

Geotechnical
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Phase I - Environmental Site Assessment

Summerside West – 2564 Tenth Line Road
Ottawa, Ontario

Prepared For

2447591 Ontario Inc.

Paterson Group Inc.

Consulting Engineers
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February 10, 2017

Report: PE3969-1

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EXECUTIVE SUMMARY

Assessment

A Phase I – Environmental Site Assessment was carried out for the lands addressed 2564 Tenth Line Road, in the City of Ottawa, Ontario. The purpose of this environmental assessment was to research the past and current use of the subject site and neighbouring properties and identify any environmental concerns with the potential to have impacted the subject property.

Based on a review of historical sources, the subject property has been used for agricultural purposes since before 1945. No sources of potentially contaminating activities were identified with respect to the historical land use of the subject site.

A review of aerial photographs for the area of the subject site did not identify any environmental concerns. The subject site and surrounding lands have historically been agricultural fields with occasional farmstead structures, and more recently, residential dwellings along Mer Bleue Road and Tenth Line Road.

Following the historical review a site visit was conducted. The site is undeveloped, with a short gravel laneway in the northeastern part of the property. The remainder of the subject property is vacant. At the time of the site visit, no evidence of potentially contaminating activities was observed. The current use of the subject property is not considered to have the potential to have impacted the subsurface soil or groundwater and therefore does not represent an area of potential environmental concern.

Surrounding land use consists of residential, vacant, and agricultural properties. No potentially contaminating activities were identified within the Phase I study area.

Conclusion

Based on the results of this Phase I - Environmental Site Assessment, it is our opinion that **a Phase II - Environmental Site Assessment is not required for the property.**

1.0 INTRODUCTION

At the request of 2447591 Ontario Inc., Paterson Group (Paterson) conducted a Phase I Environmental Site Assessment (Phase I ESA) of 2564 Tenth Line Road, located between Mer Bleue Road and Tenth Line Road, in the City of Ottawa, Ontario. The purpose of this Phase I ESA was to research the past and current use of the site and study area and to identify any environmental concerns with the potential to have impacted the subject property.

Paterson was engaged to conduct this Phase I ESA by Mr. Andrew Finnson of 2447591 Ontario Inc. Mr. Finnson can be reached by telephone at (343) 998-9395.

This report has been prepared specifically and solely for the above noted project which is described herein. It contains all of our findings and results of the environmental conditions at this site.

This Phase I-ESA report has been prepared in general accordance with Ontario Regulation 153/04 as amended by O.Reg. 269/11 (Environmental Protection Act), and also complies with the requirements of CSA Z768-01. The conclusions presented herein are based on information gathered from a limited historical review and field inspection program. The findings of the Phase I - ESA are based on a review of readily available geological, historical and regulatory information and a cursory review made at the time of the field assessment. The historical research relies on information supplied by others, such as, local, provincial and federal agencies and was limited within the scope-of-work, time and budget of the project herein.

2.0 PHASE I PROPERTY INFORMATION

Address:	2564 Tenth Line Road, Ottawa, Ontario.
Legal Description:	South Part of Lot 4, Concession 11, Geographic Township of Cumberland (now City of Ottawa), Ontario.
Property Identification Numbers:	14563-1332, 14563-1608.
Location:	The subject site is located to the north of Wall Road, between Mer Bleue Road and Tenth Line Road, in the City of Ottawa, Ontario. McKinnon's Creek traverses the site from north to south. The subject site is shown on Figure 1 - Key Plan following the body of this report.
Latitude and Longitude:	45° 26' 22" N, 75° 29' 01" W.

Site Description:

Configuration:	Irregular.
Site Area:	40.5 ha (approximate).
Zoning:	RU – Rural Countryside.
Current Use:	The subject site is currently undeveloped.
Services:	The subject site is located in an area with some municipal services and some private water and sewage systems.

3.0 SCOPE OF INVESTIGATION

The scope of work for this Phase I – Environmental Site Assessment was as follows:

- Determine the historical activities on the subject site and study area by conducting a review of readily available records, reports, photographs, plans, mapping, databases and regulatory agencies;
- Investigate the existing conditions present at the subject site and study area by conducting site reconnaissance;
- Conduct interviews with persons knowledgeable of current and historic operations on the subject property, and if warranted, neighbouring properties;
- Present the results of our findings in a comprehensive report in general accordance with the requirements of Ontario Regulation 269/11 amending O.Reg. 153/04 made under the Environmental Protection Act and in compliance with the requirements of CSA Z768-01;
- Provide a preliminary environmental site evaluation based on our findings;
- Provide preliminary remediation recommendations and further investigative work if contamination is suspected or encountered.

4.0 RECORDS REVIEW

4.1 General

Phase I-ESA Study Area Determination

A radius of approximately 250 m was determined to be appropriate as a Phase I ESA study area for this assignment. Properties outside the 250 m radius are not considered to have impacted the subject land, based on their significant distance from the site.

First Developed Use Determination

According to the review of the aerial photographs, the subject lands have been vacant or agricultural since before 1945. There appears to have been a barn at the northeast corner of the property in 1945.

Fire Insurance Plans

Fire insurance plans (FIPs) are not available for the area of the subject site.

City of Ottawa Street Directories

City directories are not available for the area of the subject site.

Previous Investigations

Paterson has conducted several geotechnical and environmental investigations in the vicinity of subject site. No environmental concerns were noted at the time of the investigations.

4.2 Environmental Source Information

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on February 1, 2017. The subject site is not listed in the NPRI database. There are no properties registered in the NPRI database within the study area.

PCB Inventory

A search of national PCB waste storage sites was conducted. No PCB waste storage sites were identified in the Phase I ESA study area.

Ontario Ministry of Environment and Climate Change (MOECC) Instruments

A request was submitted to the MOECC Freedom of Information office for information with respect to certificates of approval, permits to take water, certificates of property use or any other similar MOECC issued instruments for the site. At the time of issuing this report, a response from the MOECC had not been received. Should the response contain pertinent information, the client will be notified.

MOECC Coal Gasification Plant Inventory

The Ontario Ministry of Environment document titled "Municipal Coal Gasification Plant Site Inventory, 1991" was reviewed to reference the locations of former plants with respect to the site. No coal gasification plants were identified within the Phase I ESA study area.

MOECC Incident Reports

A request was submitted to the MOECC Freedom of Information office for information with respect to records concerning environmental incidents, orders, offences, spills, discharges of contaminants or inspections maintained by the MOECC for the site or adjacent properties. At the time of issuing this report, a response from the MOECC had not been received. Should the response contain pertinent information, the client will be notified.

MOECC Waste Management Records

A request was submitted to the MOECC Freedom of Information office for information with respect to waste management records. Applicable information of current and historical waste storage locations, waste generators and waste receivers pursuant to Ontario Regulation 347 was considered in this review. At the time of issuing this report, a response from the MOECC had not been received. Should the response contain pertinent information, the client will be notified.

MOECC Submissions

A request was submitted to the MOECC Freedom of Information office for information with respect to reports related to environmental conditions that have been submitted to the MOECC. At the time of issuing this report, a response from the MOECC had not been received. Should the response contain pertinent information, the client will be notified.

MOECC Brownfields Environmental Site Registry

A search of the MOECC Brownfields Environmental Site Registry was conducted as part of this assessment for the site, neighbouring properties and the general area of the site. No RSCs were filed for properties within the Phase I ESA study area.

MOECC Waste Disposal Site Inventory

The Ontario Ministry of Environment document titled "Waste Disposal Site Inventory in Ontario, 1991" was reviewed as part of the historical research. This document includes all recorded active and closed waste disposal sites, industrial manufactured gas plants and coal tar distillation plants in the Province of Ontario. No former waste disposal sites were identified within the Phase I ESA study area.

Areas of Natural Significance

A search for areas of natural significance and features within the Phase I study area was conducted on the web site of the Ontario Ministry of Natural Resources (MNR). No areas of natural significance were identified on the subject site or within the Phase I study area.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on February 2, 2017 to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties. The response from the TSSA indicated that there were no records for the subject site or surrounding properties. A copy of the TSSA correspondence is included in Appendix 2.

City of Ottawa Landfill Document

The document entitled "Old Landfill Management Strategy, Phase I – Identification of Sites, City of Ottawa", was reviewed. No former waste disposal sites were located within the Phase I study area.

4.3 Physical Setting Sources

Aerial Photographs

Historical air photos from the National Air Photo Library were reviewed in approximate ten (10) year intervals. The review period dates back to the first available air photos for the site. Based on the review, the following observations have been made:

- | | |
|------|--|
| 1945 | The subject property consists of agricultural fields with what appears to be a barn at the northeast corner of the site. Surrounding properties are agricultural fields with farmstead dwellings and barns. McKinnon's Creek bisects the eastern half of the subject property. |
| 1960 | The structure in the northeast corner of the subject site no longer appears to be present. No other changes have been made to the subject site or surrounding properties. |
| 1975 | No significant changes have been made to the subject lands or surrounding properties. |
| 1987 | No significant changes appear to have been made to the subject site. Residential development has occurred along the west side of Mer Bleue Road, to the southwest of the subject site. The surface of the easternmost part of the adjacent property to the south, at 2666 Tenth Line Road, has been disturbed. |
| 1991 | (geoOttawa website) No significant changes have been made to the subject site. The adjacent property to the south at 2666 Tenth Line Road appears to be in the early stages of redevelopment. |
| 1999 | (geoOttawa website) The northeast corner of the subject site appears to be occupied by a gravel pad. No changes have been made to the rest of the subject site or surrounding lands. |
| 2005 | No major changes have been made to the subject site. The gravel pad in the northeast corner of the site is overgrown. The previous activity at 2666 Tenth Line Road appears to have been abandoned. |
| 2014 | (geoOttawa website) No changes have been made to the subject site or surrounding properties. |

Laser copies of selected aerial photographs reviewed are included in Appendix 1.

Topographic Maps

Topographic maps were obtained from Natural Resources Canada – The Atlas of Canada website and from the City of Ottawa website. The topographic map depicts the subject site as an undeveloped area, with an approximate elevation of 85 m above sea level (asl). Regionally, the topographic maps indicate a slope down towards the centre of the site, towards McKinnon's Creek. McKinnon's Creek runs across the centre of subject site from north to south, towards the Mer Bleue bog. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report.

Physiographic Maps

A Physiographic Map was reviewed from the Natural Resources Canada – The Atlas of Canada website. According to this physiographic map, the site is located in the St. Lawrence Lowlands. According to the mapping description provided: "The lowlands are plain-like areas that were all affected by the Pleistocene glaciations and are therefore covered by surficial deposits and other features associated with the ice sheets." Mapping shows the subject site as situated in an area of limestone plains.

Geological Maps

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on this information, bedrock in the area of the site consists of interbedded limestone and shale of the Lindsay Formation. The site is located in an area of offshore marine sediment soils with a drift thickness of 25 to 50 m.

Water Well Records

A search of the MOECC's web site for all drilled well records within 250 m of the subject site was conducted on February 2, 2017. The search identified two (2) water supply wells on the subject site, which are not expected to be in current use. An additional fourteen (14) water supply well records were identified in the Phase I study area.

Water Bodies and Areas of Natural Significance

McKinnon's Creek traverses the central part of the subject site from north to south. There are no areas of natural significance within the Phase I study area.

5.0 INTERVIEWS

Property Owners and Representatives

Mr. Andrew Finnson of 2447591 Ontario Inc. was available to answer questions about the property via email. Mr. Finnson was not aware of any environmental concerns with the subject property, and was only aware of its past use for agriculture.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

A site visit to the subject property was conducted on February 9, 2017 by personnel from the Environmental Department of Paterson Group. In addition to the site, the uses of neighbouring properties were also assessed at the time of the site visit.

6.2 Specific Observations at Phase I Property

Buildings and Structures

The subject site was undeveloped fields at the time of the site visit, with no structures or buildings. Some pre-consolidation soil piles were present at the northeast corner of the site. The site was snow covered at the time of the site visit.

Site Features

The subject site consists of vacant agricultural fields. McKinnon's Creek divides the subject lands into west and east parcels.

