March 2018

REPORT ON

Phase One Environmental Site Assessment Proposed Development at Riverside Drive and Hunt Club Road Ottawa, Ontario

Submitted to:
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REPORT

Report Number: 1670692-1000

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Golder Associates

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 Taggart Realty Management (Taggart) to conduct a Phase One Environmental Site Assessment (Phase One ESA) of the property located at 3930 Riverside Drive and the parcel of land located immediately southeast of 3930 Riverside Drive in Ottawa, Ontario (herein after referred to as the "Site" or "Phase One Property") as shown on Figures 1 and 2. At the time of the Site reconnaissance, which was conducted on January 26, 2017, the Site consisted of a 14.82 acre (0.40 hectare) parcel of undeveloped and vacant land. The majority of the Site had uneven terrain and consisted of fill material overgrown with vegetation and was primarily snow covered at the time of the Site visit. A gravel and dirt road extending west from Riverside Drive intersected the central portion of the Site from east to west.

It is understood that the Phase One Property is to be redeveloped with residential and commercial properties. The Site is owned by St. Mary's Land Corporation.

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 outlined in Section 9.0 of this report. The latest use of the Phase One Property is considered to be industrial as it was used as a sand and gravel pit. Given that the Phase One Property is to be redeveloped with a residential and commercial buildings, there will be a change in the land use from less sensitive to more sensitive. As such, there is a mandatory requirement for a RSC to be filed for the Site.

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 Property and Phase One Study Area	**#30. Importation of Fill Material of Unknown Quality** – Fill material of unknown quality and origin has been used to backfill the sand and gravel pits formerly located on the Site and adjacent lands north, east, south and southwest of the Site. This fill material reportedly contains construction debris.	Previous Environmental Reports, Ecolog ERIS Report, Site Representative, aerial photographs and Site observations	Previously, some of the fill was found to have been impacted with petroleum hydrocarbons (PHC) and electrical conductivity (EC). Although the hydrocarbon impacted fill was remediated, groundwater testing was never completed in that location and the fill with elevated electrical conductivity remains. In addition more fill material of unknown quality and origin has been placed on the Site since the most recent 2001 investigations. As such, the presence of the fill material on the Site and adjacent lands is considered to be a PCA that will result in an APEC on the Site.

Location	Potentially Contaminating Activity	Information Source	Rationale for Potential Contribution of the PCA to an APEC
	#28. Gasoline and Associated Products Storage in Fixed Tanks – Current presence of retail fuel outlet with three associated fuel USTs located approximately 70 m south of the Site at 4000 Riverside Drive.	Site observations, TSSA, aerial photographs, Ecolog ERIS Report	Given the distance and amount of infrastructure between the Site and this facility and that this facility is located hydraulically cross-gradient with respect to the Site, it is not considered to be a PCA that will result in an APEC on the Site.

Based on the information collected as part of this Phase One ESA, one APEC was identified on the Site as follows:

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-Site or off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or Sediment)
APEC 1 – Potential for subsurface impacts due to the presence of fill material on the Site and adjacent lands.	Site-wide.	Fill material of unknown quality and origin is present Site-wide and adjacent to the Site.	On-Site and off-Site	PHC F1 to F4, Benzene, ethylbenzene, toluene and xylenes (BTEX), polycyclic aromatic hydrocarbons (PAHs), EC and metals	Soil and Groundwater

Based on the findings of the Phase One ESA, further investigation in the form of Phase Two ESA is required at the Site in order to assess the potential for soil quality impacts related to the one APEC identified on the Site.

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 Taggart Realty Management (Taggart) to conduct a Phase One Environmental Site Assessment (Phase One ESA) of the following properties:

Municipal Address	The Site consists of two properties hereinafter referred to as the 'northwest' portion of the Site and the 'southeast' portion of the Site. The northwest portion' of the Site is located at part of 3930 Riverside Drive. The southeastern portion of the Site does not have a municipal address.
Property Identification Numbers	040530608 and Part of 040530578
Legal Description	Part of Lot 5, Concession 2 (Rideau Front), Ottawa, Ontario

The Site location is provided on Figure 1. A Site plan is provided on Figure 2.

The contact information for the Site is:

Client	Address	Contact Information
Taggart Realty Corporation	225 Metcalfe Street, Suite 809 Ottawa, Ontario K2P 1P9	Alex Turner Office: 613-234-7000 Ext. 279 Email: aturner@taggart.ca

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 Environment 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 of actual 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 review of the aerial photographs, city directories, previous environmental reports, EcoLog Environment Risk Information Service Ltd. (ERIS) report and information provided by the Site Representative. The 1930 aerial photograph shows that the Phase One Property is used as sand and gravel pit. In addition, previous environmental reports indicate that the Site was used as a sand and gravel pit since prior to 1931 and was owned by private individuals from 1802 until 1911. Therefore, the first developed use of the Phase One Property was determined to be a sand and gravel pit between 1911 and 1930.

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 only use of the Phase One Property has been for sand and gravel extractions (i.e., sand and gravel pits) which occurred since prior to 1931 until sometime between 1981 and 1985. Aside from fill material being placed on the Site, the Site has been undeveloped, vacant land since this time and is currently owned by St. Mary's Land Corporation. Chain of Title information was not ordered as it was deemed that the other information from the records review would satisfy the objectives of the records search and that the information to be provided in a Chain of Title would not contribute additional environmental information relevant to the Phase One ESA.

3.1.5 City Directories

Golder ordered a street directory search from EcoLog ERIS. A review of historical street directories for the years 1965, 1970, 1974, 1979, 1984, 1988/89, 1995/96, 1999/2000, 2005/06 and 2011 was completed by EcoLog ERIS for the Phase One Property and select surrounding properties (within 250 m).

Based on Golder's review of the city directory information, the following summarizes the noteworthy findings of the street directory review:

- The Phase One Property was not listed in any of the street directories searched.
- 4000 Riverside Drive was listed as Digital Electric Inc. in the 2005/06 street directories and as Driscoll Snow Removal in the 1995/96 street directories. It was not listed in the other street directories searched.

- 9, 12 and 18 Chancellor Court were listed as a residential property with one tenant in the 2005/06 and 2011 street directories. These addressed were not listed in the street directories searched prior to 2005/06.
- 300 Hunt Club Road was listed as a commercial property in the 2011 street directories including Laframboise Mechanical Ltd., Moxi's Class Grill, Harvey's and Vision Contractors Ltd. It was not listed in street directories searched prior to 2011.
- The remaining addresses selected (3960 Riverside Drive, 4070 Riverside Drive, 3812 North Bowesville Road and 22 Kimberwalk Crescent) were not listed in any of the street directories searched.

Based on the review of the street directories, no PCAs were identified on the Site or within the Phase One Study Area.

3.1.6 Environmental Reports

As part of the Phase One ESA, Golder reviewed the environmental reports listed below which was previously completed by Golder for the Site and/or adjacent properties.

- **"1994 Phase I and Partial Phase II ESA"**, Phase I and Partial Phase II Environmental Site Assessment, Riverwalk Park and St. Mary's Sites, Riverside Drive, Ottawa, Ontario, dated June 1994, prepared by Golder Associates Ltd. for Cumming Cockburn Limited
- **"1998 Phase I ESA"**, Phase I Environmental Site Assessment, St. Mary's Site, Riverside Drive, Ottawa, Ontario, dated December 1998, prepared by Golder Associates Ltd. for Doran Contractors Limited
- **"May 2001 Phase I and II ESA"**, Phase I and Phase II Environmental Site Assessment, St. Mary's Site, Riverside Drive, Ottawa, Ontario, dated May 2001, prepared by Golder Associates Ltd. for Dundee Realty Corporation
- **"September 2001 Phase II ESA and Remediation Program"**, Phase II Environmental Site Assessment and Remediation Program, 3930 Riverside Drive (Riverside Drive and Hunt Club Road), Ottawa, Ontario, dated September 2001, prepared by Golder Associates Ltd. for the City of Ottawa
- **"September 2001 Phase II ESA"**, Phase II Environmental Site Assessment, Riverside Drive and Hunt Club Road, Ottawa, Ontario, dated September 2001, prepared by Golder Associates Ltd. for Taggart Realty Management

The 1994 Phase I and Partial Phase II ESA was completed for the former "St. Mary's Site" and the former "Riverwalk Park Site". The former St. Mary's Site consists of the northwest portion of the Site located at 3930 Riverside Drive and the property located immediately north of the Site at 3860 Riverside Drive (currently occupied by a park). The Riverwalk Park Site includes the surrounding properties north of the Site, some of which are within the Phase One Study Area. Based on the review of the 1994 Phase I and Partial Phase II ESA, the following is of note for the Site:

- The northwest portion of the Site was used as a sand and gravel pit prior to 1935. The pit located on this portion of the Site was backfilled during the 1980's.
- The adjacent lands north of the Site were used as a sand and gravel pit prior to the 1930's into the 1980's, with possible re-vegetation in the 1960's and 1970's.

- At the time of the Site visit, which was conducted in May 1994, irregular backfill was noted on the northwest portion of the Site and the adjacent properties north of the Site. Mounds of sand, silty sand, cobbles, boulders as well as brush, topsoil and debris were noted within the former pit areas on these properties.
- Backfill material on the northwest portion of the Site consists of granular fill, solid waste and demolition rubble. The origin of the backfill material is unknown; however, some of the backfill material was reportedly brought to the Site in during construction activities on Elgin Street in Ottawa, back in 1986 and 1987.
- During the 1994 Site visit, one aboveground storage tank (AST), likely a fuel AST, was observed on the St. Mary's Site; however, it is not known if it was located on the northwest portion of the Site or the adjacent property north of the Site. No hydrocarbon odours or staining was observed on the St. Mary's Site or the Riverwalk Park Site at the time of the Site visit.
- Fill material was encountered in two test pits that were excavated on the Site near the northeast Site boundary. The fill was present in these locations to depths of 4.2 metres below ground surface (mbgs) and 3.0 mbgs and primarily consisted of grey silty sand with some gravel and clay. Brick, wood and a metal tank was present in the fill material at one of these test pits and asphalt was present in the fill material at the other test pit.
- Fill material was encountered in four test pits completed on the adjacent property north of the Site (3860 Riverside Drive). The fill material in these locations extended to depths ranging from 3.30 mbgs to at least 5.50 mbgs and primarily consisted of silty sand with some gravel and clay. Construction debris including wood, asphalt, glass, brick and/or concrete was observed in the fill at three of these test pit locations.
- As part of the 1994 Phase I and Partial Phase II ESA, samples of fill collected from the tests pits were submitted for laboratory analysis of metals and inorganics as well as oil and grease. The soil analytical results were compared to and satisfied the Province of Ontario Soil Clean-Up Guidelines for Decommissioning of Residential, Fine and Medium Textured Soil (1991). However, the current environmental standards applicable to the Site are the Ontario Ministry of the Environment and Climate Change's (MOE) Table 3 Standards, Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition for coarse-textured soil and Residential/Parkland/Institutional property use presented in the MOE's "*Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act*", dated April 15, 2011 (MOE 2011a). This standard was selected as the applicable Site standards as the Site is located greater than 30 m from a water body, the proposed development of the Site includes residential buildings and the Site will be serviced with municipal water. A comparison of the soil analytical results to the currently applicable Site standards (the MOE Table 3 Standards) indicate that all samples of fill met the MOE Table 3 Standards with the exception the fill sample from one of the on-Site test pits which contained a concentration of electrical conductivity (EC) above the MOE Table 3 Standards.

The 1998 Phase I ESA was completed for the northwest portion of the Site and the property located immediately north of the Site located at 3860 Riverside Drive (i.e., the former St. Mary's Site). Based on the review of the 1998 Phase I ESA, the following is of note for the Site:

- The northwest portion of the Site is underlain discontinuously by fill material ranging in thickness of up to 13 m in some locations. The fill, where present, is highly variable in composition, ranging from grey silty clay to gravel, boulders, concrete pieces, asphaltic concrete slabs, etc. Below the fill layer is a native sandy soil layer followed at a depth by a silty clay layer.

- At the time of the Site visit, which was conducted in May 1998, the northwest portion of the Site and the adjacent property north of the Site were vacant. The backfill material that was observed within the former pit areas in 1994 was still present. The fuel AST also remained present.
- In May 1998, the southeast portion of the Site was an abandoned sand and gravel pit that has been backfilled to a variable degree.

The May 2001 Phase I and II ESA was completed for the northwest portion of the Site and the property located immediately northeast of the Site located at 3860 Riverside Drive (i.e., the former St. Mary's Site). Based on the review of the May 2001 Phase I and II ESA, the following is of note for the Site:

- During an interview, the Site Representative stated that approximately 120,000 cubic metres (m^3) of fill material was deposited on the northwest portion of the Site and the adjacent property north of the Site between December 2000 and March 2001. The source of this material was the excavation for the Nepean stormwater management pond, located across the Rideau River.
- The northwest portion of the Site and the adjacent property north of the Site were used as a sand and gravel pit from prior to 1931 until the mid-1960's when backfilling commenced on the adjacent property north of the Site. Backfill has continued on the northwest portion of the Site and the adjacent property north of the Site until at least May 2001. The southeast portion of the Site has been used as a sand and gravel pit from prior to 1931 until sometime between 1980 and 1989 when backfilling activities began on it. The backfilling has occurred on this portion of the Site since at least 1997.
- The St. Mary's Site was owned by private individuals from 1802 until 1911, and from then on by commercial interests. Sand and gravel extraction commenced on the St. Mary's Site when it was owned by the Ottawa Hunt and Golf Club which was between June 1911 and June 1960. Between June 1960 and May 2001, the St. Mary's Site was owned by commercial and/or industrial companies including St. Mary's Cement Corporation and Dominion Building Materials Limited.
- Two boreholes were completed on the northwest portion of the Site in 1991 for geotechnical purposes. One borehole was completed along the northeast Site boundary and encountered 3.0 m of fill consisting of soils, wood, brick, concrete and asphalt. The other borehole was located on the southern portion of the northwest half of the Site and did not encountered any fill material.
- No ASTs were observed on the St. Mary's Site at the time of the Site visit.
- There is potential that localized areas of debris or contaminated material may have been buried on the Site during the backfill phases and some of the material may present issues of environmental concern related soil and/or groundwater quality on the Site.
- As part of the 2001 Phase II ESA, seven test pits were excavated on the northwest portion of the Site, two test pits were excavated on the adjacent property northeast of the Site and two monitoring wells were installed in the infilled section of the northwest portion of the Site (monitoring wells MW01-1 and MW01-2 as shown on Figure 2). Fill material was encountered in all nine test pits and varied in composition, suggesting that there have been several sources of these fill materials. The fill material in the test pit and monitoring well locations on the northwest portion of the Site ranged from depths of 2.0 mbgs to at least 5.2 mbgs and were underlain by native light brown sand with trace gravel. Construction debris including

asphalt, wood, glass, brick, rubber and concrete was observed in the fill material in one of the test pits completed near the eastern Site boundary of the northwest portion of the Site, in the test pit completed on the western portion of this property, just east of the treed area, and in the location of the monitoring well on the eastern portion of the Site (monitoring wells MW01-1).

- The groundwater levels measured in the monitoring wells located on the eastern and western portions of the northern half of the Site were 4.74 and 12.38 mbgs, respectively.
- Soil samples collected from some of the test pits were analyzed for TPH gas, TPH diesel, TPH heavy oils, metals and/or inorganics. All analyzed soil samples met the MOE Guidelines for Use at Contaminated Sites, Table B Criteria and also meet the currently applicable MOE Table 3 Standards, where direct comparison is applicable. TPH heavy oils cannot be directly compared to the current standards; however, the concentrations TPH heavy oils in one of the soil samples collected from a test pit on the adjacent property north of the Site was 750 ug/g which exceeds the MOE Table 3 Standards for PHC F1, F2 and F3. As such, there is a potential that the soil in this location contains a concentration of the PHCs above the MOE Table 3 Standards.
- The groundwater samples collected from the two on-Site monitoring wells met the MOE Guidelines for Use at Contaminated Sites, Table B Criteria and also meet the MOE Table 3 Standards for all parameters analyzed (TPH gasoline, TPH diesel, benzene, toluene, ethylbenzene and xylenes (BTEX) and metals).

The September 2001 Phase II ESA was completed for the adjacent property northeast of the Site at 3860 Riverside Drive. Based on the review of the September 2001 Phase II ESA, the following was considered noteworthy:

- The Phase II ESA included the completion of six test pits and three boreholes on the adjacent property north of the Site, two of which were completed as monitoring wells.
- Fill material was encountered in all test pits and boreholes to depth ranging between 1.8 mbgs and at least 6.1 mbgs. Construction debris including asphalt, wood, concrete pieces and brick was present in the fill material in all test pits.
- Groundwater levels measured in the monitoring wells installed on the adjacent property at 3860 Riverside Drive as well as the northwest and southeast portions of the Site indicate that groundwater flow direction is towards the Rideau River located southwest of the Site.
- The soil samples that were collected from the test pits and submitted for laboratory analysis of metals, BTEX, TPH gas/diesel, TPH heavy oils and/or polycyclic aromatic hydrocarbons (PAHs) met the MOE Guidelines for Use at Contaminated Sites, Table B Criteria and the currently applicable MOE Table 3 Standards for all parameters analyzed.
- There were no exceedances of the MOE Guidelines for Use at Contaminated Sites, Table B Criteria, or the MOE Table 3 Standards for the parameters analyzed (metals, BTEX, TPH gas/diesel and TPH heavy oils) in the groundwater samples collected from the two monitoring wells on the adjacent property north of the Site.

The 2001 Phase II ESA and Remediation Program was completed for the southeast portion of the Site. Based on the review of the September 2001 Phase II ESA and Remediation Program, the following is noted for the Site:

- Similar to the northwest portion of the Site and the property located immediately north of the Site, the southeast portion of the Site has a history of over 70 years of use as a sand and gravel pit and for receiving fill material. There is a potential that localized area of debris or impacted material may been buried on this portion of the Site during the backfilling phases.
- The Phase II ESA included the completion of several test pits and two boreholes completed as monitoring wells on the southeast portion of the Site (monitoring wells MW01-5 and MW01-5 as shown on Figure 2).
- Fill material was encountered in all test pit and monitoring well locations. The depth of the fill material ranged from 2.74 mbgs to 14.17 mbgs. Construction debris including cinders, ash, wood, brick, concrete and/or scrap metals was present in the fill material at both monitoring well locations and in all but one test pit location.
- All soil samples submitted for laboratory analysis from the test pits satisfied the Table B Criteria and satisfy the MOE Table 3 Standards with the exception of soil sample collected from test pit on the northwest corner of the southeast portion of the Site which contained a concentration of TPH gas/diesel and TPH heavy oils above the Table B Criteria. The concentrations of TPH gas/diesel and TPH heavy oils in this soil sample were 6540 ug/g and 4500 ug/g, respectively. Although these concentrations cannot be directly compared to the MOE Table 3 Standards, they exceed the MOE Table 3 Standards for PHC F1, F2, F3 and F4. It is also noted that hydrocarbon odours were present in the upper 2.13 m of fill in this test pit location and that groundwater quality was not investigated in this area.
- Approximately 220 tonnes of PHC impacted soil was removed from the northwest corner of the southeast portion of the Site (i.e., the location of the test pit where hydrocarbon impacted soil were found) and disposed of off-Site. Confirmatory soil samples collected from the base and sidewalls of the excavation met the MOE Table B Criteria; however, hydrocarbons may still be present in this location at concentrations above the current Site standards. The approximate location of this remediated area is shown on Figure 2. It is possible that the fuel AST formerly present on the Site or adjacent property north of the Site was located in this area.
- There were no exceedances of the MOE Guidelines for Use at Contaminated Sites, Table B Criteria, or the MOE Table 9 Standards for the parameters analyzed (metals, BTEX, TPH gas/diesel and TPH heavy oils) in the groundwater samples collected from the two monitoring wells.
- Groundwater levels measured in the two monitoring wells on the southeast portion of the Site were 15.31 mbgs and 16.17 mbgs and those measured in the two monitoring wells on the northern portion of the Site were 5.135 mbgs and 4.86 mbgs. Based on the measured water levels, groundwater at the Site in interpreted to flow southwest towards to Rideau River.

Based on the review of the previous environmental reports, poor quality fill material including waste materials may still be present on the Site and the adjacent land north of the Site and is considered to be on-Site and off-Site PCAs.

3.2 Environmental Source Information

3.2.1 EcoLog ERIS Report

Golder contracted EcoLog Environmental Risk Information Services Ltd. ("EcoLog ERIS") 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 ▪ 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	▪ 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

The complete EcoLog ERIS report, including a brief description of each of the databases searched for the Phase One ESA, is included in Appendix B.

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 Phase One Study Area:

On-Site

Noteworthy records for the Phase One Property included the following:

- Borehole (BORE) – There are records of boreholes on the Site. Both boreholes were completed in August 2001 for geotechnical purposes and were located relatively central on the southeast portion of the Site. The boreholes were completed to depth of 17.4 mbgs and 17.6 mbgs and encountered fill material containing construction debris to depths of 14.9 mbgs and 13.9 mbgs, respectively. Brown sand was present below the fill layer in both boreholes. The static water levels were reported to be 15.3 and 16.2 mbgs.
- Record of Site Condition (RSC) – There is a record of one RSC that was submitted for the Site in October 2001 by Golder; however was subsequently returned.

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 43 borehole listings within the Phase One Study Area. Three of the boreholes were on the adjacent property north of the Site and the other boreholes were completed on the surrounding lands south and southwest of the Site. The boreholes that were completed on the adjacent property northeast of the Site were completed in 2001 for geotechnical/geological purposes. The depth of the boreholes ranged from 6.1 mbgs to 12.8 mbgs and the static water levels ranged from 4.9 mbgs to 10.2 mbgs. The subsurface conditions at this property are fill underlain by sand and silty clay. The remaining boreholes located south and southwest of the Site were completed between March 1950 and August 2001 for geotechnical/geological purposes. The depths of the boreholes ranged from 1.2 mbgs to 32.9 mbgs and the static water levels ranged from 1.9 mbgs to 20.6 mbgs. It is noted that fill material containing construction debris was encountered in several boreholes that were completed on the adjacent land south of the Site (i.e., the location of a former sand and gravel pit). Additional information regarding the borehole records is included in the Ecolog ERIS report in Appendix B.
- Certificates of Approval (CA) – There are six Certificates of Approval (C of As) listings within the Phase One Study Area. The C of As was issued for municipal water, municipal sewage and industrial sewage.
- ERIS Historical Searches (EHS) – The Ecolog ERIS report identified one historical search listing that was completed within the Phase One Study Area.
- Fuel Storage Tanks (FST) – The Ecolog ERIS report listed three records in the FST database associated with the retail fuel outlet at 4000 Riverside Drive; approximately 70 m south of the Site. The records indicated that this facility has three active gasoline storage tanks, each with a capacity of 50,000 L. These tanks are reported to be double walled USTs that were installed in 2003.
- Fuel Storage Tank – Historic (FSTH) – The retail fuel outlet located at 4000 Riverside Drive was listed as a gasoline service station with three double walled gasoline USTs that were installed in 2003 and active as of December 2008. These are likely the same gasoline USTs that were reported in the FST database.

- TSSA Pipeline Incidents (PINC) – There is one record of TSSA pipeline incidents within the Phase One Study Area. The record was for a natural gas pipeline hit that occurred at 4000 Riverside Drive in 2013.
- Ontario Spills (SPL) – The Ecolog ERIS Report identified one record of a spill that occurred within the Phase One Study Area. The record was for an oil spill that occurred in 2008 when an unknown amount of oil spilled at the intersection of Hunt Club Road and Riverside Drive and enter the municipal sewers.
- Water Well Information System (WWIS) – There are three water well listings within the Phase One Study Area. One well was constructed on the golf course property on the surrounding lands east of the Site. It was constructed in June 1958 to a depth of 41.15 mbgs. The other two wells were constructed on the surrounding lands south of the Site, on the west side of the Rideau River. They were completed in March 1950 and November 1963 to depths of to 32.92 mbgs and 31.39 mbgs, respectively. Additional information regarding the water wells is included in the Ecolog ERIS report in Appendix B.

Based on the review of the EcoLog ERIS report, the presence of fill containing construction debris on the Site and the adjacent lands south of the Site is considered to be an on-Site and off-Site PCA. In addition, the presence of a retail fuel outlet with three associated fuel USTs on the adjacent land south of the Site at 4000 Riverside Drive is an off-Site PCA. The Ecolog ERIS also identified a natural gas and oil spill that occurred within the Phase One Study Area; however, given that these spills either entered to the atmosphere or the sewers, they are not considered to be issues of potential environmental concern.

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 (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.

A formal response from the MOECC was received by Golder on January 24, 2017. The review of the MOECC response indicated that no Active Orders, Certificate of Approvals or Environmental Compliance Approvals have been issued for the Site; however, one Certificate of Approval was issued to the City of Ottawa for in 2013 for municipal/private/industrial sewage at the adjacent park property north of the Site.

3.2.3 City of Ottawa

Golder forwarded a request (refer to copy of correspondence in Appendix A) to the City of Ottawa (City), for 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 of Ottawa responded to Golder's request on February 16, 2017 which included a copy of the City of Ottawa Historical Land Use Inventory (HLUI) of the Site and surrounding properties within 50 m of the Site (refer to copy of the HLUI in Appendix A). The only record included in the HLUI was for an unnamed sand and gravel pit that was reportedly located on the Site and all neighbouring properties. The record indicated that the sand and gravel pit was in operation between 1912 and 1967.

3.2.4 Ministry of Natural Resources and Forestry (MNRF)

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, Black Crappie Nursery Area (Non-Sensitive);
- Fish Nursery, Blue Gill Nursery Area (Non-Sensitive);
- Fish Nursery, Centrarchidae Nursery Area (Non-Sensitive);
- Fish Nursery, Cyprinidae Nursery Area (Non-Sensitive);
- Fish Nursery, Emerald Shiner Nursery Area (Non-Sensitive);
- Fish Nursery, Largemouth Bass Nursery Area (Non-Sensitive);
- Fish Nursery, Muskellunge Nursery Area (Non-Sensitive);
- Fish Nursery, Pumpkin Seed Nursery Area (Non-Sensitive);
- Fish Nursery, Rock Bass Nursery Area (Non-Sensitive);
- Fish Nursery, Smallmouth Nursery Area (Non-Sensitive);
- Fish Nursery, Walleye Nursery Area (Non-Sensitive);
- Fish Nursery, White Sucker Nursery Area (Non-Sensitive);
- Fish Nursery, Yellow Perch Nursery Area (Non-Sensitive);
- Lake (Non-Sensitive);
- Spawning Area, Northern Pike Spawning Area (Non-Sensitive);

- Spawning Area, Walleye Spawning Area (Non-Sensitive);
- Unevaluated Wetland (Not evaluated per Ontario Wetland Evaluation System); and,
- Area of Natural Significance (ANSI), Earth Science, McCarthy Road Quarry (Provincial).

The MNRF indicated that an ANSI, specifically the McCarthy Road Quarry, has been located on or within close proximity to the Site. However, McCarthy Road is located approximately 2.5 kilometers northeast of the Site, and, based on the review of the aerial photographs, any potential quarry located in the vicinity of McCarthy Road did not extend near the Phase One Study Area. As such, this ANSI is not considered to be located within the Phase One Study Area.

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:

- American Eel (END);
- Bank Swallow (THR);
- Barn Swallow (THR);
- Blanding's Turtle (THR);
- Bobolink (THR);
- Butternut (END);
- Chimney Swift (THR);
- Eastern Meadowlark (THR); and,
- Tri-Colored Bat (END).

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 Monarch, the Peregrine Falcon, 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 to establish the status of the Site and to identify outstanding instructions, incident reports, fuel oil spills or contamination records.

My. Ruchi Chohan of the TSSA replied on January 20, 2017 and indicated that the TSSA has a record of three active fuel USTs at 4000 Riverside Drive and one active fuel AST at 300 Hunt Club Road. Part of the property at 300 Hunt Club Road is within the Phase One ESA Study Area at the southeast corner of Riverside Drive and Hunt Club Road but extends further south and east to include the Ottawa Airport, the Ottawa Flying Club and several other commercial facilities. The record of the fuel AST at 300 Hunt Club Road is likely for a fuel AST located beyond the Phase One Study Area at the Ottawa Airport or the Ottawa Flying Club.

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 1945, 1956, 1965, 1975, 1981 and 1985, and from Ecolog ERIS for the year 1930. In addition, the aerial photographs for 1999, 2002, 2005, 2007, 2011 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 1930. The aerial photographs from 1930, 1931, 1945, 1956, 1965, 1975, 1981 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
1930	The southern part of the Site is primarily occupied by two sand and gravel pits. The northern part of the Site is mainly vacant.	**North:** A sand and gravel pit is located on the adjacent property north of the Site (3860 Riverside Drive). Vacant land is present north of this property and a forested area is present on the lands northwest of the Site. **East:** Riverside Drive followed by a golf course. **South:** The sand and gravel pit located on the southernmost portion of the Site extends on the land immediately south of the Site. Another sand and gravel pit is located further south of the Site at the southwest corner of Hunt Club Road and Riverside Drive. A haul road for these two pits is in line with Hunt Club Road. The land southeast of the Site on the east side of Hunt Club Road is primarily vacant. **West:** The on-Site sand and gravel pits slightly extend onto the adjacent land west of the southern part of the Site and the lands northwest of the Site are primarily forested. Beyond these lands is the Rideau River followed by vacant land with some trees.

Year	Site	Surrounding Area
1945	Both sand and gravel pits located on the southern part of the Site have expanded in area and the sand and gravel that was located immediately north of the Site has expanded onto the northernmost portion of the Site. The Site is now primarily occupied by sand and gravel pits.	**North:** Similar to 1930; however, the sand and gravel extraction pit located on the adjacent property north of the Site (3860 Riverside Drive) has expanded and a few haul roads have been construction on the lands north of the pit. **East:** As per 1930. **South:** Similar to 1930. A residential or commercial building is present on the land southeast of the Site. **West:** Similar to 1930. Tree growth is denser northwest of the Site.
1956	Similar to 1945; however, the northernmost sand and gravel pit has again expanded in area.	**North:** Similar to 1930 with the addition of another sand and gravel pit located approximately 180 m north of the Site on the west side of Riverside Drive. This pit extends beyond the Phase One Study Area. **East:** The on-Site sand and gravel pits have been extended onto the lands immediately east of the Site and west of Riverside Drive. The golf course is still present on the east side of Riverside Drive. **South:** As per 1945. **West:** Similar to 1945; however, a few residential houses have been constructed on the west side of the Rideau River.
1965	The sand and gravel pits located on the northern part of the property and immediately north of the Site have merged into one pit. A few erosion channels are apparent from the extraction pit north of the Site to the Rideau River.	**North:** The northern boundary of the sand and gravel pit that extends on the adjacent property at 3860 Riverside Drive is being backfilled. Backfill is also occurring at the northeast corner of this pit, immediately west of Riverside Drive. **East:** As per 1956. **South:** As per 1956. **West:** As per 1956.
1975	Similar to 1965. A dirt road extending west from Riverside Drive intersects the central portion of the Site from east to west and turns to parallel the Rideau River just west of the western Site boundary.	**North:** As per 1965. **East:** As per 1965. **South:** Similar to 1965; however, the sand and gravel pit is partially filled in. **West:** As per 1965.

Year	Site	Surrounding Area
1981	The northwest portion of the Site appears to be partially re-vegetated. The remainder of the Site is used as a sand and gravel pit. Material appears to be stockpiled in the pits prior to shipping.	**North:** The sand and gravel pits that were located north of the Site have been mainly backfilled. Some re-vegetated is visible in these areas. **East:** The majority of the lands east of the Site is not visible in this aerial photograph; however, Riverside Drive is visible immediately east of the Site. **South:** The majority of the lands south of the Site is not visible in this aerial photograph; however, the on-Site sand and gravel pit that extends onto the adjacent lands south of the Site is still in operation. **West:** As per 1975.
1985	The majority of the Site has been backfilled.	**North:** Similar to 1981; however, Kimberwalk Crescent has been constructed and a residential house has been built along it. **East:** As per 1975. **South:** Hunt Club Road has been extended to the west and is located immediately west of the Site. The Hunt Club bridge has also been constructed southwest of the Site. The sand and gravel pit at the southwest corner of Hunt Club Road and Riverside Drive has now been filled in and is partially re-vegetated. A few vehicles and/or construction equipment is present on this land. **West:** As per 1975.
1999 City of Ottawa geomap	Parts of the Site have been re-vegetated. Fill material has been spread over the southeast portion of the Site.	**North:** Similar to 1985; however, the lands to the north of this property at 3960 Riverside Drive are now developed with residential buildings. The lands northwest of the Site are still forested. **East:** The majority of the lands east of the Site is not visible in this aerial photograph; however, Riverside Drive has been realigned and is now located immediately east of the Site. **South:** Similar to 1985. The former sand and gravel pit areas at the southwest corner of the Riverside Drive and Hunt Club Road is now fully re-vegetated and a stormwater management pond is located approximately 200 m south of the Site. The structure located on the southeast corner of Hunt Club Road and Riverside Drive is no longer present. **West:** As per 1985.
2002 City of Ottawa geomap	The majority of the Site is covered will fill material that has recently been spread across the Site and the adjacent property north of the Site (3930 Riverside Drive).	**North:** Similar to 1999; however, fill material has been spread over property immediately north of the Site (3860 Riverside Drive). **East:** As per 1999. **South:** As per 1999. **West:** As per 1999.

