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Phase I Environmental Site Assessment

16 and 20 Hamilton Avenue North
Ottawa, Ontario

Prepared For

Surface Developments

October 24, 2018

Report: PE4341-2

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EXECUTIVE SUMMARY

Assessment

Paterson Group was retained by Surface Developments to conduct a Phase I Environmental Site Assessment (ESA) of the property addressed 16 and 20 Hamilton Avenue North, 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.

According to the historical research, the property was occupied by a machine shop (20 Hamilton Avenue North) and foundry (16 Hamilton Avenue North) from circa 1921 through 1956 and 1961 respectively. The portion of the Phase I Property addressed 16 Hamilton Avenue may have been used as a residential dwelling, based on City Directory listings, prior to its demolition at some time between 1965 and 1976. The building addressed 20 Hamilton Avenue North subsequently housed various establishments of an industrial or light industrial nature, until utilized as office space circa 1982. The industrial nature of the original uses of the Phase I Property is considered to have resulted in areas of potential concern (APECs) on the subject land.

The surrounding properties within the Phase I Study Area were historically used primarily for residential purposes, with occasional commercial or industrial properties. An automotive service garage present at 24 Hamilton Avenue, approximately 10m south of the Phase I Property, is a historical potentially contaminating activity (PCA) considered to result in an APEC on the subject land. Other off-site historical PCAs within the Phase I Study Area are not considered to represent APECs on the subject land based on their separation distances and orientations cross or downgradient with respect to the Phase I Property.

Following the historical research, Paterson conducted a site visit and a visual assessment of the properties within the Phase I Study Area. The Phase I Property is currently occupied by a commercial office building and paved parking lot. No PCAs were identified on the Phase I Property at the time of the site visit. Based on the findings of the subsurface investigation carried out for the property, fill material is present on site. The fill material is considered to represent an APEC on the Phase I Property.

Neighbouring properties are primarily residential with some commercial offices and institutional or community buildings and parkland. PCAs identified within the study area at the time of the site visit include the aforementioned automotive service garage at 24 Hamilton Avenue North, as well as a retail fuel outlet at 390 Parkdale Avenue. The automotive service garage is considered to represent an APEC on the Phase I Property based on its proximity and up-gradient orientation with respect to the site. The retail fuel outlet at 390 Parkdale Avenue is not considered to represent an APEC on the Phase I Property based on its separation distance of approximately 60m and its cross-gradient orientation with respect to the subject land.

Conclusion

Based on the results of the Phase I ESA, in our opinion, **a Phase II Environmental Site Assessment is required for the Phase I Property**. A Phase II ESA has been completed. The findings of the subsurface investigation are provided under separate cover.

1.0 INTRODUCTION

At the request of Surface Developments, Paterson Group (Paterson) conducted a Phase I Environmental Site Assessment (Phase I ESA) for the property addressed 16 and 20 Hamilton Avenue North, in the City of Ottawa, Ontario. The purpose of this Phase I ESA was to research the past and current use of the site and study area and to identify any environmental concerns with the potential to have impacted the subject property.

Paterson was engaged to conduct this Phase I ESA by Mr. Michael Martin with Surface Developments. The office of Surface Developments is located at 88 Spadina Avenue, Ottawa, Ontario. Mr. Martin can be reached by telephone at (613) 233-4210.

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 the agreed scope-of-work and the requirements of Ontario Regulation 153/04 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:	16 and 20 Hamilton Avenue North, Ottawa, Ontario
Legal Description:	Part Lots 3 and 4, Plan 58 Hamilton West and Part Lots 3 and 4, Plan 157 Hamilton West, in the City of Ottawa
Property Identification Numbers:	04035-0139 and 04035-0137
Location:	The Phase I Property is located on the west side of Hamilton Avenue North between Wellington Street West and Armstrong Avenue, in Ottawa, Ontario. The subject site is shown on Figure 1 - Key Plan following the body of this report.
Latitude and Longitude:	45° 24' 03" N, 75° 43' 50" W

Site Description:

Configuration:	Rectangular
Site Area:	0.11 hectares (approximate)
Zoning:	MC16 H(20) – Mixed Use Centre Zone
Current Use:	The property addressed 16 Hamilton Avenue North is currently a vacant lot used for parking. The property addressed 20 Hamilton Avenue North is currently occupied by a 1-storey commercial office building (Local 175 United Food and Commercial Workers Union).
Services:	The Phase I Property is located in a municipally serviced area.

3.0 SCOPE OF INVESTIGATION

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

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

4.0 RECORDS REVIEW

4.1 General

Phase I-ESA Study Area Determination

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

First Developed Use Determination

For the purposes of this report, and based on the documentation reviewed, the site is considered to have been first developed for commercial/industrial purposes circa 1921.

Fire Insurance Plans

Fire Insurance Plans (FIPs) from 1912, 1922, 1948 and 1956 were reviewed for the Phase I Property and Phase I Study Area. The Phase I Property was vacant, undeveloped land, according to the 1912 FIPs. The immediately adjacent property to the south was also vacant, undeveloped land. Properties within the Phase I Study Area primarily consisted of residential land use with occasional commercial/light industrial properties. A planing mill was present to the northeast of the Phase I Property, across Hamilton Avenue North, and a wire and cloth manufacturer was present further to the north, across Armstrong Avenue.

According to the 1922 FIPs, the Phase I Property was occupied by a machine shop (20 Hamilton Avenue) and a foundry (16 Hamilton Avenue). The aforementioned planing mill was no longer present to the northeast. Otherwise, no significant changes had been made to the surrounding properties within the Phase I Study Area, from the 1912 FIPs.

The 1948 FIPs depict the Phase I Property as being occupied by two apparent commercial buildings. The building at 20 Hamilton Avenue was identified as “the Big “A” Co. Ltd.”, while the occupants of the building at 16 Hamilton Avenue were not identified. Three smaller unidentified buildings were also present at 16 Hamilton Avenue. Commercial development had increased within the Phase I Study Area, with a motor electrical service, an automotive service garage and a bowling alley to the south of the Phase I Property, at 22 and 26 Hamilton Avenue North.

Based on the 1956 FIPs, the property addressed 16 Hamilton Avenue North is a vacant lot. The building at 20 Hamilton Avenue North appears to remain unchanged from the previous FIP, however the building occupants are not identified. Retail fuel outlets and/or automotive service garages are present at 1185 Wellington Street and 402 Parkdale Avenue further to the southeast of the Phase I Property. Pattons Cleaner and Dyers is present at 1200 Wellington Street further south of the Phase I Property.

The automotive service garage at 24 Hamilton Avenue is considered to represent an area of potential environmental concern (APEC) on the Phase I Property.

City of Ottawa Street Directories

City directories at the National Archives were reviewed in approximate 10 year intervals from 1906 to 2011 as part of the Phase I ESA. Based on the directories, 16 Hamilton Avenue was first listed in 1916 as Davidson & Crooks Foundry. This portion of the Phase I Property was listed as such through 1956, followed by a residential listing in 1961. The property addressed 16 Hamilton Avenue North was not otherwise listed in the street directories.

The portion of the Phase I Property addressed 20 Hamilton Avenue North was listed in 1921 and 1926 as Gerard & Stewart Machinists. In 1931, this address was listed as Davidson & Crooks Foundry. From 1936 through ~1951, 20 Hamilton Avenue North was listed as EDH Company, Canadian Underfeed Coal Burner Ltd., Gerard & Stewart Machinists and/or Canada Brass & Machine Works. Subsequent listings include: Big A Co. (circa 1956 through 1961); Zentronics Ltd. (circa 1966); Decorator's Associates Drapery Manufacturer (1976); and United Food & Commercial Workers (circa 1989 through 2011).

The historical uses of the Phase I Property (specifically as a foundry and machine shop) are considered to represent APECs on the subject land.

Based on the City Directory review, off-site potentially contaminating activities within the Phase I Study Area include the following:

- ❒ 320 Parkdale Avenue – Dominion Loose Leaf printers (circa 1940's-1950's);
- ❒ 75 Spencer Avenue (233 Armstrong Street) – foundry (circa 1950's-1960's);
- ❒ 390 Parkdale Avenue – retail fuel outlet (circa 1990's to present day);

The aforementioned PCAs are not considered to represent APECs on the Phase I Property based on their respective separation distances of approximately 55 to 130m in combination with their down- or cross-gradient orientations with respect to the subject land.

Chain of Title

Based on a review of the City Directories and FIPs, the Phase I Property was first developed for industrial purposes as early as 1921 and was used as such until the late 1970's or early 1980's. The building at 20 Hamilton Avenue North was subsequently used for office space, while the building at 16 Hamilton Avenue North had been demolished and the lot paved for parking. Chain of Title information was not ordered as it was deemed that the other information from the records review would satisfy the objectives of the records search and that the information to be provided in a Chain of Title would not contribute additional environmental information relevant to the Phase I ESA.

Environmental Reports

Paterson has conducted several environmental investigations in the study area. Based on a review of our files, no additional potentially contaminating activities (PCAs) with the potential to impact the subject land, were identified.

A review of publicly available environmental reports was also conducted. Phase I ESAs for the properties addressed 12 Hamilton Avenue North (Golder Associates, August 2016) and 84, 86, 88 and 96 Hinton Avenue North (Pinchin Environmental, September 2014) were reviewed as part of this Phase I-ESA. Both reports produced similar findings, including no recommendations for further investigatory work.

Topographic Plan of Survey

A plan of survey was not available for the Phase I Property at the time this report was issued. Paterson was provided a Topographic Plan of Survey prepared by Farley, Smith & Denis surveying Ltd., and dated July 22, 2016, prepared for the adjacent property to the north (12 Hamilton Avenue North). Based on a review of the plan, the property addressed 16 Hamilton Avenue North is shown in its current configuration. Only a portion of the property addressed 20 Hamilton Avenue North is shown. The City of Ottawa electronic mapping site, identifies the entire Phase I Property in its current configuration.

4.2 Environmental Source Information

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on October 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. A response had not been received from the MECP at the time this report was issued. Should the MECP response identify any pertinent information, it will be forwarded to the client upon receipt. A copy of the MECP request form is appended to this report.

MECP Coal Gasification Plant Inventory

The MECP document titled "Municipal Coal Gasification Plant Site Inventory, 1991" was reviewed to reference the locations of former plants with respect to the site. No coal gasification plants were identified within the Phase I 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. A response had not been received from the MECP at the time this report was issued. Should the MECP response identify any pertinent information, it will be forwarded to the client upon receipt. A copy of the MECP request form is appended to this report.

MECP Waste Management Records

A request was submitted to the MECP Freedom of Information office for information with respect to waste management records. A response had not been received from the MECP at the time this report was issued. Should the MECP response identify any pertinent information, it will be forwarded to the client upon receipt. A copy of the MECP request form is appended to this report.

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. A response had not been received from the MECP at the time this report was issued. Should the MECP response identify any pertinent information, it will be forwarded to the client upon receipt. A copy of the MECP request form is appended to this report.

MECP Brownfields Environmental Site Registry

A search of the MECP Brownfields Environmental Site Registry was conducted electronically as part of this assessment for the Phase I Property, neighbouring properties and the general area of the site. No Records of Site Condition (RSCs) were filed for the Phase I Property. RSCs filed by Paterson Group, were identified for two properties within the Phase I Study Area: 1233 Wellington Street West and 131 Holland Avenue. Based on the information contained in our files, these properties are not considered to be PCAs or represent APECs on the subject land.

MECP Waste Disposal Site Inventory

The Ontario Ministry of Environment and Climate Change document titled “Waste Disposal Site Inventory in Ontario, 1991” was reviewed as part of the historical research. This document includes all recorded active and closed waste disposal sites, industrial manufactured gas plants and coal tar distillation plants in the Province of Ontario. The waste disposal inventory did not identify any active or closed sites were identified 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 October 18, 2018. The search did not reveal any natural features or 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 October 25, 2018 to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties. A response from the TSSA had not be received at the time this report was issued. Any pertinent information will be forwarded to the client upon receipt. A copy of the TSSA request is appended to this report.

Based on information in our files, the TSSA has records for expired fuel tanks at two properties within the study area: 390 Parkdale Avenue and 1186 Wellington Street. The property at 390 Parkdale Avenue was also listed as an active gasoline station with two active tanks and a cylinder exchange program. Based on the separation distances and orientations with respect to the Phase I Property, these properties are not considered to pose a concern to the subject land.

City of Ottawa Landfill Document

The document entitled “Old Landfill Management Strategy, Phase I – Identification of Sites, City of Ottawa”, was reviewed. No former landfills are located within the Phase I Study Area.

Former Industrial Sites

The report entitled “Mapping and Assessment of Former Industrial Sites, City of Ottawa” was also reviewed. The northern portion of the Phase I Property was listed in the report as the Davidson Foundry (Site 55), at 16-18 Hamilton Avenue.

