Geotechnical Engineering

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Phase I-Environmental Site Assessment

936 March Road Ottawa, Ontario

Prepared For

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Report: PE4343-1



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EXECUTIVE SUMMARY

Assessment

Paterson Group was retained by Minto Communities (Minto) to conduct a Phase I Environmental Site Assessment (ESA) of the property addressed 936 March Road. The purpose of this Phase I ESA was to research the past and current use of the Phase I Property and Phase I ESA Study Area and to identify any environmental concerns with the potential to have impacted the subject land.

Based on the historical research conducted as part of the Phase I ESA, the Phase I Property was first developed in the late 1800's as a farmstead with the existing residential dwelling and outbuildings. The Beachburg rail corridor transects the eastern portion of the site in an approximate north-south direction. Based on the aerial review, miscellaneous items were stored in the vicinity of the outbuildings since the early 1990's. The historical use of the adjacent and neighbouring properties was primarily vacant or agricultural with occasional farmsteads or residential dwellings.

The Phase I Property is currently occupied by a residential dwelling and private garage, as well as two (2) former farm structures used for the storage of equipment and miscellaneous items. An original farm building further to the north of the residential dwelling is no longer present. Stored items noted in the aerial review, adjacent to the former farm building and northeast of the residential dwelling, were being removed at the time of the site visit. The remainder of the property is primarily occupied by soy fields farmed by the neighbour across March Road, as well as some wood areas. Shirley's Brook transects the western portion of the site in an approximate north-south direction and the aforementioned Beachburg rail line has been abandoned.

At the time of the site visit, the current uses of the adjacent and neighbouring properties within the Phase I ESA Study Area were observed from publicly accessible areas. The adjacent and neighbouring properties are largely vacant or agricultural land and residential dwellings. As noted previously, the former rail line that transects the property is not currently in operation (the tracks have been removed).

Based on the historical research in combination with observations made at the time of the site visit, potentially contaminating activities which have resulted in APECs on the Phase I Property include on-site fuel storage and the storage of miscellaneous items by Fuller Construction.

Recommendations

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



Based on the age of the residential dwelling (late 1800's) possible asbestos-containing materials (ACMs) observed during the site visit include vinyl floor tiles, acoustic ceiling tiles and drywall joint compound. Possible asbestos-containing drywall joint compound may also be present in the private garage. The potential ACMs were observed to be in good condition at the time of the site visit.

Based on the age of the residential dwelling, lead-based paint may be present beneath more recent paints or on any original or older painted surfaces. Painted surfaces were generally observed to be in good condition throughout the building at the time of the site visit.

Prior to any possible future demolition activities, a designated substance survey (DSS) must be conducted for the existing structures in accordance with Ontario Regulation 490/09 under the Occupational Health and Safety Act.



1.0 INTRODUCTION

At the request of Minto Communities (Minto) Paterson Group (Paterson) conducted a Phase I-Environmental Site Assessment (Phase I-ESA) of the property addressed 936 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 by Ms. Beth Henderson of Minto. The offices of Minto are located at 200-180 Kent Street, Ottawa, Ontario. Ms. Henderson can be reached by telephone at (613) 782-2311.

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

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



2.0 PHASE I PROPERTY INFORMATION

Address: 936 March Road, Ottawa, Ontario

Legal Description: Part of Lot 12, Concession 4, Geographic Township

of March, City of Ottawa

Property Identification

Numbers: 04527-1004, 04527-1005

Location: The subject site is located between March Road and

March Valley Road, approximately 240m north of Maxwell Bridge Road, in the City of Ottawa, Ontario. For the purposes of this report, March Road is assumed to travel in a north-south direction. The subject site is shown on Figure 1 - Key Plan following

the body of this report.

Latitude and Longitude: 45° 22' 1" N, 75° 56' 1" W

Site Description:

Configuration: Irregular (2 parcels divided by a railway corridor)

Site Area: 78 hectares (approximate)

Zoning: RU – Rural, with a floodplain overlay along Shirley's

Brook, which transects the Phase I Property in an approximate north-south direction, parallel to March

Road.

Current Use: The property is currently used for residential and

agricultural purposes (soy fields).

Services: The Phase I Property has private services (a potable

well and septic system).



3.0 SCOPE OF INVESTIGATION

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



4.0 RECORDS REVIEW

4.1 General

Phase I-ESA Study Area Determination

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

First Developed Use Determination

According to the current tenant, Ms. Jennifer Arbuckle, the Phase I Property was first developed as a farmstead in the late 1800's.

Fire Insurance Plans and City of Ottawa Street Directories

Due to the rural setting of the Phase I Property, there are no fire insurance plans (FIPs) or city directories for the Phase I Property or for properties within the Phase I Study Area.

Draft Plan of Subdivision

A draft plan of subdivision prepared by Stantec Geomatics was reviewed as part of this assessment. The draft plan of subdivision shows the Phase I Property in its current configuration.

Previous Engineering Reports

Paterson has conducted several environmental assessments for properties within the Phase I Study Area. Based on a review of our files, no potential environmental concerns were identified with respect to the Phase I Property.

Geotechnical Investigation

A Geotechnical Investigation was conducted for the Phase I Property in June of 2018. Thirty-eight boreholes were placed across the subject land to depths ranging from approximately 1.3 to 7.8m below grade. The subsurface profile generally consisted of topsoil over sand, silty clay and/or glacial till. Fill material was not identified at any of the borehole locations. No evidence of potential contamination was noted in the soil samples during the geotechnical field program.

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4.2 Environmental Source Information

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on June 18, 2018. The subject site and adjacent properties were not listed in the NPRI database. No records of pollutant release were listed in the database for properties located within the Phase I Study Area.

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.

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

A request was submitted to the MECP Freedom of Information 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 site. Based on the MECP response dated August 30, 2018, no records were located responsive to the request. A copy of the MECP response is provided in Appendix 2.

MECP Coal Gasification Plant Inventory

The Ontario Ministry of Environment and Climate Change document entitled "Municipal Coal Gasification Plant Site Inventory, 1991" was reviewed to reference the locations of former plants with respect to the site. No coal gasification plants were identified within the Phase I Study Area.

MECP Incident Reports

A request was submitted to the MECP Freedom of Information office for information with respect to records concerning environmental incidents, orders, offences, spills, discharges of contaminants or inspections maintained by the MECP for the site or adjacent properties. Based on the MECP response dated August 30, 2018, no records were located responsive to the request. A copy of the MECP response is provided in Appendix 2.



MECP Waste Management Records

A request was submitted to the MECP Freedom of Information office for information with respect to waste management records. Based on the MECP response dated August 30, 2018, no records were located responsive to the request. A copy of the MECP response is provided in Appendix 2.

MECP Submissions

A request was submitted to the MECP Freedom of Information office for information with respect to reports related to environmental conditions that have been submitted to the MECP. Based on the MECP response dated August 30, 2018, no records were located responsive to the request. A copy of the MECP response is provided in Appendix 2.

MECP Brownfields Environmental Site Registry

A search of the MECP Brownfields ESR was conducted for properties within the Phase I Study Area. According to the ESR, no Records of Site Condition (RSCs) have been filed for the Phase I Property. No RSCs were identified for properties within the Phase I Study Area.

MECP Waste Disposal Site Inventory

The Ontario Ministry of Environment document titled "Waste Disposal Site Inventory in Ontario, 1991" was reviewed as part of the historical research. This document includes all recorded active and closed waste disposal sites, industrial manufactured gas plants and coal tar distillation plants in the Province of Ontario. No active or closed waste disposal sites were identified for the Phase I Property or for any properties 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 web site of the Ontario Ministry of Natural Resources (MNR) on June 18, 2018. The search did not reveal any areas of natural significance on the Phase I Property or within the Phase I Study Area.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on May 31, 2018 to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties. A response from the TSSA, dated May 31, 2018, indicated that no records were identified. 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. According to the document, there are no closed landfill sites within the Phase I Study Area.

City of Ottawa Historical Land Use Inventory (HLUI)

A request was submitted to the City of Ottawa for a search of the Historical Land Use Inventory (HLUI) database. Based on the City of Ottawa response dated August 23, 2018, there are no activities associated with the Phase I Property. The HLUI database identified 56 activities within the Phase I Study Area. Based on the nature of the activities and their separation distances from the Phase I Property, they are not considered to represent areas of potential environmental concern (APECs) on the Phase I Property. A copy of the City correspondence 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. The review period dates back to the first available air photos for the site. Based on the review, the following observations have been made:

1934	The Phase I Property was occupied by the existing residential
	dwelling and farm buildings. An apparent barn or outbuilding was
	also present further to the north of the residential dwelling. The
	remainder of the subject land was occupied by agricultural lands,
	with some treed areas. A rail line corridor transects the eastern portion of the property in an approximate north-south direction. Adjacent and neighbouring properties were occupied by agricultural
	lands with occasional farmsteads or residential dwellings.

1952	No significant changes appear to have been made to the Phase I
	Property or to the adjacent and neighbouring lands.

An apparent ditch transects the western portion of the Phase I Property in an approximate north-south direction. No significant changes appear to have been made to the subject land or the adjacent and neighbouring properties.



1989	The Phase I Property and neighbouring lands within the Phase I Study Area appear to remain unchanged from the previous photograph.			
1991	(City of Ottawa web site) The northern most outbuilding or baseen in the previous photographs, is no longer present. apparent storage area is present to the east of the former based activity (possible storage area further to the east of the residential dwelling.			
	Additional outbuildings are present on the adjacent farmstead to the south, along March Road. Otherwise no significant changes appear to have been made to the adjacent and neighbouring properties.			
2008	(City of Ottawa, geoOttawa) The Phase I Property appears to remain unchanged from the previous photograph. A residential subdivision is under construction to the southeast of the Phase I Property.			
2017	(City of Ottawa, geoOttawa) The Phase I Property appears as it currently exists, with no changes from the previous photograph. The subdivision to the southeast of the Phase I Property has been completed. Commercial development has occurred along the east side of March Road further south of the Phase I Property.			
Logar capies of calcuted agricl photographs reviewed are included in Appendix 1				

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

Topographic Maps

Topographic maps were obtained from Natural Resources Canada – The Atlas of Canada website and from the City of Ottawa website. The topographic maps indicate that the Phase I Property slopes down to the east, with a difference in grade of approximately 10m.

According to the maps, Shirley's Brook transects the western portion of the Phase I Property in an approximate north-south direction, while drainage ditches are present on the eastern portion of the site in an approximate east-west direction. 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 or sand".

Geological Maps

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on this information, bedrock in the area of the site consists of interbedded sandstone and dolomite of the March Formation and dolomite of the Oxford Formation. Overburden soils are reported to consist of offshore marine sediments with erosional terraces, with drift thicknesses between 0 and 10m.

Water Well Records

The MECP well mapping website was accessed to obtain well records for all drilled wells within 250 m of the Phase I Property. A well record was identified for the Phase I Property, as well as 28 well records for domestic potable wells or well abandonments on properties within the Phase I Study Area.

The well mapping website did not identify any monitoring well records for the Phase I Property or for any properties within the Phase I Study Area. Copies of the MECP well records are provided in Appendix 2.

Water Bodies and Areas of Natural Significance

Shirley's Brook transects the western portion of the Phase I Property in an approximate north-south direction. Otherwise, no 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 INTERVIEWS

Property Owner Representative

Ms. Jennifer Arbuckle, the current tenant, was interviewed at the time of the site visit. Ms. Arbuckle indicated that the property has been occupied by the existing farmstead for approximately 150 years and that the Fuller family has owned the property for approximately 40 years. Ms. Arbuckle indicated that the property has been occupied by soy crops for the past 8 to 10 years and that prior to soy, the land was farmed for corn. To the knowledge of Ms. Arbuckle, the land has been farmed by the neighbour, across March Road, for the past 20 years.

Ms. Arbuckle indicated that the furnace oil aboveground storage tank (AST) situated in the basement was replaced in 2012 and that to her knowledge there were no leaks or spills associated with the previous AST or the existing AST. Ms. Arbuckle also indicated that the property owner stores scrap metal and unused construction equipment (associated with Fuller Construction). Fuller was in the process of removing the waste materials and equipment at the time of the site visit.

The information obtained in this interview is consistent with site information obtained from other sources and is considered to be valid.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

The site visit was conducted on June 19, 2018. Weather conditions were sunny, with a temperature of approximately 20° C. Personnel from the Environmental Department of Paterson Group conducted the site visit. The uses of neighbouring properties within the Phase I Study Area were also assessed at the time of the site visit, from publicly accessible areas. Photographs of the Phase I Property and adjacent lands are provided in the Figures Section of this report.

6.2 Specific Observations at Phase I Property

Buildings and Structures

The Phase I Property is occupied by a two-storey residential dwelling with a basement level, a private garage and two (2) outbuildings associated with the original farmstead. The dwelling, reportedly constructed in the late 1800's, has a stone and mortar foundation and is finished on the exterior with red brick and a metal roof.



A wood frame private garage structure, with an asphaltic-shingled roof, is present adjacent to the east of the residential dwelling. Two other wood-framed structures with metal or shingled roofs are present to the east of the dwelling and are used for storage of lawn maintenance equipment and miscellaneous building materials.

The residential dwelling is currently heated with oil-fired equipment, while the other structures have never been heated.

Underground Utilities and Below Grade Structures

A potable well is present to the southeast of the residential dwelling, while a septic system is reportedly present on the north side of the dwelling. Otherwise there are no underground utilities or below grade structures on the Phase I Property. Telephone and Hydro services are provided via overhead wires. The approximate locations of the well and septic are shown on Drawing PE4343-1A.

Site Features

The aforementioned buildings and structures occupy the southwestern portion of the Phase I Property. Shirley's Brook transects the site in an approximate north-south direction and is situated just west of the residential dwelling. A wooded area is present to the east of the residential dwelling. The northeastern portion of the site is also wooded. The remainder of the site is occupied by soy fields, which are separated by tree lines and drainage ditches. The Beachburg rail corridor (abandoned rail line) transects the Phase I Property in an approximate north-south direction.

A slope, approximately 6m high, runs in a north-south direction within the western portion of the subject site, sloping downward to the east. The slope was noted to be stable and shaped to an approximate 8H:1V slope or less. Overall, the ground surface across the subject site slopes downward from southwest to northeast from an elevation of approximately 80m above sea level (asl) to an elevation of approximately 65m asl. Site drainage consists of surficial infiltration and sheet flow to onsite drainage ditches and Shirley's Brook.

An empty aboveground fuel storage tank (AST) was observed to the further to the east of the residential dwelling at the time of the site assessment. No tag information was noted on the AST, which was approximately 5,000L in volume and in fair condition at the time of the site visit.



Based on the apparent age, condition and location of the AST, the tank is considered to have been empty when placed on the Phase I Property by Fuller Construction and not used on the Phase I Property for the storage of fuel. The tank appears to have been recently moved from a nearby grove of trees; a hole observed in the tank, is considered to have occurred during the moving of the AST. No signs of leakage or staining were noted on the AST or on the ground surface in the vicinity of the ASTs original or current location.

No other ASTs or signs of underground storage tanks (USTs) were noted at the time of the site visit.

A potable well is present on the southeastern portion of the Phase I Property, southeast of the residential dwelling. A septic system is present further to the southwest of the residential dwelling. No other underground structures were noted on the exterior of the Phase I Property at the time of the site visit.

Pole-mounted transformers were noted on or adjacent to the Phase I Property, along March Road. No signs of leakage were noted on or around the units. The transformers are not considered to pose a concern to the Phase I Property.

Waste generated on site includes domestic waste and recycling which is collected at the curbside by the municipality. Domestic waste water generated on site is discharged to the aforementioned septic system.

Other waste materials observed on site include defunct construction equipment, wooden job shacks and scrap metal. The aforementioned waste materials were stored further to the northeast and east of the residential dwelling and outbuildings. Fuller Construction was in the process of removing the waste at the time of the site visit. As noted in the aerial photograph review, a former barn structure was present further north of the residential dwelling. Stored items adjacent to the barn were unidentifiable from the photograph and considered to have included farm implements. The barn structure was no longer present at the time of the site visit and previously stored items appeared to have been removed based on soil disturbances noted at the time of the site visit.

No evidence of fill material was noted on the Phase I Property at the time of the site visit. There were no unidentified substances on the exterior of the Phase I Property at the time of the site visit. The above-noted site features are shown on Drawing PE4343-1 - Site Plan.



Interior Assessment

A general description of the interior of the residential building is as follows:
 Floor materials consist of a combination of hardwood, ceramic floor tiles and poured concrete (basement).
 Wall materials consist of gypsum board, ceramic tile, lathe and plaster with stone and mortar walls partially covered with apparent spray-foam insulation in the basement.
 Ceiling materials consist gypsum board, stipple plaster or unfinished wood beams.
 Lighting is provided by fluorescent and incandescent fixtures.

The dwelling is currently heated with oil-fired equipment. A 682L aboveground storage tank was situated within the southwest corner of the basement. The AST was of single-wall, non-metallic construction and manufactured in 2011. The tank was situated within a drip-pan and was in good condition at the time of the site visit, with no signs of leakage or staining on or around the AST.

According to the current tenant, the previous AST had been situated at the same location. Cuts in the concrete floor slab were noted beneath the spill tray. The purpose of the cuts was unclear at the time of the site visit. It should be noted that a copper fuel line was observed protruding from the concrete floor slab in the vicinity of the furnace. The copper fuel supply line associated with the former AST and leading to the furnace, is considered to have been partially buried in the concrete floor slab. Ms. Arbuckle was unaware of any leaks or spills associated with the previous or existing AST. No visual or olfactory evidence of leaks or stains were noted in the basement of the dwelling at the time of the site visit.

No evidence of underground storage tanks (USTs) was observed on the interior of the dwelling at the time of the site visit. Chemical storage within the dwelling was limited to small quantities of commercially available cleaning chemicals. No sumps or drains were observed on the interior of the dwelling at the time of the site visit.

Outbuildings

With the exception of some gypsum board on the interior of the private garage, the interiors of the remaining structures on site are not finished.



Minor quantities of fuels (less than 20L) including fuel and lubricants, were noted in the private garage and outbuilding closest to the residential dwelling. The chemicals were properly stored with no signs of leakage or staining in the immediate vicinity noted at the time of the site visit.

Hazardous Building Materials

Based on the reported date of construction (late 1800's), possible asbestos-containing materials (ACMs) observed within the dwelling during the site visit include drywall joint compound, stipple plaster finishes and hard plaster. Any drywall joint compound present within the private garage may also contain asbestos. The potential ACMs were observed to be in very good condition at the time of the site visit.

Based on the age the dwelling, lead-based paint may be present beneath more recent paints or on any original or older painted surfaces. Painted surfaces were generally observed to be in very good condition throughout the dwelling at the time of the site visit.

Urea Formaldehyde Foam Insulation (UFFI) was not identified during the site visit, however wall cavities within the dwelling were not observed for insulation type.

Ozone-depleting substances (ODSs) noted at the time of the site visit include a kitchen refrigerator. No potential sources of polychlorinated biphenyls (PCBs) were noted at the time of the site assessment.

No evidence of mould or water damage were observed on the interior of the subject buildings.

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 subject site was as follows:

	North – Agricultural and treed land, and Beachburg rail corridor (abandoned
	rail line);
J	South - Residential and vacant, undeveloped land (1225 March Valley Road);
J	East – March Valley Road followed by vacant land and Shirley's Brook;
J	West – March Road followed by residential and agricultural.



The abandoned rail line within the corridor that transects the subject land is considered to be a PCA, however it is not considered to result in an APEC on the Phase I Property. No other PCAs were identified within the Phase I Study Area. Current land use within the Phase I Study Area is illustrated on Drawing: PE4343-2 – Surrounding Land Use Plan in the Figures section of this report, following the text.

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 – 936 March Road						
Time Period	Name of Owner Property Use		Description of Property Use	Other Observations from Aerial Photos, FIPs, etc.		
Prior to 1998	Various private individuals	Residential and Agricultural or Other	Phase I Property was reportedly developed as a farmstead in the late 1800's.	First developed use based on personal interviews. 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 aerials.		
1998 to present	Fuller Family	Residential and Agricultural or Other	Farmstead: residential dwelling and agricultural lands.	No changes to land use observed in subsequent aerials dated 1999, 2008 and 2017.		

Potentially Contaminating Activities

The following historical and/or existing PCAs were identified on the Phase I Property:

☐ Item 28, Table 2, O.Reg. 153/04 as amended by O.Reg. 269/11: "Gasoline and Associated Products Storage in Fixed Tanks" - this PCA was identified based on the partially buried copper fuel supply line in the concrete floor slab within the residential dwelling.

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Although not listed in Table 2 the storage of scrap metal and construction equipment is considered to be a PCA. The aforementioned on-site PCAs are considered to result in APECs on the Phase I Property as further discussed in the following section.

The abandoned rail line is not considered to represent an APEC on the Phase I Property based on the distance of the former rail lines from the property (approximately 10 to 15m), no evidence of ancillary activities, spur lines, loading or fueling, in combination with the nature of potential contaminants typically associated with this activity; metals and polynuclear aromatic hydrocarbons (PAHs) have low solubility and low mobility in the subsurface.

A dry cleaning establishment is situated approximately 200m south of the Phase I Property, within the commercial development at 846 March Road and is considered to be a drop-off location only with no dry cleaning chemicals used on-site. This property is not considered to represent a concern to the Phase I Property.

Other than the Beachburg rail corridor, no existing or historical off-site PCAs were identified within the Phase I Property. As noted above, this PCA is not considered to result in an APEC on the Phase I Property.

APECs resulting from PCAs on the Phase I Property are shown in red on Drawing PE4343-1 - Site Plan.



Areas of Potential Environmental Concern

Table 2 Areas of Potential Environmental Concern					
Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern with respect to Phase I Property	Potentially Contaminating Activity	Location of PCA (on-site or off- site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil, and/or Sediment)
APEC 1	In the immediate vicinity of the residential dwelling.	PCA 28 – Gasoline and Associated Products Storage in Fixed Tanks	On-site	BTEX PHCs (F ₁ -F ₄₎	Soil and Groundwater
APEC 2	Area around the former barn and storage area further north of the residential dwelling.	Other: farm operations, miscellaneous storage	On-site	BTEX PHCs (F ₁ -F ₄₎ metals	Soil
				BTEX PHCs (F ₁ -F ₄)	Groundwater
APEC 3	Former storage area further northeast of the residential dwelling	Other: storage of scrap metal and construction equipment	On-site	BTEX PHCs (F ₁ -F ₄₎ metals	Soil
				BTEX PHCs (F ₁ -F ₄)	Groundwater
APEC 4	Former storage area further east of the residential dwelling Other: storage of scrap metal and construction equipment On-sit	On-site	BTEX PHCs (F ₁ -F ₄₎ metals	Soil	
		equipment		BTEX PHCs (F ₁ -F ₄)	Groundwater

Contaminants of Potential Concern (CPCs)

Based on the APECs identified above, CPCs in the soil include the following benzene, ethylbenzene, toluene and xylenes (BTEX), petroleum hydrocarbons (PHCs, Fractions F_1 - F_4) and metals.

