

PHASE I ENVIRONMENTAL SITE ASSESSMENT

PARTS OF LOTS 2 and 3 CONCESSION 10 AMARANTH, ONTARIO

SUBMITTED TO:

Mr. Walter Broos Sarah Properties Ltd. 2 Prince Edward Road Woodstock, Ontario N4V 1G7

FILE NO: E16220 / March 31, 2016



311 VICTORIA STREET NORTH KITCHENER / ONTARIO / N2H 5E1 519-742-8979

March 31, 2016 **FILE NO.:** E16220

Mr. Walter Broos Sarah Properties Ltd. 2 Prince Edward Road Woodstock, Ontario N4V 1G7

Dear Mr. Broos:

RE: PHASE I ENVIRONMENTAL SITE ASSESSMENT

Part of Lots 2 and 3 Concession 10 AMARANTH, ONTARIO

We are enclosing one (1) copy of our Phase I ESA report conducted for the above-referenced property.

If you have any questions or clarifications are required, please contact the undersigned at your convenience.

We thank you for giving us this opportunity to be of service to you.

Yours truly,

CHUNG & VANDER DOELEN ENGINEERING LTD.

Michael J. Lefebvre, P.Geo.

Manager, Environmental Services

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1.0 EXECUTIVE SUMMARY

CHUNG & VANDER DOELEN ENGINEERING LTD. (CVD) was retained by Mr. Walter Broos of Sarah Properties Ltd. to conduct a Phase I Environmental Site Assessment (ESA) of the property located at Parts of Lots 2 and 3 Concession 10 in Waldemar (Amaranth), Ontario (hereinafter referred to as the "Site").

The Site, approximately 32.5 hectares in area, is located immediately west of the residential community of Waldemar, Ontario. The Site is undeveloped agricultural land, zoned for community residential use by the Township of Amaranth.

The purpose of the Phase I ESA is to evaluate the environmental conditions of the Site and adjacent properties to identify any actual or potential sources of contamination associated with current and historical land uses. It is our understanding that this assessment is required for due diligence purposes to support a financing agreement and that a Record of Site Condition (RSC) is not intended for the Site.

The findings of the Phase I ESA did not identify any actual or potential sources of contamination on the Site or surrounding properties. It is CVD's professional opinion that the potential for significant environmental liabilities associated with the Site under investigation is therefore low and no further investigations are required at this time. This opinion is based on the following:

- The Site does not appear to have ever been used for any land use that may produce, store, or dispose of environmentally hazardous materials.
- The neighbouring properties adjacent to the Site are not expected to pose an environmental concern for the Site. Past activities on the neighbouring properties are not expected to pose a significant environmental concern for the Site.



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2.0 INTRODUCTION

2.1 Phase I Property Information

CHUNG & VANDER DOELEN ENGINEERING LTD. (CVD) was retained by Mr. Walter Broos of Sarah Properties Ltd. to conduct a Phase I Environmental Site Assessment (ESA) of the property located at Parts of Lots 2 and 3 Concession 10 in Waldemar (Amaranth), Ontario (hereinafter referred to as the "Site"). The property is comprised of several parts with legal descriptions of: (a) Part 1, 7R-3101 of Lot 2 Concession 10 - PIN: 34043-006, (b) Part 1, 7R-3187 of Lot 3 Concession 10 - PIN: 34043-0013, (c) Parts 1 to 3, 7R3576 and Part 12, 7R3229 of Lots 2 Concession 10 - PIN: 34043-0027, Amaranth, Ontario.

The Site, approximately 32.5 hectares in area, is located immediately west of the residential community of Waldemar, Ontario. At the time of this Phase 1 ESA, it is undeveloped agricultural land. Based on historical aerial photos, the land use was observed to be unchanged since 1930.

The Township of Amaranth Official Plan Consolidation September 2010 (Schedule A-1) map identified the Site as zoned community residential land. Adjacent to the east are developed community residential properties. Adjacent to the south and west are agricultural fields. The Upper Grand Trailway, formerly the Toronto Grey and Bruce Railway Line, parallels the northern property line with agricultural and extractive industrial properties located on the opposite side.

The purpose of the Phase I ESA is to evaluate the environmental conditions of the Site and to identify actual or potential sources of contamination associated with the Site and surrounding properties. It is our understanding that this assessment is required for due diligence purposes to support a financing agreement and that a Record of Site Condition (RSC) is not intended for the Site.

Appendix A shows the location of the Site. A Site Plan is available in Appendix B.

3.0 SCOPE OF THE INVESTIGATION

CVD conducted this Phase I ESA in general accordance with the amended Ontario Regulation 153/04 (O. Reg. 153/04 as amended). This report also conforms to Canadian Standards Association (CSA) Z768-01 (2012). These procedures set standards for review of information pertaining to the Site, development of detailed checklists or protocols, conducting the Site inspection, and preparation of the final report. This report may not satisfy all of the necessary requirements for filing a Record of Site Condition (RSC) under O. Reg. 153/04 as amended.

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

- Site reconnaissance on March 23, 2016;
- An interview via phone with Mr. Walter Broos of Sarah Properties Ltd.;
- A review of city directories and fire insurance plans (FIPs) to determine previous occupants of



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the Site and surrounding properties and to determine the first developed use of the Site, if available;

- A search of available databases to identify actual or potential sources of contamination associated with the Site and surrounding properties;
- Review of previous environmental reports, if available;
- Interpretation of available aerial photographs;
- Interpretation of available topographic maps;
- Prepare this report with conclusions based on the information obtained during this assessment.

CVD relies on information received from all parties as accurate, unless contradicted by field observations or written documentation.

4.0 RECORDS REVIEW

4.1 General

Available information sources including regulatory data-bases were assessed in an effort to gain information related to past Site activities, and to address potential environmental issues that may be present at, or in the vicinity of the Site.

4.1.1 Phase I Study Area Determination

A preliminary review of the documents listed in Section 4.0 indicates that there are no obvious concerns with any properties outside a 250 m radius of the Site. The study area for the Phase I ESA is therefore determined to be within a 250 m radius of the Site.

4.1.2 Site History

The Site, at the time of this Phase 1 ESA, is undeveloped agricultural land. Based on historical aerial photos, the Site was observed to have been undeveloped and/or agricultural land since 1930.

4.1.3 Fire Insurance Plans

A search for available Canadian Fire Insurance Plans (FIPs) was completed. However, no coverage by FIPs for the Site and surrounding properties were identified.



4.1.4 Previous Investigations

Previous environmental reports were not available to CVD during the completion of the Phase I ESA.

4.2 Environmental Source Information

A summary of information obtained from available resource documents and from regulatory agency databases is provided as follows.

Inventory of Coal Gasification Plant Waste Sites in Ontario

A review of the Intera Technologies Ltd. "Inventory of Coal Gasification Plant Waste Sites in Ontario (April 1987)" revealed that the Site and surrounding properties within 250 m have not been used for the gasification of coal.

<u>Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario</u>

A review of the Intera Technologies Ltd. "Inventory of Industrial Sites Producing Coal Tars and Related Tars in Ontario (July 1988)" revealed that the production and use of coal or other tars has not taken place at the Site or surrounding properties within 250 metres.

Ministry of the Environment and Climate Change (MOECC) Inventory of PCB Storage Sites in Ontario

The site and surrounding properties within 250 metres are not listed in the "Ontario Inventory of PCB Storage Sites, September 1998" as a PCB storage site.