Site topography slopes down towards the central part of the site from the east and west, towards McKinnon's Creek. Regional topography slopes down to the south, towards the Mer Bleue bog. Site drainage consists of infiltration and runoff to ditches and the aforementioned creek.

No evidence of current or former railway lines was observed on the subject property at the time of the site inspection. There were no unidentified substances observed on the subject site at the time of the assessment. The above-noted site features are shown on Drawing PE3969-1 – Site Plan.

Neighbouring Properties

An inspection of the neighbouring properties was conducted from publicly accessible roadways at the time of the site visit. Land use adjacent to the subject site was as follows:

- North – Stormwater management pond and residential developments;
- South – Vacant and agricultural land;
- East – Tenth Line Road, followed by residential development, a construction site office, and vacant land;
- West – Mer Bleue Road and residential dwellings, followed by vacant land.

No environmental concerns were identified with the present use of the neighbouring properties.

7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 Land Use History

The following table indicates the current and past uses of the site as well as associated potentially contaminating activities dating back to the first developed use of the site.

Table 1 - Land Use History				
Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photos, FIPs, etc.
Prior to 2016	Unknown	Agricultural	Agricultural	Vacant agricultural land; possible barn on site prior to 1960
2016 to present	2447591 Ontario Inc.	Vacant	Vacant	Vacant land, no structures visible

Potentially Contaminating Activities (PCAs)

No potentially contaminating activities were identified on the subject site or within the Phase I study area.

Areas of Potential Environmental Concern (APECs)

Since there are no PCAs, no APECs have been identified on the subject site.

Contaminants of Potential Concern

No Contaminants of Potential Concern (CPCs) were identified on the subject site.

7.2 Conceptual Site Model

Geological and Hydrogeological Setting

Based on information from the Geological Survey of Canada, drift thickness is in the range of 25 to 50 m, overburden soils consist of offshore marine sediment, and bedrock consists of interbedded limestone and shale of the Lindsay Formation. Hydrogeological conditions are considered to mimic the topographic setting; as a result, groundwater is expected to flow towards the south, towards the Mer Bleue bog, and towards the centre of the site, towards McKinnon's Creek.

Contaminants of Potential Concern

As per Section 7.1 of this report, no CPCs were identified on the subject site.

Existing Buildings and Structures

At the time of the site visit, no structures were present on the subject property.

Water Bodies

McKinnon's Creek traverses the central part of the subject site. A stormwater management pond is located to the north of the subject site.

Areas of Natural Significance

There are no areas of natural significance within the 250 m study area. The Mer Bleue bog, located more than 2 km to the south, is a provincially significant wetland and area of natural earth science interest (ANSI).

Drinking Water Wells

Records for fourteen (14) drinking water wells were identified within the Phase I study area. Two (2) drinking water wells were identified on the subject lands, but are not expected to be in current use.

Neighbouring Land Use

Neighbouring land use in the Phase I study area consists of vacant and agricultural lands. Land use is shown on Drawing PE3969-2 - Surrounding Land Use Plan.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

As per Section 7.1 of this report, no Potentially Contaminating Activities were identified on the subject site or in the Phase I study area.

Assessment of Uncertainty and/or Absence of Information

The presence/absence of PCAs within the Phase I study area was confirmed by a variety of independent sources. As such, the conclusions of this report are not affected by uncertainty which may be present with respect to the individual sources.

8.0 CONCLUSIONS

Assessment

A Phase I – Environmental Site Assessment was carried out for the lands addressed 2564 Tenth Line Road, in the City of Ottawa, Ontario. The purpose of this environmental assessment was to research the past and current use of the subject site and neighbouring properties and identify any environmental concerns with the potential to have impacted the subject property.

Based on a review of historical sources, the subject property has been used for agricultural purposes since before 1945. No sources of potentially contaminating activities were identified with respect to the historical land use of the subject site.

A review of aerial photographs for the area of the subject site did not identify any environmental concerns. The subject site and surrounding lands have historically been agricultural fields with occasional farmstead structures, and more recently, residential dwellings along Mer Bleue Road and Tenth Line Road.

Following the historical review a site visit was conducted. The site is undeveloped, with a short gravel laneway in the northeastern part of the property. The remainder of the subject property is vacant. At the time of the site visit, no evidence of potentially contaminating activities was observed. The current use of the subject property is not considered to have the potential to have impacted the subsurface soil or groundwater and therefore does not represent an area of potential environmental concern.

Surrounding land use consists of residential, vacant, and agricultural properties. No potentially contaminating activities were identified within the Phase I study area.

Conclusion

Based on the results of this Phase I - Environmental Site Assessment, it is our opinion that **a Phase II - Environmental Site Assessment is not required for the property.**

9.0 STATEMENT OF LIMITATIONS

This Phase I - Environmental Site Assessment report has been prepared in general accordance with O.Reg. 153/04 as amended by O.Reg. 269/11, and meets the requirements of CSA Z768-01. The conclusions presented herein are based on information gathered from a limited historical review and field inspection program. The findings of the Phase I - ESA are based on a review of readily available geological, historical and regulatory information and a cursory review made at the time of the field assessment. The historical research relies on information supplied by others, such as, local, provincial and federal agencies and was limited within the scope-of-work, time and budget of the project herein.

Should any conditions be encountered at the subject site and/or historical information that differ from our findings, we request that we be notified immediately in order to allow for a reassessment.

This report was prepared for the sole use of 2447591 Ontario Inc. Permission and notification from 2447591 Ontario Inc. and Paterson will be required to release this report to any other party.

Paterson Group Inc.



Anna Graham, M.E.S.



Mark S. D'Arcy, P.Eng.



Report Distribution:

- 2447591 Ontario Inc.
- Paterson Group

10.0 REFERENCES

Federal Records

Air photos at the Energy Mines and Resources Air Photo Library.
National Archives.
Maps and photographs (Geological Survey of Canada surficial and subsurface mapping).
Natural Resources Canada – The Atlas of Canada.
Environment Canada, National Pollutant Release Inventory.
PCB Waste Storage Site Inventory.

Provincial Records

MOECC Freedom of Information and Privacy Office.
MOECC Municipal Coal Gasification Plant Site Inventory, 1991.
MOECC document titled “Waste Disposal Site Inventory in Ontario”.
MOECC Brownfields Environmental Site Registry.
Office of Technical Standards and Safety Authority, Fuels Safety Branch.
MNRF Areas of Natural Significance.
MOECC Water Well Inventory.

Municipal Records

City of Ottawa Document “Old Landfill Management Strategy, Phase I - Identification of Sites.”, prepared by Golder Associates, 2004.
The City of Ottawa eMap website.

Local Information Sources

Personal Interviews.
Previous Engineering Reports.

Public Information Sources

Google Earth.
Google Maps/Street View.

FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE3969-1 – SITE PLAN

DRAWING PE3969-2 – SURROUNDING LAND USE PLAN



FIGURE 1
KEY PLAN

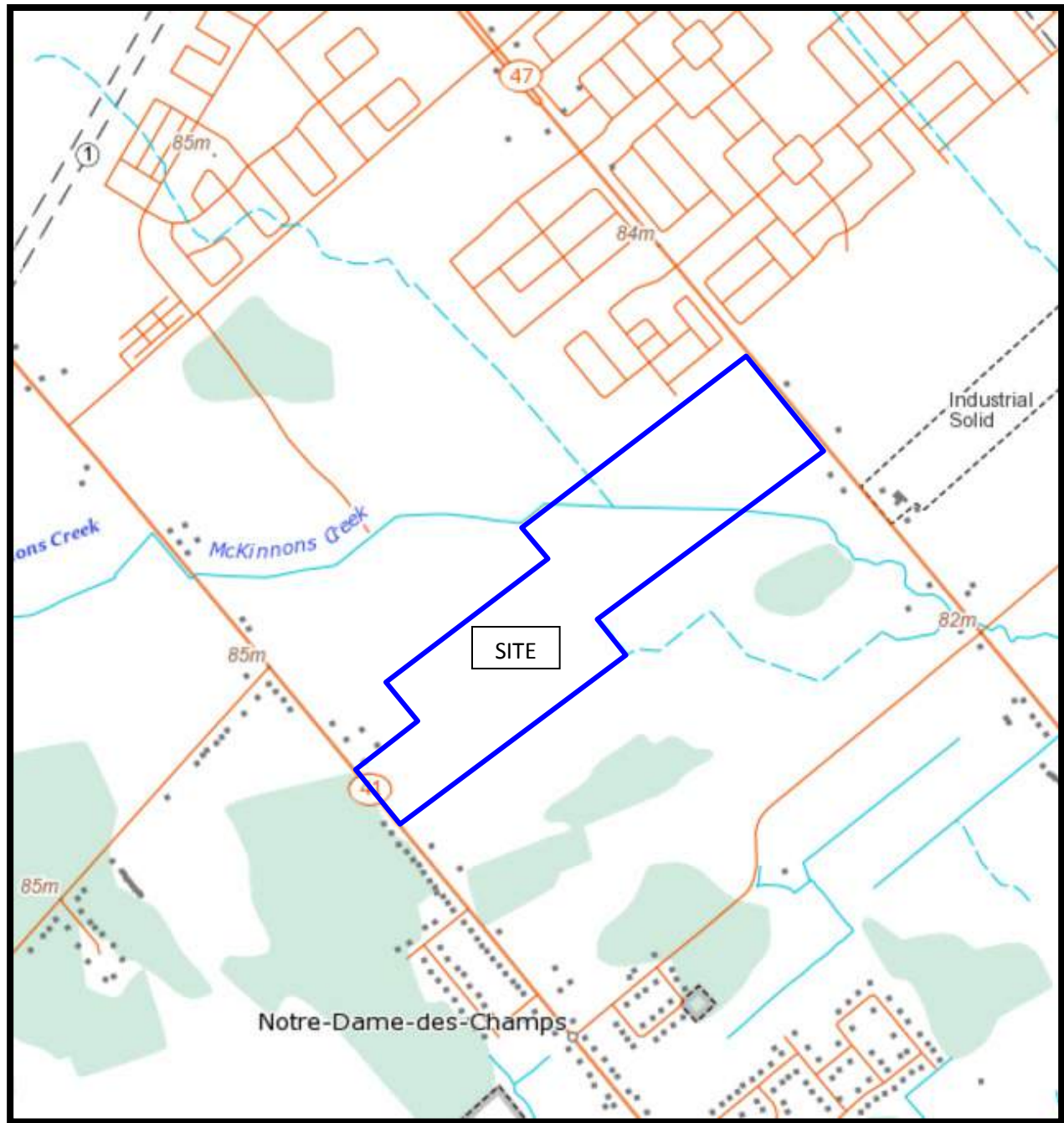
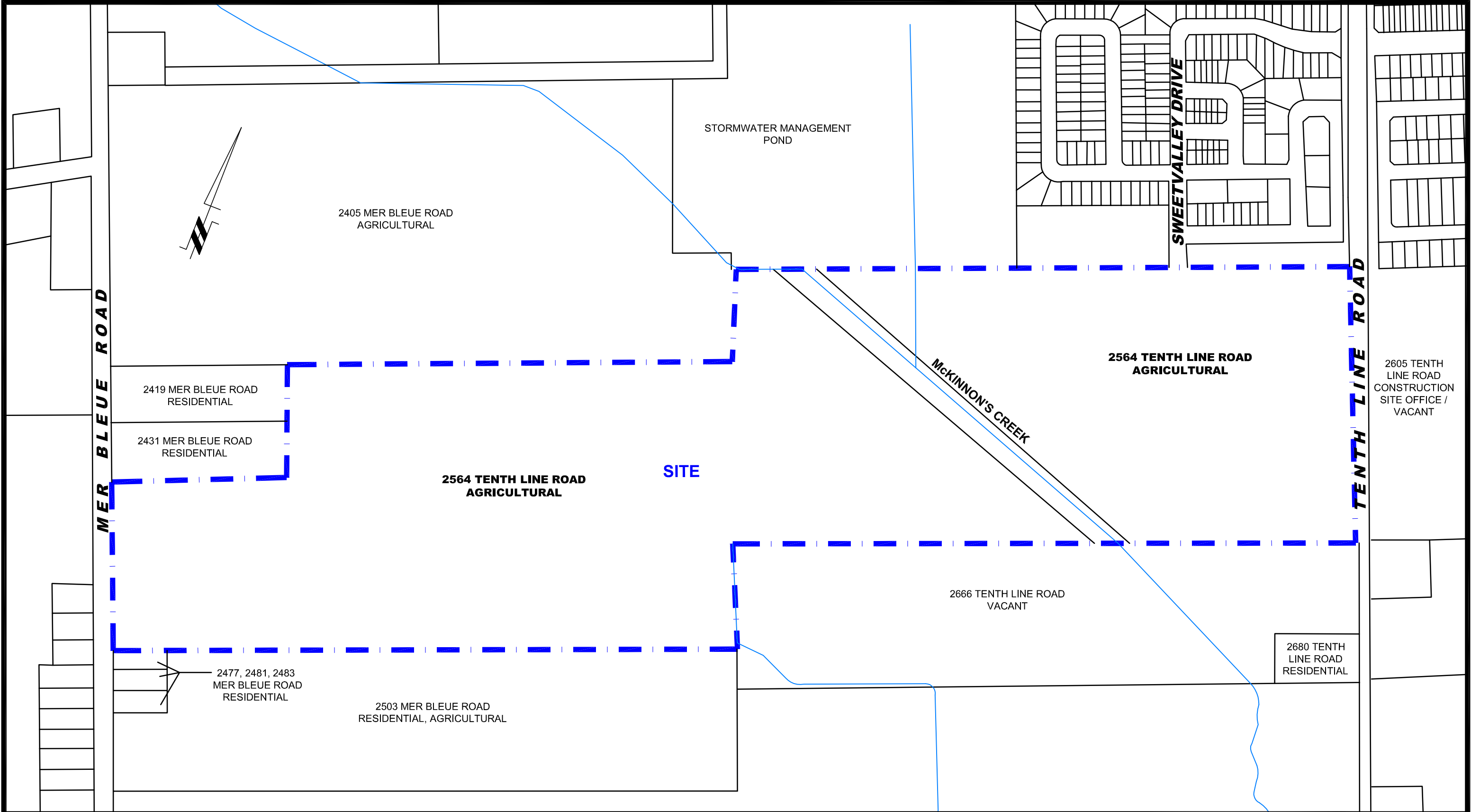


