/m):

Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	3
Depth(cm):	15-34	Total Silt(%):	28
pH in Calc Chloride:	6.5	Total Clay(%):	69
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	1
Depth(cm):	34-43	Total Silt(%):	22
pH in Calc Chloride:	7.3	Total Clay(%):	77
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		

Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckg	Total Sand(%):	1
Depth(cm):	43-100	Total Silt(%):	26
pH in Calc Chloride:	7.7	Total Clay(%):	73
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	1		

Component

Component ID:	OND09906045502	Components(%):	30
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	1
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	
Drainage:	Imperfectly
Soil Texture of A Horizon:	
Hydrological Soil Groups:	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.

Soil Information

Soil Name

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63

Soil Information

Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061693

Component

Component ID:	OND09906169301	Components(%):	70
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	7
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: moderately severe limitations on use for crops.
First CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass: Presence of adverse Topography
Drainage: Imperfectly
Soil Texture of A Horizon:
Hydrological Soil Groups: 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.

Soil Name

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15

Soil Information

Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		

Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906169302	Components(%):	30
Soil Name ID:	ONALU~~~~~A	Slope Steepness(%):	1
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	Very severe limitations preclude annual cultivation; improvements feasible.
First CLI Limitation Subclass:	Subject to occasional flooding (Inundation) from adjacent streams or waterbodies
Second CLI Limitation Subclass:	
Drainage:	Not Applicable

Soil Information

Soil Texture of A
Horizon:
Hydrological Soil
Groups:

Soil Name

Soil Name: ALLUVIUM
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly 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: Medium; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Fluvial; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Weakly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	10
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-19	Total Silt(%):	60
pH in Calc Chloride:	6.4	Total Clay(%):	25
Saturated Hydraulic Conductivity(cm/h):	0.494	Organic Carbon(%):	3.9
Electrical Conductivity (dS/m):	0		

Layer No:	2	Very Fine Sand(%):	14
Horizon:	Bmgj	Total Sand(%):	20
Depth(cm):	19-27	Total Silt(%):	57
pH in Calc Chloride:	6.7	Total Clay(%):	23
Saturated Hydraulic Conductivity(cm/h):	0.311	Organic Carbon(%):	1
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	20
Horizon:	Bmgj	Total Sand(%):	27
Depth(cm):	27-42	Total Silt(%):	52
pH in Calc Chloride:	6.8	Total Clay(%):	21
Saturated Hydraulic Conductivity(cm/h):	0.391	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		

Layer No:	4	Very Fine Sand(%):	8
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Soil Information

Horizon:	Ckg	Total Sand(%):	18
Depth(cm):	42-100	Total Silt(%):	50
pH in Calc Chloride:	7.7	Total Clay(%):	32
Saturated Hydraulic Conductivity(cm/h):	0.218	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061443

Component

Component ID:	OND09906144301	Components(%):	50
Soil Name ID:	ONCSHHR~~~A	Slope Steepness(%):	12
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	Severe limitations on use for crops.
First CLI Limitation Subclass:	Presence of adverse Topography
Second CLI Limitation Subclass:	
Drainage:	Moderately Well
Soil Texture of A Horizon:	clay
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	CASHEL
Kind of Surface Material:	Mineral
Soil Drainage Class:	Moderately well drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	Second layer
Type of Root Restricting Layer:	Undifferentiated
Parent Material 1, 2, 3:	Moderately Fine; Fine; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Till (Morainal); Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Moderately / Very Strongly Calcareous; Not Applicable

Soil Layer

Soil Information

Layer No:	1	Very Fine Sand(%):	5
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-22	Total Silt(%):	35
pH in Calc Chloride:	5.8	Total Clay(%):	50
Saturated Hydraulic Conductivity(cm/h):	0.739	Organic Carbon(%):	7.1
Electrical Conductivity (dS/m):	0		

Layer No:	2	Very Fine Sand(%):	6
Horizon:	Bm	Total Sand(%):	16
Depth(cm):	22-55	Total Silt(%):	35
pH in Calc Chloride:	5.4	Total Clay(%):	49
Saturated Hydraulic Conductivity(cm/h):	0.251	Organic Carbon(%):	1.5
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	7
Horizon:	Bm	Total Sand(%):	20
Depth(cm):	55-100	Total Silt(%):	40
pH in Calc Chloride:	5.1	Total Clay(%):	40
Saturated Hydraulic Conductivity(cm/h):	0.271	Organic Carbon(%):	0.4
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906144302	Components(%):	50
Soil Name ID:	ONALU~~~~~A	Slope Steepness(%):	1
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: Very severe limitations preclude annual cultivation; improvements feasible.

First CLI Limitation Subclass: Subject to occasional flooding (Inundation) from adjacent streams or waterbodies

Second CLI Limitation Subclass:

Drainage: Not Applicable

Soil Texture of A Horizon:

Hydrological Soil Groups:

Soil Information

Soil Name

Soil Name: ALLUVIUM
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly 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: Medium; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Fluvial; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Weakly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	10
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-19	Total Silt(%):	60
pH in Calc Chloride:	6.4	Total Clay(%):	25
Saturated Hydraulic Conductivity(cm/h):	0.494	Organic Carbon(%):	3.9
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	14
Horizon:	Bmgj	Total Sand(%):	20
Depth(cm):	19-27	Total Silt(%):	57
pH in Calc Chloride:	6.7	Total Clay(%):	23
Saturated Hydraulic Conductivity(cm/h):	0.311	Organic Carbon(%):	1
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	20
Horizon:	Bmgj	Total Sand(%):	27
Depth(cm):	27-42	Total Silt(%):	52
pH in Calc Chloride:	6.8	Total Clay(%):	21
Saturated Hydraulic Conductivity(cm/h):	0.391	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	8
Horizon:	Ckg	Total Sand(%):	18
Depth(cm):	42-100	Total Silt(%):	50
pH in Calc Chloride:	7.7	Total Clay(%):	32
Saturated Hydraulic Conductivity(cm/h):	0.218	Organic Carbon(%):	0

Soil Information

Electrical Conductivity (dS/m): 0

Polygon ID: OND099061210

Component

Component ID:	OND09906121001	Components(%):	70
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: moderately severe limitations on use for crops.
First CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:
Drainage: Imperfectly
Soil Texture of A Horizon:
Hydrological Soil Groups: 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.

Soil Name

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43

Soil Information

pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Component

Component ID:	OND09906121002	Components(%):	30
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	1
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	
Drainage:	Imperfectly
Soil Texture of A Horizon:	

Soil Information

Hydrological Soil Groups:

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.

Soil Name

Soil Name:	NIAGARA
Kind of Surface Material:	Mineral
Soil Drainage Class:	Imperfectly drained
Water Table Characteristics:	Unspecified period
Layer that Restricts Root Growth:	No root restricting layer
Type of Root Restricting Layer:	n/a
Parent Material 1, 2, 3:	Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1

Soil Information

Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061445

Component

Component ID:	OND09906144501	Components(%):	100
Soil Name ID:	ONOTI~~~~~A	Slope Steepness(%):	7
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	Presence of adverse Topography
Drainage:	Moderately Well
Soil Texture of A Horizon:	silty clay
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	ONTARIO
Kind of Surface Material:	Mineral
Soil Drainage Class:	Well drained
Water Table Characteristics:	Unspecified period
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 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Soil Information

Layer No:	1	Very Fine Sand(%):	6
Horizon:	Ap	Total Sand(%):	55
Depth(cm):	0-15	Total Silt(%):	25
pH in Calc Chloride:	7	Total Clay(%):	20
Saturated Hydraulic Conductivity(cm/h):	3.621	Organic Carbon(%):	2.1
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	6
Horizon:	Bm	Total Sand(%):	31
Depth(cm):	15-18	Total Silt(%):	24
pH in Calc Chloride:	8	Total Clay(%):	45
Saturated Hydraulic Conductivity(cm/h):	1.873	Organic Carbon(%):	0.5
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	6
Horizon:	Bt	Total Sand(%):	45
Depth(cm):	18-45	Total Silt(%):	5
pH in Calc Chloride:	8	Total Clay(%):	50
Saturated Hydraulic Conductivity(cm/h):	1.873	Organic Carbon(%):	0.5
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	4
Horizon:	Ck	Total Sand(%):	8
Depth(cm):	45-100	Total Silt(%):	30
pH in Calc Chloride:	8	Total Clay(%):	62
Saturated Hydraulic Conductivity(cm/h):	3.083	Organic Carbon(%):	0.3
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061222

Component

Component ID:	OND09906122201	Components(%):	100
Soil Name ID:	ONZUN~~~~~N	Slope Steepness(%):	Unknown or Not applicable
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Not Applicable		

Component Rating

Field Crops Capability:

Soil Information

First CLI Limitation
Subclass:
Second CLI Limitation
Subclass:
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:
Parent Material 1, 2, 3: Not Applicable; Not Applicable; Not Applicable
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: OND099061231

Component

Component ID:	OND09906123101	Components(%):	70
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	3.5
Component No:	1	Slope Length(m):	-9
Surface Stoniness	Nonstony		
Class:			

Component Rating

Field Crops Capability: moderately severe limitations on use for crops.
First CLI Limitation Adverse soil structure (i.e. Depth of rooting zone is restricted)
Subclass:
Second CLI Limitation
Subclass:
Drainage: Imperfectly
Soil Texture of A
Horizon:
Hydrological Soil Soils with slow infiltration rates when thoroughly wetted and these soils typically are silty-loam soils with
Groups: an impeding layer or soils with moderately fine to fine texture.

Soil Information

Soil Name

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly 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: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0

Soil Information

Electrical Conductivity (dS/m): 0

Component

Component ID:	OND09906123102	Components(%):	30
Soil Name ID:	ONNGR~~~~~A	Slope Steepness(%):	1
Component No:	2	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: moderately severe limitations on use for crops.
First CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:
Drainage: Imperfectly
Soil Texture of A Horizon:
Hydrological Soil Groups: 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.

Soil Name

Soil Name: NIAGARA
Kind of Surface Material: Mineral
Soil Drainage Class: Imperfectly drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	3
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-15	Total Silt(%):	43
pH in Calc Chloride:	5.3	Total Clay(%):	42
Saturated Hydraulic Conductivity(cm/h):	0.256	Organic Carbon(%):	0.7

Soil Information

Electrical Conductivity (dS/m): 0

Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btgj	Total Sand(%):	4
Depth(cm):	15-31	Total Silt(%):	33
pH in Calc Chloride:	6.5	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.189	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		

Layer No:	3	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	31-50	Total Silt(%):	35
pH in Calc Chloride:	7.7	Total Clay(%):	64
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Layer No:	4	Very Fine Sand(%):	0
Horizon:	Ckgj	Total Sand(%):	1
Depth(cm):	50-100	Total Silt(%):	36
pH in Calc Chloride:	7.7	Total Clay(%):	63
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061423

Component

Component ID:	OND09906142301	Components(%):	100
Soil Name ID:	ONWLL~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

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

First CLI Limitation Subclass:

Second CLI Limitation Subclass: Adverse soil structure (i.e. Depth of rooting zone is restricted)

Drainage: Poorly

Soil Texture of A Horizon: silty clay

Soil Information

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: WELLAND
Kind of Surface Material: Mineral
Soil Drainage Class: Poorly drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Very Fine; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	0
Horizon:	Ap	Total Sand(%):	7
Depth(cm):	0-15	Total Silt(%):	45
pH in Calc Chloride:	5.2	Total Clay(%):	48
Saturated Hydraulic Conductivity(cm/h):	0.341	Organic Carbon(%):	2.4
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	3
Depth(cm):	15-34	Total Silt(%):	28
pH in Calc Chloride:	6.5	Total Clay(%):	69
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	0
Horizon:	Btg	Total Sand(%):	1
Depth(cm):	34-43	Total Silt(%):	22
pH in Calc Chloride:	7.3	Total Clay(%):	77
Saturated Hydraulic Conductivity(cm/h):	0.2	Organic Carbon(%):	0.6
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	0

Soil Information

Horizon:	Ckg	Total Sand(%):	1
Depth(cm):	43-100	Total Silt(%):	26
pH in Calc Chloride:	7.7	Total Clay(%):	73
Saturated Hydraulic Conductivity(cm/h):	0.193	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	1		

Polygon ID: OND099061658

Component

Component ID:	OND09906165801	Components(%):	100
Soil Name ID:	ONOTI~~~~~A	Slope Steepness(%):	7
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability:	moderately severe limitations on use for crops.
First CLI Limitation Subclass:	Adverse soil structure (i.e. Depth of rooting zone is restricted)
Second CLI Limitation Subclass:	Presence of adverse Topography
Drainage:	Moderately Well
Soil Texture of A Horizon:	silty clay
Hydrological Soil Groups:	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.

Soil Name

Soil Name:	ONTARIO
Kind of Surface Material:	Mineral
Soil Drainage Class:	Well drained
Water Table Characteristics:	Unspecified period
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 1,2,3:	Glaciolacustrine; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3:	Moderately / Very Strongly Calcareous; Not Applicable; Not Applicable

Soil Layer

Soil Information

Layer No:	1	Very Fine Sand(%):	6
Horizon:	Ap	Total Sand(%):	55
Depth(cm):	0-15	Total Silt(%):	25
pH in Calc Chloride:	7	Total Clay(%):	20
Saturated Hydraulic Conductivity(cm/h):	3.621	Organic Carbon(%):	2.1
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	6
Horizon:	Bm	Total Sand(%):	31
Depth(cm):	15-18	Total Silt(%):	24
pH in Calc Chloride:	8	Total Clay(%):	45
Saturated Hydraulic Conductivity(cm/h):	1.873	Organic Carbon(%):	0.5
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	6
Horizon:	Bt	Total Sand(%):	45
Depth(cm):	18-45	Total Silt(%):	5
pH in Calc Chloride:	8	Total Clay(%):	50
Saturated Hydraulic Conductivity(cm/h):	1.873	Organic Carbon(%):	0.5
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	4
Horizon:	Ck	Total Sand(%):	8
Depth(cm):	45-100	Total Silt(%):	30
pH in Calc Chloride:	8	Total Clay(%):	62
Saturated Hydraulic Conductivity(cm/h):	3.083	Organic Carbon(%):	0.3
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061600

Component

Component ID:	OND09906160001	Components(%):	100
Soil Name ID:	ONZUN~~~~~N	Slope Steepness(%):	Unknown or Not applicable
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Not Applicable		

Component Rating

Soil Information

Field Crops Capability:

First CLI Limitation

Subclass:

Second CLI Limitation

Subclass:

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 Growth: No root restricting layer
Type of Root Restricting Layer: n/a
Parent Material 1, 2, 3: Not Applicable; Not Applicable; Not Applicable
Mode of Deposition 1,2,3: Not Applicable; Not Applicable; Not Applicable
Parent Material Chemical Property 1,2,3: Not Applicable; Not Applicable; Not Applicable

Polygon ID: OND099061460

Component

Component ID:	OND09906146001	Components(%):	100
Soil Name ID:	ONCSHHR~~~A	Slope Steepness(%):	12
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: Severe limitations on use for crops.
First CLI Limitation Presence of adverse Topography
Subclass:
Second CLI Limitation
Subclass:
Drainage: Moderately Well
Soil Texture of A clay
Horizon:
Hydrological Soil Groups: 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.

Soil Information

Soil Name

Soil Name: CASHEL
Kind of Surface Material: Mineral
Soil Drainage Class: Moderately well drained
Water Table Characteristics: Unspecified period
Layer that Restricts Root Growth: Second layer
Type of Root Restricting Layer: Undifferentiated
Parent Material 1, 2, 3: Moderately Fine; Fine; Not Applicable
Mode of Deposition 1,2,3: Glaciolacustrine; Till (Morainal); Not Applicable
Parent Material Chemical Property 1,2,3: Moderately / Very Strongly Calcareous; Moderately / Very Strongly Calcareous; Not Applicable

Soil Layer

Layer No:	1	Very Fine Sand(%):	5
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-22	Total Silt(%):	35
pH in Calc Chloride:	5.8	Total Clay(%):	50
Saturated Hydraulic Conductivity(cm/h):	0.739	Organic Carbon(%):	7.1
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	6
Horizon:	Bm	Total Sand(%):	16
Depth(cm):	22-55	Total Silt(%):	35
pH in Calc Chloride:	5.4	Total Clay(%):	49
Saturated Hydraulic Conductivity(cm/h):	0.251	Organic Carbon(%):	1.5
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	7
Horizon:	Bm	Total Sand(%):	20
Depth(cm):	55-100	Total Silt(%):	40
pH in Calc Chloride:	5.1	Total Clay(%):	40
Saturated Hydraulic Conductivity(cm/h):	0.271	Organic Carbon(%):	0.4
Electrical Conductivity (dS/m):	0		

Polygon ID: OND099061468

Component

Soil Information

Component ID:	OND09906146801	Components(%):	100
Soil Name ID:	ONALU~~~~~A	Slope Steepness(%):	1
Component No:	1	Slope Length(m):	-9
Surface Stoniness Class:	Nonstony		

Component Rating

Field Crops Capability: Very severe limitations preclude annual cultivation; improvements feasible.