CPCs in the groundwater include BTEX and PHCs.



7.2 Conceptual Site Model

Geological and Hydrogeological Setting

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on this information, bedrock in the area of the site consists of interbedded sandstone and dolomite of the March Formation and dolomite of the Oxford Formation. Overburden soils are reported to consist of offshore marine sediments with erosional terraces or bedrock, with drift thicknesses between 0 and 10m.

Buildings and Structures

The Phase I Property is occupied by a two-storey residential dwelling with a basement level, a private garage and two (2) outbuildings associated with the original farmstead. No other above grade buildings or structures were present on the Phase I Property.

Water Bodies

Shirley's Brook transects the western portion of the Phase I Property in an approximate north-south direction and is considered to flow in a southerly direction before heading east to Shirley's Bay. 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

The MECP well mapping website was accessed to obtain well records for all drilled wells within 250 m of the Phase I Property. A well record was identified for the Phase I Property, as well as 28 well records for domestic potable wells or well abandonments on properties within the Phase I Study Area.

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 or vacant land. A commercial development (various restaurants, retail and service establishments) is present further to the south of the Phase I Property. Land use is shown on Drawing PE4343-2 - Surrounding Land Use Plan.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

As per Section 7.1 of this report, historical and existing PCAs resulting in APECs on the Phase I Property include the following: fuel storage on the Phase I Property and the storage of scrap metal and equipment.

The abandoned railway line that transects the eastern portion of the Phase I Property is not considered to result in an APEC on the Phase I Property based on the separation distance of the former rail lines from the subject land, in combination with the nature (low-solubility and low subsurface mobility) of potential contaminants of concern typically associated with a rail bed (polynuclear aromatic hydrocarbons and metals).

Contaminants of Potential Concern

The CPCs identified in this Phase I ESA are listed in Section 7.1 of this report.

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 on the subject site which have resulted in areas of potential environmental concern on the Phase I Property. The presence of potentially contaminating activities was confirmed by a variety of independent sources, including, in some cases, observations made during the Phase I site visit. As such, the conclusions of this report are not affected by uncertainty which may be present with respect to the individual sources.



8.0 CONCLUSIONS

Assessment

Paterson Group was retained by Minto Communities (Minto) to conduct a Phase I Environmental Site Assessment (ESA) of the property addressed 936 March Road. The purpose of this Phase I ESA was to research the past and current use of the Phase I Property and Phase I ESA Study Area and to identify any environmental concerns with the potential to have impacted the subject land.

Based on the historical research conducted as part of the Phase I ESA, the Phase I Property was first developed in the late 1800's as a farmstead with the existing residential dwelling and outbuildings. The Beachburg rail corridor transects the eastern portion of the site in an approximate north-south direction. Based on the aerial review, miscellaneous items were stored in the vicinity of the outbuildings since the early 1990's. The historical use of the adjacent and neighbouring properties was primarily vacant or agricultural with occasional farmsteads or residential dwellings.

The Phase I Property is currently occupied by a residential dwelling and private garage, as well as two (2) former farm structures used for the storage of equipment and miscellaneous items. An original farm building further to the north of the residential dwelling is no longer present. Stored items noted in the aerial review, adjacent to the former farm building and northeast of the residential dwelling, were being removed at the time of the site visit. The remainder of the property is primarily occupied by soy fields farmed by the neighbour across March Road, as well as some wood areas. Shirley's Brook transects the western portion of the site in an approximate north-south direction and the aforementioned Beachburg rail line has been abandoned.

At the time of the site visit, the current uses of the adjacent and neighbouring properties within the Phase I ESA Study Area were observed from publicly accessible areas. The adjacent and neighbouring properties are largely vacant or agricultural land and residential dwellings. As noted previously, the former rail line that transects the property is not currently in operation (the tracks have been removed).

Based on the historical research in combination with observations made at the time of the site visit, potentially contaminating activities which have resulted in APECs on the Phase I Property include on-site fuel storage and the storage of miscellaneous items by Fuller Construction.



Recommendations

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

Based on the age of the residential dwelling (late 1800's) possible asbestos-containing materials (ACMs) observed during the site visit include vinyl floor tiles, acoustic ceiling tiles and drywall joint compound. Possible asbestos-containing drywall joint compound may also be present in the private garage. The potential ACMs were observed to be in good condition at the time of the site visit.

Based on the age of the residential dwelling, lead-based paint may be present beneath more recent paints or on any original or older painted surfaces. Painted surfaces were generally observed to be in good condition throughout the building at the time of the site visit.

Prior to any possible future demolition activities, a designated substance survey (DSS) must be conducted for the existing structures in accordance with Ontario Regulation 490/09 under the Occupational Health and Safety Act.



9.0 STATEMENT OF LIMITATIONS

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

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

This report was prepared for the sole use of Minto Communities and 2559688 Ontario Inc. Permission and notification from Minto, 2559688 Ontario Inc. and Paterson Group will be required to release this report to any other party.

M. S. D'ARCY

Paterson Group Inc.

Karyn Munch, P.Eng., QPESA

Kaup Munch:

Mark S. D'Arcy, P.Eng., QPESA

Eng OPesa

Report Distribution:

- ☐ Minto Communities
- Paterson Group



10.0 REFERENCES

Federal Records

Air photos at the Energy Mines and Resources Air Photo Library.

National Archives.

Maps and photographs (Geological Survey of Canada surficial and subsurface mapping).

Natural Resources Canada – The Atlas of Canada.

Environment Canada, National Pollutant Release Inventory.

PCB Waste Storage Site Inventory.

Provincial Records

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.

Office of Technical Standards and Safety Authority, Fuels Safety Branch.

MNR Areas of Natural Significance.

MECP Water Well Inventory.

Municipal Records

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

Local Information Sources

Draft Plan of Subdivision prepared by Stantec Geomatics, 2018. Personal Interviews.

Public Information Sources

Google Earth.

Google Maps/Street View.

FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE4343-1 – SITE PLAN

DRAWING PE4343-2 - SURROUNDING LAND USE PLAN

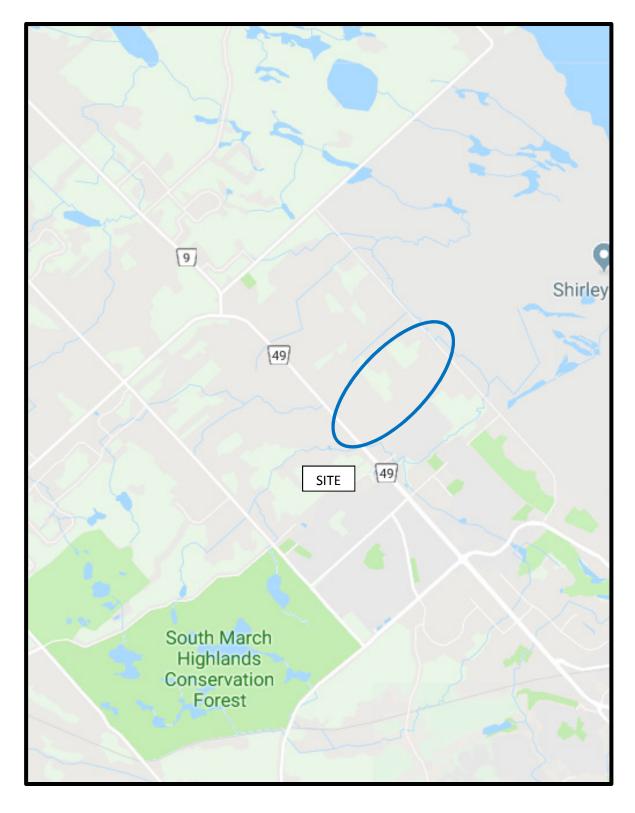


FIGURE 1
KEY PLAN

patersongroup

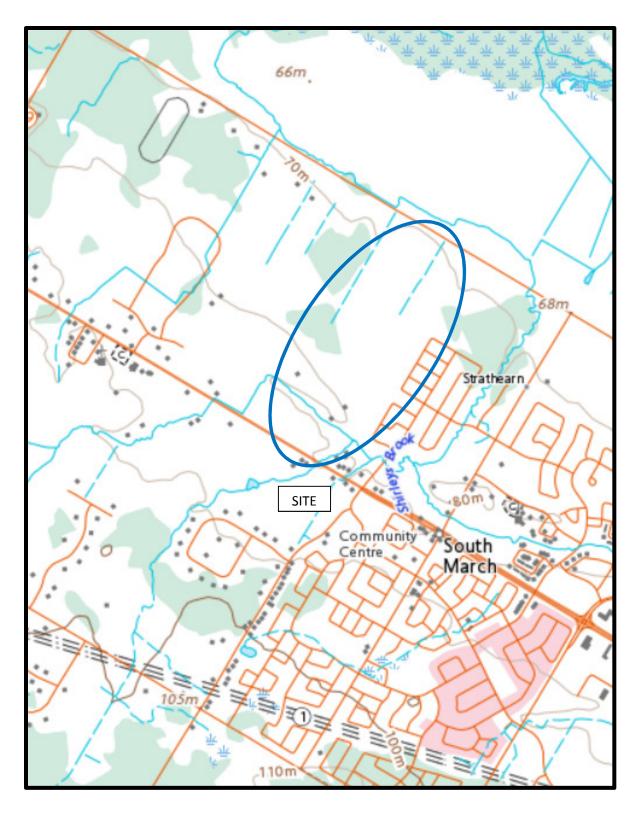
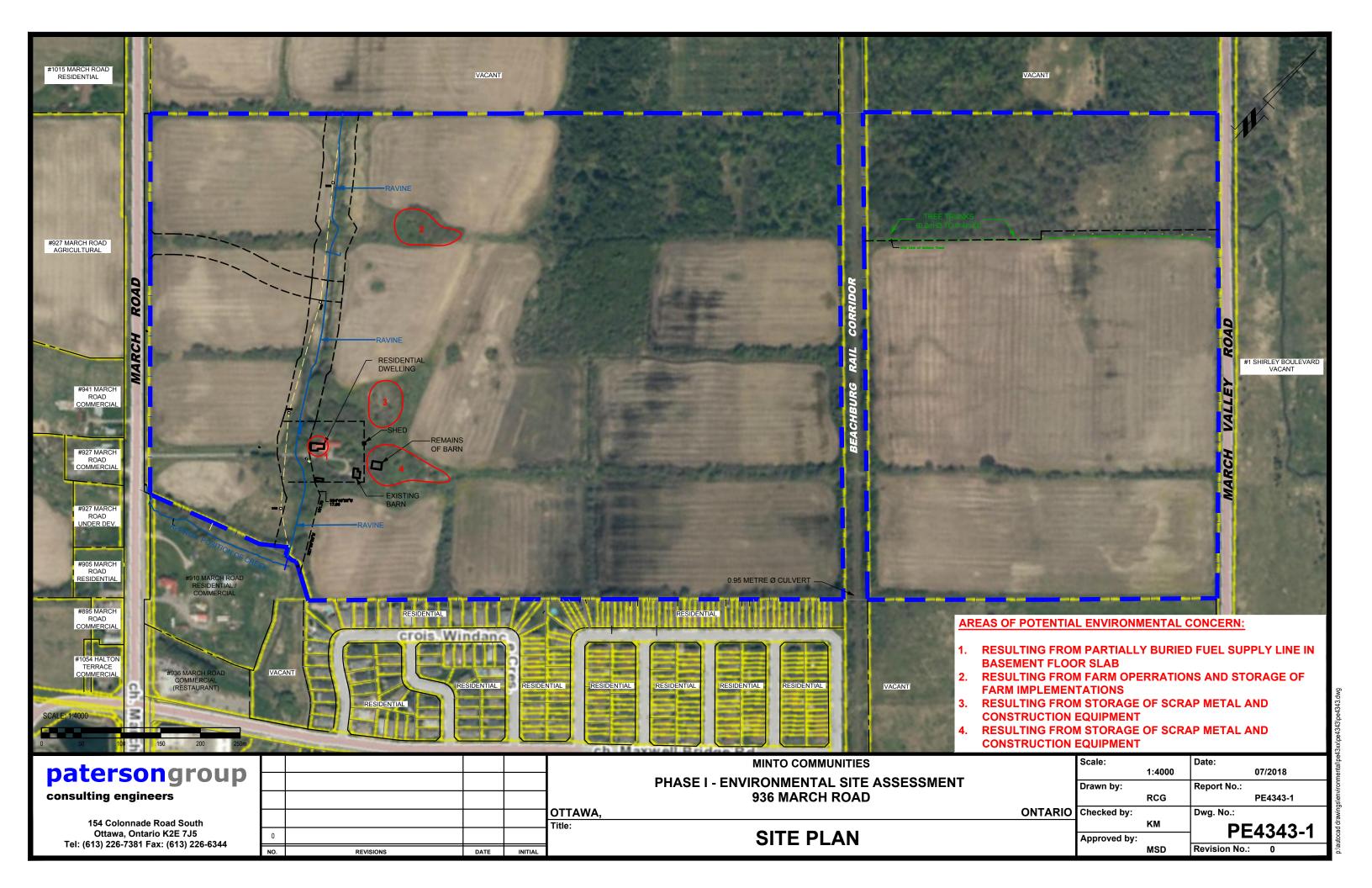
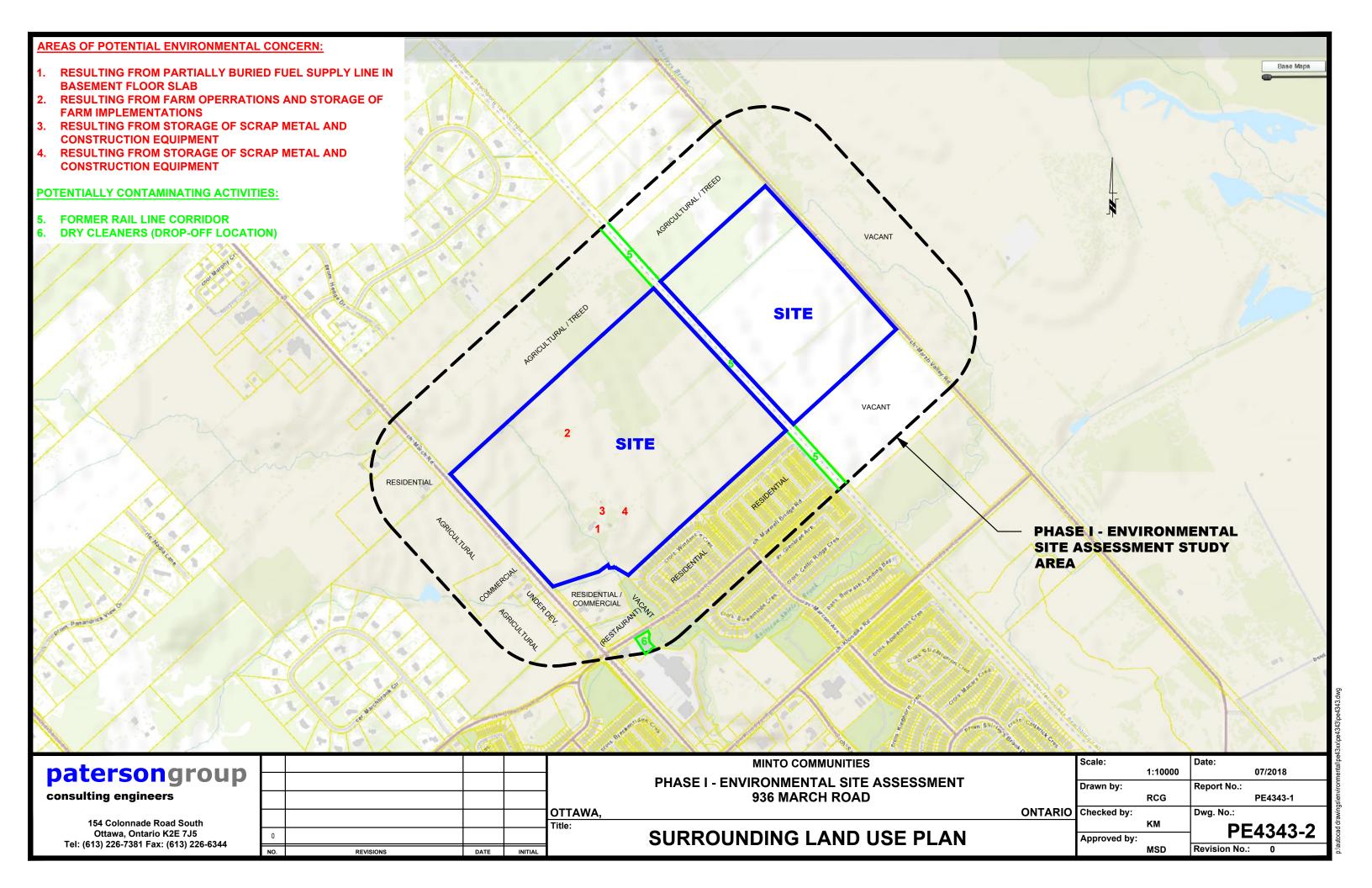


