REPORT

Phase One Environmental Site Assessment

4305, 4375, 4345 McKenna Casey Drive, 3285, 3300, 3305 Borrisokane Road, Ottawa, Ontario

Submitted to:

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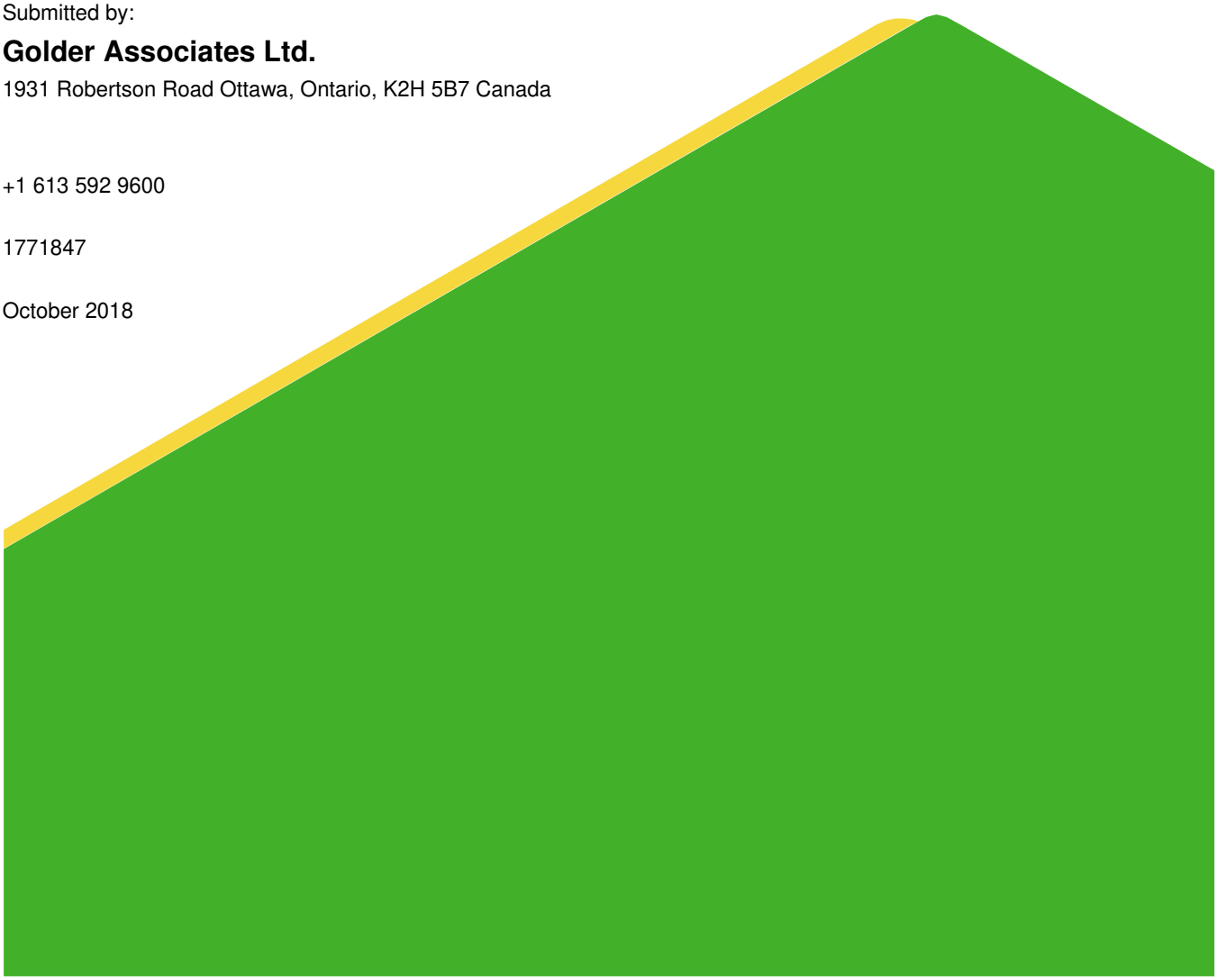
October 2018



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Executive Summary

The Executive Summary highlights key points from the report only; for complete information and findings, as well as the limitations, the reader should examine the complete report.

Golder Associates Ltd. (“Golder”) was retained by Caivan Communities (“Caivan”) to conduct a Phase One Environmental Site Assessment (“Phase One ESA”) for the second phase of the proposed Conservancy Lands residential development. In addition to properties located at 4305 McKenna Casey Drive and 3285, 3288 and 3300 Borrisokane Road that were assessed previously in September 2017, this report incorporates the added properties located at 4375 and 4345 McKenna Casey Drive, and 3305 Borrisokane Road, in Ottawa, Ontario, to the east and south of the previous Site area. Therefore, the scope of the work was to update the previous Phase I ESA to include include the added properties. In this report, Site north has been defined such that McKenna Case Drive has an east-west axis.

At the time of the Site visit on October 24, 2018, the Site included an additional 159 acres (64 hectares) to encompass a total site area of 411 acres (166 hectares) of land that was primarily occupied by agricultural fields.

It is understood that the Phase One Property is to be a residential development. The parcels of land are owned by Caivan Communities.

The Phase One ESA was completed in accordance with Ontario Regulation (O. Reg. 153/04), as amended, and included a review of available current and historical information regarding the Site and surrounding properties, a Site reconnaissance, interviews, evaluation of readily available information, and reporting, subject to the limitations outline in Section 9.0 of this report. Given that the Site has only been used for residential and agricultural purposes and that the Site has not been used as an automotive garage, a bulk liquid dispensing facility or a dry-cleaning facility, the Site is not considered an enhanced investigation property as defined by O. Reg. 153/04. There will be no change in the land use from less sensitive to more sensitive; therefore the Phase One ESA has not been completed to support a Record of Site Condition.

Based on the information obtained as part of this Phase one ESA, none of the identified potentially contaminating activities (PCAs) were considered to represent an area of potential environmental concern (APEC) for the Site and a Phase Two ESA is not recommended to be carried out at the Site at this time. However, the following building-related issues of potential environmental concern were identified:

- Based on the age of the farm house and farm buildings located at 3288 Borrisokane Road (prior to 1946), potential ACMs such as floor tiles, dry wall compounds, stucco ceilings, mortar and window caulking may be present in the Site buildings; and,
- Based on the age of the farm house and farm buildings located at 3288 Borrisokane Road (prior to 1946), there is potential for lead-based paints to be present on the walls within these buildings.

Prior to renovations or demotion of the building, ACMs must be removed in accordance with Ontario Regulation 278/05: Designated Substance – Asbestos on Construction Projects and in Buildings and Repair Operations. Other designated substances must be removed or managed in accordance within the OH&S Act.

During the Site visit on October 25, 2018, debris was observed on the south-east corner of 3305 Borrisokane Road. The debris included a discarded trailer, parts of a shed, abandoned piping and wood and metal debris. Debris was observed around the barn located on the farm property at 3288 Borrisokane Road during a previous Site visit on February 16, 2017. The presence of this waste was not considered to be an on-site PCA; however, it is considered to be a property management issue and should be removed from the Site prior to development.

At the time of preparation of this report, a response to Golder's request for information had not been received from the Technical Standards and Safety Authority or the Ontario Ministry of Environment, Conservation and Parks. However, based on the body of information acquired, it is considered that the absence of this information should not likely affect the final conclusion of the Phase One ESA. Golder will review responses to these regulatory requests upon their receipt, and should the responses affect the findings of this Phase One ESA, they will be forwarded to BCI. There were no material deviations to the Phase One ESA requirements set out in O. Reg. 153/04 that would cause uncertainty or absence of information that would affect the validity of the Phase One Conceptual Site Model or the findings of this Phase One ESA.

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1.0 INTRODUCTION

1.1 Phase One Property Information

Golder Associates Ltd. (“Golder”) was retained by Caivan Communities (“Caivan”) to conduct a Phase One Environmental Site Assessment (Phase One ESA) of the following properties:

Municipal Addresses	4305, 4375 and 4345 McKenna Casey Drive; as well as 3285, 3288, 3300 and 3303 Borrisokane Road
Property Identification Numbers	045950008, 045950021, 045950023, 045950025, 045950057, 045950059, and 045951742
Legal Description	Part of Lot 13 and Part 1 of Lot 14, Concession 3 and Parts 3, 4 and 5 of Lot 13, Part 1 and Part of Lot 14 and Part of Lot 15, Concession 4, Ottawa, Ontario

The Site location is provided on Figure 1. A Site plan is provided on Figure 2. For reporting purposes, Site north has been defined such that McKenna Casey Drive has an east-west axis.

As shown on Figure 2, part of the Site is located on the west side of Borrisokane Road and the other part is located on the east side of Borrisokane Road. The portion of the Site west of Borrisokane Road consists of the properties located at 4305, 4345, and 4375 McKenna Casey Drive, and 3288 and 3300 Borrisokane Road. The portion of the Site east of the Borrisokane Road consists of 3285 and 3305 Borrisokane Road.

The contact information for the Site is:

Site Owner / Client	Address	Contact Information
Caivan Communities	2934 Baseline Road, Suite 302 Ottawa, Ontario K2H 1B2	Mr. Andrew Finnson Email: andrew.finnson@caivan.com

2.0 SCOPE OF INVESTIGATION

A Phase One ESA is a preliminary qualitative assessment of the environmental condition of a property, based on a review of current activities and historical information for the Site and a review of relevant and readily available environmental information for the surrounding properties located within a 250 metre (m) radius of the boundary of the Site (collectively referred to as the “Phase One Study Area”). The boundary of the Phase One Study Area is presented in Figure 2.

According to Ontario Regulation (O. Reg.) 153/04 *Records of Site Condition,* the objectives of a Phase One ESA are to:

1) Develop a preliminary determination of the likelihood that one or more contaminants have affected any land or water on, in, or under the Site.

2) Determine the need for a Phase Two Environmental Site Assessment (ESA).

3) Provide a basis for carrying out a Phase Two ESA.

4) Provide adequate preliminary information about environmental conditions in the land or water on, in, or under the Site for the conduct of a risk assessment following completion of a Phase Two ESA.

5) Identify and report on evidence and/or potential contamination on the Site from current and historical activities at the Site or from adjacent properties.

3.0 RECORDS REVIEW

3.1 General

3.1.1 Phase One Study Area Determination

For the purpose of this Phase One ESA, the Phase One Study Area is the area within a 250 m radius of the boundary of the Site. Based on Golder's review of the historical and current information compiled as part of this Phase One ESA for the area surrounding the Site and observations of neighbouring properties made during the Site visit, it was concluded that an assessment of information pertaining to properties within 250 m of the boundary of the Site was sufficient to achieve the objectives of the Phase One ESA.

3.1.2 First Developed Use Determination

The date of first developed use of the Phase One property was determined based on the review of available aerial photographs, and the Ecolog Environmental Risk Information Service Ltd. (ERIS) report and information provided by the Site Representative as per a previous Phase One Environmental Site Assessment by Golder outlined in Section 3.1.6. The 1946 aerial photograph shows that the Phase One Property is developed with a farm (farmhouse and barn) located at 3288 Borrisokane Road. The remainder of the Site has been undeveloped, agricultural and/or vacant land since at least 1946. Therefore, the first developed use of the Site was determined to be prior to 1946, and included the current farmhouse and barn.

3.1.3 Fire Insurance Plans

Golder conducted a search of available Fire Insurance Plans (FIPs) for the Phase One Property and the surrounding properties within the Phase One Study Area. FIPs were not available for the Phase One Property or the Phase One Study Area.

3.1.4 Chain of Title

From Golder's review of aerial photography and information provided by the Site Representative, the majority of the Phase One Property (with the exception of the farm property at 3288 Borrisokane Road) has been undeveloped, agricultural and/or vacant land since at least 1946. As the existing records review presents sufficient information to satisfy the objectives of the records search and since it is unlikely that a Chain of Title record would contribute additional relevant information to the Phase One ESA, a Chain of Title information was not ordered.

3.1.5 City Directories

As a significant amount of information for the Site and surrounding properties was obtained from the aerial photographs, and Ecolog ERIS, and HLUI search (which includes a street directory review), street directories for the Site and surrounding lands were not further reviewed as they would not likely provide any additional information.

Based on the review of the aerial photographs, the only development on the Site has been the current farm located at 3288 Borrisokane Road and the surrounding lands have primarily been occupied by vacant or agricultural lands with a few farm properties. As such, street directories for the Site and surrounding properties were not reviewed as they would not likely provide any further information.

3.1.6 Environmental Reports

A Phase One Environmental Site Assessment was conducted in September 2017 (Report No. 1771847-1000) on the properties located at 4305 McKenna Casey Drive and 3285, 3288 and 3300 Borrisokane Road, hereafter termed the Golder 2017 Phase I ESA. This report was consulted and updated to incorporate properties at 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Road. The Ecolog ERIS report and Interview of the Site Representative conducted for the Golder 2017 Phase I ESA have been considered sufficiently representative to include the three parcels of land that have been addended to the scope of this present report. The Golder 2017 Phase I ESA can be referenced in Appendix E.

3.2 Environmental Source Information

3.2.1 EcoLog ERIS Report

Golder contracted EcoLog ERIS in August 2017 to conduct a search of environmental sources, including federal, provincial, and private sector databases, for information on the Phase One Property and Study Area. The EcoLog ERIS report is provided in Appendix B.

The databases searched included the following:

Federal	Provincial	Private
▪ Contaminated Sites on Federal Land ▪ Environmental Effects Monitoring ▪ Environmental Issues Information System ▪ Federal Convictions ▪ Fisheries & Oceans Fuel Storage Tanks ▪ Indian & Northern Affairs Fuel Tanks ▪ National Analysis of Trends in Emergencies System (NATES) ▪ National Defence & Canadian Forces Fuel Storage Tanks ▪ National Defence & Canadian Forces Spills ▪ National Defence & Canadian Forces Waste Disposal Sites ▪ National Environmental Emergencies System (NEES) ▪ National PCB Inventory ▪ National Pollutant Release Inventory ▪ Parks Canada Fuel Storage Tanks ▪ Transport Canada Fuel Storage Tanks	▪ Abandoned Aggregate Inventory ▪ Abandoned Inventory ▪ Aggregate Mine Information System ▪ Borehole ▪ Certificates of Approval ▪ Certificates of Property Use ▪ Commercial Fuel Oil Tanks ▪ Compliance and Convictions ▪ Drill Hole Database ▪ Environmental Activity and Sector Registry ▪ Environmental Compliance Approval ▪ Environmental Registry ▪ Fuel Storage Tank ▪ Fuel Storage Tank – Historic ▪ Inventory of Coal Gasification Plants and Tar Sites ▪ Inventory of PCB Storage Sites ▪ Landfill Inventory Management Ontario ▪ List of TSSA Expired Facilities ▪ Mineral Occurrences ▪ Non-Compliance Reports ▪ Ontario Oil and Gas Wells ▪ Ontario Regulation 347 Waste Generators Summary ▪ Ontario Regulation 347 Waste Receivers Summary ▪ Ontario Spills ▪ Orders ▪ Permit to Take Water ▪ Pesticide Register ▪ Private and Retail Fuel Storage Tanks	▪ Anderson's Storage Tanks ▪ Anderson's Waste Disposal Sites ▪ Automobile Wrecking & Supplies ▪ Canadian Mine Locations ▪ Canadian Pulp and Paper ▪ Chemical Register ▪ ERIS Historical Searches ▪ Oil and Gas Wells ▪ Retail Fuel Storage Tanks ▪ Scott's Manufacturing Directory

Federal	Provincial	Private
	▪ Record of Site Condition ▪ TSSA Historic Incidents ▪ TSSA Incidents ▪ TSSA Pipeline Incidents ▪ TSSA Variances for Abandonment of Underground Storage Tanks ▪ Waste Disposal Sites – MOECC 1991 Historical Approval Inventory ▪ Waste Disposal Sites – MOECC CA Inventory ▪ Wastewater Discharger Registration Database ▪ Water Well Information System	

As the three added properties are mostly within approximately 250 m of the Site as described in the Golder 2017 Phase I ESA, the description of the surrounding properties within 250 m west and south-east of the Site have been determined to be representative of the Site within the newly modified Site boundaries for this report.

The following is a summary of the findings as identified within the EcoLog ERIS report for the Site and for the surrounding properties within the presently defined Phase One Study Area:

On-Site

Noteworthy records for the Phase One Property included the following:

- Borehole (BORE) – There are records of five boreholes on the Site. Three boreholes (807827, 807825, and 807824) were completed in 1990, one (ID: 848008) in 1968, and the last (ID: 848009) in 1968 for geotechnical/geological purposes; just west of Borrisokane Road. The depth of the boreholes ranged from 3.0 to 3.5 metres below ground surface (mbgs).
- Water Well Information System (WWIS) – There are four water wells on Site. One well (ID: 1524165) was built in 1984 to an elevation of 90.62 m in Lot 14, Concession 4 for domestic water supply. An abandoned well (ID: 7247771) was built in 2015 for domestic water supply in Lot 15, Concession 4. A domestic water well (ID: 1514917) was constructed in 1975 on Lot 15, Concession 4. A last well (ID: 1532290) is used for domestic water supply in Lot 13, Concession 3 (RF). It was built in 2001 to an elevation of 89.66 m.

Surrounding Properties within 250 metres of the Site

Noteworthy records for the Phase One Study Area (excluding the Phase One Property) included the following:

- Borehole (BORE) – There are seven borehole listings within the Phase One Study Area. The boreholes were between August 1963 and January 1990 to depths ranging between 3.0 mbgs to 23.4 mbgs;
- Certificates of Approval (CA) – The EcoLog ERIS report identified one Certificate of Approval (C of A) listing within the Phase One Study Area. The C of A was issued for municipal water in 1986;
- ERIS Historical Searches (EHS) – The EcoLog ERIS report identified five historical search listings that were completed within the Phase One Study Area; and,
- Water Well Information System (WWIS) – There are seven water wells within the Phase One Study Area. They were constructed between August 1963 and July 2015 to depths ranging between 13.10 mbgs to 55.47 and 3.66 and 9.75 mbgs. The static water levels ranged from 2.87 mbgs to 10.44 mbgs. Additional information regarding the water wells is included in the EcoLog ERIS report in Appendix B.

The EcoLog ERIS report did not identify any PCAs on the Site or within the Phase One Study Area.

3.2.2 Ministry of the Environment and Climate Change

The Ottawa district office of the Ontario Ministry of Environment and Climate Change (MOECC) was contacted on October 23, 2018 (refer to copy of correspondence in Appendix A) to provide an Index Report with respect to active orders and approvals for the Site as detailed below:

- Active orders under the Environmental Protection Act (EPA), the *Ontario Water Resources Act* (OWRA), and the *Pesticides Act* (PA).
- Approvals under Sections 9 and 39 of the EPA as well as Sections 52 and 53 of the OWRA.

At the time of writing this report, a response has not been received by Golder. However, a formal response from the MOECC was received by Golder on February 15, 2017 for the Golder 2017 Phase I ESA. The review of the MOECC response indicated that no Active Orders, Certificate of Approvals or Environmental Compliance Approvals had been issued for the previously-defined Site boundaries.

3.2.3 City of Ottawa

The City of Ottawa was requested to provide a report for the previously defined Site and 50 m surrounding it for the Golder 2017 Phase I ESA, consisting of the following information:

- Active orders under the EPA, the OWRA, and the PA
- Approvals
- Reports relating to environmental concerns
- Records of non-compliance or regulatory concerns
- Dumping infractions, spills or discharges to the environment
- Violations of sewer use or environmental by-laws
- Historic information related to landfill or dump sites on or in proximity to the Site
- Any other environmental information

The City responded to Golder's request on December 13, 2016 which included a copy of the City of Ottawa HLUI of the Site and surrounding properties within 50 m of the Site (Appendix A, Golder 2017 Phase I ESA). Based on the review of the City of Ottawa HLUI and correspondence, there were no records for the Site or the Phase One Study Area; however, it did indicate that the Site was located within 3 kilometres of a few waste facilities in the Trail Road vicinity. These facilities were located beyond the Phase One Study Area and greater than 2 kilometres from the previously defined Site boundaries and as such, were not considered to be issues of concern for the Site. These facilities are within 1.5 kilometres of the presently defined Site, and therefore continues to not be an issue of concern.

3.2.4 Ministry of Natural Resources and Forestry (MNRF)

An information request was sent to the Ministry of Natural Resources and Forestry (MNRF) on February 1, 2017 as part of the Golder 2017 Phase I ESA. Records requested included any information relating to areas of natural significance in the vicinity of the Site, as well as any other environmental concerns that may be related to the Site and surrounding area.

On July 18, 2017, Jane Devlin, Management Biologist of the MNRF reported in a letter sent by e-mail that the following Natural Heritage Features (e.g., Provincially Significant Wetlands, Areas of Natural and Scientific Interest, etc.) were identified on or in close proximity to the Site:

- Fish Nursery, Carps and Minnows Nursery Area (Non-Sensitive)
- Fish Nursery, Northern Pike Nursery Area (Non-Sensitive)
- Fish Nursery, Rock Bass Nursery Area (Non-Sensitive)
- Fish Nursery, Unidentifiable Nursery Area (Non-Sensitive)
- Fish Nursery, Walleye Nursery Area (Non-Sensitive)
- Fish Nursery, White Sucker Nursery Area (Non-Sensitive)
- Municipal Drain, O'Keefe Drain (Non-Sensitive)
- Pit, 4046 (Non-Sensitive)
- Pit, 4052 (Non-Sensitive)
- Pit, 4126 (Non-Sensitive)
- Pond (Non-Sensitive)
- Private Drain, Foster Drain (Non-Sensitive)
- Private Drain, Fraser-Clarke Drain (Non-Sensitive)
- River, Jock River (Non-Sensitive)
- Spawning Area, Pumpkinseed Spawning Area
- Spawning Area, Shorthead Spawning Area
- Spawning Area, Smallmouth Redhorse Spawning Area
- Spawning Area, Walleye Spawning Area
- Unevaluated Wetland (Not evaluated per Ontario Wetland Evaluation System).

Municipal Official Plans contain additional information related to natural heritage features. The local municipal Official Plan may need to be reviewed for more information such as policies and direction pertaining to activities which may impact natural heritage features.

The MNRF indicated that there is a potential for significant woodlands to be present on the Site. In addition, the MNRF indicated that there is a potential for the following Threatened (THR) and/or Endangered (END) species to be present on the Site or in proximity to it:

- Bank Swallow (THR);
- Blanding's Turtle (THR);
- Bobolink (END);
- Butternut (THR);

- Barn Swallow (THR); and,
- Eastern Meadowlark (THR).

These species, as well as their habitats, are protected by the Endangered Species Act and it is recommended that field surveys be conducted if the proposed development work involves removal or disturbance of natural areas (including overgrown grass areas) or disturbance to structures where nests may be present. If the proposed development is expected to have an impact on these species, a permit under the Endangered Species Act may be required. The MNRF recommends that the MNRF Kemptville office be contacted prior to any activities being carried out.

The MNRF also indicated that there is a potential for Special Concern (SC) species, specifically the Eastern Wood-Pewee, the Snapping Turtle and the Wood Thrush, to be present on the Site or in proximity to it. Species listed as Special Concern are not protected under the Endangered Species Act; however, some may be protected under the Fish and Wildlife Conservation Act.

3.2.5 Technical Standards and Safety Authority, Fuel Safety Division Records

The Technical Standards and Safety Authority (TSSA) maintains records related to registered underground storage tanks (USTs) for petroleum-related products. The TSSA was contacted on October 23, 2018 to establish the status of the Site and to identify outstanding instructions, incident reports, fuel oil spills or contamination records.

However, Prem Lal of the TSSA replied on February 1, 2017 and indicated that the TSSA did not have any records for the addresses searched for the Phase One Property or in the Phase One Study Area as defined in the Golder 2017 Phase I ESA. Additionally, a response was received on October 24, 2018, which indicated that the TSSA did not have any records of fuel storage tanks at 4345 and 4375 McKenna Casey Drive, or 3305 Borrisokane Road.

3.3 Physical Setting Sources

3.3.1 Aerial Photographs

Aerial photographs of the Site and neighbouring properties were obtained from the National Air Photo Library (Natural Resources Canada) for the years 1946, 1956, 1964 and 1985. In addition, the aerial photographs for 1976, 1991, 2002, 2008 and 2014 from the City of Ottawa geo-map (http://maps.ottawa.ca/geoOttawa/) were reviewed on-line. Golder selected aerial photographs based on availability and date intervals to help develop an understanding of the history of the development of the Phase One Property and Phase One Study Area.
The information obtained from the aerial photographs was limited by the quality and scale of the available aerial photographs. The earliest aerial photograph available was from 1946. The aerial photographs from 1946, 1956, 1964 and 1985 are included in Appendix D.

Information obtained from the review of the aerial photographs is summarized in the following table:

Year	Site	Surrounding Area
1946	One of the properties on the Site (3288 Borrisokane Road) appears to be occupied by a farm property with a farm house and barn as well as agricultural land. The remainder of the Site is undeveloped and primarily occupied by agricultural lands. The Jock River is located on the southwest corner of the Site and a tributary to the Jock River intersects the eastern portion of the Site.	**North:** The majority of the lands north of the Site are not visible; however, the areas that are visible are primarily occupied by agricultural fields. A railway running southwest to northeast is also located immediately north of the westernmost portion of the Site. **East:** Agricultural lands. **South:** Agricultural and vacant land followed by the Jock River. The tributary to the Jock River that is located on the Site intersects the southeast portion of the Phase One Study Area. **West:** Agricultural lands and the Jock River which extends west from the southwest corner of the Site and intersects the western portion of the Phase One Study Area.
1956	As per 1946.	**North:** The northern portion of the Phase One Study Area is fully visible and is occupied by agricultural and/or vacant land and a residential or farm property located on the west side of Borrisokane Road. McKenna Casey Drive is also located immediately north of the western portion of the Site. **East:** As per 1946. **South:** As per 1946. **West:** As per 1946.
1964	As per 1956.	**North:** Similar to 1956 with the addition of a small commercial-type building on the property located at 4378 McKenna Casey Drive. The easternmost portion of the land north of the Site is not visible. **East:** Not visible. **South and West:** As per 1956.
1976 City of Ottawa geomap	Similar to 1964. There appears to be a few more small farm-related structures on the farm property at 3288 Borrisokane Road.	**North:** Similar to 1964; however, the residential or farm property located along the west side of Borrisokane Road is no longer present and a residential house has been constructed on the south side of McKenna Casey Drive, west of Borrisokane Road. In addition, there appears to be a few cell towers located property at 4378 McKenna Casey Drive. The commercial-type building that was visible on this property in the 1964 aerial photograph is likely a communications building for the cell towers. **East:** As per 1956. **South and West:** As per 1964.
1985	As per 1976.	**North:** As per 1976. **East:** Similar to 1976; however, the Kennedy-Burnett storm water management pond is located immediately east of the Site. **South and West:** As per 1976.

Year	Site	Surrounding Area
1991 City of Ottawa geomap	Similar to 1985; however, a north-south oriented drainage ditch has been constructed on the agricultural fields located on the west side of the Site at 3288 and 3300 Borrisokane Road. In addition, a silo is located on the farm property at 3288 Borrisokane Road.	**North:** Similar to 1985 with the addition of a farm property along the east side of Borrisokane Road. **East:** As per 1985. **South:** Similar to 1985; however, a portion of land immediately south of 3300 Borrisokane Road appears to have been excavated for the construction of a shallow settling pond which collects surface water run-off and shallow groundwater from the nearby agricultural fields and discharges it to the Jock River. The pond appears to the dry in this aerial photograph. The drainage ditch recently constructed on the western portion of the Site extends to this pond. In addition, a dirt and gravel road has been constructed on the west side of Borrisokane Road and provides access to this area. **West:** As per 1976.
2002 City of Ottawa geomap	Similar to 1985. There appears to be storage of vehicles and a boat on the property at 3288 Borrisokane Road.	**North, South, East and West:** As per 1991 with the addition of Highway 416 on the western boundary of the Site.
2008 City of Ottawa geomap	As per 2002.	**North:** Similar to 2002 with the addition of a stormwater management pond located north of the western portion of the Site on the north side of McKenna Casey Drive **East:** As per 2002. **South:** Similar to 2002. Water is now present in the settling pond. **West:** As per 2002.
2014 City of Ottawa geomap	As per 2008.	**North, South, East and West:** As per 2008.

Based on the aerial photographs, the Phase One Property has been developed with the current farm house and associated farm structures located at 3288 Borrisokane Road since prior to 1946. The remainder of the Site has been occupied by agricultural lands since prior to 1946.

The surrounding lands have been occupied by agricultural and/or vacant fields since at least 1946 with the exception of a few residential and farm properties located on the surrounding properties north of the Site and a railway that has been located immediately north of the westernmost portion of the Site since prior to 1946 and Highway 416 was built west of the Site in the 1990s.

The aerial photograph review of the Site and surrounding area (within approximately 250 m) did not identify any PCAs on the Site; however, it did indicate an off-Site PCA associated with the current railway located within the Phase One Study Area.

3.3.2 Topography, Hydrology and Geology

The following records were reviewed to identify topographic, geologic and hydrogeological conditions at the Site. A topographic map (Ontario Base Map) showing the Site and the Phase One Study Area and the location of any water bodies is provided in Figure 3. Additional information on Site features, as observed at the time of the Site visit, is provided in Section 5.

Topic	Conditions	Comment / Source
Topography of Site and Surrounding Area	The topography of the Site and surrounding area is generally flat; however, the adjacent land south of the Site along the banks of the Jock River slope downwards towards to the river.	Site and surrounding area observations and Figure 3 – Topographic Map and Areas of Natural Significance
Overburden Soils	Topsoil underlain by Offshore Marine Deposits (clay, silty clay and silt).	Bélanger, J. R. 2008 Urban Geology of the National Capital Area, Geological Survey of Canada, Open File 5311, 1 DVD. Geotechnical investigation currently being completed at the Site by Golder
Type of Bedrock	Oxford Formation: dolostone, minor shale and sandstone.	Armstrong, D.K. and Dodge, J.E.P. 2007. Paleozoic Geology of Southern Ontario; Ontario Geological Survey, Miscellaneous Release – Data 219
Depth to Bedrock	The depth to bedrock is expected to be between 10 and 15 metres below ground surface (mbgs) with a few exceptions. The depth of bedrock on the northeast portions of the 4305 McKenna Casey Drive and 3288 Borrisokane Drive, and a small pocket on the west side of 3305 Borrisokane is expected to be between 15 mbgs and 25 mbgs. The depth to bedrock in the western half of 4375 McKenna Casey Drive, the north-west corner of 4345 McKenna Casey Drive and a significant portion of the eastern side as well as a central pocket of 3305 Borrisokane Road is expected to be between 5 to 10 mbgs.	2010 Bélanger, J. R., Urban Geology of the National Capital Area, Geological Survey of Canada, Open File D3256, 2001
Inferred Near Surface Groundwater Flow	Local groundwater is anticipated to flow south towards the Jock River, to a tributary to the Jock River that intersects the eastern portion of the Site or to nearby drainage ditches which flow into the Jock River. The Jock River is located immediately south of the Site at 4345 McKenna Casey Drive and 3305 Borrisokane Road.	Site and surrounding area observations, Figure 1 – Key Plan and Figure 3 – Topographic Map and Areas of Natural Significance
Site Grade Relative to the Adjoining Properties	The Site appears to follow the topography of the area and is generally at grade with the surrounding properties north, east and west of the Site and above the grade of the surrounding properties south of the Site.	Site and surrounding area observations and Figure 3 – Topographic Map and Areas of Natural Significance
Depth to Groundwater	Not identified.	N/A

It should be noted that local groundwater flow may be influenced by underground utilities (i.e., service trenches) and building structures. For example, the gravel pack used around utilities, such as a water line, can act as interceptors and redirect groundwater flow along the direction of the pipe. If a more accurate description of geology, groundwater flow and groundwater quality is required, a subsurface investigation would be necessary.

