



- **Phase I Environmental Site Assessment  
1420 Earl Armstrong Road,  
Ottawa, Ontario**

**Type of Document:**

Final

**Client:**

Morguard Investments Limited  
55 City Centre Drive, Suite 800  
Mississauga, Ontario L5B 1M3

**Project Number:**

OTT-00216996-A0

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**Date Submitted**

March 11, 2014

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**Date Submitted:**  
March 11, 2014

## **Legal Notification**

This report was prepared by **exp** Services Inc. for the account of **Morguard Investments Limited, Morguard (Armstrong) Limited and Richcraft (Armstrong) Limited**.

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. **Exp** Services Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this project.

## Executive Summary

**Exp** Services Inc. (**exp**) was retained by Morguard Investments Limited to complete a Phase I Environmental Site Assessment (ESA) of 1420 Earl Armstrong Road in Ottawa, Ontario. The purpose of this Phase I ESA was to determine if past or present site activities have resulted in actual or potential contamination at the site. **Exp** understands that Morguard Investments Limited is planning to develop the site with residential land use. Consequently, this Phase I ESA will be used in support of the City of Ottawa Site Plan Approval permitting requirements.

A Phase I ESA is a systematic qualitative process to assess the environmental condition of a site based on its historical and current uses. This Phase I ESA was conducted in accordance with the Phase I ESA standard as defined by Ontario Regulation 153/04, as amended by Ontario Regulation 511/09 (O.Reg. 153/04), and in accordance with generally accepted professional practices. Subject to this standard of care, **exp** makes no express or implied warranties regarding its services and no third party beneficiaries are intended. Limitation of liability, scope of report and third party reliance are outlined in Section 8 of this report.

Please note that general environmental management and housekeeping practices were reviewed as part of this assessment insofar as they could impact the environmental condition of the property, however, a detailed review of regulatory compliance issues was beyond the scope of our investigation. This Phase I ESA does not constitute an audit of environmental management practices, indicate geotechnical conditions or identify geologic hazards.

The site is located at 1420 Earl Armstrong Road at the southeast corner of Earl Armstrong Road and Limebank Road in Ottawa. The proposed development at the site has a total area of 6.39 hectares (15.8 acres) and is approximately rectangular in shape. The property is legally described as Concession 2 (Rideau Front), North Half of Part of Lot 22, Township of Gloucester, City of Ottawa. The site is zoned GM28 S269; General Mixed Use.

At the time of the investigation, the site was vacant. Based on historical review, the site was developed for residential/agricultural uses as early as 1945. The residence at the site was demolished in the early 2000s. A small ditch is present along the western portion of the site which discharges to a tributary of the Rideau River, north of the subject site.

Surrounding properties consist of mainly residential to the north and agricultural or vacant lands to the south and west. Based on local topography maps, it is anticipated that groundwater flows to the north-west towards a tributary of the Rideau River. Regional groundwater flows direction is west towards the Rideau River, a distance of 2.5 km.

Based on the results of the Phase I ESA, **exp** has identified the following areas of potential environmental concern:

**Table EX.1: Areas of Potential Environmental Concern**

Areas of Potential Environmental Concern (APEC)	Location of APEC	Potentially Contaminating Activity (PCA)	Potential Contaminants of Concern (PCOC)
1. Suspect former heating oil and/or diesel storage tanks	North part of subject site	#28 – Heating oil storage and use	Petroleum Hydrocarbons (PHCs) including benzene, toluene, ethylbenzene and xylenes (BTEX)

To reduce the degree of uncertainty regarding the issues identified during this Phase I ESA, a Phase II ESA is recommended and the rationale for proposing such recommendation is provided in the following table:

**Table EX.2: Issues Identified, Recommendations and Rationale**

Issue Identified	Recommendation	Rationale
Possible impact to soil and groundwater by petroleum hydrocarbons and BTEX	Conduct a Phase II ESA consisting of soil and groundwater sampling	To assess the soil and groundwater conditions at the subject site in relation to the MOE standards.

*This executive summary is a brief synopsis of the report and should not be read in lieu of reading the report in its entirety.*

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# 1. Introduction

**Exp** Services Inc. (**exp**) was retained by Morguard Investments Limited to complete a Phase I Environmental Site Assessment (ESA) of 1420 Earl Armstrong Road in Ottawa, Ontario, hereinafter referred to as the 'site'. At the time of the investigation, the site was owned by Morguard (Armstrong) Limited and Richcraft (Armstrong) Limited.

Owner Contact for environmental information:

: Ms. Kelly Klassen, Environmental Affairs, Morguard Investments Limited  
55 City Centre Drive, Suite 800  
Mississauga, ON L5B 1M3  
Tel: 905- 281-5946

A Phase I ESA is a systematic qualitative process to assess the environmental condition of a site based on its historical and current uses. This Phase I ESA was conducted in accordance with the Phase I ESA standard as defined by Ontario Regulation 153/04, as amended by Ontario Regulation 511/09 (O.Reg. 153/04), and in accordance with generally accepted professional practices and the master services agreement between Client and **exp**, dated November 4, 2011. Subject to this standard of care, **exp** makes no express or implied warranties regarding its services and no third party beneficiaries are intended. The scope of report and third party reliance are outlined in Appendix A.

## 1.1 Objective

**Exp** understands that the site is to be redeveloped with a residential land use. Consequently, the objective of this Phase I ESA was to identify potential sources of environmental concern to the subject property. **Exp** understands this Phase I ESA will be used for in support of the City of Ottawa Site Plan Approval permitting requirements.

## 1.2 Phase I Property Information

The site is located at 1420 Earl Armstrong Road at the southeast corner of Earl Armstrong Road and Limebank Road in Ottawa, as shown on Figure 1 (Appendix B).

The legal survey is presented in Appendix B. At the time of the investigation, the site was vacant. A residence and barn have existed at the site as early as 1945, but were demolished in the early 2000s. Surrounding properties consist of mainly residential to the north and agricultural or vacant lands to the south and west. Based on local topographic maps, it is anticipated that groundwater flows to the north-west towards a tributary of the Rideau River. Regional groundwater flow direction is west towards the Rideau River, a distance of 2.5 km. The approximate Universal Transverse Mercator (UTM) coordinates for the subject site centroid is NAD83, Zone 18, 447841.82 m E, 5014255.11 m N. The UTM coordinates were based on an estimate derived using Google Earth™. The accuracy of the centroid is estimated to range from 5 to 50 m. A topographic map of Ottawa is presented in Appendix B.

## 2. Scope of Investigation

The scope of work for the Phase I ESA consisted of the following activities:

- Reviewing the historical occupancy of the site through the use of available archived and relevant municipal and business directories, fire insurance plans (FIPs), topographical maps, and aerial photographs;
- Contacting municipal and provincial agencies to determine the existence of records of environmental regulatory non-compliance, if any, and reviewing such records where available;
- Obtaining an EcoLog Environmental Risk Information Services Ltd. (ERIS) report for the site and surrounding properties within a 250 metre radius of the site;
- Reviewing available geological maps, well records and utility maps for the vicinity of the site;
- Obtaining a search of land title and assessment rolls for the site;
- Conducting at least one site reconnaissance of the site and building facilities in order to identify the presence of actual and/or potential environmental contaminants or concerns of significance;
- Conducting interviews with designated site representative(s) as a resource for current and historical site information, as well as to provide **exp** staff with unrestricted access to all areas of the site and site buildings (as required by O.Reg 153/04);
- Reviewing the current use of the site and any land use practices that may have impacted its environmental condition;
- Reviewing the current use of the surrounding properties and any land use practices that may have impacted the environmental condition of the site; and,
- Preparing a report to document the findings.

In completing the scope of work, **exp** did not conduct any intrusive investigations, including sampling, analyses, or monitoring.

**Exp** has confirmed neither the completeness nor the accuracy of any of the records that were obtained or of any of the statements made by others.

**Exp** personnel who conducted assessment work for this project included Taryn Glancy, M. A. Sc., and Mark McCalla, P.Geo.. An outline of their qualifications is provided in Appendix A.

## 3. Records Review

### 3.1 Phase I ESA Study Area Determination

The site is located at 1420 Earl Armstrong Road at the southeast corner of Earl Armstrong Road and Limebank Road in Ottawa, as shown on Figure 1 (Appendix B). At the time of the investigation, the site was vacant. A residence and barn has existed at the site as early as 1945, but were demolished in the early 2000s. Surrounding properties consist of mainly residential to the north and agricultural or vacant lands to the south and west.

The Phase I ESA study area consisted of the neighbourhood extending a distance of 250 metres from the site. At the time of the site reconnaissance, land usage within 250 metres of the site included residential and agricultural land uses. A site plan showing a 250 m radius of the site, and adjacent land uses is presented as Figure 3 in Appendix B.

### 3.2 First Developed Use Determination

Based on a review of historical aerial photographs, chain of title information, historical maps, and other records review, it appears the site was first developed as early as 1945 for residential and agricultural uses. It appears the site was residential until the early 2000s when the site buildings were demolished. The site has remained vacant.

### 3.3 Fire Insurance Plans

A search of The Catalogue of Canadian Fire Insurance Plans 1875 – 1975 (Catalogue) was conducted to determine if fire insurance plans (FIPs) for the site existed. No FIPs were available for the subject site.

### 3.4 Chain of Title

A chain of title was obtained from Read Abstracts Inc. for the subject site. Based on the title search it appears the site was possibly developed as early as 1799. Since this time it has been owned by a number of different individuals until it was sold to Campeau Corporation in 1975. The current owners took ownership in 2011.

**Table 3.1 Chain of Title**

Date	Transferred From	Transferred To
August 1799	Crown	Hugh Munroe (400 acres)
November 1830	Levins Graut	Caroline Gates
August 1854	A. Steakweather	John Larkin
January 1872	John Larkin	Matthew Larkin
January 1885	Matthew Larkin	Barney Larkin and John Larkin
June 1936	John Larkin	Margaret and Elizabeth Larkin
June 1936	Barney Larkin	Wilbert Spratt

Date	Transferred From	Transferred To
November 1954	Wilbert Spratt	Delmer, David and Roy Spratt
February 3, 1960	Delmer, David and Roy Spratt	James Hall
February 5, 1960	Margaret and Elizabeth Larkin	James Hall
February 22, 1960	James Hall	Joseph Watson
June 1974	Joseph Watson	W. A. Spratt & Sons
August 1975	W. A. Spratt & Sons	J. Marc Patenaude
November 1975	J. Marc Patenaude	Campeau Corporation
September 1990	Campeau Corporation	Richcraft Grilli Corporation
April 1995	Richcraft Grilli Corporation	172479 Canada Inc.
April 2002	172479 Canada Inc.	Riverside South Development Corp.
November 2011	Riverside South Development Corp.	Richcraft (Armstrong) Ltd. and Morguard (Armstrong) Limited

Based on the title search, APECs were identified.

### 3.5 Previous Reports

A previous report *Geotechnical Investigation Proposed Commercial Development Earl Armstrong Road at Limebank Road, Ottawa, Ontario* prepared by Paterson Group (January 28, 2013) was provided to **exp** for review. Twenty-eight boreholes were drilled across the subject site. The soil at the site consisted of topsoil over brown to grey silty clay to a depth of approximately 16 m. Groundwater was anticipated to range from 2 to 3 m below ground. No fill material and no evidence of petroleum impact were identified on the boreholes logs.

### 3.6 Regulatory Environmental Source Information

The appropriate regulatory agencies at the provincial and municipal levels were contacted to obtain information regarding environmental permits, past or pending environmental control orders or complaints, outstanding environmental regulatory non-compliance issues and Sewer Use By-Law infractions. **Exp** did not identify the need to contact any federal agencies.

The following agencies were contacted:

- The Ontario Ministry of the Environment (MOE) Freedom of Information, Protection of Privacy Office;
- The Technical Standards and Safety Authority (TSSA), Fuel Safety Branch; and,
- The City of Ottawa.

Written responses from the regulatory agencies and copies of the requests are included in Appendix D.

### 3.6.1 Ontario Ministry of the Environment Records

Records pertaining to the site were requested from the MOE through the *Freedom of Information and Protection of Privacy Act* (FOI). The MOE indicated they have no records for the subject site. A copy of the MOE request is included in Appendix C.

- On January 29, 2014, the MOE Environmental Bill of Rights (EBR) registry website was searched by ERIS for postings in the vicinity of the subject site using a 250 m radius. No postings were listed.
- On January 29, 2014, the MOE Hazardous Waste Information Network (HWIN) database was searched by ESRI for registered waste generators in the vicinity of the subject site. No postings were listed.
- On January 29, 2014, the MOE Brownfields Registry website was searched by ESRI for postings of Records of Site Condition. No postings were listed.

### 3.6.2 Technical Standards and Safety Authority

A request for information regarding the subject site was made to the Technical Standards and Safety Authority (TSSA). A copy of the documents provided by the TSSA is provided in Appendix C. The TSSA states that they have no records fuel storage tanks in their database for the subject site.

### 3.6.3 Municipal Records

#### 3.6.3.1 City Hall Records

A request for information was sent to the City of Ottawa requesting records pertaining to the subject site through the *Municipal Freedom of Information and Protection of Privacy Act* (FOI). A review of the information shows two entries. One is for the Ottawa Airport property which has a corner north of the subject site. The activities listed for the airport are located more than 500 m from the subject site and are not a concern. The second listing is a farm supplies dealer located approximately 1 km south of the subject site and is not a concern. The plan that accompanies the information does not correctly show the subject site which is located at the southeast corner of Limebank Road and Earl Armstrong Road. A copy of the documents provided by the City of Ottawa is provided in Appendix C.

#### 3.6.3.2 City Directory Search

**Exp** reviewed city directories at the National Library and Archives Canada library in order to identify the occupancy history of the site and neighbouring properties for potential environmental concerns. The subject site and surrounding areas were not listed.

## 3.7 Land Use Documents

A review of the following publications was carried out as part of this Phase I ESA:

- Old Landfill Management Strategy Phase 1 – Identification of Sites, City of Ottawa, Ontario (Golder Associates, October 2004);
- Inventory of Coal Gasification Plant Waste Sites in Ontario (Intera, April 1987);
- Mapping and Assessment of Former Industrial Sites – City of Ottawa (Intera, July 1988); and,
- Ontario Inventory of PCB Storage Sites (Ontario Ministry of the Environment; 1993).

### 3.7.1 Old Landfill Management Strategy Phase 1 – Identification of Sites - Golder (2004)

No former landfills were identified within 250 of the subject site.

### 3.7.2 Inventory of Coal Gasification Plant Waste Sites in Ontario - Ontario MOE (1987)

There were no coal gasification plants identified within 250 m of the subject site.

### 3.7.3 Mapping and Assess Former Industrial Sites – Intera (1988)

The Interra report study area does not encompass the subject site.

### 3.7.4 Ontario Inventory of PCB Storage Sites - Ontario MOE (1993)

No records pertaining to PCB storage sites were identified within 250 m of the subject site in this document.

## 3.8 EcoLog ERIS Database Search

A search of provincial and federal databases for records pertaining to the site and properties within 250 metres of the site was conducted by EcoLog Environmental Risk Information Services (or EcoLog ERIS). EcoLog ERIS is an environmental database and information service provider. **Exp** has confirmed neither the completeness nor the accuracy of the records that were provided. A copy of the EcoLog ERIS report is provided in Appendix D. No APECs were noted in the EcoLog report.

## 3.9 Physical Setting Review

### 3.9.1 Aerial Photographs

The following table summarizes the development and land use history of the subject site and adjacent properties as depicted on the reviewed aerial photographs. The aerial photographs are presented in Appendix E.

**Table 3.1: Development and Land Use History Summary**

Aerial Photograph (year)	Details
1945 (National Air Photo Library)	The subject site is occupied by a residence and a barn. It appears that the type of farming is related to growing crops and not pig or dairy farming. The surrounding areas are also developed for agricultural/residential uses.
1956 (National Air Photo Library)	The subject site and surrounding areas are developed in a similar fashion to that of the 1945 photograph.
1967 (National Air Photo Library)	The subject site and surrounding areas are developed in a similar fashion to that of the 1956 photograph. The farm north of the site has expanded.
1976 – 2002 (GeoOttawa)	The subject site and surrounding areas are developed in a similar fashion to that of the 1967 photograph.
2005 - 2011 (GeoOttawa)	The subject site is now vacant, the residence has been demolished. The surrounding areas are mostly vacant with a dense residential area now developed to the north west.

Based on the review of the aerial photography, the site was occupied by a residence and a farm. Though no evidence of tanks was observed during exp's site visit or in the records reviewed for the site, the site is not serviced by natural gas, therefore, there may have been a heating oil storage tank for the residence and diesel storage tanks for the farm equipment. These are considered to be APECs to the subject site.

In addition, the aerial photographs depicted crop farming and the farm fields may have been sprayed with pesticides and/or herbicides. However, since this would not be considered to be a large scale application of pesticides and/or herbicides this would not be considered a potentially contaminating activity and therefore not considered an APEC.

### 3.9.2 Geology, Hydrogeology and Topography

The following information sources were reviewed to determine the nature of the subsurface materials at the site:

1. Geological Survey of Canada; 1982; *Generalized Bedrock Geology – Ottawa-Hull, Ontario-Quebec*: Map 1508A. Scale 1:50,000.
2. Geological Survey of Canada; 1976; *Surficial Geology – Ottawa, Ontario: Map 1506A*. Scale 1:50,000.
3. MOE Water Well Records.

A review of geological maps revealed that, under any fill, the natural overburden deposits in the area are fine-textured glaciomarine deposits of silt and clay. Bedrock geology maps indicated limestone/dolostone of the Oxford Formation.

The land is relatively flat. Based on aerial photography and topographic mapping, it appears there is a drainage ditch along the western portion of the property that outlets at the northern portion of the site to a tributary of the Rideau River. A copy of the topographic map is presented in Appendix B. Based on local topography, it is anticipated that groundwater flows to the northwest towards a tributary of the Rideau River. Regional groundwater flow direction is west towards the Rideau River, a distance of 2.5 km.

### 3.9.3 Fill Materials

The elevation of the site is similar to the surrounding areas, therefore large quantities of fill materials are not anticipated at the subject site. However since the site was developed at one time, there is the possibility for small amounts of fill to be present at the site.

### 3.9.4 Water Bodies and Areas of Natural Significance (ANSI)

There are not any water bodies on the site. The closest major body of water is a tributary of the Rideau River, located 750 m north of the site. The subject site is not located in close proximity to an ANSI, according to the Ministry of Natural Resources Natural Heritage website.

### 3.9.5 Well Records

The surrounding area generally relies on water wells for potable water. There is a municipally serviced area northwest of the site. MOE water wells records show six wells within a 250 m radius. The average depth to rock is 15 m. The geology is typically illustrated as clay over limestone bedrock. The well records are presented in Appendix D. A geological cross section is presented on Figure 4 in Appendix B.

### 3.10 Site Operating Records

No site operating records were available for review.

### 3.11 Summary of Records Review

Based on a review of the available records, a residence and farm were present on the site for approximately 50 years. As the site is not serviced by natural gas, there may have been a heating oil storage tank for the residence and diesel storage tanks for the farm equipment. No evidence of former on-site tanks was observed during **exp**'s site visit or in the records reviewed for the site. These are considered to be APECs to the subject site.

In addition, the aerial photographs depicted crop farming and the farm fields may have been sprayed with pesticides and/or herbicides. However, since this would not be considered to be a large scale application of pesticides and/or herbicides this would not be considered a potentially contaminating activity and therefore not considered an APEC.