FIGURE 2
TOPOGRAPHIC MAP



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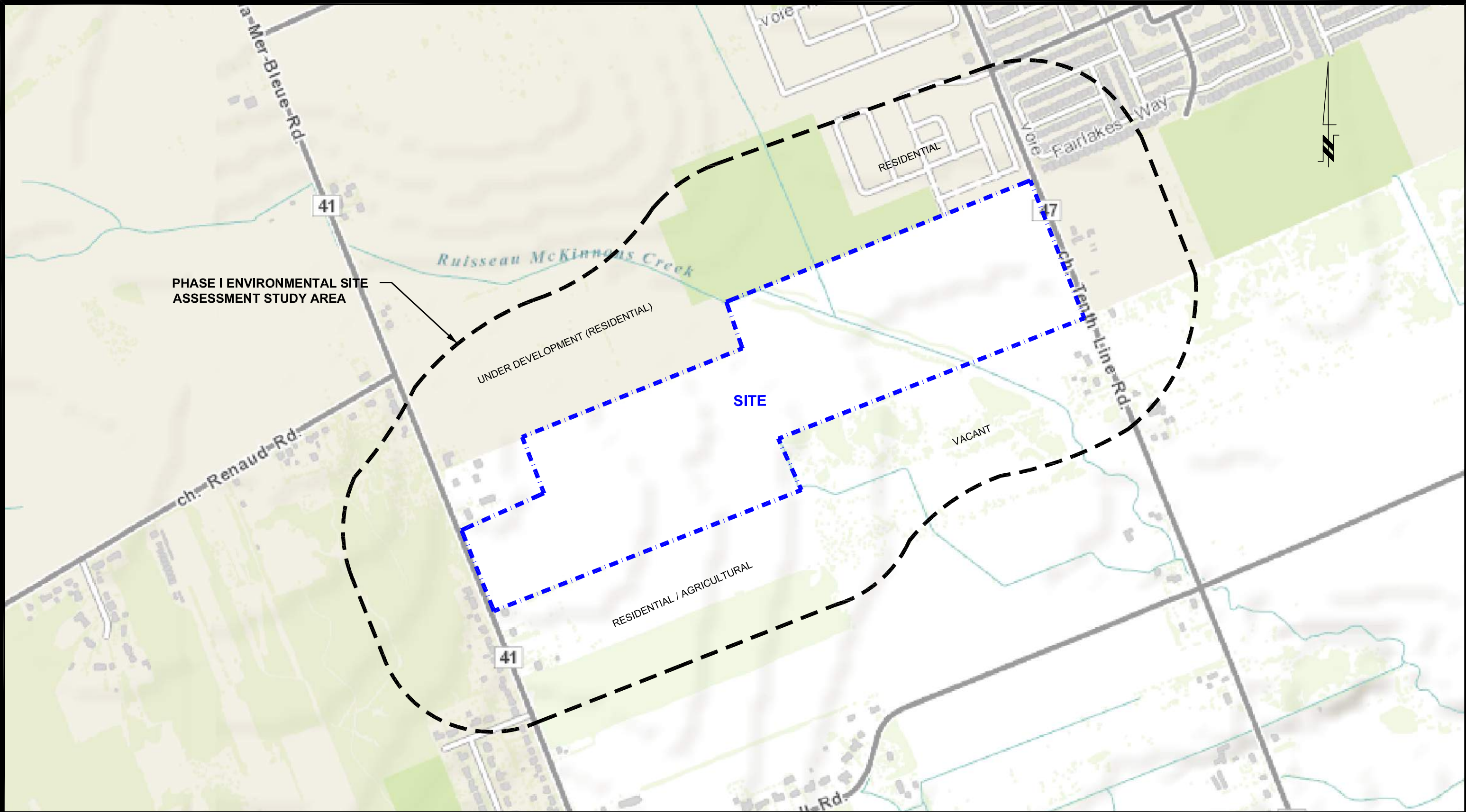
0			
NO.	REVISIONS	DATE	INITIAL

OTTAWA,
Title:

2447591 ONTARIO INC.
PHASE I - ENVIRONMENTAL SITE ASSESSMENT
SUMMERSIDE WEST PHASES 4 AND 5
ONTARIO

SITE PLAN

Scale: 1:4000	Date: 02/2017
Drawn by: AG	Report No.: PE3969-1
Checked by: MD	Dwg. No.: PE3969-1
Approved by: MSD	Revision No.: 0



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0			
NO.	REVISIONS	DATE	INITIAL

2447591 ONTARIO INC.	
PHASE I - ENVIRONMENTAL SITE ASSESSMENT SUMMERSIDE WEST PHASES 4 AND 5	
OTTAWA, Title:	ONTARIO
SURROUNDING LAND USE PLAN	

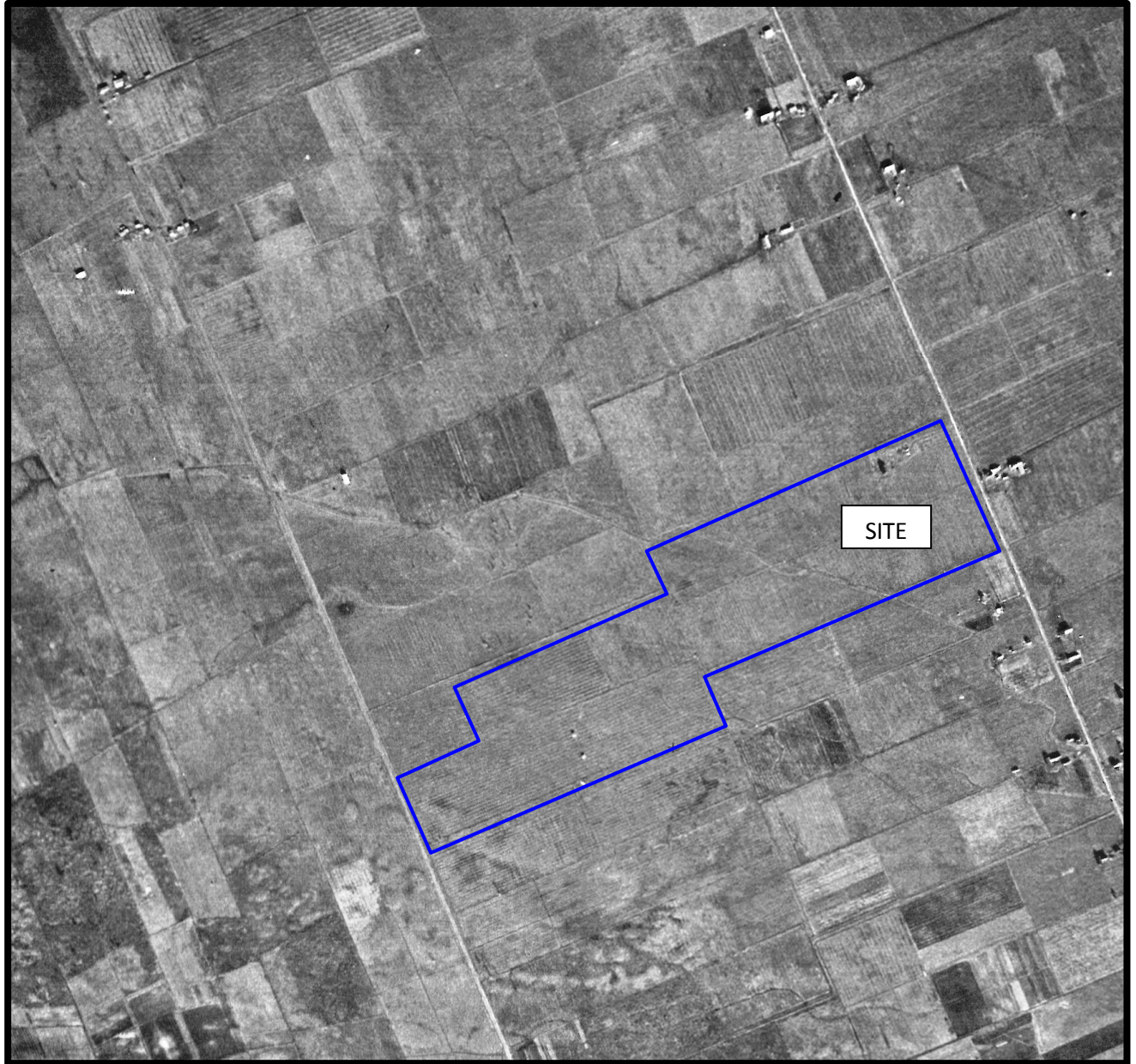
Scale:	1:7500	Date:	02/2017
Drawn by:	AG	Report No.:	PE3969-1
Checked by:	MD	Dwg. No.:	PE3969-2
Approved by:	MSD	Revision No.:	