3.3.3 Fill Materials

Topic	Conditions	Comment / Source
Fill Materials	A pile of fill materials were observed on the entryway to 4375 McKenna Casey Drive.	Site observations

3.3.4 Water Bodies and Areas of Natural Significance

Topic	Conditions	Comment / Source
Nearest Open Water Body	The Jock River is located along the southern boundary of 4375 McKenna Casey Drive, and 3305 Borrisokane Road. A stormwater management pond is also located on the northeast corner of the property at 4305 McKenna Casey Drive. There is also a tributary to the Jock River that intersects the portion of the Site east of Borrisokane Road and several streams and/or drainage ditches intersect the Site.	Site observations and Figure 1 – Key Plan
Areas of Natural Significance	No areas of natural and scientific interest (ANSI) are known to be located on the Site or on the Phase One Study Area. Based on available information, the Site is not considered to be an environmentally sensitive area. However, a response from the MNRF has not been received to confirm this. As such, the Site is not considered an area of natural significance.	Figure 3 (Topographic Map and Areas of Natural Significance)

3.3.5 Well Records

Topic	Conditions	Comment / Source
Water Wells on Site (location, stratigraphy of the overburden, from ground surface to bedrock, depth to bedrock, depth to water table, drilling date, use)	Two damaged wells were observed on-Site at 4374 McKenna Casey Drive on October 25, 2018. Flags were located across the Site at 4375 and 4345 McKenna Casey Drive to indicate the locations of incoming monitoring wells for a geotechnical investigation. During a previous Site visit, one water well was observed on the farm property at 3288 Borrisokane Road, near a small storage shed on the west side of the farm house. In addition, five stick up monitoring wells were located on the Site. These monitoring wells were recently installed as part of the geotechnical investigation currently being completed for the Site and are identified as monitoring wells 17-01, 17-05, 17-09, 17-11 and 17-15 as shown on Figure 2.	EcoLog ERIS Report from the Golder 2017 Phase I ESA and Site observations
Water Wells on the Neighbouring Properties (location, stratigraphy of the overburden, from ground surface to bedrock, depth to bedrock, depth to water table, drilling rate, use)	Based on the EcoLog ERIS report from the Golder 2017 Phase I ESA, seven (7) water wells were constructed within the Phase One Study Area. They were constructed between August 1963 and July 2015 to depths ranging between 13.10 mbgs to 55.47 and 3.66 and 9.75 mbgs. The static water levels ranged from 2.87 mbgs to 10.44 mbgs. Additional information regarding the water wells is included in the EcoLog ERIS report in Appendix B.	EcoLog ERIS Report from the Golder 2017 Phase I ESA

3.3.6 Site Operating Records

The Site has always been used for agricultural and residential purposes. No Site operating records were provided to Golder for review.

4.0 INTERVIEWS

Golder conducted an interview with Andrew Finnson of Barrhaven Conservancy East Inc. (hereinafter referred to as the "Site Representative") to discuss information about the historical and current activities carried out on the Site. Pursuant to the requirements O.Reg. 153/04, the Site Representative was interviewed as the "current owner" with knowledge of current Site operations. Relevant information obtained during the interview and Site visit is provided in Section 5.0.

5.0 SITE RECONNAISSANCE

5.1 General Requirements

Rochelle Mathew of Golder visited the Site on October 25, 2018. The Site visit consisted of a walk-around the Site along with a cursory inspection of surrounding properties from the Site and publicly accessible areas. The weather conditions were overcast and the temperature was approximate 1°C. At the time of the Site visit, three properties were visited including 4375 McKenna Casey Drive, 4345 McKenna Casey Drive and 3305 Borrisokane Road (new parcels) and the previous 2017 Phase I ESA Site area was also review for changes since the previous site visit. The Site was primarily used for agriculture and consisted of some vacant fields. At the time of the visit at 3305 Borrisokane Rd, a geotechnical investigation was being held, simultaneously to crop harvest. There was no indications of stains, sheen, distressed vegetation or discoloration. A shed, and approximately 25 boxes of insulation were located on the south-west corner of 3305 Borrisokane Road. Debris was observed at the south-east and south-west corners of 3305 Borrisokane Rd.

5.2 Specific Observations at Phase One Property

The specific observations made during the Site visit are presented in the following sections.

Topic	Observations	Source
Structures **Number and Age of Buildings on the Site**	A storage shed was located on the south-west corner of 3305 Borrisokane Rd. During the Site visit conducted for the Golder 2017 Phase One, the main structures located at 3288 Borrisokane Road were a farm house, a barn and a storage shed which may have been a former parking garage associated with the farm house. These structures were constructed prior to 1946. There was also a silo and a few other small storage sheds present on this property.	Site observations and Site Representative
General Descriptions of Each Building (including improvements)	The shed has one storey. The farm house is a two-storey residential house with no basement level. The western portion of the farm house is constructed with brick on a poured concrete foundation and construction of the eastern portion of the farm house is vinyl siding on a wood frame on a poured concrete foundation. Access was not provided to the interior of the residential building.	Site observations and Site Representative

Topic	Observations	Source
	The barn is a two-storey building that is constructed with vertical wood board on wooden stacked walls. Access was not provided to the interior of the barn; however, it is likely used for the storage of farm equipment and hay. The storage shed is constructed with wooden shingle siding on concrete block. A single car garage door was located on the eastern side of the storage shed and as such, it is likely this this structure was formerly used as a parking garage for the farm. However, it does not appear to be used as a parking garage anymore. Access was not provided to the interior of the barn.	
Building Areas	Shed (3305 Borrisokane Rd): approximately 4.5 m^2 Farm House: approximately 130 m^2 Barn: approximately 255 m^2 Barn: approximately 40 m^2	N/A
Number of Floors (include all levels, whether above or below ground)	The farm house and barn have two aboveground levels and both storage sheds have one aboveground level. None of the on-Site structures have below grade levels.	Site observations
Number, Age, and Depth of Levels Below Ground Level	None of the structures on the Site have below ground levels.	Site observations
Number and Details of all Aboveground Storage Tanks (ASTs)	No evidence (fill/vent pipes extending through walls or slabs/ground surface, no staining or any obvious odours) was observed during the Site visit to indicate the current or former presence of fuel or chemical ASTs on the Site.	Site observations and Site Representative
Number and Details of all Underground Storage Tanks (USTs)	No evidence (fill/vent pipes extending through walls or slabs/ground surface, no staining or any obvious odours) was observed during the Site visit to indicate the current or former presence of fuel or chemical USTs on the Site.	Site observations and Site Representative
Asbestos-Containing Materials (ACMs)	Based on the age of the farm house and farm buildings (prior to 1946), potential ACMs such as floor tiles, dry wall compounds, stucco ceilings, mortar and window caulking may be present in the Site buildings.	Site observations
Lead-Based Paints (LBPs)	Based on the age of the farm house and farm buildings (prior to 1946), there is a potential for lead-based paints to be present within these buildings.	Site observations

Topic	Observations	Source
Polychlorinated Biphenyls (PCB) Containing Materials and Equipment	A pole-mounted transformer owned by Hydro Ottawa was located on the farm property located on the Site. In addition, several pole-mounted transformers owned by Hydro Ottawa were noted adjacent to the roads within the Phase One Study Area. No evidence of spills or leaks were noted in the area of the transformers at the time of the Site visit. No labels indicating whether the transformers are PCB-contained or not were noted on any of the transformers.	Site observations
Underground Utilities **Potable and Non-Potable Water Sources**	Given the rural location of the Site, it is unlikely that the Site is connected to the municipal water supply. There is also a potable water well located on the farm property at 3288 Borrisokane Road, near a storage shed on the west side of the farm house. It is unknown if this well is currently operational or if it is currently being used. At the time of the Site visit for the previous Golder 2017 Phase One ESA, there were five stick up monitoring wells located on the Site. These monitoring wells were recently installed as part of the geotechnical investigation currently being completed for the Site. Two stick-up monitoring wells were observed at 4375 McKenna Casey Drive, and were significantly damaged.	Site observations
Utility Lines Present (i.e., Electrical, Natural Gas, other)	Overhead electrical lines are present along the northern property boundary of 4305, 4345 and 4375 McKenna Casey Drive, the eastern property boundary of 3288 and 3300 Borrisokane Road and along the western property boundary of 3285 and 3305 Borrisokane Road. In addition, overhead electrical lines are present in the vicinity of the structures located on the farm property at 3288 Borrisokane Road.	Site observations
Sanitary/Process Wastewater Receptor	Sanitary wastewater is generated from the farm house and discharges to a septic tank located on the farm property. No process wastewater is generated on-Site.	Site observations
Sanitary Sewer Connection	The Site is not connected to the municipal sanitary sewer.	Site observations

Topic	Observations	Source
Septic Systems	The Site Representative indicated that there is a septic system on the farm property at 3288 Borrisokane Road; however, the exact location is unknown.	Site observations
Storm Water Flow	Storm water run-off flows to drainage ditches that intersect the Site, to a tributary to the Jock River that intersects the eastern most of the Site, to the Jock River located on the southwest corner of the Site, to a stormwater management pond located on the northeast corner of 4305 McKenna Casey Drive and through natural soil infiltration.	Site observations
Storm Sewer Connection	The Site is not connected to the municipal storm sewer.	Site observations
Interior of Structures **Entry and Exit Points for Site Buildings**	The farm house has three entry and exit points. The barn and main storage shed have one entry point.	Site observations
Existing and Former Heating System(s) (include fuel type / source)	The farm house is heated via electric baseboards and a wood stove. The Site Representative reported that these have been the only heating sources for the farm house. At the time of the Site visit, a wood stove chimney was observed on the storage shed and as such, it is likely that this building is currently or was formerly heated via a wood stove.	Site observations and Site Representative
Existing and Former Cooling System(s) (include fuel type / source)	None identified.	Site observations
Drains, Pits, and Sumps (include current use, if any, and former use)	None identified.	Site observations
Unidentified Substances	None identified.	Site observations
Floor Stains or Corrosion Located near a Potential Discharge Location	None identified.	Site observations
Miscellaneous Exterior **Location of any Current and Former Wells**	One water well was observed on the farm property at 3288 Borrisokane Road, near a storage shed on the west side of the farm house. In addition, five stick up monitoring wells are located on the Site. These monitoring wells were recently completed as part of the geotechnical investigation currently being completed for the Site and are identified as monitoring wells 17-01, 17-05, 17-09, 17-11 and 17-15 as shown on Figure 2.	Site observations
Ground Cover (i.e., grass, gravel, soil, or pavement, etc.)	The majority of the Site is covered with agricultural fields. Grassed areas are present around the farm house and farm-related structures at 3288 Borrisokane Road and the driveway of this farm property was covered with gravel.	Site observations

Topic	Observations	Source
Current or Former Railway Lines or Spurs	None observed or reported on the Site.	Site observations
Presence of Stained Soil, Vegetation, or Pavement	None observed; however, the Site was primarily snow covered at the time of the Site visit which restricted observations for the potential presence of stained ground surfaces. In addition, no access was provided to the structures on the farm property at 3288 Borrisokane Road and as such, no observations for potential presence of staining were made in these structures.	Site observations
Presence of Stressed Vegetation	None identified; however, the Site was primarily snow covered at the time of the Site visit which restricted observations for the potential presence of stressed vegetation.	Site observations
Areas Where Fill and/or Debris Materials Appear to Have Been Placed	No piles of fill material were observed on-Site during the Site visit. A small pile of fill was observed off-Site at the entrance to 4305 McKenna Casey Drive; Debris was observed around the barn located on the farm property at 3288 Borrisokane Road. The debris included, but was not limited to, abandoned vehicles, boats and trailers, a plastic drum, wood and metal debris. Some other small areas of debris were observed in the southeast corner and in the southwest corner of 3305 Borrisokane Road.	Site observations
Potentially Contaminating Activity	None identified.	Site observations and Site Representative
Unidentified Substances	None identified.	Site observations

5.3 Enhanced Investigation Property

The Site has only been used for agricultural and residential purposes has not been used as an automotive garage, a bulk liquid dispensing facility or a dry cleaning facility. As such, the Site is not considered to be an enhanced investigation property as defined by O. Reg. 153/04.

5.4 Surrounding Land Use

During the Site visit, a visual reconnaissance of the outdoor operations in the Phase One Study Area was carried out from the Site and publicly accessible areas.

The surrounding properties include residential and agricultural land uses as well as greenspaces/vacant land, as illustrated on Figure 2.

North: Primarily agricultural and vacant land with a farm property located on the east side of Borrisokane Road. Two stormwater management ponds were also located within the northern portion of the Phase One Study Area. One was located land north of 3288 Borrisokane Road and east of 4305 McKenna Casey Drive. This stormwater management pond extended onto the northeast corner of 4305 McKenna Casey Drive. The other stormwater management pond was located on the north side of McKenna Casey Drive. Cell towers and an associated communications building were also located on the surrounding lands northwest of the Site and a railway running southwest to northeast was located immediately north of the westernmost portion of the Site (4305 McKenna Casey Drive). In addition, a pile of fill material was present on the property at 4235 McKenna Casey Drive which is the property located between the 4305 McKenna Casey Drive and McKenna Case Drive. The fill material was located immediately west of the stormwater management pond located on the northeast corner of 4305 McKenna Casey Drive. Based on the review of the aerial photographs, this stormwater management pond and the pile of fill material have been present on these lands since sometime between 2014 and the time of the Site visit. As such, it is likely that the fill material is excavated material for the construction of the stormwater management ponds.

East: The Kennedy-Burnett storm water management pond followed by agricultural land.

South: Agricultural and vacant land followed by the Jock River which intersects the southern portion of the Phase One Study Area from east to west. A settlement pond is also located immediately south of 3300 Borrisokane Road and a dirt and gravel road extends west from Borrisokane Road to this pond. In addition, the tributary to the Jock River that is located on the Site intersects the southeast portion of the Phase One Study Area.

West: Highway 416 followed by agricultural lands with some trees. The Jock River also extends west from the southwest corner of the Site and intersects the western portion of the Phase One Study Area.

5.5 Written Description of Investigation

The Site is located at 4305, 4345 and 4375 McKenna Casey Drive and 3285, 3288, 3300 and 3303 Borrisokane Road in Ottawa, Ontario. At the time of the Site visit conducted on October 25, 2018, the Site consisted of three additional parcels of land of 24.08 acres (9.75 hectares) at 4375 McKenna Casey Drive, 37.98 acres (15.37 hectares) at 4345 McKenna Casey Drive and 97.19 acres (39.35 hectares) at 3305 Borrisokane Rd, to a total of 411 acres (166 hectares). These properties were primarily used for agriculture and were partly vacant fields. There were piles of debris noticed along the south-eastern corner of the Site, as well as a shed and storage boxes containing insulation near the south-western corner of the Site at 3305 Borrisokane Rd. A pile of fill materials was observed off-Site on the entryway to 4375 McKenna Casey Drive north-east of the property boundary.

During a previous Site visit on February 16, 2017, the Site consisted of approximately 251.50 acre (101.78 hectare) of land that was primarily occupied by agricultural fields and was snow covered at the time of the Site visit. More specifically, three of the four properties located on the Site (4305 McKenna Casey Drive and 3285 and 3300 Borrisokane Road) were undeveloped and primarily consisted of agricultural fields. The other property located on the Site (3288 Borrisokane Road) was developed as a farm property that consisted of a farm house, a barn, a wooden storage shed, a silo, a few other small wooden storage sheds and agricultural fields. In addition, a picnic table and fire pit was observed on the south side of the barn. Access was not provided to the interior portions of the structures located on the on-Site farm property. Debris was observed in the vicinity of the barn located on the farm property at 3288 Borrisokane Road. The debris included, but was not limited to, abandoned vehicles, boats and trailers, a plastic drum, wood and metal debris.

During the previous Site visit conducted for the Golder 2017 Phase One ESA, a pile of fill material that was vegetated and snow covered was present on an adjacent property north of the Site at 4235 McKenna Casey Drive. This property is located between the 4305 McKenna Casey Drive and McKenna Case Drive. The fill material was located immediately west of the stormwater management pond located on the northeast corner of 4305 McKenna Casey Drive and, based on the review of the aerial photographs, this stormwater management pond and the pile of fill material have been present on these lands since sometime between 2014 and the time of the Site visit. As such, it is likely that the fill material is material was excavated for the construction of the stormwater management pond located on-Site and adjacent to the Site. Given that the origin of the fill material is known, the presence of the fill material on the adjacent land north of the Site not considered to be a PCA. It was also noted during the Site visit that a southwest-northeast oriented railway was located immediately north of the westernmost portion of the Site (4305 McKenna Casey Drive). The current presence of the railway is considered to be an off-Site PCA.

The surrounding properties within the Phase One Study Area included residential and agricultural land uses as well as some vacant land and transportation corridors.

6.0 REVIEW AND EVALUATION OF INFORMATION

6.1 Current and Past Uses of Site

The following summarizes the current and past uses of the Phase One Property:

Year(s)	Name of Owner(s)	Description of Property Use	Property Land Use according to Reg.153/04	Other Observations from Aerial Photographs, Fire Insurance Plans, Etc.
Prior to 1946 to Present (2016)	Four properties (4305 McKenna Dr, 3288 Borrisokane Rd, 3300 Borrisokane on the Site are each owned by private individuals; however, the name of prior owners is unknown. The three added properties have been acquired by the Client.	The Site was occupied by agricultural fields with the exception of a farm property that is located at 3288 Borrisokane Road.	Agricultural or other use/Residential	The 1946 and subsequent aerial photographs show the Site is developed with a farm (farm house and farm related structures) located at 3288 Borrisokane Road and that the remainder of the Site has been undeveloped, agricultural and/or vacant land. At the time of the Site visit, the Site was occupied by a farm property at 3288 Borrisokane Road and agricultural fields. No aerial photograph coverage was available for prior to 1946.

6.2 Potentially Contaminating Activity

Potentially contaminating activities, which if currently or historically carried out at a Site, may contribute to an area of potential environmental concern (APEC). Based on the information obtained as part of this Phase One ESA, the following PCA was identified within the Phase One Study Area:

Location	Potentially Contaminating Activity	Information Source	Rationale for Potential Contribution of the PCA to an APEC
Phase One Study Area	#46. Rail Yards, Tracks and Spurs – Current presence of a railway located immediately north of the westernmost portion of the Site.	FIPs, aerial photographs and Site observations	Given that the railway is located off-Site, that there have been no reported spills along the railway and that future redevelopment of the Site is likely to include the removal of any soil impacts on the Site, this PCA is not considered to represent an APEC on the Site.

In addition, debris, including abandoned vehicles, boats and trailers, a steel drum, wood and metal debris, were observed around the barn located on the farm property at 3288 Borrisokane Road during the Site visit conducted for the Golder 2017 Phase I ESA and in two other locations during the 2018 Site visit. The presence of this waste is not considered to be an on-Site PCA; however, it is considered to be a property management concern and should be removed from the Site prior to development.

6.3 Area of Potential Environmental Concern

Based on the information obtained as part of this Phase One ESA, none of the PCAs identified were considered to represent an APEC on the Phase One Property.

6.4 Conceptual Site Model

A Conceptual Site Model of the Phase One Study Area (as required by O.Reg. 153/04) is presented in a series of Figures 1 to 8 (Figure 1: Key Plan, Figure 2: Site Plan, Figure 3: Topographic Map and Areas of Natural Significance, Figure 4: Surficial Geology, Figure 5: Bedrock Geology, Figure 6: Drift Thickness, Figure 7: Soil Survey Complex (Ontario Soils), and Figure 8: Physiography Map).

The combined set of figures shows:

- Existing buildings and structures
- Water bodies and Areas of Natural Significance (if present) located in the Phase One Study Area
- Drinking water wells on the Phase One Property
- Roads (including names) within the Phase One Study Area
- Uses of properties adjacent to the Phase One Property
- Location of identified PCAs in the Phase One Study Area (including any storage tanks)

The following describes the Phase One ESA Conception Site Model (CSM) for the Site based on the information obtained and reviewed as part of this Phase One ESA:

- The Site visit was conducted on October 25, 2017 and consisted of three additional parcels of land of 24.08 acres (9.75 hectares) at 4375 McKenna Casey Drive, 37.98 acres (15.37 hectares) at 4345 McKenna Casey Drive and 97.19 acres (39.35 hectares) at 3305 Borrisokane Rd. The Site was primarily occupied by lands used for agriculture, and some vacant fields. There were piles of debris noticed along the south-eastern corner of the Site, as well as a shed and storage boxes containing insulation near the south-western corner of the Site at 3305 Borrisokane Rd. In total, at the time of submission, this Site consists of 411 acres (166 hectares).
- Two monitoring wells were observed on 4375 McKenna Casey Drive.

- During an earlier Site visit conducted on February 16, 2017, the Site consisted of approximately 251.50 acre (101.78 hectare) of land that was primarily occupied by agricultural fields. The only development on the Site was a farm property located at 3288 Borrisokane Road which consisted of a farm house, a barn, a wooden storage shed, a silo and a few other small wooden storage sheds. At the time of the previous Site visit, one drinking water well was observed on the farm property at 3288 Borrisokane Road, near a storage shed on the west side of the farm house.
- The nearest open body of water is the Jock River which is located on south of the Site and intersects the southern portion of the Phase One Study Area. A stormwater management pond is also located on the northeast corner of the property at 4305 McKenna Casey Drive. There is also a tributary to the Jock River that intersects the portion of the Site east of Borrisokane Road and several streams and/or drainage ditches intersect the Site.
- No areas of natural and scientific interest (ANSI) are known to be located on the Site or on the Phase One Study Area. Based on available information, the Site is not considered to be an environmentally sensitive area. However, a response from the MNRF (Section 3.2.4) did indicate the potential for habit to be present of some sensitive species.
- At the time of the Phase One ESA, the surrounding properties within the Phase One Study Area were comprised of residential and agricultural land uses or were vacant land.
- The roads located within the Phase One Study Area at the time of the Site visit were Borrisokane Road, McKenna Case Drive and Strandherd Drive.
- Soil at the Site consists of clay, silty clay and silt and bedrock at the Site is of the Oxford Formation (dolostone, minor shale and sandstone).
- Groundwater is anticipated to flow south towards the Jock River, to a tributary to the Jock River that intersects the eastern portion of the Site or to nearby drainage ditches which flow into the Jock River.

The following PCA that may have resulted in an APEC on the Site has been identified:

Location	Potentially Contaminating Activity	Information Source	Rationale for Potential Contribution of the PCA to an APEC
Phase One Study Area	**#46. Rail Yards, Tracks and Spurs** – Current presence of a railway located immediately north of the westernmost portion of the Site.	FIPs, aerial photographs and Site observations	Given that the railway is located off-Site, that there have been no reported spills along the railway and that future redevelopment of the Site is likely to include the removal of any soil impacts on the Site, this PCA is not considered to represent an APEC on the Site.

6.4.1 Uncertainty and Absence of Information

Golder was unable to access the interior portions of the on-Site buildings during the Site visit. However, based on the body of information acquired, it is considered that the absence of this information should not likely affect the final conclusion of the Phase One ESA. Golder will review responses to these regulatory requests upon their receipt and, should the responses affect the findings of this Phase One ESA, they will be forwarded to the Client. There were no material deviations to the Phase One ESA requirements set out in O.Reg. 153/04 that would cause uncertainty or absence of information that would affect the validity of the Phase One Conceptual Site Model or the findings of this Phase One ESA.

7.0 CONCLUSIONS

Given that no APECs were identified on the Site during the Phase One ESA, a Phase Two ESA is not recommended to be carried out at the Site at this time.

7.1 Record of Site Condition Based on Phase One Environmental Site Assessment Alone

Given that the Phase One Property has been used for agricultural and residential purposes and is to be redeveloped with residential dwellings, a stormwater management pond, schools and community parks, there will be no change in the land use from less sensitive to more sensitive. As such, there is no mandatory requirement for an RSC to be filed for the Site.

8.0 REFERENCES

The following documents and/or data were cited in this report:

Source	Date
Ontario Regulation 153/04 as amended	October 31, 2011
Bélanger, J. R. 2008 Urban Geology of the National Capital Area, Geological Survey of Canada, Open File 5311, 1 DVD.	2008
Armstrong, D.K. and Dodge, J.E.P. 2007. Paleozoic Geology of Southern Ontario; Ontario Geological Survey, Miscellaneous Release—Data 219	2007
2010 Bélanger, J. R., Urban Geology of the National Capital Area, Geological Survey of Canada, Open File D3256, 2001	2010
Aerial Photographs – National Air Photo Library (Natural Resources Canada)	1946, 1956, 1964 and 1985
Aerial Photograph Images – geoOttawa (http://maps.ottawa.ca/geoOttawa/)	1976, 1991, 2002, 2008 and 2014
EcoLog ERIS report	February 6, 2017
Ontario Ministry of the Environment and Climate Change	February 15, 2017, Pending response
City of Ottawa	Pending response
Ministry of Natural Resources and Forestry	Pending response
Technical Standards and Safety Authority	February 1, 2017, Pending Response

9.0 LIMITATIONS AND USE OF REPORT

This report (the "Report") was prepared for the exclusive use of Barrhaven Conservancy East Inc. for the express purpose of providing advice with respect to the environmental condition of the Site. In evaluating the Site, Golder Associates Ltd. (Golder) has relied in good faith on information provided by others as noted in the Report. We have assumed that the information provided is factual and accurate. We accept no responsibility for any deficiency, misstatement or inaccuracy contained in this Report as a result of omissions, misinterpretations or fraudulent acts of persons interviewed or contacted, or incomplete or inaccurate historical information from the various agencies. Any use which a third party makes of this Report, or any reliance on or decisions to be made based on it, is the sole responsibility of such third party. If a third party requires reliance on this Report, prior written authorization from Golder is required. Golder disclaims any responsibility of consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

The scope and the period of Golder's assessment are described in this Report, and are subject to restrictions, assumptions and limitations. Except as noted herein, the work was conducted in accordance with the scope of work and terms and conditions of Golder's proposal. Golder did not perform a complete assessment of all possible conditions or circumstances that may exist at the Site referenced in the Report. Conditions may therefore exist which were not detected given the limited nature of the assessment Golder was retained to undertake with respect to the Site and additional environmental studies and actions may be required. In addition, it is recognized that the passage of time affects the information provided in the Report. Golder's opinions are based upon information that existed at the time of the writing of the Report. It is understood that the services provided for in the scope of work allowed Golder to form no more than an opinion of the actual conditions at the Site at the time the Site was visited, and cannot be used to assess the effect of any subsequent changes in any laws, regulations, the environmental quality of the Site or its surroundings. Asbestos and mould surveys were not performed. If a service is not expressly indicated, do not assume it has been provided.

The results of an assessment of this nature should in no way be construed as a warranty that the Site is free from any and all contamination from past or current practices.

10.0 STATEMENT OF COMPLETION

The undersigned confirm that this Phase One Environmental Site Assessment was conducted in a manner consistent with the expected standard of care for the consulting industry in Ontario and meets the requirements for Phase One ESAs as set out in O.Reg. 153/04, however this report has not been completed with the intent of filing a Record of Site Condition.

11.0 CLOSURE

We trust that the information presented in this report meets your current requirements. Should you have any questions or concerns, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES LTD.

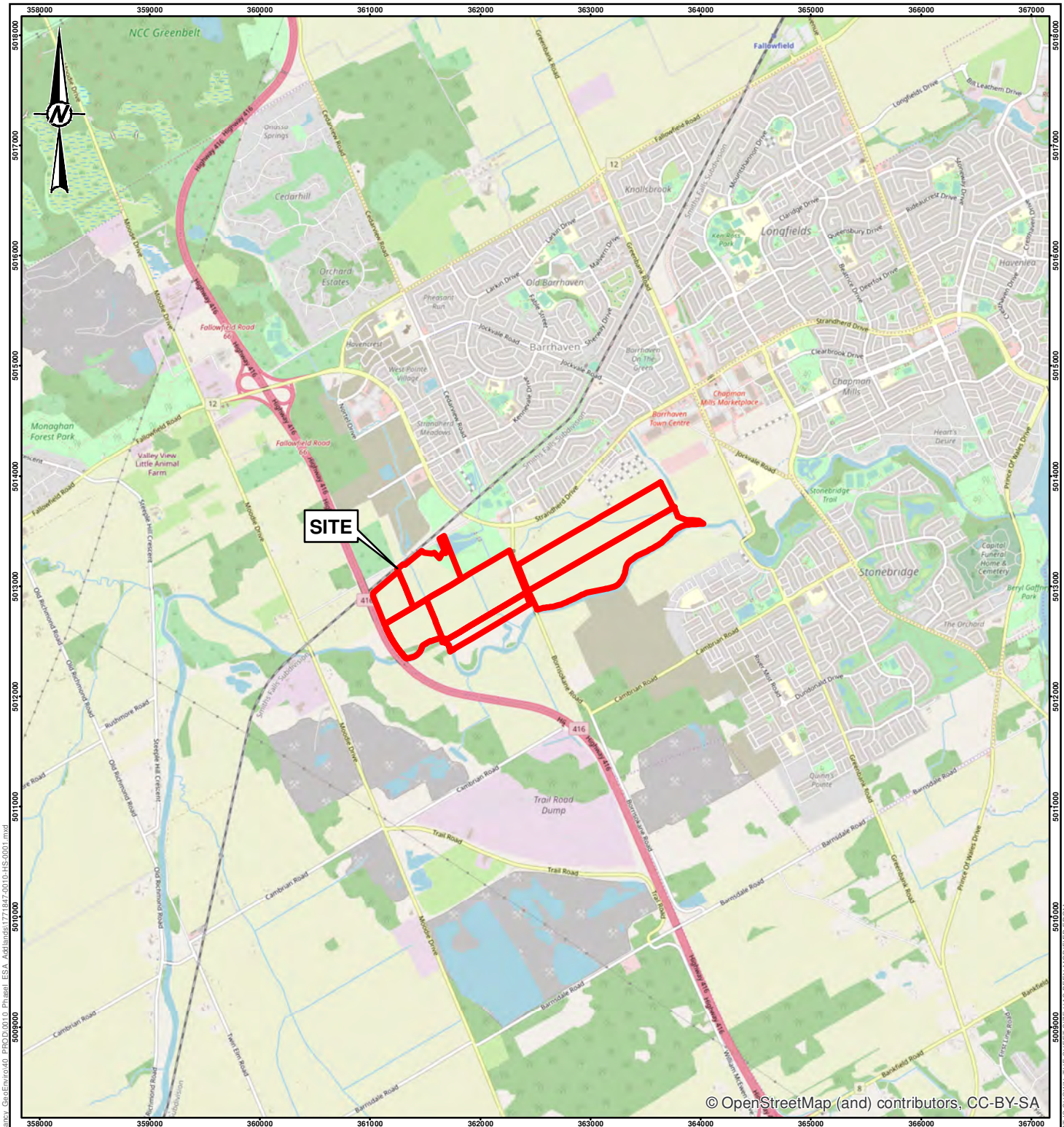
Rochelle Mathew
Junior Scientist

Keith Holmes, P.Geo.
Associate

RM/KPH

\\golder.gds\gal\ottawa\active\2017\3 proj\1771847 caivan barrhaven conservancy lands ottawa\04_reporting\deliverables oct 2018 phase i esa update\new phase i report\1771847-1000 - phase i esa update - conservancy lands 2018.docx

Figures



LEGEND

PHASE ONE SITE

0 500 1,000 2,000

1:50,000 METRES

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1771847-1000.

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: MTM ZONE 9 VERTICAL DATUM: CGVD28

CLIENT

BARRHAVEN CONSERVANCY INC.

PROJECT

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
4305, 4345, AND 4375 MCKENNA CASEY DRIVE AND 3305, 3285, 3288, AND 3300 BORRISOKANE ROAD, OTTAWA, ONTARIO

TITLE

KEY PLAN

CONSULTANT

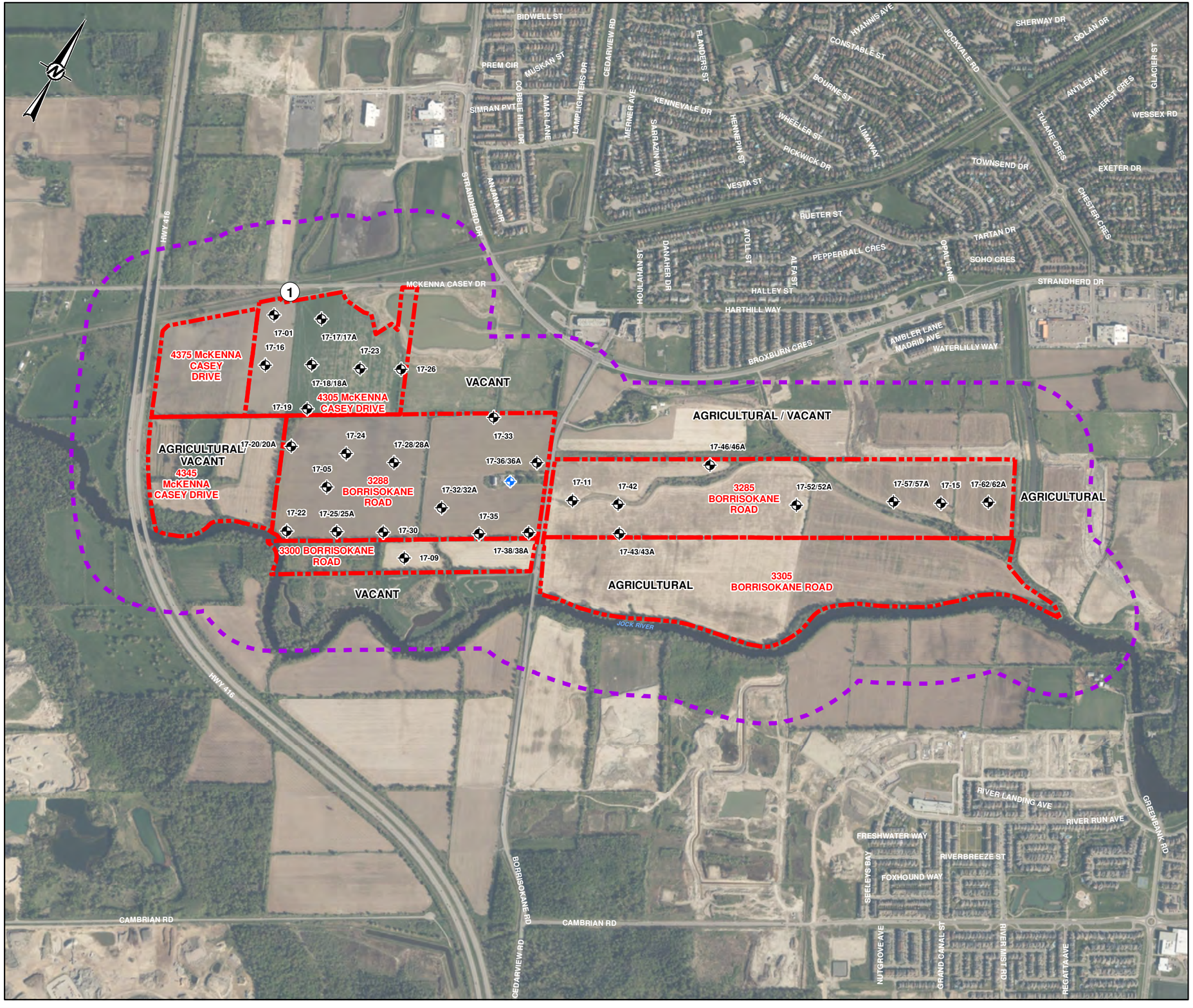
GOLDER

YYYY-MM-DD	2018-10-23
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	FIGURE
1771847	0010	0	1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

Path: N:\Active\Spatial IM\Calvan\Conservancy Lands\99 PROJ\1771847 BarrhavenConservancy GeoEnviro\40 PROD\0010 Phase1 ESA Addlands\1771847-0010-HS-0001.mxd



LEGEND

- POTABLE WATER WELL OBSERVED DURING PHASE ONE ESA SITE VISIT
- APPROXIMATE BOREHOLE/MONITORING WELL LOCATION, CURRENT GEOTECHNICAL INVESTIGATION
- PHASE ONE SITE
- PHASE ONE STUDY

Potentially Contaminating Activity (PCA)		
Location	**Detail**	**PCA #**
1	Rail Yards, Tracks and Spurs – Current presence of a railway located immediately north of the westernmost portion of the Site.	46

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1771847-1000.

