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Phase I - Environmental Site Assessment

910 March Road
Ottawa, Ontario

Prepared For

Wexcom Developments (March Rd.) Ltd.

November 5, 2019

Report: PE4760-1

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EXECUTIVE SUMMARY

Assessment

Paterson Group was retained by Wexcom Developments (March Road) Ltd. to conduct a Phase I – Environmental Site Assessment (Phase I ESA) at 910 March Road in the City of Ottawa, Ontario. The purpose of this Phase I ESA was to research the past and current use of the Phase I Property and Phase I Study Area and to identify any environmental concerns with the potential to have impacted the subject land.

According to the historical research, the Phase I Property was initially developed with a residence and farmstead circa 1890. The subject land remained as agricultural land (cattle farm) until 2014, at which time it was used for residential purposes only. No potentially contaminating activities (PCAs) were identified with the historical use of the Phase I Property.

Based on historical records, neighbouring lands were also occupied by residences and farmsteads. No PCAs were identified with the historical use of properties within the Phase I Study Area.

Following the historical research, a site visit was conducted. The subject land is occupied by multiple structures consisting of storage barns, maintenance and tool storage sheds, a single-storey cabin and a two-storey residential structure with a basement level. The current property owner was present at the time of the assessment and indicated that a former underground storage tank (UST) was situated on the south side of the residence. The former UST represents is a PCA that represents an area of potential environmental concern (APEC) on the Phase I Property.

Additionally, three (3) empty aboveground storage tanks (ASTs) were noted in the interior of the northeastern storage shed, as well as an AST along the exterior west wall of another storage shed, located between the residence and the northwestern shed. The ASTs on-site were considered PCAs that represent APECs on the Phase I Property.

Neighbouring lands in the Phase I Study Area consist of residential, vacant lands and commercial businesses located to the south. No PCAs were identified with the current use of the lands within the Phase I Study Area.

Based on the results of the Phase I ESA, **it is our opinion that a Phase II Environmental Site Assessment is required for the subject property**.

Recommendations

If the domestic wells currently on-site are not going to be used in the future, or will be destroyed during site redevelopment, they should be abandoned according to Ontario Regulation 903.

1.0 INTRODUCTION

At the request of Wexcom Developments (March Road) Ltd., Paterson Group (Paterson) conducted a Phase I – Environmental Site Assessment (Phase I ESA) at 910 March 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 at the request of Mr. Michael Foley of Wexcom Developments. Mr. Foley can be reached by telephone at 905-385-4514.

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

This Phase I ESA report has been prepared in general accordance with the requirements of Ontario Regulation 153/04, as amended, under the 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, as well as 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:	910 March Road, Ottawa, Ontario
Legal Description:	Part of Lots 11 and 12, Part 1 of Registered Pan 4R24361, March Concession 4, in the City of Ottawa.
Property Identification Number (PIN):	04527-0840
Location:	The Phase I Property is located on the east side of March Road, approximately 86 m north of the Maxwell Bridge Road and March Road intersection, in the City of Ottawa, Ontario. For the purposes of this report, March Road is assumed to run in a north-south direction. The subject site is shown on Figure 1 – Key Plan, following the body of this report (Figures section).
Latitude and Longitude:	45° 21' 35.47" N, 75° 56' 10.25" W

Site Description:

Configuration:	Irregular
Site Area:	2.72 ha (approximate)
Zoning:	DR – Development Reserve Zone designated on the southern portion of the site. RU – Rural Zone designated on the northern portion of the site of which Shirley's Brook and its tributary transects the north-eastern and northern portions of the Phase I Property in an approximate north-south direction, while its tributary runs in an approximate east-west direction, parallel to the northern property boundary.
Current Use:	The subject site is currently an uninhabited farmstead.
Services:	The Phase I Property has private services (potable wells and septic system) and will be provided with municipal services upon redevelopment.

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 O.Reg. 153/04, as amended, 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 Study Area for this assessment. 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

Based on the historical review and personal interview with the current landowner, the Phase I Property was first developed with a farmstead circa 1890. For the purpose of this Phase I ESA, the first developed use for the Phase I Property is assumed to have been residential and agricultural in 1890.

National Archives

Fire insurance plans and city directories are not available for the Phase I Property and properties within the 250m Phase I Study Area.

Chain of Title

Paterson did not request a Chain of Title for the subject site as it was determined that sufficient information was gathered from other sources, such as personal interviews and other historical records.

Plan of Subdivision

A survey plan prepared by Stantec Geomatics Limited and dated July of 2017 was reviewed as a part of this assessment. The plan depicts the Phase I Property, in its current configuration. A copy of the survey plan is provided in Appendix 1.

Previous Engineering Reports

Paterson has conducted environmental assessments for a neighbouring property to the north and the reconstruction of March Road in 2018. Based on a review of our files, no potential environmental concerns were identified within the 250m search radius with respect to the Phase I Property.

A Designated Substance Survey (DSS) was conducted at the subject site by Paterson in October 2019. Based on the report, asbestos-containing materials (ACMs) were identified in the residential structure.

It was recommend that prior to demolition all ACMs be removed according to the O.Reg 490/09 under the Occupational Health and Safety Act.

Paterson conducted a Geotechnical Investigation on the subject land, concurrently with the environmental investigation. Nine (9) boreholes were drilled on-site. The subsurface profile generally consisted of a layer topsoil underlain by a hard to stiff brown silty clay, which in turn, overlaid compact to dense glacial till and/or inferred bedrock. Practical auger refusal was encountered at all test hole locations at depths varying between 1.9 to 4.7 m below existing ground surface on inferred bedrock. No contamination or deleterious material was encountered during the subsurface investigation.

4.2 Environmental Source Information

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on October 2, 2019. The Phase I Property and properties within the Phase I Study Area were not listed in the NPRI database.

PCB Inventory

A search of national PCB waste storage sites was conducted. No PCB waste storage sites are located within the Phase I 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 Ontario Ministry of Natural Resources and Forestry (MNRF) website on October 3, 2019. No natural features or areas of natural significance were identified on the Phase I Property or within the 250m study area.

Ontario Ministry of Environment, Conservation and Parks (MECP) Instruments

A request was submitted to the MECP Freedom of Information (FOI) office for information with respect to certificates of approval, permits to take water, certificates of property use or any other similar MECP issued instruments for the Phase I Property. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

MECP Submissions

A request was submitted to the MECP FOI office for information with respect to reports related to environmental conditions for the Phase I Property. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

MECP Incident Reports

A request was submitted to the MECP FOI office for information with respect to records concerning environmental incidents, orders, offences, spills, discharges of contaminants or inspections maintained by the MECP for the Phase I Property. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

MECP Waste Management Records

A request was submitted to the MECP Freedom of Information office for information with respect to waste management records for the subject site. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

MECP Coal Gasification Plant Inventory

The Ontario Ministry of Environment, Conservation and Parks document titled "Municipal Coal Gasification Plant Site Inventory, 1991" was reviewed to reference the locations of former plants with respect to the site. The Phase I Property and properties within the 250m study area are not listed in this document.

MECP Brownfields Environmental Site Registry

A search of the MECP Brownfields Environmental Site Registry was conducted as part of this assessment for the subject site, neighbouring properties, and the Phase I study area. No Records of Site Condition (RSCs) were filed for the Phase I Property or for any properties within the Phase I Study Area.

MECP Waste Disposal Site Inventory

The Ontario Ministry of Environment and Climate Change 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 records were listed for the Phase I Property or for properties within the Phase I Study Area.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on October 2, 2019, to inquire about current and former underground storage tanks, spills and incidents for the Phase I ESA Property and neighbouring properties. Based on the TSSA response, no records are listed in the TSSA registry for the Phase I ESA Property or the adjacent 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 landfill sites were identified within the Phase I Study Area.

City of Ottawa Historical Land Use Inventory (HLUI) Database

A request for information from the City’s Historical Land Use Inventory (HLUI 2005) database for the subject property was sent to the City of Ottawa in October of 2019. At the time this report was issued, a response had not been received. Any pertinent information will be forwarded to the client upon receipt. A copy of the HLUI authorization form is provided in Appendix 2.

4.3 Physical Setting Sources

Aerial Photographs

Historical air photos from the National Air Photo Library were reviewed in approximate ten (10) year intervals, commencing with the earliest available photograph. Based on the review, the following observations have been made:

1934 The subject site is occupied by a farmstead. Surrounding lands are occupied by agricultural land with some farmsteads/residences.

1945 The subject site and surrounding lands remain unchanged from the previous photograph.

1955 No significant changes are apparent on the subject site or neighbouring lands.

1976 A residential dwelling (red roof) and barn-like structure can be seen in this photograph. No significant changes are apparent on the subject site and surrounding lands.

1989 Several structures appear to be occupying the subject site at this time. No apparent changes have been made to neighbouring lands.

1991 One of the barn-like structures situated on the central part of the site is no longer present. Some ground disturbance is visible at this time. New roadways can be seen to the east of Old Carp Road (Marchbrook Circle) and March Road (Klondike Road) at this time.

2002 The subject site remains unchanged from the previous photograph. Residences are present to the west and preparation of a new development is noted to the southwest. Lands to the north and east remain unchanged.

2011 (City of Ottawa Website) No apparent changes are apparent on the subject site. A new residential and commercial development is present to the east and south, as well as a stormwater management pond. Maxwell Bridge Drive is present at this time.

2017 (City of Ottawa Website) No significant changes are apparent on the subject site or surrounding lands.

Copies of selected aerial photographs reviewed are included in Appendix 1.

Topographic Maps

Topographic information was obtained from Natural Resources Canada – The Atlas of Canada website. The topographic maps indicate that the Phase I Property and regional topography slopes down in a southeast/south direction towards Shirley's Brook. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report.

Physiographic Maps

The Ontario Geological Survey publication 'The Physiography of Southern Ontario, Third Edition' was reviewed as a part of this assessment. According to the publication and attached mapping, the site is situated within the Ottawa Valley Clay Plains physiographic region, described as "clay plains interrupted by ridges of rock

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 the information from NRCAN, bedrock in the area of the site consists primarily of interbedded sandstone and dolomite of the March Formation. Based on the maps, the thickness of overburden ranges from 5 to 10 m and consists of offshore marine sediments consisting of erosional terraces.

Water Well Records

A search of the MECPs website for all drilled well records within 250 m of the subject site was conducted on October 3, 2019. Based on the online mapping search results, two (2) potable well records were identified on the Phase I Property. The wells were drilled in 1973 and 2006 to an approximate depth of 27.4 m below the ground surface (mbgs). The water was clear and sediment free in both wells. According to these well logs, the site stratigraphy consisted of brown clay, extending to a depth of 1.82 m, underlain by interbedded limestone and sandstone bedrock.

Eighteen (18) well records were identified for properties within the Phase I Study Area, which consisted of twelve (12) domestic wells drilled between 1961 to 1984, and six (6) well abandonments from 2006 to 2007. No concerns were noted during the review of these records. Copies of the MECP well records are provided in Appendix 2.

Water Bodies and Areas of Natural Significance

Shirley's Brook transects the northeastern portion of the Phase I Property in an approximate north-south direction, while its tributary runs in an approximate east-west direction, parallel to the northern property boundary and drains into Shirley's Brook. No other bodies of water are present on the Phase I Property or within the Phase I Study Area. No areas of natural significance are known to exist within the Phase I Study Area.

5.0 PERSONAL INTERVIEWS

Mr. Jim Maxwell, the current property owner was interviewed at the time of the site visit. Mr. Maxwell indicated that the Maxwell family has owned and operated the farm (cattle farm) for more than 100 years, which ceased operations in 2004. According to Mr. Maxwell, the residential dwelling was previously on fuel oil with an underground storage tank (UST) situated beside the exterior south wall of the

residence. The UST as well the oil-fired furnace was removed circa 1980. A wood burning stove and a propane fired furnace was used in replacement of the oil-fired furnace, which was later converted to natural gas in the early 2000s.

For the last 12 years, the site has been primarily used for residential purposes and storage of various farm equipment, tools and building materials from Mr. Maxwell's farm located in Perth, Ontario. The current residence has not been occupied since 2017 and is currently uninhabited. Mr. Maxwell has indicated that he is not aware of any potential environmental concerns on the subject land or neighbouring properties.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

A site visit was conducted by Mr. Mark St. Pierre, from the Environmental Department of Paterson Group on October 3, 2019. Weather conditions were overcast with a temperature of approximately 8°C. In addition to the Phase I Property, the uses of neighbouring properties within the Phase I Study Area was also assessed at the time of the site visit.

6.2 Specific Observations at Phase I Property

Buildings and Structures

The Phase I Property is occupied by seven (7) structures that include a residential dwelling and private shed, a small vacant cabin, and four (4) barn-like structures.

The residential dwelling is a 2-storey home with a basement level constructed with a stone and mortar foundation. The exterior is finished in stone and with a sloped red metal roof. An add-on front entrance structure was finished in vinyl siding. The residence is believed to have been built in the late 1890s. The cabin like structure is a single-storey slab-on-grade structure finished in wood siding with a sloped shingle roof. The cabin was constructed circa 1970s.

The northeastern and southern most barns are wood pier style barns, while the remaining are slab-on-grade barns finished in metal siding and metal roofs. The barns were constructed sometime between the late 1970s and 1980s.

A depiction of the subject site is presented on Drawing PE4760-1 – Site Plan, in the Figures section of this report.

Subsurface Utilities and Structures

Historical subsurface structures including the UST and line associated with the heating oil furnace were situated on the south side of the residential dwelling.

Presently, the Phase I Property is serviced by a private well and septic system with above ground electricity service from March Road. Below ground natural gas services and underground electrical services are present on-site. The approximate locations of above and below ground services are shown on Drawing PE4760-1 – Site Plan.

Site Features

The Phase I Property is situated in a designated floodplain overlying Shirley's Brook and its tributary, which transect the north-eastern and northern portions of the Phase I Property in an approximate north-south direction, while its tributary runs in an approximate east-west direction, parallel to the northern property boundary.

The site is grass-covered land with an asphaltic concrete paved driveway leading to the residential dwelling and attached garage, fronting March Road. Several semi-truck trailers, sheet metal, farm equipment and waste lumber were situated along-side the work and storage sheds.

The topography of the site is generally flat with a slight downward slope along the northern, eastern and southern property boundaries towards Shirley's Brook and its tributaries, present to the north and south. Site drainage occurs primarily through infiltration on grass-covered areas and/or surface runoff to the adjacent drainage ditches along March Road and/or into Shirley's Brook and its tributaries.

One potable water well was noted on the southwestern side of the residential dwelling, which was drilled in 2006. The domestic well drilled in 1973 was located on the west side of the small cabin.

An exterior drainage pipe was noted on the east side of the residence. The pipe drains groundwater from the interior sump pit. No signs of water, odour or stressed vegetation was noted at the time of the site visit.

An empty above ground storage tank (AST) was noted on the exterior south side of the barn, east of the residence, at the time of the site visit. No evidence of surficial staining or stressed vegetation was observed around or beneath the AST at the time of the site visit.

No hazardous materials or evidence of surficial staining were observed on the Phase I Property at the time of the site visits.

Interior Assessment

A general description of the interior of the residential building is as follows:

- Floor materials consist of a combination of vinyl tiles, linoleum and poured concrete and gravel (basement).
- Wall materials consist of lathe and plaster, drywall and stone and mortar walls (basement).
- Ceiling materials consist of plaster and unfinished wood beams (basement).
- Lighting is provided by incandescent fixtures.

A designated substance survey (DSS) was recently conducted at the subject building. Reference should be made to the report for more details.

The dwelling is currently heated with natural gas-fired equipment, prior to which, fuel-oil was used. An above ground copper line that was partially parged over was observed in the basement. No evidence of surficial staining or odour was noted at the time of the visit. One sump pit was noted in the basement. No water or odour was noted at the time of the visit.

Three (3) empty ASTs were noted in the interior of the northeastern most barn at the time of the site visit. No evidence of surficial staining or unusual odour were observed around or beneath the AST sat the time of the site visit.

Motor oils were stored inside the workshop. No other chemicals were noted on-site at the time of the site visit. No potential concerns were noted with the chemical storage on the Phase I Property.

Waste is not currently generated on the Phase I Property.

Neighbouring Properties

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

- North: Residential and agricultural land
- East: Shirley's Brook, residences and vacant land, followed by Windance Crescent
- South: MacDonalds, followed by Maxwell Bridge Road
- West: March Road, followed by private clinic and residence.

The current use of the neighbouring properties is not considered to pose an environmental concern to the subject site. There are no properties within the Phase I Study Area that are occupied by potentially contaminating activities (PCAs). Current land use in the Phase I Study Area is illustrated on Drawing PE4760-2 – Surrounding Land Use Plan in the Figures section of this report.

7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 Land Use History

The following tables indicate 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 – 910 March Road

Time Period	Name of Owner	Property Use	Description of Property Use	Other Observations from Aerial Photos, FIPs, etc.
Prior to 1890	Unknown	Residential and Agricultural	Phase I Property was reportedly developed as a farmstead in the late 1800's.	First developed use based on personal interview.
1890 to 2007	Private individuals (Maxwell Family)	Residential and Agricultural	Farmstead: residential dwelling and cattle farm	Existing farmstead can be seen in 1934 aerial (earliest aerial available for review). No significant change in land use noted in subsequent 1952, 1976, 1989 and 2007 aerials.
2007 to 2017	Maxwell Family	Residential	Residential and storing tools and farm equipment	Based on an interview with the current property owner. Lack of activity on the Phase I Property can be seen in 2011 and 2017 aerial photos.
2017 to present	Maxwell Family	Residential	Unoccupied or uninhabited	Based on an interview the Phase I Property is current unoccupied.

Potentially Contaminating Activities

The following PCAs, as per Table 2, O.Reg. 153/04, as amended, were identified on the Phase I Property:

- PCA 1: *Item 28, "Gasoline and Associated Products Storage in Fixed Tanks"* – this PCA was identified based on the presence of a former underground storage tank situated on the southwest side of the residential dwelling on the Phase I Property.
- PCA 2: *Item 28, "Gasoline and Associated Products Storage in Fixed Tanks"* – this PCA was identified based on the presence of an empty above ground

storage tank situated on the west side of the storage shed located east of the residential dwelling on the Phase I Property.

- ❒ PCA 3: *Item 28, "Gasoline and Associated Products Storage in Fixed Tanks"* – this PCA was identified based on the presence of three (3) empty above ground storage tanks situated inside the northeastern storage shed on the Phase I Property.

The rationale for identifying the PCAs is based on the site visit and an interview with the current owner of the Phase I Property.

The locations of PCAs within the Phase I Study Area are shown on Drawing PE4760-2 –Surrounding Land Use Plan.

Areas of Potential Environmental Concern

A summary of the PCAs that represent APECs on the Phase I Property are presented in Table 2.

Table 2: Areas of Potential Environmental Concern

Area of Potential Environmental Concern (APEC)	Location of APEC on Phase I Property	Potentially Contaminating Activity (PCA)	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Soil and/or Groundwater)
APEC 1: Presence of a former UST	Central west portion of the Phase I Property	Item 28: Gasoline and associated product storage in fixed tanks	On-site	BTEX, PHC (F_1-F_4)	Soil and Groundwater
APEC 2: Presence of an empty AST	Central portion of the Phase I Property	Item 28: Gasoline and associated product storage in fixed tanks	On-site	BTEX, PHC (F_1-F_4)	Soil and Groundwater
APEC 3: Presence of three (3) ASTs	Central east portion of the Phase I Property	Item 28: Gasoline and associated product storage in fixed tanks	On-site	BTEX, PHC (F_1-F_4)	Soil and Groundwater

The locations of the APECs on the Phase I Property are depicted in Drawing PE4760-1 – Site Plan.

Contaminants of Potential Concern (CPCs)

Based on the APECs identified on the Phase I Property, the contaminants of potential concern (CPCs) in the soil and groundwater include benzene, ethylbenzene, toluene and xylenes (BTEX), and petroleum hydrocarbons (PHCs, Fractions F_1-F_4).

7.2 Conceptual Site Model

Geological and Hydrogeological Setting

Based on our geotechnical investigation, the profile generally encountered on the Phase I Property consisted of a layer topsoil underlain by a hard to stiff brown silty clay, followed by a compact to dense glacial till and/or inferred bedrock at depths varying between 1.9 and 4.7 mbgs.

According to the Geological Survey of Canada website, the bedrock in the area of the site consists of interbedded sandstone and dolomite of the March Formation. Overburden soils are reported to consist of offshore marine sediments with erosional terraces or bedrock, with drift thicknesses between 5 and 10m.