The following properties within the Phase I Study area were also listed in the report:

- Site 54: Capital Wire Cloth and Manufacturing Co. Ltd. at 1 Hinton Street, located approximately 60m to the north;

- Site 51: Patton Cleaners and Dyers, corner of Wellington Street and Hamilton Avenue, approximately 75m to the south;
- Site 53: J. Robinson, foundry, 2 Hinton Avenue, approximately 110m northwest;
- Site 56: Dominion Loose Leaf Co. Ltd., 320 Parkdale Avenue, approximately 135m north; and
- Site 57: Beach Foundry Co. Ltd., Hinton Avenue, approximately 100 m north.

The former use of the Phase I Property for industrial purposes is considered to result in an APEC on the Phase I Property. The aforementioned former industrial sites located within the Phase I Study Area, are not considered to represent APECs on the Phase I Property based on their separation distances and/or orientations down- or cross-gradient with respect to the subject land.

City of Ottawa Historical Land Use Inventory (HLUI)

A request for information from the Historical Land Use Inventory was not submitted to the City of Ottawa. The information collected through reviews of past reports was considered to provide a significant historical background of the study area.

EcoLog ERIS Report

An EcoLog ERIS Report was obtained for 12 Hamilton Avenue North, the adjacent property to the north, as part of the Phase I ESA completed by Golder (2016). Based on the findings of the ERIS, which was completed for a 250m radius, there are no records for the Phase I Property. Potentially contaminating activities identified within the Phase I Study Area include the following:

- 1195 Wellington Street – Marquardt Printing (former commercial printers);
- 3 Hamliton Avenue – Honeywell Ltd. (aerospace and electronic products and parts manufacturing;
- 1233 Wellington Street – former dry cleaners;
- 390 Parkdale Avenue – retail fuel outlet;
- 1175 Wellington Street West – former retail fuel outlet; and
- 1186 Wellington Street – former retail fuel outlet.

The aforementioned PCAs have been previously discussed and are not considered to represent APECs on the Phase I Property based on their respective separation distances and/or orientations with respect to the subject land.

4.3 Physical Setting Sources

Aerial Photographs

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

1928 The Phase I Property appears to be occupied by two commercial or industrial building structures. Adjacent lands to the north and west are occupied by residential dwellings. Hamilton Avenue North is present to the east followed by vacant, undeveloped land. The adjacent land to the south is also vacant and undeveloped. Apparent commercial or industrial properties are present further to the north and southeast of the Phase I Property.

1944 (Poor Quality) No apparent changes have been made to the Phase I Property since the previous photograph. Possible commercial development has occurred further south of the Phase I Property, on the north side of Wellington Street. The property to the southeast, across Hamilton Avenue North appears to have been redeveloped for commercial or residential purposes. No other significant changes appear to have been made to the neighbouring properties.

1958 The Phase I Property appears to remain unchanged from the previous photograph. A building structure, possibly commercial or industrial in nature, is present two properties to the south of the subject land. Some apparent activity is present on the northern portion of the vacant land adjacent to the east, across Hamilton Avenue North. No other apparent changes have been made to the neighbouring properties, since the previous photograph.

1965 (City of Ottawa) The Phase I Property remains unchanged from the previous photograph. A small building has been developed on the northern portion of the adjacent property to the east, across Hamilton Avenue North.

1976 The building on the northern portion of the Phase I Property appears to have been demolished and the land paved. No changes appear to have been made to the southern portion of the subject land. The previously vacant land to the east appears to have been developed for recreational purposes.

1986 No significant changes appear to have been made to the subject land or the neighbouring properties.

1995 The Phase I Property and neighbouring lands remain unchanged from the previous photograph.

2005 (City of Ottawa Website) The Phase I Property and surrounding lands appear to remain unchanged from the previous photo. The retail fuel outlet at 390 Parkdale Avenue, further east of the subject land, can be clearly seen in this photograph.

2015 (City of Ottawa Website) The Phase I Property and surrounding lands appear to remain unchanged from the previous photo.

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 regional topography in the general area of the site slopes downward towards the north. Based on the topography, the inferred groundwater flow direction in the area of the Phase I Property is to the north, towards the Ottawa River. The Ottawa River is the closest significant water body at an approximate distance of 1.3km north of the subject land. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report.

Physiographic Maps

A Physiographic Map was reviewed from the Natural Resources Canada – The Atlas of Canada website. According to this physiographic map, the site is located in the St. Lawrence Lowlands. According to the mapping description provided: "The lowlands are plain-like areas that were all affected by the Pleistocene glaciations and are therefore covered by surficial deposits and other features associated with the ice sheets." The subject site is located in the Central St. Lawrence Lowland, which is generally less than 150 m above sea level.

Geological Maps

The Geological Survey of Canada website on the Urban Geology of the National Capital Area were consulted as part of this assessment. Based on this information, bedrock in the area of the site consists of interbedded limestone and dolostone of the Gull River Formation. Based on the maps, the thickness of overburden ranges from 3 to 5 m. Overburden reportedly consists of glacial till deposits.

Based on the findings of a subsurface investigation conducted by Paterson in conjunction with the Phase I ESA, the soil stratigraphy beneath the Phase I Property generally consists of fill material over brown silty clay followed by glacial till. Fill material consisted of a pavement structure over brown clayey topsoil or silty sand with traces of slag, cinders or demolition debris at several borehole locations. Practical refusal on inferred bedrock was encountered at depths ranging from approximately 5.0 to 5.8m below grade.

Water Well Records

Five (5) monitoring wells were present on the Phase I Property at the time of the site assessment. Based on a search of the MECP well records mapping site, 48 water well records were identified within a 250m radius of the Phase I Property. All of the wells were drilled between 2007 and 2016. Based on the availability of municipal water, it is assumed that these wells are for groundwater monitoring purposes. The majority of these wells are clustered around an existing retail fuel outlet approximately 55m to the east and a former industrial facility approximately 55m to the north of the subject site. Based on the cross and/or downgradient locations of the monitoring wells, they are not considered to represent an area of environmental concern on the Phase I Property.

Water Bodies and Areas of Natural Significance

No creeks, rivers, streams, lakes or any other water body were identified within Phase I Study Area. The Ottawa River, which is approximately 1.3km north of the Phase I Property, is the closest water body. No areas of natural significance are known to exist within the Phase I Study Area.

5.0 INTERVIEWS

Property Owner Representative

Mr. Michael Martin, with Surface Developments, was interviewed as part of this assessment. Mr. Martin is unware of any potential environmental concerns regarding the Phase I Property or the surrounding lands, other than those previously discussed.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

The site assessment was conducted on September 7, 2018 between 1:00 and 2:00 PM, by personnel from the Environmental Department of Paterson Group. Weather conditions consisted of a mix of sun and cloud with a temperature of approximately 15°C. The uses of neighbouring properties within the Phase I Study Area were also assessed at the time of the site visit.

6.2 Specific Observations at Phase I Property

Buildings and Structures

A 1-storey slab-on-grade commercial building is present on the portion of the Phase I Property addressed 20 Hamilton Avenue. The building is considered to be the original building constructed circa 1921 and is heated with natural-gas fired equipment situated on the roof-top. The portion of the Phase I Property addressed 16 Hamilton Avenue North, is occupied by a paved parking lot. No other buildings or structures are present on the Phase I Property.

Subsurface Structures and Utilities

No subsurface structures are present on the Phase I Property. The Phase I Property is situated in a municipally serviced area. Underground utility services on the Phase I Property include natural gas, water and sewer services which enter the site off of Hamilton Avenue North. Based on standard practice for subsurface utility installation, service trenches are expected to be present approximately 1 to 2 m below existing grade. In general, trench backfill may provide a preferential pathway for contaminant transport if the water table is at or above the base of the trenches.

Site Features

The southern portion of the Phase I Property is occupied by the subject structure. The remainder of the site is paved with some vegetation along the western property line. The site is relatively flat with a slight downward slope towards Hamilton Avenue North; site drainage consists primarily of sheet drainage towards catch basins on Hamilton Avenue North.

Interior Assessment

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

- ❒ Floor finishes consist of carpet or ceramic tile;
- ❒ Wall finishes consist of brick or drywall;
- ❒ Ceilings are finished with acoustic ceiling tiles; and
- ❒ Lighting is provided by incandescent or fluorescent fixtures.

Storage Tanks

No underground or aboveground storage tanks were noted on the interior or exterior of the Phase I Property.

Heating/Cooling System

The building is heated with natural gas-fired heating, ventilation and air conditioning equipment located on the rooftop.

Drains, Pits and Sumps

No drains, pits or sumps were observed at the time of the site visit.

Unidentified Substances

There were no unidentified substances on the interior or exterior of the Phase I Property at the time of this assessment.

Sewage Works

The site is connected to the City of Ottawa sanitary sewer system. Given the urban setting, no private sewage systems are suspected to exist on the Phase I Property or within the Phase I Study Area.

Waste Storage and Disposal

Domestic waste and recycling is collected on a regular basis by the City of Ottawa.

Railway Lines

There are no rail yards, tracks or spurs on the Phase I Property.

Ozone Depleting Substances (ODSs)

No significant potential sources of ODSs were observed on site at the time of the site inspection.

Building Material Assessment

Possible asbestos-containing materials observed during the site include drywall joint compound and acoustic ceiling tiles. These materials were observed to be in fair to good condition at the time of the visit.

Based on the age of the building, lead based paint may be present beneath more recent coats of paint, on any original surfaces. Painted surfaces were generally in good condition at the time of the site visit.

Urea Formaldehyde Foam Insulation (UFFI) was not identified during the site visit. It should be noted that the wall cavities were not inspected for insulation type.

Fill Material

As previously discussed, based on the findings of a concurrent subsurface investigation, fill material is present across the Phase I Property. Fill material consists of brown clayey topsoil or silty sand with traces of slag, cinders or demolition debris at several borehole locations.

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 - Under construction;

- ❒ South - Commercial office followed by automotive service garage;
- ❒ East - Hamilton Avenue North followed by Parkdale Park; and
- ❒ West - Residential followed by Hinton Avenue.

The current uses of the immediately adjacent properties are not considered to pose an environmental concern to the subject site. The automotive service garage at 24 Hamilton Avenue North, situated approximately 10m south of the Phase I Property, is considered to represent an APEC on the subject land.

Remaining properties within the Phase I Study Area consist primarily of residential and commercial properties with occasional institutional properties. Surrounding land use is shown on Drawing PE4341-5 – Surrounding Land Use Plan in the Figures section of this report.

7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 Land Use History

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

Table 1 - Land Use History

Time Period	Land Use	Potentially Contaminating Activities	Area of Potential Environmental Concern
Prior to 1921	Vacant, undeveloped land	None	No
1921-1982	Industrial	PCA 34	Yes
1982 to present	Commercial office	None	No

Potentially Contaminating Activities (PCAs) and Areas of Potential Environmental Concern

Poor quality fill material was identified on the Phase I Property during a concurrent Phase II ESA. The fill material is considered to have resulted in an APEC on the Phase I Property. The industrial nature of the historical uses of the Phase I Property are also considered to have resulted in APECs on the subject land.

An off-site PCA is also considered to have resulted in an APEC on the Phase I Property. The PCAs and resulting APECs are presented in Table 2 and are outlined on Drawing PE4341-4 – Site Plan.

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 (resulting from former foundry)	Northern portion of the Phase I Property (16 Hamilton Avenue North)	Item 34 - Metal Fabrication	On-site	PAHs Metals	Soil and Groundwater
APEC 2 (resulting from former machine shop)	Southern portion of the Phase I Property (20 Hamilton Avenue North)	Item 34 - Metal Fabrication	On-site	BTEX PHCs (F_1-F_4) Metals	Soil, Groundwater
APEC 3 (resulting from automotive service garage)	Southern portion of the Phase I Property (20 Hamilton Avenue North)	Item 52 – Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems	Off-site	BTEX PHCs (F_1-F_4)	Soil, Groundwater
APEC 4 (resulting from imported fill material)	Potentially across the Phase I Property (16 and 20 Hamilton Avenue North)	Item 30 – Importation of Fill Material of Unknown Quality	On-site	Metals PAHs	Soil, Groundwater

7.2 Conceptual Site Model

Geological and Hydrogeological Setting

The Geological Survey of Canada website on the Urban Geology of the National Capital Area were consulted as part of this assessment. Based on this information, bedrock in the area of the site consists of interbedded limestone and dolostone of the Gull River Formation. Based on the maps, the thickness of overburden ranges from 3 to 5 m. Overburden consists of glacial till deposits.

Contaminants of Potential Concern

Based on the areas of potential environmental concern on the subject site, the following Contaminants of Potential Concern (CPCs) on the Phase I Property include:

- Polynuclear aromatic hydrocarbons (PAHs);
- Metals;
- Benzene, toluene, ethylbenzene and xylene (BTEX); and
- Petroleum hydrocarbons (PHCs, fractions F1-F4).

Buildings and Structures

The subject site is occupied by a single storey wood framed commercial building located on the southern portion of the subject site. The building is currently used for office purposes. The building is heated and cooled using a natural gas fired rooftop HVAC system.

Water Bodies

No creeks, rivers, streams, lakes or any other water body was identified in a 250m radius. The majority of the study area consists of residential dwellings, commercial businesses, and roads. The Ottawa River is the closest significant water body and is located approximately 1.3km north of the subject site.