Year	Site	Surrounding Area
2005 City of Ottawa geomap	The majority of the Site has been re-vegetated; however, fill material is being spread over the middle part of the Site. There appears to be a bulldozer spreading this material on the Site.	**North:** Similar to 2002. The adjacent property north of the Site is now occupied by a park. **East:** As per 2002. **South:** Similar to 2002 with the addition of a retail fuel outlet located at the southwest corner of Riverside Drive and Hunt Club. It is located approximately 70 m south of the Site at 4000 Riverside Drive. **West:** As per 2002.
2007 City of Ottawa geomap	The majority of the site is revegetated with the exception of a small area on the northeast portion of the Site, just north of the dirt road where fill material appears to have been spread. A tarp with a pile of fill material is also located in this area.	**North:** As per 2005. **East:** As per 2005. **South:** As per 2005. **West:** As per 2005.
2011 City of Ottawa geomap	The Site is now completely vacant, re-vegetated land. A gravel road extending west from Riverside Drive intersects the central portion of the Site from east to west.	**North:** As per 2007. **East:** As per 2007. **South:** Similar to 2007; however, several commercial building have been constructed southeast of Hunt Club Road at Riverside Drive. **West:** As per 2007.
2014 City of Ottawa geomap	Similar to 2011.	**North:** As per 2011 **East:** As per 2011. **South:** As per 2011. **West:** As per 2011.

Based on the aerial photographs, the Phase One Property has been used as a sand and gravel pit with one to three extractions areas since prior to 1930 until sometime between 1981 and 1985 when pits were backfilled. The pits were initially smaller in area and expanded between 1930 and 1945 such that the pits covered the majority of the Site. The sand and gravel pit located on the northern part of the Site was initially located on the adjacent property north of the Site (3860 Riverside Road) and expanded over the years onto the northernmost part of the Site. During its earlier operations, the on-Site sand and gravel pits slightly encroached on the adjacent lands southwest, south and east of the Site. The on-Site pits appear to have been backfilled between 1981 and 2005. By 2005, the majority of the Site had been backfilled and re-vegetated; however, fill material was being spread across the central portion of the Site. The 2007 aerial photograph also shows fill material placed on a tarp and spread across part of the northeast portion of the Site. Given that the 2005 aerial photograph shows equipment spreading fill on the Site, it is likely that the pits formerly located on the Site were fully backfilled and re-vegetated between 2002 and 2005 and that additional fill material was subsequently placed on the Site. By 2011, the Site was re-vegetated and vacant with the exception of a gravel and dirt road that intersects the central portion of the Site from east to west.

The surrounding lands west and northwest of the Site have been primarily occupied by treed or vacant land and the Rideau River since prior to 1930. A few residential houses were constructed on the lands west of the Site and west of the Rideau River between 1945 and 1956. A sand and gravel pit was located on the adjacent property north of the Site (3860 Riverside Road) since 1930 and another pit was constructed further north of this property between 1945 and 1956 and extended beyond the Phase One Study Area. The pit located on the adjacent property north of the Site was backfilled between 1956 and 2005. By 2005 this property was occupied by a park. The sand and gravel pit located further north of this property was backfilled between 1975 and 1981 and this land was subsequently developed with residential buildings.

The adjacent lands east of the Site has been occupied by Riverside Drive and a golf course since prior to 1930. The surrounding lands south of the Site have been used as sand and gravel extraction areas since prior to 1930. The sand and gravel pit that located on the southernmost portion of the Site and extended onto the adjacent lands south of the Site and was present since prior to 1930 until Hunt Club Road was extended onto this land sometime between 1981 and 1985. A second pit was in operation at the southwest corner of Hunt Club Road and Riverside Drive during this time and was subsequently backfill. A retail fuel outlet was constructed at the southwest corner of Hunt Club Road and Riverside Drive between 2002 and 2005. It was located at 4000 Riverside Drive, approximately 70 m south of the Site. The lands at the southeast of Hunt Club Road at Riverside Drive were primarily vacant until sometime between 2005 and 2011 when they became developed with commercial buildings.

The aerial photograph review of the Site and surrounding area (within approximately 250 m) identified fill material that has been placed on the Site and adjacent lands to backfill the former sand and gravel pits. Based on the review of previous environmental reports, some of this fill material has come from the construction of the RMOC headquarters buildings on Elgin Street and from a nearby stormwater management pond; however, the origin of the remaining backfill is unknown. The previous environmental reports also indicate that the construction debris is present within the fill material on the Site and the property located immediately north of the Site. In addition, the aerial photographs indicate that fill material has been placed on the Site since the most recent Phase Two ESA was completed on the Site in 2001. Therefore, the presence of this fill material on the Site and adjacent lands are considered to be PCAs.

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 undulating with an overall slope to the west. The Site consists of very uneven terrain as a result of fill placement on the Site. The greatest change in elevation is at the northeast corner of the Site and the easternmost portion of the Site along Riverside Drive where the land slopes steeply downward from Riverside Drive.	Site and surrounding area observations and Figure 3 – Topographic Map and Areas of Natural Significance
Overburden Soils	The geological mapping indicates that the majority of the Site is underlain by nearshore sediments which consist of fine to medium grained sand with the with the exception of the westernmost portion of the Site which is underlain by alluvial deposits consisting of medium grained stratified sand with some silt. Previous environmental reports and borehole logs included in the Ecolog ERIS report indicate that the surface conditions at the Site consists of fill material underlain by silty sand, sand and silty clay. Fill material on the Site has been encountered at depths ranging from 1.80 mbgs to 14.9 mbgs and is highly variable in composition. Construction debris was reportedly found in the fill material throughout the Site.	Previous environmental reports, Ecolog ERIS report Bélanger, J. R. 2008 Urban Geology of the National Capital Area, Geological Survey of Canada, Open File 5311, 1 DVD.
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 15 and 25 mbgs with the exception of the northeast corner of the Site where the bedrock is expected to be between 10 and 15 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 southwest towards the Rideau River located approximately 40 m southwest of the Site.	Site and surrounding area observations, Previous Environmental Reports, Figure 1 – Key Plan and Figure 3 – Topographic Map and Areas of Natural Significance

Topic	Conditions	Comment / Source
Site Grade Relative to the Adjoining Properties	The Site appears to follow the topography of the area and is below the grade of the surrounding properties east of the Site, above the grade of the surrounding properties west of the Site and generally at grade with the surrounding properties north and south of the Site.	Site and surrounding area observations and Figure 3 – Topographic Map and Areas of Natural Significance
Depth to Groundwater	Based on the September 2001 Phase II ESA, the depth to groundwater at the Site ranges from 4.86 mbgs to 16.17 mbgs. The record of borehole logs included in the Ecolog ERIS report indicate that the groundwater was encountered in two geotechnical boreholes located on the southeast portion of the Site at a depth of 15.3 mbgs and 16.2 mbgs.	September 2001 Phase II ESA and Ecolog ERIS report

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	At the time of the Site visit, fill material overgrown with vegetation observed throughout the majority of the Site. As indicated in the previous environmental reports, several boreholes and test pits were previously completed on the Site between 1994 and 2001. A review of the borehole and test pit logs indicate that fill material is present throughout the Site and ranges from a depth 1.80 mbgs to 14.17 mbgs. The Ecolog ERIS report also indicated that fill material was encountered in two boreholes completed on the Site in August 2001. The fill material varies in composition from sand, silty sand, silty clay, gravel, cobbles and boulders and contains construction debris including asphalt, wood, glass, brick, rubber, concrete, cinders, ash and scrap metals. Based on the May 2001 Phase I and II ESA and information provided by the Site Representative, that some of the fill material that was placed on the Site on and prior to 2001 was sourced from the excavation of a nearby stormwater management pond and the construction of RMOC headquarters building on Elgin Street; however, the source of the remaining fill material is unknown. In addition, the aerial photographs indicate that fill material has been placed on the Site since the most recent Phase Two ESA was completed on the Site in 2001.	Site observations, Site Representative, Ecolog ERIS report and previous environmental reports

3.3.4 Water Bodies and Areas of Natural Significance

Topic	Conditions	Comment / Source
Nearest Open Water Body	The nearest open water body is the Rideau River locations approximately 40 m southweast of 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. However, Natural Heritage features, Species at Risk and Species of Special Concern have been identified by the MNRF to be potentially present on the Site or on the nearby lands.	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)	Four monitoring wells were installed on the Site by Golder during the Phase Two ESA investigations completed in 2001. Two monitoring wells were located on the northwest portion of the Site and two were located on the southeast portion of the Site as shown on Figure 2. All monitoring wells were present on the Site at the time of the Site visit with the exception of one of the wells located on the northwest portion of the Site (monitoring well MW01-2).	Site observations, May 2001 Phase I and II ESA, and 2001 Phase II ESA and Remediation Program
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, three water well were constructed within the Phase One Study Area for domestic purposes. One well was constructed on the golf course property on the surrounding lands east of the Site. It was constructed in June 1958 to a depth of 41.15 mbgs. The other two wells were constructed on the surrounding lands south of the Site, on the west side of the Rideau River. They were completed in March 1950 and November 1963 to depths of to 32.92 mbgs and 31.39 mbgs, respectively. Additional information regarding the water wells is included in the Ecolog ERIS report in Appendix B.	EcoLog ERIS Report

3.4 Site Operating Records

At the time of the Site visit, the Phase One Property was undeveloped. No Site operating records were provided to Golder for review.

4.0 INTERVIEWS

At the time of the Site visit, Golder conducted an interview with Alex Turner of Taggart (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

Alyssa Troke of Golder visited the Site on January 26, 2017. 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 sunny and the temperature was approximately 0°C. At the time of the Site visit, the Site was undeveloped and vacant land with very uneven terrain. The majority of the Site consisted of fill material overgrown with vegetated and was primarily snow covered at the time of the Site visit. A gravel and dirt road extending west from Riverside Drive intersected the central portion of the Site from east to west.

Photographs of relevant features noted during the Site visit are provided in Appendix C.

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**	No buildings or structures were present on the Site.	Site observations and Site Representative
General Descriptions of Each Building (including improvements)	Not applicable.	Site observations and Site Representative
Building Areas	Not applicable.	Site observations
Number of Floors (include all levels, whether above or below ground)	Not applicable.	Site observations
Number, Age, and Depth of Levels Below Ground Level	Not applicable.	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
Underground Utilities **Potable and Non-Potable Water Sources**	The Site is not connected to the municipal water supply. There were no non-potable water sources identified at the Site at the time of the Site visit.	Site observations
Utility Lines Present (i.e., Electrical, Natural Gas, other)	A water line runs beneath the on-Site gravel and dirt road. It extends from a pumphouse located within the treed area immediately west of the Site and crosses under Riverside Drive to the Ottawa Hunt and Golf Club.	Site observations and Previous Environmental Reports

Topic	Observations	Source
Sanitary/Process Wastewater Receptor	No sanitary or process wastewater is generated on-Site.	Site observations
Sanitary Sewer Connection	The Site is not connected to the municipal sanitary sewer.	Site observations
Septic Systems	None identified.	Site observations
Storm Water Flow	Storm water run-off is 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**	No buildings or structures were present on the Site.	Site observations
Existing and Former Heating System(s) (include fuel type / source)	As no buildings or structures were present on the Site, there were no existing heating systems observed or reported.	Site observations
Existing and Former Cooling System(s) (include fuel type / source)	As no buildings or structures were present on the Site, there were no existing cooling systems observed or reported.	Site observations
Drains, Pits, and Sumps (include current use, if any, and former use)	As no buildings or structures were present on the Site, there were no drains, pits, or sumps observed or reported.	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**	Four monitoring wells were installed on the Site by Golder during the Phase Two ESA investigations completed in 2001. Two monitoring wells were located on the northwest portion of the Site and two were located on the southeast portion of the Site. These monitoring wells were present on the Site at the time of the Site visit with the exception of one of the wells located on the northwest portion of the Site.	Site observations, May 2001 Phase I and II ESA, and 2001 Phase II ESA and Remediation Program
Ground Cover (i.e., grass, gravel, soil, or pavement, etc.)	The Site was snow covered at the time of the Site visit but appeared to consist of uneven terrain covered with rough vegetation consisting of tall grass, shrubs and occasional trees with the exception of a gravel and dirt road that intersected the central portion of the Site from east to west.	Site observations
Current or Former Railway Lines or Spurs	None observed or reported.	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.	Site observations

Topic	Observations	Source
Presence of Stressed Vegetation	None observed; however the Site was primarily snow covered at the time of the Site visit.	Site observations
Areas Where Fill and/or Debris Materials Appear to Have Been Placed	Fill material overgrown with vegetation was present across the Site. Based on the review of previous environmental reports and borehole logs included in the Ecolog ERIS report, the fill material contains construction debris. At the time of the Site visit, a few small pieces of metal debris were on the northeast corner of the Site and two concrete blocks were located on the on the eastern portion of the Site, just south of the dirt and gravel road.	Site observations, Ecolog ERIS report, Site Representative, aerial photographs and previous environmental reports
Potentially Contaminating Activity	The presence of fill material of unknown quality and origin on the Site is considered to be an on-Site PCA.	Site observation, Ecolog ERIS report, Site Representative, aerial photographs and previous environmental reports
Unidentified Substances	None identified.	Site observations

5.2.1 Enhanced Investigation Property

The Site is a vacant parcel of land 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.

5.3 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 commercial land uses as well as greenspaces/vacant land, as illustrated on Figure 2.

North: The Uplands Riverside Park located on the adjacent property north of the Site at 3860 Riverside Drive followed by townhouses and single residential houses. A forested area is located northwest of the Site.

East: Riverside Drive followed by a golf course.

South: Hunt Club Road beyond which are multiple commercial buildings south and southeast of the Site including office buildings, restaurants, pubs and a retail fuel outlet. The retail fuel outlet is located approximately 70 m south of the Site at the southwest corner of Riverside Drive and Hunt Club Road (4000 Riverside Drive). A stormwater management pond is also located approximately 200 m south of the Site.

West: A forested area followed by the Rideau River and a few residential houses located on the west side of the Rideau River. A pumphouse was that draws water from the Rideau River for irrigation at the Ottawa Hunt and Golf Club was located within the treed area immediately west of the Site.

5.4 Written Description of Investigation

The Site is located at the northwest corner of Riverside Drive and Hunt Club Road in Ottawa, Ontario. More specifically, the Site is located at 3930 Riverside Drive and the parcel of land located immediately southeast of 3930 Riverside Drive. At the time of the Site reconnaissance, which was conducted on January 26, 2017, the Site consisted of a 14.82 acre parcel of undeveloped and vacant land. The majority of the Site consisted of fill material overgrown with vegetation and was primarily snow covered at the time of the Site visit. The topography of the Site was very undulating as a result of fill material being placed on the Site over several decades. A significant change in elevation was observed on the northeast corner of the Site and along the eastern Site boundary along Riverside Drive where the land slopes steeply downward from Riverside Drive. A gravel and dirt road also intersected the central portion of the Site from east to west. It extended west from Riverside Drive to a pumphouse located within a treed area immediately west of the Site. In addition, a fence was present along the north Site boundary separating the Site from the adjacent park. The surrounding properties within the Phase One Study Area included residential and commercial land uses as well as greenspaces/vacant land.

It was noted during the site visit that a retail fuel outlet was located on the surrounding lands south of the Site at 4000 Riverside Drive; approximately 70 m south of the Site. The presence of this retail fuel outlet is considered to be an off-Site PCA. As previously discussed, construction debris is present in the fill material located on the Site and fill material of unknown original and quality has been placed on the Site since the most recent Phase Two ESA investigation in 2001. As such, the current presence of this fill material on the Site is an on-Site PCA.

6.0 REVIEW AND EVALUATION OF INFORMATION

6.1 Current and Past Uses of the 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 1911	The northwest portion of the Site was owned by private individuals prior to 1911 and from then on by commercial and/or industrial interests. The name of owners of the southeast portion of the Site is unknown.	Undeveloped	Agricultural or other use	The first use of the Site was determined to be a sand and gravel pit between 1911 and 1930. No information was available to determine the use of the Site prior to a sand a gravel pit; however, based on the age and location of the Site and the surrounding land uses, the Site likely consisted of undeveloped, vacant land.

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.
1911 to 1981	The northwest portion of the Site was owned by commercial and/or industrial interests. The name of owners of the southeast portion of the Site is unknown.	Sand and gravel pit	Industrial	The City of Ottawa HLUI indicates that a sand and gravel pit began operation on the Site in 1912 and aerial photographs reviewed between 1930 and 1981 show that the Site was used for a sand and gravel pit. The City of Ottawa HLUI indicated that the sand and gravel pit was in operation at the Site between 1912 and 1967; however, based on the review of the aerial photographs, the sand and gravel pits were present on the Site until the 1980's when they began being backfilled.
1981 to 2005	The northwest portion of the Site was owned by commercial and/or industrial interests. The name of owners of the southeast portion of the Site is unknown.	The sand and gravel pits located on the Site are being backfilled.	Industrial	Based on the review of previous environmental reports and the 1985, 1999 and 2002 aerial photographs, backfilling of the former sand and gravel pits on the Site began sometime between 1980 and 1985 and continued until sometime between 2001 and 2005. In addition, the May 2001 Phase I and II ESA indicates that approximately 120,000 m^3 of backfill was placed on the Site between December 2000 and March 2001. This material is visible on the Site in the 2002 aerial photograph which shows that the fill material has been spread across the Site and the adjacent property north of the Site (3930 Riverside Drive).
2005 to 2011	The northwest portion of the Site was owned by commercial and/or industrial interests. The name of owners of the southeast portion of the Site is unknown.	Vacant	Agricultural or other use	The 2005 aerial photograph shows that the majority of the Site has been re-vegetated; however, a bulldozer is spreading fill material over the central part of the Site. Fill material also appears to be present on a small area of the eastern portion of the Site in the 2007 aerial photograph.

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.
2011 to Present (2016)	The Site is currently owned by St. Mary's Land Corporation. The northwest portion of the Site was previously owned by commercial and/or industrial interests; however, the name of owners of the southeast portion of the Site is unknown.	Vacant	Agricultural or other use	The 2011 and 2014 aerial photograph shows that the Site is completely vacant, re-vegetated land. At the time of the Site visit, the Site was undeveloped, vacant land. In addition, the Site Representative indicated that the Site is currently owned by St. Mary's Land Corporation.

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 Property and Phase One Study Area	**#30. Importation of Fill Material of Unknown Quality** – Fill material of unknown quality and origin has been used to backfill the sand and gravel pits formerly located on the Site and adjacent lands north, east, south and southwest of the Site. This fill material reportedly contains construction debris.	Previous Environmental Reports, Ecolog ERIS Report, Site Representative, aerial photographs and Site observations	Previously, some of the fill was found to have been impacted with petroleum hydrocarbons (PHC) and electrical conductivity (EC). Although the hydrocarbon impacted fill was remediated, groundwater testing was never completed in that location and the fill with elevated electrical conductivity remains. In addition more fill material of unknown quality and origin has been placed on the Site since the most recent 2001 investigations. As such, the presence of the fill material on the Site and adjacent lands is considered to be a PCA that will result in an APEC on the Site.
	#28. Gasoline and Associated Products Storage in Fixed Tanks – Current presence of retail fuel outlet with three associated fuel USTs located approximately 70 m south of the Site at 4000 Riverside Drive.	Site observations, TSSA, aerial photographs, Ecolog ERIS Report	Given the distance and amount of infrastructure between the Site and this facility and that this facility is located hydraulically cross-gradient with respect to the Site, it is not considered to be a PCA that will result in an APEC on the Site.

6.3 Areas of Potential Environmental Concern

The following table summarizes the findings of the Phase One ESA based on the available information. Figure 2 indicates the location of identified APECs.

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-Site or off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or Sediment)
APEC 1 - Potential for subsurface impacts due to the presence of fill material on the Site and adjacent lands.	Site-wide.	Fill material of unknown quality and origin is present Site-wide and adjacent to the Site.	On-Site and off-Site	PHC F1 to F4, BTEX, PAHs, EC and metals	Soil and Groundwater

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: Drift Thickness, Figure 6: Bedrock Geology, 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:

- At the time of the Site visit, which was conducted on January 26, 2017, the Site consisted of an approximately 14.82 acre (0.40 hectare) parcel of undeveloped and vacant land. The majority of the Site consisted of fill material overgrown with vegetated and was primarily snow covered at the time of the Site visit. A gravel and dirt road extending west from Riverside Drive intersected the central portion of the Site from east to west.

- Fill material overgrown with vegetation is present throughout the Site. Backfilling of the former sand and gravel pits on the Site began sometime between 1980 and 1985 and continued until sometime between 2001 and 2005. By 2005, the majority of the Site had been backfilled and re-vegetated; however, fill material was present on the central portion of the Site in the 2005 aerial photograph and on a small area on the eastern portion of the Site in the 2007 aerial photograph. Based on the review of previous environmental reports and the Ecolog ERIS report, construction debris is present within the fill material and there is a potential for the fill material to contain contaminants at a concentrations above the current applicable site standard.
- Four monitoring wells were installed on the Site by Golder during the Phase Two ESA investigations completed in 2001. Two monitoring wells were located on the northwest portion of the Site and two were located on the southeast portion of the Site. These monitoring wells were present on the Site at the time of the Site visit with the exception of one of the wells which was located on the northwest portion of the Site near the western Site boundary.
- The nearest water body is the Rideau River located approximately 40 m southwest of 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. However, Natural Heritage features, Species at Risk and Species of Special Concern have been identified by the MNRF to be potentially present on the Site or on the nearby lands.
- At the time of the Phase One ESA, the surrounding properties within the Phase One Study Area were comprised of residential and commercial land uses or were vacant land.
- The only roads located within the Phase One Study Area at the time of the Site visit were Riverside Drive, Hunt Club Road, Kimberwalk Crescent and Chancellor Court.
- Soils and the Site consist of fill material underlain by silty sand, sand and silty clay and bedrock at the Site is of the Oxford Formation (dolostone, minor shale and sandstone).
- Groundwater is anticipated to flow southwest towards the Rideau River located approximately 40 m southwest of the Site.
- The PCAs that may have resulted in an APEC on the Site are presented in Section 6.2 in of this report.

6.4.1 Uncertainty and Absence of Information

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

Based on the findings of the Phase One ESA, further investigation in the form of Phase Two ESA is required at the Site in order to assess the potential for soil quality impacts related to the one APEC identified on the Site.

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

Given that the most recent land use of the Phase One Property is considered to be industrial as it was used as a sand and gravel pit and that the Phase One Property is to be redeveloped with a residential and commercial buildings, there will be a change in the land use from less sensitive to more sensitive. As such, there is a mandatory requirement for a 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)	1945, 1956, 1965, 1975, 1981 and 1985
Aerial Photographs – Ecolog ERIS	1930
Aerial Photograph Images – geoOttawa (http://maps.ottawa.ca/geoOttawa/)	1999, 2002, 2005, 2007, 2011 and 2014
EcoLog ERIS report	January 24, 2017
Ontario Ministry of the Environment and Climate Change	January 24, 2017
City of Ottawa	February 16, 2017
Ministry of Natural Resources and Forestry	July 18, 2017
Technical Standards and Safety Authority	January 20, 2017

9.0 LIMITATIONS AND USE OF REPORT

This report (the "Report") was prepared for the exclusive use of Taggart Realty Management 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.

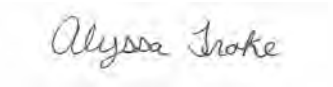
10.0 STATEMENT OF COMPLETION

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.

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.

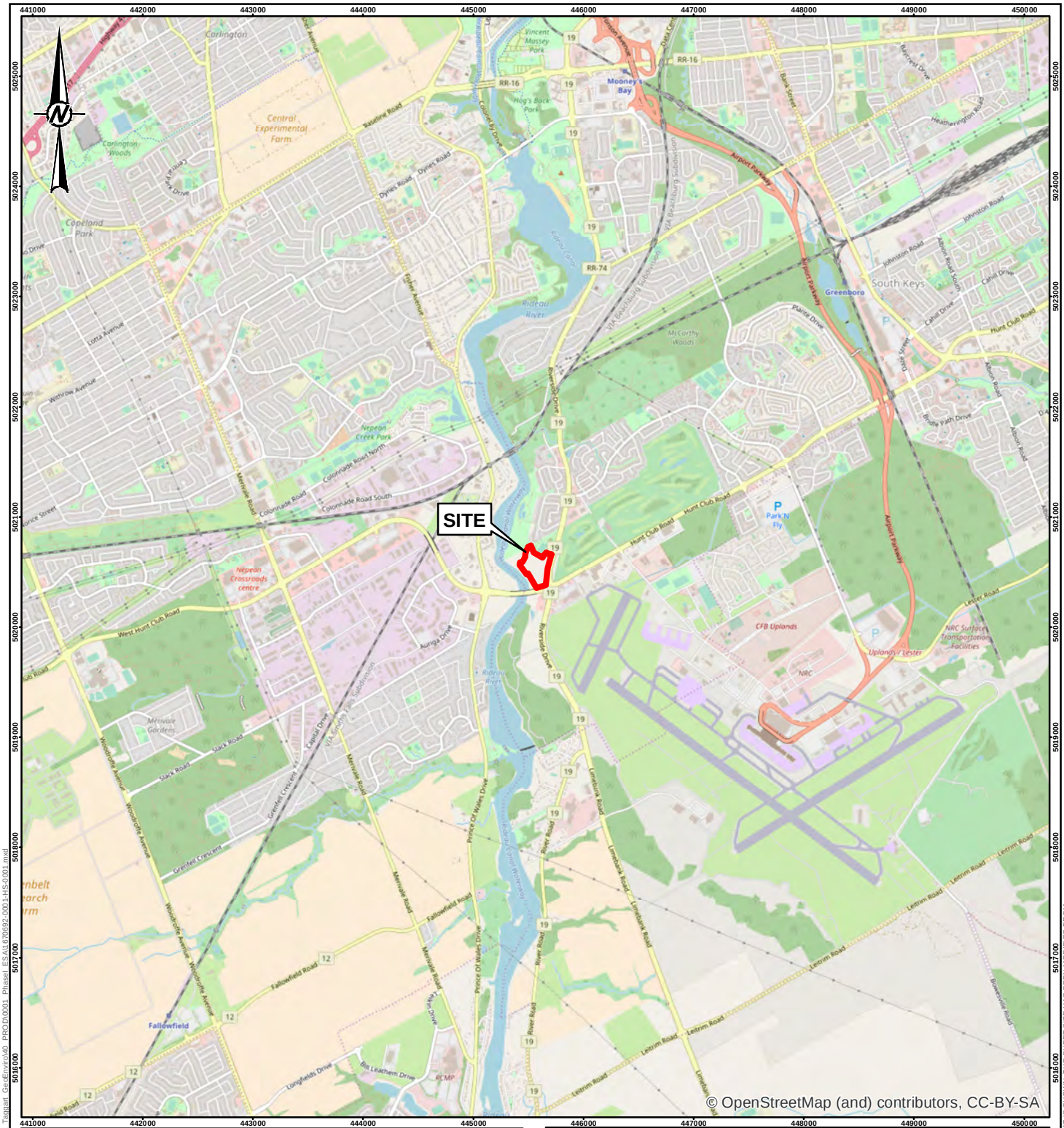


Alyssa Troke, B.Sc., E.I.T.
Environmental Consultant

Keith Holmes, M.Sc., P.Geo.
Geoscientist/Associate

AT/KPH/md
\\golder.gds\gal\ottawa\active\2016\3 proj\1670692 taggart riverside &hunt club ottawa\08_reports\phase i esa\final report\1670692 - phase i esa - 3930 riverside south.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. 1670692.

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: UTM ZONE 18 VERTICAL DATUM: CGVD28

CLIENT

TAGGART REALTY MANAGEMENT

PROJECT

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
AND HUNT CLUB ROAD, OTTAWA, ONTARIO

TITLE

KEY PLAN

CONSULTANT

Golder Associates

YYYY-MM-DD	2017-01-23
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	FIGURE
1670692	0001	0	1

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

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LEGEND

- EXISTING MONITORING WELL LOCATION OBSERVED DURING THE PHASE ONE ESA SITE VISIT
- EXISTING MONITORING WELL LOCATION NOT OBSERVED DURING THE PHASE ONE ESA SITE VISIT
- ROADWAY
- PHASE ONE SITE
- PHASE ONE STUDY AREA
- LOCATION OF PCA 1
- APEC 1 (SITE-WIDE)
- APPROXIMATE LIMIT OF FORMER REMEDIATION

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1670692.

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: UTM ZONE 18, VERTICAL DATUM: CGVD28

Areas of Potential Environmental Concern ("APEC")

APEC #	Detail	PCA #
1	Importation of Fill Material of Unknown Quality	30

Potentially Contaminating Activity ("PCA")

Location	Detail	PCA #
1 (see legend)	Importation of Fill Material of Unknown Quality – Fill material of unknown quality and origin has been used to backfill the sand and gravel pits formerly located on the Site and adjacent lands north, east, south and southwest of the Site. This fill material reportedly contains construction debris.	30
2	Gasoline and Associated Products Storage in Fixed Tanks – Currently presence of a retail fuel outlet with three associated fuel USTs located on apperoximately 70 m south of the Site at 4000 Riverside Drive.	28

0 35 70 140

1:3,500 METRES

CLIENT
TAGGART REALTY MANAGEMENT

PROJECT
PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
AND HUNT CLUB ROAD, OTTAWA, ONTARIO

TITLE
SITE PLAN

CONSULTANT
Golder Associates

YYYY-MM-DD	2017-01-20
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	FIGURE
1670692	0001	0	**2**

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

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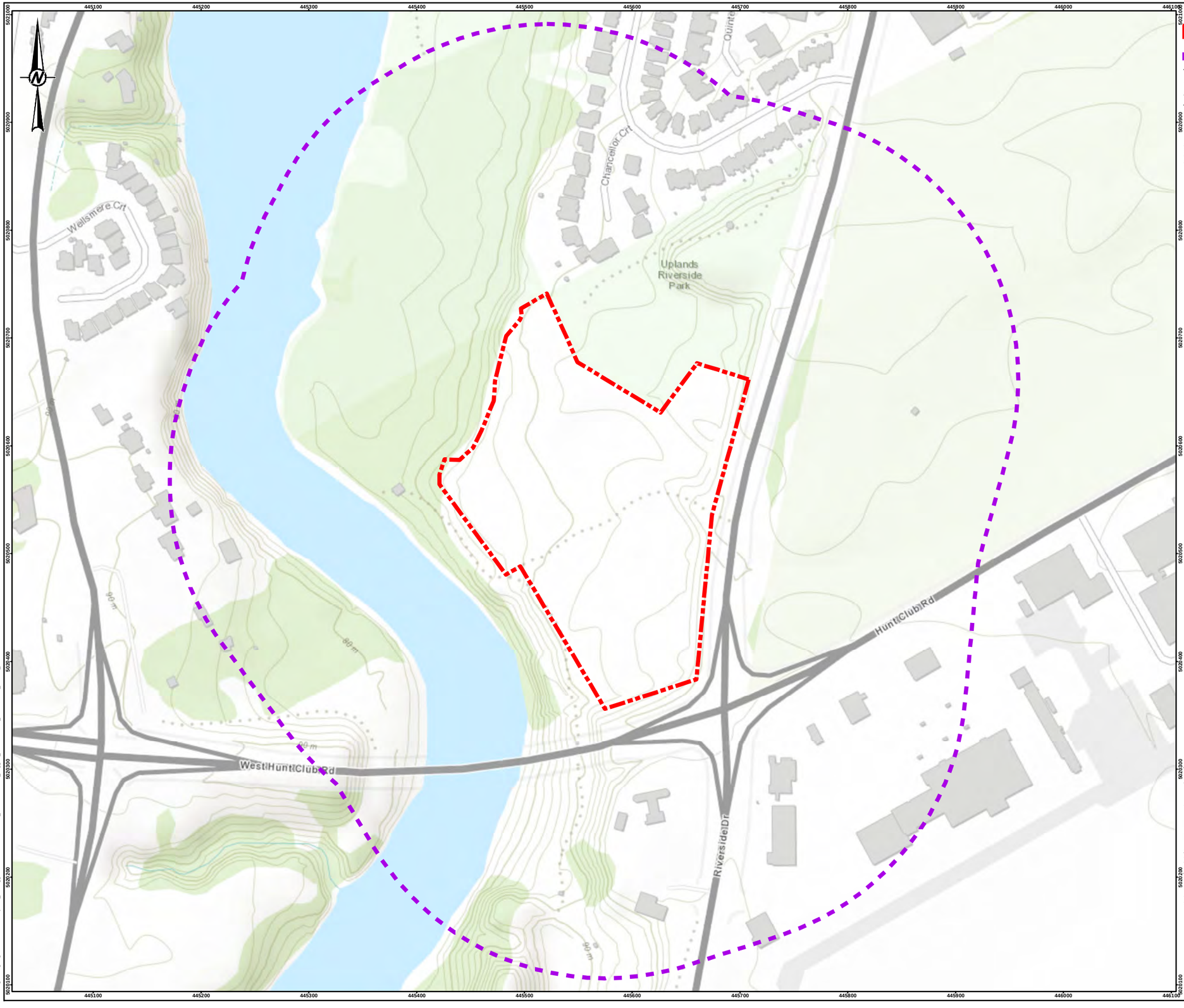

LEGEND

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. 1670692.