First CLI Limitation Subclass: Subject to occasional flooding (Inundation) from adjacent streams or waterbodies

Second CLI Limitation Subclass:

Drainage: Not Applicable

Soil Texture of A Horizon:

Hydrological Soil Groups:

Soil Name

Soil Name: ALLUVIUM

Kind of Surface Material: Mineral

Soil Drainage Class: Imperfectly drained

Water Table Characteristics: Unspecified period

Layer that Restricts Root Growth: No root restricting layer

Type of Root Restricting Layer: n/a

Parent Material 1, 2, 3: Medium; Not Applicable; Not Applicable

Mode of Deposition 1,2,3: Fluvial; Not Applicable; Not Applicable

Parent Material Chemical Property 1,2,3: Weakly Calcareous; Not Applicable; Not Applicable

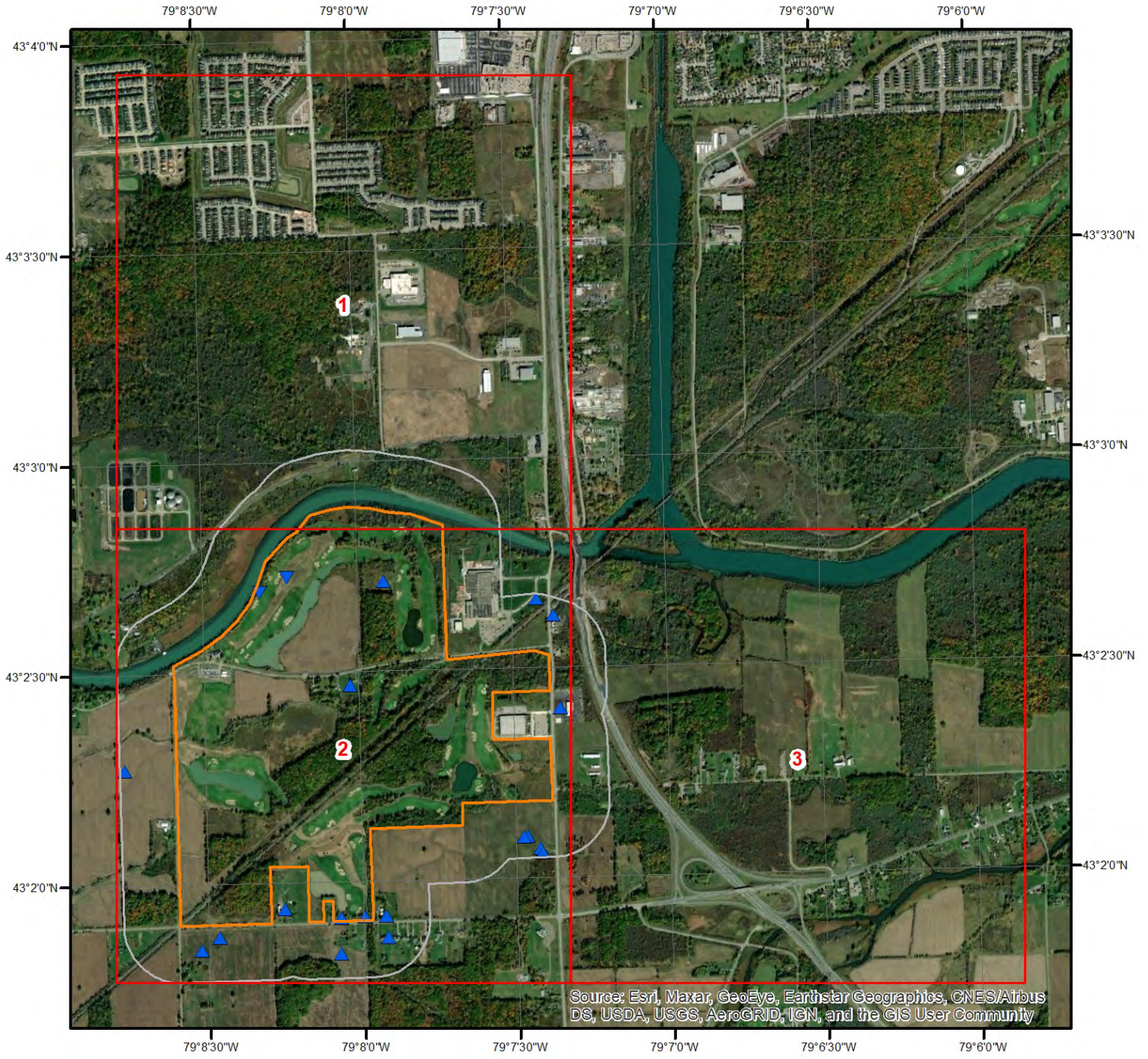
Soil Layer

Layer No:	1	Very Fine Sand(%):	10
Horizon:	Ap	Total Sand(%):	15
Depth(cm):	0-19	Total Silt(%):	60
pH in Calc Chloride:	6.4	Total Clay(%):	25
Saturated Hydraulic Conductivity(cm/h):	0.494	Organic Carbon(%):	3.9
Electrical Conductivity (dS/m):	0		
Layer No:	2	Very Fine Sand(%):	14
Horizon:	Bmgj	Total Sand(%):	20

Soil Information

Depth(cm):	19-27	Total Silt(%):	57
pH in Calc Chloride:	6.7	Total Clay(%):	23
Saturated Hydraulic Conductivity(cm/h):	0.311	Organic Carbon(%):	1
Electrical Conductivity (dS/m):	0		
Layer No:	3	Very Fine Sand(%):	20
Horizon:	Bmgj	Total Sand(%):	27
Depth(cm):	27-42	Total Silt(%):	52
pH in Calc Chloride:	6.8	Total Clay(%):	21
Saturated Hydraulic Conductivity(cm/h):	0.391	Organic Carbon(%):	0.7
Electrical Conductivity (dS/m):	0		
Layer No:	4	Very Fine Sand(%):	8
Horizon:	Ckg	Total Sand(%):	18
Depth(cm):	42-100	Total Silt(%):	50
pH in Calc Chloride:	7.7	Total Clay(%):	32
Saturated Hydraulic Conductivity(cm/h):	0.218	Organic Carbon(%):	0
Electrical Conductivity (dS/m):	0		

Wells and Additional Sources



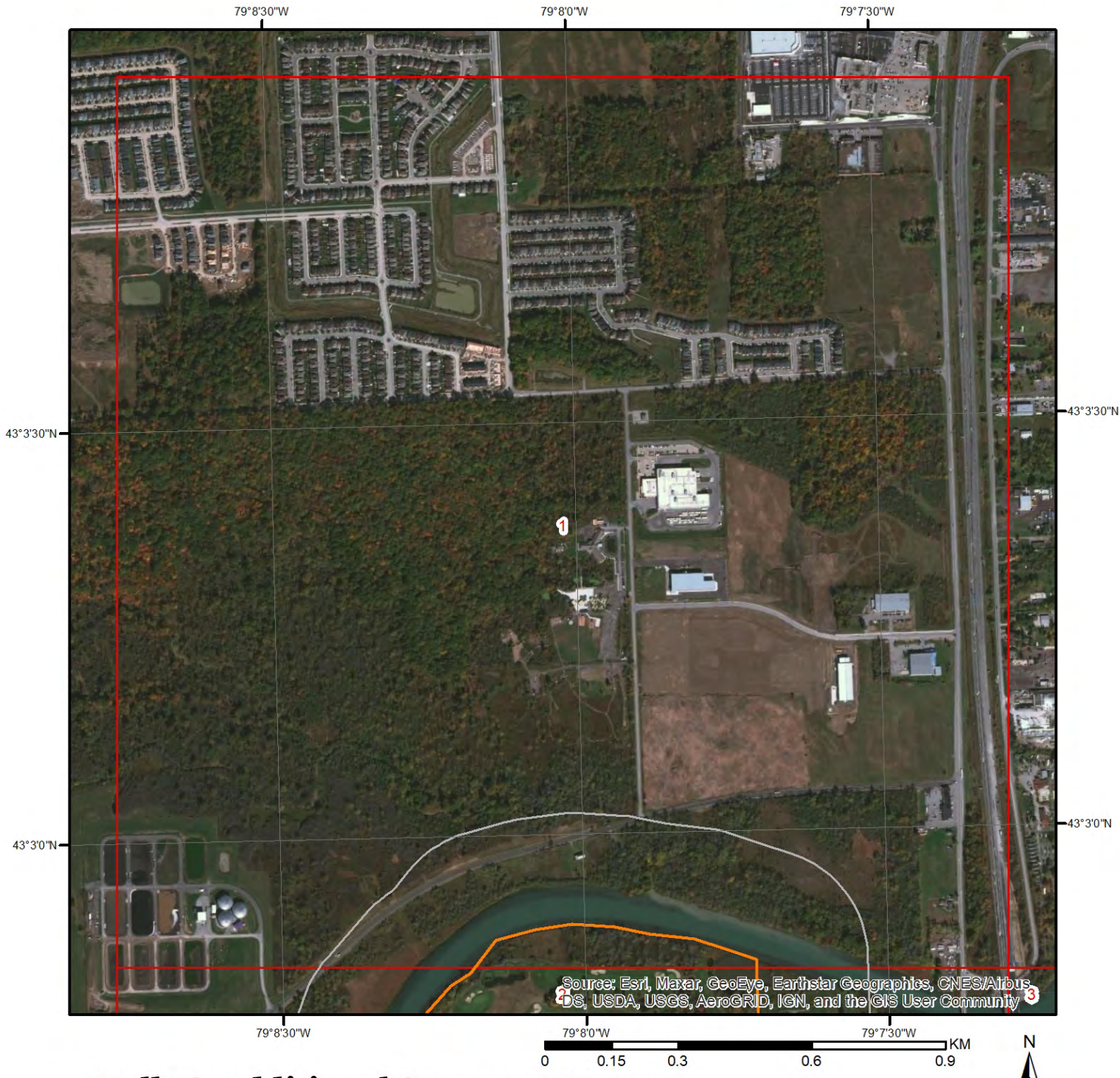
Wells & Additional Sources



- | | |
|--|---|
| Project Property | Buffer |
| Buffer | ▲ Sites with Higher Elevation |
| Buffer | ■ Sites with Same Elevation |
| Buffer | ▼ Sites with Lower Elevation |
| Buffer | Sites with Unknown Elevation |



Wells and Additional Sources

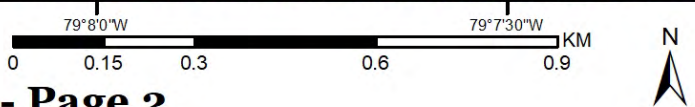


Wells & Additional Sources - Page 1

- ▲ Sites with Higher Elevation
- Sites with Same Elevation
- ▼ Sites with Lower Elevation
- Sites with Unknown Elevation



Wells and Additional Sources

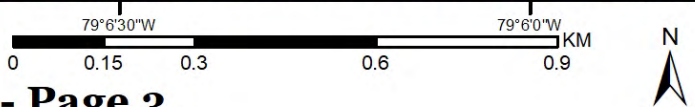


Wells & Additional Sources - Page 2

- ▲ Sites with Higher Elevation
- Sites with Same Elevation
- ▼ Sites with Lower Elevation
- Sites with Unknown Elevation



Wells and Additional Sources



Wells & Additional Sources - Page 3

- ▲ Sites with Higher Elevation
- Sites with Same Elevation
- ▼ Sites with Lower Elevation
- Sites with Unknown Elevation



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	Licence No	Distance (m)	Direction
12	F014193	111.48	SSW
13	F014190	142.78	S
18	F014144	227.73	WSW

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	6600619	0.	-
2	7352103	0.	-
3	7289552	0.	-
4	6600615	0.	-
5	6600617	0.	-
6	7352071	0.	-
7	6600625	56.76	SSW
8	6600616	62.27	SSE
9	6600618	63.34	SSW
10	6602673	90.11	E
11	6604508	102.55	SSE
14	6600612	153.96	ESE
15	6600613	155.4	ESE
16	7231244	174.54	ENE
17	7200894	211.07	ESE
19	7265625	229.43	ESE
20	7305848	229.96	ENE

Private Sources

Oil and Gas Wells

Map Key	ID	Distance (m)	Direction
No records found			

Wells and Additional Sources Detail Report

Ontario Oil and Gas Wells

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
12	SSW	0.11	111.48	178.50	OOGW

Licence No:	F014193	Well Compl:	26049
Well ID:	26116	County:	Welland
Well Compl ID:	26049	Block:	NULL
W Class ID:	2362	Lot:	4
UWI Code:	F014193	Conc:	I
Permit Date:	NULL	Surface Lat NAD83:	43.03070861
Depth(m):	152.70	Surface Long NAD83:	-79.14211222
Well Pool:	Welland Pool	Bottom Lat NAD83:	43.03070861
Completion Date:	NULL	Bottom Long NAD83:	-79.14211222
Depth Reached:	1948-06-09 00:00:00	Lot Sides (m):	91.44 S
Capped Date:	NULL	E/W (m):	91.44 E
Class ID:		Latitude Nad27:	
DB Source:		Longitude Nad27:	
Status as of:	June 2020	bottom lat27:	
Start Date:	1948-05-29 00:00:00	bottom long27:	
SPUD Date:	1948-05-29 00:00:00	Lateral:	No
Class:	DEV	Accuracy:	50
Grnd Elev:	178.60	Method:	Well Records (1921 to 1954)
KB Elev:	178.90	Parent:	NULL
TVD:	152.70	Prod Top:	121.31
PBTD:	NULL	Prod Bot:	138.07
TD Form:	Queenston	PROPD Depth:	520.00
Workover D:	NULL	Location Method:	Well Records (1921 to 1954)
Operator:	W. C. Patterson Gas Co. Ltd.	Location Accuracy:	Within 50 metres
Township:	Crowland	Dt Obtained:	NULL
Well Name:	E & A. Cruickshank #1		
Target:	SIL		
Target Desc:	UNSUBDIVIDED		
Well Status Type:	Natural Gas Well		
Status Type Desc:	A WELL PRESENTLY OR FORMERLY USED TO PRODUCE NATURAL GAS FROM A RESERVOIR		
Well Status Mode:	Unknown		
Status Mode Desc:			
Classification:	DEVELOPMENT		
Classification Desc:	"DEVELOPMENT WELL" MEANS A WELL THAT IS DRILLED FOR THE PURPOSE OF PRODUCING FROM OR EXTENDING A POOL OF OIL OR GAS INTO WHICH ANOTHER WELL HAS ALREADY BEEN DRILLED		
Cement Rec:	NULL		
Comments:	Accuracy is approximate and not verified. Ground Elev from DEM in PetroGIS (A. Lenny, 7 August 2013), KB = Ground + 0.3m.		

License No:	F014193	Source:	FORM 7
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Wells and Additional Sources Detail Report

Top (m):	111.25	Static Level (m):	n/a
Elevation (m):	67.65	Geology/Water:	Geology
Geology Formation:	Irondequoit	Elevation / Top (m):	67.65 / 111.25
Type of Water:	n/a		

License No:	F014193	Source:	FORM 7
Top (m):	151.79	Static Level (m):	n/a
Elevation (m):	27.11	Geology/Water:	Geology
Geology Formation:	Queenston	Elevation / Top (m):	27.11 / 151.79
Type of Water:	n/a		

License No:	F014193	Source:	FORM 7
Top (m):	144.78	Static Level (m):	n/a
Elevation (m):	34.12	Geology/Water:	Geology
Geology Formation:	Whirlpool	Elevation / Top (m):	34.12 / 144.78
Type of Water:	n/a		

License No:	F014193	Source:	FORM 7
Top (m):	138.07	Static Level (m):	n/a
Elevation (m):	40.83	Geology/Water:	Geology
Geology Formation:	Cabot Head	Elevation / Top (m):	40.83 / 138.07
Type of Water:	n/a		

License No:	F014193	Source:	MNR
Top (m):	36.58	Static Level (m):	n/a
Elevation (m):	142.32	Geology/Water:	Geology
Geology Formation:	Guelph	Elevation / Top (m):	142.32 / 36.58
Type of Water:	n/a		

License No:	F014193	Source:	FORM 7
Top (m):	36.58	Static Level (m):	n/a
Elevation (m):	142.32	Geology/Water:	Geology
Geology Formation:	Guelph	Elevation / Top (m):	142.32 / 36.58
Type of Water:	n/a		

License No:	F014193	Source:	MNR
Top (m):	111.25	Static Level (m):	n/a
Elevation (m):	67.65	Geology/Water:	Geology
Geology Formation:	Irondequoit	Elevation / Top (m):	67.65 / 111.25
Type of Water:	n/a		

License No:	F014193	Source:	FORM 7
Top (m):	12.19	Static Level (m):	n/a
Elevation (m):	166.71	Geology/Water:	Geology
Geology Formation:	Marcellus	Elevation / Top (m):	166.71 / 12.19
Type of Water:	n/a		

Wells and Additional Sources Detail Report

License No:	F014193	Source:	FORM 7
Top (m):	0.03	Static Level (m):	n/a
Elevation (m):	178.87	Geology/Water:	Geology
Geology Formation:	Drift	Elevation / Top (m):	178.87 / 0.03
Type of Water:	n/a		
License No:	F014193	Source:	FORM 7
Top (m):	121.31	Static Level (m):	n/a
Elevation (m):	57.59	Geology/Water:	Geology
Geology Formation:	Grimsby	Elevation / Top (m):	57.59 / 121.31
Type of Water:	n/a		
License No:	F014193	Source:	MNR
Top (m):	20.73	Static Level (m):	n/a
Elevation (m):	158.17	Geology/Water:	Geology
Geology Formation:	B Anhydrite	Elevation / Top (m):	158.17 / 20.73
Type of Water:	n/a		
License No:	F014193	Source:	n/a
Top (m):	NULL	Static Level (m):	5.49
Elevation (m):	n/a	Geology/Water:	Water
Geology Formation:	Guelph	Elevation / Top (m):	n/a / NULL
Type of Water:	Sulphur		
License No:	F014193	Source:	MNR
Top (m):	121.31	Static Level (m):	n/a
Elevation (m):	57.59	Geology/Water:	Geology
Geology Formation:	Grimsby	Elevation / Top (m):	57.59 / 121.31
Type of Water:	n/a		
License No:	F014193	Source:	MNR
Top (m):	144.78	Static Level (m):	n/a
Elevation (m):	34.12	Geology/Water:	Geology
Geology Formation:	Whirlpool	Elevation / Top (m):	34.12 / 144.78
Type of Water:	n/a		
License No:	F014193	Source:	MNR
Top (m):	12.19	Static Level (m):	n/a
Elevation (m):	166.71	Geology/Water:	Geology
Geology Formation:	Marcellus	Elevation / Top (m):	166.71 / 12.19
Type of Water:	n/a		
License No:	F014193	Source:	MNR
Top (m):	138.07	Static Level (m):	n/a
Elevation (m):	40.83	Geology/Water:	Geology
Geology Formation:	Cabot Head	Elevation / Top (m):	40.83 / 138.07
Type of Water:	n/a		

Wells and Additional Sources Detail Report

License No:	F014193	Source:	MNR
Top (m):	151.79	Static Level (m):	n/a
Elevation (m):	27.11	Geology/Water:	Geology
Geology Formation:	Queenston	Elevation / Top (m):	27.11 / 151.79
Type of Water:	n/a		

License No:	F014193	Source:	FORM 7
Top (m):	20.73	Static Level (m):	n/a
Elevation (m):	158.17	Geology/Water:	Geology
Geology Formation:	B Anhydrite	Elevation / Top (m):	158.17 / 20.73
Type of Water:	n/a		

License No:	F014193	Source:	MNR
Top (m):	0.03	Static Level (m):	n/a
Elevation (m):	178.87	Geology/Water:	Geology
Geology Formation:	Drift	Elevation / Top (m):	178.87 / 0.03
Type of Water:	n/a		

License No:	F014193	Source:	MNR
Top (m):	92.96	Static Level (m):	n/a
Elevation (m):	85.94	Geology/Water:	Geology
Geology Formation:	Rochester	Elevation / Top (m):	85.94 / 92.96
Type of Water:	n/a		

License No:	F014193	Source:	n/a
Top (m):	NULL	Static Level (m):	6.71
Elevation (m):	n/a	Geology/Water:	Water
Geology Formation:	B Anhydrite	Elevation / Top (m):	n/a / NULL
Type of Water:	Fresh		

License No:	F014193	Source:	n/a
Top (m):	NULL	Static Level (m):	6.71
Elevation (m):	n/a	Geology/Water:	Water
Geology Formation:	Marcellus	Elevation / Top (m):	n/a / NULL
Type of Water:	Fresh		

License No:	F014193	Source:	FORM 7
Top (m):	92.96	Static Level (m):	n/a
Elevation (m):	85.94	Geology/Water:	Geology
Geology Formation:	Rochester	Elevation / Top (m):	85.94 / 92.96
Type of Water:	n/a		

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
13	S	0.14	142.78	176.94	OOGW

Wells and Additional Sources Detail Report

Licence No:	F014190	Well Compl:	26081
Well ID:	26113	County:	Welland
Well Compl ID:	26081	Block:	NULL
W Class ID:	2362	Lot:	3
UWI Code:	F014190	Conc:	I
Permit Date:	NULL	Surface Lat NAD83:	43.03047361
Depth(m):	153.92	Surface Long NAD83:	-79.13461694
Well Pool:	NULL	Bottom Lat NAD83:	43.03047361
Completion Date:	NULL	Bottom Long NAD83:	-79.13461694
Depth Reached:	1948-05-19 00:00:00	Lot Sides (m):	121.92 S
Capped Date:	1948-05-19 00:00:00	E/W (m):	121.92 W
Class ID:		Latitude Nad27:	
DB Source:		Longitude Nad27:	
Status as of:	June 2020	bottom lat27:	
Start Date:	1948-05-01 00:00:00	bottom long27:	
SPUD Date:	1948-05-01 00:00:00	Lateral:	No
Class:	DEV	Accuracy:	50
Grnd Elev:	153.92	Method:	Well Records (1921 to 1954)
KB Elev:	153.92	Parent:	NULL
TVD:	153.92	Prod Top:	NULL
PBTD:	NULL	Prod Bot:	NULL
TD Form:	Queenston	PROPD Depth:	213.36
Workover D:	NULL	Location Method:	Well Records (1921 to 1954)
Operator:	W. C. Patterson Gas Co. Ltd.	Location Accuracy:	Within 50 metres
Township:	Crowland	Dt Obtained:	NULL
Well Name:	W. C. Patterson Gas Co. A & E Woodgate		
Target:	NULL		
Target Desc:			
Well Status Type:	Dry Hole		
Status Type Desc:	A WELL CLASSIFIED AS EXPLORATORY OR DEVELOPMENT IN WHICH NO HYDROCARBONS HAVE BEEN ENCOUNTERED		
Well Status Mode:	Abandoned Well		
Status Mode Desc:	A WELL WHICH IS OFFICIALLY PLUGGED AND ABANDONED		
Classification:	DEVELOPMENT		
Classification Desc:	"DEVELOPMENT WELL" MEANS A WELL THAT IS DRILLED FOR THE PURPOSE OF PRODUCING FROM OR EXTENDING A POOL OF OIL OR GAS INTO WHICH ANOTHER WELL HAS ALREADY BEEN DRILLED		
Cement Rec:	NULL		
Comments:	Accuracy is approximate and not verified.		