Areas of Natural Significance

A search for areas of natural significance and features within a 250m radius study area was conducted on the Ontario Ministry of Natural Resources (MNR) website and the search did not reveal any areas of natural significance within a 250m radius.

Water Well Records

Five (5) monitoring wells were present on the Phase I Property at the time of the site assessment. Based on a search of the MECP well records mapping site, 48 water well records were identified within a 250m radius of the Phase I Property.

All of the reported wells were drilled between 2007 and 2016. Based on the availability of municipal water, it is assumed that these wells are for groundwater monitoring purposes. The majority of these wells are clustered around an existing retail fuel outlet approximately 55m to the east and a former industrial facility approximately 55m to the north of the subject site. Based on the cross and/or downgradient locations of the monitoring wells in relation to the subject land, they are not considered to represent an area of environmental concern on the Phase I Property.

Neighbouring Land Use

Neighbouring land use in a 250m radius is primarily residential and commercial with a City of Ottawa park located directly to the east of the subject site.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

The Areas of Potential Environmental Concern (APEC) identified in the Phase I ESA study area are summarized in Section 7.1 of this report. Other potentially contaminating activities (PCAs) within a 250m radius are not considered to pose an environmental concern to the Phase I ESA Property due to their separation distance and/or location downgradient or cross-gradient of the Phase I ESA property.

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 areas of potential environmental concern on the subject site. The presence of potentially contaminating activities was confirmed by a variety of independent sources, and 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 Surface Developments to conduct a Phase I Environmental Site Assessment (ESA) of the property addressed 16 and 20 Hamilton Avenue North, 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.

According to the historical research, the property was occupied by a machine shop (20 Hamilton Avenue North) and foundry (16 Hamilton Avenue North) from circa 1921 through 1956 and 1961 respectively. The portion of the Phase I Property addressed 16 Hamilton Avenue may have been used as a residential dwelling, based on City Directory listings, prior to its demolition at some time between 1965 and 1976. The building addressed 20 Hamilton Avenue North subsequently housed various establishments of an industrial or light industrial nature, until utilized as office space circa 1982. The industrial nature of the original uses of the Phase I Property is considered to have resulted in areas of potential concern (APECs) on the subject land.

The surrounding properties within the Phase I Study Area were historically used primarily for residential purposes, with occasional commercial or industrial properties. An automotive service garage present at 24 Hamilton Avenue, approximately 10m south of the Phase I Property, is a historical potentially contaminating activity (PCA) considered to result in an APEC on the subject land. Other off-site historical PCAs within the Phase I Study Area are not considered to represent APECs on the subject land based on their separation distances and orientations cross or downgradient with respect to the Phase I Property.

Following the historical research, Paterson conducted a site visit and a visual assessment of the properties within the Phase I Study Area. The Phase I Property is currently occupied by a commercial office building and paved parking lot. No PCAs were identified on the Phase I Property at the time of the site visit. Based on the findings of the subsurface investigation carried out for the property, fill material is present on site. The fill material is considered to represent an APEC on the Phase I Property.

Neighbouring properties are primarily residential with some commercial offices and institutional or community buildings and parkland. PCAs identified within the study area at the time of the site visit include the aforementioned automotive service garage at 24 Hamilton Avenue North, as well as a retail fuel outlet at 390 Parkdale Avenue. The automotive service garage is considered to represent an APEC on the Phase I Property based on its proximity and up-gradient orientation with respect to the site. The retail fuel outlet at 390 Parkdale Avenue is not considered to represent an APEC on the Phase I Property based on its separation distance of approximately 60m and its cross-gradient orientation with respect to the subject land.

Conclusion

Based on the results of the Phase I ESA, in our opinion, **a Phase II Environmental Site Assessment is required for the Phase I Property**. A Phase II ESA has been completed. The findings of the subsurface investigation are provided under separate cover.

9.0 STATEMENT OF LIMITATIONS

This Phase I - Environmental Site Assessment report has been prepared in general accordance with the agreed scope-of-work, in compliance 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 Surface Developments. Permission and notification from Surface Developments and Paterson will be required to release this report to any other party.

Paterson Group Inc.

Karyn Munch, P.Eng., QP$_{ESA}$

Mark S. D'Arcy, P.Eng., QP$_{ESA}$

Report Distribution:

- ❒ Surface Developments
- ❒ 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.
Chapman, L.J., and Putnam, D.F., 1984: 'The Physiography of Southern Ontario, Third Edition', Ontario Geological Survey Special Volume 2.

Municipal Records
City of Ottawa Document "Old Landfill Management Strategy, Phase I - Identification of Sites.", prepared by Golder Associates, 2004.
Intera Technologies Limited Report "Mapping and Assessment of Former Industrial Sites, City of Ottawa", 1988.
The City of Ottawa eMap website.

Local Information Sources
Topographic Plan of Survey, Farley, Smith & Denis Surveying Ltd., July, 2016.
Golder Associates Phase I ESA for 12 Hamilton Avenue North (2016)
Pinchin Environmental Phase I ESA for 84-90 Hinton Avenue North (2014)
Personal Interviews.

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

FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE4341-4 – SITE PLAN

DRAWING PE4341-5– SURROUNDING LAND USE PLAN

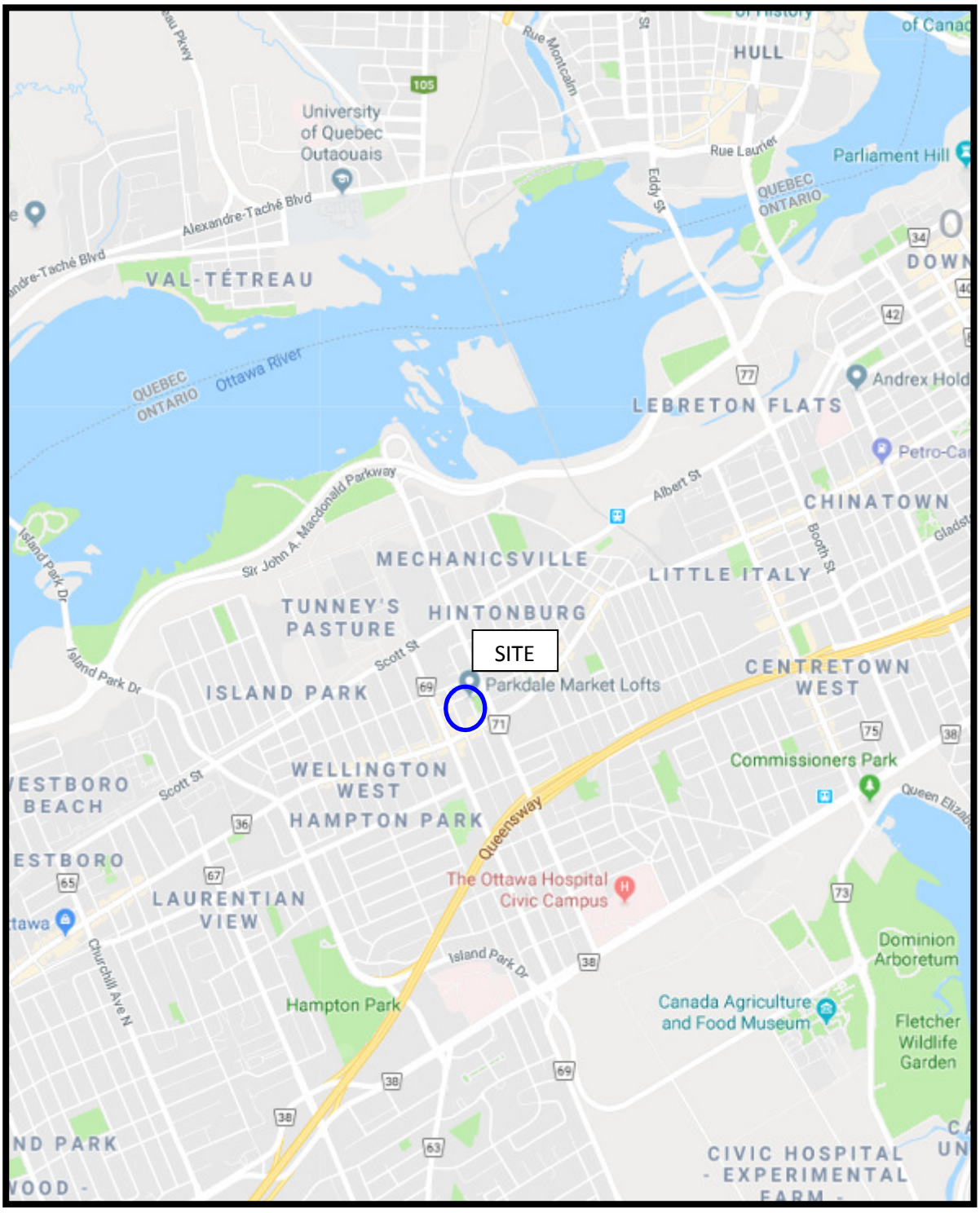


FIGURE 1

KEY PLAN

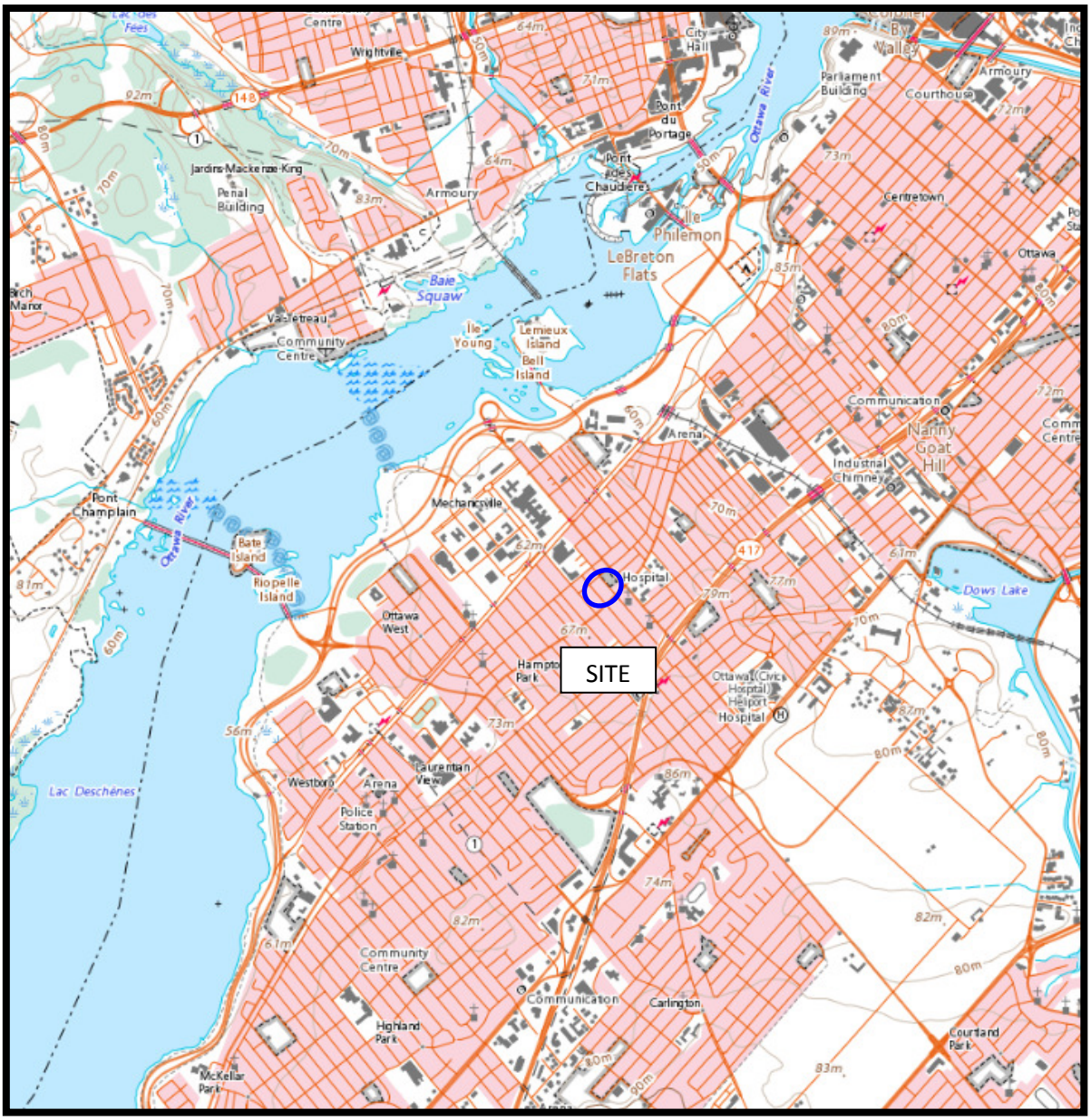


FIGURE 2

TOPOGRAPHIC MAP

#83 HINTON AVENUE NORTH
RESIDENTIAL

#85 HINTON AVENUE NORTH
RESIDENTIAL

#89 HINTON AVENUE NORTH
RESIDENTIAL

#95 HINTON AVENUE NORTH
RESIDENTIAL

#97 HINTON AVENUE NORTH
RESIDENTIAL

#12 HAMILTON AVENUE NORTH
RESIDENTIAL

PHASE I - ENVIRONMENTAL SITE ASSESSMENT PROPERTY

#16 HAMILTON AVENUE NORTH
ASPHALTIC CONCRETE PARKING LOT

4

1

3

2

#20 HAMILTON AVENUE NORTH
(VACANT OFFICE BUILDING)