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. SOURCE: ESRI, DIGITALGLOBE, GEOEYE, I-CUBED, USDA, USGS, AEX, GETMAPPING, AEROGRID, IGN, IGP, SWISSTOPO, AND THE GIS USER COMMUNITY
3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: MTM ZONE 9, VERTICAL DATUM: CGVD28

0 125 250 500

1:12,500 METRES

CLIENT

BARRHAVEN CONSERVANCY INC.

PROJECT

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
4305, 4345, AND 4375 MCKENNA CASEY DRIVE AND 3305, 3285, 3288, AND 3300 BORRISOKANE ROAD, OTTAWA, ONTARIO

TITLE

SITE PLAN

CONSULTANT

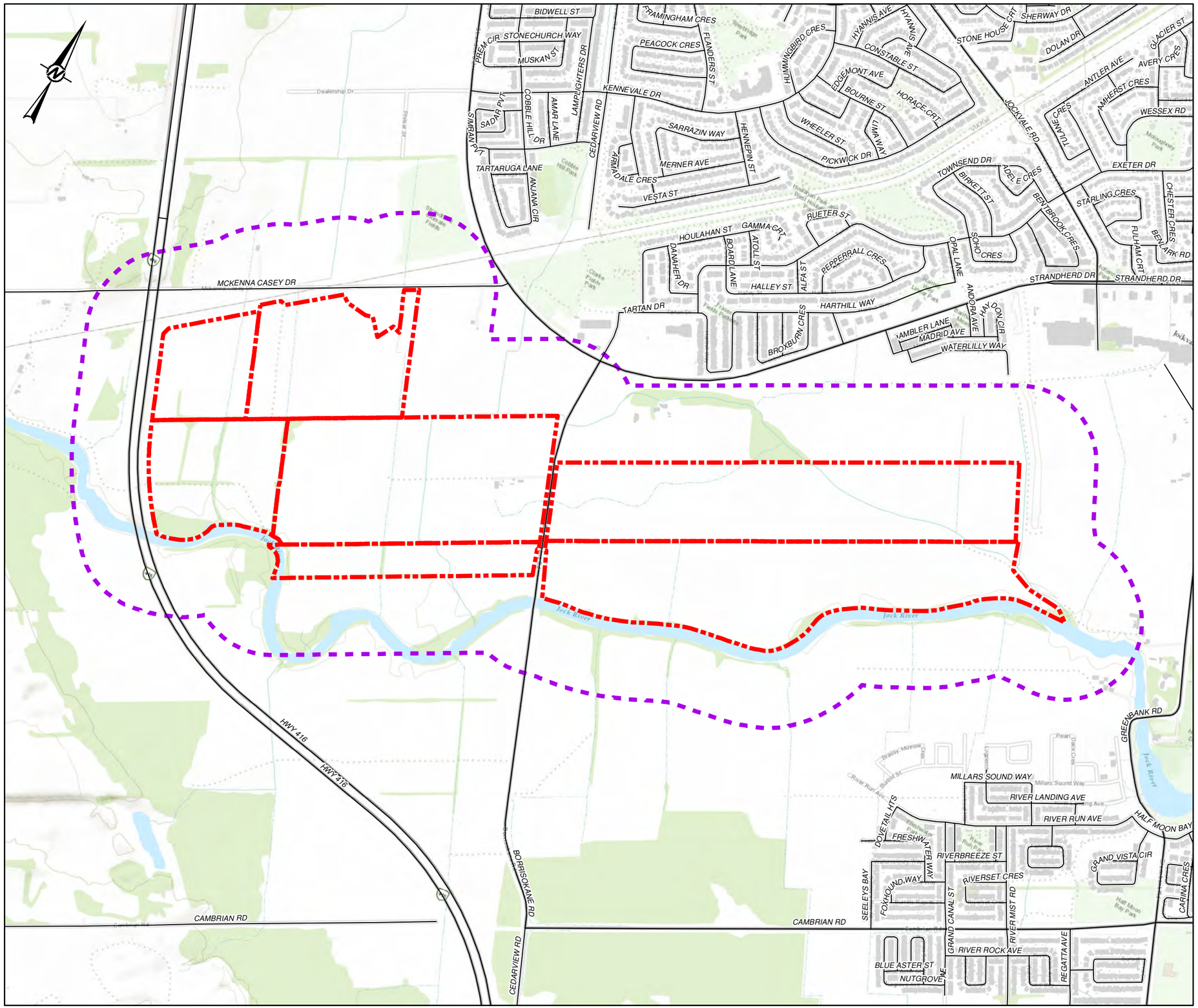
GOLDER

YYYY-MM-DD	2018-10-23
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	FIGURE
1771847	0010	0	**2**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

Path: N:\Active\Spatial_IM\Calvin\Conservancy_Lands\99_PROJ\1771847_BarrhavenConservancy_GeoEnviro\40_PROD\0010_Phase1_ESA_Addlands\1771847-0010-HS-0002.mxd



LEGEND

- ROADWAY
- PHASE ONE SITE
- PHASE ONE STUDY AREA

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1771847-1000.

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, DELORME, INTERMAP, INCREMENT P CORP., GEBCO, USGS, FAO, NPS, NRCAN, GEOBASE, IGN, KADASTER NL, ORDNANCE SURVEY, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), SWISSTOPO, MAPMYINDIA, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: MTM ZONE 9, VERTICAL DATUM: CGVD28

0 125 250 500
1:12,500 METRES

CLIENT
BARRHAVEN CONSERVANCY INC.

PROJECT
PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
4305, 4345, AND 4375 MCKENNA CASEY DRIVE AND 3305, 3285, 3288, AND 3300 BORRISOKANE ROAD, OTTAWA, ONTARIO

TITLE
TOPOGRAPHIC MAP AND AREAS OF NATURAL SIGNIFICANCE

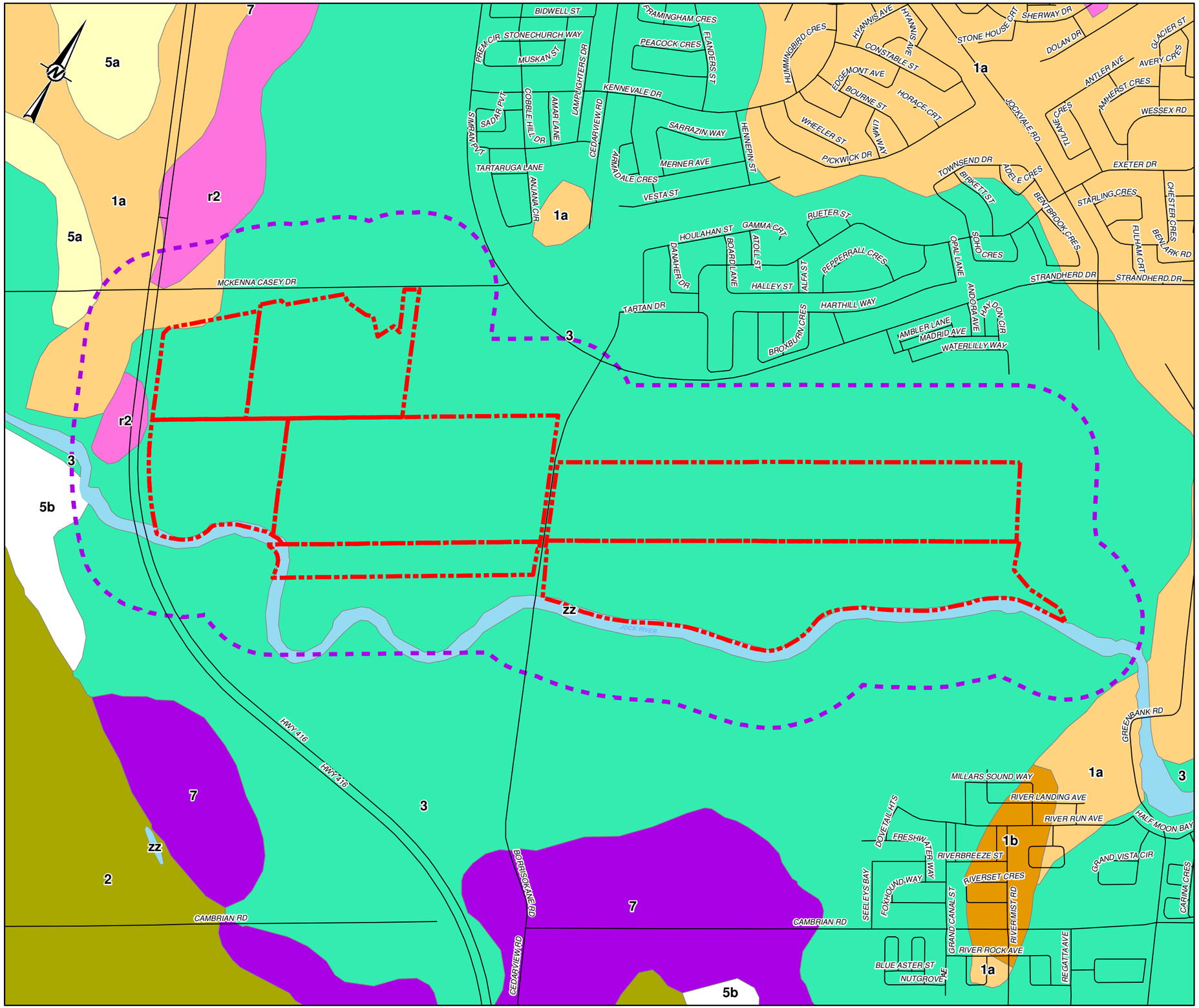
CONSULTANT
GOLDER

YYYY-MM-DD	2018-10-23
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	FIGURE
1771847	0010	0	3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm 0

Path: N:\Active\Spatial_IM\Calvin\Conservancy_Lands\99_PROJ\1771847_BarrhavenConservancy_GeoEnviro\40_PROD\0010_Phase1_ESA_Addlands\1771847-0010-HS-0003.mxd



LEGEND

- ROADWAY
- PHASE ONE SITE
- PHASE ONE STUDY AREA
- 7. ORGANIC DEPOSITS: MUCK & PEAT
- 5a: NEARSHORE SEDIMENTS: GRAVEL, SAND & BOULDERS
- 3. OFFSHORE MARINE DEPOSITS: CLAY, SILTY CLAY & SILT
- ICE CONTACT STRATIFIED DRIFT: GRAVEL & SAND
- 1a. TILL, PLAIN WITH LOCAL RELIEF <5 m
- 1b. TILL, DRUMLINIZED
- r2. BEDROCK: LIMESTONE, DOLOMITE, SANDSTONE & LOCAL SHALE
- zz. WATERBODY

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1771847-1000.

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. BÉLANGER, J. R. 2008 URBAN GEOLOGY OF THE NATIONAL CAPITAL AREA, GEOLOGICAL SURVEY OF CANADA, OPEN FILE 5311, 1 DVD.
3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: MTM ZONE 9, VERTICAL DATUM: CGVD28

0 125 250 500
1:12,500 METRES

CLIENT
BARRHAVEN CONSERVANCY INC.

PROJECT
PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
4305, 4345, AND 4375 MCKENNA CASEY DRIVE AND 3305, 3285, 3288, AND 3300 BORRISOKANE ROAD, OTTAWA, ONTARIO

TITLE
SURFICIAL GEOLOGY

CONSULTANT
GOLDER

YYYY-MM-DD	2018-10-23
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	FIGURE
1771847	0010	0	4

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

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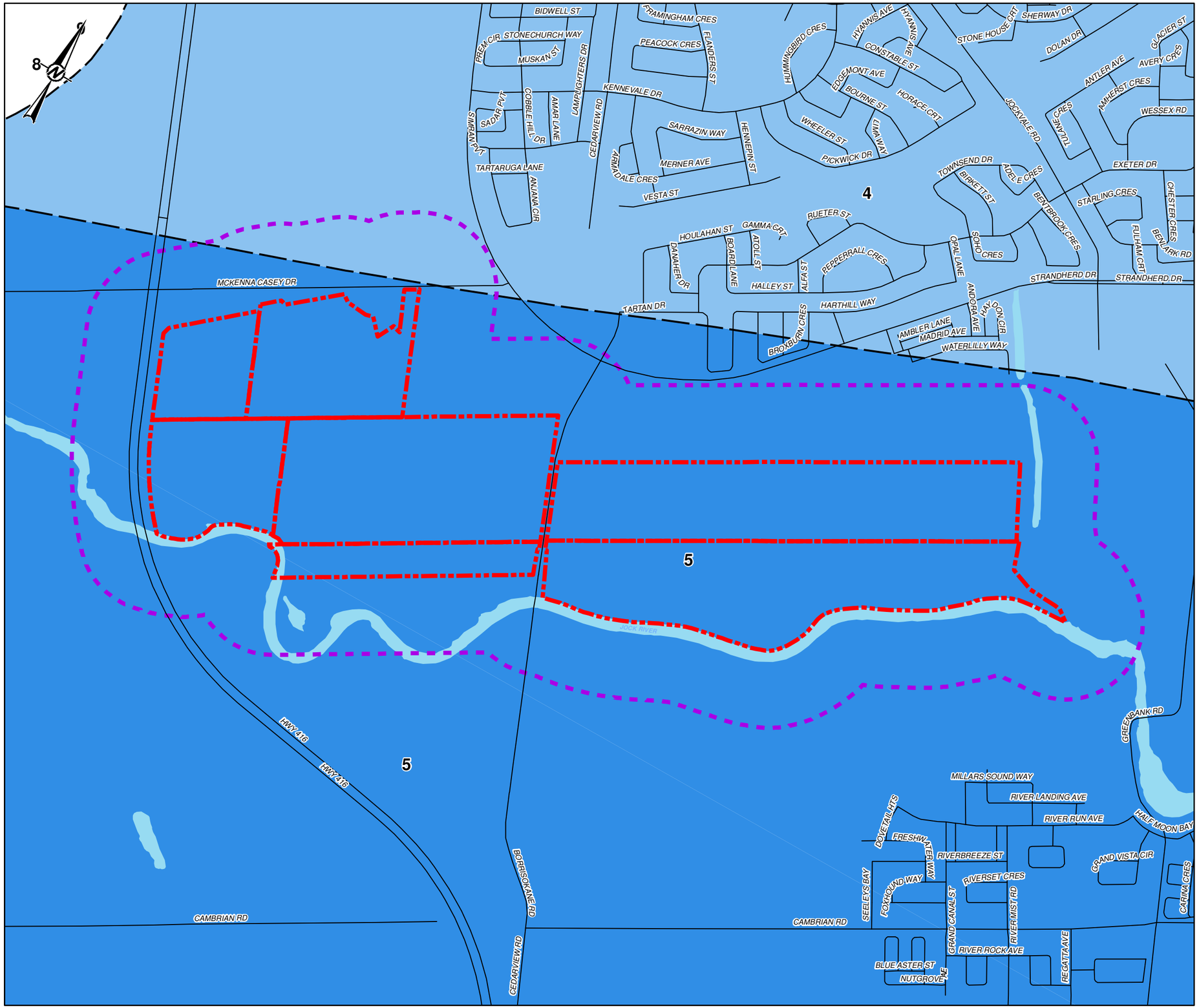

LEGEND

- ROADWAY
- WATERBODY
- PHASE ONE SITE
- PHASE ONE STUDY AREA
- 5: OXFORD FORMATION - DOLOSTONE, MINOR SHALE AND SANDSTONE
- 4: MARCH FORMATION - SANDSTONE, DOLOMITIC SANDSTONE, DOLOSTONE

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1771847-1000.

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. ARMSTRONG, D.K. AND DODGE, J.E.P. 2007. PALEOZOIC GEOLOGY OF SOUTHERN ONTARIO; ONTARIO GEOLOGICAL SURVEY, MISCELLANEOUS RELEASE--DATA 219
3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: MTM ZONE 9, VERTICAL DATUM: CGVD28

0 125 250 500
1:12,500 METRES

CLIENT
BARRHAVEN CONSERVANCY INC.

PROJECT
PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
4305, 4345, AND 4375 MCKENNA CASEY DRIVE AND 3305, 3285, 3288, AND 3300 BORRISOKANE ROAD, OTTAWA, ONTARIO

TITLE
BEDROCK GEOLOGY

CONSULTANT
GOLDER

YYYY-MM-DD	2018-10-23
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	FIGURE
1771847	0010	0	5

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

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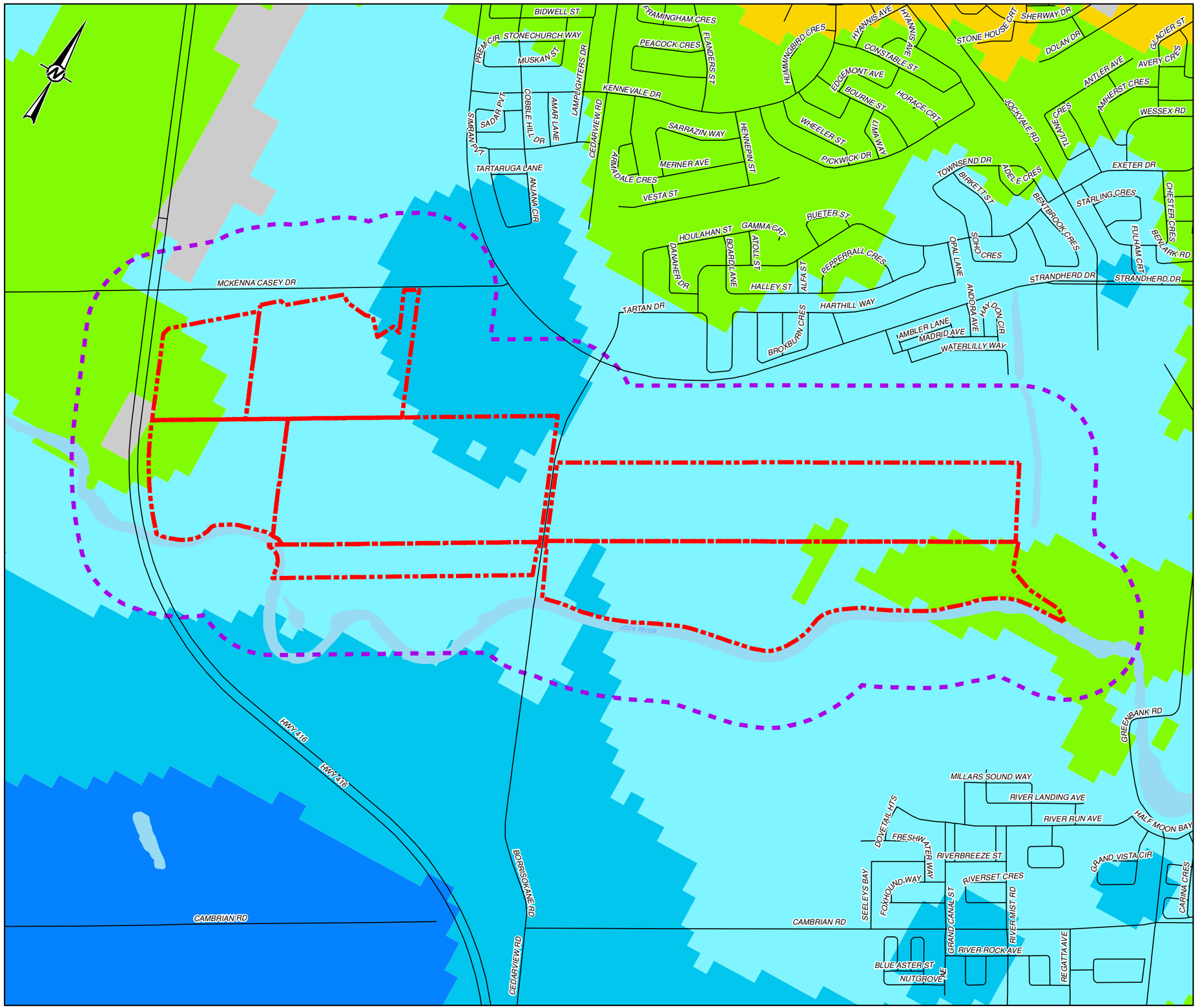

LEGEND

- ROADWAY
- WATERBODY
- PHASE ONE SITE
- PHASE ONE STUDY AREA

TREND IN DEPTH TO BEDROCK (METRES)

- 0 to 1
- 1 to 2
- 2 to 3
- 3 to 5
- 5 to 10
- 10 to 15
- 15 to 25
- 25 to 50
- 50 to 100
- 100 to 200

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1771847-1000.

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. 2010 BÉLANGER, J. R., URBAN GEOLOGY OF THE NATIONAL CAPITAL AREA, GEOLOGICAL SURVEY OF CANADA, OPEN FILE D3256, 2001
3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: MTM ZONE 9, VERTICAL DATUM: CGVD28

0 125 250 500

1:12,500 METRES

CLIENT

BARRHAVEN CONSERVANCY INC.

PROJECT

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
4305, 4345, AND 4375 MCKENNA CASEY DRIVE AND 3305, 3285, 3288, AND 3300 BORRISOKANE ROAD, OTTAWA, ONTARIO

TITLE

DRIFT THICKNESS

CONSULTANT

GOLDER

YYYY-MM-DD	2018-10-23
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	FIGURE
1771847	0010	0	**6**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

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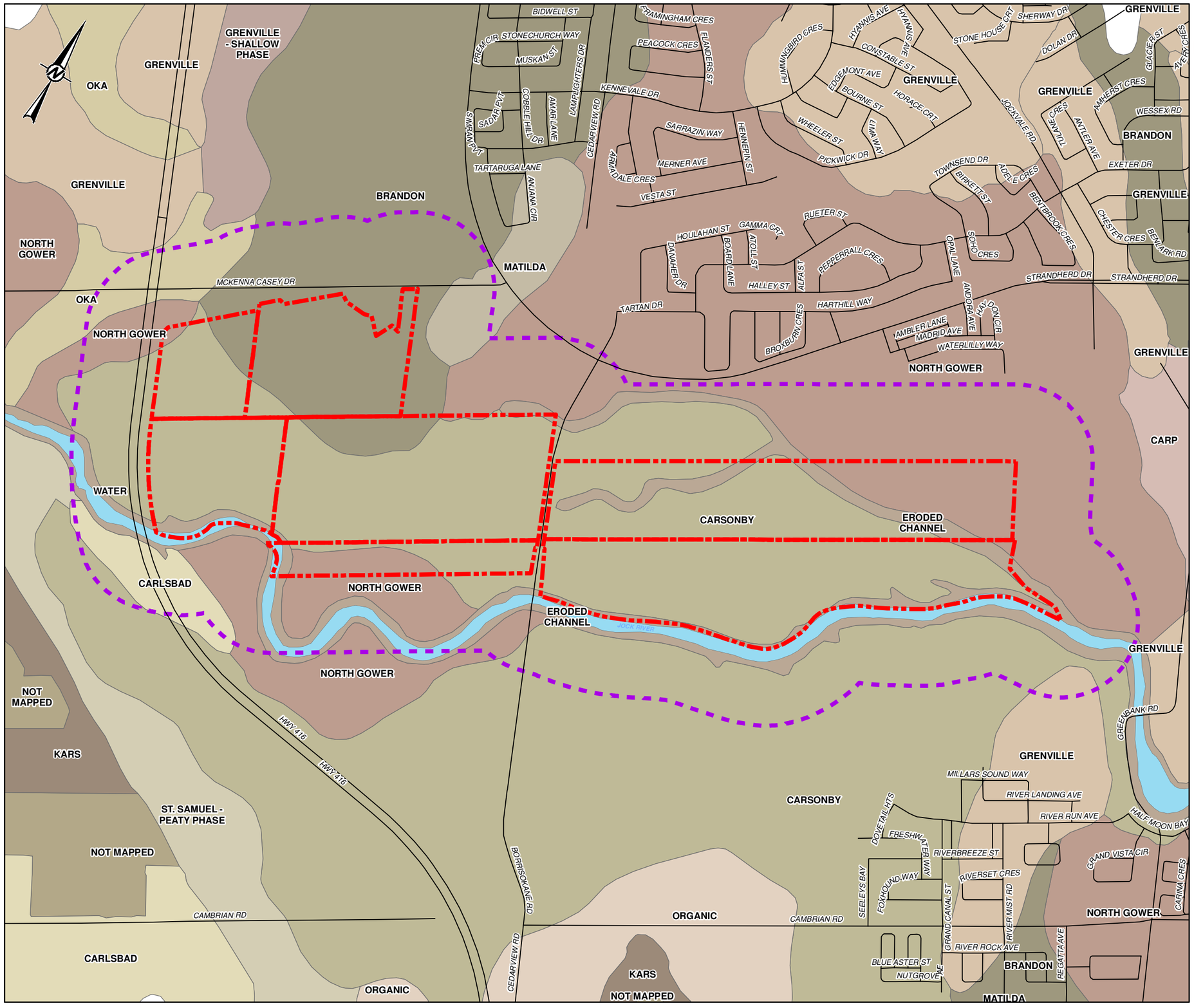

LEGEND

- ROADWAY
- PHASE ONE SITE
- PHASE ONE STUDY AREA
- WATER
- BRANDON
- CARLSBAD
- CARP
- CARSONBY
- CHATEAUGUAY - MARL PHASE
- ERODED CHANNEL
- GRENVILLE
- GRENVILLE - SHALLOW PHASE
- KARS
- MATILDA
- MILLE ISLE
- NORTH GOWER
- NOT MAPPED
- OKA
- ORGANIC
- ST. SAMUEL - PEATY PHASE

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1771847-1000.

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: MTM ZONE 9, VERTICAL DATUM: CGVD28

0 125 250 500
1:12,500 METRES

CLIENT
BARRHAVEN CONSERVANCY INC.

PROJECT
PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
4305, 4345, AND 4375 MCKENNA CASEY DRIVE AND 3305, 3285, 3288, AND 3300 BORRISOKANE ROAD, OTTAWA, ONTARIO

TITLE
SOIL SURVEY COMPLEX (ONTARIO SOILS)

CONSULTANT
GOLDER

YYYY-MM-DD	2018-10-23
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	FIGURE
1771847	0010	0	7

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm 0

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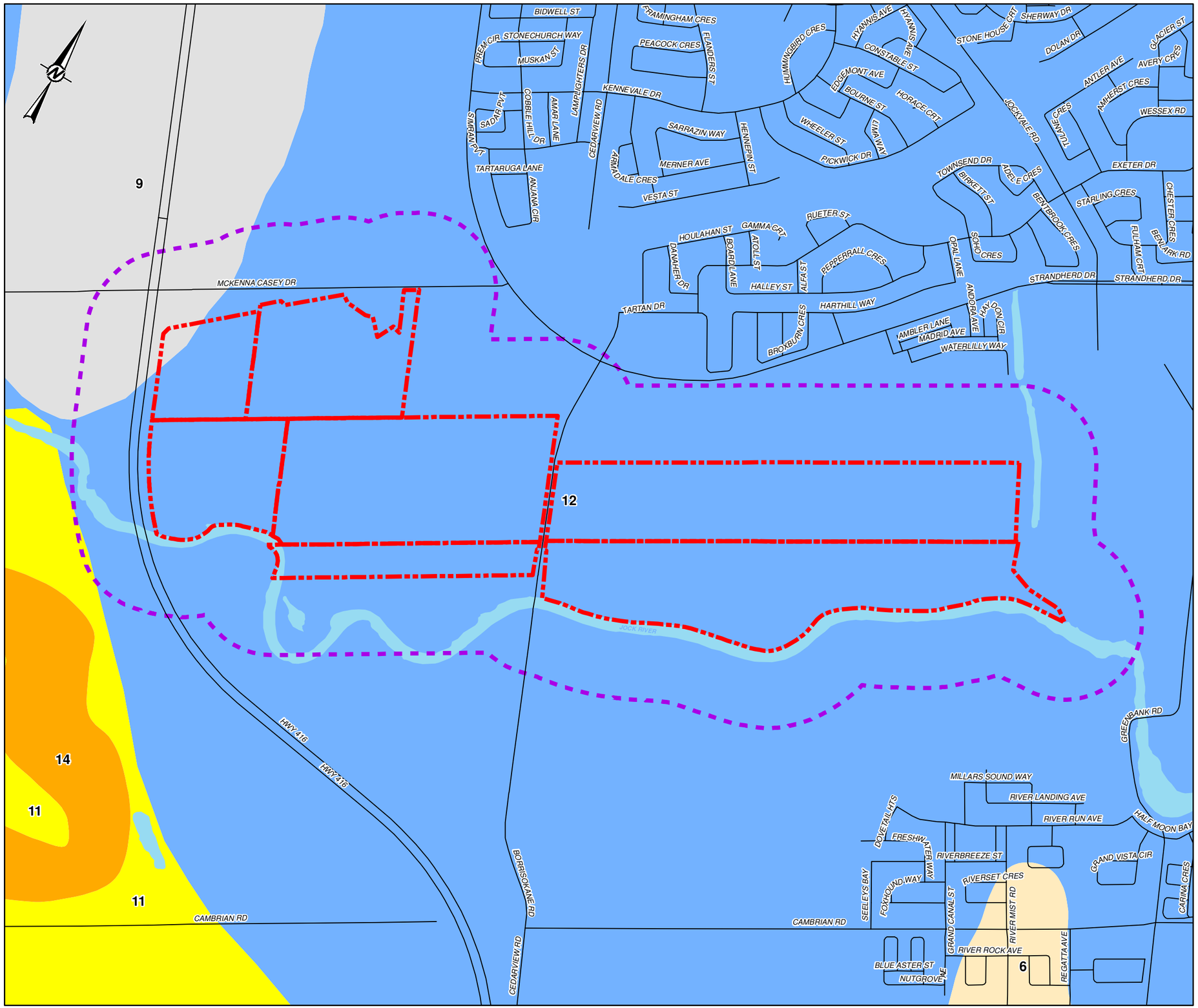


LEGEND

- ROADWAY
- WATERBODY
- PHASE ONE SITE
- PHASE ONE STUDY AREA
- Beaches
- 6: TILL PLAINS (DRUMLINIZED)
- 9: LIMESTONE PLAINS
- 11: SAND PLAINS
- 12: CLAY PLAINS

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1771847-1000.

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. CHAPMAN, L.J. AND PUTNAM, D.F. 2007. PHYSIOGRAPHY OF SOUTHERN ONTARIO; ONTARIO GEOLOGICAL SURVEY, MISCELLANEIOUS RELEASE-DATA 228
3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: MTM ZONE 9, VERTICAL DATUM: CGVD28

0 125 250 500

1:12,500 METRES

CLIENT
BARRHAVEN CONSERVANCY INC.

PROJECT
PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
4305, 4345, AND 4375 MCKENNA CASEY DRIVE AND 3305, 3285, 3288, AND 3300 BORRISOKANE ROAD, OTTAWA, ONTARIO

TITLE
PHYSIOGRAPHY MAP

CONSULTANT

GOLDER

YYYY-MM-DD	2018-10-23
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	FIGURE
1771847	0010	0	**8**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm 0

Path: N:\Active\Spatial_IM\Calvin\Conservancy_Lands\99_PROJ\1771847_BarrhavenConservancy_GeoEnviro\40_PROD\0010_Phase1_ESA_Addlands\1771847-0010-HS-0008.mxd

APPENDIX A

Regulatory Responses

Mathew, Rochelle

From: Mathew, Rochelle
Sent: October 23, 2018 8:50 AM
To: jehanne.hurlbut@ontario.ca
Subject: Phase I ESA Information Request - P1771847

Hi Jehanne,

Could you please check for approvals and orders for the following properties at the following coordinates:

- Lot 15, Concession 4, Nepean, ON (361416.2, 5013230.4)
- Lot 14, Concession 4, Nepean, ON (362207.7, 5012626.9)
- Lot 13, Concession 3, Nepean, ON (363714.9, 5013491.7)

Including, but not limited to:

- Active orders under the Environmental Protection Act (EPA), the Ontario Water Resources Act (OWRA), and the Pesticides Act (PA).
- Approvals under Sections 9 and 39 of the EPA as well as Sections 52 and 53 of the OWRA.