License No:	F014190	Source:	MNR
Top (m):	96.62	Static Level (m):	n/a
Elevation (m):	57.30	Geology/Water:	Geology
Geology Formation:	Rochester	Elevation / Top (m):	57.30 / 96.62
Type of Water:	n/a		

License No:	F014190	Source:	MNR
Top (m):	152.70	Static Level (m):	n/a

Wells and Additional Sources Detail Report

Elevation (m):	1.22	Geology/Water:	Geology
Geology Formation:	Queenston	Elevation / Top (m):	1.22 / 152.70
Type of Water:	n/a		
License No:	F014190	Source:	MNR
Top (m):	138.38	Static Level (m):	n/a
Elevation (m):	15.54	Geology/Water:	Geology
Geology Formation:	Cabot Head	Elevation / Top (m):	15.54 / 138.38
Type of Water:	n/a		
License No:	F014190	Source:	FORM 7
Top (m):	96.62	Static Level (m):	n/a
Elevation (m):	57.30	Geology/Water:	Geology
Geology Formation:	Rochester	Elevation / Top (m):	57.30 / 96.62
Type of Water:	n/a		
License No:	F014190	Source:	FORM 7
Top (m):	21.34	Static Level (m):	n/a
Elevation (m):	132.59	Geology/Water:	Geology
Geology Formation:	B Anhydrite	Elevation / Top (m):	132.59 / 21.34
Type of Water:	n/a		
License No:	F014190	Source:	MNR
Top (m):	123.14	Static Level (m):	n/a
Elevation (m):	30.78	Geology/Water:	Geology
Geology Formation:	Grimsby	Elevation / Top (m):	30.78 / 123.14
Type of Water:	n/a		
License No:	F014190	Source:	MNR
Top (m):	36.58	Static Level (m):	n/a
Elevation (m):	117.34	Geology/Water:	Geology
Geology Formation:	Guelph	Elevation / Top (m):	117.34 / 36.58
Type of Water:	n/a		
License No:	F014190	Source:	FORM 7
Top (m):	111.86	Static Level (m):	n/a
Elevation (m):	42.06	Geology/Water:	Geology
Geology Formation:	Irondequoit	Elevation / Top (m):	42.06 / 111.86
Type of Water:	n/a		
License No:	F014190	Source:	n/a
Top (m):	12.19	Static Level (m):	NULL
Elevation (m):	n/a	Geology/Water:	Water
Geology Formation:	Drift	Elevation / Top (m):	n/a / 12.19
Type of Water:	Fresh		
License No:	F014190	Source:	MNR

Wells and Additional Sources Detail Report

Top (m):	111.86	Static Level (m):	n/a
Elevation (m):	42.06	Geology/Water:	Geology
Geology Formation:	Irondequoit	Elevation / Top (m):	42.06 / 111.86
Type of Water:	n/a		

License No:	F014190	Source:	n/a
Top (m):	12.12	Static Level (m):	6.40
Elevation (m):	n/a	Geology/Water:	Water
Geology Formation:	Drift	Elevation / Top (m):	n/a / 12.12
Type of Water:	Fresh		

License No:	F014190	Source:	MNR
Top (m):	21.34	Static Level (m):	n/a
Elevation (m):	132.58	Geology/Water:	Geology
Geology Formation:	B Anhydrite	Elevation / Top (m):	132.58 / 21.34
Type of Water:	n/a		

License No:	F014190	Source:	FORM 7
Top (m):	152.70	Static Level (m):	n/a
Elevation (m):	1.22	Geology/Water:	Geology
Geology Formation:	Queenston	Elevation / Top (m):	1.22 / 152.70
Type of Water:	n/a		

License No:	F014190	Source:	MNR
Top (m):	147.52	Static Level (m):	n/a
Elevation (m):	6.40	Geology/Water:	Geology
Geology Formation:	Whirlpool	Elevation / Top (m):	6.40 / 147.52
Type of Water:	n/a		

License No:	F014190	Source:	FORM 7
Top (m):	123.14	Static Level (m):	n/a
Elevation (m):	30.78	Geology/Water:	Geology
Geology Formation:	Grimsby	Elevation / Top (m):	30.78 / 123.14
Type of Water:	n/a		

License No:	F014190	Source:	FORM 7
Top (m):	147.52	Static Level (m):	n/a
Elevation (m):	6.40	Geology/Water:	Geology
Geology Formation:	Whirlpool	Elevation / Top (m):	6.40 / 147.52
Type of Water:	n/a		

License No:	F014190	Source:	FORM 7
Top (m):	36.58	Static Level (m):	n/a
Elevation (m):	117.35	Geology/Water:	Geology
Geology Formation:	Guelph	Elevation / Top (m):	117.35 / 36.58
Type of Water:	n/a		

Wells and Additional Sources Detail Report

License No:	F014190	Source:	FORM 7
Top (m):	138.38	Static Level (m):	n/a
Elevation (m):	15.54	Geology/Water:	Geology
Geology Formation:	Cabot Head	Elevation / Top (m):	15.54 / 138.38
Type of Water:	n/a		

License No:	F014190	Source:	n/a
Top (m):	20.73	Static Level (m):	NULL
Elevation (m):	n/a	Geology/Water:	Water
Geology Formation:	A-2 Carbonate	Elevation / Top (m):	n/a / 20.73
Type of Water:	Sulphur		

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
18	WSW	0.23	227.73	177.95	OOGW

Licence No:	F014144	Well Compl:	26072
Well ID:	26063	County:	Welland
Well Compl ID:	26072	Block:	NULL
W Class ID:	2362	Lot:	5
UWI Code:	F014144	Conc:	ABF
Permit Date:	NULL	Surface Lat NAD83:	43.03789500
Depth(m):	141.43	Surface Long NAD83:	-79.14611111
Well Pool:	NULL	Bottom Lat NAD83:	43.03789500
Completion Date:	NULL	Bottom Long NAD83:	-79.14611111
Depth Reached:	1948-08-20 00:00:00	Lot Sides (m):	698.80 N
Capped Date:	NULL	E/W (m):	212.80 W
Class ID:		Latitude Nad27:	
DB Source:		Longitude Nad27:	
Status as of:	June 2020	bottom lat27:	
Start Date:	1948-07-28 00:00:00	bottom long27:	
SPUD Date:	1948-07-28 00:00:00	Lateral:	No
Class:	DEV	Accuracy:	50
Grnd Elev:	141.43	Method:	Well Records (1921 to 1954)
KB Elev:	141.43	Parent:	NULL
TVD:	141.43	Prod Top:	110.03
PBTD:	NULL	Prod Bot:	125.27
TD Form:	Queenston	PROPD Depth:	152.40
Workover D:	NULL	Location Method:	Well Records (1921 to 1954)
Operator:	W. C. Patterson Gas Co. Ltd.	Location Accuracy:	Within 50 metres
Township:	Crowland	Dt Obtained:	NULL
Well Name:	W.C. Patterson C.A. Biggar #2		
Target:	CLI		
Target Desc:	TARGETS WITHIN THE CLINTON AND CATARACT (OR MEDINA) GROUPS (WHIRLPOOL TO IRONDEQUOIT FORMATIONS INCLUSIVE)		
Well Status Type:	Natural Gas Well		
Status Type Desc:	A WELL PRESENTLY OR FORMERLY USED TO PRODUCE NATURAL GAS FROM A RESERVOIR		
Well Status Mode:	Unknown		

Wells and Additional Sources Detail Report

Status Mode Desc:
 Classification: DEVELOPMENT
 Classification Desc: "DEVELOPMENT WELL" MEANS A WELL THAT IS DRILLED FOR THE PURPOSE OF PRODUCING FROM OR EXTENDING A POOL OF OIL OR GAS INTO WHICH ANOTHER WELL HAS ALREADY BEEN DRILLED
 Cement Rec: NULL
 Comments: Accuracy is approximate and not verified.

License No:	F014144	Source:	FORM 7
Top (m):	125.27	Static Level (m):	n/a
Elevation (m):	16.15	Geology/Water:	Geology
Geology Formation:	Cabot Head	Elevation / Top (m):	16.15 / 125.27
Type of Water:	n/a		

License No:	F014144	Source:	n/a
Top (m):	12.80	Static Level (m):	NULL
Elevation (m):	n/a	Geology/Water:	Water
Geology Formation:	Drift	Elevation / Top (m):	n/a / 12.80
Type of Water:	Fresh		

License No:	F014144	Source:	MNR
Top (m):	32.60	Static Level (m):	n/a
Elevation (m):	108.83	Geology/Water:	Geology
Geology Formation:	Guelph	Elevation / Top (m):	108.83 / 32.60
Type of Water:	n/a		

License No:	F014144	Source:	n/a
Top (m):	0.00	Static Level (m):	NULL
Elevation (m):	n/a	Geology/Water:	Water
Geology Formation:	Drift	Elevation / Top (m):	n/a / 0.00
Type of Water:	Fresh		

License No:	F014144	Source:	MNR
Top (m):	81.08	Static Level (m):	n/a
Elevation (m):	60.35	Geology/Water:	Geology
Geology Formation:	Rochester	Elevation / Top (m):	60.35 / 81.08
Type of Water:	n/a		

License No:	F014144	Source:	n/a
Top (m):	29.26	Static Level (m):	NULL
Elevation (m):	n/a	Geology/Water:	Water
Geology Formation:	Drift	Elevation / Top (m):	n/a / 29.26
Type of Water:	Sulphur		

License No:	F014144	Source:	MNR
Top (m):	132.59	Static Level (m):	n/a
Elevation (m):	8.84	Geology/Water:	Geology

Wells and Additional Sources Detail Report

Geology Formation:	Whirlpool	Elevation / Top (m):	8.84 / 132.59
Type of Water:	n/a		
License No:	F014144	Source:	FORM 7
Top (m):	81.08	Static Level (m):	n/a
Elevation (m):	60.35	Geology/Water:	Geology
Geology Formation:	Rochester	Elevation / Top (m):	60.35 / 81.08
Type of Water:	n/a		
License No:	F014144	Source:	FORM 7
Top (m):	132.59	Static Level (m):	n/a
Elevation (m):	8.84	Geology/Water:	Geology
Geology Formation:	Whirlpool	Elevation / Top (m):	8.84 / 132.59
Type of Water:	n/a		
License No:	F014144	Source:	FORM 7
Top (m):	29.60	Static Level (m):	n/a
Elevation (m):	111.83	Geology/Water:	Geology
Geology Formation:	A-2 Carbonate	Elevation / Top (m):	111.83 / 29.60
Type of Water:	n/a		
License No:	F014144	Source:	MNR
Top (m):	99.36	Static Level (m):	n/a
Elevation (m):	42.06	Geology/Water:	Geology
Geology Formation:	Irondequoit	Elevation / Top (m):	42.06 / 99.36
Type of Water:	n/a		
License No:	F014144	Source:	MNR
Top (m):	140.21	Static Level (m):	n/a
Elevation (m):	1.22	Geology/Water:	Geology
Geology Formation:	Queenston	Elevation / Top (m):	1.22 / 140.21
Type of Water:	n/a		
License No:	F014144	Source:	n/a
Top (m):	21.95	Static Level (m):	NULL
Elevation (m):	n/a	Geology/Water:	Water
Geology Formation:	Drift	Elevation / Top (m):	n/a / 21.95
Type of Water:	Sulphur		
License No:	F014144	Source:	MNR
Top (m):	29.60	Static Level (m):	n/a
Elevation (m):	111.83	Geology/Water:	Geology
Geology Formation:	A-2 Carbonate	Elevation / Top (m):	111.83 / 29.60
Type of Water:	n/a		
License No:	F014144	Source:	MNR
Top (m):	110.03	Static Level (m):	n/a

Wells and Additional Sources Detail Report

Elevation (m):	31.39	Geology/Water:	Geology
Geology Formation:	Grimsby	Elevation / Top (m):	31.39 / 110.03
Type of Water:	n/a		

License No:	F014144	Source:	FORM 7
Top (m):	99.36	Static Level (m):	n/a
Elevation (m):	42.06	Geology/Water:	Geology
Geology Formation:	Irondequoit	Elevation / Top (m):	42.06 / 99.36
Type of Water:	n/a		

License No:	F014144	Source:	FORM 7
Top (m):	140.21	Static Level (m):	n/a
Elevation (m):	1.22	Geology/Water:	Geology
Geology Formation:	Queenston	Elevation / Top (m):	1.22 / 140.21
Type of Water:	n/a		

License No:	F014144	Source:	FORM 7
Top (m):	32.61	Static Level (m):	n/a
Elevation (m):	108.81	Geology/Water:	Geology
Geology Formation:	Guelph	Elevation / Top (m):	108.81 / 32.61
Type of Water:	n/a		

License No:	F014144	Source:	FORM 7
Top (m):	110.03	Static Level (m):	n/a
Elevation (m):	31.39	Geology/Water:	Geology
Geology Formation:	Grimsby	Elevation / Top (m):	31.39 / 110.03
Type of Water:	n/a		

License No:	F014144	Source:	MNR
Top (m):	125.27	Static Level (m):	n/a
Elevation (m):	16.15	Geology/Water:	Geology
Geology Formation:	Cabot Head	Elevation / Top (m):	16.15 / 125.27
Type of Water:	n/a		

Water Well Information System

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
1	-	0.00	0.00	181.50	WWIS

Well ID:	6600619	Data Entry Status:	
Construction Date:		Data Src:	1
Primary Water Use:	Domestic	Date Received:	12/7/1960
Sec. Water Use:	0	Selected Flag:	True
Final Well Status:	Water Supply	Abandonment Rec:	
Water Type:		Contractor:	5425
Casing Material:		Form Version:	1
Audit No:		Owner:	
Tag:		Street Name:	

Wells and Additional Sources Detail Report

Construction Method:	County:	NIAGARA
Elevation (m):	Municipality:	NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:	Site Info:	
Depth to Bedrock:	Lot:	003
Well Depth:	Concession:	
Overburden/Bedrock:	Concession Name:	BF
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/660\6600619.pdf

Well Completed Date: 1960/08/26
 Year Completed: 1960
 Depth (m): 31.3944
 Latitude: 43.041119492753
 Longitude: -79.1338171511863
 Path: 660\6600619.pdf

Bore Hole ID: 10460353	Elevation: 175.633911
DP2BR: 92.00	Elevrc:
Spatial Status:	Zone: 17
Code OB: r	East83: 652009.90
Code OB Desc: Bedrock	North83: 4767071.00
Open Hole:	Org CS:
Cluster Kind:	UTMRC: 5
Date Completed: 26-Aug-1960 00:00:00	UTMRC Desc: margin of error : 100 m - 300 m
Remarks:	Location Method: p5
Elevrc Desc:	
Location Source Date:	
Improvement Location Source:	
Improvement Location Method:	
Source Revision:	
Comment:	
Supplier Comment:	

Formation ID: 932589424
 Layer: 2
 Color: 6
 General Color: BROWN
 Mat1: 05
 Most Common Material: CLAY

Wells and Additional Sources Detail Report

Mat2:

Mat2 Desc:

Mat3:

Mat3 Desc:

Formation Top Depth: 1.0

Formation End Depth: 17.0

Formation End Depth ft

UOM:

Formation ID: 932589423

Layer: 1

Color:

General Color:

Mat1: 02

Most Common Material: TOPSOIL

Mat2:

Mat2 Desc:

Mat3:

Mat3 Desc:

Formation Top Depth: 0.0

Formation End Depth: 1.0

Formation End Depth ft

UOM:

Formation ID: 932589425

Layer: 3

Color: 3

General Color: BLUE

Mat1: 05

Most Common Material: CLAY

Mat2:

Mat2 Desc:

Mat3:

Mat3 Desc:

Formation Top Depth: 17.0

Formation End Depth: 50.0

Formation End Depth ft

UOM:

Formation ID: 932589428

Layer: 6

Color:

General Color:

Mat1: 15

Most Common Material: LIMESTONE

Mat2:

Wells and Additional Sources Detail Report

Mat2 Desc:

Mat3:

Mat3 Desc:

Formation Top Depth: 92.0

Formation End Depth: 103.0

Formation End Depth UOM: ft

Formation ID: 932589426

Layer: 4

Color:

General Color:

Mat1: 09

Most Common Material: MEDIUM SAND

Mat2:

Mat2 Desc:

Mat3:

Mat3 Desc:

Formation Top Depth: 50.0

Formation End Depth: 83.0

Formation End Depth UOM: ft

Formation ID: 932589427

Layer: 5

Color:

General Color:

Mat1: 11

Most Common Material: GRAVEL

Mat2:

Mat2 Desc:

Mat3:

Mat3 Desc:

Formation Top Depth: 83.0

Formation End Depth: 92.0

Formation End Depth UOM: ft

Method Construction ID: 966600619

Method Construction Code: 1

Method Construction: Cable Tool

Other Method Construction:

Pipe ID: 11008923

Wells and Additional Sources Detail Report

Casing No: 1
Comment:
Alt Name:

Casing ID: 930747644
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 92
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Casing ID: 930747645
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 103
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Pump Test ID: 996600619
Pump Set At:
Static Level: 17.0
Final Level After Pumping: 80.0
Recommended Pump
Depth: 80.0
Pumping Rate: 2.0
Flowing Rate:
Recommended Pump
Rate: 2.0
Levels UOM: ft
Rate UOM: GPM
Water State After Test
Code: 2
Water State After Test: CLOUDY
Pumping Test Method: 1
Pumping Duration HR: 0
Pumping Duration MIN: 30
Flowing: No

Water ID: 933947887

Wells and Additional Sources Detail Report

Layer: 1
 Kind Code: 3
 Kind: SULPHUR
 Water Found Depth: 100.0
 Water Found Depth UOM: ft

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
2	-	0.00	0.00	174.82	WWIS

Well ID:	7352103	Data Entry Status:	
Construction Date:		Data Src:	
Primary Water Use:	Monitoring	Date Received:	1/27/2020
Sec. Water Use:		Selected Flag:	True
Final Well Status:	Observation Wells	Abandonment Rec:	
Water Type:		Contractor:	6607
Casing Material:		Form Version:	9
Audit No:	YDGYB4DO	Owner:	
Tag:	A286752	Street Name:	8547 Grassy Brook Rd
Construction Method:		County:	NIAGARA
Elevation (m):		Municipality:	NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:		Site Info:	BW 19-1
Depth to Bedrock:		Lot:	002
Well Depth:		Concession:	
Overburden/Bedrock:		Concession Name:	BF
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/735\7352103.pdf