The regional topography slopes down in a southeasterly direction. The local groundwater flow beneath the Phase I Property is inferred to be in a south-easterly direction towards Shirley's Brook.

Buildings and Structures

The Phase I Property is occupied by seven (7) structures that include a residential dwelling and private shed, a small vacant cabin, and four (4) barn-like structures. The residential dwelling is currently uninhabited. The workshop is used intermittently by the current landowner.

Subsurface Structures and Utilities

Presently the Phase I Property is serviced by a private well and septic system with above ground electricity service from March Road. Underground natural gas and electrical services are present on-site.

The presence of underground electrical and natural gas lines is not considered to have an affect on contaminant distribution or transport.

Water Bodies

Shirley's Brook transects the northeastern portion of the Phase I Property in an approximate north-south direction and is considered to flow in a southerly direction while its tributary runs in an approximate east-west direction, parallel to the northern property boundary and drains into Shirley's Brook. No other water bodies are present on the Phase I Property or within the Phase I Study Area.

Areas of Natural Significance

No areas of natural significance are known to exist within the Phase I Study Area.

Potable Water Wells

Based on the MECP well mapping website, two (2) well records were identified on Phase I Property for potable wells that were drilled in 1973 and 2006 to an approximate depth of 27.43 m below the ground surface (mbgs). The water was clear and sediment free.

During the site visit, two (2) domestic wells were located. One well was located on the west side of the residential dwelling (stone house), while the other was located next to the small residential unit/cabin located north of the residential dwelling. Several domestic well records were identified on properties within the Phase I Study Area. Properties to the north and west within the Phase I Study Area currently rely on potable water wells for drinking water.

Monitoring Wells

The MECP well mapping did not identify any monitoring well records for the Phase I Property or for any properties within the Phase I Study Area.

Neighbouring Land Use

Neighbouring land use in the Phase I Study Area is primarily residential and agricultural. Commercial land use is present on the neighbouring properties to the south. Land use is shown on Drawing PE4760-2 - Surrounding Land Use Plan.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

As per Section 7.1 of this report, presented in Table 2, the on-site PCAs include the former presence of a UST and presence of empty ASTs resulted in APECs on the Phase I Property

Contaminants of Potential Concern

As per Section 7.1 of this report, the CPCs in the soil and groundwater on the Phase I Property include the following benzene, ethylbenzene, toluene and xylenes (BTEX) and petroleum hydrocarbons (PHCs, Fractions F_1-F_4).

Assessment of Uncertainty and/or Absence of Information

The information available for review as part of the preparation of this Phase I ESA is considered to be sufficient to conclude that there are potentially contaminating activities (PCAs) on-site, which have resulted in areas of potential environmental concern (APECs) on the Phase I Property. The presence of PCAs was confirmed by a variety of independent sources, including, observations made during the site visit and a personal interview. As such, the conclusions of this report are not affected by uncertainty which may be present with respect to the individual sources.

8.0 CONCLUSION

Assessment

Paterson Group was retained by Wexcom Developments (March Road) Ltd. to conduct a Phase I – Environmental Site Assessment (Phase I ESA) at 910 March Road in the City of Ottawa, Ontario. The purpose of this Phase I ESA was to research the past and current use of the Phase I Property and Phase I Study Area and to identify any environmental concerns with the potential to have impacted the subject land.

According to the historical research, the Phase I Property was initially developed with a residence and farmstead circa 1890. The subject land remained as agricultural land (cattle farm) until 2014, at which time it was used for residential purposes only. No potentially contaminating activities (PCAs) were identified with the historical use of the Phase I Property.

Based on historical records, neighbouring lands were also occupied by residences and farmsteads. No PCAs were identified with the historical use of properties within the Phase I Study Area.

Following the historical research, a site visit was conducted. The subject land is occupied by multiple structures consisting of storage barns, maintenance and tool storage sheds, a single-storey cabin and a two-storey residential structure with a basement level. The current property owner was present at the time of the assessment and indicated that a former underground storage tank (UST) was situated on the south side of the residence. The former UST represents is a PCA that represents an area of potential environmental concern (APEC) on the Phase I Property.

Additionally, three (3) empty aboveground storage tanks (ASTs) were noted in the interior of the northeastern storage shed, as well as an AST along the exterior west wall of another storage shed, located between the residence and the northwestern shed. The ASTs on-site were considered PCAs that represent APECs on the Phase I Property.

Neighbouring lands in the Phase I Study Area consist of residential, vacant lands and commercial businesses located to the south. No PCAs were identified with the current use of the lands within the Phase I Study Area.

Based on the results of the Phase I ESA, **it is our opinion that a Phase II Environmental Site Assessment is required for the subject property**.

Recommendations

If the domestic wells currently on-site are not going to be used in the future, or will be destroyed during site redevelopment, they should be abandoned according to Ontario Regulation 903.

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, 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 as well as 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.

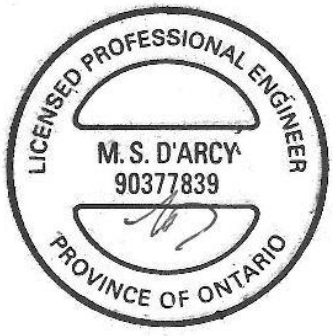
Should any conditions be encountered at the subject site and/or historical information that differ from our findings, we request that we be notified immediately in order to allow for a reassessment.

This report was prepared for the sole use of Wexcom Developments (March Road) Limited. Permission and notification from Wexcom Developments (March Road) Ltd. and Paterson Group will be required to release this report to any other party.

Paterson Group Inc.

Mandy Witteman, B.Eng., M.A.Sc.,

Mark S. D'Arcy, P.Eng., QP_{ESA}



Report Distribution:

- ❒ Wexcom Developments (March Road) Limited
- ❒ Paterson Group Inc.

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
MECP Freedom of Information and Privacy Office.
MECP Municipal Coal Gasification Plant Site Inventory, 1991.
MECP document titled “Waste Disposal Site Inventory in Ontario”.
MECP Brownfields Environmental Site Registry.
MECP Water Well Inventory.
Office of Technical Standards and Safety Authority, Fuels Safety Branch.
Ministry of Natural Resources and Forestry: Areas of Natural Significance.
Chapman, L.J., and Putnam, D.F., 1984: ‘The Physiography of Southern Ontario, Third Edition’, Ontario Geological Survey Special Volume 2.

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
Previous Engineering Reports.
Plan of Survey prepared by J.D. Barnes Limited and dated February 2019.

Public Information Sources
Google Earth.
Google Maps/Street View.

FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE4760-1 – SITE PLAN

DRAWING PE4760-2 – SURROUNDING LAND USE PLAN

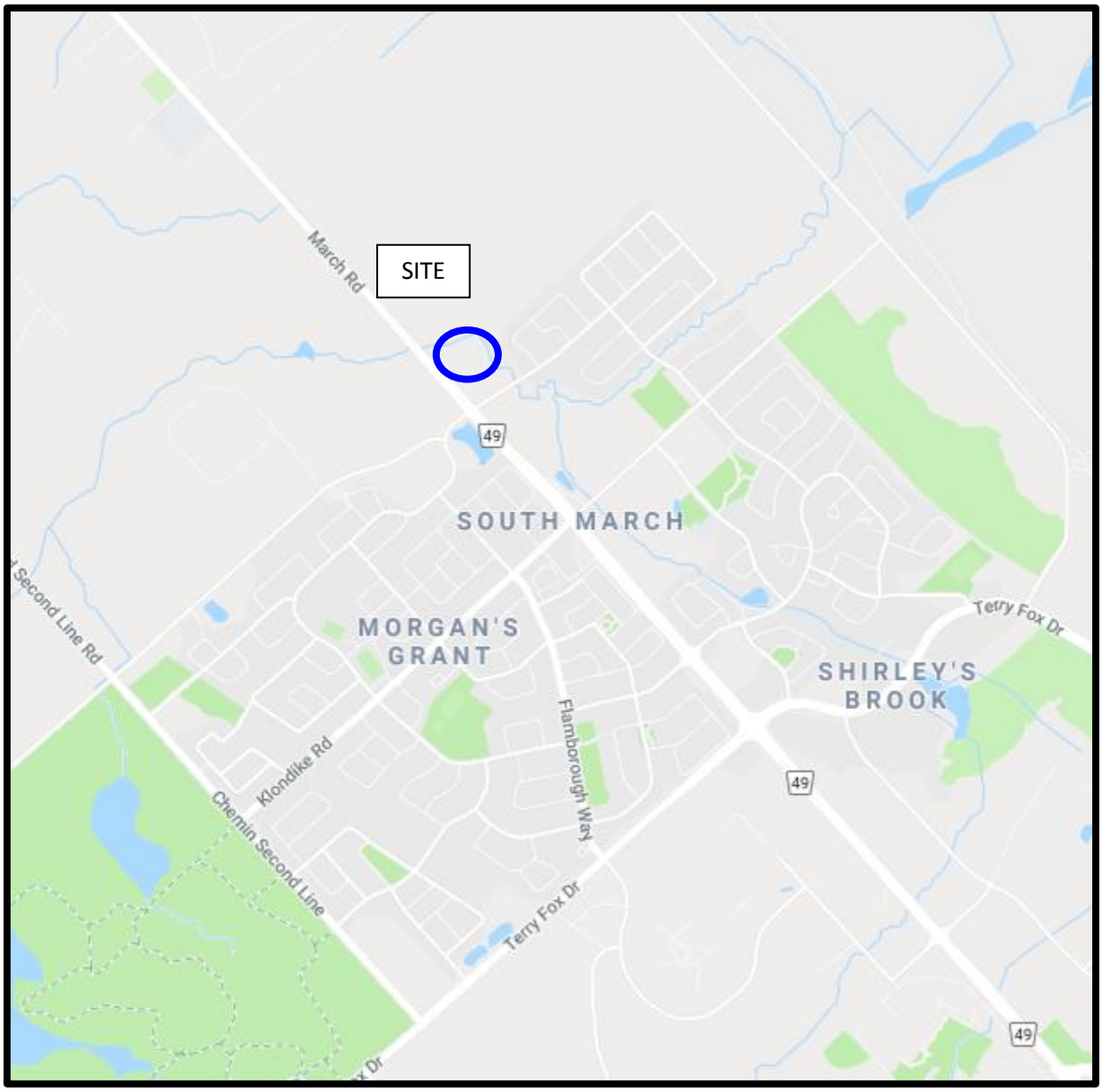


FIGURE 1

KEY PLAN

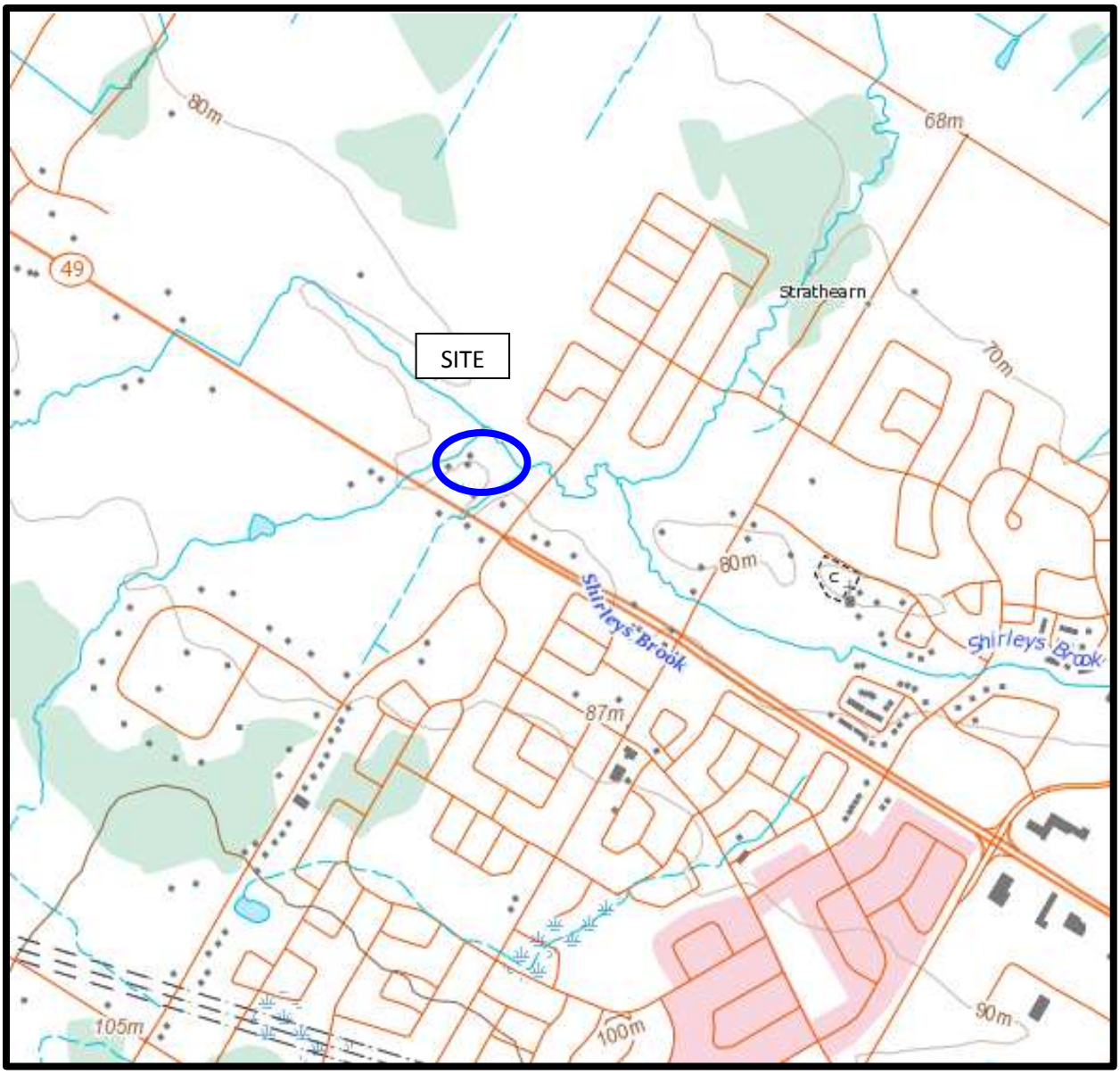
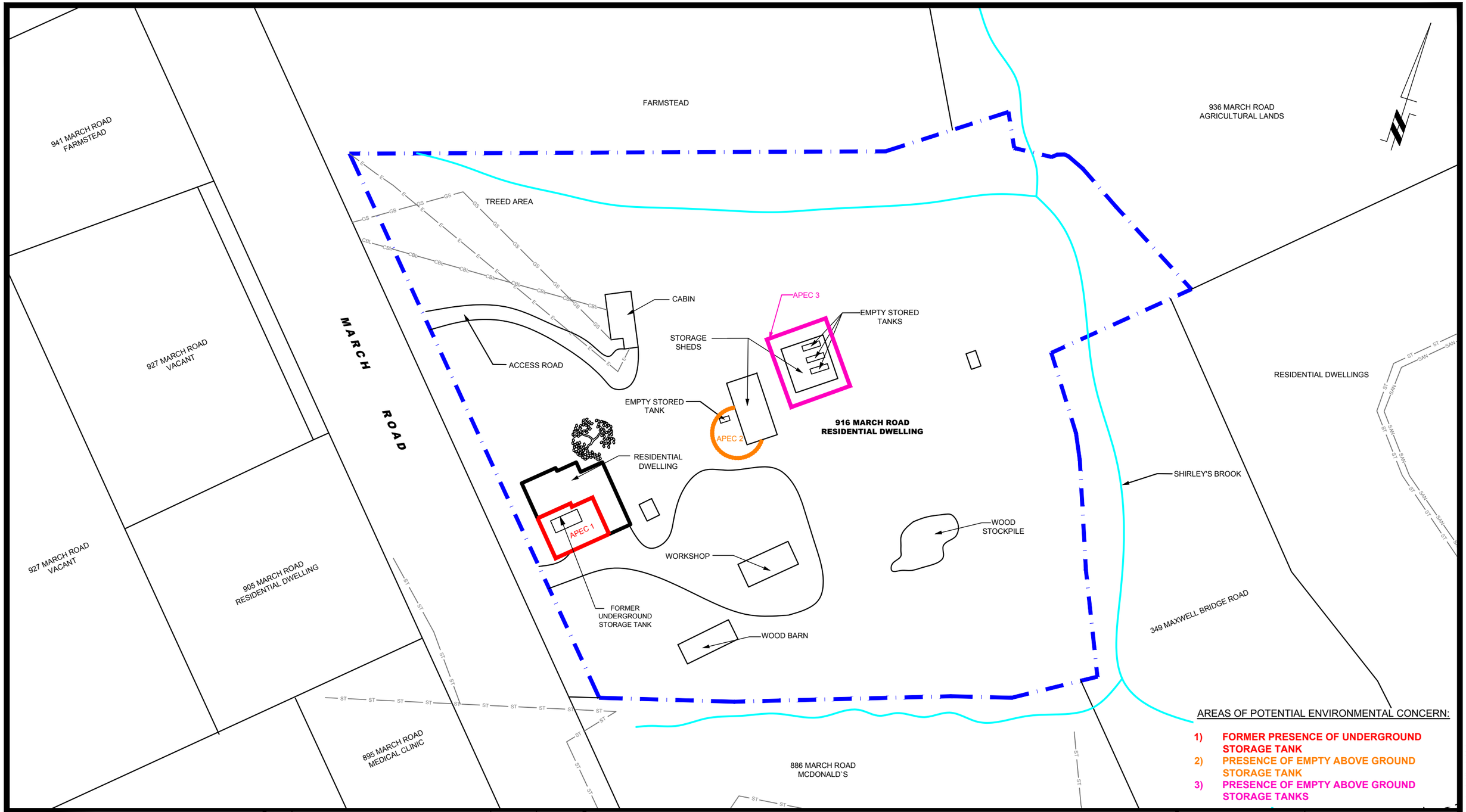


FIGURE 2

TOPOGRAPHIC MAP



patersongroup
consulting engineers

154 Colonnade Road South
Ottawa, Ontario K2E 7J5
Tel: (613) 226-7381 Fax: (613) 226-6344

NO.	REVISIONS	DATE	INITIAL

WEXCOM COMMERCIAL DEVELOPMENTS (MARCH ROAD LIMITED)

PHASE I - ENVIRONMENTAL SITE ASSESSMENT
910 MARCH ROAD

OTTAWA, ONTARIO

Title:

SITE PLAN

Scale: 1:1000	Date: 10/2019
Drawn by: YA	Report No.: PE4760-1
Checked by: MW	Dwg. No.: PE4760-1
Approved by: MSD	Revision No.:

11x17

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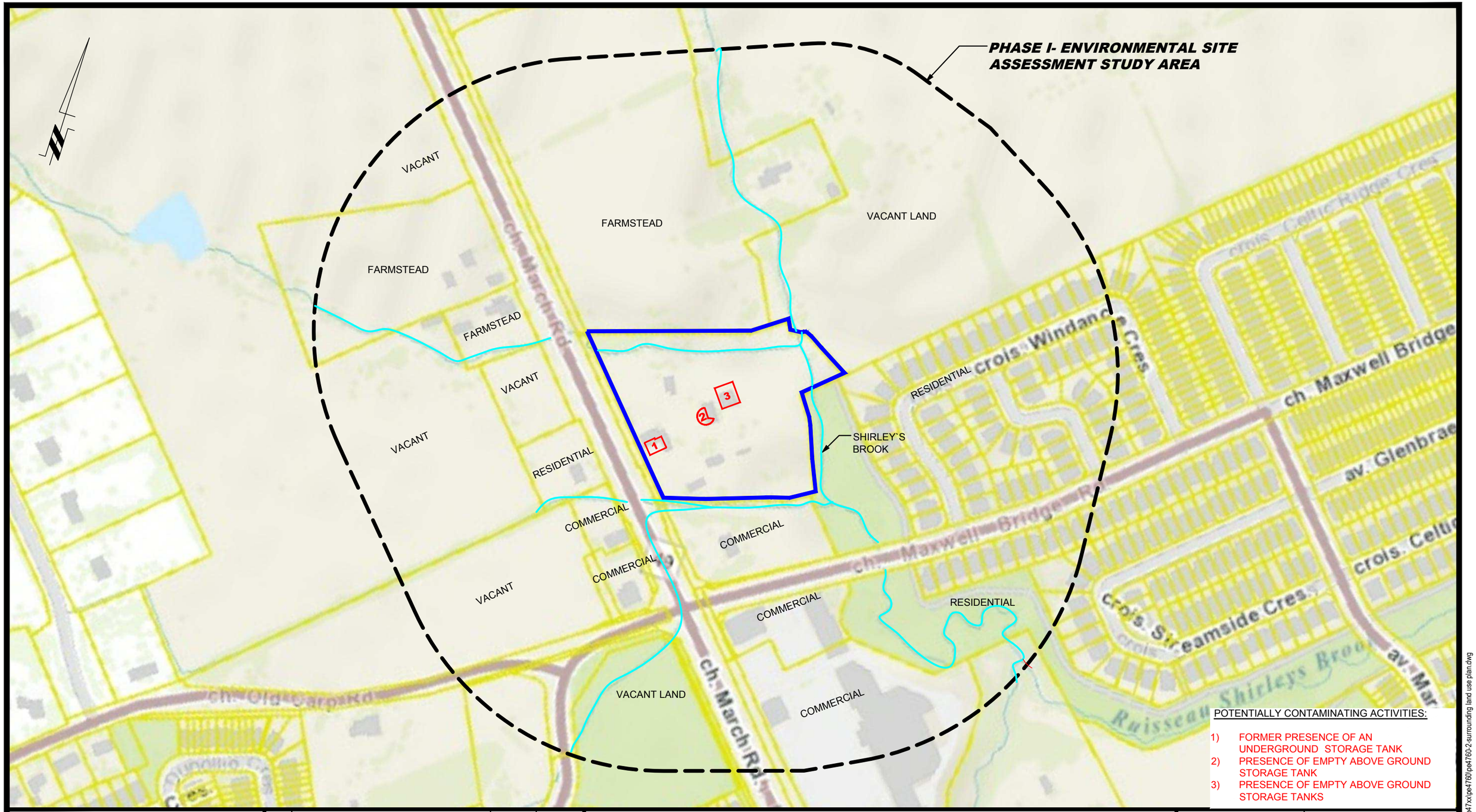