If you could please provide an index report that would be great. Please let me know if this is enough information for a search, and please do not hesitate to contact me if you have any questions.

Thanks,
Rochelle

Rochelle Mathew (MASc. Candidate)
Junior Scientist

Golder Associates Ltd.
1931 Robertson Road, Ottawa, Ontario, Canada, K2H 5B7
M: +1 (343) 548 0496 | **D:** +1 (613) 592-9600 | golder.com
LinkedIn | Facebook | Twitter

Work Safe, Home Safe

Mathew, Rochelle

From: Public Information Services <publicinformationservices@tssa.org>
Sent: October 24, 2018 8:12 AM
To: Mathew, Rochelle
Subject: RE: Phase I ESA Information Request - P1771847

NO RECORD FOUND (FUEL STORAGE TANKS ONLY)

Hello Rochelle. Thank you for your request for confirmation of public information.

We confirm that there are no records in our database of any fuel storage tanks at the subject addresses.

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 publicinformationservices@tssa.org or through mail along with a fee of $56.50 (including HST) per location. The fee is payable with credit card (Visa or MasterCard) or with a Cheque made payable to TSSA.

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,

Gaya

From: Mathew, Rochelle <Rochelle_Mathew@golder.com>
Sent: October 23, 2018 8:58 AM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: Phase I ESA Information Request - P1771847

Hello,

Could you please review your records to determine if any bulk fuel underground storage tanks were registered on or near the address listed below. Also could you check if there are records of fuel spills, accidents or incidents on these addresses:

- 4345 McKenna Casey Drive, Nepean, ON
- 4375 McKenna Casey Drive, Nepean, ON
- 3305 Borrisokane Road, Nepean, ON

Thank you,

Rochelle

Rochelle Mathew (MASc. Candidate)
Junior Scientist

Golder Associates Ltd.
1931 Robertson Road, Ottawa, Ontario, Canada, K2H 5B7
M: +1 (343) 548 0496 | **D:** +1 (613) 592-9600 | **golder.com**
LinkedIn | Facebook | Twitter

Work Safe, Home Safe

From:	Troke, Alyssa
To:	"Desaulniers-Veilleux, Johanne (MOECC)"
Subject:	Property Information Request for 4305 McKenna Casey Drive and 3285, 3288 and 3300 Borrisokane Road, Ottawa, Ontario
Date:	February-01-17 9:10:00 AM

Hi Johanne,

Could you please check for approvals and orders for the following properties:

- 4305 McKenna Casey Drive, Ottawa, ON
- 3285 Borrisokane Road, Ottawa, ON
- 3288 Borrisokane Road, Ottawa, ON
- 3300 Borrisokane Road, Ottawa, ON

Please let me know if you have any questions.

Kindest Regards,

Alyssa Troke

Alyssa Troke (B.Eng., E.I.T.) | Environmental Consultant | **Golder Associates Ltd.**
1931 Robertson Road, Ottawa, Ontario, Canada, K2H 5B7
T: +1 (613) 592 9600 | **D:** +1 (613) 592 4299 | **F:** +1 (613) 592 9601 | **C:** +1 (613) 290 8736 | **E:** Alyssa_Troke@golder.com | **www.golder.com**

Work Safe, Home Safe

Ministry of the Environment and Climate Change
Ottawa District Office
2430 Don Reid Drive, Suite 103
Ottawa Ontario
K1H 1E1
613-521-3450 or 1-800-860-2195
Fax: 613-521-5437

Ministère de l'Environnement et de l'Action en matière de changement climatique
Bureau du district d'Ottawa
2430, promenade Don Reid, Unité 103
Ottawa (Ontario)
K1H 1E1
613-521-3450 ou 1-800-860-2195
Téléc. : 613-521-5437

Ontario

OTT File No: **16**

INDEX REVIEW REPORT
COMMERCIAL/INDUSTRIAL/AGRICULTURAL

Attention:	**Alyssa Troke**	Your File:
	Golder Associates	Date Received: February 1, 2017

Thank you for your inquiry requesting a search of records from the Ministry of the Environment and Climate Change (ministry). The ministry encourages you to use the available on-line resources to access publically-available information which may assist with your inquiry.

PROPERTY OWNER AND LOCATION

Location: Municipality: **Ottawa**

Address: **4305 McKenna Casey Dr; 3285, 3288, 3300 Borrisokane Rd**
Lot Concession Township

INDEX OF NAMES FOR ORDERS

We have searched the *Ottawa* District Index Record of Active Orders under the Environmental Protection Act (EPA), Ontario Water Resources Act (OWRA) and the Pesticides Act (PA) issued to:
and the following information has been found:

☒ No Active Orders are outstanding

Please Note: *For information related to any ministry Orders issued to the property in question,* ***please request this information from the property owner.*** *If you would like further information regarding a specific Order issued, please contact the Ottawa District Office.*

Date of Search: February 15, 2017

RECORD OF SITE CONDITION

For information on **Records of Site Condition** filed on the Environmental Site Registry since October 1, 2004, please use the following links:
For records of site condition filed between October 1, 2004 and June 30, 2011 https://www.lrcsde.lrc.gov.on.ca/besrWebPublic/generalSearch, and for records of site condition filed since July 1, 2011 https://www.ontario.ca/environment-and-energy/records-site-condition

INDEX REVIEW REPORT
COMMERCIAL/INDUSTRIAL/AGRICULTURAL

INDEX OF NAMES FOR APPROVALS ISSUED SINCE 1999

A search of the Index Record of names of all persons to whom approvals have been issued, maintained by the Director, Approvals Branch and the Regional Director, *Eastern Region*, and the District Manager, *Ottawa District*, under Section 19 EPA and Section 13 OWRA and the following information has been provided :

Type	Number	Issued To	Issue Date
Section 9 EPA *(Air)*			
Section 39 EPA *(Waste Management)*			
Section 52 OWRA *(Water)*			
Section 53 OWRA *(Municipal/Private/ Industrial Sewage)*			
Other			

The **ministry's Access Environment** is an on-line, map-based search tool designed to allow the public, quick and easy access to the ministry approvals and registration information from December 1999 onward. Access Environment currently displays Environmental Compliance Approvals (ECA), Renewable Energy Approvals (REA) and registrations on the Environmental Activity and Sector Registry (EASR). ECAs include all Certificates of Approval (CofAs) previously issued under the Environmental Protection Act (EPA) and approvals previously issued under s.53 of the Ontario Water Resources Act (OWRA). You can access this information from the ministry website or at the following link:
www.accessenvironment.ene.gov.on.ca/AEWeb/ae/GoSearch.action?search=basic&lang=en

Copies of **ECAs issued before January 1, 2000** can be obtained by submitting a Request for a Copy of an Environmental Compliance Approval

Please Note:

1) The information provided above is based solely on the address(es) and name(s) of the present and past owners provided by you.
2) The Index Record of Names to whom approvals have been issued, maintained by the Regional Director and District Manager, has been searched back to 1999.
3) A search of our records does **NOT** indicate whether there are:
   - other uses for which an approval may have been required, **nor**
   - other uses on the property or in the vicinity that may affect the suitability of the property, for the use proposed to be made of it.

   If a comprehensive knowledge of the property and the nearby lands and their environmental condition is required, you must examine them and other relevant records yourself, with the aid of a qualified person, if needed.

☒ No Approvals have been issued.

Date of Search: February 15, 2017

INDEX REVIEW REPORT
COMMERCIAL/INDUSTRIAL/AGRICULTURAL

Additional site information related to the **location of landfill sites** in the province can be found at the following link:

http://www.ontario.ca/environment-and-energy/small-landfill-sites

http://www.ontario.ca/environment-and-energy/map-large-landfill-sites

The **ministry's Hazardous Waste Information Network (HWIN)** can also be accessed to search for information on generators, carriers, and receivers of subject waste in the province at the following link: www.hwin.ca

The **ministry's Environmental Compliance Reports** provide information about contaminant discharges to water and emissions to air that exceed limits found in legislation, environmental approvals, orders and/or policies/guidelines and can be accessed at the following link: http://www.ontario.ca/environment-and-energy/environmental-compliance-reports

Information on **Environmental Penalties**, which are monetary penalties that can be imposed by the ministry for some industrial spills, can be assessed at the following link: https://www.ontario.ca/search/search-results?query=environmental%20penalties

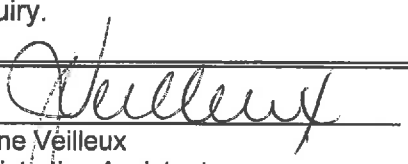
Additional ministry information can be accessed through the **Government of Ontario's Open Data Catalogue**: http://www.ontario.ca/government/open-data-ontario

The ministry also encourages you to consider best practices and standards of care used within the legal community and through your associations as a guide to obtaining information related to specific property for any legal purpose.

We trust this information will help meet your requirements quickly and effectively.

Please advise your colleagues that responses to requests for searches always take some time. As a result the Ministry of the Environment and Climate Change may not be able to meet deadlines imposed by other parties on real estate and other transactions.

Thank you for your inquiry.

Signature: 
Contact Name: Johanne Veilleux
Title: Administrative Assistant

Address: Ministry of the Environment and Climate Change
2430 Don Reid Drive, Unit 103
Ottawa, ON K1H 1E1

Phone: (613) 521-3450 Ext 221

Date: February 15, 2017

E&OE

Please Note: *If you would like to receive an email with all the environmental links above, please contact me at johanne.veilleux@ontario.ca and I will be pleased to send them to you.*

Office Use Only

Application Number: _____ Ward Number: _____ Application Received: (dd/mm/yyyy): _____

Client Service Centre Staff: _____ Fee Received: $ _____

Historic Land Use Inventory

Application Form

Notice of Public Record

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

Municipal Freedom of Information and Protection Act

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

Background Information

***Site Address or Location:** *4305 McKenna Casey Drive and 3285, 3288 and 3300 Borrisokane Road, City of Ottawa*
PINs: 045950057, 045950025, 045950023 and 045951742

** Mandatory Field*

Applicant/Agent Information:

Name: *Alyssa Troke*

Mailing Address: *1931 Robertson Road, Ottawa, ON*

Telephone: *613-290-8736* Email Address: *atroke@golder.com*

Registered Property Owner Information: ☐ Same as above

Name: *Hill, Pavoc, Nam Dam and Epcon*

Mailing Address: *223 Colonnade Road South, Suite 204, Ottawa, ON*

Telephone: *343-998-9395* Email Address: *andrew.finnson@caivan.com*

Site Details

Legal Description and PIN:	*Part 1 of Lot 14, Concession 3 and Parts 3, 4 and 5 of Lot 13, Part 1 of Lot 14 and Part of Lot 15, Concession, Ottawa PINs: 045950057, 045950025, 045950023 and 045951742*
What is the land currently used for?	*Agricultural*

Lot frontage: _____ m Lot depth: _____ m Lot area: _____ m²

OR Lot area: (irregular lot) 1,017,784 m²

Does the site have Full Municipal Services: ○ Yes ◉ No

Required Fees

Please don't hesitate to visit the Historic Land Use Inventory website more information. Fees must be paid in full at the time of application submission.

Planning Fee $100.00

Submittal Requirements

The following are required to be submitted with this application:

1. **Consent to Disclose Information:** Consultants and other third parties may make requests for information on behalf of an individual or corporation. However, if the requester is not the owner of the property, **the requester must provide the City of Ottawa with a 'consent to disclose information' letter, signed by the property owner.** This will authorize the City of Ottawa to release any relevant information about the property or its owner(s) to the requester. Consent for disclosure is required in the event that personal information or proprietary company information is found concerning the property and its owner. All consents must clearly indicate the name of the property owner as well as the name of the requester, and must be signed and dated.

2. **Disclaimer:** Requesters must read and understand the conditions included in the attached disclaimer and submit a signed disclaimer to the City of Ottawa's Planning, Infrastructure and Economic Development Department. This disclaimer is related to the Historic Land Use Inventory and must be received by the City of Ottawa, signed and dated by the requestor, before the process can begin.

3. A site plan or key plan of the property, its location and particular features.

4. Any significant dates or time frames that you would like researched.

Disclaimer
For use with HLUI Database

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

The City, in providing information from the HLUI, to Golder Associates Ltd. ("the Requester") does so only under the following conditions and understanding:

1. The HLUI may contain erroneous information given that such records and sources of information may be flawed. Changes in municipal addresses over time may have introduced error in such records and sources of information. The City is not responsible for any errors or omissions in the HLUI and reserves the right to change and update the HLUI without further notice. The City does not, however, make any commitment to update the HLUI. Accordingly, all information from the HLUI is provided on an "as is" basis with no representation or warranty by the City with respect to the information's accuracy or exhaustiveness in responding to the request.

2. City staff will perform a search of the HLUI based on the information given by the Requester. City staff will make every effort to be accurate, however, the City does not provide an assurance, guarantee, warranty, representation (express or implied), as to the availability, accuracy, completeness or currency of information which will be provided to the Requester. The HLUI in no way confirms the presence or absence of contamination or pollution of any kind. The information provided by the City to the Requester is provided on the assumption that it will not be relied upon by any person whatsoever. The City denies all liability to any such persons attempting to rely on any information provided from the HLUI database.

3. The City, its employees, servants, agents, boards, officials or contractors take no responsibility for any actions, claims, losses, liability, judgments, demands, expenses, costs, damages or harm suffered by any person whatsoever including negligence in compiling or disseminating information in the HLUI.

4. Copyright is reserved to the City.

5. Any use of the information provided from the HLUI which a third party makes, or any reliance on or decisions to be based on it, are the responsibilities of such third parties. The City, its employees, servants, agents, boards, officials or contractors accept no responsibility for any damages, if any, suffered by a third party as a result of decisions made as a result of an information search of the HLUI.

6. Any use of this service by the Requestor indicates an acknowledgement, acceptance and limits of this disclaimer.

7. All information collected under this request and all records provided in response to this request are subject to the provisions of the Municipal Freedom of Information and Protection of Privacy Act, R.S.O. 1990, c. M.56, as amended.

Signed: Alyssa Troke

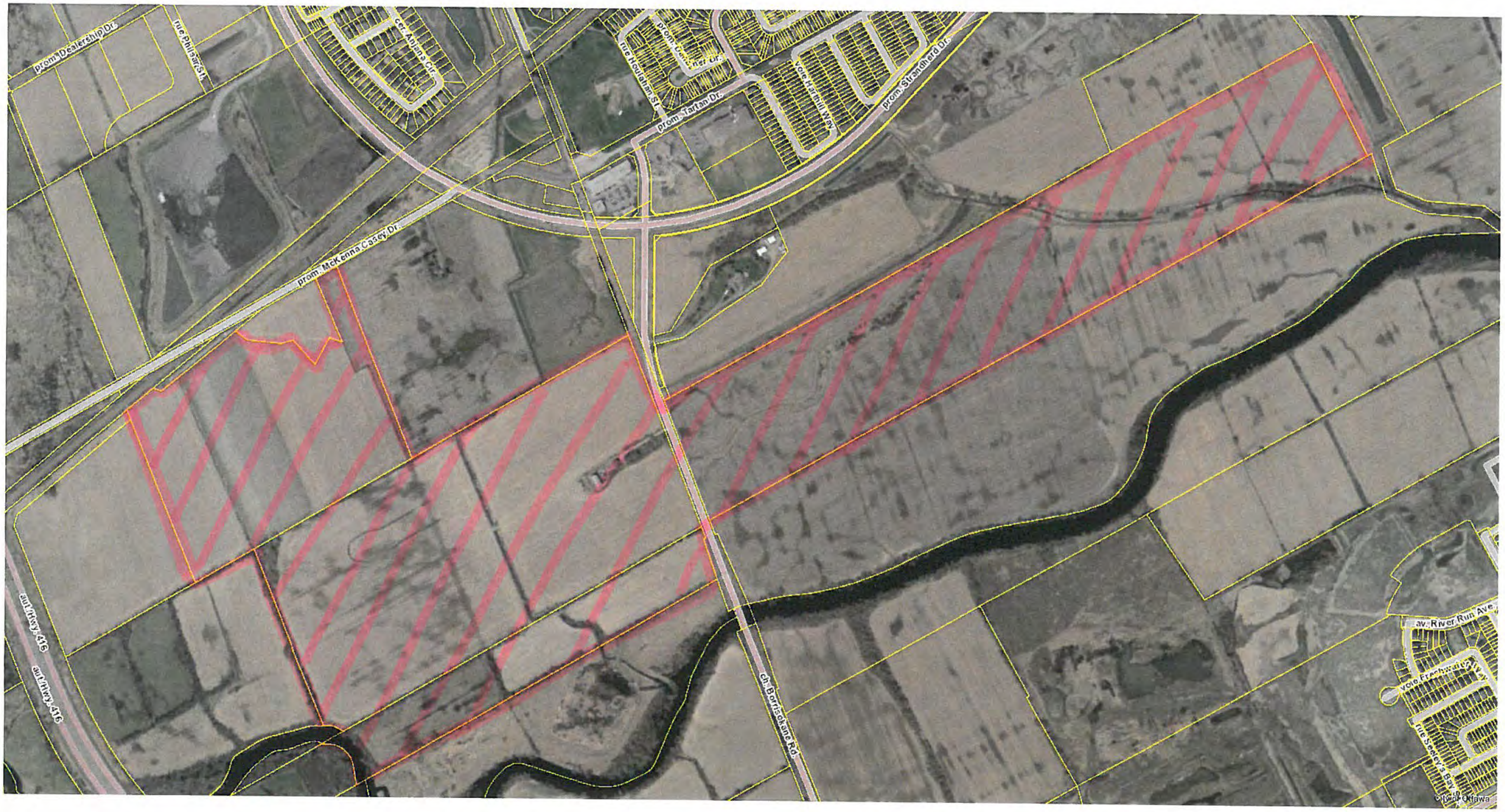
Dated (dd/mm/yyyy): 09/03/2017

Per: Alyssa Troke

(Please print name)

Title: Environmental Consultant

Company: Golder Associates Ltd.


prom. Dealership Dr.
rue Philsar St.
prom. McKenna Casey Dr.
rue Houlahan St.
prom. Tartan Dr.
prom. Strandherd Dr.
voie Harthill Way
ch. Borrisokane Rd.
aut./Hwy. 416
av. River Run Ave.
rue Seeley's Bay
City of Ottawa

= The Site

DISCLAIMER

For use with HLUI Database

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The City, in providing information from the HLUI, to Golder Associates Ltd. ("the Requester") does so only under the following conditions and understanding:

1. This is a free service offered by the City.

2. The information which is contained in the HLUI has been compiled from publicly available records and other sources of information. The HLUI may contain erroneous information given that such records and sources of information may be flawed. Changes in municipal addresses over time may have introduced error in such records and sources of information. The City is not responsible for any errors or omissions in the HLUI and reserves the right to change and update the HLUI without further notice. The City does not, however, make any commitment to update the HLUI. Accordingly, all information from the HLUI is provided "as is".

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4. The City, its employees, servants, agents, boards, officials or contractors take no responsibility for any actions, claims, losses, liability, judgments, demands, expenses, costs, damages or harm suffered by any person whatsoever including negligence in compiling or disseminating information in the HLUI.

5. Copyright is reserved to the City.

6. Any use of the information provided from the HLUI which a third party makes, or any reliance on or decisions to be based on it, are the responsibilities of such third parties. The City, its employees, servants, agents, boards, officials or contractors accept no responsibility for any damages, if any, suffered by a third party as a result of decisions made as a result of an information search of the HLUI.

7. Any use of this service by the Requestor indicates an acknowledgement, acceptance and limits of this disclaimer.

8. All information collected under this request and all records provided in response to this request are subject to the provisions of the *Municipal Freedom of Information and Protection of Privacy Act*, R.S.O. 1990,c. M56, as amended.

Signed: Alyssa Troke Dated: March 9, 2017

Per: Alyssa Troke
(Please print name)
Title: Environmental Consultant
Company: Golder Associates Ltd.

CONFIDENTIAL

File No.: 1771847
Deadline for Response: ASAP

Phase 1 – Environmental Site Assessment

Request for Information

(Informal Request)*

1. REQUESTER INFORMATION

a) Name of Requester: Alyssa Troke
b) Address of Requester: 1931 Robertson Road, Ottawa, ON, K2H 5B7
c) Telephone Number: 613-592-9600 x 4299
d) Site Address: Lot- _____ Concession: _____
Street: 4305 McKenna Casey Drive and 3285, 3288 and 3300 Borrisokane Road City/Town: Ottawa
Postal Code: _____
e) Legal Plan Attached: Yes ( ) No (X)
f) Site Owner: Caivan Development Corporation
g) Adjacent Property Owners: _____
h) _____
i) Date of Ownership: _____
Previous Owner(s): _____
_____
_____
_____
j) Type of Site: ( ) vacant, (X) residential, ( ) commercial,
( ) other (specify) _____
k) Requestors relationship to Site: Consultant
l) Date of Previous Request: -
m) Date of Previous ESA: -
n) Information Requested: As per cover sheet

2. CONFIDENTIALITY

a) Consent Required: (X) Owner ( ) Tenant ( ) Purchaser ( ) Legal**
b) Consent Obtained: (X) Owner ( ) Tenant ( ) Purchaser ( ) Legal**

*(If formal MFIPPA request, please forward to Corporate Access and Privacy Coordinator, Clerk's Department)

**(Consent letters must contain the information required, give authorization to requestor, and be dated and signed)

This form has been prepared by Golder Associates, for client use, with regard to submissions to the City of Ottawa ("City") for environmental related information on the property noted below. It will be used by Golder Associates, who have been retained to carry out a Phase I Environmental Site Assessment.

This form is to be completed by the property owner/agent and forwarded to Golder Associates Ltd. who will then append it with a request for information to the City. The intent of the form is to notify the City that Golder Associates Ltd. is authorised to access the requested environmental information.

Property Location Information:

Civic Address	4305 McKenna Casey Drive and 3285, 3288 and 3300 Borrisokane Road Ottawa, ON, K2J 4S8
Legal Description	Part 1 of Lot 14, Concession 3 and Parts 3, 4 and 5 of Lot 13, Part 1 of Lot 14 and Part of Lot 15, Concession 4, Ottawa, Ontario Pins 045950057, 045950025, 045950023 and 045951742

Property Contact Information:

Owner	Hill, Pavic, Nam Dam, Epcon
Phone Number	343-998-9395
Fax Number	
Owner Representative	Andrew Finnson
Owner Representative Signature	
Date	3/8/2017

File Number: D06-03-17-0028

March 27th, 2017

Alyssa Troke
1931 Robertson Road
Ottawa, ON

Sent via email [atroke@golder.com]

Dear Alyssa,

Re: Information Request
<< 4305 McKenna Casey Drive>>, Ottawa, Ontario ("Subject Property")

Internal Department Circulation

The Planning, Infrastructure and Economic Development Department has the following information in response to your request for information regarding the Subject Property:

Information was returned on the Subject Property from Departmental circulation:

- From the Solid Waste Diversion Branch, the property is located within 3 kilometers radius of Trail Waste Facility on 4309 Trail Rd and Plasco Waste Conversion Facility on 4478 Trail Road. The subject property 4.5 kilometers away from Barnsdale YLW on 4296 Barnsdale Road.

Search of Historical Land Use Inventory

This acknowledges receipt of the signed Disclaimer regarding your request for information from the City's Historical Land Use Inventory (HLUI 2005) database for the Subject Property.

A search of the HLUI database revealed the following information:

- There are no activities associated with the Subject Property.

The HLUI database was also searched for activity associated with properties located within 50m of the Subject Property. The search revealed the following:

- There are no activities associated with the properties located within 50m of the Subject Property.

City of Ottawa
Planning, Infrastructure and Economic Development Department

110 Laurier Avenue West, 4th Floor
Ottawa, ON K1P 1J1
Tel: (613) 580-2424 ext. 14743
Fax: (613) 560-6006
www.ottawa.ca

Ville d'Ottawa
Services de la planification, de l'infrastructure et du développement économique

110, avenue Laurier Ouest, 4e étage
Ottawa (Ontario) K1P 1J1
Tél.: (613) 580-2424 ext. 14743
Téléc: (613) 560-6006
www.ottawa.ca

Ontario's Environmental Registry

The Environmental Registry found at **http://www.ebr.gov.on.ca/ERS-WEB-External/** contains "public notices" about environmental matters being proposed by all government ministries covered by the Environmental Bill of Rights. The public notices may contain information about proposed new laws, regulations, policies and programs or about proposals to change or eliminate existing ones. By using keys words i.e. name of proponent/owner and the address one can ascertain if there is any information on the proponent and address under the following categories: Ministry, keywords, notice types, Notice Status, Acts, Instruments and published date (all years).

The Ontario Land Registry Office

Registration of real property is recorded in the Ontario Land Registry Office through the Land Titles Act or the Registry Act. Documents relating to title and other agreements that may affect your property are available to the public for a fee. It is recommended that a property search at the Land Registry Office be included in any investigation as to the historic use of your property. The City of Ottawa cannot comment on any documents to which it is not a party.

Court House
161 Elgin Street 4th Floor
Ottawa ON K2P 2K1
Tel: (613) 239-1230
Fax: (613) 239-1422

Please note, as per the HLUI Disclaimer, that the information contained in the HLUI database has been compiled from publicly available records and other sources of information. The HLUI may contain erroneous information given that the records used as sources of information may be flawed. For instance, changes in municipal addresses over time may introduce error. Accordingly, all information from the HLUI database is provided on an "as is" basis with no representation or warranty by the City with respect to the information's accuracy or exhaustiveness in responding to the request.

Furthermore, the HLUI database and the results of this search in no way confirm the presence or absence of contamination or pollution of any kind. This information is provided on the assumption that it will not be relied upon by any person for any purpose whatsoever. The City of Ottawa denies all liability to any persons attempting to rely on any information provided from the HLUI database.

Please note that in responding to your request, the City of Ottawa does not guarantee or comment on the environmental condition of the Subject Property.

You may wish to contact the Ontario Ministry of Environment and Climate Change for additional information.

If you have any further questions or comments, please contact Micaela Butron at 613-580-2424 ext. 24856 or HLUI@ottawa.ca

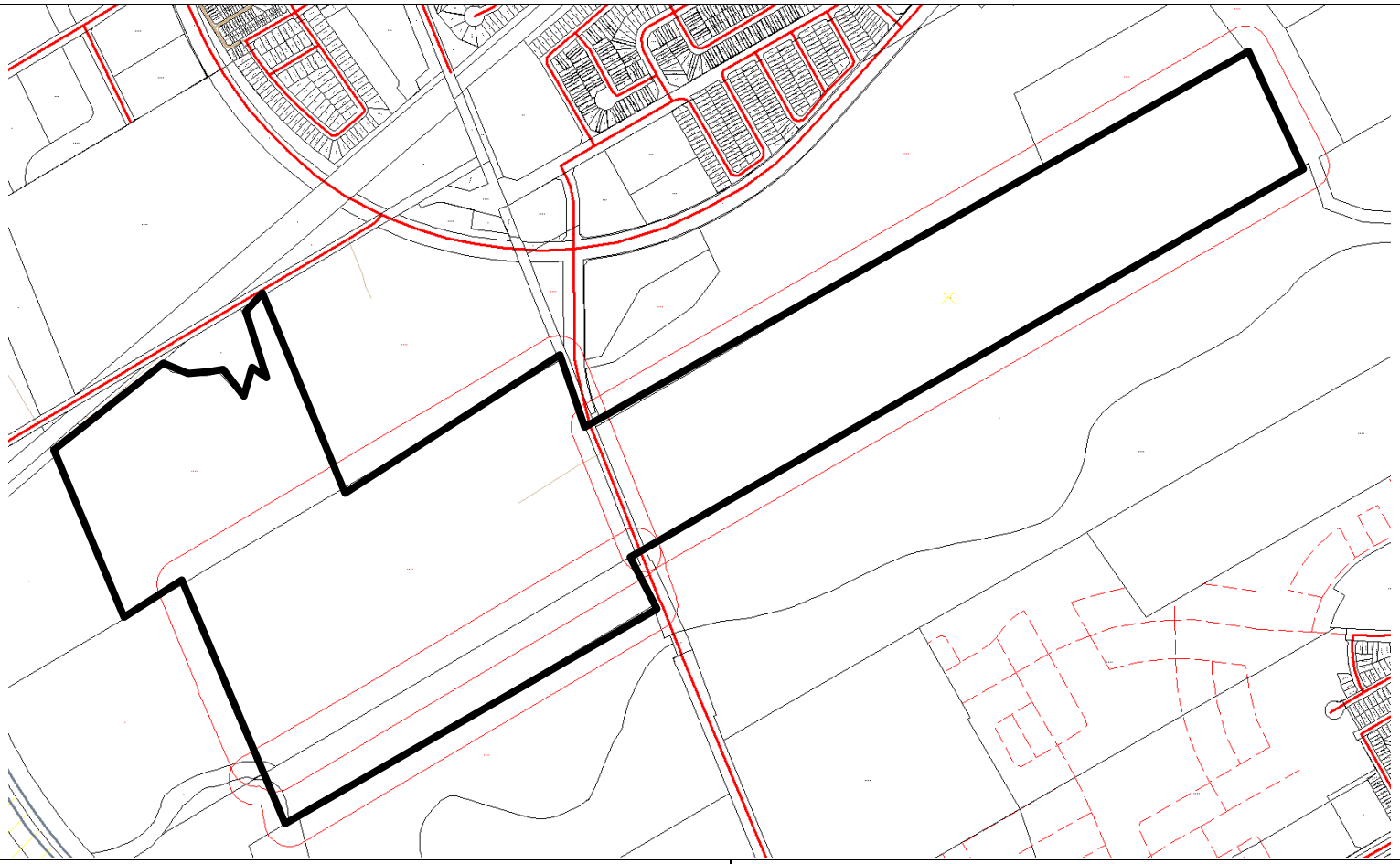
Sincerely,

Micaela Butron

For
Michael Boughton, MCIP, RPP
Senior Planner
Development Review East
Planning Services
Planning, Infrastructure and Economic Development Department

MB/MB

D06-03-17-00028



Scale 1: n/a

4305 McKenna Casey Drive & 3285, 3288, 3300 Borrisokane Rd
Ottawa, ON
File # D06-03-17-0028
Micaela Butron

Ottawa

Overview

ID# = Activity Identification Number

= Subject Site

Ministry of Natural Resources

Ontario

Natural. Valued. Protected.

Email to MNR

Natural Areas and Features Information Request Form

Contact Information

Clear Contact

Name: Alyssa Troke

Address: 1931 Robertson Road, Ottawa, ON

Phone Number: (613) 592-9600 ☐ Owner ☑ Consultant

E-mail Address: atroke@golder.com

*All red fields are manditory

This includes X & Y Coordinates.

Please see page 2 for assistance.

Site Information

Clear Site

Project Name: Phase I ESA, Conversancy Lands, Ottawa

Township: Ottawa Lot: _____ Concession: _____

X: -75.7730 Y: 45.2540 Address: Please see description below

**If more than 1 site, please provide all individual coordinates in an attached spreadsheet

Type of Proposal

Clear Details

☐ Severance / Zoning
☐ Drains / Roads / Culverts
☐ Hydroline clearing
☐ Small Scale Projects (less than 5 hectares)
☐ RE Projects
☐ Large Scale Projects (5 hectares or greater)
☐ Aggregate Project
☑ Other: _____

Attachments

***Please attach a Site Map showing the area of interest

☐ Picture ☑ Map(s) ☐ Engineered Drawings ☐ Other: _____

Request

I would like to request the following information for the property identified above:

-Information on species at risk on the site and within 250 m of the site boundaries and advice for avoiding impacts to any SAR
-Information on and mapping of significant natural areas (NHIC indicates none present) within

To better respond to your request please briefly outline the purpose for which this information is required (e.g. proposed development, lot severance, etc. or attach details):

The request is needed to comply with Ontario Regulation 153/04 (as amended) for a Phase I Environmental Site Assessment carried out for 4305 McKenna Casey Drive and 3285, 3288 and 3300 Borrisokane Road in Ottawa, Ontario.

Date of works proposed: ____ / _____ / _____

Personal information contained in this form is collected in order to fulfill your request, respond to your inquiries and for other administration purposes. With regard to the personal information it collects, the ministry is bound by privacy protection rules under the Freedom of Information and Protection of Privacy Act and takes all necessary steps to safeguard personal information collected.

Please Note: This request MUST be made by the property owner or by someone acting on their behalf.
Depending on the nature of the request, it may take 6-8 weeks to respond to your inquiry.
If the request does not include the manditory information, it may delay response time.