REFERENCE(S)

1. SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, GARMIN, INTERMAP, INCREMENT P CORP., GEBCO, USGS, FAO, NPS, NRCAN, GEOBASE, IGN, KADASTER NL, ORDNANCE SURVEY, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), SWISSTOPO, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 18, VERTICAL DATUM: CGVD28

0 35 70 140

1:3,500 METRES

CLIENT

TAGGART REALTY MANAGEMENT

PROJECT

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
AND HUNT CLUB ROAD, OTTAWA, ONTARIO

TITLE

TOPOGRAPHIC MAP AND AREAS OF NATURAL SIGNIFICANCE

CONSULTANT

Golder Associates

YYYY-MM-DD	2017-01-20
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	FIGURE
1670692	0001	0	**3**

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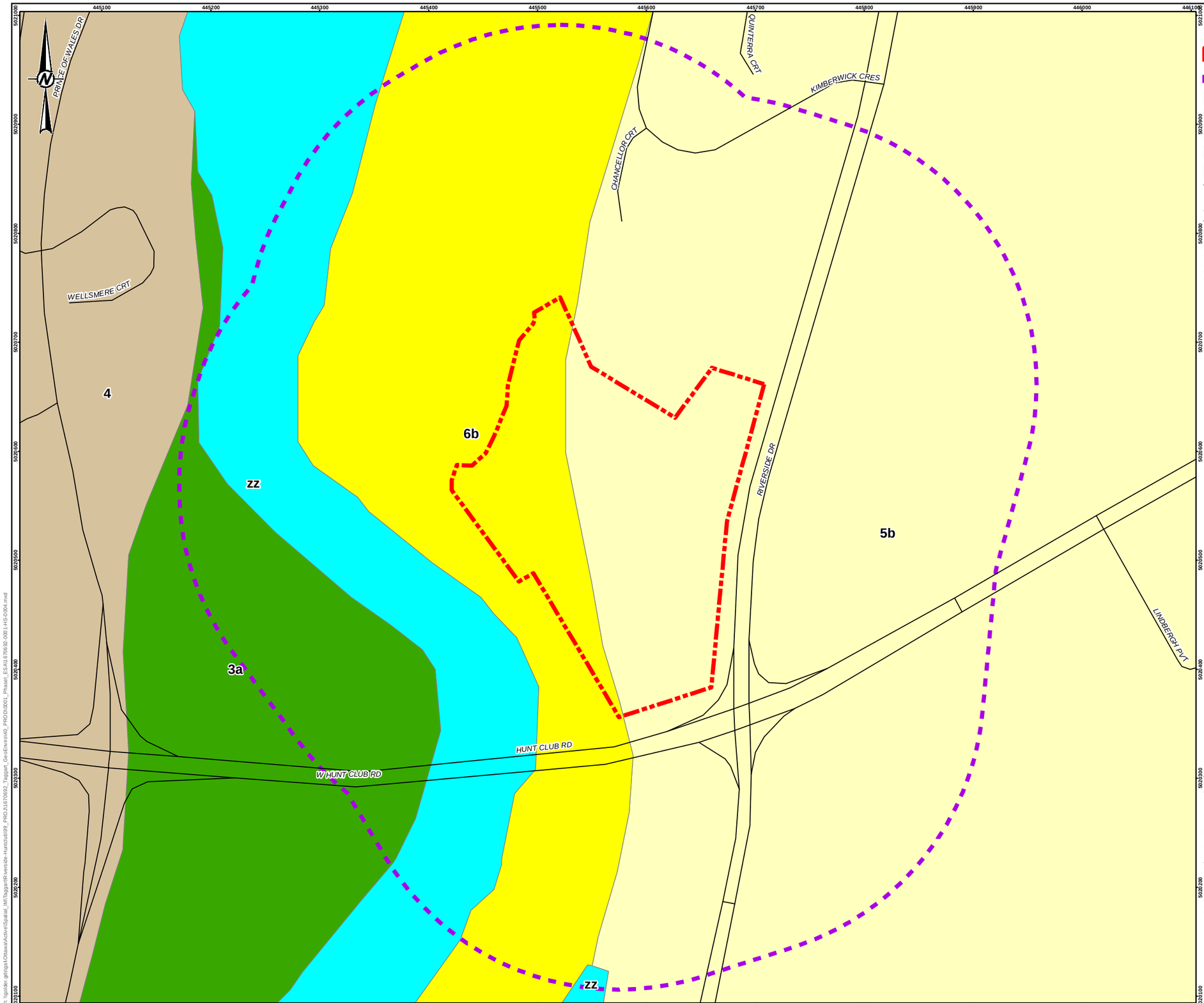

LEGEND

- ROADWAY
- PHASE ONE SITE
- PHASE ONE STUDY AREA
- 6b: ALLUVIAL DEPOSITS: MEDIUM GRAINED STRATIFIED SAND WITH SOME SILT
- 5b: NEARSHORE SEDIMENTS: FINE TO MEDIUM GRAINED SAND
- 4. DELTAIC AND ESTUARY DEPOSITS: MEDIUM TO FINE GRAINED SAND
- 3a. OFFSHORE MARINE DEPOSITS: CLAY, SILT UNDERLYING EROSIONAL TERRACES
- zz. WATERBODY

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1670692.

REFERENCE(S)

1. BÉLANGER, J. R. 2008 URBAN GEOLOGY OF THE NATIONAL CAPITAL AREA, GEOLOGICAL SURVEY OF CANADA, OPEN FILE 5311, 1 DVD.
2. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83,
COORDINATE SYSTEM: UTM ZONE 18, VERTICAL DATUM: CGVD28

0 35 70 140
1:3,500 METRES

CLIENT
TAGGART REALTY MANAGEMENT

PROJECT
PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
AND HUNT CLUB ROAD, OTTAWA, ONTARIO

TITLE
SURFICIAL GEOLOGY

CONSULTANT
Golder Associates

YYYY-MM-DD	2017-01-20
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	FIGURE
1670692	0001	0	4

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. 1670692.

REFERENCE(S)

1. 2010 BÉLANGER, J. R., URBAN GEOLOGY OF THE NATIONAL CAPITAL AREA, GEOLOGICAL SURVEY OF CANADA, OPEN FILE D3256, 2001
2. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 18, VERTICAL DATUM: CGVD28

0 35 70 140

1:3,500 METRES

CLIENT

TAGGART REALTY MANAGEMENT

PROJECT

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
AND HUNT CLUB ROAD, OTTAWA, ONTARIO

TITLE

DRIFT THICKNESS

CONSULTANT

Golder Associates

YYYY-MM-DD	2017-01-20
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	FIGURE
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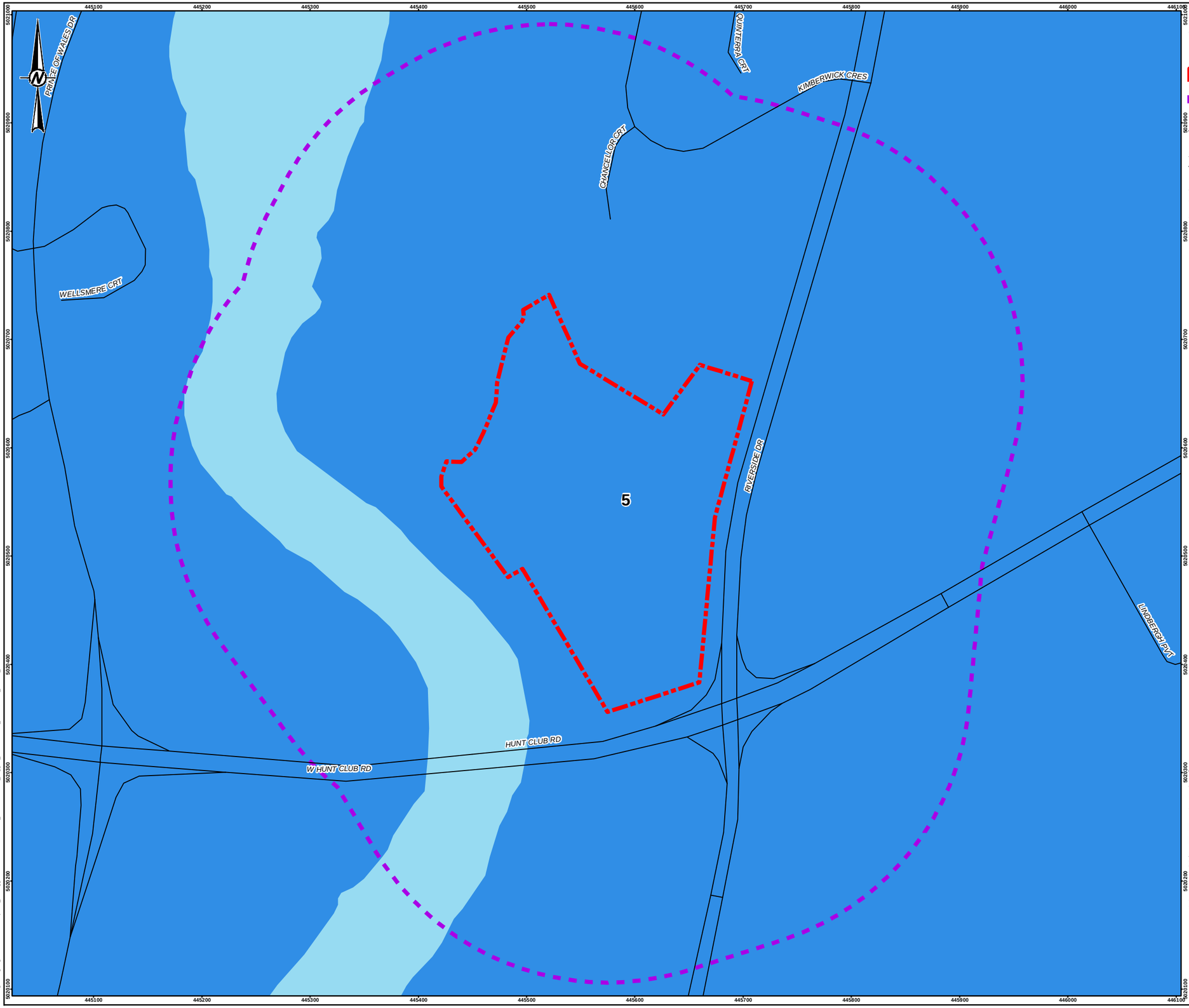

LEGEND

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

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1670692.

REFERENCE(S)

1. ARMSTRONG, D.K. AND DODGE, J.E.P. 2007. PALEOZOIC GEOLOGY OF SOUTHERN ONTARIO; ONTARIO GEOLOGICAL SURVEY, MISCELLANEOUS RELEASE--DATA 219
2. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 18, VERTICAL DATUM: CGVD28

0 35 70 140
1:3,500 METRES

CLIENT
TAGGART REALTY MANAGEMENT

PROJECT
PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
AND HUNT CLUB ROAD, OTTAWA, ONTARIO

TITLE
BEDROCK GEOLOGY

CONSULTANT
Golder Associates

YYYY-MM-DD	2017-01-20
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	FIGURE
1670692	0001	0	**6**

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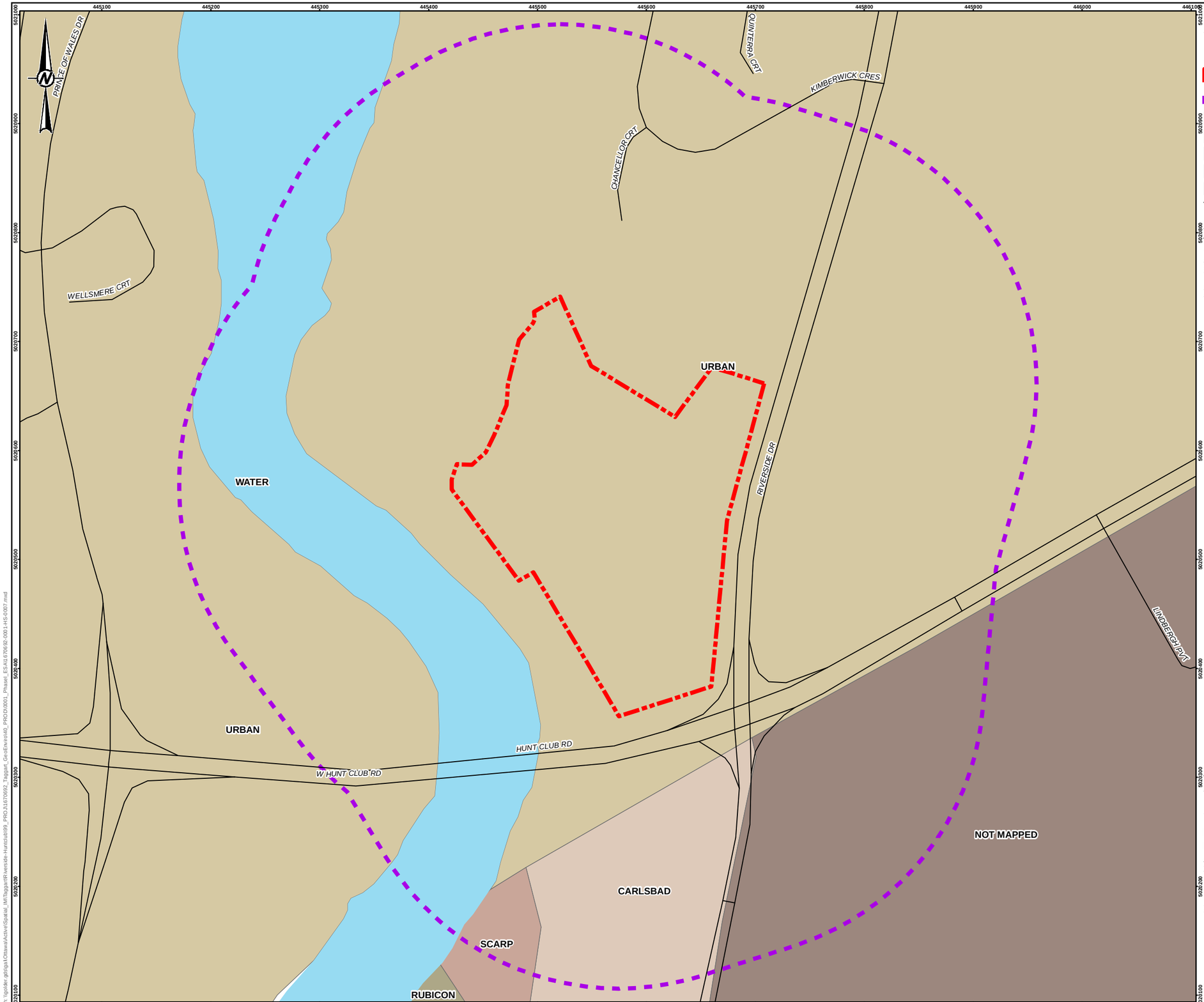


LEGEND

- ROADWAY
- WATERBODY
- PHASE ONE SITE
- PHASE ONE STUDY AREA
- CARLSBAD
- NOT MAPPED
- RUBICON
- SCARP
- URBAN

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1670692.

REFERENCE(S)

1. ARMSTRONG, D.K. AND DODGE, J.E.P. 2007. PALEOZOIC GEOLOGY OF SOUTHERN ONTARIO; ONTARIO GEOLOGICAL SURVEY, MISCELLANEOUS RELEASE--DATA 219
2. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83,
COORDINATE SYSTEM: UTM ZONE 18, VERTICAL DATUM: CGVD28

0 35 70 140

1:3,500 METRES

CLIENT
TAGGART REALTY MANAGEMENT

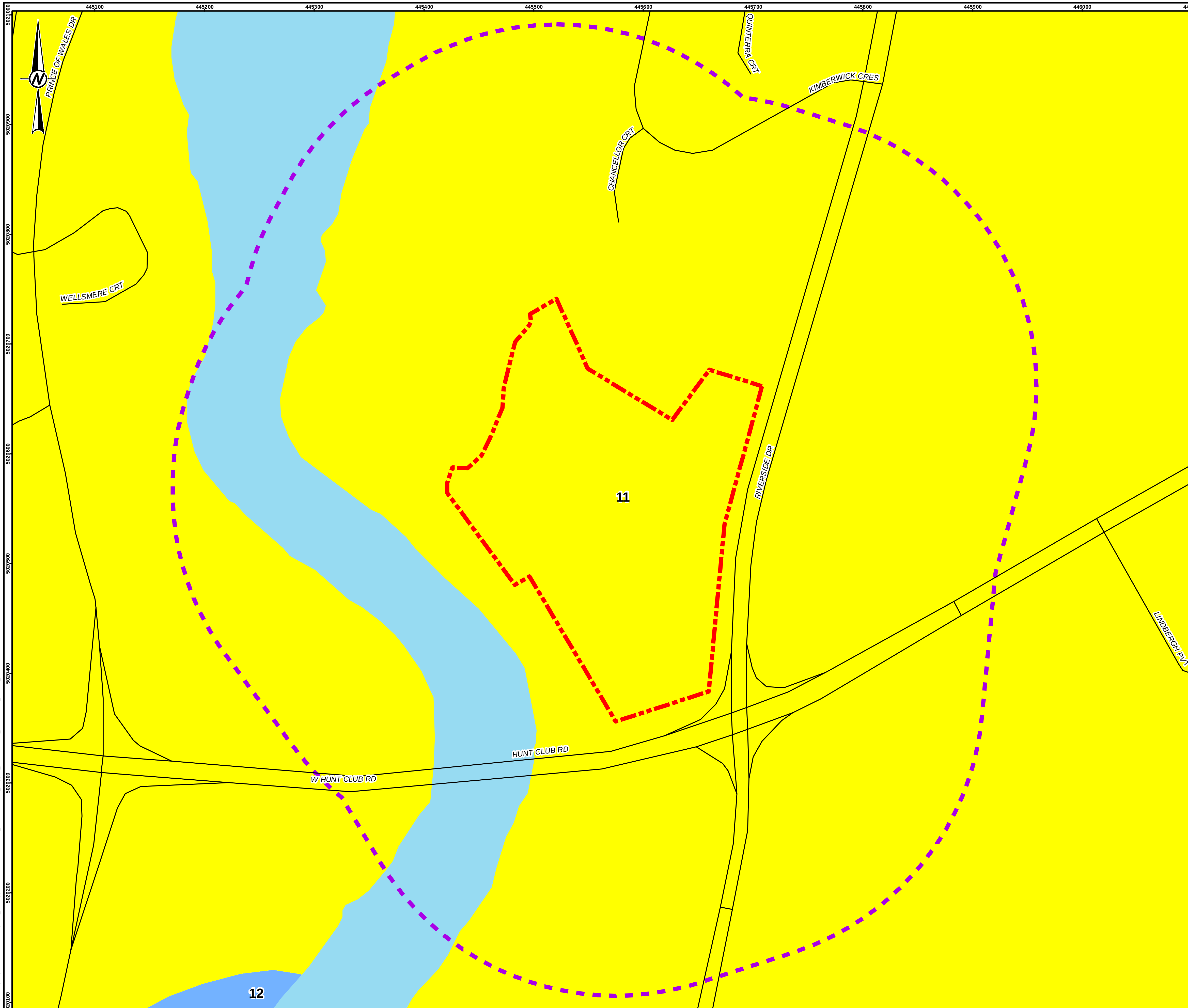
PROJECT
PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
AND HUNT CLUB ROAD, OTTAWA, ONTARIO

TITLE
SOIL SURVEY COMPLEX (ONTARIO SOILS)

CONSULTANT
Golder Associates

YYYY-MM-DD	2017-01-20
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	FIGURE
1670692	0001	0	**7**



LEGEND

- ROADWAY
- WATERBODY
- PHASE ONE SITE
- PHASE ONE STUDY AREA
- 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. 1670692.

REFERENCE(S)

1. CHAPMAN, L.J. AND PUTNAM, D.F. 2007. PHYSIOGRAPHY OF SOUTHERN ONTARIO; ONTARIO GEOLOGICAL SURVEY, MISCELLANEOUS RELEASE-DATA 228
2. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 18, VERTICAL DATUM: CGVD28

0 35 70 140

1:3,500 METRES

CLIENT

TAGGART REALTY MANAGEMENT

PROJECT

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
AND HUNT CLUB ROAD, OTTAWA, ONTARIO

TITLE

PHYSIOGRAPHY MAP

CONSULTANT

Golder Associates

YYYY-MM-DD	2017-01-20
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	FIGURE
1670692	0001	0	8

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

Path: \\golder.gds\gal\Ottawa\Active\Spatial_IM\Taggart\Riverside-Huntclub\99_PROJ\1670692_Taggart_GeoEnviro\40_PROD\0001_PhaseI_ESA\1670692-0001-HS-0008.mxd

APPENDIX A

Regulatory Responses

From: Troke, Alyssa
Sent: Thursday, January 19, 2017 2:12 PM
To: Desaulniers-Veilleux, Johanne (MOECC)
Subject: Property Information Request for Part of Lot 5, Concession 2, Ottawa, Ontario
Attachments: Map.pdf

Hi Johanne,

Could you please check for approvals and orders for the property identified below? For your reference I have attached a site plan showing the location of the site.

- Part of Lot 5, Concession 2 (Rideau Front) in the Township of Gloucester, now the City of 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

Golder Associates

FACSIMILE

DATE January 25, 2017 **PROJECT No.** 1670692

TO City of Ottawa
Development Approvals Division

TOTAL PAGES 6 (Including cover sheet)

FROM Alyssa Troke **EMAIL** alyssa_troke@golder.com

RE: INFORMATION REQUEST – PHASE I ENVIRONMENTAL SITE ASSESSMENT FOR PART OF LOT 5, CONCESSION 2, OTTAWA, ONTARIO

To whom it may concern,

We are in the process of preparing a Phase I Environmental Site Assessment for the above noted property and are requesting that the City provide information from their files with respect to this property.

As per your requirements we have included the Request for Information – Phase I Environmental Site Assessment form, a disclaimer form, property owner authorization and key plan.

The information that we are requesting includes, but is not limited to, the following:

- Active Orders under the Environmental Protection Act (EPA), the Ontario Water Resources Act (OWRA), and the Pesticides Act (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 dumpsites on or in proximity to the property
- Any other environmental information

Golder Associates Ltd.
1931 Robertson Road, Ottawa, Ontario, Canada K2H 5B7
Tel: +1 (613) 592 9600 Fax: +1 (613) 592 9601 www.golder.com

Golder Associates: Operations in Africa, Asia, Australasia, Europe, North America and South America

Your usual prompt attention to this matter is appreciated. Should you have any questions please contact our office.

GOLDER ASSOCIATES LTD.

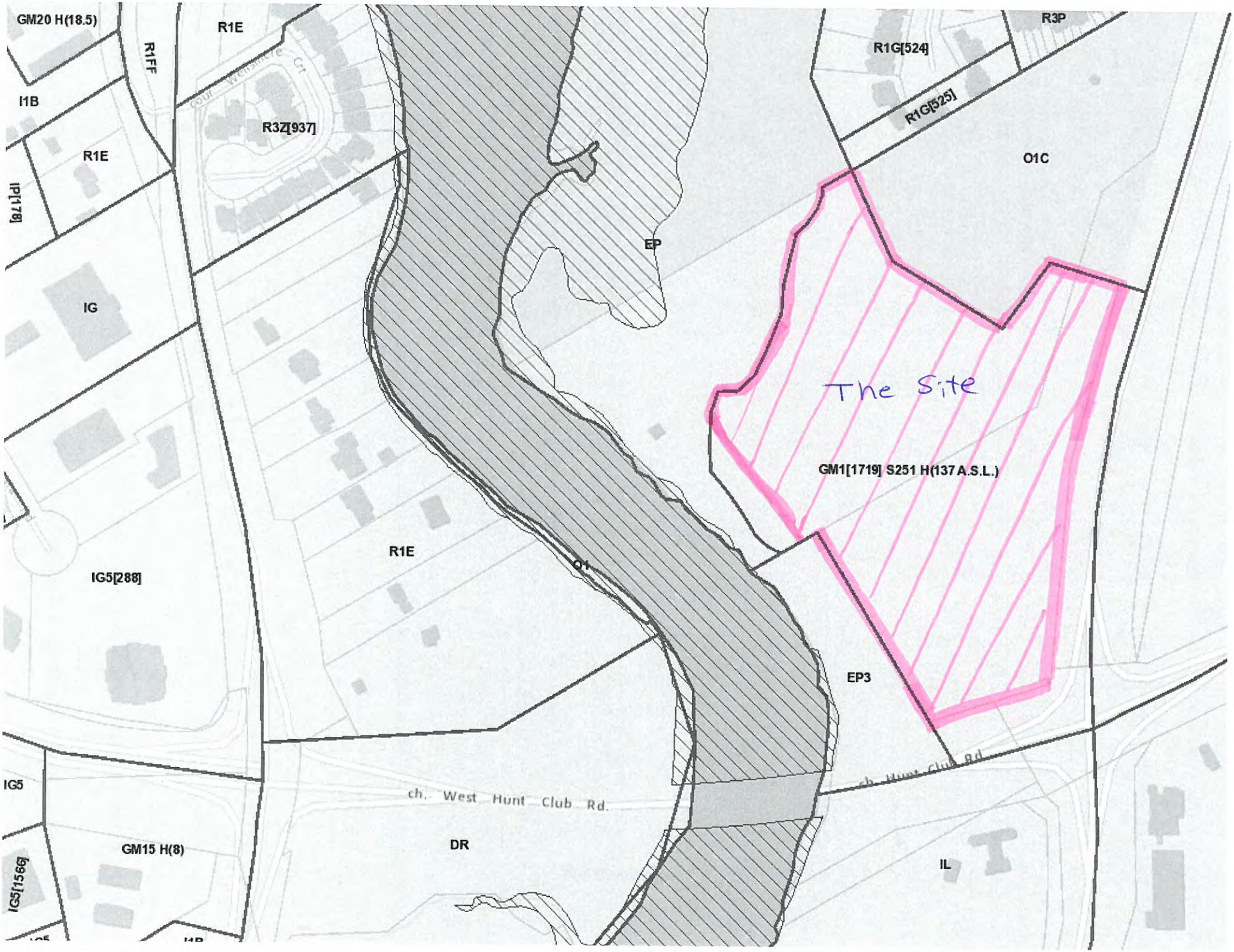
Alyssa Troke

Alyssa Troke
Environmental Consultant

AT

Hard copy to follow by mail: ☐ Yes ☑ No

c:\users\awhiteduck\desktop\1670692 - 3930 riverside south phase i esa\reg requests\city of ottawa request.docx


GM20 H(18.5)
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R1E
I1B
R1E
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IP[178]
IG
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IG5[288]
IG5
GM15 H(8)
IG5[1566]
EP
R1G[524]
R3P
R1G[525]
O1C
The Site
GM1[1719] S251 H(137 A.S.L.)
O1
EP3
ch. West Hunt Club Rd.
DR
IL

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. 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".

3. 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 to be provided by the City to the Requester is provided on the assumption that no person shall rely on it without undertaking independent verification of it for any purpose whatsoever and all liability to any such person is denied.

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: January 25, 2017

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

CONFIDENTIAL

File No.: 1670692
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: Part Lot 5 Concession: 2 (Rideau Front)
Street: N/A City/Town: Ottawa
Postal Code:
e) Legal Plan Attached: Yes ( ) No (X)
f) Site Owner: Taggart Realty Management
g) Adjacent Property Owners:
h)
i) Date of Ownership:
Previous Owner(s):
j) Type of Site: (X) vacant, ( ) 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)

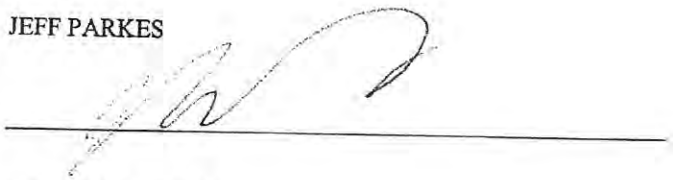
This form has been prepared by Golder Associates, for client use, with regard to submissions to the City of Ottawa ("City") for environmental related information on the property noted below. It will be used by Golder Associates, who have been retained to carry out a Phase I Environmental Site Assessment.

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	3930 Riverside Drive, Ottawa, ON and an adjacent parcel without address (see diagram below).
Legal Description	PIN 040530578: PART OF LOT 5, CONCESSION 2 R.F., GLOUCESTER, BEING PTS 1, 2, 3, 4 ON 4R-7577 SAVE AND EXCEPT PTS 1, 2, 3 ON 4R-17317 ; S/T OT39058 ; OTTAWA ; SUBJECT TO AN EASEMENT IN FAVOUR OF FIRSTLY : PART OF LOTS 4 AND 5, CONCESSION 2, GLOUCESTER (RIDEAU FRONT) BEING PARTS 4 TO 8 ON 5R-13582, EXCEPT PARTS 2 TO 10 ON 5R-13673 AND SECONDLY : PART OF LOT 5, CONCESSION 2, GLOUCESTER (RIDEAU FRONT) BEING PARTS 1 TO 3 ON 5R-13582 EXCEPT PART 2 ON 4R-14569 AND THIRDLY : PART OF RIVERSIDE DRIVE BEING A FORCED ROAD (CLOSED) BEING PART OF LOT 5, CONCESSION 2, GLOUCESTER (RIDEAU FRONT) BEING PARTS 4 TO 13 ON 5R-12390 AND FOURTHLY : PART OF LOT 5, CONCESSION 2, GLOUCESTER (RIDEAU FRONT) BEING PARTS 2 AND 3 ON 5R-13673 AND PARTS 1 AND 2 ON 5R-8445 AND FIFTHLY : PART OF BOWESVILLE ROAD, (CLOSED) BEING PART OF LOTS 4 AND 5, CONCESSION 2, GLOUCESTER (RIDEAU FRONT) BEING PARTS 1 AND 2 ON 5R-12249 AND PART 1 ON 4R-11061 EXCEPT PART 1 ON 4R-14569 OVER PARTS 1 AND 8 ON 4R-21548 AS IN OC689199 PIN 040530608: PART OF LOT 5 CONCESSION 2, RIDEAU FRONT (GLOUCESTER) BEING PARTS 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 AND 16 PLAN 4R17317SUBJECT TO AN EASEMENT I N FAVOUR OF ENBRIDGE GAS DISTRIBUTION I NC, OVER PARTS 12 AND 15 ON PLAN 4R17317 AS IN OC109043; SUBJECT TO AN EASEMENT IN FAVOUR OF HER MAJESTY THE QUEEN OVER PARTS 5 AND 8 ON PLAN 4R17317 AS IN OT39058. SUBJECT TO AN EASEMENT IN FAVOUR OF FIRSTLY; PART OF LOTS 4 AND 5, CONCESSION 2 GLOUCESTER {RIDEAU FRONT) BEING PARTS 4 TO 8 ON SR13582, EXCEPT PARTS 2 TO 10 ON 5R13673 AND SECONDLY; PART OF LOT 5 CONCESSION 2 GLOUCESTER {RIDEAU FRONT) BEI NG PARTS 1 TO 3 ON 5R13582 EXCEPT PART 2 ON 4R14569 AND THIRDLY; PART OF RIVERSIDE DRIVE BEING A FORCED ROAD (CLOSED) BEING PART OF LOT 5 CONCESSION 2 GLOUCESTER (RIDEAU FRONT) BEING PARTS 4 TO 13 ON 5R12390 AND FOURTHLY; PART OF LOT 5 CONCESS ION 2, GLOUCESTER (RIDEAU FRONT) BEING PARTS 2 AND 3 ON SR13673 AND PARTS 1 AND 2 ON SR8445 AND FIFTHLY; PART OF BOWESVILLE ROAD, (CLOSED) BEING PART OF LOTS 4 AND 5 CONCESSION 2, GLOUCESTER (RIDEAU FRONT) BEING PARTS 1 AND 2 ON 5R12249 AND PART 1 ON 4R1 1061 EXCEPT PART 1 ON 4R14569 OVER PARTS 2 TO 7 ON 4R21548 AS IN OC689199

Property Contact Information:

Owner	ST. MARY'S LANDS CORPORATION
Phone Number	613-234-7000 x235
Fax Number	613-235-8910
Owner Representative	JEFF PARKES
Owner Representative Signature	
Date	JANUARY 20, 2017

File Number: D06-03-17-0006

February 16, 2017

Alyssa Troke
Golder Associates Ltd.
1931 Roberston Road
Ottawa, ON K2L 4G1

Sent via email [atroke@golder.com]

Dear Ms. Troke,

Re: Information Request
3930 Riverside Drive and adjacent, Ottawa, Ontario ("Subject Properties")

Internal Department Circulation

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

- No information on the Subject Properties was returned from the internal department circulation.