Well Completed Date: 2019/12/10
 Year Completed: 2019
 Depth (m): 8.8
 Latitude: 43.0452213411566
 Longitude: -79.1318990727809
 Path: 735\7352103.pdf

Bore Hole ID:	1007988085	Elevation:	
DP2BR:		Elevrc:	
Spatial Status:		Zone:	17
Code OB:		East83:	652156.00
Code OB Desc:		North83:	4767530.00

Wells and Additional Sources Detail Report

Open Hole: Org CS: UTM83
Cluster Kind: UTMRC: 4
Date Completed: 10-Dec-2019 00:00:00 UTMRC Desc: margin of error : 30 m - 100 m
Remarks: Location Method: wwr
Elevrc Desc:
Location Source Date:
Improvement Location
Source:
Improvement Location
Method:
Source Revision
Comment:
Supplier Comment:

Formation ID: 1007988974
Layer: 1
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3: 73
Mat3 Desc: HARD
Formation Top Depth: 0.0
Formation End Depth: 3.0
Formation End Depth
UOM: m

Formation ID: 1007988975
Layer: 2
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3: 73
Mat3 Desc: HARD
Formation Top Depth: 3.0
Formation End Depth: 7.599999904632568
Formation End Depth
UOM: m

Formation ID: 1007988976
Layer: 3
Color: 2

Wells and Additional Sources Detail Report

General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3: 85
Mat3 Desc: SOFT
Formation Top Depth: 7.599999904632568
Formation End Depth: 8.800000190734863
Formation End Depth UOM: m

Plug ID: 1007989830
Layer: 1
Plug From: 0
Plug To: 0.300000011920929
Plug Depth UOM: m

Plug ID: 1007989520
Layer: 1
Plug From:
Plug To:
Plug Depth UOM: m

Plug ID: 1007989831
Layer: 2
Plug From: 0.300000011920929
Plug To: 6.69999980926514
Plug Depth UOM: m

Method Construction ID: 1007988499
Method Construction Code: 6
Method Construction: Boring
Other Method Construction:

Pipe ID: 1007988380
Casing No: 0
Comment:
Alt Name:

Screen ID: 1007989255

Wells and Additional Sources Detail Report

Layer: 1
 Slot: 10
 Screen Top Depth: 7.30000019073486
 Screen End Depth: 8.80000019073486
 Screen Material: 5
 Screen Depth UOM: m
 Screen Diameter UOM: cm
 Screen Diameter: 6.40000009536743

Pump Test ID: 1007988381

Pump Set At:

Static Level:

Final Level After Pumping:

Recommended Pump

Depth:

Pumping Rate:

Flowing Rate:

Recommended Pump

Rate:

Levels UOM: m

Rate UOM: LPM

Water State After Test

Code:

Water State After Test:

Pumping Test Method:

Pumping Duration HR:

Pumping Duration MIN:

Flowing:

Hole ID: 1007989374

Diameter: 21.0

Depth From: 0.0

Depth To: 8.800000190734863

Hole Depth UOM: m

Hole Diameter UOM: cm

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
3	-	0.00	0.00	153.92	WWIS

Well ID: 7289552

Data Entry Status: Yes

Construction Date:

Data Src:

Primary Water Use:

Date Received: 7/5/2017

Sec. Water Use:

Selected Flag: True

Final Well Status:

Abandonment Rec:

Water Type:

Contractor: 7215

Casing Material:

Form Version: 8

Wells and Additional Sources Detail Report

Audit No:	C37316	Owner:	
Tag:		Street Name:	
Construction Method:		County:	NIAGARA
Elevation (m):		Municipality:	NIAGARA FALLS CITY (CROWLAND)
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):

Well Completed Date: 2017/05/18
 Year Completed: 2017
 Depth (m):
 Latitude: 43.0448357335389
 Longitude: -79.1386263828336
 Path:

Bore Hole ID:	1006602828	Elevation:	151.436645
DP2BR:		Elevrc:	
Spatial Status:		Zone:	17
Code OB:		East83:	651609.00
Code OB Desc:		North83:	4767475.00
Open Hole:		Org CS:	UTM83
Cluster Kind:		UTMRC:	4
Date Completed:	18-May-2017 00:00:00	UTMRC Desc:	margin of error : 30 m - 100 m
Remarks:		Location Method:	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
4	-	0.00	0.00	159.58	WWIS

Well ID: 6600615 Data Entry Status:

Wells and Additional Sources Detail Report

Construction Date:		Data Src:	1
Primary Water Use:	Not Used	Date Received:	1/6/1961
Sec. Water Use:	0	Selected Flag:	True
Final Well Status:	Test Hole	Abandonment Rec:	
Water Type:		Contractor:	2801
Casing Material:		Form Version:	1
Audit No:		Owner:	
Tag:		Street Name:	
Construction Method:		County:	NIAGARA
Elevation (m):		Municipality:	NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:		Site Info:	
Depth to Bedrock:		Lot:	003
Well Depth:		Concession:	
Overburden/Bedrock:		Concession Name:	BF
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/660\6600615.pdf

Well Completed Date: 1960/07/08
Year Completed: 1960
Depth (m): 25.6032
Latitude: 43.0454244026738
Longitude: -79.1371733651039
Path: 660\6600615.pdf

Bore Hole ID:	10460349	Elevation:	162.610549
DP2BR:	83.00	Elevrc:	
Spatial Status:		Zone:	17
Code OB:	r	East83:	651725.90
Code OB Desc:	Bedrock	North83:	4767543.00
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	5
Date Completed:	08-Jul-1960 00:00:00	UTMRC Desc:	margin of error : 100 m - 300 m
Remarks:		Location Method:	p5
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision			
Comment:			
Supplier Comment:			

Wells and Additional Sources Detail Report

Formation ID: 932589403
Layer: 5
Color:
General Color:
Mat1: 05
Most Common Material: CLAY
Mat2: 11
Mat2 Desc: GRAVEL
Mat3: 13
Mat3 Desc: BOULDERS
Formation Top Depth: 42.0
Formation End Depth: 45.0
Formation End Depth UOM: ft

Formation ID: 932589399
Layer: 1
Color:
General Color:
Mat1: 02
Most Common Material: TOPSOIL
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 1.0
Formation End Depth UOM: ft

Formation ID: 932589408
Layer: 10
Color:
General Color:
Mat1: 05
Most Common Material: CLAY
Mat2: 13
Mat2 Desc: BOULDERS
Mat3:
Mat3 Desc:
Formation Top Depth: 81.0
Formation End Depth: 83.0
Formation End Depth UOM: ft

Wells and Additional Sources Detail Report

Formation ID: 932589401
Layer: 3
Color: 7
General Color: RED
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 9.0
Formation End Depth: 26.0
Formation End Depth UOM: ft

Formation ID: 932589406
Layer: 8
Color:
General Color:
Mat1: 05
Most Common Material: CLAY
Mat2: 11
Mat2 Desc: GRAVEL
Mat3: 13
Mat3 Desc: BOULDERS
Formation Top Depth: 64.0
Formation End Depth: 76.0
Formation End Depth UOM: ft

Formation ID: 932589402
Layer: 4
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 26.0
Formation End Depth: 42.0
Formation End Depth UOM: ft

Wells and Additional Sources Detail Report

Formation ID: 932589407
Layer: 9
Color:
General Color:
Mat1: 11
Most Common Material: GRAVEL
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 76.0
Formation End Depth: 81.0
Formation End Depth UOM: ft

Formation ID: 932589404
Layer: 6
Color: 7
General Color: RED
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 45.0
Formation End Depth: 50.0
Formation End Depth UOM: ft

Formation ID: 932589400
Layer: 2
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 1.0
Formation End Depth: 9.0
Formation End Depth UOM: ft

Formation ID: 932589405

Wells and Additional Sources Detail Report

Layer: 7
Color:
General Color:
Mat1: 05
Most Common Material: CLAY
Mat2: 11
Mat2 Desc: GRAVEL
Mat3:
Mat3 Desc:
Formation Top Depth: 50.0
Formation End Depth: 64.0
Formation End Depth UOM: ft

Formation ID: 932589409
Layer: 11
Color:
General Color:
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 83.0
Formation End Depth: 84.0
Formation End Depth UOM: ft

Method Construction ID: 966600615
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe ID: 11008919
Casing No: 1
Comment:
Alt Name:

Casing ID: 930747638
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:

Wells and Additional Sources Detail Report

Depth To: 75
 Casing Diameter: 5
 Casing Diameter UOM: inch
 Casing Depth UOM: ft

Screen ID: 933385506
 Layer: 1
 Slot:
 Screen Top Depth: 75
 Screen End Depth: 78
 Screen Material:
 Screen Depth UOM: ft
 Screen Diameter UOM: inch
 Screen Diameter:

Pump Test ID: 996600615
 Pump Set At:
 Static Level: 10.0
 Final Level After Pumping: 30.0
 Recommended Pump
 Depth:
 Pumping Rate: 14.0
 Flowing Rate:
 Recommended Pump
 Rate:
 Levels UOM: ft
 Rate UOM: GPM
 Water State After Test
 Code: 2
 Water State After Test: CLOUDY
 Pumping Test Method: 1
 Pumping Duration HR: 8
 Pumping Duration MIN: 0
 Flowing: No

Water ID: 933947883
 Layer: 1
 Kind Code: 1
 Kind: FRESH
 Water Found Depth: 75.0
 Water Found Depth UOM: ft

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
5	-	0.00	0.00	176.83	WWIS

Wells and Additional Sources Detail Report

Well ID:	6600617	Data Entry Status:	
Construction Date:		Data Src:	1
Primary Water Use:	Domestic	Date Received:	7/19/1956
Sec. Water Use:	0	Selected Flag:	True
Final Well Status:	Water Supply	Abandonment Rec:	
Water Type:		Contractor:	5425
Casing Material:		Form Version:	1
Audit No:		Owner:	
Tag:		Street Name:	
Construction Method:		County:	NIAGARA
Elevation (m):		Municipality:	NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:		Site Info:	
Depth to Bedrock:		Lot:	003
Well Depth:		Concession:	
Overburden/Bedrock:		Concession Name:	BF
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/660\6600617.pdf

Well Completed Date: 1956/05/29
Year Completed: 1956
Depth (m): 24.0792
Latitude: 43.031910440721
Longitude: -79.1345381736084
Path: 660\6600617.pdf

Bore Hole ID:	10460351	Elevation:	177.264419
DP2BR:		Elevrc:	
Spatial Status:		Zone:	17
Code OB:	o	East83:	651973.90
Code OB Desc:	Overburden	North83:	4766047.00
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	9
Date Completed:	29-May-1956 00:00:00	UTMRC Desc:	unknown UTM
Remarks:		Location Method:	p9
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision			
Comment:			

Wells and Additional Sources Detail Report

Supplier Comment:

Formation ID: 932589413
Layer: 1
Color:
General Color:
Mat1: 02
Most Common Material: TOPSOIL
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 1.0
Formation End Depth UOM: ft

Formation ID: 932589416
Layer: 4
Color:
General Color:
Mat1: 09
Most Common Material: MEDIUM SAND
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 33.0
Formation End Depth: 70.0
Formation End Depth UOM: ft

Formation ID: 932589417
Layer: 5
Color:
General Color:
Mat1: 05
Most Common Material: CLAY
Mat2: 12
Mat2 Desc: STONES
Mat3:
Mat3 Desc:
Formation Top Depth: 70.0
Formation End Depth: 75.0
Formation End Depth UOM: ft

Wells and Additional Sources Detail Report

Formation ID: 932589414
Layer: 2
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 1.0
Formation End Depth: 17.0
Formation End Depth UOM: ft

Formation ID: 932589415
Layer: 3
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 17.0
Formation End Depth: 33.0
Formation End Depth UOM: ft

Formation ID: 932589418
Layer: 6
Color:
General Color:
Mat1: 11
Most Common Material: GRAVEL
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 75.0
Formation End Depth: 79.0
Formation End Depth UOM: ft

Wells and Additional Sources Detail Report

Method Construction ID: 966600617
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe ID: 11008921
Casing No: 1
Comment:
Alt Name:

Casing ID: 930747641
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 79
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Pump Test ID: 996600617
Pump Set At:
Static Level: 12.0
Final Level After Pumping: 19.0
Recommended Pump Depth:
Pumping Rate: 12.0
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2
Water State After Test: CLOUDY
Pumping Test Method: 1
Pumping Duration HR: 0
Pumping Duration MIN: 30
Flowing: No

Water ID: 933947885
Layer: 1
Kind Code: 3

Wells and Additional Sources Detail Report

Kind: SULPHUR
 Water Found Depth: 79.0
 Water Found Depth UOM: ft

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
6	-	0.00	0.00	176.83	WWIS

Well ID:	7352071	Data Entry Status:	
Construction Date:		Data Src:	
Primary Water Use:	Monitoring	Date Received:	1/27/2020
Sec. Water Use:		Selected Flag:	True
Final Well Status:	Observation Wells	Abandonment Rec:	
Water Type:		Contractor:	6607
Casing Material:		Form Version:	9
Audit No:	JVIA8GX	Owner:	
Tag:	A286754	Street Name:	8547 Grassy Brook Rd
Construction Method:		County:	NIAGARA
Elevation (m):		Municipality:	NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:		Site Info:	BW 19-2
Depth to Bedrock:		Lot:	003
Well Depth:		Concession:	
Overburden/Bedrock:		Concession Name:	BF
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/735\7352071.pdf

Well Completed Date: 2019/12/11
 Year Completed: 2019
 Depth (m): 8.8
 Latitude: 43.0319260108499
 Longitude: -79.1332844671665
 Path: 735\7352071.pdf

Bore Hole ID:	1007987989	Elevation:	
DP2BR:		Elevrc:	
Spatial Status:		Zone:	17
Code OB:		East83:	652076.00
Code OB Desc:		North83:	4766051.00
Open Hole:		Org CS:	UTM83
Cluster Kind:		UTMRC:	4

Wells and Additional Sources Detail Report

Date Completed: 11-Dec-2019 00:00:00 UTMRC Desc: margin of error : 30 m - 100 m
Remarks: Location Method: wwr
Elevrc Desc:
Location Source Date:
Improvement Location
Source:
Improvement Location
Method:
Source Revision
Comment:
Supplier Comment:

Formation ID: 1007988884
Layer: 3
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3: 85
Mat3 Desc: SOFT
Formation Top Depth: 6.0
Formation End Depth: 8.800000190734863
Formation End Depth
UOM: m

Formation ID: 1007988883
Layer: 2
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3: 73
Mat3 Desc: HARD
Formation Top Depth: 3.0
Formation End Depth: 6.0
Formation End Depth
UOM: m

Formation ID: 1007988882
Layer: 1
Color: 6
General Color: BROWN
Mat1: 05

Wells and Additional Sources Detail Report

Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3: 73
Mat3 Desc: HARD
Formation Top Depth: 0.0
Formation End Depth: 3.0
Formation End Depth UOM: m

Plug ID: 1007989705
Layer: 2
Plug From: 0.300000011920929
Plug To: 6.69999980926514
Plug Depth UOM: m

Plug ID: 1007989704
Layer: 1
Plug From: 0
Plug To: 0.300000011920929
Plug Depth UOM: m

Plug ID: 1007989488
Layer: 1
Plug From:
Plug To:
Plug Depth UOM: m

Method Construction ID: 1007988469
Method Construction Code: 6
Method Construction: Boring
Other Method Construction:

Pipe ID: 1007988316
Casing No: 0
Comment:
Alt Name:

Screen ID: 1007989226
Layer: 1
Slot: 10

Wells and Additional Sources Detail Report

Screen Top Depth: 7.30000019073486
 Screen End Depth: 8.80000019073486
 Screen Material: 5
 Screen Depth UOM: m
 Screen Diameter UOM: cm
 Screen Diameter: 6.40000009536743

Pump Test ID: 1007988317
 Pump Set At:
 Static Level:
 Final Level After Pumping:
 Recommended Pump
 Depth:
 Pumping Rate:
 Flowing Rate:
 Recommended Pump
 Rate:
 Levels UOM: m
 Rate UOM: LPM
 Water State After Test
 Code:
 Water State After Test:
 Pumping Test Method:
 Pumping Duration HR:
 Pumping Duration MIN:
 Flowing:

Hole ID: 1007989340
 Diameter: 21.0
 Depth From: 0.0
 Depth To: 8.800000190734863
 Hole Depth UOM: m
 Hole Diameter UOM: cm

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
7	SSW	0.06	56.76	177.83	WWIS

Well ID: 6600625	Data Entry Status:
Construction Date:	Data Src: 1
Primary Water Use: Livestock	Date Received: 7/19/1956
Sec. Water Use: Domestic	Selected Flag: True
Final Well Status: Water Supply	Abandonment Rec:
Water Type:	Contractor: 5425
Casing Material:	Form Version: 1
Audit No:	Owner:
Tag:	Street Name:

Wells and Additional Sources Detail Report

Construction Method:	County:	NIAGARA
Elevation (m):	Municipality:	NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:	Site Info:	
Depth to Bedrock:	Lot:	004
Well Depth:	Concession:	01
Overburden/Bedrock:	Concession Name:	CON
Pump Rate:	Easting NAD83:	
Static Water Level:	Northing NAD83:	
Flowing (Y/N):	Zone:	
Flow Rate:	UTM Reliability:	
Clear/Cloudy:		

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/660\6600625.pdf

Well Completed Date: 1956/05/14
 Year Completed: 1956
 Depth (m): 17.6784
 Latitude: 43.0312074467121
 Longitude: -79.1411385713267
 Path: 660\6600625.pdf

Bore Hole ID: 10460359	Elevation: 178.962265
DP2BR: 47.00	Elevrc:
Spatial Status:	Zone: 17
Code OB: r	East83: 651437.90
Code OB Desc: Bedrock	North83: 4765957.00
Open Hole:	Org CS:
Cluster Kind:	UTMRC: 9
Date Completed: 14-May-1956 00:00:00	UTMRC Desc: unknown UTM
Remarks:	Location Method: p9
Elevrc Desc:	
Location Source Date:	
Improvement Location Source:	
Improvement Location Method:	
Source Revision:	
Comment:	
Supplier Comment:	

Formation ID: 932589451
 Layer: 3
 Color: 3
 General Color: BLUE
 Mat1: 05
 Most Common Material: CLAY

Wells and Additional Sources Detail Report

Mat2:

Mat2 Desc:

Mat3:

Mat3 Desc:

Formation Top Depth: 17.0

Formation End Depth: 47.0

Formation End Depth
UOM: ft

Formation ID: 932589449

Layer: 1

Color:

General Color:

Mat1: 02

Most Common Material: TOPSOIL

Mat2:

Mat2 Desc:

Mat3:

Mat3 Desc:

Formation Top Depth: 0.0

Formation End Depth: 2.0

Formation End Depth
UOM: ft

Formation ID: 932589452

Layer: 4

Color: 6

General Color: BROWN

Mat1: 15

Most Common Material: LIMESTONE

Mat2:

Mat2 Desc:

Mat3:

Mat3 Desc:

Formation Top Depth: 47.0

Formation End Depth: 58.0

Formation End Depth
UOM: ft

Formation ID: 932589450

Layer: 2

Color: 6

General Color: BROWN

Mat1: 05

Most Common Material: CLAY

Mat2:

Wells and Additional Sources Detail Report

Mat2 Desc:

Mat3:

Mat3 Desc:

Formation Top Depth: 2.0

Formation End Depth: 17.0

Formation End Depth ft

UOM:

Method Construction ID: 966600625

Method Construction Code: 1

Method Construction: Cable Tool

Other Method

Construction:

Pipe ID: 11008929

Casing No: 1

Comment:

Alt Name:

Casing ID: 930747656

Layer: 2

Material: 4

Open Hole or Material: OPEN HOLE

Depth From:

Depth To: 58

Casing Diameter: 6

Casing Diameter UOM: inch

Casing Depth UOM: ft

Casing ID: 930747655

Layer: 1

Material: 1

Open Hole or Material: STEEL

Depth From:

Depth To: 48

Casing Diameter: 6

Casing Diameter UOM: inch

Casing Depth UOM: ft

Pump Test ID: 996600625

Pump Set At:

Static Level: 19.0

Final Level After Pumping: 24.0

Wells and Additional Sources Detail Report

Recommended Pump
 Depth:
 Pumping Rate: 8.0
 Flowing Rate:
 Recommended Pump
 Rate:
 Levels UOM: ft
 Rate UOM: GPM
 Water State After Test 2
 Code:
 Water State After Test: CLOUDY
 Pumping Test Method: 1
 Pumping Duration HR: 0
 Pumping Duration MIN: 30
 Flowing: No

Water ID: 933947893
 Layer: 1
 Kind Code: 1
 Kind: FRESH
 Water Found Depth: 56.0
 Water Found Depth UOM: ft

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
8	SSE	0.06	62.27	176.83	WWIS

Well ID: 6600616	Data Entry Status:
Construction Date:	Data Src: 1
Primary Water Use: Domestic	Date Received: 11/21/1960
Sec. Water Use: 0	Selected Flag: True
Final Well Status: Water Supply	Abandonment Rec:
Water Type:	Contractor: 4720
Casing Material:	Form Version: 1
Audit No:	Owner:
Tag:	Street Name:
Construction Method:	County: NIAGARA
Elevation (m):	Municipality: NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:	Site Info:
Depth to Bedrock:	Lot: 002
Well Depth:	Concession:
Overburden/Bedrock:	Concession Name: BF
Pump Rate:	Easting NAD83:
Static Water Level:	Northing NAD83:
Flowing (Y/N):	Zone:
Flow Rate:	UTM Reliability:
Clear/Cloudy:	

Wells and Additional Sources Detail Report

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/660\6600616.pdf

Well Completed Date: 1960/11/16
Year Completed: 1960
Depth (m): 20.4216
Latitude: 43.031952009658
Longitude: -79.1321188207846
Path: 660\6600616.pdf

Bore Hole ID:	10460350	Elevation:	177.788757
DP2BR:	62.00	Elevrc:	
Spatial Status:		Zone:	17
Code OB:	r	East83:	652170.90
Code OB Desc:	Bedrock	North83:	4766056.00
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	5
Date Completed:	16-Nov-1960 00:00:00	UTMRC Desc:	margin of error : 100 m - 300 m
Remarks:		Location Method:	p5
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Formation ID: 932589411
Layer: 2
Color:
General Color:
Mat1: 11
Most Common Material: GRAVEL
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 49.0
Formation End Depth: 62.0
Formation End Depth UOM: ft

Formation ID: 932589412
Layer: 3
Color:

Wells and Additional Sources Detail Report

General Color:

Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 62.0
Formation End Depth: 67.0
Formation End Depth UOM: ft

Formation ID: 932589410
Layer: 1
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 49.0
Formation End Depth UOM: ft

Method Construction ID: 966600616
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe ID: 11008920
Casing No: 1
Comment:
Alt Name:

Casing ID: 930747640
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 67
Casing Diameter: 6

Wells and Additional Sources Detail Report

Casing Diameter UOM: inch
 Casing Depth UOM: ft

 Casing ID: 930747639
 Layer: 1
 Material: 1
 Open Hole or Material: STEEL
 Depth From:
 Depth To: 62
 Casing Diameter: 6
 Casing Diameter UOM: inch
 Casing Depth UOM: ft

Pump Test ID: 996600616
 Pump Set At:
 Static Level: 28.0
 Final Level After Pumping: 28.0
 Recommended Pump
 Depth: 28.0
 Pumping Rate: 10.0
 Flowing Rate:
 Recommended Pump
 Rate: 10.0
 Levels UOM: ft
 Rate UOM: GPM
 Water State After Test
 Code: 1
 Water State After Test: CLEAR
 Pumping Test Method: 1
 Pumping Duration HR: 1
 Pumping Duration MIN: 0
 Flowing: No

Water ID: 933947884
 Layer: 1
 Kind Code: 1
 Kind: FRESH
 Water Found Depth: 67.0
 Water Found Depth UOM: ft

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
9	SSW	0.06	63.34	176.83	WWIS

Well ID: 6600618 Data Entry Status:
 Construction Date: Data Src: 1

Wells and Additional Sources Detail Report

Primary Water Use:	Livestock	Date Received:	3/23/1960
Sec. Water Use:	Domestic	Selected Flag:	True
Final Well Status:	Water Supply	Abandonment Rec:	
Water Type:		Contractor:	4720
Casing Material:		Form Version:	1
Audit No:		Owner:	
Tag:		Street Name:	
Construction Method:		County:	NIAGARA
Elevation (m):		Municipality:	NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:		Site Info:	
Depth to Bedrock:		Lot:	003
Well Depth:		Concession:	
Overburden/Bedrock:		Concession Name:	BF
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/660\6600618.pdf

Well Completed Date: 1960/01/22
Year Completed: 1960
Depth (m): 21.336
Latitude: 43.0322752193854
Longitude: -79.1375835101189
Path: 660\6600618.pdf

Bore Hole ID:	10460352	Elevation:	177.681243
DP2BR:	65.00	Elevrc:	
Spatial Status:		Zone:	17
Code OB:	r	East83:	651724.90
Code OB Desc:	Bedrock	North83:	4766082.00
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	5
Date Completed:	22-Jan-1960 00:00:00	UTMRC Desc:	margin of error : 100 m - 300 m
Remarks:		Location Method:	p5
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision			
Comment:			
Supplier Comment:			

Wells and Additional Sources Detail Report

Formation ID: 932589421
Layer: 3
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 40.0
Formation End Depth: 65.0
Formation End Depth UOM: ft

Formation ID: 932589422
Layer: 4
Color:
General Color:
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 65.0
Formation End Depth: 70.0
Formation End Depth UOM: ft

Formation ID: 932589419
Layer: 1
Color: 7
General Color: RED
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 24.0
Formation End Depth UOM: ft

Wells and Additional Sources Detail Report

Formation ID: 932589420
Layer: 2
Color:
General Color:
Mat1: 14
Most Common Material: HARDPAN
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 24.0
Formation End Depth: 40.0
Formation End Depth UOM: ft

Method Construction ID: 966600618
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe ID: 11008922
Casing No: 1
Comment:
Alt Name:

Casing ID: 930747642
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 65
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Casing ID: 930747643
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 70
Casing Diameter: 5
Casing Diameter UOM: inch

Wells and Additional Sources Detail Report

Casing Depth UOM: ft

 Pump Test ID: 996600618
 Pump Set At:
 Static Level: 32.0
 Final Level After Pumping: 38.0
 Recommended Pump Depth: 38.0
 Pumping Rate: 10.0
 Flowing Rate:
 Recommended Pump Rate: 10.0
 Levels UOM: ft
 Rate UOM: GPM
 Water State After Test Code: 1
 Water State After Test: CLEAR
 Pumping Test Method: 1
 Pumping Duration HR: 1
 Pumping Duration MIN: 0
 Flowing: No

Water ID: 933947886
 Layer: 1
 Kind Code: 1
 Kind: FRESH
 Water Found Depth: 70.0
 Water Found Depth UOM: ft

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
10	E	0.09	90.11	172.46	WWIS

Well ID: 6602673	Data Entry Status:
Construction Date:	Data Src: 1
Primary Water Use: Domestic	Date Received: 8/8/1972
Sec. Water Use: 0	Selected Flag: True
Final Well Status: Water Supply	Abandonment Rec:
Water Type:	Contractor: 3608
Casing Material:	Form Version: 1
Audit No:	Owner:
Tag:	Street Name:
Construction Method:	County: NIAGARA
Elevation (m):	Municipality: NIAGARA FALLS CITY (WILLOUGHBY)
Elevation Reliability:	Site Info:
Depth to Bedrock:	Lot: 010
Well Depth:	Concession:

Wells and Additional Sources Detail Report

Overburden/Bedrock:	Concession Name:	BF WR
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/660\6602673.pdf

Well Completed Date: 1972/07/17
Year Completed: 1972
Depth (m): 24.9936
Latitude: 43.0400517727672
Longitude: -79.1224940371783
Path: 660\6602673.pdf

Bore Hole ID:	10462400	Elevation:	175.578491
DP2BR:	79.00	Elevrc:	
Spatial Status:		Zone:	17
Code OB:	r	East83:	652934.90
Code OB Desc:	Bedrock	North83:	4766973.00
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	4
Date Completed:	17-Jul-1972 00:00:00	UTMRC Desc:	margin of error : 30 m - 100 m
Remarks:		Location Method:	p4
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision			
Comment:			
Supplier Comment:			

Formation ID: 932595886
Layer: 3
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 11
Mat2 Desc: GRAVEL
Mat3:
Mat3 Desc:
Formation Top Depth: 77.0

Wells and Additional Sources Detail Report

Formation End Depth: 79.0
Formation End Depth
UOM: ft

Formation ID: 932595884
Layer: 1
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 15.0
Formation End Depth
UOM: ft

Formation ID: 932595885
Layer: 2
Color: 7
General Color: RED
Mat1: 05
Most Common Material: CLAY
Mat2: 06
Mat2 Desc: SILT
Mat3:
Mat3 Desc:
Formation Top Depth: 15.0
Formation End Depth: 77.0
Formation End Depth
UOM: ft

Formation ID: 932595887
Layer: 4
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 79.0
Formation End Depth: 82.0

Wells and Additional Sources Detail Report

Formation End Depth ft
UOM:

Method Construction ID: 966602673
Method Construction 1
Code:
Method Construction: Cable Tool
Other Method
Construction:

Pipe ID: 11010970
Casing No: 1
Comment:
Alt Name:

Casing ID: 930751313
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 82
Casing Diameter:
Casing Diameter UOM: inch
Casing Depth UOM: ft

Casing ID: 930751312
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 79
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Pump Test ID: 996602673
Pump Set At:
Static Level: 23.0
Final Level After Pumping: 45.0
Recommended Pump
Depth: 75.0
Pumping Rate: 10.0
Flowing Rate:
Recommended Pump
Rate: 10.0

Wells and Additional Sources Detail Report

Levels UOM: ft
 Rate UOM: GPM
 Water State After Test Code: 1
 Water State After Test: CLEAR
 Pumping Test Method: 2
 Pumping Duration HR: 2
 Pumping Duration MIN: 0
 Flowing: No

Pump Test Detail ID: 934341801
 Test Type: Recovery
 Test Duration: 15
 Test Level: 23.0
 Test Level UOM: ft

Pump Test Detail ID: 935128156
 Test Type: Recovery
 Test Duration: 60
 Test Level: 23.0
 Test Level UOM: ft

Pump Test Detail ID: 934609159
 Test Type: Recovery
 Test Duration: 30
 Test Level: 23.0
 Test Level UOM: ft

Pump Test Detail ID: 934863383
 Test Type: Recovery
 Test Duration: 45
 Test Level: 23.0
 Test Level UOM: ft

Water ID: 933949992
 Layer: 1
 Kind Code: 3
 Kind: SULPHUR
 Water Found Depth: 81.0
 Water Found Depth UOM: ft

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
11	SSE	0.10	102.55	176.83	WWIS

Wells and Additional Sources Detail Report

Well ID:	6604508	Data Entry Status:	
Construction Date:		Data Src:	1
Primary Water Use:	Domestic	Date Received:	1/8/2001
Sec. Water Use:		Selected Flag:	True
Final Well Status:	Water Supply	Abandonment Rec:	
Water Type:		Contractor:	3640
Casing Material:		Form Version:	1
Audit No:	213677	Owner:	
Tag:		Street Name:	
Construction Method:		County:	NIAGARA
Elevation (m):		Municipality:	NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:		Site Info:	
Depth to Bedrock:		Lot:	002
Well Depth:		Concession:	01
Overburden/Bedrock:		Concession Name:	CON
Pump Rate:		Easting NAD83:	
Static Water Level:		Northing NAD83:	
Flowing (Y/N):		Zone:	
Flow Rate:		UTM Reliability:	
Clear/Cloudy:			

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/660\6604508.pdf

Well Completed Date: 2000/09/04
 Year Completed: 2000
 Depth (m): 25.2984
 Latitude: 43.0311039634278
 Longitude: -79.1320205751532
 Path: 660\6604508.pdf

Bore Hole ID:	10464105	Elevation:	178.030990
DP2BR:	71.00	Elevrc:	
Spatial Status:	Improved	Zone:	17
Code OB:	r	East83:	652181.00
Code OB Desc:	Bedrock	North83:	4765962.00
Open Hole:		Org CS:	N83
Cluster Kind:		UTMRC:	3
Date Completed:	04-Sep-2000 00:00:00	UTMRC Desc:	margin of error : 10 - 30 m
Remarks:		Location Method:	
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:	1999-2004 MOE Water Well Data Improvement Project		
Improvement Location	GIS		

Wells and Additional Sources Detail Report

Method:

Source Revision Northing and/or Easting field has been changed. Location estimated from sketch map.
Comment:
Supplier Comment: Determined to be an improvement rather than a Lot Centroid in December 2009.

Formation ID: 932602923
Layer: 4
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 79
Mat2 Desc: PACKED
Mat3:
Mat3 Desc:
Formation Top Depth: 40.0
Formation End Depth: 50.0
Formation End Depth ft
UOM:

Formation ID: 932602921
Layer: 2
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 66
Mat2 Desc: DENSE
Mat3:
Mat3 Desc:
Formation Top Depth: 15.0
Formation End Depth: 20.0
Formation End Depth ft
UOM:

Formation ID: 932602925
Layer: 6
Color: 6
General Color: BROWN
Mat1: 11
Most Common Material: GRAVEL
Mat2: 12
Mat2 Desc: STONES
Mat3: 79
Mat3 Desc: PACKED
Formation Top Depth: 65.0

Wells and Additional Sources Detail Report

Formation End Depth: 71.0
Formation End Depth
UOM: ft

Formation ID: 932602922
Layer: 3
Color: 7
General Color: RED
Mat1: 05
Most Common Material: CLAY
Mat2: 66
Mat2 Desc: DENSE
Mat3:
Mat3 Desc:
Formation Top Depth: 20.0
Formation End Depth: 40.0
Formation End Depth
UOM: ft

Formation ID: 932602926
Layer: 7
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 74
Mat2 Desc: LAYERED
Mat3:
Mat3 Desc:
Formation Top Depth: 71.0
Formation End Depth: 83.0
Formation End Depth
UOM: ft

Formation ID: 932602920
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: 15.0

Wells and Additional Sources Detail Report

Formation End Depth ft
UOM:

Formation ID: 932602924
Layer: 5
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 13
Mat2 Desc: BOULDERS
Mat3: 79
Mat3 Desc: PACKED
Formation Top Depth: 50.0
Formation End Depth: 65.0
Formation End Depth ft
UOM:

Method Construction ID: 966604508
Method Construction 1
Code:
Method Construction: Cable Tool
Other Method
Construction:

Pipe ID: 11012675
Casing No: 1
Comment:
Alt Name:

Casing ID: 930753860
Layer: 2
Material:
Open Hole or Material:
Depth From:
Depth To:
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Casing ID: 930753859
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:

Wells and Additional Sources Detail Report

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

Pump Test ID: 996604508
Pump Set At:
Static Level: 25.0
Final Level After Pumping: 68.0
Recommended Pump Depth: 70.0
Pumping Rate: 6.0
Flowing Rate:
Recommended Pump Rate: 5.0
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2
Water State After Test: CLOUDY
Pumping Test Method: 2
Pumping Duration HR: 2
Pumping Duration MIN:
Flowing: No

Pump Test Detail ID: 934612520
Test Type: Draw Down
Test Duration: 30
Test Level: 68.0
Test Level UOM: ft

Pump Test Detail ID: 934345165
Test Type: Draw Down
Test Duration: 15
Test Level: 68.0
Test Level UOM: ft

Pump Test Detail ID: 935122708
Test Type: Draw Down
Test Duration: 60
Test Level: 68.0
Test Level UOM: ft

Pump Test Detail ID: 934866708

Wells and Additional Sources Detail Report

Test Type: Draw Down
 Test Duration: 45
 Test Level: 68.0
 Test Level UOM: ft

Water ID: 933951890
 Layer: 2
 Kind Code: 3
 Kind: SULPHUR
 Water Found Depth: 75.0
 Water Found Depth UOM: ft

Water ID: 933951889
 Layer: 1
 Kind Code: 3
 Kind: SULPHUR
 Water Found Depth: 71.0
 Water Found Depth UOM: ft

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
14	ESE	0.15	153.96	175.83	WWIS

Well ID: 6600612
 Construction Date:
 Primary Water Use: Not Used
 Sec. Water Use: 0
 Final Well Status: Test Hole
 Water Type:
 Casing Material:
 Audit No:
 Tag:
 Construction Method:
 Elevation (m):
 Elevation Reliability:
 Depth to Bedrock:
 Well Depth:
 Overburden/Bedrock:
 Pump Rate:
 Static Water Level:
 Flowing (Y/N):
 Flow Rate:
 Clear/Cloudy:

Data Entry Status:
 Data Src: 1
 Date Received: 1/6/1961
 Selected Flag: True
 Abandonment Rec:
 Contractor: 2801
 Form Version: 1
 Owner:
 Street Name:
 County: NIAGARA
 Municipality: NIAGARA FALLS CITY (CROWLAND)
 Site Info:
 Lot: 001
 Concession:
 Concession Name: BF
 Easting NAD83:
 Northing NAD83:
 Zone:
 UTM Reliability:

PDF URL (Map): https://d2khazk8e83rdv.cloudfront.net/moe_mapping/downloads/2Water/Wells_pdfs/660\6600612.pdf

Wells and Additional Sources Detail Report

Well Completed Date: 1960/06/22
Year Completed: 1960
Depth (m): 24.6888
Latitude: 43.0349864423041
Longitude: -79.1244038681013
Path: 660\6600612.pdf

Bore Hole ID: 10460346 Elevation: 177.350769
DP2BR: 80.00 Elevrc:
Spatial Status: Zone: 17
Code OB: r East83: 652791.90
Code OB Desc: Bedrock North83: 4766407.00
Open Hole: Org CS:
Cluster Kind: UTMRC: 5
Date Completed: 22-Jun-1960 00:00:00 UTMRC Desc: margin of error : 100 m - 300 m
Remarks: Location Method: p5
Elevrc Desc:
Location Source Date:
Improvement Location
Source:
Improvement Location
Method:
Source Revision
Comment:
Supplier Comment:

Formation ID: 932589374
Layer: 4
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2: 11
Mat2 Desc: GRAVEL
Mat3: 13
Mat3 Desc: BOULDERS
Formation Top Depth: 39.0
Formation End Depth: 50.0
Formation End Depth
UOM: ft

Formation ID: 932589376
Layer: 6
Color:
General Color:

Wells and Additional Sources Detail Report

Mat1: 06
Most Common Material: SILT
Mat2: 08
Mat2 Desc: FINE SAND
Mat3: 09
Mat3 Desc: MEDIUM SAND
Formation Top Depth: 55.0
Formation End Depth: 63.0
Formation End Depth UOM: ft

Formation ID: 932589372
Layer: 2
Color: 7
General Color: RED
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 1.0
Formation End Depth: 15.0
Formation End Depth UOM: ft

Formation ID: 932589373
Layer: 3
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 15.0
Formation End Depth: 39.0
Formation End Depth UOM: ft