FIGURE 2
TOPOGRAPHIC MAP

patersongroup



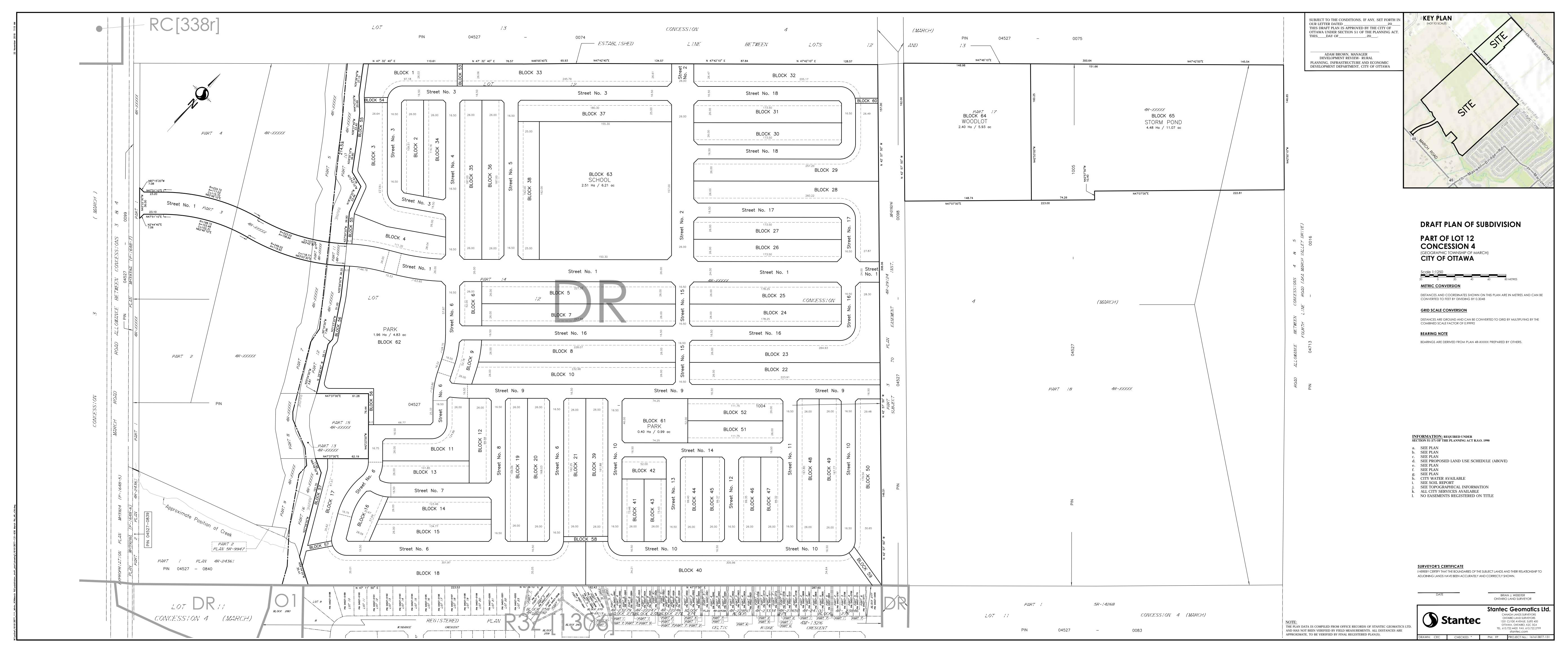


APPENDIX 1

DRAFT PLAN OF SUBDIVISION

AERIAL PHOTOGRAPHS

SITE PHOTOGRAPHS





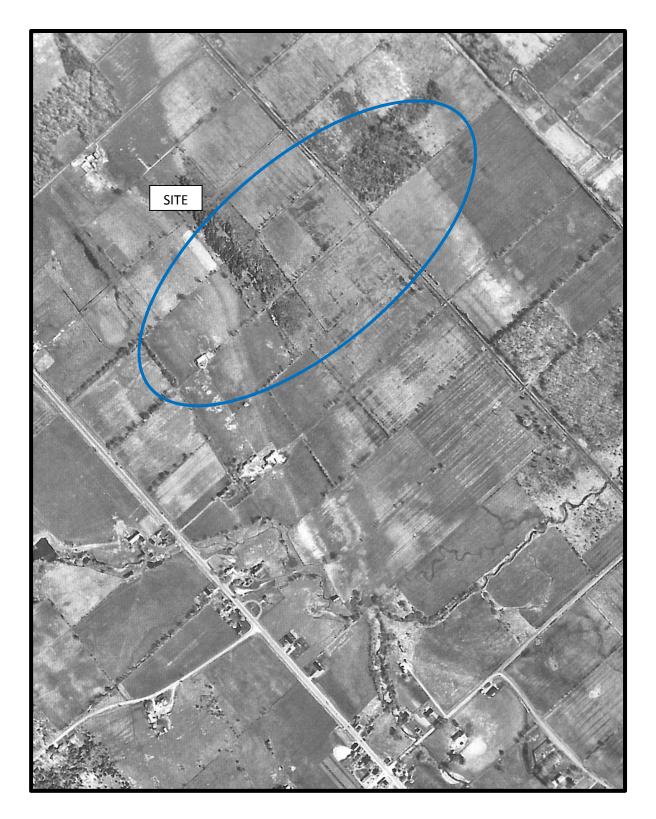
AERIAL PHOTOGRAPH 1934

patersongroup _____



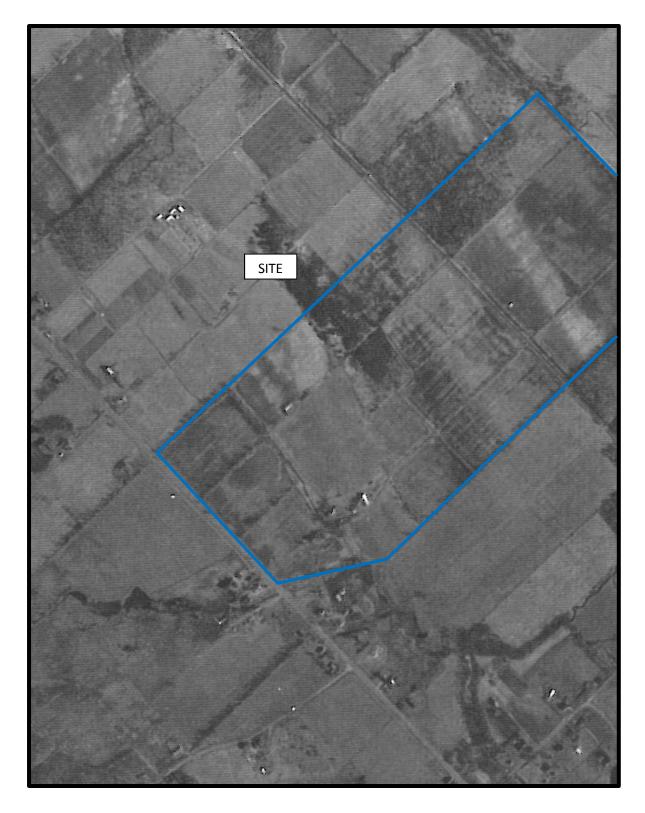
AERIAL PHOTOGRAPH 1952

patersongroup _



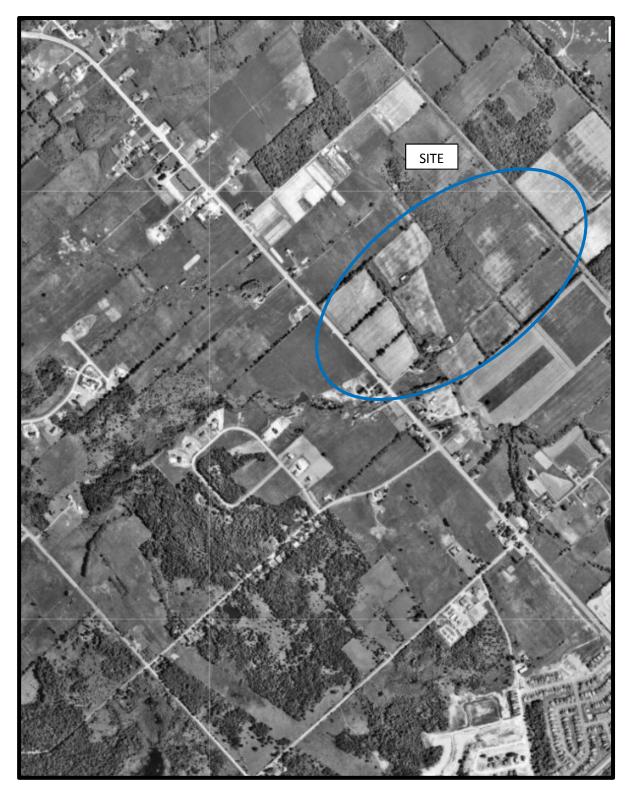
AERIAL PHOTOGRAPH 1976

patersongroup ____



AERIAL PHOTOGRAPH 1989

patersongroup ____



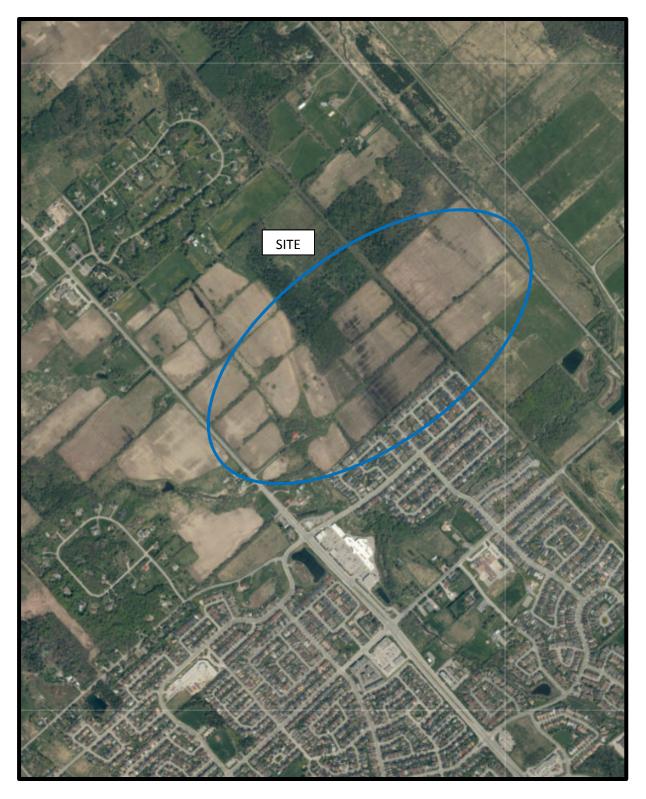
AERIAL PHOTOGRAPH 1991

patersongroup _____



AERIAL PHOTOGRAPH 2008

patersongroup _____



AERIAL PHOTOGRAPH 2017

patersongroup _____



Photograph 1: Photograph illustrates residential dwelling and private garage, facing north.



Photograph 2: Photograph illustrates Shirley's Brook on western portion of Phase I Property, facing northwest.

June 19, 2018



Photograph 3: Photograph illustrates former farm building east of residential dwelling, facing east.



Photograph 4: Photograph illustrates former farm building southeast of residential dwelling, facing west.



Photograph 5: Photograph illustrates removal of scrap metal northeast of residential dwelling, facing north.



Photograph 6: View of western-central portion of Phase I Property, facing west. Photograph illustrates access laneway, soy fields and residential farmstead across March Road.



Photograph 7: Photo illustrates area of former stored scrap metal east of residential dwelling, facing north.



Photograph 8: Photograph illustrates unused AST and equipment southeast of residential dwelling, facing northwest.

APPENDIX 2

MECP FREEDOM OF INFORMATION

TSSA CORRESPONDENCE

CITY OF OTTAWA HISTORICAL LAND USE INVENTORY

MECP WELL RECORDS

Ministry of the Environment, Conservation and Parks

Freedom of Information and Protection of Privacy Office

12th Floor 40 St. Clair Avenue West Toronto ON M4V 1M2 Tel: (416) 314-4075 Ministère de l'Environnement, de la Protection de la nature et des Parcs

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

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



August 30, 2018

Karyn Munch Paterson Group Inc. 154 Colonnade Road Ottawa, ON K2E 7J5

Dear Karyn Munch:

RE: Freedom of Information and Protection of Privacy Act Request Our File # A-2018-05201, Your Reference PE4343

This letter is in response to your request made pursuant to the *Freedom of Information and Protection of Privacy Act* relating to 936 March Road, Ottawa.

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

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

If you have any questions regarding this matter, please contact Aaron Foster at aaron.foster@ontario.ca.

Yours truly,

For

Karyn Munch

From: Public Information Services < publicinformationservices@tssa.org>

Sent: May-31-18 10:20 AM

To: Karyn Munch

Subject: RE: Records Search Request - PE4343

Good morning Karyn,

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.

Kind regards,

Yalini

From: Karyn Munch < KMunch@Patersongroup.ca>

Sent: May 31, 2018 7:56 AM

To: Public Information Services < publicinformationservices@tssa.org>

Subject: Records Search Request - PE4343

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 the City of Ottawa (Kanata):

886, 905, 910, 927, 936, 941, 1015, 1020 March Road 1225 March Valley Road 1 Shirley Boulevard

Thank-you very much.

Best Regards,

Karyn Munch, P.Eng.

patersongroup

solution oriented engineering

154 Colonnade Road South Ottawa, Ontario, K2E 7J5 Tel: (613) 226-7381 Ext. 217



File Number: D06-03-18-0043

August 23, 2018

Paterson Group Inc. 154 Colonnade Road South Ottawa, ON K2E 7J5

Sent via email [kmunch@patersongroup.ca]

Dear Paterson Group Inc.,

Re: Information Request 936 March Road, Ottawa, Ontario ("Subject Property")

Internal Department Circulation

The Planning, Infrastructure and Economic Development Department has the following information in response to your request for information regarding the Subject Property:

• No information was returned on the Subject Property from Departmental circulation.

Search of Historical Land Use Inventory

This acknowledges receipt of the signed Disclaimer regarding your request for information from the City's Historical Land Use Inventory (HLUI 2005) database for the Subject Property.

A search of the HLUI database revealed the following information:

• There are no activities associated with the Subject Property.

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

There are 56 activities associated with properties located within 50m of the Subject Property: Activity Numbers 14509, 5801, 5751, 5753, 5754, 5762, 5767, 5769, 5770, 5772, 5774, 5837, 5838, 5840, 5846, 5849, 5852, 5853, 5854, 5855, 5856, 5861, 5869, 5870, 5871, 5872, 5874, 5875, 5884, 5886, 5887, 5889, 5890,

Shaping our future together
Ensemble, formons notre avenir

City of Ottawa Planning, Infrastructure and Economic Development Department

110 Laurier Avenue West, 4th Floor Ottawa, ON K1P 1J1 Tel: (613) 580-2424 ext. 21690 Fax: (613) 560-6006 www.ottawa.ca Ville d'Ottawa Services de la planification, de l'infrastructure et du développement économique

110, avenue Laurier Ouest, 4e étage Ottawa (Ontario) K1P 1J1 Tél.: (613) 580-2424 ext. 21690 Télé: (613) 560-6006 www.ottawa.ca 5891, 5896, 5898, 5899, 5893, 5901, 5903, 5907, 5908, 5909, 59, 3412, 6653, 3906, 5943, 5814, 5867, 5981, 6326, 6393, 6654, 6621, 9494

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

Additional information may be obtained by contacting:

Ontario's Environmental Registry

The Environmental Registry found at http://www.ebr.gov.on.ca/ERS-WEB-External/ contains "public notices" about environmental matters being proposed by all government ministries covered by the Environmental Bill of Rights. The public notices may contain information about proposed new laws, regulations, policies and programs or about proposals to change or eliminate existing ones. By using keys words i.e. name of proponent/owner and the address one can ascertain if there is any information on the proponent and address under the following categories: Ministry, keywords, notice types, Notice Status, Acts, Instruments and published date (all years).

The Ontario Land Registry Office

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

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

Fax: (613) 239-1422

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

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

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

If you have any further questions or comments, please contact Colette Gorni at 613-580-2424 ext. 21690 or HLUI@ottawa.ca

Sincerely,

Colette Gorni

Hette Hour

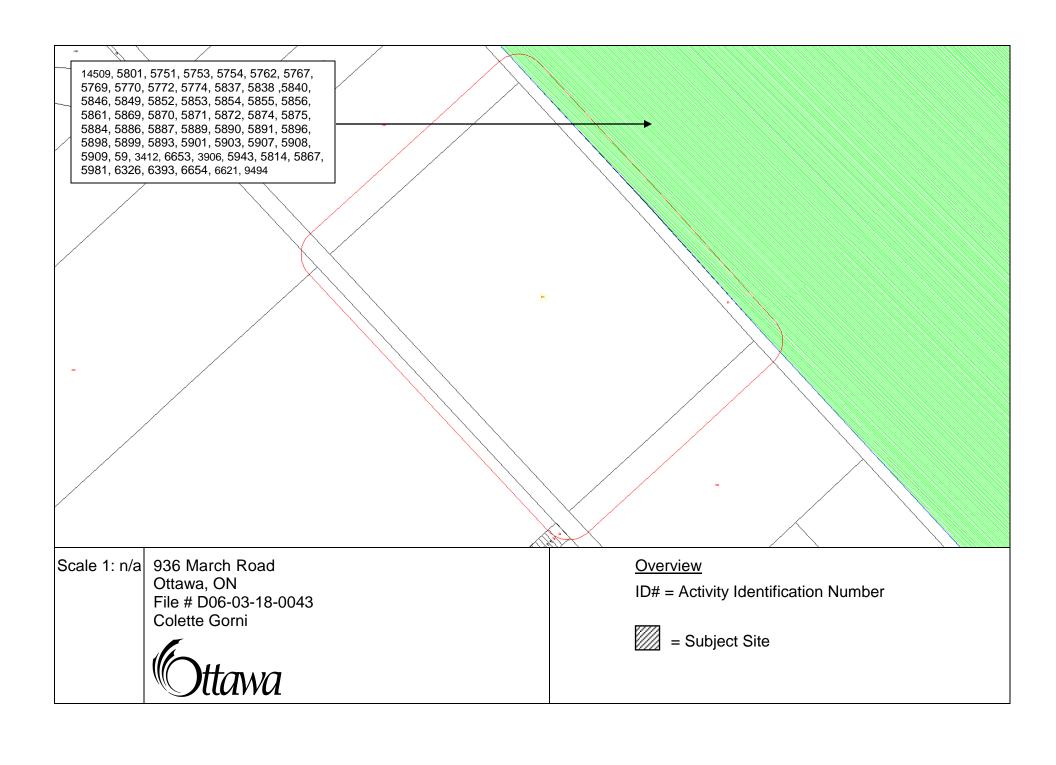
Per:

Michael Boughton, MCIP, RPP
Senior Planner
Development Review East
Planning Services
Planning, Infrastructure and Economic Development Department

MB/CG

Attach: 2

cc: File no. D06-03-18-0043





Report:

RPTC_OT_DEV0122

Run On:

23 Aug 2018 at: 11:43:34

HLUI ID: __670HY8

AREA (Square Metres): 12819616.556

Study YearPINMulti-NAICMultiple Activities1998047130001YY

Activity ID: 14509 Multiple PINS: N

PIN Certainty: 1 Previous Activity ID(s): 5801, 5751, 5753, 5754, 5762, 5767, 5769, 5770,

5772, 5774, 5837, 5838, 5840, 5846, 5849, 5852, 5853, 5854, 5855, 5856, 5861, 5869, 5870, 5871, 5872, 5874, 5875, 5884, 5886, 5887, 5889, 5890, 5891, 5896, 5898, 5899, 5893, 5901, 5903, 5907,

5908, 5909, 59

Related PINS: 045660173

Name: UNNAMED SAND/GRAVEL PIT

Address: , WEST CARLETON
Facility Type: Sand and Gravel Pits

Comments 1: UTM = 419300E, 5034300N. Area is 150m x 100m.

Comments 2:

Generator Number:

Storage Tanks:

HL References 1: 1922-DMD-TM-Ottawa-Sheet#14, 1948-DND-ASE-NTS-31G/5, 1967-EMR-SMB-NTS-31G/5-7th ed.,

1985-EMR-SMB-NTS-31G/5-11th ed.; 1951-DND-ASE-NTS-31G/4E-4th ed., 1966-EMR-SMB-NTS-31G/4-5th ed.,

 $1975\text{-}EMR\text{-}SMB\text{-}NTS\text{-}31G\text{/}4\text{-}6th\ ed.,\ 1979\text{-}EMR\text{-}SMB\text{-}NTS\text{-}31G\text{/}4\text{-}7th\ ed.}$

HL References 2: 1951-DND-ASE-NTS-31F/8E-3rd ed., 1964-EMR-SMB-NTS-31F/8-5th ed., 1976-EMR-SMB-NTS-31F/8-7th ed.,

1989-EMR-CCM-NTS-31F/8-8th ed.

HL References 3: 1991-WDSI/WMB/MOE

NAICS	SIC
221330	499
562990	499
221320	499
562920	499
212323	82
562210	499

MAP Report Ver: 1 Page 1 of 7



HLUI ID: __670HY8

R

Report:

RPTC_OT_DEV0122

Run On: 23 Aug 2018 at: 11:43:34

AREA (Square Metres): 12819616.556

 Study Year
 PIN

 1998
 047130001

Multi-NAIC

Multiple Activities

Company Name	Year of Operation
Unnamed Sand/Gravel Pit	c. 1975
Unamed Sand/Gravel Pit	c. 1975-1979
Unnamed Sand/Gravel Pit	c. 1948
Unnamed Sand/Gravel Pit	c. 1964-1976
Unnamed Sand/Gravel Pit	c. 1922-1948
Unamed Sand/Gravel Pit	c. 12966-1979
Unamed Sand/Gravel Pit	c. 1975
Unnamed Sand/Gravel Pit	c. 1976-1989
Unnamed sand/Gravel Pit	c. 1989
Unnamed Sand/Gravel Pit	c. 1975-1979
Unnamed Sand/Gravel Pit	c. 1985
Unamed Sand/Gravel Pit	c. 1966
Unnamed Sand/Gravel Pit	c. 1976
Unnamed Sand/Gravel Pit	c. 1951
Unnamed Sand/Gravel Pit	c. 1966
Unnamed Sand/Gravel Pit	c. 1966-1979
Unnamed Sand/Gravel Pit	c. 1951-1976
Unamed Sand/Gravel Pit	c. 1979
Unnamed Sand/Gravel Pit	c. 1971-1979
UNNAMED SAND/GRAVEL PIT	c. 1994
Unnamed Sand/Gravel Pit	c. 1967
Unnamed Sand/Gravel Pit	c. 1948-1967
Unamed Sand/Gravel Pit	c. 1951-1979
Unnamed Sand/Gravel Pit	c. 1951-1979
Unnamed Sand/Gravel Pit	c. 1953-1971
Unnamed Sand/Gravel Pit	c. 1967-1985
Unamed Sand/Gravel Pit	c. 1951
Unamed Sand/Gravel Pit	c. 1966-1979
Unnamed Sand/Gravel Pit	c. 1966-1975
Unamed Sand/Gravel Pit	c. 1966-1975
Unnamed Sand/Gravel Pit	c. 1989
Waste Disposal Site	c. 1971

MAP Report Ver: 1 Page 2 of 7



HLUI ID: __670HY8

RPTC_OT_DEV0122

23 Aug 2018 at: 11:43:34

Study Year 1998 AREA (Square Metres): 12819616.556

PIN 047130001

Multi-NAIC

Multiple Activities

Unnamed Sand/Gravel Pit

c. 1964-1989

Report:

Run On:

MAP Report Ver: 1 Page 3 of 7



Study Year

1998

CITY OF OTTAWA

HLUI ID: __670HY8

AREA (Square Metres): 12819616.556

Report: RPTC_OT_DEV0122

Run On: 23 Aug 2018 at: 11:43:34

PIN Multi-NAIC Multiple Activities
047130001 Y Y

c. 2005

Activity ID: 3412 Multiple PINS: N

PIN Certainty: 1 Previous Activity ID(s): 6653

Related PINS: 047130001

Name: DEPT. OF NATIONAL DEFENCE

Address: CARLING AND HERTZBERG ROAD NORTHEAST, NEPEAN

Facility Type: Defence Services

Comments 1: CONNAUGHT RANGE & PRIMARY TRAINING CENT.

Comments 2:

Generator Number: ON0046562

Storage Tanks:

HL References 1: City of Nepean, File# D06-00-DEF

HL References 2:

HL References 3: 2000 PID

NAICS SIC 713930 965 911110 0 911110 811

NATIONAL DEFENCE CANADA

Company Name

Year of Operation

DEPT. OF NATIONAL DEFENCE - CFSU (O)

c. 2003

Connaught Rifle Ranges c. 1970

DEPT. OF NATIONAL DEFENCE c. 2000

MAP Report Ver: 1 Page 4 of 7



Study Year

1998

CITY OF OTTAWA

HLUI ID: __670HY8

AREA (Square Metres): 12819616.556

Report: RPTC_OT_DEV0122

Run On: 23 Aug 2018 at: 11:43:34

PIN Multi-NAIC Multiple Activities
047130001 Y Y

Activity ID: 3906 Multiple PINS: Y

PIN Certainty: 1 Previous Activity ID(s): 5943, 5814, 5867, 5981, 6326, 6393, 6654

Related PINS: 045660156

Name: DEPARTMENT OF NATIONAL DEFENCE

Address: , WEST CARLETON

Facility Type: Telecommunication Broadcasting Industries

Comments 1: UTM = 418200E, 5033250N. Area is 1500m x 1050m.

Comments 2:

Generator Number:

Storage Tanks:

HL References 1: 1922-DMD-TM Ottawa-Sheet#14, 1948-DND-ASE-NTS-31G/5, 1967-EMR-SMB-NTS-31G/5-7th ed.,

1985-EMR-SMB-NTS-31G/5-11th ed, 1951-DND-ASE-NTS-31F/8E-3rd ed., 1964-EMR-SMB-NTS-31F/8-5th ed.,

1976-EMR-SMB-NTS-31F/8-7th ed., 1989-EMR-CCM-NTS-31F/8-8th ed.

HL References 2: City of Nepean, File# D06-00-DEF

HL References 3:

NAICS	SIC
911110	811
221330	499
562920	499
515120	481
562990	499
221320	499
562210	499
515110	481
713930	965

Company Name Year of Operation

Department of National Defence c. 1985

Department of National Defence c. 1967

Department of National Defence c. 1976-1989

Department of National Defence c. 1922-1985

Department of National Defence c. 1970

Department of National Defence c. 1948-1990

MAP Report Ver: 1 Page 5 of 7



HLUI ID: __670HY8

'8

Report:

Run On:

RPTC_OT_DEV0122

23 Aug 2018 at: 11:43:34

AREA (Square Metres): 12819616.556

Study Year PIN Multi-NAIC Multiple Activities
1998 047130001 Y Y

Activity ID: 6621 Multiple PINS: N

PIN Certainty: 1 Previous Activity ID(s):

Related PINS: 047130001

Name: GVT. OF CAN. - R.C.M.P.

