Contamination Overview Study

Yonge Subway Extension Project
Train Storage Facility
Environmental Project Report Addendum
High Tech Road to Oak Avenue,
Richmond Hill, Ontario

Prepared For: Toronto Transit Commission
and York Region Rapid Transit Corporation
Project No: 3277670

July 2014

COMMUNITIES
TRANSPORTATION
BUILDINGS
INFRASTRUCTURE

MMM GROUP

EXECUTIVE SUMMARY

Several investigations have been completed for the Yonge Subway Extension (YSE) Project to-date. The goal of the YSE project is to extend the Yonge Subway from its current terminus at Finch Station in the City of Toronto to Highway 7 (Richmond Hill Centre) in the Town of Richmond Hill. The Toronto Transit Commission (TTC) reviewed the subway rail yard needs for the Yonge Subway to the year 2030. It was determined that the car fleet would grow from 62 trains to a total of 88 trains. This in turn, led to conclusions that additional maintenance and storage capacity for 14-car trains would be required and a yard property should be purchased in the area of Richmond Hill Centre to accommodate the fleet growth beyond the year of 2030.

A Conceptual Design Study was completed by the joint venture of McCormick Rankin (MRC), a member of the MMM Group, and Hatch Mott MacDonald in March 2012. Based on high-level screening, three train facility alignment alternatives were developed for the detailed assessment in the Conceptual Design Study. Alternative Bi, which includes construction of a three-track structure extending north from the Richmond Hill Centre Station adjacent to the existing CN/GO rail, was selected as the preferred alternative. The preferred facility would be built approximately 0.6 km north of High Tech Road to 0.1 km north of Edgar Avenue and 25 m west of the existing CN/GO rail for a length of approximately 800 m.

The proposed maintenance and storage facility would require an Addendum to the previously-approved Environmental Project Report (EPR) for the YSE. MMM Group Limited (MMM) was retained by the York Region Rapid Transit Corporation (YRRTC) to conduct a Contamination Overview Study (COS) for the proposed train storage facility site, as input to the EPR Addendum study, to identify and review actual or potential contaminated areas/properties that could be affected by or affect the project and identify appropriate future environmental work and mitigation measures.

AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

Based on the findings of this report, Areas of Potential Environmental Concern (APECs) within the Study Area have been identified by MMM. These APECs correspond to the locations in the Study Area where potential contamination may be present, and have been categorized by assessing the overall relative potential of contamination from the findings in Section 2.0 through Section 5.0.

APECs with High Potential for Contamination

The APECs with high potential for contamination are listed below and are illustrated in **Figure 3** (highlighted in red). These areas correspond to locations within the Study Area, where land uses consist of commercial/industrial operations that could impact soil and/or groundwater. APECs with high potential for contamination are as follows:

- One (1) gas station, located in the north-western corner of the intersection of Roosevelt Drive and Yonge Street;
- One (1) dry cleaning facility, located in southwestern corner of the intersection of Scott Drive and Yonge Street;
- Three (3) records of fuel storage tanks, located at 8830, 9076 and 9137 Yonge Street.

Recommendations:

Since there are no APECs with high potential for contamination within a close proximity of the proposed train storage facility, no additional environmental investigations are recommended to be carried out with respect to this classification.

APECs with Moderate Potential for Contamination

Several areas were found to be of moderate contamination potential, which are summarized below and illustrated in **Figure 3** (highlighted in yellow). These areas represent land uses that are small commercial properties suspected of using chemical compounds or performing activities that could negatively impact soil and/or groundwater; however, which may not be directly impacted by construction of the train storage facility.

- Two (2) car dealerships, located in the northwestern quadrant of the intersection of Yonge Street and Oak Avenue and in the southwestern quadrant of the intersection of Yonge Street and Roosevelt Drive;
- One (1) motorcycle dealership, located in the northeastern corner of Yonge Street and High Tech Road;
- One (1) centre for truck sales, located in the southwestern corner of Yonge Street and Roosevelt Drive;
- Several retail companies, an office building and businesses, located to the west of Yonge Street between High Tech Road and Spruce Avenue;
- Several commercial companies and offices, located to the east of Yonge Street between High Tech Road and Beresford Drive;
- One (1) construction site, located in the northwestern corner of the intersection of Yonge Street and Edgar Avenue;
- Medical offices, located in southwestern corner of the intersection of Bantry Road and Red Maple Road;
- One (1) railway, the Study Area from north to south;
- Office buildings, located to the north of High Tech Road between the proposed train storage facility and Yonge Street;

- One (1) theatre, located in the southeastern quadrant of the intersection of Yonge Street and High Tech Road.

Recommendations:

Where there are property acquisitions that will be directly impacted by construction of the train storage facility (i.e., impacted properties), MMM recommends carrying out Phase I and/or Phase II Environmental Site Assessments (in accordance with O.Reg.153/04, as amended) for these properties. These studies will support both property acquisition and construction activities. Based on currently available information, properties/areas most likely to be impacted include:

  - Railway line within the Study Area going from north to south.

- For other moderate APEC areas where there are no property impacts, MMM recommends carrying out a soil contaminant investigation in areas where excavation may be required, to assess soil quality and soil management options during construction.

APECs with Low Potential for Contamination

All other areas not highlighted in **Figure 3** indicate land use features considered to have a low potential for site contamination. These areas are generally classified as open space or residential areas that are not suspected of using chemical compounds harmful to the environment or human health. Another low contamination potential of concern includes road salt impacts along right-of-ways, roads, and parking lots.

Recommendations:

No additional environmental investigations are recommended for APECs with low potential for contamination.

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1.0 INTRODUCTION

Several investigations have been completed for the Yonge Subway Extension (YSE) project to-date. The goal of the project is to extend the Yonge Subway from its current terminus at Finch Station in the City of Toronto to Highway 7 (Richmond Hill Centre) in the Town of Richmond Hill. In 2009-2010, the Toronto Transit Commission (TTC) reviewed the subway rail yard needs for the Yonge Subway to the year 2030. It was determined that the car fleet would grow from 62 trains to a total of 88 trains. This in turn, led to conclusions that additional maintenance and storage capacity for 14-car trains would be required and a yard property should be purchased in the area of Richmond Hill Centre to accommodate the fleet growth beyond the year of 2030.

The requirement for the train storage at the north end of the Yonge line was identified by the TTC after the original YSE Transit Project Assessment Process (TPAP) was completed and approved by the Ministry of Environment (MOE). The implementation of the train storage facility was the subject of a separate TPAP.

A Conceptual Design Study was completed by the joint venture of McCormick Rankin (MRC), a member of the MMM Group, and Hatch Mott MacDonald in March 2012. Based on high-level screening, three train facility alignment alternatives were developed for the detailed assessment in the Conceptual Design Study. Alternative Bi, which includes construction of a three-track structure extending north from the Richmond Hill Centre Station adjacent to the existing CN/GO rail, was selected as the preferred alternative. The preferred facility would be built approximately 0.6 km north of High Tech Road to 0.1 m km north of Edgar Avenue and 25 m west of the existing CN/GO rail for a length of approximately 800 m (**Figure 1**).

The proposed maintenance and storage facility would require an Addendum to the previously-approved Environmental Project Report (EPR) for the YSE. MMM Group Limited (MMM) was retained by the York Region Rapid Transit Corporation (YRRTC) to conduct a Contamination Overview Study (COS) for the proposed train storage facility site, as input to the EPR Addendum study, to identify and review actual or potential contaminated areas/properties that could be affected by or affect the project and identify appropriate future environmental work and mitigation measures.

For the purposes of the COS study, a 250 m buffer zone was added to either side of the train storage facility (Study Area) to account for contamination migration from properties/areas surrounding the facility footprint. The principle objective of this COS was to identify properties/areas with actual or potential contamination that may impact the design and construction of the train storage facility.

It should be noted that this COS is intended as a broad level assessment of actual and potential sources of site contamination within a given area, and is based solely on the known current and former land uses/activities within and surrounding the corridor. This study is not a full environmental liability assessment of each property potentially impacted by the undertaking, and

it does not constitute a Phase I Environmental Site Assessment (ESA) as defined by the Canadian Standards Association (CSA Z768-01), and Ontario Regulation 153/04 (O.Reg. 153/04), as amended.

For the purposes of this study, contamination is defined as a material or condition present in the soil, groundwater, or surface water that may have an adverse effect on human health or the natural environment (e.g. soil, water, and land); and/or could impact property acquisitions (environmental due diligence) and construction activities (excess material management).

1.1 Scope of Work

The scope of work undertaken for this COS included the following tasks:

a) **Records Review**

- *Review of Physiographic, Geologic and Hydrogeological Maps and Reports* – to identify the general physiography, geology and hydrogeology within and surrounding the Study Area in an effort to understand the fate of any actual or potential site contamination;
- *Review of Existing Reports and Historical Records* – to review any relevant environmental information previously collected for the Study Area and surrounding properties;
- *Review of Aerial Photographs* – to identify areas of potential environmental concern within and adjacent to the Study Area;
- *Review of Provincial and Federal Source Data through an Ecolog ERIS report* – to review any previously collected information on former waste disposal sites, former coal gasification plants, brownfield sites registered under the Environmental Site Registry (ESR), and polychlorinated biphenyl (PCB) storage sites located within the Study Area;
- *Review of Private Source Data through an Ecolog ERIS report* – to provide relevant information on private and retail fuel storage tanks, automotive wrecking and supply facilities, Andersons waste disposal sites (including Certificates of Approval), and O.Reg. 347 registered waste generators; and
- *Review of Municipal and Regional Data* – to identify any potentially contaminated sites located within the Study Area.

b) **Study Area Inspection**

- *Visual Reconnaissance* – to broadly identify properties/areas that pose a potential for site contamination, either based on their nature of operations/land use (e.g. service stations, industrial areas) or by visual evidence of contamination (e.g. piles of waste, surface staining). This inspection was limited to a non-intrusive roadside inspection.

c) **Reporting**

- *Compilation, Evaluation and Discussion of Key Findings* – thorough review of all information gathered pertaining to the Study Area and undertaking;
- *Conclusions and Recommendations* – concluding remarks on the presence/probability of actual or potential contamination within the Study Area, and recommendations for any follow-up work; and
- *Preparation of a Factual and Concise Report* – written documentation of the results into a technical report.

2.0 STUDY AREA DESCRIPTION AND SETTING

2.1 Description of the Study Area

The Study Area extends from the southern limit of the proposed Richmond Hill Centre subway station at High Tech Road approximately 500 m north of Bantry Avenue, and centres on an alignment approximately 25 m west of the existing CN/GO rail line. As mentioned in Section 1.0, the COS considered a 250 m buffer zone to either side of the proposed train storage facility to account for contaminant migration from properties/areas surrounding the facility footprint. The Study Area is shown in **Figure 1**.

The Study Area is located within the Town of Richmond Hill, Regional Municipality of York and within the jurisdiction of the Toronto Regional Conservation Authorities (TRCA).

2.2 Current Surrounding Land Use

Current land use within the Study Area is predominantly residential and commercial. Low-density with occasional high-density residential land use is present primarily in the central and northern portions of the Study Area, to the north of Beresford Drive and Bantry Road. Commercial land use is present as businesses in the southwestern portion and along the western boundary of the Study Area. Medical offices can be found in the southeastern portion of the Study Area. Office buildings are present in the southwestern portion of the Study Area. Land uses surrounding the Study Area are shown in **Figure 1**.

2.3 Topography and Drainage

The topography within the Study Area is flat to gently sloping, with ground surface elevation decreasing from approximately 204 metres above sea level (masl) in the northern portion to approximately 197 masl in the southern portion of the Study Area (Google Earth, 2013).

The study area is located within the Don River Watershed. The East Don River crosses Yonge Street approximately 1.5 km south of the Highway 407 interchange, with a tributary crossing directly though (underneath) the interchange.

Stormwater run-off within the Study Area is from both primarily urban and natural areas in transition to urban land use. Stormwater is conveyed through storm sewers in the urban areas and ditches in the natural areas, respectively. All stormwater is eventually discharged into surface water courses draining into the East Don River. On the regional scale, water from the Don River is eventually discharged into Lake Ontario.

2.4 Physiography

According to Chapman and Putnam's "The Physiography of Southern Ontario, Third Edition" (1984), the Study Area is located within the physiographic region known as the Peel Plain. The

Peel Plain is a level-to-undulating tract of clay soils and covers an area of 300 square miles across the central portions of the Regional municipalities of York, Peel and Halton. The ground surface within the Peel Plain slopes toward Lake Ontario with elevations ranging between 152 to 213 masl. Deep valleys have been cut across this plain by rivers and water streams. Much of the Peel Plain has been modified by a veneer of clay, which occasionally, when deep enough, have been observed to be varved. The water supply within the plain is generally poor and the high degree of evaporation from the deforested clay surface limits the adequate recharge of groundwater.

2.5 Geology

2.5.1 Quaternary Geology

The complex geology of the Study Area has been evaluated in detail in several groundwater investigations. The most notable study is a three-dimensional numerical groundwater flow model constructed for the Oak Ridges Moraine by Kassenaar and Wexler (2006), using data collected by the Conservation Authorities Moraine Coalition (CAMC) and the Regions of York, Peel and Durham and the City of Toronto (YPDT). A brief description of the Study Area geology is provided below.

According to the Ontario Geological Survey mapping "The Surficial Geology of Southern Ontario" (OGS, 2003), glaciolacustrine deposits of silt and clay with minor sand content are present predominantly within the Study Area, with Halton Till exposed at the surface in the southern portion (**Figure 2**).