POTENTIALLY CONTAMINATING ACTIVITIES:

1) FORMER PRESENCE OF AN UNDERGROUND STORAGE TANK
2) PRESENCE OF EMPTY ABOVE GROUND STORAGE TANK
3) PRESENCE OF EMPTY ABOVE GROUND STORAGE TANKS

patersongroup
consulting engineers

154 Colonnade Road South
Ottawa, Ontario K2E 7J5
Tel: (613) 226-7381 Fax: (613) 226-6344

NO.	REVISIONS	DATE	INITIAL

WEXCOM COMMERCIAL DEVELOPMENTS (MARCH ROAD LIMITED)

PHASE I - ENVIRONMENTAL SITE ASSESSMENT
910 MARCH ROAD

OTTAWA, ONTARIO

Title:

SURROUNDING LAND USE PLAN

Scale: 1:3250	Date: 10/2019
Drawn by: YA	Report No.: PE4760-1
Checked by: MW	Dwg. No.: PE4760-2
Approved by: MSD	Revision No.:

11x17

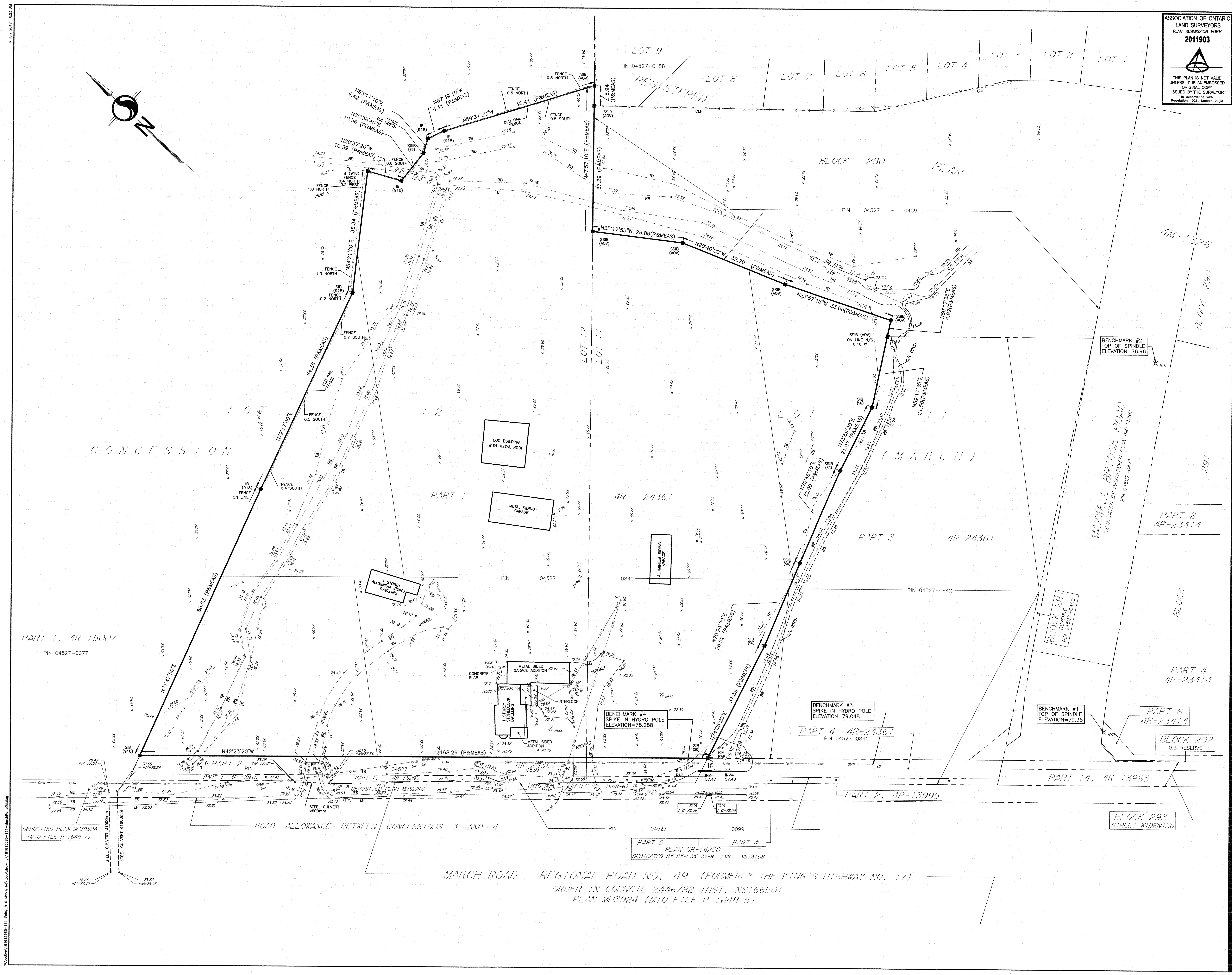
p:\autocad drawings\environmental\pe47xx\pe4760\pe4760-2-surrounding land use plan.dwg

APPENDIX 1

SURVEY PLAN

AERIAL PHOTOGRAPHS

SITE PHOTOGRAPHS



Stantec

Stantec Geomatics Ltd.
400 - 1331 Clyde Avenue
Ottawa ON
Tel. 613.722.4420
www.stantec.com

TOPOGRAPHIC PLAN OF SURVEY
PART OF LOTS 11 & 12
CONCESSION 4
(GEOGRAPHIC TOWNSHIP OF MARCH)
CITY OF OTTAWA

Scale 1:500

10 0 10 20 30 METRES

METRIC CONVERSION

DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

GRID SCALE CONVERSION

DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.99994.

BEARING NOTE

BEARINGS ARE GRID, DERIVED FROM CAN-NET VRS NETWORK GPS OBSERVATIONS ON NCC HORIZONTAL CONTROL MONUMENTS 19773035 AND 19680191, CENTRAL MERIDIAN, 76° 30' WEST LONGITUDE MTM ZONE 9, NAD83 (ORIGINAL).

19773035 N:5006060.42 E:324888.04
19680191 N:5033564.26 E:388064.94

ELEVATION NOTE

ELEVATIONS ARE GEODETIC BASED ON A SURVEY BY AOV DATED JULY 10, 2015. POSITION OF SITE BENCHMARKS #1 AND #2 AS SHOWN HEREON.

LEGEND

■	DENOTES	FOUND MONUMENTS
□	"	SET MONUMENTS
IB	"	IRON BAR
IBø	"	ROUND IRON BAR
SIB	"	STANDARD IRON BAR
SSIB	"	SHORT STANDARD IRON BAR
CC	"	CUT CROSS
CP	"	CONCRETE PIN
WIT	"	WITNESS
PIN	"	PROPERTY IDENTIFICATION NUMBER
MEAS	"	MEASURED
PROP	"	PROPORTIONED
OU	"	ORIGIN UNKNOWN
SG	"	STANTEC GEOMATICS LTD.
ORP	"	OBSERVED REFERENCE POINT
P	"	PLAN 4R-24361
ES	"	EDGE OF SHOULDER
EP	"	EDGE OF ASPHALT
DI	"	DITCH
TB	"	TOP OF BANK
BB	"	BOTTOM OF BANK
EG	"	EDGE OF GRAVEL
T/G	"	TOP OF GRATE
◄ AN	"	ANCHOR
SICB	"	SIDE INLET CB
HYD	"	FIRE HYDRANT
○ UP	"	UTILITY POLE
○ LS	"	LIGHT STANDARD
⊕ WELL	"	WELL

SURVEYOR'S CERTIFICATE

I CERTIFY THAT :

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE 27th DAY OF JUNE, 2017 .

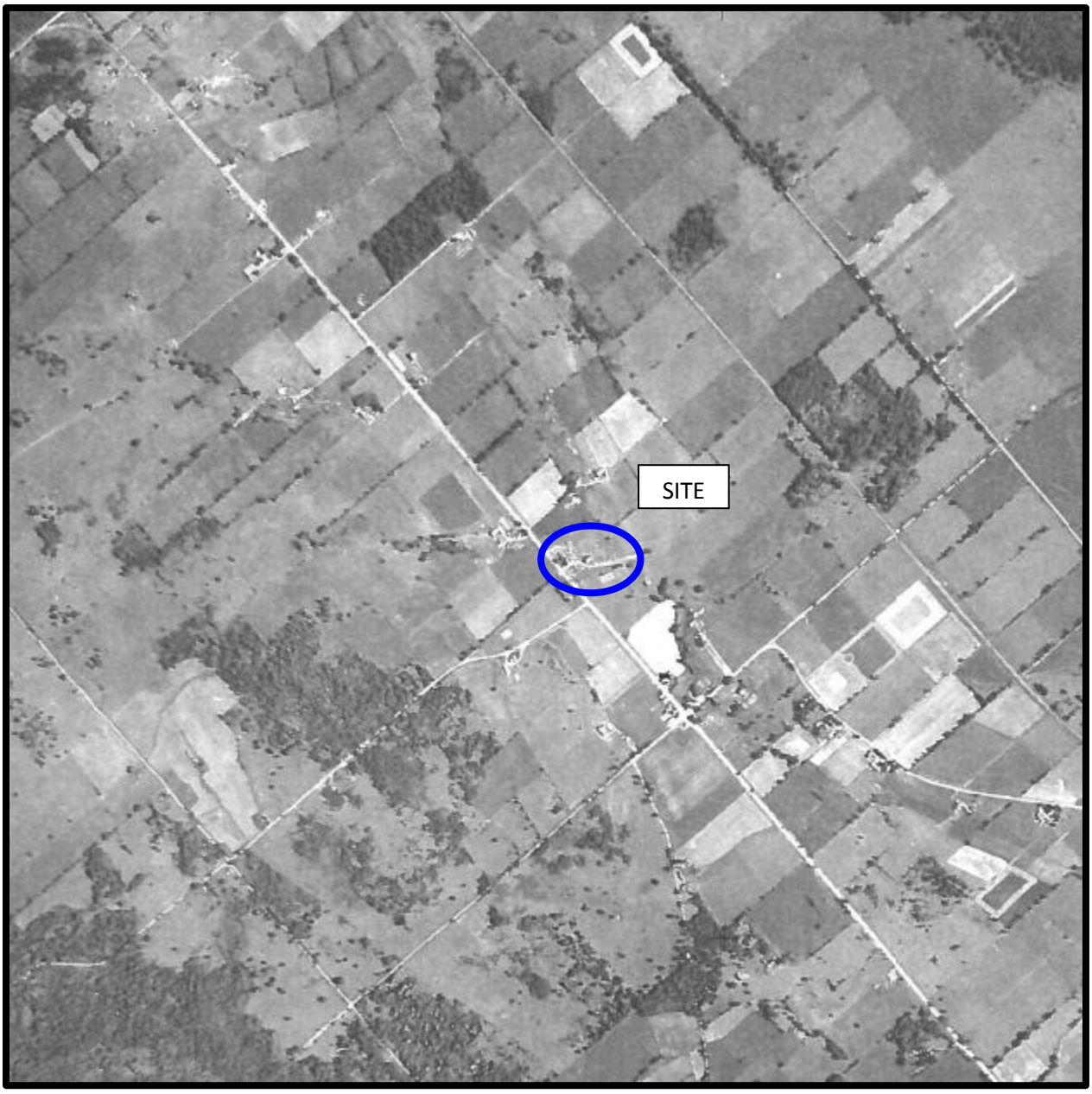
July 10/17
DATE

BRIAN J. WEBSTER
ONTARIO LAND SURVEYOR

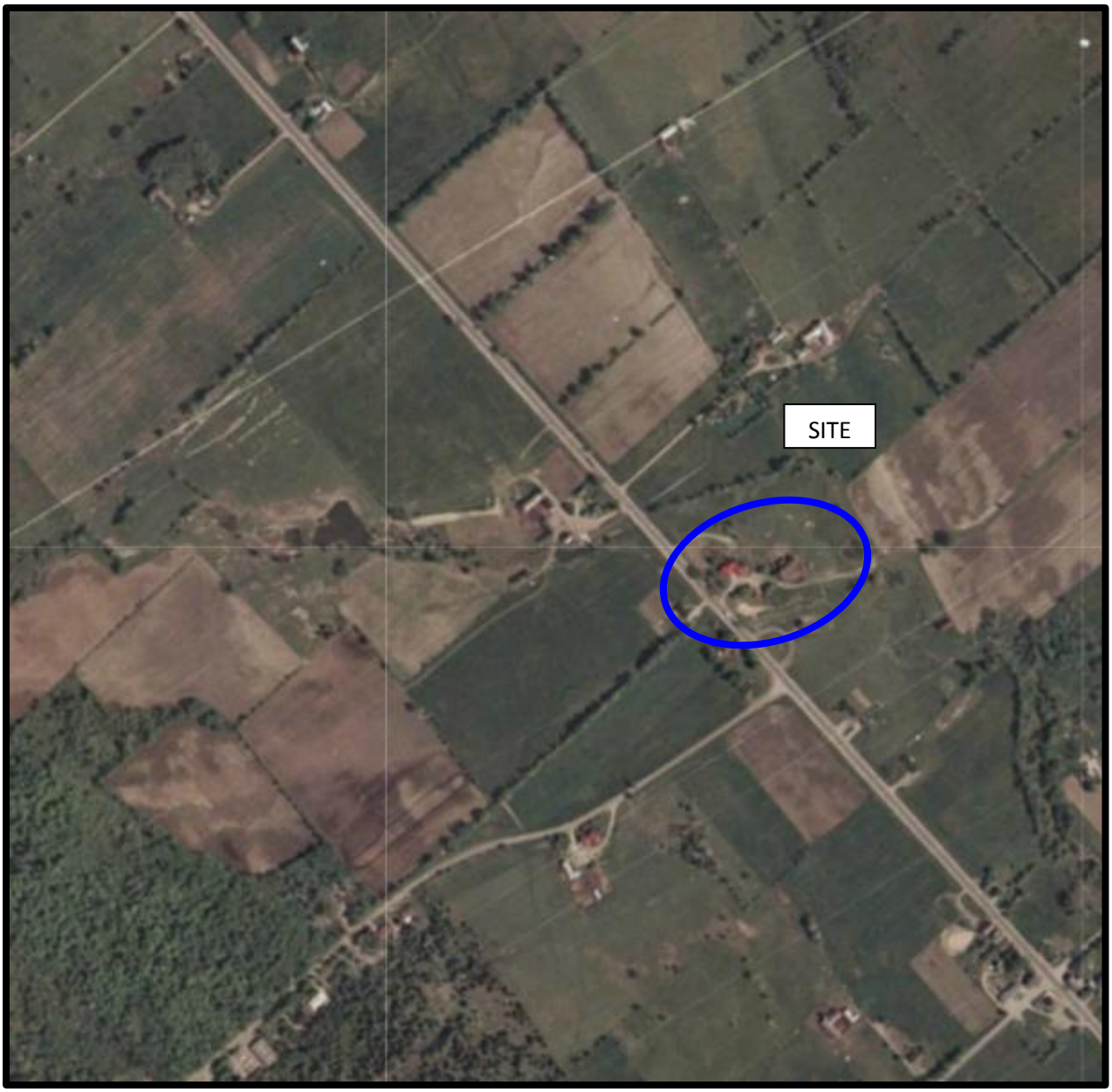
DRAWN: CEC CHECKED: * PM: BW FIELD: CA PROJECT No.: 161613685-111