Address: 3 SHIRLEY BOULEVARD, NEPEAN

Facility Type: Protective Services

Comments 1:

Comments 2:

Generator Number: ON0283162

Storage Tanks:

HL References 1:

HL References 2:

HL References 3: 2000 PID

NAICS SIC

911230 0

Company Name Year of Operation

GVT. OF CAN. - R.C.M.P. c. 2000

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Study Year

1998

CITY OF OTTAWA

HLUI ID: __670HY8

AREA (Square Metres): 12819616.556

Report: RPTC_OT_DEV0122

Run On: 23 Aug 2018 at: 11:43:34

PIN Multi-NAIC Multiple Activities Y

Activity ID: 9494 Multiple PINS: N

PIN Certainty: 1 Previous Activity ID(s):

Related PINS: 047130001

Name: NATURAL RESOURCES CANADA - GEODETIC SURVEY

Address: , OTTAWA

Facility Type: General Administrative Services

Comments 1: Connaught Ranges, Ridelle street

Comments 2: Geodetic Survey Site

Generator Number: ON6382495

Storage Tanks:

HL References 1: HL References 2:

HL References 3: 2003 PID

NAICS SIC 911910 0

Company Name Year of Operation

NATURAL RESOURCES CANADA - GEODETIC SURVEY c. 2003

MAP Report Ver: 1 Page 7 of 7

[18/2 42651610 E 5 R 15 012 219 40 The Ontario Water Resources Commission Act 14R 02610 RESOURCES COMMIS Township, Village, Town or City March Pt. of 11 Date completed 28 May year) ess South March, Ont. **Pumping Test** Casing and Screen Record Static level 71 Inside diameter of casing 15 of 5 Test-pumping rate 5 GPM G.P.M. 15 Total length of casing Pumping level 171 nil Type of screen Duration of test pumping 1 Hour nil Length of screen Water clear or cloudy at end of test clear nil Depth to top of screen Recommended pumping rate 5 GPM G.P.M. 511 Diameter of finished hole feet below ground surface with pump setting of. **Water Record** Well Log Depth(s) at Kind of water From То (fresh, salty, which water(s)Overburden and Bedrock Record sulphur) found 01 11* Clay 11* Red Granite **Location of Well** For what purpose(s) is the water to be used? In diagram below show distances of well from New Home road and lot line. Indicate north by arrow. Is well on upland, in valley, or on hillside? Upland Drilling or Boring Firm Blair Phillips Drilling Co. Ltd. Address Ottawa Licence Number 1815 Name of Driller or Borer J. Moore Address Kars, Ont. S. More 28 May 1965 (Signature of Licerson) Form 7 15M-60-4138

OWRC COPY

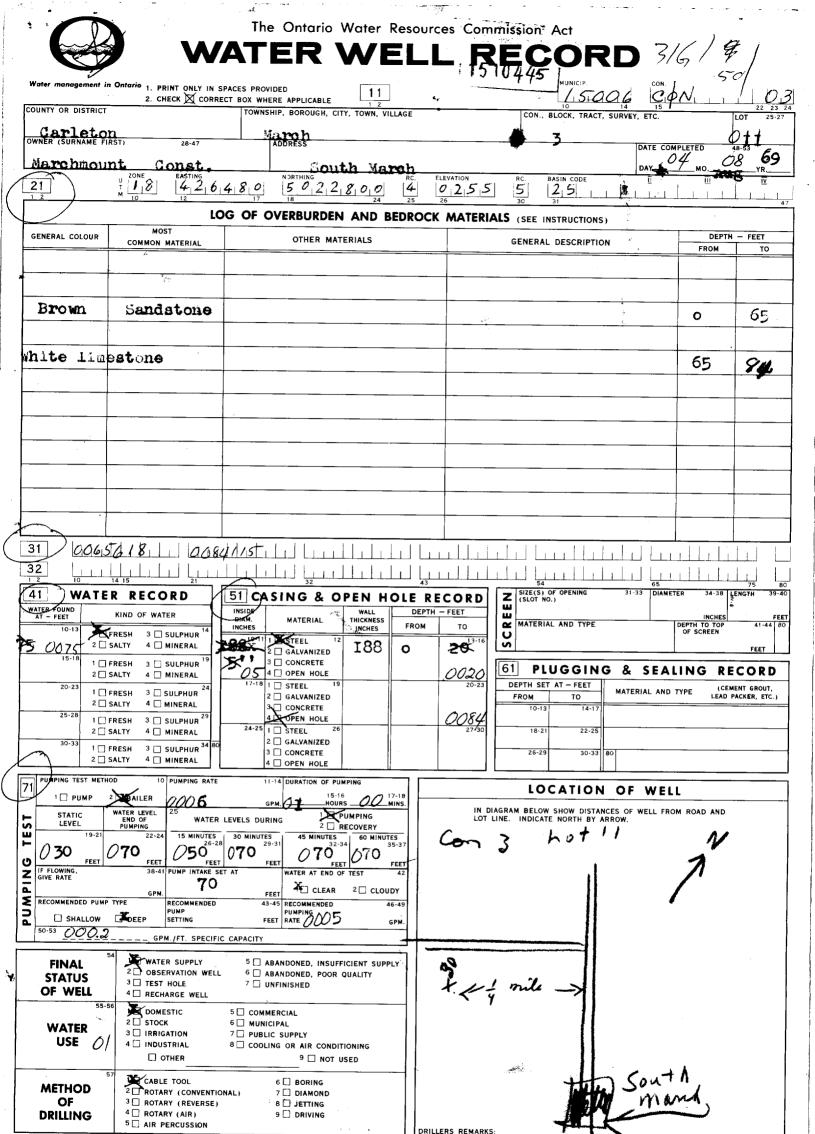
(4. A. A. A. A.

388A UTM 18 42 412 16 14 13 10 E Co. 15 R 5 10 12 13 1 1 10 15 N Ontario Water Res Elev. 14 R 10 12 16 10 WATER WE	LL	REC	Act DRD	JAN 17 III	S64 STER MISSION
Basin 2,5 CarleTon County or District CarleTon Lot /2	Date con	npleted	23 (day	May month Hve 01	/963 year)
Casing and Screen Record	<u></u> -		Pumpin		
Inside diameter of casing 6'/4"	Stati	c level		15	
Total length of casing 20'	Test	-pumping ra	ite	5,	G.P.M.
Type of screen 170.18	Pum	ping level		40,	,
Length of screen	Dura	ation of test	oumping	/ hr	
Depth to top of screen	Wat	er clear or cl	oudy at end o	f test c/eq	<i>.</i>
Diameter of finished hole	Rec	ommended 1	oumping rate	5	G.P.M.
Diameter of finished hote	with	pump settir	ng of 5	o feet belo	w ground surface
Well Log				Wate	r 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		
himestone		12 38	38	60	Fresh
Sand STone					
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 Mchean Water Supply Ltd. Address 1532 Raven Hve Ollawa, Onl. Licence Number 1090 Name of Driller or Borer H. Scharf	Roce Bet Lo	In diagra road and d ween	um below sho l lot line. In	of Well w distances of we ndicate north by	ell from arrow.
Address Date May 23 163 ComcLen			¥ = 17.2 17.2 ← OT 3 ← OT	WY 17	v RP →
(Signature of Licensed Drilling or Boring Contractor) Form 7 15M-60-4138	_		2 CH	, nen (1	
OWRC COPY					

GROUND WATER BRANCH UTM 182 41216161610 E (05 R 501212191210 N FEB 20 1932 Ontario Water Resources Commission Act ONTARIO WATER DSOURCES COMMISSION ...Township, Village, Town or City... Date completed /2Con. **Pumping Test** Casing and Screen Record Static level Inside diameter of casing.... Test-pumping rate Total length of casing. Pumping level Type of screen Duration of test pumping..... Length of screen. Water clear or cloudy at end of test Depth to top of screen Recommended pumping rate Diameter of finished hole with pump setting of..... feet below ground surface **Water Record** Well Log Kind of water Depth(s) at From which water(s) (fresh, salty, d Bedrock Record ۶^tح found sulphur) 16 32 Location of Well For what purpose(s) is the water to be used? In diagram below show distances of well from road and lot line. Indicate north by arrow. Is well on upland, in valley, or on hillside? Drilling or Boring Firm Licence Number.... Name of Driller or Borer. S. MARCH Address (Signature of Licensed Drilling or Boung Contractor) Form 7 15M Sets 60-5930 OWRC COPY C\$\$.58

· ·	IRO.			_
UN 182 4216141615E	3195d	V	VATER RESOURCES DIVISION N	3414,
C.15 R [50 2 3 2 7 0 N The Ontario Water Reso	urces Commission	A	JUL 6 1964	
Elev. 4 R OZ 60 WATER WEL	I RECA	n P n		
Racin [7.15] 1/11 ()		The same of the sa	- Allen Janes	ON A
County or District COX T		•		64
Con. Lot / L	_	(day	month	year)
	ress S O	uth 1	march	_
Casing and Screen Record		Pumping	g Test	· · · · · · · · · · · · · · · · · · ·
Inside diameter of casing	Static level	11'		
Total length of casing /8'	Test-pumping ra	te	O	G.P.M.
Type of screen	Pumping level	11'	·······	
Length of screen	Duration of test p			
Depth to top of screen	Water clear or clo	oudy at end of	test <u>clo</u>	ridy
Diameter of finished hole 5 "	Recommended p			G.P.M.
	with pump settin	g of 40	feet below	w ground surface
Well Log				Record
Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
clay to boulders	0	9	50	Sresh
Sandsolone	9	40		
granie	70	- J		
For what purpose(s) is the water to be used?		Location	of Well	
old house	In diagran		distances of wel	from 7
Is well on upland, in valley, or on hillside?	road and	lot line. Ind	icate north by	arrow.
Drilling or Boring Firm Capital Stater				
Supply		1	300	
Address 1243 Keron Rd		1.	*****	
Ottawa			11 3	
Licence Number /223			1.1.*	
Name of Driller or Borer M X avanagh		MARCH	₹ ¥	
Address				
Dates 9/3/64				
Date 9/3/64 Valter awanciah (Signature of Licensed Drilling or Boring Contractor)			1	
Form 7 15M-60-4138		#	*	
OWRC COPY BUNGALOW- IMITATION SA	6951DING.	· ·	(S).	5N

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14R 5012121917101	ED			3	9
love 1/To 1 m m	Water Resources			4	
WATER	WELL	REC	ORD	_	0
County or District	Towns	hip, Village, To	own or City	marc	h
Con. I V Lot //	Date c		(day	month o	1969
Owner In Holitzmer Le	Addres	\sim	zeldea	n Or	\mathcal{A}
Casing and Screen Record			Pumping	Test	
Inside diameter of casing 5	Committee of the property of the property of the property of	tic levei			
	RESHIPPER I				G.P.M.
Type of screen	Pu			. (1	
Length of screen	1 6				
Depth to top of screen ONTA	3 11 19.41517 1 3	•			
Diameter of finished hole CESOURCE	S COMMISSION R		_		
	wi	th pump setting	g of ろし		w ground surface
Well Log				Depth(s) at	Record Kind of water
Overburden and Bedrock Record		From ft.	To ft.	which water(s) found	(fresh, salty, sulphur)
clay		0	25	60	fresh
100000000000000000000000000000000000000		25	61		
		•			
For what purpose(s) is the water to be used?			Location	of Well	
household				distances of we	
Is well on upland, in valley or on hillside?	<u></u>	road and	lot line. Ind	icate north by	arrow.
Drilling or Boring Firm Capital Wal	ey			8	
Supply It	مل م			1 7	•
Address 14 ashford Dr			7	HT.	
altawa 6				#	, 3
Licence Number 32/6				1,3/	,,, ,
Name of Driller or Borer 3 acres			1		
Address			ر ب		
Date/ 1/ June 1969			~	3.7	
Walter away agh (Signature of Licensed Drilling or Bering Contrac	tor)			12	
Form 7 5M 60-20912				Į į	
OWRC COPY				CSS.	



NAME OF WELL CONTRACTOR

Saunde s ell Drilling 3480

Address

Artiori r

NAME OF DRILLER OR BORER

LICENCE NUMBER

LICENCE NUMBER

SIGNATURE OF CONTRACTOR

SUBMISSION DATE

DAYA

HO (11) C VE CO

DATE OF INSPECTION

DATE OF INSPECTION

INSPECTOR

S9-62 DATE RECEIVED

63-68 80

4724 210170

REMARKS:

The Ontario Water Resources Commission Act

WATER WELL RECORD

	Water management in Ontario 1. PRINT ONLY IN SPA 2. CHECK ☑ CORRECT	CES PROVIDED BOX WHERE APPLICABLE	1511444 1 500 CON.	14
	COUNT OR DISTRICT	TOWNSHIP BOROUGH, CITY, TOWN, VILLAGE	3 9 CON., BLOOK, TRACT, SURVEY, ETC. LOT 25-2	7
		PR# 7	Ollawa DATE COMPLETED 7 48-58 7	7
		22 8 8 0 PC 25	ELEVATION RC. BASIN CODE II III IV	لد ا_
	LOG		OCK MATERIALS (SEE INSTRUCTIONS)	47
	GENERAL COLOUR MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION DEPTH - FEET FROM TO	
	grey day		0/6	\dashv
	white sandston		16 58	-
Ì	CO. C. Lawrence		/3 30	
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	31 aa/62ast aa58	4481		
7	12 10 14 15 21	51 CASING & OPEN HOLE	RECORD Z SIZE(S) OF OPENING 31-33 DIAMETER 34-38 LENGTH 39-	80 40
-[WATER FOUND KIND OF WATER	INSIDE WALL D DIAM. MATERIAL THICKNESS INCHES FRO	OM TO MATERIAL AND TYPE DEPTH TO TOP 41-44 8	EET 80
9	75-18	10-11 STEEL 12 2 GALVANIZED	0037 S	
	1 FRESH 3 SULPHUR 19 2 SALTY 4 MINERAL 20-23 24	3 CONCRETE -/88	DEPTH SET AT - FEET MATERIAL AND TYPE (CEMENT GROUT)	4
-	SALTY 4 MINERAL	2 ☐ GALVANIZED 3 ☐ CONCRETE 45€ OPEN HOLE	FROM TO WATERIAL AND TIPE LEAD PACKER, ETC.)	┥
	25-28 1 FRESH 3 SULPHUR 29 29 20 SALTY 4 MINERAL 30-33 1 FRESH 3 SULPHUR 34 80	24-25 1 STEEL 26 2 GALVANIZED	27-30 18-21 27-25	\dashv
Ł	, 2 SALTY 4 MINERAL	3 ☐ CONCRETE 4 ☐ OPEN HOLE	26-29 3G-33 80	
	71 PUMPING TEST METHOD 10 PUMPING RATE	11-14 DURATION OF PUMPING 15-16 17-18 HOURS MINS.	LOCATION OF WELL	$\frac{1}{2}$
	STATIC WATER LEVEL 25 WATER LE END OF PUMPING 19-21 22-24 15 MINUTES	EVELS DURING TUMPING RECOVERY 30 MINUTES 45 MINUTES 60 MINUTES	IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.	
1	06 FEET 15 FEET 12 FEET	15 FEET 15 FEE		
	Z IF FLOWING, GIVE RATE 38-41 PUMP INTAKE SET			
	RECOMMENDED PUMP TYPE RECOMMENDED PUMP PUMP SETTING	O 43-45 RECOMMENDED 46-49 PUMPING OF RATE OF GPM.	March .	
Ĺ	50-53 <u>QQ 2, 3</u> GPM./FT. SPECIFIC	CAPACITY	Em to 1	
	FINAL STATUS 54 2 OBSERVATION WELL 3 OF TEST HOLE	5 ABANDONED, INSUFFICIENT SUPPLY 6 ABANDONED, POOR QUALITY	12 115	
\downarrow	OF WELL 4 RECHARGE WELL	7 UNFINISHED		
	WATER 2 STOCK 3 STOCK	6 MUNICIPAL 7 PUBLIC SUPPLY	(2.0)	
إ	USE // 4 INDUSTRIAL OTHER	8 COOLING OR AIR CONDITIONING 9 NOT USED		
	METHOD 1 DEBLE TOOL 2 ROTARY (CONVENTION			
	OF DRILLING 3 □ ROTARY (REVERSE) 4 □ ROTARY (AIR) 5 □ AIR PERCUSSION	8 JETTING 9 DRIVING	DRILLERS REMARKS:	
	WELL CONTRACTOR - ALIAN	D. LICENCE NUMBER	DATA 58 CONTRACTOR 59-62 DATE RECEIVED 53-69 8	 ••
1	o Address (2)	il meny sury	SOURCE 3644 081071 DATE OF INSPECTION INSPECTOR	-
	NAME OF DULLER OR BORER	LICENCE NUMBER	REMARKS:	+
	SIGNATURE OF CONTRACTOR	SUBMISSION DATE	<u>+</u>	-
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MINISTRY OF THE ENVIRONMENT

The Ontario Water Resources Act

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FORM 7

07-09

WELL RECOR 1514785 15006 CØN 2. CHECK 🗵 CORRECT BOX WHERE APPL Carleton Max c LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS) GENERAL COLOUR MOST COMMON MATERIAL DEPTH - FEET GENERAL DESCRIPTION Brown 17-1 0 Sand Strie 90 QS 002560585 0090218173 WATER RECORD 51 **CASING & OPEN HOLE RECORD** SCREEN KIND OF WATER WALL THICKNESS INCHES MATERIAL AND TYPE 1 FRESH 2 SALT SULPHUR 4 | MINERAL GALVANIZED
GONCRETE
GREN HOLE .188 FRESH 3 SULPHUR
CONTROL
CONTRO 61 **PLUGGING & SEALING RECORD** STEEL DEPTH SET AT - FEET 1 FRESH 3 SULPHUR
2 SALTY 4 MINERAL 1 GALVANIZED CONCRETE 1 FRESH 3 SULPHUR
2 SALTY 4 MINERAL 1 STEEL 2 2 GALVANIZED 1 | FRESH 3 | SULPHUR
2 | SALTY 4 | MINERAL 3 CONCRETE 30-33 80 DIRATION OF PUMPING

15-16

O O17-18

HOURS LOCATION OF WELL 2 | BAILER WATER LEVEL END OF PUMPING IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW. PUMPING PECOVERY PUMPING PECOMMENDED 43-45
PUMP
SETTING FEET
GPM./FT. SPECIFIC CAPACITY DEEP WATER SUPPLY 5 ABANDONED, INSUFFICIENT SUPPLY FINAL OBSERVATION WELL & ABANDONED, POOR QUALITY **STATUS** 3 | TEST HOLE
4 | RECHARGE WELL 7 🗆 UNFINISHED OF WELL DOMESTIC 5 COMMERCIAL 2 STOCK
3 RRIGATION 6 | MUNICIPAL
7 | PUBLIC SUPPLY **WATER** USE D 4 | INDUSTRIAL 8 COOLING OR AIR CONDITIONING 9 NOT USED OTHER 1 CABLE TOOL
2 ROTARY (CONVENTIONAL) METHOD Z 6 🖺 BORING 7 DIAMOND 3 | ROTARY (REVERSE)
4 | ROTARY (AIR)
5 | AIR PERCUSSION OF 8 | JETTING DRILLING 9 DRIVING ONLY CONTRACTOR () Hear USE (OFFICE WI

MINISTRY OF THE ENVIRONMENT

The Ontario Water Resources Act

WATER WELL RECORD

Ontario	1. PRINT ONLY IN 2. CHECK ⊠ CORF	SPACES PROVIDED		11	51626	0	MUNICIP. 15101016	(C)	<u> </u>	03
COUNTY OR DISTRICT	ton	TOWNSHIP, BOROUGH, CITY,	TOWN, VILLAG	3		con 3	., BLOCK, TRACT, SURVE	Y, ETC.	1	9/2527
					0+4			DATE COMP	PLETED 4	8-53
		NG 23.	mscse A 1.4.0	<u>ve.</u>	Ottawa,	Un tar	BASIN CODE 26	11	111	iv
1 2	** 10 12	OG OF OVERBURDEN	AND BED	ROCI	K MATERIA	LS (SEE	31		,	47
GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MAT	ERIALS			GENEF	RAL DESCRIPTION		DEPTH FROM	- FEET
brown	clay				pa	cked			0	В
brown	clay	boulders			pa	cked			9	11
grey	limestone	sandstone			ha:	rd	- Contraction of the Contraction		11	35
grey	sandstone								35	115
3) 1000	960579 001	1610513790035	215/87	3	9/152/8	لىلى				
32	14 15 21	32			<u>, , , , , , , , , , , , , , , , , , , </u>	SIZE	54 (S) OF OPENING	31-33 DIAME	TER 34-38 L	75 80 ENGTH 39-40
WATER FOUND	TER RECORD	CASING & C	WALL THICKNESS		CORD	N (SLO	NO NO		INCHES	FEET
10-13 1	FRESH 3 SULPHUR 14	DIAM MATERIAL INCHES 12	188	еком О	™ 0022°	SCB	ERIAL AND TYPE		DEPTH TO TOP OF SCREEN	41-44 80 FEET
	FRESH 3 SULPHUR 19 SALTY 4 MINERAL	2 GALVANIZED 3 CONCRETE 4 DPEN HOLE		2		61	PLUGGIN	G & SEAL	ING RECO	RD
20-23 1	FRESH 3 SULPHUR 24	17-18 1			0/15		SET AT - FEET	MATERIAL ANI		NT GROUT CKER ETC)
25-28 1	SALTY 4 MINERAL FRESH 3 SULPHUR 29	3 CONCRETE 4 OPEN HOLE			27-30	ļ	10-13 14-17			
L	SALTY 4 MINERAL FRESH 3 SULPHUR 34 6	24-25 1 STEEL 26 2 GALVANIZED 3 CONCRETE			27730		6-29 30-33 80			
	SALTY 4 MINERAL	4 OPEN HOLE	LMPING							nacional, il transportational anni dell'internacional dell'internacional dell'internacional dell'internacional
¥71‼ ⊿	2 BAILER 001		15 (A) 17				LOCATION C			N.O.
STATIC LEVEL	PUMPING	LEVELS DURING 2	PUMPING RECOVERY		LOT L		LOW SHOW DISTANCE DICATE NORTH BY A		FROM ROAD A	N U
E 020	J70 J70 26.	28 070 ²⁹⁻³¹ 070 ³²	·34 ८१ 0°			1				
FELOWING. GIVE RATE RECOMMENDED PU	38-41 PUMP INTAKE	SET AT WATER AT END		42	\mathcal{L}	(Our			
10.1	PUMP	D 43-45 RECOMMENDED	46	49	7	J	+ ()	_		
SHALLOV		ECIFIC CAPACITY	G	PM			*	//		
FINAL	1 WATER SUPPLY 2 □ OBSERVATION WE	5 ABANDONED, INSUI		~]			S. S.	#		
STATUS OF WELL	3 TEST HOLE 4 RECHARGE WELL	7 UNITINISHED					Z	30)	
1	55-56 1 X DOMESTIC 2 STOCK	5 COMMERCIAL 6 MUNICIPAL					4	3		
WATER (4 INDUSTRIAL	7 PUBLIC SUPPLY 8 COOLING OR AIR COND 9 NOT					•			
	S7 CABLE TOOL	€ □ BORING		-			_		outh C	λ
METHOD OF	2 ROTARY (CONVEN	TIONAL) 7 DIAMOND E) 8 DETTING			0-	P C	ARP RON	5	on Mr	
DRILLING	4 ROTARY (AIR) 5 AIR PERCUSSION	9 DRIVING			DRILLERS REMAR	ĸs			1,1,	
NAME OF WELL	contractor ital Water Supp		cence number	$\neg \lceil$	DATA	58	CONTRACTOR 59-62	DATE RECEIVE	1177	63-68 80
ADDRESS				-	SOURCE DATE OF INSP	ECTION ZO	195 Thispecton	<u> </u>	11/	J
NAME OF DRILL	/ /		CENCE NUMBER	+	S PEMARKS:	ne d'	BA BA) <u> </u>	P)
S WHATUFE OF	contractor	SUBMISSION DATE			B. B.	, p.kor	Sen Buch		-	 V I
Much	upavan	Ceft DAY 5 MO.	10 YR.		0	<i>.</i>				7 MOE 07-091