The glaciolacustrine deposits generally form a thin veneer over the underlying deposits, although they can be several meters thick. The youngest deposits present beneath the glaciolacustrine deposits and sometime exposed at the surface in the watershed of Don River is *Halton Till*. Halton Till was deposited in the area approximately 13,000 years ago. It is a sandy silt to clayey silt till interbedded with silt, clay, sand and gravel. The Halton Till is a 3 to 6 m thick aquitard unit (TRCA, 2009).

The Oak Ridges Moraine (ORM) was deposited in the Don River watershed about 13,300 years ago. The ORM is a regionally extensive stratified sediment complex, which could be 150 m thick to the north. The ORM sediments are arranged from coarse to fine in a down flow direction and vertically up section. Rhythmically interbedded fine sands and silts are the predominant sediments, but coarse, diffusely-bedded sands and gravel may also be present locally. The ORM aquifer sits on the Newmarket Till and lower sediments. These deposits are generally encountered only in boreholes.

The Newmarket (Northern) Till is a dense over-consolidated aquitard unit, deposited in the area about 18,000-20,000 years ago. It is a dense silty sand diamicton up to 60 m thick and has been traced to be present beneath the ORM unit. It contains 2-5 cm thick interbeds of sand and silt, boulder pavements, fractures and joints. Discontinuous sand beds up to 1-2 m thick may also be

present in this unit (TRCA, 2009).

Three (3) lower units were deposited during the Wisconsinan glaciation period in the Study Area. This includes the Thorncliffe Formation aquifer, Sunnybrook Drift aquitard and Scarborough Formation aquifer. *The Thorncliffe Formation* represents sand and silty sand of glaciofluvial origin deposited approximately 45,000 years ago. The Sunnybrook Drift unit was deposited about 45,000 years ago. It is interpreted to be a clast-poor mud (i.e., silt and clay), which is generally less than 10 to 20 m thick. *The Scarborough Formation* unit consists of organic-rich (peat) sands deposited over silts silt and clay, deposited between 70,000 and 90,000 years ago.

2.5.2 Bedrock Geology

According to the Ontario Geological Survey "Bedrock Geology of Southern Ontario" (OGS, 1991a and 1991b), the Study Area is underlain by bedrock from the Georgian Bay Formation of the Upper Ordovician age. This formation is dominated by shale with thin interbedding of limestone and siltstone (Singer et al, 2003).

The bedrock has deeply eroded forming valleys which were infilled with sediments. The best documented buried valley is the Laurentian Channel, which extends from Georgian Bay to Lake Ontario, to the west - southwest of the Study Area. It is buried by sediment up to 270 m thick (TRCA, 2009).

2.6 Hydrogeology

2.6.1 Overburden Aquifer

According to "The Hydrogeology of Southern Ontario" (Singer et al, 2003), the overburden is an important source of water supply within the TRCA jurisdiction, which the Study Area is a part of. As described in Section 2.5.1, the aquifers potentially present within the Study Area include ORM, the Thorncliffe Formation and the Scarborough Formation units. The most notable water-bearing units within the Study Area include the ORM aquifer and the Thorncliffe Formation aquifer. According to Singer et al (2003), well yields within the Thorncliffe Aquifer range from about 10.0 to 275.0 L/min, which indicates presence of significant groundwater resources in this unit. It is believed that the Study Area does not rely on the groundwater supply and is municipally serviced.

2.6.2 Bedrock Aquifer

As described in Section 2.5.2, the Georgian Bay hydrogeologic unit is the main bedrock aquifer within the Study Area. This unit consists of shale interbedded with limestone and siltstone and is generally regarded as a poor source of groundwater (Singer et al, 2003).

3.0 RECORDS REVIEW

MMM completed a comprehensive records review for the Study Area. The purpose of the review was to collect information on past activities that could have contributed to any contamination within the Study Area.

3.1 Existing Reports

MMM reviewed background environmental reports provided by the TTC. They are summarized as follows:

i) "Contamination Overview Study – Yonge Street Subway Extension from Finch Avenue Northerly to Bantry Avenue, Richmond Hill, Ontario. Prepared for York Region, Ontario" (Ecoplans, January 2009) as a part of the Environmental Project Report for the YSE project.

The Environmental Project Report for the YSE project was prepared by the Regional Municipality of York (York Region), York Region Rapid Transit Corporation (YRRTC), TTC and the City of Toronto, as required under the TPAP. The purpose of the study was to identify the impacts and mitigation measures associated with the preferred transit project.

A COS was carried out by MMM in support of the Conceptual Design and Functional Planning Study for the proposed extension of the YSE, as a part of the EPR. The Conceptual Design and Functional Planning Study was conducted by MRC for the transit improvements to the YSE, which included alignment alternatives, station locations and associated facilities. The transit project was an underground 6.5 km, six subway station extension of the Yonge Street subway from its terminus at Finch Station in the City of Toronto to a proposed terminus in the Richmond Hill Centre, Town of Richmond Hill. For the purposes of the COS, a 250 m buffer zone was added to either side of the Yonge Street centreline to account for contaminant migration from properties/areas surrounding the proposed subway alignment ("study area").

The report identified six (6) areas of potential environmental concerns (APECs) within the study area. A subsurface investigation (i.e., advancing boreholes) was recommended to be performed for the identified APECs to determine the presence/absence of environmental impacts in soil and groundwater prior to construction activities. It was also recommended that an Excess Materials Management Plan (EMMP) be developed to manage excess materials to be generated during construction of the YSE in accordance with applicable environmental regulations and guidelines (i.e., Ontario Regulation 347, Ontario Regulation 153/04, OPSS 180, and municipal sewer use by-laws). The study also provided recommendation on managing off-site contamination (i.e., contamination location outside of the subway corridor excavation area) by using engineered containment barriers/walls such as grout curtains and sheet piling, and/or hydraulic traps to contain, capture and treat contaminant plumes.

3.2 Aerial Photographs

MMM reviewed historical aerial photographs of the Study Area for the years of 1946, 1960, and 1981. The aerial photographs were obtained from the National Airphoto Library (NAPL) in Ottawa, Ontario and are provided in **Appendix A**. A more recent aerial image of the Study Area was obtained through the Microsoft Corporation, which has been used as the base plan for **Figures A1** to **A3**.

A summary of the observations made during the aerial photograph review is presented below:

- In the 1946 air photo, open agricultural areas are visible in the Study Area. Red Maple Road, Bantry Avenue and High Tech Road did not exist at that time. Residential areas appear to be present mainly to the west of Yonge Street, outside of the Study Area. One railway bisecting the Study Area from north to south is visible in the air photo.
- In the 1960 air photo, new residential and commercial developments can be observed to the west of Yonge Street and in the northern portion of the Study Area. The rest of areas remained largely vacant and/or agricultural. A tributary of the East Don River is interpreted to be flowing from northwest to southeast, to the west of the Study Area.
- In the 1981 air photo, the area remained largely unchanged, with the exception of the residential area to the west of Yonge Street and northern portion of the Study Area, which appear to be more developed.
- Substantial growth within the Study Area occurred between 1981 and present. This included construction of the road network, transforming the agricultural lands into low-density and high-density residential developments to the north of Beresford Drive, and construction of commercial buildings and medical offices in the southwestern and southeastern portions of the Study Area, respectively.

3.3 Historical Maps

MMM reviewed the Canadian Fire Insurance Plans (FIPs) in Ontario Collections: 1952-1953, from the Toronto Reference Library's materials. The purpose of the historical plan review was to identify aboveground storage tanks (ASTs) and underground storage tanks (USTs), or historical land uses with the potential for soil and groundwater contamination. There are no FIPs for the Study Area.

3.4 Municipal Records

MMM submitted requests to York Region and Town of Richmond Hill in May 2013, requesting a search of their general records for any information pertaining to the Study Area including records of any environmental complaints, spills or notifications, any building permits, active or closed waste disposal sites on the property, and historical activities that would be considered hazardous

to the Study Area. The purpose of the review was to obtain information on properties located within or adjacent to the Study Area that have the potential for contamination.

Based on communication with York Region, it was not possible to obtain environmental records for the Study Area. York Region requires the municipal address of each property to be provided for the search of their records. Since the purpose of the COS was to assess potential sources of contamination at the broad level, obtaining environmental information for all municipal addresses within the Study Area was considered to be outside of the scope of the investigation.

As of writing this report, no response has been received from the Town of Richmond Hill in regards to environmental records for the Study Area. Upon receipt of the request, MMM will forward any pertinent information to the TTC.

3.5 EcoLog ERIS Environmental and Historical Information

The EcoLog ERIS (ERIS) system provides information from federal, provincial and private source databases relating to a defined search area. Each database is divided into records that present information such as company names, addresses, descriptions, status and other pertinent information. Records that fall within a defined radius of the search area are extracted from the database for review.

In general, the EcoLog system searches the following databases from the Provincial and Federal Governmental Databases including:

Provincial

- Abandoned Aggregate Inventory
- Aggregate Inventory
- Abandoned Mines Information System
- Boreholes
- Certificate of Approvals (C of As)
- Technical Standards & Safety Association (TSSA) Commercial Fuel Oil Tanks
- Coal Gasification Plants
- Compliance and Convictions
- Drillholes
- Environmental Registry
- TSSA Fuel Storage Tanks
- Ontario Regulation 347 Waste Generators Summary
- Mineral Occurrences
- Non-Compliance Reports
- Ontario Oil and Gas Wells
- Ontario Inventory of PCB Storage Sites
- Pesticides Register
- Private and Retail Fuel Storage Tanks
- Ontario Regulation 347 Waste Receivers Summary

- Records of Site Conditions
- Ontario Spills
- Wastewater Discharge Registration Database
- Waste Disposal Sites – MOE CA Inventory
- Waste Disposal Sites – MOE 1991 Historical Approval Inventory
- Water Well Information System

Federal

- Environmental Effects Monitoring
- Environmental Issues Inventory System
- Federal Convictions
- Contaminated Sites on Federal Land
- Fisheries & Oceans Fuel Tanks
- Indian & Northern Affairs Fuel Tanks
- National Analysis of Trends in Emergencies System (NATES)
- National Defence & Canadian Forces Fuel Tanks
- National Defence & Canadian Forces Spills
- National Defence & Canadian Forces Waste Disposal Sites
- National Environmental Emergencies System (NEES)
- National PCB Inventory
- National Pollutant Release Inventory
- Parks Canada Fuel Storage Tanks
- Transport Canada Fuel Storage Tanks

In addition to the above databases, EcoLog conducts searches in the following private databases:

- Anderson's Waste Disposal Sites
- Automobile Wrecking & Supplies
- Chemical Register
- ERIS Historical Searches
- Canadian Mine Locations
- Oil and Gas Wells
- Canadian Pulp and Paper
- Retail Fuel Storage Tanks
- Scott's Manufacturing Directory
- Anderson's Storage Tanks

One Standard EcoLog Report was prepared for the Study Area and can be found in **Appendix B**. The results of the searches of ERIS Databases identified twenty five (25) records in the above databases with known locations within the Study Area, including a 250-m buffered area. Records with unknown locations present within close proximity of the Study Area were not evaluated in this report. Records with known locations are summarized below.

- Four (4) records are listed for **boreholes,** advanced for geotechnical/geological investigations in the Study Area. According to the borehole records, the overburden in the Study Area

consists of silty clay to sandy silt till with occasional sand seams.

- Two (2) **Certificates of Approval** (C of As) were listed within the Study Area, obtained for the release of industrial air at 50 High Tech Road.
- Two (2) previous **ERIS historical searches** were completed in the Study Area.
- Three (3) records for **waste generators as a part of the Ontario Regulation 347** were identified within the Study Area. All three records belong to Shoppers Drug Mart, located at 8865 Yonge Street/50 High Tech Road for generation of wastes, described as inorganic laboratory chemicals, photo processing wastes and pathological wastes.
- Two (2) **TSSA historic incidents** have occurred within the Study Area, related to incidents/near misses of gaseous fuel release. They occurred at the intersection of King William Crescent and Red Maple Road and at 39 Oneida Crescent.
- Two (2) records were listed in the **Pesticide Register**. These records belong to Shoppers Drug Mart, located at 8865 Yonge Street/50 High Tech Road. Based on the results of the site visit, Shoppers Drug Mart is still operating at the same location.
- One (1) record of a **Record of Site Condition (RSC)** has been filed with MOE on April 10, 2006 within the Study Area. This record belongs to 1671133 Ontario Inc. for an industrial commercial property, proposed to be converted into a commercial property.
- One (1) record was identified in the **Scott's Manufacturing Directory**. This record belongs to Lums Indus Supply Uniform-Med, located at 9043 Yonge Street.
- Eight (8) records were listed for **wells** installed for observation purposes in the Study Area. Information presented in these records indicates that the bedrock was encountered at the depth of approximately of 54 mbgs in the northwestern quadrant of the intersection of the CN/GO railway and Bantry Avenue.

Review of the Ecolog ERIS report obtained for the COS investigation conducted by MMM for the YSE project in January 2009 revealed additional records for fuel storage tanks, present in the immediate vicinity of the Study Area. These records are summarized below:

- Two (2) records were identified for **fuel storage tanks**, located to the west of Yonge Street. These records belong to Sarah Enterprises International Inc. and Global Fuels Inc., located at 8830 Yonge Street and 9076 Yonge Street, respectively.
- One (1) record was identified for **Private and Retail Fuel Storage Tanks**, which belongs to Richvale Block and Ready Mix Inc., located at 9137 Yonge Street.
- Three (3) records were listed for **Retail Fuel Storage Tanks**, which belong to Honda (Richmond Hill), Sunoco service station, and York Truck Centre, located at 8800, 8830 and 9076 Yonge Street, respectively.