p:\autocad drawings\environmental\pe3969\pe3969-2 surrounding lands use plan.dwg

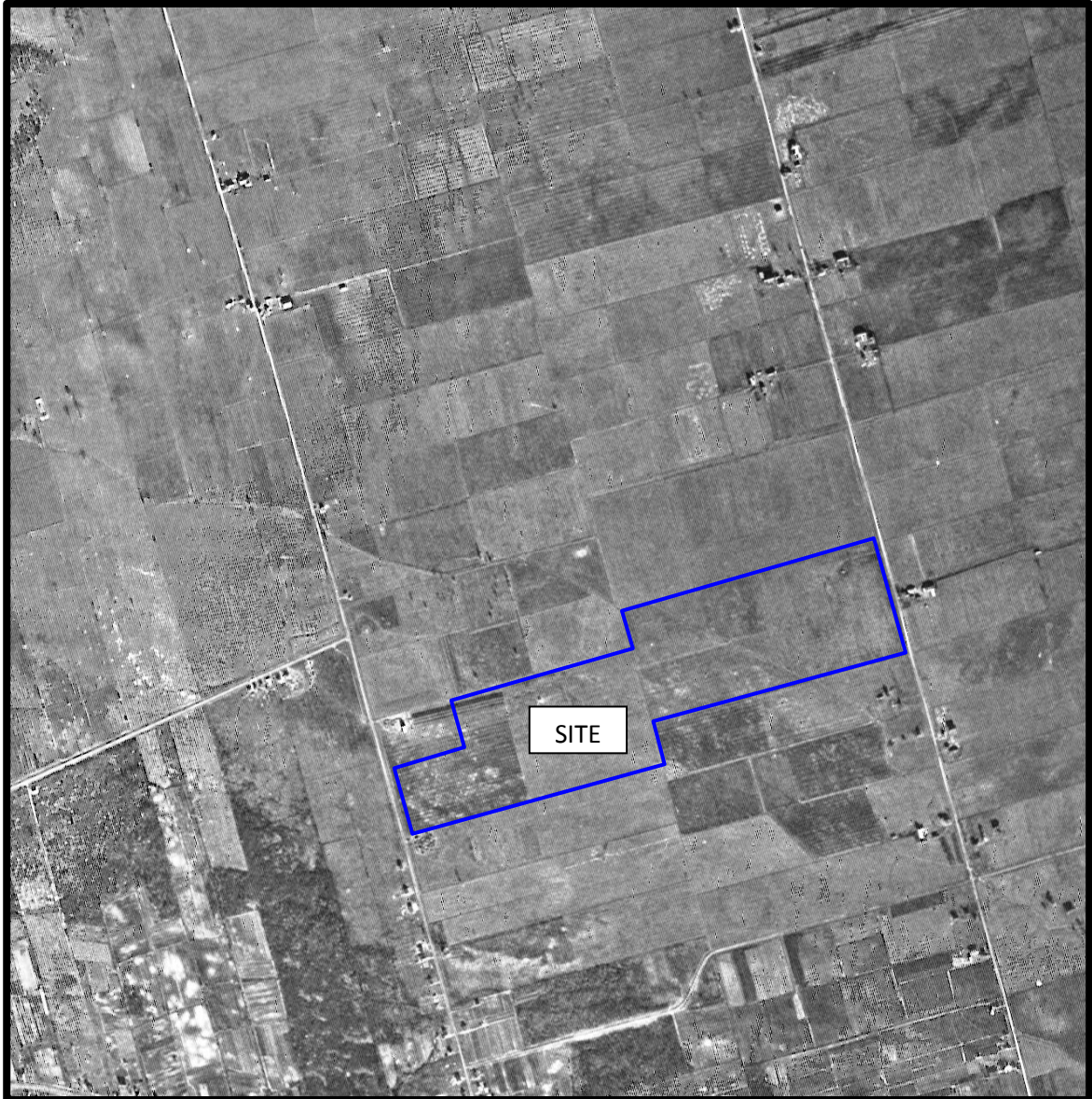
APPENDIX 1

AERIAL PHOTOGRAPHS

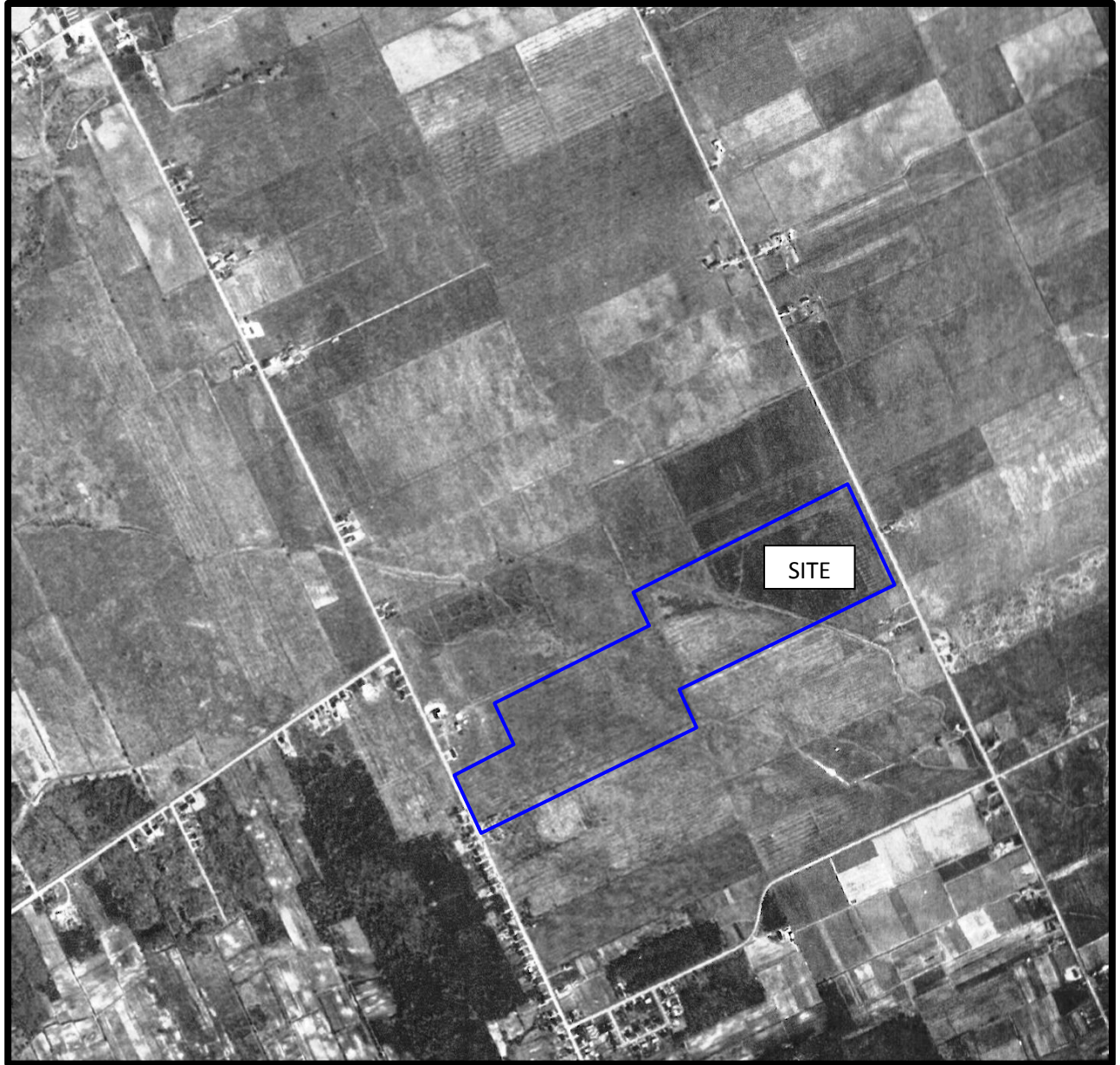
SITE PHOTOGRAPHS



AERIAL PHOTOGRAPH
1945



AERIAL PHOTOGRAPH
1960



AERIAL PHOTOGRAPH
1975



AERIAL PHOTOGRAPH
1987



AERIAL PHOTOGRAPH
2005

Site Photographs

PE3969

Summerside West

February 9, 2017



Photograph 1: View of the northeast corner of the subject site, looking south from Sweetvalley Drive.



Photograph 2: View of the east side of the subject site, looking southwest from Sweetvalley Drive.

Site Photographs

PE3969

Summerside West

February 9, 2017



Photograph 3: View of the east side of the subject site, looking north from 2666 Tenth Line Road. Tenth Line Road is visible to the right.



Photograph 4: View of the central part of the subject site, looking northwest from 2666 Tenth Line Road.

Site Photographs

PE3969

Summerside West

February 9, 2017



Photograph 5: View of the west side of the subject site, looking northeast from Mer Bleue Road. 2431 Mer Bleue Road is visible at left.

APPENDIX 2

MOECC FREEDOM OF INFORMATION REQUEST

TSSA CORRESPONDENCE

WATER WELL RECORDS

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 completion and use of this form. Our fax no. is (416) 314-4285.

Requester Data			For Ministry Use Only	
Name, Company Name, Mailing Address and Email Address of Requester Anna Graham Paterson Group Inc. 154 Colonnade Road Ottawa, ON K2E 7J5 Email address: agramham@patersongroup.ca			FOI Request No.	Date Request Received
			Fee Paid <input type="checkbox"/> ACCT <input type="checkbox"/> CHQ <input type="checkbox"/> VISA/MC <input type="checkbox"/> CASH	
Telephone/Fax Nos. Tel. 613-226-7381 Fax 613-226-6344	Your Project/Reference No. PE3969	Signature/Print /Name of Requester Anna Graham	<input type="checkbox"/> CNR <input type="checkbox"/> ER <input type="checkbox"/> NOR <input type="checkbox"/> SWR <input type="checkbox"/> WCR <input type="checkbox"/> SAC <input type="checkbox"/> IEB <input type="checkbox"/> EAA <input type="checkbox"/> EMR <input type="checkbox"/> SWA	
Request Parameters				
Municipal Address / Lot, Concession, Geographic Township (Municipal address essential for cities, towns or regions) 2564 Tenth Line Road, City of Ottawa, Ontario South Part of Lot 4, Concession 11, Geographic Township of Cumberland, PINs 14563-1332, 14563-1608				
Present Property Owner(s) and Date(s) of Ownership 2447591 Ontario Inc. (Approx. 1 year)				
Previous Property Owner(s) and Date(s) of Ownership				
Present/Previous Tenant(s), (if applicable)				
Search Parameters			Specify Year(s) Requested	
Files older than 2 years may require \$60.00 retrieval cost. There is no guarantee that records responsive to your request will be located.				
Environmental concerns (General correspondence, occurrence reports, abatement)			all	
Orders			all	
Spills			all	
Investigations/prosecutions ➤ Owner AND tenant information must be provided			all	
Waste Generator number/classes			all	
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, reports, etc.				
	SD	Specify Year(s) Requested		
air - emissions		1986-present		
water - mains, treatment, ground level, standpipes & elevated storage, pumping stations (local & booster)		1986-present		
sewage - sanitary, storm, treatment, stormwater, leachate & leachate treatment & sewage pump stations		1986-present		
waste water - industrial discharges		1986-present		
waste sites - disposal, landfill sites, transfer stations, processing sites, incinerator sites		1986-present		
waste systems - PCB destruction, mobile waste processing units, haulers: sewage, non-hazardous & hazardous waste		1986-present		
pesticides - licenses		1986-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.

Anna Graham

From: Public Information Services [publicinformationservices@tssa.org]
Sent: February-17-17 11:39 AM
To: Anna Graham
Subject: RE: Records search request for 2564 Tenth Line Road

Thank you for your inquiry.

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

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

Although TSSA believes the information provided pursuant to your request is accurate, please note that TSSA does not warrant this information in any way whatsoever.



Suman Guram | Coordinator

Records
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Tel: +1-416-734-6203 | Fax: +1-416-231-6183 | E-Mail: sguram@tssa.org
www.tssa.org



From: Anna Graham [<mailto:AGraham@Patersongroup.ca>]
Sent: Thursday, February 02, 2017 8:33 AM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: Records search request for 2564 Tenth Line Road

Good morning,

Could you please complete a search of your records for underground/aboveground storage tanks, historical spills or other incidents/infractions for the following addresses for properties located in the City of Ottawa, ON:

2564 Tenth Line Road
2605 Tenth Line Road
2647 Tenth Line Road
2666 Tenth Line Road
2390 Mer Bleue Road
2405 Mer Bleue Road
2419 Mer Bleue Road
2431 Mer Bleue Road
2477 Mer Bleue Road
2503 Mer Bleue Road

Thank you,

Anna Graham, B.Sc., M.E.S.

patersongroup
solution oriented engineering

154 Colonnade Road South

Ottawa, Ontario, K2E 7J5

Tel: (613) 226-7381 Ext. 228

Fax: (613) 226-6344

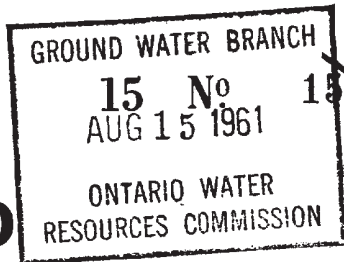
Email: agraham@patersongroup.ca

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ccc c

UTM 11812146113210 E
5 5031141610 N

3166c



Elev. 4 021815

WATER WELL RECORD

Basin 12511111
County or District Carleton

Township, Village, Town or City Gloucester

Con. OP Lot 1

Date completed May 18, 1961
(day month year)

Address R. R. # 1, Navan, Ont.