## 4. Interviews

Interviews were attempted by **exp** with any individuals identified to be the most knowledgeable about both the current and historical site uses. The purpose of interviews is to obtain information to assist in identifying areas of potential environmental concern and identify details of potentially contaminating activities or potential contaminant pathways, in, on or below the site.

No one knowledgeable about the site's history was available. Based on the available site information, it is not anticipated that an interview would yield additional significant information.

## 5. Site Reconnaissance

### 5.1 General Requirements

On January 29, 2014, Ms. Taryn Glancy of **exp** conducted the site visit in accordance with **exp**'s internal health and safety protocols and with the Ministry of Labour health and safety regulations. The purpose of the site visit was to assess the current conditions of the site.

The general environmental management and housekeeping practices at the site were reviewed as part of this assessment insofar as they could impact the environmental condition of the property; however, a detailed review of regulatory compliance issues was beyond the scope of **exp**'s investigation.

Observations of the subject property and surrounding properties were conducted. The exterior observations were recorded by walking over the grounds. Adjoining properties were observed from within the grounds of the site.

Ms. Glancy was unaccompanied during the site visit.

Photographs were taken at the site and are included in Appendix F.

### 5.2 Specific Observations at Phase I ESA Property

#### 5.2.1 Site Description and Buildings

The site is located at 1420 Earl Armstrong Road at the southeast corner of Earl Armstrong Road and Limebank Road in Ottawa, as shown on Figure 1 (Appendix B). At the time of the investigation, the site was vacant. A residence and barn had existed at the site as early as 1945, but were demolished in the early 2000s. The proposed development at the site has a total area of 6.39 hectares (15.8 acres) and is approximately rectangular in shape. Surrounding properties consist of mainly residential to the north west and agricultural or vacant lands in all other directions.

#### 5.2.2 Heating and Cooling Systems

There is no site building or associated heating and cooling systems.

#### 5.2.3 Site Utilities and Services

The site services are unknown. Based on the geographic area and age of former building it was likely the residence was on private services for potable water and sewage disposal. It is also likely the former residence was heated with furnace oil.

#### 5.2.4 Site Use

At the time of the investigation, the site was vacant.

#### 5.2.5 Drains, Pits and Sumps

No pits or sumps were observed at the subject site.

#### 5.2.6 Storage Tanks

##### 5.2.6.1 Underground Storage Tanks

Exp did not observe any USTs during the site reconnaissance. There are no records of any USTs at the site.

##### 5.2.6.2 Aboveground Storage Tanks

Exp did not observe any ASTs during the site reconnaissance. There are no records of any ASTs at the site.

#### 5.2.7 Site Housekeeping

The subject site exhibited good housekeeping over the property.

#### 5.2.8 Chemical Storage and Handling and Floor Condition

No chemical storage was observed at the subject site.

#### 5.2.9 Areas of Stained Soil, Pavement or Stressed Vegetation

No areas of stained soil, pavement or stressed vegetation were identified on the site. The site was snow covered during the investigation.

#### 5.2.10 Fill, Debris and Methane

The site was noted to be at approximately the same elevation as the surrounding properties and therefore significant quantities of fill are not anticipated to be present at the site. Methane or radon gas-producing materials were not observed on the site.

#### 5.2.11 Air Emissions

Regulatory control of air emissions in Ontario is the responsibility of the MOE. According to the Environmental Protection Act (EPA), a Certificate of Approval (CofA) (Air) is required for the ongoing operation of any equipment that may discharge a contaminant into the natural environment if the equipment was installed, modified or altered after June 29th, 1988. Retroactive approval should be sought for equipment installed and unchanged between 1972 and June 29th, 1988 when the requirement for a CofA was added to the EPA. Unless explicitly exempted, most industrial processes or modifications to industrial processes and equipment require a CofA. The EPA provides a list of specific equipment and conditions, which are exempt from CofA (Air) requirements (i.e. fuel burning equipment for comfort heating in a building using natural gas or number 2 fuel oil at a rate of less than 1.5 million British Thermal Units per hour [BTU/hour]).

No air emissions concerns were identified at the time of the site visit.

### 5.2.12 Odours

No strong odours were detected during the site visit.

### 5.2.13 Noise

No excessive noise was detected during the site visit.

## 5.2.14 Special Attention Items, Hazardous Building Materials and Designated Substances

### 5.2.14.1 Asbestos

Asbestos-containing materials (ACMs) are fibrous hydrated silicates, and can be found in building materials as either "unbound" or "bound" asbestos. Friable asbestos refers to materials where the asbestos fibres can be separated from the material with which it is associated. Non-Friable asbestos refers to asbestos, which is associated with a binding agent (such as tar or cement). Friable asbestos is commonly found in boiler and pipe insulation. Non-Friable asbestos is typically found in roofing tars, floor and ceiling tiles, and asbestos-containing cement.

ACMs in the workplace are defined as a Designated Substance under the Ontario Occupational Health and Safety Act (OHSA). Under OHSA, persons in the workplace are required to be notified of the presence of ACMs once they are suspected to be present, and if there is a potential for workers to be exposed. The use of ACMs was discontinued in Canada in the late 1970s/early 1980s, although non-friable asbestos can still be found in recently constructed buildings.

No ACMs were observed at the subject site.

### 5.2.14.2 Lead

Lead has frequently been used in oil-based paints, roofing materials, cornices, tank linings, electrical conduits and soft solders for tinsplate and plumbing. The use of lead based paints (LBPs) was phased out circa 1976. Paint that was produced or used between 1976 and 1980 may contain small amounts of lead. Paint that was produced or used prior to 1950 may contain high levels of lead. The main concern regarding lead paint is its potential to become lead dust or chips either through deterioration and/or mechanical means (i.e., sanding, abrasion, etc.). Exposure to lead dust or chips occurs by ingestion or inhalation.

No LBPs were observed at the subject site.

### 5.2.14.3 Mercury

Mercury could be found in some batteries, light bulbs, old paints, thermostats, old mirrors, etc. Based on an investigation by Consumer and Corporate Affairs Canada, and an assessment of potential health risks by Health and Welfare Canada, in 1991 the decision was made to eliminate the use of mercury compounds in indoor latex paints. The Canadian Paint and Coatings Association (CPCA) supported the withdrawal and all Canadian manufacturers and formulators of the preservative voluntarily agreed to remove "interior uses" from their product labels.

No mercury products were observed at the subject site.

### 5.2.14.4 Polychlorinated Biphenyls

The manufacture of PCBs in North America was prohibited under the Toxic Substances Control Act (1977). Their use as a constituent of new products manufactured in or imported into Canada was prohibited by regulations in 1977 and 1980. As such, sites developed or significantly renovated after

1980 are unlikely to have PCBs-containing equipment on the Site. Potential equipment, which could contain PCBs include fluorescent mercury and sodium vapour light ballasts, oil filled capacitors and transformers. Any electrical equipment containing PCBs must be disposed in accordance with Ontario Regulation 362 when it is removed from service. Ongoing operation of equipment containing PCBs is permissible.

Exp did not observe any potential PCB containing materials.

#### 5.2.14.5 Urea Formaldehyde Foam Insulation

Formaldehyde is a pungent, colourless gas commonly used in water solution as a preservative and disinfectant. It is also a basis for major plastics, including durable adhesives. It occurs naturally in the human body and in the outdoor environment. Formaldehyde is used to bond plywood, particleboard, carpets and fabrics, and it contributes to "that new house smell."

Formaldehyde is also a by-product of combustion; it is found in tobacco smoke, vehicle exhaust and the fumes from furnaces, fireplaces and wood stoves. While small amounts of formaldehyde are harmless, it is an irritating and toxic gas in significant concentrations. Symptoms of overexposure to formaldehyde include irritation to eyes, nose and throat; persistent cough and respiratory distress; skin irritation; nausea; headache; and dizziness.

Urea-formaldehyde foam insulation (UFFI) was developed in Europe in the 1950s as an improved means of insulating difficult-to-reach cavities in the walls. It is typically made at a construction site from a mixture of urea-formaldehyde resin, a foaming agent and compressed air. When the mixture is injected into the wall, urea and formaldehyde unite and "cure" into an insulating foam plastic.

During the 1970s, when concerns about energy efficiency led to efforts to improve building insulation in Canada, UFFI became an important insulation product for existing buildings. Most installations occurred between 1977 and the further use of UFFI was banned in Canada in 1980.

No evidence of UFFI was observed at the time of the site visit.

#### 5.2.14.6 Radon

Radon is a colourless, odourless, radioactive gas that occurs naturally in the environment. It comes from the natural breakdown of uranium in soils and rocks. Exposure to high levels of radon increases the risk of developing lung cancer. This relationship has prompted concern that radon levels in some Canadian buildings may pose a health risk. Radon gas can move through small spaces in the soil and rock and seep into a building through cracks in concrete, sumps, joints and basement drains. Concrete-block walls are particularly porous to radon and radon trapped in water from wells can be released into the air when the water is used.

Due to the potential health concerns associated with radon, Health Canada released a guideline in June 2007 for a maximum acceptable level of radon gas of 200 becquerels per cubic metre (Bq/m<sup>3</sup>). Where radon gas is present and the annual radon concentration exceeds 200 Bq/m<sup>3</sup> in the normal occupancy area, Health Canada recommends taking the necessary actions to reduce radon levels.

Radon is not anticipated to be a concern at the site.

#### 5.2.15 Processing and Manufacturing Operations

No processing or manufacturing operations are conducted at the site.

#### 5.2.16 Hazardous Materials Use and Storage

No hazardous materials are used or stored at the subject site.

#### 5.2.17 Vehicle and Equipment Maintenance Areas

No vehicle and equipment maintenance area are located at the subject site.

#### 5.2.18 Oil/Water Separators

No oil water separators are present at the site.

#### 5.2.19 Sewage and Wastewater Disposal

There are no sewage or wastewater disposal services on the subject site.

#### 5.2.20 Solid Waste Generation, Storage & Disposal

No waste is generated at the subject site.

#### 5.2.21 Liquid Waste Generation, Storage & Disposal

No liquid wastes are generated or stored at the subject site.

#### 5.2.22 Unidentified Substances

No unidentified substances were observed on the site at the time of the site visit.

#### 5.2.23 Hydraulic Lift Equipment

No hydraulic equipment was observed on the subject site.

#### 5.2.24 Mechanical Equipment

No mechanical equipment, aside from the heating equipment, was observed on the subject site.

#### 5.2.25 Abandoned and Existing Wells

No wells were observed at the subject site. There are no records of potable water wells on the subject site.

#### 5.2.26 Roads, Parking Facilities and Right of Ways

Site access is limited; there is no clear driveway and no parking areas.

### 5.3 Adjacent and Surrounding Properties

A visual inspection of the adjacent properties and properties within 250 m of the site was conducted from publically accessible areas to identify the occupants and document the uses and sources of potential environmental concerns that may impact the site. Refer to Figure 2 in Appendix B for the adjacent land uses.

Based on the visual inspection, the following adjacent and surrounding properties were identified to have sources of potential environmental concerns that may have impacted the site:

**North:** Residential;

**South:** Residential and agricultural;

**East:** Residential and agricultural; and,

**West:** Residential and agricultural.

Based on the visual inspection, there are no APECs from the surrounding properties.

#### 5.4 Written Description of Investigation

Based on the results of the Phase I ESA, **exp** has identified the following areas of potential environmental concern:

**Table EX.1: Areas of Potential Environmental Concern**

Areas of Potential Environmental Concern (APEC)	Location of APEC	Potentially Contaminating Activity (PCA)	Potential Contaminants of Concern (PCOC)
1. Suspect former heating oil and/or diesel storage tanks	North part of subject site	#28 – Heating oil storage and use	Petroleum Hydrocarbons (PHCs) including benzene, toluene, ethylbenzene and xylenes (BTEX)

To reduce the degree of uncertainty regarding the issues identified during this Phase I ESA, a Phase II ESA is recommended and the rationale for proposing such recommendation is provided in the following table:

**Table EX.2: Issues Identified, Recommendations and Rationale**

Issue Identified	Recommendation	Rationale
Possible impact to soil and groundwater by petroleum hydrocarbons and benzene, toluene, ethylbenzene, toluene.	Conduct a Phase II ESA consisting of soil and groundwater sampling	To assess the soil and groundwater conditions at the subject site in relation to the MOE standards.

## 6. Review and Evaluation of Information

### 6.1 Current and Past Uses

A chain of title was obtained from Read Abstracts Inc. for the subject site. Based on the title search it appears the site was possibly developed as early as 1799. Since this time it has been owned by a number of different individuals until it was sold to Campeau Corporation in 1975. The current owners took ownership in 2011. Based on the title search, no APECs were identified.

### 6.2 Potentially Contaminating Activities and Areas of Potential Environmental Concern

As per Ontario Regulation (O.Reg.) 153/04, a Potential Contaminating Activity (PCA) is defined as one of fifty-nine (59) industrial operations set out in Table 2 of Schedule D that occurs or has occurred on the subject site. Based on a review of the available records, a residence and farm were present in the north part of the site for approximately 50 years. As there is no natural gas service to the site, there may have been a heating oil storage tank for the residence and diesel storage tanks for the farm equipment. Since these PCAs are located on the subject site, the soil and groundwater on the site must be assessed as part of a Phase II ESA.

In addition, the aerial photographs depicted crop farming and the farm fields may have been sprayed with pesticides and/or herbicides. However, since this would not be considered to be a large scale application of pesticides and/or herbicides this would not be considered a potentially contaminating activity and therefore not considered an APEC.

### 6.3 Phase I ESA Conceptual Site Model

In order to develop a conceptual model for the subject site and surrounding study area, the following physical characteristics and pathways were considered, however no APECs were identified. A subsurface cross-section is shown in Figure 4. A conceptual site model is shown in Figure 5.

#### 6.3.1 Subsurface Stratigraphy

Based on geological mapping and well records the subsurface stratigraphy is anticipated to be a 15 m layer of fine textured soils (silt and clay) over limestone bedrock.

#### 6.3.2 Estimated Groundwater Flow Direction

Based on local topography, it is anticipated that groundwater flows to the northwest towards a tributary of the Rideau River.

#### 6.3.3 Underground Utilities

The presence of underground utilities at the subject site is unknown, however based on the geographic location of the site and the age of the former site building, it is likely the site has private services for water and sanitary purposes, and was likely heated by a private heating oil tank. Therefore, the former underground utilities at the site would not have acted as preferential pathways for contaminant migration.



## 7. Findings and Recommendations

Based on the results of the Phase I ESA, exp has identified the following areas of potential environmental concern:

**Table 7.1: Areas of Potential Environmental Concern**

Areas of Potential Environmental Concern (APEC)	Location of APEC	Potentially Contaminating Activity (PCA)	Potential Contaminants of Concern (PCOC)
1. Suspect former heating oil and/or diesel storage tanks	North part of subject site	#28 – Heating oil storage and use	Petroleum Hydrocarbons (PHCs) including benzene, toluene, ethylbenzene and xylenes (BTEX)

To reduce the degree of uncertainty regarding the issues identified during this Phase I ESA, a Phase II ESA is recommended and the rationale for proposing such recommendation is provided in the following table:

**Table 7.2: Issues Identified, Recommendations and Rationale**

Issue Identified	Recommendation	Rationale
Possible impact to soil and groundwater by petroleum hydrocarbons and BTEX	Conduct a Phase II ESA consisting of soil and groundwater sampling	To assess the soil and groundwater conditions at the subject site in relation to the MOE standards.

## 8. References

1. Canadian Standards Association; November 2001; Z768-0 *Phase I Environmental Site Assessment*.
2. Dubreuil, L. and C. Woods; 2002; *Catalogue of Canadian Fire Insurance Plans, 1875 – 1975*.
3. Department of Energy Mines and Resources, Surveys and Mapping Branch; 1976; *Ottawa Map 31 G/5, Scale 1:50,000*.
4. Geological Survey of Canada; 1982; *Generalized Bedrock Geology – Ottawa-Hull, Ontario-Quebec: Map 1508A. Scale 1:50,000*.
5. Geological Survey of Canada; 1976; *Surficial Geology – Ottawa, Ontario: Map 1507A. Scale 1:50,000*.
6. Golder Associates Inc.; October 2004; *Old Landfill Management Strategy, City of Ottawa*.
7. Intera Technologies Ltd.; July 1998; *Mapping and Assessment of Former Industrial Sites, City of Ottawa*.
8. Ministry of Labour (MOL); *Occupational Health and Safety Act*.
9. Ontario Ministry of the Environment, *Environmental Registry website* ([www.ene.gov.on.ca/envision/env\\_reg/ebr/english/index.htm](http://www.ene.gov.on.ca/envision/env_reg/ebr/english/index.htm))
10. Ontario Ministry of the Environment; 1993- 2003-2004; *Ontario Inventory of PCB Storage Sites*.
11. Ontario Ministry of the Environment, *Brownfields Registry website* ([www.ene.gov.on.ca/envirnet/BESR/index.htm](http://www.ene.gov.on.ca/envirnet/BESR/index.htm))
12. Ontario Ministry of the Environment; *Hazardous Waste Information Network website* ([www.hwin.ca](http://www.hwin.ca)).
13. Ontario Ministry of the Environment; November 1988; *Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario*.
14. Ontario Ministry of the Environment, Waste Management Branch; June 1991; *Waste Disposal Site Inventory*.
15. Ontario Ministry of the Environment and Intera Technologies Ltd.; June 1991; *Inventory of Coal Gasification Plant Waste Sites in Ontario*;
16. Ontario Ministry of Natural Resources, *Natural Heritage website* ([www.mnr.gov.on.ca/MNR/nhic/areas.cfm](http://www.mnr.gov.on.ca/MNR/nhic/areas.cfm)).
17. Paterson Group, January 28, 2013. *Geotechnical Investigation Proposed Commercial Development Earl Armstrong Road at Limebank Road, Ottawa, Ontario*.
18. Technical Standards and Safety Authority; May 2007; *Environmental Management Protocol for Fuel Handling Sites in Ontario*.

## 9. Scope of Report, and Third Party Reliance

### Basis of Report

This report ("Report") is based on site conditions known or inferred by the investigation undertaken as of the date of the Report. Should changes occur which potentially impact the condition of the site the recommendations of **exp** may require re-evaluation.

### Reliance on Information Provided

The evaluation and conclusions contained in the Report are based on conditions in evidence at the time of site inspections and information provided to **exp** by Morguard Investments Limited and others. The Report has been prepared for the specific site, development, building, design or building assessment objectives and purpose as communicated by Morguard Investments Limited. **Exp** has relied in good faith upon such representations, information and instructions and accepts no responsibility for any deficiency, misstatement or inaccuracy contained in the Report as a result of any misstatements, omissions, misrepresentation or fraudulent acts of persons providing information. Unless specifically stated otherwise, the applicability and reliability of the findings, recommendations, suggestions or opinions expressed in the Report are only valid to the extent that there has been no material alteration to or variation from any of the information provided to **exp**. If new information about the environmental conditions at the Site is found, the information should be provided to **exp** so that it can be reviewed and revisions to the conclusions and/or recommendations can be made, if warranted.

### Standard of Care

The Report has been prepared in a manner consistent with the degree of care and skill exercised by engineering consultants currently practicing under similar circumstances and locale and in accordance with the MOE Reg. 511 standard and per the terms of the MSA between Client and **exp**, dated November 4, 2011. No other warranty, expressed or implied, is made. Unless specifically stated otherwise, the Report does not contain environmental consulting advice.