AERIAL PHOTOGRAPH
1934

AERIAL PHOTOGRAPH
1945



AERIAL PHOTOGRAPH
1955



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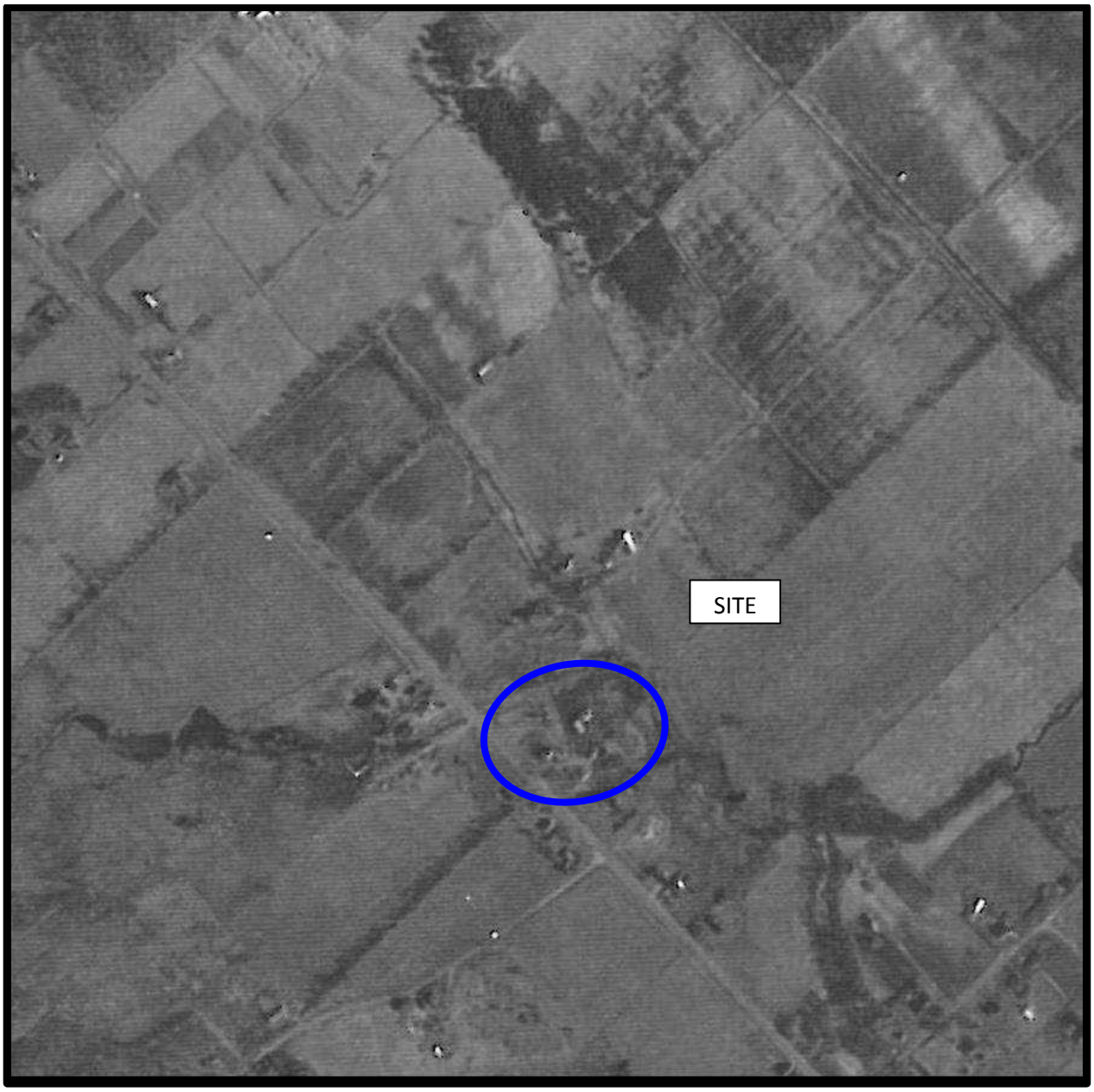
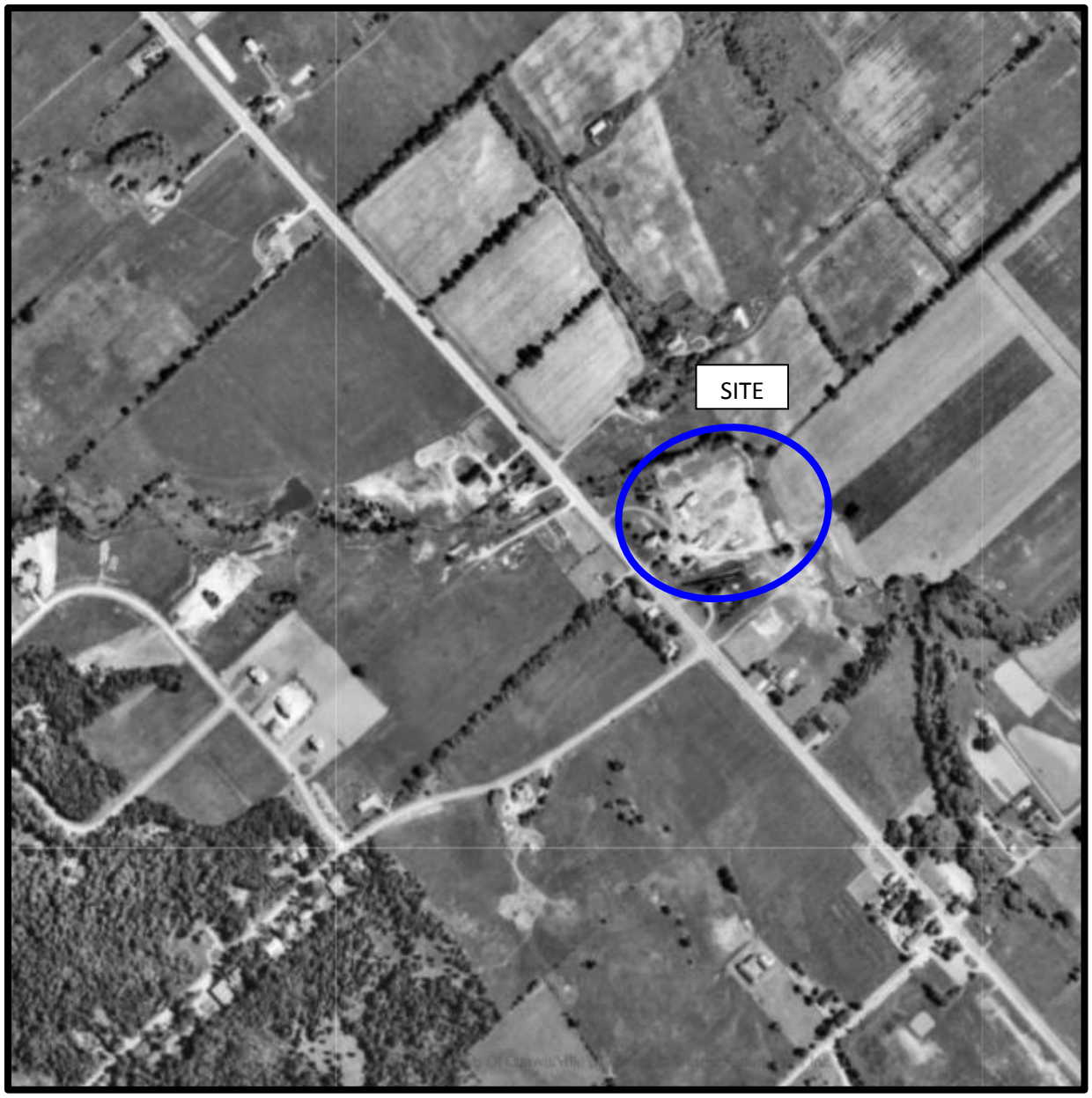


AERIAL PHOTOGRAPH
1989

patersongroup



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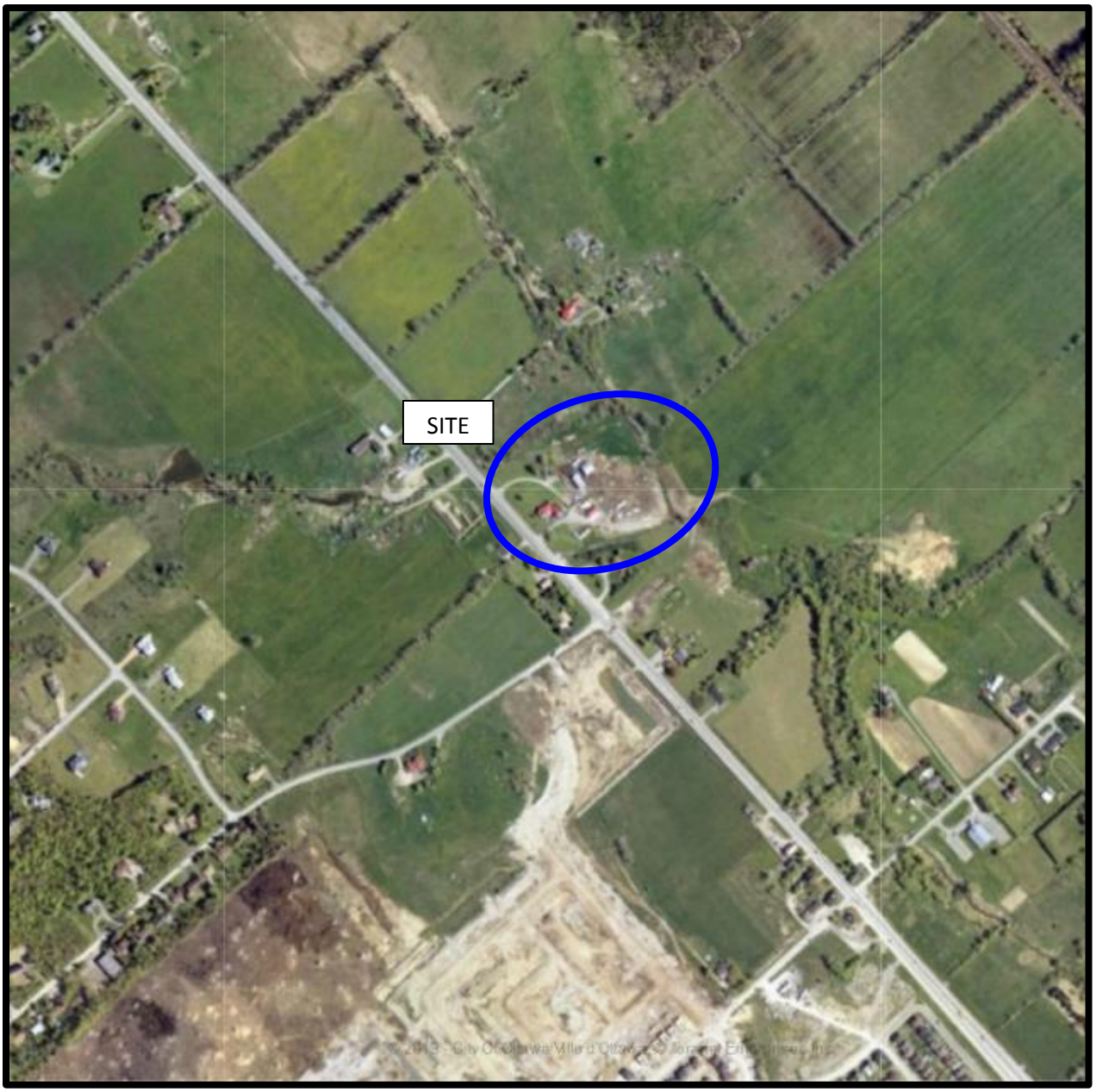
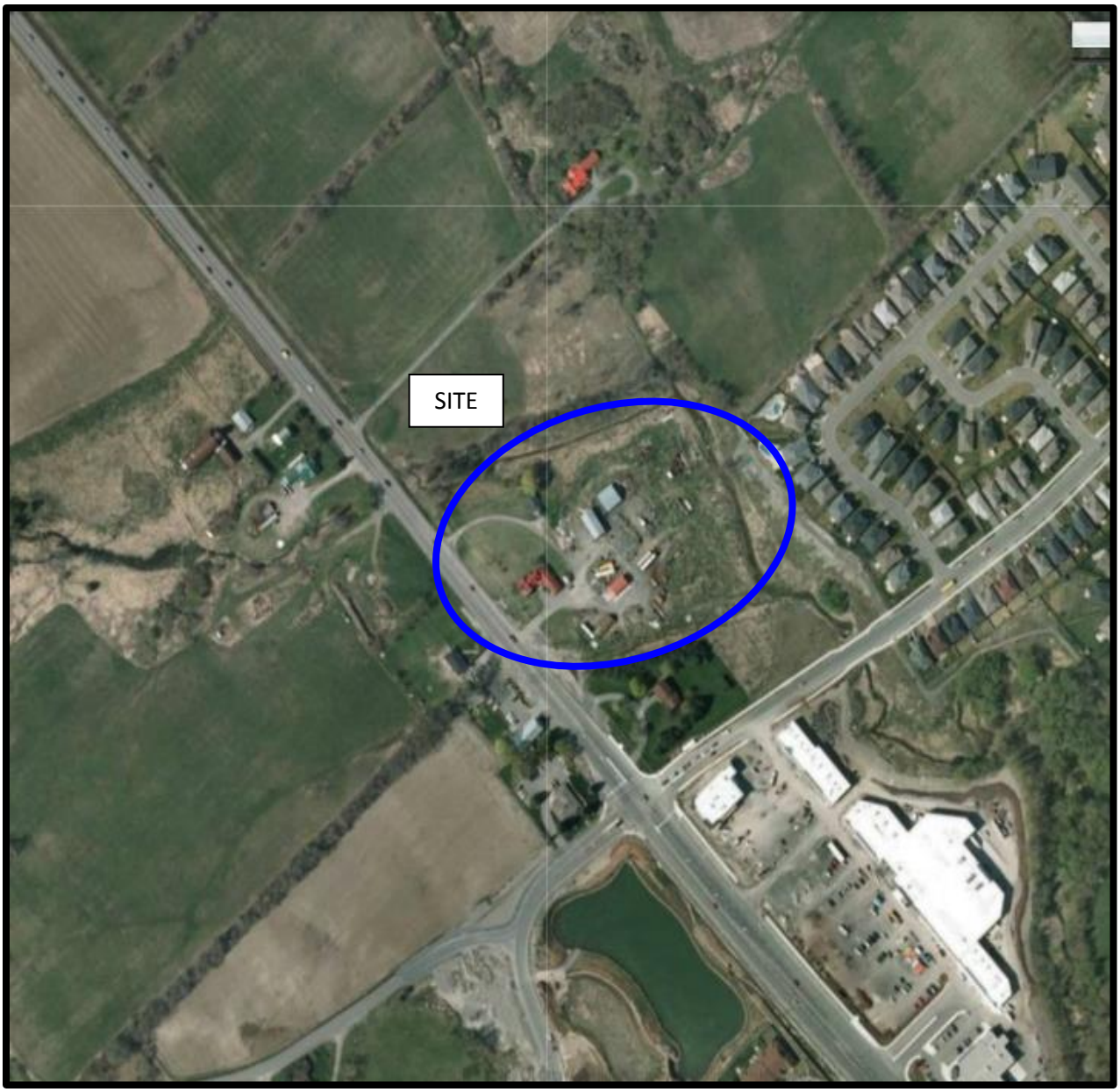
1991



AERIAL PHOTOGRAPH
2002



AERIAL PHOTOGRAPH
2011

patersongroup

AERIAL PHOTOGRAPH
2017

patersongroup

Site Photographs

Photograph 1: South west view of the subject site, looking onto March Road.

Photograph 2: Southeastern view of the subject site, taken from the west side of the property.

Photograph 3: View of the attached garage (part of the residential dwelling), looking northeast.

Photograph 4: West view of the site/garage, looking towards March Road.

Photograph 5: View of the residential dwelling, looking north.

Photograph 6: Northwestern view of the subject site.

Photograph 7: Eastern view of the subject site, taken from the north side of the residential dwelling.

Photograph 8: Northeastern view of the subject site and vacant wood cabin.

Photograph 9: Northern view of the subject site, taken from the north side of the residential dwelling.

Photograph 10: Southeastern view of the subject site, taken from the south side of the cabin.

APPENDIX 2

MECP FREEDOM OF INFORMATION SEARCH REQUEST

MECP WATER WELL RECORDS

CITY OF OTTAWA HLUI SEARCH

TSSA CORRESPONDENCE

Ontario Ministry of Environment and Energy

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

Name, Company Name, Mailing Address and Email Address of Requester

Mandy Witteman
Paterson Group Inc.
154 Colonnade Road
Ottawa, ON K2E 7J5
Email address: mwitteman@patersongroup.ca

Telephone/Fax Nos.	Your Project/Reference No.	Signature/Print /Name of Requester
Tel. 613-226-7381 Fax 613-226-6344	PE4760	Mandy Witteman

For Ministry Use Only

FOI Request No.

Date Request Received

Fee Paid

☐ ACCT ☐ CHQ ☐ VISA/MC ☐ CASH

☐ CNR ☐ ER ☐ NOR ☐ SWR ☐ WCR
☐ SAC ☐ IEB ☐ EAA ☐ EMR ☐ SWA

Request Parameters

Municipal Address / Lot, Concession, Geographic Township **(Municipal address essential for cities, towns or regions**

910 March Rd, Ottawa. ON.

Present Property Owner(s) and Date(s) of Ownership

Wexford Commercial Developments Ltd.

Previous Property Owner(s) and Date(s) of Ownership

Present/Previous Tenant(s) (if applicable)

Search Parameters *Files older than 2 years may require $60.00 retrieval cost. There is no guarantee that records responsive to your request will be located.*	**Specify Year(s) Requested**
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.

316/5d

MINISTRY OF THE ENVIRONMENT
The Ontario Water Resources Act

WATER WELL RECORD

Ontario

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 1514785 | MUNICIP. 15006 | CON. CON | 04

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
West Carleton	March	4	[illegible]

[redacted] R.1 Kanata Ont. | DATE COMPLETED: DAY 01 MO. 07 YR. 75

023100 4 | ELEVATION 0255 4 | BASIN CODE 26

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
Brown	clay		soft	0	25
Gray	sandstone		Hard	25	90

31 | 0025 60585 | 0090 21873

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0065	1 ☒ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
0084	1 ☒ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
06"	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	0	0027
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE		27	0090
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER (INCHES)	LENGTH (FEET)

MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN (FEET)

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☐ PUMP 2 ☐ BAILER	0015 GPM.	02 HOURS 00 MINS

WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY

STATIC LEVEL	WATER LEVEL END OF PUMPING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
011 FEET	030 FEET	030 FEET	030 FEET	030 FEET	030 FEET

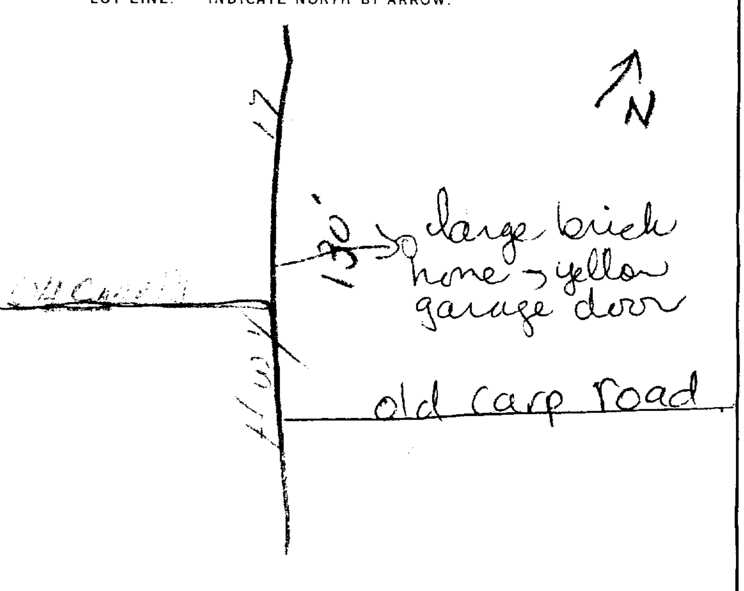
IF FLOWING, GIVE RATE: GPM | PUMP INTAKE SET AT: FEET | WATER AT END OF TEST: 1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☒ SHALLOW ☐ DEEP | RECOMMENDED PUMP SETTING 030 FEET | RECOMMENDED PUMPING RATE 0005 GPM

GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

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



DRILLERS REMARKS:

FINAL STATUS OF WELL 1	1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED
WATER USE 01	1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED
METHOD OF DRILLING 5	1 ☐ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☒ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: Maple Leaf Drilling | LICENCE NUMBER: 3658

ADDRESS: 2107-465 Richmond Road Ottawa

NAME OF DRILLER OR BORER: R. Bisson | LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: Robert Bisson | SUBMISSION DATE: DAY 9 MO. 7 YR. 75

OFFICE USE ONLY

DATA SOURCE: 1 | CONTRACTOR: 3658 | DATE RECEIVED: 230775

DATE OF INSPECTION: 10/6/77 | INSPECTOR: [illegible]

REMARKS:

P

WI

MINISTRY OF THE ENVIRONMENT COPY

FORM 7 07-091

Ontario Ministry of the Environment

Well Tag Number (Place sticker and print number below) A 035395 / A035395

Well Record

Regulation 903 Ontario Water Resources Act

page ___ of ___

Instructions for Completing Form

- For use in the **Province of Ontario** only. This document is a permanent **legal** document. Please retain for future reference.
- All Sections **must** be completed in full to avoid delays in processing. Further instructions and explanations are available on the back of this form.
- Questions regarding completing this application can be directed to the Water Well Management Coordinator at 416-235-6203.
- **All metre measurements shall be reported to 1/10th of a metre.**
- Please print clearly in blue or black ink only.

Ministry Use Only MUN ___ CON ___ LOT ___

Well Owner's Information and Location of Well Information

[redacted]

Ottawa Carleton	LKanata	12	4
RR#/Street Number/Name	City/Town/Village		Site/Compartment/Block/Tract etc.
910 March Road	Kanata		

GPS Reading: NAD 83 | Zone 18 | Easting 42 65 67 | Northing 502 33 16 | Unit Make/Model: Garmin | Mode of Operation: ☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To (Metres)
Brown	Clay		Packed	0	1.82
Gray	Limestone		Hard	1.82	12.19
Gray & White	Sandstone		Hard	12.19	27.43

Hole Diameter

Depth From	Metres To	Diameter Centimetres
0	7.31	22.75
7.31	27.43	15.23

Water Record

Water found at Metres / Kind of Water

24.99 ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other: not tested

___ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other: ___

___ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other: ___

After test of well yield, water was ☒ Clear and sediment free ☐ Other, specify ___

Chlorinated ☒ Yes ☐ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Metres To
Casing				
15.86	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	+ .45	10.36
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
15.23	☒ Open hole		10.36	27.43

Test of Well Yield

Pumping test method: submersible

Pump intake set at - (metres) 21.33

Pumping rate - (litres/min) 54.6

Duration of pumping 3 hrs + 30 min

Final water level end of pumping 6.60 metres

Recommended pump type: ☐ Shallow ☒ Deep

Recommended pump depth. 15.23 metres

Recommended pump rate. 45.5 (litres/min)

If flowing give rate - (litres/min)

If pumping discontinued, give reason.