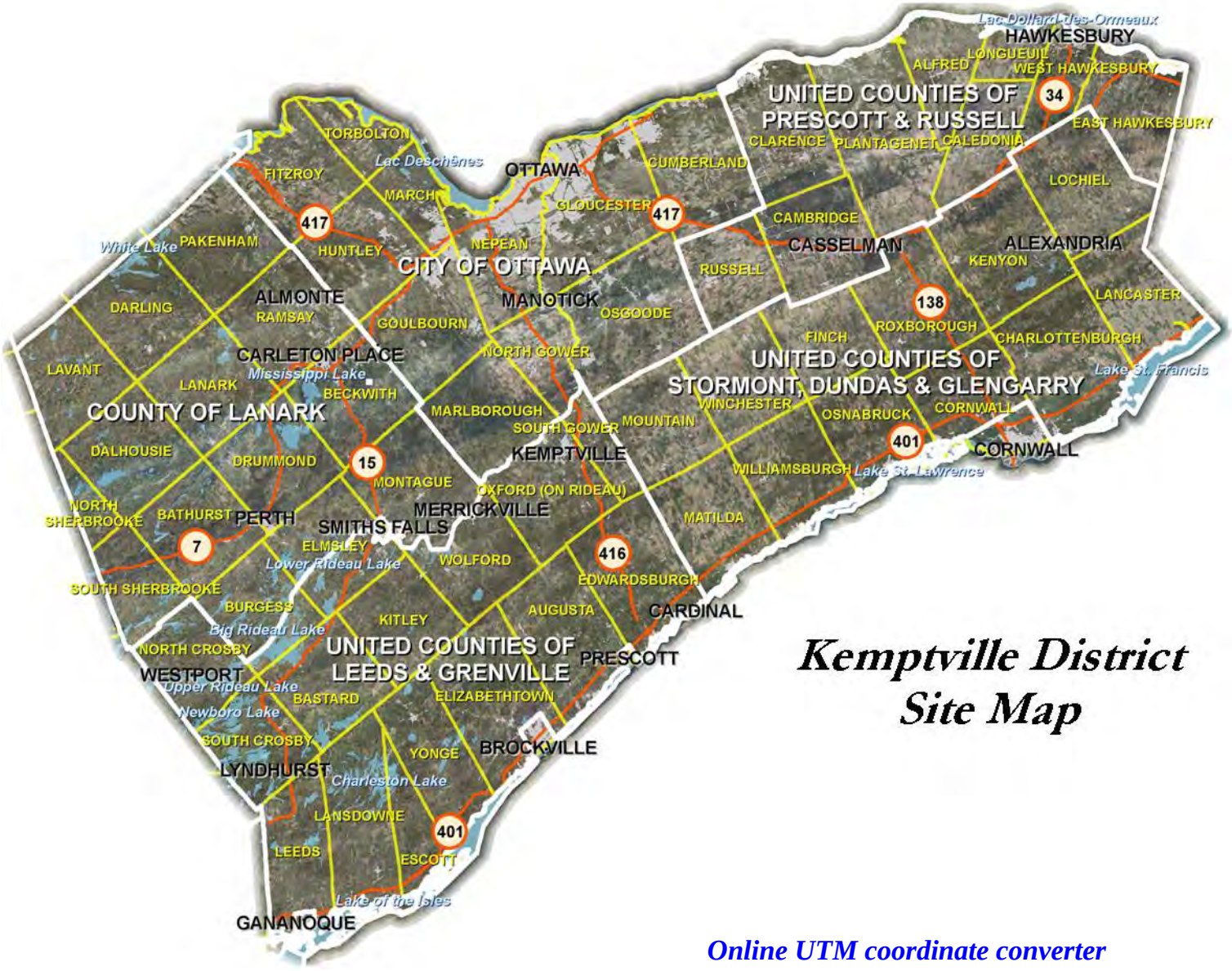
☑ *I have read the above and agree to all Terms and Conditions*

Please forward the completed form to:

Kemptville.Inforequest@Ontario.ca OR **Fax: 613-258-3920**

Attention: Information Requests
10 Campus Drive, Postal Bag 2002
Kemptville, ON K0G 1J0

MNR File Number: _____



Kemptville District Site Map

Online UTM coordinate converter

How to get X, Y coordinates from Google Maps (2 options):

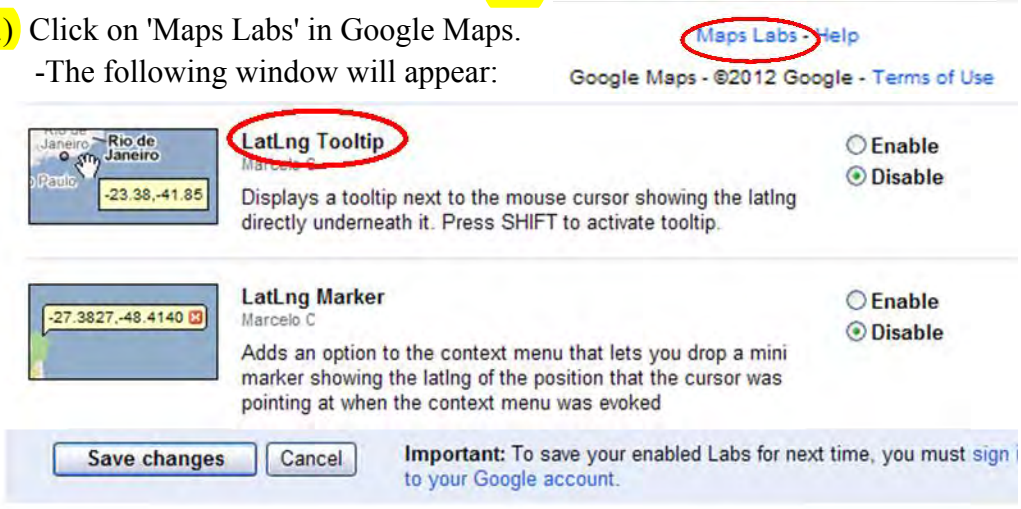
1.) Right-click on the map, at the point of interest, and select 'What's here?'.

-The Latitude & Longitude of the mouse click, in decimal degrees, will automatically appear in the Search box.

OR

2.) Click on 'Maps Labs' in Google Maps.

-The following window will appear:



-Enable the LatLng Tooltip and then Save Changes.

-Now every time the **SHIFT** button is pressed in Google Maps, a Tool tip will appear with the Latitude and Longitude of the mouse location in decimal degrees.

Ministry of Natural Resources and Forestry

Kemptville District

10 Campus Drive
Postal Box 2002
Kemptville ON K0G 1J0
Tel.: 613 258-8204
Fax: 613 258-3920

Ministère des Richesses naturelles et des Forêts

District de Kemptville

10, promenade Campus
Case postale, 2002
Kemptville ON K0G 1J0
Tél.: 613 258-8204
Téléc.: 613 258-3920

Ontario

Tue. Jul 18, 2017

Alyssa Troke
Golder Associates
1931 Robertson Rd
Ottawa, Ontario
K2H 5B7
(613) 592-9600
atroke@golder.com

Attention: Alyssa Troke

Subject: **Information Request - Developments**
Project Name: **Phase I Environmental Site Assessment for the site located at 4305 McKenna Casey Drive and 3285, 3288 and 3300 Borrisokane Road**
Site Address: **4305 McKenna Casey Drive and 3285, 3288 and 3300 Borrisokane Road, Nepean, Ontario**
Our File No. **2017_NEP-4106**

Natural Heritage Values

The Ministry of Natural Resources and Forestry (MNRF) Kemptville District has carried out a preliminary review of the above mentioned area in order to identify any potential natural resource and natural heritage values.

The following Natural Heritage values were identified for the general subject area:

- Fish Nursery, Carps and Minnows Nursery Area (Non-Sensitive)
- Fish Nursery, Northern Pike Nursery Area (Non-Sensitive)
- Fish Nursery, Rock Bass Nursery Area (Non-Sensitive)
- Fish Nursery, Unidentifiable Nursery Area
- Fish Nursery, Walleye Nursery Area (Non-Sensitive)
- Fish Nursery, White Sucker Nursery Area (Non-Sensitive)
- Municipal Drain, O'Keefe Drain (Non-Sensitive)
- Pit, 4046 (Non-Sensitive)
- Pit, 4052 (Non-Sensitive)
- Pit, 4126 (Non-Sensitive)
- Pond (Non-Sensitive)
- Private Drain, Foster Drain (Non-Sensitive)
- Private Drain, Fraser-Clarke Drain (Non-Sensitive)

- River, Jock River (Non-Sensitive)
- Spawning Area, Pumpkinseed Spawning Area
- Spawning Area, Shorthead Redhorse Spawning Area
- Spawning Area, Smallmouth Bass Spawning Area
- Spawning Area, Walleye Spawning Area
- Unevaluated Wetland (Not evaluated per OWES)

Municipal Official Plans contain information related to natural heritage features. Please see the local municipal Official Plan for more information, such as specific policies and direction pertaining to activities which may impact natural heritage features. For planning advice or Official Plan interpretation, please contact the local municipality. Many municipalities require environmental impact studies and other supporting studies be carried out as part of the development application process to allow the municipality to make planning decisions which are consistent with the Provincial Policy Statement (PPS, 2014).

The MNRF strongly encourages all proponents to contact partner agencies and appropriate municipalities early on in the planning process. This provides the proponent with early knowledge regarding agency requirements, authorizations and approval timelines; Ministry of the Environment and Climate Change (MOECC) and the local Conservation Authority may require approvals and permitting where natural values and natural hazards (e.g., floodplains) exist.

As per the Natural Heritage Reference Manual (NHRM, 2010) the MNRF strongly recommends that an ecological site assessment be carried out to determine the presence of natural heritage features and species at risk and their habitat on site. The MNRF can provide survey methodology for particular species at risk and their habitats.

The NHRM also recommends that cumulative effects of development projects on the integrity of natural heritage features and areas be given due consideration. This includes the evaluation of the past, present and possible future impacts of development in the surrounding area that may occur as a result of demand created by the presently proposed project.

In Addition, the following Fish species were identified: banded killifish, blackchin shiner, blacknose shiner, bluntnose minnow, brassy minnow, bridle shiner, brook silverside, brook stickleback, brown bullhead, Carps and Minnows, central mudminnow, common carp, common shiner, creek chub, eastern blacknose dace, fallfish, fathead minnow, finescale dace, golden shiner, greater redhorse, hornyhead chub, johnny darter, johnny darter/tesselated darter, logperch, longnose dace, mottled sculpin, muskellunge, northern pike, northern redbelly dace, pumpkinseed, rock bass, shorthead redhorse, silver redhorse, smallmouth bass, spottail shiner, stonecat, walleye, white sucker.

Wildland Fire

MNRF woodland data shows that the site contains woodlands. The lands should be assessed for the risk of wildland fire as per PPS 2014, Section 3.1.8 "*Development shall generally be directed to areas outside of lands that are unsafe for development due to the presence of hazardous forest types for wildland fire. Development may however be permitted in lands with hazardous forest types for wildland fire where the risk is mitigated in accordance with wildland fire assessment and*

mitigation standards". Further discussion with the local municipality should be carried out to address how the risks associated with wildland fire will be covered for such a development proposal. Please see the Wildland Fire Risk Assessment and Mitigation Guidebook (2016) for more information.

Significant Woodlands

Section 2.1.5 b) of the PPS states: *Development and site alteration shall not be permitted in significant woodlands unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.* The 2014 PPS directs that significant woodlands must be identified following criteria established by the Ontario Ministry of Natural Resources and Forestry, i.e. the Natural Heritage Reference Manual (NHRM), 2010. Where the local or County Official Plan has not yet updated significant woodland mapping to reflect the 2014 PPS, all wooded areas should be reviewed on a site specific basis for significance. The MNRF Kemptville District modelled locations of significant woodlands in 2011 based on NHRM criteria. The presence of significant woodland on site or within 120 metres should trigger an assessment of the impacts to the feature and its function from the proposed development.

Significant Wildlife Habitat

Section 2.1.5 d) of the PPS states: *Development and site alteration shall not be permitted in significant wildlife habitat unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.* It is the responsibility of the approval authority to identify significant wildlife habitat or require its identification. The MNRF has several guiding documents which may be useful in identification of significant wildlife habitat and characterization of impacts and mitigation options:

- Significant Wildlife Habitat Technical Guide, 2000
- The Natural Heritage Reference Manual, 2010
- Significant Wildlife Habitat Mitigation Support Tool, 2014
- Significant Wildlife Habitat Criteria Schedule for Ecoregion 5E and 6E, 2015

The habitat of special concern species (as identified by the Species at Risk in Ontario list) and Natural Heritage Information Centre tracked species with a conservation status rank of S1, S2 and S3 may be significant wildlife habitat and should be assessed accordingly.

Water

If any in-water works are to occur, there are timing windows for which work in water should not take place (see below). Appropriate measures should be taken to minimize and mitigate impact on water quality and fish habitat, including:

- installation of sediment and erosion control measures;
- avoiding the removal, alteration, or covering of substrates used for fish spawning, feeding, over-wintering or nursery areas; and
- debris control measures to manage falling debris (e.g. spalling).

Timing windows (no in-water works) in MNRF Kemptville District*:

Warmwater and cool water → March 15 – June 30

St. Lawrence River & Ottawa River → March 15 – July 15
Coldwater → October 1 – May 31
Big Rideau Lake & Charleston Lake → October 1 – June 30

* *Please note: Additional timing restrictions may apply as they relate to endangered and threatened species for works in both water and wetland areas.*

Timing windows when in-water work is restricted – based on species presence:

	FISH SPECIES	TIMING WINDOW (No in-water works)
Spring:	Walleye	March 15 to May 31
	Northern Pike	March 15 to May 31
	Lake Sturgeon	May 1 to June 30
	Muskellunge	March 15 to May 31
	Largemouth/Smallmouth Bass	May 1 to July 15
	Rainbow Trout	March 15 to June 15
	Other /Unknown Spring Spawning Species	March 15 to July 15

	FISH SPECIES	TIMING WINDOW (No in-water works)
Fall:	Lake Trout	October 1 to May 31
	Brook Trout	October 1 to May 31
	Pacific Salmon	September 15 to May 31
	Lake Whitefish	October 15 to May 31
	Lake Herring	October 15 to May 31
	Other /Unknown Fall Spawning Species	October 1 to May 31

Additional approvals and permits may be required under the Fisheries Act. Please contact Fisheries and Oceans Canada to determine requirements and next steps. There may also be approvals required by the local Conservation Authority or Transport Canada. As the MNRF is responsible for the management of provincial fish populations, we request ongoing involvement in such discussions in order to ensure population conservation.

Species at Risk

A review of the Natural Heritage Information Centre (NHIC) and internal records indicate that there is a potential for the following threatened (THR) and/or endangered (END) species on the site or in proximity to it:

- Bank Swallow (THR)
- Blanding's Turtle (THR)
- Bobolink (THR)
- Butternut (END)
- Barn Swallow (THR)
- Eastern Meadowlark (THR)

All endangered and threatened species receive individual protection under section 9 of the ESA and receive general habitat protection under Section 10 of the ESA, 2007. Thus any potential

works should consider disturbance to the individuals as well as their habitat (e.g. nesting sites). General habitat protection applies to all threatened and endangered species. Note some species in Kemptville District receive regulated habitat protection. The habitat of these listed species is protected from damage and destruction and certain activities may require authorization(s) under the ESA. For more on how species at risk and their habitat is protected, please see: https://www.ontario.ca/page/how-species-risk-are-protected.

If the proposed activity is known to have an impact on any endangered or threatened species at risk (SAR), or their habitat, an authorization under the ESA may be required. It is recommended that MNRF Kemptville be contacted prior to any activities being carried out to discuss potential survey protocols to follow during the early planning stages of a project, as well as mitigation measures to avoid contravention of the ESA. Where there is potential for species at risk or their habitat on the property, an Information Gathering Form should be submitted to Kemptville MNRF at sar.kemptville@ontario.ca.

The Information Gathering Form may be found here:
http://www.forms.ssb.gov.on.ca/mbs/ssb/forms/ssbforms.nsf/FormDetail?OpenForm&ACT=RDR&TAB=PROFILE&ENV=WWE&NO=018-0180E

For more information on the ESA authorization process, please see:
https://www.ontario.ca/page/how-get-endangered-species-act-permit-or-authorization

One or more special concern species has been documented to occur either on the site or nearby. Species listed as special concern are not protected under the ESA, 2007. However, please note that some of these species may be protected under the Fish and Wildlife Conservation Act and/or Migratory Birds Convention Act. Again, the habitat of special concern species may be significant wildlife habitat and should be assessed accordingly. Species of special concern for consideration:

- Eastern Wood-Pewee (SC)
- Snapping Turtle (SC)
- Wood Thrush (SC)

If any of these or any other species at risk are discovered throughout the course of the work, and/or should any species at risk or their habitat be potentially impacted by on site activities, MNRF should be contacted and operations be modified to avoid any negative impacts to species at risk or their habitat until further direction is provided by MNRF.

Please note that information regarding species at risk is based largely on documented occurrences and does not necessarily include an interpretation of potential habitat within or in proximity to the site in question. Although this data represents the MNRF's best current available information, it is important to note that a lack of information for a site does not mean that additional features and values are not present. It is the responsibility of the proponent to ensure that species at risk are not killed, harmed, or harassed, and that their habitat is not damaged or destroyed through the activities carried out on the site.

The MNRF continues to strongly encourage ecological site assessments to determine the potential for SAR habitat and occurrences. When a SAR or potential habitat for a SAR does occur on a site,

it is recommended that the proponent contact the MNRF for technical advice and to discuss what activities can occur without contravention of the Act. For specific questions regarding the Endangered Species Act (2007) or SAR, please contact MNRF Kemptville District at sar.kemptville@ontario.ca.

The approvals processes for a number of activities that have the potential to impact SAR or their habitat have recently changed. For information regarding regulatory exemptions and associated online registration of certain activities, please refer to the following website: https://www.ontario.ca/page/how-get-endangered-species-act-permit-or-authorization.

Please note: The advice in this letter may become invalid if:

- The Committee on the Status of Species at Risk in Ontario (COSSARO) re-assesses the status of the above-named species OR adds a species to the SARO List such that the section 9 and/or 10 protection provisions apply to those species; or
- Additional occurrences of species are discovered on or in proximity to the site.

This letter is valid until: Wed. Jul 18, 2018

The MNRF would like to request that we continue to be circulated on information with regards to this project. If you have any questions or require clarification please do not hesitate to contact me.

Sincerely,

Jane Devlin
Management Biologist
jane.devlin@ontario.ca

Encl.\
-ESA Infosheet
-NHIC/LIO Infosheet

From: Prem Lal <plal@tssa.org> on behalf of Public Information Services <publicinformationservices@tssa.org>
Sent: February-01-17 4:13 PM
To: Troke, Alyssa
Subject: RE: TSSA Search - 4305 McKenna Casey Drive and 3285, 3288 and 3300 Borrisokane Road, Ottawa, Ontario

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Alyssa:

Thank you for your inquiry.

We have no record in our database of any fuel storage tanks at the subject address (addresses).

For a further search in our archives please submit your request in writing to Public Information Services via e-mail (publicinformationservices@tssa.org) or through mail along with a fee of $56.50 (including HST) per location. The fee is payable with credit card (Visa or MasterCard) or with a Cheque made payable to TSSA.

Thank you Alyssa.

Prem

Prem Lal | Public Information Coordinator
Facilities and Business Services
345 Carlingview Drive
Toronto, Ontario M9W 6N9
Tel: +1-416-734-3570 | Fax: +1-416-734-3568 | E-Mail: plal@tssa.org
www.tssa.org

Employeur remarquable du Canada 2016 PARTENARIAT EN ÉDUCATION
Canada's Outstanding Employer 2016 THE LEARNING PARTNERSHIP

From: Troke, Alyssa [mailto:Alyssa_Troke@golder.com]
Sent: Wednesday, February 01, 2017 11:27 AM
To: Public Information Services
Subject: TSSA Search - 4305 McKenna Casey Drive and 3285, 3288 and 3300 Borrisokane Road, Ottawa, Ontario

Hello,

Could you please perform a TSSA database search for any underground storage tanks, registered fuel tanks, outstanding instructions, incident reports, fuel oil spills or contaminations records for the following properties:

- 4305 McKenna Casey Drive, Ottawa, ON
- 3285 Borrisokane Road, Ottawa, ON

- 3288 Borrisokane Road, Ottawa, ON
- 3300 Borrisokane Road, Ottawa, ON
- 4235 McKenna Casey Drive, Ottawa, ON
- 3231 Borrisokane Road, Ottawa, ON
- 3288 Greenbank Road, Ottawa, ON
- 4376 McKenna Casey Drive, Ottawa, ON
- 4005 Strandherd Drive, Ottawa, ON
- 3300 Borrisokane Road, Ottawa, ON

Please let me know if you have any questions.

Kindest Regards,

Alyssa Troke

Alyssa Troke (B.Eng., E.I.T.) | Environmental Consultant | **Golder Associates Ltd.**
1931 Robertson Road, Ottawa, Ontario, Canada, K2H 5B7
T: +1 (613) 592 9600 | **D:** +1 (613) 592 4362 | **F:** +1 (613) 592 9601 | **C:** +1 (613) 290 8736 | **E:** Alyssa_Troke@golder.com | **www.golder.com**

Work Safe, Home Safe

APPENDIX B

Ecolog ERIS Report

ENVIRONMENTAL RISK INFORMATION SERVICES

DATABASE REPORT

Project Property:	*1771847 - Barrhaven Phase I ESA* *4305 Mckenna Casey Drive and 3285, 3288 and 3300 Borrisokane Road* *Ottawa ON*
Project No:	
Report Type:	*Quote - Custom-Build Your Own Report*
Order No:	*20170201029*
Requested by:	*Golder Associates Ltd.*
Date Completed:	*February 6, 2017*

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

www.erisinfo.com

Table of Contents

Executive Summary

Property Information:

Project Property:	*1771847 - Barrhaven Phase I ESA* *4305 Mckenna Casey Drive and 3285, 3288 and 3300 Borrisokane Road Ottawa ON*
Project No:	

Order Information:

Order No:	*20170201029*
Date Requested:	*February 1, 2017*
Requested by:	*Golder Associates Ltd.*
Report Type:	*Quote - Custom-Build Your Own Report*

Additional Products:

Executive Summary: Report Summary

Database	Name	Searched	Project Property	Boundary to 0.25km	Total
AAGR	Abandoned Aggregate Inventory	Y	0	0	0
AGR	Aggregate Inventory	Y	0	0	0
AMIS	Abandoned Mine Information System	Y	0	0	0
ANDR	Anderson's Waste Disposal Sites	Y	0	0	0
AUWR	Automobile Wrecking & Supplies	Y	0	0	0
BORE	Borehole	Y	3	7	10
CA	Certificates of Approval	Y	0	1	1
CFOT	Commercial Fuel Oil Tanks	Y	0	0	0
CHEM	Chemical Register	Y	0	0	0
CNG	Compressed Natural Gas Stations	Y	0	0	0
COAL	Inventory of Coal Gasification Plants and Coal Tar Sites	Y	0	0	0
CONV	Compliance and Convictions	Y	0	0	0
CPU	Certificates of Property Use	Y	0	0	0
DRL	Drill Hole Database	Y	0	0	0
EASR	Environmental Activity and Sector Registry	Y	0	0	0
EBR	Environmental Registry	Y	0	0	0
ECA	Environmental Compliance Approval	Y	0	0	0
EEM	Environmental Effects Monitoring	Y	0	0	0
EHS	ERIS Historical Searches	Y	0	5	5
EIIS	Environmental Issues Inventory System	Y	0	0	0
EMHE	Emergency Management Historical Event	Y	0	0	0
EXP	List of TSSA Expired Facilities	Y	0	0	0
FCON	Federal Convictions	Y	0	0	0
FCS	Contaminated Sites on Federal Land	Y	0	0	0
FOFT	Fisheries & Oceans Fuel Tanks	Y	0	0	0
FST	Fuel Storage Tank	Y	0	0	0
FSTH	Fuel Storage Tank - Historic	Y	0	0	0
GEN	Ontario Regulation 347 Waste Generators Summary	Y	0	0	0
GHG	Greenhouse Gas Emissions from Large Facilities	Y	0	0	0
HINC	TSSA Historic Incidents	Y	0	0	0
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0
INC	TSSA Incidents	Y	0	0	0
LIMO	Landfill Inventory Management Ontario	Y	0	0	0
MINE	Canadian Mine Locations	Y	0	0	0
MNR	Mineral Occurrences	Y	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0

Database	Name	Searched	Project Property	Boundary to 0.25km	Total
NCPL	Non-Compliance Reports	Y	0	0	0
NDFT	National Defense & Canadian Forces Fuel Tanks	Y	0	0	0
NDSP	National Defense & Canadian Forces Spills	Y	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0
NEBW	National Energy Board Wells	Y	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0
NPCB	National PCB Inventory	Y	0	0	0
NPRI	National Pollutant Release Inventory	Y	0	0	0
OGW	Oil and Gas Wells	Y	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	0	0
OPCB	Inventory of PCB Storage Sites	Y	0	0	0
ORD	Orders	Y	0	0	0
PAP	Canadian Pulp and Paper	Y	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0
PES	Pesticide Register	Y	0	0	0
PINC	TSSA Pipeline Incidents	Y	0	0	0
PRT	Private and Retail Fuel Storage Tanks	Y	0	0	0
PTTW	Permit to Take Water	Y	0	0	0
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	0	0
RSC	Record of Site Condition	Y	0	0	0
RST	Retail Fuel Storage Tanks	Y	0	0	0
SCT	Scott's Manufacturing Directory	Y	0	0	0
SPL	Ontario Spills	Y	0	0	0
SRDS	Wastewater Discharger Registration Database	Y	0	0	0
TANK	Anderson's Storage Tanks	Y	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0
VAR	TSSA Variances for Abandonment of Underground Storage Tanks	Y	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0
WWIS	Water Well Information System	Y	0	11	11
	Total:		3	24	27

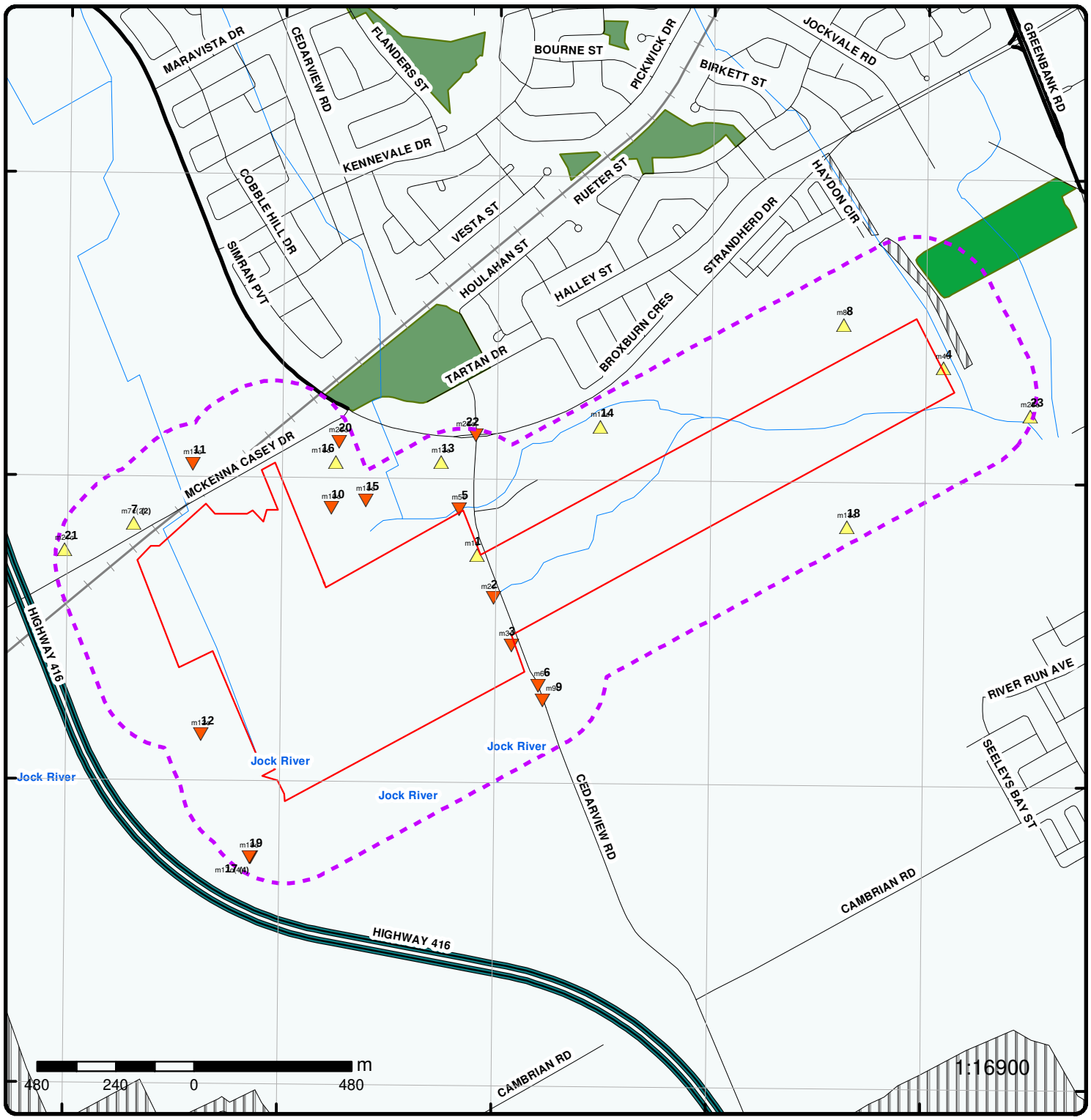
Executive Summary: Site Report Summary - Project Property

DB	Map Key	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
BORE	1		ON	-/0.0	0.43	12
BORE	2		ON	-/0.0	0.00	12
BORE	3		ON	-/0.0	-1.41	12

Executive Summary: Site Report Summary - Surrounding Properties

DB	Map Key	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
BORE	4		ON	ENE/4.8	0.45	13
BORE	5		ON	NNW/9.0	-0.73	13
BORE	6		ON	SSE/59.4	-0.18	14
BORE	7		ON	W/87.1	0.61	14
BORE	9		ON	SSE/104.4	-0.41	15
BORE	11		ON	WNW/128.0	-0.47	15
BORE	13		ON	NNW/163.2	0.41	16
CA	22	BARRHAVEN PROPERTIES	TARTAN DR. PH. 1 STRANDHERD RD NEPEAN CITY ON	N/231.1	-0.40	16
EHS	8		Greenbank Road & Jockvale Road Ottawa ON	NE/90.5	1.20	16
EHS	10		4235 McKenna Casey Dr Ottawa ON	WNW/106.8	-0.98	17
EHS	14		Cedarview Rd Strandherd Dr Ottawa ON	NE/169.0	0.83	17
EHS	15		4235 Mckenna Casey Drive Ottawa ON K2J 4S8	WNW/171.7	-1.89	17
EHS	23		3201 Greenbank Road Ottawa ON	ENE/242.5	0.26	17
WWIS	7		lot 16 con 4 ON	W/87.1	0.61	18
WWIS	12		lot 14 con 4 ON	WSW/131.3	-0.39	20
WWIS	16		lot 15 con 4 BARRHAVEN ON	NW/173.1	1.12	22
WWIS	17		lot 13 con 4 ON	SW/199.9	-1.00	24
WWIS	17		lot 13 con 4 ON	SW/199.9	-1.00	27
WWIS	17		lot 13 con 4 ON	SW/199.9	-1.00	30
WWIS	17		lot 13 con 4 ON	SW/199.9	-1.00	32
WWIS	18		lot 13 con 3 ON	E/200.9	1.50	35
WWIS	19		lot 13 con 4 ON	SW/201.7	-1.12	38
WWIS	20		lot 15 con 4 ON	NW/205.0	-0.51	39

DB	Map Key	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
WWIS	21		lot 16 con 4 ON	W/223.7	1.71	41



Map : 0.25 Kilometer Radius

Order No: 20170201029

Address: 4305 Mckenna Casey Drive and 3285, 3288 and 3300 Borrisokane Road, Ottawa