Casing and Screen Record

Inside diameter of casing 2"
Total length of casing 91
Type of screen
Length of screen
Depth to top of screen
Diameter of finished hole 2"

Pumping Test

Static level 15'
Test-pumping rate 8 G.P.M.
Pumping level 25'
Duration of test pumping 2Hrs
Water clear or cloudy at end of test Clear
Recommended pumping rate 6 G.P.M.
with pump setting of 20' feet below ground surface

Well Log

Overburden and Bedrock Record

	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
<u>Sand</u>	<u>0'</u>	<u>6'</u>	<u>91</u>	
<u>Blue Clay</u>	<u>6</u>	<u>85'</u>		
<u>Shale</u>	<u>85</u>	<u>91</u>		<u>fresh</u>

Water Record

For what purpose(s) is the water to be used? domestic

Is well on upland, in valley, or on hillside? upland

Drilling or Boring Firm G. CHARBONNEAU

DIAMOND-DRILLER - ARTESIAN WELLS
MODERN HOME BUILDERS

Address ORLEANS, ONT.

R.R. 1 Navan 9R-25

Licence Number 224

Name of Driller or Borer G. Charbonneau

Address R. R. # 1, Box 194, Orleans, Ont.

Date May 18, 1961

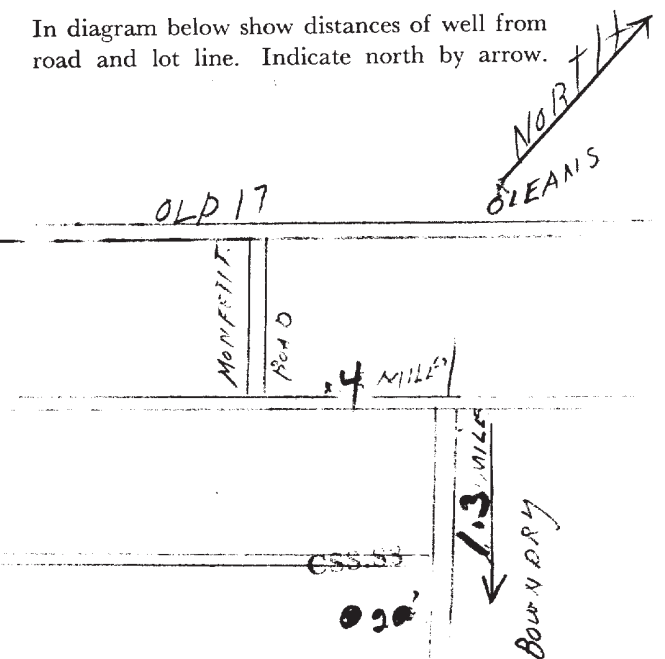
G. Charbonneau
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M Sets 60-5930

OWRC COPY

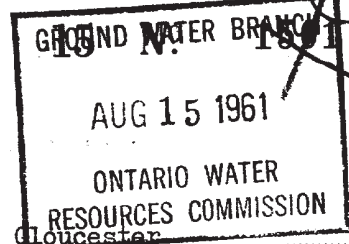
Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



UTM 18 4613 40 E

31G6e



5 50313610 N The Ontario Water Resources Commission Act

Elev. 4 0285

WATER WELL RECORD

Basin 1251 County or District Gloucester Carleton

Township, Village, Town or City Gloucester

Con 10 F Lot 1

Date completed May 10, 1961

(day month year)

Address R. R. #1, Orleans, Ont.

Casing and Screen Record

Inside diameter of casing 2"
 Total length of casing 89'
 Type of screen
 Length of screen
 Depth to top of screen
 Diameter of finished hole 2"

Pumping Test

Static level 15'
 Test-pumping rate 8 G.P.M.
 Pumping level 25
 Duration of test pumping 1 hr.
 Water clear or cloudy at end of test clear
 Recommended pumping rate 8 G.P.M.
 with pump setting of 25 feet below ground surface

Well Log

Overburden and Bedrock Record

sand
 blue clay
 brown shale
 60-9 limestone

From ft.

To ft.

Depth(s) at which water(s) found

Kind of water (fresh, salty, sulphur)

0 10
 10 80
 80 87
 87 89

89 fresh

Water Record

For what purpose(s) is the water to be used? domestic

Is well on upland, in valley, or on hillside? upland

Drilling or Boring Firm

G. CHARBONNEAU

DIAMOND DRILLER ARTESIAN WELLS
MODERN HOME BUILDERS

Address

ORLEANS, ONT.

R.R. 1 Navan 9R-25

Licence Number 224

Name of Driller or Borer G. Charbonneau

Address R. R. #1, Box 194, Orleans, Ont.

Date

May 19 61

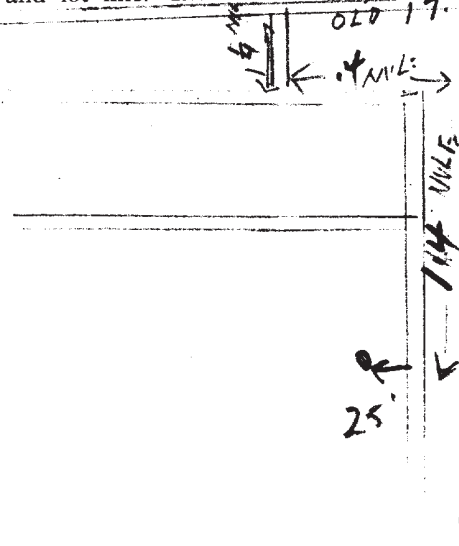
G. Charbonneau
 (Signature of Licensed Drilling or Boring Contractor)

Form 7 15M Sets 60-5930

OWRC COPY

Location of Well

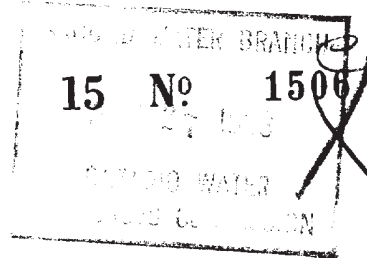
In diagram below show distances of well from road and lot line. Indicate north by arrow.



CS 58

UTM 11817 141611 41610 E
07
Co 51R 15101311 101910 N
Elev. 41 012815

31G6e



The Ontario Water Resources Commission Act

WATER WELL RECORD

Basin 1251 1111
County or District

Carleton

Township, Village, Town or City Gloucester

Date completed July 20, 1963

(day month year)

Navan, Ont.

Casing and Screen Record

Inside diameter of casing 2"
Total length of casing 189'
Type of screen
Length of screen
Depth to top of screen
Diameter of finished hole 2"

Pumping Test

Static level flow
Test-pumping rate 8 G.P.M.
Pumping level 20'
Duration of test pumping 2 hrs.
Water clear or cloudy at end of test clear
Recommended pumping rate 8 G.P.M.
with pump setting of 20 feet below ground surface

Well Log

Overburden and Bedrock Record

blue clay
sand
grey limestone

From
ft.

To
ft.

0 180
180 185
185 200

Water Record

Depth(s) at
which water(s)
found

Kind of water
(fresh, salty,
sulphur)

200 fresh

For what purpose(s) is the water to be used? domestic

Is well on upland, in valley, or on hillside? upland

Drilling or Boring Firm

G. Charbonneau Diamond & Cable Drilling.

Address R.R. # 1, Box 194, Orleans, Ont.

Licence Number 1025

Name of Driller or Borer G. Charbonneau

Address R.R. #1, Orleans, Ont.

Date July 20, 1963

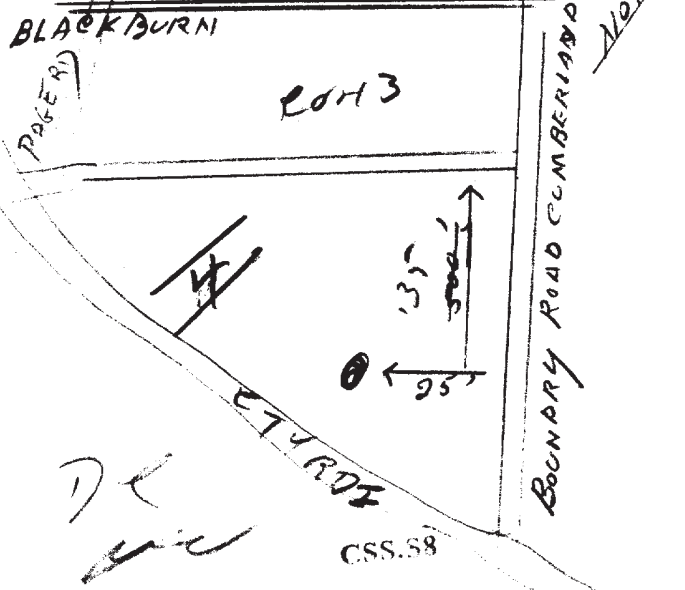
(Signature of Licensed Drilling or Boring Contractor)

Form 7 10M-62-1152

OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



319/62

UTM

1812 46115410^E1015^R 50309910^NElev 5^R 02185

Basin 25 County or District Russell

Con 11 Lot 5



1512861

56 No. 593

The Ontario Water Resources Commission Act

WATER WELL RECORD

Township, Village, Town or City Cumberland

Date completed 12th August, 1965.

R.R.# 2, Navan, Ont.

Casing and Screen Record

Inside diameter of casing 2"
 Total length of casing 94'
 Type of screen
 Length of screen
 Depth to top of screen
 Diameter of finished hole 2"

Pumping Test

Static level 12'
 Test-pumping rate 8 G.P.M.
 Pumping level 20'
 Duration of test pumping 2 hrs.
 Water clear or cloudy at end of test clear
 Recommended pumping rate 6 G.P.M.
 with pump setting of 20 feet below ground surface

Well Log

Overburden and Bedrock Record

blue clay
 grey limestone

From ft.

To ft.

Depth(s) at which water(s) found

Kind of water (fresh, salty, sulphur)

0

92

92

100

100

shade of sulphur

Water Record

For what purpose(s) is the water to be used? domestic

Is well on upland, in valley, or on hillside? upland

Drilling or Boring Firm

G. Charbonneau, Diamond & Cable Drilling,

Address R.R.# 1, Box 194, Orleans, Ont.

Licence Number 1631

Name of Driller or Borer Roland Wolfe

Address Clarence Creek, Ont.

Date 12th August, 1965.

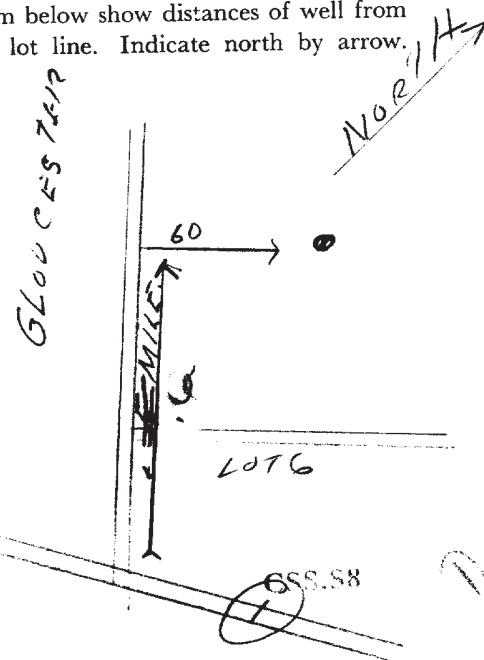
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M-60-4138

OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



UTM 1182 461215 E

3166



15 No 1509

5R 5031 540N

The Ontario Water Resources Commission Act

Elev. 4R 0285

WATER WELL RECORD

Basin 25 Carleton

Township, Village, Town or City Gloucester

Con 4 OF Lot 1 Date completed 10 August 1965 (day month year)

ress Orleans, Ont.

Casing and Screen Record

Inside diameter of casing 2"
Total length of casing
Type of screen
Length of screen
Depth to top of screen
Diameter of finished hole 2"

Pumping Test

Static level flow
Test-pumping rate 5 G.P.M.
Pumping level 25'
Duration of test pumping 2 hrs.
Water clear or cloudy at end of test clear
Recommended pumping rate 5 G.P.M.
with pump setting of 25 feet below ground surface

Well Log

Overburden and Bedrock Record

blue clay
grey limestone

From ft.