#22 HAMILTON AVENUE NORTH
BOURK'S COMPLETE CAR CARE

HAMILTON AVENUE NORTH

#366 PARKDALE AVENUE
PARKDALE PARK

AREAS OF ENVIRONMENTAL CONCERN:

1. RESULTING FROM FORMER FOUNDRY
2. RESULTING FROM FORMER MACHINE SHOP
3. RESULTING FROM OFF-SITE AUTOMOTIVE SERVICE GARAGE
4. RESULTING FROM IMPORATION OF FILL MATERIAL OF UNKNOWN QUALITY

patersongroup
consulting engineers

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

NO.	REVISIONS	DATE	INITIAL
0			

SURFACE DEVELOPMENTS

PHASE I - ENVIRONMENTAL SITE ASSESSMENT
16 AND 20 HAMILTON AVENUE NORTH

OTTAWA, ONTARIO

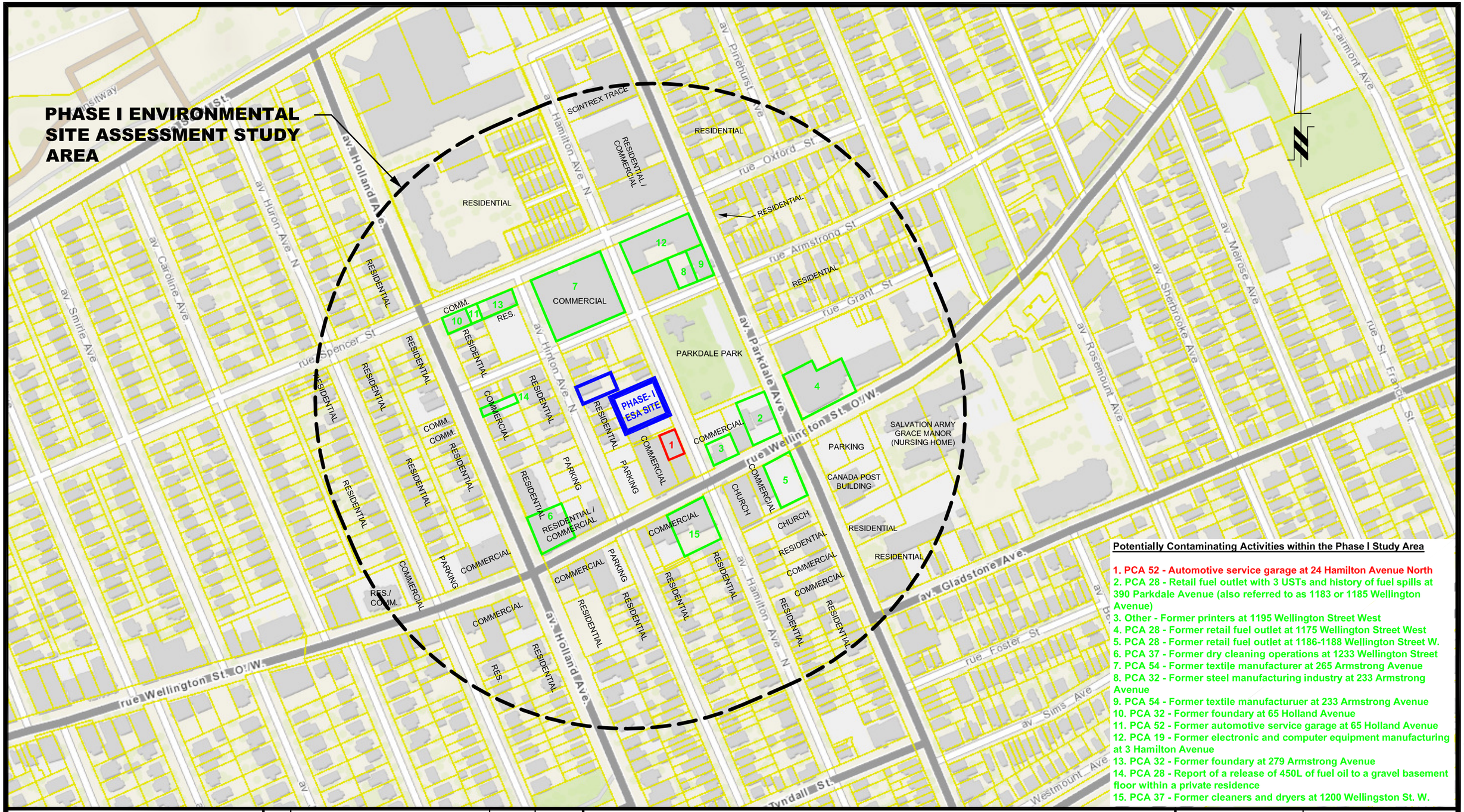
Title:

SITE PLAN

Scale: 1:250	Date: 10/2018
Drawn by: MPG	Report No.: PE4341-2
Checked by: AM	Dwg. No.: PE4341-4
Approved by: MSD	Revision No.: 0

p:\autocad drawings\environmental\pe43xx\pe4341\pe4341-4 site plan.dwg

PHASE I ENVIRONMENTAL SITE ASSESSMENT STUDY AREA



Potentially Contaminating Activities within the Phase I Study Area

1. PCA 52 - Automotive service garage at 24 Hamilton Avenue North
2. PCA 28 - Retail fuel outlet with 3 USTs and history of fuel spills at 390 Parkdale Avenue (also referred to as 1183 or 1185 Wellington Avenue)
3. Other - Former printers at 1195 Wellington Street West
4. PCA 28 - Former retail fuel outlet at 1175 Wellington Street West
5. PCA 28 - Former retail fuel outlet at 1186-1188 Wellington Street W.
6. PCA 37 - Former dry cleaning operations at 1233 Wellington Street
7. PCA 54 - Former textile manufacturer at 265 Armstrong Avenue
8. PCA 32 - Former steel manufacturing industry at 233 Armstrong Avenue
9. PCA 54 - Former textile manufacturuer at 233 Armstrong Avenue
10. PCA 32 - Former foundary at 65 Holland Avenue
11. PCA 52 - Former automotive service garage at 65 Holland Avenue
12. PCA 19 - Former electronic and computer equipment manufacturing at 3 Hamilton Avenue
13. PCA 32 - Former foundary at 279 Armstrong Avenue
14. PCA 28 - Report of a release of 450L of fuel oil to a gravel basement floor within a private residence
15. PCA 37 - Former cleaners and dryers at 1200 Wellingston St. W.

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consulting engineers

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

NO.	REVISIONS	DATE	INITIAL
0			

SURFACE DEVELOPMENTS

PHASE I - ENVIRONMENTAL SITE ASSESSMENT
16 AND 20 HAMILTON AVENUE NORTH

OTTAWA, ONTARIO

Title:

SURROUNDING LAND USE PLAN

Scale: 1:3000	Date: 10/2018
Drawn by: MPG	Report No.: PE4341-2
Checked by: KM	Dwg. No.: PE4341-5
Approved by: MSD	Revision No.: 0

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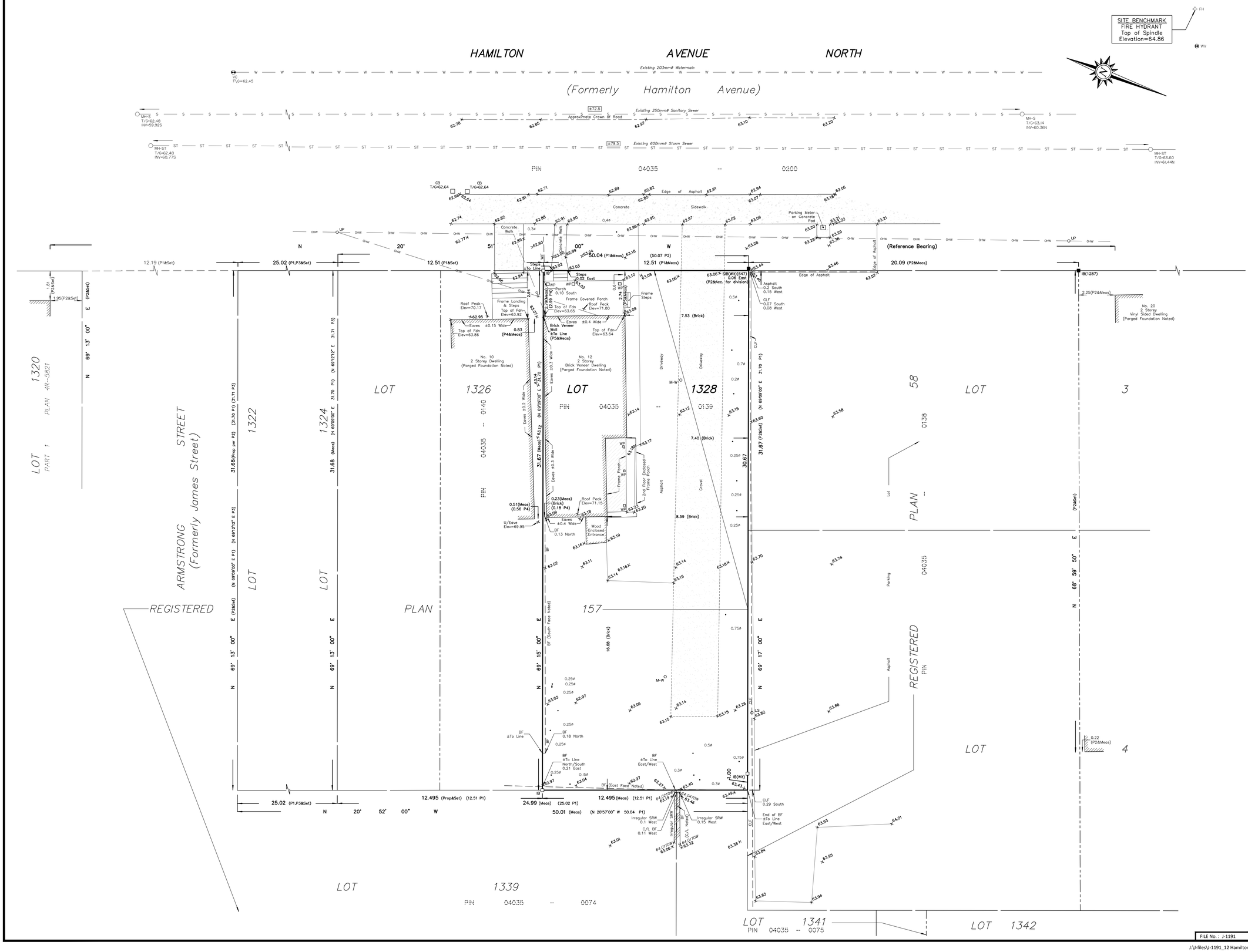
APPENDIX 1

TOPOGRAPHIC PLAN OF SURVEY

AERIAL PHOTOGRAPHS



SITE BENCHMARK
FIRE HYDRANT
Top of Spindle
Elevation=64.86

TOPOGRAPHIC PLAN OF SURVEY OF

LOT 1328
REGISTERED PLAN 157
CITY OF OTTAWA

FARLEY, SMITH & DENIS SURVEYING LTD. 2016

Scale 1: 100

0 2.5 5 7.5 10 metres

Metric Note

Distances and coordinates on this plan are in metres and can be converted to feet by dividing by 0.3048.

Bearing Note

Bearings are astronomic and are referred to the westerly limit of Hamilton Avenue having a bearing of N 20° 51' 00" W as shown on Registered Plan 157.

For bearing comparisons, a rotation of 2°07'42" clockwise was applied to bearings on Plans P1 and P3.

Elevation Notes

1. Elevations shown are geodetic and are derived from FSD Job 16-14 (Lots 1510, 1512, 1514 & 1516 RP 157) having a published elevation of 64.00m.
2. It is the responsibility of the user of this information to verify that the job benchmark has not been altered or disturbed and that it's relative elevation and description agrees with the information shown on this drawing.

Utility Notes

1. This drawing cannot be accepted as acknowledging all of the utilities and it will be the responsibility of the user to contact the respective utility authorities for confirmation.
2. Only visible surface utilities were located.
3. Underground utility data derived from City of Ottawa utility sheet reference: plan no. 3433, sheet 2 and 3 of 8.
4. Sanitary and storm sewer grades and inverts were derived from field measurement.
5. A field location of underground plant by the pertinent utility authority is mandatory before any work involving breaking ground, probing, excavating etc.