ERIS ENVIRONMENTAL RISK INFORMATION SERVICES

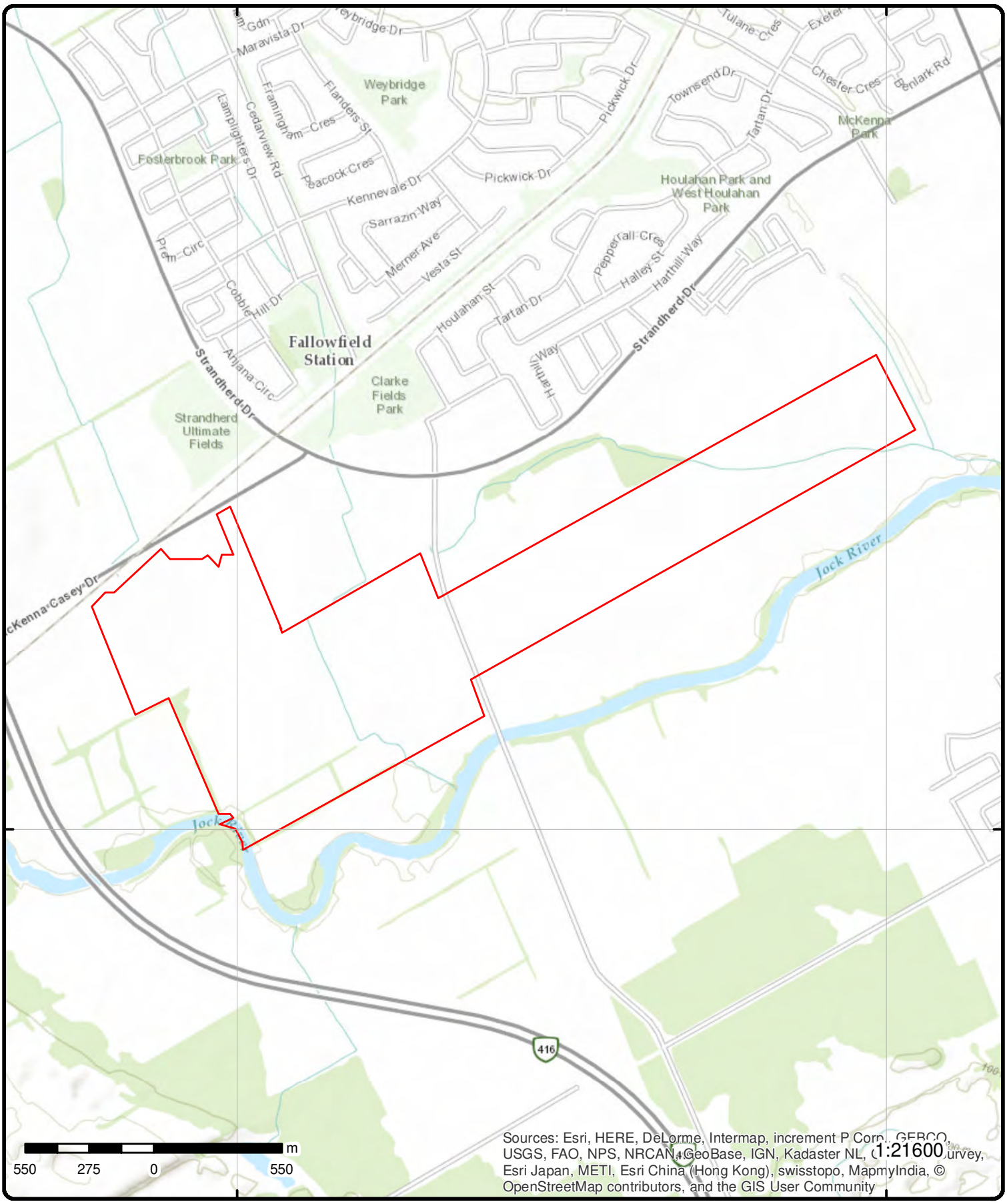
- Project Property
- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- Expressway
- Principal Highway
- Secondary Highway
- Major Road
- Local road
- Trail
- Proposed Road
- Ferry Route/Ice Road
-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

Aerial

Order No: 20170201029

Address: 4305 Mckenna Casey Drive and 3285, 3288 and 3300 Borriso

Source: ESRI World Imagery



Topographic Map

Order No: 20170201029

Address: 4305 Mckenna Casey Drive and 3285, 3288 and 3300 Borriso

Source: ESRI World Topographic Map

Detail Report

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
BORE	1	1 of 1	-/0.0	92.5	ON

Borehole ID:	807827	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Other Method	**UTM Zone::**	18
Easting::	439787.5	**Northing::**	5011703.28
Location Accuracy::		**Orig. Ground Elev m::**	91.5
Elev. Reliability Note::		**DEM Ground Elev m::**	91.8
Total Depth m::	3.2	**Primary Name::**	TP 90-19
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	04-JAN-1990	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218594250	**Top Depth(m):**	0.0
Bottom Depth(m):	0.5	**Stratum Desc:**	Topsoil
Stratum ID:	218594251	**Top Depth(m):**	0.5
Bottom Depth(m):	3.2	**Stratum Desc:**	Grey-Brown Silty Clay

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
BORE	2	1 of 1	-/0.0	92.1	ON

Borehole ID:	807825	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Other Method	**UTM Zone::**	18
Easting::	439837.62	**Northing::**	5011572.36
Location Accuracy::		**Orig. Ground Elev m::**	91.5
Elev. Reliability Note::		**DEM Ground Elev m::**	90.5
Total Depth m::	3	**Primary Name::**	TP 90-18
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	04-JAN-1990	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218594245	**Top Depth(m):**	0.0
Bottom Depth(m):	0.4	**Stratum Desc:**	Topsoil
Stratum ID:	218594246	**Top Depth(m):**	0.4
Bottom Depth(m):	3.0	**Stratum Desc:**	Grey-Brown Silty Clay

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
BORE	3	1 of 1	-/0.0	90.7	ON

Borehole ID:	807824	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Other Method	**UTM Zone::**	18
Easting::	439893.12	**Northing::**	5011427.85
Location Accuracy::		**Orig. Ground Elev m::**	91.5

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

Elev. Reliability Note::		**DEM Ground Elev m::**	92
Total Depth m::	3.1	**Primary Name::**	TP 90-17
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	04-JAN-1990	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218594243	**Top Depth(m):**	0.0
Bottom Depth(m):	0.2	**Stratum Desc:**	Topsoil
Stratum ID:	218594244	**Top Depth(m):**	0.2
Bottom Depth(m):	3.1	**Stratum Desc:**	Grey-Brown Silty Clay

BORE 4 — **1 of 1** — **ENE/4.8** — **92.6** — **ON**

Borehole ID:	800201	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	441210.55	**Northing::**	5012274.73
Location Accuracy::		**Orig. Ground Elev m::**	92.1
Elev. Reliability Note::		**DEM Ground Elev m::**	92.2
Total Depth m::	3	**Primary Name::**	BH 38
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	05-DEC-1974	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218564024	**Top Depth(m):**	0.0
Bottom Depth(m):	0.2	**Stratum Desc:**	Topsoil
Stratum ID:	218564025	**Top Depth(m):**	0.2
Bottom Depth(m):	3.0	**Stratum Desc:**	Grey-Brown Very Stiff Weathered Crust Silty Clay Occasional: Sa very stiff grey brown SILTY CLAY with occasional sand seams (weathered crust)

BORE 5 — **1 of 1** — **NNW/9.0** — **91.4** — **ON**

Borehole ID:	807831	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Other Method	**UTM Zone::**	18
Easting::	439733.83	**Northing::**	5011843.26
Location Accuracy::		**Orig. Ground Elev m::**	91.2
Elev. Reliability Note::		**DEM Ground Elev m::**	90.1
Total Depth m::	3.1	**Primary Name::**	TP 90-20
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	04-JAN-1990	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218594260	**Top Depth(m):**	0.0
Bottom Depth(m):	0.3	**Stratum Desc:**	Topsoil
Stratum ID:	218594261	**Top Depth(m):**	0.3
Bottom Depth(m):	2.7	**Stratum Desc:**	Grey-Brown Silty Clay

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

Stratum ID:	218594262	**Top Depth(m):**	2.7
Bottom Depth(m):	3.1	**Stratum Desc:**	Grey-Brown Silty Clay

BORE 6 **1 of 1** **SSE/59.4** **91.9** **ON**

Borehole ID:	848008	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	Decommissioned
Drill Method::	Boring	**UTM Zone::**	18
Easting::	439974	**Northing::**	5011305
Location Accuracy::		**Orig. Ground Elev m::**	60.6
Elev. Reliability Note::		**DEM Ground Elev m::**	91.5
Total Depth m::	23.4	**Primary Name::**	
Township::	NEPEAN	**Concession::**	
Lot::	ROAD	**Municipality:**	
Completion Date::	30-JUL-1968	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	6559577	**Top Depth(m):**	0.0
Bottom Depth(m):	0.1	**Stratum Desc:**	TOPSOIL
Stratum ID:	6559578	**Top Depth(m):**	0.1
Bottom Depth(m):	1.5	**Stratum Desc:**	LOOSE BROWN SILTY SAND, TRACE OF CLAY (ALLUVIUM)
Stratum ID:	6559579	**Top Depth(m):**	1.5
Bottom Depth(m):	3.4	**Stratum Desc:**	STIFF TO FIRM BROWN SILTY CLAY
Stratum ID:	6559580	**Top Depth(m):**	3.4
Bottom Depth(m):	14.3	**Stratum Desc:**	FIRM TO GREY SILTY CLAY, 2' BOULDER AT 63' DEPTH
Stratum ID:	6559581	**Top Depth(m):**	14.3
Bottom Depth(m):	23.4	**Stratum Desc:**	SOUND GREY LIMESTONE BEDROCK, SOME DARK GREY SHALE LAYERS

BORE 7 **1 of 2** **W/87.1** **92.7** **ON**

Borehole ID:	610471	**Type:**	Borehole
Use:		**Status::**	
Drill Method::		**UTM Zone::**	18
Easting::	438741	**Northing::**	5011802
Location Accuracy::		**Orig. Ground Elev m::**	93
Elev. Reliability Note::		**DEM Ground Elev m::**	92.2
Total Depth m::	13.1	**Primary Name::**	
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	AUG-1963	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218385667	**Top Depth(m):**	0.0
Bottom Depth(m):	0.6	**Stratum Desc:**	SOIL,SAND.
Stratum ID:	218385668	**Top Depth(m):**	0.6
Bottom Depth(m):	3.4	**Stratum Desc:**	CLAY. BLUE.
Stratum ID:	218385669	**Top Depth(m):**	3.4
Bottom Depth(m):	11.9	**Stratum Desc:**	CLAY,STONES. BLUE.

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

Stratum ID:	218385670	**Top Depth(m):**	11.9
Bottom Depth(m):	13.1	**Stratum Desc:**	SAND,GRAVEL. 00040= 4900. BEDROCK. SEISMIC VELOCITY = 17500. SILT. GREY,FIRM. 00035004

BORE 9 | **1 of 1** | **SSE/104.4** | **91.7** | **ON**

Borehole ID:	848009	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	Decommissioned
Drill Method::	Boring	**UTM Zone::**	18
Easting::	439988	**Northing::**	5011259
Location Accuracy::		**Orig. Ground Elev m::**	90.2
Elev. Reliability Note::		**DEM Ground Elev m::**	90.2
Total Depth m::	22.9	**Primary Name::**	
Township::	NEPEAN	**Concession::**	
Lot::	ROAD	**Municipality:**	
Completion Date::	31-JUL-1968	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	6559582	**Top Depth(m):**	0.0
Bottom Depth(m):	0.1	**Stratum Desc:**	TOPSOIL
Stratum ID:	6559583	**Top Depth(m):**	0.1
Bottom Depth(m):	1.7	**Stratum Desc:**	LOOSE BROWN SILTY SAND, TRACE OF CLAY (ALLUVIUM)
Stratum ID:	6559584	**Top Depth(m):**	1.7
Bottom Depth(m):	3.5	**Stratum Desc:**	VERY LOOSE ORGANIC SANDY SILT, SOME WOOD, OCCASIONAL FINE SAND SEAM
Stratum ID:	6559585	**Top Depth(m):**	3.5
Bottom Depth(m):	15.2	**Stratum Desc:**	SOFT TO FIRM GREY SENSITIVE SITLY CLAY, TRACE TO SOME ORGANIC MATERIAL
Stratum ID:	6559586	**Top Depth(m):**	15.2
Bottom Depth(m):	20.0	**Stratum Desc:**	FIRM GREY SILTY CLAY
Stratum ID:	6559587	**Top Depth(m):**	20.0
Bottom Depth(m):	20.8	**Stratum Desc:**	VERY LOOSE GREY SANDY SILT, SOME CLAY AND GRAVEL
Stratum ID:	6559588	**Top Depth(m):**	20.8
Bottom Depth(m):	22.9	**Stratum Desc:**	SOUND GREY LIMESTONE BEDROCK, SOME DARK GREY SHALE LAYERS

BORE 11 | **1 of 1** | **WNW/128.0** | **91.6** | **ON**

Borehole ID:	610478	**Type:**	Borehole
Use:		**Status::**	
Drill Method::		**UTM Zone::**	18
Easting::	438921	**Northing::**	5011982
Location Accuracy::		**Orig. Ground Elev m::**	96
Elev. Reliability Note::		**DEM Ground Elev m::**	91.9
Total Depth m::	-999	**Primary Name::**	
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::		**Static Water Level::**	2.7
Primary Water Use::		**Sec. Water Use::**	

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

--Details--

Stratum ID:	218385689	***Top Depth(m):***	0.0
Bottom Depth(m):	0.6	***Stratum Desc:***	SILT,SAND.
Stratum ID:	218385690	***Top Depth(m):***	0.6
Bottom Depth(m):	3.4	***Stratum Desc:***	CLAY.
Stratum ID:	218385691	***Top Depth(m):***	3.4
Bottom Depth(m):	11.9	***Stratum Desc:***	CLAY,STONES. WATER STABLE AT 306.1 FEET.
Stratum ID:	218385692	***Top Depth(m):***	11.9
Bottom Depth(m):		***Stratum Desc:***	SAND,GRAVEL. BEDROCK. SEISMIC VELOCITY = 15000. SILT. GREY,FIRM. 00035004. 000080110

BORE **13** ***1 of 1*** ***NNW/163.2*** ***92.5*** ***ON***

Borehole ID:	807832	***Type:***	Borehole
Use:	Geotechnical/Geological Investigation	***Status::***	
Drill Method::	Other Method	***UTM Zone::***	18
Easting::	439678.35	***Northing::***	5011988.27
Location Accuracy::		***Orig. Ground Elev m::***	92.2
Elev. Reliability Note::		***DEM Ground Elev m::***	92.5
Total Depth m::	2.9	***Primary Name::***	TP 90-21
Township::		***Concession::***	
Lot::		***Municipality:***	
Completion Date::	04-JAN-1990	***Static Water Level::***	-999.9
Primary Water Use::		***Sec. Water Use::***	

--Details--

Stratum ID:	218594263	***Top Depth(m):***	0.0
Bottom Depth(m):	0.6	***Stratum Desc:***	Topsoil
Stratum ID:	218594264	***Top Depth(m):***	0.6
Bottom Depth(m):	2.9	***Stratum Desc:***	Grey-Brown Silty Clay

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CA **22** ***1 of 1*** ***N/231.1*** ***91.7*** ***BARRHAVEN PROPERTIES TARTAN DR. PH. 1 STRANDHERD RD NEPEAN CITY ON***

Certificate #:	7-0015-86-
Application Year:	86
Issue Date:	1/17/1986
Approval Type:	Municipal water
Status:	Approved
Application Type:	
Client Name::	
Client Address::	
Client City::	
Client Postal Code::	
Project Description::	
Contaminants::	
Emission Control::	

EHS **8** ***1 of 1*** ***NE/90.5*** ***93.3*** ***Greenbank Road & Jockvale Road Ottawa ON***

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
Postal Code:					
City:		Ottawa			
Address2:					
Address1:		Greenbank Road & Jockvale Road			
Provstate:		ON			
Order No.:		20150616087			
Addit. Info Ordered::		Aerial Photos			
Report Date:		18-JUN-15			
Report Type:		Custom Report			
Search Radius (km):		.1			

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
EHS	10	**1 of 1**	**WNW/106.8**	**91.1**	**4235 McKenna Casey Dr Ottawa ON**
Postal Code:					
City:					
Address2:					
Address1:					
Provstate:					
Order No.:		20090717012			
Addit. Info Ordered::					
Report Date:		7/29/2009			
Report Type:		Custom Report			
Search Radius (km):		0.25			

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
EHS	14	**1 of 1**	**NE/169.0**	**92.9**	**Cedarview Rd Strandherd Dr Ottawa ON**
Postal Code:					
City:		Ottawa			
Address2:					
Address1:		Cedarview Rd Strandherd Dr			
Provstate:		ON			
Order No.:		20141120083			
Addit. Info Ordered::					
Report Date:		27-NOV-14			
Report Type:		Standard Report			
Search Radius (km):		.25			

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
EHS	15	**1 of 1**	**WNW/171.7**	**90.2**	**4235 Mckenna Casey Drive Ottawa ON K2J 4S8**
Postal Code:					
City:					
Address2:					
Address1:					
Provstate:					
Order No.:		20140724082			
Addit. Info Ordered::					
Report Date:		31-JUL-14			
Report Type:		Custom Report			
Search Radius (km):		.25			

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
EHS	23	**1 of 1**	**ENE/242.5**	**92.4**	**3201 Greenbank Road Ottawa ON**
Postal Code:					
City:		Ottawa			
Address2:					

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

Address1:	3201 Greenbank Road
Provstate:	ON
Order No.:	20150930171
Addit. Info Ordered::	
Report Date:	07-OCT-15
Report Type:	Custom Report
Search Radius (km):	.1

WWIS	**7**	**2 of 2**	**W/87.1**	**92.7**	**lot 16 con 4 ON**

Well ID:	1506084	**Lot:**	016
Construction Date::		**Concession:**	04
Primary Water Use::	Commerical	**Concession Name:**	RF
Sec. Water Use::		**Easting NAD83::**	
Final Well Status::	Water Supply	**Northing NAD83::**	
Specific Capacity::		**Zone::**	
Municipality:	NEPEAN TOWNSHIP	**UTM Reliability::**	
County:	OTTAWA-CARLETON		

Bore Hole Information	
--	--
Bore Hole ID:	10028127
DP2BR:	
Code OB:	o
Code OB Description:	Overburden
Open Hole:	
Date Completed:	05-AUG-63
Remarks:	
Zone:	18
East 83:	438740.7
North 83:	5011802
UTMRC:	5
UTMRC Description:	margin of error : 100 m - 300 m
Location Method:	p5
Org CS:	
Elevation:	92.18
Elevrc:	
Elevrc Description:	
Location Source Date:	
Source Revision Comment:	
Improvement Location Source:	
Improvement Location Method:	
Supplier Comment:	
Spatial Status:	
--	--
Overburden and Bedrock Materials Interval	
--	--
Formation ID:	931003755
Layer:	1
General Color:	
Most Common Material:	TOPSOIL
Other Materials:	MEDIUM SAND
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	2
Formation End Depth UOM:	ft
--	--
Formation ID:	931003756
Layer:	2
General Color:	BLUE
Most Common Material:	CLAY
Other Materials:	
Other Materials:	

Formation Top Depth:	2
Formation End Depth:	11
Formation End Depth UOM:	ft
--	--
Formation ID:	931003757
Layer:	3
General Color:	BLUE
Most Common Material:	CLAY
Other Materials:	STONES
Other Materials:	
Formation Top Depth:	11
Formation End Depth:	39
Formation End Depth UOM:	ft
--	--
Formation ID:	931003758
Layer:	4
General Color:	
Most Common Material:	COARSE SAND
Other Materials:	GRAVEL
Other Materials:	
Formation Top Depth:	39
Formation End Depth:	43
Formation End Depth UOM:	ft
--	--
Method of Construction & Well Use	
--	--
Method Construction ID:	961506084
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	
--	--
Pipe Information	
--	--
Pipe ID:	10576697
Casing Number:	1
Comment:	
Alt Name:	
--	--
Construction Record - Casing	
--	--
Casing ID:	930049000
Layer:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	42
Casing Diameter:	7
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
--	--
Casing ID:	930049001
Layer:	2
Open Hole or Material:	
Depth From:	
Depth To:	43
Casing Diameter:	7
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
--	--
Well Yield Testing	
--	--
Pump Test ID:	991506084
Pump Set At:	
Static Level:	0
Final Level After Pumping:	12
Recommended Pump Depth:	10
Pumping Rate:	20

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

Flowing Rate:	
Recommended Pump Rate:	4
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	3
Pumping Duration MIN:	0
Flowing:	N
--	--
Water Details	
--	--
Water ID:	933460160
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	40
Water Found Depth UOM:	ft
--	--
--	--

WWIS	12	**1 of 1**	**WSW/131.3**	**91.7**	**lot 14 con 4 ON**

Well ID:	1524165	**Lot:**	014
Construction Date::		**Concession:**	04
Primary Water Use::	Domestic	**Concession Name:**	
Sec. Water Use::		**Easting NAD83::**	
Final Well Status::	Water Supply	**Northing NAD83::**	
Specific Capacity::		**Zone::**	
Municipality:	NEPEAN TOWNSHIP	**UTM Reliability::**	
County:	OTTAWA-CARLETON		

Bore Hole Information	
--	--
Bore Hole ID:	10045937
DP2BR:	56
Code OB:	r
Code OB Description:	Bedrock
Open Hole:	
Date Completed:	03-NOV-84
Remarks:	
Zone:	18
East 83:	438945.7
North 83:	5011156
UTMRC:	9
UTMRC Description:	unknown UTM
Location Method:	lot
Org CS:	
Elevation:	90.62
Elevrc:	
Elevrc Description:	
Location Source Date:	
Source Revision Comment:	
Improvement Location Source:	
Improvement Location Method:	
Supplier Comment:	
Spatial Status:	
--	--
Overburden and Bedrock Materials Interval	
--	--
Formation ID:	931057043
Layer:	1
General Color:	GREY

Most Common Material:	SAND
Other Materials:	GRAVEL
Other Materials:	BOULDERS
Formation Top Depth:	0
Formation End Depth:	20
Formation End Depth UOM:	ft
--	--
Formation ID:	931057044
Layer:	2
General Color:	GREY
Most Common Material:	CLAY
Other Materials:	GRAVEL
Other Materials:	
Formation Top Depth:	20
Formation End Depth:	56
Formation End Depth UOM:	ft
--	--
Formation ID:	931057045
Layer:	3
General Color:	GREY
Most Common Material:	LIMESTONE
Other Materials:	
Other Materials:	
Formation Top Depth:	56
Formation End Depth:	182
Formation End Depth UOM:	ft
--	--
Method of Construction & Well Use	
--	--
Method Construction ID:	961524165
Method Construction Code:	5
Method Construction:	Air Percussion
Other Method Construction:	
--	--
Pipe Information	
--	--
Pipe ID:	10594507
Casing Number:	1
Comment:	
Alt Name:	
--	--
Construction Record - Casing	
--	--
Casing ID:	930080427
Layer:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	59
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
--	--
Casing ID:	930080428
Layer:	2
Open Hole or Material:	
Depth From:	
Depth To:	182
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
--	--
Well Yield Testing	
--	--
Pump Test ID:	991524165
Pump Set At:	
Static Level:	20

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

Final Level After Pumping:	60
Recommended Pump Depth:	60
Pumping Rate:	10
Flowing Rate:	
Recommended Pump Rate:	8
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	2
Water State After Test:	CLOUDY
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	N
--	--
Draw Down & Recovery	
--	--
Pump Test Detail ID:	934107746
Pump Test ID:	991524165
Test Type:	
Test Duration:	15
Test Level:	60
Test Level UOM:	ft
--	--
Pump Test Detail ID:	934391975
Pump Test ID:	991524165
Test Type:	
Test Duration:	30
Test Level:	60
Test Level UOM:	ft
--	--
Pump Test Detail ID:	934652945
Pump Test ID:	991524165
Test Type:	
Test Duration:	45
Test Level:	60
Test Level UOM:	ft
--	--
Pump Test Detail ID:	934910145
Pump Test ID:	991524165
Test Type:	
Test Duration:	60
Test Level:	60
Test Level UOM:	ft
--	--
--	--
Water Details	
--	--
Water ID:	933482719
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	178
Water Found Depth UOM:	ft
--	--
--	--

WWIS	***16***	***1 of 1***	***NW/173.1***	***93.2***	***lot 15 con 4 BARRHAVEN ON***

Well ID:	7247771	***Lot:***	015
Construction Date::		***Concession:***	04
Primary Water Use::	Domestic	***Concession Name:***	RF
Sec. Water Use::		***Easting NAD83::***	
Final Well Status::	Abandoned-Other	***Northing NAD83::***	
Specific Capacity::		***Zone::***	
Municipality:	NEPEAN TOWNSHIP	***UTM Reliability::***	

County:	OTTAWA-CARLETON
Bore Hole Information	
--	--
Bore Hole ID:	1005667854
DP2BR:	
Code OB:	
Code OB Description:	
Open Hole:	
Date Completed:	20-JUL-15
Remarks:	
Zone:	18
East 83:	439358
North 83:	5011987
UTMRC:	5
UTMRC Description:	margin of error : 100 m - 300 m
Location Method:	wwr
Org CS:	UTM83
Elevation:	
Elevrc:	
Elevrc Description:	
Location Source Date:	
Source Revision Comment:	
Improvement Location Source:	
Improvement Location Method:	
Supplier Comment:	
Spatial Status:	
--	--
Overburden and Bedrock Materials Interval	
--	--
Formation ID:	1005732411
Layer:	
General Color:	
Most Common Material:	
Other Materials:	
Other Materials:	
Formation Top Depth:	
Formation End Depth:	
Formation End Depth UOM:	ft
--	--
Annular Space/Abandonment Sealing Record	
--	--
Plug ID:	1005732418
Layer:	1
Plug From:	0
Plug To:	85.75
Plug Depth UOM:	ft
--	--
Method of Construction & Well Use	
--	--
Method Construction ID:	1005732417
Method Construction Code:	
Method Construction:	
Other Method Construction:	
--	--
Pipe Information	
--	--
Pipe ID:	1005732410
Casing Number:	0
Comment:	
Alt Name:	
--	--
Construction Record - Casing	
--	--

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

Casing ID:	1005732414
Layer:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
--	--
--	--
Construction Record - Screen	
--	--
Screen ID:	1005732415
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	
--	--
Hole Diameter	
--	--
Hole ID:	1005732412
Diameter:	
Depth From:	
Depth To:	
Hole Depth UOM:	ft
Hole Diameter UOM:	inch
--	--
--	--

WWIS	17	1 of 4	SW/199.9	91.1	lot 13 con 4 ON

Well ID:	1520945	**Lot:**	013
Construction Date::		**Concession:**	04
Primary Water Use::	Domestic	**Concession Name:**	CON
Sec. Water Use::		**Easting NAD83::**	
Final Well Status::	Test Hole	**Northing NAD83::**	
Specific Capacity::		**Zone::**	
Municipality:	NEPEAN TOWNSHIP	**UTM Reliability::**	
County:	OTTAWA-CARLETON		

Bore Hole Information	
--	--
Bore Hole ID:	10042786
DP2BR:	
Code OB:	o
Code OB Description:	Overburden
Open Hole:	
Date Completed:	27-AUG-86
Remarks:	
Zone:	18
East 83:	439096.7
North 83:	5010782
UTMRC:	9
UTMRC Description:	unknown UTM
Location Method:	lot
Org CS:	
Elevation:	92.03
Elevrc:	
Elevrc Description:	
Location Source Date:	
Source Revision Comment:	

Improvement Location Source:
Improvement Location Method:
Supplier Comment:
Spatial Status:
-- --
Overburden and Bedrock Materials Interval
-- --
Formation ID: 931046360
Layer: 1
General Color: BLACK
Most Common Material: TOPSOIL
Other Materials: PEAT
Other Materials: LOOSE
Formation Top Depth: 0
Formation End Depth: 2
Formation End Depth UOM: ft
-- --
Formation ID: 931046361
Layer: 2
General Color: WHITE
Most Common Material: FINE SAND
Other Materials:
Other Materials:
Formation Top Depth: 2
Formation End Depth: 15
Formation End Depth UOM: ft
-- --
Formation ID: 931046362
Layer: 3
General Color: BROWN
Most Common Material: MEDIUM SAND
Other Materials:
Other Materials:
Formation Top Depth: 15
Formation End Depth: 31
Formation End Depth UOM: ft
-- --
Formation ID: 931046363
Layer: 4
General Color: GREY
Most Common Material: MEDIUM SAND
Other Materials:
Other Materials:
Formation Top Depth: 31
Formation End Depth: 49
Formation End Depth UOM: ft
-- --
Formation ID: 931046364
Layer: 5
General Color: GREY
Most Common Material: CLAY
Other Materials: PACKED
Other Materials:
Formation Top Depth: 49
Formation End Depth: 51
Formation End Depth UOM: ft
-- --
Method of Construction & Well Use
-- --
Method Construction ID: 961520945
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:
-- --
Pipe Information

--	--
Pipe ID:	10591356
Casing Number:	1
Comment:	
Alt Name:	
--	--
Construction Record - Casing	
--	--
Casing ID:	930074684
Layer:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	46
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
--	--
Casing ID:	930074685
Layer:	2
Open Hole or Material:	STEEL
Depth From:	
Depth To:	49
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
--	--
--	--
Construction Record - Screen	
--	--
Screen ID:	933326072
Layer:	1
Slot:	012
Screen Top Depth:	46
Screen End Depth:	49
Screen Material:	
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	6
--	--
Well Yield Testing	
--	--
Pump Test ID:	991520945
Pump Set At:	
Static Level:	18
Final Level After Pumping:	40
Recommended Pump Depth:	40
Pumping Rate:	20
Flowing Rate:	
Recommended Pump Rate:	10
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	2
Pumping Duration MIN:	0
Flowing:	N
--	--
Draw Down & Recovery	
--	--
Pump Test Detail ID:	934104274
Pump Test ID:	991520945
Test Type:	Draw Down
Test Duration:	15
Test Level:	40
Test Level UOM:	ft
--	--

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

Pump Test Detail ID:	934388512
Pump Test ID:	991520945
Test Type:	Draw Down
Test Duration:	30
Test Level:	40
Test Level UOM:	ft
--	--
Pump Test Detail ID:	934650086
Pump Test ID:	991520945
Test Type:	Draw Down
Test Duration:	45
Test Level:	40
Test Level UOM:	ft
--	--
Pump Test Detail ID:	934907731
Pump Test ID:	991520945
Test Type:	Draw Down
Test Duration:	60
Test Level:	40
Test Level UOM:	ft
--	--
--	--
Water Details	
--	--
Water ID:	933478360
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	46
Water Found Depth UOM:	ft
--	--
--	--

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
WWIS	17	2 of 4	SW/199.9	91.1	lot 13 con 4 ON

Well ID:	1522400	**Lot:**	013
Construction Date::		**Concession:**	04
Primary Water Use::	Domestic	**Concession Name:**	
Sec. Water Use::		**Easting NAD83::**	
Final Well Status::	Test Hole	**Northing NAD83::**	
Specific Capacity::		**Zone::**	
Municipality:	NEPEAN TOWNSHIP	**UTM Reliability::**	
County:	OTTAWA-CARLETON		

Bore Hole Information	
--	--
Bore Hole ID:	10044212
DP2BR:	
Code OB:	o
Code OB Description:	Overburden
Open Hole:	
Date Completed:	03-FEB-88
Remarks:	
Zone:	18
East 83:	439096.7
North 83:	5010782
UTMRC:	9
UTMRC Description:	unknown UTM
Location Method:	lot
Org CS:	
Elevation:	92.03
Elevrc:	
Elevrc Description:	
Location Source Date:	
Source Revision Comment:	

Improvement Location Source:	
Improvement Location Method:	
Supplier Comment:	
Spatial Status:	
--	--
Overburden and Bedrock Materials Interval	
--	--
Formation ID:	931051292
Layer:	1
General Color:	BROWN
Most Common Material:	SAND
Other Materials:	LOOSE
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	3
Formation End Depth UOM:	ft
--	--
Formation ID:	931051293
Layer:	2
General Color:	BROWN
Most Common Material:	CLAY
Other Materials:	PACKED
Other Materials:	
Formation Top Depth:	3
Formation End Depth:	26
Formation End Depth UOM:	ft
--	--
Formation ID:	931051294
Layer:	3
General Color:	GREY
Most Common Material:	CLAY
Other Materials:	PACKED
Other Materials:	
Formation Top Depth:	26
Formation End Depth:	92
Formation End Depth UOM:	ft
--	--
Formation ID:	931051295
Layer:	4
General Color:	GREY
Most Common Material:	SILT
Other Materials:	STONES
Other Materials:	
Formation Top Depth:	92
Formation End Depth:	106
Formation End Depth UOM:	ft
--	--
Formation ID:	931051296
Layer:	5
General Color:	BROWN
Most Common Material:	MEDIUM SAND
Other Materials:	
Other Materials:	
Formation Top Depth:	106
Formation End Depth:	117
Formation End Depth UOM:	ft
--	--
Formation ID:	931051297
Layer:	6
General Color:	GREY
Most Common Material:	MEDIUM SAND
Other Materials:	FINE SAND
Other Materials:	
Formation Top Depth:	117
Formation End Depth:	125
Formation End Depth UOM:	ft

--	--
Annular Space/Abandonment Sealing Record	
--	--
Plug ID:	933109867
Layer:	1
Plug From:	0
Plug To:	20
Plug Depth UOM:	ft
--	--
Method of Construction & Well Use	
--	--
Method Construction ID:	961522400
Method Construction Code:	4
Method Construction:	Rotary (Air)
Other Method Construction:	
--	--
Pipe Information	
--	--
Pipe ID:	10592782
Casing Number:	1
Comment:	
Alt Name:	
--	--
Construction Record - Casing	
--	--
Casing ID:	930077325
Layer:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	107
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
--	--
Casing ID:	930077326
Layer:	2
Open Hole or Material:	STEEL
Depth From:	
Depth To:	112
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
--	--
--	--
Construction Record - Screen	
--	--
Screen ID:	933326140
Layer:	1
Slot:	008
Screen Top Depth:	113
Screen End Depth:	116
Screen Material:	
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	6
--	--
Well Yield Testing	
--	--
Pump Test ID:	991522400
Pump Set At:	
Static Level:	26
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	12
Flowing Rate:	