Formation ID: 932589377
Layer: 7
Color:
General Color:
Mat1: 05

Wells and Additional Sources Detail Report

Most Common Material: CLAY
Mat2: 06
Mat2 Desc: SILT
Mat3:
Mat3 Desc:
Formation Top Depth: 63.0
Formation End Depth: 77.0
Formation End Depth UOM: ft

Formation ID: 932589379
Layer: 9
Color:
General Color:
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 80.0
Formation End Depth: 81.0
Formation End Depth UOM: ft

Formation ID: 932589378
Layer: 8
Color:
General Color:
Mat1: 05
Most Common Material: CLAY
Mat2: 11
Mat2 Desc: GRAVEL
Mat3: 13
Mat3 Desc: BOULDERS
Formation Top Depth: 77.0
Formation End Depth: 80.0
Formation End Depth UOM: ft

Formation ID: 932589375
Layer: 5
Color:
General Color:
Mat1: 05
Most Common Material: CLAY

Wells and Additional Sources Detail Report

Mat2: 06
Mat2 Desc: SILT
Mat3:
Mat3 Desc:
Formation Top Depth: 50.0
Formation End Depth: 55.0
Formation End Depth UOM: ft

Formation ID: 932589371
Layer: 1
Color:
General Color:
Mat1: 02
Most Common Material: TOPSOIL
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 1.0
Formation End Depth UOM: ft

Method Construction ID: 966600612
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe ID: 11008916
Casing No: 1
Comment:
Alt Name:

Casing ID: 930747635
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 51
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Wells and Additional Sources Detail Report

Screen ID: 933385504
 Layer: 1
 Slot:
 Screen Top Depth: 51
 Screen End Depth: 61
 Screen Material:
 Screen Depth UOM: ft
 Screen Diameter UOM: inch
 Screen Diameter:

Pump Test ID: 996600612
 Pump Set At:
 Static Level: 8.0
 Final Level After Pumping: 10.0
 Recommended Pump
 Depth:
 Pumping Rate: 8.0
 Flowing Rate:
 Recommended Pump
 Rate:
 Levels UOM: ft
 Rate UOM: GPM
 Water State After Test
 Code: 2
 Water State After Test: CLOUDY
 Pumping Test Method: 1
 Pumping Duration HR: 8
 Pumping Duration MIN: 0
 Flowing: No

Water ID: 933947881
 Layer: 1
 Kind Code: 1
 Kind: FRESH
 Water Found Depth: 55.0
 Water Found Depth UOM: ft

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
15	ESE	0.16	155.40	175.83	WWIS

Well ID:	6600613	Data Entry Status:	
Construction Date:		Data Src:	1
Primary Water Use:	Not Used	Date Received:	1/6/1961
Sec. Water Use:	0	Selected Flag:	True
Final Well Status:	Test Hole	Abandonment Rec:	

Wells and Additional Sources Detail Report

Water Type:	Contractor:	2801
Casing Material:	Form Version:	1
Audit No:	Owner:	
Tag:	Street Name:	
Construction Method:	County:	NIAGARA
Elevation (m):	Municipality:	NIAGARA FALLS CITY (CROWLAND)
Elevation Reliability:	Site Info:	
Depth to Bedrock:	Lot:	001
Well Depth:	Concession:	
Overburden/Bedrock:	Concession Name:	BF
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/660\6600613.pdf

Well Completed Date: 1960/06/24
 Year Completed: 1960
 Depth (m): 16.764
 Latitude: 43.03497145881
 Longitude: -79.1245884523311
 Path: 660\6600613.pdf

Bore Hole ID:	10460347	Elevation:	177.428237
DP2BR:		Elevrc:	
Spatial Status:		Zone:	17
Code OB:	o	East83:	652776.90
Code OB Desc:	Overburden	North83:	4766405.00
Open Hole:		Org CS:	
Cluster Kind:		UTMRC:	5
Date Completed:	24-Jun-1960 00:00:00	UTMRC Desc:	margin of error : 100 m - 300 m
Remarks:		Location Method:	p5
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Formation ID: 932589381
 Layer: 2

Wells and Additional Sources Detail Report

Color: 7
General Color: RED
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 1.0
Formation End Depth: 15.0
Formation End Depth UOM: ft

Formation ID: 932589380
Layer: 1
Color:
General Color:
Mat1: 02
Most Common Material: TOPSOIL
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 0.0
Formation End Depth: 1.0
Formation End Depth UOM: ft

Formation ID: 932589383
Layer: 4
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2: 11
Mat2 Desc: GRAVEL
Mat3: 13
Mat3 Desc: BOULDERS
Formation Top Depth: 39.0
Formation End Depth: 50.0
Formation End Depth UOM: ft

Formation ID: 932589382
Layer: 3
Color: 2

Wells and Additional Sources Detail Report

General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth: 15.0
Formation End Depth: 39.0
Formation End Depth UOM: ft

Formation ID: 932589384
Layer: 5
Color:
General Color:
Mat1: 05
Most Common Material: CLAY
Mat2: 06
Mat2 Desc: SILT
Mat3:
Mat3 Desc:
Formation Top Depth: 50.0
Formation End Depth: 55.0
Formation End Depth UOM: ft

Method Construction ID: 966600613
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe ID: 11008917
Casing No: 1
Comment:
Alt Name:

Casing ID: 930747636
Layer: 1
Material:
Open Hole or Material:
Depth From:
Depth To:
Casing Diameter: 5

Wells and Additional Sources Detail Report

Casing Diameter UOM: inch
 Casing Depth UOM: ft

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
16	ENE	0.17	174.54	183.32	WWIS

Well ID:	7231244	Data Entry Status:	
Construction Date:		Data Src:	
Primary Water Use:	Monitoring	Date Received:	11/10/2014
Sec. Water Use:		Selected Flag:	True
Final Well Status:	Observation Wells	Abandonment Rec:	
Water Type:		Contractor:	7238
Casing Material:		Form Version:	7
Audit No:	Z193941	Owner:	
Tag:	A169956	Street Name:	MONTROSE RD
Construction Method:		County:	NIAGARA
Elevation (m):		Municipality:	NIAGARA FALLS CITY (WILLOUGHBY)
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/723\7231244.pdf

Well Completed Date: 2014/10/03
 Year Completed: 2014
 Depth (m): 28.8545016
 Latitude: 43.043721471185
 Longitude: -79.1227860069005
 Path: 723\7231244.pdf

Bore Hole ID:	1005209905	Elevation:	176.760848
DP2BR:		Elevrc:	
Spatial Status:		Zone:	17
Code OB:		East83:	652902.00
Code OB Desc:		North83:	4767380.00
Open Hole:		Org CS:	UTM83
Cluster Kind:		UTMRC:	4
Date Completed:	03-Oct-2014 00:00:00	UTMRC Desc:	margin of error : 30 m - 100 m

Wells and Additional Sources Detail Report

Remarks: Location Method: wwr
Elevrc Desc:
Location Source Date:
Improvement Location
Source:
Improvement Location
Method:
Source Revision
Comment:
Supplier Comment:

Formation ID: 1005283679
Layer: 4
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 06
Mat2 Desc: SILT
Mat3: 06
Mat3 Desc: SILT
Formation Top Depth: 10.0
Formation End Depth: 30.0
Formation End Depth
UOM: ft

Formation ID: 1005283678
Layer: 3
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 06
Mat2 Desc: SILT
Mat3: 05
Mat3 Desc: CLAY
Formation Top Depth: 4.0
Formation End Depth: 10.0
Formation End Depth
UOM: ft

Formation ID: 1005283684
Layer: 9
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE

Wells and Additional Sources Detail Report

Mat2:

Mat2 Desc:

Mat3: 15

Mat3 Desc: LIMESTONE

Formation Top Depth: 88.0

Formation End Depth: 94.66699981689453

Formation End Depth
UOM: ft

Formation ID: 1005283677

Layer: 2

Color: 6

General Color: BROWN

Mat1: 28

Most Common Material: SAND

Mat2: 11

Mat2 Desc: GRAVEL

Mat3: 11

Mat3 Desc: GRAVEL

Formation Top Depth: 1.0

Formation End Depth: 4.0

Formation End Depth
UOM: ft

Formation ID: 1005283680

Layer: 5

Color: 7

General Color: RED

Mat1: 05

Most Common Material: CLAY

Mat2: 06

Mat2 Desc: SILT

Mat3: 06

Mat3 Desc: SILT

Formation Top Depth: 30.0

Formation End Depth: 52.0

Formation End Depth
UOM: ft

Formation ID: 1005283676

Layer: 1

Color: 8

General Color: BLACK

Mat1: 06

Most Common Material: SILT

Mat2: 05

Wells and Additional Sources Detail Report

Mat2 Desc: CLAY
Mat3: 02
Mat3 Desc: TOPSOIL
Formation Top Depth: 0.0
Formation End Depth: 1.0
Formation End Depth
UOM: ft

Formation ID: 1005283682
Layer: 7
Color: 7
General Color: RED
Mat1: 05
Most Common Material: CLAY
Mat2: 06
Mat2 Desc: SILT
Mat3: 05
Mat3 Desc: CLAY
Formation Top Depth: 57.0
Formation End Depth: 75.0
Formation End Depth
UOM: ft

Formation ID: 1005283683
Layer: 8
Color: 2
General Color: GREY
Mat1: 06
Most Common Material: SILT
Mat2: 11
Mat2 Desc: GRAVEL
Mat3: 06
Mat3 Desc: SILT
Formation Top Depth: 75.0
Formation End Depth: 88.0
Formation End Depth
UOM: ft

Formation ID: 1005283681
Layer: 6
Color: 7
General Color: RED
Mat1: 06
Most Common Material: SILT
Mat2: 05
Mat2 Desc: CLAY

Wells and Additional Sources Detail Report

Mat3: 05
Mat3 Desc: CLAY
Formation Top Depth: 52.0
Formation End Depth: 57.0
Formation End Depth UOM: ft

Plug ID: 1005283692
Layer: 1
Plug From: 0
Plug To: 88
Plug Depth UOM: ft

Method Construction ID: 1005283691
Method Construction Code: 6
Method Construction: Boring
Other Method Construction:

Pipe ID: 1005283675
Casing No: 0
Comment:
Alt Name:

Screen ID: 1005283689
Layer: 1
Slot: 10
Screen Top Depth: 90
Screen End Depth:
Screen Material: 5
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 2.5

Water ID: 1005283687
Layer:
Kind Code:
Kind:
Water Found Depth:
Water Found Depth UOM: ft

Hole ID: 1005283685

Wells and Additional Sources Detail Report

Diameter: 8.0
 Depth From: 0.0
 Depth To: 8.666999816894531
 Hole Depth UOM: ft
 Hole Diameter UOM: inch

Hole ID: 1005283686
 Diameter: 4.0
 Depth From: 8.0
 Depth To: 94.66699981689453
 Hole Depth UOM: ft
 Hole Diameter UOM: inch

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
17	ESE	0.21	211.07	175.83	WWIS

Well ID: 7200894
 Construction Date:
 Primary Water Use: Monitoring
 Sec. Water Use:
 Final Well Status: Test Hole
 Water Type:
 Casing Material:
 Audit No: Z157984
 Tag: A143216

Data Entry Status:
 Data Src:
 Date Received: 4/30/2013
 Selected Flag: True
 Abandonment Rec:
 Contractor: 7464
 Form Version: 7
 Owner:
 Street Name: MONTROSE RD & KYONS
 CREEK RD
 NIAGARA
 County: NIAGARA
 Municipality: NIAGARA FALLS CITY
 (CROWLAND)

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:

Site Info:
 Lot:
 Concession:
 Concession Name:
 Easting NAD83:
 Northing NAD83:
 Zone:
 UTM Reliability:

PDF URL (Map):

Well Completed Date: 2013/02/26
 Year Completed: 2013
 Depth (m): 6.1
 Latitude: 43.0344799443071
 Longitude: -79.1237183909028

Wells and Additional Sources Detail Report

Path:

Bore Hole ID:	1004278469	Elevation:	177.237548
DP2BR:		Elevrc:	
Spatial Status:		Zone:	17
Code OB:		East83:	652849.00
Code OB Desc:		North83:	4766352.00
Open Hole:		Org CS:	UTM83
Cluster Kind:		UTMRC:	4
Date Completed:	26-Feb-2013 00:00:00	UTMRC Desc:	margin of error : 30 m - 100 m
Remarks:		Location Method:	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Formation ID:	1004847196
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Mat2 Desc:	
Mat3:	
Mat3 Desc:	
Formation Top Depth:	2.440000057220459
Formation End Depth:	6.099999904632568
Formation End Depth UOM:	m

Formation ID:	1004847195
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	06
Mat2 Desc:	SILT
Mat3:	84
Mat3 Desc:	SILTY
Formation Top Depth:	0.0

Wells and Additional Sources Detail Report

Formation End Depth: 2.440000057220459
Formation End Depth UOM: m

Plug ID: 1004847203
Layer: 1
Plug From: 0
Plug To: 2.74000000953674
Plug Depth UOM: m

Method Construction ID: 1004847202
Method Construction Code: 9
Method Construction: Driving
Other Method Construction:

Pipe ID: 1004847194
Casing No: 0
Comment:
Alt Name:

Casing ID: 1004847199
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0
Depth To: 3.04999995231628
Casing Diameter: 5
Casing Diameter UOM: cm
Casing Depth UOM: m

Screen ID: 1004847200
Layer: 1
Slot: 10
Screen Top Depth: 3.04999995231628
Screen End Depth: 6.09999990463257
Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter: 6

Water ID: 1004847198

Wells and Additional Sources Detail Report

Layer:
 Kind Code:
 Kind:
 Water Found Depth:
 Water Found Depth UOM: m

Hole ID: 1004847197
 Diameter: 12.5
 Depth From: 0.0
 Depth To: 6.099999904632568
 Hole Depth UOM: m
 Hole Diameter UOM: cm

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
19	ESE	0.23	229.43	175.83	WWIS

Well ID:	7265625	Data Entry Status:	Yes
Construction Date:		Data Src:	
Primary Water Use:		Date Received:	6/24/2016
Sec. Water Use:		Selected Flag:	True
Final Well Status:		Abandonment Rec:	
Water Type:		Contractor:	7464
Casing Material:		Form Version:	8
Audit No:	C31786	Owner:	
Tag:	A192016	Street Name:	
Construction Method:		County:	NIAGARA
Elevation (m):		Municipality:	NIAGARA FALLS CITY (CROWLAND)
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):

Well Completed Date: 2016/03/02
 Year Completed: 2016
 Depth (m):
 Latitude: 43.0343159285812
 Longitude: -79.1236006388104

Wells and Additional Sources Detail Report

Path:

Bore Hole ID:	1006078360	Elevation:	177.318710
DP2BR:		Elevrc:	
Spatial Status:		Zone:	17
Code OB:		East83:	652859.00
Code OB Desc:		North83:	4766334.00
Open Hole:		Org CS:	UTM83
Cluster Kind:		UTMRC:	4
Date Completed:	02-Mar-2016 00:00:00	UTMRC Desc:	margin of error : 30 m - 100 m
Remarks:		Location Method:	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision			
Comment:			
Supplier Comment:			

Map Key	Direction	Distance (km)	Distance (m)	Elevation (m)	DB
20	ENE	0.23	229.96	185.38	WWIS

Well ID:	7305848	Data Entry Status:	
Construction Date:		Data Src:	
Primary Water Use:	Test Hole	Date Received:	2/14/2018
Sec. Water Use:	Monitoring	Selected Flag:	True
Final Well Status:	Abandoned-Other	Abandonment Rec:	Yes
Water Type:		Contractor:	7295
Casing Material:		Form Version:	7
Audit No:	Z272946	Owner:	
Tag:	A192016	Street Name:	MONROSE RD
Construction Method:		County:	NIAGARA
Elevation (m):		Municipality:	NIAGARA FALLS CITY (CROWLAND)
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/730\7305848.pdf

Wells and Additional Sources Detail Report

Well Completed Date: 2017/12/21
Year Completed: 2017
Depth (m):
Latitude: 43.044402783071
Longitude: -79.1236982831687
Path: 730\7305848.pdf

Bore Hole ID: 1006988604
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 21-Dec-2017 00:00:00
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision
Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83: 652826.00
North83: 4767454.00
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: cnrev

Formation ID: 1007154281
Layer:
Color:
General Color:
Mat1:
Most Common Material:
Mat2:
Mat2 Desc:
Mat3:
Mat3 Desc:
Formation Top Depth:
Formation End Depth:
Formation End Depth UOM: ft

Plug ID: 1007154289
Layer: 1
Plug From:
Plug To:
Plug Depth UOM: ft

Wells and Additional Sources Detail Report

Method Construction ID: 1007154288
Method Construction Code: 6
Method Construction: Boring
Other Method Construction:

Pipe ID: 1007154280
Casing No: 0
Comment:
Alt Name:

Screen ID: 1007154285
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter:

Water ID: 1007154283
Layer:
Kind Code:
Kind:
Water Found Depth:
Water Found Depth UOM: ft

Hole ID: 1007154282
Diameter:
Depth From:
Depth To:
Hole Depth UOM: ft
Hole Diameter UOM: inch

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: 3546
Health Region Name: Niagara Regional Area Health Unit
Province or Territory: ON
Number Homes in Survey: 100
% Below 200 Bq/m3: 98
% Above 200 Bq/m3: 2
200 to 600 Bq/m3: 0
% Above 600 Bq/m3: 2

Area of Natural and Scientific Interest Information

There is no ANSI unit available in this area.

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

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.

BEDROCK GEOLOGY

Health Canada Radon Information

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.

RADON

National Energy Board Wells

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.

NEBP

Soil Landscapes of Canada (SLC)

Major characteristics of soil and land such as surface form, slope, water table depth, permafrost and lakes.

SLC

Surficial Geology of Canada

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.

SURFICIAL GEOLOGY

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).

TOPORAMA

Provincial Sources

Area of Natural and Scientific Interest

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.

ANSI

Bedrock Geology of Ontario

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.

BEDROCK GEOLOGY

Ontario Detailed Soil Survey (DSS3)

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

SOIL SURVEY

Ontario Oil and Gas Wells

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 OGSRLibrary 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.

OOGW

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

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.

SURFICIAL GEOLOGY

Topographic Map of Ontario

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.

TOPOGRAPHIC MAP

Water Well Information System

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.

WWIS

Wetlands of Ontario

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).

WETLAND

Private Sources

Oil and Gas Wells

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickle's database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

OGWE

Radon Zone Information

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.

RADON

Liability Notice

Reliance on information in Report: The Physical Setting Report (PSR) DOES NOT replace a full Phase I Environmental Site Assessment but is solely intended to be used as a review of environmental databases and physical characteristics for the site or adjacent properties.

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APPENDIX IV
GOVERNMENT AND REGULATORY INFORMATION

Ministry of the Environment,
Conservation and Parks

Ministère de l'Environnement, de
la Protection de la nature et des
Parcs

Access and Privacy Office

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

12th Floor
40 St. Clair Avenue West
Toronto ON M4V 1M2
Tel: (416) 314-4075
Fax: (416) 314-4285

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



September 14, 2021

Samantha Beatty
Terrapex Environmental Ltd.
90 Scardale Road
Toronto, ON M3B 2R7

Dear Samantha Beatty:

RE: **Freedom of Information and Protection of Privacy Act Request**
Our File # A-2021-05648, Your Reference CT3243.00

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), along with your \$30.00 deposit.

The search will be conducted on the following: 8547 Grassy Brook Road, Niagara Falls. 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.