Notes & Legend

	Denotes	
—□—	Denotes	Survey Monument Planted
—■—	"	Survey Monument Found
SIB	"	Standard Iron Bar
IB	"	Iron Bar
(Wit)	"	Witness
Meas	"	Measured
Prop	"	Proportioned
Acc	"	Accepted
(P1)	"	Registered Plan 157
(P2)	"	Plan by (1287) dated November 12, 1987
(P3)	"	Plan by (1473) dated Dec.2, 1993
(P4)	"	Plan by (AOG) dated May 30, 1979
(P5)	"	Plan by (647) dated November 4, 1970
(647)	"	H.R. Farley O.L.S.
(1287)	"	Farley, Smith & Murray O.L.S.
(1473)	"	D.A. Simmonds O.L.S.
(AOG)	"	Annis, O'sullivan & Vollebekk O.L.S.
○ MH-ST	"	Maintenance Hole (Storm)
○ MH-S	"	Maintenance Hole (Sanitary)
⊖ VC	"	Valve Chamber (Watermain)
—— ST ——	"	Underground Storm Sewer
—— S ——	"	Underground Sanitary Sewer
—— OHW ——	"	Overhead Wires
○ UP	"	Utility Pole
○ AN	"	Anchor
○ LS	"	Light Standard
□ CB	"	Catch Basin
◇ FH	"	Fire Hydrant
Inv.	"	Invert
BV	"	Brick Veneer
T/G	"	Top of Grate
Ø	"	Diameter
CLF	"	Chain Link Fence
WIF	"	Wrought Iron Fence
BF	"	Board Fence
SRW	"	Stone Retaining Wall
WP	"	Wood Post
TOW	"	Top of Wall
M-W	"	Monitoring Well
C/L	"	Centreline
+65.00	"	Location of Elevations
+65.00	"	Top of Concrete Curb Elevation
·	"	Deciduous Tree
SSIB	"	Short Standard Iron Bar

Surveyor's Certificate

I certify that :

1. This survey and plan are correct and in accordance with the Surveys Act, the Surveyors Act and the Regulations made under them.
2. The survey was completed on the 20th day of July, 2016.

JULY 22, 2016
Date

Ronald A. Denis
Ontario Land Surveyor

FARLEY, SMITH & DENIS SURVEYING LTD.
ONTARIO LAND SURVEYORS
CANADA LAND SURVEYORS
190 COLONNADE ROAD, OTTAWA, ONTARIO K2E 7J5
TEL. (613) 727-8226 FAX. (613) 727-1826

FILE No. : J-1191

TOPO 24X36

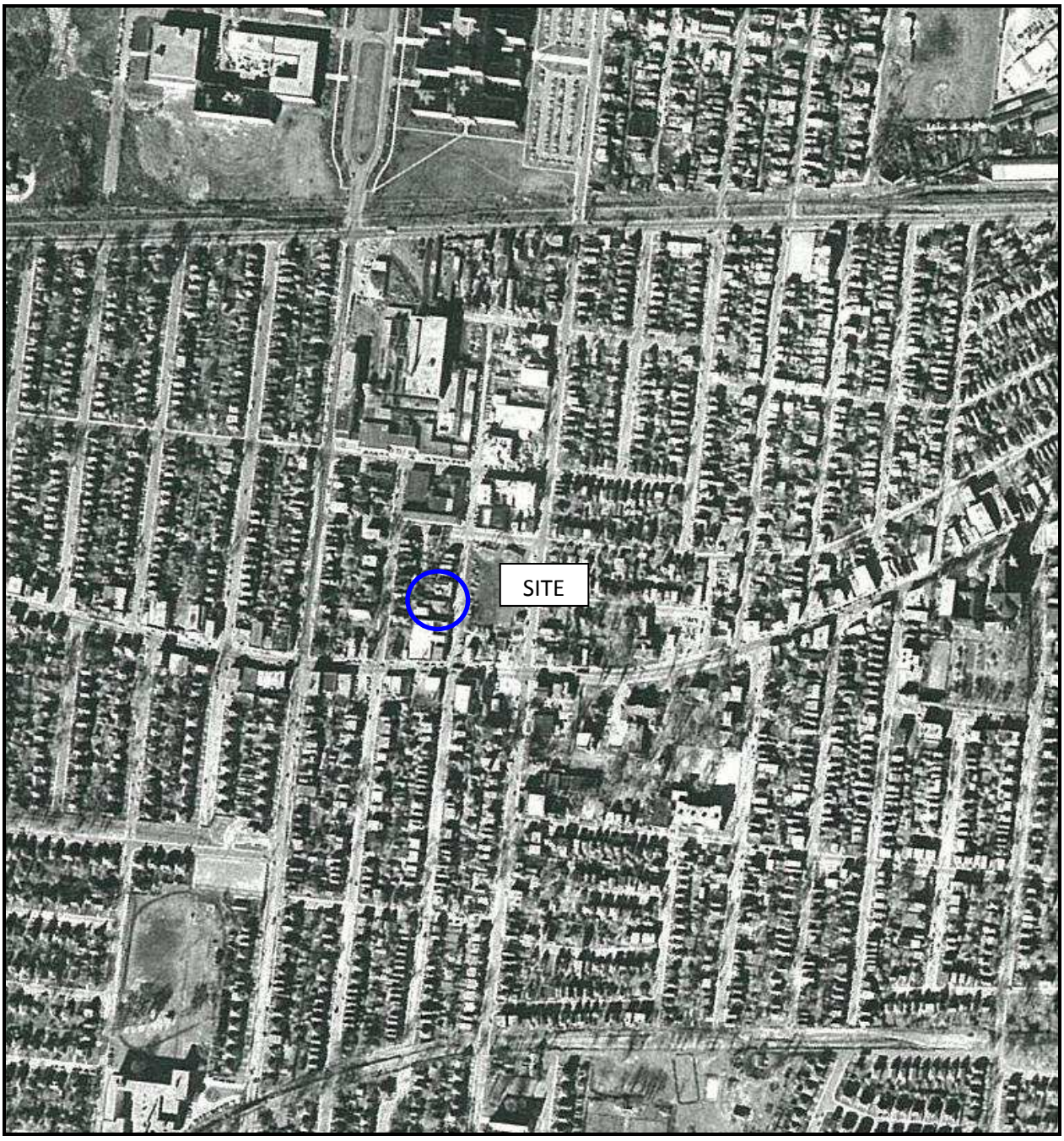
J:\J-files\J-1191_12 Hamilton Ave N_Condo\Final\J-1191_IDG_12HamiltonAve_Lt1328RP157_T_F.dwg

AERIAL PHOTOGRAPH
1928

patersongroup

AERIAL PHOTOGRAPH
1944

patersongroup



AERIAL PHOTOGRAPH
1958

patersongroup

AERIAL PHOTOGRAPH
1976

patersongroup

AERIAL PHOTOGRAPH
1986

AERIAL PHOTOGRAPH
1995

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AERIAL PHOTOGRAPH
2005

patersongroup

AERIAL PHOTOGRAPH
2015

patersongroup

APPENDIX 2

MECP FREEDOM OF INFORMATION SEARCH

TSSA CORRESPONDENCE

MECP WELL RECORDS

Ontario Ministry of Environment and Energy

Freedom of Information Request

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

Requester Data			For Ministry Use Only	
Name, Company Name, Mailing Address and Email Address of Requester Karyn Munch Paterson Group Inc. 154 Colonnade Road Ottawa, ON K2E 7J5 **Email address:** kmunch@patersongroup.ca			FOI Request No.	Date Request Received
			Fee Paid ☐ ACCT ☐ CHQ ☐ VISA/MC ☐ CASH	
Telephone/Fax Nos. Tel. 613-226-7381 Fax 613-226-6344	Your Project/Reference No. PE4341	Signature/Print /Name of Requester Karyn Munch	☐ CNR ☐ ER ☐ NOR ☐ SWR ☐ WCR ☐ SAC ☐ IEB ☐ EAA ☐ EMR ☐ SWA	

Request Parameters

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

16 and 20 Hamilton Avenue North, Ottawa, Ontario

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

Surface Developments

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

United Food and Commercial Workers Union

Present/Previous Tenant(s),(if applicable)

Search Parameters *Files older than 2 years may require $60.00 retrieval cost. There is no guarantee that records responsive to your request will be located.*	**Specify Year(s) Requested**
Environmental concerns (General correspondence, occurrence reports, abatement)	all
Orders	all
Spills	all
Investigations/prosecutions ➤ Owner **AND** tenant information must be provided	all
Waste Generator number/classes	all

Certificates of Approval ➤ Proponent information must be provided

1985 and prior records are searched manually. **Search fees in excess of $300.00** could be incurred, depending on the types and years to be searched. Specify Certificates of Approval number(s) (if known). **If supporting documents are also required, mark SD box** and specify type e.g. maps, plans, reports, etc.

	SD	**Specify Year(s) Requested**
air - *emissions*		1986-present
water - *mains, treatment, ground level, standpipes & elevated storage, pumping stations (local & booster)*		1986-present
sewage - *sanitary, storm, treatment, stormwater, leachate & leachate treatment & sewage pump stations*		1986-present
waste water - *industrial discharges*		1986-present
waste sites - *disposal, landfill sites, transfer stations, processing sites, incinerator* sites		1986-present
waste systems - *PCB destruction, mobile waste processing units, haulers: sewage, non-hazardous & hazardous waste*		1986-present
pesticides - *licenses*		1986-present

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

Karyn Munch

From: Karyn Munch
Sent: October-25-18 11:42 AM
To: Public Information Services
Subject: PE4341 - Records Search Request

Good morning,

Could you please search for your files for the following addresses in the City of Ottawa:

12, 16, 20, 22, 24 Hamilton Avenue North
366 Parkdale Avenue
1205 Wellington Street West
89, 95, 97 Hinton Avenue

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
Fax: (613) 226-6344
Email: kmunch@patersongroup.ca

Ontario Ministry of the Environment

Well Tag Number (place sticker and print number below)

A 054040

A054040

Well Record

Regulation 903 Ontario Water Resources Act

WELL #1

page 1 of 1

Instructions for Completing Form

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

Ministry Use Only: MUN | CON | LOT

[redacted]

Address of Well Location (County/District/Municipality)	Township	Lot	Concession
Ottawa Carleton	Ottawa		

RR#/Street Number/Name	City/Town/Village	Site/Compartment/Block/Tract etc.
3 Hamilton Ave. North		

GPS Reading: NAD 83 | Zone 18 | Easting 442802 | Northing 5027853 | Unit Make/Model: Garmin/eTrex | Mode of Operation: ☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth Metres From	To
brown	gravel	sand		0	2.0
grey	limestone			2.0	7.6

Hole Diameter

Depth Metres From	To	Diameter Centimetres
0	3.0	25.4
3.0	7.6	15.2

Water Record

Water found at Metres	Kind of Water
seepage	☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:
m	☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:
m	☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth Metres From	To
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	3.0
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen (Outside diam)	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen	☒ Open hole		3.0	7.6

Test of Well Yield

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

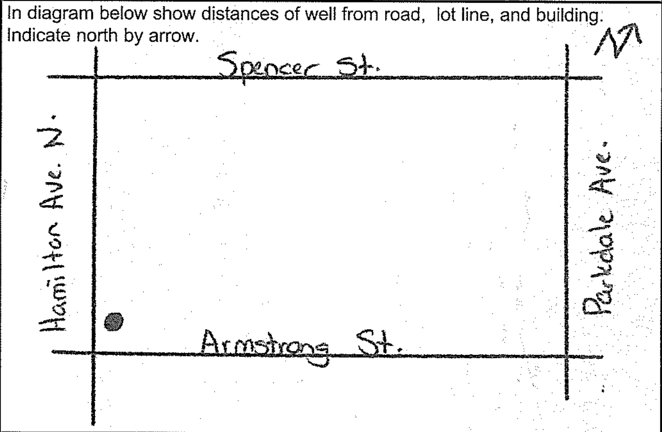
Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	3.0	Holeplug	

Location of Well

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



Method of Construction

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

Water Use

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

Final Status of Well

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

Audit No. Z 47374

Date Well Completed: 2007 03 14

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

Date Delivered: YYYY MM DD

Well Contractor/Technician Information

Name of Well Contractor	Well Contractor's Licence No.
Bernard Marquardt & Son Ltd.	3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

Name of Well Technician (last name, first name)	Well Technician's Licence No.
Marquardt, Brad	T-2781

Signature of Technician/Contractor: [signature]

Date Submitted: 2007 03 22

Ministry Use Only

Data Source | Contractor 3651

Date Received: MAR 29 2007 | Date of Inspection

Remarks | Well Record Number

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

Ontario Ministry of the Environment

Well Tag [illegible] (number below) A 054041

A054041

Well Record

Regulation 903 Ontario Water Resources Act

WELL #2

page 1 of 1

Instructions for Completing Form

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

Ministry Use Only		
MUN	CON	LOT

Well Owner's Information and Location of Well Information

[redacted]

Address of Well Location (County/District/Municipality)	Township	Lot	Concession
Ottawa Carleton	Ottawa		

RR#/Street Number/Name	City/Town/Village	Site/Compartment/Block/Tract etc.
3 Hamilton Ave. North		

GPS Reading	NAD	Zone	Easting	Northing	Unit Make/Model	Mode of Operation
	83	18	442801	5027861	Garmin/eTrex	☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth Metres From	Depth Metres To
brown	gravel	sand		0	2.1
grey	limestone			2.1	7.6