3.6 Ministry of the Environment Information

3.6.1 Coal Gasification Plant Inventory

The Coal Gasification Plant 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 Ministry of Environment (MOE). It identified industrial sites that produced and continue to produce or use coal tar and other related tars.

According to the Ecolog ERIS database search, there are no coal gasification plants within the Study Area.

3.6.2 Brownfield Environmental Site Registry

The Environmental Site Registry (ESR) is a publicly accessible database documenting any Record of Site Conditions (RSC) that has been filed with the MOE since the inception of the ESR in October 2004. The RSC documents any environmental site assessment (i.e. Phase I and Phase II ESAs), site clean-up, and/ or site specific risk assessment completed at a particular property. This legal instrument is pursuant to Ontario Regulation (O.Reg) 153/04 of Part XV.1 of the Ontario EPA. The significance of the ESR relevant to this Phase I ESA is that it identifies properties that have been investigated for contamination that could be in close proximity to the site and therefore have the potential for site contamination.

According to the Ecolog ERIS database search on brownfield environmental site registry (ESR), one Record of Site Condition (RSCs) has been filed with MOE in April of 2006 within the Study Area for an industrial property to be converted into a commercial property.

3.6.3 Waste Disposal Site Inventory (1991)

The MOE maintains an inventory of known open (active or inactive) and closed disposal sites in the Province of Ontario. "Class A" sites are those that are deemed to have the potential to impact human health because of the proximity to human development; "Class B" sites are those that are deemed to have the potential to impact the environment.

According to the Ecolog ERIS database search, there are no records of waste disposal sites within the Study Area.

3.7 Federal Contaminated Sites Inventory

The Federal Contaminated Sites Inventory (FCSI) 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.

According to the Ecolog ERIS database search, there are no federal contaminated sites within the Study Area.

4.0 STUDY AREA INSPECTION

MMM carried out an inspection of the Study Area on April 15th, 2013. The purpose of the inspection was to document land uses and/or business operations which may represent a potential source of contamination within the Study Area (e.g., gas stations, auto repair facilities, industrial operations). The results of inspection have been incorporated into this report. The land use activities noted within the Study Area include:

- Retail Commercial (Shopping plazas, cafés, restaurants, etc.)
- Office Commercial (office buildings, financial institutions)
- Medical offices
- One (1) theatre
- Two (2) car dealerships
- One (1) motorcycle dealership
- One (1) centre for truck sales
- One (1) gas station
- One (1) dry cleaning facility
- Residential developments
- One (1) CN/GO railway line
- One construction site
- Vacant/undeveloped land

It should be noted that the inspection did not include any building inspections or comprehensive exterior inspections of any of the properties in the Study Area. Therefore, any interferences regarding the presence or absence of site contamination is strictly based on visual observations made from the roadside.

5.0 KEY FINDINGS OF STUDY

5.1 Actual Sources of Contamination

Based on the information collected through this study, MMM did not identify any areas of actual site contamination within the Study Area. However, Areas of Potential Environmental Concern (APECs) within the Study Area have been identified. The identified areas are discussed in more detail in the following sections, and are illustrated on **Figure 3**.

5.2 Potential Sources of Contamination

Potential soil and groundwater contamination may exist within the Study Area as a result of current and historical commercial/industrial land uses. Below is a list of operations and activities, associated with land uses identified within the Study Area.

5.2.1 Commercial and Industrial Land Use

Fuel Storage Tanks – Automotive centres, maintenance facilities and gas stations may operate pump islands (i.e., Underground Storage Tanks (USTs) for storing fuel), small storage areas, and service areas for changing engine oil. Gasoline and diesel fuel are transferred from bulk container trucks to large USTs. Spills at transfer areas and pumps, along with overfilling of and leakage from the USTs, are potential sources of site contamination.

Manufacturing Facilities, Registered Waste Generators and PCB Storage Sites – A wide range of chemicals are used at facilities that manufacture and distribute parts/products for industrial and commercial use. These chemical products may include acids and bases, dyes and pigments, polymers, plastics, surfactants, solvents, soaps, and waxes. These manufacturing processes are highly variable, depending on the product being produced. There are however, certain types of process components that are frequently encountered in these facilities, including bulk storage for gaseous, liquid and solid materials, blending and packaging equipment, storage areas for drums, PCB storage areas, waste piles and disposal pits.

Existing Railway Lines and Rail Yard – Several factors associated with railways including brake dust, cargo spills, oils and lubricants, and diesel fuels can cause potential environmental concern. Soil contamination may exist within the land on or adjacent to railway tracks as railways are often developed on poor quality fill and ballast material in addition to railway ties being impregnated with creosote compounds.

It should be noted that an activity or operation which appears on the above list does not necessarily mean hazardous substances are used or stored on all sites occupied by that activity or operation, nor the land used will have hazardous substances present.

Due to the typical activities and operations associated with the land uses noted in this section, there is potential that some or any of their products and wastes may have been released into the environment, impacting the soil and groundwater. The most likely pathway for potential

contaminant from these land uses is through perched/shallow groundwater; surface water runoff along drainage ditches, utility conduits (e.g. sewer, water lines and underground pipelines); and adjacent watercourses and water bodies.

5.2.2 Vehicular Traffic and Road Debris

The cumulative effects of many years of heavy road traffic within the Study Area may have resulted in potential soil contamination. This contamination, typically resulting from vehicle exhaust (e.g., lead and other metals), general wear and tear (e.g., heavy metals, oils and lubricants), and winter road maintenance activities (e.g., de-icing salt) is probably most prevalent on the road shoulders and roadside drainage ditches in areas of high traffic volume.

A high volume of traffic was observed during the site inspection along Yonge Street, High Tech Road and Bantry Road. There is the potential for residual salt impacts, metals and PHCs to be present in the shallow soil and groundwater resulting from winter road salting operations along the right of way (ROW), vehicular exhausts, transportation accidents and spills. MMM believes that this does not represent a significant environmental concern. However, in the event that any future road construction is to occur along the ROW, appropriate management of salt, metal and PHC impacted soil (and groundwater) will be required with regards to environmental regulations.

5.3 Contaminant Mobility

Contaminants on or in the soils may move within and beyond the Study Area through a number of different routes. The soils themselves retain contaminants through adsorption. The movement of contaminants from soil occurs through evaporation and dust generation, intake into plants through their roots, and by flushing or dissolution by water seeping into the soil. Water transport of chemicals will usually result in contamination of surface water bodies through surface water drainage, and by way of groundwater aquifers.

In general, contaminant mobility will be greatest when:

- Overburden deposits consist of sand and gravel, or other permeable deposits;
- Fractured bedrock is located at or near the surface, or is overlain by a thin layer of permeable deposits;
- Distance to surface water courses is less than 50 m;
- Water table is less than 5 mbgs;
- Preferential flow pathways (e.g., trenches, tree roots, ditches) exist in the soils above the water table.

5.3.1 Significance of Mobility within the Study Area

The surficial geology within the Study Area is composed of soils with variable permeability. As shown in **Figure 2**, deposits of silt and clay of glaciolacustrine origin and sandy silt to clayey silt

till deposits are present within the upper portion of the Study Area. Other deeper deposits may include fine sand and silts (Oak Ridges Moraine), dense silty sand till (Newmarket Till), sand and silty sand (Thorncliffe Formation), and at greater depth, silt and clay of the Sunnybrook Drift Formation and silt and clay of the Scarborough Formation.

Heterogeneities exist in the various overburden units that will inhibit or allow the lateral and vertical movement of contaminants adding to the potential complexity of contaminant movement.

Deposits of clay and sand and till deposits present within the upper portion of Study Area will inhibit the movement of contamination within the overburden. Therefore, contamination mobility within the Study Area is expected to be low.

The bedrock geology of the Study Area is primarily composed of shale interbedded with limestone and siltstone of Georgian Bay Formation of the Upper Ordovician age. As discussed in Section 2.6.2, the Georgian Bay formation is a poor source of groundwater due to relatively poor interconnections of pore space in shale. The water well information presented in the Ecolog ERIS report confirms that the bedrock within the Study Area is fairly deep, on the order of 50 mbgs. Therefore, it can be concluded that if any contamination reaches the bedrock that the contamination transport will be limited in the bedrock.

6.0 AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

Based on the findings of this report, APECs have been identified by MMM. These APECs correspond to the locations in the Study Area where potential contamination may be present and have been categorized by assessing the overall relative potential of contamination from the findings in Section 2.0 through Section 5.0.

APECs with High Potential for Contamination

The APECs with high potential for contamination are listed below and are illustrated in **Figure 3** (highlighted in red). These areas correspond to locations within the Study Area, where land uses consist of commercial/industrial operations that could impact soil and/or groundwater. APECs with high potential for contamination are as follows:

- One (1) gas station, located in the northwestern corner of the intersection of Roosevelt Drive and Yonge Street;
- One (1) dry cleaning facility, located in southwestern corner of the intersection of Scott Drive and Yonge Street;
- Three (3) records of fuel storage tanks, located at 8830, 9076 and 9137 Yonge Street.

Recommendations:

Since there are no APECs with high potential for contamination within a close proximity of the proposed train storage facility, no additional environmental investigations are recommended to be carried out with respect to this classification.

APECs with Moderate Potential for Contamination

Several areas were found to be of moderate contamination potential, which are summarized below and illustrated in **Figure 3** (highlighted in yellow). These areas represent land uses that are small commercial properties suspected of using chemical compounds or performing activities that could negatively impact soil and/or groundwater; however, which may not be directly impacted by construction of the train storage facility.

- Two (2) car dealerships, located in the northwestern quadrant of the intersection of Yonge Street and Oak Avenue and in the southwestern quadrant of the intersection of Yonge Street and Roosevelt Drive;
- One (1) motorcycle dealership, located in the northeastern corner of Yonge Street and High Tech Road;
- One (1) centre for truck sales, located in the southwestern corner of Yonge Street and Roosevelt Drive;

- Several retail companies, an office building and businesses, located to the west of Yonge Street between High Tech Road and Spruce Avenue;
- Several commercial companies and offices, located to the east of Yonge Street between High Tech Road and Beresford Drive;
- One (1) construction site, located in the northwestern corner of the intersection of Yonge Street and Edgar Avenue;
- Medical offices, located in southwestern corner of the intersection of Bantry Road and Red Maple Road;
- One (1) railway, the Study Area from north to south;
- Office buildings, located to the north of High Tech Road between the proposed train storage facility and Yonge Street;
- One (1) theatre, located in the southeastern quadrant of the intersection of Yonge Street and High Tech Road.

Recommendations:

Where there are property acquisitions that will be directly impacted by construction of the train storage facility (i.e., impacted properties), MMM recommends carrying out Phase I and/or Phase II Environmental Site Assessments (in accordance with O.Reg.153/04, as amended) for these properties. These studies will support both property acquisition and construction activities. Based on currently available information, areas/properties most likely to be impacted include:

  - Railway line within the Study Area going from north to south.

- For other moderate APEC areas where there are no property impacts, MMM recommends carrying out a soil contaminant investigation in areas where excavation may be required, to assess soil quality and soil management options during construction.

APECs with Low Potential for Contamination

All other areas not highlighted in **Figure 3** indicate land use features considered to have a low potential for site contamination. These areas are generally classified as open space or residential areas that are not suspected of using chemical compounds harmful to the environment or human health. Another low contamination potential of concern includes road salt impacts along right-of-ways, roads, and parking lots.

Recommendations:

No additional environmental investigations are recommended for APECs with low potential for contamination.

7.0 CLOSURE

There is no warranty, expressed or implied, by MMM Group Limited that the foregoing Contamination Overview Study (COS) Report has uncovered all potential sources of site contamination, historical or present, within the Study Area.

A Contamination Overview Study is a preliminary investigation of the potential for historical or existing contamination on or adjacent to the Study Area at one particular time frame. The conclusions regarding the environmental conditions of the Study Area presented herein have been developed from a limited scope of work, restricted to a review of secondary source information and a Study Area inspection. This COS Report cannot make conclusions on actual surface and subsurface conditions, and groundwater conditions, within or surrounding the Study Area that may influence actual or potential contaminant migration. Areas identified as having actual or potential site contamination are based solely upon existing environmental data available at the time of this report.

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We trust the information outlined in this report meets with your requirements. Should you have any questions, please do not hesitate to contact our office.

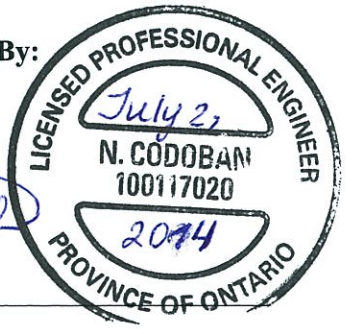
Yours truly,

MMM Group Limited

Authored By:

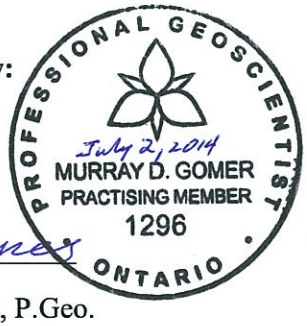
for Sanam Rahmanian, M.Sc.
Environmental Scientist

Reviewed By:



Natalia Codoban, M.Eng, P.Eng.
Hydrogeologist/Environmental Engineer

QA/QC Reviewed By:



Murray Gomer, M.Sc., P.Geo.
Senior Hydrogeologist

8.0 QUALIFICATIONS OF THE ENVIRONMENTAL CONSULTANT

For nearly six decades, MMM Group Limited has offered comprehensive consulting services in design, planning, project management, contract administration and construction inspection services in the environmental engineering, municipal engineering, urban development and recreational development fields. The firm employs over 2,000 professional, technical and administrative staff, in offices across Canada with expertise in all facets of the environmental field. The Environmental Management Department specializes in conducting Phase One, Two and Three Environmental Site Assessments, hazardous materials assessment, removal of underground storage tanks, groundwater investigations and site remediation.