Draw Down Time min	Draw Down Water Level Metres	Recovery Time min	Recovery Water Level Metres
Static Level	6.02		
1	6.36	1	6.20
2	6.40	2	6.19
3	6.44	3	6.19
4	6.45	4	6.18
5	6.47	5	6.18
10	6.50	10	6.15
15	6.51	15	6.13
20	6.52	20	6.13
25	6.52	25	6.13
30	6.53	30	6.12
40	6.53	40	6.12
50	6.54	50	6.12
60	6.55	60	6.12

Plugging and Sealing Record ☒ Annular space ☐ Abandonment

Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
10.36	0	Grouted - Bentonite Slurry	.42m3

Method of Construction

☐ Cable Tool ☒ Rotary (air) ☐ Diamond ☐ Digging
☐ Rotary (conventional) ☒ Air percussion ☐ Jetting ☐ Other
☐ Rotary (reverse) ☐ Boring ☐ Driving

Water Use

☒ Domestic ☐ Industrial ☐ Public Supply ☐ Other
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

☒ Water Supply ☐ Recharge well ☐ Unfinished ☐ Abandoned, (Other)
☐ Observation well ☐ Abandoned, insufficient supply ☐ Dewatering
☐ Test Hole ☐ Abandoned, poor quality ☐ Replacement well

Well Contractor/Technician Information

Name of Well Contractor: Capital Water Supply Ltd. | Well Contractor's Licence No.: 1558

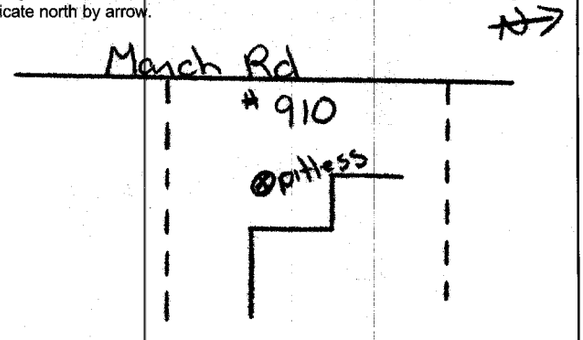
Business Address (street name, number, city etc.): Box 490 Stittsville, Ontario K2S 1A6

Name of Well Technician (last name, first name): Miller; Stephen | Well Technician's Licence No.: T0097

Signature of Technician/Contractor: x [signature] | Date Submitted YYYY MM DD: 2006 6 29

Location of Well

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



Audit No. Z 46997

Date Well Completed YYYY MM DD: 2006 6 27

Was the well owner's information package delivered? ☒ Yes ☐ No

Date Delivered YYYY MM DD: 2006 6 28

Ministry Use Only

Data Source | Contractor: 1558

Date Received YYYY MM DD: JUL 11 2006 | Date of Inspection YYYY MM DD

Remarks | Well Record Number

0506E (09/03) Contractor's Copy ☐ Ministry's Copy ☐ Well Owner's Copy ☐ *Cette formule est disponible en français*

UTM |1|8| |4|2|6|5|6|0| E

|5|R |5|0|2|2|9|4|0| N

Elev. |4|R |0|2|6|0|

Basin |2|5| |

. 31G5d

e

15 No. 3516

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District Carleton Township, Village, Town or City March

Con. 111 Lot Pt. of 11 Date completed 28 May (day) month 1965 year)

[redacted]ess South March, Ont.

Casing and Screen Record

Inside diameter of casing	15' of 5"
Total length of casing	15'
Type of screen	nil
Length of screen	nil
Depth to top of screen	nil
Diameter of finished hole	5"

Pumping Test

Static level	7'
Test-pumping rate	5 GPM G.P.M.
Pumping level	17'
Duration of test pumping	1 Hour
Water clear or cloudy at end of test	clear
Recommended pumping rate	5 GPM G.P.M.
with pump setting of	25' 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)
Clay	0'	11'		
Red Granite	11'	~~50'~~ 43'	~~50'~~ 43'	fresh

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

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

Drilling or Boring Firm Blair Phillips Drilling Co. Ltd.

Address Ottawa

Licence Number ~~1079~~ 1815

Name of Driller or Borer J. Moore

Address Kars, Ont.

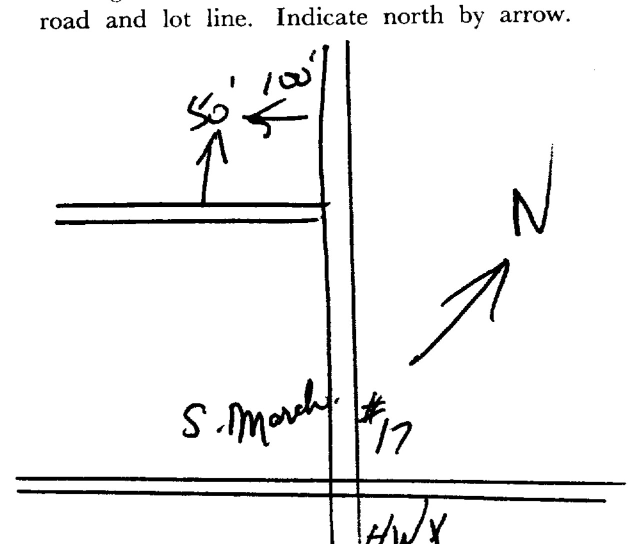
Date 28 May 1965

(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.



OWRC COPY

388A

31G5d

UTM 18 | 426430 E

Co 5 | 5023105 N

Elev. 4 | 0260

Basin 25 | 1

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District Carleton — Township, Village, Town or City March

Con. III — Lot 12 — Date completed 23 (day) May (month) 1963 (year)

[redacted]ess 716 Edison Ave Ottawa

Casing and Screen Record

Inside diameter of casing	6¼"
Total length of casing	20'
Type of screen	none
Length of screen	—
Depth to top of screen	—
Diameter of finished hole	6"

Pumping Test

Static level	15'
Test-pumping rate	5 G.P.M.
Pumping level	40'
Duration of test pumping	1 hr
Water clear or cloudy at end of test	clear
Recommended pumping rate	5 G.P.M.
with pump setting of	50' 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)
clay & broken rock	0	12		
Limestone	12	38		
Sandstone	38	60	60	fresh

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

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

Drilling or Boring Firm McLean Water Supply LTD.

Address 1532 Raven Ave Ottawa, Ont.

Licence Number 1090

Name of Driller or Borer A. Scharf

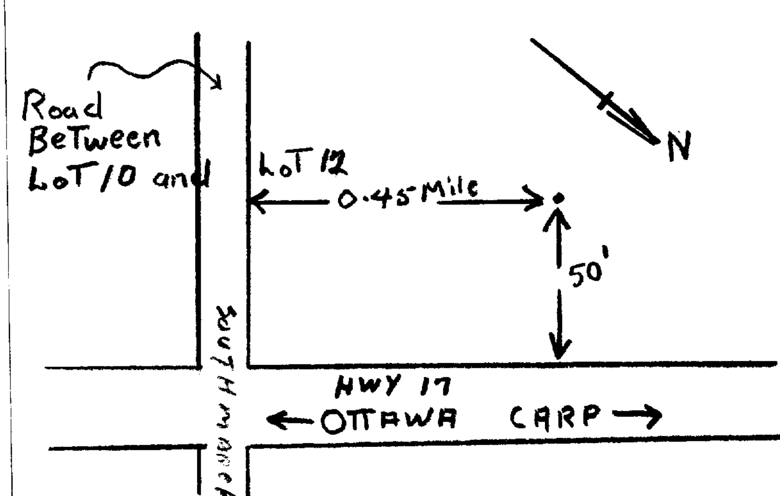
Address

Date May 23 /63

CD McLean
(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.



Form 7 15M-60-4138

OWRC COPY

UTM 18 Z 4216610 E

Co 5 R 5022920 N

Elev 4 R 0245

Basin 25

31G5d

GROUND WATER BRANCH
15 №
FEB 20 1962
ONTARIO WATER RESOURCES COMMISSION

314

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District Carleton ..... Township, ~~Village, Town or City~~ March

Con. 4 ..... Lot 11 ..... Date completed 12 (day) Nov (month) 61 (year)

[redacted]dress Britannia Bay

Casing and Screen Record

Inside diameter of casing	4"
Total length of casing	24'
Type of screen	—
Length of screen	—
Depth to top of screen	—
Diameter of finished hole	4"

Pumping Test

Static level	10'
Test-pumping rate	6 G.P.M.
Pumping level	14'
Duration of test pumping	1/2 hr
Water clear or cloudy at end of test	clearing
Recommended pumping rate	5 G.P.M.
with pump setting of	30 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)
clay	0	16		
hardpan	16	22		
sandstone	22	38	37	fresh

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

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

Drilling or Boring Firm Ben E Sparks

Address

Licence Number 244

Name of Driller or Borer Ben E Sparks

Address

Date Feb 7/62

Ben E Sparks

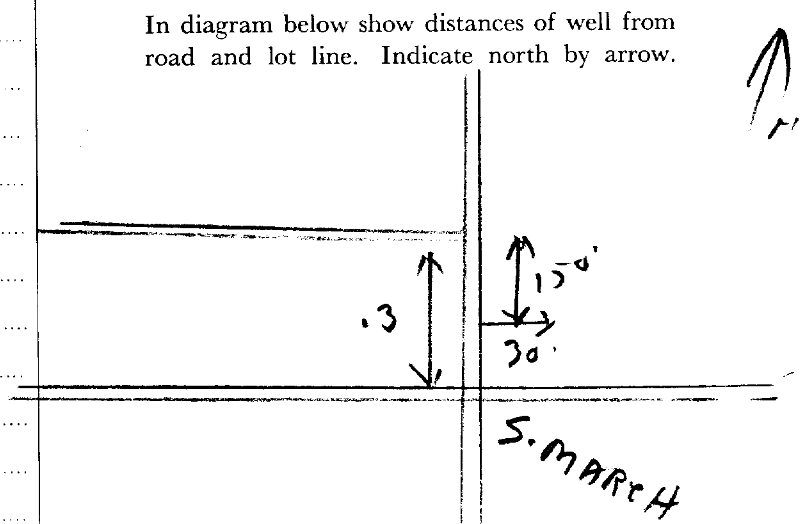
(Signature of Licensed Drilling or Boring Contractor)

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.



CSS.S8

UTM 1 18 Z 4 2 6 4 6 5 E   A11

C 5 R 5 0 2 3 2 7 0 N   31G5d

Elev. 14 R 0 2 6 0

Basin 2 5

15 № 3414

The Ontario Water Resources Commission Act

WATER WELL RECORD

County or District Carl   Township, Village, Town or City March

Con. 4   Lot 12   Date completed 6 (day) Feb (month) 64 (year)

[redacted]ress South March

Casing and Screen Record

Inside diameter of casing 5"
Total length of casing 18'
Type of screen
Length of screen
Depth to top of screen
Diameter of finished hole 5"

Pumping Test

Static level 11'
Test-pumping rate 10 G.P.M.
Pumping level 11'
Duration of test pumping 1 hr
Water clear or cloudy at end of test cloudy
Recommended pumping rate 5 G.P.M.
with pump setting of 40' 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)
clay + boulders	0	9	50	fresh
Sandstone	9	40		
granite	40	51		

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

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

Drilling or Boring Firm Capital Water Supply

Address 1243 Heron Rd Ottawa

Licence Number 1223

Name of Driller or Borer M Kavanagh

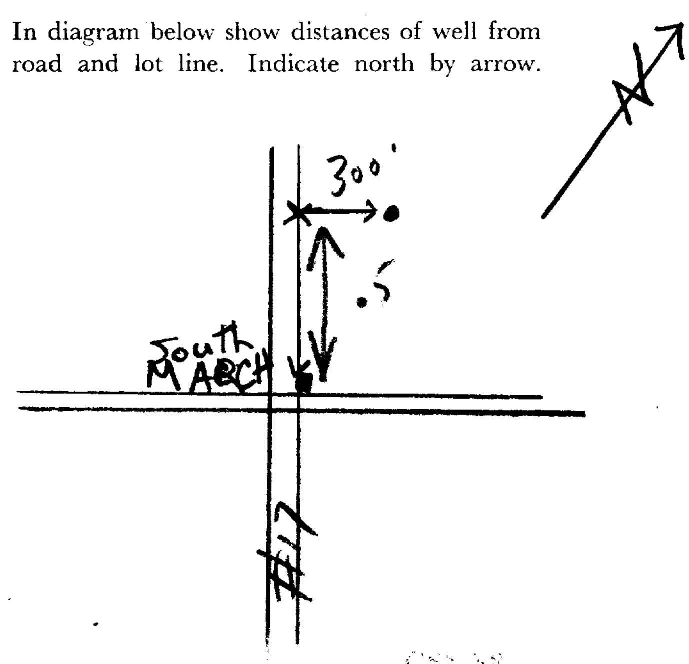
Address

Date 9/3/64

Walter Kavanagh
(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.



Form 7 15M-60-4138

OWRC COPY BUNGALOW - IMITATION GREY SIDING.

,M [1][8][2] [4][2][6][6][10] Con IV Lot 11 CODED

1510247

[4]R [5][0][2][2][9][7][0]

lev. [5]R [0][2][5][6]

The Ontario Water Resources Commission Act

WATER WELL RECORD

sin [2][5]

County or District Peel Township, Village, Town or City March

Con. IV Lot 11 Date completed 11 (day) June (month) 1969 (year)

Owner M Holtzner Ltd (print in block letters) Address Hazeldean Ont.

Casing and Screen Record

Inside diameter of casing 5"

Total length of casing 28'

Type of screen

Length of screen

Depth to top of screen

Diameter of finished hole 5"

DIVISION OF WATER RESOURCES
OCT 30 1969
ONTARIO WATER RESOURCES COMMISSION

Pumping Test

Static level 5

Test-pumping rate 10 G.P.M.

Pumping level 9

Duration of test pumping 1 hr

Water clear or cloudy at end of test

Recommended pumping rate 5 G.P.M.

with pump setting of 30 feet below ground surface

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Water Record: Depth(s) at which water(s) found	Water Record: Kind of water (fresh, salty, sulphur)
clay	0	25	60	fresh
sandstone	25	62		

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

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

Drilling or Boring Firm Capital Water Supply Ltd.

Address 14 Ashford Dr Ottawa 6

Licence Number 3216

Name of Driller or Borer B Acres

Address

Date 11 June 1969

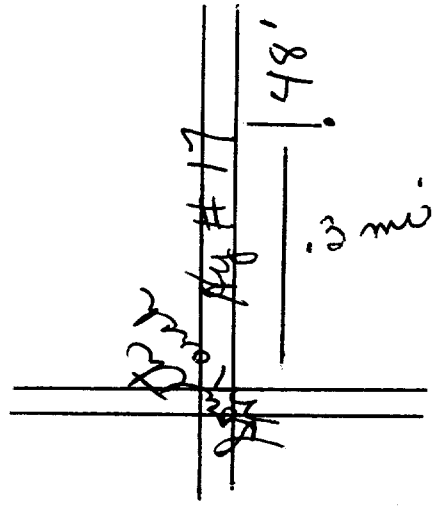
Walter Kavanagh
(Signature of Licensed Drilling or Boring Contractor)

Form 7 5M 60-20912

OWRC COPY

Location of Well

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



CSS.58

The Ontario Water Resources Commission Act

WATER WELL RECORD

1510445 316 / 4 / 50

Water management in Ontario

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11

MUNICIP. 15006 CON. CON 03

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
Carleton	March	3	011

OWNER (SURNAME FIRST)	ADDRESS	DATE COMPLETED
Marchmount Const.	South March	DAY 04 MO. 08 YR. 69

21 UTM ZONE 18 EASTING 426480 NORTHING 5022800 RC. 4 ELEVATION 0255 RC. 5 BASIN CODE 25

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH – FEET FROM	DEPTH – FEET TO
Brown	Sandstone			0	65
White	Limestone			65	84

31 0065618 0084115

32

41 WATER RECORD

WATER FOUND AT – FEET	KIND OF WATER
0075	1 FRESH 2 SALTY 3 SULPHUR 4 MINERAL
	1 FRESH 2 SALTY 3 SULPHUR 4 MINERAL
	1 FRESH 2 SALTY 3 SULPHUR 4 MINERAL
	1 FRESH 2 SALTY 3 SULPHUR 4 MINERAL
	1 FRESH 2 SALTY 3 SULPHUR 4 MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH – FEET FROM	DEPTH – FEET TO
05	1 STEEL 2 GALVANIZED 3 CONCRETE 4 OPEN HOLE	I88	0	20 0020
	1 STEEL 2 GALVANIZED 3 CONCRETE 4 OPEN HOLE			0084
	1 STEEL 2 GALVANIZED 3 CONCRETE 4 OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT – FEET FROM	DEPTH SET AT – FEET TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☐ PUMP 2 ☒ BAILER

PUMPING RATE: 0006 GPM. DURATION OF PUMPING: 01 HOURS 00 MINS.

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY			
		15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
030 FEET	070 FEET	050 FEET	070 FEET	070 FEET	070 FEET

IF FLOWING, GIVE RATE: GPM. PUMP INTAKE SET AT: 70 FEET

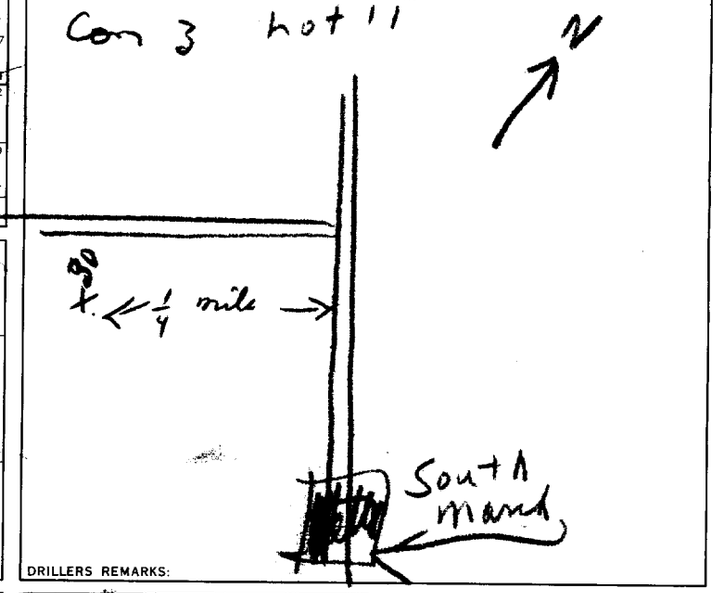
WATER AT END OF TEST: ☒ 1 CLEAR ☐ 2 CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP RECOMMENDED PUMP SETTING: FEET RECOMMENDED PUMPING RATE: 0005 GPM.

50-53 0002 GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

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



DRILLERS REMARKS:

FINAL STATUS OF WELL 54: ☒ 1 WATER SUPPLY; ☐ 2 OBSERVATION WELL; ☐ 3 TEST HOLE; ☐ 4 RECHARGE WELL; ☐ 5 ABANDONED, INSUFFICIENT SUPPLY; ☐ 6 ABANDONED, POOR QUALITY; ☐ 7 UNFINISHED

WATER USE 55-56: 01 — ☒ 1 DOMESTIC; ☐ 2 STOCK; ☐ 3 IRRIGATION; ☐ 4 INDUSTRIAL; ☐ 5 COMMERCIAL; ☐ 6 MUNICIPAL; ☐ 7 PUBLIC SUPPLY; ☐ 8 COOLING OR AIR CONDITIONING; ☐ OTHER; ☐ 9 NOT USED

METHOD OF DRILLING 57: ☒ 1 CABLE TOOL; ☐ 2 ROTARY (CONVENTIONAL); ☐ 3 ROTARY (REVERSE); ☐ 4 ROTARY (AIR); ☐ 5 AIR PERCUSSION; ☐ 6 BORING; ☐ 7 DIAMOND; ☐ 8 JETTING; ☐ 9 DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: Saunders Well Drilling — LICENCE NUMBER: 3480

ADDRESS: Arnpri r

NAME OF DRILLER OR BORER: T Obr.en — LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: Robert Saunders — SUBMISSION DATE: DAY 4 MO. AUG YR. 69

OFFICE USE ONLY

DATA SOURCE 58: 1 — CONTRACTOR 59-62: 4724 — DATE RECEIVED 63-68: 210170

DATE OF INSPECTION — INSPECTOR

REMARKS: CSS.SS

J.B.

OWRC COPY

The Ontario Water Resources Commission Act

WATER WELL RECORD

3 I G S d

Water management in Ontario

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2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 1511444 | MUNICIP. 15996 | CON. Con

COUNTY OR DISTRICT: Carleton | TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: March | CON., BLOCK, TRACT, SURVEY, ETC.: Con 4 | LOT: 011

[redacted] RR#7, Ottawa | DATE COMPLETED: DAY 07 MO July YR 71

UTM: 022880 | RC: 4 | ELEVATION: 0255 | RC: 5 | BASIN CODE: 25

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH – FEET FROM	DEPTH – FEET TO
grey	clay			0	16
white	sandstone			16	58

31 | 00/6/205 | 00581/18

32

41 WATER RECORD

WATER FOUND AT – FEET	KIND OF WATER
0058	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH – FEET FROM	DEPTH – FEET TO
05	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	0	0021 24
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE			0058
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET	

61 PLUGGING & SEALING RECORD

DEPTH SET AT – FEET FROM	DEPTH SET AT – FEET TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☐ PUMP 2 ☒ BAILER | PUMPING RATE: 0021 GPM. | DURATION OF PUMPING: 01 HOURS 00 MINS.