Hole Diameter

Depth Metres From	Depth Metres To	Diameter Centimetres
0	3.4	25.4
3.4	7.6	15.2

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth Metres From	Depth Metres To
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	3.4
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen (Outside diam)	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen	☒ Open hole		3.4	7.6

Water Record

Water found at ___ Metres	Kind of Water
seepage	☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:
___ m	☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:
___ m	☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

Chlorinated ☐ Yes ☒ No

Test of Well Yield

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

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	3.4	Holeplug	

Method of Construction

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

Water Use

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

Final Status of Well

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

Well Contractor/Technician Information

Name of Well Contractor	Well Contractor's Licence No.
Bernard Marquardt & Son Ltd.	3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

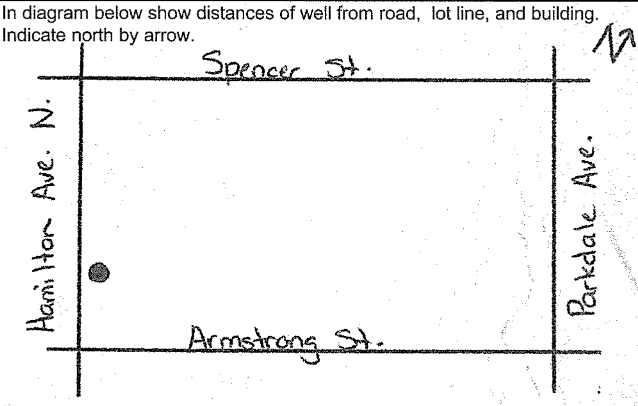
Name of Well Technician (last name, first name)	Well Technician's Licence No.
Marquardt, Brad	T-2781

Signature of Technician/Contractor: [signature]

Date Submitted (YYYY MM DD): 2007 03 22

Location of Well

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



Audit No. Z 47375

Date Well Completed (YYYY MM DD): 2007 03 14

Date Delivered (YYYY MM DD):

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

Ministry Use Only

Data Source	Contractor 3651
Date Received MAR 29 2007	Date of Inspection
Remarks	Well Record Number

Ontario Ministry of the Environment

Well Ta A054042 (ber below)

A054042

Well Record

Regulation 903 Ontario Water Resources Act

WELL #3 page 1 of 1

Instructions for Completing Form

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

Ministry Use Only

MUN | CON | LOT

W [redacted]

Address of Well Location (County/District/Municipality): Ottawa Carleton

Township: Ottawa

Lot:

Concession:

RR#/Street Number/Name: 3 Hamilton Ave. North

City/Town/Village:

Site/Compartment/Block/Tract etc.:

GPS Reading: NAD 83 | Zone 18 | Easting 442796 | Northing 5027873

Unit Make/Model: Garmin/eTrex

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

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To (Metres)
brown	gravel	sand		0	0.9
grey	limestone			0.9	6.1

Hole Diameter

Depth From	Depth To (Metres)	Diameter (Centimetres)
0	1.8	25.4
1.8	6.1	15.2

Water Record

Water found at ___ Metres / Kind of Water

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

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

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

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To (Metres)
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	1.8
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		1.8	6.1

Test of Well Yield

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

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - Metres From	Depth set at - Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	1.8	Holeplug	

Method of Construction

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

Water Use

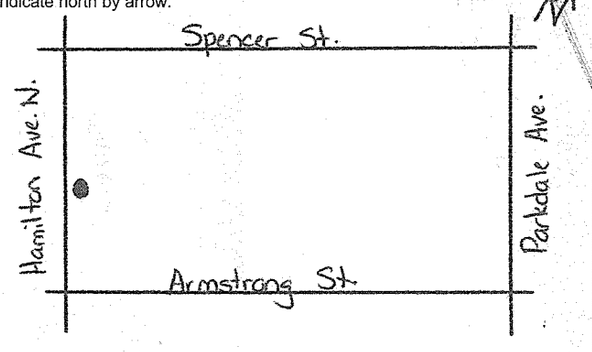
☐ Domestic ☐ Industrial ☐ Public Supply ☒ Other remediation
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

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

Location of Well

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



Audit No. Z 47376

Date Well Completed: YYYY 2007 MM 03 DD 14

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

Date Delivered: YYYY MM DD

Well Contractor/Technician Information

Name of Well Contractor: Bernard Marquardt & Son Ltd.

Well Contractor's Licence No.: 3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

Name of Well Technician (last name, first name): Marquardt, Brad

Well Technician's Licence No.: T-2781

Signature of Technician/Contractor: Wayne B Marquardt

Date Submitted: YYYY 2007 MM 03 DD 22

Ministry Use Only

Data Source

Contractor: 3651

Date Received: MAR 2 9 2007 YYYY MM DD

Date of Inspection: YYYY MM DD

Remarks

Well Record Number

0506E (09/03) Contractor's Copy ☐ Ministry's Copy ☒ Well Owner's Copy ☐

Cette formule est disponible en français

Ontario Ministry of the Environment

Well Ta... (ber below) A 054043

A054043

Well Record

Regulation 903 Ontario Water Resources Act

WELL #4 page 1 of 1

Instructions for Completing Form

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- Questions regarding completing this application can be directed to the Water Well Management Coordinator at 416-235-6203.
- **All metre measurements shall be reported to 1/10th of a metre.**
- Please print clearly in blue or black ink only.

Ministry Use Only

MUN | CON | LOT

Well Owner's Information and Location of Well Information

[redacted]

Address of Well Location (County/District/Municipality) | Township | Lot | Concession

Ottawa Carleton | Ottawa

RR#/Street Number/Name | City/Town/Village | Site/Compartment/Block/Tract etc.

3 Hamilton Ave. North

GPS Reading: NAD 83 | Zone 18 | Easting 442794 | Northing 5027881 | Unit Make/Model: Garmin/eTrex | Mode of Operation: ☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To
brown	gravel	sand		0	1.5
grey	limestone			1.5	6.1

Hole Diameter

Depth From	Depth To	Diameter Centimetres
0	2.6	25.4
2.6	6.1	15.2

Water Record

Water found at ___ Metres / Kind of Water

seepage ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

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

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	2.6
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		2.6	6.1

Test of Well Yield

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

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - Metres From	Depth set at - Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	2.6	Holeplug	

Method of Construction

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

Water Use

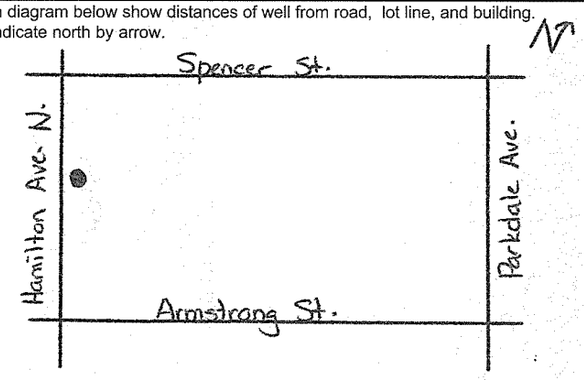
☐ Domestic ☐ Industrial ☐ Public Supply ☒ Other Remediation
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

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

Location of Well

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



Audit No. Z 47377

Date Well Completed YYYY MM DD: 2007 03 14

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

Date Delivered YYYY MM DD

Well Contractor/Technician Information

Name of Well Contractor: Bernard Marquardt & Son Ltd.

Well Contractor's Licence No.: 3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

Name of Well Technician (last name, first name): Marquardt, Brad

Well Technician's Licence No.: T-2781

Signature of Technician/Contractor: X Wayne B Marquardt

Date Submitted YYYY MM DD: 2007 03 22

Ministry Use Only

Data Source | Contractor: 3651

Date Received YYYY MM DD: MAR 29 2007 | Date of Inspection YYYY MM DD

Remarks | Well Record Number

0506E (09/03)

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

Cette formule est disponible en français

Ontario Ministry of the Environment

Well Tag (ber below) A 054044

A054044

Well Record

Regulation 903 Ontario Water Resources Act

WELL #5 page 1 of 1

Instructions for Completing Form

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- Questions regarding completing this application can be directed to the Water Well Management Coordinator at 416-235-6203.
- **All metre measurements shall be reported to 1/10th of a metre.**
- Please print clearly in blue or black ink only.

Ministry Use Only

MUN | CON | LOT

[redacted]

Address of Well Location (County/District/Municipality): Ottawa Carleton

Township: Ottawa

Lot | Concession

RR#/Street Number/Name: 3 Hamilton Ave. North

City/Town/Village | Site/Compartment/Block/Tract etc.

GPS Reading: NAD 83 | Zone 18 | Easting 442791 | Northing 5027888

Unit Make/Model: Garmin/eTrex

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

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To (Metres)
brown	gravel	sand		0	1.5
grey	limestone			1.5	6.1

Hole Diameter

Depth From	Depth To (Metres)	Diameter (Centimetres)
0	2.5	25.4
2.5	6.1	15.2

Water Record

Water found at ___ Metres / Kind of Water

seepage ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

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

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To (Metres)
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	2.5
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		2.5	6.1

Test of Well Yield

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

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	2.5	Holeplug	

Method of Construction

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

Water Use

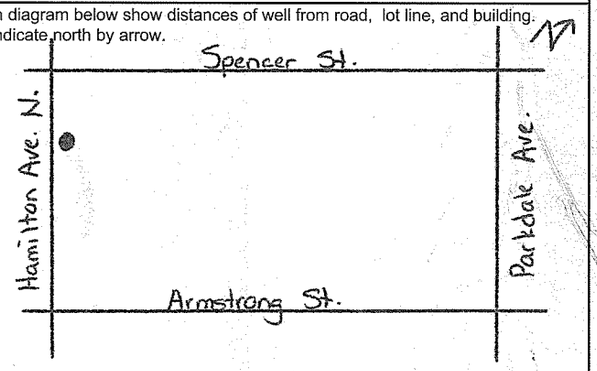
☐ Domestic ☐ Industrial ☐ Public Supply ☒ Other remediation
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

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

Location of Well

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



Audit No. Z 47378

Date Well Completed YYYY MM DD: 2007 03 14

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

Date Delivered

Well Contractor/Technician Information

Name of Well Contractor: Bernard Marquardt & Son Ltd.

Well Contractor's Licence No.: 3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

Name of Well Technician (last name, first name): Marquardt, Brad

Well Technician's Licence No.: T-2781

Signature of Technician/Contractor: x Wayne B Marquardt

Date Submitted YYYY MM DD: 2007 03 22

Ministry Use Only

Data Source | Contractor: 3651

Date Received: MAR 2 9 2007 MM DD | Date of Inspection YYYY MM DD

Remarks | Well Record Number

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

Ontario Ministry of the Environment

Well Tag (see below) A 054045

A054045

Well Record

Regulation 903 Ontario Water Resources Act

WELL #6 page 1 of 1

Instructions for Completing Form

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

Ministry Use Only

MUN | CON | LOT

Well Owner's Information and Location of Well Information

[redacted]

Address of Well Location (County/District/Municipality) Ottawa Carleton

Township Ottawa

Lot

Concession

RR#/Street Number/Name 3 Hamilton Ave. North

City/Town/Village

Site/Compartment/Block/Tract etc.

GPS Reading NAD 83 Zone 18 Easting 442788 Northing 5027893

Unit Make/Model Garmin/eTrex

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

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To (Metres)
brown	gravel	sand		0	1.5
grey	limestone			1.5	6.1

Hole Diameter

Depth From	Depth To (Metres)	Diameter (Centimetres)
0	2.8	25.4
2.8	6.1	15.2

Water Record

Water found at ___ Metres / Kind of Water

seepage ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

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

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To (Metres)
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	2.8
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		2.8	6.1

Test of Well Yield

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

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - Metres From	Depth set at - Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	2.8	Holeplug	

Method of Construction

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

Water Use

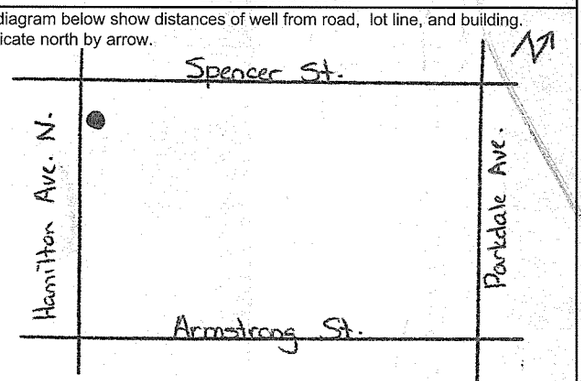
☐ Domestic ☐ Industrial ☐ Public Supply ☒ Other remediation
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

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

Location of Well

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



Audit No. Z 47379

Date Well Completed YYYY 2007 MM 03 DD 15

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

Date Delivered YYYY MM DD

Well Contractor/Technician Information

Name of Well Contractor: Bernard Marquardt & Son Ltd.