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 Properties.

A search of the HLUI database revealed the following information:

- There is one (1) activity associated with the Subject Properties: Activity Number 14510.

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

- There is one (1) activity associated with properties located within 50m of the Subject Properties: Activity Number 14510.

City of Ottawa
Planning, Infrastructure and Economic Development Department

110 Laurier Avenue West, 4th Floor
Ottawa, ON K1P 1J1
Tel: (613) 580-2424 ext. 24856
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. 24856
Téléc: (613) 560-6006
www.ottawa.ca

A site map has been included to show the location of the Subject Properties as well as the location of all the activities noted above. Due to discrepancies between the boundaries of the Subject Properties and the parcel line-work available to the City of Ottawa, the 50m buffer is not shown.

Additional information may be obtained by contacting:

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 Properties. 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 Ben Crooks at 613-580-2424 ext. 14743 or HLUI@ottawa.ca

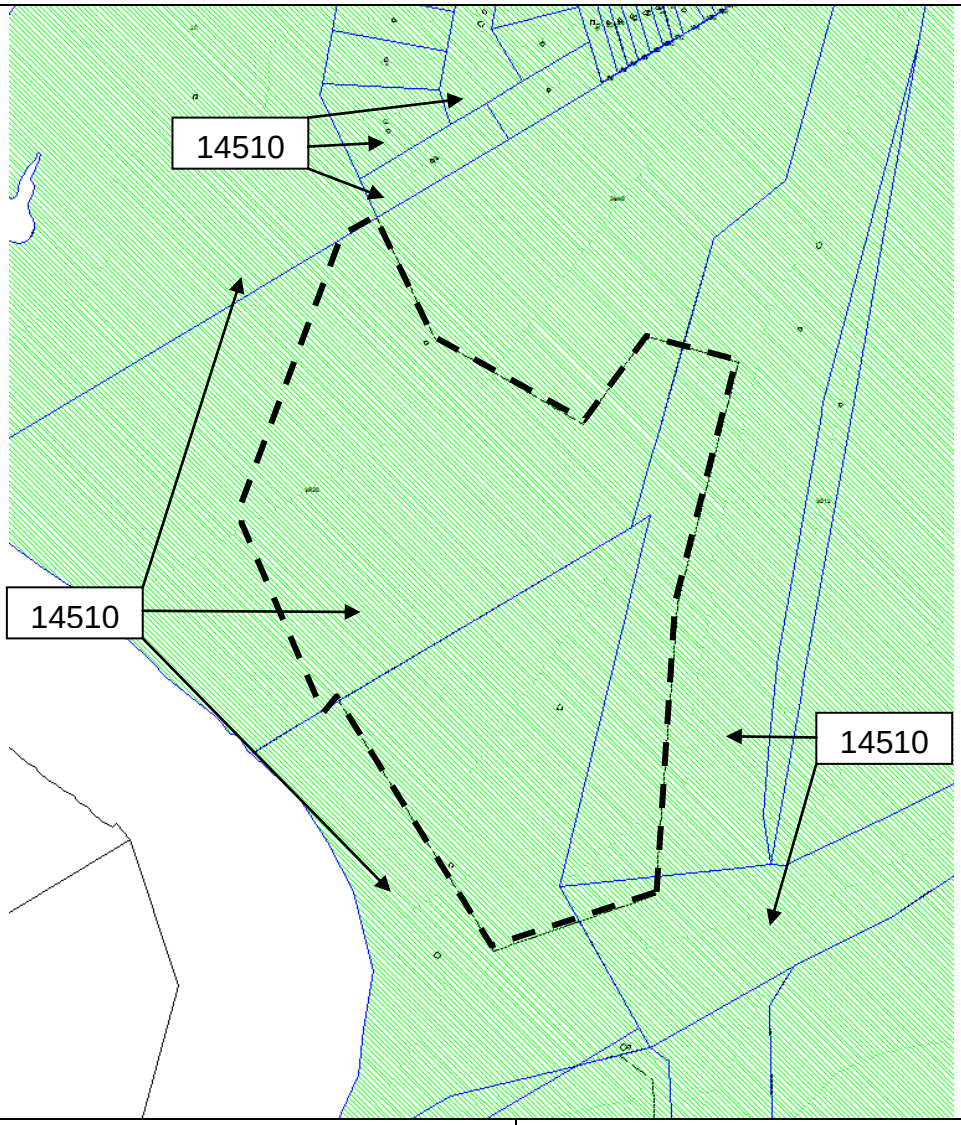
Sincerely,

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

MB/ BC

Attach: 2

cc: File no. D06-03-17-0006



Scale 1: n/a

3930 Riverside Drive and adjacent parcel
Ottawa, ON
File # D06-03-17-0006
Ben Crooks

Ottawa

Overview

ID# = Activity Identification Number

= Subject Site

CITY OF OTTAWA

HLUI ID: __670HKX

AREA (Square Metres): 81586.606

Study Year	PIN	Multi-NAIC	Multiple Activities
1998	040530207	N	N

Activity ID: 14510 **Multiple PINS:** Y

PIN Certainty: 1 **Previous Activity ID(s) :** 6399

Related PINS: 040530089

Name: UNNAMED SAND/GRAVEL PIT

Address: UPLANDS DRIVE, OTTAWA

Facility Type: Sand and Gravel Pits

Comments 1: UTM = 445600E, 5020200N (1967). Area is 1.2km x 200m.

Comments 2:

Generator Number:

Storage Tanks:

HL References 1: 1922-DMD-TM-Ottawa, Sheet #14, 1948-DND-ASE-NTS-31G/5, 1967-EMR-SMB-NTS-31G/5-7th ed., 1985-EMR-SMB-NTS-31G/5-11th ed.,Gloucester Roots-1991

HL References 2:

HL References 3:

NAICS	SIC
212323	82

Company Name	Year of Operation
Unnamed Sand/Gravel Pit	c. 1912-1967

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, Riverside and Hunt Club, Otta

Township: Ottawa Lot: _____ Concession: _____

X: -75.6947 Y: 45.3357 Address: See Address in Request Info Box

**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:

I would like to request the following information for the property located at Part of Lot 5, Concession 2 in Ottawa, Ontario:
-Information on species at risk on the site and within 250 m of the site boundaries and advice for

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 Part of Lot 5, Concession 2 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.

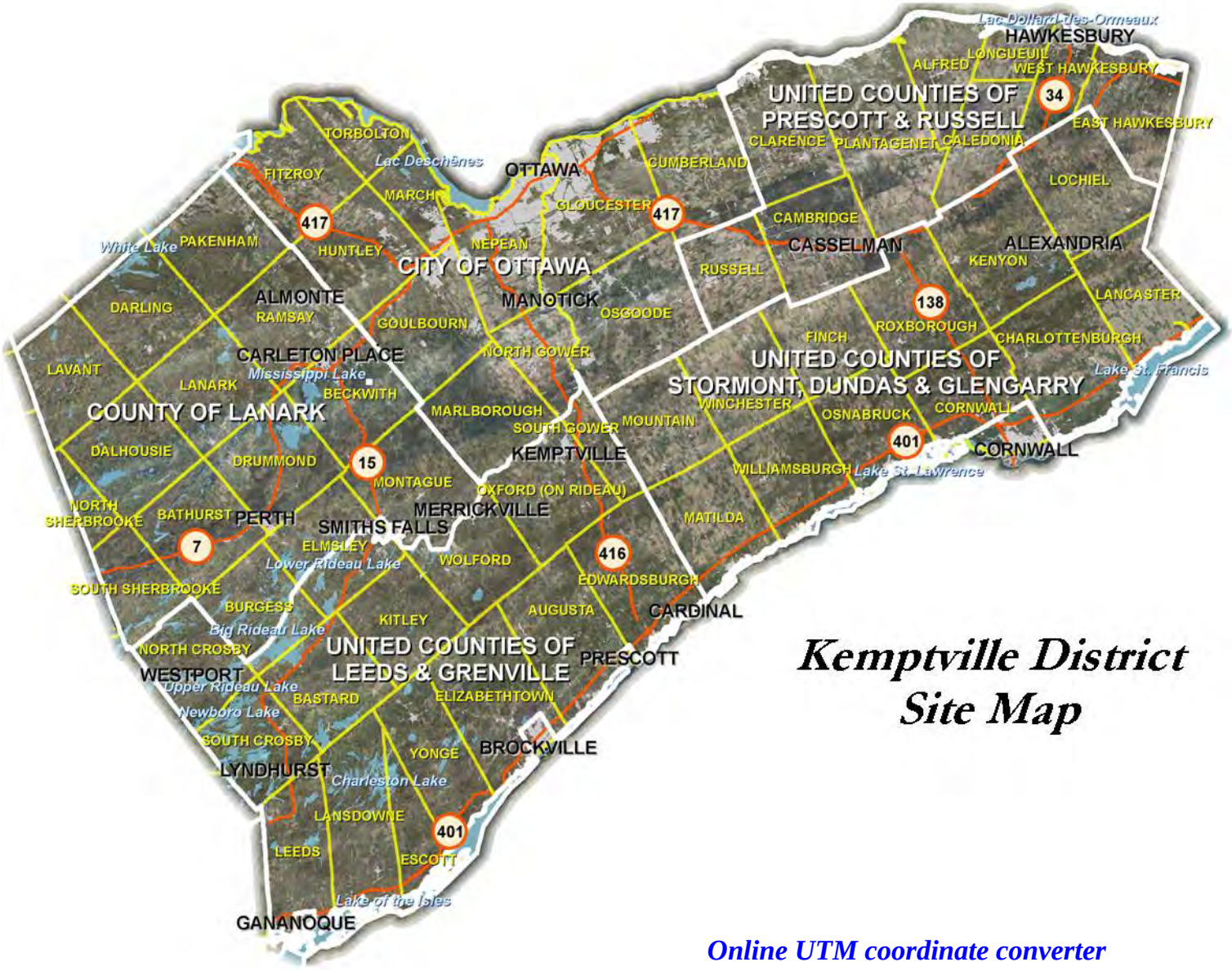
☑ *I have read the above and agree to all Terms and Conditions*

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):

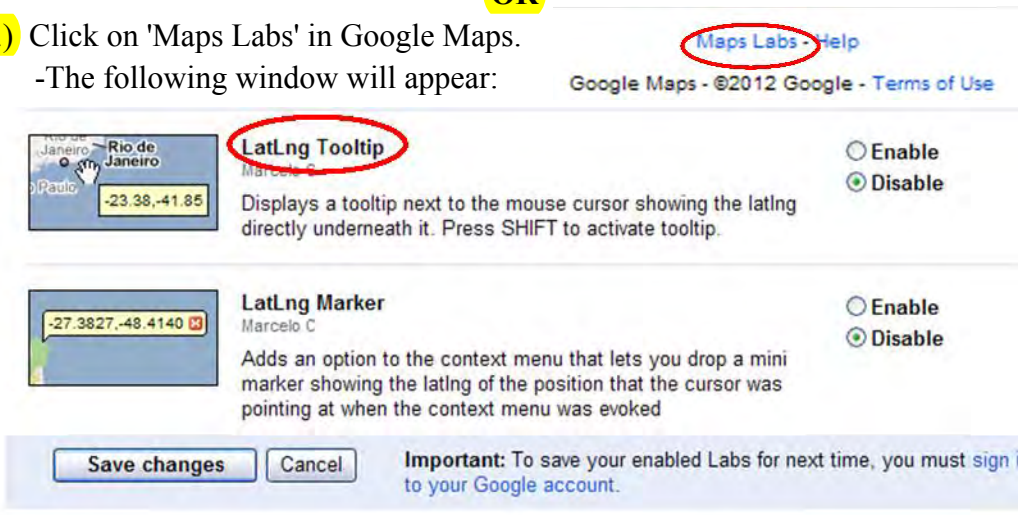
1.) Right-click on the map, at the point of interest, and select 'What's here?'.

-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 ESA for the site located at Part of Lot 5, Concession 2 (Rideau Front), Gloucester
Site Address: Riverside and Hunt Club, Gloucester
Our File No. 2017_GLO-4092

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:

- ANSI, Earth Science, Mccarthy Road Quarry (Provincial)
- Fish Nursery, Black Crappie Nursery Area (Non-Sensitive)
- Fish Nursery, Blue Gill Nursery Area (Non-Sensitive)
- Fish Nursery, Centrarchidae Nursery Area (Non-Sensitive)
- Fish Nursery, Cyprinidae Nursery Area (Non-Sensitive)
- Fish Nursery, Emerald Shiner Nursery Area (Non-Sensitive)
- Fish Nursery, Largemouth Bass Nursery Area (Non-Sensitive)
- Fish Nursery, Muskellunge Nursery Area (Non-Sensitive)
- Fish Nursery, Pumpkinseed Nursery Area (Non-Sensitive)
- Fish Nursery, Rock Bass Nursery Area (Non-Sensitive)
- Fish Nursery, Smallmouth Bass Nursery Area (Non-Sensitive)
- Fish Nursery, Walleye Nursery Area (Non-Sensitive)
- Fish Nursery, White Sucker Nursery Area (Non-Sensitive)
- Fish Nursery, Yellow Perch Nursery Area (Non-Sensitive)
- Lake (Non-Sensitive)

- Spawning Area, Northern Pike Spawning Area (Non-Sensitive)
- Spawning Area, Walleye Spawning Area (Non-Sensitive)
- 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: alewife, American eel, black crappie, bluegill, brown bullhead, channel catfish, common carp, greater redhorse, largemouth bass, logperch, muskellunge, northern pike, pumpkinseed, rock bass, shorthead redhorse, silver redhorse, tessellated darter, walleye, white sucker, yellow perch.

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:

- American Eel (END)
- Bank Swallow (THR)
- Barn Swallow (THR)
- Blanding's Turtle (THR)
- Bobolink (THR)
- Butternut (END)
- Chimney Swift (THR)
- Eastern Meadowlark (THR)
- Tri-Colored Bat (END)

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)
- Monarch (SC)
- Peregrine Falcon (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: Ruchi Chohan <rchohan@tssa.org> on behalf of Public Information Services <publicinformationservices@tssa.org>
Sent: Friday, January 20, 2017 12:57 PM
To: Troke, Alyssa
Subject: RE: TSSA Search - Part of Lot 5, Concession 2, Ottawa, Ontario

Follow Up Flag: Follow up
Flag Status: Flagged

Hello Alyssa,

Thank you for your inquiry.

I have searched the below noted address (addresses) and I have located the following record:

4000 Riverside Drive, Ottawa has record of 3 active underground fuel tanks

300 Hunt Club Rd West, Nepean has record of 1 active aboveground fuel tank

For a more detailed report including underground fuel storage tank details and copies of all inspection reports, 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.

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.

Thank you and have a good day!

Ruchi

From: Troke, Alyssa [mailto:Alyssa_Troke@golder.com]
Sent: Thursday, January 19, 2017 2:17 PM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: TSSA Search - Part of Lot 5, Concession 2, 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:

- Part of Lot 5, Concession 2, Township of Gloucester, now the City of Ottawa, Ontario (Please see the attached plan for an outline of this site)
- 3930 Riverside Drive, Ottawa, ON
- 3860 Riverside Drive, Ottawa, ON
- 4000 Riverside Drive, Ottawa, ON
- 300 Hunt Club Road, Ottawa, ON
- 3812 North Bowesville Road, Ottawa, ON
- 22 Kimberwick Crescent, Ottawa, ON

- 18 Chancellor Court, Ottawa, ON
- 12 Chancellor Court, Ottawa, ON
- 9 Chancellor Court, Ottawa, ON
- 4070 Riverside Drive, 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, City Directories

ENVIRONMENTAL RISK INFORMATION SERVICES

DATABASE REPORT

Project Property:	*1670692 - 3930 Riverside Drive Phase I ESA* *3930 Riverside Drive* *Ottawa ON*
Project No:	
Report Type:	*Quote - Custom-Build Your Own Report*
Order No:	*20170119085*
Requested by:	*Golder Associates Ltd.*
Date Completed:	*January 24, 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:	*1670692 - 3930 Riverside Drive Phase I ESA* *3930 Riverside Drive Ottawa ON*
Project No:	

Order Information:

Order No:	*20170119085*
Date Requested:	*January 19, 2017*
Requested by:	*Golder Associates Ltd.*
Report Type:	*Quote - Custom-Build Your Own Report*

Additional Products:

Aerial Photographs	*National Collection - Digital (PDF)*
City Directory Search	*Subject Site plus 10 Adjacent Properties*

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	2	43	45
CA	Certificates of Approval	Y	0	6	6
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	1	1
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	3	3
FSTH	Fuel Storage Tank - Historic	Y	0	1	1
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	1	1
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	1	0	1
RST	Retail Fuel Storage Tanks	Y	0	0	0
SCT	Scott's Manufacturing Directory	Y	0	0	0
SPL	Ontario Spills	Y	0	1	1
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	3	3
	Total:		3	59	62

Executive Summary: Site Report Summary - Project Property

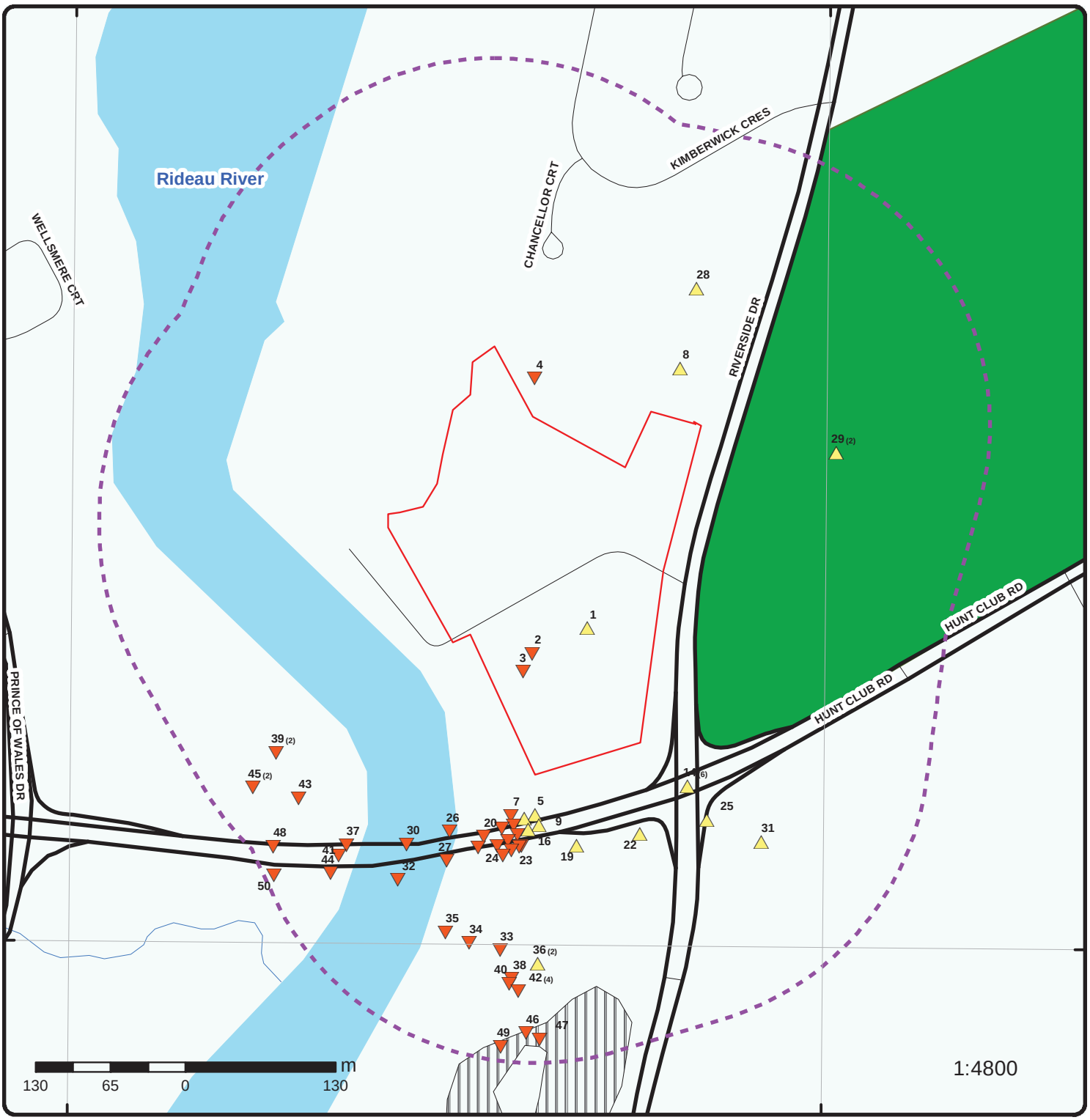
DB	Map Key	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
BORE	1		ON	-/0.0	1.26	13
BORE	3		ON	-/0.0	-2.15	14
RSC	2		3930 Riverside Drive Ottawa ON	-/0.0	-1.32	40

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	N/17.0	-0.61	14
BORE	5		ON	S/34.9	2.58	15
BORE	6		ON	S/39.5	0.92	15
BORE	7		ON	S/41.3	-1.44	16
BORE	8		ON	NNE/42.3	7.09	16
BORE	9		ON	S/44.2	3.53	17
BORE	10		ON	S/47.9	-0.86	17
BORE	11		ON	S/48.2	1.58	17
BORE	12		ON	S/54.4	-0.48	18
BORE	13		ON	S/54.7	-2.63	18
BORE	15		ON	S/61.7	-2.00	19
BORE	16		ON	S/63.4	-0.94	19
BORE	17		ON	S/64.2	-1.34	19
BORE	18		ON	S/69.3	-3.09	20
BORE	19		ON	S/69.5	6.81	20
BORE	20		ON	SSW/69.8	-5.54	21
BORE	21		ON	S/70.4	-4.24	21
BORE	22		ON	SSE/75.3	9.81	22
BORE	23		ON	S/75.9	-5.37	22
BORE	24		ON	SSW/80.1	-6.95	22
BORE	25		ON	SSE/88.5	10.66	23
BORE	26		ON	SSW/89.4	-14.76	24
BORE	27		ON	SSW/107.0	-15.58	24

DB	Map Key	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
BORE	28		ON	NNE/113.2	6.20	25
BORE	29		ON	ENE/119.0	11.47	25
BORE	30		ON	SSW/127.0	-14.70	26
BORE	32		ON	SSW/149.9	-15.81	26
BORE	33		ON	S/155.5	-3.28	27
BORE	34		ON	SSW/156.7	-9.10	28
BORE	35		ON	SSW/157.0	-12.15	28
BORE	37		ON	SW/174.2	-6.68	29
BORE	38		ON	S/178.3	-1.17	29
BORE	39		ON	SW/180.6	-9.92	30
BORE	40		ON	S/182.5	-2.30	30
BORE	41		ON	SW/184.0	-6.84	31
BORE	43		ON	SW/190.1	-9.90	32
BORE	44		ON	SW/196.9	-9.63	32
BORE	45		ON	SW/214.0	-9.49	33
BORE	46		ON	S/224.0	-1.56	33
BORE	47		ON	S/229.6	-0.11	34
BORE	48		ON	SW/232.4	-2.09	34
BORE	49		ON	S/237.4	-2.54	35
BORE	50		ON	SW/242.0	-3.70	35
CA	14	R.M.O.C. WORKS DEPARTMENT	HUNT CLUB RD. & RIVERSIDE DR. OTTAWA CITY ON	SSE/56.1	9.48	36
CA	14	R.M. OF OTTAWA-CARLETON	HUNT CLUB RD. RIVERSIDE DR. OTTAWA CITY ON	SSE/56.1	9.48	36
CA	14	R.M. OF OTTAWA-CARLETON	HUNT CLUB RD./RIVERSIDE DR. OTTAWA CITY ON	SSE/56.1	9.48	37
CA	14	R.M.O.C. TRANSPORTATION DEPARTMENT	HUNT CLUB ROAD & RIVERSIDE RD. OTTAWA CITY ON	SSE/56.1	9.48	37
CA	14	R.M. OF OTTAWA-CARLETON	RIVERSIDE DR./HUNT CLUB RD. OTTAWA CITY ON	SSE/56.1	9.48	37
CA	36	4059930 Canada Inc.	4000 Riverside Drive Ottawa ON K1V 2E8	S/163.9	5.41	37

DB	Map Key	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
EHS	31		3967 Riverside Drive Ottawa ON K1V 1C1	SE/135.4	11.46	38
FST	42	SUNCOR ENERGY PRODUCTS PARTNERSHIP	4000 RIVERSIDE DR OTTAWA ON K1T 3S4	S/188.3	-1.41	38
FST	42	SUNCOR ENERGY PRODUCTS PARTNERSHIP	4000 RIVERSIDE DR OTTAWA ON K1T 3S4	S/188.3	-1.41	38
FST	42	SUNCOR ENERGY PRODUCTS PARTNERSHIP	4000 RIVERSIDE DR OTTAWA ON K1T 3S4	S/188.3	-1.41	39
FSTH	36	1213475 ONTARIO INC O/A GAS STN	4000 RIVERSIDE DR OTTAWA ON K1V 2E8	S/163.9	5.41	39
PINC	42		4000 RIVERSIDE DR., OTTAWA ON	S/188.3	-1.41	39
SPL	14	City of Ottawa	Huntclub rd and Riverside Dr Ottawa ON	SSE/56.1	9.48	40
WWIS	29		ON	ENE/119.0	11.48	41
WWIS	39		lot 26 con A ON	SW/180.6	-9.93	43
WWIS	45		lot 26 con A ON	SW/214.0	-9.48	45



Map : 0.25 Kilometer Radius

Order No: 20170119085

Address: 3930 Riverside Drive, Ottawa, ON

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

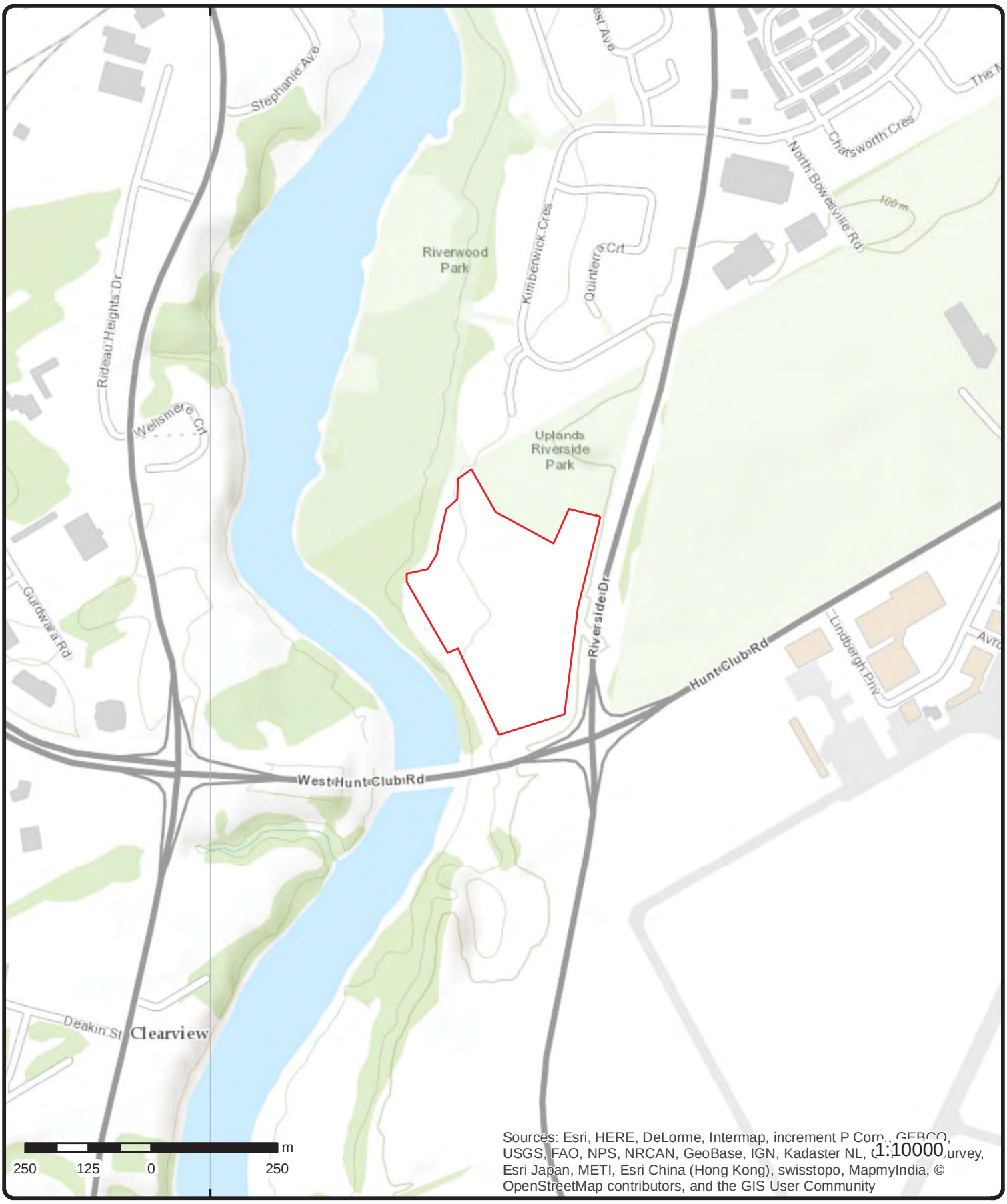
75°42'W

Aerial

Order No: 20170119085

Address: 3930 Riverside Drive, Ottawa, ON

Source: ESRI World Imagery



Topographic Map

Address: 3930 Riverside Drive, Ottawa, ON

Source: ESRI World Topographic Map

Order No: 20170119085

ERIS ENVIRONMENTAL RISK INFORMATION SERVICES

Detail Report

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
BORE	1	1 of 1	-/0.0	93.3	ON

Borehole ID:	808308	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445600.38	**Northing::**	5020489.93
Location Accuracy::		**Orig. Ground Elev m::**	93.6
Elev. Reliability Note::		**DEM Ground Elev m::**	90.9
Total Depth m::	17.4	**Primary Name::**	BH 01-5
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	08-AUG-2001	**Static Water Level::**	15.3
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218595910	**Top Depth(m):**	0.0
Bottom Depth(m):	0.6	**Stratum Desc:**	Brown Fill-Misc Silty Clay Trace: Sa Tr Gr
Stratum ID:	218595911	**Top Depth(m):**	0.6
Bottom Depth(m):	3.6	**Stratum Desc:**	Dark Brown Fill-Misc sand silt With: Gr Trace: Cl Tr Constr Debris
Stratum ID:	218595912	**Top Depth(m):**	3.6
Bottom Depth(m):	5.3	**Stratum Desc:**	Dark Grey Silty Clay Trace: Brk Frag
Stratum ID:	218595913	**Top Depth(m):**	5.3
Bottom Depth(m):	8.5	**Stratum Desc:**	Brown Fill-Misc sand silt With: Gr
Stratum ID:	218595914	**Top Depth(m):**	8.5
Bottom Depth(m):	9.3	**Stratum Desc:**	Concrete
Stratum ID:	218595915	**Top Depth(m):**	9.3
Bottom Depth(m):	11.6	**Stratum Desc:**	Brown Fill-Misc sand silt With: Gr
Stratum ID:	218595916	**Top Depth(m):**	11.6
Bottom Depth(m):	13.4	**Stratum Desc:**	Dark Brown Fill-Misc sand silt With: Gr
Stratum ID:	218595917	**Top Depth(m):**	13.4
Bottom Depth(m):	14.2	**Stratum Desc:**	Concrete
Stratum ID:	218595918	**Top Depth(m):**	14.2
Bottom Depth(m):	14.9	**Stratum Desc:**	Brown Fill-Misc sand silt With: Gr Occasional: Cob
Stratum ID:	218595919	**Top Depth(m):**	14.9
Bottom Depth(m):	15.5	**Stratum Desc:**	Brown Sand
Stratum ID:	218595920	**Top Depth(m):**	15.5
Bottom Depth(m):	15.9	**Stratum Desc:**	Brown Sand
Stratum ID:	218595921	**Top Depth(m):**	15.9
Bottom Depth(m):	17.4	**Stratum Desc:**	Brown Sand - Gravel Occasional: Cob