### Complete Report

All documents, records, data and files, whether electronic or otherwise, generated as part of this assignment form part of the Report. This material includes, but is not limited to, the terms of reference given to **exp** by Morguard Investments Limited, communications between **exp** and Morguard Investments Limited, other reports, proposals or documents prepared by **exp** for Morguard Investments Limited in connection with the site described in the Report. In order to properly understand the suggestions, recommendations and opinions expressed in the Report, reference must be made to the Report in its entirety. **Exp** is not responsible for use by any party of portions of the Report.

### Use of Report

The information and opinions expressed in the Report, or any document forming part of the Report, are for the sole benefit of Morguard Investments Limited, Morguard (Armstrong) Limited and Richcraft (Armstrong) Limited. No other party may use or rely upon the Report in whole or in part without the written consent of **exp**. Any use of the Report, or any portion of the Report, by a third party are the sole responsibility of such third party. **Exp** is not responsible for damages suffered by any third party resulting from unauthorised use of the Report.

## **Report Format**

Where **exp** has submitted both electronic file and a hard copy of the Report, or any document forming part of the Report, only the signed and sealed hard copy shall be the original documents for record and working purposes. In the event of a dispute or discrepancy, the hard copy shall govern. Electronic files transmitted by **exp** utilize specific software and hardware systems. **Exp** makes no representation about the compatibility of these files with Morguard Investments Limited's current or future software and hardware systems. Regardless of format, the documents described herein are **exp's** instruments of professional service and shall not be altered without the written consent of **exp**.

We trust this report satisfies your immediate requirements. If you have any questions regarding the information in this report, please do not hesitate to contact this office.

exp Services Inc.

Morguard Investments Limited  
Phase I Environmental Site Assessment  
1420 Earl Armstrong Road, Ottawa, Ontario  
OTT-00216996-A0  
March 11, 2014

# Appendices



**exp** Services Inc.

*Morguard Investments Limited  
Phase I Environmental Site Assessment  
1420 Earl Armstrong Road, Ottawa, Ontario  
OTT-00216996-A0  
March 11, 2014*

# **Appendix A: Qualifications of Assessors**



## Qualifications of Assessors

**Exp** provides a full range of environmental services through a full-time Environmental Services Group. **Exp's** Earth and Environment Group has developed a strong working relationship with clients in both the private and public sectors and has developed a positive relationship with Ontario Ministry of the Environment. Personnel in the numerous branch offices form part of a large network of full-time dedicated environmental professionals in the **exp** organization.

**Taryn Glancy**, M.A.Sc., has 4 years of experience in the environmental consulting field. Technical undertakings have included: project coordination; Phase I, II and III Environmental Site Assessments; contaminated site investigations including drilling supervision, environmental sampling and data evaluation; and technical report preparation.

**Mark McCalla**, P.Geo. is a Senior Project Manager with the Environmental Science and Engineering Services division of exp, with more than 20 years' experience (10 yrs with **exp**) in environmental investigations, including borehole drilling, monitoring well installation and environmental soil and groundwater sampling, reporting and project management. Mr. McCalla has been involved with many hydrogeological assessments, where pumping tests and analytical testing of wells were carried out. His project experience includes: coordinating, conducting and managing environmental site assessments, remediation programs and landfill monitoring and management programs; technical report preparation and senior review; proposal preparation and client liaison. Mr. McCalla is a Qualified Person for completing Phase I and II Environmental Site Assessments as per Ont. Reg. 153/04.

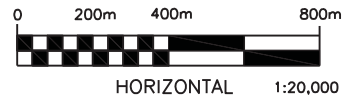
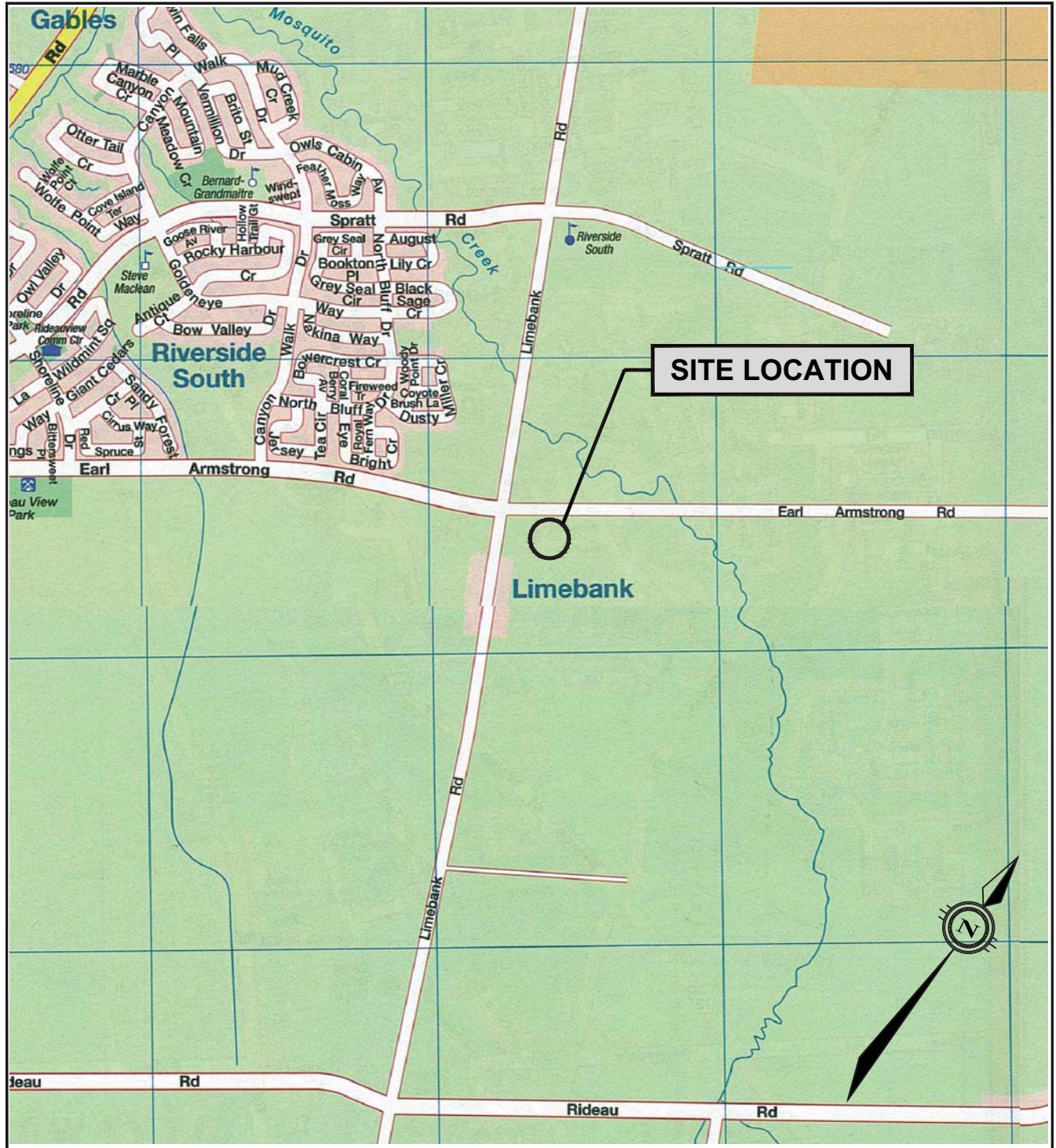
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March 11, 2014

## **Appendix B: Figures, Topographic Map and Legal Survey**







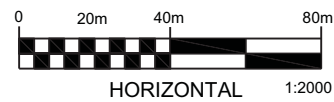
**exp Services Inc.** [www.exp.com](http://www.exp.com)

t: +1.613.688.1899 | f: +1.613.225.7337  
 2650 Queensview Drive, Suite 100  
 Ottawa, ON K2B 8H6, Canada

DATE MARCH 2014		CLIENT: <b>MORGUARD INVESTMENTS LIMITED</b>	project no. OTT-00216996-A0
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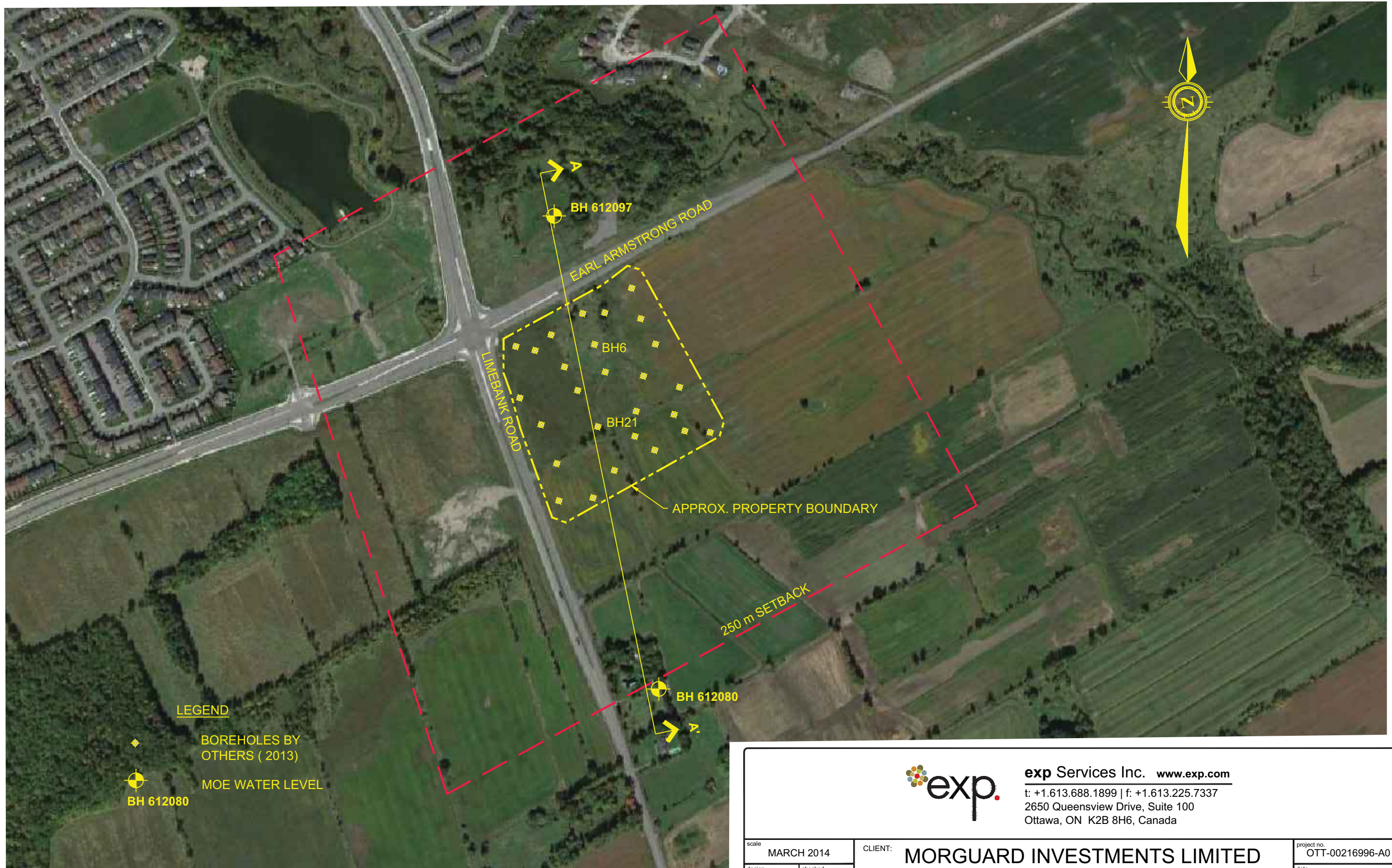
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 Plotted by: nugentm



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drawn by	P.G.	TITLE:	<b>SITE PLAN</b> 1420 EARL ARMSTRONG ROAD, OTTAWA, ONTARIO	drawing no.	<b>FIG 2</b>

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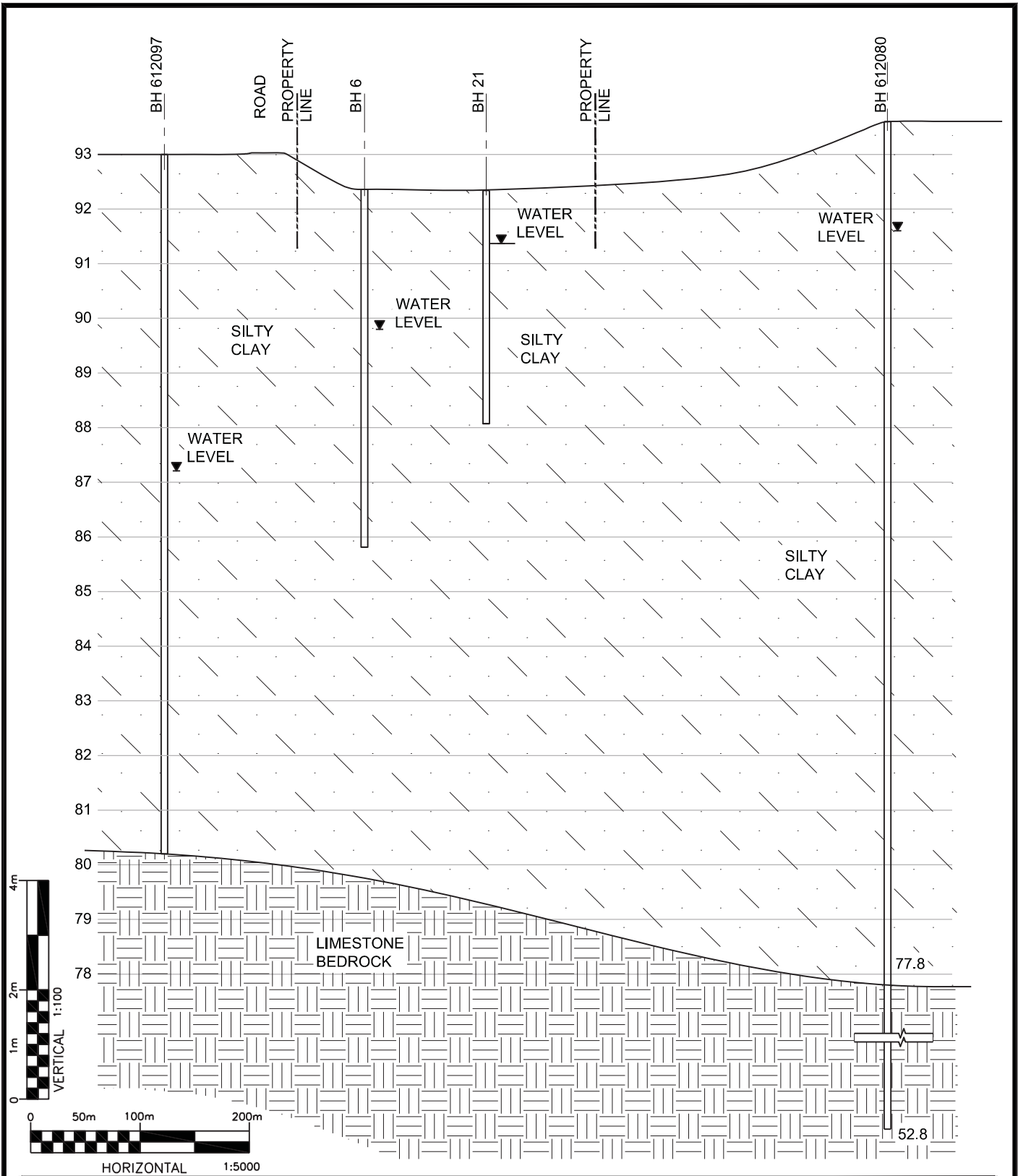
◆ BOREHOLES BY OTHERS ( 2013 )

⊙ MOE WATER LEVEL

BH 612080



		<b>exp Services Inc.</b> www.exp.com t: +1.613.688.1899   f: +1.613.225.7337 2650 Queensview Drive, Suite 100 Ottawa, ON K2B 8H6, Canada	
scale	MARCH 2014	CLIENT:	<b>MORGUARD INVESTMENTS LIMITED</b>
design	T.G.	checked	M.G.M.
drawn by	M.N.	TITLE:	<b>SITE PLAN - 250 m SETBACK</b> 1420 EARL ARMSTRONG ROAD, OTTAWA, ONTARIO
		project no.	OTT-00216996-A0
		date	1:5000
		drawing no.	<b>FIG 3</b>



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 2650 Queensview Drive, Suite 100  
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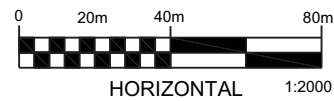
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DESIGN T.G.	CHECKED M.G.M.
DRAWN BY M.N.	

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project no. OTT-00216996-A0
scale 1:5000 H, 1:100 V
<b>FIG 4</b>



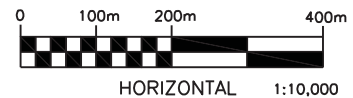
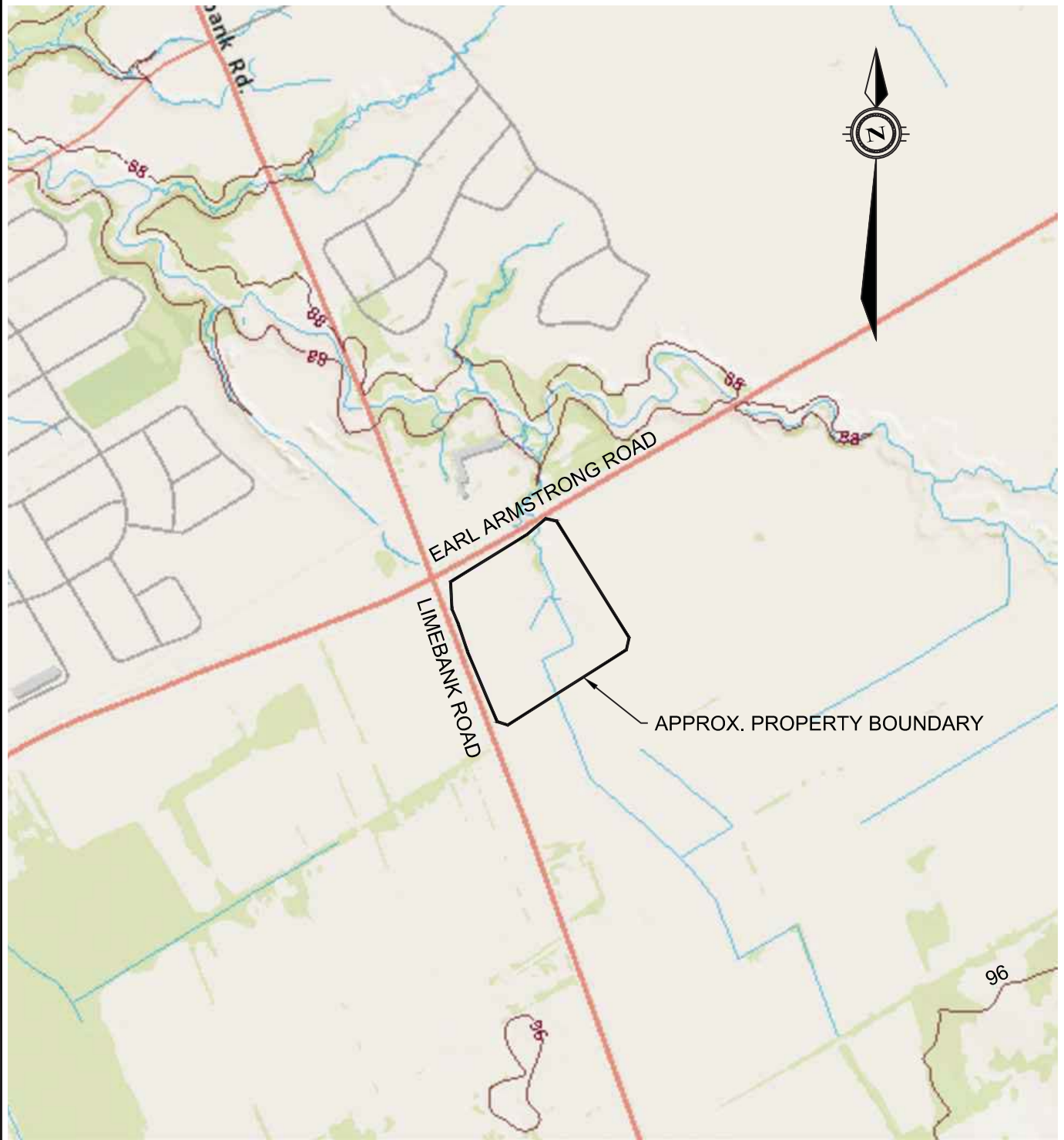
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scale	MARCH 2014	CLIENT:	<b>MORGUARD INVESTMENTS LIMITED</b>	project no.	OTT-00216996-A0
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drawn by	P.G.	TITLE:	<b>CONCEPTUAL SITE MODEL</b> 1420 EARL ARMSTRONG ROAD, OTTAWA, ONTARIO	drawing no.	<b>FIG 5</b>

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 2650 Queensview Drive, Suite 100  
 Ottawa, ON K2B 8H6, Canada

DATE MAR. 2014		CLIENT: <b>MORGUARD INVESTMENTS LIMITED</b>	project no. OTT-00216996-A0
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DRAWN BY M.N.		TITLE: <b>TOPO PLAN</b> 1420 EARL ARMSTRONG ROAD, OTTAWA, ON	<b>TOPO 1</b>



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Phase I Environmental Site Assessment  
1420 Earl Armstrong Road, Ottawa, Ontario  
OTT-00216996-A0  
March 11, 2014

# Appendix C: Municipal & Provincial Records





Ministry of  
the Environment

Freedom of Information and  
Protection of Privacy Office

12<sup>th</sup> Floor  
40 St. Clair Avenue West  
Toronto ON M4V 1M2  
Tel: (416) 314-4075  
Fax: (416) 314-4285

Ministère de  
l'Environnement

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

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



Credit  
Ontario

RECEIVED FEB 06 2014

January 31, 2014

Kathy Radisch  
exp Services Inc  
100 - 2650 Queensview Dr  
Ottawa, ON K2B 8H6

Dear Kathy Radisch:

RE: ***Freedom of Information and Protection of Privacy Act Request***  
**Our File # A-2014-00465, Your Reference OTT-00216996-A0**

This letter is in response to your request made pursuant to the *Freedom of Information and Protection of Privacy Act* relating to 1420 Earl Armstrong Road, Ottawa.