Well Contractor's Licence No.: 3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

Name of Well Technician (last name, first name): Marquardt, Brad

Well Technician's Licence No.: T-2781

Signature of Technician/Contractor: X Wayne B Marquardt

Date Submitted YYYY 2007 MM 03 DD 22

Ministry Use Only

Data Source

Contractor 3651

Date Received MAR 29 2007 (YYYY MM DD)

Date of Inspection YYYY MM DD

Remarks

Well Record Number

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

Ontario Ministry of the Environment

Well Ta nber below) A 054046

A054046

Well Record

Regulation 903 Ontario Water Resources Act

WELL #7 page 11 of 1

Instructions for Completing Form

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

Ministry Use Only

MUN | CON | LOT

Well Owner's Information and Location of Well Information

[redacted]

Address of Well Location (County/District/Municipality) | Township | Lot | Concession

Ottawa Carleton | Ottawa

RR#/Street Number/Name | City/Town/Village | Site/Compartment/Block/Tract etc.

3 Hamilton Ave. North

GPS Reading | NAD | Zone | Easting | Northing | Unit Make/Model | Mode of Operation

83 | 18 | 442790 | 5027905 | Garmin/eTrex | ☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To
brown	gravel	sand		0	0.9
grey	limestone			0.9	6.1

Hole Diameter

Depth From	Depth To	Diameter Centimetres
0	1.9	25.4
1.9	6.1	15.2

Water Record

Water found at ___ Metres / Kind of Water

seepage ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

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

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	1.9
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		1.9	6.1

Test of Well Yield

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

Plugging and Sealing Record ☒ Annular space ☐ Abandonment

Depth set at - Metres From	Depth set at - Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	1.9	Holeplug	

Method of Construction

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

Water Use

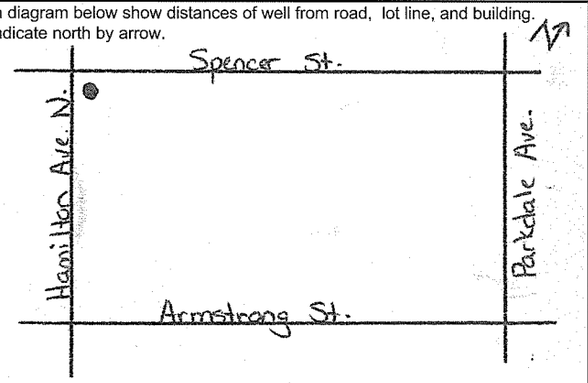
☐ Domestic ☐ Industrial ☐ Public Supply ☒ Other remediation
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

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

Location of Well

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



Audit No. Z 47380

Date Well Completed YYYY MM DD: 2007 03 15

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

Date Delivered YYYY MM DD

Well Contractor/Technician Information

Name of Well Contractor: Bernard Marquardt & Son Ltd.

Well Contractor's Licence No.: 3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

Name of Well Technician (last name, first name): Marquardt, Brad

Well Technician's Licence No.: T-2781

Signature of Technician/Contractor: Wayne S. Marquardt

Date Submitted YYYY MM DD: 2007 03 22

Ministry Use Only

Data Source | Contractor: 3651

Date Received YYYY MM DD: MAR 29 2007 | Date of Inspection YYYY MM DD

Remarks | Well Record Number

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

Ontario Ministry of the Environment

Well Tag (er below): A 054047

A054047

Well Record

Regulation 903 Ontario Water Resources Act

WELL #8 page 1 of 1

Instructions for Completing Form

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- Please print clearly in blue or black ink only.

Ministry Use Only

[redacted]

Address of Well Location (County/District/Municipality)	Township	Lot	Concession
Ottawa Carleton	Ottawa		
RR#/Street Number/Name	**City/Town/Village**	**Site/Compartment/Block/Tract etc.**	
3 Hamilton Ave. North			

GPS Reading: NAD 83 | Zone 18 | Easting 442795 | Northing 5027913 | Unit Make/Model: Garmin/eTrex | Mode of Operation: ☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To
brown	gravel	sand		0	0.6
grey	limestone			0.6	6.1

Hole Diameter

Depth From	Depth To	Diameter Centimetres
0	1.7	25.4
1.7	6.1	15.2

Water Record

Water found at ___ Metres / Kind of Water

seepage ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

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

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	1.7
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		1.7	6.1

Test of Well Yield

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

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - From	Depth set at - To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	1.7	Holeplug	

Method of Construction

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

Water Use

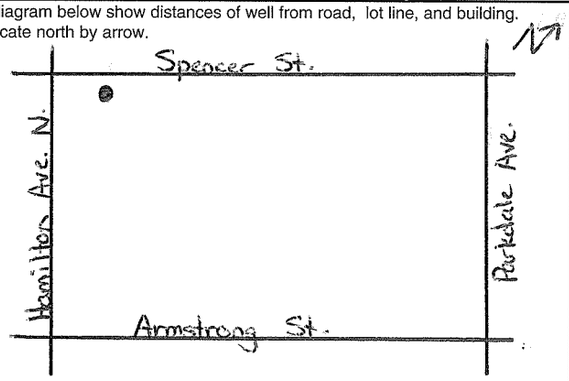
☐ Domestic ☐ Industrial ☐ Public Supply ☒ Other remediation
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

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

Location of Well

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



Audit No. Z 64901

Date Well Completed: YYYY 2007 MM 03 DD 15

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

Date Delivered: YYYY MM DD

Well Contractor/Technician Information

Name of Well Contractor	Well Contractor's Licence No.
Bernard Marquardt & Son Ltd.	3651
Business Address (street name, number, city etc.)	
18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0	
Name of Well Technician (last name, first name)	**Well Technician's Licence No.**
Marquardt, Brad	T-2781
Signature of Technician/Contractor	**Date Submitted** YYYY MM DD 2007 03 22
X Wayne B Marquardt	

Ministry Use Only

Data Source	Contractor
	3651
Date Received YYYY MM DD MAR 29 2007	**Date of Inspection** YYYY MM DD
Remarks	**Well Record Number**

0506E (08/2006) Ministry's Copy

Cette formule est disponible en français

Ontario Ministry of the Environment

Well Tag (bar code below) A 054048

A054048

Well Record

Regulation 903 Ontario Water Resources Act

WELL #9 page 1 of 1

Instructions for Completing Form

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- Questions regarding completing this application can be directed to the Water Well Help Desk (Toll Free) at 1-888-396-9355.
- **All metre measurements shall be reported to 1/10th of a metre.**
- Please print clearly in blue or black ink only.

Ministry Use Only

[redacted]

Address of Well Location (County/District/Municipality): Ottawa Carleton

Township: Ottawa

Lot:

Concession:

RR#/Street Number/Name: 3 Hamilton Ave. North

City/Town/Village:

Site/Compartment/Block/Tract etc.:

GPS Reading: NAD 83 | Zone 18 | Easting 442794 | Northing 5027910

Unit Make/Model: Garmin/eTrex

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

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To (Metres)
brown	gravel	sand		0	0.9
grey	limestone			0.9	6.1

Hole Diameter

Depth From	Depth To (Metres)	Diameter (Centimetres)
0	1.8	25.4
1.8	6.1	15.2

Water Record

Water found at ___ Metres / Kind of Water

seepage ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

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

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To (Metres)
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	1.8
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		1.8	6.1

Test of Well Yield

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

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - From	Depth set at - To (Metres)	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	1.8	Holeplug	

Method of Construction

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

Water Use

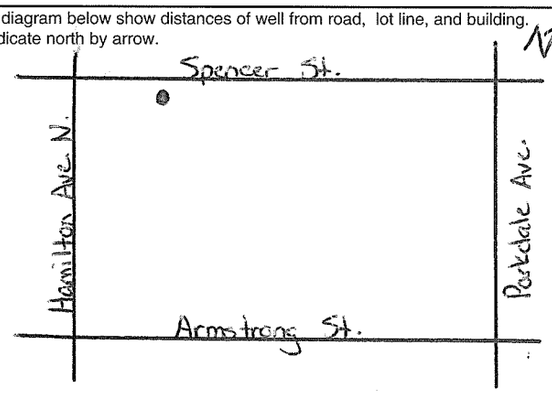
☐ Domestic ☐ Industrial ☐ Public Supply ☒ Other remediation
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

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

Location of Well

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



Audit No. Z 64902

Date Well Completed: YYYY 2007 MM 03 DD 15

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

Date Delivered: YYYY MM DD

Well Contractor/Technician Information

Name of Well Contractor: Bernard Marquardt & Son Ltd.

Well Contractor's Licence No.: 3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

Name of Well Technician (last name, first name): Marquardt, Brad

Well Technician's Licence No.: T-2781

Signature of Technician/Contractor: X Brad Marquardt

Date Submitted: YYYY 2007 MM 03 DD 22

Ministry Use Only

Data Source

Contractor: 3651

Date Received: YYYY 2007 MM MAR DD 29

Date of Inspection: YYYY MM DD

Remarks

Well Record Number

0506E (06/2006)

Ministry's Copy

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Ontario Ministry of the Environment

Well Tag (see below) A 054049

A054049

Well Record

Regulation 903 Ontario Water Resources Act

WELL #10

page 1 of 1

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Ministry Use Only

[redacted]

Address of Well Location (County/District/Municipality)	Township	Lot	Concession
Ottawa Carleton	Ottawa		

RR#/Street Number/Name	City/Town/Village	Site/Compartment/Block/Tract etc.
3 Hamilton Ave. North		

GPS Reading	NAD	Zone	Easting	Northing	Unit Make/Model	Mode of Operation
	83	18	442797	5027909	Garmin/eTrex	☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To
brown	gravel	sand		0	1.5
grey	limestone			1.5	6.1

Hole Diameter

Depth From	Depth To	Diameter Centimetres
0	2.3	25.4
2.3	6.1	15.2

Water Record

Water found at ___ Metres / Kind of Water

seepage ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

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

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	2.3
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		2.3	6.1

Test of Well Yield

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

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - Metres From	Depth set at - Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	2.3	Holeplug	

Method of Construction

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

Water Use

☐ Domestic ☐ Industrial ☐ Public Supply ☒ Other remediation
☐ Stock ☐ Commercial ☐ Not used
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Location of Well

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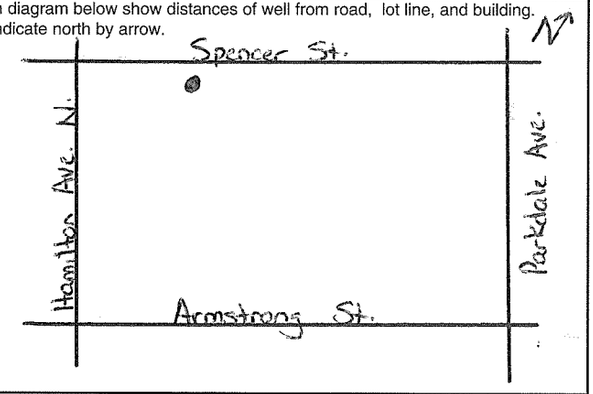

Audit No. Z 64903

Date Well Completed YYYY MM DD: 2007 03 16

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

Date Delivered YYYY MM DD

Well Contractor/Technician Information

Name of Well Contractor	Well Contractor's Licence No.
Bernard Marquardt & Son Ltd.	3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

Name of Well Technician (last name, first name)	Well Technician's Licence No.
Marquardt, Brad	T-2781

Signature of Technician/Contractor: X Wayne Marquardt

Date Submitted YYYY MM DD: 2007 03 22

Ministry Use Only

Data Source	Contractor
	3651
Date Received YYYY MM DD: MAR 29 2007	Date of Inspection YYYY MM DD
Remarks	Well Record Number

0506E (06/2006)

Ministry's Copy

Cette formule est disponible en français

Ontario Ministry of the Environment

Well Ta... nber below) A 054050

A054050

Well Record

Regulation 903 Ontario Water Resources Act

WELL #11 page 1 of 1

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- Please print clearly in blue or black ink only.

Ministry Use Only

MUN ... CON ... LOT ...