MOECC Freedom of Information (FOI) Request

A FOI request was submitted to the MOECC for information regarding any environmental concerns, orders, spills, investigations/prosecutions, Waste Generator Numbers/Classes and Certificates of Approval related to the Site. However, it can take several weeks to receive a response from the MOECC. At the time of writing this report, we have not yet received a response to this request. Any relevant information received from the MOECC will be forwarded as an addendum to this report. The FOI request is included in Appendix E.

MOECC Brownfields Environmental Site Registry

A review of the Brownfields Environmental Site Registry database indicated that a RSC has not previously been filed on the Site or surrounding properties within 250 metres.

Waste Disposal Site Inventory – Ontario MOECC (1991)

The Site is not listed in the MOECC's Waste Disposal Inventory. In addition, there is no active or closed landfill sites located within 250 metres of the Site.



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MOECC Hazardous Waste Information Network (HWIN)

The Site and surrounding properties within 250 metres are not listed in the MOECC HWIN Database as generators of registered waste materials.

City Directories

No current or historic city directories were available for the Site and surrounding properties.

EcoLog ERIS

A records and regulatory agency database review was completed through a database search carried out by EcoLog ERIS. The EcoLog ERIS report includes a review of selected public and private database records for the Site and surrounding properties within a 250 m radius of the Site. The report includes a summary of search results in selected databases, a Site map and aerial photo, and a detailed report of database findings.

The following is a list of the database searches completed by EcoLog ERIS for this assignment.

- Commercial Fuel Oil Tanks (CFOT)
- Fuel Storage Tank (FST)
- Fuel Storage Tank Historic (FSTH)
- Ontario Regulation 347 Waste Generator Summary (GEN)
- Private and Retail Fuel Storage Tanks (PRT)
- Retail Fuel Storage Tanks (RST)
- Scott's Manufacturing Directory (SCT)
- Ontario Spills (SPL)

The standard select report did not provide any listings for the Site or the adjacent properties that would have the potential to be an environmental liability to the Site. A copy of the Ecolog Eris Standard Report is included in Appendix F.

4.3 Physical Setting Sources

4.3.1 Aerial Photographs

Aerial photographs, obtained from the University of Waterloo Geospatial Centre and Google Earth, were reviewed for the years, 1930, 1969, 1990, 2009 and 2015. The aerial photographs are graphically illustrated in Appendix C and are summarized in the table on the following page.



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Year	Observations				
1930	The Site appears as an undeveloped vacant land and/or agricultural field. The surrounding properties				
	also appear to be vacant land and/or agricultural field. The properties east of the Site are not covered				
	by the aerial photograph.				
1969	No major changes observed at the Site and properties adjacently west and south. East of the Site				
	appears to be developed with buildings. North of the Site, a property appears developed as a quarry				
	and/or other extractive industrial activity.				
1990	No major changes observed at the Site. Additional development on properties immediately east of the				
	Site.				
2009	The Site and surrounding properties appear similar to the current configuration.				
2015	The Site and surrounding properties appear similar to the current configuration.				

4.3.2 Topography, Hydrology, Geology

The Atlas of Canada Toporama interactive map was accessed to retrieve spatial data relevant to the Site. Map contours show the Site elevation to be at approximately 470 m and the topography to be sloping downward towards the north and east (Grand River).

According to the Ministry of Natural Resources Map 2326 entitled "Orangeville Southern Ontario Quaternary Geology," the Site is located in a physiographic region of silt to clayey silt till of the Tavistock Till.

According to the Ministry of Natural Resources Map 2544, entitled "Bedrock Geology of Southern Ontario, Southern Sheet", the bedrock in the area generally consists of sandstone, shale, dolostone, and siltstone of the Guelph Formation.

The localized groundwater flow direction is expected to follow the topography and flow north and east towards the Grand River.

4.3.3 Fill Materials

Fill material composition and source location are considerations in determining whether environmental concerns are present. Based on observations made at the time of the Site reconnaissance, CVD does not expect deleterious fill material to be present on the Site.

4.3.4 Water Bodies and Areas of Natural Significance

The nearest water body, Grand River, flows through the area to the north and east of the Site. The eastern property lines have the closest proximity to the Grand River with separations ranging from approximately 150 m to 400 m. The north end of the Site is further away with separations ranging from approximately 300 m to 1200 m.



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4.4 Site Operating Records

The Phase I ESA property did not have any Site operation records for review during the Phase I ESA.

5.0 INTERVIEWS

On March 29, 2016, CVD conducted a phone interview with Mr. Walter Broos of Sarah Properties Ltd. (hereinafter referred to as the "Site Representative"). Relevant information gathered from the Site Representative has been incorporated into various sections of this report (both previous and proceeding sections).

The information gathered from other individuals and/or regulatory agencies has also been incorporated into various sections of this report (both previous and proceeding sections).

6.0 SITE RECONNAISSANCE

6.1 General Requirements

A visual survey of the Site was completed by CVD on March 23, 2016. The qualifications of the assessor are provided in Appendix G.

Photographs documenting the Site and surrounding properties taken on the day of the Site reconnaissance, along with written descriptions, can be found in Appendix D.

6.2 Specific Observations at Phase I Property

The Site is vacant undeveloped land. No evidence of current or historical buildings were found on-Site.

Post and wire fences separate the Site from adjacent properties to the north, west and south. The east side of the Site is adjacent to the residential community of Waldemar and is not fenced.

Access to the Site is provided through unfenced access points at the ends of Evans Ave., James St. and Henry St.

<u>Underground and Aboveground Storage Tanks</u>

Site inspections and interviews were conducted to assess the presence/absence and condition (if present) of underground storage tanks (USTs) and aboveground storage tanks (ASTs) at the Site.

The Site Representatives reported no ASTs or USTs currently exist on the Site. CVD did not find any correspondence to support the historical presence of USTs/ASTs at the Site and did not observe any evidence of USTs or ASTs during the Site reconnaissance.



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The Technical Standards and Safety Authority (TSSA) were also requested to review their computer database for the Site with regard to registered USTs and ASTs containing petroleum products. The TSSA reported that there are no records for fuel storage at the Site. The TSSA's response is included in Appendix E.

Chemical Inventory, Storage and Handling

CVD did not observe any signs of chemical storage or handling practices that have the potential to impair the Site and none are expected. According to available information, chemicals currently and historically have not been generated or stored on-Site.

Solid and Liquid Waste Generation and Disposal

The Site is unoccupied vacant land with no solid or liquid waste generation/disposal.

Designated Substances

In Ontario, the Occupational Health and Safety Act has a list of nearly a dozen substances have been classified as "designated substances" largely in response to their harmful characteristics.

CVD did not observe any designated or hazardous substances at the Site.

6.3 Surrounding Properties Phase I Study Area

Land uses currently and historically surrounding the Site are described as follows:

North of the Site:

The Site is bounded by Upper Grand Trailway, formerly the Toronto Grey and Bruce Railway Line, on its north side. The properties opposite to the Site along the trailway are agricultural fields and an inactive quarry. Based on available research resources, land use to the north of the Site has not changed since 1969.

East of the Site:

The Site is bounded by residential properties on its east side. Based on available research resources, land use to the east of the Site has historically been undeveloped and/or agricultural until it was developed with residential homes.

South of the Site:

The Site is bounded by agricultural land on its south side. Based on available research resources, land use to the south of the Site has historically been undeveloped and/or agricultural and has not changed since 1930.