To ft.

Depth(s) at which water(s) found

Kind of water (fresh, salty, sulphur)

0 100
100 102

102 fresh

For what purpose(s) is the water to be used? domestic

Is well on upland, in valley, or on hillside? upland

Drilling or Boring Firm

G. Charbonneau, Diamond & Cable Drilling,

Address R.R. #1, Box 194, Orleans, Ont.

Licence Number 1631

Name of Driller or Borer Roland Wolfe

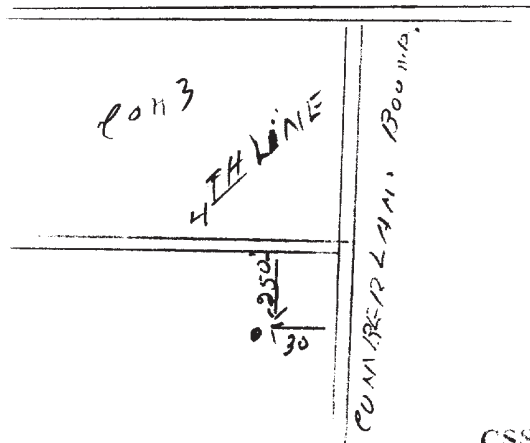
Address Clarence Creek, Ont.

Date 10 August 1965

(Signature of Licensed Drilling or Boring Contractor)

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



UTM 11824612910E

3166e



15 No 1513

5R 51031460N

The Ontario Water Resources Commission Act

Elev. 4R 59288

WATER WELL RECORD

Basin 25
County or District CarletonTownship, Village, Town or City ClarencevilleCon 40A Lot 1Date completed 3 July 1966
(day month year)ress Navan, Ont.

Casing and Screen Record

Inside diameter of casing.....2"
 Total length of casing.....105'
 Type of screen.....
 Length of screen.....
 Depth to top of screen.....
 Diameter of finished hole.....2"

Pumping Test

Static level.....1'
 Test-pumping rate.....10 G.P.M.
 Pumping level.....20'
 Duration of test pumping.....2 hrs.
 Water clear or cloudy at end of test.....clear
 Recommended pumping rate.....6 G.P.M.
 with pump setting of.....20 feet below ground surface

Well Log

Overburden and Bedrock Record

	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
blue clay	0	97		
gravel	97	103		
grey limestone	103	105	105	fresh

Water Record

For what purpose(s) is the water to be used? domesticIs well on upland, in valley, or on hillside? upland

Drilling or Boring Firm.....

G. Charbonneau, Diamond & Cable Drilling,Address R.R. # 1, Box 194, Orleans, Ont.Licence Number 2156Name of Driller or Borer Roland WolfeAddress Clarence Creek, Ont.Date 3 July 1966

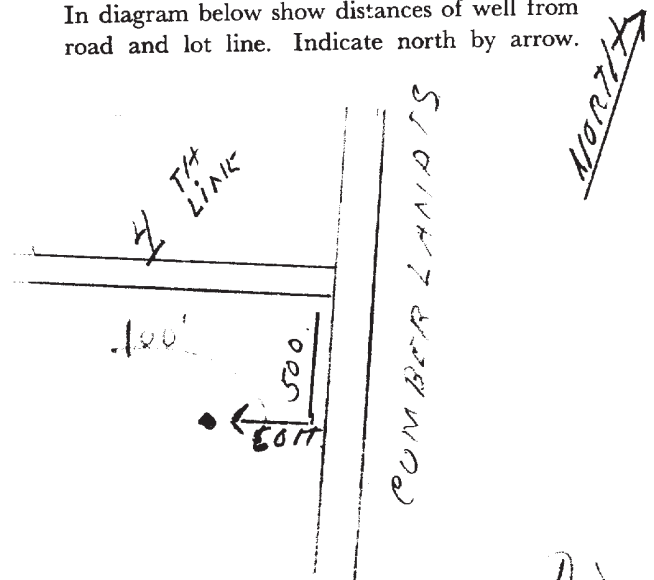
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M-60-4138

OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



333.33

UTM 18 2 46 12 85 E

31G6e

15 Rev. No. 1511
Dec 14/1966

5 R 5031500 N

The Ontario Water Resources Commission Act

Elev. 4 R 0288

WATER WELL RECORD

Basin 25 1 1 1 Carleton

Township, Village, Town or City Gloucester

Con. 4 OF Lot 1

Date completed 31 May, 1966

(day)

month

year)

Address 292 Altha, Eastview, Ont.

Casing and Screen Record

Pumping Test

Inside diameter of casing 2"
Total length of casing 95'
Type of screen
Length of screen
Depth to top of screen
Diameter of finished hole 2"

Static level 1'
Test-pumping rate 10 G.P.M.
Pumping level 20'
Duration of test pumping 2 hrs.
Water clear or cloudy at end of test clear
Recommended pumping rate 6 G.P.M.
with pump setting of 20 feet below ground surface

Well Log

Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
blue clay	0	92		
grey limestone	92	97	97	fresh

For what purpose(s) is the water to be used? domestic

Is well on upland, in valley, or on hillside? upland

Drilling or Boring Firm

G. Charbonneau, Diamond & Cable Drilling,

Address R.R.# 1, Box 194, Orleans, Ont.

Licence Number 2156

Name of Driller or Borer Roland Wolfe

Address Clarence Creek, Ont.

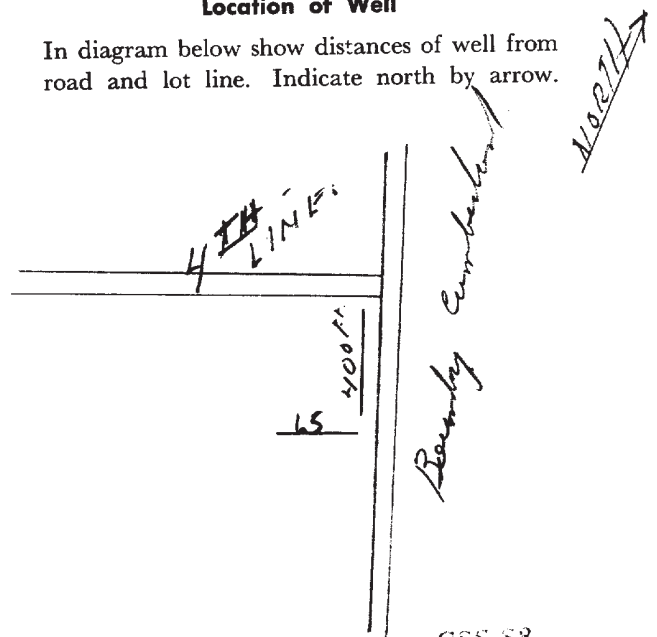
Date 31 May, 1966.

(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M-60-4138

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



CSS.58

OWRC COPY

UTM 1182 41628510^E



1512820

56 No 564

5 50 3 118 8 4^N

The Ontario Water Resources Commission Act

Elev. 3 10280

WATER WELL RECORD

Basin 25
County or District Russell

Township, Village, Town or City Cumberland

Con. 10

Lot 5

Date completed 23 September 1967

(day month year)

Address Navan, Ont.

Casing and Screen Record

Inside diameter of casing 2"
Total length of casing 115'
Type of screen
Length of screen
Depth to top of screen
Diameter of finished hole 2"

Pumping Test

Static level flow 0 + 1'
Test-pumping rate 10 (PUMPED) G.P.M.
Pumping level 20'
Duration of test pumping 1 hr.
Water clear or cloudy at end of test clear
Recommended pumping rate 6 G.P.M.
with pump setting of 20 feet below ground surface

Well Log

Overburden and Bedrock Record

blue clay
coarse gravel

From
ft.

To
ft.

Depth(s) at
which water(s)
found

Kind of water
(fresh, salty,
sulphur)

0 110
110 115

115 fresh

Water Record

For what purpose(s) is the water to be used? domestic

Is well on upland, in valley, or on hillside? upland

Drilling or Boring Firm

G. Charbonneau, Diamond & Cable Drilling,

Address R.R. 1, Box 194, Orleans, Ont.

Licence Number 2593

Name of Driller or Borer G. Charbonneau,

Address Orleans, Ont. R. R. 1

Date 23 September 1967.

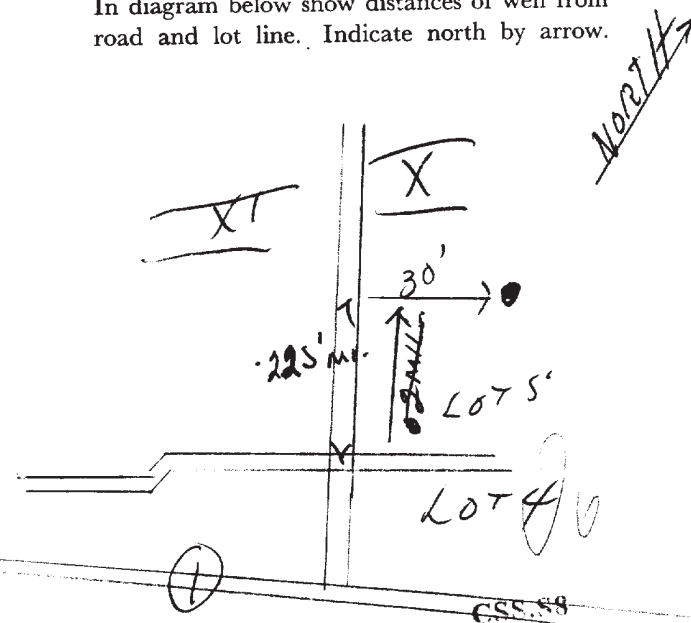
G. Charbonneau
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M-60-4138

OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



The Ontario Water Resources Commission Act

WATER WELL RECORD

3166e

Water management in Ontario

1. PRINT ONLY IN SPACES PROVIDED

2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11

1510707

MUNICIP

1.5002

CON

Con

199

COUNTY OR DISTRICT

Carleton

TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE

(Gloucester) ~~DETAIN~~

10	14	1
CON., BLOCK, TRACT. SURVEY, ETC.		

4 C.F.

	22	23	2
LOT	25-27		

001

DATE COMPLETED

48-53

avan, Ontario

DAY 29 MO. 06 YR. 70

DAY	MON	TUE	WED	THU	FRI	SAT	SUN
II	III	IV					

ING 2 3 1 0 1 8

RC.	ELEVATION
4	22

RC.	BASIN CODE
4	25

Age Group	Male	Female
I	1	2
II	2	3
III	3	4
IV	4	5

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

[illegible]

31	0978305	00806H1
32		

1-2		10		14 15		21	
41		WATER RECORD					
WATER FOUND AT - FEET		KIND OF WATER					
00-80	10-13	<input checked="" type="checkbox"/> FRESH	3	<input type="checkbox"/> SULPHUR	14		
		2 <input type="checkbox"/> SALTY	4	<input type="checkbox"/> MINERAL			
	15-18	1 <input type="checkbox"/> FRESH	3	<input type="checkbox"/> SULPHUR	15		
		2 <input type="checkbox"/> SALTY	4	<input type="checkbox"/> MINERAL			
	20-23	1 <input type="checkbox"/> FRESH	3	<input type="checkbox"/> SULPHUR	20		
		2 <input type="checkbox"/> SALTY	4	<input type="checkbox"/> MINERAL			
	25-28	1 <input type="checkbox"/> FRESH	3	<input type="checkbox"/> SULPHUR	25		
		2 <input type="checkbox"/> SALTY	4	<input type="checkbox"/> MINERAL			
	30-33	1 <input type="checkbox"/> FRESH	3	<input type="checkbox"/> SULPHUR	30		
		2 <input type="checkbox"/> SALTY	4	<input type="checkbox"/> MINERAL			

51 CASING & OPEN HOLE RECORD			
INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET
			FROM TO
10-11	<input type="checkbox"/> STEEL <input checked="" type="checkbox"/> GALVANIZED <input checked="" type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE	12	0 0080
17-18	<input type="checkbox"/> STEEL <input type="checkbox"/> GALVANIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE	19	20-23
24-25	<input type="checkbox"/> STEEL <input type="checkbox"/> GALVANIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE	26	27-30