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY			
		15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
006 FEET	015 FEET	012 FEET	015 FEET	015 FEET	015 FEET

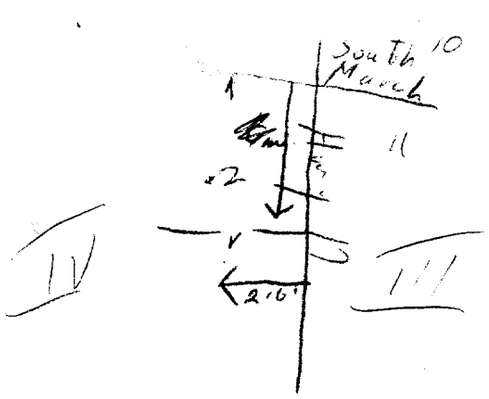
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM.	FEET	1 ☐ CLEAR 2 ☒ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☒ SHALLOW ☐ DEEP	020 FEET	0010 GPM.

50-53: 002.3 GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

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



DRILLERS REMARKS:

FINAL STATUS OF WELL (54)
1 ☒ WATER SUPPLY | 2 ☐ OBSERVATION WELL | 3 ☐ TEST HOLE | 4 ☐ RECHARGE WELL | 5 ☐ ABANDONED, INSUFFICIENT SUPPLY | 6 ☐ ABANDONED, POOR QUALITY | 7 ☐ UNFINISHED

WATER USE (55-56) 01
1 ☒ DOMESTIC | 2 ☐ STOCK | 3 ☐ IRRIGATION | 4 ☐ INDUSTRIAL | 5 ☐ COMMERCIAL | 6 ☐ MUNICIPAL | 7 ☐ PUBLIC SUPPLY | 8 ☐ COOLING OR AIR CONDITIONING | ☐ OTHER | 9 ☐ NOT USED

METHOD OF DRILLING (57)
1 ☒ CABLE TOOL | 2 ☐ ROTARY (CONVENTIONAL) | 3 ☐ ROTARY (REVERSE) | 4 ☐ ROTARY (AIR) | 5 ☐ AIR PERCUSSION | 6 ☐ BORING | 7 ☐ DIAMOND | 8 ☐ JETTING | 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: Henry Mann Well Drilling | LICENCE NUMBER: 3641
ADDRESS: Box 324 Richmond
NAME OF DRILLER OR BORER: Henry Mann | LICENCE NUMBER:
SIGNATURE OF CONTRACTOR: Henry Mann | SUBMISSION DATE: DAY 2 MO July YR 71

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OFFICE USE ONLY

DATA SOURCE (58): 1 | CONTRACTOR (59-62): 3644 | DATE RECEIVED (63-68): 081071
DATE OF INSPECTION | INSPECTOR
REMARKS: | P | W1

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MINISTRY OF THE ENVIRONMENT
The Ontario Water Resources Act

WATER WELL RECORD

Ontario

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11 | 1516260 | MUNICIP. 15006 | CON. CON 03

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
[redacted]		3	012 / 12

[redacted] 6 Primrose Ave. Ottawa, Ontario

DATE COMPLETED: DAY 04 MO 10 YR. 77

23140 | R.C. 4 | ELEVATION 0260 | R.C. 4 | BASIN CODE 26

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
brown	clay		packed	0	9
brown	clay	boulders	packed	9	11
grey	limestone	sandstone	hard	11	35
grey	sandstone			35	115

31 | 0009605719 | 0011605137 | 9003521518 | 73 | 0115218

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0113	☒ FRESH ☐ SALTY ☐ SULPHUR ☐ MINERAL
	☐ FRESH ☐ SALTY ☐ SULPHUR ☐ MINERAL
	☐ FRESH ☐ SALTY ☐ SULPHUR ☐ MINERAL
	☐ FRESH ☐ SALTY ☐ SULPHUR ☐ MINERAL
	☐ FRESH ☐ SALTY ☐ SULPHUR ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
~~6¼~~ 06	☒ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE	188	0	0022
			22	~~115~~
	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☒ OPEN HOLE			0115
	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.) | DIAMETER INCHES | LENGTH FEET
MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER ETC.)

71 PUMPING TEST

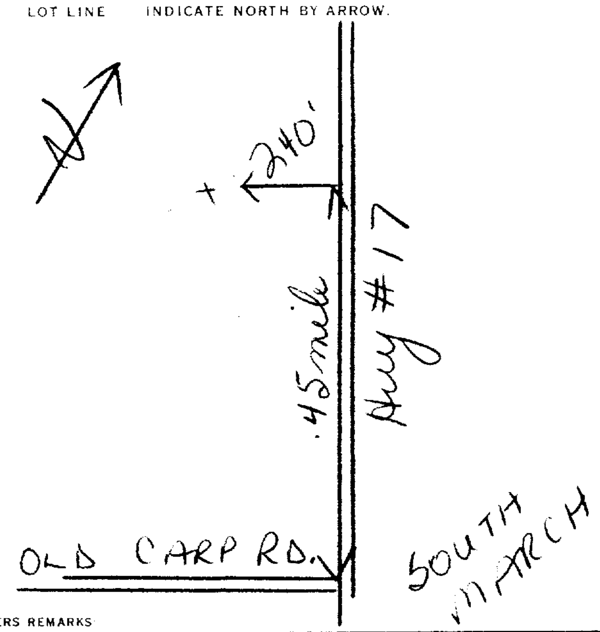
PUMPING TEST METHOD: ☒ PUMP ☐ BAILER
PUMPING RATE: 0015 GPM
DURATION OF PUMPING: 01 HOURS 00 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
020 FEET	070 FEET	070 FEET	070 FEET	070 FEET	070 FEET

WATER LEVELS DURING: ☒ PUMPING ☐ RECOVERY
IF FLOWING, GIVE RATE: GPM
PUMP INTAKE SET AT: FEET
WATER AT END OF TEST: ☒ CLEAR ☐ CLOUDY
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP
RECOMMENDED PUMP SETTING: 075 FEET
RECOMMENDED PUMPING RATE: 0005 GPM
GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

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



DRILLERS REMARKS

FINAL STATUS OF WELL: 1
☒ WATER SUPPLY ☐ OBSERVATION WELL ☐ TEST HOLE ☐ RECHARGE WELL ☐ ABANDONED, INSUFFICIENT SUPPLY ☐ ABANDONED POOR QUALITY ☐ UNFINISHED

WATER USE: 01
☒ DOMESTIC ☐ STOCK ☐ IRRIGATION ☐ INDUSTRIAL ☐ OTHER ☐ COMMERCIAL ☐ MUNICIPAL ☐ PUBLIC SUPPLY ☐ COOLING OR AIR CONDITIONING ☐ NOT USED

METHOD OF DRILLING: 5
☐ CABLE TOOL ☐ ROTARY (CONVENTIONAL) ☐ ROTARY (REVERSE) ☐ ROTARY (AIR) ☒ AIR PERCUSSION ☐ BORING ☐ DIAMOND ☐ JETTING ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: Capital Water Supply Ltd. | LICENCE NUMBER: 1558
ADDRESS: Box 490 Stittsville, Ontario
NAME OF DRILLER OR BORER: W. Kavanagh | LICENCE NUMBER
SIGNATURE OF CONTRACTOR: Walter Kavanagh | SUBMISSION DATE: DAY 5 MO. 10 YR. 77

OFFICE USE ONLY

DATA SOURCE: 1 | CONTRACTOR: 1558 | DATE RECEIVED: 171177
DATE OF INSPECTION: 22/05/79 June 29/78 | INSPECTOR: FS DN
REMARKS: New Brown Brick Bunglow
P
WI

MINISTRY OF THE ENVIRONMENT COPY

FORM 7 MOE 07-091

31G5d

Ministry of the Environment
Ontario

The Ontario Water Resources Act
WATER WELL RECORD

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(11) 1516836 | MUNICIP. 15006 | CON. CON | 03

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
Carleton	March	3	01/2

[redacted] l Carp Rd. R.R. #1 | DATE COMPLETED: DAY 08 MO. 11 YR. 78

[redacted] 22900 Kanata, Ont. | ELEVATION 0270 | BASIN CODE 26

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
Brown	Sand		loose	0	2
Grey	Sandstone	white layers	hard	2	125

31: 0002 | 6 | 2877 | 0125 | 2 | 187473

32:

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0120	1 ☒ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
~~6 1/4~~ 06	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	188	0	~~22~~ 0022
06 ~~5 3/16~~	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE		22	0055 ~~55~~
06 ~~5 7/8~~	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE		55	0125 ~~125~~

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER ETC.)

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☒ PUMP 2 ☐ BAILER	0010 GPM	01 HOURS 00 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
025 FEET	050 FEET	050 FEET	050 FEET	050 FEET	050 FEET

WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY

IF FLOWING, GIVE RATE: GPM | PUMP INTAKE SET AT: FEET | WATER AT END OF TEST: 1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP | RECOMMENDED PUMP SETTING 075 FEET | RECOMMENDED PUMPING RATE 0005 GPM

FINAL STATUS OF WELL: 1

1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED

WATER USE: 01

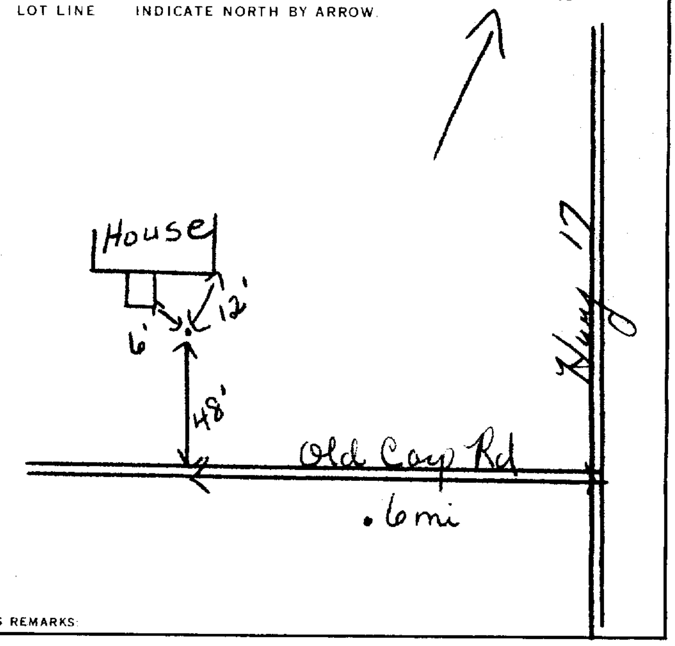
1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF DRILLING: 5

1 ☐ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☒ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING

LOCATION OF WELL

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



DRILLERS REMARKS:

CONTRACTOR

NAME OF WELL CONTRACTOR: CAPITAL WATER SUPPLY LTD | LICENCE NUMBER: 1558

ADDRESS: Box 490, Stittsville, Ontario

NAME OF DRILLER OR BORER: S Miller | LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: H Kavanagh | SUBMISSION DATE: DAY 9 MO. 11 YR. 78

OFFICE USE ONLY

DATA SOURCE: 1 | CONTRACTOR: 1558 | DATE RECEIVED: 181278

DATE OF INSPECTION: 22/05/79 | INSPECTOR: Km Ld

REMARKS:

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506-4-77

Ministry of the Environment
Ontario

The Ontario Water Resources Act
WATER WELL RECORD

31 G 5d

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 — 1517937 — MUNICIP. 15006 — CON. CON 03

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
[redacted]	Kanata - MARCH TWP.	Conc. III	011 / 11

[redacted] South March, Ontario.

DATE COMPLETED: DAY 17 MO 07 YR. 82

NORTHING 022799 — RC 4 — ELEVATION 0280 — RC 4 — BASIN CODE 26

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
Brown	Sand	Gravel	Fill	0	3
Gray	Sandstone		Medium	3	53

31 — 0003 28 1 1 01 — 0053 2 18 78
32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0050'	☒ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
06 (6 1/4)	☒ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE	188	0	0022
06 (5 15/16)	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☒ OPEN HOLE		22	0053
	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE: — DEPTH TO TOP OF SCREEN: FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: ☒ PUMP ☐ BAILER — PUMPING RATE: 0015 GPM — DURATION OF PUMPING: 01 HOURS 00 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
020 (~~19~~) FEET	030 FEET	030 FEET	030 FEET	030 FEET	030 FEET

WATER LEVELS DURING: ☒ PUMPING ☐ RECOVERY

IF FLOWING, GIVE RATE: GPM — PUMP INTAKE SET AT: FEET — WATER AT END OF TEST: ☒ CLEAR ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP — RECOMMENDED PUMP SETTING: 040 FEET — RECOMMENDED PUMPING RATE: 0005 GPM

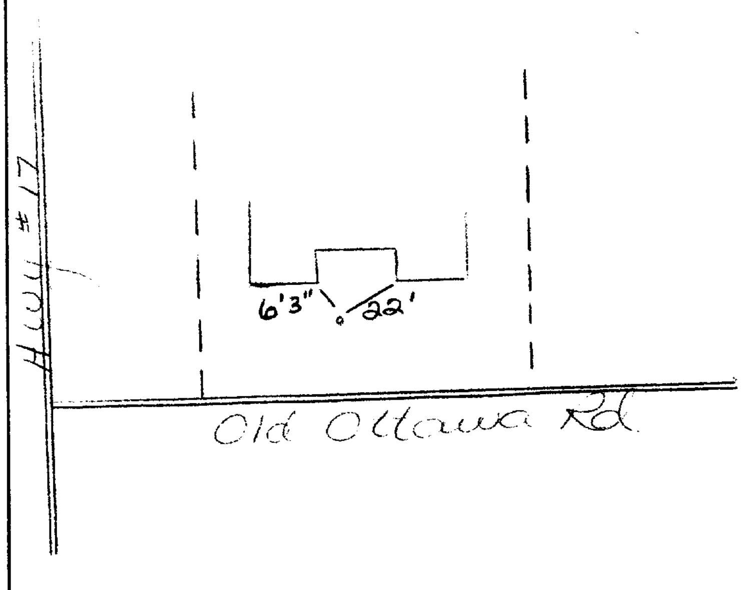
FINAL STATUS OF WELL 1: ☒ WATER SUPPLY ☐ OBSERVATION WELL ☐ TEST HOLE ☐ RECHARGE WELL ☐ ABANDONED, INSUFFICIENT SUPPLY ☐ ABANDONED, POOR QUALITY ☐ UNFINISHED

WATER USE 01: ☒ DOMESTIC ☐ STOCK ☐ IRRIGATION ☐ INDUSTRIAL ☐ OTHER ☐ COMMERCIAL ☐ MUNICIPAL ☐ PUBLIC SUPPLY ☐ COOLING OR AIR CONDITIONING ☐ NOT USED

METHOD OF DRILLING 5: ☐ CABLE TOOL ☐ ROTARY (CONVENTIONAL) ☐ ROTARY (REVERSE) ☐ ROTARY (AIR) ☒ AIR PERCUSSION ☐ BORING ☐ DIAMOND ☐ JETTING ☐ DRIVING

LOCATION OF WELL

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



DRILLERS REMARKS

CONTRACTOR

NAME OF WELL CONTRACTOR: Capital Water Supply Ltd. — LICENCE NUMBER: 1558
ADDRESS: Box 490; Stittsville, Ont. K0A 3G0
NAME OF DRILLER OR BORER: S. Miller/ W. Kavanagh — LICENCE NUMBER:
SIGNATURE OF CONTRACTOR: W. Kavanagh — SUBMISSION DATE: DAY 21 MO 07 YR. 82

OFFICE USE ONLY

DATA SOURCE: 1 — CONTRACTOR: 1558 — DATE RECEIVED: 051082
DATE OF INSPECTION: — INSPECTOR:
REMARKS:

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506—4—77 FORM 7

Ontario Ministry of the Environment

Well Tag Number (Place sticker and print number below)
A 035457
A035457

Well Record
Regulation 903 Ontario Water Resources Act

page ___ of ___

Instructions for Completing Form

- For use in the **Province of Ontario** only. This document is a permanent **legal** document. Please retain for future reference.
- All Sections **must** be completed in full to avoid delays in processing. Further instructions and explanations are available on the back of this form.
- Questions regarding completing this application can be directed to the Water Well Management Coordinator at 416-235-6203.
- **All metre measurements shall be reported to 1/10th of a metre.**
- Please print clearly in blue or black ink only.

Ministry Use Only
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Well Owner's Information and Location of Well Information

[redacted]

Ottawa Carleton — RR#/Street Number/Name
Kanata — City/Town/Village
Lot: 3 — Concession: 11 — Site/Compartment/Block/Tract etc.
927 March Road
Kanata

GPS Reading: NAD 83 | Zone 18 | Easting 42 63 76 | Northing 50 233 79
Unit Make/Model: Garmin
Mode of Operation: ☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To (Metres)
Brown	Clay		Packed	0	1.98
Gray	Limestone		Hard	1.98	12.19
Gray & White	Sandstone		Hard	12.19	22.24

Hole Diameter

Depth From	Depth To (Metres)	Diameter (Centimetres)
0	9.75	22.75
9.75	22.24	15.55

Water Record

Water found at ___ Metres / Kind of Water

14.02 m	☐ Fresh	☐ Sulphur	☐ Gas ☐ Salty ☐ Minerals ☐ Other:
19.81 m	☐ Fresh	☐ Sulphur	☐ Gas ☐ Salty ☐ Minerals ☐ Other:
21.94 m	☐ Fresh	☐ Sulphur	☐ Gas ☐ Salty ☐ Minerals ☐ Other: not tested

After test of well yield, water was
☒ Clear and sediment free
☐ Other, specify

Chlorinated ☒ Yes ☐ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To (Metres)
Casing				
15.86	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	+ .45	9.75
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
15.55	☒ Open hole		9.75	22.24

Test of Well Yield

Pumping test method: submersible
Pump intake set at - (metres) 19.81
Pumping rate - (litres/min) 54.6
Duration of pumping 3 hrs + 30 min
Final water level end of pumping 5.05 metres
Recommended pump type: ☐ Shallow ☒ Deep
Recommended pump depth. 15.23 metres
Recommended pump rate. 45.5 (litres/min)
If flowing give rate - (litres/min)
If pumping discontinued, give reason.

Draw Down Time min	Draw Down Water Level Metres	Recovery Time min	Recovery Water Level Metres
Static Level	3.60		
1	3.73	1	4.90
2	3.81	2	4.85
3	3.81	3	4.82
4	3.85	4	4.78
5	3.87	5	4.75
10	4.03	10	4.61
15	4.13	15	4.52
20	4.22	20	4.45
25	4.30	25	4.37
30	4.36	30	4.31
40	4.47	40	4.22
50	4.57	50	4.15
60	4.64	60	4.08

Plugging and Sealing Record ☒ Annular space ☐ Abandonment

Depth set at - Metres From	Depth set at - Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
9.75	0	Grouted - Bentonite Slurry	.254m3

Method of Construction

☐ Cable Tool ☒ Rotary (air) ☐ Diamond ☐ Digging
☐ Rotary (conventional) ☒ Air percussion ☐ Jetting ☐ Other
☐ Rotary (reverse) ☐ Boring ☐ Driving

Water Use

☒ Domestic ☐ Industrial ☐ Public Supply ☐ Other
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

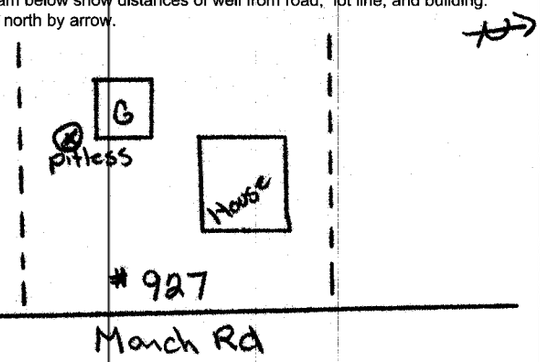
☒ Water Supply ☐ Recharge well ☐ Unfinished ☐ Abandoned, (Other)
☐ Observation well ☐ Abandoned, insufficient supply ☐ Dewatering
☐ Test Hole ☐ Abandoned, poor quality ☐ Replacement well

Well Contractor/Technician Information

Name of Well Contractor: Capital Water Supply Ltd.
Well Contractor's Licence No.: 1558
Business Address (street name, number, city etc.): Box 490 Stittsville, Ontario K2S 1A6
Name of Well Technician (last name, first name): Miller; Stephen
Well Technician's Licence No.: T0097
Signature of Technician/Contractor: x
Date Submitted YYYY MM DD: 2006 6 29

Location of Well

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



Audit No. Z 46998
Date Well Completed YYYY MM DD: 2006 6 27
Was the well owner's information package delivered? ☒ Yes ☐ No
Date Delivered YYYY MM DD: 2006 6 28

Ministry Use Only

Data Source
Contractor: 1558
Date Received YYYY MM DD: JUL 1 1 2006
Date of Inspection YYYY MM DD
Remarks
Well Record Number

0506E (09/03) Contractor's Copy ☐ Ministry's Copy ☐ Well Owner's Copy ☐ *Cette formule est disponible en français*

Ontario Ministry of the Environment

Well Tag Number (Place sticker and print number below)

Well Record

Regulation 903 Ontario Water Resources Act

page ___ of ___

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- Please print clearly in blue or black ink only.