The Ontario Water Resources Act

	The state income	
WATER	WELL	RECORD

R 85% 1516836 1. PRINT ONLY IN SPACES PROVIDED 15006 2. CHECK X CORRECT BOX WHERE APPLICABLE TOWNSHIP, BOROL Mar 9 DATE COMPLETED DA 20 LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS) GENERAL COLOUR MOST COMMON MATERIAL DEPTH - FEET GENERAL DESCRIPTION Brown Sund 0 ス 125 0002612877 | 612521817473 | 1111 10 14 15 21 21 43 **(**51) WATER RECORD **CASING & OPEN HOLE RECORD** SCREEN DEPTH KIND OF WATER то 1 FRESH 3 SULPHUR
2 SALTY 4 MINERAL 27 GALVANIZED
CONCRETE
OPEN HOLE 0022 1 | FRESH 3 | SULPHUR
2 | SALTY 4 | MINERAL 61 PLUGGING & SEALING RECORD 1 D STEEL
2 D SALVANIZED FEET 1 FRESH 3 SULPHUR
2 SALTY 4 MINERAL MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER ETC.) FROM 0055 1 | FRESH 3 | SULPHUR
2 | SALTY 4 | MINERAL FOPEN HOLE 1 GALVANIZED 22-25 1 FRESH 3 SULPHUR
2 SALTY 4 MINERAL LOCATION OF WELL PUMP 2 D BAILER 0/ 15-16 00 WATER LEVEL END OF PUMPING IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE INDICATE NORTH BY ARROW. PUMPING RECOVERY WATER LEVELS DURING 29-31 O FEE PUMPING 1 CLEAR 2 CLOUDY RECOMMENDED PUMP SETTING 0 75 DEEP FEET 1 WATER SUPPLY 5 ABANDONED, INSUFFICIENT SUPPLY **FINAL** 2 D OBSERVATION WELL 6 ABANDONED, POOR QUALITY **STATUS** 3 TEST HOLE
4 RECHARGE WELL OF WELL 1 DOMESTIC 5 COMMERCIAL 2 STOCK
3 RRIGATION MUNICIPA _ PUBLIC SUPPLY WATER O USE 4 | INDUSTRIAL OTHER 1 CABLE TOOL 6 [] BORING METHOD Z ROTARY (CONVENTIONAL) 5 7 [] DIAMOND 3 | ROTARY (REVERSE)
4 | ROTARY (AIR)
5 | AIR PERCUSSION OF **DRILLING** 9 [] DRIVING CONTRACTOR 1538 **1**812?8 OFFICE USE ONLY

C33.33

FORM NO. 0506—4—77 FORM 7

The Ontario Water Resources Act 31 G 5 d WATER WELL RECORD

Ontario	1. PRINT ONLY IN S 2. CHECK 🔀 CORRE	CT BOX WHERE APPLICABLE		51793		[1.500]	14 15	N , ,	22 23
COUNTY OR DISTRICT	-Morleton	Kanata		RCH TWP		., BLOCK, TRACT, SURV			11
		South Mar	o.b.	Ontonio			DATE COMP		48-53 7 YR. <u></u> 字:
		503 th Mar		BARO		216	" "	1 , ", ,	l v
	M (Q ¶2	17 18 24	75	25	30	31			<u> </u>
· · · · · · · · · · · · · · · · · · ·	LO	G OF OVERBURDEN AND BE	DROC	K MATERIAL				DEPTH	- FEET
GENERAL COLOUR	COMMON MATERIAL	OTHER MATERIALS				RAL DESCRIPTION		FROM	TO
Brown_	Sand	Gravel		Fil				()	3
Gray	Sandstone			ille C	<u>iium</u>			3_	53_
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32		<u> </u>	L++ 	 					
10	TER RECORD	(51) CASING & OPEN HO	OLE RI	ECORD	Z \$12	54 E(S) OF OPENING OT NO)	31-33 DIAMS	TER 34-38	75 LENGTH 39
WATER FOUND AT - FEET	KIND OF WATER	INSIDE WALL DIAM MATERIAL THICKNESS		PTH - FEET	E MA	TERIAL AND TYPE		INCHES DEPTH TO TOP	FE 41-44
	FRESH 3 SULPHUR SALTY 4 MINERAL	INCHES INCHES		13-16	SC			OF SCREEN	FEET
15-18 1	FRESH 3 SULPHUR 19	GALVANIZED CONCRETE C		0022	61	PLUGGII	NG & SEA	LING REC	ORD
	SALTY 4 MINERAL FRESH 3 SULPHUR 24	17-18 STEEL 19	2	2 20-23	DEPT	H SET AT - FEET	MATERIAL AN	D TYPE (CEM	ENT GROUT PACKER, ETC)
2	SALTY 4 MINERAL 29	CONCRETE 10 4 POPEN HOLE		2 233		10-13 14-17			
2 [SALTY & MINERAL	24-25 1 STEEL 25 2 GALVANIZED		27-30		18-21 22-25	-1		
2 0	FRESH 3 SULPHUR 34 BO	3 CONCRETE 4 OPEN HOLE				26-29 30-33 8			
71 JUMPING TEST MET		1	17-18			LOCATION	OF WEL	. L	
PUMP	WATER LEVEL 25	15 GPM 01 IS-16 60 HOURS 60	MINS			LOW SHOW DISTAN		FROM ROAD	AN D
S OZO 19-51	DUMPING	EVELS DURING 2 RECOVERY 30 MINUTES 45 MINUTES 60 MINUTES		LOT LIN	16 11	NDICATE NORTH BY	ARROW.		
1900	030 FEET 030 FEE	030 FEET 0 30 FEET 0 30	35-37 FEET					1	
Z IF FLOWING. GIVE RATE	38-41 PUMP INTAKE	1 Mars 2 Day	AZ DUDY		1			1	
IF FLOWING. GIVE RATE RECOMMENDED PU	PUMP	A3-45 RECOMMENDED	46-49	7				1	
50-53	Y T DEEP SETTING	040 FEET RATE 0005	GPM	#	1	į	*	i i	
FINAL	84 I ☑ WATER SUPPLY	S (ABANDONED, INSUFFICIENT SU	PPLY		Ì			ł	
STATUS	2 DBSERVATION WELL	L S ABANDONED POOR QUALITY UNFINISHED		3	1	6'3" 2	2'	1	
OF WELL	4 ☐ RECHARGE WELL 5-56 1 🖺 DOMESTIC	5 D COMMERCIAL		#	1			1	
WATER	2 STOCK 3 IRRIGATION	MUNICIPAL Dublic Supply				016 OC	toux	3 20	/
USE 0	4 INDUSTRIAL OTHER	COOLING OR AIR CONDITIONING 9 □ NOT USED			(J10 0 C			
	1 CABLE TOOL	6 ☐ BORING							
METHOD OF	5 ROTARY (CONVENT) # 🗆 JETTING							
DRILLING	4 ROTARY (AIR) 5 AIR PERCUSSION	9 □ DRIVING		DRILLERS REMARKS			•		
NAME OF WELL		LICENCE NUMBE	R	DATA SOURCE	54	contractor 59-	0 S RECEIVE	201	29""
Capit ADDRESS	al Water Sup	ply Ltd. 1558	\dashv	SOURCE DATE OF INSPEC	TION	INSPECTOR	VV	AV (
BOX 4	190; Stittsvi LER OR BORER	11e, Ont. KOA 3GO	R	S REMARKS					
S. Mi	ller/ W. Kav	anagh		OFFICE					
SIGNATURE OF	dontractor (()) ()	SUBMISSION DATE DAY OL MO. 074	0/1	tt					

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The Ontario Water Resources Act WATER WELL RECORD

Ontario Env	vironment			45000	4.0	15006	6	-M	A
COUNTY ON DESTRICT		PACES PROVIDED CT BOX WHERE APPLICABLE TOWNSHIP, JODGUSH, CITY, TO	11	15200		Hardu	of J	lais	1 014
and	oton	Flarel	GWN. VILLAGE		CON	I. BEOCK, TRACT, SURVE	Y. ETC.		LOT / 2"
		06	Clas	imos a	re (Iltaur	DAY_	PLETED /	7"·si 85
1 2	M 10 12	· 6	4	C ELEVATION	4 1"V	/ CBASIN CODE	" "	111	, iv
		G OF OVERBURDEN A	ND BEDR	OCK MATERIA	ALS (SEE	INSTRUCTIONS)			47
GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATER	IALS		GENE	RAL DESCRIPTION		DEPTH	- FEET
grey	Sand							0	3
arey	Do a Dolar							2	100
grag	Sunageon							<u> </u>	102
black	granite							102	125
	1.								
,i									
31									
32	14 15	32	1111		اليك	54	الم		
WATER FOUND AT - FEET	KIND OF WATER	51 CASING & OP	WALL "	RECORD	SIZE (SLO)	S) OF OPENING T	BI-33 DIAMET		ENGTH 39-40
که ا تنظر	FRESH 3 SULPHUR 14 SALTY 4 MINERAL	DIAM MATERIAL TH	NCHES F	ROM TO 13-16	SCRI	FIAL AND TYPE	1-	DEPTH TO TOP OF SCREEN	41-44 10
/0 15-12 1 th	FRESH 3 SULPHUR 19	2 GALVANIZED	58 (3 22	61	PLUGGING	& SEAL	ING RECO	RD.
20-23 1 🗆	FRESH 3 SULPHUR 24	17-18 STEEL 19		22 /25		SET AT - FEET	ATERIAL AND	TVDE (CEME	NT GROUT. CKER, ETC.)
25-28 1 🛘	FRESH 3 SULPHUR 29 SALTY 4 MINERAL	3 CONCRETE 4 DOPEN HOLE 24-25 1 STEEL 26		27.30	3"	22 (emer	t gra	ted
30-33 🗆	FRESH 3 SULPHUR 34 10	Z GALVANIZED CONCRETE			26-	-21 22-25 29 30-33 80		<u> </u>	
PUMPING TEST METH	SALTY 4 MINERAL 10 PUMPING RATE	4 OPEN HOLE	16	74	200	0047101101			
1 D PUMP 2	BAILER WATER LEVEL 25	GPM 15-16 HOURS	17-18 MINS		-	OCATION O			
FEAST 19-51	END OF WATER LEVE PUMPING 22-24 15 MINUTES	2 RECC		LOT LI		ICATE NORTH BY ARE		ROM ROAD AP	^
	GO FEET GO FEET 38-41 PUMP INTAKE SET	AT WATER AT END OF TE:	GO FEET		,				Ň.
GIVE RATE	GPM.	FÉET ! CLEAR 2	, 1					Plairs	
☐ SHALLOW	1 200 2 200 7	FEET. RECOMMENDED PUMPING	46-49 GPM				أرسا		
50-53	14					of Har		Plains 3	JIA.
FINAL STATUS	1 WATER SUPPLY 2 OBSERVATION WELL 3 TEST HOLE	5 ABANDONED, INSUFFICIE 6 ABANDONED POOR QUAL 7 UNFINISHED					2 kn	7	V
OF WELL	A RECHARGE WELL	COMMERCIAL				, 3	767		
WATER USE	2 STOCK 6 3 RRIGATION 7	☐ MUNICIPAL ☐ PUBLIC SUPPLY				\			
	OTHER	COOLING OR AIR CONDITION				\			
METHOD -	CABLE TOOL CONVENTION								
OF DRILLING	3 ROTARY (REVERSE) 4 ROTARY (AIR) 5 AIR PERCUSSION	F D JETTING P DRIVING		DDI/ LEGG GC			\		
NAME OF WELL CO	онтирова . [1].	11 /) - 1/ LICEMSE/	NUMBER	DRILLERS REMARKS DATA SOURCE		HIRAGIGE 59-62 M	TE RECEIVED	() ()	63-61 80
HO ADDRESS	39/ D	Jungling SU	077	O WATE OF INSPECT		3644 ()	18 1	U 8	5
ADDRESS NAME OF DRILLES NAME OF DRILLES	ORBORER SI	unord ()n	NUMBER	S REMAPKS		14471			
SIGNATURE OF CO	ATRICTOR HA	SUBMISSION DATE	Oce	OFFICE		WDE			
		DAY MO.	₹ _ 2	19					l

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FORM NO. 0506—4—77 FORM 7



The Ontario Water Resources Act

WATER WELL RECORD

-	Ontario	1. PRINT ONLY IN 2. CHECK 🗵 CORR	SPACES PROVIDED	1520	650 🔑	lan 4	7404		
C	OUNTY OR STSTRICT	leton	TOWNSHIP, BOROUGH LITY, TOWN, VILLA	AGE	CON SLOCK	TRACT SURVEY	in Way	LOT 25-17	
			+ 13167	Kanata	K2K 1)	14	DATE COMPLETED 4		
OR ELEVATION OF CHAMBER OF								1 1 1 1	
	LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)								
	MOST COMMON MATERIAL OTHER MATE		OTHER MATERIALS		GENERAL DESCRIPTION		DEPTH FROM	· FEET	
F			#						
+	grey	Clay	Slones				0	3	
1	grey	sandsling					3	80	
	10							00	
-	white	sandston					80	95	
F	red	anni ta					G.C	100	
1	, our	gunu					75	105	
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L	31 , , ,								
3	2 10			<u>. </u>					
	11 WAT	ER RECORD	51 CASING & OPEN HOL	E RECORD	SIZE(S) OF OPEN	NING 31-33	65 3 DIAMETER 34-38 LI	75 80 ENGTH 39-40	
-	AT - FEET	KIND OF WATER FRESH 3 SULPHUR	INSIDE DIAM MATERIAL THICKNESS INCHES	DEPTH - FEET / FROM TO	MATERIAL AND	TYPE	DEPTH TO TOP	41-44 30	
-	78 20	SALTY 4 MINERAL FRESH 3 SULPHUR 19	10-11 GSTEEL 12 GALVANIZED SALVANIZED CONCRETE	() 97	S			FEET	
-	1 0	SALTY 4 MINERAL FRESH 3 SULPHUR 24	20-23	MATERIAL AND TYPE (CEMENT GROUT					
-	1 FRESH 3 SULPHUR OPEN HOLE			22 /05	22 105 FROM TO MALENAL AND TYPE LEAD PACKER, ETC.) 10-13 14-17 Coment growled				
-	2 []	SALTY 4 MINERAL FRESH 3 SULPHUR 34 10	24-25 1	27-30	18-21	22-23	7, 2, 9		
		SALTY 4 MINERAL	4 OPEN HOLE 8-14 BURATION OF PUMPING		26-29	30-33 80			
71	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			iS	LOCATION OF WELL				
TEST	STATIC LEVEL	END OF PUMPING WATER LEV	IN DIA	AGRAM BELOW SHOW INE. INDICATE NO	V DISTANCES OF ORTH BY ARROW	WELL FROM ROAD AN	⁰ /1		
16 75	O FEET	30 FEET 36-28 38-41 PUMP INTAKE SET	7 ET				$\lambda 1$		
PUMPING	GPM FEET 1 CLEAR 2 CLOUDY			1 1			and the second	/	
2	RECOMMENDED PUMP TYPE PUMP SETTING PECOMMENDED AS-49 PUMP SETTING FEET RATE GPM								
L	5-	1 WATER SUPPLY	5 🗆 ABANDONED, INSUFFICIENT SUPPLY]		11	Nay		
İ	FINAL STATUS OF WELL	2 OBSERVATION WELL 3 TEST HOLE		W 4.	· Mian l	- V47n	`		
-	55-56 1 DOMESTIC 5 COMMERCIAL			-	1701	3 km			
	WATER USE	3 IRRIGATION 7	☐ MUNICIPAL ☐ PUBLIC SUPPLY ☐ COOLING OR AIR CONDITIONING		13	,			
	57	OTHER	9 NOT USED		9				
	METHOD OF	CABLE TOOL ROTARY (CONVENTION ROTARY (REVERSE)	6 ☐ BORING NAL) 7 ☐ DIAMOND 8 ☐ JETTING						
	DRILLING	BOTARY (AIR) S AIR PERCUSSION	9 DRIVING	DRILLERS REMARKS	S.				
CONTRACTOR	WAS ST WELL DO	aina Well B	DATA	≥ DATA SOURCE 58 CONTRACTOR 59-62 DATA RECEIVO 8 8 6 43-68 10					
	By 326 Richmond Ont			SOURCE DATE OF INSPECT	rion in	SPECTOR			
	NAME OF DRILLER	ON BORER MASS	S REMARKS						
ၓ	SIGNATURE OF COM	TRACTION 1	SUBMISSION DATE DAY 36 MO. 4 YR 86	OFFICE			΄γ		
	MINISTRY	OF THE ENVIRONM		1	······································		FORM NO. 0506—4-	-77 FORM 7	



The Ontario Water Resources Act WATER WELL RECORD

Ontario	2. CHECK 🗵 COR	SPACES PROVIDED RECT BOX WHERE APPLICABLE		15213	03	MCINICIP	CON	
COUNTY OR DIST	tawa-Carleton	TOWNSHIP, BOROUGH, CITY, TOWN, VII	LLAGE		CON	BLOCK, TRACT, SURVEY, E	TC.	22 23 24 LOT 25-27
			ם מ	# 4 . V		1	DATE COMPLETED	12
		J. Dekok,	R.K.	ELEVATION	ata, un	BASIN CODE	DAY 23 MO ()3vr.87
-	L(OG OF OVERBURDEN AND B	EDRO	OCK MATERIA	J 5, 555 1W	STRUCTIONS.		47
GENERAL COL	HOST	OTHER MATERIALS		JOK MIATEMA		L DESCRIPTION		TH - FEET
Brown	Clay			Packe			FROM	то
Gray	Clay			Packe			0	12
Gray	Limestone			Hard			12	50
	-							
				-	-			
			<u>-</u>					
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	11 1					 _		
31	 	<u> </u>						
41 V	VATER RECORD	51 CASING & OPEN HO	DLE R	RECORD	SIZE IST	OF OPENING 31-33	DIAMETER 34-38	75 80 LENGTH 39-40
WATER FOUND AT - FEET	KIND OF WATER	INSIDE WALL DIAM. MATERIAL THICKNESS INCHES INCHES	D FRO	DEPTH - FEET	Z (SLOT NO	L AND TYPE	DEPTH TO TOP	FEET
40	FRESH 3 SULPHUR 14 2 SALTY 4 MINERAL	6 1 GALVANIZED .188		0 22	Š		OF SCREEN	FEET
	1 FRESH 3 SULPHUR 19 2 SALTY 4 MINERAL	4 CONCRETE - 100 4 OPEN HOLE 17-18 STEEL 19		20-23	61 DEPTH SET		SEALING RECO	ORD
	I D FRESH 3 D SULPHUR 24 2 D SALTY 4 D MINERAL	5 7 GALVANIZED	2		FROM	TO MATER		ENT GROUT
	1 FRESH 3 SULPHUR 29 Z SALTY 4 MINERAL	Q 4 ₩ OPEN HOLE 24-25 1 ☐ STEEL 26 2 ☐ GALVANIZED		27-30	18-21	22-25		
30-33	1 FRESH 3 SULPHUR ^{34 0} 2 SALTY 4 MINERAL	J CONCRETE 4 COPEN HOLE			26.29	30-33 80		
71 PUMPING TEST	METHOD 10 PUMPING RATE	15-14 DURATION OF PUMPING 10 GPM 1 15-16 100 IES	17-18		LO	CATION OF V	NELL	
STATIC LEVEL	WATER LEVEL 25	VELS DURING 1 PUMPING	MINS	IN DIAG LOT LIF	RAM BELOW	SHOW DISTANCES OF	WELL FROM ROAD A	ND
flowing	1.21 22.24 IS MINUTES	2 RECOVERY 30 MINUTES 45 MINUTES 60 MINUT 29-31 32-34 3	ES 5 - 37	14	ve. more	CIE NORTH BI ARROW.		
F FLOWING GIVE RATE	7 20 FEET 20 FEET 38-41 PUMP INTAKE SE		FEET 42			*	\Rightarrow	
RECOMMENDED	PUMP TYPE RECOMMENDED	20 FEET 1 X CLEAR 2 CLOU	1DY 6-49	nch.				
SHALI	LOW DEEP PUMP	30 FEET PUMPING RATE 5	GPM	7		. 7		
FINAL	54 WATER SUPPLY	5 ABANDONED, INSUFFICIENT SUPP		7	<u>, </u>	tuy #17		/
STATUS OF WELI	I 3 LI IESI MULE	5 ABANDONED POOR QUALITY 7 UNFINISHED		8	•	J 1.4 1x	<i>i</i>	ļ
	55-56 , DOMESTIC	5 COMMERCIAL 5 MUNICIPAL	-{				ı	İ
WATER USE	3 IRRIGATION	PUBLIC SUPPLY COOLING OR AIR CONDITIONING				<u></u>	7/25	
	OTHER	9 D NOT USED						
METHOI OF	CABLE TOOL CABLE TOOL	S DORING DIAMOND S DIETTING					- 10	ł
DRILLING		→ DRIVING		DRILLERS REMARKS:			04	651
	LL CONTRACTOR	LICENCE NUMBER	\exists \bar{I}	> DATA SOURCE	58 CONTR	ACTOR 59-62 DATE RE	CENED	
51	al Water Supply Li			DATE OF INSPECTI	ON	INSPECTOR	1404	5/
Box 4		Ontario. KOA 360	-	REMARKS				
S Mi	ller F CONTRACTOR	SUBMISSION DATE		OFFICE	- Au			
	Kainnagh) DAY 24 NO 03 YS	41	ō			F2014 442 0550	
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		Ontario Water Resou	
otario	WATER	WELL	RECORD