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West of the Site:

The Site is bounded by agricultural land on its east side. Based on available research resources, land use to the east of the Site has historically been undeveloped and/or agricultural and has not changed since 1930.

7.0 Review and Evaluation of Information

7.1 Current and Past Uses on the Phase I Property

The Site, at the time of this Phase 1 ESA, is undeveloped land, zoned for Community Residential use by the Township of Amaranth. Based on historical aerial photos, the Site appears to have been agricultural and/or vacant land.

7.2 Potential Contaminating Activities (PCAs)

Potentially contaminating activities (PCAs) are a use or activity set out in Column A of Table 2 of Schedule D within Ontario Regulation 153/04 that is occurring or has occurred in a phase one study area.

PCA	Location	Description	Evaluation
1	North adjacent, parallels the north property line	Upper Grand Trailway, formerly the Toronto Grey and Bruce Railway Line (PCA No. 46 – rail yards, tracks, and spurs)	Based on its lower elevation and down-gradient location in terms of inferred ground water flow, the former railway line is unlikely to be an environmental risk.

7.3 Areas of Potential Environmental Concerns (APECs)

Areas of potential environmental concern (APECs) are defined within the amended Ontario Regulation 153/04 (amended regulation) as those on, in or under a phase one property where one or more contaminants are potentially present. APECs are related to potentially contaminating activities set out and numbered in Column A of Table 2 of Schedule D in the amended regulation.

APECS were not identified on the Site or on any of the surrounding properties.



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8.0 CONCLUSIONS

CHUNG & VANDER DOELEN ENGINEERING LTD. (CVD) was retained by Mr. Walter Broos of Sarah Properties Ltd. to conduct a Phase I Environmental Site Assessment (ESA) of the property located at Parts of Lots 2 and 3 Concession 10 in Waldemar (Amaranth), Ontario. The purpose of the Phase I ESA is to evaluate the environmental conditions of the Site and adjacent properties to identify any actual or potential sources of contamination associated with current and historical land uses.

The findings of the Phase I ESA did not identify any actual or potential sources of contamination on the Site or surrounding properties. It is CVD's professional opinion that the potential for significant environmental liabilities associated with the Site under investigation is therefore low and no further investigations are required at this time. This opinion is based on the following:

- The Site does not appear to have ever been used for any land use that may produce, store, or dispose of environmentally hazardous materials.
- The neighbouring properties adjacent to the Site are not expected to pose an environmental concern for the Site. Past activities on the neighbouring properties are not expected to pose a significant environmental concern for the Site.



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9.0 STUDY LIMITATIONS

CVD has prepared this report for the exclusive use of Sarah Properties Ltd. in evaluating the environmental conditions of the Site at the time of CVD's Site visit. CVD will not be responsible for the use of this report by any third party, or reliance on or any decision to be made based on it without the prior written consent of CVD. CVD accepts no responsibility for damages, if any, by any third party as a result of decisions or actions based on this report.

This report presents an overview of issues of environmental concern, reflecting CVD's best judgment using information reasonably available at the Site at the time of CVD's Site visit. CVD has prepared this report using information understood to be factual and correct and shall not be responsible for conditions arising from information or facts that were concealed or not fully disclosed to CVD at the time of the Site visit.

The American Society of Testing and Materials Standard of Practice notes that no environmental Site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. Performance of a standardized environmental Site assessment protocol is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with the property, given reasonable limits of time and cost. This assessment was carried out using historical data and a Site walkover. Intrusive testing is not part of the scope of this assessment.

We trust that the above report is complete within our terms of reference. If there are any questions concerning this matter, please do not hesitate to contact our office.

Respectfully submitted,

CHUNG & VANDER DOELEN ENGINEERING LTD.

Peter Dao, M.Sc., P.Geo. Environmental Scientist Eric Y. Chung, M.Eng., P.F.r Principal Engineer



10.0 REFERENCES

The following documents, maps, or other publications may have been used in the preparation of this report.

- Intera Technologies Ltd., "Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario," July 1988.
- Ministry of Northern Development and Mines, Map 2544, "Bedrock Geology of Southern Ontario Southern Sheet," 1991.
- Ministry of Northern Development and Mines, Map 2508 "Quaternary Geology of Ontario, Cambridge Area," 1981.
- Ontario Ministry of the Environment, "Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario," November 1998.
- Ontario Ministry of the Environment, "Ontario Inventory of Approved PCB Storage Sites,"
 September 1998.
- Ontario Ministry of the Environment, "Waste Disposal Site Inventory," June 1991.
- Phase I Environmental Site Assessment Canadian Standards Association (CSA) Z768-01 (R2012).
- Technical Standards and Safety Act, 2000 (S.O. 2000, Chapter 16). Retrieved from Government of Ontario e-laws website: http://www.e-laws.gov.on.ca/



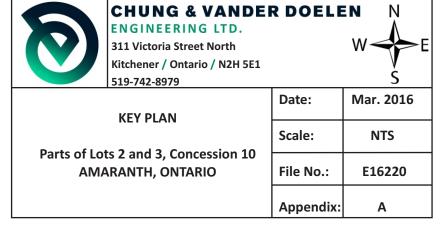
APPENDIX A KEY PLAN





Legend

Site



APPENDIX B SITE PLAN





Legend



SITE BOUNDARIES



APPENDIX C AERIAL PHOTOGRAPHS







Parts of Lots 2 and 3, Concession 10

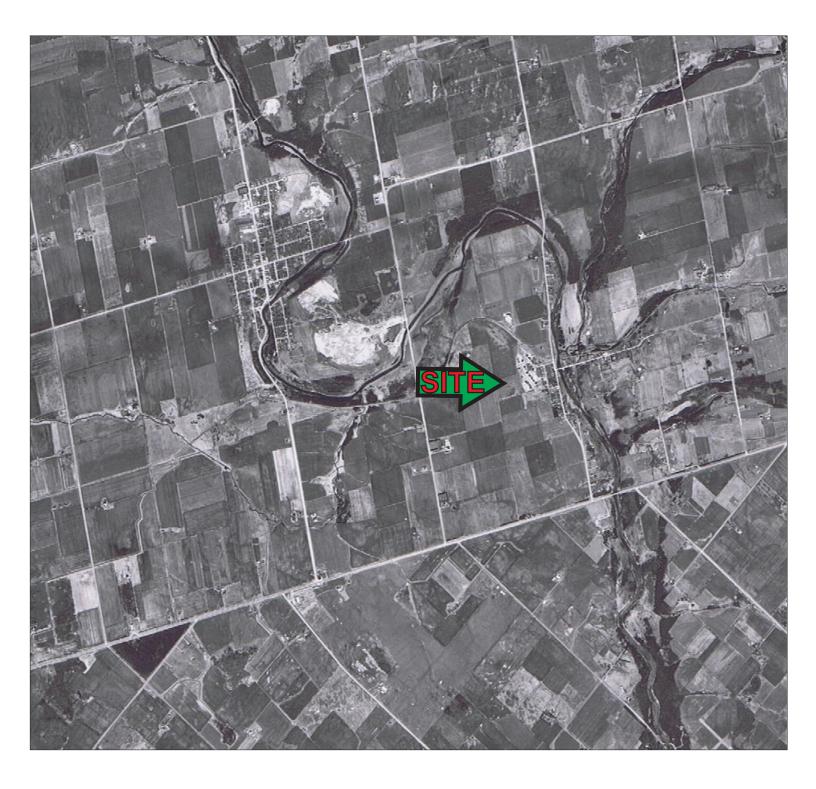
Date:	Mar. 2016
Scale:	NTS
File No.:	E16220
Appendix:	С