Ministry Use Only

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Well Owner's Information and Location of Well Information

[redacted]

Ottawa Carleton	Kanata	11	4
RR#/Street Number/Name	City/Town/Village	Site/Compartment/Block/Tract etc.	
941 March Rd.	Kanata		

GPS Reading: NAD 83 | Zone 18 | Easting 426390 | Northing 5023443

Unit Make/Model: Garmin

Mode of Operation: ☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To (Metres)

Hole Diameter

Depth From	Depth To (Metres)	Diameter Centimetres

Water Record

Water found at ___ Metres / Kind of Water

___ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

___ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

___ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

After test of well yield, water was
☐ Clear and sediment free
☐ Other, specify

Chlorinated ☐ Yes ☐ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To (Metres)
Casing				
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☐ Open hole			

Test of Well Yield

Pumping test method	Draw Down Time min	Draw Down Water Level Metres	Recovery Time min	Recovery Water Level Metres
Pump intake set at - (metres)	Static Level			
Pumping rate - (litres/min)	1		1	
Duration of pumping ___hrs +___ min	2		2	
Final water level end of pumping ___metres	3		3	
Recommended pump type. ☐ Shallow ☐ Deep	4		4	
Recommended pump depth. ___metres	5		5	
Recommended pump rate. (litres/min)	10		10	
If flowing give rate - (litres/min)	15		15	
If pumping discontinued, give reason.	20		20	
	25		25	
	30		30	
	40		40	
	50		50	
	60		60	

Plugging and Sealing Record

☐ Annular space ☒ Abandonment

Depth set at - Metres From	Depth set at - Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
6.09	0	Grouted Bentonite Slurry	2inch hole

Method of Construction

☐ Cable Tool ☐ Rotary (air) ☐ Diamond ☐ Digging
☐ Rotary (conventional) ☐ Air percussion ☐ Jetting ☐ Other
☐ Rotary (reverse) ☐ Boring ☐ Driving

Water Use

☐ Domestic ☐ Industrial ☐ Public Supply ☐ Other
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

☐ Water Supply ☐ Recharge well ☐ Unfinished ☒ Abandoned, (Other)
☐ Observation well ☐ Abandoned, insufficient supply ☐ Dewatering
☐ Test Hole ☐ Abandoned, poor quality ☐ Replacement well

Well Contractor/Technician Information

Name of Well Contractor	Well Contractor's Licence No.
Capital Water Supply Ltd.	1558

Business Address (street name, number, city etc.)
box 490 Stittsville Ontario K2S 1A6

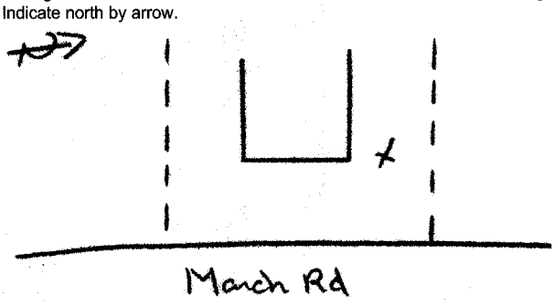
Name of Well Technician (last name, first name)	Well Technician's Licence No.
Miller Stephen	T0097

Signature of Technician/Contractor: x [signature]

Date Submitted YYYY MM DD: 2006 7 20

Location of Well

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



Audit No. Z 47023

Date Well Completed YYYY MM DD: 2006 7 20

Was the well owner's information package delivered? ☐ Yes ☒ No

Date Delivered YYYY MM DD

Ministry Use Only

Data Source

Contractor: 1558

Date Received YYYY MM DD: AUG 25 2006

Date of Inspection YYYY MM DD

Remarks

Well Record Number

0506E (09/03)

Contractor's Copy ☐ Ministry's Copy ☐ Well Owner's Copy ☐

Cette formule est disponible en français

Ontario Ministry of the Environment

Well Tag Number (Place sticker and print number below)
A041907
A 041907

Well Record
Regulation 903 Ontario Water Resources Act

page ___ of ___

Instructions for Completing Form

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- **All metre measurements shall be reported to 1/10th of a metre.**
- Please print clearly in blue or black ink only.

Ministry Use Only
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Well Owner's Information and Location of Well Information

[redacted]

Ottawa Carleton | Kanata | 11 | 4

RR#/Street Number/Name: 941 March Rd.
City/Town/Village: Kanata
Site/Compartment/Block/Tract etc.:

GPS Reading: NAD 83 | Zone 18 | Easting 426390 | Northing 5023443
Unit Make/Model: Garmin
Mode of Operation: ☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To (Metres)
Brown	Clay		Packed	0	2.74
grey	limestone		Hard	2.74	11.58
grey&white	sandstone			11.58	22.24

Hole Diameter

Depth From	Depth To (Metres)	Diameter (Centimetres)
0	6.40	22.75
6.40	22.24	15.23

Water Record

Water found at ___ Metres / Kind of Water
20.72 ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other: NOT TESTED
___ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:
___ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

After test of well yield, water was
☒ Clear and sediment free
☐ Other, specify

Chlorinated ☒ Yes ☐ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To (Metres)
Casing				
15.86	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	+.45	6.40
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
15.23	☒ Open hole		6.40	22.24

Test of Well Yield

Pumping test method: Submersible
Pump intake set at - (metres) 18.28
Pumping rate - (litres/min) 50.05
Duration of pumping 1 hrs + ___ min
Final water level end of pumping 7.01 metres
Recommended pump type: ☐ Shallow ☒ Deep
Recommended pump depth 15.23 metres
Recommended pump rate. 45.5 (litres/min)
If flowing give rate - (litres/min)
If pumping discontinued, give reason.

	Draw Down Time min	Draw Down Water Level Metres	Recovery Time min	Recovery Water Level Metres
Static Level				
1	5.83		1	5.46
2	6.08		2	5.41
3	6.21		3	5.39
4	6.30		4	5.36
5	6.35		5	5.34
10	6.50		10	5.23
15	6.62		15	5.16
20	6.69		20	5.14
25	6.76		25	5.12
30	6.79		30	5.10
40	6.88		40	5.07
50	6.94		50	5.04
60	7.01		60	5.02

Plugging and Sealing Record ☒ Annular space ☐ Abandonment

Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
6.40	0	Grouted Bentonite Slurry	.21m3

Method of Construction

☐ Cable Tool ☒ Rotary (air) ☐ Diamond ☐ Digging
☐ Rotary (conventional) ☒ Air percussion ☐ Jetting ☐ Other
☐ Rotary (reverse) ☐ Boring ☐ Driving

Water Use

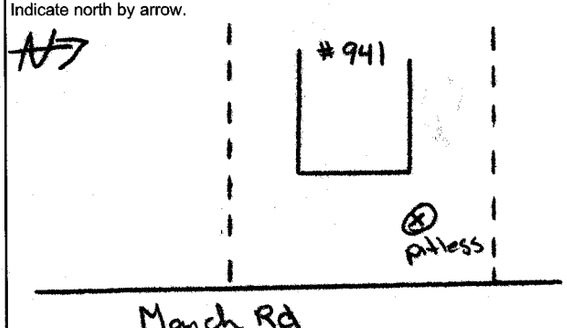
☒ Domestic ☐ Industrial ☐ Public Supply ☐ Other
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

☒ Water Supply ☐ Recharge well ☐ Unfinished ☐ Abandoned, (Other)
☐ Observation well ☐ Abandoned, insufficient supply ☐ Dewatering
☐ Test Hole ☐ Abandoned, poor quality ☐ Replacement well

Location of Well

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



Audit No. Z 47021
Date Well Completed: YYYY 2006 | MM 7 | DD 18
Was the well owner's information package delivered? ☒ Yes ☐ No
Date Delivered: YYYY 2006 | MM 7 | DD 18

Well Contractor/Technician Information

Name of Well Contractor: Capital Water Supply Ltd
Well Contractor's Licence No.: 1558
Business Address (street name, number, city etc.): Box 490 Stittsville Ontario K2S 1A6
Name of Well Technician (last name, first name): Miller Stephen
Well Technician's Licence No.: T0097
Signature of Technician/Contractor: X
Date Submitted: YYYY 2006 | MM 7 | DD 18

Ministry Use Only

Data Source
Contractor: 1558
Date Received: AUG 25 2006
Date of Inspection
Remarks
Well Record Number

0506E (09/03) Contractor's Copy ☐ Ministry's Copy ☐ Well Owner's Copy ☐ *Cette formule est disponible en français*

Ontario Ministry of the Environment

Well Tag No. *(Place Sticker and/or Print Below)* N/A

Well Record

Regulation 903 Ontario Water Resources Act

Page _____ of _____

Well Owner's Information

First Name	Last Name	E-mail Address	☐ Well Constructed by Well Owner
Minto Developments	c/o Paterson Group		

Mailing Address (Street Number/Name, RR)	Municipality	Province	Postal Code	Telephone No. *(inc. area code)*
28 Concourse Gate #1	Nepean	Ont	K2E 7T7	

Part A Construction and/or Major Alteration of a Well

Address of Well Location (Street Number/Name, RR)	Township	Lot	Concession
#886 March Road	March	11	4

County/District/Municipality	City/Town/Village	Province	Postal Code
Ottawa-Carleton	Carp	Ontario	

UTM Coordinates NAD 83	Zone	Easting	Northing	GPS Unit Make	Model	Mode of Operation: ☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify
	18	426646	5023182	Magellan	200	

Overburden and Bedrock Materials *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (Metres) From	Depth (Metres) To
	6" Drilled well		Abandonment	0	24.08

Annular Space/Abandonment Sealing Record

Depth Set at (Metres) From	To	Type of Sealant Used (Material and Type)	Volume Placed (Cubic Metres)
24.08	0.15	Hole Plug	
0.15	0	Soil	

Method of Construction

☐ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Rotary (Air) ☐ Digging
☐ Air percussion ☐ Boring
☐ Other, *specify* _____

Water Use

☐ Public ☐ Commercial ☐ Not used
☐ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ Industrial
☐ Other, *specify* _____

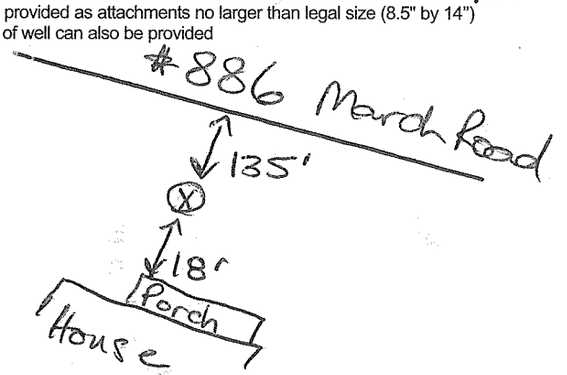
Status of Well

☐ Water Supply ☐ Dewatering Well ☐ Observation and/or Monitoring Hole
☐ Replacement Well ☐ Abandoned, Insufficient Supply ☐ Alteration (Construction)
☐ Test Hole ☒ Abandoned, Poor Water Quality ☐ Other, *specify* _____
☐ Recharge Well ☐ Abandoned, other, *specify* _____

Location of Well

Please provide a map below showing:
- all property boundaries, and measurements sufficient to locate the well in relation to fixed points.
- an arrow indicating the North direction
- detailed drawings can be provided as attachments no larger than legal size (8.5" by 14")
- vidigital pictures of inside of well can also be provided

N/A



Date Well Completed *(yyyy/mm/dd)*	Was the well owner's information package delivered?	Date the Well Record and Package Delivered to Well Owner *(yyyy/mm/dd)*
2007-08-02	☐ Yes ☒ No	2007-08-27

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
AIR ROCK DRILLING CO LTD	1119

Business Address (Street No./Name, number, RR)	Municipality
RR#1	RICHMOND

Province	Postal Code	Business E-mail Address
ONT	K0A 2Z0	

Bus. Telephone No. *(inc. area code)*	Name of Well Technician (Last Name, First Name)
6138382170	Desaulniers Ken

Well Technician's Licence No.	Signature of Technician	Date Submitted *(yyyy/mm/dd)*
7174		2007-09-08

Results of Well Yield Testing

Check box if after test of well yield, water was:
☐ Clear and sand free
☐ Cannot develop to sand-free state

If pumping discontinued, give reason:

Pumping test method

Pump intake set at *(Metres)*

Pumping rate *(Litres/min)*

Duration of pumping _____ hrs + _____ min

Final water level end of pumping *(Metres)*

Recommended pump type ☐ Shallow ☐ Deep

Recommended pump depth _____ Metres

Recommended pump rate *(Litres/min)*

If flowing give rate *(Litres/min)*

	Draw Down		Recovery	
	Time *(Min)*	Water Level *(Metres)*	Time *(Min)*	Water Level *(Metres)*
Static Level			Static Level	
1			1	
2			2	
3			3	
4			4	
5			5	
10			10	
15			15	
20			20	
25			25	
30			30	
40			40	
50			50	
60			60	

Water Details

Water found at Depth	Kind of Water
_____ Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals
_____ Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals
_____ Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals

Casing Used	Screen Used
☐ Galvanized	☐ Galvanized
☐ Steel	☐ Steel
☐ Fibreglass	☐ Fibreglass
☐ Plastic	☐ Plastic
☐ Concrete	☐ Concrete

No Casing and Screen Used

☐ Open Hole

Disinfected? ☒ Yes ☐ No

Casing and Well Details

Diameter of the Hole *(Centimetres)*

Depth of the Hole *(Metres)*

Wall Thickness *(Metres)*

Inside Diameter of the Casing *(Metres)*

Depth of the Casing *(Metres)*

Ministry Use Only

Audit No.	Well Contractor No.
Z 60172	1119
Date Received *(yyyy/mm/dd)* SEP 17 2007	Date of Inspection *(yyyy/mm/dd)*
Remarks	

Ontario Ministry of the Environment

Well Tag No. *(Place Sticker and/or Print Below)*

Well Record

Regulation 903 Ontario Water Resources Act

Page _____ of _____

Well Owner's Information

First Name	Last Name	E-mail Address	☐ Well Constructed by Well Owner
McKeown Construction			

Mailing Address (Street Number/Name, RR)	Municipality	Province	Postal Code	Telephone No. *(inc. area code)*
P.O. Box 296	Greely	Ontario	K4P 1N5	613 821 4808

Part A Construction and/or Major Alteration of a Well

Address of Well Location (Street Number/Name, RR)	Township	Lot	Concession
846 March Road	Kanata	10	3

County/District/Municipality	City/Town/Village	Province	Postal Code
Ottawa Carleton	Kanata	Ontario	

UTM Coordinates	Zone	Easting	Northing	GPS Unit Make	Model	Mode of Operation:
NAD 83		426795	5023082		GArmin	☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Overburden and Bedrock Materials *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (*Metres*) From	To

Annular Space/Abandonment Sealing Record

Depth Set at (*Metres*) From	To	Type of Sealant Used *(Material and Type)*	Volume Placed *(Cubic Metres)*
16.76	0	Grouted - Bentonite, 3/4 inch Hole Plug	15 bags

Method of Construction

☐ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ *Rotary (Air)* ☐ *Digging*
☐ Air percussion ☐ Boring
☐ Other, *specify* _____

Water Use

☐ Public ☐ Commercial ☐ Not used
☐ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ *Irrigation* ☐ *Cooling & Air Conditioning*
☐ Industrial
☐ Other, *specify* _____

Status of Well

☐ Water Supply ☐ Dewatering Well ☐ Observation and/or Monitoring Hole
☐ Replacement Well ☐ Abandoned, Insufficient Supply ☐ Alteration (Construction)
☐ Test Hole ☐ Abandoned, Poor Water Quality ☐ Other, *specify* _____
☐ Recharge Well ☒ Abandoned, other, *specify* _____

Location of Well

Please provide a map below showing:
- all property boundaries, and measurements sufficient to locate the well in relation to fixed points,
- an arrow indicating the North direction
- detailed drawings can be provided as attachments no larger than legal size (8.5" by 14")
- vidigital pictures of inside of well can also be provided

Date Well Completed *(yyyy/mm/dd)*	Was the well owner's information package delivered?	Date the Well Record and Package Delivered to Well Owner *(yyyy/mm/dd)*
2008/3/3	☐ Yes ☒ No	

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Capital Water Supply Ltd.	1558

Business Address (Street No./Name, number, RR)	Municipality
Box 490	Stittsville

Province	Postal Code	Business E-mail Address
Ontario	K2S 1A6	office capitalwater.ca

Bus. Telephone No. *(inc. area code)*	Name of Well Technician (Last Name, First Name)
6138361766	Miller, Stephen

Well Technician's Licence No.	Signature of Technician	Date Submitted *(yyyy/mm/dd)*
0097		2008/3/3

Results of Well Yield Testing

Check box if after test of well yield, water was:
☐ Clear and sand free
☐ Cannot develop to sand-free state

If pumping discontinued, give reason:

Pumping test method

Pump intake set at *(Metres)*

Pumping rate *(Litres/min)*

Duration of pumping _____ hrs + _____ min

Final water level end of pumping *(Metres)*

Recommended pump type ☐ Shallow ☐ Deep

Recommended pump depth _____ Metres

Recommended pump rate *(Litres/min)*

If flowing give rate *(Litres/min)*

Draw Down Time (*Min*)	Draw Down Water Level (*Metres*)	Recovery Time (*Min*)	Recovery Water Level (*Metres*)
Static Level		Static Level	
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
50		50	
60		60	

Water Details

Water found at Depth	Kind of Water
___ Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals
Water found at Depth ___ Metres ☐ Gas	☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals
Water found at Depth ___ Metres ☐ Gas	*Kind of Water* ☐ Fresh ☐ Salty ☐ Sulphur ☐ Minerals

Casing Used	Screen Used
☐ Galvanized	☐ Galvanized
☐ *Steel*	☐ *Steel*
☐ Fibreglass	☐ Fibreglass
☐ Plastic	☐ Plastic
☐ Concrete	☐ Concrete

No Casing and Screen Used

☐ Open Hole

Disinfected? ☒ Yes ☐ No

Casing and Well Details

Diameter of the Hole *(Centimetres)*

Depth of the Hole *(Metres)*

Wall Thickness *(Metres)*

Inside Diameter of the Casing (Metres)

Depth of the Casing *(Metres)*

Ministry Use Only

Audit No.	Well Contractor No.
Z 77317	
Date Received *(yyyy/mm/dd)* JUN 02 2008	Date of Inspection *(yyyy/mm/dd)*
Remarks	

0506E (11/2006) **Ministry's Copy**

Ontario — Ministry of the Environment

Well Tag No. *(Place Sticker and/or Print Below)*

Well Record

Regulation 903 Ontario Water Resources Act

Measurements recorded in: [X] Metric [ ] Imperial

Page ____ of ____

Well Owner's Information

First Name	Last Name / Organization	E-mail Address	
McKeown Contracting			[ ] Well Constructed by Well Owner

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. *(inc. area code)*
2878 Stagecoach Road	Greely	Ontario	K 0 A 2 W 0	613 821 4808

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
856 March Road	Kanata	11	4

County/District/Municipality	City/Town/Village	Province	Postal Code
Ottawa Carleton	Kanata	Ontario	

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 8 3	1 8	4 26 73 0	5 0 2 3 1 25		

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	Depth (m/ft) To

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used *(Material and Type)*	Volume Placed (m^3/ft^3)
15.54	0	Grouted Bentonite 3/8" Hole Plug (12 bags)	