Ontario OTTAU	A CARL 1. PRINT ONLY IN 2. CHECK COR	SPACES PROVIDED RECT BOX WHERE APPLICABLE	1524	281	MUNICIP. 16006	CON.	04
KANI	ATA	TOWNSHIP, BOROUGH, CITY, TOWN, VIII	LLAGE	LO.	BLOCK, TRACT, SURVEY.	, ,	LOT 25-27
		OHARA	CRESCE	-N7		DATE COMPLETED	AUB 48-53
		HING	RC. ELEVATION	RC.	BASIN CODE	D III	
	Lo	DG OF OVERBURDEN AND B	EDROCK MATERI	IALS (SEE IN	STRUCTIONS)		. 47
GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS		GENERA	L DESCRIPTION	FROM	DEPTH - FEET
BROWN	SAND	STONES		Los	E	0	4
BROWN	BEDROCK BEDROCK	STONES SANDSTONE GRANITE		CEMEN		4	4/
GREY	DEDROCK	GRANITE		POROL	Jζ	41	103
						i ,	
31	<u></u>	<u> </u>		[11 1 1		
32					<u> </u>]	
41 WAT	ER RECORD	51 CASING & OPEN HO	LE RECORD	Z SIZE(S) C	DF OPENING 31-3	65 3 DIAMETER 34-3	75 80 38 LENGTH 39-40
AT - FEET	FRESH 3 SULPHUR 14	INSIDE WALL DIAM. MATERIAL THICKNESS INCHES INCHES	DEPTH - FEET FROM TO	C SLOT NO	L AND TYPE	INCHE DEPTH TO T	
41.	SALTY 4 MINERAL	6 4 10-11 1 STEEL 12 2 GALVANIZED 3 CONCRETE 16 Q	0 20	Š		OF SCREEN	FEET
92 20	SALTY 4 MINERAL	3 CONCRETE 488	0 40	61 DEPTH SET		SEALING RE	
103 28	FRESH 3 SULPHUR 24 SALTY 4 MINERAL	2 GALVANIZED 3 CONCRETE		FROM	TO MATE	LEA	CEMENT GROUT ND PACKER, ETC 1
2 []	FRESH 3 SULPHUR 29 SALTY 4 MINERAL	4 OPEN HOLE 24-25 1 STEEL 26	27-30	1/3A6	CEMEN 22-25	/	
	FRESH 3 SULPHUR 34 60 SALTY 4 MINERAL	3 CONCRETE 4 COPEN HOLE		26-29	30-33 80		
71 PUMPING TEST METHO	DD 10 PUMPING RATE	11-14 DURATION OF PUMP:NG	7-18	LO	CATION OF	WELL	
par	WATER LEVEL 25		IINS	AGRAM BELOW	SHOW DISTANCES OF TE NORTH BY ARROW	WELL FROM ROAL	D AND
19-21 11 / G	22-24 15 MINUTES	30 MINUTES 45 MINUTES 60 MINUTE	i I		TE NORTH BY ARROW	, į	
	38-41 PUMP INTAKE SET		42			***************************************	
PEET FEET OF F	I IL COMMENDED	FEET 1 CLEAR 2 CLOU	DY				
SHALLOW 50-53	DEEP PUMP SETTING 74	FEET RATE /O	SPM /				
FINAL	4 1 WATER SUPPLY	5 ABANDONED, INSUFFICIENT SUPPL			/.	/	
STATUS OF WELL	2 OBSERVATION WELL 3 TEST HOLE 4 RECHARGE WELL	6 ⁴ ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED			A CRESCEPT	'	
55-5	DOMESTIC	5 🗆 COMMERCIAL		AHAR	A CRESC		
WATER USE	3 IRRIGATION	6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING		Olivin			
57	OTHER	9 🗆 NOT USED			· 11		al
METHOD OF	1 CABLE TOOL 2 ROTARY (CONVENTION 3 ROTARY (REVERSE)		1		\$		
DRILLING	ATR PERCUSSION	B JETTING . 9 DRIVING	DRILLERS REMARKS	•		the same	
NAME OF WELL CON		LICENCE NUMBER	7	S CONTR.	CTOR 59-62 DATE		63-68 80
ADDROUG ADDRESS NAME OF DRILLER OF COM	HNEY-DRILL	ING 570/	SOURCE O DATE OF INSPEC	3		EB 26 19	190
NAME OF BRILLER C	SHER AVE	E O //AWA	S REMARKS:			· · · · · · · · · · · · · · · · · · ·	
SINATURE OF CON	PACTOR /	SUBMISSION DATE	O H O REMARKS:	, A		1	Р
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The Ontario Water Resources Act WATER WELL RECORD

Ontario		SPACES PROVIDED		15265	58 3	MUNICIP	CON.	1 10 4
COUNTY OR DISTRICT		TOWNSHIP, BOROUGH, CIT	_ 4_2			LOCK, TRACT, SURVEY	ETC ETC	LOT 25-27
Ottores	Company of the compan	Kana	ıta		_		4	13
		Acre	es Road	Carp, Onta	rio KO	110	DATE COMPLETED DAY 17 MO 9	48-53 YR. 92
		NG		RC. ELEVATION		MASIN CODE	" "	1 "
		OG OF OVERBURDEN	AND REDE	OCK MATERIA	AIS (555 1)16	31		47
GENERAL COLOUR	MOST	OTHER MAT				DESCRIPTION		H - FEET
Brown	Sand						FROM	10
Gray	Sand				vet		0	4
Gray	Sandy Clay	Stones					10	12
Gray	Limestone	Deale			- Wet - Hard		12 28	28 99
					narc			33
		· -						
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31 111	<u> </u>	<u> </u>	1,1,1		. 1 11	[f f 1	11 11 1	
32				;		 	<u> </u>	
	TER RECORD	51. CASING & C	PEN HOLE	RECORD	SIZE IS I O	OF OPENING 31.	65 33 DIAMETER 34-38	75 80 LENGTH 39-40
WATER FOUND AT - FEET	KIND OF WATER	INSIDE DIAM MATERIAL INCHES	WALL THICKNESS INCHES F	DEPTH - FEET ROM TO	MATERIA	L AND TYPE	INCHES DEPTH TO TOP	FEET 41-44 30
84] FRESH 3 SULPHUR 14 SALTY 4 MINERALS 6 GAS	6 1/4 1 STEEL 12	-188	0 30	S(OF SCREEN	FEET
1 1 1 1 1 1	T FREE STEDULPHUR 19 SALTY 6 GAS	4 □ OPEN HOLE 5 □ PLASTIC			61		SEALING RECO	ORD
	FRESH 3 DSULPHUR 24 SALTY 6 DGAS	17-18 19 1 □STEEL 2 □GALVANIZED 3 □CONCRETE		20-23	FROM	TO MAT		ENT GROUT ACKER, ETC)
1	FRESH 3 DSULPHUR 29 SALTY 6 DGAS	6 4 DOPEN HOLE 5 DEPLASTIC 24-25 1 DSTEEL 26	i i	30 99	3Q	5 ₂₅ Gre	outed Cement	(5)
30-33 1	FRESH 3 SULPHUR 34 10	2 GALVANIZED 3 GONCRETE 4 OPEN HOLE			26-29	30-33 80		
PUMPING TEST MET	SALTY 6 GAS	5 □ PLASTIC	MPING		<u> </u>			
71 1 2 РИМР		50 GPM HOUR	17-18			CATION OF		
STATIC LEVEL	WALER ELVEL	VELS DURING	PUMPING	IN DIA		SHOW DISTANCES O	F WELL FROM ROAD A W.	ND A
 <u> </u>	26-28	29-31 32-3				th Line		,0
IF FLOWING. GIVE RATE RECOMMENDED PUR	28-41 PUMP THYAKE S	ET AT WATER TEND O	F TEST 42			1.7	Km 1	
RECOMMENDED PUR	GPM RECOMMENDED PUMP	FEET 1 CLEAR 43-45 RECOMMENDED PUMPING	2 CLOUDY		ŀ			
SO-53	DEEP SETTING	50 FEET RATE	10 GPM				A	
FINAL	1 WATER SUPPLY	\$ ABANDONED, INSUFF	ICIENT SUPPLY		 		B	
STATUS OF WELL	2 B OBSERVATION WELL 3 TEST HOLE 4 RECHARGE WELL	. \$ ABANDONED POOR (7 UNFINISHED DEWATERING	PUALITY		1		E.	
55-	-56 1 DOMESTIC	5 COMMERCIAL			16 74		k,	
WATER USE	2 A STOCK 3 IRRIGATION 4 INDUSTRIAL	 MUNICIPAL PUBLIC SUPPLY COOLING OR AIR CONDIT 	IONING		/33			
	О ОТНЕВ	• D NOT 6		-			ſ	1
METHOD OF	CABLE TOOL CONVENTI							1
CONSTRUCTIO	ROTARY (REVERSE) ROTARY (AIR) AIR PERCUSSION	B D JETTING DRIVING					60	320
NAME OF WELL C	<u> </u>		ONTRACTOR'S	DRILLERS REMARKS	S CONTA	ACTOR FACE L.		
© Capital	Water Supply L	LICENC	E NUMBER	SOURCE	1	558	OCT 2 2 1997	2
lo		Ontario K25 LAC		SE	TION	NSPECTOR	-	
NAME OF WELL		LICEN	E NUMBER	→ REMARKS				
mall	TECHNICIAN/CONTRACTOR	SUBMISSION DATE	_	OFFICE				
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The Ontario Water Resources Act WATER WELL RECORD

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_	Ontario	1. PRINT ONLY IN 2. CHECK 🗵 COR	I SPACES PROVIDED	11	1528	8691	MUNICIP.	يَا لَيْنَ	1N	1104
	A-1101110	CARLETTIN	TOWNSHIP, BOROUGH, CITY			CON	BLOCK, TRACT, SURV	EY ETC		LOT 25-27
			5	Hous	TON			DATE COM	LETED &	**************************************
ij		10 12	17 18 1 1	7/00/2 	RC. ELEVATION	PC	BASIN CODE	"	""	1, 1,
		Li	OG OF OVERBURDEN	AND BEDF	ROCK MATER	RIALS (SEE IN	STRUCTIONS)		<u> </u>	47
ļ	GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MAT	ERIALS		GENERA	L DESCRIPTION		DEPTH FROM	- FEET
ľ	BROWN	SAND				Fine			0	s'
H	GREY	CLAY	2.			Den	SE.		S'	18'
ľ	GREY	LIMESTONE	Bhack himes	TONE	-	HAR	<i>p</i>		18'	78
t	GREY.	LIMBSTONE	QUERTZIFE			Har	D		78	85'
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L	ATER FOUND	ER RECORD	51 CASING & O	PEN HOLE	RECORD	Z SIZE(S)	OF OPENING 3	IT-33 DIAMETE		75 80 NGTH 39-40
-		FRESH 3 SULPHUR	DIAM MATERIAL INCHES	THICKNESS	ROM TO	S MATERIA	AL AND TYPE		INCHES DEPTH TO TOP OF SCREEN	41-44 30
	(15-18 1	6 □GAS FRESH 3 □SULPHUR 19	4 DOPEN HOLE	188 6	22	61	* DI LICCINO	2.054		FEET
F	20-23	FRESH 3 SULPHUR 24	5 □ PLASTIC 17-18 1 □ STEEL 2 □ GALVANIZED		20-2		PLUGGING	ATERIAL AND T		T GROUT
-		FRESH 3 SHIPMIR	3 CONCRETE 4 COPEN HOLE 5 PLASTIC	25	85	10-13		em e r	of GR	
\vdash	30-33 1		1 DSTEEL 2 DGALVANIZED 3 DCONCRETE		27-30	18-21	30-33 80			
	PUMPING TEST METHO	SALTY 6 GAS	4 □ OPEN HOLE 5 □ PLASTIC				30-33			
71	ALR PUMP 2	□ BAILER 8	11-14 DURATION OF PUMP 15-16 GPM	17-18			CATION OF			
F	LEVEL	WATER LEVEL 25 END OF WATER LEVEL 25 PUMPING 22-24 15 MINUTES	VELS DURING 1 → PU 2 □ RE 30 MINUTES 45 MINUTES	COVERY	IN D	IAGRAM BELOW LINE INDIC	SHOW DISTANCES TE NORTH BY ARR OUSTOR	OF WELL FR	OM ROAD AN	D
G TEST		70 FEET FEET	30 MINUTES 45 MINUTES 29-31 32-34 FEET FEET	60 MINUTES 35-37 FEET			CUSTOR	CAE	,	
PUMPING	IF FLOWING. GIVE RATE	38-41 PUMP INTAKE SE	T AT WATER AT END OF	rest 42					/ /	
SS	RECOMMENDED PUMP	PUMP	43-45 RECOMMENDED PUMPING	46-49						
L	50-53	S SEET SEETING 7	FEET RATE	GPM		٤٧	JAM.		- -,	
	FINAL STATUS	1 WATER SUPPLY 2 OBSERVATION WELL	S ABANDONED, INSUFFIC	IENT SUPPLY	· §	1 / by		ouse		
L	OF WELL	3 TEST HOLE 4 RECHARGE WELL	7 UNFINISHED DEWATERING		5 , 20	. (0032		
l	WATER	DOMESTIC STOCK	5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY		101 F-10	7 X1-15	٦			
	USE		COOLING OR AIR CONDITIO			12 wel	(
	METHOD	CABLE TOOL	6 BORING		! • • • • • • • • • • • • • • • • • • •					
cc	OF	2	NAL) 7							
느	NAME OF WELL CON	5 AIR PERCUSSION	□ pigging □		DRILLERS REMAR				151	731
OR O	VALLEY		LICENCE	NTRACTOR'S NUMBER	DATA SOURCE DATE OF INSPE	58 CONTA		AUG 2	9 1995	63-58 80
CONTRACTOR	ADDRESS POZ	OX437 CARD	ONT		DATE OF INSPE	ECTION	NSPECTOR		, - 	
SATA	NAME OF WELL	ECHNICIAN		CHNICIAN'S NUMBER	D REMAPKS		- 			
ၓ	SIGNATURE OF TEC	CHNICIAN/CONTRACTOR	SUBMISSION DATE		OFFICE			-	CSS.E	s
	MINISTRY OF	THE ENVIRONME	ENT COPY	YR,				FORM	NO. 0506 (11/8	

The Ontario Water Resources Act WATER WELL RECORD

Print only in spa Mark correct bo	aces provided. ox with a checkmark,		109 th -1	11	15	305	42 .	Municipa 11,50		N	2 2 2
County or Distric	a Carleton			Borough/City	//Town/Village	e i i	<u> 1847</u>	Con block	tract surve	y, etc. Lo	173E
Owner's surname		First name	Address	S	nava	Ł (\supset \vdash	L	Date completed	26	2 9%
21	WEINIG COL	Zone Ea	asting	Northing	* un	RC EI	evation	RC Basin Code	11 1 1	day m	iv
2	T	10 12	F OVERBURDE	N AND BEI	DROCK MA	TERIAL		ructions)			47
General colour	Most common	material	Oth	er materials.	4		Ge	neral description	····	From	pth - feet
red	Sand	į								0	2
0	Clay						···	<u></u>		5 24	24
grey	1 huesto							*		2.01	160
<u> </u>									·		
11				444					عبا ليا		U LLL
10 1	TER RECORD	51	CASING & C	OPEN HOL	E RECORI		Size	o opening	65 1-33 Diameter	34-38 Leng	75 80 th 39-40
Vater found t - feet	Kind of water	Inside diam inches	Material	Wall thickness inches	Depth - From	feet To	SC (Slot		ir	nches	feet
47 2	Fresh ³ Sulphur Minerals Gas	10-11	Steel 12 2 Galvanized 3 Concrete			13-16	S Mate	rial and type		Depth at top	of screen 41-44 feet
47	Fresh Sulphur Minerals Salty Gas	19 6'/	4 Open hole 5 Plastic	188	0	<u> </u>	61	PLUGGIN	G & SEALIN	G RECOR	
53 2	Fresh Salty 6 Gas	24 0-	2 Galvanized 3 Concrete			20 20	1 1	Annular space t at - feet Mate	ial and type (Ce	Abandonm	
25-28	Fresh 3 Sulphur Salty 4 Minerals Gas	29 0 3/4	Open hole Plastic Steel Steel		٥	79	From 10-13	10 C	Oment	,	
30-33	Fresh 3 Sulphur 4 Minerals 6 Gas	34 60	2 ☐ Galvanized 3 ☐ Concrete 4 ♣ Open hole		29		18-21	22-25 30-33 80		7	
Pumping test m		rate 11-14	5 ☐ Plastic Duration of pumping		27	60]				
Pump 2	□ Bailer Vater level 25	18 GPM	Hours .			In diagra	m below sh	LOCATION OF ow distances of		ad and lot li	ne.
	and of pumping water	_	45 minutes 6	io minutes		Indicate i	north by arr	ow.			
19-21 (3 teet If flowing give ra		eet / 5 fee	t 3 feet Water at end of test	13 feet							1
Recommended	GPM GPM	fee	t 🗌 Clear	© Cloudy 46-49						Houst	M. 1
☐ Shallow	Deep pump set		pump rate	18 GPM							
INAL STATUS		4							170'		
Water sup Water sup Description Water sup Test hole	on well 6 Aban	doned, poor quality doned (Other)	supply ⁹ ☐ Unfinisho / ¹⁰ ☐ Replaced	ea ment well	i i			•			
⁴ ☐ Recharge /ATER USE	well 8 Dewa	•	•								
1 ▲ Domestic 2 ☐ Stock	5 ☐ Comi 6 ☐ Mựni	mercial cipal	9 🗆 Not used					1	· 2mile		
3 Irrigation4 Industrial	7 □ Públi 8 □ Cooli /	c supply ng & air conditionir	ng								
1 🛘 Cable too		ercussion	9 🗆 Driving						,		
² ☐ Rotary (co ³ ☐ Rotary (re ⁴ ☐ Rotary (al		ond	¹⁰ ☐ Digging 11 ☐ Other					Hedge	1	L927	02
lame of Well Contr	actor		, Well Contractor	s Licence No.	Data		58 Contraco	tor	59-62 Date recei	ved	63-68 80
Address	Jack Drul	ling 6. L	4 ///	9	Source	f inspection	1	119	JUN		999
RRH	à, Ja	sper,	N. EU	6 USW	NS Called		- 	Inspector			
Shanno	n farcel	2 '	Well Technician	2	MINISTRA PREMAI	n S	*		\	(CC) =	
Signature of Technic	cian/Contractor	>	Submission date	19	Z	·				CSS.E	89
2 - MIN	ISTER OF ENV	IRONMEN	Γ & ENERGY	COPY	¥ .1x				, C	506 (07/94) F	ront Form 9

	ntario	Ministry o	, I	ng Number (Place	e sticker and print	•		Regulation 903	3 Ont		ter Res	Record ources Act
For useAll SectionQuestionAll metro	in the Province ons must be cons regarding com	of Ontarion of Ont	o only. This docum full to avoid delay is application can e reported to 1/10	s in processing be directed to	g. Further in the Water V	structions and	d exp	lanations are ava	ailable 416-2	e on the 235-62	back of	f this form.
	· · · · · · · · · · · · · · · · · · ·		ation of Well Inf	ormation	MUN	Co	ОИ				LOT	
						<u> </u>						
(
Ottawa Car RR#/Street Nu					LKanata City/Town/Vill			Site (Comme	12	at/Dia al	/Tue -1 -	4
910 March				\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Kanata			Site/Compa	ırtmer	IVBIOCK	/ I ract et	.C.
GPS Reading	NAD Zor 8 3 18			thing 12 33 16	Unit Make/Mo Garmin	del Mode	of O		lifferent		Aver	aged
Log of Over			aterials (see ins		Garmin				renuat	ed, speci	<u>y</u>	
General Colour	Most common	material	Other M	aterials		Genera	l Des	cription			Depth From	Metres To
Brown	Clay					Pacl	red			1	0	1.82
Gray	•	stone				Har					1.82	12.19
Gray & Wh:		stone				Har					2.19	27.43
O <u>raj w 1111</u> .	- Desire	SCOM				2202	•					
:												
	-			t .								
	Diameter		Con	struction Reco	rd					Vell Yie		
L	etres Diameter To Centimetres	Inside	Material	Wall	Depth	Metres	Pun	nping test method		aw Dowi Water Le		Recovery Water Level
		diam centimetres		thickness -	From	То		ubmersible	min	Metre		
	7.31 22.75		* 1	Casing			Pun (me	np intake set at - tres) 21.33	Static Level	6.02		:
7.31 2	7.43 15.23	15.86	Steel Fibreglass	.48	+ .45	10.36	Pun	nping rate - es/min) 54.6		6.36	1	6,20
Water	Record		Plastic Concrete		-			ation of pumping	2	6.40	2	6.19
Water found at Metres /	/ Kind of Water		Galvanized Steel Fibreglass					1_hrs +_30_ min		0.40		0.19
24.99	Fresh Sulphur		Plastic Concrete				Fina of p	umping 6 metres	3	6.44	3	6.19
	Salty Minerals tested		Galvanized				Red	ommended pump		6.45	4	6.18
	Fresh Sulphur		Steel Fibreglass		-		type	☐Shallow MDeep				
Gas LOther:	Salty Minerals		Plastic Concrete Galvanized				dep	ommended pump th. 15.23 netres	5	6.47	5	6.18
m [Fresh Sulphur			Screen			Red	ommended pump	10	6,50	10	6.15
Gas Other:	Salty Minerals	Outside diam	Steel Fibreglass	Slot No.				(littes/min) wing give rate -		6.51	15	6.13
	l yield, water was		Plastic Concrete					(litres/min)		6.52 6.52	20 25	6.13
Clear and se			Galvanized	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -			If pu	mping discontin- give reason.	30	6.53	30	6.12
Other, specif	ý			Casing or Scre	en	4.				6.53		6.12
Chlorinated 🔀	Yes 🗌 No	15,23	Open hole		10,36	27.43				6.54		6.12
	Plugging and Se	aling Rec	ord 🗶 Annul	arspace 🔲 Ab	andonment			Location				V. 2
Depth set at - Me From T	Material and type	oe (bentonite	slurry, neat cement slurr		e Placed metres)	In diagram below Indicate north by		distances of well fr	om roa	ad, lot lin	e, and bu	uilding.
10.36 0		- Bento	onite Slurry	.42m		indicate notal by						407
						************	M_{0}	ych Ro				-
								* 9	10		1	
									"He	45		
		· .						1 89	1412			
Cable Tool	Rotary		Construction Diamond		Digging			1			ŧ	
Rotary (conve	·		Jetting		Other						1	
Rotary (revers	se) Boring	18/04	Driving							`-	1	
Domestic	Industri		Public Sup	ply 🔲	Other							
Stock	Comme		Not used	air conditioning		A		Dat	to Wall	Comple	ted	
Inigation	Municip		itus of Well	all conditioning		Audit No. Z	46	997 🖺	ie Meii		006	6 ^{MM} 27 ^{DD}
Water Supply			Unfinished	The second second	ned, (Other)	Was the well ow		information Dat	te Deliv	vered	YYYY	MM DD
Observation v	vell Abandoned, Abandoned,	insufficient s poor quality	supply Dewatering Replacement		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	package delivere	ur				006	6 28
V.1		tractor/Te	chnician Informati	on	icence No	Data Source	· -	Ministry Us				
Name of Well Co		Ist	v	Vell Contractor's L 1558	IOGIIOG INU.					I D	58	5
	ater Supply s (street name, humi	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-1 - VOD 4			Date Received	YYY	MM DD Da	te of In	spection	YYYY	MM DD
Name of Well Te	chnician (last name,	first name)		Vell Technician's L	icence No.	Remarks			ell Rec	ord Num	per	1
Miller: S Signature Tec	tephen hylician/Contractor		D ID	TO097 ate Submitted	MA ST							
JOIL L				2006	16 29					İ		