After a thorough search through the files of the Ministry's Ottawa District Office, Investigations and Enforcement Branch, Environmental Monitoring and Reporting Branch, Sector Compliance Branch and Safe Drinking Water Branch, no records were located responsive to your request. To provide you with this response and in accordance with Section 57 of the *Freedom of Information and Protection of Privacy Act*, the fee owed is \$30.00 for 1 hour of search time @ \$30.00 per hour. **We have applied the \$30.00 for this request from your initial payment. This file is now closed.**

You may request a review of my decision by contacting the Information and Privacy Commissioner/Ontario, 2 Bloor Street East, Suite 1400, Toronto, ON M4W 1A8 (800-387-0073 or 416-326-3333). Please note that there is a \$25.00 fee and you only have 30 days from receipt of this letter to request a review.

If you have any questions regarding this matter, please contact Ayesha Kapadia at 416-212-8912 or [ayesha.kapadia@ontario.ca](mailto:ayesha.kapadia@ontario.ca).

Yours truly,

  
Heidi Ritscher  
FOI Manager





File Number: C10-01-14-0053

February 28, 2014

Kathy Radisch  
exp Services Inc.  
2650 Queensview Drive, Suite 100  
Ottawa, ON K2B 8H6

*Sent via email [Kathy.Radisch@exp.com]*

Dear Ms. Radisch,

**Re: Information Request  
1420 Earl Armstrong Road, Ottawa, Ontario ("Subject Property")**

**Internal Department Circulation**

The Planning and Growth Management Department has the following information in response to your request for information regarding the Subject Property:

- No information was returned on the Subject Property from Departmental 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 Property.**

A search of the HLUI database revealed the following information:

- There is one activity associated with the Subject Property: Activity Number 8631.

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

- There is one activity associated with properties located within 50m of the Subject Property: Activity Number 10081.

*Shaping our future together  
Ensemble, formons notre avenir*

City of Ottawa  
Infrastructure Services and Community  
Sustainability Department  
Planning and Growth Management Branch

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

Ville d'Ottawa  
Services d'infrastructure et Viabilité des  
collectivités  
Direction de l'approbation des demandes  
d'aménagement et d'infrastructure

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

A site map has been included to show the location of the Subject Property as well as the location of all the activities noted above.

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 key words i.e. name of proponent/owner and the address one can ascertain if there is any information on the proponent and address under the following categories: Ministry, keywords, notice types, Notice Status, Acts, Instruments and published date (all years).

### **The Ontario Land Registry Office**

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

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

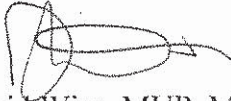
**Please note, as per the HLUI Disclaimer, that the information contained in the HLUI database has been compiled from publicly available records and other sources of information. The HLUI may contain erroneous information given that the records used as sources of information may be flawed. For instance,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

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

**Please note that in responding to your request, the City of Ottawa does not guarantee or comment on the environmental condition of the Subject Property. You may wish to contact the Ontario Ministry of Environment for additional information.**

If you have any further questions or comments, please contact John Bernier at 613-580-2424 ext. 14743 or [HLUI@ottawa.ca](mailto:HLUI@ottawa.ca)

Sincerely,

A handwritten signature in black ink, appearing to read 'David Wise', with a stylized flourish extending to the right.

David Wise, MUP, MCIP, RPP  
Program Manager  
Development Review (Suburban Services) - West  
Planning and Growth Management Department

DW/JB

Attach: 03

cc: File no. C10-01-14-0053



Scale 1: n/a

1420 Earl Armstrong Road  
Ottawa, ON  
File # C10-01-14-0053  
John Bernier



ID# = Activity Identification Number

 = Subject Site

Overview



CITY OF OTTAWA

HLUI ID: \_\_670HYZ

AREA (Square Metres): 3511665.426

Report: RPTC\_OT\_DEV0122

Run On: 18 Feb 2014 at: 11:58:46

Study Year  
1998

PIN  
043310313

Multi-NAIC  
Y

Multiple Activities  
N

Activity ID: 10081 Multiple PINS: Y  
PIN Certainty: 1 Previous Activity ID(s) : 6424  
Related PINS: 040550156

Name: OTTAWA INTERNATIONAL AIRPORT/CFB OTTAWA  
Address: , OTTAWA

Facility Type: Aircraft and Aircraft Parts Industry

Comments 1: In 1922 this site was known as the Uplands Airport and the size of the area was smaller. Gravel Pit #1 UTM = 451000E, 5015950N (1967). Gravel Pit #2 UTM = 450000E, 5017000N (1967).

Comments 2: (see file for additional comments)

Generator Number:

Storage Tanks: 4 Vertical Tanks (1967, 1985 - not water), 2 Horizontal Tanks (1985 - not water).

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.,

HL References 2:

HL References 3:

NAICS	SIC
488119	452
336410	321
911110	811
238910	412
336320	321
412110	511
454310	511
488190	452
561722	452
212323	82
419120	511
488111	452
532410	452

Company Name

Year of Operation

Kenting Earth Sciences Intl. Corp.

c. 1994

Ottawa International Airport/CFB Ottawa

c. 1919-1999

Aviall Canada Ltd.

c. 1998



CITY OF OTTAWA  
 HLUI ID: \_\_670HY3

Report: RPTC\_OT\_DEV0122  
 Run On: 18 Feb 2014 at: 11:56:50

AREA (Square Metres): 3606650.439

Study Year  
 1998

PIN  
 043290001

Multi-NAIC  
 Y

Multiple Activities  
 N

Activity ID: 8631 Multiple PINS: Y  
 PIN Certainty: 2 Previous Activity ID(s) : 6489  
 Related PINS: 043290001

Name: MODERN FARM SUPPLIES LIMITED  
 Address: , GLOUCESTER  
 Facility Type: Motor Vehicles, Wholesale  
 Comments 1: Conn. 2, part lot 23  
 Comments 2:

Generator Number:

Storage Tanks:

HL References 1: Assessment Role 1953 (p. # unknown)

HL References 2:

HL References 3:

NAICS	SIC
415190	551
415120	551
417110	571
811310	551
811111	551
415110	551

Company Name

Modern Farm Supplies Ltd.

Year of Operation

c. 1953

**From:** squibell@tssa.org [mailto:squibell@tssa.org] **On Behalf Of** Public Information Services  
**Sent:** Tuesday, January 21, 2014 2:16 PM  
**To:** Kathy Radisch  
**Subject:** Re: File Search - 1420 Earl Armstrong Road, Ottawa, Ontario

Hi Kathy,

Thank you for your inquiry.

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

For a further search in our archives please submit your request in writing to Public Information Services via e-mail ([publicinformationservices@tssa.org](mailto: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 great day!

Regards,

Sarah Quibell  
Public Information Services

TECHNICAL STANDARDS & SAFETY AUTHORITY  
"Putting Public Safety First"  
14th Floor, Centre Tower  
3300 Bloor Street West  
Toronto, ON M8X 2X4

[www.tssa.org](http://www.tssa.org)  
Toll-Free: 1-877-682-8772

On Tue, Jan 21, 2014 at 2:14 PM, Kathy Radisch <[Kathy.Radisch@exp.com](mailto:Kathy.Radisch@exp.com)> wrote:

Good Afternoon,

Would you kindly search your files for 1420 Earl Armstrong Road in Ottawa, Ontario. We are looking for any environmental concerns.

Best regards,

**Kathy Radisch**  
Administrative Assistant  
**exp** Services Inc.  
t: [+1.613.688.1891](tel:+16136881891) x3296 | f: [+1.613.225.7337](tel:+16132257337)  
2560 Queensview Drive, Suite 100  
Ottawa, Ontario K2B 8H6  
CANADA

[exp.com](http://exp.com) | [legal disclaimer](#)

*keep it green, read from the screen*



exp Services Inc.

Morguard Investments Limited  
Phase I Environmental Site Assessment  
1420 Earl Armstrong Road, Ottawa, Ontario  
OTT-00216996-A0  
March 11, 2014

## Appendix D: EcoLog Reports



**ERIS**  
ENVIRONMENTAL RISK INFORMATION SERVICE



# DATABASE REPORT

**Project Property:**

*Phase I ESA  
1420 Earl Armstrong Rd  
Ottawa ON K1X1E6  
Custom-Build Your Own Report*

**Report Type:**

**Order #:**

*20140122010*

**Requested by:**

*exp Services Inc.*

**Date:**

*January 29, 2014*

**Ecolog ERIS Ltd.**

Environmental Risk Information  
Service Ltd. (ERIS)  
A division of Glacier Media Inc.  
P: 1.866.517.5204  
E: [info@erisinfo.com](mailto:info@erisinfo.com)

**[www.erisinfo.com](http://www.erisinfo.com)**

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# Executive Summary

## Property Information:

**Project Property:** *Phase I ESA  
1420 Earl Armstrong Rd Ottawa ON K1X1E6*

**Coordinates:**

<b>Latitude:</b>	<i>45.279879</i>
<b>Longitude:</b>	<i>-75.664873</i>
<b>UTM Northing:</b>	<i>5,014,257.14</i>
<b>UTM Easting:</b>	<i>447,853.56</i>
<b>UTM Zone:</b>	<i>UTM Zone 18T</i>

**Elevation:** *295 FT  
90.00 M*

## Order Information:

**Order No.:** *20140122010*  
**Date Requested:** *30/01/2014*  
**Requested by:** *exp Services Inc.*  
**Report Type:** *Custom-Build Your Own Report*

## Additional Products:

<b>Insurance Products</b>	<i>Fire Insurance Plans</i>
<b>Insurance Products</b>	<i>Inspection Reports</i>
<b>Insurance Products</b>	<i>Site Specific Plans</i>
<b>Topographic Map</b>	<i>ANSI Map &amp; Ontario Base Map (OBM)</i>

## Executive Summary: Report Summary

<b>Database</b>	<b>Name</b>	<b>Searched</b>	<b>Project Property</b>	<b>Within 0.25 km</b>	<b>Total</b>
<a href="#">AAGR</a>	<i>Abandoned Aggregate Inventory</i>	Y	0	0	0
<a href="#">AGR</a>	<i>Aggregate Inventory</i>	Y	0	0	0
<a href="#">AMIS</a>	<i>Abandoned Mine Information System</i>	Y	0	0	0
<a href="#">ANDR</a>	<i>Anderson's Waste Disposal Sites</i>	Y	0	0	0
<a href="#">AUWR</a>	<i>Automobile Wrecking &amp; Supplies</i>	Y	0	0	0
<a href="#">BORE</a>	<i>Borehole</i>	Y	1	6	7
<a href="#">CA</a>	<i>Certificates of Approval</i>	Y	0	2	2
<a href="#">CFOT</a>	<i>Commercial Fuel Oil Tanks</i>	Y	0	0	0
<a href="#">CHEM</a>	<i>Chemical Register</i>	Y	0	0	0
<a href="#">COAL</a>	<i>Inventory of Coal Gasification Plants and Coal Tar Sites</i>	Y	0	0	0
<a href="#">CONV</a>	<i>Compliance and Convictions</i>	Y	0	0	0
<a href="#">CPU</a>	<i>Certificates of Property Use</i>	Y	0	0	0
<a href="#">DRL</a>	<i>Drill Hole Database</i>	Y	0	0	0
<a href="#">EASR</a>	<i>Environmental Activity and Sector Registry</i>	Y	0	0	0
<a href="#">EBR</a>	<i>Environmental Registry</i>	Y	0	0	0
<a href="#">ECA</a>	<i>Environmental Compliance Approval</i>	Y	0	0	0
<a href="#">EEM</a>	<i>Environmental Effects Monitoring</i>	Y	0	0	0
<a href="#">EHS</a>	<i>ERIS Historical Searches</i>	Y	0	1	1
<a href="#">EIS</a>	<i>Environmental Issues Inventory System</i>	Y	0	0	0
<a href="#">EXP</a>	<i>List of TSSA Expired Facilities</i>	Y	0	0	0
<a href="#">FCON</a>	<i>Federal Convictions</i>	Y	0	0	0
<a href="#">FCS</a>	<i>Contaminated Sites on Federal Land</i>	Y	0	0	0
<a href="#">FOFT</a>	<i>Fisheries &amp; Oceans Fuel Tanks</i>	Y	0	0	0
<a href="#">FST</a>	<i>Fuel Storage Tank</i>	Y	0	0	0
<a href="#">FSTH</a>	<i>Fuel Storage Tank - Historic</i>	Y	0	0	0
<a href="#">GEN</a>	<i>Ontario Regulation 347 Waste Generators Summary</i>	Y	0	0	0
<a href="#">HINC</a>	<i>TSSA Historic Incidents</i>	Y	0	0	0
<a href="#">IAFT</a>	<i>Indian &amp; Northern Affairs Fuel Tanks</i>	Y	0	0	0
<a href="#">INC</a>	<i>TSSA Incidents</i>	Y	0	0	0
<a href="#">LIMO</a>	<i>Landfill Inventory Management Ontario</i>	Y	0	0	0
<a href="#">MINE</a>	<i>Canadian Mine Locations</i>	Y	0	0	0
<a href="#">MNR</a>	<i>Mineral Occurrences</i>	Y	0	0	0
<a href="#">NATE</a>	<i>National Analysis of Trends in Emergencies System (NATES)</i>	Y	0	0	0
<a href="#">NCPL</a>	<i>Non-Compliance Reports</i>	Y	0	0	0
<a href="#">NDFT</a>	<i>National Defence &amp; Canadian Forces Fuel Tanks</i>	Y	0	0	0
<a href="#">NDSP</a>	<i>National Defence &amp; Canadian Forces Spills</i>	Y	0	0	0
<a href="#">NDWD</a>	<i>National Defence &amp; Canadian Forces Waste Disposal Sites</i>	Y	0	0	0
<a href="#">NEES</a>	<i>National Environmental Emergencies System (NEES)</i>	Y	0	0	0

<b>Database</b>	<b>Name</b>	<b>Searched</b>	<b>Project Property</b>	<b>Within 0.25 km</b>	<b>Total</b>
<a href="#">NPCB</a>	National PCB Inventory	Y	0	0	0
<a href="#">NPRI</a>	National Pollutant Release Inventory	Y	0	0	0
<a href="#">OGW</a>	Oil and Gas Wells	Y	0	0	0
<a href="#">OOGW</a>	Ontario Oil and Gas Wells	Y	0	0	0
<a href="#">OPCB</a>	Inventory of PCB Storage Sites	Y	0	0	0
<a href="#">ORD</a>	Orders	Y	0	0	0
<a href="#">PAP</a>	Canadian Pulp and Paper	Y	0	0	0
<a href="#">PCFT</a>	Parks Canada Fuel Storage Tanks	Y	0	0	0
<a href="#">PES</a>	Pesticide Register	Y	0	0	0
<a href="#">PINC</a>	TSSA Pipeline Incidents	Y	0	0	0
<a href="#">PRT</a>	Private and Retail Fuel Storage Tanks	Y	0	0	0
<a href="#">PTTW</a>	Permit to Take Water	Y	0	0	0
<a href="#">REC</a>	Ontario Regulation 347 Waste Receivers Summary	Y	0	0	0
<a href="#">RSC</a>	Record of Site Condition	Y	0	0	0
<a href="#">RST</a>	Retail Fuel Storage Tanks	Y	0	0	0
<a href="#">SCT</a>	Scott's Manufacturing Directory	Y	0	0	0
<a href="#">SPL</a>	Ontario Spills	Y	0	0	0
<a href="#">SRDS</a>	Wastewater Discharger Registration Database	Y	0	0	0
<a href="#">TANK</a>	Anderson's Storage Tanks	Y	0	0	0
<a href="#">TCFT</a>	Transport Canada Fuel Storage Tanks	Y	0	0	0
<a href="#">VAR</a>	TSSA Variances for Abandonment of Underground Storage Tanks	Y	0	0	0
<a href="#">WDS</a>	Waste Disposal Sites - MOE CA Inventory	Y	0	0	0
<a href="#">WDSH</a>	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0
<a href="#">WWIS</a>	Water Well Information System	Y	0	5	5
<b>Total:</b>			<b>1</b>	<b>14</b>	<b>15</b>

## Executive Summary: Site Report Summary – Project Property

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Dir/Dist m</i>	<i>Elev diff m</i>	<i>Page Number</i>
<a href="#">1</a>	BORE		ON	SW/126.4	-1.00	<a href="#">11</a>