Parts of Lots 2 and 3, Concession 10

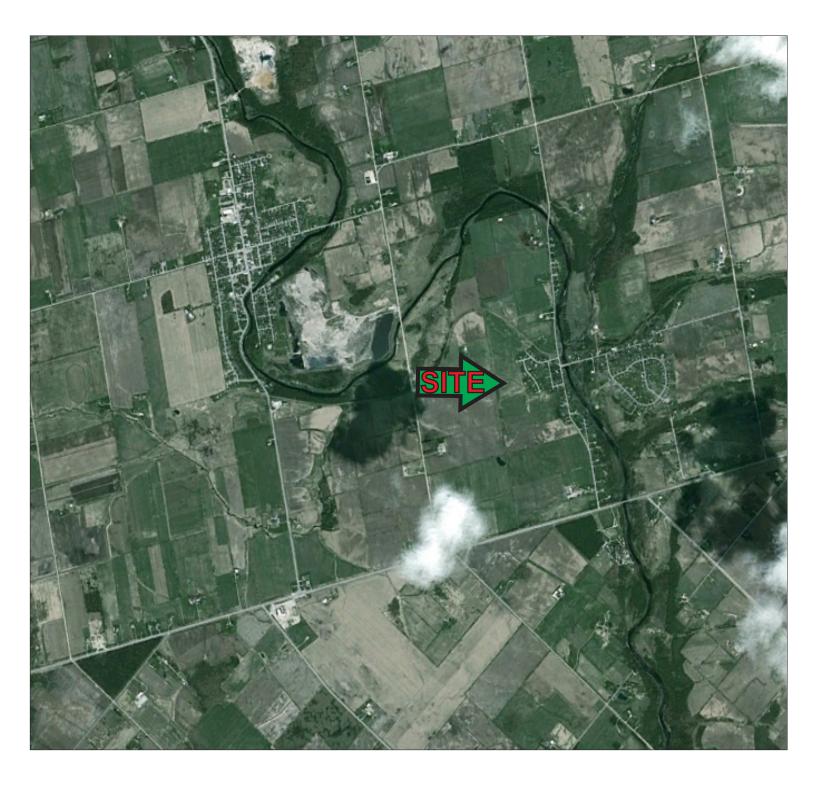
Date:	Mar. 2016
Scale:	NTS
File No.:	E16220
Appendix:	С





Parts of Lots 2 and 3, Concession 10

	3
Date:	Mar. 2016
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File No.:	E16220
Appendix:	С





Parts of Lots 2 and 3, Concession 10

Date:	Mar. 2016
Scale:	NTS
File No.:	E16220
Appendix:	С





Parts of Lots 2 and 3, Concession 10

Date:	Mar. 2016
Scale:	NTS
File No.:	E16220
Appendix:	С

APPENDIX D SITE PHOTOGRAPHS





Photograph 1: View of the north property line (fence) of the Site from the Upper Grand Trailway.



Photograph 2: View of the west property line (fence) of the Site. The Site is to the left of the fence in the photo.



Photograph 3: View of the eastern boundary of the Site from 19 James St, Waldemar.



Photograph 4: View of the south property line (fence) of the site from John St. The Site is to the right of the fence.

APPENDIX E CORRESPONDENCE





Ministry of the Environment

Freedom of Information Request

This form is for requesting documents which are in the Ministry's files on environmental concerns related to properties. Please refer to the guide on the completion and use of this form. Our fax no. is (416) 314-4285

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Name, Title, Company Name and Mailing	equester Data		FOI Request No.	inistry Use	Only FOI Co-ordinator Review date
Peter Dao Chung & Vander Doelen Engineering Ltd			·		
311 Victoria Street North Kitchener, Ontario	ngmeening Eta		Date Request Receive	d	Fee Paid
N2H 5E1			Response Due Date		
Email Address: peter.dao@cvde	engineering.com				
		Signature of Requester	□ CNR □	ER	□ NOR □ SWR □
Tel: 519-742-8979 Fax: 519-742-7739	E16220	PutDoo	WCR SAC	□ IEB	□ EAA □
		4	0,10	- 120	
Request Paramet Municipal Address / Lot, Concession, Ge	ers	address assential for cities	towns or regions)		
19 James St. and Lot 2 and	d 3. Concession 10.			ON	
Present Property Owner(s) and Date(s) o	f Ownership				
Broos Properties Ltd. Previous Property Owner(s) and Date(s)	of Ownership				
Present/Previous Tenant(s),(if applicable)				
Search Paramete Files older than 2 years may requ There is no guarantee that record	uire \$60.00 retrieval cost.	est will be located.			Specify Year(s) Requested
Environmental concerns			ce reports, aba	atement)	All
Orders			All		
Spills			All		
Investigations/prosecutions	ons ▶ Owner/tenan	t information mus	t be provided		All
Waste Generator number	er/classes				
Certificates of Approval ➤ Proponent information must be provided 1985 and prior records are searched manually. Search fees in excess of \$300.00 could be incurred, depending on the types and years to be searched. Specify Certificates of Approval number (s) (if known). If supporting documents are also required, mark SD box and specify type e.g. maps, plans, hydrogeological reports, etc.					
				SD	Specify Year(s) Requested
air – emissions					1986 to present
water - mains, treatment, ground level, standpipes & elevated storage, pumping stations (local & booster)			1986 to present		
sewage - sanitary, storm, treatment, stormwater, leachate & leachate treatment & sewage pump stations			1986 to present		
waste water – industrial discharge			1986 to present		
waste sites – disposal, la incinerator		er stations, proces	sing sites,		1986 to present
waste - haulers: sewage, non-hazardous & hazardous waste					
systems - mobile waste processing units					
\$	destruction				
pesticides - licenses				***	1986 to present

A \$5.00 non-refundable application fee, payable to the Minister of Finance, is mandatory. The cost of locating on-site and/or preparing any record is \$30.00/hour and 20 cents/page for photocopying and you will be contacted for approval for fees in excess of \$30.00.

Ministry of the Environment and Climate Change

Freedom of Information and Protection of Privacy Office

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

Ministère de l'Environnement et de l'Action en matière de changement climatique

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

12^e étage 40, avenue St. Clair ouest Toronto ON M4V 1M2 Tél.: (416) 314-4075 Téléc.: (416) 314-4285



March 22, 2016

Peter Dao Chung & Vander Doelen Engineering Ltd. 311 Victoria Street N Kitchener, ON N2H 5E1

Dear Peter Dao:

RE: Freedom of Information and Protection of Privacy Act Request Our File # A-2016-01730, Your Reference E16220

The Ministry is in receipt of your request made pursuant to the *Freedom of Information and Protection of Privacy Act* and has received your payment in the amount of \$5.00 (non-refundable application fee), along with your \$30.00 deposit.

The search is being conducted on the following: 19 James St (part of Lot 2 and 3, Concession 10), Amaranth (Waldemar). If there is any discrepancy please contact us immediately.

You may expect a reply or additional communication as your request is processed. For your information, the Ministry charges for search, copying and preparation time.

If you have any questions regarding this matter, please contact Craig Jackson at (416) 212-0561.