Date Submitted YYYY MM DD 2006 6 29

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

Cette formule est disponible en français

	lano	Ministry o the Enviro		II Tag Number (PI	457	rint number below)		Regulation 90	3 Ontari	o Water Re	
All SectionQuestionsAll metre	the Province ns must be con regarding con	of Ontarion of Ont	full to avoid de is application o e reported to	A035457 cument is a perrelays in procession be directed to 1/10th of a metre	manent lega ing. Further to the Water	instructions an	nd exili	anations are av	ailable o 416-23	ence.	of this form.
Well Owner's				Information	MUN	C	CON	ministry 03	e omy	LOT	
Ottawa Carl RR#/Street Num 927 March R GPS Reading	ber/Name Road NAD Zoi 8 3 18	42	63 76	Northing 79	Kanat City/Town/V Kanat Unit Make/M	illage :a lodel Mod	e of Op	Site/Compa	artment/E lifferentiate erentiated,	23	
Log of Overb	urden and Bo	edrock M	aterials (see	instructions) er Materials			al Desc			Depth	Metres
Brown	Clay					Pac		приоп		From 0	1.9
Gray	Limesto	ne				Har			-	1.98	12.1
Gray & Whit	e Sandsto	пе				Har	d			12.19	22.2
						-					
						A					!
Hole Dia			C	onstruction Rec	ord				t of Wel		
Depth Metr From To	Centimetres	Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Metres To	sub	ping test method mersible p intake set at -		nter Level Tim Vetres mi	Recovery le Water Leve n Metres
9.75 22.2 Water R		15.86	Steel Fibre	casing glass 48	+ .45	9.75	Purn (litres	res)19_81 ping rate - s/min) 54_6 tion of pumping		.60 .73 ¹	4.90
Water found at Metres Fre	Kind of Water esh Sulphur alty Minerals	=	Galvanized Steel Fibres Plastic Conci				3 Final	hrs +_30 min water level end imping 5 metres	3 3		
Gas Sa	esh Sulphur Ilty Minerals		Steel Fibreo				type.	Shallow Deep ommended pump 1. 15.23 netres		.85 4 .87 5	4.78
Other: Fre	esh Sulphur		Galvariized	Screen			Reco	mmended pump	10 🔥	03 10	4.61
Gas Sa Other: not After test of well yi	eld, water was	Outside diam	Steel Fibred Plastic Conci	Table 1	-		If flov	wintes/min) ving give rate - (litres/min) nping discontin-		13 15 22 20 30 25 36 30	4.45 4.45 4.37
Other, specify_				No Casing or Scr	een		uea,	give reason.	40 4	47 40	4.22
Chlorinated Ye	es 🗌 No	15.55	Open hole		9.75	22.24			60 4	57 50 64 60	
Depth set at - Metre From To 9.75	iviateriai ariu typ	oe (bentonite :	ord A Ai slurry, neat cement s onite Slur	slurry) etc. Volur (cubi	bandonment me Placed ic metres)	In diagram belo		Location of distances of well fr		lot line, and t	ouilding.
			·				Ales	<u>3</u>			
Cable Tool Rotary (conventi	Rotary	(air)	Construction Diamo	. =	Digging			Song			
Rotary (convented Rotary (reverse)		Wate	☐ Jetting☐ Drivinger Use☐ Public		Other	1	M	1927 Ionch Ro	\		
Stock Irrigation	Comme Municip	oal Final Sta	tus of Well	g & air conditioning	oned (Other)			220	e Well Co	ompleted YYYY 2006	MM DD
➤ Water Supply ☐ Observation wel ☐ Test Hole	Recharge w Abandoned, Abandoned,	insufficient s		and the second second	oned, (Other)	Was the well over		Yes No	. Julyere	2006	MM DD
Name of Well Contr Capital Wa	Well Con ractor ter Supply	tractor/Te	chnician Inforn		Licence No.	Data Source			ntractor	199	58
Business Address (Box 490 S Name of Well Techn Miller St Signature of Techn			rio K2S 1A	Well Technician's T0097 Date Submitted		Date Received JUL Remarks	111	2006	e of Inspe		MM DD
0506E (09/03)	may	Con	tractor's Copy	200	6 6 29	ner's Copy 🗌		Cette fo	ormule e	st disponibl	e en français

	Ministry of the Enviror		ell Tag Number (F	Place sticker and pr	int number below)	Regulation 90	Wel 3 Ontario Water	I Record
 Instructions for Completin For use in the Province All Sections must be con Questions regarding com 	of Ontario	full to avoid d	elays in process	sing. Further	instructions an	d explanations are ava	re reference. ailable on the ba	age of
 All metre measurement 	s shall be	reported to	1/10 th of a metr	e. ———	vveii ivianage			
 Please print clearly in blu Well Owner's Information 			Information	MUN	С	Ministry Us		LOT
Well Owner's Illiornation	and Loca	don or wen	miormation					
Ottawa Carleton RR#/Street Number/Name	2.			Kanata City/Town/V	illage	Site/Comps	1 artment/Block/Tra	4 act etc
941 March Rd. GPS Reading NAD Zor	ne Eastin	a .	Northing	Kanata Unit Make/M	a			Averaged
8 3 18 Log of Overburden and Be	426	390	5023443	Garmin		·	erentiated, specify]
General Colour Most common		Ţ	er Materials		Gener	al Description	Dep Fro	
		. :			, s			
	,					· .		5
						•.		
						A	-	
						5		
Hole Diameter			Construction Re	cord			t of Well Yield	
Depth Metres Diameter From To Centimetres	Inside diam	Material	Wall thickness	Depth	Metres	Pumping test method	Time Water Level	Recovery Time Water Leve
	centimetres		centimetres	From	То	Pump intake set at -	min Metres Static	min Metres
		Steel Fibre	Casing			(metres) Pumping rate -	Level 1	1
Water Record		Plastic Con				(litres/min) Duration of pumping	2	2
Water found / Kind of Water at Metres /		Steel Fibre	eglass			hrs + mir		
m Fresh Sulphur Gas Salty Minerals		Plastic Con	crete			of pumpingmetres	3	3
Other: Sulphur		Steel Fibre	eglass		,	Recommended pump type. □ Shallow □ Deep	4	4
Gas Salty Minerals Other:		☐ Plastic ☐ Con	crete			Recommended pump depth. metres	5	5
m Fresh Sulphur			Screen			Recommended pump	10	10
Gas Salty Minerals Other:	Outside diam	Steel Fibre	- T-14			(litres/min) If flowing give rate -	15 20	15 20
After test of well yield, water was Clear and sediment free		Galvanized	3,010			(litres/min) If pumping discontin-	25 30	30
Other, specify			No Casing or S	creen		ued, give reason.	40 50	40
Chlorinated Yes No		Open hole					60	60
Plugging and Se			Vol	Abandonment ume Placed	In diagram halo	Location w show distances of well f		and building
From To Waterial and ty		lurry, neat cemen	(cu	bic metres)	Indicate north b		on road, locality,	and building.
6.09 0 Groute	d Bento	nite Slur	ry 21n	ch hole	100			
				· · · ·		<u> </u>	」 	
		Construction					· · · · · · · · · · · · · · · · · · ·	
☐ Cable Tool ☐ Rotary ☐ Rotary (conventional) ☐ Air per	(air) cussion	☐ Diam ☐ Jettin		☐ Digging ☐ Other		N.A.	L	
Rotary (reverse) Boring	Wate	Drivir	ng -			March F	(4	
Domestic Industri		☐ Public	c Supply	Other				
☐ Irrigation ☐ Municip	oal		ng & air conditioning		Audit No. Z	47023 Da	te Well Completed	
Water Supply Recharge w	/ell	Unfin	<i></i>	ndoned, (Other)		wner's information Da		YYY MM DD
Test Hole Abandoned	, insufficient so , poor quality	Repla	atering acement well		package deliver	Ministry Us	e Only	
Name of Well Contractor	· · · · · · · · · · · · · · · · · · ·	hnician Infor	Well Contractor	s Licence No.	Data Source		ontractor	558
Capital Water Sup	ber, city etc.)		1558		Date Received	YYYY MM DD Da	ate of Inspection Y	YYYY MM DD
box 490 Stittsvill Name of Well Technician (last name,	le Ontar	rio K2S	1A6 Well Technician	's Licence No.	AUG Remarks	2 5 2006 I	ell Record Number	1
Miller Stephen Signature of Technicia//Contractor			Date Submitted y	YY MM DD				
X 500, Kwar (<u> </u>	tractor's Come	2006 Ministry's Cop	7 20	ner's Cony	Cette	formule est dispo	onible en français
0000⊏ (0 8 /03) -	Con	паског в Сору (iviii iisiiys COp	y ∟ wenow	пога сору 🗀	Jone	Joe diopo	on manyah

8	Ontario

Ministry of the Environment

Well	Tag Number (Place sticker and print number below
1	A041907
	A 04400=

			Wel	l Reco	ord
Regulatio	n 903	Ontario	Water	Resources	s Act

For tAll SQues	use in ection stions	the l s. m i rega	ust be con arding com	of Ontarion of Ont	full to avoid delay	s in processi be directed to	ng. Further i o the Water	nstructio	ns an	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	ailable	e on the ba	ck of	this form.
• Pleas	se prir	it cle	early in blu	e or black	ink only.	# !	Ministry Use Only							
Well Ow	LOwner's Information and Location of Well Information MUN CON LOT													
Ottaw	e Ca	rī a	ton		,		Kanata				11			
RR#/Stree	t Numl	er/N	lame	•			City/Town/Vil	llage	*	Site/Compa				
941 I GPS Read			d. AD Zon	e Eastir	Nor Nor	thing	Kanata Unit Make/M	odel	Mode	e of Operation: Und	lifferen		L- a	
	· · ·	8	18	426	5390 5	023443	Garmin	odoi	IVIOU			ted, specify	Avera	
-					aterials (see ins		1						11-	
General Co	olour	MC	st common	material	Other M	aterials				al Description		Dep Fro		Metres To
Brown			Clay					Pack	ted			0		2.74
grey			1imest					Hard				2.74	•	11.58
grey&	whit	9	sandst	one								11.58	}	22,24
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			1											
	. 5:								-					
Depth	ole Dia Metr		er g		Con	struction Rec	Τ' "			Pumping test method		Well Yield aw Down		ecovery
From	To		Centimetres	Inside diam	Material	Wall thickness	Depth	Met	res	11		Water Level		Water Level
0	6.4)	22.75	centimetres		centimetres	From	To)	Submersible Pump intake set at -	min Static	Metres	min	Metres
6.40	22.		15.23			Casing				(metres) 18.28	Level			* 4.7
0.40	64.60 9	~~	13.23		Steel Fibreglass	8				Pumping rate - (litres/min) 50 . 05	1	5.83	_1_	5.46
	Vater F	eco	rd	15.86	Plastic Concrete Galvanized	.48	+.45	6.4	10	Duration of pumping	2	6.08	2	5.41
Water found at Metro		Kind	of Water		Steel Fibreglass	S				hrs + min Final water level end	1	6.21		5.39
20.72	L ☐ Fro ☐ Sa	esh	Sulphur Minerals		Plastic Concrete					of pumping 7.01	3	0.21	_3_	J.39
Gas Other		•	76D		Galvanized					Recommended pump type.	4	6.30	.4	5.36
m m	Fr	esh	Sulphur		Steel Fibreglass	S				Shallow Proper	5	6.35	5	5.34
☐ Gas	Sa	Ity	Minerals		Galvanized			٠.		Recommended pump depth 15 . 23 metres	1	0.33		3.54
m	∐ Fr	esh	Sulphur			Screen		· ·		Recommended pump	10	6.50		5.23
Gas Other:	∐ Sε	lty	Minerals	Outside diam	Steel Fibreglas	s Slot No.				rate (fittes/min) If flowing give rate -	15 20	6.62		5.16 5.14
After test o	-				Plastic Concrete					(litres/min)	25	6.76		5.12
Clear a		nent	free			0		<u> </u>		If pumping discontin- ued, give reason.	30	6.79		5.10
Other,	specify					Casing or Sci	reen	T .			50	6.88		5.07 5.04
Chlorinated	d 🌂 Ye	s	☐ No	15,23	Open hole		6.40	22.2	24		60	7.01		5.02
	Р	lugg	ing and Se		ord 🙀 Annu	lar space 🔲 A	Abandonment		- 1, -, -, -, -, -, -, -, -, -, -, -, -, -,	Location	of We	ell		
Depth set a	at - Metro	es M	laterial and typ	e (bentonite :	slurry, neat cement slur		me Placed ic metres)			w show distances of well f y arrow.	rom ro	ad, lot line, a	and bu	ilding.
6.40	0		Groute	d Bente	onite Slurry	- 21	1 m3	A_L=	7)	1			١	
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										1	-		ł	
Cable To	001		Rotary		Construction Diamond		Digging					Ø	. 1	
☐ Rotary (ional)			☐ Jetting		Other			1		byles	51	
Rotary (reverse		Boring	Mot	Driving er Use	····					(2-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1			WANTED TO SERVICE STREET
Domesti	ic		Industri		Public Sur	oply [Other			March Rd				
Stock	n		Comme		☐ Not used	air conditioning		Audit N		A TO A DA	te We	Completed		
⊔ mgalioi			iviumcip		ntus of Well	an obriditioning		Audit N	°. Z	4/021		20	مي ۲	M 18
Water S			Recharge w		Unfinished		doned, (Other)		e well o	Wilers illolitiation	ite Deli	ivered y	YYY	MM DD 7 18
☐ Observa			Abandoned, Abandoned,		supply Dewaterin Replacem	_		Packag	- 4011401				<u> </u>	
Nors - Chi	(all C	no s.4 -		tractor/Te	chnician Informat	ion Well Contractor's	Licence No	Data S	ource	Ministry Us	e On ontract			
Name of W	tal	Wat	er Supr	ly Ltd		1558						1	5 !	58
Business A	ddress	stree	t name, numb	per, city etc.)				Date Re	Ceived	2 5 2006 DD DE	ite of Ir	nspection Y	YYY	MM DD
	ell Tech	nicia	n (last name,	first name)	ario K2S 1A6	Nell Technician's	Licence No.	Remar			ell Red	cord Number		I
Mi Signature	ller	St	ephen Contractor		· :	T0097 Date Submitted	// hat ==							
X	elle	K	ans !			200	<u>6 7 18 </u>	. L				, <u>,</u>		
0506E (09/0	(3)		A	Cor	ntractor's Copy 🔲 I	Ministry's Copy	/ 🗌 Well Owr	ner's Cop	у 🗌	Cette	tormu	ie est dispo	nible	en français

Ontario Ministry of the Environment	Well Tag No. (Place Sticker an	nd/or Print Below)	W	ell Record
Untario the Environment	1 61 1	Regulat	tion 903 Ontario Wa	
	NT		Page_	of
Well Owner's Information First Name Last Name	E-ma(il A).ddre	ięs ?		Well Constructed
Mailing Address (Street Number/Name, RR)	ents yotas	terson 60	$\sim \rho$	by Well Owner
28 on Cowse Select Number/Name, RR	Municipality Medical Property Market Mark	Province Postal Co	de (Telephone	No. (inc. area code)
Part A Construction and/or Major Alteration of a				
Address of Well Location (Street Number/Name, RR)	Township	Lot 11	Concession	1
County/District/Municipality	City/Town/Village	Ch	Province	Postal Code
UTM Coordinates Zone , Easting , Northing	GPS Unit Make Mode) Made of Ossertion	Ontario	
NAD 8 3 1 R 4 B 6 4 4 5 5 D D F	SIRA Was Co	Mode of Operation: Differentiated, speci	☐ Undifferentiated fy	Averaged
Overburden and Bedrock Materials (see instructions on t				
General Colour Most Common Material	Other Materials	General Description		Depth (Metres) From To
6" 511	Ed Well C	pendanman		0 040

Annula Canadahan Inggar				
Annular Space/Abandonment Sea Depth Set at (<i>Metres</i>) Type of Sealant Used	Volume Placed	Check box if after test of well yield,	Well Yield Testing Draw Down	Recovery
From To (Material and Type)	(Cubic Metres)	water was: Clear and sand free	Time Water Leve	
da 0,15 tholering	ing the control of	Cannot develop to sand-free state	Static	Static
0,15 0 Seil '		If pumping discontinued, give reaso	n: Level 1	Leyel 1
		Pumping test method	2	2
			3	3
Method of Construction	Water Use	Pump intake set at (Metres)		4
☐ Cable Tool ☐ Diamond ☐ Public ☐ Rotary (Conventional) ☐ Jetting ☐ Domestic	☐ Commercial ☐ Not used ☐ Municipal ☐ Dewatering	Pumping rate (Litres/min)	5	5
☐ Rotary (Reverse) ☐ Driving ☐ Livestock ☐ Rotary (Air) ☐ Digging ☐ Irrigation	☐ Test Hole ☐ Monitoring ☐ Cooling & Air Conditioning	Duration of pumping		
☐ Air percussion ☐ Boring ☐ Industrial ☐ Other, specify ☐ Other, specify		hrs + min	10	10
Status of Well		Final water level end of pumping (Metres)	_ 15	15
☐ Water Supply ☐ Dewatering Well	Observation and/or Monitoring Hole	Recommended pump/ype	20	20
☐ Replacement Well ☐ Abandoned, Insufficient Supply ☐ Test Hole ☐ Abandoned, Poor Water Quality	☐ Alteration (Construction) ☐ Other, <i>specify</i>	☐ Shallow ☐ Deep	25	25
Recharge Well		Recommended pump depth Metres	30	30
Please provide a map below showing:		Recommended pump rate (Litres/min)	40	40
 all property boundaries, and measurements sufficient to locate the an arrow indicating the North direction 	/V'/	If flowing give rate	50	50.
 detailed drawings can be provided as attachments no larger that vidigital pictures of inside of well can also be provided 		(Litres/min)	60	60
188#	March Road	Wat	er Details	
	Mard D	, , , , , , , , , , , , , , , , , , , ,	l of Water resh	Ilphur Minerals
V135	, lood	The state of the s	of Water	ipital [milotalo
Ø			resh Salty Su	llphur Minerals
	Sec.		l of Water resh □Salty □Su	ılphur
×181		Casing Used Screen Use	ed Casing an	d Well Details
House		Galvanized Galvanized	Diameter of the I-	lole (Centimetres)
salle 7		Steel Steel Steel Fibreglass	Depth of the Hole	(Metres)
(yyyy/mm/dd) package delivered? De	ite the Well Record and Package livered to Well Owner (yyyy/mm/dd)	Plastic Plastic Concrete	Wall Thickness (i	Metres
900 1 01 - 02 Yes XI No	2007-08-27	No Casing and Screen Use	d	
Well Contractor and Well Technicia Business Name of Well Contractor	n Information Well Contractor's Licence No.	Open Hole	Inside Diameter of	of the Casing (Metres)
AIRROCK DRUING COLT	DILIA	Disinfected?	Depth of the Cas	ing (Metres)
Business Address (Street No./Name, number, RR)	Monicipality NCHMOND	Yes No	<u> </u>	
Province Postal Code Business E-mail Add		Audit No. CO170	ry Use Only Well Contractor No.	
Bus Telephone No. (inc. area and Name of Wall Telephone (in	et Nomo Eirot Norra	Z DUL/Z		9
Bus.Telephone No. (inc. area code) Name of Well Technician (La	st Name, First Name)	Date Received (1/2007)/dd)	Date of Inspection (y)	vyy/mm/dd)
Well Jechnician's Licence No. Signature of Technician	Pate Submitted (yyyy/mm/dd)	Remarks		
0506E (11/2006)	067.07-00 Ministry's Conv		@ O	Printer for Ontario 200
	BEFFEEL B 200 AS BE SOURCE		⊕ Gueens i	THE REAL PROPERTY OF THE PARTY