Murray Gomer, M.Sc., P.Geo. is a Senior Hydrogeologist/Senior Project Manager and an Associate of the Company. Mr. Gomer has over 32 years of experience as a consulting hydrogeologist/project manager in a wide range of overburden and bedrock terrain and geological conditions. Relevant experience includes: development impact assessment, on-site servicing, watershed studies and water balance evaluation, water resources development and protection, dewatering, waste management plans, siting and monitoring for municipal landfills, industrial and radioactive waste sites, contaminated sites assessment (brownfields), remedial action, expert witness (OMB), and environmental assessment under the Ontario EAA, EPA and under CEAA. Murray has completed and managed numerous Permit to Take Water (PTTW) applications in support of municipal dewatering operations and provincial infrastructure projects. He is a Qualified Person for Environmental Site Assessments (QP_{ESA}) under O. Reg. 153/04, as amended.

Natalia Codoban, M.Eng., P.Eng. is a Hydrogeologist/Environmental Engineer and a Project Manager working at the MMM's Environmental Management Department (EMD). Ms. Codoban has an academic background in Earth/ Environmental Sciences and Geology, and Environmental Engineering. She has over nine (9) years of experience in completing and managing environmental and hydrogeological investigations. Natalia has provided expertise to numerous investigations for Contamination Overview Studies and Preliminary Site Screenings, contaminated sites assessment (brownfields), environmental investigations, studies for development impact assessment, on-site servicing, watershed studies and water balance evaluation, water resources development and protection, dewatering and hydrogeological projects. Natalia is a QP_{ESA} under O. Reg. 153/04, as amended.

Sanam Rahmanian, M.Sc., is an Environmental Scientist working at the MMM' EMD. Sanam's main focus is to carry out soil and groundwater sampling and monitoring, supervise drilling contractors for borehole advancement and installation of monitoring wells and to prepare technical reports. During her previous work experience, Sanam inspected numerous surface water/ groundwater monitoring stations, prepared field reports and assisted in conducting a wide variety of environmental/engineering projects, including soil remediation projects, environmental site assessments and Designated Substance Surveys.

9.0 REFERENCES

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FIGURES

Scale: As Shown

REFERENCE
Imagery © 2014 Microsoft Corporation and its data suppliers
http://www.bing.com/maps
Projection: UTM Zone 17N Datum: NAD 83

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CONTAMINATION OVERVIEW STUDY
YONGE SUBWAY EXTENSION TPAP
RICHMOND HILL, ONTARIO

STUDY AREA PLAN

DATE:
JULY 2014

PROJECT:
3277670

FIGURE
1

I:\Ecoplans\03 - Environmental Management\Projects\3277670 - Yonge Subway Extension TPAP\050 Mapping\MXD\COS\Figure 1 Site Location.mxd

Scale: As Shown

REFERENCE
Imagery © 2014 Microsoft Corporation and its data suppliers.
http://www.bing.com/maps
Surficial Geology of Southern ON - Msc. Release Data 128 (OGS, 2003)

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CONTAMINATION OVERVIEW STUDY
YONGE SUBWAY EXTENSION TPAP
RICHMOND HILL, ONTARIO

SURFICIAL GEOLOGY

DATE:
JULY 2014

PROJECT:
3277670

FIGURE
2

I:\Ecoplans\03 - Environmental Management\Projects\3277670 - Yonge Subway Extension TPAP\050 Mapping\MXD\COS\Figure 2 Surfical Geology.mxd

Auto Collisions

Auto Sales / Service

Auto Service Centre

Car Dealership

Commercial

Construction Site

Oak Avenue

Edgar Avenue

Commercial

Dry Cleaners

Commercial Plazas

Office Building

Gas Station

Truck Sales Center

Car Dealership

Bantry Avenue

Medical Offices

Office Buildings

Motorcycle Dealership

Theatre

Legend

- Photo Locations
- Study Alignment
- Study Area - 250m Buffer
- Areas of High Potential Concern
- Areas of Moderate Potential Concern
- Records of Fuel Storage Tanks (Ecolog ERIS report, Dec. 2008)

0 100 200 300 400 500 Meters

Scale: As Shown

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CONTAMINATION OVERVIEW STUDY
YONGE SUBWAY EXTENSION TPAP
RICHMOND HILL, ONTARIO

AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

DATE:
JULY 2014

PROJECT:
3277670

FIGURE
3

I:\Ecoplans\03 - Environmental Management\Projects\3277670 - Yonge Subway Extension TPAP\050 Mapping\MXD\COS\Figure 3 Areas of Potential Concern.mxd

APPENDIX A – Aerial Photographs

REFERENCE
Imagery obtained from the National Air Photo Library
Projection: UTM Zone 17N Datum: NAD 83

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CONTAMINATION OVERVIEW STUDY
YONGE SUBWAY EXTENSION TPAP
RICHMOND HILL, ONTARIO

1946 HISTORICAL AERIAL PHOTO

DATE:
JULY 2014

PROJECT:
32-77670

FIGURE
A-1

I:\Ecoplans\03 - Environmental Management\Projects\3277670 - Yonge Subway Extension TPAP\050 Mapping\MXD\COS\Figure A-1 1946 Historical Aerial Photo.mxd

Scale: As Shown

REFERENCE
Imagery obtained from the National Air Photo Library
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CONTAMINATION OVERVIEW STUDY
YONGE SUBWAY EXTENSION TPAP
RICHMOND HILL, ONTARIO

1960 HISTORICAL AERIAL PHOTO

DATE:
JULY 2014

PROJECT:
32-77670

FIGURE
A-2

I:\Ecoplans\03 - Environmental Management\Projects\3277670 - Yonge Subway Extension TPAP\050 Mapping\MXD\COS\Figure A-2 1960 Historical Aerial Photo.mxd

REFERENCE
Imagery obtained from the National Air Photo Library
Projection: UTM Zone 17N Datum: NAD 83

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CONTAMINATION OVERVIEW STUDY
YONGE SUBWAY EXTENSION TPAP
RICHMOND HILL, ONTARIO

1981 HISTORICAL AERIAL PHOTO

DATE:
JULY 2014

PROJECT:
32-77670

FIGURE
A-3

I:\Ecoplans\03 - Environmental Management\Projects\3277670 - Yonge Subway Extension TPAP\050 Mapping\MXD\COS\Figure A-3 1981 Historical Aerial Photo.mxd

APPENDIX B – Ecolog ERIS Report

ERIS

REPORT

Project Property:	*Un-named* *Benesford Dr* *Richmond Hill ON*
Report Type:	*Custom-Build Your Own Report*
Order #:	*20130308027*
Date:	*March 18, 2013*

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

www.erisinfo.com

Table of Contents

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Executive Summary

Property Information:

Project Property:	*Un-named* *Benesford Dr Richmond Hill ON*

Order Information:

Order No.:	*20130308027*
Date Requested:	*19/03/2013*
Requested by:	*MMM Group Ltd.*
Report Type:	*Custom-Build Your Own Report*

Additional Products:

Executive Summary: Report Summary

Database	Name	Selected	On Site	Boundary to 0.25KM	Total
AAGR	Abandoned Aggregate Inventory	Y	0	0	0
AGR	Aggregate Inventory	Y	0	0	0
AMIS	Abandoned Mine Information System	Y	0	0	0
ANDR	Anderson's Waste Disposal Sites	Y	0	0	0
AUWR	Automobile Wrecking & Supplies	Y	0	0	0
BORE	Borehole	Y	0	4	4
CA	Certificates of Approval	Y	0	2	2
CFOT	Commercial Fuel Oil Tanks	Y	0	0	0
CHEM	Chemical Register	Y	0	0	0
COAL	Inventory of Coal Gasification Plants and Coal Tar Sites	Y	0	0	0
CONV	Compliance and Convictions	Y	0	0	0
CPU	Certificates of Property Use	Y	0	0	0
DRL	Drill Hole Database	Y	0	0	0
EASR	Environmental Activity and Sector Registry	Y	0	0	0
EBR	Environmental Registry	Y	0	0	0
ECA	Environmental Compliance Approval	Y	0	0	0
EEM	Environmental Effects Monitoring	Y	0	0	0
EHS	ERIS Historical Searches	Y	0	2	2
EIIS	Environmental Issues Inventory System	Y	0	0	0
EXP	List of TSSA Expired Facilities	Y	0	0	0
FCON	Federal Convictions	Y	0	0	0
FCS	Contaminated Sites on Federal Land	Y	0	0	0
FOFT	Fisheries & Oceans Fuel Tanks	Y	0	0	0
FST	Fuel Storage Tank	Y	0	0	0
GEN	Ontario Regulation 347 Waste Generators Summary	Y	0	3	3
HINC	TSSA Historic Incidents	Y	0	2	2
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0
INC	TSSA Incidents	Y	0	0	0
LIMO	Landfill Inventory Management Ontario	Y	0	0	0
MINE	Canadian Mine Locations	Y	0	0	0
MNR	Mineral Occurrences	Y	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0
NCPL	Non-Compliance Reports	Y	0	0	0
NDFT	National Defence & Canadian Forces Fuel Tanks	Y	0	0	0
NDSP	National Defence & Canadian Forces Spills	Y	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0

Database	Name	Selected	On Site	Boundary to 0.25KM	Total
NPCB	National PCB Inventory	Y	0	0	0
NPRI	National Pollutant Release Inventory	Y	0	0	0
OGW	Oil and Gas Wells	Y	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	0	0
OPCB	Inventory of PCB Storage Sites	Y	0	0	0
ORD	Orders	Y	0	0	0
PAP	Canadian Pulp and Paper	Y	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0
PES	Pesticide Register	Y	0	2	2
PINC	TSSA Pipeline Incidents	Y	0	0	0
PRT	Private and Retail Fuel Storage Tanks	Y	0	0	0
PTTW	Permit to Take Water	Y	0	0	0
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	0	0
RSC	Record of Site Condition	Y	0	1	1
RST	Retail Fuel Storage Tanks	Y	0	0	0
SCT	Scott's Manufacturing Directory	Y	0	1	1
SPL	Ontario Spills	Y	0	0	0
SRDS	Wastewater Discharger Registration Database	Y	0	0	0
TANK	Anderson's Storage Tanks	Y	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0
VAR	TSSA Variances for Abandonment of Underground Storage Tanks	Y	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0
WWIS	Water Well Information System	Y	0	8	8
	Total:		0	25	25

Executive Summary: Site Report Summary – Project Property

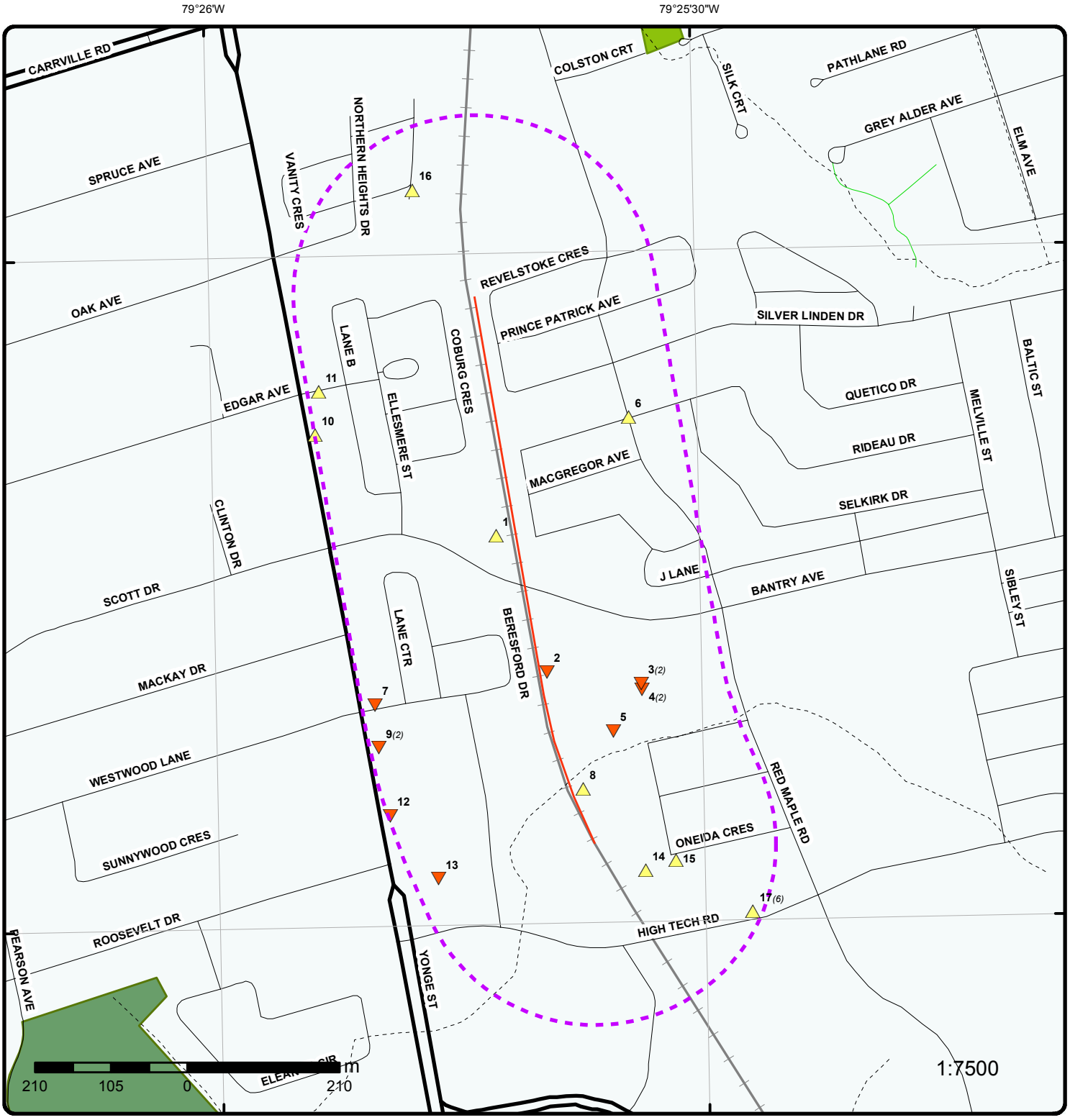
Map Key	DB	Company/Site Name	Address	Page Number

No records found in the selected databases for the project property.