SCREEN	54	65	75	80		
	SIZE(S) OF OPENING (SLOT NO.)	31-33	DIAMETER	34-38	LENGTH	39-40
			INCHES		FEET	
	MATERIAL AND TYPE		DEPTH TO TOP OF SCREEN		41-44	80

61 PLUGGING & SEALING RECORD		FEET
DEPTH SET AT - FEET		MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
FROM	TO	
10-13	14-17	
18-21	22-25	
26-29	30-33	80

PUMPING TEST	71	PUMPING TEST METHOD		10	PUMPING RATE		11-14	DURATION OF PUMPING	
		1 <input checked="" type="checkbox"/> PUMP	2 <input type="checkbox"/> BAILER		0006		02	15-16 HOURS	00
		STATIC LEVEL	WATER LEVEL END OF PUMPING	25	WATER LEVELS DURING		1	<input checked="" type="checkbox"/> PUMPING	
		19-21	040	22-24	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES	
		019	019	030	040	040	040		
	FEET	FEET	FEET	FEET	FEET	FEET	FEET	FEET	
	IF FLOWING, GIVE RATE		38-41	PUMP INTAKE SET AT		WATER AT END OF TEST		42	
	GPM.		40	FEET		<input checked="" type="checkbox"/> CLEAR		2 <input type="checkbox"/> CLOUDY	
	RECOMMENDED PUMP TYPE		RECOMMENDED PUMP SETTING	43-45	RECOMMENDED PUMPING RATE		46-48		
	<input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/> DEEP		050	FEET		0006	GPM		
	50-53		50-53						
	000.3		GPM./FT. SPECIFIC CAPACITY						

<p>FINAL STATUS OF WELL</p>	<p>54</p> <p>1 <input checked="" type="checkbox"/> WATER SUPPLY</p> <p>2 <input type="checkbox"/> OBSERVATION WELL</p> <p>3 <input type="checkbox"/> TEST HOLE</p> <p>4 <input type="checkbox"/> RECHARGE WELL</p>	<p>5 <input type="checkbox"/> ABANDONED, INSUFFICIENT SUPPLY</p> <p>6 <input type="checkbox"/> ABANDONED, POOR QUALITY</p> <p>7 <input type="checkbox"/> UNFINISHED</p>
<p>WATER USE</p> <p>01</p>	<p>55-56</p> <p>1 <input checked="" type="checkbox"/> DOMESTIC</p> <p>2 <input type="checkbox"/> STOCK</p> <p>3 <input type="checkbox"/> IRRIGATION</p> <p>4 <input type="checkbox"/> INDUSTRIAL</p> <p><input type="checkbox"/> OTHER _____</p>	<p>5 <input type="checkbox"/> COMMERCIAL</p> <p>6 <input type="checkbox"/> MUNICIPAL</p> <p>7 <input type="checkbox"/> PUBLIC SUPPLY</p> <p>8 <input type="checkbox"/> COOLING OR AIR CONDITIONING</p> <p>9 <input type="checkbox"/> NOT USED</p>
<p>METHOD OF DRILLING</p>	<p>57</p> <p>1 <input type="checkbox"/> CABLE TOOL</p> <p>2 <input type="checkbox"/> ROTARY (CONVENTIONAL)</p> <p>3 <input type="checkbox"/> ROTARY (REVERSE)</p> <p>4 <input type="checkbox"/> ROTARY (AIR)</p> <p>5 <input type="checkbox"/> AIR PERCUSSION</p>	<p>6 <input type="checkbox"/> BORING</p> <p>7 <input checked="" type="checkbox"/> DIAMOND</p> <p>8 <input type="checkbox"/> JETTING</p> <p>9 <input type="checkbox"/> DRIVING</p>

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.

4/10

20

6/10

TV

TWO

CUMBERLAND Bountry.

XI

Lot 1

CONTRACTOR	NAME OF WELL CONTRACTOR		LICENCE NUMBER	
	G. Charbonneau, Diamond & Cable Drilling, 1504			
	ADDRESS			
	R. R. 2, Box 194, Orleans, Ont.			
	NAME OF DRILLER OR BORER		LICENCE NUMBER	
	xxxx R. Wolfe			
	SIGNATURE OF CONTRACTOR	SUBMISSION DATE		
	<i>G. Charbonneau</i>	DAY 29 MO 6 YR 70		

OFFICE 'USE ONLY	KILLER: _____		REMARKS: _____	
	DATA SOURCE	58 CONTRACTOR	59-62 DATE RECEIVED	63-69
	1	1504	230271	00
	DATE OF INSPECTION		INSPECTOR	
		sc/kan		R/kan
REMARKS:				
<div style="text-align: right;">kan</div>				

OWRC COPY



WATER WELL RECORD

Water management in Ontario 1. PRINT ONLY IN SPACES PROVIDED

2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

COUNTY OR DISTRICT Russell	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE Cumberland	3	CON. BLOCK, TRACT, SURVEY, ETC. Con. 11	LOT 004
DATE COMPLETED DAY 14 MO. 12 YR. 70				
ADDRESS Metcalfe St., Ottawa, Ontario.				
RC. ELEVATION 319.00		RC. BASIN CODE 1A 0.283		

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
Brown	Sand loam			0	3
Blue-grey	clay		soft	3	23
Blue	clay			23	104
Blue	clay	layers of medium to coarse sand & gravel		104	110
Blue	clay	medium to coarse sand & gravel	Hard	110	112
	Gravel & sand clay streaks		medium to coarse	112	122
grey	limestone		hard	122	124'6"
grey	limestone	slightly fractured	hard	124'6"	197
grey	limestone		hard	197	217

31	000300902	0023205	0104305	0110305/011	0112305/011	0113211/0995	1
32	0217215						

41 WATER RECORD				51 CASING & OPEN HOLE RECORD				61 PLUGGING & SEALING RECORD									
WATER FOUND AT - FEET		KIND OF WATER		INSIDE DIAMETER INCHES		MATERIAL		WALL THICKNESS INCHES		DEPTH - FEET		SIZE(S) OF OPENING (SLOT NO.)		DIAMETER		LENGTH	
0112		1 FRESH 3 SULPHUR 4 MINERAL		16		STEEL				0		0021		11.750		39-40	
0122		1 FRESH 3 SULPHUR 4 MINERAL		12		STEEL				0		124'6"		11.750		39-40	
0131		1 FRESH 3 SULPHUR 4 MINERAL		10		STEEL				124'6"		0217		11.750		39-40	
0163		1 FRESH 3 SULPHUR 4 MINERAL															
0197		1 FRESH 3 SULPHUR 4 MINERAL															

71 PUMPING TEST METHOD		10 PUMPING RATE		11-14 DURATION OF PUMPING	
1 PUMP 2 BAILER		0140		GPM. 24 HOURS 00	
STATIC LEVEL		WATER LEVELS DURING		1 PUMPING 2 PUMPING	
001		066		019	
002		066		020	
003		066		021	
004		066		022	
005		066		023	
006		066		024	
007		066		025	
008		066		026	
009		066		027	
010		066		028	
011		066		029	
012		066		030	
013		066		031	
014		066		032	
015		066		033	
016		066		034	
017		066		035	
018		066		036	
019		066		037	
020		066		038	
021		066		039	
022		066		040	
023		066		041	
024		066		042	
025		066		043	
026		066		044	
027		066		045	
028		066		046	
029		066		047	
030		066		048	
031		066		049	
032		066		050	
033		066		051	
034		066		052	
035		066		053	
036		066		054	
037		066		055	
038		066		056	
039		066		057	
040		066		058	
041		066		059	
042		066		060	
043		066		061	
044		066		062	
045		066		063	
046		066		064	
047		066		065	
048		066		066	
049		066		067	
050		066		068	
051		066		069	
052		066		070	
053		066		071	
054		066		072	
055		066		073	
056		066		074	
057		066		075	
058		066		076	
059		066		077	
060		066		078	
061		066		079	
062		066		080	
063		066		081	
064		066		082	
065		066		083	
066		066		084	
067		066		085	
068		066		086	
069		066		087	
070		066		088	
071		066		089	
072		066		090	
073		066		091	
074		066		092	
075		066		093	
076		066		094	
077		066		095	
078		066		096	
079		066		097	
080		066		098	
081		066		099	
082		066		100	
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250		066		268	
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267		066		285	
268		066		286	
269		066		287	
270		066		288	
271		066		289	
272		066		290	
273		066			



ONTARIO

MINISTRY OF THE ENVIRONMENT
The Ontario Water Resources Act

WATER WELL RECORD

3166

1. PRINT ONLY IN SPACES PROVIDED
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11

1512413

MUNICIP.

150111

CON.

CPR

11

COUNTY OR DISTRICT

TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE

Cumberland

CON. BLOCK, TRACT, SURVEY, ETC.

11

X1

LOT

004

DATE COMPLETED

DAY 02 MO. 12

YR. 72

2, Nawan, Ont. Box 2334

313.90

RC

ELEVATION

9286

RC

BASIN CODE

25

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
red	clay			0	10
blue	clay			10	95
grey	gravel			95	116
grey	rock			116	118

31

0010705

0095305

0116211

0118220

32

41

WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
10-13	<input checked="" type="checkbox"/> FRESH <input type="checkbox"/> SULPHUR <input type="checkbox"/> SALTY <input type="checkbox"/> MINERAL
15-18	<input type="checkbox"/> FRESH <input type="checkbox"/> SULPHUR <input type="checkbox"/> SALTY <input type="checkbox"/> MINERAL
20-23	<input type="checkbox"/> FRESH <input type="checkbox"/> SULPHUR <input type="checkbox"/> SALTY <input type="checkbox"/> MINERAL
25-28	<input type="checkbox"/> FRESH <input type="checkbox"/> SULPHUR <input type="checkbox"/> SALTY <input type="checkbox"/> MINERAL
30-33	<input type="checkbox"/> FRESH <input type="checkbox"/> SULPHUR <input type="checkbox"/> SALTY <input type="checkbox"/> MINERAL

0118

51

CASING & OPEN HOLE RECORD

INSIDE DIA. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET
10-11	<input checked="" type="checkbox"/> STEEL <input type="checkbox"/> GALVANIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE	250	0
17-18	<input type="checkbox"/> STEEL <input type="checkbox"/> GALVANIZED <input type="checkbox"/> CONCRETE <input checked="" type="checkbox"/> OPEN HOLE		20-23
24-25	<input type="checkbox"/> STEEL <input type="checkbox"/> GALVANIZED <input type="checkbox"/> CONCRETE <input type="checkbox"/> OPEN HOLE		27-30

06

0118

SCREEN

SIZE (S) OF OPENING (SLOT NO.)	DIAMETER	LENGTH
	31-33	34-38
	INCHES	FEET
	DEPTH TO TOP OF SCREEN	41-44
		FEET

61

PLUGGING & SEALING RECORD

DEPTH SET AT - FEET	MATERIAL AND TYPE	LEAD PACKING, ETC.
FROM	TO	
10-13	14-17	
18-21	22-25	
26-29	30-33	

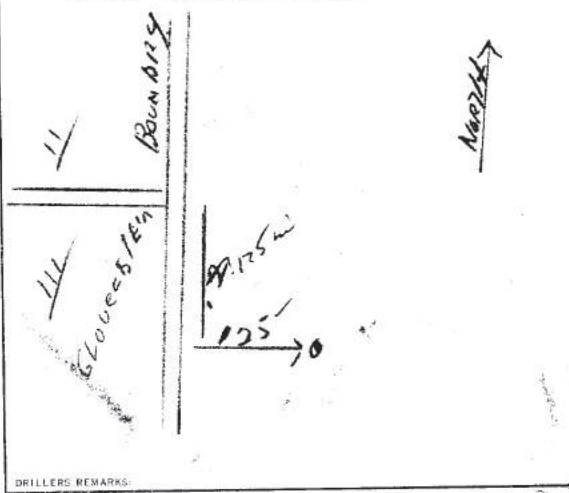
71

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
<input type="checkbox"/> PUMP <input checked="" type="checkbox"/> BAILEY	0024	02 HOURS 00 MINS
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING
19-21	22-24	15 MINUTES 26-28 29-31 45 MINUTES 32-34 60 MINUTES 35-37
002 FEET	008 FEET	005 FEET 008 FEET 008 FEET 008 FEET
IF FLOWING GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
	95	42
RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
<input checked="" type="checkbox"/> SHALLOW <input type="checkbox"/> DEEP	025	0006
50-53	004.0 GPM / FT. SPECIFIC CAPACITY	