Yours truly,

Jacqueline Gallacher FOI Manager (A)

Peter Dao

Peter

From: Ruchi Chohan [rchohan@tssa.org] on behalf of Public Information Services		
Sent:	[publicinformationservices@tssa.org] Thursday, March 24, 2016 4:45 PM	
To: Subject:	Peter Dao (CVD) RE: Records Search - Fuel Storage Tanks	
Hello Peter,		
Thank you for your	inquiry.	
We have no record	d in our database of any fuel storage tanks at the subject address (addresses).	
(publicinformations	h in our archives please submit your request in writing to Public Information Services via e-mail services@tssa.org) or through mail along with a fee of \$56.50 (including HST) per location. The fee is card (Visa or MasterCard) or with a Cheque made payable to TSSA	
Thank you,		
Ruchi		
TSSA	Public Information Services Facilities & Business Services 3300 Bloor Street West Center Tower, 16th Floor Toronto, Ontario, M8X-2X4 Tel: 1-877-682-8772 Fax: (416) 734-3568 E-mail: publicinformationservices@tssa.org www.tssa.org	
	CVD) [mailto:peter.dao@cvdengineering.com] arch 24, 2016 11:57 AM	
•	tion Services < <u>publicinformationservices@tssa.org</u> >	
Subject: Records S	earch - Fuel Storage Tanks	
Good Morning,		
-	nvenience, could you please search your records for the following property for any reference to	
anoveground of uf	nderground storage tanks:	
- 19 James St., W	Valdemar (Amaranth)	
Thanks,		

APPENDIX F ECOLOG ERIS REPORT









Project Property: Waldemar Phase 1

19 James St.

Waldemar ON

Project No: E16220

Report Type: Standard Select Report

Order No: 20160308180

Requested by: Chung & Vander Doelen Engineering Ltd.

Date Completed: March 16, 2016

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

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Order No: 20160308180

Executive Summary

Property Information:

Waldemar Phase 1 **Project Property:**

19 James St. Waldemar ON

Project No: E16220

Coordinates:

43.890263 Latitude: Longitude: -80.288521 **UTM Northing:** 4,859,930.69 UTM Easting: 557,147.26

UTM Zone: UTM Zone 17T

1,540 FT Elevation: 469.53 M

Order Information:

20160308180 Order No: **Date Requested:** March 9, 2016

Requested by: Chung & Vander Doelen Engineering Ltd.

Report Type: Standard Select Report

Additional Products:

Aerial Photographs National Collection - Digital (PDF)

Order No: 20160308180

Executive Summary: Report Summary

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

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

Executive Summary: Site Report Summary - Project Property

DB Company/Site Name **Address** Dir/Dist (m) Elev diff Мар Page Key Number (m)

Order No: 20160308180

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

Executive Summary: Site Report Summary - Surrounding **Properties**

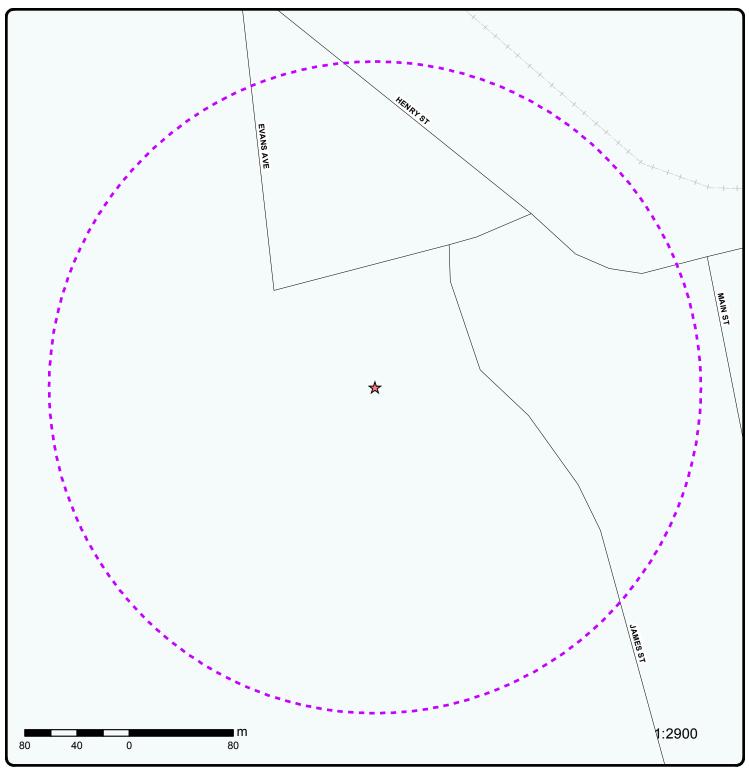
Мар DB Company/Site Name **Address** Dir/Dist (m) Elev Page Key Diff (m) Number

Order No: 20160308180

No records found in the selected databases for the surrounding properties.

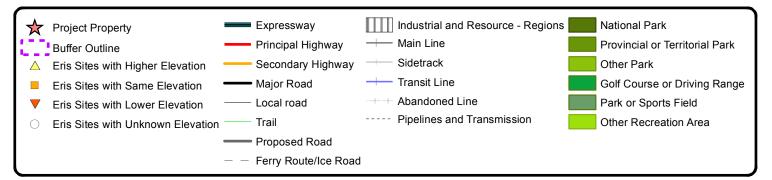
Executive Summary: Summary By Data Source

No records found in the selected databases for the project property or surrounding properties.



Map Order No: 20160308180

Address: 19 James St., Waldemar, ON



Source: © 2014 DMTI Spatial Inc.



Aerial Order No: 20160308180

Address: 19 James St., Waldemar, ON

Source: ESRI World Imagery, Updated October 2014

Detail Report

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

No records found in the selected databases for the project property or surrounding properties.

Unplottable Summary

Total: 1 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
SPL	PRIVATE OWNER	WALDEMAR, MAIN STREET STORAGE TANK/BARREL	AMARANTH TWP. ON	

Unplottable Report

<u>Site:</u> PRIVATE OWNER Database: WALDEMAR, MAIN STREET STORAGE TANK/BARREL AMARANTH TWP. ON SPL

Ref NO: 48665

Contaminant Code: Contaminant Name: Contaminant Quantity:

Incident Cause: OTHER CONTAINER LEAK

Incident Dt: 4/5/1991

Incident Reason: EQUIPMENT FAILURE

Incident Summary: FURNACE OIL TANK-OIL TO GROUND-TANK TIPPED OVER.

MOE Reported Dt: 4/6/1991
Environmental Impact: CONFIRMED
Nature of Impact: Soil contamination

Receiving Medium: LAND

SAC Action Class: Sector Source Type:

Site Municipality: 43601

Appendix: Database Descriptions

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

Abandoned Aggregate Inventory:

Provincial

AAGR

The MAAP Program maintains a database of 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.*

Government Publication Date: Sept 2002*

Aggregate Inventory:

Provincial

AGR

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

Government Publication Date: Up to Mar 2015

Abandoned Mine Information System:

Provincial AMIS

The Abandoned Mines Information System contains data on known abandoned and inactive mines located on both Crown and privately held lands. The information was provided by the Ministry of Northern Development and Mines (MNDM), with the following disclaimer: "the database provided has been compiled from various sources, and the Ministry of Northern Development and Mines makes no representation and takes no responsibility that such information is accurate, current or complete". Reported information includes official mine name, status, background information, mine start/end date, primary commodity, mine features, hazards and remediation.