Executive Summary: Site Report Summary – Surrounding Properties

Map Key	*DB*	*Company/Site Name*	*Address*	*Page Number*
1	WWIS		lot 39 con 1 ON	10
2	BORE		ON	11
3	WWIS		ON	11
3	WWIS		ON	12
4	WWIS		ON	12
4	WWIS		RICHMOND HILL ON	13
5	WWIS		lot 38 con 1 ON	13
6	HINC		KING WILLIAM CRESCENT & RED MAPLE ROAD RICHMOND HILL ON	14
7	BORE		ON	15
8	WWIS		lot 38 con 1 ON	15
9	PES	SHOPPERS DRUG MART #1179 F. LO PHARMACY LTD.	8865 YONGE ST, UNIT #1 RICHMOND HILL ON L4C 6Z1	16
9	PES	SHOPPERS DRUG MART #1179 F. LO PHARMACY LTD.	8865 YONGE ST, UNIT #1 RICHMOND HILL ON L4C 6Z1	16
10	SCT	Lums Indus Supply Uniform-Med	9043 Yonge St Richmond Hill ON L4C 0L2	16
11	BORE		ON	17
12	EHS		8783, 8851 & 8889 Yonge St Richmond Hill ON	17
13	WWIS		lot 37 con 1 ON	18
14	BORE		ON	18
15	HINC		39 ONEIDA CRESCENT RICHMOND HILL ON	19
16	RSC	1671133 Ontario Inc.	Richmond Hill, ON	20
17	CA		50 High Tech Road Richmond Hill ON L4B 4N7	20
17	CA		50 High Tech Road Richmond Hill ON L4B 4N7	20
17	EHS		50 High Tech Rd. Richmond Hill ON L4B 4N7	21
17	GEN	YORK, THE REGIONAL MUNICIPALITY OF	50 High Tech Road 2nd Floor Richmond Hill ON L4B 4N7	21

Map Key	DB	Company/Site Name	Address	Page Number
17	GEN	YORK, THE REGIONAL MUNICIPALITY OF HEALTH SERVICE	50 High Tech Road 2nd Floor Richmond Hill ON L4B 4N7	21
17	GEN	YORK, THE REGIONAL MUNICIPALITY OF	50 High Tech Road 2nd Floor Richmond Hill ON L4B 4N7	21



Map

Order No: 20130308027

Address: Benesford Dr, Richmond Hill, ON

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

Source: © 2012 DMTI Spatial Inc.

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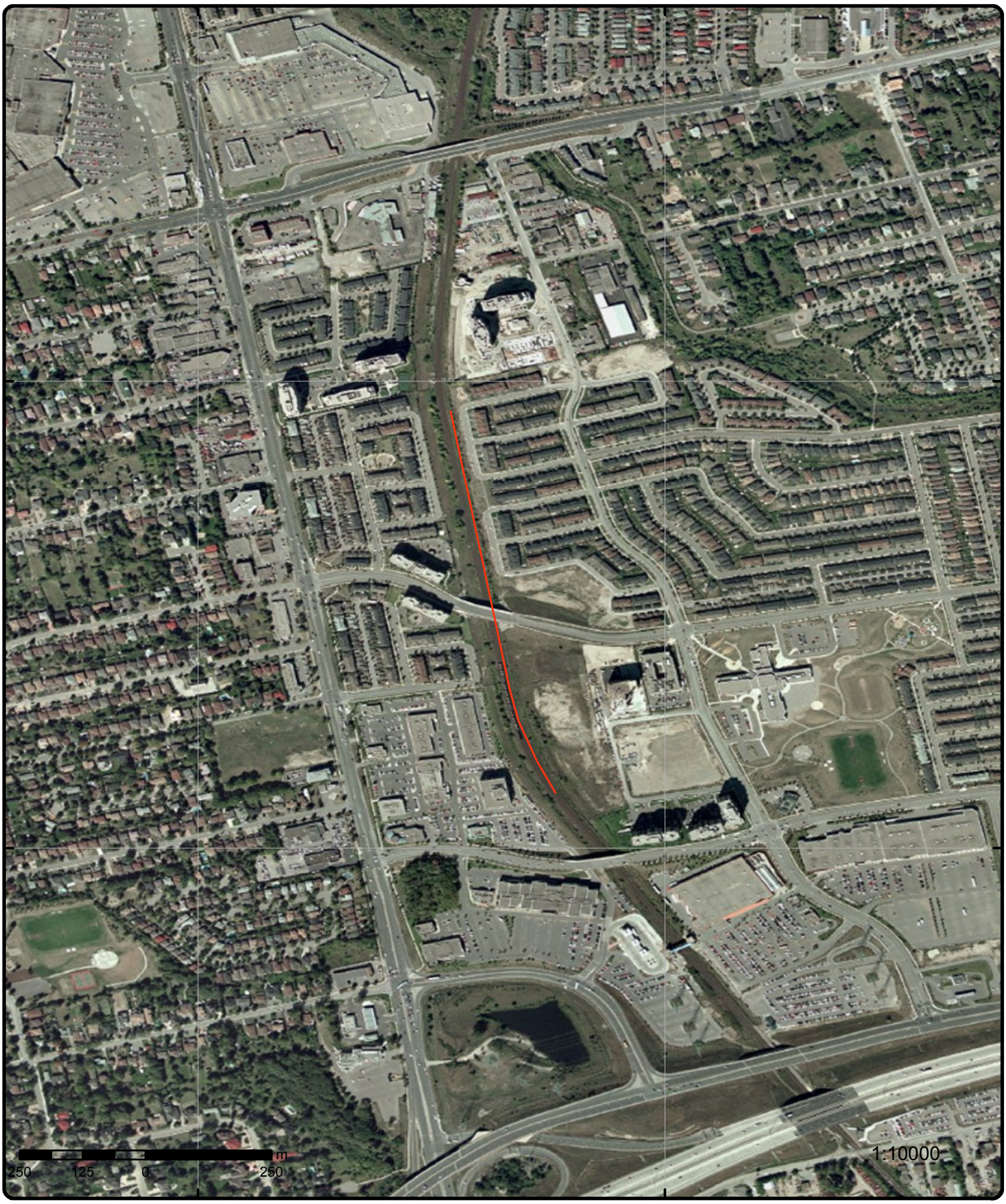

Aerial

Order No: 20130308027

Address: Benesford Dr, Richmond Hill, ON

Source: ESRI World Imagery

© Ecolog ERIS Ltd

Detail Report

Map Key	Number of Records	Elevation m	Site	DB
1	1 of 1	197.6	lot 39 con 1 ON	WWIS

Well Id:	6902908	*Lot:*	039
Concession:	01	*Concession Name:*	YS E
County:	YORK	*Municipality:*	RICHMOND HILL TOWN (MARKHAM)
Easting Nad83:	626315.7	*Northing Nad83:*	4856023
Zone:	17	*Utm Reliability:*	margin of error : 100 m - 300 m
Primary Water Use:		*Construction Date:*	5/15/1951
Secondary Water Use:		*Well Depth:*	179 ft
Pump Rate:		*Static Water Level:*	
Flow Rate:		*Clear/Cloudy:*	
Specific Capacity:		*Final Well Status:*	Test Hole
Construction Method:	Rotary (Convent.)	*Flowing (y/n):*	
Elevation (m):	205.529647	*Elevation Reliability:*	
Depth to Bedrock:	172	*Overburden/Bedrock:*	Mixed in a Layer
Water Type:		*Casing Material:*	

--- Details ---

Thickness:	2 ft	*Original Depth:*	2 ft
Material Colour:		*Material:*	TOPSOIL
+			
Thickness:	10 ft	*Original Depth:*	12 ft
Material Colour:	BROWN	*Material:*	CLAY, BOULDERS
+			
Thickness:	5 ft	*Original Depth:*	17 ft
Material Colour:		*Material:*	CLAY, FINE SAND
+			
Thickness:	57 ft	*Original Depth:*	74 ft
Material Colour:	BLUE	*Material:*	CLAY, BOULDERS, MEDIUM SAND
+			
Thickness:	68 ft	*Original Depth:*	142 ft
Material Colour:		*Material:*	CLAY, BOULDERS
+			
Thickness:	22 ft	*Original Depth:*	164 ft
Material Colour:		*Material:*	CLAY, MEDIUM SAND, SILT
+			
Thickness:	8 ft	*Original Depth:*	172 ft
Material Colour:	BLUE	*Material:*	CLAY
+			
Thickness:	6 ft	*Original Depth:*	178 ft
Material Colour:	BLUE	*Material:*	CLAY, SHALE
+			
Thickness:	1 ft	*Original Depth:*	179 ft
Material Colour:		*Material:*	SHALE

Map Key	Number of Records	Elevation m	Site	DB

2 **1 of 1** **196.9** **ON** **BORE**

Borehole ID:	866756
Type:	Borehole
Use:	Geotechnical/Geological Investigation
Status:	Decommissioned
Drill Method:	Hollow stem auger
UTM Zone:	17
Easting:	626386.000
Northing:	4855836.000
Location Accuracy:	
Orig. Ground Elevation(m):	204.100006
Elev. Reliability Note:	
DEM Ground Elevation(m):	204.300003
Total Depth(m):	11
Primary Name:	
Township:	MARKHAM
Concession:	CON 1 EAST OF YONGE STREET
Lot:	0
Municipality:	
Completion Date:	1989-DEC-21
Static Water Level:	4
Primary Water Use:	
Secondary Water Use:	
Location Description:	Proposed High Density Residential Development, East of Yonge Street, North of Hwy. 7, Town of Richmond Hill. The site was carried out on property extending from Yonge Street easterly to CNR , and from Highway 7 northerly to the property line between Oak and Edgar Avenues (west of Yonge).

--- Details ---

Stratum ID:	7017906
Top Depth(m):	4
Bottom Depth(m):	9
Stratum Desc:	Brown, dense to very dense, fine sand, a trace to some silt, occasional medium sand seams.
+	
Stratum ID:	7017907
Top Depth(m):	9
Bottom Depth(m):	10.300000
Stratum Desc:	Grey, dense silt, sandy , a trace of clay
+	
Stratum ID:	7017908
Top Depth(m):	10.300000
Bottom Depth(m):	11
Stratum Desc:	Grey, very dense, sandy silt, till
+	
Stratum ID:	7017905
Top Depth(m):	0
Bottom Depth(m):	4
Stratum Desc:	35 cm Topsoil. Brown, firm to hard, silty clay, till, sandy, a trace of gravel, occasional cobbles and sand seams. Weathered

3 **1 of 2** **196.8** **ON** **WWIS**

Well Id:	7039589	*Lot:*	
Concession:		*Concession Name:*	
County:	YORK	*Municipality:*	RICHMOND HILL TOWN
Easting Nad83:	626516	*Northing Nad83:*	4855820
Zone:	17	*Utm Reliability:*	margin of error : 10 - 30 m
Primary Water Use:	Not Used	*Construction Date:*	1/13/2007

Map Key	Number of Records	Elevation m	Site	DB

Secondary Water Use:		*Well Depth:*	5 m
Pump Rate:		*Static Water Level:*	
Flow Rate:		*Clear/Cloudy:*	
Specific Capacity:		*Final Well Status:*	Dewatering
Construction Method:	Jetting	*Flowing (y/n):*	
Elevation (m):	202.196899	*Elevation Reliability:*	
Depth to Bedrock:		*Overburden/Bedrock:*	Overburden
Water Type:	FRESH	*Casing Material:*	PLASTIC

--- Details ---

Thickness:	2.5 m	*Original Depth:*	2.5 m
Material Colour:	BROWN	*Material:*	SILT, SANDY, TILL
+			
Thickness:	2.5 m	*Original Depth:*	5 m
Material Colour:	GREY	*Material:*	SAND