Method of Construction

[ ] Cable Tool [ ] Diamond
[ ] Rotary (Conventional) [ ] Jetting
[ ] Rotary (Reverse) [ ] Driving
[ ] Boring [ ] Digging
[ ] Air percussion
[ ] Other, *specify*

Well Use

[ ] Public [ ] Commercial [ ] Not used
[ ] Domestic [ ] Municipal [ ] Dewatering
[ ] Livestock [ ] Test Hole [ ] Monitoring
[ ] Irrigation [ ] Cooling & Air Conditioning
[ ] Industrial
[ ] Other, *specify*

Construction Record - Casing

Inside Diameter *(cm/in)*	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness *(cm/in)*	Depth (m/ft) From	Depth (m/ft) To

Construction Record - Screen

Outside Diameter *(cm/in)*	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To

Status of Well

[ ] Water Supply
[ ] Replacement Well
[ ] Test Hole
[ ] Recharge Well
[ ] Dewatering Well
[ ] Observation and/or Monitoring Hole
[ ] Alteration (Construction)
[ ] Abandoned, Insufficient Supply
[ ] Abandoned, Poor Water Quality
[X] Abandoned, other, *specify*
[ ] Other, *specify*

Water Details

Water found at Depth (m/ft)	Kind of Water	Gas	Other, specify
	[ ] Fresh [ ] Untested	[ ]	
	[ ] Fresh [ ] Untested	[ ]	
	[ ] Fresh [ ] Untested	[ ]	

Hole Diameter

Depth (m/ft) From	To	Diameter *(cm/in)*

Results of Well Yield Testing

After test of well yield, water was:
[ ] Clear and sand free
[ ] Other, *specify*

If pumping discontinued, give reason:

Pump intake set at *(m/ft)*

Pumping rate *(l/min / GPM)*

Duration of pumping ____ hrs + ____ min

Final water level end of pumping *(m/ft)*

If flowing give rate *(l/min / GPM)*

Recommended pump depth *(m/ft)*

Recommended pump rate *(l/min / GPM)*

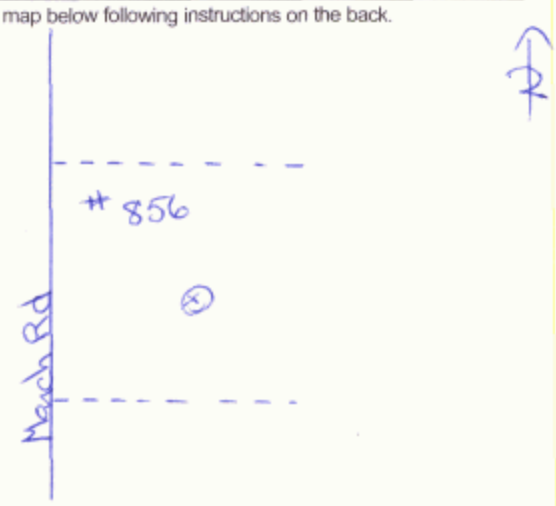
Well production *(l/min / GPM)*

Disinfected? [ ] Yes [ ] No

	Draw Down Time *(min)*	Draw Down Water Level *(m/ft)*	Recovery Time *(min)*	Recovery Water Level *(m/ft)*
Static Level				
1			1	
2			2	
3			3	
4			4	
5			5	
10			10	
15			15	
20			20	
25			25	
30			30	
40			40	
50			50	
60			60	

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Capital Water Supply Ltd.	1558

Business Address (Street Number/Name)	Municipality
Box 490	Stittsville

Province	Postal Code	Business E-mail Address
Ontario	K 2 S 1 A 6	office@capitalwater.ca

Bus. Telephone No. *(inc. area code)*	Name of Well Technician (Last Name, First Name)
6 1 3 8 3 6 1 7 6 6	Miller, Stephen

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
0 0 9 7		2008 09 08

Well owner's information package delivered: [ ] Yes [X] No

Date Package Delivered: Y Y Y Y M M D D

Date Work Completed: 2008 09 05

Ministry Use Only

Audit No. Z 84393

OCT 14 2008 Received

0506E (12/2007)

Ministry's Copy

Ontario Ministry of the Environment

Measurements recorded in: [X] Metric [ ] Imperial

Well Tag No. *(Place Sticker and/or Print Below)*

Well Record

Regulation 903 Ontario Water Resources Act

Page _____ of _____

Well Owner's Information

First Name	Last Name / Organization	E-mail Address	
McKeown Contracting			[ ] Well Constructed by Well Owner

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. *(inc. area code)*
2878 Stagecoach Road	Greely	Ontario	K 0 A 2 W 0	613 822 2599

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
860 March Road	Kanata	11	4

County/District/Municipality	City/Town/Village	Province	Postal Code
Ottawa Carleton	Kanata	Ontario	

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 8 3	1 8	426698	5023143		

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	Depth (m/ft) To

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m^3/ft^3)
9.44	0	Grouted Bentonite 3/8" Hole Plug (5 bags)	

Method of Construction

[ ] Cable Tool [ ] Diamond
[ ] Rotary (Conventional) [ ] Jetting
[ ] Rotary (Reverse) [ ] Driving
[ ] Boring [ ] Digging
[ ] Air percussion
[ ] Other, *specify* _____

Well Use

[ ] Public [ ] Commercial [ ] Not used
[ ] Domestic [ ] Municipal [ ] Dewatering
[ ] Livestock [ ] Test Hole [ ] Monitoring
[ ] Irrigation [ ] Cooling & Air Conditioning
[ ] Industrial
[ ] Other, *specify* _____

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To

Status of Well

[ ] Water Supply
[ ] Replacement Well
[ ] Test Hole
[ ] Recharge Well
[ ] Dewatering Well
[ ] Observation and/or Monitoring Hole
[ ] Alteration (Construction)
[ ] Abandoned, Insufficient Supply
[ ] Abandoned, Poor Water Quality
[X] Abandoned, other, *specify*
[ ] Other, *specify*

Water Details

Water found at Depth (m/ft)	Gas	Kind of Water: Fresh	Untested	Other, specify
	[ ]	[ ]	[ ]	
	[ ]	[ ]	[ ]	
	[ ]	[ ]	[ ]	

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)

Results of Well Yield Testing

After test of well yield, water was:
[ ] Clear and sand free
[ ] Other, *specify*

If pumping discontinued, give reason:

Pump intake set at *(m/ft)*

Pumping rate *(l/min / GPM)*

Duration of pumping _____ hrs + _____ min

Final water level end of pumping *(m/ft)*

If flowing give rate *(l/min / GPM)*

Recommended pump depth *(m/ft)*

Recommended pump rate *(l/min / GPM)*

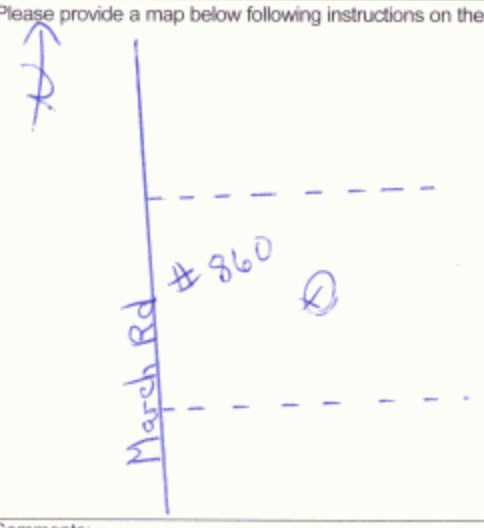
Well production *(l/min / GPM)*

Disinfected? [ ] Yes [ ] No

	Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level				
1			1	
2			2	
3			3	
4			4	
5			5	
10			10	
15			15	
20			20	
25			25	
30			30	
40			40	
50			50	
60			60	

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Capital Water Supply Ltd.	1 5 5 8

Business Address (Street Number/Name)	Municipality
Box 490	Stittsville

Province	Postal Code	Business E-mail Address
Ontario	K 2 S 1 A 6	office@capitalwater.ca

Bus. Telephone No. *(inc. area code)*	Name of Well Technician (Last Name, First Name)
6 1 3 8 3 6 1 7 6 6	Miller, Stephen

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
0 0 9 7		2 0 0 8 0 9 0 8

Well owner's information package delivered	Date Package Delivered	Date Work Completed
[ ] Yes [X] No	Y Y Y Y M M D D	2 0 0 8 0 9 0 5

Ministry Use Only

Audit No. Z 84392

OCT 14 2008

Received

0506E (12/2007)

Ministry's Copy

Ontario — Ministry of the Environment

Measurements recorded in: ☐ Metric ☑ Imperial

Well Tag No. *(Place Sticker and/or Print Below)*: Abandoned

Well Record

Regulation 903 Ontario Water Resources Act

Page 1 of 1

Well Owner's Information

First Name	Last Name / Organization	E-mail Address	☐ Well Constructed by Well Owner
	City of Ottawa		

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. *(inc. area code)*
100 Constellation Crescent	Ottawa	Ontario	K2G6T8	6135810240

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
895 March Rd.			

County/District/Municipality	City/Town/Village	Province	Postal Code
	Kanata	Ontario	K2K1X7

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	18	426569	5023247		

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	Depth (m/ft) To
	Static Water level at 21'				
	Abandoned for Road Construction				
	GPS - Garmin Etrex				

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m^3/ft^3)
29'	24'	~~Hole plug~~ Sand	
24'	3'	Hole plug	
3'	0.8'	Sand	
0.8'	0	Clean Rock	

Method of Construction

☐ Cable Tool ☐ Diamond ☐ Rotary (Conventional) ☐ Jetting ☐ Rotary (Reverse) ☐ Driving ☐ Boring ☐ Digging ☐ Air percussion ☐ Other, *specify* _____

Well Use

☐ Public ☐ Commercial ☑ Not used ☐ Domestic ☐ Municipal ☐ Dewatering ☐ Livestock ☐ Test Hole ☐ Monitoring ☐ Irrigation ☐ Cooling & Air Conditioning ☐ Industrial ☐ Other, *specify* _____

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To

Status of Well

☐ Water Supply ☐ Replacement Well ☐ Test Hole ☐ Recharge Well ☐ Dewatering Well ☐ Observation and/or Monitoring Hole ☐ Alteration (Construction) ☐ Abandoned, Insufficient Supply ☐ Abandoned, Poor Water Quality ☑ Abandoned, other, *specify* Construction ☐ Other, *specify* _____

Water Details

Water found at Depth (m/ft)	Gas	Kind of Water: ☐ Fresh ☐ Untested	Other, *specify*
Water found at Depth (m/ft)	Gas	Kind of Water: ☐ Fresh ☐ Untested	Other, *specify*
Water found at Depth (m/ft)	Gas	Kind of Water: ☐ Fresh ☐ Untested	Other, *specify*

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)

Results of Well Yield Testing

After test of well yield, water was: ☐ Clear and sand free ☐ Other, *specify* _____

If pumping discontinued, give reason:

Pump intake set at *(m/ft)*

Pumping rate *(l/min / GPM)*

Duration of pumping _____ hrs + _____ min

Final water level end of pumping *(m/ft)*

If flowing give rate *(l/min / GPM)*

Recommended pump depth *(m/ft)*

Recommended pump rate *(l/min / GPM)*

Well production *(l/min / GPM)*

Disinfected? ☐ Yes ☐ No

Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level			
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
50		50	
60		60	

Map of Well Location

Please provide a map below following instructions on the back.

Comments: See Attached

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Marathon Drilling Co. Ltd.	6894

Business Address (Street Number/Name)	Municipality	Province	Postal Code	Business E-mail Address
6847 Hiram Dr.	Ottawa	Ontario	K4P1A2	jsbell@marathondrilling.com

Bus. Telephone No. *(inc. area code)*	Name of Well Technician (Last Name, First Name)	Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
6138212057	Foster, Eric	3284		2010/06/02

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☐ Yes ☐ No	Y Y Y Y M M D D	Y Y Y Y M M D D

Ministry Use Only

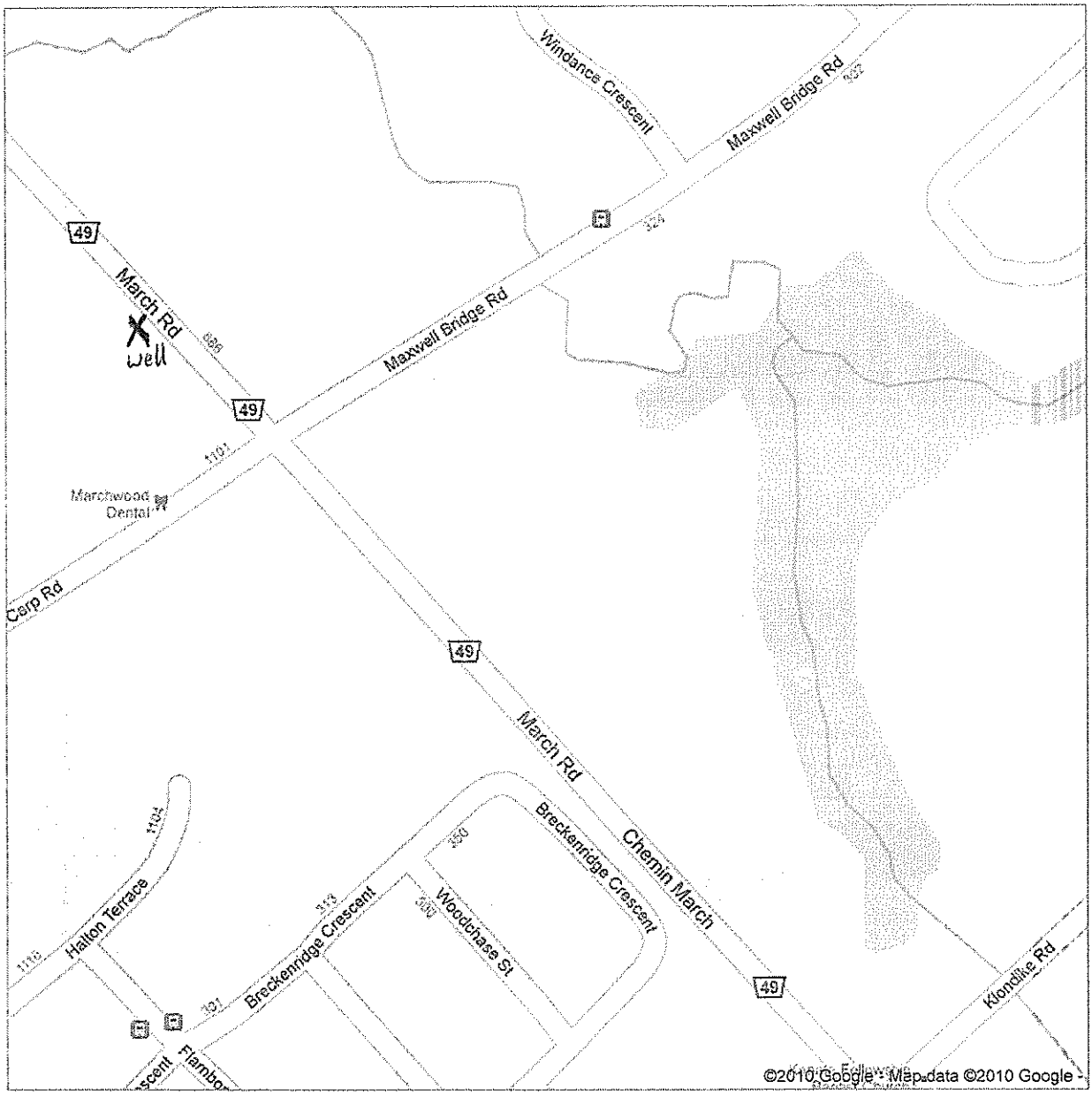
Audit No. Z096933

Received DEC 22 2010

Prir

Google maps
Canada

Notes



C-6894
Z096933

DEC 2 2 2010

Map: Well records

This map allows you to search and view well record information from reported wells in Ontario.

Full dataset is available in the Open Data catalogue.

Go Back to Map

Well ID

Well ID Number: 7201372
Well Audit Number: *C21215*
Well Tag Number: *A130127*

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	
Township	MARCH TOWNSHIP
Lot	
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 426635.00 Northing: 5023491.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed

Method of Construction & Well Use

Method of Construction	Well Use

Status of Well

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 1844

Results of Well Yield Testing

After test of well yield, water was	
If pumping discontinued, give reason	
Pump intake set at	
Pumping Rate	
Duration of Pumping	
Final water level	
If flowing give rate	
Recommended pump depth	
Recommended pump rate	
Well Production	
Disinfected?	

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL			
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth	Kind

Hole Diameter

Depth From	Depth To	Diameter

patersongroup

Consulting Engineers

154 Colonnade Road South
Ottawa, Ontario
Canada, K2E 7J5
Tel: (613) 226-7381
Fax: (613) 226-6344

Geotechnical Engineering
Environmental Engineering
Hydrogeology
Geological Engineering
Materials Testing
Building Science
Archaeological Services

www.patersongroup.ca

October 1, 2019
File: PE4760-HLUI

City of Ottawa
110 Laurier Avenue W
Ottawa, Ontario
K1P 1J1

Subject: **Authorization Letter, HLUI Search**
Phase I-Environmental Site Assessment
910 March Road, Ottawa ON

Dear Sir or Madame,

Please consider this letter as confirmation that Paterson Group has been retained to conduct a Phase I-Environmental Site Assessment at the aforementioned property.

With this letter, the property owner authorizes the City of Ottawa and other regulatory bodies to release, to Paterson Group, information requested for the purpose of completing an environmental assessment of the property.

Name of Company/Property Owner: _____

Name of Representative _____

Signature of Representative _____

Date _____

Mandy Witteman

From: Public Information Services <publicinformationservices@tssa.org>
Sent: October-02-19 3:13 PM
To: Mandy Witteman
Subject: RE: Search Records Request (PE4760)

Follow Up Flag: Follow up
Flag Status: Flagged

Good afternoon,

Thank you for your request for confirmation of public information.

We confirm that there are no records in our database of any fuel storage tanks at the subject addresses.

For a further search in our archives please complete our release of public information form found at https://www.tssa.org/en/about-tssa/release-of-public-information.aspx?_mid_=392 and email the completed form to 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.

Sherees Thompson | Public Information Agent
Facilities
345 Carlingview Drive
Toronto, Ontario M9W 6N9
Tel: +1-416-734-3363 | Fax: +1-416-231-6183 | E-Mail: sthompson@tssa.org
www.tssa.org

From: Mandy Witteman <MWitteman@Patersongroup.ca>
Sent: October 2, 2019 11:10 AM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: Search Records Request (PE4760)

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 in **Ottawa, ON:**

March Rd: 910, 866, 846, 927, 905, 895
Halton Terrace: 1054, 1083
Maxwell Bridge Dr: 349

Thank you!

Cheers,

Mandy Witteman, B. Eng., M.A.Sc.

patersongroup
solution oriented engineering
over 60 years servicing our clients

154 Colonnade Road South
Ottawa, Ontario, K2E 7J5
Tel: (613) 226-7381 Ext. 339
Cell: (403) 921-1157

APPENDIX 3

QUALIFICATIONS OF ASSESSORS

Mandy Witteman, B.Eng., M.A.Sc.

POSITION

Intermediate Environmental Engineer

EDUCATION

Carleton University
M.A.Sc., Environmental Engineering, 2013
B.Eng., Environmental Engineering, 2008

MEMBERSHIPS & AWARDS

Ontario Professional Engineers Association (EIT)
NSERC Industry R&D Scholarship

EXPERIENCE

2018 – Present
Paterson Group Inc.
Consulting Engineers
Geotechnical and Environmental Division
Environmental Engineer

2014 – 2015
Thurber Engineering Limited
Oil Sand Tailings Group
Tailings Engineer

2009 – 2014
Carleton University
Department of Civil & Environmental Engineering
Research Engineer, Research Assistant & Teaching Assistant

2008 – 2009
SLR Consulting Limited
Contaminated Sites
Junior Environmental Engineer

SELECTED LIST OF PROJECTS

Phase I & II Environmental Site Assessments – NRC, Kingston
Remediation – National Capital Region, Saskatchewan
Multi-lift and dry-stacking pilot programs – Northern Alberta
Polymer amended oil sand tailings – Northern Alberta
Hydraulic cut-off wall – Allen, Saskatchewan
Cemented paste backfill systems – Northern Ontario

Mark S. D'Arcy, P. Eng.

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- Geotechnical Engineering
- Environmental Engineering
- Hydrogeology
- Geological Engineering
- Materials Testing
- Building Science
- Archaeological Services

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

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