## Executive Summary: Site Report Summary – Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist m	Elev Diff m	Page Number
<a href="#">2</a>	WWIS		ON	NW/167.2	-1.00	<a href="#">11</a>
<a href="#">3</a>	BORE		ON	WNW/180.4	-1.00	<a href="#">12</a>
<a href="#">4</a>	CA	City of Ottawa	Limebank Road and Earl Armstrong Rd Ottawa ON	WNW/182.6	-1.00	<a href="#">12</a>
<a href="#">4</a>	CA	City of Ottawa	Limebank Road and Earl Armstrong Rd Ottawa ON	WNW/182.6	-1.00	<a href="#">13</a>
<a href="#">5</a>	WWIS		ON	NW/205.3	-1.99	<a href="#">13</a>
<a href="#">6</a>	BORE		ON	SSW/215.0	0.93	<a href="#">14</a>
<a href="#">7</a>	BORE		ON	NNW/250.4	0.77	<a href="#">14</a>
<a href="#">8</a>	BORE		ON	NW/289.7	0.00	<a href="#">15</a>
<a href="#">9</a>	BORE		ON	S/343.7	3.00	<a href="#">15</a>
<a href="#">10</a>	WWIS		ON	SE/363.5	1.00	<a href="#">16</a>
<a href="#">11</a>	WWIS		ON	NW/363.6	0.18	<a href="#">17</a>
<a href="#">12</a>	EHS		4509 and 4515 Limebank Rd Ottawa ON	NNW/365.5	-0.97	<a href="#">17</a>
<a href="#">13</a>	BORE		ON	SSE/383.0	2.90	<a href="#">17</a>
<a href="#">13</a>	WWIS		ON	SSE/383.0	2.90	<a href="#">18</a>



## Executive Summary: Summary By Data Source

### BORE - Borehole

A search of the BORE database, dated 1875-Aug 2011 has found that there are 7 BORE site(s) within approximately 0.25 Kilometers of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance m</u>	<u>Map Key</u>
	ON	SSW	214.99	6
	ON	NNW	250.45	7
	ON	NW	289.68	8
	ON	S	343.68	9
	ON	SSE	383.03	13

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance m</u>	<u>Map Key</u>
	ON	SW	126.40	1
	ON	WNW	180.41	3

### CA - Certificates of Approval

A search of the CA database, dated 1985-Oct 30, 2011\* has found that there are 2 CA site(s) within approximately 0.25 Kilometers of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance m</u>	<u>Map Key</u>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance m</u>	<u>Map Key</u>
City of Ottawa	Limebank Road and Earl Armstrong Rd Ottawa ON	WNW	182.64	4
City of Ottawa	Limebank Road and Earl Armstrong Rd Ottawa ON	WNW	182.64	4

### EHS - ERIS Historical Searches

A search of the EHS database, dated 1999-Mar 2013 has found that there are 1 EHS site(s) within approximately 0.25 Kilometers of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance m</u>	<u>Map Key</u>
-------------------------------	----------------	------------------	-------------------	----------------

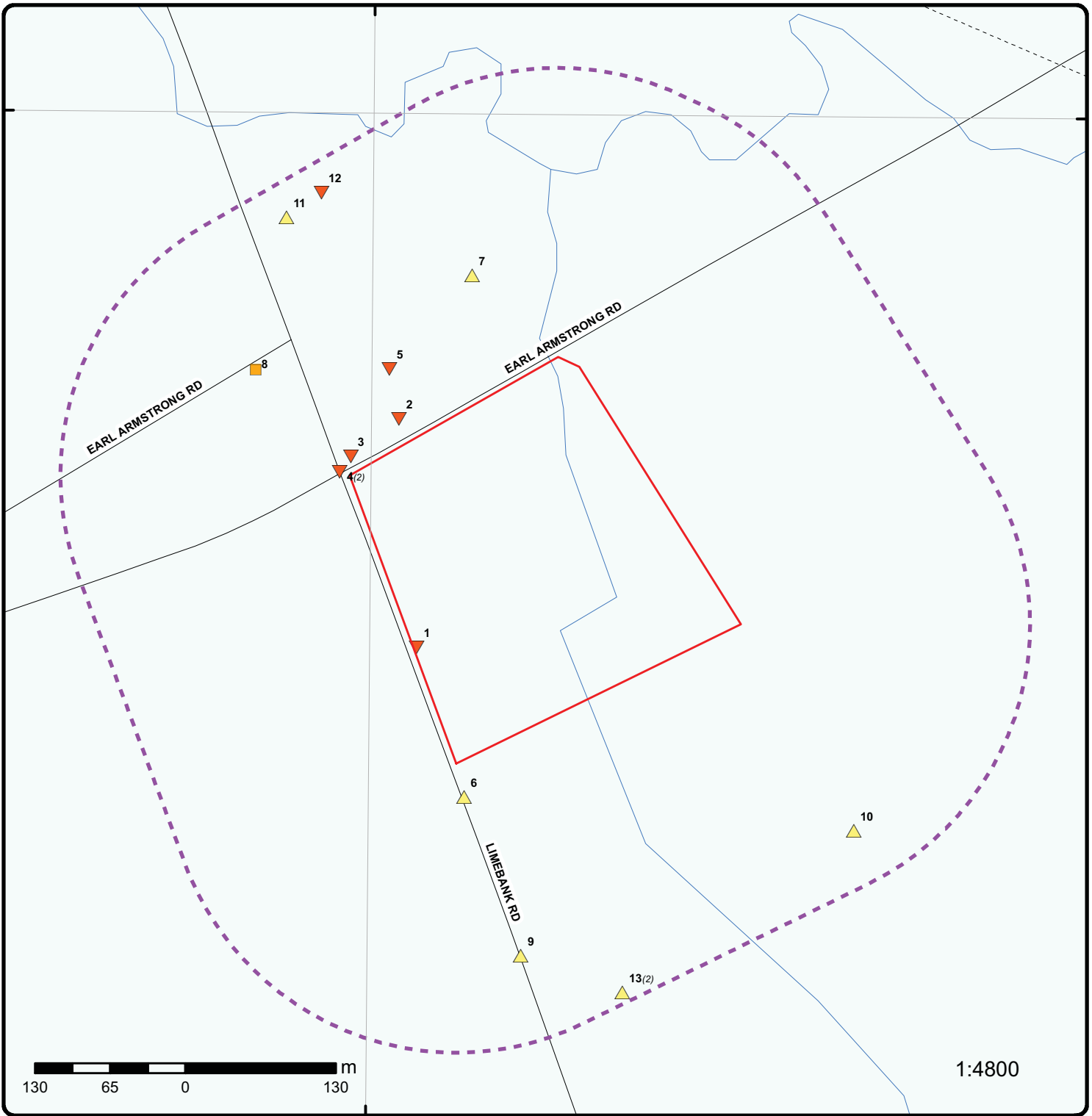
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance m</u>	<u>Map Key</u>
	4509 and 4515 Limebank Rd Ottawa ON	NNW	365.48	12

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

A search of the WWIS database, dated 1955-May 2013 has found that there are 5 WWIS site(s) within approximately 0.25 Kilometers of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance m</u>	<u>Map Key</u>
	ON	SE	363.53	10
	ON	NW	363.60	11
	ON	SSE	383.03	13

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance m</u>	<u>Map Key</u>
	ON	NW	167.19	2
	ON	NW	205.28	5



# Map

Order No: 20140122010

Address: 1420 Earl Armstrong Rd, Ottawa, ON, K1X1E6

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

75°40'W

45°17'N

45°17'N



# Aerial

Order No: 20140122010

Address: 1420 Earl Armstrong Rd, Ottawa, ON, K1X1E6

Source: ESRI World Imagery, Updated December 2012

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# Detail Report

Map Key	Number of Records	Direction/ Distance m	Elevation m	Site	DB
1	1 of 1	SW/126.4	89.0	ON	<a href="#">BORE</a>
<b>Borehole ID:</b>		809215	<b>Type:</b>		Borehole
<b>Use:</b>		Geotechnical/Geological Investigation	<b>Status:</b>		
<b>Drill Method:</b>		Hollow stem auger	<b>UTM Zone:</b>		18
<b>Easting:</b>		447753.297	<b>Northing:</b>		5014180.255
<b>Location Accuracy:</b>			<b>Orig. Ground Elev m:</b>		
<b>Elev. Reliability Note:</b>			<b>DEM Ground Elev m:</b>		93.800003
<b>Total Depth m:</b>		1.500000	<b>Primary Name:</b>		AH.95-27
<b>Township:</b>			<b>Concession:</b>		
<b>Lot:</b>			<b>Municipality:</b>		
<b>Completion Date:</b>		1995-DEC-9	<b>Static Water Level:</b>		
<b>Primary Water Use:</b>			<b>Sec. Water Use:</b>		
<b>--- Details ---</b>					
<b>Stratum ID:</b>		218599273	<b>Top Depth m:</b>		0
<b>Bottom Depth m:</b>		0.100000	<b>Stratum Desc:</b>		Asphalt
+			<b>Top Depth m:</b>		0.100000
<b>Stratum ID:</b>		218599274	<b>Stratum Desc:</b>		Brown Sand - Gravel With: Cob Trace: Si
<b>Bottom Depth m:</b>		0.500000	<b>Top Depth m:</b>		0.500000
+			<b>Stratum Desc:</b>		Grey Fill-Misc Silt - Sand Occasional: Cob
<b>Stratum ID:</b>		218599275	<b>Top Depth m:</b>		0.900000
<b>Bottom Depth m:</b>		0.900000	<b>Stratum Desc:</b>		Dark Brown Silt With: Org M
+			<b>Top Depth m:</b>		1
<b>Stratum ID:</b>		218599276	<b>Stratum Desc:</b>		Grey-Brown clay silt
<b>Bottom Depth m:</b>		1.500000			
<hr/>					
2	1 of 1	NW/167.2	89.0	ON	<a href="#">WWIS</a>
<b>Well Id:</b>		7160257	<b>Lot:</b>		
<b>Concession:</b>			<b>Concession Name:</b>		
<b>County:</b>		OTTAWA-CARLETON	<b>Municipality:</b>		GLOUCESTER
<b>Easting Nad83:</b>		447738	<b>Northing Nad83:</b>		5014378
<b>Zone:</b>		18	<b>Utm Reliability:</b>		margin of error : 100 m - 300 m
<b>Primary Water Use:</b>			<b>Construction Date:</b>		23-FEB-11
<b>Sec. Water Use:</b>			<b>Well Depth:</b>		
<b>Pump Rate:</b>			<b>Static Water Level:</b>		
<b>Flow Rate:</b>			<b>Clear/Cloudy:</b>		
<b>Specific Capacity:</b>			<b>Final Well Status:</b>		
<b>Construction Method:</b>			<b>Flowing (y/n):</b>		
<b>Elevation (m):</b>			<b>Elevation</b>		

Map Key	Number of Records	Direction/ Distance m	Elevation m	Site	DB
<b>Depth to Bedrock:</b>				<b>Reliability:</b>	
<b>Water Type:</b>				<b>Overburden/Bedrock:</b>	
<b>--- Details ---</b>				<b>Casing Material:</b>	
<b>Thickness:</b>	m			<b>Original Depth:</b>	m
<b>Material Colour:</b>				<b>Material:</b>	
<b>3</b>	<b>1 of 1</b>	<b>WNW/180.4</b>	<b>89.0</b>	<b>ON</b>	<b><u>BORE</u></b>
<b>Borehole ID:</b>	809217			<b>Type:</b>	Borehole
<b>Use:</b>	Geotechnical/Geological Investigation			<b>Status:</b>	
<b>Drill Method:</b>	Hollow stem auger			<b>UTM Zone:</b>	18
<b>Easting:</b>	447696.448			<b>Northing:</b>	5014345.789
<b>Location Accuracy:</b>				<b>Orig. Ground Elev m:</b>	
<b>Elev. Reliability Note:</b>				<b>DEM Ground Elev m:</b>	93.400002
<b>Total Depth m:</b>	1.500000			<b>Primary Name:</b>	AH.95-28
<b>Township:</b>				<b>Concession:</b>	
<b>Lot:</b>				<b>Municipality:</b>	
<b>Completion Date:</b>	1995-DEC-9			<b>Static Water Level:</b>	
<b>Primary Water Use:</b>				<b>Sec. Water Use:</b>	
<b>--- Details ---</b>					
<b>Stratum ID:</b>	218599282			<b>Top Depth m:</b>	0
<b>Bottom Depth m:</b>	0.100000			<b>Stratum Desc:</b>	Asphalt
<b>+</b>					
<b>Stratum ID:</b>	218599283			<b>Top Depth m:</b>	0.100000
<b>Bottom Depth m:</b>	0.200000			<b>Stratum Desc:</b>	Grey Crushed Stone
<b>+</b>					
<b>Stratum ID:</b>	218599284			<b>Top Depth m:</b>	0.200000
<b>Bottom Depth m:</b>	0.400000			<b>Stratum Desc:</b>	Asphalt
<b>+</b>					
<b>Stratum ID:</b>	218599285			<b>Top Depth m:</b>	0.400000
<b>Bottom Depth m:</b>	0.700000			<b>Stratum Desc:</b>	Brown Sand - Gravel With: Cob Trace: Si
<b>+</b>					
<b>Stratum ID:</b>	218599286			<b>Top Depth m:</b>	0.700000
<b>Bottom Depth m:</b>	1.100000			<b>Stratum Desc:</b>	Grey Fill-Misc Silty Clay Trace: Gr Tr Org M
<b>+</b>					
<b>Stratum ID:</b>	218599287			<b>Top Depth m:</b>	1.100000
<b>Bottom Depth m:</b>	1.500000			<b>Stratum Desc:</b>	Grey-Brown Silty Clay
<b>4</b>	<b>1 of 2</b>	<b>WNW/182.6</b>	<b>89.0</b>	<b>City of Ottawa Limebank Road and Earl Armstrong Rd Ottawa ON</b>	<b><u>CA</u></b>
<b>Certificate #:</b>	2134-83GL8H				
<b>Application Year:</b>	2010				
<b>Issue Date:</b>	3/15/2010				
<b>Approval Type:</b>	Municipal and Private Sewage Works				

Map Key	Number of Records	Direction/ Distance m	Elevation m	Site	DB
<b>Status:</b>		Approved			
<b>Application Type:</b>					
<b>Client Name:</b>					
<b>Client Address:</b>					
<b>Client City:</b>					
<b>Client Postal Code:</b>					
<b>Project Description:</b>					
<b>Contaminants:</b>					
<b>Emission Control:</b>					

4	2 of 2	WNW/182.6	89.0	City of Ottawa Limebank Road and Earl Armstrong Rd Ottawa ON	<a href="#">CA</a>
<b>Certificate #:</b>		0357-882LG7			
<b>Application Year:</b>		2010			
<b>Issue Date:</b>		8/20/2010			
<b>Approval Type:</b>		Municipal and Private Sewage Works			
<b>Status:</b>		Approved			
<b>Application Type:</b>					
<b>Client Name:</b>					
<b>Client Address:</b>					
<b>Client City:</b>					
<b>Client Postal Code:</b>					
<b>Project Description:</b>					
<b>Contaminants:</b>					
<b>Emission Control:</b>					

5	1 of 1	NW/205.3	88.0	ON	<a href="#">WWIS</a>
<b>Well Id:</b>		1519066		<b>Lot:</b> 020	
<b>Concession:</b>		02		<b>Concession Name:</b> RF	
<b>County:</b>		OTTAWA-CARLETON		<b>Municipality:</b> GLOUCESTER	
<b>Easting Nad83:</b>		447729.8		<b>Northing Nad83:</b> 5014421	
<b>Zone:</b>		18		<b>Utm Reliability:</b> margin of error : 30 m - 100 m	
<b>Primary Water Use:</b>		Domestic		<b>Construction Date:</b> 12-JUN-84	
<b>Sec. Water Use:</b>				<b>Well Depth:</b> 90 ft	
<b>Pump Rate:</b>		20 GPM		<b>Static Water Level:</b> 10 ft	
<b>Flow Rate:</b>				<b>Clear/Cloudy:</b> CLEAR	
<b>Specific Capacity:</b>				<b>Final Well Status:</b> Water Supply	
<b>Construction Method:</b>		Air Percussion		<b>Flowing (y/n):</b> N	
<b>Elevation (m):</b>		93.02		<b>Elevation Reliability:</b>	
<b>Depth to Bedrock:</b>		50		<b>Overburden/Bedrock:</b> Bedrock	
<b>Water Type:</b>		FRESH		<b>k:</b>	
				<b>Casing Material:</b> OPEN HOLE,STEEL	
<b>--- Details ---</b>					
<b>Thickness:</b>		16 ft		<b>Original Depth:</b> 16 ft	
<b>Material Colour:</b>		BROWN		<b>Material:</b> CLAY, PACKED	
+					
<b>Thickness:</b>		25 ft		<b>Original Depth:</b> 41 ft	
<b>Material Colour:</b>		BLUE		<b>Material:</b> CLAY, SOFT	
+					

Map Key	Number of Records	Direction/ Distance m	Elevation m	Site	DB
<b>Thickness:</b>	9 ft			<b>Original Depth:</b>	50 ft
<b>Material Colour:</b>	BLUE			<b>Material:</b>	CLAY, GRAVEL, BOULDERS
+					
<b>Thickness:</b>	40 ft			<b>Original Depth:</b>	90 ft
<b>Material Colour:</b>	GREY			<b>Material:</b>	LIMESTONE, MEDIUM-GRAINED
<b>6</b>	<b>1 of 1</b>	<b>SSW/215.0</b>	<b>90.9</b>	<b>ON</b>	<b><u>BORE</u></b>
<b>Borehole ID:</b>	809213			<b>Type:</b>	Borehole
<b>Use:</b>	Geotechnical/Geological Investigation			<b>Status:</b>	
<b>Drill Method:</b>	Hollow stem auger			<b>UTM Zone:</b>	18
<b>Easting:</b>	447794.002			<b>Northing:</b>	5014050.516
<b>Location Accuracy:</b>				<b>Orig. Ground Elev m:</b>	
<b>Elev. Reliability Note:</b>				<b>DEM Ground Elev m:</b>	93.900002
<b>Total Depth m:</b>	1.500000			<b>Primary Name:</b>	AH.95-26
<b>Township:</b>				<b>Concession:</b>	
<b>Lot:</b>				<b>Municipality:</b>	
<b>Completion Date:</b>	1995-DEC-9			<b>Static Water Level:</b>	
<b>Primary Water Use:</b>				<b>Sec. Water Use:</b>	
<b>--- Details ---</b>					
<b>Stratum ID:</b>	218599264			<b>Top Depth m:</b>	0
<b>Bottom Depth m:</b>	0.100000			<b>Stratum Desc:</b>	Asphalt
+					
<b>Stratum ID:</b>	218599265			<b>Top Depth m:</b>	0.100000
<b>Bottom Depth m:</b>	0.500000			<b>Stratum Desc:</b>	Brown Sand - Gravel With: Cob Trace: Si
+					
<b>Stratum ID:</b>	218599266			<b>Top Depth m:</b>	0.500000
<b>Bottom Depth m:</b>	0.900000			<b>Stratum Desc:</b>	Dark Grey Fill-Misc clay silt Trace: Gr Tr Org M
+					
<b>Stratum ID:</b>	218599267			<b>Top Depth m:</b>	0.900000
<b>Bottom Depth m:</b>	1			<b>Stratum Desc:</b>	Dark Brown Topsoil
+					
<b>Stratum ID:</b>	218599268			<b>Top Depth m:</b>	1
<b>Bottom Depth m:</b>	1.500000			<b>Stratum Desc:</b>	Grey-Brown Silty Clay
<b>7</b>	<b>1 of 1</b>	<b>NNW/250.4</b>	<b>90.8</b>	<b>ON</b>	<b><u>BORE</u></b>
<b>Borehole ID:</b>	612097			<b>Type:</b>	Borehole
<b>Use:</b>				<b>Status:</b>	
<b>Drill Method:</b>				<b>UTM Zone:</b>	18
<b>Easting:</b>	447801.000			<b>Northing:</b>	5014502.000
<b>Location Accuracy:</b>				<b>Orig. Ground Elev m:</b>	91.400002
<b>Elev. Reliability Note:</b>				<b>DEM Ground Elev m:</b>	93
<b>Total Depth m:</b>	-999.000000			<b>Primary Name:</b>	
<b>Township:</b>				<b>Concession:</b>	
<b>Lot:</b>				<b>Municipality:</b>	