---

3 ***2 of 2*** ***196.8*** ***WWIS***

ON

Well Id:	7044664	*Lot:*	
Concession:		*Concession Name:*	
County:	YORK	*Municipality:*	RICHMOND HILL TOWN
Easting Nad83:	626516	*Northing Nad83:*	4855820
Zone:	17	*Utm Reliability:*	margin of error : 10 - 30 m
Primary Water Use:	Not Used	*Construction Date:*	5/28/2007
Secondary Water Use:		*Well Depth:*	5 m
Pump Rate:		*Static Water Level:*	
Flow Rate:		*Clear/Cloudy:*	
Specific Capacity:		*Final Well Status:*	Abandoned-Other
Construction Method:		*Flowing (y/n):*	
Elevation (m):	202.196899	*Elevation Reliability:*	
Depth to Bedrock:		*Overburden/Bedrock:*	Overburden
Water Type:		*Casing Material:*	

--- Details ---

Thickness:	2.5 m	*Original Depth:*	2.5 m
Material Colour:	BROWN	*Material:*	SILT, SANDY, TILL
+			
Thickness:	2.5 m	*Original Depth:*	5 m
Material Colour:	GREY	*Material:*	SAND, SILT, TILL

---

4 ***1 of 2*** ***196.8*** ***WWIS***

ON

Well Id:	6931112	*Lot:*	
Concession:		*Concession Name:*	
County:	YORK	*Municipality:*	RICHMOND HILL TOWN (MARKHAM)
Easting Nad83:	626517	*Northing Nad83:*	4855812
Zone:	17	*Utm Reliability:*	margin of error : 10 - 30 m
Primary Water Use:	Not Used	*Construction Date:*	12/5/2006
Secondary Water Use:		*Well Depth:*	5 m
Pump Rate:		*Static Water Level:*	
Flow Rate:		*Clear/Cloudy:*	
Specific Capacity:		*Final Well Status:*	Dewatering
Construction Method:	Rotary (Convent.)	*Flowing (y/n):*	

Map Key	Number of Records	Elevation m	Site	DB

Elevation (m):	202.083816	*Elevation Reliability:*	
Depth to Bedrock:		*Overburden/Bedrock:*	Overburden
Water Type:	FRESH	*Casing Material:*	PLASTIC
--- Details ---			
Thickness:	2.5 m	*Original Depth:*	2.5 m
Material Colour:	BROWN	*Material:*	SILT, SANDY, TILL
+			
Thickness:	2.5 m	*Original Depth:*	5 m
Material Colour:	GREY	*Material:*	SAND, SANDY, SILT

4 **2 of 2** **196.8** **WWIS**

RICHMOND HILL ON

Well Id:	7044663	*Lot:*	
Concession:		*Concession Name:*	
County:	YORK	*Municipality:*	RICHMOND HILL TOWN
Easting Nad83:	626517	*Northing Nad83:*	4855812
Zone:	17	*Utm Reliability:*	margin of error : 10 - 30 m
Primary Water Use:	Not Used	*Construction Date:*	5/28/2007
Secondary Water Use:		*Well Depth:*	5 m
Pump Rate:		*Static Water Level:*	
Flow Rate:		*Clear/Cloudy:*	
Specific Capacity:		*Final Well Status:*	Abandoned-Other
Construction Method:		*Flowing (y/n):*	
Elevation (m):	202.083816	*Elevation Reliability:*	
Depth to Bedrock:		*Overburden/Bedrock:*	Overburden
Water Type:		*Casing Material:*	
--- Details ---			
Thickness:	2.5 m	*Original Depth:*	2.5 m
Material Colour:	BROWN	*Material:*	SILT, SAND, TILL
+			
Thickness:	2.5 m	*Original Depth:*	5 m
Material Colour:	GREY	*Material:*	SAND, SILT, TILL

5 **1 of 1** **197.0** **lot 38 con 1 ON** **WWIS**

Well Id:	6902905	*Lot:*	038
Concession:	01	*Concession Name:*	YS E
County:	YORK	*Municipality:*	RICHMOND HILL TOWN (MARKHAM)
Easting Nad83:	626477.7	*Northing Nad83:*	4855754
Zone:	17	*Utm Reliability:*	margin of error : 100 m - 300 m
Primary Water Use:		*Construction Date:*	5/8/1951
Secondary Water Use:		*Well Depth:*	184 ft
Pump Rate:		*Static Water Level:*	
Flow Rate:		*Clear/Cloudy:*	
Specific Capacity:		*Final Well Status:*	Test Hole
Construction Method:	Rotary (Convent.)	*Flowing (y/n):*	
Elevation (m):	201.758529	*Elevation Reliability:*	
Depth to Bedrock:		*Overburden/Bedrock:*	Overburden
Water Type:		*Casing Material:*	
--- Details ---			
Thickness:	1 ft	*Original Depth:*	1 ft

Material Colour:		*Material:*	TOPSOIL
+			
Thickness:	3 ft	*Original Depth:*	4 ft
Material Colour:		*Material:*	CLAY, MEDIUM SAND
+			
Thickness:	13 ft	*Original Depth:*	17 ft
Material Colour:		*Material:*	FINE SAND
+			
Thickness:	25 ft	*Original Depth:*	42 ft
Material Colour:		*Material:*	CLAY, BOULDERS
+			
Thickness:	10 ft	*Original Depth:*	52 ft
Material Colour:		*Material:*	CLAY, BOULDERS, FINE SAND
+			
Thickness:	18 ft	*Original Depth:*	70 ft
Material Colour:		*Material:*	SILT, BOULDERS, FINE SAND
+			
Thickness:	18 ft	*Original Depth:*	88 ft
Material Colour:		*Material:*	FINE SAND, BOULDERS
+			
Thickness:	47 ft	*Original Depth:*	135 ft
Material Colour:		*Material:*	FINE SAND, CLAY
+			
Thickness:	27 ft	*Original Depth:*	162 ft
Material Colour:		*Material:*	BOULDERS, CLAY, MEDIUM SAND
+			
Thickness:	22 ft	*Original Depth:*	184 ft
Material Colour:	BLUE	*Material:*	CLAY, BOULDERS, FINE SAND

6 **1 of 1** **199.3** **KING WILLIAM CRESCENT & RED MAPLE ROAD RICHMOND HILL ON** **HINC**

External File Num:	FS INC 0612-04485
Date of Occurrence:	11/9/2006
Fuel Occurrence Type:	Pipeline Strike
Fuel Type Involved:	Natural Gas
Status Desc:	Completed - Causal Analysis(End)
Job Type Desc:	Incident/Near-Miss Occurrence (FS)
Oper. Type Involved:	Construction Site (pipeline strike)
Service Interruptions:	No
Property Damage:	Yes
Fuel Life Cycle Stage:	Transmission, Distribution and Transportation
Root Cause:	Root Cause: Equipment/Material/Component:No Procedures:Yes Maintenance:No Design:No Training:No Management:No Human Factors:Yes
Reported Details:	
Fuel Category:	Gaseous Fuel
Occurrence Type:	Incident
Affiliation:	Industry Stakeholder (Licensee/Registration/Certificate Holder, Facility Owner, etc.)
County Name:	York
Approx. Quant. Rel:	
Nearby body of water:	
Enter Drainage Syst.:	
Approx. Quant. Unit:	
Environmental Impact:	

Map Key	Number of Records	Elevation m	Site	DB

7 **1 of 1** **196.8** **ON** **BORE**

Borehole ID:	866753
Type:	Borehole
Use:	Geotechnical/Geological Investigation
Status:	Decommissioned
Drill Method:	Hollow stem auger
UTM Zone:	17
Easting:	626149.000
Northing:	4855790.000
Location Accuracy:	
Orig. Ground Elevation(m):	201
Elev. Reliability Note:	
DEM Ground Elevation(m):	202.300003
Total Depth(m):	8.100000
Primary Name:	
Township:	MARKHAM
Concession:	CON 1 EAST OF YONGE STREET
Lot:	0
Municipality:	
Completion Date:	1989-DEC-21
Static Water Level:	4.500000
Primary Water Use:	
Secondary Water Use:	
Location Description:	Proposed High Density Residential Development, East of Yonge Street, North of Hwy. 7, Town of Richmond Hill. The site was carried out on property extending from Yonge Street easterly to CNR , and from Highway 7 northerly to the property line between Oak and Edgar Avenues (west of Yonge).

--- Details ---

Stratum ID:	7017898
Top Depth(m):	0
Bottom Depth(m):	4
Stratum Desc:	35cm Topsoil. Brown, stiff to hard, silty clay , till, sandy, a trace of gravel, occasional cobbles and wet sand seams
+	
Stratum ID:	7017899
Top Depth(m):	4
Bottom Depth(m):	8.100000
Stratum Desc:	Brown, dense, fine sand, a trace to some silt, occasional medium sand layers

8 **1 of 1** **197.3** **lot 38 con 1** **ON** **WWIS**

Well Id:	6906180	*Lot:*	038
Concession:	01	*Concession Name:*	YS W
County:	YORK	*Municipality:*	RICHMOND HILL TOWN (VAUGHAN)
Easting Nad83:	626435.7	*Northing Nad83:*	4855674
Zone:	17	*Utm Reliability:*	unknown UTM
Primary Water Use:	Domestic	*Construction Date:*	4/4/1952
Secondary Water Use:		*Well Depth:*	101 ft
Pump Rate:	4 GPM	*Static Water Level:*	56 ft
Flow Rate:		*Clear/Cloudy:*	CLEAR
Specific Capacity:		*Final Well Status:*	Water Supply
Construction Method:	Jetting	*Flowing (y/n):*	N
Elevation (m):	201.072906	*Elevation Reliability:*	
Depth to Bedrock:		*Overburden/Bedrock:*	Overburden
Water Type:	FRESH	*Casing Material:*	STEEL

Map Key	Number of Records	Elevation m	Site	DB

--- Details ---

Thickness:	18 ft	Original Depth:	18 ft
Material Colour:	BROWN	Material:	CLAY
+			
Thickness:	10 ft	Original Depth:	28 ft
Material Colour:		Material:	QUICKSAND
+			
Thickness:	47 ft	Original Depth:	75 ft
Material Colour:	BLUE	Material:	CLAY
+			
Thickness:	11 ft	Original Depth:	86 ft
Material Colour:		Material:	HARDPAN, GRAVEL
+			
Thickness:	9 ft	Original Depth:	95 ft
Material Colour:	BLUE	Material:	CLAY
+			
Thickness:	2 ft	Original Depth:	97 ft
Material Colour:		Material:	HARDPAN, GRAVEL
+			
Thickness:	4 ft	Original Depth:	101 ft
Material Colour:		Material:	GRAVEL

---

9 **1 of 2** **196.8** **SHOPPERS DRUG MART #1179 F. LO PHARMACY LTD.** **PES**
8865 YONGE ST, UNIT #1
RICHMOND HILL ON L4C 6Z1

Licence No.:
Licence Type: Limited Vendor

---

9 **2 of 2** **196.8** **SHOPPERS DRUG MART #1179 F. LO PHARMACY LTD.** **PES**
8865 YONGE ST, UNIT #1
RICHMOND HILL ON L4C 6Z1

Licence No.:
Licence Type: Vendor

---

10 **1 of 1** **198.2** **Lums Indus Supply Uniform-Med** **SCT**
9043 Yonge St
Richmond Hill ON L4C 0L2

Established:
Plant Size (ft²):
Employment:

--- Details ---

SIC/NAICS Code:	419120
Description:	Wholesale Trade Agents and Brokers
+	
SIC/NAICS Code:	812330
Description:	Linen and Uniform Supply
+	
SIC/NAICS Code:	414330

Map Key	Number of Records	Elevation m	Site	DB

Description:	Linen, Drapery and Other Textile Furnishings Wholesaler-Distributors
+	
SIC/NAICS Code:	417930
Description:	Professional Machinery, Equipment and Supplies Wholesaler-Distributors
+	
SIC/NAICS Code:	414110
Description:	Clothing and Clothing Accessories Wholesaler-Distributors
+	
SIC/NAICS Code:	417920
Description:	Service Establishment Machinery, Equipment and Supplies Wholesaler-Distributors
+	
SIC/NAICS Code:	812330
Description:	Linen and Uniform Supply
+	
SIC/NAICS Code:	418990
Description:	All Other Wholesaler-Distributors

11 **1 of 1** **199.0** **ON** **BORE**

Borehole ID:	866754
Type:	Borehole
Use:	Geotechnical/Geological Investigation
Status:	Decommissioned
Drill Method:	Hollow stem auger
UTM Zone:	17
Easting:	626071.000
Northing:	4856222.000
Location Accuracy:	
Orig. Ground Elevation(m):	206
Elev. Reliability Note:	
DEM Ground Elevation(m):	206.100006
Total Depth(m):	8.100000
Primary Name:	
Township:	MARKHAM
Concession:	CON 1 EAST OF YONGE STREET
Lot:	0
Municipality:	
Completion Date:	1989-DEC-21
Static Water Level:	13.400000
Primary Water Use:	
Secondary Water Use:	
Location Description:	Proposed High Density Residential Development, East of Yonge Street, North of Hwy. 7, Town of Richmond Hill. The site was carried out on property extending from Yonge Street easterly to CNR , and from Highway 7 northerly to the property line between Oak and Edgar Avenues (west of Yonge).

--- Details ---

Stratum ID:	7017900
Top Depth(m):	0
Bottom Depth(m):	5.600000
Stratum Desc:	50 cm topsoil. Brown, stiff to hard, silty clay, till, sandy, a trace of gravel, occasional cobbles, boulders and wet sand seams. Brown to grey.
+	
Stratum ID:	7017901
Top Depth(m):	5.600000
Bottom Depth(m):	8.100000
Stratum Desc:	Grey, dense silt, a trace of sand to sandy, occasional clay layers.