FINAL STATUS OF WELL	<input checked="" type="checkbox"/> WATER SUPPLY <input type="checkbox"/> OBSERVATION WELL <input type="checkbox"/> TEST HOLE <input type="checkbox"/> RECHARGE WELL	<input type="checkbox"/> ABANDONED, INSUFFICIENT SUPPLY <input type="checkbox"/> ABANDONED, POOR QUALITY <input type="checkbox"/> UNFINISHED
WATER USE	<input checked="" type="checkbox"/> DOMESTIC <input type="checkbox"/> STOCK <input type="checkbox"/> IRRIGATION <input type="checkbox"/> INDUSTRIAL <input type="checkbox"/> OTHER	<input type="checkbox"/> COMMERCIAL <input type="checkbox"/> MUNICIPAL <input type="checkbox"/> PUBLIC SUPPLY <input type="checkbox"/> COOLING OR AIR CONDITIONING <input type="checkbox"/> NOT USED
METHOD OF DRILLING	<input checked="" type="checkbox"/> CABLE TOOL <input type="checkbox"/> ROTARY (CONVENTIONAL) <input type="checkbox"/> ROTARY (REVERSE) <input type="checkbox"/> ROTARY (AIR) <input type="checkbox"/> AIR PERCUSSION	<input type="checkbox"/> BORING <input type="checkbox"/> DIAMOND <input type="checkbox"/> JETTING <input type="checkbox"/> DRIVING

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



NAME OF WELL CONTRACTOR	G. Charbonneau, Diamond & Cable Drillers Ltd.
ADDRESS	R. R. 2, Box 194, Orleans, Ont.
NAME OF DRILLER OR BOKER	Leo Bourgeois
SIGNATURE OF CONTRACTOR	Submission Date DAY 1 MO 12 YR 72

DATA SOURCE	1	CONTRACTOR	1504	DATE RECEIVED	240473
DATE OF INSPECTION		INSPECTOR	K		
REMARKS					



Ministry
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Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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11

1528303

MUNICIP.

15011

CON.

CON

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON. BLOCK, TRACT, SURVEY, ETC.	LOT
11	11	11	4
DATE COMPLETED		DAY 4 MO 10 YR 91	
ELEVATION		BASIN CODE	
848.189			

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
Brown	clay			0	14
grey	clay			14	100
grey	sand	gravel		100	118
grey	limestone			118	128

31	32
----	----

41 WATER RECORD	51 CASING & OPEN HOLE RECORD	61 PLUGGING & SEALING RECORD
WATER FOUND AT - FEET: 120	INSIDE DIAM. INCHES: 6.8	DEPTH SET AT - FEET: 20
KIND OF WATER: 1 FRESH, 2 SALTY, 3 SULPHUR, 4 MINERALS, 6 GAS	MATERIAL: 1 GALVANIZED, 2 CONCRETE, 4 OPEN HOLE, 5 PLASTIC	MATERIAL AND TYPE: Cement Grout

71 PUMPING TEST	10 PUMPING METHOD	11-14 PUMPING RATE	15-18 DURATION OF PUMPING
1 PUMP, 2 SAILER	8	1	1
STATIC LEVEL: 20	WATER LEVEL END OF PUMPING: 100	WATER LEVELS DURING PUMPING: 60, 80, 100, 100	RECOVERY: 100

54 FINAL STATUS OF WELL	55-56 WATER USE	57 METHOD OF CONSTRUCTION
1 WATER SUPPLY, 2 OBSERVATION WELL, 3 TEST HOLE, 4 RECHARGE WELL	1 DOMESTIC, 2 STOCK, 3 IRRIGATION, 4 INDUSTRIAL	1 CABLE TOOL, 2 ROTARY (CONVENTIONAL), 3 ROTARY (REVERSE), 4 ROTARY (AIR), 5 AIR PERCUSSION

LOCATION OF WELL	116672
IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.	
DRILLERS REMARKS	

CONTRACTOR	WELL CONTRACTOR'S LICENCE NUMBER
NAME OF WELL CONTRACTOR: Maurice Cayer	1517
ADDRESS: Casselman Ont	
NAME OF WELL TECHNICIAN: Regan Cayer	0717
SIGNATURE OF TECHNICIAN/CONTRACTOR	SUBMISSION DATE: 4 MO 10 YR 91

OFFICE USE ONLY	DATE RECEIVED
DATA SOURCE: 1517	NOV 21 1994
DATE OF INSPECTION	INSPECTOR
REMARKS	



Ontario

Ministry of
the Environment

Well 1

Tag#: A151894

Below

Well Record

Regulation 903 Ontario Water Resources Act

Measurements recorded in: ☒ Metric ☐ Imperial

Page 1 of 3

A151894

Address of Well Location (Street Number/Name) 2680 Tenth-Line Rd		Township Orleans	Lot 5	Concession 11
County/District/Municipality OTTAWA City		City/Town/Village Orleans	Province Ontario	Postal Code K4A3W5
UTM Coordinates NAD 83 18462886	Zone 18	Easting 5031433	Northings 508-2029	Other Part 2

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From To
Red	clay		Soft	0 2.42
Blue	clay		Soft	2.42 30.90
Grey	Gravel	clay-SHALE	Soft	30.90 35.75

Annular Space			
Depth Set at (m/ft) From To	Type of Sealant Used (Material and Type)	Volume Placed (m ³ /ft ³)	
6.06 0	Cement Grout	80 KG	

Method of Construction	Well Use
<input type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary (Conventional) <input checked="" type="checkbox"/> Rotary (Reverse) AIR <input type="checkbox"/> Boring <input type="checkbox"/> Air percussion <input type="checkbox"/> Other, specify	<input type="checkbox"/> Public <input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Livestock <input type="checkbox"/> Irrigation <input type="checkbox"/> Industrial <input type="checkbox"/> Other, specify
<input type="checkbox"/> Diamond <input type="checkbox"/> Jetting <input type="checkbox"/> Driving <input type="checkbox"/> Digging	<input type="checkbox"/> Commercial <input type="checkbox"/> Municipal <input type="checkbox"/> Test Hole <input type="checkbox"/> Cooling & Air Conditioning <input type="checkbox"/> Dewatering <input type="checkbox"/> Monitoring

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From To		
25.40	Open Hole	0	6.06	<input checked="" type="checkbox"/> Water Supply	
15.55	Steel	0.48	0 34.24	<input type="checkbox"/> Replacement Well	
				<input type="checkbox"/> Test Hole	
				<input type="checkbox"/> Recharge Well	
				<input type="checkbox"/> Dewatering Well	
				<input type="checkbox"/> Observation and/or Monitoring Hole	
				<input type="checkbox"/> Alteration (Construction)	
				<input type="checkbox"/> Abandoned, Insufficient Supply	
				<input type="checkbox"/> Abandoned, Poor Well Quality	
				<input type="checkbox"/> Abandoned, other, specify	
				<input type="checkbox"/> Other, specify	

Construction Record - Screen				Status of Well	
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From To		

Water Details		Hole Diameter	
Water found at Depth (m/ft)	Kind of Water: <input checked="" type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	Depth (m/ft) From To	Diameter (cm/in)
35.75		0 35.75	15.23

Business Name of Well Contractor DKR well-Drilling		Well Contractor's Licence No. 6006
Business Address (Street Number/Name) 1763 Route 900 West		Municipality NATION
Province ON	Postal Code K0A3C0	Business E-mail Address

Bus. Telephone No. (inc. area code) 613 987 5558	Name of Well Technician (Last Name, First Name) Desnoyers Louis
Well Technician's Licence No. T 625	Signature of Technician and/or Contractor Louis Desnoyers
Date Submitted 2013/11/26	

Results of Well Yield Testing			
After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input checked="" type="checkbox"/> Other, specify Cloudy		Draw Down	
If pumping discontinued, give reason:		Time (min)	Water Level (m/ft)
Pump intake set at (m/ft) 22.72		Static Level	11.00
Pumping rate (l/min / GPM) 31.50		1 3.49	1 9.60
Duration of pumping 2 hrs + 00 min		2 4.50	2 8.70
Final water level end of pumping (m/ft) 11.00		3 5.12	3 7.76
If flowing give rate (l/min / GPM)		4 5.68	4 7.14
Recommended pump depth (m/ft) 22.72		5 6.22	5 6.60
Recommended pump rate (l/min / GPM) 36.00		10 7.91	10 4.54
Well production (l/min / GPM) 54.00		15 8.89	15 3.69
Disinfected? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		20 9.52	20 3.06
		25 9.95	25 2.54
		30 10.24	30 2.37
		40 10.61	40 2.30
		50 10.85	50 2.30
		60 11.00	60 2.30

Map of Well Location

Please provide a map below following instructions on the back.

Comments:	Well owner's information package delivered <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date Package Delivered 2013/11/26	Date Work Completed 2013/11/26
	Ministry Use Only		
	Audit No. Z175574		
	DEC 05 2013		

APPENDIX 3

QUALIFICATIONS OF ASSESSORS

**Anna Graham,
M.E.S.**

patersongroup

POSITION

Environmental Assessor

EDUCATION

McGill University, B.Sc. 2010
Biology and English Literature

Queen`s University, M.E.S. 2012
Environmental Studies

EXPERIENCE

2014 to Present

Paterson Group Inc.
Consulting Engineers
Environmental Assessor

2013 to 2014

Civica Infrastructure Inc.
Municipal Water Resources Engineering - Vaughan
Project Support Coordinator, Project Proposal Writer

PROJECTS

Environmental Impact Statements – various, Ottawa
Phase I Environmental Site Assessments – various, Ottawa
Flood Mapping Project Coordination – Credit Valley Conservation Authority
Manhole Survey Tool Design and Data Processing – City of Markham
Proposal Preparation – Utilities Kingston Inflow and Infiltration Study, City of Peterborough
Drainage Study

**Environmental
Engineering**

**Geotechnical
Engineering**

**Materials Testing
Quality Control**

Building Sciences

Hydrogeology

POSITION

Associate and Supervisor of the Environmental Division
Senior Environmental/Geotechnical Engineer

EDUCATION

Queen's University, B.A.Sc.Eng, 1991
Geotechnical / Geological Engineering

MEMBERSHIPS

Ottawa Geotechnical Group
Professional Engineers of Ontario

EXPERIENCE

1991 to Present

Paterson Group Inc.

Associate and Senior Environmental/Geotechnical Engineer
Environmental and Geotechnical Division
Supervisor of the Environmental Division

SELECT LIST OF PROJECTS

Environmental Engineering

Geotechnical Engineering

Materials Testing Quality Control

Building Science

Hydrogeology

Mary River Exploration Mine Site - Northern Baffin Island
Agricultural Supply Facilities - Eastern Ontario
Laboratory Facility – Edmonton (Alberta)
Ottawa International Airport - Contaminant Migration Study - Ottawa
Richmond Road Reconstruction - Ottawa
Billings Hurdman Interconnect - Ottawa
Bank Street Reconstruction - Ottawa
Environmental Review – Various Laboratories across Canada - CFIA
Dwyer Hill Training Centre – Ottawa
Nortel Networks Environmental Monitoring - Carling Campus – Ottawa
Remediation Program - Block D Lands – Kingston
Investigation of former landfill sites – City of Ottawa
Record of Site Condition for Railway Lands – North Bay
Commercial Properties – Guelph and Brampton
Brownfields Remediation – Alcan Site - Kingston
Montreal Road Reconstruction - Ottawa
Appleford Street Residential Development - Ottawa
Remediation Program - Ottawa Train Yards
Remediation Program - Bayshore and Heron Gate
Gladstone Avenue Reconstruction – Ottawa
Somerset Avenue West Reconstruction - Ottawa