Map Key	Number of Records	Direction/ Distance m	Elevation m	Site	DB
<b>Completion Date:</b>				<b>Static Water Level:</b>	5.800000
<b>Primary Water Use:</b>				<b>Sec. Water Use:</b>	
<b>--- Details ---</b>					
<b>Stratum ID:</b>	218390052			<b>Top Depth m:</b>	0
<b>Bottom Depth m:</b>	12.800000			<b>Stratum Desc:</b>	CLAY.
+					
<b>Stratum ID:</b>	218390053			<b>Top Depth m:</b>	12.800000
<b>Bottom Depth m:</b>				<b>Stratum Desc:</b>	BEDROCK,LIMESTONE. WATER STABLE AT 281.0 FEET.FEET.BEDROCK,LIMESTONE. SEISMIC VELOCITY =
<b>8</b>	<b>1 of 1</b>	<b>NW/289.7</b>	<b>90.0</b>	<b>ON</b>	<b><u>BORE</u></b>
<b>Borehole ID:</b>	804589			<b>Type:</b>	Borehole
<b>Use:</b>	Geotechnical/Geological Investigation			<b>Status:</b>	
<b>Drill Method:</b>	Hollow stem auger			<b>UTM Zone:</b>	18
<b>Easting:</b>	447614.253			<b>Northing:</b>	5014420.307
<b>Location Accuracy:</b>				<b>Orig. Ground Elev m:</b>	
<b>Elev. Reliability Note:</b>				<b>DEM Ground Elev m:</b>	92
<b>Total Depth m:</b>	1.600000			<b>Primary Name:</b>	AH.16
<b>Township:</b>				<b>Concession:</b>	
<b>Lot:</b>				<b>Municipality:</b>	
<b>Completion Date:</b>	1994-NOV-15			<b>Static Water Level:</b>	
<b>Primary Water Use:</b>				<b>Sec. Water Use:</b>	
<b>--- Details ---</b>					
<b>Stratum ID:</b>	218581234			<b>Top Depth m:</b>	0
<b>Bottom Depth m:</b>	0.100000			<b>Stratum Desc:</b>	Grey Crushed Stone With: Si
+					
<b>Stratum ID:</b>	218581235			<b>Top Depth m:</b>	0.100000
<b>Bottom Depth m:</b>	0.300000			<b>Stratum Desc:</b>	Brown Sand - Gravel With: Si
+					
<b>Stratum ID:</b>	218581236			<b>Top Depth m:</b>	0.300000
<b>Bottom Depth m:</b>	0.500000			<b>Stratum Desc:</b>	Dark Grey clay silt Trace: Gr
+					
<b>Stratum ID:</b>	218581237			<b>Top Depth m:</b>	0.500000
<b>Bottom Depth m:</b>	0.800000			<b>Stratum Desc:</b>	Dark Grey-Brown Topsoil clay silt
+					
<b>Stratum ID:</b>	218581238			<b>Top Depth m:</b>	0.800000
<b>Bottom Depth m:</b>	1.600000			<b>Stratum Desc:</b>	Grey-Brown to Reddish Brown Silty Clay
<b>9</b>	<b>1 of 1</b>	<b>S/343.7</b>	<b>93.0</b>	<b>ON</b>	<b><u>BORE</u></b>
<b>Borehole ID:</b>	809211			<b>Type:</b>	Borehole
<b>Use:</b>	Geotechnical/Geological Investigation			<b>Status:</b>	
<b>Drill Method:</b>	Hollow stem auger			<b>UTM Zone:</b>	18
<b>Easting:</b>	447843.322			<b>Northing:</b>	5013913.619
<b>Location Accuracy:</b>				<b>Orig. Ground Elev</b>	

Map Key	Number of Records	Direction/ Distance m	Elevation m	Site	DB
<b>Elev. Reliability Note:</b>				<b>m:</b> <b>DEM Ground Elev</b>	93.900002
<b>Total Depth m:</b>	1.500000			<b>m:</b> <b>Primary Name:</b>	AH.95-25
<b>Township:</b>				<b>Concession:</b>	
<b>Lot:</b>				<b>Municipality:</b>	
<b>Completion Date:</b>	1995-DEC-9			<b>Static Water Level:</b>	
<b>Primary Water Use:</b>				<b>Sec. Water Use:</b>	
<b>--- Details ---</b>					
<b>Stratum ID:</b>	218599259			<b>Top Depth m:</b>	0
<b>Bottom Depth m:</b>	0.200000			<b>Stratum Desc:</b>	Asphalt
+					
<b>Stratum ID:</b>	218599260			<b>Top Depth m:</b>	0.200000
<b>Bottom Depth m:</b>	0.600000			<b>Stratum Desc:</b>	Brown Sand - Gravel With: Cob Trace: Si
+					
<b>Stratum ID:</b>	218599261			<b>Top Depth m:</b>	0.600000
<b>Bottom Depth m:</b>	0.900000			<b>Stratum Desc:</b>	Dark Grey Fill-Misc clay silt With: Cob W Org M
+					
<b>Stratum ID:</b>	218599262			<b>Top Depth m:</b>	0.900000
<b>Bottom Depth m:</b>	1.100000			<b>Stratum Desc:</b>	Dark Brown Topsoil
+					
<b>Stratum ID:</b>	218599263			<b>Top Depth m:</b>	1.100000
<b>Bottom Depth m:</b>	1.500000			<b>Stratum Desc:</b>	Grey-Brown sand silt
<b>10</b>	<b>1 of 1</b>	<b>SE/363.5</b>	<b>91.0</b>	<b>ON</b>	<b><a href="#">WWIS</a></b>
<b>Well Id:</b>	1516754			<b>Lot:</b>	023
<b>Concession:</b>	02			<b>Concession Name:</b>	RF
<b>County:</b>	OTTAWA-CARLETON			<b>Municipality:</b>	GLOUCESTER
<b>Easting Nad83:</b>	448130.8			<b>Northing Nad83:</b>	5014022
<b>Zone:</b>	18			<b>Utm Reliability:</b>	margin of error : 30 m - 100 m
<b>Primary Water Use:</b>	Livestock			<b>Construction Date:</b>	14-JUL-78
<b>Sec. Water Use:</b>	Domestic			<b>Well Depth:</b>	80 ft
<b>Pump Rate:</b>	10 GPM			<b>Static Water Level:</b>	20 ft
<b>Flow Rate:</b>				<b>Clear/Cloudy:</b>	CLOUDY
<b>Specific Capacity:</b>				<b>Final Well Status:</b>	Water Supply
<b>Construction Method:</b>	Air Percussion			<b>Flowing (y/n):</b>	N
<b>Elevation (m):</b>	93.83			<b>Elevation Reliability:</b>	
<b>Depth to Bedrock:</b>	7			<b>Overburden/Bedrock:</b>	Mixed Layer below top of bedrock
<b>Water Type:</b>	FRESH			<b>Casing Material:</b>	STEEL
<b>--- Details ---</b>					
<b>Thickness:</b>	7 ft			<b>Original Depth:</b>	7 ft
<b>Material Colour:</b>	GREY			<b>Material:</b>	TILL, STONES
+					
<b>Thickness:</b>	43 ft			<b>Original Depth:</b>	50 ft
<b>Material Colour:</b>	GREY			<b>Material:</b>	LIMESTONE
+					
<b>Thickness:</b>	30 ft			<b>Original Depth:</b>	80 ft

Map Key	Number of Records	Direction/ Distance m	Elevation m	Site	DB
<b>Material Colour:</b>		WHITE		<b>Material:</b>	TOPSOIL, SANDSTONE
<b>11</b>	<b>1 of 1</b>	<b>NW/363.6</b>	<b>90.2</b>	<b>ON</b>	<a href="#"><u>WWIS</u></a>
<b>Well Id:</b>	1501711			<b>Lot:</b>	020
<b>Concession:</b>	02			<b>Concession Name:</b>	RF
<b>County:</b>	OTTAWA-CARLETON			<b>Municipality:</b>	GLOUCESTER
<b>Easting Nad83:</b>	447640.8			<b>Northing Nad83:</b>	5014552
<b>Zone:</b>	18			<b>Utm Reliability:</b>	margin of error : 100 m - 300 m
<b>Primary Water Use:</b>	Domestic			<b>Construction Date:</b>	17-MAY-56
<b>Sec. Water Use:</b>				<b>Well Depth:</b>	80 ft
<b>Pump Rate:</b>	5 GPM			<b>Static Water Level:</b>	19 ft
<b>Flow Rate:</b>				<b>Clear/Cloudy:</b>	CLEAR
<b>Specific Capacity:</b>				<b>Final Well Status:</b>	Water Supply
<b>Construction Method:</b>	Cable Tool			<b>Flowing (y/n):</b>	N
<b>Elevation (m):</b>	92.06			<b>Elevation Reliability:</b>	
<b>Depth to Bedrock:</b>	42			<b>Overburden/Bedrock:</b>	Bedrock
<b>Water Type:</b>	FRESH			<b>Casing Material:</b>	OPEN HOLE,STEEL
<b>--- Details ---</b>					
<b>Thickness:</b>	42 ft			<b>Original Depth:</b>	42 ft
<b>Material Colour:</b>				<b>Material:</b>	CLAY
<b>+</b>					
<b>Thickness:</b>	38 ft			<b>Original Depth:</b>	80 ft
<b>Material Colour:</b>	GREY			<b>Material:</b>	LIMESTONE
<b>12</b>	<b>1 of 1</b>	<b>NNW/365.5</b>	<b>89.0</b>	<b>4509 and 4515 Limebank Rd Ottawa ON</b>	<a href="#"><u>EHS</u></a>
<b>Order No.:</b>	20100913048				
<b>Report Date:</b>	9/22/2010				
<b>Report Type:</b>	Custom Report				
<b>Search Radius (km):</b>	0.25				
<b>Addit. Info Ordered:</b>	Fire Insur. Maps and/or Site Plans; Title Searches				
<b>13</b>	<b>1 of 2</b>	<b>SSE/383.0</b>	<b>92.9</b>	<b>ON</b>	<a href="#"><u>BORE</u></a>
<b>Borehole ID:</b>	612080			<b>Type:</b>	Borehole
<b>Use:</b>				<b>Status:</b>	
<b>Drill Method:</b>				<b>UTM Zone:</b>	18
<b>Easting:</b>	447931.000			<b>Northing:</b>	5013882.000
<b>Location Accuracy:</b>				<b>Orig. Ground Elev m:</b>	93.900002
<b>Elev. Reliability Note:</b>				<b>DEM Ground Elev m:</b>	93.599998
<b>Total Depth m:</b>	40.799999			<b>Primary Name:</b>	
<b>Township:</b>				<b>Concession:</b>	
<b>Lot:</b>				<b>Municipality:</b>	
<b>Completion Date:</b>	1968-SEP			<b>Static Water Level:</b>	-2.100000
<b>Primary Water Use:</b>				<b>Sec. Water Use:</b>	

Map Key	Number of Records	Direction/ Distance m	Elevation m	Site	DB
<b>--- Details ---</b>					
<b>Stratum ID:</b>	218390009			<b>Top Depth m:</b>	0
<b>Bottom Depth m:</b>	15.800000			<b>Stratum Desc:</b>	CLAY,SAND,BOULDERS.
+					
<b>Stratum ID:</b>	218390010			<b>Top Depth m:</b>	15.800000
<b>Bottom Depth m:</b>	40.799999			<b>Stratum Desc:</b>	LIMESTONE,SAND. 00123DROCK,LIMESTONE. T 315.0 FEET.75SEISMIC VELOCITY = 17000. BE

13      2 of 2      SSE/383.0      92.9      WWIS

<b>ON</b>					
<b>Well Id:</b>	1509616			<b>Lot:</b>	022
<b>Concession:</b>	02			<b>Concession Name:</b>	RF
<b>County:</b>	OTTAWA-CARLETON			<b>Municipality:</b>	GLOUCESTER
<b>Easting Nad83:</b>	447930.8			<b>Northing Nad83:</b>	5013882
<b>Zone:</b>	18			<b>Utm Reliability:</b>	margin of error : 30 m - 100 m
<b>Primary Water Use:</b>	Domestic			<b>Construction Date:</b>	11-SEP-68
<b>Sec. Water Use:</b>				<b>Well Depth:</b>	52 ft
<b>Pump Rate:</b>	200 GPM			<b>Static Water Level:</b>	9 ft
<b>Flow Rate:</b>				<b>Clear/Cloudy:</b>	CLEAR
<b>Specific Capacity:</b>				<b>Final Well Status:</b>	Water Supply
<b>Construction Method:</b>	Rotary (Convent.)			<b>Flowing (y/n):</b>	N
<b>Elevation (m):</b>	93.61			<b>Elevation Reliability:</b>	
<b>Depth to Bedrock:</b>	52			<b>Overburden/Bedrock:</b>	Bedrock
<b>Water Type:</b>	FRESH			<b>Casing Material:</b>	OPEN HOLE,STEEL
<b>--- Details ---</b>					
<b>Thickness:</b>	52 ft			<b>Original Depth:</b>	52 ft
<b>Material Colour:</b>				<b>Material:</b>	CLAY, MEDIUM SAND, BOULDERS
+					
<b>Thickness:</b>	82 ft			<b>Original Depth:</b>	134 ft
<b>Material Colour:</b>				<b>Material:</b>	LIMESTONE, MEDIUM SAND

## *Unplottable Summary*

DB	Company Name/Site Name	Address	City	Zip
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No unplottable records were found that may be relevant for the search criteria.

## *Unplottable Report*

No unplottable records were found that may be relevant for the search criteria.

## Appendix: Database Descriptions

Ecolog Environmental Risk Information Services Ltd 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 Ecolog 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:** Sept 2002\* Provincial [AAGR](#)  
The MAAP Program maintains a database of all 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.\*

**Aggregate Inventory:** Up to Aug 2012 Provincial [AGR](#)  
The Ontario Ministry of Natural Resources maintains a database of all active pits and quarries. Please note that the database is only referenced by lot\concession and city/town location. The database provides information regarding the registered owner/operator, location, status, licence type, and maximum tonnage.

**Abandoned Mine Information System:** 1800-Feb 2013 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.

**Anderson's Waste Disposal Sites:** 1860s-Present 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.

**Automobile Wrecking & Supplies:** 2001-Jun 2010 Private [AUWR](#)  
This database provides an inventory of all 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.

**Borehole:** 1875-Aug 2011 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.

**Certificates of Approval:**

1985-Oct 30, 2011\*

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.

**Commercial Fuel Oil Tanks:**

1948-Apr 2013

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.

**Chemical Register:**

1992, 1999-Jun 2010

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.).

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

Apr 1987 and Nov 1988\*

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.\*

**Compliance and Convictions:**

1989-Jun 2013

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.

**Certificates of Property Use:**

1994-Jul 2013

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.

**Drill Hole Database:**

1886-Jun 2013

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".

**Environmental Activity and Sector Registry:**

Oct 31 2011-Dec 2013

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.



**Environmental Registry:** 1994-Jul 2013 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.

**Environmental Compliance Approval:** Oct 31, 2011-Jul 2013 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 CofA's prior to Nov 1st, 2011, please refer to the CA database. For all Waste Disposal Sites please refer to the WDS database.

**Environmental Effects Monitoring:** 1992-2007\* 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.

**ERIS Historical Searches:** 1999-Mar 2013 Private [EHS](#)  
EcoLog 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.

**Environmental Issues Inventory System:** 1992-2001\* 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.

**List of TSSA Expired Facilities:** Current to May 2013 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.

**Federal Convictions:** 1988-Jun 2007\* 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.

**Contaminated Sites on Federal Land:**

June 2000-Jan 2013

Federal

[FCS](#)

The Federal Contaminated Sites Inventory includes information on all 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.

**Fisheries & Oceans Fuel Tanks:**

1964-Sept 2003

Federal

[FOFT](#)

Fisheries & Oceans Canada maintains an inventory of all 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.

**Fuel Storage Tank:**

2010-May 2013

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.

**Fuel Storage Tank - Historic:**

Pre-Jan 2010\*

Provincial

[FSTH](#)

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.

**Ontario Regulation 347 Waste Generators Summary:**

1986-Jul 2013

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.

**TSSA Historic Incidents:**

2006-June 2009

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.

**Indian & Northern Affairs Fuel Tanks:**

1950-Aug 2003\*

Federal

[IAFT](#)

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of all 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.

**TSSA Incidents:**

June 2009-Apr 2013

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.

**Landfill Inventory Management Ontario:**

2012

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.

**Canadian Mine Locations:**

1998-2009

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.

**Mineral Occurrences:**

1846-Apr 2013

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 planimetric (X and Y) coordinates of that point with the coordinates of the same point as defined from a source of higher accuracy.

**National Analysis of Trends in Emergencies System**

1974-1994\*

Federal

[NATE](#)**(NATES):**

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.

**Non-Compliance Reports:**

1992(water only), 1994-2010

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.

<b><u>National Defence &amp; Canadian Forces Fuel Tanks:</u></b>	Up to May 2001*	Federal	<a href="#">NDFT</a>
The Department of National Defence 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.			
<b><u>National Defence &amp; Canadian Forces Spills:</u></b>	Mar 1999-Aug 2010	Federal	<a href="#">NDSP</a>
The Department of National Defence 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.			
<b><u>National Defence &amp; Canadian Forces Waste Disposal Sites:</u></b>	2001-Apr 2007*	Federal	<a href="#">NDWD</a>
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.			
<b><u>National Environmental Emergencies System (NEES):</u></b>	1974-2003*	Federal	<a href="#">NEES</a>
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 all 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.			
<b><u>National PCB Inventory:</u></b>	1988-2008*	Federal	<a href="#">NPCB</a>
Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. All federal out-of-service PCB containing equipment and all 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.			
<b><u>National Pollutant Release Inventory:</u></b>	1993-2011	Federal	<a href="#">NPRI</a>
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.			
<b><u>Oil and Gas Wells:</u></b>	1988-Jun 2013	Private	<a href="#">OGW</a>
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 <a href="http://www.nickles.com">www.nickles.com</a> .			

**Ontario Oil and Gas Wells:** 1800-Jul 2013 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, well cap date, licence 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.

**Inventory of PCB Storage Sites:** 1987-Oct 2004 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.

**Orders:** 1994-Jul 2013 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.

**Canadian Pulp and Paper:** 1999, 2002, 2004, 2005, Private [PAP](#)  
2009  
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.

**Parks Canada Fuel Storage Tanks:** 1920-Jan 2005\* Federal [PCFT](#)  
Canadian Heritage maintains an inventory of all 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.

**Pesticide Register:** 1988-Jun 2013 Provincial [PES](#)  
The Ontario Ministry of Environment maintains a database of all manufacturers and vendors of registered pesticides.