This is to advise you, we've gone digital! Requests submitted by fax will no longer be accepted starting August 31, 2021. If you submitted requests by fax before August 31, 2021, we'll process it. Please don't re-submit it using the online form or you might get charged twice. The online form can be found on the central forms repository at the following link

<https://www.sus.gov.on.ca/lc/content/mgcs/profiles/default.html?contentRoot=repository:///Applications/012-2146/1.0/Assets&template=012-2146E.xdp&submitUrl=https://localhost:12443/rest/services/012-2146/Processes/SubmitForm&lang=E&submitServiceProxy=https://www.sus.gov.on.ca/sub-proxy/all>

If you have any questions regarding this matter, please contact Sharon Menzies at Sharon.Menzies@ontario.ca.

Yours truly,


Noel Kent
Manager, Access and Privacy

MECP-INFO MGMT & ACCE
40 ST. CLAIR AVENUE M4V1M2
TORONTO ON
20164541
GH2016454151

21-05648

**** PURCHASE ****
09-14-2021 09:01:52
Acct # *****5523 M
Card Type VI

Operator: 999
Trace # 9585
Inv. # 2105648
Auth # 04586F RRN 001004314

Total \$35.00
(001) APPROVED-THANK YOU

Roy Yu

From: Public Information Services <publicinformationsservices@tssa.org>
Sent: August 12, 2021 1:50 PM
To: Samantha Beatty
Subject: RE: Information Request for Niagara Falls, ON

Caution: This email originated from outside of the Terrapex Office365 Mail System. Do not click on a link or attachment unless you are absolutely sure that it is safe. Be extra vigilant with any internal emails that have this banner. Please contact Sysoft support if you have doubts.

Please refrain from sending documents to head office and only submit your requests electronically via email along with credit card payment. We are all working remotely and mailing in applications with cheques will lengthen the overall processing time.

RECORD FOUND

Hello Samantha,

Thank you for your request for confirmation of public information.

- We confirm that there are records in our database of fuel storage tanks at the subject addresses.

INSTANCE NUMBER	ADDRESS	CITY	PROVINCE	POSTAL CODE	STATUS
10182654	9127 MONTROSE RD PO BOX 1010	NIAGARA FALLS	ON	L2E 7J9	ACTIVE
11485849	9127 MONTROSE RD PO BOX 1010	NIAGARA FALLS	ON	L2E 7J9	ACTIVE
11485869	9127 MONTROSE RD PO BOX 1010	NIAGARA FALLS	ON	L2E 7J9	ACTIVE

For a further search in our archives please complete our release of public information form found at <https://www.tssa.org/en/about-tssa/release-of-public-information.aspx?mid=392> and email the completed form to publicinformationsservices@tssa.org along with a fee of \$56.50 (including HST) per location. The fee is payable with credit card (Visa or MasterCard).

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

Kind regards,

Mariah



Public Information Agent

Facilities and Business Services
345 Carlingview Drive
Toronto, Ontario M9W 6N9

Tel: +1-416-734-6222 | Fax: +1-416-734-3568 | E-Mail: publicinformationsservices@tssa.org

www.tssa.org



From: Samantha Beatty

<s.beatty@terrapex.com>

Sent: August 12, 2021 10:49 AM

To: Public Information Services <publicinformationsservices@tssa.org>

Subject: Information Request for Niagara Falls, ON

[CAUTION]: This email originated outside the organisation.

Please do not click links or open attachments unless you recognise the source of this email and know the content is safe.

Good morning,

Terrapex is conducting a Phase I ESA in Niagara Falls. We would like to inquire if TSSA has any records pertaining to fuel tanks or infrastructure at the following properties in Niagara Falls, Ontario:

8218, 8228, 8264, and 8547 Grassy Brook Road

9127, 9304, 9514, 9515, and 10215 Montrose Road

8074, 8107, 8182, 8243, 8365, 8598 and 8870 Biggar Road

9733 and 10553 Crowland Avenue

7473 Reixinger Road

Thank you,
Samantha

Samantha Beatty, BSc, EPT
Environmental Scientist



Office: 416 245 0011 ext 260
Mobile: 416 797 8924
Email: s.beatty@terrapex.com

90 Scarsdale Road
Toronto Ontario M3B 2R7
Canada

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



Notes:

Enter map notes

Legend

-  Assessment Parcel
-  ANSI
-  Earth Science Provincially Significant/sciences de la terre d'importance provinciale
-  Earth Science Regionally Significant/sciences de la terre d'importance régionale
-  Life Science Provincially Significant/sciences de la vie d'importance provinciale
-  Life Science Regionally Significant/sciences de la vie d'importance régionale
-  Evaluated Wetland
-  Provincially Significant/considérée d'importance provinciale
-  Non-Provincially Significant/non considérée d'importance provinciale
-  Unevaluated Wetland
-  Conservation Reserve
-  Provincial Park
-  Natural Heritage System



Absence of a feature in the map does not mean they do not exist in this area.

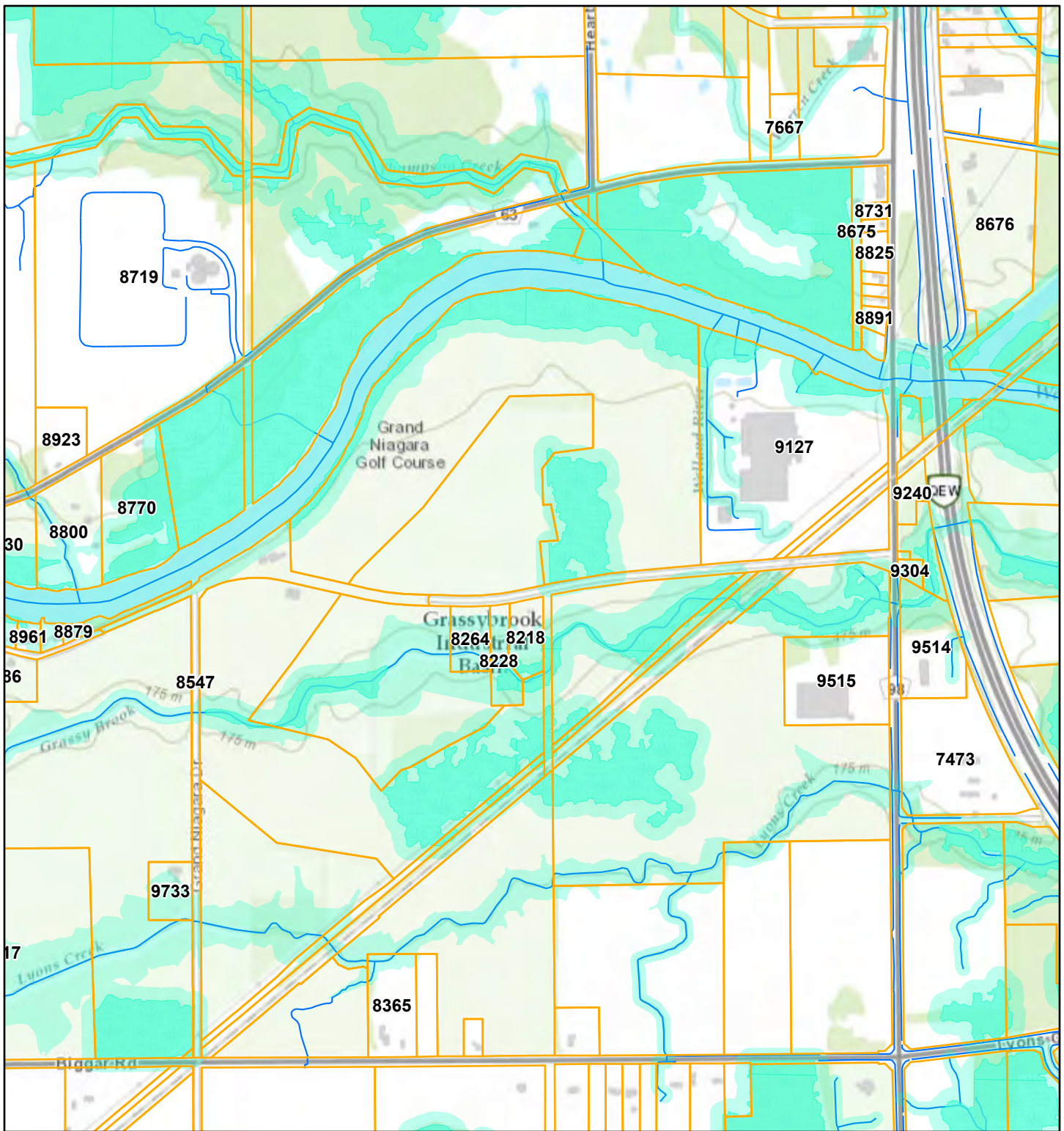
This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Ontario Ministry of Natural Resources and Forestry(OMNRF) shall not be liable in any way for the use of, or reliance upon, this map or any information on this map.
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NPCA regulated lands



6/7/2022, 12:21:45 PM

1:18,056

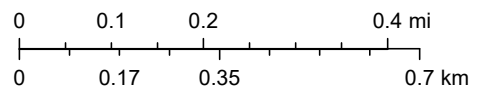
NPCA Member Municipalities

Assessment Parcels

NPCA APPROXIMATE REGULATION LANDS

Regulation Wetlands

Watercourses 2K 2002



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

ArcGIS Web AppBuilder

City of Niagara Falls, City of Welland, Niagara Region, Regional Municipality of Niagara, Province of Ontario, Ontario MNR, Esri Canada, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, METI/

APPENDIX V
AERIAL POTOGRAPHS AND SATELLITE IMAGES



1934 HISTORICAL AERIAL PHOTOGRAPH

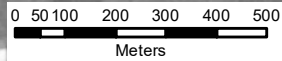
GRAND NIAGARA
NIAGARA FALLS, ONTARIO

CLIENT

EMPIRE (GRAND NIAGARA) GP INC.



LEGEND
[Red dashed line symbol] SITE BOUNDARY



PROJECT # CT3243.01	
DATE JUNE 2022	
DRAWN JS/SW	CHECKED RY
DRAWING # APPENDIX V-1	

DATA SOURCE: NIAGARA REGION

\\ip\PROJECTS\Toronto\CT3243.00 Grand Niagara\MXD\CT3243.01 Historical Aerials.mxd

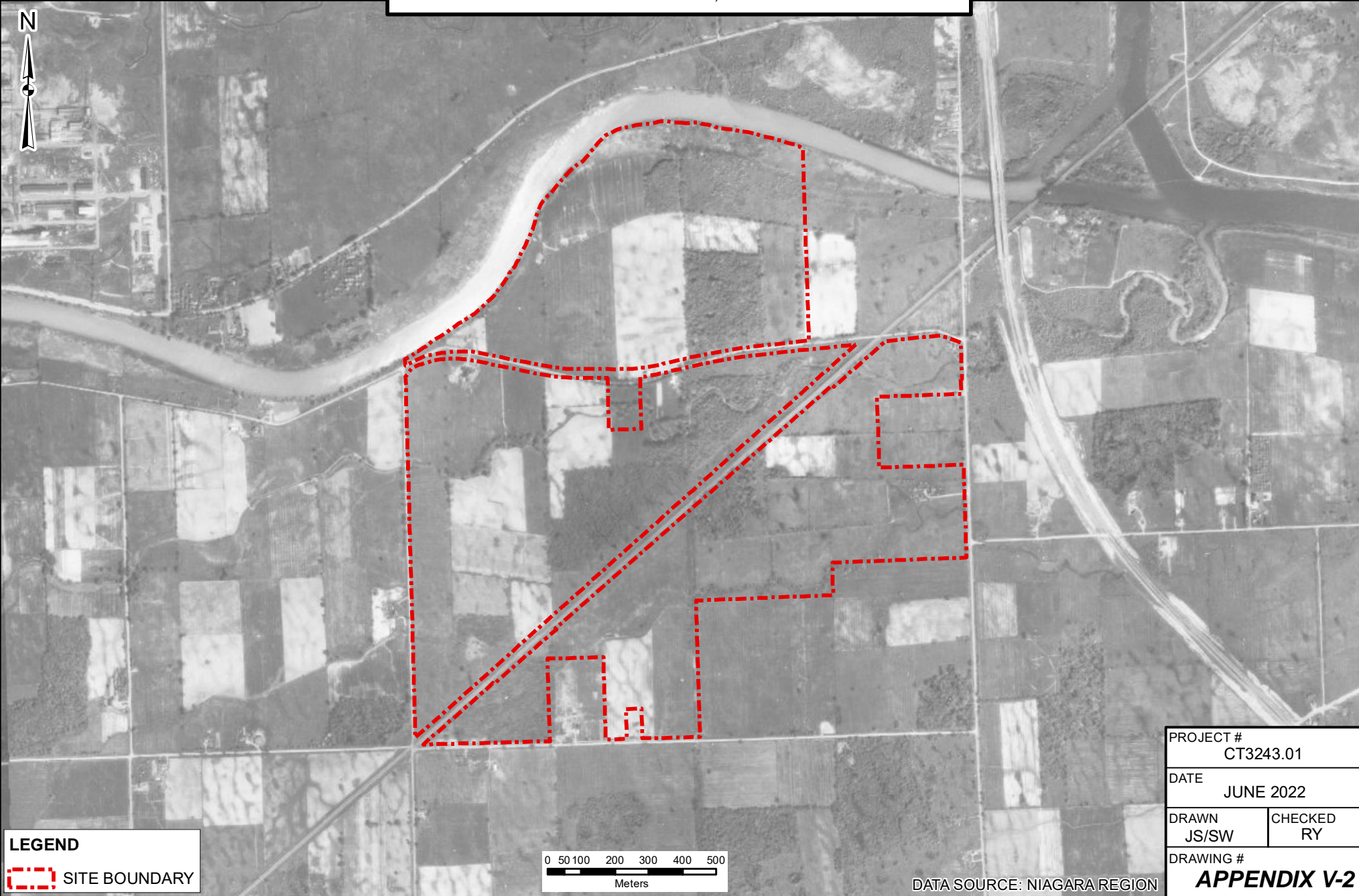


1954 HISTORICAL AERIAL PHOTOGRAPH

GRAND NIAGARA
NIAGARA FALLS, ONTARIO

CLIENT

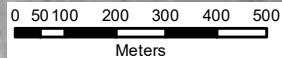
EMPIRE (GRAND NIAGARA) GP INC.



\\sullivan\w:\PROJECTS\Toronto\CT3243.00 Grand Niagara\MXD\CT3243.01 Historical Aerials.mxd

LEGEND

 SITE BOUNDARY



DATA SOURCE: NIAGARA REGION

PROJECT # CT3243.01	
DATE JUNE 2022	
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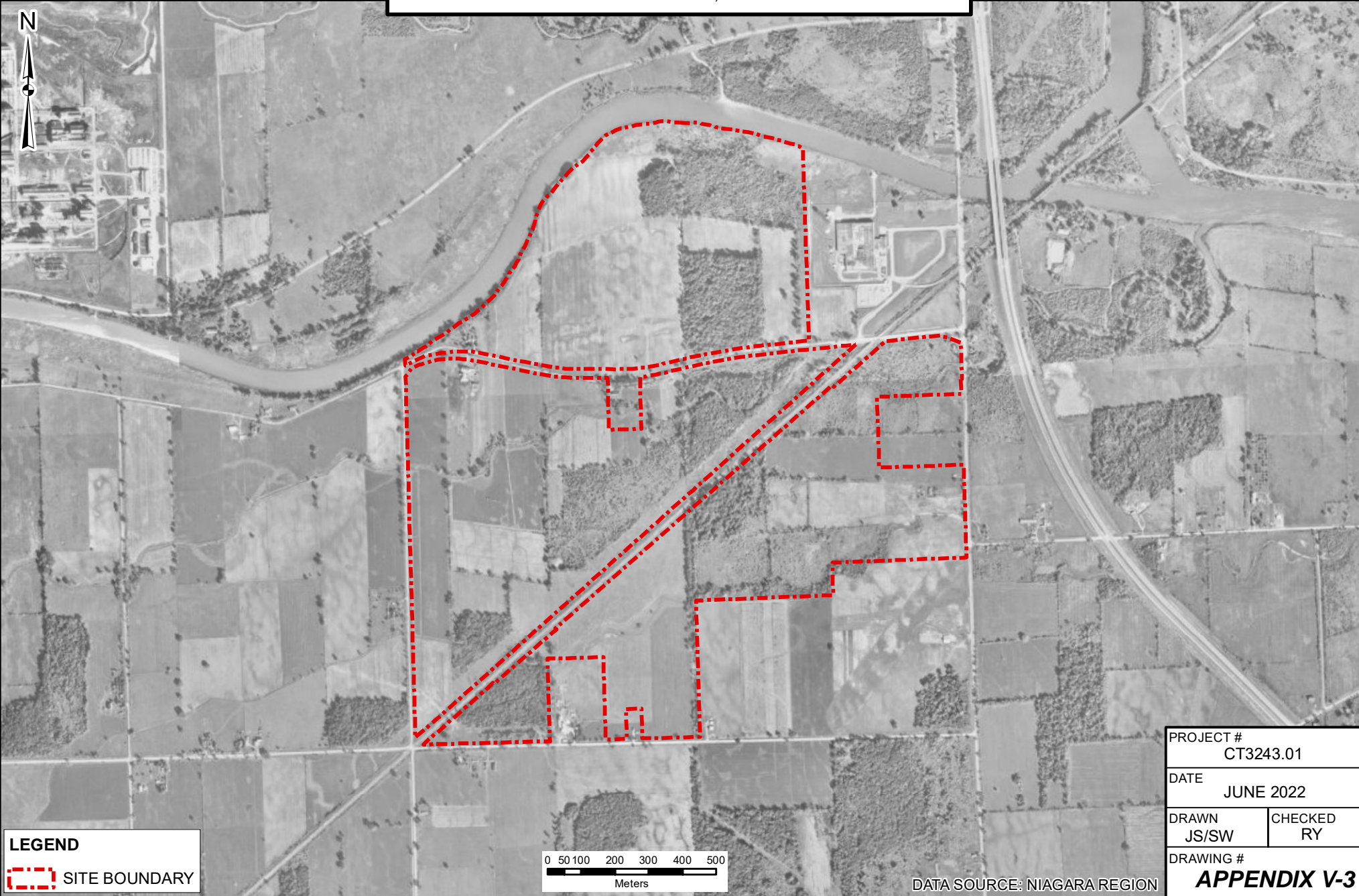


1965 HISTORICAL AERIAL PHOTOGRAPH

GRAND NIAGARA
NIAGARA FALLS, ONTARIO

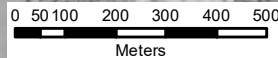
CLIENT

EMPIRE (GRAND NIAGARA) GP INC.



LEGEND

 SITE BOUNDARY



DATA SOURCE: NIAGARA REGION

PROJECT # CT3243.01	
DATE JUNE 2022	
DRAWN JS/SW	CHECKED RY
DRAWING # APPENDIX V-3	

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1976 HISTORICAL AERIAL PHOTOGRAPH

GRAND NIAGARA
NIAGARA FALLS, ONTARIO

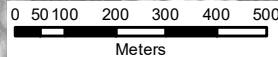
CLIENT

EMPIRE (GRAND NIAGARA) GP INC.