Government Publication Date: 1800-Oct 2014

Anderson's Waste Disposal Sites:

Private

ANDR

The information provided in this database was collected by examining various historical documents which aimed to characterize the likely position of former waste disposal sites from 1860 to present. The research initiative behind the creation of this database was to identify those sites that are missing from the Ontario MOE Waste Disposal Site Inventory, as well as to provide revisions and corrections to the positions and descriptions of sites currently listed in the MOE inventory. In addition to historic waste disposal facilities, the database also identifies certain auto wreckers and scrap yards that have been extrapolated from documentary sources. Please note that the data is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1860s-Present

Automobile Wrecking & Supplies:

Private

AUWR

Order No: 20160308180

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.

Government Publication Date: 2001-Jul 2014

Borehole: Provincial BORE

A borehole is the generalized term for any narrow shaft drilled in the ground, either vertically or horizontally. The information here includes geotechnical investigations or environmental site assessments, mineral exploration, or as a pilot hole for installing piers or underground utilities. Information is from many sources such as the Ministry of Transportation (MTO) boreholes from engineering reports and projects from the 1950 to 1990's in Southern Ontario. Boreholes from the Ontario Geological Survey (OGS) including The Urban Geology Analysis Information System (UGAIS) and the York Peel Durham Toronto (YPDT) database of the Conservation Authority Moraine Coalition. This database will include fields such as location, stratigraphy, depth, elevation, year drilled, etc. For all water well data or oil and gas well data for Ontario please refer to WWIS and OOGW.

Government Publication Date: 1875-Jul 2014

Certificates of Approval:

Provincial

CA

This database contains the following types of approvals: Air & Noise, Industrial Sewage, Municipal & Private Sewage, Waste Management Systems and Renewable Energy Approvals. The MOE in Ontario states that any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste, must have a Certificate of Approval before it can operate lawfully. Fields include approval number, business name, address, approval date, approval type and status. This database will no longer be updated, as CofA's have been replaced by either Environmental Activity and Sector Registry (EASR) or Environmental Compliance Approval (ECA). Please refer to those individual databases for any information after Oct.31, 2011.

Government Publication Date: 1985-Oct 30, 2011*

Commercial Fuel Oil Tanks:

Provincial

CFOT

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

Government Publication Date: 1948-Dec 2015

Chemical Register:

Private CHEM

This database includes information from both a one time study conducted in 1992 and private source and is a listing of facilities that manufacture or distribute chemicals. The production of these chemical substances may involve one or more chemical reactions and/or chemical separation processes (i.e. fractionation, solvent extraction, crystallization, etc.).

Government Publication Date: 1992, 1999-Jul 2014

Inventory of Coal Gasification Plants and Coal Tar Sites:

Provincial

COAL

This inventory includes both the "Inventory of Coal Gasification Plant Waste Sites in Ontario-April 1987" and the Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario-November 1988) collected by the MOE. It identifies industrial sites that produced and continue to produce or use coal tar and other related tars. Detailed information is available and includes: facility type, size, land use, information on adjoining properties, soil condition, site operators/occupants, site description, potential environmental impacts and historic maps available. This was a one-time inventory.*

Government Publication Date: Apr 1987 and Nov 1988*

Compliance and Convictions:

Provincial

CONV

This database summarizes the fines and convictions handed down by the Ontario courts beginning in 1989. Companies and individuals named here have been found guilty of environmental offenses in Ontario courts of law.

Government Publication Date: 1989-Feb 2014

Certificates of Property Use:

Provincial

CPU

Order No: 20160308180

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all CPU's on the registry such as (EPA s. 168.6) - Certificate of Property Use.

Government Publication Date: 1994-Jan 2016

Drill Hole Database: Provincial DRI

The Ontario Drill Hole Database contains information on more than 113,000 percussion, overburden, sonic and diamond drill holes from assessment files on record with the department of Mines and Minerals. Please note that limited data is available for southern Ontario, as it was the last area to be completed. The database was created when surveys submitted to the Ministry were converted in the Assessment File Research Image Database (AFRI) project. However, the degree of accuracy (coordinates) as to the exact location of drill holes is dependent upon the source document submitted to the MNDM. Levels of accuracy used to locate holes are: centering on the mining claim; a sketch of the mining claim; a 1:50,000 map; a detailed company map; or from submitted a "Report of Work".

Government Publication Date: 1886-Jun 2014

Environmental Activity and Sector Registry:

Provincial EASR

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. The EASR allows businesses to register certain activities with the ministry, rather than apply for an approval. The registry is available for common systems and processes, to which preset rules of operation can be applied. The EASR is currently available for: heating systems, standby power systems and automotive refinishing. Businesses whose activities aren't subject to the EASR may apply for an ECA (Environmental Compliance Approval), Please see our ECA database.

Government Publication Date: Oct 31 2011-Oct 2015

Environmental Registry:

Provincial EBR

The Environmental Registry lists proposals, decisions and exceptions regarding policies, Acts, instruments, or regulations that could significantly affect the environment. Through the Registry, thirteen provincial ministries notify the public of upcoming proposals and invite their comments. For example, if a local business is requesting a permit, license, or certificate of approval to release substances into the air or water; these are notified on the registry. Data includes: Approval for discharge into the natural environment other than water (i.e. Air) - EPA s. 9, Approval for sewage works - OWRA s. 53(1), and EPA s. 27 - Approval for a waste disposal site. For information regarding Permit to Take Water (PTTW), Certificate of Property Use (CPU) and (ORD) Orders please refer to those individual databases.

Government Publication Date: 1994-Jan 2016

Environmental Compliance Approval:

Provincial

ECA

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

Government Publication Date: Oct 31, 2011-Jun 2015

Environmental Effects Monitoring:

Federal

EEM

The Environmental Effects Monitoring program assesses the effects of effluent from industrial or other sources on fish, fish habitat and human usage of fisheries resources. Since 1992, pulp and paper mills have been required to conduct EEM studies under the Pulp and Paper Effluent Regulations. This database provides information on the mill name, geographical location and sub-lethal toxicity data.

Government Publication Date: 1992-2007*

ERIS Historical Searches:

Private

EHS

Order No: 20160308180

ERIS has compiled a database of all environmental risk reports completed since March 1999. Available fields for this database include: site location, date of report, type of report, and search radius. As per all other databases, the ERIS database can be referenced on both the map and "Statistical Profile" page.

Government Publication Date: 1999-Aug 2014

Environmental Issues Inventory System:

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed. Government Publication Date: 1992-2001*

Federal

Provincial

Provincial

Federal

EMHE

FCS

Order No: 20160308180

Emergency Management Historical Event:

The Emergency Management Historical Event data class will store the locations of historical occurrences of emergency events. Events captured will include those assigned to the Ministry of Natural Resources by Order-In-Council (OIC) under the Emergency Management and Civil Protection Act as well as events where MNR provided requested emergency response assistance. Many of these events will have involved community evacuations, significant structural loss, and/or involvement of MNR emergency response staff. These events fall into one of ten (10) type categories: Dam Failure; Drought / Low Water; Erosion; Flood; Forest Fire; Soil and Bedrock Instability; Petroleum Resource Center Event, EMO Requested Assistance, Continuity of Operations Event, Other Requested Assistance.

Government Publication Date: May 31, 2014

List of TSSA Expired Facilities:

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

Government Publication Date: Current to Nov 2015

Federal Convictions: Federal **FCON**

Environment Canada maintains a database referred to as the "Environmental Registry" that details prosecutions under the Canadian Environmental Protection Act (CEPA) and the Fisheries Act (FA). Information is provided on the company name, location, charge date, offence and penalty.