12 **1 of 1** **196.8** **8783, 8851 & 8889 Yonge St Richmond Hill ON** **EHS**

Map Key	Number of Records	Elevation m	Site	DB

Order No.:	20040114010
Report Date:	1/23/04
Report Type:	Basic Report
Search Radius (km):	0.50
Addit. Info Ordered:	

13 **1 of 1** **196.8** **lot 37 con 1 ON** **WWIS**

Well Id:	6902904	*Lot:*	037
Concession:	01	*Concession Name:*	YS E
County:	YORK	*Municipality:*	RICHMOND HILL TOWN (MARKHAM)
Easting Nad83:	626236.7	*Northing Nad83:*	4855551
Zone:	17	*Utm Reliability:*	margin of error : 100 m - 300 m
Primary Water Use:	Domestic	*Construction Date:*	9/30/1954
Secondary Water Use:		*Well Depth:*	91 ft
Pump Rate:	10 GPM	*Static Water Level:*	35 ft
Flow Rate:		*Clear/Cloudy:*	CLEAR
Specific Capacity:		*Final Well Status:*	Water Supply
Construction Method:	Cable Tool	*Flowing (y/n):*	N
Elevation (m):	201.106658	*Elevation Reliability:*	
Depth to Bedrock:		*Overburden/Bedrock:*	Overburden
Water Type:	FRESH	*Casing Material:*	STEEL

--- Details ---

Thickness:	3 ft	*Original Depth:*	3 ft
Material Colour:		*Material:*	FILL
+			
Thickness:	2 ft	*Original Depth:*	5 ft
Material Colour:		*Material:*	TOPSOIL
+			
Thickness:	20 ft	*Original Depth:*	25 ft
Material Colour:	YELLOW	*Material:*	CLAY
+			
Thickness:	13 ft	*Original Depth:*	38 ft
Material Colour:	YELLOW	*Material:*	CLAY, MEDIUM SAND
+			
Thickness:	42 ft	*Original Depth:*	80 ft
Material Colour:	BLUE	*Material:*	CLAY
+			
Thickness:	11 ft	*Original Depth:*	91 ft
Material Colour:	BLUE	*Material:*	MEDIUM SAND

14 **1 of 1** **197.1** **ON** **BORE**

Borehole ID:	866755
Type:	Borehole
Use:	Geotechnical/Geological Investigation
Status:	Decommissioned
Drill Method:	Hollow stem auger
UTM Zone:	17
Easting:	626522.000
Northing:	4855562.000

Map Key	Number of Records	Elevation m	Site	DB

Location Accuracy:
Orig. Ground Elevation(m): 201
Elev. Reliability Note:
DEM Ground Elevation(m): 201.600006
Total Depth(m): 11
Primary Name:
Township: MARKHAM
Concession: CON 1 EAST OF YONGE STREET
Lot: 0
Municipality:
Completion Date: 1989-DEC-20
Static Water Level: 4.400000
Primary Water Use:
Secondary Water Use:
Location Description: Proposed High Density Residential Development, East of Yonge Street, North of Hwy. 7, Town of Richmond Hill. The site was carried out on property extending from Yonge Street easterly to CNR , and from Highway 7 northerly to the property line between Oak and Edgar Avenues (west of Yonge).

--- Details ---
Stratum ID: 7017902
Top Depth(m): 0
Bottom Depth(m): 2.900000
Stratum Desc: 30 cm Topsoil. Brown, weathered, stiff to firm, silty clay, till, sandy, a trace of gravel
+
Stratum ID: 7017903
Top Depth(m): 2.900000
Bottom Depth(m): 7.500000
Stratum Desc: Brown, compact to dense, fine sand, silt to a trace of silt, occasional medium sand seams
+
Stratum ID: 7017904
Top Depth(m): 7.500000
Bottom Depth(m): 11
Stratum Desc: Grey, hard, silty clay, till, sandy, a trace of gravel, occasional cobbles, boulders and wet sand seams

---

15	1 of 1	197.1	39 ONEIDA CRESCENT RICHMOND HILL ON	HINC

External File Num: FS INC 0901-00307
Date of Occurrence: 1/17/2009
Fuel Occurrence Type: CO Release
Fuel Type Involved: Natural Gas
Status Desc: Completed - Causal Analysis(End)
Job Type Desc: Incident/Near-Miss Occurrence (FS)
Oper. Type Involved: Multi-unit Residential
Service Interruptions: No
Property Damage: No
Fuel Life Cycle Stage: Utilization
Root Cause: Root Cause: Equipment/Material/Component:No Procedures:No Maintenance:No Design:No Training:No Management:No Human Factors:No E

Reported Details:
Fuel Category: Gaseous Fuel
Occurrence Type: Incident
Affiliation: Industry Stakeholder (Licensee/Registration/Certificate Holder, Facility Owner, etc.)
County Name: York
Approx. Quant. Rel:
Nearby body of water:
Enter Drainage Syst.:
Approx. Quant. Unit:
Environmental Impact:

Map Key	Number of Records	Elevation m	Site	DB
16	**1 of 1**	**201.9**	**1671133 Ontario Inc. Richmond Hill, ON**	**RSC**

Date Submitted: 10-Apr-06
Date Acknowledg.:
Date Returned:
Certification Date: 22-Dec-05
Soil Type:
Restoration Type:
Registration #: 2397
Stratified (Y/N):
Criteria:
Consultant:
District Office: RICHMOND HILL
Intended Prop Use: Commercial
Current Property Use: Industrial
Certificate Prop Use #: No CPU
Applicable Standards: Full Depth Site Conditions Standard, with Nonpotable Ground Water, Medium/Fine Textured Soil, for Industrial/Commercial/Community property use
Legal Description: PT LT 11, PL 3806 Markham, as in MA41421, except PTS 3 & 4 EXPROP PL R562043; PT LT 5, PL 3805 Markham; PT LT 6, PL 3805 Markham, as in RH49194, except PT 6 EXPROP PL R562043; Richmond Hill.
Prop. Identification #: 03109-0018(LT), Town of Richmond Hill
Entire legal prop. (y/n): Yes
UTM Coordinates: NAD83 17-626200-4856500
Latitude & Longitude: 43.85080130N 79.42986330W (converted from UTM)
Accuracy Estimate: 11 to 20 meters
Measurement Method: Interpolation from a map
CPU Issued Sect 1686: No

Map Key	Number of Records	Elevation m	Site	DB
17	**1 of 6**	**197.8**	**50 High Tech Road Richmond Hill ON L4B 4N7**	**CA**

Certificate #: 4582-557KT4
Application Year: 02
Issue Date: 1/16/02
Approval Type: Industrial air
Status: Revoked and/or Replaced
Application Type: New Certificate of Approval
Client Name: The Corporation of the Regional Municipality of York
Client Address: 17250 Yonge Street, P.O. Box 147
Client City: Newmarket
Client Postal Code: L3Y 6Z1
Project Description: This application is for a Certificate of Approval for HVAC units, evaporative cooler, boiler and generator for the purpose of comfort heating, air conditioning and emergency power for the facility.
Contaminants:
Emission Control:

Map Key	Number of Records	Elevation m	Site	DB
17	**2 of 6**	**197.8**	**50 High Tech Road Richmond Hill ON L4B 4N7**	**CA**

Certificate #: 6860-56AR6J
Application Year: 02
Issue Date: 1/16/02
Approval Type: Industrial air
Status: Approved
Application Type: Amended CofA
Client Name: The Corporation of the Regional Municipality of York

Map Key	Number of Records	Elevation m	Site	DB

Client Address: 17250 Yonge Street, P.O. Box 147
Client City: Newmarket
Client Postal Code: L3Y 6Z1
Project Description: Amendment to Revise the Diesel Generator Exhaust Flue Size to 300mm instead of 200mm.
Contaminants:
Emission Control:

---

17 ***3 of 6*** ***197.8*** ***50 High Tech Rd.*** ***EHS***
Richmond Hill ON L4B 4N7

Order No.: 20010828004
Report Date: 8/30/01
Report Type: Basic Report
Search Radius (km): 0.25
Addit. Info Ordered:

---

17 ***4 of 6*** ***197.8*** ***YORK, THE REGIONAL MUNICIPALITY OF*** ***GEN***
50 High Tech Road 2nd Floor
Richmond Hill ON L4B 4N7

SIC Code: 621494
SIC Description: Community Health Centres
Generator #: ON7340765
Approval Yrs: 02,03,04,05,06,07,08

--- Details ---
Waste Code: 148
Waste Description: INORGANIC LABORATORY CHEMICALS
+
Waste Code: 264
Waste Description: PHOTOPROCESSING WASTES
+
Waste Code: 312
Waste Description: PATHOLOGICAL WASTES

---

17 ***5 of 6*** ***197.8*** ***YORK, THE REGIONAL MUNICIPALITY OF HEALTH*** ***GEN***
SERVICE
50 High Tech Road 2nd Floor
Richmond Hill ON L4B 4N7

SIC Code:
SIC Description:
Generator #: ON7340765
Approval Yrs: As of Apr 2012

--- Details ---
Waste Code: 148
Waste Description: Misc. wastes and inorganic chemicals
+
Waste Code: 312
Waste Description: Pathological wastes

---

17 ***6 of 6*** ***197.8*** ***YORK, THE REGIONAL MUNICIPALITY OF*** ***GEN***
50 High Tech Road 2nd Floor
Richmond Hill ON L4B 4N7

SIC Code: 621494
SIC Description: Community Health Centres

Generator #: ON7340765
Approval Yrs: 2009

--- Details ---
Waste Code: 148
Waste Description: INORGANIC LABORATORY CHEMICALS
+
Waste Code: 264
Waste Description: PHOTOPROCESSING WASTES
+
Waste Code: 312
Waste Description: PATHOLOGICAL WASTES

Unplottable Report

Site: ***YONGE BAYVIEW HOLDINGS INC.***
BAYVIEW GLEN PH.4N/BANTRY AVE. RICHMOND HILL TOWN ON

Database:
CA

Certificate #:	3-1305-97-
Application Year:	97
Issue Date:	8/7/1998
Approval Type:	Municipal sewage
Status:	
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***Yonge Bayview Holdings Inc.***
Lot 37, Concession 1 Richmond Hill ON

Database:
CA

Certificate #:	6777-5NFPZQ
Application Year:	2003
Issue Date:	6/13/2003
Approval Type:	Municipal and Private Sewage Works
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***Bayview Glen Community***
Part of Lots 38 & 39, Concession 1 Richmond Hill ON

Database:
CA

Certificate #:	2887-4JJRPV
Application Year:	00
Issue Date:	4/28/00
Approval Type:	Municipal & Private sewage
Status:	Approved
Application Type:	New Certificate of Approval
Client Name:	Yonge Bayview Holdings Inc.
Client Address:	1700 Langstaff Road, Suite #2003
Client City:	Concord
Client Postal Code:	L4K 3S3
Project Description:	Installation of storm and sanitary sewers on Fundy Street/Melville Street to serve the Bayview Glen Community, Phase 4.
Contaminants:	
Emission Control:	

Site: ***Bayview Glen Community*** ***Database:***
Part of Lots 38 & 39, Concession 1 Richmond Hill ON ***CA***

Certificate #:	8477-4JJS73
Application Year:	00
Issue Date:	4/28/00
Approval Type:	Municipal & Private water
Status:	Approved
Application Type:	New Certificate of Approval
Client Name:	Yonge Bayview Holdings Inc.
Client Address:	1700 Langstaff Road, Suite #2003
Client City:	Concord
Client Postal Code:	L4K 3S3
Project Description:	This application is for installation of watermains on Quetico Drive, from Silver Linden Drive, to Melville Street
Contaminants:	
Emission Control:	

Site: ***Bayview Glen*** ***Database:***
Lot 37, Concession 1 Richmond Hill ON ***CA***

Certificate #:	7252-56AJMZ
Application Year:	02
Issue Date:	1/15/02
Approval Type:	Municipal & Private water
Status:	Approved
Application Type:	New Certificate of Approval
Client Name:	Yonge Bayview Holdings Inc.
Client Address:	1700 Langstaff Road, Suite #2003
Client City:	Concord
Client Postal Code:	L4K 3S3
Project Description:	This application is for approval to install watermains on Oneida Crescent
Contaminants:	
Emission Control:	

Site: ***Bayview Glen*** ***Database:***
Lot 37, Concession 1 Richmond Hill ON ***CA***

Issue Date:	1/15/02
Certificate #:	8342-56AK7X
Application Year:	02
Approval Type:	Municipal & Private sewage
Status:	Approved
Application Type:	New Certificate of Approval
Client Name:	Yonge Bayview Holdings Inc.
Client Address:	1700 Langstaff Road, Suite #2003
Client City:	Concord
Client Postal Code:	L4K 3S3
Project Description:	This application is for approval to install sanitary and storm sewers on Oneida Crescent
Contaminants:	
Emission Control:	

Site: ***Database:***
Lot 38, Concession 1 Richmond Hill ON ***CA***

Issue Date:	10/30/00
Certificate #:	1515-4QHTU3

Application Year:	00
Approval Type:	Municipal & Private sewage
Status:	Approved
Application Type:	New Certificate of Approval
Client Name:	The Block 10 Properties Inc.
Client Address:	7501 Keele Street
Client City:	Vaughan
Client Postal Code:	K4K 1Y2
Project Description:	sanitary sewer construction on the Easement west of Bathurst St. to east of Bathurst st.
Contaminants:	
Emission Control:	