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
BORE	3	1 of 1	-/0.0	89.9	ON

Borehole ID:	808309	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445544.87	**Northing::**	5020452.47
Location Accuracy::		**Orig. Ground Elev m::**	93
Elev. Reliability Note::		**DEM Ground Elev m::**	82.8
Total Depth m::	17.6	**Primary Name::**	BH 01-6
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	09-AUG-2001	**Static Water Level::**	16.2
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218595922	**Top Depth(m):**	0.0
Bottom Depth(m):	0.8	**Stratum Desc:**	Brown Fill-Misc sand silt With: Gr W Cob Trace: Constr Debris
Stratum ID:	218595923	**Top Depth(m):**	0.8
Bottom Depth(m):	2.7	**Stratum Desc:**	Dark Brown to Grey Fill-Misc Silt - Sand Trace: Gr Tr Constr Debris
Stratum ID:	218595924	**Top Depth(m):**	2.7
Bottom Depth(m):	4.0	**Stratum Desc:**	Grey-Brown Fill-Misc Silty Clay With: Gr
Stratum ID:	218595925	**Top Depth(m):**	4.0
Bottom Depth(m):	5.8	**Stratum Desc:**	Dark Brown to Brown Fill-Misc Silt - Sand With: Gr W Constr Debris
Stratum ID:	218595926	**Top Depth(m):**	5.8
Bottom Depth(m):	8.2	**Stratum Desc:**	Grey-Brown Fill-Misc Silty Clay With: Sa Trace: Org M
Stratum ID:	218595927	**Top Depth(m):**	8.2
Bottom Depth(m):	8.8	**Stratum Desc:**	Concrete
Stratum ID:	218595928	**Top Depth(m):**	8.8
Bottom Depth(m):	9.9	**Stratum Desc:**	Grey-Brown Fill-Misc Silty Clay Trace: Gr Tr Org M Tr Constr Debris
Stratum ID:	218595929	**Top Depth(m):**	9.9
Bottom Depth(m):	11.6	**Stratum Desc:**	Concrete OCCASIOANL VOIDS
Stratum ID:	218595930	**Top Depth(m):**	11.6
Bottom Depth(m):	13.1	**Stratum Desc:**	Grey-Brown Fill-Misc Silty Clay With: Gr
Stratum ID:	218595931	**Top Depth(m):**	13.1
Bottom Depth(m):	13.9	**Stratum Desc:**	Brown to Grey Fill-Misc Silt - Sand Trace: Constr Debris Occasional: Cob
Stratum ID:	218595932	**Top Depth(m):**	13.9
Bottom Depth(m):	14.8	**Stratum Desc:**	Brown Silt - Sand
Stratum ID:	218595933	**Top Depth(m):**	14.8
Bottom Depth(m):	17.6	**Stratum Desc:**	Brown Sand - Gravel Occasional: Cob Occ Blds

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
BORE	4	1 of 1	N/17.0	91.5	ON

Borehole ID:	808295	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18

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

Easting::	445554.22	**Northing::**	5020706.26
Location Accuracy::		**Orig. Ground Elev m::**	82
Elev. Reliability Note::		**DEM Ground Elev m::**	88.9
Total Depth m::	8.2	**Primary Name::**	BH 01-3
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	08-AUG-2001	**Static Water Level::**	4.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218595894	**Top Depth(m):**	0.0
Bottom Depth(m):	1.8	**Stratum Desc:**	Grey Fill-Misc Silty Clay Trace: Gr
Stratum ID:	218595895	**Top Depth(m):**	1.8
Bottom Depth(m):	4.3	**Stratum Desc:**	Brown Sand
Stratum ID:	218595896	**Top Depth(m):**	4.3
Bottom Depth(m):	4.8	**Stratum Desc:**	Grey-Brown Silt - Sand
Stratum ID:	218595897	**Top Depth(m):**	4.8
Bottom Depth(m):	8.2	**Stratum Desc:**	Brown Sand

BORE 5 **1 of 1** **S/34.9** **94.6** **ON**

Borehole ID:	803326	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445554.9	**Northing::**	5020328.3
Location Accuracy::		**Orig. Ground Elev m::**	84.4
Elev. Reliability Note::		**DEM Ground Elev m::**	91.9
Total Depth m::	1.2	**Primary Name::**	BH 12
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	06-OCT-1983	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218575905	**Top Depth(m):**	0.0
Bottom Depth(m):	0.8	**Stratum Desc:**	Brown Very Loose Fill-Misc Silt - Sand Trace: Org M
Stratum ID:	218575906	**Top Depth(m):**	0.8
Bottom Depth(m):	1.2	**Stratum Desc:**	Brown Compact Sand

BORE 6 **1 of 1** **S/39.5** **93.0** **ON**

Borehole ID:	803320	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445545.72	**Northing::**	5020324.97
Location Accuracy::		**Orig. Ground Elev m::**	84.5
Elev. Reliability Note::		**DEM Ground Elev m::**	91.7
Total Depth m::	1.2	**Primary Name::**	BH 8
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	06-OCT-1983	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

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

Stratum ID:	218575888	**Top Depth(m):**	0.0
Bottom Depth(m):	0.8	**Stratum Desc:**	Brown Very Loose Fill-Misc Sand Trace: Org M
Stratum ID:	218575889	**Top Depth(m):**	0.8
Bottom Depth(m):	1.2	**Stratum Desc:**	Brown Compact Sand

BORE 7 — **1 of 1** — **S/41.3** — **90.6** — **ON**

Borehole ID:	802909	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445534.05	**Northing::**	5020327.69
Location Accuracy::		**Orig. Ground Elev m::**	90.3
Elev. Reliability Note::		**DEM Ground Elev m::**	90
Total Depth m::	30.7	**Primary Name::**	BH 82-12
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	06-APR-1982	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218574071	**Top Depth(m):**	0.0
Bottom Depth(m):	1.8	**Stratum Desc:**	Brown Fill-Misc Sand
Stratum ID:	218574072	**Top Depth(m):**	1.8
Bottom Depth(m):	10.1	**Stratum Desc:**	Brown Sand
Stratum ID:	218574073	**Top Depth(m):**	10.1
Bottom Depth(m):	14.6	**Stratum Desc:**	Silty Clay
Stratum ID:	218574074	**Top Depth(m):**	14.6
Bottom Depth(m):	24.4	**Stratum Desc:**	Grey Sand Trace: Gr
Stratum ID:	218574075	**Top Depth(m):**	24.4
Bottom Depth(m):	27.9	**Stratum Desc:**	Sand - Gravel With: Cob W Blds
Stratum ID:	218574076	**Top Depth(m):**	27.9
Bottom Depth(m):	30.7	**Stratum Desc:**	Grey Bedrock Limestone

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BORE 8 — **1 of 1** — **NNE/42.3** — **99.2** — **ON**

Borehole ID:	808304	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445680.8	**Northing::**	5020714.4
Location Accuracy::		**Orig. Ground Elev m::**	97.4
Elev. Reliability Note::		**DEM Ground Elev m::**	96.9
Total Depth m::	6.1	**Primary Name::**	BH 01-4A
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	08-AUG-2001	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218595907	**Top Depth(m):**	0.0
Bottom Depth(m):	2.6	**Stratum Desc:**	Grey Fill-Misc Silty Clay Trace: Sa Tr Gr
Stratum ID:	218595908	**Top Depth(m):**	2.6
Bottom Depth(m):	3.8	**Stratum Desc:**	Dark Grey to Brown Fill-Misc Silt - Sand

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

Stratum ID:	218595909	**Top Depth(m):**	3.8
Bottom Depth(m):	6.1	**Stratum Desc:**	Brown to Grey Fill-Misc Silty Clay Trace: Sa Tr Gr

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BORE 9 **1 of 1** **S/44.2** **95.6** **ON**

Borehole ID:	803324	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445558.42	**Northing::**	5020319.23
Location Accuracy::		**Orig. Ground Elev m::**	84.5
Elev. Reliability Note::		**DEM Ground Elev m::**	92.8
Total Depth m::	1.2	**Primary Name::**	BH 11
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	06-OCT-1983	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218575901	**Top Depth(m):**	0.0
Bottom Depth(m):	0.6	**Stratum Desc:**	Brown Very Loose Fill-Misc Silt - Sand Trace: Gr
Stratum ID:	218575902	**Top Depth(m):**	0.6
Bottom Depth(m):	1.2	**Stratum Desc:**	Brown Compact Sand

BORE 10 **1 of 1** **S/47.9** **91.2** **ON**

Borehole ID:	803321	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445536.39	**Northing::**	5020319.15
Location Accuracy::		**Orig. Ground Elev m::**	84.2
Elev. Reliability Note::		**DEM Ground Elev m::**	91.6
Total Depth m::	1.2	**Primary Name::**	BH 9
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	06-OCT-1983	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218575890	**Top Depth(m):**	0.0
Bottom Depth(m):	0.3	**Stratum Desc:**	Brown Very Loose Fill-Misc Sand Trace: Org M
Stratum ID:	218575891	**Top Depth(m):**	0.3
Bottom Depth(m):	1.2	**Stratum Desc:**	Brown Compact Sand

BORE 11 **1 of 1** **S/48.2** **93.6** **ON**

Borehole ID:	803319	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445549.26	**Northing::**	5020315.41
Location Accuracy::		**Orig. Ground Elev m::**	84.5
Elev. Reliability Note::		**DEM Ground Elev m::**	92.7
Total Depth m::	1.8	**Primary Name::**	BH 7

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

Township:: **Concession::**
Lot:: **Municipality:**
Completion Date:: 06-OCT-1983 **Static Water Level::** -999.9
Primary Water Use:: **Sec. Water Use::**

--Details--
Stratum ID: 218575886 **Top Depth(m):** 0.0
Bottom Depth(m): 0.9 **Stratum Desc:** Brown Very Loose to Loose Fill-Misc Silt - Sand Trace: Gr Tr Constr Debris

Stratum ID: 218575887 **Top Depth(m):** 0.9
Bottom Depth(m): 1.8 **Stratum Desc:** Brown Compact Sand

BORE 12 **1 of 1** **S/54.4** **91.6** **ON**

Borehole ID: 803317 **Type:** Borehole
Use: Geotechnical/Geological Investigation **Status::**
Drill Method:: Hollow stem auger **UTM Zone::** 18
Easting:: 445539.99 **Northing::** 5020311.08
Location Accuracy:: **Orig. Ground Elev m::** 84.3
Elev. Reliability Note:: **DEM Ground Elev m::** 92.3
Total Depth m:: 1.8 **Primary Name::** BH 6
Township:: **Concession::**
Lot:: **Municipality:**
Completion Date:: 06-OCT-1983 **Static Water Level::** -999.9
Primary Water Use:: **Sec. Water Use::**

--Details--
Stratum ID: 218575882 **Top Depth(m):** 0.0
Bottom Depth(m): 0.9 **Stratum Desc:** Brown Very Loose Fill-Misc Silt - Sand Trace: Constr Debris

Stratum ID: 218575883 **Top Depth(m):** 0.9
Bottom Depth(m): 1.8 **Stratum Desc:** Brown Compact Sand

BORE 13 **1 of 1** **S/54.7** **89.4** **ON**

Borehole ID: 803322 **Type:** Borehole
Use: Geotechnical/Geological Investigation **Status::**
Drill Method:: Hollow stem auger **UTM Zone::** 18
Easting:: 445526.29 **Northing::** 5020316.83
Location Accuracy:: **Orig. Ground Elev m::** 84.2
Elev. Reliability Note:: **DEM Ground Elev m::** 90.8
Total Depth m:: 2.4 **Primary Name::** BH 10
Township:: **Concession::**
Lot:: **Municipality:**
Completion Date:: 06-OCT-1983 **Static Water Level::** -999.9
Primary Water Use:: **Sec. Water Use::**

--Details--
Stratum ID: 218575892 **Top Depth(m):** 0.0
Bottom Depth(m): 2.3 **Stratum Desc:** Brown Very Loose Fill-Misc Sand Trace: Org M

Stratum ID: 218575893 **Top Depth(m):** 2.3
Bottom Depth(m): 2.4 **Stratum Desc:** Brown Compact Sand

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
BORE	15	1 of 1	S/61.7	90.1	ON

Borehole ID:	803315	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445531.75	**Northing::**	5020306.23
Location Accuracy::		**Orig. Ground Elev m::**	84.1
Elev. Reliability Note::		**DEM Ground Elev m::**	91.8
Total Depth m::	1.8	**Primary Name::**	BH 5
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	06-OCT-1983	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218575875	**Top Depth(m):**	0.0
Bottom Depth(m):	1.4	**Stratum Desc:**	Brown Very Loose to Loose Fill-Misc Silt - Sand With: Constr Debris Trace: Org M
Stratum ID:	218575876	**Top Depth(m):**	1.4
Bottom Depth(m):	1.8	**Stratum Desc:**	Brown Loose Silt - Sand

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DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
BORE	16	1 of 1	S/63.4	91.1	ON

Borehole ID:	803310	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445543.46	**Northing::**	5020301.02
Location Accuracy::		**Orig. Ground Elev m::**	84.5
Elev. Reliability Note::		**DEM Ground Elev m::**	92
Total Depth m::	1.8	**Primary Name::**	BH 1
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	06-OCT-1983	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218575862	**Top Depth(m):**	0.0
Bottom Depth(m):	1.1	**Stratum Desc:**	Brown Very Loose Fill-Misc Silt - Sand Trace: Gr
Stratum ID:	218575863	**Top Depth(m):**	1.1
Bottom Depth(m):	1.8	**Stratum Desc:**	Brown Compact Sand With: Si

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DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
BORE	17	1 of 1	S/64.2	90.7	ON

Borehole ID:	802908	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445541.33	**Northing::**	5020300.56
Location Accuracy::		**Orig. Ground Elev m::**	93.9
Elev. Reliability Note::		**DEM Ground Elev m::**	91.9
Total Depth m::	32.8	**Primary Name::**	BH 82-11
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	02-APR-1982	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

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

--Details--

Stratum ID:	218574066	**Top Depth(m):**	0.0
Bottom Depth(m):	13.1	**Stratum Desc:**	Brown Sand
Stratum ID:	218574067	**Top Depth(m):**	13.1
Bottom Depth(m):	17.4	**Stratum Desc:**	Grey Silty Clay
Stratum ID:	218574068	**Top Depth(m):**	17.4
Bottom Depth(m):	29.3	**Stratum Desc:**	Grey Sand Trace: Gr
Stratum ID:	218574069	**Top Depth(m):**	29.3
Bottom Depth(m):	29.7	**Stratum Desc:**	Till sand silt
Stratum ID:	218574070	**Top Depth(m):**	29.7
Bottom Depth(m):	32.8	**Stratum Desc:**	Grey Bedrock Limestone

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BORE **18** ***1 of 1*** ***S/69.3*** ***89.0*** ***ON***

Borehole ID:	803311	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445534.26	**Northing::**	5020297.19
Location Accuracy::		**Orig. Ground Elev m::**	84.4
Elev. Reliability Note::		**DEM Ground Elev m::**	91.2
Total Depth m::	1.8	**Primary Name::**	BH 2
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	06-OCT-1983	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218575864	**Top Depth(m):**	0.0
Bottom Depth(m):	1.4	**Stratum Desc:**	Brown Very Loose Fill-Misc Silt - Sand Trace: Org M
Stratum ID:	218575865	**Top Depth(m):**	1.4
Bottom Depth(m):	1.8	**Stratum Desc:**	Brown Compact Sand

BORE **19** ***1 of 1*** ***S/69.5*** ***98.9*** ***ON***

Borehole ID:	805335	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445591.21	**Northing::**	5020301.63
Location Accuracy::		**Orig. Ground Elev m::**	98.4
Elev. Reliability Note::		**DEM Ground Elev m::**	97.8
Total Depth m::	4.3	**Primary Name::**	BH.93-3
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	03-MAR-1993	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218584226	**Top Depth(m):**	0.0
Bottom Depth(m):	0.4	**Stratum Desc:**	Dark Brown Topsoil Silt - Sand
Stratum ID:	218584227	**Top Depth(m):**	0.4
Bottom Depth(m):	0.9	**Stratum Desc:**	Brown Fill-Misc Sand

Stratum ID:	218584228	**Top Depth(m):**	0.9
Bottom Depth(m):	1.7	**Stratum Desc:**	Brown Loose Fill-Misc Sand TRACE CRUSHED STONE
Stratum ID:	218584229	**Top Depth(m):**	1.7
Bottom Depth(m):	2.4	**Stratum Desc:**	Brown Loose Fill-Misc Sand Trace: Si
Stratum ID:	218584230	**Top Depth(m):**	2.4
Bottom Depth(m):	3.8	**Stratum Desc:**	Brown Loose Silt - Sand
Stratum ID:	218584231	**Top Depth(m):**	3.8
Bottom Depth(m):	4.3	**Stratum Desc:**	Brown Very Loose Sand Trace: Gr

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BORE 20 **1 of 1** **SSW/69.8** **86.5** **ON**

Borehole ID:	801280	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445510.5	**Northing::**	5020309.63
Location Accuracy::		**Orig. Ground Elev m::**	90.8
Elev. Reliability Note::		**DEM Ground Elev m::**	90.3
Total Depth m::	17.4	**Primary Name::**	BH 80-3
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	10-APR-1980	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218567568	**Top Depth(m):**	0.0
Bottom Depth(m):	9.9	**Stratum Desc:**	Brown to Reddish Brown Compact to Dense Sand
Stratum ID:	218567569	**Top Depth(m):**	9.9
Bottom Depth(m):	10.4	**Stratum Desc:**	Grey-Brown Compact Silt - Sand Trace: Cl
Stratum ID:	218567570	**Top Depth(m):**	10.4
Bottom Depth(m):	11.1	**Stratum Desc:**	Grey Stiff Silty Clay
Stratum ID:	218567571	**Top Depth(m):**	11.1
Bottom Depth(m):	12.6	**Stratum Desc:**	Very Stiff Silty Clay Trace: Gr
Stratum ID:	218567572	**Top Depth(m):**	12.6
Bottom Depth(m):	13.9	**Stratum Desc:**	Grey-Brown Dense Silt - Sand
Stratum ID:	218567573	**Top Depth(m):**	13.9
Bottom Depth(m):	17.4	**Stratum Desc:**	Grey-Brown Very Dense to Dense Sand

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BORE 21 **1 of 1** **S/70.4** **87.8** **ON**

Borehole ID:	803314	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445522.43	**Northing::**	5020300.91
Location Accuracy::		**Orig. Ground Elev m::**	83.9
Elev. Reliability Note::		**DEM Ground Elev m::**	90.8
Total Depth m::	1.8	**Primary Name::**	BH 4
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	06-OCT-1983	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

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

--Details--

Stratum ID:	218575873	**Top Depth(m):**	0.0
Bottom Depth(m):	1.1	**Stratum Desc:**	Brown Very Loose Fill-Misc Sand Trace: Org M Tr Constr Debris AND SILTY SAND
Stratum ID:	218575874	**Top Depth(m):**	1.1
Bottom Depth(m):	1.8	**Stratum Desc:**	Brown Compact Sand AND SILTY SAND

BORE 22 **1 of 1** **SSE/75.3** **101.9** **ON**

Borehole ID:	805334	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445645.75	**Northing::**	5020312.11
Location Accuracy::		**Orig. Ground Elev m::**	103
Elev. Reliability Note::		**DEM Ground Elev m::**	101
Total Depth m::	3.7	**Primary Name::**	BH.93-2
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	03-MAR-1993	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218584224	**Top Depth(m):**	0.0
Bottom Depth(m):	0.5	**Stratum Desc:**	Dark Brown Topsoil Sand
Stratum ID:	218584225	**Top Depth(m):**	0.5
Bottom Depth(m):	3.7	**Stratum Desc:**	Brown Loose to Compact Sand Trace: Si

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BORE 23 **1 of 1** **S/75.9** **86.7** **ON**

Borehole ID:	803312	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445527.03	**Northing::**	5020292.82
Location Accuracy::		**Orig. Ground Elev m::**	84.1
Elev. Reliability Note::		**DEM Ground Elev m::**	90.2
Total Depth m::	1.8	**Primary Name::**	BH 3
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	06-OCT-1983	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218575866	**Top Depth(m):**	0.0
Bottom Depth(m):	1.4	**Stratum Desc:**	Brown Very Loose Fill-Misc Silt - Sand Trace: Org M
Stratum ID:	218575867	**Top Depth(m):**	1.4
Bottom Depth(m):	1.8	**Stratum Desc:**	Brown Loose Sand

BORE 24 **1 of 1** **SSW/80.1** **85.1** **ON**

Borehole ID:	800571	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	

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

Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445505.82	**Northing::**	5020300.22
Location Accuracy::		**Orig. Ground Elev m::**	96
Elev. Reliability Note::		**DEM Ground Elev m::**	89.8
Total Depth m::	36.1	**Primary Name::**	BH 76-2
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	13-SEP-1976	**Static Water Level::**	20.6
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218565420	**Top Depth(m):**	0.0
Bottom Depth(m):	2.3	**Stratum Desc:**	Light Brown Loose to Compact Sand
Stratum ID:	218565421	**Top Depth(m):**	2.3
Bottom Depth(m):	7.0	**Stratum Desc:**	Brown Compact Sand With: Si compact brown fine sand some silty fine sand and silt layers
Stratum ID:	218565422	**Top Depth(m):**	7.0
Bottom Depth(m):	12.2	**Stratum Desc:**	Brown Compact Sand Trace: Si occasional silty pockets
Stratum ID:	218565423	**Top Depth(m):**	12.2
Bottom Depth(m):	15.4	**Stratum Desc:**	Brown Compact Sand Occasional: Cl Occ Si
Stratum ID:	218565424	**Top Depth(m):**	15.4
Bottom Depth(m):	15.8	**Stratum Desc:**	Grey Stiff Silty Clay
Stratum ID:	218565425	**Top Depth(m):**	15.8
Bottom Depth(m):	23.5	**Stratum Desc:**	Brown Compact Sand Trace: Si
Stratum ID:	218565426	**Top Depth(m):**	23.5
Bottom Depth(m):	30.5	**Stratum Desc:**	Sand
Stratum ID:	218565427	**Top Depth(m):**	30.5
Bottom Depth(m):	33.0	**Stratum Desc:**	Till
Stratum ID:	218565428	**Top Depth(m):**	33.0
Bottom Depth(m):	36.1	**Stratum Desc:**	Grey Bedrock Limestone

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BORE	25	**1 of 1**	**SSE/88.5**	**102.7**	**ON**

Borehole ID:	805329	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445703.45	**Northing::**	5020323.53
Location Accuracy::		**Orig. Ground Elev m::**	103
Elev. Reliability Note::		**DEM Ground Elev m::**	102
Total Depth m::	3.5	**Primary Name::**	BH.93-1
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	03-MAR-1993	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218584203	**Top Depth(m):**	0.0
Bottom Depth(m):	0.1	**Stratum Desc:**	Brown Topsoil Sand
Stratum ID:	218584204	**Top Depth(m):**	0.1
Bottom Depth(m):	0.3	**Stratum Desc:**	Brown Fill-Misc Sand Trace: Gr
Stratum ID:	218584205	**Top Depth(m):**	0.3

Bottom Depth(m):	0.7	**Stratum Desc:**	Brown Sand
Stratum ID:	218584206	**Top Depth(m):**	0.7
Bottom Depth(m):	3.5	**Stratum Desc:**	Brown Loose to Compact Sand

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BORE 26 **1 of 1** **SSW/89.4** **77.3** **ON**

Borehole ID:	802850	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445480.8	**Northing::**	5020313.68
Location Accuracy::		**Orig. Ground Elev m::**	74.7
Elev. Reliability Note::		**DEM Ground Elev m::**	87.1
Total Depth m::	19.6	**Primary Name::**	BH 82-1
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	20-FEB-1982	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218573841	**Top Depth(m):**	0.0
Bottom Depth(m):	0.3	**Stratum Desc:**	Grey-Brown Alluvium Silt - Sand Trace: Constr Debris
Stratum ID:	218573842	**Top Depth(m):**	0.3
Bottom Depth(m):	2.9	**Stratum Desc:**	Brown Loose Sand
Stratum ID:	218573843	**Top Depth(m):**	2.9
Bottom Depth(m):	7.9	**Stratum Desc:**	Brown Compact Sand With: Cl W Si Sandy Silt and Silty Clay seam @ 6.5m depth
Stratum ID:	218573844	**Top Depth(m):**	7.9
Bottom Depth(m):	10.8	**Stratum Desc:**	Brown Dense Sand With: Gr
Stratum ID:	218573845	**Top Depth(m):**	10.8
Bottom Depth(m):	13.2	**Stratum Desc:**	Brown Very Dense Boulders With: Sa W Gr W Cob
Stratum ID:	218573846	**Top Depth(m):**	13.2
Bottom Depth(m):	19.6	**Stratum Desc:**	Grey Bedrock Limestone

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BORE 27 **1 of 1** **SSW/107.0** **76.5** **ON**

Borehole ID:	802855	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Power auger	**UTM Zone::**	18
Easting::	445478.4	**Northing::**	5020288.73
Location Accuracy::		**Orig. Ground Elev m::**	74.7
Elev. Reliability Note::		**DEM Ground Elev m::**	83.6
Total Depth m::	14.7	**Primary Name::**	BH 82-2
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	25-FEB-1982	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218573864	**Top Depth(m):**	0.0
Bottom Depth(m):	0.3	**Stratum Desc:**	Brown Alluvium Sand Trace: Org M Tr Constr Debris

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

Stratum ID:	218573865	**Top Depth(m):**	0.3
Bottom Depth(m):	3.2	**Stratum Desc:**	Brown Very Loose to Compact Sand
Stratum ID:	218573866	**Top Depth(m):**	3.2
Bottom Depth(m):	8.2	**Stratum Desc:**	Brown Compact to Dense Sand Occasional: Cl Occ Si
Stratum ID:	218573867	**Top Depth(m):**	8.2
Bottom Depth(m):	10.9	**Stratum Desc:**	Brown Dense Sand With: Gr Occasional: Cob
Stratum ID:	218573868	**Top Depth(m):**	10.9
Bottom Depth(m):	14.7	**Stratum Desc:**	Grey Bedrock Limestone

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BORE 28 **1 of 1** **NNE/113.2** **98.3** **ON**

Borehole ID:	808297	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445694.78	**Northing::**	5020784.13
Location Accuracy::		**Orig. Ground Elev m::**	103
Elev. Reliability Note::		**DEM Ground Elev m::**	101
Total Depth m::	12.8	**Primary Name::**	BH 01-4
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	08-AUG-2001	**Static Water Level::**	10.2
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218595898	**Top Depth(m):**	0.0
Bottom Depth(m):	0.6	**Stratum Desc:**	Light Brown Fill-Misc sand silt With: Blds
Stratum ID:	218595899	**Top Depth(m):**	0.6
Bottom Depth(m):	2.7	**Stratum Desc:**	Dark Grey-Brown to Brown Fill-Misc sand silt With: Gr Trace: Cl Tr Org M
Stratum ID:	218595900	**Top Depth(m):**	2.7
Bottom Depth(m):	3.3	**Stratum Desc:**	Grey Fill-Misc Silty Clay With: Sa Trace: Gr
Stratum ID:	218595901	**Top Depth(m):**	3.3
Bottom Depth(m):	5.5	**Stratum Desc:**	Dark Brown to Grey Fill-Misc Sand With: Cl W Gr
Stratum ID:	218595902	**Top Depth(m):**	5.5
Bottom Depth(m):	8.8	**Stratum Desc:**	Dark Brown Fill-Misc sand silt With: Gr Trace: Cl Tr Org M
Stratum ID:	218595903	**Top Depth(m):**	8.8
Bottom Depth(m):	10.2	**Stratum Desc:**	Dark Brown Fill-Misc Silt - Sand With: Gr W Cob Trace: Org M
Stratum ID:	218595904	**Top Depth(m):**	10.2
Bottom Depth(m):	11.9	**Stratum Desc:**	Grey Sand
Stratum ID:	218595905	**Top Depth(m):**	11.9
Bottom Depth(m):	12.6	**Stratum Desc:**	Grey Silty Clay
Stratum ID:	218595906	**Top Depth(m):**	12.6
Bottom Depth(m):	12.8	**Stratum Desc:**	Brown Sand

BORE 29 **1 of 2** **ENE/119.0** **103.5** **ON**

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

Borehole ID:	612385	**Type:**	Borehole
Use:		**Status::**	
Drill Method::		**UTM Zone::**	18
Easting::	445816	**Northing::**	5020642
Location Accuracy::		**Orig. Ground Elev m::**	103
Elev. Reliability Note::		**DEM Ground Elev m::**	103
Total Depth m::	41.1	**Primary Name::**	
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	JUN-1958	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218391086	**Top Depth(m):**	0.0
Bottom Depth(m):	15.2	**Stratum Desc:**	SAND.
Stratum ID:	218391087	**Top Depth(m):**	15.2
Bottom Depth(m):	32.0	**Stratum Desc:**	CLAY.
Stratum ID:	218391088	**Top Depth(m):**	32.0
Bottom Depth(m):	39.0	**Stratum Desc:**	HARDPAN.
Stratum ID:	218391089	**Top Depth(m):**	39.0
Bottom Depth(m):	41.1	**Stratum Desc:**	LIMESTONE. 00135170. SANDSTONE. 00132,FIRM. CLAY,SILT. GREY,BROWN,STIFF. SAND,CLAY-FI

BORE 30 ***1 of 1*** ***SSW/127.0*** ***77.4*** ***ON***

Borehole ID:	805340	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Boring	**UTM Zone::**	18
Easting::	445443.72	**Northing::**	5020302.37
Location Accuracy::		**Orig. Ground Elev m::**	73.7
Elev. Reliability Note::		**DEM Ground Elev m::**	78.3
Total Depth m::	10.4	**Primary Name::**	BH.93-4
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	23-FEB-1993	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218584249	**Top Depth(m):**	0.0
Bottom Depth(m):	0.4	**Stratum Desc:**	Ice
Stratum ID:	218584250	**Top Depth(m):**	0.4
Bottom Depth(m):	5.2	**Stratum Desc:**	Water
Stratum ID:	218584251	**Top Depth(m):**	5.2
Bottom Depth(m):	7.0	**Stratum Desc:**	Very Loose Alluvium Sand
Stratum ID:	218584252	**Top Depth(m):**	7.0
Bottom Depth(m):	10.4	**Stratum Desc:**	Compact Sand Occasional: Gr

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BORE 32 ***1 of 1*** ***SSW/149.9*** ***76.3*** ***ON***

Borehole ID:	805342	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Boring	**UTM Zone::**	18

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

Easting::	445436.12	***Northing::***	5020272.02
Location Accuracy::		***Orig. Ground Elev m::***	73.7
Elev. Reliability Note::		***DEM Ground Elev m::***	75
Total Depth m::	9.8	***Primary Name::***	BH.93-5
Township::		***Concession::***	
Lot::		***Municipality:***	
Completion Date::	24-FEB-1993	***Static Water Level::***	-999.9
Primary Water Use::		***Sec. Water Use::***	

--Details--

Stratum ID:	218584256	***Top Depth(m):***	0.0
Bottom Depth(m):	0.5	***Stratum Desc:***	Ice
Stratum ID:	218584257	***Top Depth(m):***	0.5
Bottom Depth(m):	5.3	***Stratum Desc:***	Water
Stratum ID:	218584258	***Top Depth(m):***	5.3
Bottom Depth(m):	6.9	***Stratum Desc:***	Grey Very Loose Alluvium Sand With: Si Trace: Org M
Stratum ID:	218584259	***Top Depth(m):***	6.9
Bottom Depth(m):	8.6	***Stratum Desc:***	Grey Compact Sand
Stratum ID:	218584260	***Top Depth(m):***	8.6
Bottom Depth(m):	9.8	***Stratum Desc:***	Compact to Very Dense Till Silt - Sand With: Gr Trace: Cl