Government Publication Date: 1988-Jun 2007*

Contaminated Sites on Federal Land:

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.

Government Publication Date: June 2000-Oct 2015

Fisheries & Oceans Fuel Tanks:

Federal 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.

Government Publication Date: 1964-Sept 2003

Fuel Storage Tank: Provincial **FST**

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

Government Publication Date: 2010-Nov 2015

Fuel Storage Tank - Historic:

Provincial

FSTH

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

Government Publication Date: Pre-Jan 2010*

Ontario Regulation 347 Waste Generators Summary:

Provincial

GEN

Regulation 347 of the Ontario EPA defines a waste generation site as any site, equipment and/or operation involved in the production, collection, handling and/or storage of regulated wastes. A generator of regulated waste is required to register the waste generation site and each waste produced, collected, handled, or stored at the site. This database contains the registration number, company name and address of registered generators including the types of hazardous wastes generated. It includes data on waste generating facilities such as: drycleaners, waste treatment and disposal facilities, machine shops, electric power distribution etc. This information is a summary of all years from 1986 including the most currently available data. Some records may contain, within the company name, the phrase "See & Use..." followed by a series of letters and numbers. This occurs when one company is amalgamated with or taken over by another registered company. The number listed as "See & Use", refers to the new ownership and the other identification number refers to the original ownership. This phrase serves as a link between the 2 companies until operations have been fully transferred.

Government Publication Date: 1986-May 2015

TSSA Historic Incidents:

Provincial HINC

This database will cover all incidences recorded by TSSA with their older system, before they moved to their new management system. TSSA's Fuels Safety Program administers the Technical Standards & Safety Act 2000, providing fuel-related safety services associated with the safe transportation, storage, handling and use of fuels such as gasoline, diesel, propane, natural gas and hydrogen. Under this Act, TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. The TSSA works to protect the public, the environment and property from fuel-related hazards such as spills, fires and explosions. This database will include spills and leaks from pipelines, diesel, fuel oil, gasoline, natural gas, propane and hydrogen recorded by the TSSA.

Government Publication Date: 2006-June 2009*

Indian & Northern Affairs Fuel Tanks:

Federal IAFT

Order No: 20160308180

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.

Government Publication Date: 1950-Aug 2003*

TSSA Incidents: Provincial INC

TSSA's Fuels Safety Program administers the Technical Standards & Safety Act 2000, providing fuel-related safety services associated with the safe transportation, storage, handling and use of fuels such as gasoline, diesel, propane, natural gas and hydrogen. Under this Act, TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. Includes incidents from fuel-related hazards such as spills, fires and explosions. This database will include spills and leaks from diesel, fuel oil, gasoline, natural gas, propane and hydrogen recorded by the TSSA.

Government Publication Date: June 2009 - Nov 2015

Landfill Inventory Management Ontario:

Provincial LIMO

The Landfill Inventory Management Ontario (LIMO) database is updated every year, as the ministry compiles new and updated information. The inventory will include small and large landfills. Additionally, each year the ministry will request operators of the larger landfills complete a landfill data collection form that will be used to update LIMO and will include the following information from the previous operating year. This will include additional information such as estimated amount of total waste received, landfill capacity, estimated total remaining landfill capacity, fill rates, engineering designs, reporting and monitoring details, size of location, service area, approved waste types, leachate of site treatment, contaminant attenuation zone and more. The small landfills will include information such as site owner, site location and certificate of approval # and status.

Government Publication Date: 2012

Canadian Mine Locations:

Private

MINE

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

Government Publication Date: 1998-2009*

Mineral Occurrences:

Provincial

MNR

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

Government Publication Date: 1846-Apr 2013

National Analysis of Trends in Emergencies System (NATES):

Federal

NATE

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

Government Publication Date: 1974-1994*

Non-Compliance Reports:

Provincial

NCPL

The Ministry of the Environment provides information about non-compliant discharges of contaminants to air and water that exceed legal allowable limits, from regulated industrial and municipal facilities. A reported non-compliance failure may be in regard to a Control Order, Certificate of Approval, Sectoral Regulation or specific regulation/act.

Government Publication Date: 1994-2013

National Defence & Canadian Forces Fuel Tanks:

Federal

NDFT

Order No: 20160308180

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.

Government Publication Date: Up to May 2001*

National Defence & Canadian Forces Spills:

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.

Government Publication Date: Mar 1999-Aug 2010

National Defence & Canadian Forces Waste Disposal Sites:

Federal

NDWD

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

Government Publication Date: 2001-Apr 2007*

National Environmental Emergencies System (NEES):

Federal

NEES

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for 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. Government Publication Date: 1974-2003*

National PCB Inventory:

Federal

NPCB

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. All federal out-of-service PCB containing equipment and all PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites. Some addresses provided may be Head Office addresses and are not necessarily the location of where the waste is being used or stored.

Government Publication Date: 1988-2008*

National Pollutant Release Inventory:

Federal

NPRI

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

Government Publication Date: 1993-2013

Oil and Gas Wells: Private **OGW**

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

Government Publication Date: 1988-2015

Ontario Oil and Gas Wells:

Provincial

OOGW

In 1998, the MNR handed over to the Ontario Oil, Gas and Salt Resources Corporation, the responsibility of maintaining a database of oil and gas wells drilled in Ontario. The OGSR Library has over 20,000+ wells in their database. Information available for all wells in the ERIS database include well owner/operator, location, permit issue date, and well cap date, license No., status, depth and the primary target (rock unit) of the well being drilled. All geology/stratigraphy table information, plus all water table information is also provide for each well record.

Government Publication Date: 1800-Aug 2015

Inventory of PCB Storage Sites:

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of PCB storage sites within the province. Ontario Regulation 11/82 (Waste Management - PCB) and Regulation 347 (Generator Waste Management) under the Ontario EPA requires the registration of inactive PCB storage equipment and/or disposal sites of PCB waste with the Ontario Ministry of Environment. This database contains information on: 1) waste quantities; 2) major and minor sites storing liquid or solid waste; and 3) a waste storage inventory.

Government Publication Date: 1987-Oct 2004; 2012-Dec 2013

<u>Orders:</u> Provincial ORD

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all Orders on the registry such as (EPA s. 17) - Order for remedial work, (EPA s. 18) - Order for preventative measures, (EPA s. 43) - Order for removal of waste and restoration of site, (EPA s. 44) - Order for conformity with Act for waste disposal sites, (EPA s. 136) - Order for performance of environmental measures.

Government Publication Date: 1994-Jan 2016

Canadian Pulp and Paper:

Private PAP

Provincial

OPCB

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

Government Publication Date: 1999, 2002, 2004, 2005, 2009

Parks Canada Fuel Storage Tanks:

Federal PCFT

Canadian Heritage maintains an inventory of 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.

Government Publication Date: 1920-Jan 2005*

<u>Pesticide Register:</u> Provincial PES

The Ontario Ministry of Environment maintains a database of all manufacturers and vendors of registered pesticides.

Government Publication Date: 1988-Jun 2013

TSSA Pipeline Incidents:

Provincial PINC

TSSA's Fuels Safety Program administers the Technical Standards & Safety Act 2000, providing fuel-related safety services associated with the safe transportation, storage, handling and use of fuels such as gasoline, diesel, propane, natural gas and hydrogen. Under this Act, TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. This database will include spills, strike and leaks from recorded by the TSSA.