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

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:	
Pumping Duration MIN:	
Flowing:	N
--	--
Water Details	
--	--
Water ID:	933480275
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	112
Water Found Depth UOM:	ft
--	--
--	--

WWIS	**17**	***3 of 4***	***SW/199.9***	***91.1***	***lot 13 con 4 ON***

Well ID:	1526791	**Lot:**	013
Construction Date::		**Concession:**	04
Primary Water Use::	Domestic	**Concession Name:**	
Sec. Water Use::		**Easting NAD83::**	
Final Well Status::	Water Supply	**Northing NAD83::**	
Specific Capacity::		**Zone::**	
Municipality:	NEPEAN TOWNSHIP	**UTM Reliability::**	
County:	OTTAWA-CARLETON		

Bore Hole Information	
--	--
Bore Hole ID:	10048479
DP2BR:	6
Code OB:	r
Code OB Description:	Bedrock
Open Hole:	
Date Completed:	08-SEP-92
Remarks:	
Zone:	18
East 83:	439096.7
North 83:	5010782
UTMRC:	9
UTMRC Description:	unknown UTM
Location Method:	lot
Org CS:	
Elevation:	92.03
Elevrc:	
Elevrc Description:	
Location Source Date:	
Source Revision Comment:	
Improvement Location Source:	
Improvement Location Method:	
Supplier Comment:	
Spatial Status:	
--	--
Overburden and Bedrock Materials Interval	
--	--
Formation ID:	931065171
Layer:	1
General Color:	BROWN
Most Common Material:	FILL

Other Materials:	STONES
Other Materials:	LOOSE
Formation Top Depth:	0
Formation End Depth:	6
Formation End Depth UOM:	ft
--	--
Formation ID:	931065172
Layer:	2
General Color:	GREY
Most Common Material:	LIMESTONE
Other Materials:	MEDIUM-GRAINED
Other Materials:	HARD
Formation Top Depth:	6
Formation End Depth:	85
Formation End Depth UOM:	ft
--	--
Annular Space/Abandonment Sealing Record	
--	--
Plug ID:	933111956
Layer:	1
Plug From:	6
Plug To:	21
Plug Depth UOM:	ft
--	--
Method of Construction & Well Use	
--	--
Method Construction ID:	961526791
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	
--	--
Pipe Information	
--	--
Pipe ID:	10597049
Casing Number:	1
Comment:	
Alt Name:	
--	--
Construction Record - Casing	
--	--
Casing ID:	930084893
Layer:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	21
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
--	--
Well Yield Testing	
--	--
Pump Test ID:	991526791
Pump Set At:	
Static Level:	12
Final Level After Pumping:	64
Recommended Pump Depth:	
Pumping Rate:	5
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	1

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

Pumping Duration MIN:	0
Flowing:	N
--	--
Draw Down & Recovery	
--	--
Pump Test Detail ID:	934108957
Pump Test ID:	991526791
Test Type:	Recovery
Test Duration:	15
Test Level:	39
Test Level UOM:	ft
--	--
Pump Test Detail ID:	934392591
Pump Test ID:	991526791
Test Type:	Recovery
Test Duration:	30
Test Level:	24
Test Level UOM:	ft
--	--
Pump Test Detail ID:	934653104
Pump Test ID:	991526791
Test Type:	Recovery
Test Duration:	45
Test Level:	18
Test Level UOM:	ft
--	--
Pump Test Detail ID:	934910296
Pump Test ID:	991526791
Test Type:	Recovery
Test Duration:	60
Test Level:	12
Test Level UOM:	ft
--	--
--	--
Water Details	
--	--
Water ID:	933486218
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	81
Water Found Depth UOM:	ft
--	--
--	--

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
WWIS	17	4 of 4	SW/199.9	91.1	lot 13 con 4 ON

Well ID:	1520946	**Lot:**	013
Construction Date::		**Concession:**	04
Primary Water Use::	Domestic	**Concession Name:**	
Sec. Water Use::		**Easting NAD83::**	
Final Well Status::	Test Hole	**Northing NAD83::**	
Specific Capacity::		**Zone::**	
Municipality:	NEPEAN TOWNSHIP	**UTM Reliability::**	
County:	OTTAWA-CARLETON		

Bore Hole Information	
--	--
Bore Hole ID:	10042787
DP2BR:	
Code OB:	o
Code OB Description:	Overburden
Open Hole:	
Date Completed:	28-AUG-86
Remarks:	

Zone:	18
East 83:	439096.7
North 83:	5010782
UTMRC:	9
UTMRC Description:	unknown UTM
Location Method:	lot
Org CS:	
Elevation:	92.03
Elevrc:	
Elevrc Description:	
Location Source Date:	
Source Revision Comment:	
Improvement Location Source:	
Improvement Location Method:	
Supplier Comment:	
Spatial Status:	
--	--
Overburden and Bedrock Materials Interval	
--	--
Formation ID:	931046365
Layer:	1
General Color:	BLACK
Most Common Material:	TOPSOIL
Other Materials:	PEAT
Other Materials:	LOOSE
Formation Top Depth:	0
Formation End Depth:	1
Formation End Depth UOM:	ft
--	--
Formation ID:	931046366
Layer:	2
General Color:	WHITE
Most Common Material:	FINE SAND
Other Materials:	
Other Materials:	
Formation Top Depth:	1
Formation End Depth:	8
Formation End Depth UOM:	ft
--	--
Formation ID:	931046367
Layer:	3
General Color:	BROWN
Most Common Material:	SAND
Other Materials:	MEDIUM SAND
Other Materials:	
Formation Top Depth:	8
Formation End Depth:	35
Formation End Depth UOM:	ft
--	--
Formation ID:	931046368
Layer:	4
General Color:	GREY
Most Common Material:	SAND
Other Materials:	MEDIUM SAND
Other Materials:	
Formation Top Depth:	35
Formation End Depth:	50
Formation End Depth UOM:	ft
--	--
Method of Construction & Well Use	
--	--
Method Construction ID:	961520946
Method Construction Code:	4
Method Construction:	Rotary (Air)
Other Method Construction:	

--	--
Pipe Information	
--	--
Pipe ID:	10591357
Casing Number:	1
Comment:	
Alt Name:	
--	--
Construction Record - Casing	
--	--
Casing ID:	930074686
Layer:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	44
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
--	--
Casing ID:	930074687
Layer:	2
Open Hole or Material:	STEEL
Depth From:	
Depth To:	47
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
--	--
--	--
Construction Record - Screen	
--	--
Screen ID:	933326073
Layer:	1
Slot:	010
Screen Top Depth:	47
Screen End Depth:	50
Screen Material:	
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	6
--	--
Well Yield Testing	
--	--
Pump Test ID:	991520946
Pump Set At:	
Static Level:	20
Final Level After Pumping:	40
Recommended Pump Depth:	40
Pumping Rate:	20
Flowing Rate:	
Recommended Pump Rate:	10
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	2
Pumping Duration MIN:	0
Flowing:	N
--	--
Draw Down & Recovery	
--	--
Pump Test Detail ID:	934104275
Pump Test ID:	991520946
Test Type:	Draw Down
Test Duration:	15
Test Level:	40

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

Test Level UOM:	ft
--	--
Pump Test Detail ID:	934388513
Pump Test ID:	991520946
Test Type:	Draw Down
Test Duration:	30
Test Level:	40
Test Level UOM:	ft
--	--
Pump Test Detail ID:	934650087
Pump Test ID:	991520946
Test Type:	Draw Down
Test Duration:	45
Test Level:	40
Test Level UOM:	ft
--	--
Pump Test Detail ID:	934907732
Pump Test ID:	991520946
Test Type:	Draw Down
Test Duration:	60
Test Level:	40
Test Level UOM:	ft
--	--
--	--
Water Details	
--	--
Water ID:	933478361
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	47
Water Found Depth UOM:	ft
--	--
--	--

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
WWIS	18	1 of 1	E/200.9	93.6	lot 13 con 3 ON

Well ID:	1532290	**Lot:**	013
Construction Date::		**Concession:**	03
Primary Water Use::	Domestic	**Concession Name:**	RF
Sec. Water Use::		**Easting NAD83::**	
Final Well Status::	Water Supply	**Northing NAD83::**	
Specific Capacity::		**Zone::**	
Municipality:	NEPEAN TOWNSHIP	**UTM Reliability::**	
County:	OTTAWA-CARLETON		

Bore Hole Information	
--	--
Bore Hole ID:	10516740
DP2BR:	40
Code OB:	r
Code OB Description:	Bedrock
Open Hole:	
Date Completed:	09-AUG-01
Remarks:	
Zone:	18
East 83:	440915.3
North 83:	5011789
UTMRC:	9
UTMRC Description:	unknown UTM
Location Method:	lot
Org CS:	
Elevation:	89.66
Elevrc:	
Elevrc Description:	

Location Source Date:	
Source Revision Comment:	
Improvement Location Source:	
Improvement Location Method:	
Supplier Comment:	
Spatial Status:	
--	--
Overburden and Bedrock Materials Interval	
--	--
Formation ID:	932832388
Layer:	1
General Color:	BROWN
Most Common Material:	TOPSOIL
Other Materials:	SANDY
Other Materials:	STONES
Formation Top Depth:	0
Formation End Depth:	12
Formation End Depth UOM:	ft
--	--
Formation ID:	932832389
Layer:	2
General Color:	GREY
Most Common Material:	CLAY
Other Materials:	SANDY
Other Materials:	BOULDERS
Formation Top Depth:	12
Formation End Depth:	40
Formation End Depth UOM:	ft
--	--
Formation ID:	932832390
Layer:	3
General Color:	GREY
Most Common Material:	LIMESTONE
Other Materials:	
Other Materials:	
Formation Top Depth:	40
Formation End Depth:	165
Formation End Depth UOM:	ft
--	--
Formation ID:	932832391
Layer:	4
General Color:	GREY
Most Common Material:	LIMESTONE
Other Materials:	FRACTURED
Other Materials:	
Formation Top Depth:	165
Formation End Depth:	175
Formation End Depth UOM:	ft
--	--
Annular Space/Abandonment Sealing Record	
--	--
Plug ID:	933219738
Layer:	1
Plug From:	0
Plug To:	43
Plug Depth UOM:	ft
--	--
Method of Construction & Well Use	
--	--
Method Construction ID:	961532290
Method Construction Code:	4
Method Construction:	Rotary (Air)
Other Method Construction:	
--	--

Pipe Information
-- --
Pipe ID: 11065310
Casing Number: 1
Comment:
Alt Name:
-- --
Construction Record - Casing
-- --
Casing ID: 930094532
Layer: 1
Open Hole or Material: STEEL
Depth From:
Depth To:
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft
-- --
Casing ID: 930094533
Layer: 2
Open Hole or Material: OPEN HOLE
Depth From:
Depth To:
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft
-- --
Well Yield Testing
-- --
Pump Test ID: 991532290
Pump Set At:
Static Level: 32
Final Level After Pumping: 85
Recommended Pump Depth: 100
Pumping Rate: 12
Flowing Rate:
Recommended Pump Rate: 5
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code:
Water State After Test:
Pumping Test Method: 1
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: N
-- --
Draw Down & Recovery
-- --
Pump Test Detail ID: 934116275
Pump Test ID: 991532290
Test Type: Draw Down
Test Duration: 15
Test Level: 85
Test Level UOM: ft
-- --
Pump Test Detail ID: 934399889
Pump Test ID: 991532290
Test Type: Draw Down
Test Duration: 30
Test Level: 100
Test Level UOM: ft
-- --
Pump Test Detail ID: 934660411
Pump Test ID: 991532290
Test Type: Draw Down
Test Duration: 45
Test Level: 173

Test Level UOM:	ft
--	--
Pump Test Detail ID:	934917297
Pump Test ID:	991532290
Test Type:	Draw Down
Test Duration:	60
Test Level:	173
Test Level UOM:	ft
--	--
--	--
Water Details	
--	--
Water ID:	934008463
Layer:	1
Kind Code:	5
Kind:	Not stated
Water Found Depth:	175
Water Found Depth UOM:	ft
--	--
--	--

WWIS **19** **1 of 1** **SW/201.7** **91.0** **lot 13 con 4 ON**

Well ID:	1534268	**Lot:**	013
Construction Date::		**Concession:**	04
Primary Water Use::	Not Used	**Concession Name:**	RF
Sec. Water Use::		**Easting NAD83::**	
Final Well Status::	Abandoned-Other	**Northing NAD83::**	
Specific Capacity::		**Zone::**	
Municipality:	NEPEAN TOWNSHIP	**UTM Reliability::**	
County:	OTTAWA-CARLETON		

Bore Hole Information	
--	--
Bore Hole ID:	11097320
DP2BR:	
Code OB:	_
Code OB Description:	No formation data
Open Hole:	
Date Completed:	29-SEP-03
Remarks:	
Zone:	18
East 83:	439093.3
North 83:	5010782
UTMRC:	9
UTMRC Description:	unknown UTM
Location Method:	lot
Org CS:	
Elevation:	92.04
Elevrc:	
Elevrc Description:	
Location Source Date:	
Source Revision Comment:	
Improvement Location Source:	
Improvement Location Method:	
Supplier Comment:	
Spatial Status:	
--	--
Method of Construction & Well Use	
--	--
Method Construction ID:	961534268
Method Construction Code:	0
Method Construction:	Not Known
Other Method Construction:	

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

--	--
Pipe Information	
--	--
Pipe ID:	11101035
Casing Number:	1
Comment:	
Alt Name:	
--	--

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
WWIS	20	1 of 1	NW/205.0	91.6	lot 15 con 4 ON

Well ID:	1514917	**Lot:**	015
Construction Date::		**Concession:**	04
Primary Water Use::	Domestic	**Concession Name:**	RF
Sec. Water Use::		**Easting NAD83::**	
Final Well Status::	Water Supply	**Northing NAD83::**	
Specific Capacity::		**Zone::**	
Municipality:	NEPEAN TOWNSHIP	**UTM Reliability::**	
County:	OTTAWA-CARLETON		

Bore Hole Information	
--	--
Bore Hole ID:	10036883
DP2BR:	77
Code OB:	r
Code OB Description:	Bedrock
Open Hole:	
Date Completed:	29-AUG-75
Remarks:	
Zone:	18
East 83:	439366.8
North 83:	5012050
UTMRC:	4
UTMRC Description:	margin of error : 30 m - 100 m
Location Method:	p4
Org CS:	
Elevation:	92.98
Elevrc:	
Elevrc Description:	
Location Source Date:	
Source Revision Comment:	
Improvement Location Source:	
Improvement Location Method:	
Supplier Comment:	
Spatial Status:	
--	--
Overburden and Bedrock Materials Interval	
--	--
Formation ID:	931027678
Layer:	1
General Color:	BROWN
Most Common Material:	SAND
Other Materials:	GRAVEL
Other Materials:	BOULDERS
Formation Top Depth:	0
Formation End Depth:	15
Formation End Depth UOM:	ft
--	--
Formation ID:	931027679
Layer:	2
General Color:	GREY
Most Common Material:	HARDPAN
Other Materials:	BOULDERS
Other Materials:	PACKED

Formation Top Depth:	15
Formation End Depth:	77
Formation End Depth UOM:	ft
--	--
Formation ID:	931027680
Layer:	3
General Color:	GREY
Most Common Material:	LIMESTONE
Other Materials:	
Other Materials:	
Formation Top Depth:	77
Formation End Depth:	123
Formation End Depth UOM:	ft
--	--
Method of Construction & Well Use	
--	--
Method Construction ID:	961514917
Method Construction Code:	5
Method Construction:	Air Percussion
Other Method Construction:	
--	--
Pipe Information	
--	--
Pipe ID:	10585453
Casing Number:	1
Comment:	
Alt Name:	
--	--
Construction Record - Casing	
--	--
Casing ID:	930065202
Layer:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	79
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
--	--
Casing ID:	930065203
Layer:	2
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	123
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
--	--
Well Yield Testing	
--	--
Pump Test ID:	991514917
Pump Set At:	
Static Level:	20
Final Level After Pumping:	65
Recommended Pump Depth:	75
Pumping Rate:	10
Flowing Rate:	
Recommended Pump Rate:	5
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:	N

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

--	--
Draw Down & Recovery	
--	--
Pump Test Detail ID:	934100723
Pump Test ID:	991514917
Test Type:	Draw Down
Test Duration:	15
Test Level:	65
Test Level UOM:	ft
--	--
Pump Test Detail ID:	934384156
Pump Test ID:	991514917
Test Type:	Draw Down
Test Duration:	30
Test Level:	65
Test Level UOM:	ft
--	--
Pump Test Detail ID:	934645141
Pump Test ID:	991514917
Test Type:	Draw Down
Test Duration:	45
Test Level:	65
Test Level UOM:	ft
--	--
Pump Test Detail ID:	934893848
Pump Test ID:	991514917
Test Type:	Draw Down
Test Duration:	60
Test Level:	65
Test Level UOM:	ft
--	--
--	--
Water Details	
--	--
Water ID:	933470893
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	120
Water Found Depth UOM:	ft
--	--
--	--

WWIS	21	***1 of 1***	***W/223.7***	***93.8***	***lot 16 con 4 ON***

Well ID:	1518260	***Lot:***	016
Construction Date::		***Concession:***	04
Primary Water Use::	Domestic	***Concession Name:***	RF
Sec. Water Use::		***Easting NAD83::***	
Final Well Status::	Water Supply	***Northing NAD83::***	
Specific Capacity::		***Zone::***	
Municipality:	NEPEAN TOWNSHIP	***UTM Reliability::***	
County:	OTTAWA-CARLETON		

Bore Hole Information	
--	--
Bore Hole ID:	10040130
DP2BR:	43
Code OB:	r
Code OB Description:	Bedrock
Open Hole:	
Date Completed:	26-APR-83
Remarks:	
Zone:	18
East 83:	438529.7

North 83:	5011721
UTMRC:	4
UTMRC Description:	margin of error : 30 m - 100 m
Location Method:	p4
Org CS:	
Elevation:	94.41
Elevrc:	
Elevrc Description:	
Location Source Date:	
Source Revision Comment:	
Improvement Location Source:	
Improvement Location Method:	
Supplier Comment:	
Spatial Status:	
--	--
Overburden and Bedrock Materials Interval	
--	--
Formation ID:	931037869
Layer:	1
General Color:	BROWN
Most Common Material:	HARDPAN
Other Materials:	BOULDERS
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	15
Formation End Depth UOM:	ft
--	--
Formation ID:	931037870
Layer:	2
General Color:	BROWN
Most Common Material:	CLAY
Other Materials:	GRAVEL
Other Materials:	BOULDERS
Formation Top Depth:	15
Formation End Depth:	43
Formation End Depth UOM:	ft
--	--
Formation ID:	931037871
Layer:	3
General Color:	GREY
Most Common Material:	LIMESTONE
Other Materials:	MEDIUM-GRAINED
Other Materials:	SOFT
Formation Top Depth:	43
Formation End Depth:	125
Formation End Depth UOM:	ft
--	--
Method of Construction & Well Use	
--	--
Method Construction ID:	961518260
Method Construction Code:	5
Method Construction:	Air Percussion
Other Method Construction:	
--	--
Pipe Information	
--	--
Pipe ID:	10588700
Casing Number:	1
Comment:	
Alt Name:	
--	--
Construction Record - Casing	
--	--
Casing ID:	930070063
Layer:	1

Open Hole or Material:	STEEL
Depth From:	
Depth To:	46
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
--	--
Casing ID:	930070064
Layer:	2
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	125
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
--	--
Well Yield Testing	
--	--
Pump Test ID:	991518260
Pump Set At:	
Static Level:	15
Final Level After Pumping:	50
Recommended Pump Depth:	60
Pumping Rate:	10
Flowing Rate:	
Recommended Pump Rate:	5
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:	N
--	--
Draw Down & Recovery	
--	--
Pump Test Detail ID:	934103577
Pump Test ID:	991518260
Test Type:	Draw Down
Test Duration:	15
Test Level:	50
Test Level UOM:	ft
--	--
Pump Test Detail ID:	934378329
Pump Test ID:	991518260
Test Type:	Draw Down
Test Duration:	30
Test Level:	50
Test Level UOM:	ft
--	--
Pump Test Detail ID:	934639388
Pump Test ID:	991518260
Test Type:	Draw Down
Test Duration:	45
Test Level:	50
Test Level UOM:	ft
--	--
Pump Test Detail ID:	934897849
Pump Test ID:	991518260
Test Type:	Draw Down
Test Duration:	60
Test Level:	50
Test Level UOM:	ft
--	--
--	--
Water Details	

--	--
Water ID:	933474943
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	120
Water Found Depth UOM:	ft
--	--
--	--

Unplottable Summary

Total: 26 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
AAGR		Lot 14 Con 4	Nepean ON	
CA	Melron Property Enterprises Inc.	Part of Lot 15 Junction Gore	Ottawa ON	
CA	Kemp Park Sanitary Sewer	Part of Lot 14, Concession 4 RF	Ottawa ON	
CA	Kinross Court	Part of Lot 13, Concession	Ottawa ON	
CA	IPCF PROPERTIES INC.	PT.LOT 15/CON.3, BARRHAVEN	NEPEAN CITY ON	
CA	South Ottawa Collector	Lot 15, 16, 17, 18, 19, 20, 21, 22, Conc. 1, 2, 3	Ottawa ON	
CA	Bank Street & Conroy Road	Lot 15 to 18, Concession 4&5	Ottawa ON	
CA	City of Ottawa	Part of Lot 15, Gore Junction	Ottawa ON	
CA	NEPEAN CITY	CEDARVIEW RD/BARRHAVEN MID.SCH	NEPEAN CITY ON	
CA	MINTO CONSTRUCTION LTD. FOSTER DRAIN	W. OF CEDARVIEW RD.	NEPEAN CITY ON	
CA	NEPEAN CITY-LOTS 15 & 16, CONC. 2 & 3	STRANDHERD DR/STORMWATER MANAG	NEPEAN CITY ON	
CA	DCR/PHOENIX DEVELOPMENMT CORP.	STRANDHERD DRIVE	NEPEAN CITY ON	
CA	Gerry Clarke	Strandherd Dr Lots 14/15, Concession 3	Ottawa ON	
CA	City of Ottawa	Strandherd Drive	Ottawa ON	
CA	City of Ottawa	Strandherd Drive	Ottawa ON	
CA	City of Ottawa	Lot 13	Ottawa ON	
CA	St. Vincent Hospital	Lot 1, Pt. Lot 14, RP# 11285 & Lots 1-19, RP# 3459	Ottawa ON	

CFOT	Bell Canada	Strandherd Dr, Nepean (Jockvale) ON	NEPEAN ON
EBR	Thomas Cavanagh Construction Limited	Lot 14 & the East ½ of Lot 15, Concession 11	Ottawa ON
EBR	Laurent Leblanc Ltd.,	Watson Road, Lot 13, Concession 4, formerly the Township of Cumberland (geographic township). CITY OF OTTAWA	ON
EBR	J.K. Pederson Landscaping Ltd. (614791 Ontario Ltd.)	Part Lot 16, Concession 3 CITY OF OTTAWA OSGOODE	ON
FST	HYLANDS GOLF CLUB	LOT 13 14 & 15 CON 3	OTTAWA ON
FST	HYLANDS GOLF CLUB	LOT 13 14 & 15 CON 3	OTTAWA ON
NEES	CNR		OTTAWA ON
PTTW	Shell Canada Products Ltd.Don Mills Division	Lot 16	City of Nepean ON
SPL	Geo. W. Drummond Excavating Inc<UNOFFICIAL>	Strandherd Dr and Temporary	Ottawa ON

Unplottable Report

Database: AAGR

Site:
Lot 14 Con 4 Nepean ON

Type:	Pit
Region/County:	Ottawa-Carleton
Township:	Nepean
Concession::	4
Lot::	14
Size (ha)::	2.4
Landuse::	
Comments::	

Database: CA

Site: ***Melron Property Enterprises Inc.***
Part of Lot 15 Junction Gore Ottawa ON

Certificate #:	6154-5JWM4C
Application Year:	2003
Issue Date:	2/24/2003
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::	

Database: CA

Site: ***Kemp Park Sanitary Sewer***
Part of Lot 14, Concession 4 RF Ottawa ON

Certificate #:	6323-5BXHHL
Application Year:	02
Issue Date:	7/15/02
Approval Type:	Municipal & Private sewage
Status:	Approved
Application Type:	New Certificate of Approval
Client Name::	City of Ottawa
Client Address::	110 Laurier Avenue West
Client City::	Ottawa
Client Postal Code::	K1P 1J1
Project Description::	Approval is sought for the construction of sanitary sewers on Kemp Dr., Robert St., Doris Ave., Melva St., Elma St., Orville St., Bank St.
Contaminants::	
Emission Control::	

Database: CA

Site: ***Kinross Court***
Part of Lot 13, Concession Ottawa ON

Certificate #:	0660-53CRDY

Application Year: 01
Issue Date: 10/11/01
Approval Type: Municipal & Private sewage
Status: Approved
Application Type: New Certificate of Approval
Client Name:: Tenth Line Development Inc.
Client Address:: 210 Gladstone Avenue, Suite 2001
Client City:: Ottawa
Client Postal Code:: K2P 0Y6
Project Description:: Storm sewer construction.
Contaminants::
Emission Control::

Database: CA

Site: ***IPCF PROPERTIES INC.***
PT.LOT 15/CON.3, BARRHAVEN NEPEAN CITY ON

Certificate #: 8-4065-94-
Application Year: 94
Issue Date: 8/30/1994
Approval Type: Industrial air
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description:: SPACE & WATER HEATERS, ON-SITE BAKERY
Contaminants:: Nitrogen Oxides, Odour/Fumes
Emission Control:: No Controls

Database: CA

Site: ***South Ottawa Collector***
Lot 15, 16, 17, 18, 19, 20, 21, 22, Conc. 1, 2, 3 Ottawa ON

Certificate #: 5781-5D7RDZ
Application Year: 02
Issue Date: 9/13/02
Approval Type: Municipal & Private sewage
Status: Approved
Application Type: Amended CofA
Client Name:: City of Ottawa
Client Address:: 110 Laurier Avenue West
Client City:: City of Ottawa
Client Postal Code:: K1P 1J1
Project Description:: Enhanced flow control and flooding protection for the Green Creek Collector and provide further reduction in the potential to divert sediments to the South Ottawa Tunnel (SOT) by reducing the accumulation of grit within the upstream Green Creek Collector and Walkley Chamber.
Contaminants::
Emission Control::

Database: CA

Site: ***Bank Street & Conroy Road***
Lot 15 to 18, Concession 4&5 Ottawa ON

Certificate #: 1151-52XLM4
Application Year: 01
Issue Date: 9/27/01
Approval Type: Municipal & Private sewage
Status: Approved
Application Type: New Certificate of Approval
Client Name:: The Corporation of the City of Ottawa
Client Address:: 110 Laurier Avenue West
Client City:: Ottawa
Client Postal Code:: K1P 1J1

Project Description:: Construction of Sanitary Gravity Sewers
Contaminants::
Emission Control::

Database: ***CA*** ***Site:*** ***City of Ottawa***
Part of Lot 15, Gore Junction Ottawa ON

Certificate #: 5759-6BUQTB
Application Year: 2005
Issue Date: 5/16/2005
Approval Type: Air
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

Database: ***CA*** ***Site:*** ***NEPEAN CITY***
CEDARVIEW RD/BARRHAVEN MID.SCH NEPEAN CITY ON

Certificate #: 3-0147-94-
Application Year: 94
Issue Date: 2/24/1994
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

Database: ***CA*** ***Site:*** ***MINTO CONSTRUCTION LTD. FOSTER DRAIN***
W. OF CEDARVIEW RD. NEPEAN CITY ON

Certificate #: 3-0519-87-
Application Year: 87
Issue Date: 7/18/1987
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

Database: ***CA*** ***Site:*** ***NEPEAN CITY-LOTS 15 & 16, CONC. 2 & 3***
STRANDHERD DR/STORMWATER MANAG NEPEAN CITY ON

Certificate #: 3-1089-90-

Application Year: 90
Issue Date: 10/1/1990
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

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

Certificate #: 3-1122-90-
Application Year: 90
Issue Date: 6/26/1990
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

Database: ***CA*** ***Site:*** ***Gerry Clarke Strandherd Dr Lots 14/15, Concession 3 Ottawa ON***

Certificate #: 1248-7GRPKA
Application Year: 2008
Issue Date: 9/11/2008
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::

Database: ***CA*** ***Site:*** ***City of Ottawa Strandherd Drive Ottawa ON***

Certificate #: 5791-77LJ85
Application Year: 2007
Issue Date: 10/2/2007
Approval Type: Municipal and Private Sewage Works
Status: Revoked and/or Replaced
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::

Contaminants::
Emission Control::

Database: ***CA*** ***Site:*** ***City of Ottawa***
Strandherd Drive Ottawa ON

Certificate #: 1254-73VKL4
Application Year: 2007
Issue Date: 6/17/2007
Approval Type: Municipal and Private Sewage Works
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

Database: ***CA*** ***Site:*** ***City of Ottawa***
Lot 13 Ottawa ON

Certificate #: 3399-6BVHAA
Application Year: 2005
Issue Date: 6/10/2005
Approval Type: Air
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

Database: ***CA*** ***Site:*** ***St. Vincent Hospital***
Lot 1, Pt. Lot 14, RP# 11285 & Lots 1-19, RP# 3459 Ottawa ON

Certificate #: 8685-5BAKLG
Application Year: 02
Issue Date: 6/28/02
Approval Type: Municipal & Private sewage
Status: Approved
Application Type: Amended CofA
Client Name:: Sisters of Charity of Ottawa Health Services
Client Address:: St. Vincent Hospital, 60 Cambridge Street North
Client City:: Ottawa
Client Postal Code:: K1R 7A5
Project Description:: This application is for the approval to modify stormwater management facilities for reconstruction of an existing parking lot to provide a drive thru on the south side of the site to match the controlled release rate of 15.5 L/s as specified for this area in a 1996 report. The release rates from storage for this area on the south side of the site will be controlled by a hydrovex orifice installed and by replacing the existing orifice in existing catchbasins 3 with a new size. In addition, stormwater management facilities have been designed for the reconstructed parking lot and roof area on the north side of the site. A sanitary drain will be supplied and this service will connect into the combined sewer in Cambridge Street.
Contaminants::
Emission Control::

Database: ***CFOT*** ***Site:*** ***Bell Canada***
Strandherd Dr, Nepean (Jockvale) ON NEPEAN ON

Registration No.:	200204-1515
Licence No.:	
Tank Size:	5072 L
Instance Number:	
Facility Type:	
Status Name:	
Corrosion Protection:	
Fuel Type:	
Year Installed:	1993
Tank Material:	Fiberglass reinforced plastic
Distributor:	Esso
Contact Name:	c/o Alain Naud
Contact Address:	3685 Aylmer - Bureau 200
Contact Address2:	
Contact City:	Montreal
Comments:	

Database: ***EBR*** ***Site:*** ***Thomas Cavanagh Construction Limited***
Lot 14 & the East ½ of Lot 15, Concession 11 Ottawa ON

Company Name:	
Notice Type:	Instrument Decision
EBR Registry No.:	IB02E3080
Instrument Type:	Add, rescind, or vary a condition of a licence - ARA s. 13 (2)
Year:	2002
Ministry Ref. No.:	FSD - PEM 03/02
Proposal Date:	12/19/02
Location:	Lot 14 & the East ½ of Lot 15, Concession 11, City of Ottawa (Huntley Ward), former Township of West Carleton
Proponent Address:	RR 2 Ashton Ontario K0A 1B0
Notice Date:	

Database: ***EBR*** ***Site:*** ***Laurent Leblanc Ltd.,***
Watson Road, Lot 13, Concession 4, formerly the Township of Cumberland (geographic township). CITY OF OTTAWA ON

Company Name:	
Notice Type:	Instrument Decision
EBR Registry No.:	IB06E2033
Instrument Type:	Laurent Leblanc Ltd., (ARA s. 13 (2)) - Add, rescind, or vary a condition of a licence
Year:	2006
Ministry Ref. No.:	FSD KEM 02/06
Proposal Date:	May 01, 2006
Location:	Watson Road, Lot 13, Concession 4, formerly the Township of Cumberland (geographic township). CITY OF OTTAWA
Proponent Address:	3000 Navan Road, Gloucester Ontario, K1C 7G4
Notice Date:	March 22, 2016

Database: ***EBR*** ***Site:*** ***J.K. Pederson Landscaping Ltd. (614791 Ontario Ltd.)***
Part Lot 16, Concession 3 CITY OF OTTAWA OSGOODE ON

Company Name:	
Notice Type:	Instrument Decision
EBR Registry No.:	012-1814
Instrument Type:	J.K. Pederson Landscaping Ltd. (614791 Ontario Ltd.) (ARA s. 16 (2)) - Approval of licensee proposed amendment to a site plan
Year:	2014
Ministry Ref. No.:	MNR 24/14
Proposal Date:	May 20, 2014

Location:	Part Lot 16, Concession 3 CITY OF OTTAWA OSGOODE
Proponent Address:	2408 Manotick Station Road, Osgoode Ontario, Canada K0A 2W0
Notice Date:	April 13, 2016

Database: ***FST*** ***Site:*** ***HYLANDS GOLF CLUB***
LOT 13 14 & 15 CON 3 OTTAWA ON

Instance Number:	10904186
Cont Name:	
Instance Type:	FS Liquid Fuel Tank
Fuel Type:	Gasoline
Status:	Active
Capacity:	10000
Tank Material:	Steel
Corrosion Protection:	Impressed Current
Tank Type:	Single Wall UST
Install Year:	1990
Parent Facility Type:	Fuels Safety Private Fuel Outlet - Self Serve
Facility Type:	FS Liquid Fuel Tank

Database: ***FST*** ***Site:*** ***HYLANDS GOLF CLUB***
LOT 13 14 & 15 CON 3 OTTAWA ON

Instance Number:	10904209
Cont Name:	
Instance Type:	FS Liquid Fuel Tank
Fuel Type:	Diesel
Status:	Active
Capacity:	4540
Tank Material:	Steel
Corrosion Protection:	Impressed Current
Tank Type:	Single Wall UST
Install Year:	1990
Parent Facility Type:	Fuels Safety Private Fuel Outlet - Self Serve
Facility Type:	FS Liquid Fuel Tank

Database: ***NEES*** ***Site:*** ***CNR***
OTTAWA ON

Incident Date:	4/15/86
Contaminant:	fuel oil no. 2
Amount::	
Units::	
Quantity::	
Cause::	Pipe Leak
Source::	Other
Reason::	Equipment Failure
Sector::	Transportation

Database: ***PTTW*** ***Site:*** ***Shell Canada Products Ltd.Don Mills Division***
Lot 16 City of Nepean ON

Year:	1996
EBR Registry No.:	IA6E0942
Ministry Reference Number:	
Notice Type:	Instrument
Instrument Type:	OWRA s. 34 - Permit to take water
Proposal Date:	7/3/96
Location:	City of Nepean

Proponent Address:	Shell Canada Products Ltd.Don Mills Division,75 Wynford Drive,Don Mills, Ontario, M3C 2Z4
Notice Date:	

Database: ***SPL***

Site: ***Geo. W. Drummond Excavating Inc<UNOFFICIAL>***
Strandherd Dr and Temporary Ottawa ON

Ref NO:	6067-6EASVT
Contaminant Code:	
Contaminant Name:	DIESEL FUEL
Contaminant Quantity:	unknown L
Incident Cause::	Overturn - Truck Or Trailer
Incident Dt:	7/14/2005
Incident Reason::	
Incident Summary::	Ottawa: MVA 300 L diesel to road, cleaning
MOE Reported Dt:	7/14/2005
Environmental Impact::	Not Anticipated
Nature of Impact::	Soil Contamination
Receiving Medium::	Land
SAC Action Class:	Spills to Highways (usually highway accidents)
Sector Source Type:	Other Motor Vehicle
Site Municipality:	Ottawa

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 2016

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 2014

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

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: Oct 31, 2016

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 2014

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*

Commercial Fuel Oil Tanks: Provincial CFOT

Since May 2002, Ontario developed a new act where it became mandatory for fuel oil tanks to be registered with Technical Standards & Safety Authority (TSSA). This data would include all commercial underground fuel oil tanks in Ontario with fields such as location, registration number, tank material, age of tank and tank size.