BORE	33	***1 of 1***	***S/155.5***	***88.8***	***ON***

Borehole ID:	803261	***Type:***	Borehole
Use:	Geotechnical/Geological Investigation	***Status::***	
Drill Method::	Hollow stem auger	***UTM Zone::***	18
Easting::	445524.53	***Northing::***	5020210.88
Location Accuracy::		***Orig. Ground Elev m::***	88.9
Elev. Reliability Note::		***DEM Ground Elev m::***	86.4
Total Depth m::	11.3	***Primary Name::***	BH.88-1
Township::		***Concession::***	
Lot::		***Municipality:***	
Completion Date::	17-JUN-1988	***Static Water Level::***	4.8
Primary Water Use::		***Sec. Water Use::***	

--Details--

Stratum ID:	218575631	***Top Depth(m):***	0.0
Bottom Depth(m):	0.1	***Stratum Desc:***	Topsoil
Stratum ID:	218575632	***Top Depth(m):***	0.1
Bottom Depth(m):	0.3	***Stratum Desc:***	Brown Fill-Misc Sand Trace: Si
Stratum ID:	218575633	***Top Depth(m):***	0.3
Bottom Depth(m):	4.3	***Stratum Desc:***	Grey-Brown to Grey Very Stiff to Soft Fill-Misc Silty Clay With: Sa Trace: Gr Tr Org M
Stratum ID:	218575634	***Top Depth(m):***	4.3
Bottom Depth(m):	6.2	***Stratum Desc:***	Brown Very Loose to Loose Sand Trace: Gr Tr Org M Occasional: Cl
Stratum ID:	218575635	***Top Depth(m):***	6.2
Bottom Depth(m):	6.9	***Stratum Desc:***	Brown to Grey Loose Silt - Sand Occasional: Cl
Stratum ID:	218575636	***Top Depth(m):***	6.9
Bottom Depth(m):	8.6	***Stratum Desc:***	Grey Very Stiff Silty Clay

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

Stratum ID:	218575637	**Top Depth(m):**	8.6
Bottom Depth(m):	9.6	**Stratum Desc:**	Grey Very Stiff Layered Silty Clay & Clayey Silt
Stratum ID:	218575638	**Top Depth(m):**	9.6
Bottom Depth(m):	11.3	**Stratum Desc:**	Brown Dense to Very Dense Sand With: Si

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BORE 34 **1 of 1** **SSW/156.7** **83.0** **ON**

Borehole ID:	803276	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445498.03	**Northing::**	5020217.37
Location Accuracy::		**Orig. Ground Elev m::**	83.1
Elev. Reliability Note::		**DEM Ground Elev m::**	81.4
Total Depth m::	6.7	**Primary Name::**	BH.4
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	15-OCT-1986	**Static Water Level::**	1.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218575718	**Top Depth(m):**	0.0
Bottom Depth(m):	0.3	**Stratum Desc:**	Topsoil
Stratum ID:	218575719	**Top Depth(m):**	0.3
Bottom Depth(m):	3.7	**Stratum Desc:**	Brown Loose to Very Loose Fill-Misc Sand Trace: Si
Stratum ID:	218575720	**Top Depth(m):**	3.7
Bottom Depth(m):	4.6	**Stratum Desc:**	Brown Loose Fill-Misc Silt - Sand Trace: Cl Tr Org M
Stratum ID:	218575721	**Top Depth(m):**	4.6
Bottom Depth(m):	6.7	**Stratum Desc:**	Grey Very Stiff Silty Clay

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BORE 35 **1 of 1** **SSW/157.0** **79.9** **ON**

Borehole ID:	803268	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445477.52	**Northing::**	5020226.75
Location Accuracy::		**Orig. Ground Elev m::**	79.6
Elev. Reliability Note::		**DEM Ground Elev m::**	77.3
Total Depth m::	7.6	**Primary Name::**	BH.88-2
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	20-JUN-1988	**Static Water Level::**	3.8
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218575676	**Top Depth(m):**	0.0
Bottom Depth(m):	0.2	**Stratum Desc:**	Topsoil
Stratum ID:	218575677	**Top Depth(m):**	0.2
Bottom Depth(m):	0.8	**Stratum Desc:**	Grey to Brown Fill-Misc Silt - Sand
Stratum ID:	218575678	**Top Depth(m):**	0.8
Bottom Depth(m):	2.2	**Stratum Desc:**	Grey Stiff Silty Clay

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

Stratum ID:	218575679	**Top Depth(m):**	2.2
Bottom Depth(m):	3.0	**Stratum Desc:**	Grey Stiff Layered Silty Clay & Clayey Silt
Stratum ID:	218575680	**Top Depth(m):**	3.0
Bottom Depth(m):	5.5	**Stratum Desc:**	Grey Compact to Dense Layered Sandy Silt & Silty Sand With: Si
Stratum ID:	218575681	**Top Depth(m):**	5.5
Bottom Depth(m):	7.6	**Stratum Desc:**	Grey Dense to Loose Silt - Sand

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BORE 37 **1 of 1** **SW/174.2** **85.4** **ON**

Borehole ID:	802858	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Rotary (conventional)	**UTM Zone::**	18
Easting::	445391.41	**Northing::**	5020302.35
Location Accuracy::		**Orig. Ground Elev m::**	74.7
Elev. Reliability Note::		**DEM Ground Elev m::**	87.5
Total Depth m::	19.7	**Primary Name::**	BH 82-3
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	04-MAR-1982	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218573873	**Top Depth(m):**	0.0
Bottom Depth(m):	1.2	**Stratum Desc:**	Grey-Brown Stiff Alluvium Silty Clay
Stratum ID:	218573874	**Top Depth(m):**	1.2
Bottom Depth(m):	3.6	**Stratum Desc:**	Dark Grey-Brown Very Loose Alluvium Silt - Sand With: Org M
Stratum ID:	218573875	**Top Depth(m):**	3.6
Bottom Depth(m):	3.8	**Stratum Desc:**	Brown-Grey Loose Sand Trace: Gr Tr Cob
Stratum ID:	218573876	**Top Depth(m):**	3.8
Bottom Depth(m):	8.1	**Stratum Desc:**	Brown to Grey Compact Sand
Stratum ID:	218573877	**Top Depth(m):**	8.1
Bottom Depth(m):	8.5	**Stratum Desc:**	Grey Compact Sand Trace: Gr
Stratum ID:	218573878	**Top Depth(m):**	8.5
Bottom Depth(m):	10.4	**Stratum Desc:**	Grey Compact Sand Trace: Gr
Stratum ID:	218573879	**Top Depth(m):**	10.4
Bottom Depth(m):	11.9	**Stratum Desc:**	Grey Loose to Compact Sand Trace: Si
Stratum ID:	218573880	**Top Depth(m):**	11.9
Bottom Depth(m):	13.7	**Stratum Desc:**	Grey Dense to Very Dense Sand With: Gr W Cob
Stratum ID:	218573881	**Top Depth(m):**	13.7
Bottom Depth(m):	19.7	**Stratum Desc:**	Grey Bedrock Limestone Weathering below 18.9m depth

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BORE 38 **1 of 1** **S/178.3** **90.9** **ON**

Borehole ID:	803272	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18

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

Easting::	445534.54	***Northing::***	5020186.2
Location Accuracy::		***Orig. Ground Elev m::***	88.1
Elev. Reliability Note::		***DEM Ground Elev m::***	88.9
Total Depth m::	6.7	***Primary Name::***	BH.3A
Township::		***Concession::***	
Lot::		***Municipality:***	
Completion Date::	10-OCT-1986	***Static Water Level::***	1.9
Primary Water Use::		***Sec. Water Use::***	

--Details--

Stratum ID:	218575698	***Top Depth(m):***	0.0
Bottom Depth(m):	0.2	***Stratum Desc:***	Topsoil
Stratum ID:	218575699	***Top Depth(m):***	0.2
Bottom Depth(m):	0.3	***Stratum Desc:***	Brown Fill-Misc Sand
Stratum ID:	218575700	***Top Depth(m):***	0.3
Bottom Depth(m):	3.3	***Stratum Desc:***	Grey-Brown to Grey Stiff to Firm Fill-Misc Silty Clay With: Sa Trace: Org M
Stratum ID:	218575701	***Top Depth(m):***	3.3
Bottom Depth(m):	4.2	***Stratum Desc:***	Dark Brown Loose Fill-Misc Sand Trace: Si Tr Brk Frag Tr Cob Tr Org M
Stratum ID:	218575702	***Top Depth(m):***	4.2
Bottom Depth(m):	4.9	***Stratum Desc:***	Brown Loose Sand Trace: Org M
Stratum ID:	218575703	***Top Depth(m):***	4.9
Bottom Depth(m):	6.7	***Stratum Desc:***	Brown Compact to Dense Silt - Sand

BORE **39** ***1 of 2*** ***SW/180.6*** ***82.1*** ***ON***

Borehole ID:	612372	***Type:***	Borehole
Use:		***Status::***	
Drill Method::		***UTM Zone::***	18
Easting::	445331	***Northing::***	5020382
Location Accuracy::		***Orig. Ground Elev m::***	80.8
Elev. Reliability Note::		***DEM Ground Elev m::***	81.1
Total Depth m::	31.4	***Primary Name::***	
Township::		***Concession::***	
Lot::		***Municipality:***	
Completion Date::	NOV-1963	***Static Water Level::***	-999.9
Primary Water Use::		***Sec. Water Use::***	

--Details--

Stratum ID:	218391037	***Top Depth(m):***	29.0
Bottom Depth(m):	31.4	***Stratum Desc:***	SAND,GRAVEL. 00103,SILT,SAND. BROWN,FIRM. CLAY,SILT,SAND. GREY,SOFT. SAND,GRAVEL-COARSE. G
Stratum ID:	218391036	***Top Depth(m):***	9.1
Bottom Depth(m):	29.0	***Stratum Desc:***	SAND.
Stratum ID:	218391034	***Top Depth(m):***	0.0
Bottom Depth(m):	4.6	***Stratum Desc:***	SOIL. YELLOW.
Stratum ID:	218391035	***Top Depth(m):***	4.6
Bottom Depth(m):	9.1	***Stratum Desc:***	CLAY.

BORE **40** ***1 of 1*** ***S/182.5*** ***89.8***

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

Borehole ID: 803271 **Type:** Borehole
Use: Geotechnical/Geological Investigation **Status::**
Drill Method:: Hollow stem auger **UTM Zone::** 18
Easting:: 445532.53 **Northing::** 5020182.24
Location Accuracy:: **Orig. Ground Elev m::** 88
Elev. Reliability Note:: **DEM Ground Elev m::** 88.9
Total Depth m:: 2.9 **Primary Name::** BH.3
Township:: **Concession::**
Lot:: **Municipality:**
Completion Date:: 10-OCT-1986 **Static Water Level::** -999.9
Primary Water Use:: **Sec. Water Use::**

--Details--

Stratum ID:	218575694	**Top Depth(m):**	0.0
Bottom Depth(m):	0.2	**Stratum Desc:**	Topsoil
Stratum ID:	218575695	**Top Depth(m):**	0.2
Bottom Depth(m):	0.3	**Stratum Desc:**	Brown Fill-Misc Sand
Stratum ID:	218575696	**Top Depth(m):**	0.3
Bottom Depth(m):	2.2	**Stratum Desc:**	Grey-Brown to Grey Stiff to Firm Fill-Misc Silty Clay Trace: Sa Tr Gr Tr Org M
Stratum ID:	218575697	**Top Depth(m):**	2.2
Bottom Depth(m):	2.9	**Stratum Desc:**	Grey Loose Fill-Misc Sand Trace: Org M

BORE	41	1 of 1	SW/184.0	85.2	ON

Borehole ID: 801267 **Type:** Borehole
Use: Geotechnical/Geological Investigation **Status::**
Drill Method:: Hollow stem auger **UTM Zone::** 18
Easting:: 445384.72 **Northing::** 5020293.47
Location Accuracy:: **Orig. Ground Elev m::** 74.6
Elev. Reliability Note:: **DEM Ground Elev m::** 89.9
Total Depth m:: 19.2 **Primary Name::** BH 80-1
Township:: **Concession::**
Lot:: **Municipality:**
Completion Date:: 18-MAR-1980 **Static Water Level::** -999.9
Primary Water Use:: **Sec. Water Use::**

--Details--

Stratum ID:	218567495	**Top Depth(m):**	0.0
Bottom Depth(m):	1.4	**Stratum Desc:**	Grey Alluvium Silty Clay With: F Sa
Stratum ID:	218567496	**Top Depth(m):**	1.4
Bottom Depth(m):	4.0	**Stratum Desc:**	Dark Dark Brown to Grey Very Loose Alluvium Silt - Sand Trace: Org M Occasional: Cl
Stratum ID:	218567497	**Top Depth(m):**	4.0
Bottom Depth(m):	5.3	**Stratum Desc:**	Grey Compact Silt - Sand
Stratum ID:	218567498	**Top Depth(m):**	5.3
Bottom Depth(m):	7.2	**Stratum Desc:**	Grey Compact Sand
Stratum ID:	218567499	**Top Depth(m):**	7.2
Bottom Depth(m):	11.0	**Stratum Desc:**	Grey Compact Sand Trace: Gr
Stratum ID:	218567500	**Top Depth(m):**	11.0
Bottom Depth(m):	13.1	**Stratum Desc:**	Grey Compact Till Silt - Sand With: Gr Trace: Cl Occasional: Cob

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

Stratum ID:	218567501	**Top Depth(m):**	13.1
Bottom Depth(m):	13.3	**Stratum Desc:**	Grey Till Boulders
Stratum ID:	218567502	**Top Depth(m):**	13.3
Bottom Depth(m):	19.2	**Stratum Desc:**	Grey Bedrock Limestone

BORE 43 **1 of 1** **SW/190.1** **82.2** **ON**

Borehole ID:	805345	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445350.32	**Northing::**	5020342.61
Location Accuracy::		**Orig. Ground Elev m::**	80.8
Elev. Reliability Note::		**DEM Ground Elev m::**	82.5
Total Depth m::	4.6	**Primary Name::**	BH.93-6
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	04-MAR-1993	**Static Water Level::**	2.8
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218584270	**Top Depth(m):**	0.0
Bottom Depth(m):	0.7	**Stratum Desc:**	Brown Fill-Misc Silt - Sand With: Gr Occasional: Cob
Stratum ID:	218584271	**Top Depth(m):**	0.7
Bottom Depth(m):	1.4	**Stratum Desc:**	Dark Brown Loose Fill-Misc Silt - Sand Trace: Org M
Stratum ID:	218584272	**Top Depth(m):**	1.4
Bottom Depth(m):	1.8	**Stratum Desc:**	Brown Loose Fill-Misc Silt - Sand Trace: Gr
Stratum ID:	218584273	**Top Depth(m):**	1.8
Bottom Depth(m):	3.3	**Stratum Desc:**	Brown Loose Sand
Stratum ID:	218584274	**Top Depth(m):**	3.3
Bottom Depth(m):	4.1	**Stratum Desc:**	Grey-Brown Very Stiff Weathered Crust Silty Clay
Stratum ID:	218584275	**Top Depth(m):**	4.1
Bottom Depth(m):	4.6	**Stratum Desc:**	Grey-Brown Loose clay silt Occasional: Sa

BORE 44 **1 of 1** **SW/196.9** **82.4** **ON**

Borehole ID:	802864	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Rotary (conventional)	**UTM Zone::**	18
Easting::	445377.83	**Northing::**	5020277.6
Location Accuracy::		**Orig. Ground Elev m::**	74.8
Elev. Reliability Note::		**DEM Ground Elev m::**	86
Total Depth m::	15.9	**Primary Name::**	BH 82-4
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	05-MAR-1982	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218573904	**Top Depth(m):**	0.0
Bottom Depth(m):	1.2	**Stratum Desc:**	Grey-Brown Alluvium Silty Clay

Stratum ID:	218573905	**Top Depth(m):**	1.2
Bottom Depth(m):	2.7	**Stratum Desc:**	Dark Grey-Brown Very Loose Alluvium Silt - Sand With: Org M Trace: Constr Debris
Stratum ID:	218573906	**Top Depth(m):**	2.7
Bottom Depth(m):	3.0	**Stratum Desc:**	Brown Sand Trace: Gr
Stratum ID:	218573907	**Top Depth(m):**	3.0
Bottom Depth(m):	8.1	**Stratum Desc:**	Brown to Grey Loose to Dense Sand With: Si
Stratum ID:	218573908	**Top Depth(m):**	8.1
Bottom Depth(m):	8.8	**Stratum Desc:**	Grey Sand With: Gr
Stratum ID:	218573909	**Top Depth(m):**	8.8
Bottom Depth(m):	12.8	**Stratum Desc:**	Grey Compact to Dense Till sand silt With: Cl W Gr W Blds
Stratum ID:	218573910	**Top Depth(m):**	12.8
Bottom Depth(m):	15.9	**Stratum Desc:**	Grey Bedrock Limestone

BORE 45 — **1 of 2** — **SW/214.0** — **82.6** — **ON**

Borehole ID:	612370	**Type:**	Borehole
Use:		**Status::**	
Drill Method::		**UTM Zone::**	18
Easting::	445311	**Northing::**	5020352
Location Accuracy::		**Orig. Ground Elev m::**	83.8
Elev. Reliability Note::		**DEM Ground Elev m::**	82.4
Total Depth m::	32.9	**Primary Name::**	
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	MAR-1950	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218391026	**Top Depth(m):**	0.0
Bottom Depth(m):	32.9	**Stratum Desc:**	SOIL,SAND. . DENSE. TILL,SILT,BOULDERS. 00000 030 00050 018 00000073000500 77SILT

BORE 46 — **1 of 1** — **S/224.0** — **90.5** — **ON**

Borehole ID:	806857	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Other Method	**UTM Zone::**	18
Easting::	445547.07	**Northing::**	5020139.47
Location Accuracy::		**Orig. Ground Elev m::**	89
Elev. Reliability Note::		**DEM Ground Elev m::**	90.9
Total Depth m::	3	**Primary Name::**	TP.1
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	17-JAN-1986	**Static Water Level::**	-999.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218590408	**Top Depth(m):**	0.0
Bottom Depth(m):	0.3	**Stratum Desc:**	Brown Fill-Misc Sand With: Gr Trace: Si Tr Org M Occasional: Cob

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

Stratum ID:	218590409	***Top Depth(m):***	0.3
Bottom Depth(m):	2.6	***Stratum Desc:***	Grey Fill-Misc sand silt With: Cob W Org M
Stratum ID:	218590410	***Top Depth(m):***	2.6
Bottom Depth(m):	3.0	***Stratum Desc:***	Brown Sand Trace: Si

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BORE **47** ***1 of 1*** ***S/229.6*** ***92.0*** ***ON***

Borehole ID:	803279	***Type:***	Borehole
Use:	Geotechnical/Geological Investigation	***Status::***	
Drill Method::	Hollow stem auger	***UTM Zone::***	18
Easting::	445559.03	***Northing::***	5020133.75
Location Accuracy::		***Orig. Ground Elev m::***	90.5
Elev. Reliability Note::		***DEM Ground Elev m::***	92.3
Total Depth m::	12.8	***Primary Name::***	BH.1
Township::		***Concession::***	
Lot::		***Municipality:***	
Completion Date::	09-OCT-1986	***Static Water Level::***	1.8
Primary Water Use::		***Sec. Water Use::***	

--Details--

Stratum ID:	218575736	***Top Depth(m):***	0.0
Bottom Depth(m):	2.2	***Stratum Desc:***	Brown Loose to Very Loose Fill-Misc Sand Trace: Org M Tr Constr Debris
Stratum ID:	218575737	***Top Depth(m):***	2.2
Bottom Depth(m):	7.0	***Stratum Desc:***	Brown Compact to Dense Sand Trace: Si
Stratum ID:	218575738	***Top Depth(m):***	7.0
Bottom Depth(m):	10.6	***Stratum Desc:***	Brown to Grey Compact Silt - Sand
Stratum ID:	218575739	***Top Depth(m):***	10.6
Bottom Depth(m):	12.8	***Stratum Desc:***	Grey Very Stiff Silty Clay With: Sa

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BORE **48** ***1 of 1*** ***SW/232.4*** ***90.0*** ***ON***

Borehole ID:	802870	***Type:***	Borehole
Use:	Geotechnical/Geological Investigation	***Status::***	
Drill Method::	Hollow stem auger	***UTM Zone::***	18
Easting::	445328.11	***Northing::***	5020300.53
Location Accuracy::		***Orig. Ground Elev m::***	80.4
Elev. Reliability Note::		***DEM Ground Elev m::***	91.7
Total Depth m::	20.4	***Primary Name::***	BH 82-5
Township::		***Concession::***	
Lot::		***Municipality:***	
Completion Date::	11-MAR-1982	***Static Water Level::***	-999.9
Primary Water Use::		***Sec. Water Use::***	

--Details--

Stratum ID:	218573946	***Top Depth(m):***	17.4
Bottom Depth(m):	20.4	***Stratum Desc:***	Grey Bedrock Limestone
Stratum ID:	218573935	***Top Depth(m):***	0.0
Bottom Depth(m):	0.2	***Stratum Desc:***	Topsoil
Stratum ID:	218573936	***Top Depth(m):***	0.2
Bottom Depth(m):	1.1	***Stratum Desc:***	Brown Loose Sand Trace: Si
Stratum ID:	218573937	***Top Depth(m):***	1.1

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

Bottom Depth(m):	4.1	**Stratum Desc:**	Grey-Brown Very Stiff Weathered Crust Silty Clay With: F Sa
Stratum ID:	218573938	**Top Depth(m):**	4.1
Bottom Depth(m):	4.5	**Stratum Desc:**	Brown Dense Silt - Sand
Stratum ID:	218573939	**Top Depth(m):**	4.5
Bottom Depth(m):	5.1	**Stratum Desc:**	Grey-Brown Very Stiff Weathered Crust Silty Clay
Stratum ID:	218573940	**Top Depth(m):**	5.1
Bottom Depth(m):	5.9	**Stratum Desc:**	Brown Loose sand silt Occasional: Gr
Stratum ID:	218573941	**Top Depth(m):**	5.9
Bottom Depth(m):	8.5	**Stratum Desc:**	Brown to Grey Compact to Dense Sand
Stratum ID:	218573942	**Top Depth(m):**	8.5
Bottom Depth(m):	9.8	**Stratum Desc:**	Grey Dense Sand
Stratum ID:	218573943	**Top Depth(m):**	9.8
Bottom Depth(m):	14.6	**Stratum Desc:**	Sand
Stratum ID:	218573944	**Top Depth(m):**	14.6
Bottom Depth(m):	16.8	**Stratum Desc:**	Sand - Gravel With: Cob
Stratum ID:	218573945	**Top Depth(m):**	16.8
Bottom Depth(m):	17.4	**Stratum Desc:**	Very Dense Till With: Cob W Blds

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BORE 49 **1 of 1** **S/237.4** **89.5** **ON**

Borehole ID:	803284	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445525.02	**Northing::**	5020127.88
Location Accuracy::		**Orig. Ground Elev m::**	90.2
Elev. Reliability Note::		**DEM Ground Elev m::**	93.3
Total Depth m::	6.7	**Primary Name::**	BH.2
Township::		**Concession::**	
Lot::		**Municipality:**	
Completion Date::	10-OCT-1986	**Static Water Level::**	1.9
Primary Water Use::		**Sec. Water Use::**	

--Details--

Stratum ID:	218575762	**Top Depth(m):**	3.0
Bottom Depth(m):	6.7	**Stratum Desc:**	Brown Compact to Dense Sand Trace: Si
Stratum ID:	218575761	**Top Depth(m):**	0.0
Bottom Depth(m):	3.0	**Stratum Desc:**	Brown Very Loose Fill-Misc Sand Trace: Gr Tr Org M

BORE 50 **1 of 1** **SW/242.0** **88.4** **ON**

Borehole ID:	802874	**Type:**	Borehole
Use:	Geotechnical/Geological Investigation	**Status::**	
Drill Method::	Hollow stem auger	**UTM Zone::**	18
Easting::	445328.8	**Northing::**	5020276.02
Location Accuracy::		**Orig. Ground Elev m::**	80.3
Elev. Reliability Note::		**DEM Ground Elev m::**	88.9
Total Depth m::	20.4	**Primary Name::**	BH 82-6
Township::		**Concession::**	

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

Lot:: **Municipality:**
Completion Date:: 11-MAR-1982 **Static Water Level::** -999.9
Primary Water Use:: **Sec. Water Use::**

--Details--

Stratum ID: 218573962 **Top Depth(m):** 0.0
Bottom Depth(m): 0.2 **Stratum Desc:** Topsoil

Stratum ID: 218573963 **Top Depth(m):** 0.2
Bottom Depth(m): 0.9 **Stratum Desc:** Brown Sand Trace: Si

Stratum ID: 218573964 **Top Depth(m):** 0.9
Bottom Depth(m): 4.0 **Stratum Desc:** Grey-Brown Weathered Crust Silty Clay

Stratum ID: 218573965 **Top Depth(m):** 4.0
Bottom Depth(m): 13.6 **Stratum Desc:** Brown to Grey Sand

Stratum ID: 218573966 **Top Depth(m):** 13.6
Bottom Depth(m): 16.1 **Stratum Desc:** Sand - Gravel With: Cob W Blds

Stratum ID: 218573967 **Top Depth(m):** 16.1
Bottom Depth(m): 17.3 **Stratum Desc:** Till With: Cob W Blds

Stratum ID: 218573968 **Top Depth(m):** 17.3
Bottom Depth(m): 20.4 **Stratum Desc:** Grey Bedrock Limestone

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CA	14	1 of 6	SSE/56.1	101.5	R.M.O.C. WORKS DEPARTMENT HUNT CLUB RD. & RIVERSIDE DR. OTTAWA CITY ON

Certificate #: 7-0800-86-
Application Year: 86
Issue Date: 7/16/1986
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

CA	14	2 of 6	SSE/56.1	101.5	R.M. OF OTTAWA-CARLETON HUNT CLUB RD. RIVERSIDE DR. OTTAWA CITY ON

Certificate #: 3-1977-89-
Application Year: 89
Issue Date: 10/17/1989
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
CA	14	3 of 6	SSE/56.1	101.5	R.M. OF OTTAWA-CARLETON HUNT CLUB RD./RIVERSIDE DR. OTTAWA CITY ON

Certificate #:	7-0765-95-
Application Year:	95
Issue Date:	8/3/1995
Approval Type:	Municipal water
Status:	Approved
Application Type:	
Client Name::	
Client Address::	
Client City::	
Client Postal Code::	
Project Description::	
Contaminants::	
Emission Control::	

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
CA	14	4 of 6	SSE/56.1	101.5	R.M.O.C. TRANSPORTATION DEPARTMENT HUNT CLUB ROAD & RIVERSIDE RD. OTTAWA CITY ON

Certificate #:	3-0991-86-
Application Year:	86
Issue Date:	7/16/1986
Approval Type:	Municipal sewage
Status:	Approved
Application Type:	
Client Name::	
Client Address::	
Client City::	
Client Postal Code::	
Project Description::	
Contaminants::	
Emission Control::	

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
CA	14	5 of 6	SSE/56.1	101.5	R.M. OF OTTAWA-CARLETON RIVERSIDE DR./HUNT CLUB RD. OTTAWA CITY ON

Certificate #:	7-0690-97-
Application Year:	97
Issue Date:	7/23/1997
Approval Type:	Municipal water
Status:	Approved
Application Type:	
Client Name::	
Client Address::	
Client City::	
Client Postal Code::	
Project Description::	
Contaminants::	
Emission Control::	

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
CA	36	1 of 2	S/163.9	97.5	4059930 Canada Inc. 4000 Riverside Drive Ottawa ON K1V 2E8

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

Certificate #: 4964-5KQMLE
Application Year: 2003
Issue Date: 6/6/2003
Approval Type: Industrial Sewage Works
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
EHS	31	1 of 1	SE/135.4	103.5	3967 Riverside Drive Ottawa ON K1V 1C1

Postal Code:
City:
Address2:
Address1:
Provstate:
Order No.: 20101027007
Addit. Info Ordered::
Report Date: 11/4/2010
Report Type: Standard Report
Search Radius (km): 0.25

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
FST	42	1 of 4	S/188.3	90.6	SUNCOR ENERGY PRODUCTS PARTNERSHIP 4000 RIVERSIDE DR OTTAWA ON K1T 3S4

Instance Number: 27323048
Cont Name:
Instance Type: FS Liquid Fuel Tank
Fuel Type: Gasoline
Status: Active
Capacity: 50000
Tank Material: Fiberglass (FRP)
Corrosion Protection: Fiberglass
Tank Type: Double Wall UST
Install Year: 2003
Parent Facility Type: FS Gasoline Station - Self Serve
Facility Type: FS Liquid Fuel Tank

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
FST	42	2 of 4	S/188.3	90.6	SUNCOR ENERGY PRODUCTS PARTNERSHIP 4000 RIVERSIDE DR OTTAWA ON K1T 3S4

Instance Number: 27323047
Cont Name:
Instance Type: FS Liquid Fuel Tank
Fuel Type: Gasoline
Status: Active
Capacity: 50000
Tank Material: Fiberglass (FRP)
Corrosion Protection: Fiberglass
Tank Type: Double Wall UST

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

Install Year: 2003
Parent Facility Type: FS Gasoline Station - Self Serve
Facility Type: FS Liquid Fuel Tank

FST | **42** | **3 of 4** | **S/188.3** | **90.6** | **SUNCOR ENERGY PRODUCTS PARTNERSHIP**
4000 RIVERSIDE DR
OTTAWA ON K1T 3S4

Instance Number: 27323046
Cont Name:
Instance Type: FS Liquid Fuel Tank
Fuel Type: Gasoline
Status: Active
Capacity: 50000
Tank Material: Fiberglass (FRP)
Corrosion Protection: Fiberglass
Tank Type: Double Wall UST
Install Year: 2003
Parent Facility Type: FS Gasoline Station - Self Serve
Facility Type: FS Liquid Fuel Tank

FSTH | **36** | **2 of 2** | **S/163.9** | **97.5** | **1213475 ONTARIO INC O/A GAS STN**
4000 RIVERSIDE DR
OTTAWA ON K1V 2E8

License Issue Date: 3/10/2008 3:48:00 PM
Tank Status: Licensed
Tank Status As Of: December 2008
Operation Type: Retail Fuel Outlet
Facility Type: Gasoline Station - Self Serve

--Details--
Status: Active
Tank Fuel Type: Liquid Fuel Double Wall UST - Gasoline
Capacity: 50000
Corrosion Protection:
Year of Installation: 2003

Status: Active
Tank Fuel Type: Liquid Fuel Double Wall UST - Gasoline
Capacity: 50000
Corrosion Protection:
Year of Installation: 2003

Tank Fuel Type: Liquid Fuel Double Wall UST - Gasoline
Capacity: 50000
Corrosion Protection:
Year of Installation: 2003
Status: Active

PINC | **42** | **4 of 4** | **S/188.3** | **90.6** | **4000 RIVERSIDE DR., OTTAWA ON**

Incident ID:
Tank Status: RC Established
Attribute Category: FS-Perform P-line Inc Invest
Task Number: 4684776
Type: FS-Pipeline Incident

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

Incident Number: 1264978
Status Code: Pipeline Damage Reason Est
Summary: 4000 RIVERSIDE DR., OTTAWA - PIPELINE HIT 1 1/4"
Spills Action Centre:
Reported By: ryan.noble@enbridge.com
Affiliation:
Method Details: E-mail
Fuel Category: Natural Gas
Fuel Occurrence Type:
Date of Occurrence:
Occurrence Start Date: 2013/12/09
Health Impact:
Occurrence Desc:
Environment Impact:
Property Damage: No
Service Interupt:
Fuel Type:
Enforce Policy: Yes
Operation Type:
Damage Reason: Facility marking or location not sufficient
Public Relation:
Pipeline System:
Pipeline Type:
Depth:
Pipe Material:
Regualtor Location:
PSIG:
Regulator Type:
Notes:

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
RSC	2	1 of 1	-/0.0	90.7	3930 Riverside Drive Ottawa ON

Registration #:
RSC Type:
Restoration Type:
Date Submitted: 10/04/01
Date Acknowledg.:
Certification Date:
Date Returned: 10/09/01
Soil Type:
Criteria:
Current Property Use:
Certificate Prop Use #:
Intended Prop Use:
Applicable Standards:
Stratified (Y/N):
Consultant: Golder Associates
District Office: Ottawa
Property Municipal Address:
Legal Description:
Prop. Identification #::
Entire legal prop. (y/n):
UTM Coordinates:
Latitude & Longitude:
Accuracy Estimate:
Measurement Method:
CPU Issued Sect 1686:

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
SPL	14	6 of 6	SSE/56.1	101.5	City of Ottawa Huntclub rd and Riverside Dr Ottawa ON

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

Ref NO:	2714-7FSME9
Contaminant Code:	15
Contaminant Name:	OIL (PETROLEUM BASED, NOT SPECIFIED)
Contaminant Quantity:	0 other - see incident description
Incident Cause::	Other Discharges
Incident Dt:	
Incident Reason::	Weather
Incident Summary::	City of Ottawa, Sheen containment pond cont
MOE Reported Dt:	6/20/2008
Environmental Impact::	Possible
Nature of Impact::	Surface Water Pollution
Receiving Medium::	
SAC Action Class:	Notifications
Sector Source Type:	Sewer
Site Municipality:	Ottawa

WWIS 29 **2 of 2** **ENE/119.0** **103.5** **ON**

Well ID:	1508317	**Lot:**	
Construction Date::		**Concession:**	
Primary Water Use::	Domestic	**Concession Name:**	
Sec. Water Use::		**Easting NAD83::**	
Final Well Status::	Water Supply	**Northing NAD83::**	
Specific Capacity::		**Zone::**	
Municipality:	OTTAWA CITY	**UTM Reliability::**	
County:	OTTAWA-CARLETON		

Bore Hole Information

--	--
Bore Hole ID:	10030352
DP2BR:	128
Code OB:	r
Code OB Description:	Bedrock
Open Hole:	
Date Completed:	28-JUN-58
Remarks:	
Zone:	18
East 83:	445815.7
North 83:	5020642
UTMRC:	9
UTMRC Description:	unknown UTM
Location Method:	p9
Org CS:	
Elevation:	103.47
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:	931009356
Layer:	1
General Color:	
Most Common Material:	MEDIUM SAND
Other Materials:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	50

Formation End Depth UOM:	ft
--	--
Formation ID:	931009357
Layer:	2
General Color:	
Most Common Material:	CLAY
Other Materials:	
Other Materials:	
Formation Top Depth:	50
Formation End Depth:	105
Formation End Depth UOM:	ft
--	--
Formation ID:	931009358
Layer:	3
General Color:	
Most Common Material:	HARDPAN
Other Materials:	
Other Materials:	
Formation Top Depth:	105
Formation End Depth:	128
Formation End Depth UOM:	ft
--	--
Formation ID:	931009359
Layer:	4
General Color:	
Most Common Material:	LIMESTONE
Other Materials:	
Other Materials:	
Formation Top Depth:	128
Formation End Depth:	135
Formation End Depth UOM:	ft
--	--
Method of Construction & Well Use	
--	--
Method Construction ID:	961508317
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	
--	--
Pipe Information	
--	--
Pipe ID:	10578922
Casing Number:	1
Comment:	
Alt Name:	
--	--
Construction Record - Casing	
--	--
Casing ID:	930053356
Layer:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	128
Casing Diameter:	5
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
--	--
Casing ID:	930053357
Layer:	2
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	135
Casing Diameter:	5
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
--	--

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

Well Yield Testing	
--	--
Pump Test ID:	991508317
Pump Set At:	
Static Level:	78
Final Level After Pumping:	90
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:	2
Pumping Duration MIN:	0
Flowing:	N
--	--
Water Details	
--	--
Water ID:	933462766
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	135
Water Found Depth UOM:	ft
--	--
--	--

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
WWIS	**39**	***2 of 2***	***SW/180.6***	***82.1***	***lot 26 con A ON***

Well ID:	1504330	***Lot:***	026
Construction Date::		***Concession:***	A
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:	10026373
DP2BR:	
Code OB:	o
Code OB Description:	Overburden
Open Hole:	
Date Completed:	12-NOV-63
Remarks:	
Zone:	18
East 83:	445330.7
North 83:	5020382
UTMRC:	5
UTMRC Description:	margin of error : 100 m - 300 m
Location Method:	p5
Org CS:	
Elevation:	81.07
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:	930999164
Layer:	1
General Color:	YELLOW
Most Common Material:	TOPSOIL
Other Materials:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	15
Formation End Depth UOM:	ft
--	--
Formation ID:	930999165
Layer:	2
General Color:	
Most Common Material:	CLAY
Other Materials:	
Other Materials:	
Formation Top Depth:	15
Formation End Depth:	30
Formation End Depth UOM:	ft
--	--
Formation ID:	930999166
Layer:	3
General Color:	
Most Common Material:	MEDIUM SAND
Other Materials:	
Other Materials:	
Formation Top Depth:	30
Formation End Depth:	95
Formation End Depth UOM:	ft
--	--
Formation ID:	930999167
Layer:	4
General Color:	
Most Common Material:	MEDIUM SAND
Other Materials:	GRAVEL
Other Materials:	
Formation Top Depth:	95
Formation End Depth:	103
Formation End Depth UOM:	ft
--	--
Method of Construction & Well Use	
--	--
Method Construction ID:	961504330
Method Construction Code:	7
Method Construction:	Diamond
Other Method Construction:	
--	--
Pipe Information	
--	--
Pipe ID:	10574943
Casing Number:	1
Comment:	
Alt Name:	
--	--
Construction Record - Casing	
--	--
Casing ID:	930045474
Layer:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	103

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

Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
--	--
Well Yield Testing	
--	--
Pump Test ID:	991504330
Pump Set At:	
Static Level:	45
Final Level After Pumping:	80
Recommended Pump Depth:	80
Pumping Rate:	17
Flowing Rate:	
Recommended Pump Rate:	17
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
--	--
Water Details	
--	--
Water ID:	933457480
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	103
Water Found Depth UOM:	ft
--	--
--	--

WWIS	**45**	***2 of 2***	***SW/214.0***	***82.6***	***lot 26 con A ON***

Well ID:	1504118	**Lot:**	026
Construction Date::		**Concession:**	A
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:	10026161
DP2BR:	
Code OB:	o
Code OB Description:	Overburden
Open Hole:	
Date Completed:	01-MAR-50
Remarks:	
Zone:	18
East 83:	445310.7
North 83:	5020352
UTMRC:	9
UTMRC Description:	unknown UTM
Location Method:	p9
Org CS:	
Elevation:	82.4
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:	930998446
Layer:	1
General Color:	
Most Common Material:	TOPSOIL
Other Materials:	MEDIUM SAND
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	108
Formation End Depth UOM:	ft
--	--
Method of Construction & Well Use	
--	--
Method Construction ID:	961504118
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	
--	--
Pipe Information	
--	--
Pipe ID:	10574731
Casing Number:	1
Comment:	
Alt Name:	
--	--
Construction Record - Casing	
--	--
Casing ID:	930045049
Layer:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	108
Casing Diameter:	5
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
--	--
Well Yield Testing	
--	--
Pump Test ID:	991504118
Pump Set At:	
Static Level:	26
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	20
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:	0
Pumping Duration MIN:	30
Flowing:	N
--	--
Water Details	
--	--
Water ID:	933457199

DB	Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site
Layer:		1			
Kind Code:		1			
Kind:		FRESH			
Water Found Depth:		108			
Water Found Depth UOM:		ft			
--		--			
--		--			

Unplottable Summary

Total: 41 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
CA	Longwood Building Corporation	Part of Lot 6, Between Concession 2 & 3	Ottawa ON	
CA	R.M. OF OTTAWA-CARLETON	HUNT CLUB ROAD	OTTAWA CITY ON	
CA	R.M. OF OTTAWA-CARLETON	HUNT CLUB ROAD FEEDERMAIN	OTTAWA CITY ON	
CA	R.M. OF OTTAWA-CARLETON	HUNT CLUB ROAD	OTTAWA CITY ON	
CA	OTTAWA CITY	HUNT CLUB RD./S.E. TRANSITWAY	OTTAWA CITY ON	
CA	R.M. OF OTTAWA-CARLETON	HUNT CLUB RD.	OTTAWA CITY ON	
CA	CAMPEAU CORP.	RIVERSIDE DR.	OTTAWA ON	
CA	1250353 Ontario Limited	Part of Lot 6, Concession 2 and 3, Rideau	Ottawa ON	
CA	R.M. OF OTTAWA-CARLETON	HUNT CLUB ROAD	OTTAWA CITY ON	
CA	Riverwalk Park Subdivision	Kimberwick Crescent	Ottawa ON	
CA	First Capital Asset Management ULC	Part of Lot 6, Concession 2 Reference Plan 4R-22210	Ottawa ON	
CA	Longwood Building Corporation	Part of Lot 6 in the Gore Concession between Concessions 2 & 3, Rideau Front	Ottawa ON	
CA	PEREZ CORPORATION	STREET NO. 1 RIVERSIDE DR.	OTTAWA CITY ON	
CA	R.M. OF OTTAWA-CARL.S.E.TRANSITWAY ST. 1	E. SIDE OF RIVERSIDE DR.	OTTAWA CITY ON	
CA	City of Ottawa	Riverside Dr Lot 6, Concession 2 RF	Ottawa ON	
CA	CAMPEAU CORP.	RIVERSIDE DR.	OTTAWA ON	
CA	City of Ottawa	Hunt Club Road from the intersection of Hawthorne Road east apporx. 1030m	Ottawa ON	

CA	R.M. OF OTTAWA-CARLETON	HUNT CLUB ROAD	OTTAWA CITY ON	
CA	City of Ottawa	Riverside Dr Lot 6, Concession 2 RF	Ottawa ON	
CA	J. PEREZ CORPORATION STM MGN. 3-0842-87	STREET #1 RIVERSIDE DR.	OTTAWA CITY ON	
CA	Suncor Energy Products Inc.		Ottawa ON	
ECA	2436026 Ontario Inc.	Lot 5	City of Ottawa ON	K4P 1A2
GEN	OTTAWA FLYING CLUB	CONC. 2 RFN PT LOT 6 RR#5, HUNTCLUB ROAD	OTTAWA ON	K1G 3N3
GEN	OTTAWA FLYING CLUB 29-334	CONC. 2 RFN PT LOT 6 RR#5, HUNTCLUB ROAD	OTTAWA ON	K1G 3N3
GEN	GVT. OF CAN. - PUBLIC WORKS CANADA18-229	SIR CHARLES TUPPER BUILDING CONFEDERATION HEIGHTS, RIVERSIDE DRIVE	OTTAWA ON	
GEN	GVT. OF CAN. - PUBLIC WORKS CANADA	REPROGRAPHIC SERVICES TUPPER BLDG. RIVERSIDE DRIVE	OTTAWA ON	K1A 0M2
GEN	PUBLIC WORKS CANADA	SIR CHARLES TUPPER BUILDING CONFEDERATION HEIGHTS- RIVERSIDE DRIVE	OTTAWA ON	
GEN	OTTAWA-CARLTON, REGIONAL MUNICIPALITY OF	HURDMAN'S BRIDGE, PUMPING STATION RIVERSIDE DRIVE	OTTAWA ON	
GEN	HUDSON GEN FLIGHT SERVICE INC	SKY SERVICE DIVISION OTTAWA AIRPORT-HUNT CLUB RD/LINDBERG P	OTTAWA ON	K1G 3N3
GEN	OTTAWA FLYING CLUB 29-334	HUNT CLUB ROAD CONCESSION 2, RFN. PART LOT 6	OTTAWA ON	
GEN	HUDSON GEN(OUT OF BUSINESS)NC 20-051	SKY SERVICE DIVISION OTTAWA AIRPORT-HUNT CLUB RD/LINDBERG P	OTTAWA ON	K1G 3N3
GEN	GVT. OF CAN. - TRANSPORT CANADA 18-233	SYSTEMS DEVELOPMENT LABORATORY BUILDING T-78, HUNT CLUB RD.	OTTAWA ON	K1S 5B1
GEN	GVT. OF CAN. - TRANSPORT CANADA	SYSTEMS DEVELOPMENT LABORATORY BUILDING T-78, HUNT CLUB RD.	OTTAWA ON	K1S 5B1
OPCB	R.M.O.C., WORKS DEPT.	BILLINGS BRIDGE ANNEX.	OTTAWA ON	
PRT	HUNTCLUB ESSO K BASSETT	HUNT CLUB RD	OTTAWA ON	K1V8S6
PRT	JIM ROMBOUGH OTTAWA FLYING CLUB	HUNT CLUB RD	OTTAWA ON	K1V8S6
PRT	IMPERIAL OIL ATTN L MCCAMBLEY	HUNT CLUB RD	OTTAWA ON	K1V8S6
SPL	UNKNOWN	COTTERS CR OFF OF HUNT CLUB	OTTAWA CITY ON	

SPL		Hunt Club Drive West near Hawthorne	Ottawa ON
SPL	ULTRAMAR	RIVERSIDE DRIVE AT TRANSIT WAY (NEAR POST OFFICE) TANK TRUCK (CARGO)	OTTAWA CITY ON
SPL	Enbridge Gas Distribution Inc.; contractor R. B. Somerville Ltd<UNOFFICIAL>	West Hunt Club Road	Ottawa ON

Unplottable Report

Database: CA

Site: ***Longwood Building Corporation***
Part of Lot 6, Between Concession 2 & 3 Ottawa ON

Certificate #:	6229-6EQGQE
Application Year:	2005
Issue Date:	7/28/2005
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: ***R.M. OF OTTAWA-CARLETON***
HUNT CLUB ROAD OTTAWA CITY ON

Certificate #:	7-1158-89-
Application Year:	89
Issue Date:	7/24/1989
Approval Type:	Municipal water
Status:	Approved
Application Type:	
Client Name::	
Client Address::	
Client City::	
Client Postal Code::	
Project Description::	
Contaminants::	
Emission Control::	

Database: CA

Site: ***R.M. OF OTTAWA-CARLETON***
HUNT CLUB ROAD FEEDERMAIN OTTAWA CITY ON

Certificate #:	7-1021-94-
Application Year:	94
Issue Date:	10/26/1994
Approval Type:	Municipal water
Status:	Approved
Application Type:	
Client Name::	
Client Address::	
Client City::	
Client Postal Code::	
Project Description::	
Contaminants::	
Emission Control::	

Database: CA

Site: R.M. OF OTTAWA-CARLETON
HUNT CLUB ROAD OTTAWA CITY ON

Certificate #: 3-1395-89-
Application Year: 89
Issue Date: 7/24/1989
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: OTTAWA CITY
HUNT CLUB RD./S.E. TRANSITWAY OTTAWA CITY ON

Certificate #: 3-0498-94-
Application Year: 94
Issue Date: 5/19/1994
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: R.M. OF OTTAWA-CARLETON
HUNT CLUB RD. OTTAWA CITY ON

Certificate #: 7-1643-89-
Application Year: 89
Issue Date: 10/17/1989
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

Database: CA

Site: CAMPEAU CORP.
RIVERSIDE DR. OTTAWA ON

Certificate #: 3-0118-85-006
Application Year: 85
Issue Date: 3/1/85
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:*** ***1250353 Ontario Limited***
Part of Lot 6, Concession 2 and 3, Rideau Ottawa ON

Certificate #: 9386-674PJH
Application Year: 2004
Issue Date: 12/16/2004
Approval Type: Industrial Sewage Works
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

Database: ***CA*** ***Site:*** ***R.M. OF OTTAWA-CARLETON***
HUNT CLUB ROAD OTTAWA CITY ON

Certificate #: 3-1277-88-
Application Year: 88
Issue Date: 7/27/1988
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:*** ***Riverwalk Park Subdivision***
Kimberwick Crescent Ottawa ON

Certificate #: 3-0842-87-006
Application Year: 02
Issue Date: 2/7/02
Approval Type: Municipal & Private sewage
Status: Approved
Application Type: Notice
Client Name:: Claridge Homes (Briar Ridge) Inc.
Client Address:: 210 Gladstone Avenue
Client City:: Ottawa
Client Postal Code:: K4B 1H9
Project Description:: This application is for an amendment to an existing Certificate of Approval for a minor adjustment to the overflow weir to provide improved maintenance of the outlet control.
Contaminants::
Emission Control::

Database: ***CA*** ***Site:*** ***First Capital Asset Management ULC***

Part of Lot 6, Concession 2 Reference Plan 4R-22210 Ottawa ON

Certificate #: 3855-7WYQYJ
Application Year: 2009
Issue Date: 10/20/2009
Approval Type: Air
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

Database: ***CA***

Site: ***Longwood Building Corporation***
Part of Lot 6 in the Gore Concession between Concessions 2 & 3, Rideau Front Ottawa ON

Certificate #: 7831-6FARGB
Application Year: 2005
Issue Date: 8/26/2005
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: ***PEREZ CORPORATION***
STREET NO. 1 RIVERSIDE DR. OTTAWA CITY ON

Certificate #: 7-0478-87-
Application Year: 87
Issue Date: 5/5/1987
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

Database: ***CA***

Site: ***R.M. OF OTTAWA-CARL.S.E.TRANSITWAY ST. 1***
E. SIDE OF RIVERSIDE DR. OTTAWA CITY ON

Certificate #: 7-0818-89-
Application Year: 89
Issue Date: 5/29/1989
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name::
Client Address::

Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

Database: ***CA*** ***Site:*** ***City of Ottawa***
Riverside Dr Lot 6, Concession 2 RF Ottawa ON

Certificate #: 1781-7JHSN7
Application Year: 2008
Issue Date: 9/16/2008
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:*** ***CAMPEAU CORP.***
RIVERSIDE DR. OTTAWA ON

Certificate #: 7-0165-85-006
Application Year: 85
Issue Date: 3/29/85
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

Database: ***CA*** ***Site:*** ***City of Ottawa***
Hunt Club Road from the intersection of Hawthorne Road east apporx. 1030m Ottawa ON

Certificate #: 3285-85MHMC
Application Year: 2010
Issue Date: 5/21/2010
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:*** ***R.M. OF OTTAWA-CARLETON***

HUNT CLUB ROAD OTTAWA CITY ON

Certificate #: 7-1112-88-
Application Year: 88
Issue Date: 7/27/1988
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

Database: ***CA***

Site: ***City of Ottawa***
Riverside Dr Lot 6, Concession 2 RF Ottawa ON

Certificate #: 7888-7KLKTM
Application Year: 2008
Issue Date: 10/22/2008
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: ***J. PEREZ CORPORATION STM MGN. 3-0842-87***
STREET #1 RIVERSIDE DR. OTTAWA CITY ON

Certificate #: 3-0563-87-
Application Year: 87
Issue Date: 5/5/1987
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: ***Suncor Energy Products Inc.***
Ottawa ON

Certificate #: 2751-78XLN5
Application Year: 2007
Issue Date: 11/19/2007
Approval Type: Industrial Sewage Works
Status: Revoked and/or Replaced
Application Type:
Client Name::
Client Address::
Client City::

Client Postal Code::
Project Description::
Contaminants::
Emission Control::

Database: ***ECA*** ***Site:*** ***2436026 Ontario Inc.***
Lot 5 City of Ottawa ON K4P 1A2

Record Type:
PDF URL: https://www.accessenvironment.ene.gov.on.ca/instruments/5348-A33PWR-14.pdf
Full Address: Lot 5, Concession 4 City of Ottawa, Ontario K4P 1A2
CofA Number: 3201-A8TKSD
Date: 2016-05-11
Status: Approved
Project Type: Industrial Sewage Works

Database: ***GEN*** ***Site:*** ***OTTAWA FLYING CLUB***
CONC. 2 RFN PT LOT 6 RR#5, HUNTCLUB ROAD OTTAWA ON K1G 3N3

PO Box Num:
Status:
Country:
Generator #: ON1004700
Approval Yrs:: 90
SIC Code: 9659
SIC Description: OTHER SPORT/REC.

--Details--
Waste Code: 213
Waste Description: PETROLEUM DISTILLATES

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Database: ***GEN*** ***Site:*** ***OTTAWA FLYING CLUB 29-334***
CONC. 2 RFN PT LOT 6 RR#5, HUNTCLUB ROAD OTTAWA ON K1G 3N3

PO Box Num:
Status:
Country:
Generator #: ON1004700
Approval Yrs:: 94
SIC Code: 9659
SIC Description: OTHER SPORT/REC.

--Details--
Waste Code: 213
Waste Description: PETROLEUM DISTILLATES

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Database: ***GEN*** ***Site:*** ***GVT. OF CAN. - PUBLIC WORKS CANADA18-229***
SIR CHARLES TUPPER BUILDING CONFEDERATION HEIGHTS, RIVERSIDE DRIVE
OTTAWA ON

PO Box Num:

Status:
Country:
Generator #: ON0144720
Approval Yrs:: 92,93,94,95,96,97
SIC Code: 8159
SIC Description: OTHER GEN. ADMIN.

--Details--
Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 243
Waste Description: PCB'S

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Waste Code: 264
Waste Description: PHOTOPROCESSING WASTES

Database: ***GEN*** ***Site:*** ***GVT. OF CAN. - PUBLIC WORKS CANADA REPROGRAPHIC SERVICES TUPPER BLDG. RIVERSIDE DRIVE OTTAWA ON K1A 0M2***

PO Box Num:
Status:
Country:
Generator #: ON0144720
Approval Yrs:: 86,87,88,89,90
SIC Code: 8159
SIC Description: OTHER GEN. ADMIN.

--Details--
Waste Code: 264
Waste Description: PHOTOPROCESSING WASTES

Database: ***GEN*** ***Site:*** ***PUBLIC WORKS CANADA SIR CHARLES TUPPER BUILDING CONFEDERATION HEIGHTS- RIVERSIDE DRIVE OTTAWA ON***

PO Box Num:
Status:
Country:
Generator #: ON0144720
Approval Yrs:: 98,99,00,01
SIC Code: 8159
SIC Description: OTHER GEN. ADMIN.

--Details--
Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 243
Waste Description: PCB'S

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Waste Code: 264
Waste Description: PHOTOPROCESSING WASTES

Database: GEN

Site: OTTAWA-CARLTON, REGIONAL MUNICIPALITY OF
HURDMAN'S BRIDGE, PUMPING STATION RIVERSIDE DRIVE OTTAWA ON

PO Box Num:
Status:
Country:
Generator #: ON0303122
Approval Yrs:: 98
SIC Code: 8272
SIC Description: RES. CONS./IND. DEV.

--Details--
Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Database: GEN

Site: HUDSON GEN FLIGHT SERVICE INC
SKY SERVICE DIVISION OTTAWA AIRPORT-HUNT CLUB RD/LINDBERG P OTTAWA ON
K1G 3N3

PO Box Num:
Status:
Country:
Generator #: ON0244502
Approval Yrs:: 86,87,88,89,90
SIC Code: 4523
SIC Description: AIRCRAFT SEVICING

--Details--
Waste Code: 221
Waste Description: LIGHT FUELS

Database: GEN

Site: OTTAWA FLYING CLUB 29-334
HUNT CLUB ROAD CONCESSION 2, RFN. PART LOT 6 OTTAWA ON

PO Box Num:
Status:
Country:
Generator #: ON1004700
Approval Yrs:: 95,96
SIC Code: 9659
SIC Description: OTHER SPORT/REC.

--Details--
Waste Code: 213
Waste Description: PETROLEUM DISTILLATES

Waste Code: 221
Waste Description: LIGHT FUELS

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Database: GEN

Site: HUDSON GEN(OUT OF BUSINESS)NC 20-051
SKY SERVICE DIVISION OTTAWA AIRPORT-HUNT CLUB RD/LINDBERG P OTTAWA ON
K1G 3N3

PO Box Num:
Status:

Country:
Generator #: ON0244502
Approval Yrs:: 92,93,94,95,96,97
SIC Code: 4523
SIC Description: AIRCRAFT SEVICING

--Details--
Waste Code: 221
Waste Description: LIGHT FUELS

Database: ***GEN*** ***Site:*** ***GVT. OF CAN. - TRANSPORT CANADA 18-233 SYSTEMS DEVELOPMENT LABORATORY BUILDING T-78, HUNT CLUB RD. OTTAWA ON K1S 5B1***

PO Box Num:
Status:
Country:
Generator #: ON0175100
Approval Yrs:: 92,93,94
SIC Code: 0000
SIC Description: *** NOT DEFINED ***

Database: ***GEN*** ***Site:*** ***GVT. OF CAN. - TRANSPORT CANADA SYSTEMS DEVELOPMENT LABORATORY BUILDING T-78, HUNT CLUB RD. OTTAWA ON K1S 5B1***

PO Box Num:
Status:
Country:
Generator #: ON0175100
Approval Yrs:: 86,87,88,89,90
SIC Code: 4521
SIC Description: AIRPORT OPER. IND.

Database: ***OPCB*** ***Site:*** ***R.M.O.C., WORKS DEPT. BILLINGS BRIDGE ANNEX. OTTAWA ON***

Year: 1992
Site Number: 40285A015
Name Owner:
Additional Site Information:

Database: ***PRT*** ***Site:*** ***HUNTCLUB ESSO K BASSETT HUNT CLUB RD OTTAWA ON K1V8S6***

Location ID: 10954
Type: retail
Expiry Date: 1996-02-29
Capacity (L): 136200
Licence #: 0076435098

Database: ***PRT*** ***Site:*** ***JIM ROMBOUGH OTTAWA FLYING CLUB HUNT CLUB RD OTTAWA ON K1V8S6***

Location ID: 10954
Type: retail

Expiry Date: 1995-06-30
Capacity (L): 0
Licence #: 0020409001

Database: ***PRT*** ***Site:*** ***IMPERIAL OIL ATTN L MCCAMBLEY***
HUNT CLUB RD OTTAWA ON K1V8S6

Location ID: 10954
Type: retail
Expiry Date: 1995-01-31
Capacity (L): 136200
Licence #: 0076408079

Database: ***SPL*** ***Site:*** ***UNKNOWN***
COTTERS CR OFF OF HUNT CLUB OTTAWA CITY ON

Ref NO: 225519
Contaminant Code:
Contaminant Name:
Contaminant Quantity:
Incident Cause:: UNKNOWN
Incident Dt: 5/15/2002
Incident Reason:: UNKNOWN
Incident Summary:: UKNOWN: OIL SPILL
MOE Reported Dt: 5/15/2002
Environmental Impact:: POSSIBLE
Nature of Impact:: Soil contamination
Receiving Medium:: LAND
SAC Action Class:
Sector Source Type:
Site Municipality: 20107

Database: ***SPL*** ***Site:***
Hunt Club Drive West near Hawthorne Ottawa ON

Ref NO: 5082-7X7J3M
Contaminant Code:
Contaminant Name:
Contaminant Quantity:
Incident Cause::
Incident Dt:
Incident Reason::
Incident Summary:: Ottawa: Valma Forming, 40 L transmission oil spill, cleaning
MOE Reported Dt: 10/26/2009
Environmental Impact::
Nature of Impact::
Receiving Medium::
SAC Action Class: Land Spills
Sector Source Type:
Site Municipality:

Database: ***SPL*** ***Site:*** ***ULTRAMAR***
RIVERSIDE DRIVE AT TRANSIT WAY (NEAR POST OFFICE) TANK TRUCK (CARGO)
OTTAWA CITY ON

Ref NO: 76621
Contaminant Code:
Contaminant Name:
Contaminant Quantity:

Incident Cause::	TRUCK/TRAILER OVERTURN
Incident Dt:	9/22/1992
Incident Reason::	UNKNOWN
Incident Summary::	ULTRAMAR GASOLINE TANKER - UNKNOWN QUANTITY GAS FROM MOTOR TO ROAD.
MOE Reported Dt:	9/22/1992
Environmental Impact::	NOT ANTICIPATED
Nature of Impact::	
Receiving Medium::	LAND
SAC Action Class:	
Sector Source Type:	
Site Municipality:	20101

Database: ***SPL*** ***Site:*** ***Enbridge Gas Distribution Inc.; contractor R. B. Somerville Ltd<UNOFFICIAL> West Hunt Club Road Ottawa ON***

Ref NO:	8138-9A7MZ3
Contaminant Code:	99
Contaminant Name:	BENTONITE
Contaminant Quantity:	2840 L
Incident Cause::	Unknown / N/A
Incident Dt:	2013/08/01
Incident Reason::	Unknown / N/A
Incident Summary::	Enbridge: ~ 3000 L bentonite to grnd; cntnd & clnd
MOE Reported Dt:	2013/08/02
Environmental Impact::	Not Anticipated
Nature of Impact::	Surface Water Pollution
Receiving Medium::	
SAC Action Class:	Primary Assessment of Spills
Sector Source Type:	Other
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.

ENVIRONMENTAL RISK INFORMATION SERVICE

Head Office: 80 Valleybrook Dr, Toronto, ON M3B 2S9
Physical Address: 38 Lesmill Rd, Toronto, ON M3B 2T5
Phone: 416-510-5204 • Fax: 416-510-5133
info@erisinfo.com • www.erisinfo.com

City Directory Information Source
Vernon's Ottawa, Ontario, City Directory

PROJECT NUMBER: 20170119085	
Site Address:	3930 Riverside Drive, Ottawa, Ontario
Year: 2011	
Site Listing:	-Address Not Listed
Adjacent Properties:	
3860 Riverside Drive	-Address Not Listed
4000 Riverside Drive	-Address Not Listed
4070 Riverside Drive	-Address Not Listed
3812 North Bowesville Road	-Address Not Listed
22 Kimberwick Crescent	-Address Not Listed

300 Hunt Club Road	-Laframboise Mechanical Ltd -Moxi's Classic Grill -Harvey's -Vision Contractors Ltd
9 Chancellor Court	-Single Tenant Residential
12 Chancellor Court	-Single Tenant Residential
18 Chancellor Court	-Single Tenant Residential

PROJECT NUMBER: 20170119085	
Site Address:	3930 Riverside Drive, Ottawa, Ontario
Year: 2005/06	
Site Listing:	-Address Not Listed
Adjacent Properties:	
3860 Riverside Drive	-Address Not Listed
4000 Riverside Drive	-Digital Electric Inc
4070 Riverside Drive	-Address Not Listed

3812 North Bowesville Road	-Address Not Listed
22 Kimberwick Crescent	-Address Not Listed
300 Hunt Club Road	-Address Not Listed
9 Chancellor Court	-Single Tenant Residential
12 Chancellor Court	-Single Tenant Residential
18 Chancellor Court	-Single Tenant Residential

PROJECT NUMBER: 20170119085	
Site Address:	3930 Riverside Drive, Ottawa, Ontario
Year: 1999/2000	
Site Listing:	-Address Not Listed
Adjacent Properties:	
3860 Riverside Drive	-Address Not Listed
4000 Riverside Drive	-Address Not Listed
4070 Riverside Drive	-Address Not Listed

3812 North Bowesville Road	-Address Not Listed
22 Kimberwick Crescent	-Address Not Listed
300 Hunt Club Road	-Address Not Listed
9 Chancellor Court	-Address Not Listed
12 Chancellor Court	-Address Not Listed
18 Chancellor Court	-Address Not Listed

PROJECT NUMBER: 20170119085	
Site Address:	3930 Riverside Drive, Ottawa, Ontario
Year: 1995/96	
Site Listing:	-Address Not Listed
Adjacent Properties:	
3860 Riverside Drive	-Address Not Listed
4000 Riverside Drive	-Driscoll Snow Removal
4070 Riverside Drive	-Address Not Listed

3812 North Bowesville Road	-Address Not Listed
22 Kimberwick Crescent	-Address Not Listed
300 Hunt Club Road	-Address Not Listed
9 Chancellor Court	-Address Not Listed
12 Chancellor Court	-Address Not Listed
18 Chancellor Court	-Address Not Listed

PROJECT NUMBER: 20170119085	
Site Address:	3930 Riverside Drive, Ottawa, Ontario
Year: 1988/89	
Site Listing:	-Address Not Listed
Adjacent Properties:	
3860 Riverside Drive	-Address Not Listed
4000 Riverside Drive	-Address Not Listed
4070 Riverside Drive	-Address Not Listed

3812 North Bowesville Road	-Address Not Listed
22 Kimberwick Crescent	-Address Not Listed
300 Hunt Club Road	-Address Not Listed
9 Chancellor Court	-Address Not Listed
12 Chancellor Court	-Address Not Listed
18 Chancellor Court	-Address Not Listed

PROJECT NUMBER: 20170119085	
Site Address:	3930 Riverside Drive, Ottawa, Ontario
Year: 1984	
Site Listing:	-Address Not Listed
Adjacent Properties:	
3860 Riverside Drive	-Address Not Listed
4000 Riverside Drive	-Address Not Listed
4070 Riverside Drive	-Address Not Listed

3812 North Bowesville Road	-Address Not Listed
22 Kimberwick Crescent	-Address Not Listed
300 Hunt Club Road	-Address Not Listed
9 Chancellor Court	-Address Not Listed
12 Chancellor Court	-Address Not Listed
18 Chancellor Court	-Address Not Listed

PROJECT NUMBER: 20170119085	
Site Address:	3930 Riverside Drive, Ottawa, Ontario
Year: 1979	
Site Listing:	-Address Not Listed
Adjacent Properties:	
3860 Riverside Drive	-Address Not Listed
4000 Riverside Drive	-Address Not Listed
4070 Riverside Drive	-Address Not Listed

3812 North Bowesville Road	-Address Not Listed
22 Kimberwick Crescent	-Address Not Listed
300 Hunt Club Road	-Address Not Listed
9 Chancellor Court	-Address Not Listed
12 Chancellor Court	-Address Not Listed
18 Chancellor Court	-Address Not Listed

PROJECT NUMBER: 20170119085	
Site Address:	3930 Riverside Drive, Ottawa, Ontario
Year: 1974	
Site Listing:	-Address Not Listed
Adjacent Properties:	
3860 Riverside Drive	-Address Not Listed
4000 Riverside Drive	-Address Not Listed
4070 Riverside Drive	-Address Not Listed

3812 North Bowesville Road	-Address Not Listed
22 Kimberwick Crescent	-Address Not Listed
300 Hunt Club Road	-Address Not Listed
9 Chancellor Court	-Address Not Listed
12 Chancellor Court	-Address Not Listed
18 Chancellor Court	-Address Not Listed

PROJECT NUMBER: 20170119085	
Site Address:	3930 Riverside Drive, Ottawa, Ontario
Year: 1970	
Site Listing:	-Address Not Listed
Adjacent Properties:	
3860 Riverside Drive	-Address Not Listed
4000 Riverside Drive	-Address Not Listed
4070 Riverside Drive	-Address Not Listed

3812 North Bowesville Road	-Address Not Listed
22 Kimberwick Crescent	-Address Not Listed
300 Hunt Club Road	-Address Not Listed
9 Chancellor Court	-Address Not Listed
12 Chancellor Court	-Address Not Listed
18 Chancellor Court	-Address Not Listed

PROJECT NUMBER: 20170119085	
Site Address:	3930 Riverside Drive, Ottawa, Ontario
Year: 1965	
Site Listing:	-Address Not Listed
Adjacent Properties:	
3860 Riverside Drive	-Address Not Listed
4000 Riverside Drive	-Address Not Listed
4070 Riverside Drive	-Address Not Listed

3812 North Bowesville Road	-Address Not Listed
22 Kimberwick Crescent	-Address Not Listed
300 Hunt Club Road	-Address Not Listed
9 Chancellor Court	-Address Not Listed
12 Chancellor Court	-Address Not Listed
18 Chancellor Court	-Address Not Listed

-All listings for businesses were listed as they are in the city directory.