Government Publication Date: June 2009-2014

Private and Retail Fuel Storage Tanks:

Provincial

Order No: 20160308180

PRT

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks and licensed retail fuel outlets. This database includes an inventory of locations that have gasoline, oil, waste oil, natural gas and/or propane storage tanks on their property. The MCCR no longer collects this information. This information is now collected by the Technical Standards and Safety Authority (TSSA).

Government Publication Date: 1989-1996*

Permit to Take Water:

Provincial PTTW

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all PTTW's on the registry such as OWRA s. 34 - Permit to take water.

Government Publication Date: 1994-Jan 2016

Ontario Regulation 347 Waste Receivers Summary:

Provincial

Part V of the Ontario Environmental Protection Act ("EPA") regulates the disposal of regulated waste through an operating waste management system or a waste disposal site operated or used pursuant to the terms and conditions of a Certificate of Approval or a Provisional Certificate of Approval. Regulation 347 of the Ontario EPA defines a waste receiving site as any site or facility to which waste is transferred by a waste carrier. A receiver of regulated waste is required to register the waste receiving facility. This database represents registered receivers of regulated wastes, identified by registration number, company name and address, and includes receivers of waste such as: landfills, incinerators, transfer stations, PCB storage sites, sludge farms and water pollution control plants. This information is a summary of all years from 1986 including the most currently available data.

Government Publication Date: 1986-2013

Record of Site Condition: Provincial

The Record of Site Condition (RSC) is part of the Ministry of the Environment's Brownfields Environmental Site Registry. Protection from environmental cleanup orders for property owners is contingent upon documentation known as a record of site condition (RSC) being filed in the Environmental Site Registry. In order to file an RSC, the property must have been properly assessed and shown to meet the soil, sediment and groundwater standards appropriate for the use (such as residential) proposed to take place on the property. The Record of Site Condition Regulation (O. Reg. 153/04) details requirements related to site assessment and clean up.

RSCs filed after July 1, 2011 will also be included as part of the new (O.Reg. 511/09).

Government Publication Date: 1997-Sept 2001, Oct 2004-Jan 2016

Retail Fuel Storage Tanks:

Private

RST

RSC

This database includes an inventory of retail fuel outlet locations (including marinas) that have on their property gasoline, oil, waste oil, natural gas and / or propane storage tanks.

Government Publication Date: 1999-Jul 2014

Scott's Manufacturing Directory:

Private

SCT

Scott's Directories is a data bank containing information on over 200,000 manufacturers across Canada. Even though Scott's listings are voluntary, it is the most comprehensive database of Canadian manufacturers available. Information concerning a company's address, plant size, and main products are included in this database.

Government Publication Date: 1992-Mar 2011*

Ontario Spills: Provincial SPL

This database identifies information such as location (approximate), type and quantity of contaminant, date of spill, environmental impact, cause, nature of impact, etc. Information from 1988-2002 was part of the ORIS (Occurrence Reporting Information System). The SAC (Spills Action Centre) handles all spills reported in Ontario. Regulations for spills in Ontario are part of the MOE's Environmental Protection Act, Part X.

Government Publication Date: 1988-Jun 2015

Wastewater Discharger Registration Database:

Provincial SRDS

Information under this heading is combination of the following 2 programs. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment maintained a database of all direct dischargers of toxic pollutants within nine sectors including: Electric Power Generation; Mining; Petroleum Refining; Organic Chemicals; Inorganic Chemicals; Pulp & Paper; Metal Casting; Iron & Steel; and Quarries. All sampling information is now collected and stored within the Sample Result Data Store (SRDS).

Government Publication Date: 1990-2013

Anderson's Storage Tanks:

Private

TANK

Order No: 20160308180

The information provided in this database was collected by examining various historical documents, which identified the location of former storage tanks, containing substances such as fuel, water, gas, oil, and other various types of miscellaneous products. Information is available in regard to business operating at tank site, tank location, permit year, permit & installation type, no. of tanks installed & configuration and tank capacity. Data contained within this database pertains only to the city of Toronto and is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1915-1953*

Transport Canada Fuel Storage Tanks:

List of fuel storage tanks currently or previously owned or operated by Transport Canada. This inventory also includes tanks on The Pickering Lands, which refers to 7,530 hectares (18,600 acres) of land in Pickering, Markham, and Uxbridge owned by the Government of Canada since 1972; properties on this land has been leased by the government since 1975, and falls under the Site Management Policy of Transport Canada, but is administered by Public Works and Government Services Canada. This inventory provides information on the site name, location, tank age, capacity and fuel type.

Government Publication Date: 1970-Mar 2007

TSSA Variances for Abandonment of Underground Storage Tanks:

Provincial VAR

TCFT

Federal

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

Government Publication Date: Current to Nov 2015

Waste Disposal Sites - MOE CA Inventory:

Provincial WDS

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of known open (active or inactive) and closed disposal sites in the Province of Ontario. Active sites maintain a Certificate of Approval, are approved to receive and are receiving waste. Inactive sites maintain Certificate(s) of Approval but are not receiving waste. Closed sites are not receiving waste. The data contained within this database was compiled from the MOE's Certificate of Approval database. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number. All new Environmental Compliance Approvals handed out after Oct 31, 2011 for Waste Disposal Sites will still be found in this database.

Government Publication Date: 1970-Jun 2015

Waste Disposal Sites - MOE 1991 Historical Approval Inventory:

Provincial WDSH

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

Government Publication Date: Up to Oct 1990*

Water Well Information System:

Provincial www.s

Order No: 20160308180

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

Government Publication Date: 1955-Mar 2014

Definitions

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

<u>Detail Report</u>: 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.

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

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

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

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

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

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

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

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

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

<u>Unplottables:</u> 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.

APPENDIX G QUALIFICATIONS OF ASSESSOR



Environmental Site Assessor

Mr. Lefebvre has over 20 years of experience in environmental assessment and project management providing site investigation, remediation services, for the industrial, commercial and municipal sectors. Mr. Lefebvre extensive experience in environmental management, environmental auditing, remedial design, project implementation, environmental clean up, and site decommissioning.

Mr. Lefebvre has specialized in the development and implementation of environmental work plans and programs for a broad range of clients in the property management, insurance, automotive, chemical, manufacturing and transportation sectors.

Education

• Bachelor of Environmental Studies, University of Waterloo, 1986

Professional Affiliations

- Association of Professional Geoscientists of Ontario.
- Mr. Lefebvre is currently registered as a "Qualified Person (ESA)" as described in the amended Ontario Regulation 153/04.

Project Experience

Mr. Lefebvre has conducted over 1000 Phase I and Phase II Environmental Site Assessments (ESA's) for various commercial and industrial properties including service stations, shopping plazas, apartment buildings and industrial manufacturing facilities.

Phase I and Phase II ESA's have also been prepared to support the submission of a Record of Site Condition (RSC) to the Ministry of the Environment.

Mr. Lefebvre has conducted numerous major environmental decommissioning projects. His areas of expertise include regulatory liaison, industrial plant decommissioning, spill cleanup, reclamation, and site rehabilitation.

Mr. Lefebvre conducted *compliance audits* in various industrial settings over the past four years and has assisted in the preparation of companies for ISO 14001 registration. Mr. Lefebvre has conducted compliance audits for the automotive, packaging sector and conducted numerous pre-acquisition environmental compliance audits throughout Ontario, for the insurance, property acquistion and banking industry.

Mr. Lefebvre has supervised over 100 underground storage tank removal projects and provided direction for further remedial activities when required.