**TSSA Pipeline Incidents:** June 2009-Mar 2012 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.

**Private and Retail Fuel Storage Tanks:** 1989-1996\* 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).

**Permit to Take Water:** 1994-Jul 2013 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.

**Ontario Regulation 347 Waste Receivers Summary:** 1986-2011 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.

**Record of Site Condition:** 1997-Sept 2001, Oct 2004- Jun 2013 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).

**Retail Fuel Storage Tanks:** 1999-Jun 2010 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.

**Scott's Manufacturing Directory:** 1992-Mar 2011 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.

**Ontario Spills:** 1988-Jun 2013 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.

**Wastewater Discharger Registration Database:** 1990-2011 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).

**Anderson's Storage Tanks:** 1915-1953\* 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.

**Transport Canada Fuel Storage Tanks:** 1970-Mar 2007 Federal [TCFT](#)  
With the provinces of BC, MB, NB, NF, ON, PE, and QC; Transport Canada currently owns and operates 90 fuel storage tanks. Our inventory provides information on the site name, location, tank age, capacity and fuel type.

**TSSA Variances for Abandonment of Underground**

Current to Jun 2013

Provincial

[VAR](#)

**Storage Tanks:**

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.

**Waste Disposal Sites - MOE CA Inventory:**

1970-Jul 2013

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.

**Waste Disposal Sites - MOE 1991 Historical Approval Inventory:**

Up to Oct 1990\*

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.

**Water Well Information System:**

1955-May 2013

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.

# 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.

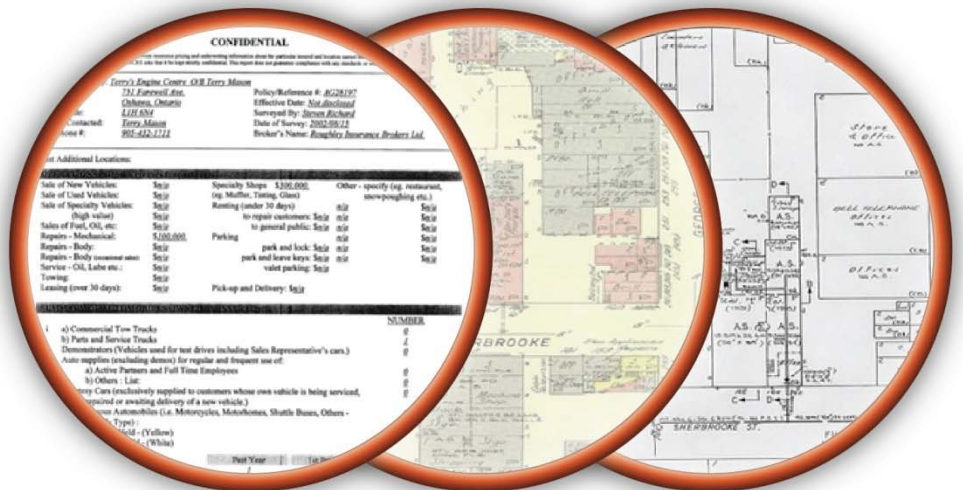
The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

**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 were included as reference.



# HEIRS™

Historical Environmental Information Reporting System



An **SCM** Company

150 Commerce Valley Drive W  
8<sup>th</sup> Floor  
Markham, Ontario L3T 7Z3  
T: 905-882-6300  
www.optaintel.ca

Report Completed By:  
Sunita Kapoor

Site Address:  
1420 Earl Armstrong Road  
Ottawa, Ontario

Project No:  
20140122010

Opta Order ID:

Requested by:  
Eleanor Goolab  
Ecolog Eris

Date Completed:  
January 30, 2014

## Opta Environmental Services

### Historical Environmental Information Reporting System (HEIRS™)

January 30, 2014

Eleanor Goolab  
Ecolog Eris  
80 Valleybrook Drive  
Toronto, Ontario. M3B 2S9

Dear Eleanor,

Re: **Your Site Address**      **1420 Earl Armstrong Road, Ottawa, Ontario**  
**Your Project No.:**      **20140122010**

As requested, we have searched our records regarding the above site and the following information was found:

Information	Date(s)	Comment	Cost
Research Fee per street address		\$50.00 flat fee per street address.	\$50.00
Fire Insurance Plans	No Record Found	\$100.00 for each Fire Insurance Plan.	
Reports: All Risk/Multi-Risk: Inspection: COPE: Other:	No Record Found	\$55.00 for each Inspection/Survey report	
Site Plan(s)	No Record Found	\$70.00 for each Site plan	
<b>Subtotal</b>			
<b>Minimum order fee of \$155.00</b>			<b>Applicable</b>
<b>2 (two)/4 (four) Day Rush Service</b>			<b>N/A</b>
<b>Total</b>			<b>\$50.00</b>

NRF: No Records Found. NO: Not Ordered.

The total cost for this report is \$50.00 plus courier charges (if applicable) and HST. Please see the Terms and Conditions for our search on page two of this report.

Thank you for employing the services of Opta Information Intelligence.

Sunita Kapoor  
Opta Environmental Services



150 Commerce Valley Drive W  
Markham, Ontario  
L3T 7Z3

**T:** 905.882.6300  
**Toll Free:** 1.800.268.8080  
**F:** 905.695.6543

An **SCM** Company  
[www.optaintel.ca](http://www.optaintel.ca)

# Opta Environmental Services Historical Environmental Information Reporting System (HEIRS™) Terms and Conditions

## Report

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

## Disclaimer

Opta disclaims responsibility for any losses or damages of any kind whatsoever, whether consequential or other, however caused, incurred or suffered, arising directly or indirectly as a result of the services (which services include, but are not limited to, the preparation of the Report provided hereunder), including but not limited to, any losses or damages arising directly or indirectly from any breach of contract, fundamental or otherwise, from reliance on Opta Reports or from any tortious acts or omissions of Opta's agents, employees or representatives.

## Entire Agreement

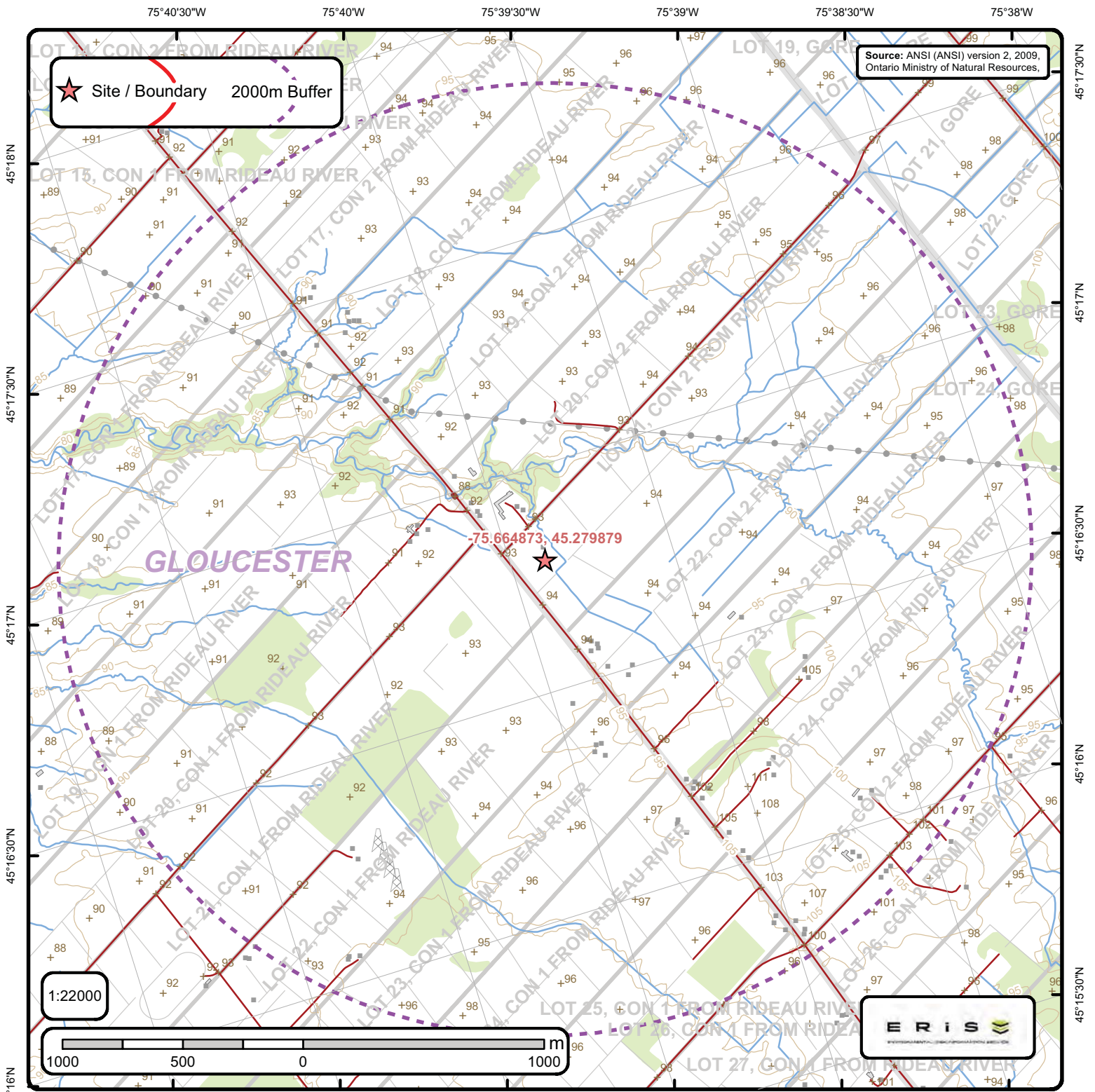
The parties hereto acknowledge and agree to be bound by the terms and conditions hereof. The request form constitutes the entire agreement between the parties pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, negotiations and discussions, whether oral or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

## Governing Document

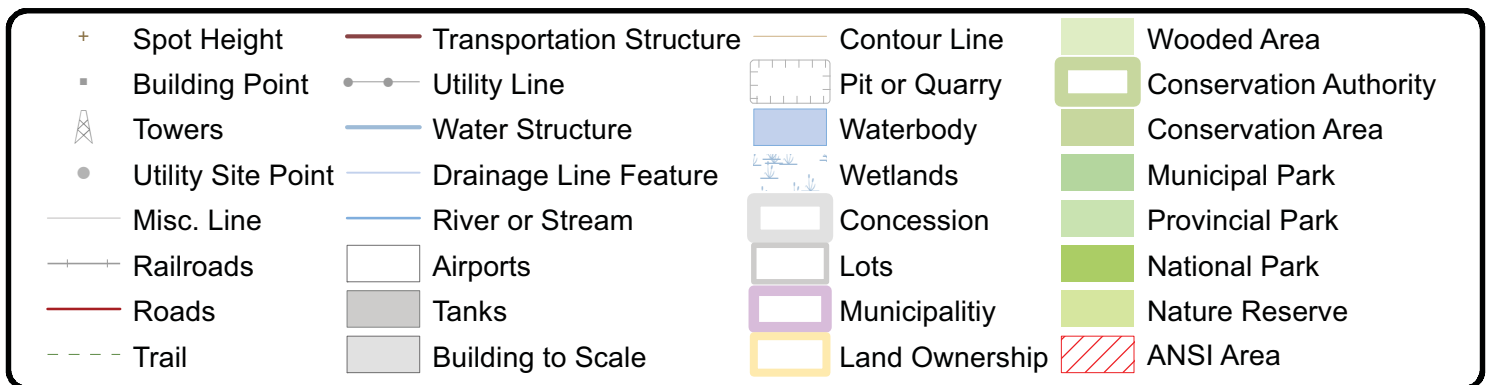
In the event of any conflicts or inconsistencies between the provisions hereof and the Reports, the rights and obligations of the parties shall be deemed to be governed by the request form, which shall be the paramount document.

## Law

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



## Area of Natural & Scientific Interest (ANSI) Order No. 20140122010





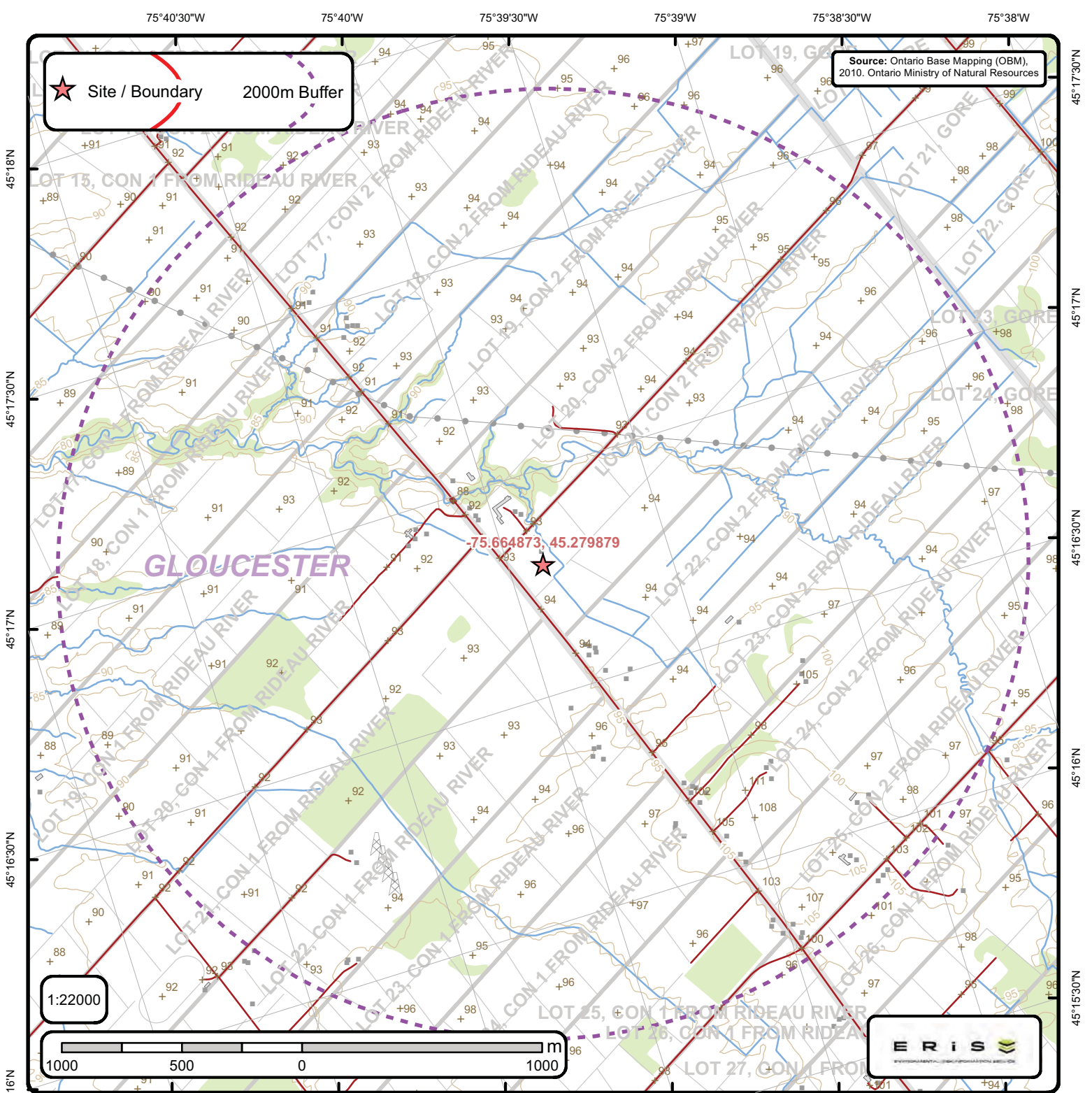
# ANSI Report

ANSI Units Found within 2000 m of  
Latitude: 45.279879  
Longitude: -75.664873

Page 1  
Order ID:  
20140122010



No ANSI units found within search area.



## Ontario Base Mapping (OBM) Data

Order No. 20140122010

+	Spot Height	—	Transportation Structure	—	Contour Line	■	Wooded Area
■	Building Point	●—●	Utility Line	■	Pit or Quarry	■	Conservation Authority
⚡	Towers	—	Water Structure	■	Waterbody	■	Conservation Area
●	Utility Site Point	—	Drainage Line Feature	■	Wetlands	■	Municipal Park
—	Misc. Line	—	River or Stream	■	Concession	■	Provincial Park
—+—	Railroads	□	Airports	■	Lots	■	National Park
—	Roads	■	Tanks	■	Municipality	■	Nature Reserve
- - -	Trail	■	Building to Scale	■	Land Ownership		

**exp** Services Inc.

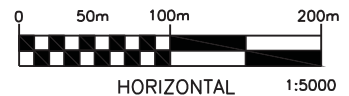
*Morguard Investments Limited  
Phase I Environmental Site Assessment  
1420 Earl Armstrong Road, Ottawa, Ontario  
OTT-00216996-A0  
March 11, 2014*

# **Appendix E: Aerial Photographs**





APPROX. PROPERTY BOUNDARY



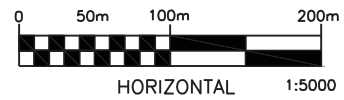
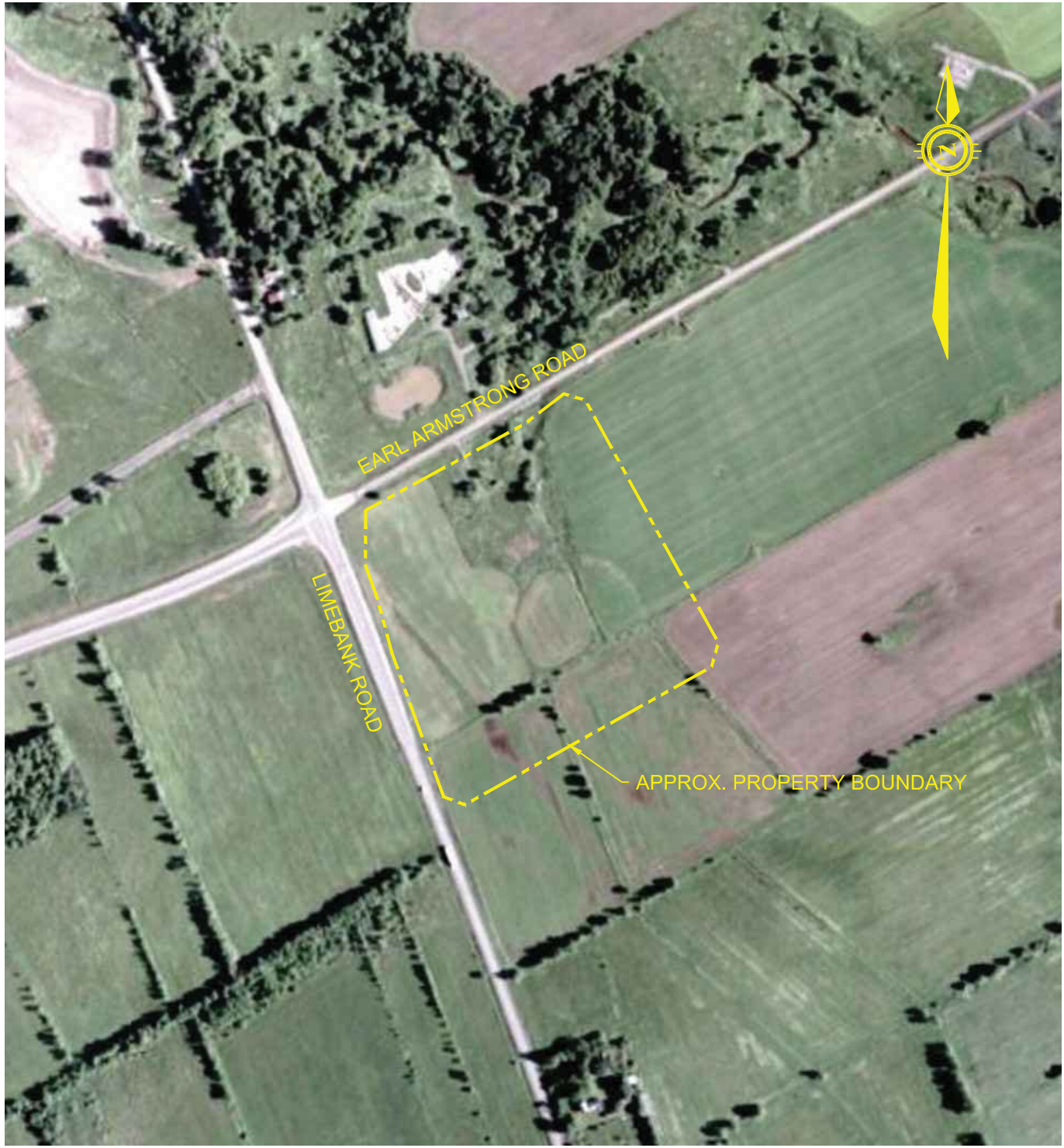
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**exp Services Inc.** [www.exp.com](http://www.exp.com)  
 t: +1.613.688.1899 | f: +1.613.225.7337  
 2650 Queensview Drive, Suite 100  
 Ottawa, ON K2B 8H6, Canada