Ontario Ministry of the Environment	Well Tag No. (Place St	ticker and/or Print Bel	1	n 903 Ontario V	Vell Ro	urces Act
Well Owner's Information				Page 1		
First Name Last Name McKeown Construction	E-m	ail Address			Well Con by Well (Structed Owner
Mailing Address (Street Number/Name, RR)	Municipality	Province	1 - 4- 14		e No. (inc. a	
P.O. Box 296 Part A Construction and/or Major Alteration of a	Greely	Onta	ario K 4P 1	N5 6 13	8 2 1 4	4 80 8
Address of Well Location (Street Number/Name, RR)	Township		Lot	Concess		
846 March Road	City/Town/Villag	Kanata	10	Province	3 Postal	Code
County/District/Municipality Ottawa Carleton	Oity/ Towns villag	Kanata		Ontario		
UTM Coordinates Zone Easting Northing	GPS Unit Make		Mode of Operation:	Undifferentiated	Ave	raged
NAD 8 3 4 2 6 7 9 65 02 3 Overburden and Bedrock Materials (see instructions or		GArmin	Differentiated, specify			
General Colour Most Common Material	Other Materials	G	eneral Description		Depth From	(Metres)
		7				
		The state of the s				
Annular Space/Abandonment S	Sealing Record		Results of V	Vell Yield Testi	ng	
Depth Set at (!!etres) Type of Sealant Use From To (Material and Type)	d Volume	Liveles Lunes	if after test of well yield,	Time Water L		Water Level
		☐ Clear a	and sand free of develop to sand-free	(Min) (Metre	es) (Min)	(Metres)
16.76 0 Grouted - Bentonite		state		Static	Static Level	
	15 bags	S If pumping	discontinued, give reason	1	1	
		Pumping to	est method	2	2	
		D	la ant at (Materia)	3	3	
Method of Construction Cable Tool Diamond Public	Water Use ☐ Commercial ☐ N	lot used	ke set at (Metres)	4	4	
Rotary (Conventional) Jetting Domestic	☐ Municipal ☐ D	ewatering Pumping r	ate (Litres/min)	5	5	
☐ Rotary (Reverse) ☐ Driving ☐ Livestock ☐ Rotary (Air) ☐ Digging ☐ Irrigation	☐ Test Hole ☐ M ☐ Cooling & Air Condition	Monitoring Duration o	of pumping	10	10	
Air percussion Boring Industrial Other, specify Other, specify	ify	hrs		15	15	
Status of Well	"/	Final water (Metres)	r level end of pumping	20	20	~
☐ Water Supply ☐ Dewatering Well ☐ Replacement Well ☐ Abandoned, Insufficient Supply	Observation and/or Moni	Recomme	ended pump type			
Test Hole Abandoned, Poor Water Qualit		□Shallo	ow Deep	25	25	
Recharge Well Abandoned, other, specify		Recomme	Metres	30	30	
Location of Well Please provide a map below showing:		Recomme (Litres/min	ended pump rate	40	40	
 all property boundaries, and measurements sufficient to loca an arrow indicating the North direction 		ints. If flowing (50	50	
 detailed drawings can be provided as attachments no larger vidigital pictures of inside of well can also be provided 	than legal size (8.5" by 14")	(Litres/min))	60	60	
				er Details		
			ROSE TO SERVICE OF THE PROPERTY OF THE PROPERT	of Water resh Salty	Sulphur	Minerals
W cmi			und at Depth Kind	of Water		
# 846	Rd	Water for		resh Salty	Sulphur	Minerals
⊗	Harch Rd	vvater tot		resh Salty	Sulphur	Minerals
	ar C	Casing	g Used Screen Us	The second secon	ng and Wel	
	I	Galvani		Diameter of	f the Hole (Ce	entimetres)
	1	Steel Fibregla	ass Steel	Depth of th	e Hole (Metre	es)
Date Well Completed Was the well owner's information (yyyy/mm/dd) package delivered?	Date the Well Record and Pa Delivered to Well Owner (yyy		Plastic Concrete	Wall Thicks	ness (Metres)	
2008/3/3		Colicie	asing and Screen Us	ed		
Well Contractor and Well Techn Business Name of Well Contractor	ician Information Well Contractor's L		n Hole	Inside Dian	neter of the C	asing (Metres)
Capital Water Supply Ltd.		Disinfected	1?	Depth of th	e Casing (Me	etres)
Business Address (Street No./Name, number, RR)	Municipality	X Yes				
Box 490 Province Postal Code Business E-mail	Stittsville Address	Audit No.		try Use Only Well Contracto	r No.	
		7	77317	1 2 3 3 3 3 4 3 5 5		

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 13 8 3 61 7 6 6 Miller, Stephen Well Technician's Licence No. Signature of Technician

0506E (11/2006)

Date Received (yyyang) (dd) Date Submitted (yyyy/mm/dd) Remarks

2008/3/3

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Date of Inspection (yyyy/mm/dd)

Ontario
Measurements recorde

()°o	ntario Minist	ry of nvironment	Well Ta	ag No. (Place Sticker and		egulation	903 Ontario		Record
		Metric Imper	ial				Pa	ge	of
Well Own	ner's Information	ast Name / Organ	nization		E-mail Address			☐ Well (Constructed
McKeow	n Contracting dress (Street Number/Nar	me)		Municipality	Province Pos	stal Code	Telenho		ell Owner
	tagecoach Road	110)		Greely) A 2		821 4	808
Well Loca	well Location (Street Nur	mher/Name)		Township	Lot		Conces		
856 Ma	rch Road	mson vario)		Kanata		11	4		
	trict/Municipality Carleton			City/Town/Village			Ontario	Postal	Code
UTM Coord	inates Zone Easting	Northing	9	Kanata Municipal Plan and Sublot	Number		Other		
	8 3 1 8 4 26 7 en and Bedrock Materi		2 3 1 25 nt Sealing Rec	ord (see instructions on the I	back of this form)				
General C	olour Most Comm	non Material	Ot	her Materials	General De	escription		From	th (<i>m/ft</i>) To
									_
Depth Se	et at (m/ft)	Annular Space Type of Sealant I		Volume Placed	Resul After test of well yield, water	The second second second	Il Yield Testi Draw Dow		ecovery
From	То	(Material and Typ	oe)	(m³/ft³)	Clear and sand free		Time Water L (min) (m/fi		Water Level
15.54	0 Grouted	Bentonite	3/8" Hole	Plug (12 bags)	Other, specify If pumping discontinued, give	e reason:	Static Level	, (,,,,,,	(111)
							1	1	
					Pump intake set at (m/ft)		2	2	
					Pumping rate (Vmin / GPM)		3	3	
Cable To	nod of Construction	f Public	Well U		Duration of pumping		4	4	
Rotary (F	Conventional)	☐ Domestic		200 A 100 A	hrs + min		5	5	
Boring Air percu	☐ Digging	☐ Irrigation		g & Air Conditioning	Final water level end of pump	ping (m/ft)	10	10	
Other, s		Other, s			If flowing give rate (l/min-/ G	SPM)	15	15	
Inside	Open Hole OR Material	ecord - Casing Wall	Depth (m/ft)	Status of Well Water Supply	Recommended pump depti	h (m/ft)	20	20	
Diameter (cm/in)	(Galvanized, Fibreglass, Concrete, Plastic, Steel)	Thickness	rom To	Replacement Well			25	25	
				Recharge Well	Recommended pump rate (l/min / GPM)		30	30	
				Dewatering Well Observation and/or	Well production (Vmin / GPI	M)	40	40	
				Monitoring Hole Alteration	Disinfected?		50	50	
				(Construction) Abandoned, Insufficient Supply	Yes No		60	60	
Outside	Construction R	ecord - Screen	Depth (m/ft)	Abandoned, Poor Water Quality	M Please provide a map below		Il Location	he back.	
Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	rom To	Abandoned, other,					1
									17
				Other, specify					
	Water De			Hole Diameter	+	+ 856	,		
	nd at Depth Kind of Wate		tested De From	pth (m/ft) Diameter To (cm/in)					
Water four	nd at Depth Kind of Wate	r: Fresh Un	tested		9	(Ð		
	n/ft) Gas Other, spo nd at Depth Kind of Wate		tested		8				
	n/ft) Gas Other, spe	acify			Pa				
Business N	Well Contractor	or and Well Tecl		ation Vell Contractor's Licence No.	2				
Capita	1 Water Supply			1 5 5 8	Comments				
Box 490	.ddress (Street Number/Na O	ame)		Municipality Stittsville	Comments:				
Province	Postal Code	Business E-m	ail Address		Well owner's Date Packag	ie Delivere	4	inistry Use	Only
	one No. (inc. area code) Na	ame of Well Techn		water.ca e, First Name)	information package	MIMI	Audit N	lo 🔻 _	1393
6 1 3 8	8 3 6 1 7 6 6	Miller St	enhen		delivered Date Work C	ompleted	715	04	1000

Miller, Stephen
TAthnician and/or Contractor Date Submitted

6 1 3 8 3 6 1 7 6 6

0

Well Technician's Licence No. Signature

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Date Work Completed

2 0 0 8 0 9 0

Yes

X No

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Ontario Ministry the Env	y of Well T	ag No. (Place Sticker and	, l		ell Red	
Measurements recorded in:	etric Imperial		Regulation	on 903 Ontario W Page		ces Ac
Well Owner's Information	HIPPHARIES AND AND			1 age		
First Name La McKeown Contracting	ast Name / Organization		E-mail Address	[Well Consi	
Mailing Address (Street Number/Name	e)	Municipality	Province Postal Cod	e Telephone	by Well Ov No. (inc. area	
2878 Stagecoach Road Well Location		Greely	Ontario K O A	W 0 613	822 2599	
Address of Well Location (Street Numl	ber/Name)	Township	Lot	Concession	n	HHID
860 March Road County/District/Municipality		Kanata City/Town/Village	11	4 Province	Postal Cod	do
Ottawa Carleton		Kanata		Ontario	Postal Cou	
VTM Coordinates Zone Easting	Northing 5023143	Municipal Plan and Sublot	Number	Other		
Overburden and Bedrock Material	Is/Abandonment Sealing Rec	cord (see instructions on the b	eack of this form)			
General Colour Most Commo	on Material O	ther Materials	General Description	n	Depth (m. From	1∕ft) To
	Annular Space			ell Yield Testing		i Bank
	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)	After test of well yield, water was: Clear and sand free	Draw Down Time Water Leve	Recove	
9.44 0 Grouted B	Bentonite 3/8" Hole	Plug (5 bags)	Other, specify	(min) (m/ft)		n/ft)
			If pumping discontinued, give reason	Static Level	1 2	
			Dumm Intoles aut at (m/l/l)	1	1	
			Pump intake set at (m/ft)	2	2	
Method of Construction	Well U	se	Pumping rate (l/min / GPM)	3	3	
☐ Cable Tool ☐ Diamond ☐ Rotary (Conventional) ☐ Jetting	Public Comm	The state of the s	Duration of pumping	4	4	
Rotary (Reverse) Driving	Livestock Test H	ole Monitoring	hrs + min	5	5	
☐ Boring ☐ Digging ☐ Air percussion	☐ Irrigation ☐ Cooling ☐ Industrial	g & Air Conditioning	Final water level end of pumping (m/fi	10	10	
Other, specify	Other, specify		If flowing give rate (I/min-/ GPM)	15	15	
Inside Open Hole OR Material	Wall Depth (m/ft)	Status of Well Water Supply	Recommended pump depth (m/ft)	20	20	
Diameter (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Thickness (cm/in) From To	Replacement Well Test Hole		25	25	
		Recharge Well	Recommended pump rate (Vmin / GPM)	30	30	
		Dewatering Well Observation and/or	Well production (l/min / GPM)	40	40	
		Monitoring Hole Alteration	Disinfected?	50	50	
		Abandoned,	Yes No	60	60	
Outside Construction Rec	AND THE PERSON NAMED IN COLUMN 2 IN COLUMN	Insufficient Supply Abandoned, Poor		ell Location		
Diameter (cm/in) (Plastic, Galvanized, Steel)	Slot No. Depth (m/ft) From To	Abandoned, other,	Please provide a map below following	instructions on the t	ack.	
		1 specify	\$			
		Other, specify				
Water Detai	ils	Hole Diameter				
Water found at Depth Kind of Water:	Fresh Untested Dep	pth (m/ft) Diameter To (cm/in)	-, 0			
(m/ft) Gas Other, specifical Water found at Depth Kind of Water:	fy	10 ()	# 360 C	2		
(m/ft) Gas Other, specif			88			
Water found at Depth Kind of Water: [(m/ft) Gas Other, specif			-5			
	and Well Technician Informa	ation	b			
Business Name of Well Contractor		/ell Contractor's Licence No.	2			
Capital Water Supply I Business Address (Street Number/Name		unicipality 5 8	Comments:			
Box 490 Province Postal Code	Rusiness E mail 6 data	Stittsville				
Province Postal Code Ontario K 2 S 1 A 6 Bus.Telephone No. (inc. area code) Name	office Ocapital	water.ca	Well owner's Date Package Deliver	Audit No.	try Use Only	У
6 1 3 8 3 6 1 7 6 6 M Well Technician's Licence No. Signature of			delivered Date Work Completed	D D	843	92
0 0 9 7		ate Submitted	Yes 2 0 0 8 0 9	13-22-1 M Set	1 = 2008	
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Ministry of the Environment

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

Well	Record
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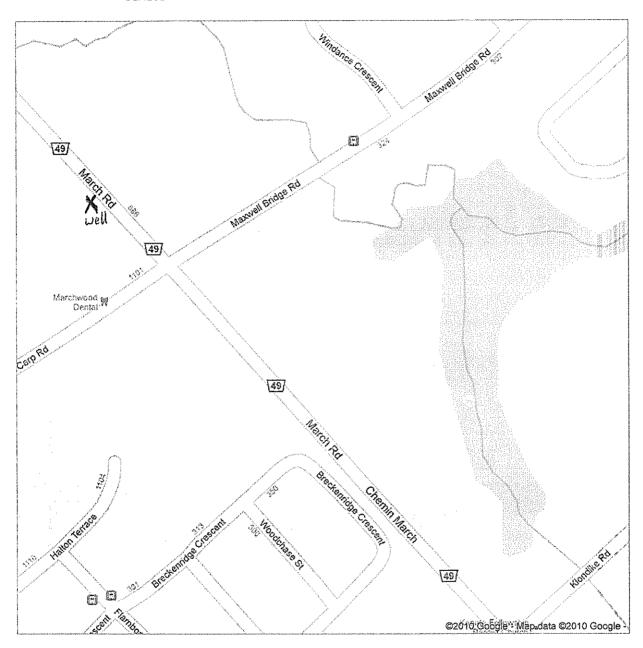
Regulation 903 Ontario Water Resources Act

Weastrem				52505'8046740'80'98'8		sivasi amaasaakaa				AUSSYA 025S 6.48	ray		_ 01 1
First Name	was en empere restel	nformation	Last Name (C		. 1			E-mail Add	dress				Constructed
		treet Number/Na		84	Ottawa 1	Municipality		Province	Postal Code			e No. (inc	/ell Owner . area code)
***************************************		lation Cresc	ent			Ottav	a	Ontwi) [14] 1[G] 6	2 8	6 1 3	5 8 0	2141010
Well Loca	eraniyan din kedib	cation (Street Nu	imber/Name)			Township			Lot	I	Concess	ion	
895													
County/Dis	trict/Mu	nicipality			(City/Town/Vi		Ţ		Provir Ont			al Code
UTM Coord	inates L	Zone , Easting	. No	rthing	1	Municipal Pla	Kana an and Suble			Other		10 1	K X 7
		18426			1								
		Bedrock Mater				ord (see instr	uctions on the	back of this form				Do	oth (m/ft)
General C	olour	Most Com	mon Material			ner Materials			General Description			From	pth (<i>m/ft)</i>
			Stati	c Wa	ter lev	el at	21					A.V.A.A.V.	
					oned to		l Constu	uction					
			GPS.	- Gar	min E	trex							
-	(CANADA (SOL)		Annular	Snace					Results of W	ell Yie	ld Testin	ıcı	
Depth So	et at (m/	t)	Type of Sea	lant Usec	j	1	e Placed	i I	ll yield, water was:	Di	raw Down	. F	Recovery
From	To		(Material and	d Type)		(m	³ /ft³)	☐ Clear and ☐ Other, spe		Tìme (min)		vel Time (min)	Water Level (m/it)
29'	24	<u> </u>	ole-play So	nd_					continued, give reason:	Static	1 , , , ,		
34,	3	<u> </u>	tle plus							Level 1		1	
3`	0.8	Sa	mel					Pump intake s	et at (m/ft)				
0.8	0		an Ruck		•			Trump intake s	et at (mmt)	2		2	
		Construction			Well Us			Pumping rate	(l/min / GPM)	3		3	
☐ Cable To		Diamon		olic	☐ Comme	2822 1011 0-91361 0-93 \$309 5 4 5 5 5 5	Not used	Duration of pu	mping	4		4	
☐ Rotary (☐ Dor		☐ Municip ☐ Test Ho		Dewatering Monitoring	hrs +	min	5		5	
Boring	reverse,	☐ Dilyling	*******			& Air Conditi		Final water leve	el end of pumping (m/ft)	10		10	
Air percu			☐ Indi	ustrial er, <i>specif</i> j	iv.					15		15	
		Construction F				Status	of Well	I If flowing give	rate (I/min / GPM)				
Inside	Орел	Hole OR Material	Wall		pth (<i>m/ft</i>)	☐ Water	***************************************	Recommende	d pump depth (m/ft)	20		20	
Diameter <i>(cm/in)</i>	(Galva Conci	nized, Fibreglass, ete, Plastic, Steel)	Thickness (cm/in)	From	То	Replac	ement Well			25		25	
						Rechar		Recommende (I/min / GPM)	d pump rate	30		30	
						Dewate	ering Well ation and/or	10/all and distant	- ((G-i- 100H))	40		40	
						Monitor	ing Hole	vveii productio	n (I/min / GPM)	50	<u> </u>	50	
							ruction)	Disinfected?		60		60	
						Abando Insuffic	oned, ient Supply	Yes		ا	C20/11: 21 // NEW N. VISION	100	est samples and the control of the c
Outside	T	Construction F	Record - Scre	2.52.500	pth (<i>m/ft</i>)	Abando /Water	oned, Poor	Please provide	Map of W			e back.	
Diameter (cm/in)	(Plastic	Material , Galvanized, Steel)	Slot No.	From	то То	☑ Abando	oned, other,						
(0	<u> </u>					specify	truction						
	1					☐ Other,	specify						
Water foun	nd at De	Water De	~	Untest		Hole Diame th (<i>m/ft</i>)	ter Diameter						
		Sas Other, sp			From	To	(cm/in)						
Water four	nd at De	pth Kind of Wate	er: Fresh [Untest	ed								
		Sas Other, sp pth Kind of Wate		7 Untoot									
		or values of values of the part of the pa		onlesi	30								
L'/	y <u></u>	Well Contract		Technic	ian Informa	tion	1						
		Well Contractor	Ł			ell Contractor's							
Pusiness A	nun [Street Number/N	Lt().			6 8 unicipality	9 4	Comments:					
		m Dr.	ын <i>б)</i>		IMI	unicipality Ottoru) <u>r</u> a	Comments.	See At	tach	ed		
Province		Postal Code	Business	E-mail A	ddress								
Outowi	0	K 4 P I A	12 jschel	1@mai	vathondvi	Hing-cor	n	Well owner's information	Date Package Deliver	ed	Mir Audit No	nistry Us	se Only
Bus.Telepho	one No. Ç⊥1⊥∧	inc. area code) N 0 5 7 1	ame of Well T			First Name)		package delivered	YYYYMM		Audit No	209	6933
		nce No. Signatur			Contractor Da	ite Submitted	1 -	☐ Yes	Date Work Completed	I		Topic Registre	es Tax Taxe
3 2	15	14 June	1/		2	010		□No	YYYYMM	0 0	Receiv	327	<u>2 2010</u>
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Google maps

Notes



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DEC 2 2 2010

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

Method of Construction & Well Use

Method of Construction Well Use

Status of Well

Construction Record - Casing

Inside	Open Hole or material	Depth	Depth
Diameter	Open note or material	From	To

Construction Record - Screen

Outside Diameter Material Pepth Depth From 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

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		Diameter
riom	10	

Audit Number: C21215

Date Well Completed: September 07, 2012

Date Well Record Received by MOE: May 09, 2013

Updated: June 28, 2018

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· Drinking water,

Tag

- Environment and energy,
- En

APPENDIX 3

QUALIFICATIONS OF ASSESSORS

Karyn Munch, P.ENG.



Geotechnical Engineering

Environmental Engineering

Hydrogeology

Geological Engineering

Materials Testing

Building Science

Archaeological Services

POSITION

Intermediate Environmental Engineer

EDUCATION

Carleton University, B.Eng. 2002 Environmental Engineering

MEMBERSHIPS AND AWARDS

Professional Engineers of Ontario Ottawa Geotechnical Society

EXPERIENCE

2011-present

Paterson Group Inc.

Consulting Engineers Geotechnical and Environmental Division Intermediate Engineer

2009-2010

Department of Indian and Northern Affairs

Contaminated Sites Division Environment Officer (PC-02)

2003 to 2009

Paterson Group Inc.

Consulting Engineers Geotechnical and Environmental Division Intermediate Engineer

2002 to 2003

Dessau Soprin Inc.

Consulting Engineers Environmental Division Junior Engineer

SELECT LIST OF PROJECTS

Billings-Hurdman Interconnect Watermain - Ottawa
Telus Building Remediation - Ottawa
Block D Lands Remediation and Redevelopment – Kingston
Gladstone Avenue Reconstruction - Ottawa
Lees Avenue Coal Tar Site - City of Ottawa
Nortel Networks Environmental Monitoring Program
3W Zone Feedermain – Ottawa
Bank Street Reconstruction – Ottawa
Lees Avenue Remediation Program – Ottawa
Colonnade Road North Development – Ottawa
Montreal Road Reconstruction – Ottawa
Designated Substance Surveys – Residential and Commercia

Designated Substance Surveys – Residential and Commercial Sites - Ottawa Phase I & II Environmental Site Assessments – Residential, Commercial and Industrial Sites – Ottawa (CSA Z768-01 and O.Reg 269/11)

Brownfields Applications and Records of Site Condition – Residential and Commercial Redevelopment

Mark S. D'Arcy, P. Eng.



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