Site: ***YONGE BAYVIEW HOLDINGS INC.*** ***Database:***
BAYVIEW GLEN PH.4N/BANTRY AVE. RICHMOND HILL TOWN ON ***CA***

Issue Date:	8/7/1998
Certificate #:	7-0983-97-
Application Year:	97
Approval Type:	Municipal water
Status:	
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***Database:***
Yonge St, Beresford Dr & Hitech Rd Richmond Hill ON ***EHS***

Order No.:	20010531012
Report Date:	6/11/01
Report Type:	Basic Report
Search Radius (km):	0.25
Addit. Info Ordered:	

Site: ***Database:***
RED MAPLE DRIVE RICHMOND HILL ON ***HINC***

External File Num:	FS INC 0706-02727
Date of Occurrence:	6/5/2007
Fuel Occurrence Type:	Pipeline Strike
Fuel Type Involved:	Natural Gas
Status Desc:	Completed - Causal Analysis(End)
Job Type Desc:	Incident/Near-Miss Occurrence (FS)
Oper. Type Involved:	Multi-unit Residential
Service Interruptions:	Yes
Property Damage:	Yes
Fuel Life Cycle Stage:	Utilization
Root Cause:	Root Cause: Equipment/Material/Component:No Procedures:Yes Maintenance:No Design:No Training:No Management:No Human Factors:Yes
Reported Details:	
Fuel Category:	Gaseous Fuel
Occurrence Type:	Incident
Affiliation:	Industry Stakeholder (Licensee/Registration/Certificate Holder, Facility Owner, etc.)
County Name:	York
Approx. Quant. Rel:	

Nearby body of water:
Enter Drainage Syst.:
Approx. Quant. Unit:
Environmental Impact:

Site: ***The Corporation of the Town of Richmond Hill*** ***Database:***
Oneida Cr (North Branch, 50 ft from Red Maple Rd) Richmond Hill ON ***SPL***

Ref No.:	6302-82ES5R
Incident Dt:	
MOE Reported Dt:	2/6/2010
Contaminant Name:	SEWAGE,RAW UNCHLORINATED
Contaminant Quantity:	0 other - see incident description
Incident Summary:	Richmond Hill Works: surging sanitary manhole, ongoing
Incident Cause:	Other Discharges
Incident Reason:	Other - Reason not otherwise defined
Nature of Impact:	Soil Contamination
Receiving Medium:	
Environmental Impact:	Possible

Site: ***Enbridge Gas Distribution Inc.*** ***Database:***
Red Maple Dr Richmond Hill ON ***SPL***

Ref No.:	8736-73VJUS
Incident Dt:	
MOE Reported Dt:	6/5/2007
Contaminant Name:	NATURAL GAS (METHANE)
Contaminant Quantity:	0 other - see incident description
Incident Summary:	Enbridge: 4-inch gas line strike, Red Maple Drive
Incident Cause:	Discharge or Emission to Air
Incident Reason:	Error- Operator error
Nature of Impact:	Air Pollution
Receiving Medium:	Air
Environmental Impact:	Not Anticipated

Site: ***Database:***
ON ***WWIS***

County:	YORK	*Municipality:*	RICHMOND HILL TOWN (KING)
Well Id:	6924787	*Lot:*	
Concession:	01	*Concession Name:*	YS W
Easting Nad83:		*Northing Nad83:*	
Zone:	17	*Utm Reliability:*	unknown UTM
Primary Water Use:	Not Used	*Construction Date:*	2/27/1998
Secondary Water Use:		*Well Depth:*	43 ft
Pump Rate:		*Static Water Level:*	
Flow Rate:		*Clear/Cloudy:*	
Specific Capacity:		*Final Well Status:*	Abandoned-Other
Construction Method:	Not Known	*Flowing (y/n):*	
Elevation (m):		*Elevation Reliability:*	
Depth to Bedrock:	4	*Overburden/Bedrock:*	Overburden below Bedrock

Water Type:		*Casing Material:*	

--- Details ---

Thickness:	4 ft	*Original Depth:*	4 ft
Material Colour:	BROWN	*Material:*	CLAY, FILL
+			
Thickness:	6 ft	*Original Depth:*	10 ft
Material Colour:		*Material:*	LIMESTONE, GRAVEL
+			
Thickness:	5 ft	*Original Depth:*	15 ft
Material Colour:		*Material:*	GRANITE
+			
Thickness:	14 ft	*Original Depth:*	29 ft
Material Colour:		*Material:*	LIMESTONE, GRAVEL
+			
Thickness:	1 ft	*Original Depth:*	30 ft
Material Colour:		*Material:*	SAND, CEMENTED
+			
Thickness:	4 ft	*Original Depth:*	34 ft
Material Colour:		*Material:*	GRANITE
+			
Thickness:	6 ft	*Original Depth:*	40 ft
Material Colour:		*Material:*	GRAVEL, LIMESTONE, GRANITE
+			
Thickness:	3 ft	*Original Depth:*	43 ft
Material Colour:		*Material:*	GRANITE

Site:

RICHMOND HILL TOWN (MARKHAM) ON

Database:
WWIS

Well Id:	6928731	*Lot:*	
Concession:	01	*Concession Name:*	
County:	YORK	*Municipality:*	RICHMOND HILL TOWN (MARKHAM)
Easting Nad83:		*Northing Nad83:*	
Zone:		*Utm Reliability:*	
Primary Water Use:	Not Used	*Construction Date:*	12/30/2004
Secondary Water Use:		*Well Depth:*	109.90814
Pump Rate:		*Static Water Level:*	
Flow Rate:		*Clear/Cloudy:*	
Specific Capacity:		*Final Well Status:*	Test Hole
Construction Method:	Rotary (Convent.)	*Flowing (y/n):*	
Elevation (m):		*Elevation Reliability:*	
Depth to Bedrock:		*Overburden/Bedrock:*	Overburden
Water Type:		*Casing Material:*	STEEL

--- Details ---

Thickness:	49.868768	*Original Depth:*	49.868768
Material Colour:	BROWN	*Material:*	CLAY, GRAVEL
+			
Thickness:	13.12336	*Original Depth:*	62.992128
Material Colour:	BROWN	*Material:*	FINE SAND, CLAY
+			
Thickness:	3.0183728	*Original Depth:*	66.0105008
Material Colour:	GREY	*Material:*	CLAY

+

Thickness:	5.8398952	*Original Depth:*	71.850396
Material Colour:	BROWN	*Material:*	FINE SAND, SILT, CLAY

+

Thickness:	5.905512	*Original Depth:*	77.755908
Material Colour:	BROWN	*Material:*	COARSE SAND, GRAVEL

+

Thickness:	21.981628	*Original Depth:*	99.737536
Material Colour:	BROWN	*Material:*	FINE SAND, SILT, CLAY

+

Thickness:	3.28084	*Original Depth:*	103.018376
Material Colour:	BROWN	*Material:*	COARSE SAND

+

Thickness:	6.889764	*Original Depth:*	109.90814
Material Colour:	BROWN	*Material:*	FINE SAND

Site: ***Database:***
ON ***WWIS***

Well Id:	1522949	*Lot:*	039
Concession:		*Concession Name:*	
County:	OTTAWA-CARLETON	*Municipality:*	RICHMOND VILLAGE
Easting Nad83:		*Northing Nad83:*	
Zone:	18	*Utm Reliability:*	unknown UTM
Primary Water Use:	Domestic	*Construction Date:*	3/11/1988
Secondary Water Use:		*Well Depth:*	84 ft
Pump Rate:	8 GPM	*Static Water Level:*	8 ft
Flow Rate:		*Clear/Cloudy:*	CLOUDY
Specific Capacity:		*Final Well Status:*	Water Supply
Construction Method:	Air Precussion	*Flowing (y/n):*	N
Elevation (m):		*Elevation Reliability:*	
Depth to Bedrock:	23	*Overburden/Bedrock:*	Bedrock
Water Type:	FRESH	*Casing Material:*	STEEL, OPEN HOLE

--- Details ---

Thickness:	23 ft	*Original Depth:*	23 ft
Material Colour:	GREY	*Material:*	CLAY

+

Thickness:	61 ft	*Original Depth:*	84 ft
Material Colour:	GREY	*Material:*	LIMESTONE

Site: ***Database:***
ON ***WWIS***

County:	YORK	*Municipality:*	RICHMOND HILL TOWN (KING)
Well Id:	6925762	*Lot:*	
Concession:	01	*Concession Name:*	YS W
Easting Nad83:		*Northing Nad83:*	
Zone:	17	*Utm Reliability:*	unknown UTM
Primary Water Use:	Not Used	*Construction Date:*	10/9/2000
Secondary Water		*Well Depth:*	

Use:			
Pump Rate:		*Static Water Level:*	
Flow Rate:		*Clear/Cloudy:*	
Specific Capacity:		*Final Well Status:*	Abandoned-Other
Construction Method:	Other Method	*Flowing (y/n):*	
Elevation (m):		*Elevation Reliability:*	
Depth to Bedrock:		*Overburden/Bedrock:*	No formation data
Water Type:		*Casing Material:*	

Site: ***Database:***
ON ***WWIS***

Well Id:	3701961	*Lot:*	038
Concession:	01	*Concession Name:*	CON
County:	LENNOX & ADDINGTON	*Municipality:*	RICHMOND TOWNSHIP
Easting Nad83:		*Northing Nad83:*	
Zone:	18	*Utm Reliability:*	unknown UTM
Primary Water Use:	Livestock	*Construction Date:*	5/4/1947
Secondary Water Use:		*Well Depth:*	216 ft
Pump Rate:		*Static Water Level:*	30 ft
Flow Rate:		*Clear/Cloudy:*	CLEAR
Specific Capacity:		*Final Well Status:*	Water Supply
Construction Method:	Cable Tool	*Flowing (y/n):*	N
Elevation (m):		*Elevation Reliability:*	
Depth to Bedrock:	5	*Overburden/Bedrock:*	Bedrock
Water Type:	SALTY	*Casing Material:*	STEEL, OPEN HOLE

--- Details ---

Thickness:	5 ft	*Original Depth:*	5 ft
Material Colour:		*Material:*	TOPSOIL, CLAY
+			
Thickness:	171 ft	*Original Depth:*	176 ft
Material Colour:		*Material:*	LIMESTONE
+			
Thickness:	10 ft	*Original Depth:*	186 ft
Material Colour:	BROWN	*Material:*	SHALE
+			
Thickness:	15 ft	*Original Depth:*	201 ft
Material Colour:	GREEN	*Material:*	GRANITE
+			
Thickness:	15 ft	*Original Depth:*	216 ft
Material Colour:	RED	*Material:*	GRANITE

Site: ***Database:***
ON ***WWIS***

Well Id:	6925700	*Lot:*	
Concession:	01	*Concession*	YS E

		Name:	
County:	YORK	*Municipality:*	RICHMOND HILL TOWN (MARKHAM)
Easting Nad83:		*Northing Nad83:*	
Zone:	17	*Utm Reliability:*	unknown UTM
Primary Water Use:	Not Used	*Construction Date:*	12/1/2000
Secondary Water Use:		*Well Depth:*	
Pump Rate:		*Static Water Level:*	
Flow Rate:		*Clear/Cloudy:*	
Specific Capacity:		*Final Well Status:*	Abandoned-Other
Construction Method:	Digging	*Flowing (y/n):*	
Elevation (m):		*Elevation Reliability:*	
Depth to Bedrock:		*Overburden/Bedrock:*	No formation data
Water Type:		*Casing Material:*	

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 publicity 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: Up to 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-Jan 2012 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 authoritive. 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-Aug 2011 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-Feb 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-Feb 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-Oct 2011 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-Feb 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-Feb 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-Feb 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-Oct 2012 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 Feb 2012 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: Current to Jun 2011 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.

Ontario Regulation 347 Waste Generators Summary: 1986-Apr 2012 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-Mar 2012 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: 2010 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-Nov 2011 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 (NATES): 1974-1994* Federal NATE

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of significant spill incidents. The data was to be used to assist in directing the work of the emergencies program. NATES ran from 1974 to 1994. Extensive information is available within this database including company names, place where the spill occurred, date of spill, cause, reason and source of spill, damage incurred, and amount, concentration, and volume of materials released.

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.

National Defence & Canadian Forces Fuel Tanks: Up to May 2001* Federal NDFT

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.

National Defence & Canadian Forces Spills: Mar 1999-Aug 2010 Federal NDSP

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.

National Defence & Canadian Forces Waste Disposal Sites: 2001-Apr 2007 Federal NDWD

The Department of National Defence and the Canadian Forces maintains an inventory of waste disposal sites located on DND lands. Where available, our inventory provides information on the base name, location, type of waste received, area of site, depth of site, year site opened/closed and status.

National Environmental Emergencies System (NEES): 1974-2003 Federal NEES

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for 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.

National PCB Inventory: 1988-2008 Federal NPCB

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.

National Pollutant Release Inventory: 1993-2010 Federal NPRI

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances.

Oil and Gas Wells: 1988-2012 Private OGW

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickle's database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Ontario Oil and Gas Wells: 1800-Feb 2012 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-Feb 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, 2009 Private PAP

This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

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 2012 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-Feb 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: 1986-2009 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-Feb 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-Aug 2012 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 Storage Tanks: Current to Oct 2011 Provincial VAR

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

Waste Disposal Sites - MOE CA Inventory: 1970-Feb 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: 1955-2011 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.

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, within the report search radius, and the surrounding area outside the search radius.

'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 upside down 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.