Government Publication Date: Oct 31, 2016

Chemical Register: 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: Oct 31, 2016

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 31, 2012

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 2016

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-Dec 2016

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-Aug 2015

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-Nov 2016

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-Dec 2016

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-Nov 2016

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-Aug 2016

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

The Emergency Management Historical Event data class will store the locations of historical occurrences of emergency events. Events captured will include 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.

Government Publication Date: May 31, 2014

List of TSSA Expired Facilities: Provincial EXP

This is a list of all expired facilities that fall under the TSSA (TSSA Act & Safety Regulations), including the six regulations that exist under the Fuels Safety Division. It will include facilities such as private fuel outlets, bulk plants, fuel oil tanks, gasoline stations, marinas, propane filling stations, liquid fuel tanks, piping systems, etc. These tanks have been removed and automatically fall under the expired facilities inventory held by TSSA.

Government Publication Date: Oct 31, 2016

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.

Government Publication Date: June 2000-Oct 2015

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-Sept 2003

Fuel Storage Tank: Provincial FST

The Technical Standards & Safety Authority (TSSA), under the Technical Standards & Safety Act of 2000 maintains a database of registered private and retail fuel storage tanks in Ontario with fields such as location, tank status, license date, tank type, tank capacity, fuel type, installation year and facility type.

Government Publication Date: Oct 31, 2016

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-Sep 2016

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 2014

TSSA Historic Incidents: Provincial HINC

This database will cover all incidences recorded by TSSA with their older system, before they moved to their new management system. 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, TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. The TSSA works to protect the public, the environment and property from fuel-related hazards such as spills, fires and explosions. This database will include spills and leaks from pipelines, diesel, fuel oil, gasoline, natural gas, propane and hydrogen recorded by the TSSA.

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*

TSSA Incidents: Provincial INC

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, TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. Includes incidents from fuel-related hazards such as spills, fires and explosions. This database will include spills and leaks from diesel, fuel oil, gasoline, natural gas, propane and hydrogen recorded by the TSSA.

Government Publication Date: Oct 31, 2016

Landfill Inventory Management Ontario: Provincial LIMO

The Landfill Inventory Management Ontario (LIMO) database is updated every year, as the ministry compiles new and updated information. The inventory will include small and large landfills. Additionally, each year the ministry will request operators of the larger landfills complete a landfill data collection form that will be used to update LIMO and will include the following information from the previous operating year. This will include additional information such as 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 will include information such as site owner, site location and certificate of approval # and status.

Government Publication Date: Dec 31, 2013

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-Feb 2016

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, 2014

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-Aug 2010

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 Wells: Federal NEBW

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: 1993-2014

Oil and Gas Wells: Private OGW

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-Jun 2016

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-Oct 2016

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-Dec 2016

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

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: 1988-Oct 2016

TSSA Pipeline Incidents: Provincial PINC

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, TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. This database will include spills, strike and leaks from recorded by the TSSA.

Government Publication Date: Oct 31, 2016

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-Dec 2016

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: 1986-2013

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-Dec 2016

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: Oct 31, 2016

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

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-Jan 2016

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: 1990-2014

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-Jan 2015

TSSA Variances for Abandonment of Underground Storage Tanks: Provincial VAR

The TSSA, under the Liquid Fuels Handling Code and the Fuel Oil Code, all underground storage tanks must be removed within two years of disuse. If removal of a tank is not feasible, you may apply to seek a variance from this code requirement. This is a list of all variances granted for abandoned tanks.

Government Publication Date: Oct 31, 2016

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: 1970-Nov 2016

Waste Disposal Sites - MOE 1991 Historical Approval Inventory: Provincial WDSH

In June 1991, the Ontario Ministry of Environment, Waste Management Branch, published the "June 1991 Waste Disposal Site Inventory", of all known active and closed waste disposal sites as of October 30st, 1990. For each "active" site as of October 31st 1990, information is provided on site location, site/CA number, waste type, site status and site classification. For each "closed" site as of October 31st 1990, information is provided on site location, site/CA number, closure date and site classification. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number.

Government Publication Date: Up to Oct 1990*

Water Well Information System: Provincial WWIS

This database describes locations and characteristics of water wells found within Ontario in accordance with Regulation 903. It includes such information as coordinates, construction date, well depth, primary and secondary use, pump rate, static water level, well status, etc. Also included are detailed stratigraphy information, approximate depth to bedrock and the approximate depth to the water table.

Government Publication Date: Jun 30, 2016

Definitions

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

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

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

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

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

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

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

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

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

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

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

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

APPENDIX C

Site Photographs

2017 Site Photographs

Photo 1 – Looking northwest at the cell towers and communications building located northwest of the Site

Photo 2 – Looking east the McKenna Casey Drive and a railway located north of the Site

CLIENT
Caivan Communities

CONSULTANT
GOLDER

YYYY-MM-DD	2017-02-16
TAKEN BY	SAC
CHECKED BY	DHP

PROJECT
Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa

TITLE
Photographic Record

PROJECT No. 18110394

FIGURE **C1**

Photo 3 – Photo of snow covered agricultural fields located on the Site at 4305 McKenna Casey Drive

Photo 4 – Snow covered agricultural fields located west of the Site looking west

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YYYY-MM-DD	2017-02-16
TAKEN BY	SAC
CHECKED BY	DHP

PROJECT
Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa

TITLE
Photographic Record

PROJECT No. 18110394

FIGURE **C2**

Photo 5 – Looking east at the fill material was located between the 4305 McKenna Casey Drive and McKenna Case Drive

Photo 6 – Looking west at snow covered agricultural fields located on the Site at 3300 Borrisokane Road

CLIENT	**Caivan Communities**
CONSULTANT	GOLDER
YYYY-MM-DD	2017-02-16
TAKEN BY	SAC
CHECKED BY	DHP
PROJECT	**Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa**
TITLE	**Photographic Record**
PROJECT No.	18110394
FIGURE	**C3**

Photo 7 – Photo of snow covered agricultural fields and a few trees located on the eastern portion of the Site at 3285 Borrisokane Road, looking east

Photo 8 – Looking northwest at the farm property located on the Site at 3288 Borrisokane Road

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GOLDER

YYYY-MM-DD: 2017-02-16
TAKEN BY: SAC
CHECKED BY: DHP

PROJECT
Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa

TITLE
Photographic Record

PROJECT No. 18110394

FIGURE **C4**

Photo 9 Photo of the northern portion of 3285 Borrisokane Road and the adjacent farm property north of the Site

Photo 10 – Looking east and the fields and the Jock River located south of the eastern portion of the Site

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YYYY-MM-DD	2017-02-16
TAKEN BY	SAC
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PROJECT
Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa

TITLE
Photographic Record

PROJECT No. 18110394

FIGURE **C5**

Photo 11 – View of the farm property located on the Site at 3288 Borrisokane Road, looking west. The west side of the farm house is visible

Photo 12 – Photo of the west side of the on-Site farm house

CLIENT		PROJECT	
Caivan Communities		**Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa**	
CONSULTANT	YYYY-MM-DD: 2017-02-16	TITLE	
GOLDER	TAKEN BY: SAC	**Photographic Record**	
	CHECKED BY: DHP		
		PROJECT No. 18110394	FIGURE **C6**

Photo 13 – Looking north at the storage shed located on the farm property on the Site.

Photo 14 – Photo of the water well located on the on-Site farm property

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YYYY-MM-DD	2017-02-16
TAKEN BY	SAC
CHECKED BY	DHP

PROJECT
Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa

TITLE
Photographic Record

PROJECT No. 18110394

FIGURE **C7**

Photo 15 – Looking west at the barn, silo and a small storage shed located on the farm property, west of the farm house

Photo 16 – Fire pit and picnic table located on the south side of the barn.

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YYYY-MM-DD	2017-02-16
TAKEN BY	SAC
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PROJECT
Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa

TITLE
Photographic Record

PROJECT No. 18110394

FIGURE **C8**

Photo 17 – Looking west at the agricultural fields located on the Site at 3285 Borrisokane Road, west of the farm buildings.

Photo 18 – View of the south side of the barn located on the on-Site farm property

CLIENT	**Caivan Communities**
CONSULTANT	GOLDER
YYYY-MM-DD	2017-02-16
TAKEN BY	SAC
CHECKED BY	DHP
PROJECT	**Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa**
TITLE	**Photographic Record**
PROJECT No.	18110394
FIGURE	**C9**

Photo 19 – Metal and wood debris located on the west side of the barn

Photo 20 – Abandoned vehicles located on the north side of the barn

CLIENT
Caivan Communities

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GOLDER

YYYY-MM-DD 2017-02-16
TAKEN BY SAC
CHECKED BY DHP

PROJECT
Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa

TITLE
Photographic Record

PROJECT No. 18110394

FIGURE **C10**

Photo 21 – Looking southeast at the north side of the farm house located on the Site.

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GOLDER

YYYY-MM-DD	2017-02-16
TAKEN BY	SAC
CHECKED BY	DHP

PROJECT
Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa

TITLE
Photographic Record

PROJECT No. 18110394

FIGURE **C1 1**

2018 Site Photographs

Photo 1 – Heavy machinery apparent upon arrival On-Site at 3305 Borrisokane Road

Photo 2 – Borrisokane Rd to the West of the Site. Farmhouse on property adjacent to west Site boundary visible from 3305 Borrisokane Rd

CLIENT
Caivan Communities

CONSULTANT
GOLDER

YYYY-MM-DD	2018-10-10
TAKEN BY	SAC
CHECKED BY	DHP

PROJECT
Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa

TITLE
Photographic Record

PROJECT No. 18110394

FIGURE **C1**

Photo 3 – Site as visible from the north-west corner of the Site boundary facing east at 3305 Borrisokane Rd

Photo 4 – Discarded Wagon in the south-east corner of the Site at 3305 Borrisokane Rd

CLIENT	**Caivan Communities**
CONSULTANT	GOLDER
YYYY-MM-DD	2018-10-10
TAKEN BY	SAC
CHECKED BY	DHP
PROJECT	**Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa**
TITLE	**Photographic Record**
PROJECT No.	18110394
FIGURE	**C2**

Photo 5 – Discharge pipes into river tributary on the south-east corner of the Site at 3305 Borrisokane Rd

Photo 6 – Discarded debris at the south-east corner of the Site at 3305 Borrisokane Rd

CLIENT
Caivan Communities

CONSULTANT
GOLDER

YYYY-MM-DD	2018-10-10
TAKEN BY	SAC
CHECKED BY	DHP

PROJECT
Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa

TITLE
Photographic Record

PROJECT No. 18110394

FIGURE **C3**

Photo 7 – Discarded debris at the south-east corner of the Site at 3305 Borrisokane Rd

Photo 8 – Discarded debris at the south-east corner of the Site at 3305 Borrisokane Rd

CLIENT
Caivan Communities

CONSULTANT
GOLDER

YYYY-MM-DD	2018-10-10
TAKEN BY	SAC
CHECKED BY	DHP

PROJECT
Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa

TITLE
Photographic Record

PROJECT No. 18110394

FIGURE **C4**

Photo 9 – Discarded debris at the south-east corner of the Site at 3305 Borrisokane Rd

Photo 10 – Discarded debris at the south-east corner of the Site at 3305 Borrisokane Rd

CLIENT	**Caivan Communities**
CONSULTANT	GOLDER
YYYY-MM-DD	2018-10-10
TAKEN BY	SAC
CHECKED BY	DHP
PROJECT	**Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa**
TITLE	**Photographic Record**
PROJECT No.	18110394
FIGURE	**C5**

Photo 11 – Discarded debris at the south-east corner of the Site at 3305 Borrisokane Rd

Photo 12 – Discarded debris at the south-east corner of the Site at 3305 Borrisokane Rd

CLIENT
Caivan Communities

CONSULTANT
GOLDER

YYYY-MM-DD 2018-10-10
TAKEN BY SAC
CHECKED BY DHP

PROJECT
Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa

TITLE
Photographic Record

PROJECT No. 18110394 FIGURE **C6**

Photo 13 – The Site was in the process of harvesting at the time of the Phase I visit (southern Site boundary at 3305 Borrisokane Rd).

Photo 14 – Jock River to the south of the Site at 3305 Borrisokane Rd

CLIENT
Caivan Communities

CONSULTANT
GOLDER

YYYY-MM-DD	2018-10-10
TAKEN BY	SAC
CHECKED BY	DHP

PROJECT
Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa

TITLE
Photographic Record

PROJECT No. 18110394

FIGURE **C7**

Photo 15 – A storage shed and several storage boxes containing insulation were located on pallets along the southern Site boundary near the south-western corner of the Site at 3305 Borrisokane Rd

Photo 16 – Contents of the shed at 3305 Borrisokane Rd

CLIENT
Caivan Communities

CONSULTANT
GOLDER

YYYY-MM-DD	2018-10-10
TAKEN BY	SAC
CHECKED BY	DHP

PROJECT
Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa

TITLE
Photographic Record

PROJECT No. 18110394

FIGURE **C8**

Photo 17 – Materials including a jerry can and garbage stored near the south-east corner of the Site at 3305 Borrisokane Rd

Photo 18 – Discarded storage material and debris at the south-east corner of 3305 Borrisokane Rd

CLIENT	**Caivan Communities**	PROJECT	**Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa**
CONSULTANT	GOLDER	YYYY-MM-DD	2018-10-10
		TAKEN BY	SAC
		CHECKED BY	DHP
TITLE	**Photographic Record**		
PROJECT No.	18110394	FIGURE	**C9**

Photo 19 – Discarded storage material and debris at the south-east corner of 3305 Borrisokane Rd

Photo 20 – Pile of fill observed at the entryway into 4375 McKenna Casey Drive

CLIENT

Caivan Communities

CONSULTANT

GOLDER

YYYY-MM-DD	2018-10-10
TAKEN BY	SAC
CHECKED BY	DHP

PROJECT

Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa

TITLE

Photographic Record

PROJECT No. 18110394

FIGURE **C10**

Photo 21 – Drainage pipes, railway line and McKenna Casey Drive to the north of the Site at 4375 McKenna Casey Drive

Photo 22 – View from the north-east corner of the Site at 4375 McKenna Casey Drive facing South. Site is bounded by a field to the east.

CLIENT

Caivan Communities

CONSULTANT

GOLDER

YYYY-MM-DD	2018-10-10
TAKEN BY	SAC
CHECKED BY	DHP

PROJECT

Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa

TITLE

Photographic Record

PROJECT No. 18110394

FIGURE **C1 1**

Photo 23 – View of 4375 McKenna Casey Drive facing west. The site is bounded by Highway 416 to the west.

Photo 24 – The Site is bounded by Jock River on the south. View facing south from 4345 McKenna Casey Dr.

CLIENT

Caivan Communities

CONSULTANT

GOLDER

YYYY-MM-DD	2018-10-10
TAKEN BY	SAC
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PROJECT

Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa

TITLE

Photographic Record

PROJECT No. 18110394

FIGURE **C12**

Photo 25 – The northwestern quarter of 4345 McKenna Casey Dr was a field.

Photo 26 – One of two existing, damaged wells at 4375 McKenna Casey Drive.

CLIENT
Caivan Communities

CONSULTANT
GOLDER

YYYY-MM-DD	2018-10-10
TAKEN BY	SAC
CHECKED BY	DHP

PROJECT
Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa

TITLE
Photographic Record

PROJECT No. 18110394

FIGURE **C13**

Photo 27 – Two of two existing, damaged wells at 4375 McKenna Casey Drive.

Photo 28 – A transformer associated with the Via Rail visible along the northern Site boundary at 4375 McKenna Casey Drive.

CLIENT
Caivan Communities

CONSULTANT
GOLDER

YYYY-MM-DD 2018-10-10
TAKEN BY SAC
CHECKED BY DHP

PROJECT
Phase One ESA – 4345 and 4375 McKenna Casey Drive, and 3305 Borrisokane Rd, Ottawa

TITLE
Photographic Record

PROJECT No. 18110394

FIGURE **C14**

APPENDIX D

Aerial Photographs

LEGEND

PHASE ONE SITE

PHASE ONE STUDY AREA

0 205 410 820

1:20,000 METRES

NOTE(S)
1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1771847-1000.

REFERENCE(S)
1. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: MTM ZONE 9 VERTICAL DATUM: CGVD28

CLIENT
BARRHAVEN CONSERVANCY INC.

PROJECT
PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
4305 MCKENNA CASEY DRIVE AND 3285, 3288, AND 3300 BORRISOKANE ROAD, OTTAWA, ONTARIO

TITLE
1946 AIR PHOTO

CONSULTANT

GOLDER

YYYY-MM-DD	2018-10-23
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	APPENDIX
1771847	0010	0	**D1**

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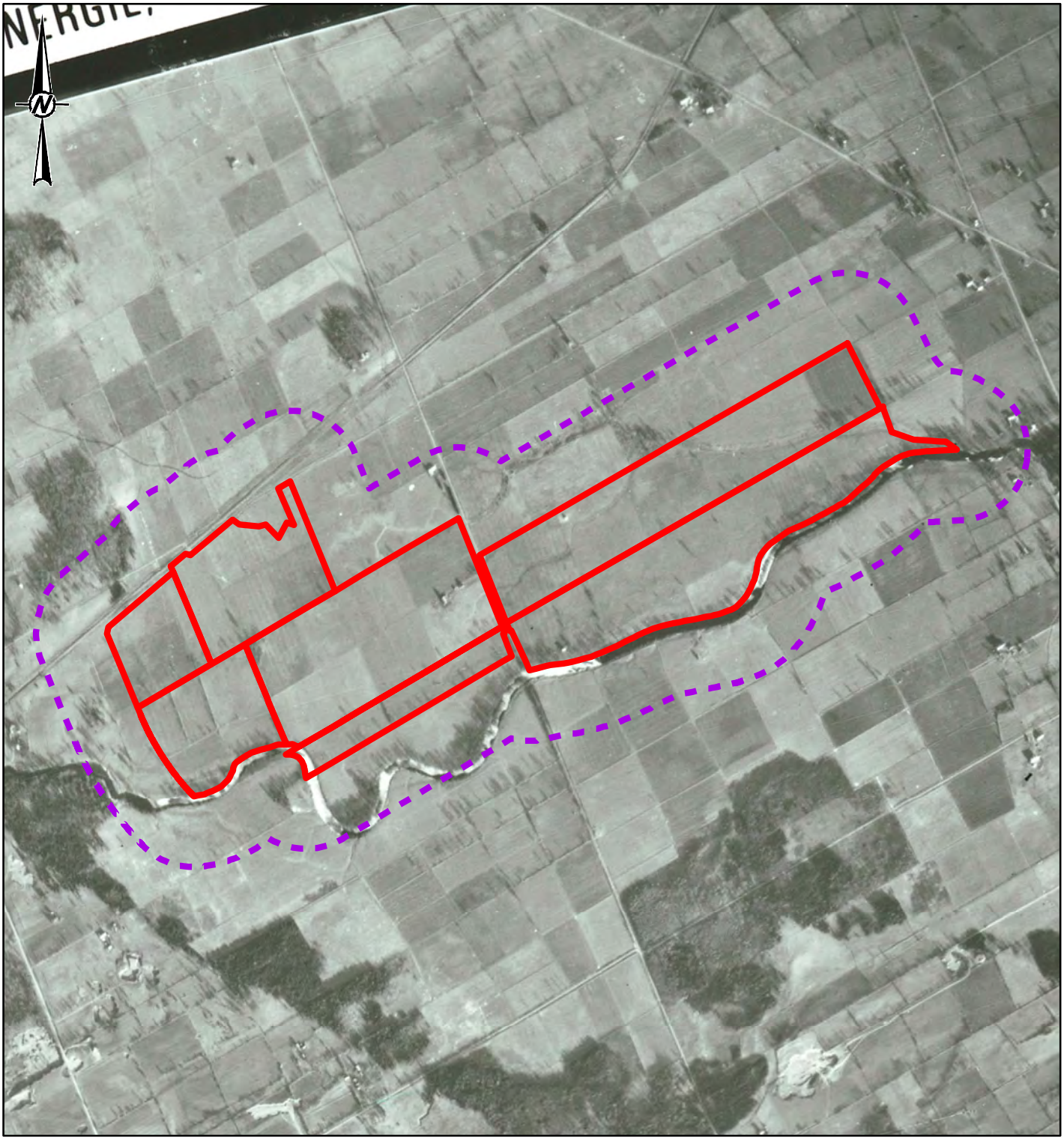
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm



LEGEND

- PHASE ONE SITE
- PHASE ONE STUDY AREA

0 205 410 820

1:20,000 METRES

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1771847-1000.

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: MTM ZONE 9 VERTICAL DATUM: CGVD28

CLIENT
BARRHAVEN CONSERVANCY INC.

PROJECT
PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
4305 MCKENNA CASEY DRIVE AND 3285, 3288, AND 3300 BORRISOKANE ROAD, OTTAWA, ONTARIO

TITLE
1956 AIR PHOTO

CONSULTANT
GOLDER

YYYY-MM-DD	2018-10-23
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	APPENDIX
1771847	0010	0	**D2**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm 0

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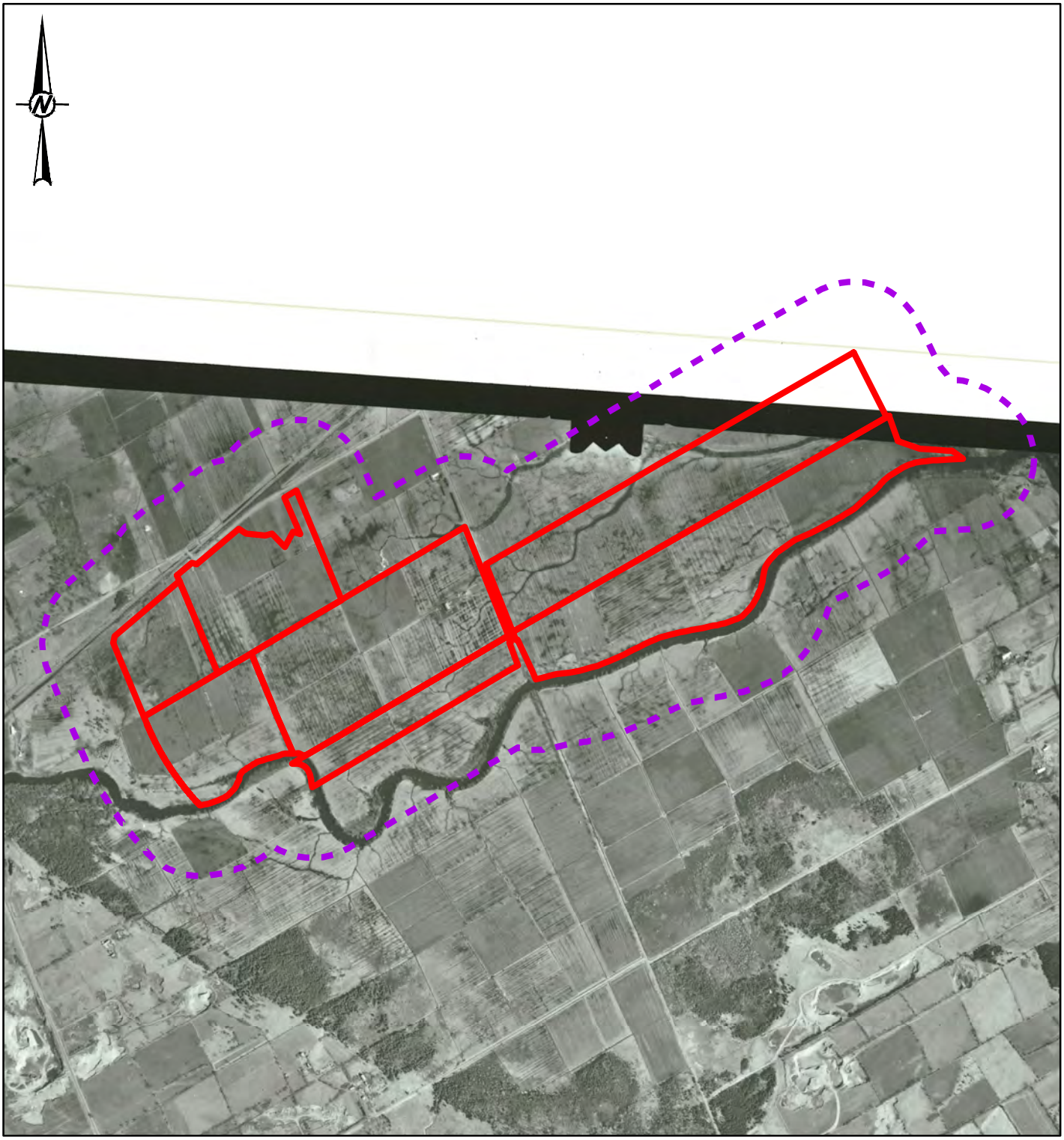

LEGEND

- PHASE ONE SITE
- PHASE ONE STUDY AREA

0 205 410 820

1:20,000 METRES

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1771847-1000.

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: MTM ZONE 9 VERTICAL DATUM: CGVD28

CLIENT
BARRHAVEN CONSERVANCY INC.

PROJECT
PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
4305 MCKENNA CASEY DRIVE AND 3285, 3288, AND 3300 BORRISOKANE ROAD, OTTAWA, ONTARIO

TITLE
1964 AIR PHOTO

CONSULTANT
GOLDER

YYYY-MM-DD	2018-10-23
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	APPENDIX
1771847	0010	0	**D3**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm 0

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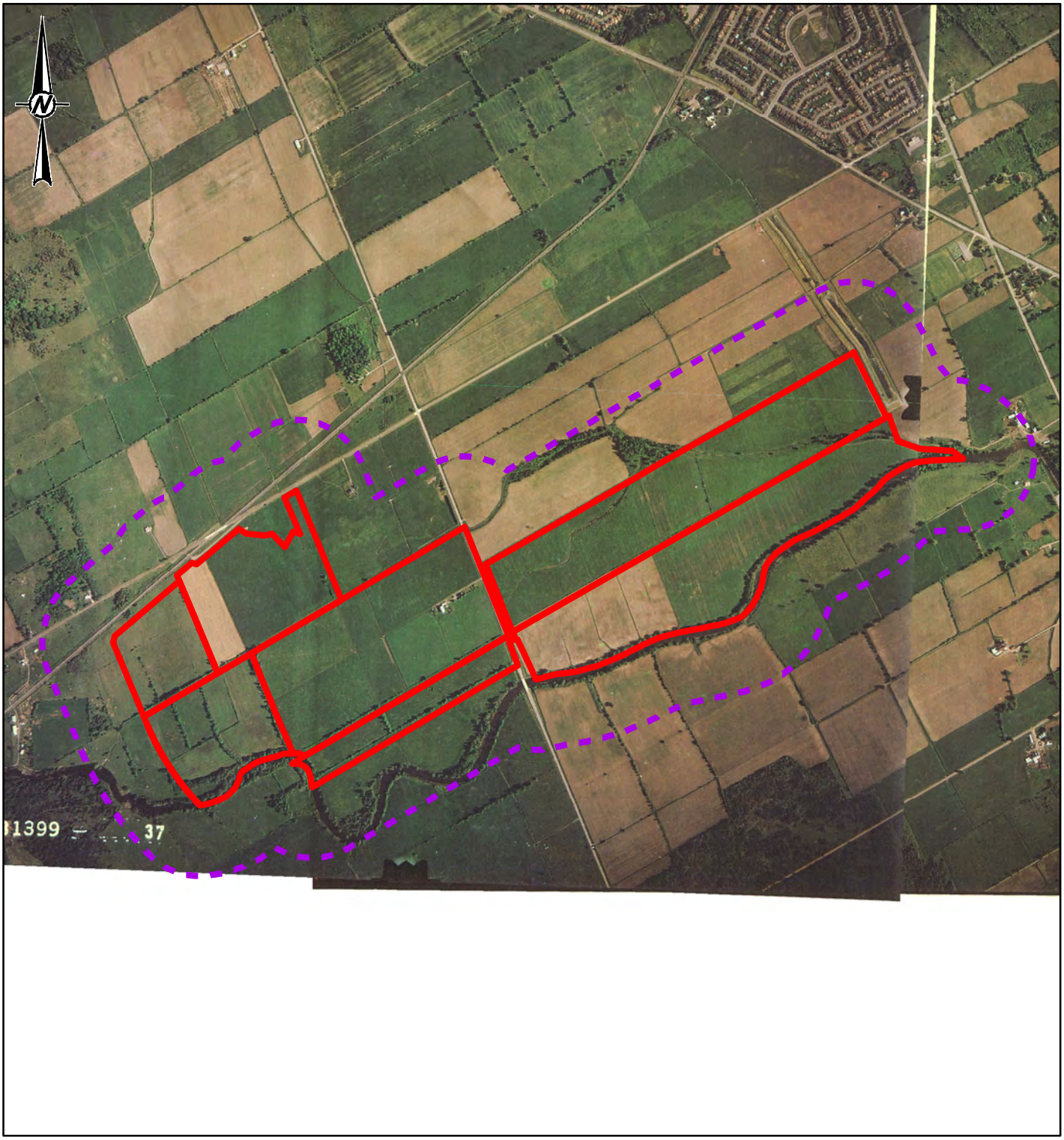

LEGEND

PHASE ONE SITE

PHASE ONE STUDY AREA

0 205 410 820

1:20,000 METRES

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1771847-1000.

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: MTM ZONE 9 VERTICAL DATUM: CGVD28

CLIENT

BARRHAVEN CONSERVANCY INC.

PROJECT

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
4305 MCKENNA CASEY DRIVE AND 3285, 3288, AND 3300 BORRISOKANE ROAD, OTTAWA, ONTARIO

TITLE

1985 AIR PHOTO

CONSULTANT

GOLDER

YYYY-MM-DD	2018-10-23
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	APPENDIX
1771847	0010	0	**D4**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM:

25mm

0

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