LEGEND

 SITE BOUNDARY



PROJECT # CT3243.01	
DATE JUNE 2022	
DRAWN JS/SW	CHECKED RY
DRAWING # APPENDIX V-4	

DATA SOURCE: NAPL

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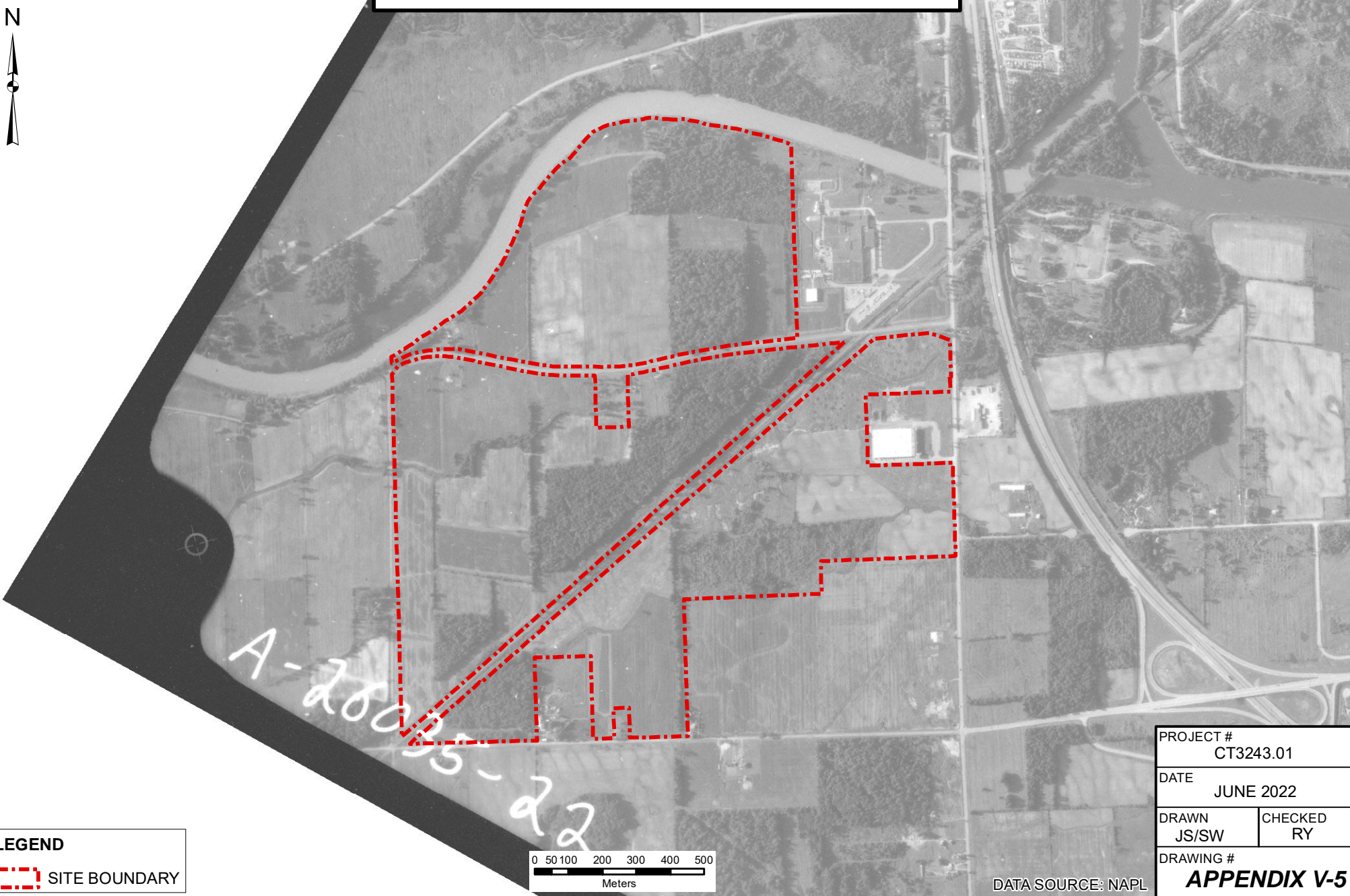


1982 HISTORICAL AERIAL PHOTOGRAPH

GRAND NIAGARA
NIAGARA FALLS, ONTARIO

CLIENT

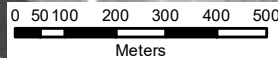
EMPIRE (GRAND NIAGARA) GP INC.



A-20035-22

LEGEND

 SITE BOUNDARY



PROJECT #
CT3243.01

DATE
JUNE 2022

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JS/SW

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RY

DRAWING #
APPENDIX V-5

DATA SOURCE: NAPL



1995 HISTORICAL AERIAL PHOTOGRAPH

GRAND NIAGARA
NIAGARA FALLS, ONTARIO

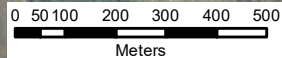
CLIENT

EMPIRE (GRAND NIAGARA) GP INC.



LEGEND

 SITE BOUNDARY



DATA SOURCE: NIAGARA REGION

PROJECT # CT3243.01	
DATE JUNE 2022	
DRAWN JS/SW	CHECKED RY
DRAWING # APPENDIX V-6	

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2002 HISTORICAL AERIAL PHOTOGRAPH


GRAND NIAGARA
NIAGARA FALLS, ONTARIO

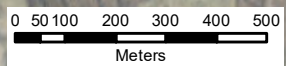
CLIENT

EMPIRE (GRAND NIAGARA) GP INC.



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LEGEND
 SITE BOUNDARY



DATA SOURCE: NIAGARA REGION

PROJECT # CT3243.01	
DATE JUNE 2022	
DRAWN JS/SW	CHECKED RY
DRAWING # APPENDIX V-7	



2010 HISTORICAL AERIAL PHOTOGRAPH

GRAND NIAGARA
NIAGARA FALLS, ONTARIO

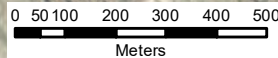
CLIENT

EMPIRE (GRAND NIAGARA) GP INC.



LEGEND

 SITE BOUNDARY



DATA SOURCE: NIAGARA REGION

PROJECT # CT3243.01	
DATE JUNE 2022	
DRAWN JS/SW	CHECKED RY
DRAWING # APPENDIX V-8	

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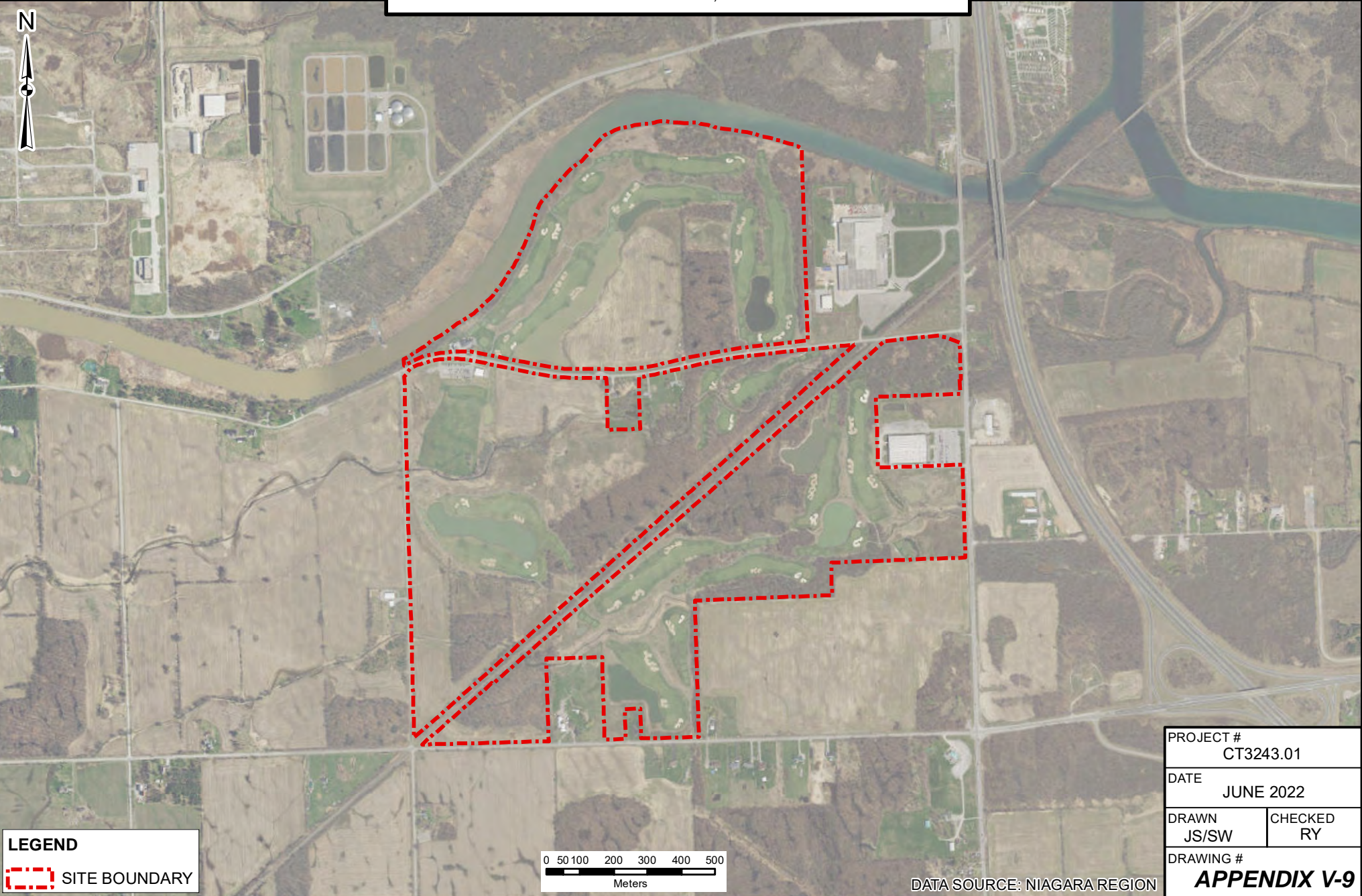


2015 HISTORICAL AERIAL PHOTOGRAPH


GRAND NIAGARA
NIAGARA FALLS, ONTARIO

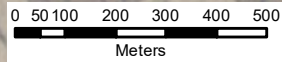
CLIENT

EMPIRE (GRAND NIAGARA) GP INC.



LEGEND

 SITE BOUNDARY



PROJECT # CT3243.01	
DATE JUNE 2022	
DRAWN JS/SW	CHECKED RY
DRAWING # APPENDIX V-9	

DATA SOURCE: NIAGARA REGION

es:\projects\toronto\CT3243.00 Grand Niagara\MXD\CT3243.01 Historical Aerials.mxd

APPENDIX VI
SITE PHOTOGRAPHS



PHOTOGRAPHIC LOG

Client: Empire (Grand Niagara) GP Inc.

Site Location: Grand Niagara, Niagara Falls, Ontario

Project No: CT3243.01

Photo No: 1

Date: July 21, 2021

Viewing Direction:
South

Description:

View of the clubhouse on the western portion of the Stie at 8547 Grassy Road.



Photo No: 2

Date: July 21, 2021

Viewing Direction:
North

Description:

View of the clubhouse on the western portion of the Stie at 8547 Grassy Road.





PHOTOGRAPHIC LOG

Page 2 of 7

Client: Empire (Grand Niagara) GP Inc.

Site Location: Grand Niagara, Niagara Falls, Ontario

Project No: CT3243.01

Photo No: 3

Date: July 21, 2021

Viewing Direction:
North

Description:

View of the interior of the restaurant on the western portion of the Stie at 8547 Grassy Road.



Photo No: 4

Date: July 21, 2021

Viewing Direction:
North

Description:

View of the interior of the clubhouse on the western portion of the Stie at 8547 Grassy Road.



Client: Empire (Grand Niagara) GP Inc.

Site Location: Grand Niagara, Niagara Falls, Ontario

Project No: CT3243.01

Photo No: 5

Date: July 21, 2021

Viewing Direction:
West

Description:

View of the kitchen of the restaurant on the western portion of the Site at 8547 Grassy Road.


Photo No: 6

Date: July 21, 2021

Viewing Direction:
northwest

Description:

View of the off-Site Grand Niagara Golf Club's golf cart maintenance facility located west of the Site at 9733 Crowland Avenue.



Client: Empire (Grand Niagara) GP Inc.	Site Location: Grand Niagara, Niagara Falls, Ontario	Project No: CT3243.01
---	---	------------------------------


Photo No: 7	
Date: July 21, 2021	
Viewing Direction: North	
Description: View of the golf cart maintenance facility interior at 9733 Crowland Avenue.	

Photo No: 8	
Date: July 21, 2021	
Viewing Direction: North	
Description: View of the fire cabinet with fuel canisters storage at the golf cart maintenance facility. Good housekeeping was observed.	

Client: Empire (Grand Niagara) GP Inc.**Site Location:** Grand Niagara, Niagara Falls, Ontario**Project No:** CT3243.01**Photo No:** 9**Date:** July 21, 2021**Viewing Direction:**
south**Description:**

View of the used oil, diesel, and gasoline ASTs located at the golf cart maintenance facility.

**Photo No:** 10**Date:** July 21, 2021**Viewing Direction:**
East**Description:**

View of the oil drums and spill absorbent material stored in the golf cart maintenance facility.



Client: Empire (Grand Niagara) GP Inc.**Site Location:** Grand Niagara, Niagara Falls, Ontario**Project No:** CT3243.01**Photo No:** 11**Date:** July 21, 2021**Viewing Direction:**
north**Description:**

View of the fertilizer storage at the golf cart maintenance facility.

**Photo No:** 12**Date:** July 21, 2021**Viewing Direction:**
North**Description:**

View of the fertilizer storage at the golf cart maintenance facility.



Client: Empire (Grand Niagara) GP Inc.**Site Location:** Grand Niagara, Niagara Falls, Ontario**Project No:** CT3243.01**Photo No:** 13**Date:** July 21, 2021**Viewing Direction:**
East**Description:**

View of the above-ground hoist located in the golf cart maintenance facility.

**Photo No:** 14**Date:** July 21, 2021**Viewing Direction:**
Northeast**Description:**

View of the golf course at the central-west portion of the Site.



APPENDIX VII
QUALIFICATIONS OF ASSESSORS

Position: Senior Excess Soil Expert / Senior Project Manager, Toronto Office

Qualifications: B.Eng. Environmental Engineering
B.Sc. Advanced Major in Chemistry

Experience:

Terrapex Environmental Ltd.	2020 to present
WSP Canada Group Ltd.	2016 to 2019
MMM Group Ltd.	2010 to 2016
CH2M Hill Canada Ltd.	2006 to 2010
SNC-Lavalin Inc.	2001 to 2006
Acres International Ltd,	2000

Mr. Roach is a Senior Project Manager with more than 20 years of experience providing environmental consulting services to a broad range of clients and unique sites encompassing a wide variety of contaminants and land uses across Canada. Over his career, he has provided technical expertise in site assessments and intrusive investigations, excess soil management, vapour intrusion assessments, site remediation, risk assessment and risk management, peer reviews, and the filing of Records of Site Condition (RSCs).

As a Senior Project Manager, Chris leads complex projects involving multi-discipline engineering services and multiple stakeholders. He provides strategic advice to clients involved in the acquisition, divestiture or development of real estate and brownfield sites, and develops and implements sustainable, cost-effective remediation and risk-based solutions for the management of contamination.

Mr. Roach is a member of the Canadian Brownfields Network (CBN) Technical Advisory Working Group on O. Reg. 406/19 (*On-Site and Excess Soil Management*) and is a designated Subject Matter Expert at Terrapex in the assessment and management of Excess Soil. Mr. Roach routinely provides technical guidance to Terrapex staff in designing, implementing, and evaluating the findings of excess soil characterization investigations to identify strategic on-site beneficial reuse options or relocation of the excess soil to appropriate interim or final disposal and reuse sites. As a Subject Matter Expert, Chris is also responsible for delivering excess soil consulting services and educating clients on their regulatory responsibilities under the new regulation.

Mr. Roach has presented numerous seminars internally to Terrapex staff and externally to Terrapex clients to explain the rules of O. Reg. 406/19, the phased coming-into-force, and the implications of the new regulation on their operations and projects.

Representative projects include the following:

City of Toronto: Program Manager for environmental projects assigned for the portfolio of lands maintained by the City of Toronto's Facilities and Real Estate Division. Under this contract, our firm provides environmental services for both due-diligence and regulatory purposes including ESAs; Subsurface Vapour Investigations; Risk Assessments; Environmental Peer Reviews; Remedial Action Plans, specifications, supervision, and contract administration; Records of Site Condition; Certificates of Property Use; Environmental Compliance Approvals for Air, Noise, and Stormwater; Designated Substance Surveys; and, Geotechnical Investigations.

City of Toronto: Project Manager and Senior Technical Advisor for the redevelopment of an archeologically significant site formerly occupied by Ontario's First Parliament Buildings from 1798 and 1813. The land was subsequently used as a coal gasification plant which resulted in extensive soil and groundwater contamination, including both light and dense non-aqueous phase liquid (NAPL) in both the overburden and bedrock aquifers. Phase One and Phase Two ESAs have been completed in accordance with O. Reg. 153/04 and presently through consultation with the City and other stakeholders, a sustainable risk-based strategy is presently being developed through a Master Plan to allow for the adaptive reuse of this brownfield property.

Various clients: Qualified Person and Senior Technical Advisor responsible for developing work plans to assess and characterize, manage and relocate excess soil to appropriate interim sites or final disposal or reuse sites in accordance with the regulatory requirements of O. Reg. 406/19 (*On-Site and Excess Soil Management*).

Position: Project Manager, Toronto Office

Courses Completed: Standard First Aid and CPR
Petroleum Oriented Safety Training (POST)
Workplace Hazardous Materials Information System (WHMIS)
40-hour OSHA Training Course for Hazardous Waste Operations
Joint Health and Safety Committee – Basic Certification and Workplace Specific Hazard Training

Qualifications: Certified Engineering Technologist, Ontario Association of Engineering Technicians and Technologist

Experience: Terrapex Environmental Ltd. 2011 to present
Alston Associates Inc. 2010-2011

Mr. Yu is a certified Environmental Technologist, managing, planning and conducting environmental site assessments and remediation programs for commercial, industrial, government and developer clients. Mr. Yu's experience also includes preparing and reviewing technical reports and analytical data in order to evaluate site conditions for environmental impacts and hydrogeological characteristics and providing advice and recommendations.

SELECTED PROJECT EXPERIENCE

Government Client: Manage and conduct Phase One ESAs, Phase Two ESAs, remediation activities, and assist in filing Record of Site Condition in support of development applications. Manage the decommissioning of underground storage tanks and the removal of contaminated soil.

Land Developers: Completion of Phase One and Phase Two ESAs, and remediation in support of a Record of Site Condition, including historical research, report preparation, and site inspection for various sites in Ontario including residential, commercial, industrial, and vacant properties.

Light Industrial Client: Conducted designated substances survey identifying and cataloguing various designated substances as per the Ontario Occupational Health and Safety Act (O. Reg. 490/09), as well as conducting asbestos surveys, analyses of laboratory results and report compilation.

Various Clients: Conducted Phase I Environmental Site Assessment (ESA) site visits and prepared Phase I ESA reports, providing a technical summary of the historical/current land use of the subject site and adjacent properties. Researched and reviewed historical data for Phase I ESAs, which included City Directory searches, aerial photograph interpretation, Fire Insurance Plan review and Freedom of Information requests.

Petroleum Clients: Conduct Phase II Environmental Site Assessments including supervision of drilling, soil logging and sampling, installation of monitoring wells, groundwater quality assessments, hydrogeological assessment of groundwater movement and contaminant plumes and report preparation for petroleum retail outlets for a major petroleum company.

Petroleum Client: Assist in the operation of an in-situ soil and groundwater treatment system to address historical impacts from a retail gasoline service station which extends beneath a roadway and to several adjacent private properties. Conducted monthly monitoring of groundwater and vapours at the site, and monthly sampling of the treatment system air and water discharges. Supervision of decommissioning of underground storage tanks, removal of facilities and removal of contaminated soil. Work program included field screening of soil vapours, confirmatory soil sampling, tracking of excavated volumes, assisting with waste management, and tracking contractor's time.