-Listings that are residential are listed as “residential” with the number of tenants. The name of the residential tenant is not listed in the above city directory

APPENDIX C

Site Photographs

Photo 1: *Looking west at the Site from the central portion of the eastern Site boundary. The snow covered gravel and dirt road that intersects the Site is visible.*

Photo 2: *Looking north at the northern portion of the Site. The northeast corner of the Site with a high elevation is visible.*

Photo 3: View of the eastern portion of the Site looking northeast.

Photo 4: Looking north at the Site from the southern portion of the Site.

Photo 5: *Looking west at the snow covered dirt and gravel road that intersects the Site.*

Photo 6: *Looking east from the western Site boundary at the snow covered dirt and gravel road that intersects the Site.*

Photo 7: *View of the southern portion of the Site looking east. The steep change in elevation along the eastern Site boundary is shown in this photograph.*

Photo 8: *Looking south at the eastern portion of the Site. The steep downwards slope from Riverside Drive is visible.*

Photo 9: Photo of the Site looking southwest.

Photo 10: Monitoring well located on the southern portion of the Site neat the western Site boundary.

Photo 11: Monitoring well located relatively central on the southern portion of the Site.

Photo 12: Concrete blocks located on the eastern portion of the Site just south of the dirt and gravel road.

Photo 13: Looking southeast the intersection of Hunt Club Road and Riverside Drive followed by commercial development southwest of the Site.

Photo 14: Photo of a commercial plaza located on the surrounding lands southwest of the Site.

Photo 15: Looking west at the retail fuel outlet located on the surrounding lands south of the Site at the southeast corner of Hunt Club Road and Riverside Drive.

Photo 16: Residential buildings located on along the south side of Kimberwick Crescent on the surrounding properties north of the Site.

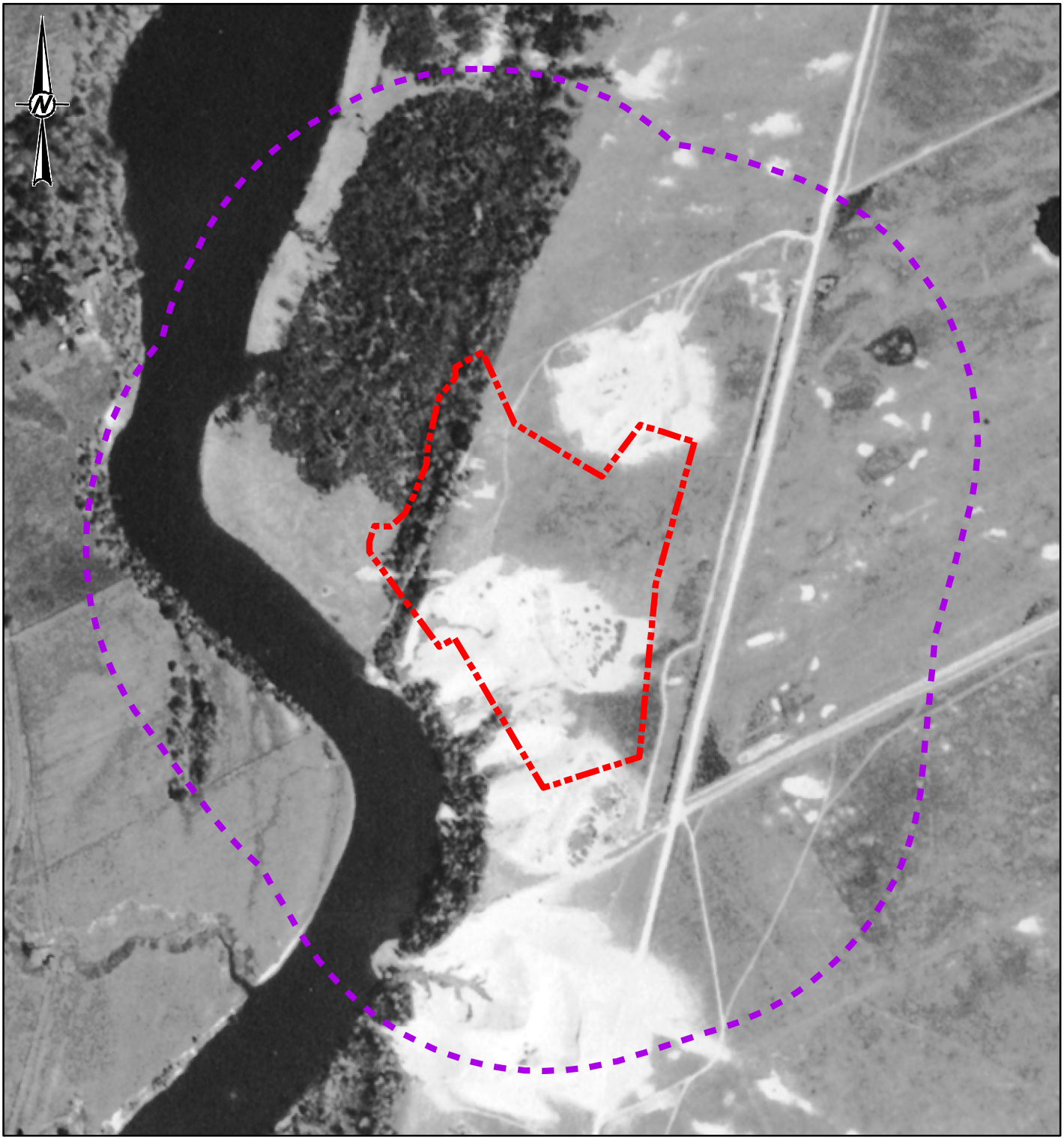
Photo 17: Looking southwest at the park located on the adjacent property north of the Site (3860 Riverside Drive).

Photo 18: Looking east at Riverside Drive followed by a golf course located on the surrounding lands east of the Site.

Photo 19: Photo of the pumphouse located within a treed area immediately west of the Site.

APPENDIX D

Aerial Photographs



LEGEND

PHASE ONE SITE

PHASE ONE STUDY AREA

0 50 100 200

1:5,000 METRES

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1670692.

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: UTM ZONE 18 VERTICAL DATUM: CGVD28

CLIENT

TAGGART REALTY MANAGEMENT

PROJECT

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
AND HUNT CLUB ROAD, OTTAWA, ONTARIO

TITLE

1930 AIR PHOTO

CONSULTANT

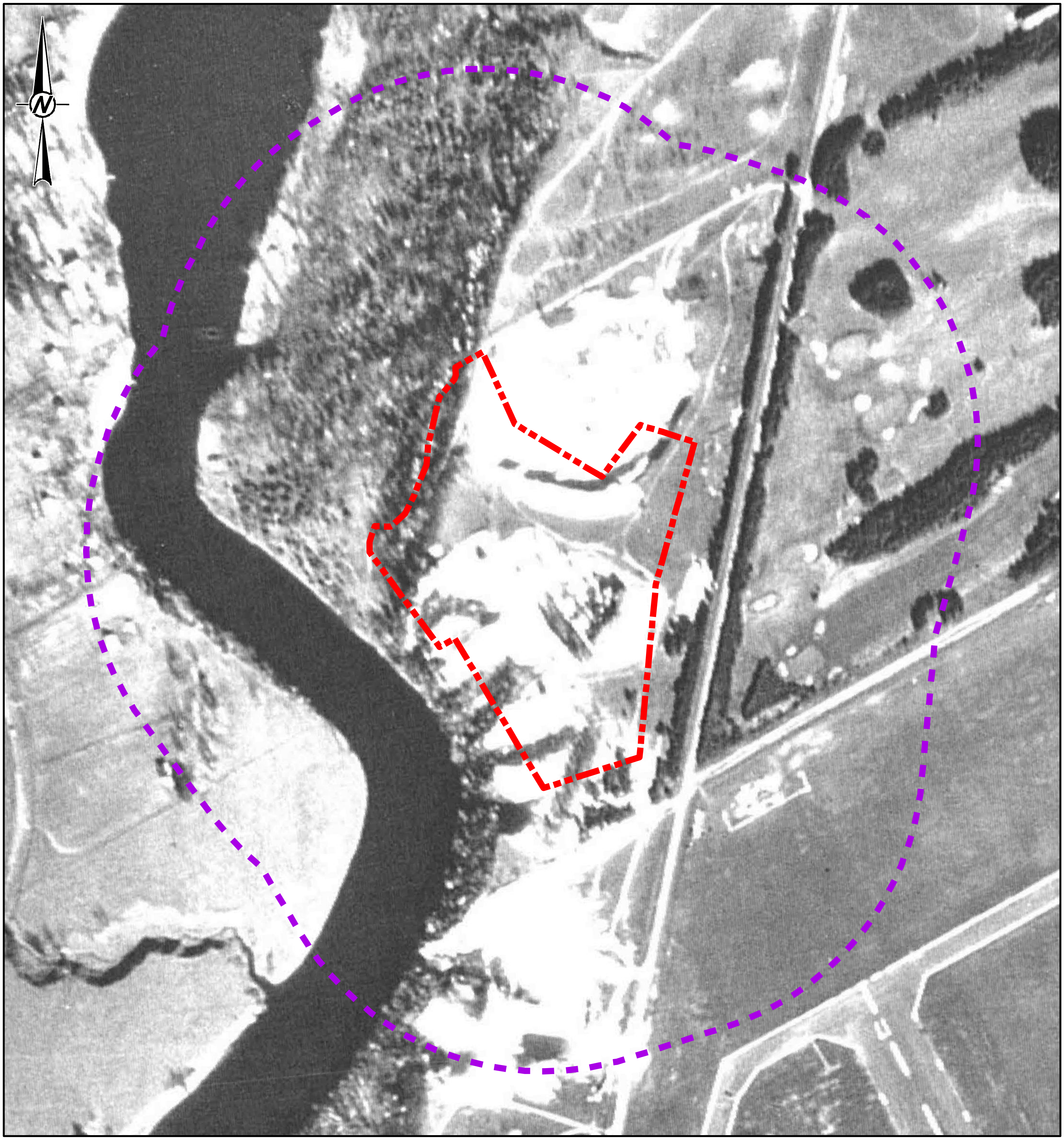
Golder Associates

YYYY-MM-DD	2017-01-23
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	APPENDIX
1670692	0001	0	**D1**

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

Path: \\golder.gds\ga\Ottawa\Active\Spatial IM\Taggart\Riverside-Hunt\mxd\09_PRO\1670692_Taggart_GeoEnviro\40_PRO\0001_Phase1_ESA\1670692-0001-HS-0109.mxd



LEGEND

PHASE ONE SITE

PHASE ONE STUDY AREA

0 50 100 200

1:5,000 METRES

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1670692.

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 18 VERTICAL DATUM: CGVD28

CLIENT

TAGGART REALTY MANAGEMENT

PROJECT

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
AND HUNT CLUB ROAD, OTTAWA, ONTARIO

TITLE

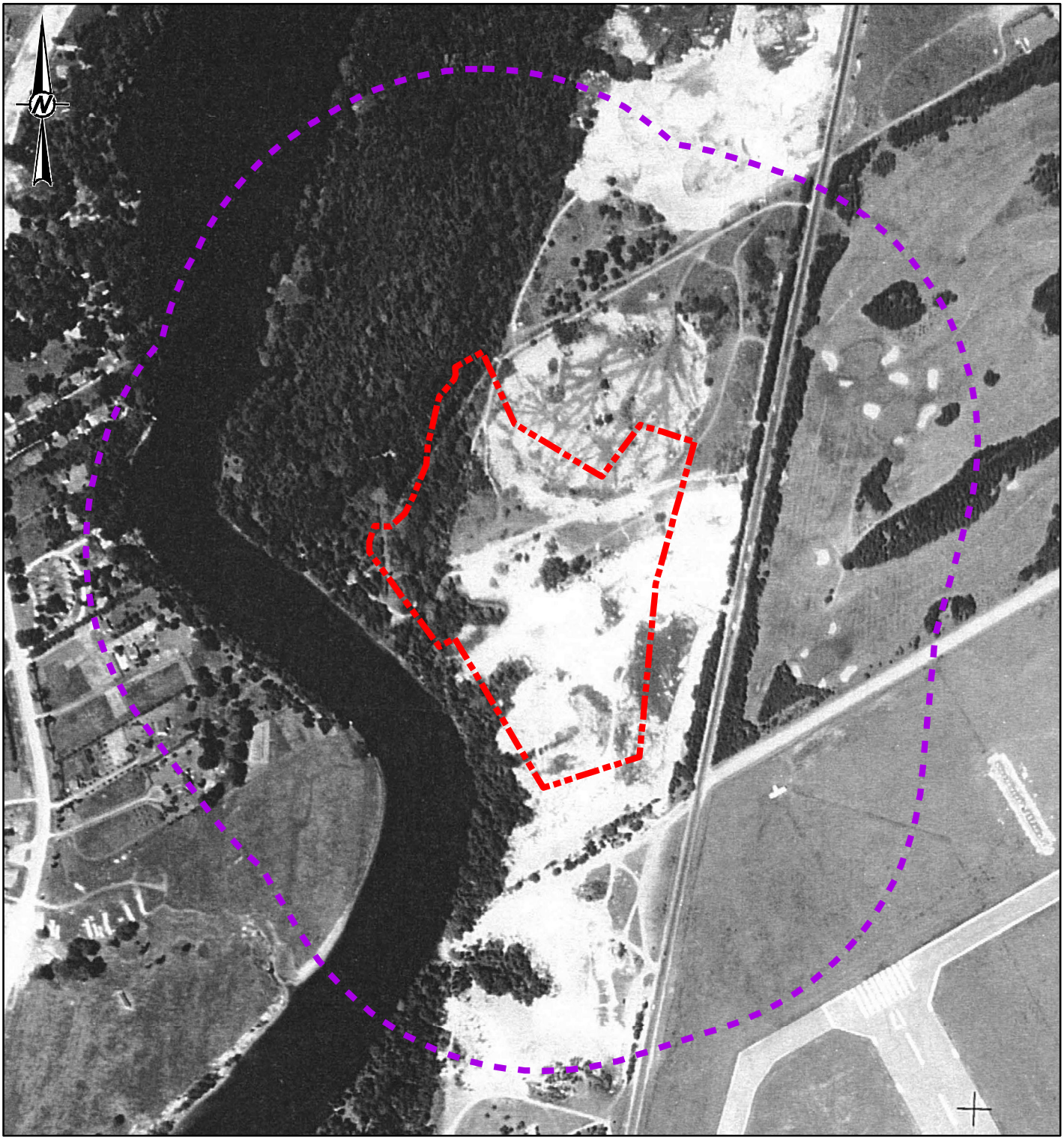
1945 AIR PHOTO

CONSULTANT

Golder Associates

YYYY-MM-DD	2017-01-23
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	APPENDIX
1670692	0001	0	**D2**



LEGEND

PHASE ONE SITE

PHASE ONE STUDY AREA

0 50 100 200

1:5,000 METRES

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1670692.

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: UTM ZONE 18 VERTICAL DATUM: CGVD28

CLIENT

TAGGART REALTY MANAGEMENT

PROJECT

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
AND HUNT CLUB ROAD, OTTAWA, ONTARIO

TITLE

1956 AIR PHOTO

CONSULTANT

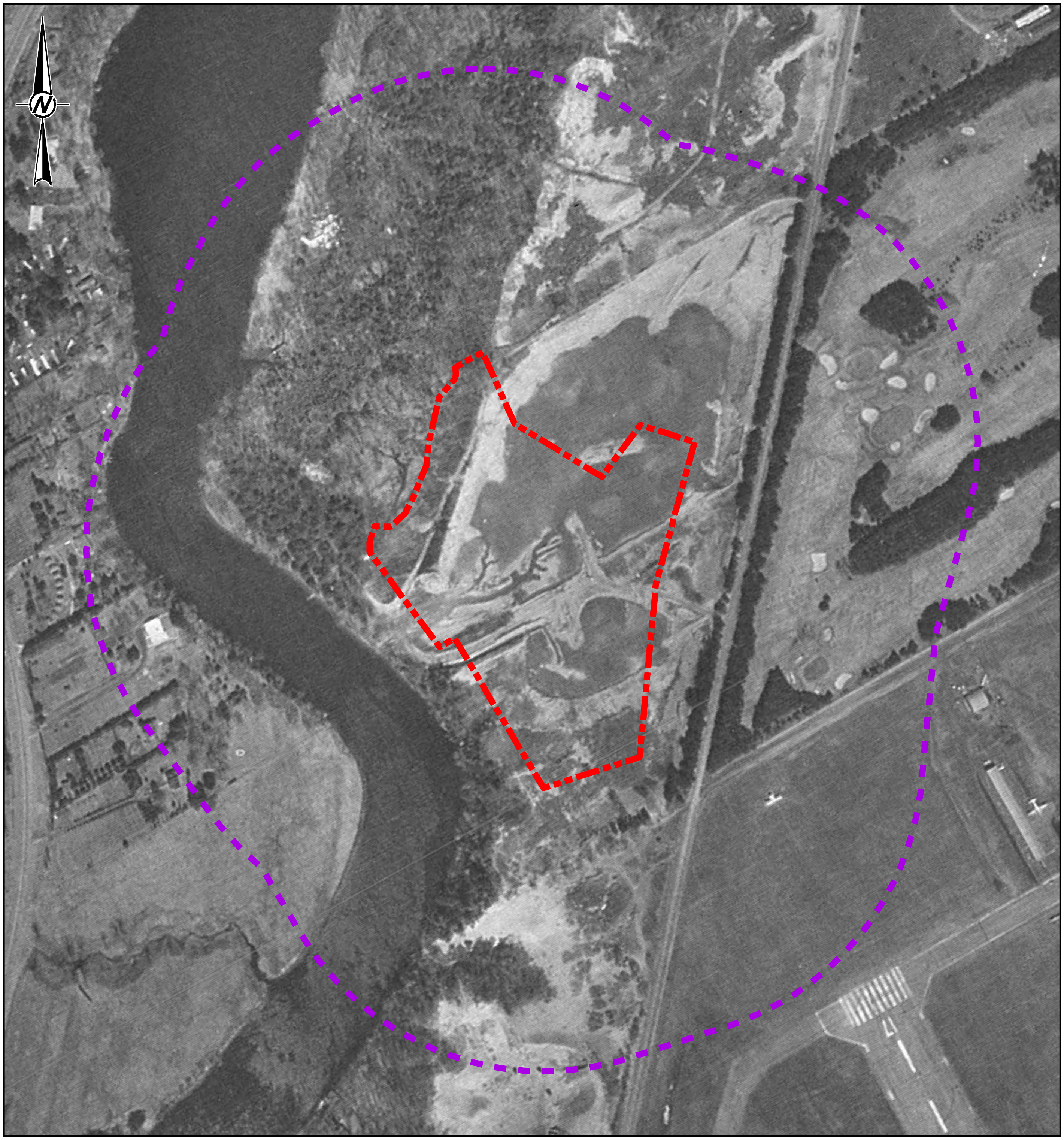
Golder Associates

YYYY-MM-DD	2017-01-23
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	APPENDIX
1670692	0001	0	**D3**

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

Path: \\golder.gds\gal\Ottawa\Active\Spatial IM\Taggart\Riverside-Hunt\mxd\09_PRO\1670692_Taggart_GeoEnviro\40_PRO\0001_Phase1_ESA\1670692-0001-HS-001.mxd



LEGEND

PHASE ONE SITE

PHASE ONE STUDY AREA

0 50 100 200

1:5,000 METRES

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1670692.

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: UTM ZONE 18 VERTICAL DATUM: CGVD28

CLIENT

TAGGART REALTY MANAGEMENT

PROJECT

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
AND HUNT CLUB ROAD, OTTAWA, ONTARIO

TITLE

1965 AIR PHOTO

CONSULTANT

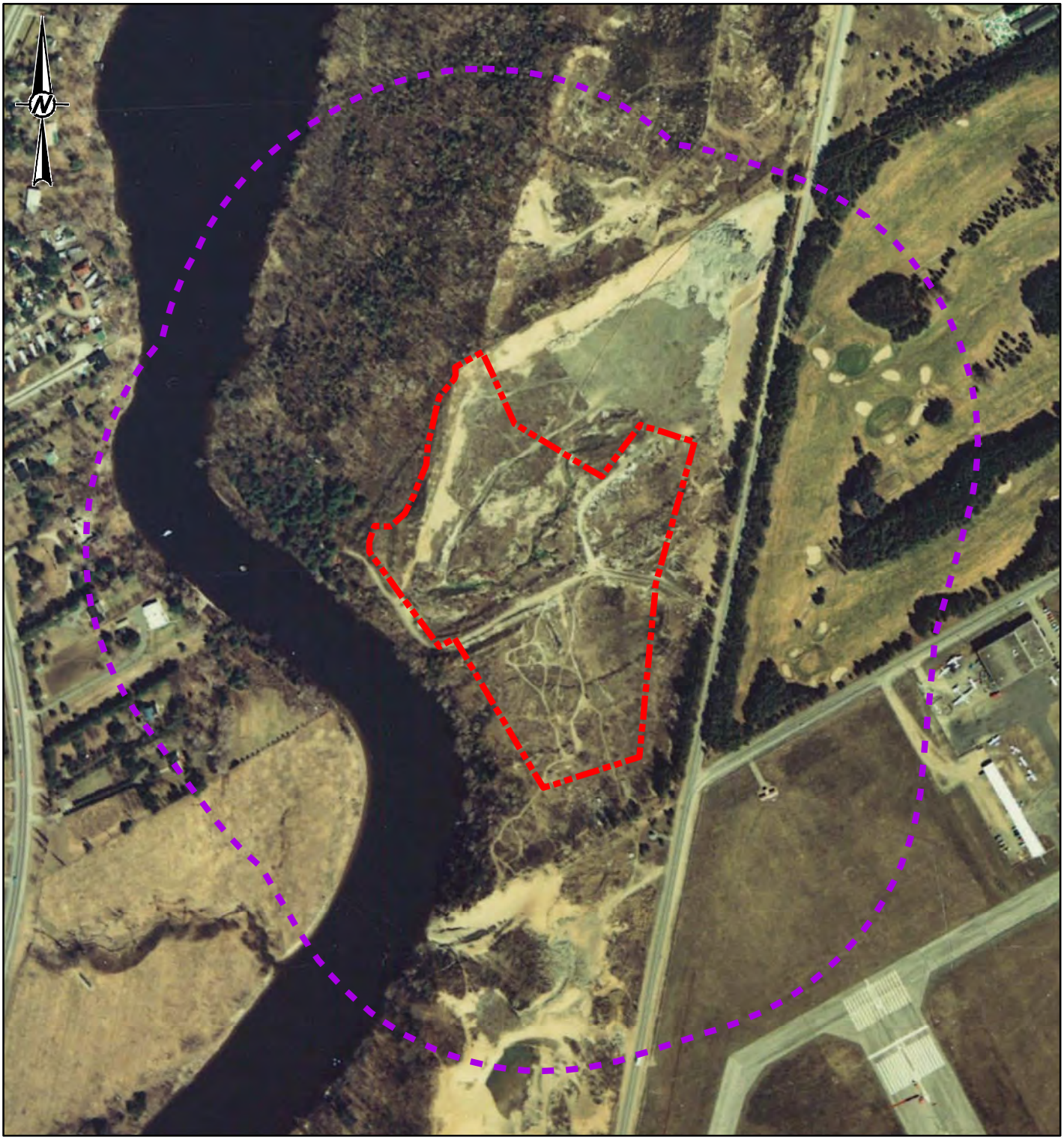
Golder Associates

YYYY-MM-DD	2017-01-23
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	APPENDIX
1670692	0001	0	**D4**

Path: \\golder.gds\gal\Ottawa\Active\Spatial_IM\Taggart\Riverside-Huntclub\99_PROJ\1670692_Taggart_GeoEnviro\40_PROD\0001_PhaseI_ESA\1670692-0001-HS-0012.mxd

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



LEGEND

PHASE ONE SITE

PHASE ONE STUDY AREA

0 50 100 200

1:5,000 METRES

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1670692.

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: UTM ZONE 18 VERTICAL DATUM: CGVD28

CLIENT

TAGGART REALTY MANAGEMENT

PROJECT

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
AND HUNT CLUB ROAD, OTTAWA, ONTARIO

TITLE

1975 AIR PHOTO

CONSULTANT

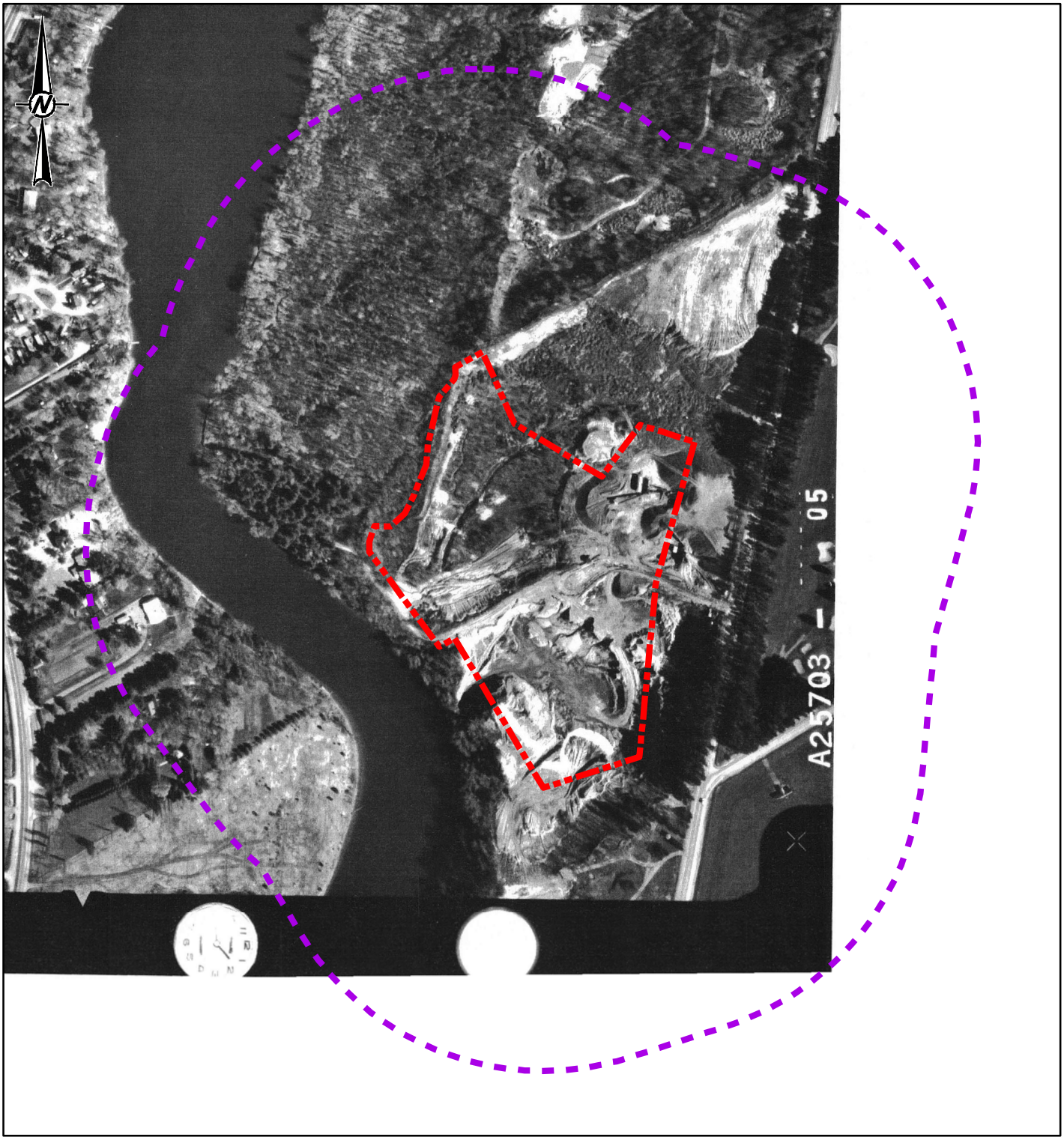
Golder Associates

YYYY-MM-DD	2017-01-23
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	APPENDIX
1670692	0001	0	**D5**

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

Path: \\golder.gds\ga\Ottawa\Active\Spatial IM\Taggart\Riverside-Huntclub\09_PRO\1670692_Taggart_GeoEnviro\40_PRODV0001_Phase1_ESA\1670692-0001-HS-013.mxd



LEGEND

PHASE ONE SITE

PHASE ONE STUDY AREA

0 50 100 200

1:5,000 METRES

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1670692.

REFERENCE(S)

1. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: UTM ZONE 18 VERTICAL DATUM: CGVD28

CLIENT

TAGGART REALTY MANAGEMENT

PROJECT

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
AND HUNT CLUB ROAD, OTTAWA, ONTARIO

TITLE

1981 AIR PHOTO

CONSULTANT

Golder Associates

YYYY-MM-DD	2017-01-23
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	APPENDIX
1670692	0001	0	**D6**

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

Path: \\golder.gds\gal\Ottawa\Active\Spatial IM\Taggart\Riverside-Hunt\clb\09 PRO\1670692 Taggart GeoEnviron\40 PROD\0001 Phase1 ESA\1670692-0001-HS-014.mxd

LEGEND

PHASE ONE SITE

PHASE ONE STUDY AREA

0 50 100 200

1:5,000 METRES

NOTE(S)
1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1670692.

REFERENCE(S)
1. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: UTM ZONE 18 VERTICAL DATUM: CGVD28

CLIENT
TAGGART REALTY MANAGEMENT

PROJECT
PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
AND HUNT CLUB ROAD, OTTAWA, ONTARIO

TITLE
1985 AIR PHOTO

CONSULTANT

Golder Associates

YYYY-MM-DD	2017-01-23
DESIGNED	----
PREPARED	JEM
REVIEWED	AT
APPROVED	KPH

PROJECT NO.	CONTROL	REV.	APPENDIX
1670692	0001	0	**D7**

As a global, employee-owned organisation with over 50 years of experience, Golder Associates is driven by our purpose to engineer earth's development while preserving earth's integrity. We deliver solutions that help our clients achieve their sustainable development goals by providing a wide range of independent consulting, design and construction services in our specialist areas of earth, environment and energy.

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