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 2650 Queensview Drive, Suite 100  
 Ottawa, ON K2B 8H6, Canada

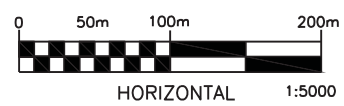
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EARL ARMSTRONG ROAD

LIMEBANK ROAD

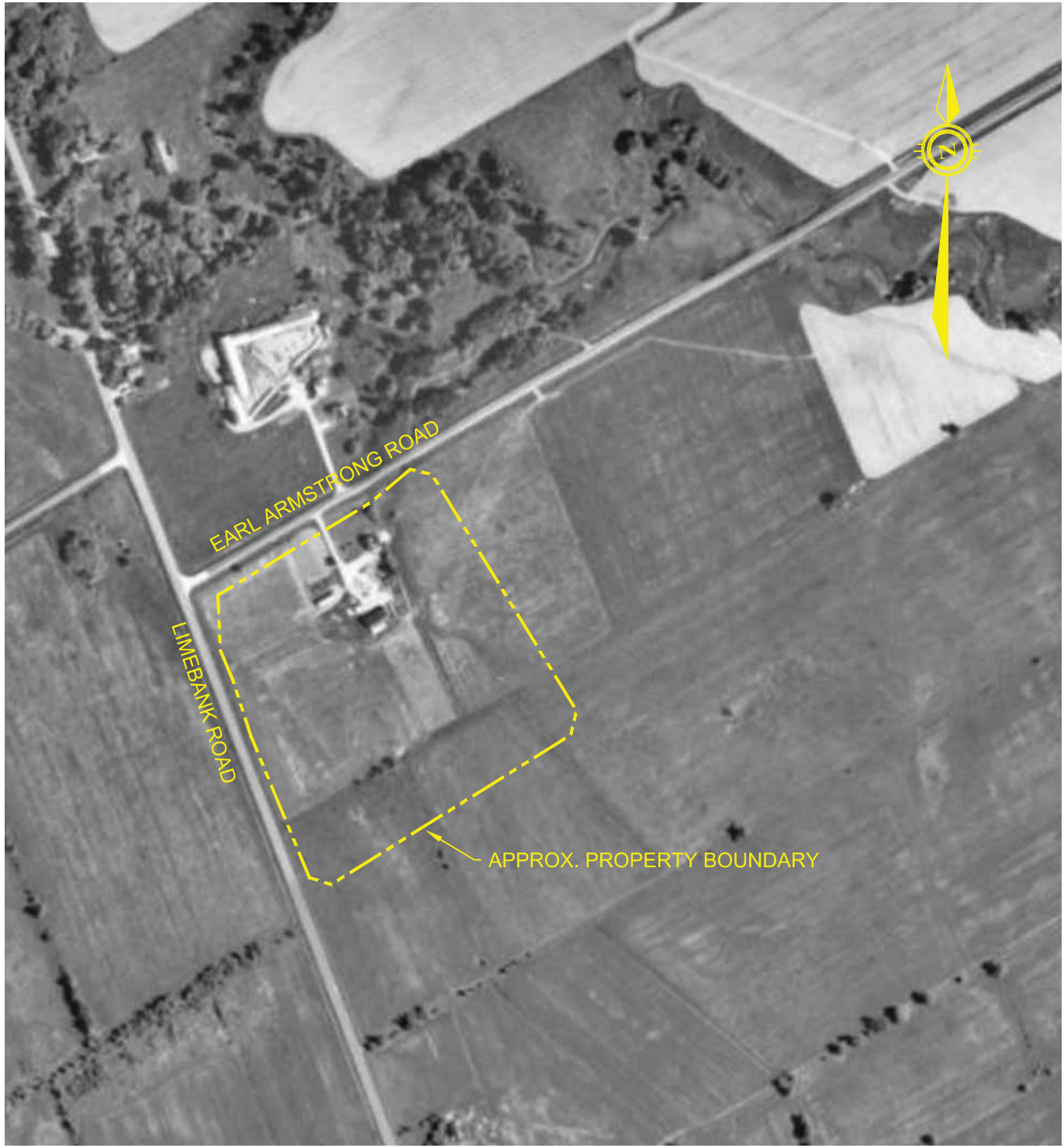
APPROX. PROPERTY BOUNDARY



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 t: +1.613.688.1899 | f: +1.613.225.7337  
 2650 Queensview Drive, Suite 100  
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DATE MAR. 2014		CLIENT: <b>MORGUARD INVESTMENTS LIMITED</b>	project no. OTT-00216996-A0
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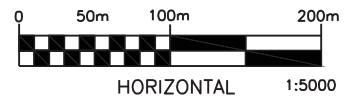
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EARL ARMSTRONG ROAD

LIMEBANK ROAD

APPROX. PROPERTY BOUNDARY



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 2650 Queensview Drive, Suite 100  
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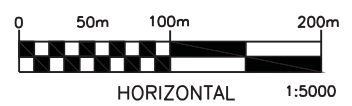
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EARL ARMSTRONG ROAD

LIMEBANK ROAD

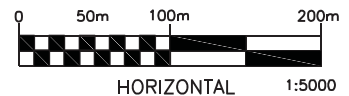
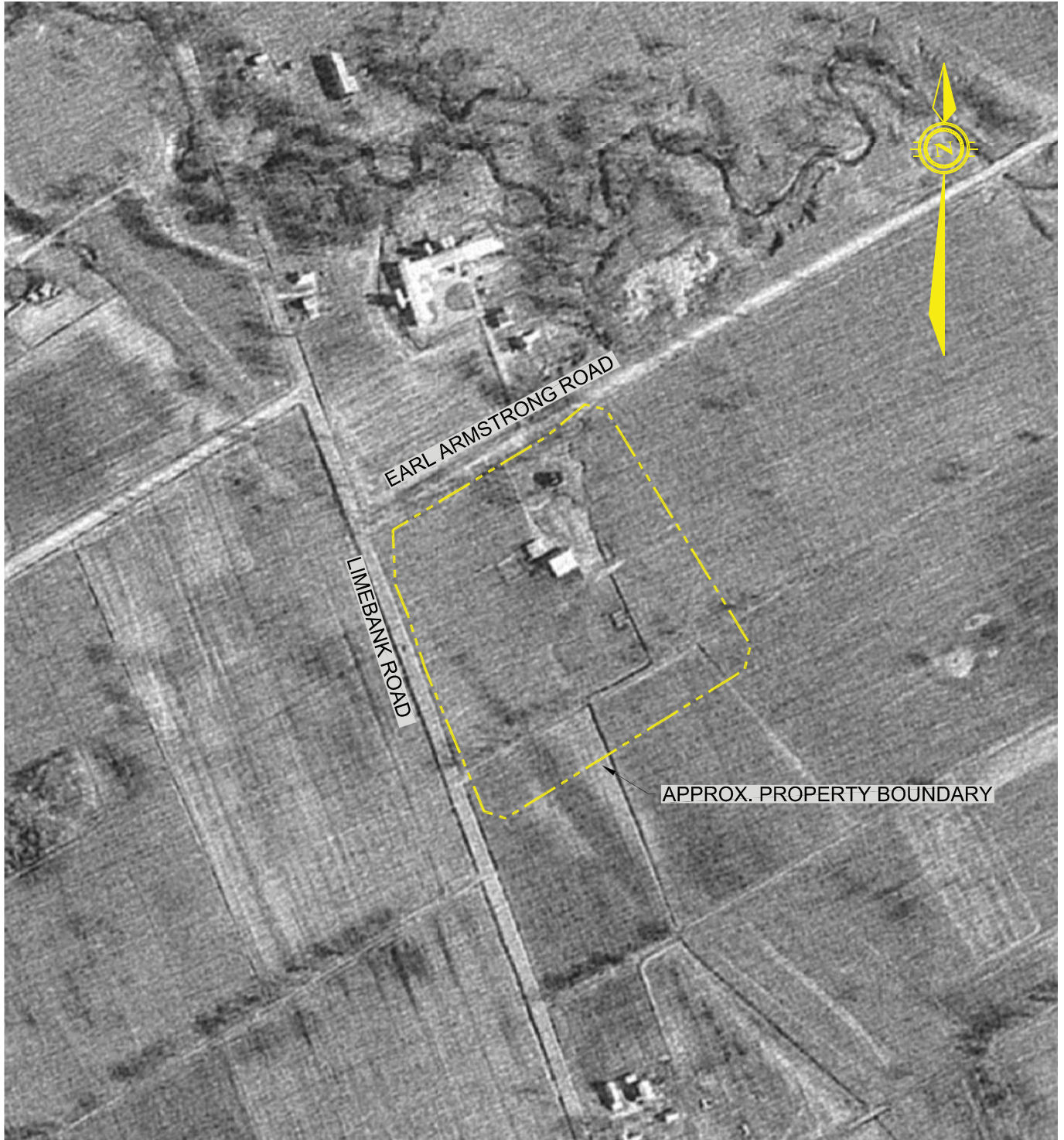
APPROX. PROPERTY BOUNDARY



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DATE MAR. 2014		CLIENT: <b>MORGUARD INVESTMENTS LIMITED</b>	project no. OTT-00216996-A0
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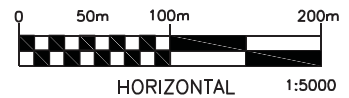
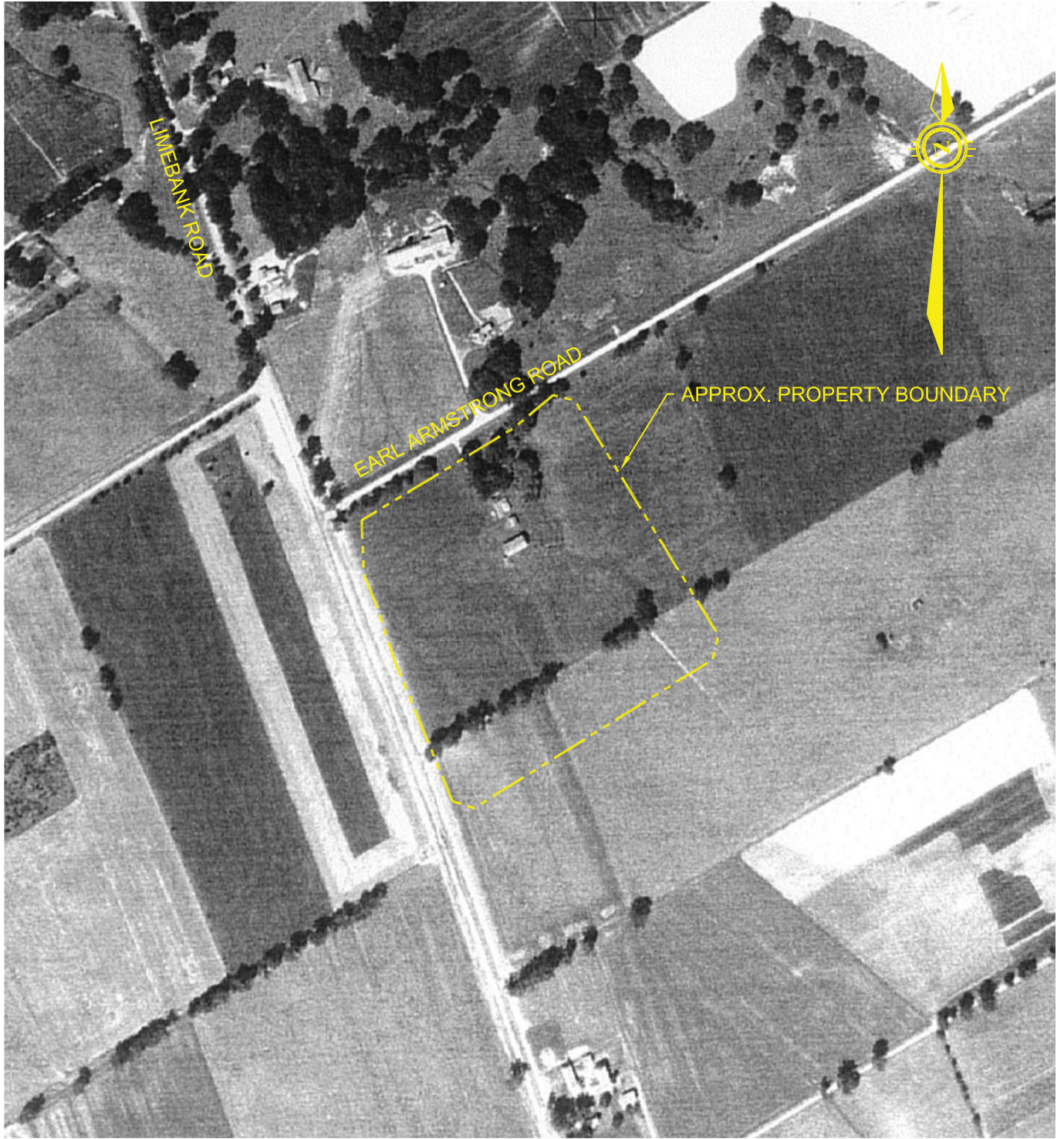


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 2650 Queensview Drive, Suite 100  
 Ottawa, ON K2B 8H6, Canada

DATE MAR. 2014		CLIENT: <b>MORGUARD INVESTMENTS LIMITED</b>	project no. OTT-00216996-A0
DESIGN T.G.	CHECKED M.G.M.		scale 1:5000
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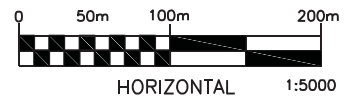
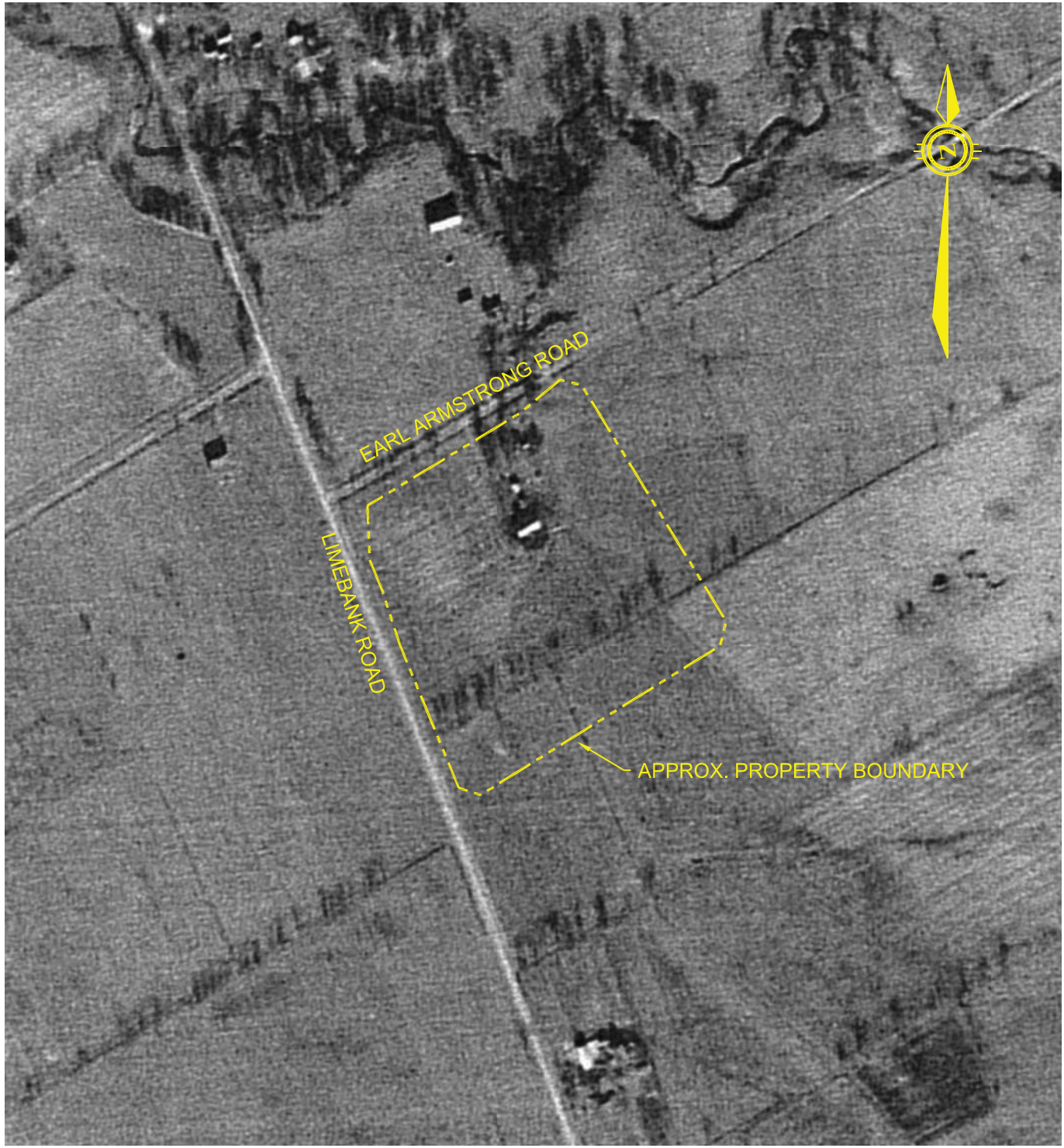


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 Ottawa, ON K2B 8H6, Canada

DATE MAR. 2014		CLIENT: <b>MORGUARD INVESTMENTS LIMITED</b>	project no. OTT-00216996-A0
DESIGN T.G.	CHECKED M.G.M.		scale 1:5000
DRAWN BY M.N.			TITLE: <b>1956 AERIAL PHOTO</b> 1420 EARL ARMSTRONG ROAD, OTTAWA, ON



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 2650 Queensview Drive, Suite 100  
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DATE MAR. 2014		CLIENT: <b>MORGUARD INVESTMENTS LIMITED</b>	project no. OTT-00216996-A0
DESIGN T.G.	CHECKED M.G.M.		scale 1:5000
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 Plotted by: nugentm

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Morguard Investments Limited  
Phase I Environmental Site Assessment  
1420 Earl Armstrong Road, Ottawa, Ontario  
OTT-00216996-A0  
March 11, 2014

# Appendix F: Site Photographs







**Photograph No. 1**

View of the subject site facing south east



**Photograph No. 2**

View of the subject site facing north east