[redacted]

Address of Well Location (County/District/Municipality)	Township	Lot	Concession
Ottawa Carleton	Ottawa		

RR#/Street Number/Name	City/Town/Village	Site/Compartment/Block/Tract etc.
3 Hamilton Ave. North		

GPS Reading	NAD	Zone	Easting	Northing	Unit Make/Model	Mode of Operation:
	83	18	442798	5027911	Garmin/eTrex	☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To (Metres)
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grey	limestone			1.5	6.1

Hole Diameter

Depth From	Depth To (Metres)	Diameter (Centimetres)
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2.3	6.1	15.2

Water Record

Water found at ___ Metres / Kind of Water

seepage ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

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

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To (Metres)
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	2.3
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		2.3	6.1

Test of Well Yield

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

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - Metres From	Depth set at - Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	2.3	Holeplug	

Method of Construction

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

Water Use

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

Final Status of Well

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

Well Contractor/Technician Information

Name of Well Contractor	Well Contractor's Licence No.
Bernard Marquardt & Son Ltd.	3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

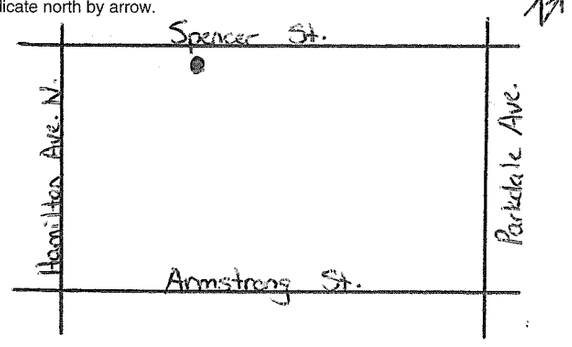
Name of Well Technician (last name, first name)	Well Technician's Licence No.
Marquardt, Brad	T-2781

Signature of Technician/Contractor: Wayne B. Marquardt

Date Submitted: 2007 03 22

Location of Well

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



Audit No. Z 64904

Date Well Completed: YYYY 2007 MM 03 DD 15

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

Date Delivered: YYYY MM DD

Ministry Use Only

Data Source

Contractor 3651

Date Received: YYYY MAR 29 2007 MM DD

Date of Inspection: YYYY MM DD

Remarks

Well Record Number

0506E (06/2006)

Ministry's Copy

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Ontario Ministry of the Environment

Well Tag (number below) A 054051

A054051

Well Record

Regulation 903 Ontario Water Resources Act

WELL #12 page 1 of 1

Instructions for Completing Form

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

Ministry Use Only

MUN CON LOT

[redacted]

Address of Well Location (County/District/Municipality): Ottawa Carleton

Township: Ottawa

Lot:

Concession:

RR#/Street Number/Name: 3 Hamilton Ave. North

City/Town/Village:

Site/Compartment/Block/Tract etc.:

GPS Reading: NAD 83 | Zone 18 | Easting 442799 | Northing 5027916

Unit Make/Model: Garmin/eTrex

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

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To
brown	gravel	sand		0	1.5
grey	limestone			1.5	6.1

Hole Diameter

Depth From	Depth To	Diameter Centimetres
0	2.3	25.4
2.3	6.1	15.2

Water Record

Water found at ___ Metres / Kind of Water

seepage ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

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

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	2.3
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		2.3	6.1

Test of Well Yield

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

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - Metres From	Depth set at - Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	2.3	Holeplug	

Method of Construction

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

Water Use

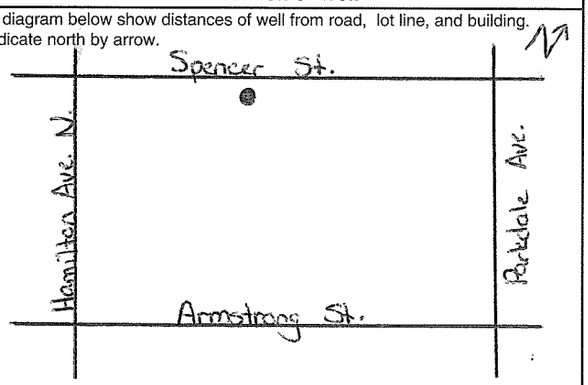
☐ Domestic ☐ Industrial ☐ Public Supply ☒ Other remediation
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

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

Location of Well

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



Audit No. Z 64905

Date Well Completed YYYY MM DD: 2007 03 15

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

Date Delivered YYYY MM DD

Well Contractor/Technician Information

Name of Well Contractor: Bernard Marquardt & Son Ltd.

Well Contractor's Licence No.: 3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

Name of Well Technician (last name, first name): Marquardt, Brad

Well Technician's Licence No.: T-2781

Signature of Technician/Contractor: James D. Marquardt

Date Submitted YYYY MM DD: 2007 03 22

Ministry Use Only

Data Source

Contractor: 3651

Date Received YYYY MM DD: MAR 2 9 2007

Date of Inspection YYYY MM DD

Remarks

Well Record Number

0506E (08/2006)

Ministry's Copy

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Ontario Ministry of the Environment

Well Tag (r below) A 054052

A054052

Well Record

Regulation 903 Ontario Water Resources Act

WELL #13 page 1 of 1

Instructions for Completing Form

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

Ministry Use Only

[redacted]

Address of Well Location (County/District/Municipality): Ottawa Carleton

Township: Ottawa

Lot:

Concession:

RR#/Street Number/Name: 3 Hamilton Ave. North

City/Town/Village:

Site/Compartment/Block/Tract etc.:

GPS Reading: NAD 83 | Zone 18 | Easting 442802 | Northing 5027923

Unit Make/Model: Garmin/eTrex

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

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To (Metres)
brown	gravel	sand		0	1.2
grey	limestone			1.2	6.1

Hole Diameter

Depth From	Depth To (Metres)	Diameter (Centimetres)
0	2.1	25.4
2.1	6.1	15.2

Water Record

Water found at ___ Metres / Kind of Water

seepage ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

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

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To (Metres)
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	2.1
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		2.1	6.1

Test of Well Yield

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

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - Metres From	Depth set at - Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	2.1	Holeplug	

Method of Construction

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

Water Use

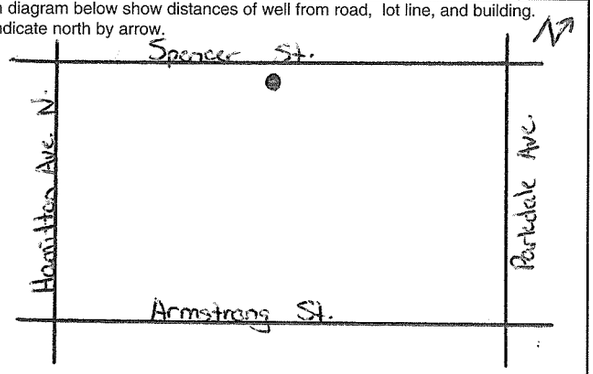
☐ Domestic ☐ Industrial ☐ Public Supply ☒ Other, remediation
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

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

Location of Well

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



Audit No. Z 64906

Date Well Completed YYYY MM DD: 2007 03 15

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

Date Delivered YYYY MM DD

Well Contractor/Technician Information

Name of Well Contractor: Bernard Marquardt & Son Ltd.

Well Contractor's Licence No.: 3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

Name of Well Technician (last name, first name): Marquardt, Brad

Well Technician's Licence No.: T-2781

Signature of Technician/Contractor: Wayne S. Marquardt

Date Submitted YYYY MM DD: 2007 03 22

Ministry Use Only

Data Source

Contractor: 3651

Date Received: MAR 2 9 2007 YYYY MM DD

Date of Inspection YYYY MM DD

Remarks

Well Record Number

0506E (08/2006)

Ministry's Copy

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Ontario Ministry of the Environment

Well Tag (see below) A 054053

A054053

Well Record

Regulation 903 Ontario Water Resources Act

WELL #14 page 1 of 1

Instructions for Completing Form

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

Ministry Use Only

MUN CON LOT

[redacted]

Address of Well Location (County/District/Municipality): Ottawa Carleton

Township: Ottawa

Lot:

Concession:

RR#/Street Number/Name: 3 Hamilton Ave. North

City/Town/Village:

Site/Compartment/Block/Tract etc.:

GPS Reading: NAD 83 | Zone 18 | Easting 442827 | Northing 5027910

Unit Make/Model: Garmin/eTrex

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

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To
brown	gravel	sand		0	1.5
grey	limestone			1.5	6.1

Hole Diameter

Depth From	Depth To	Diameter Centimetres
0	2.4	25.4
2.4	6.1	15.2

Water Record

Water found at ___ Metres / Kind of Water

seepage ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

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

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	2.4
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		2.4	6.1

Test of Well Yield

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

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - Metres From	Depth set at - Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	2.4	Holeplug	

Method of Construction

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

Water Use

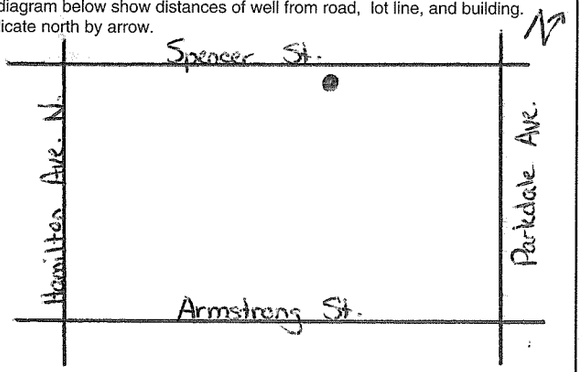
☐ Domestic ☐ Industrial ☐ Public Supply ☒ Other remediation
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

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

Location of Well

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



Audit No. Z 64907

Date Well Completed YYYY MM DD: 2007 03 15

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

Date Delivered YYYY MM DD

Well Contractor/Technician Information

Name of Well Contractor: Bernard Marquardt & Son Ltd.

Well Contractor's Licence No.: 3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

Name of Well Technician (last name, first name): Marquardt, Brad

Well Technician's Licence No.: T-2781

Signature of Technician/Contractor: Wayne D. Marquardt

Date Submitted YYYY MM DD: 2007 03 22

Ministry Use Only

Data Source

Contractor: 3651

Date Received YYYY MM DD: MAR 29 2007

Date of Inspection YYYY MM DD

Remarks

Well Record Number

0506E (08/2006)

Ministry's Copy

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Ontario Ministry of the Environment

Well Ta ...ber below)
A 054054
A054054

Well Record
Regulation 903 Ontario Water Resources Act

WELL #15 page 1 of 1

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

Ministry Use Only
MUN | CON | LOT

Well Owner's Information and Location of Well Information

First Name	Last Name	Mailing Address (Street Number/Name, RR,Lot,Concession)
Honeywell Limited		155 Gordon Baker Road

County/District/Municipality	Township/City/Town/Village	Province	Postal Code	Telephone Number (include area code)
	Toronto	Ontario	M2H 3N7	

Address of Well Location (County/District/Municipality)	Township	Lot	Concession
Ottawa Carleton	Ottawa		

RR#/Street Number/Name	City/Town/Village	Site/Compartment/Block/Tract etc.
3 Hamilton Ave. North		

GPS Reading	NAD	Zone	Easting	Northing	Unit Make/Model	Mode of Operation
	83	18	442826	5027915	Garmin/eTrex	☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To
brown	gravel	sand		0	1.1
grey	limestone			1.1	6.1

Hole Diameter

Depth From	Depth To	Diameter Centimetres
0	2.2	25.4
2.2	6.1	15.2

Water Record

Water found at ___ Metres / Kind of Water

- seepage ☒ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:
- ___ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:
- ___ m ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	2.2
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		2.2	6.1

Test of Well Yield

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

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - Metres From	Depth set at - Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	2.2	Holeplug	

Method of Construction

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

Water Use

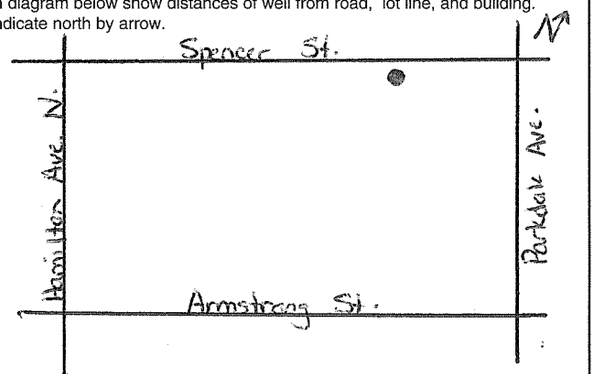
☐ Domestic ☐ Industrial ☐ Public Supply ☒ Other remediation
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

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

Location of Well

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



Audit No. Z 64908

Date Well Completed YYYY MM DD: 2007 03 16

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

Date Delivered YYYY MM DD

Well Contractor/Technician Information

Name of Well Contractor	Well Contractor's Licence No.
Bernard Marquardt & Son Ltd.	3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

Name of Well Technician (last name, first name)	Well Technician's Licence No.
Marquardt, Brad	T-2781

Signature of Technician/Contractor: X Wayne S. Marquardt

Date Submitted YYYY MM DD: 2007 03 22

Ministry Use Only

Data Source	Contractor
	3651
Date Received YYYY MM DD: MAR 29 2007	Date of Inspection YYYY MM DD
Remarks	Well Record Number

0506E (06/2006)

Ministry's Copy

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Ontario Ministry of the Environment

Well Tag A 054055 (number below) A054055

Well Record

Regulation 903 Ontario Water Resources Act

WELL #16 page 1 of 1

Instructions for Completing Form

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

Ministry Use Only

MUN CON LOT

[redacted]

Address of Well Location (County/District/Municipality): Ottawa Carleton

Township: Ottawa

Lot:

Concession:

RR#/Street Number/Name: 3 Hamilton Ave. North

City/Town/Village:

Site/Compartment/Block/Tract etc.:

GPS Reading: NAD 83 | Zone 18 | Easting 442844 | Northing 5027941

Unit Make/Model: Garmin/eTrex

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

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To (Metres)
brown	gravel	sand		0	1.2
grey	limestone			1.2	6.1

Hole Diameter

Depth From	Depth To (Metres)	Diameter (Centimetres)
0	2.2	25.4
2.2	6.1	15.2

Water Record

Water found at ___ Metres / Kind of Water

seepage ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

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

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To (Metres)
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	2.2
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		2.2	6.1

Test of Well Yield

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

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - Metres From	Depth set at - Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	2.2	Holeplug	

Method of Construction

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

Water Use

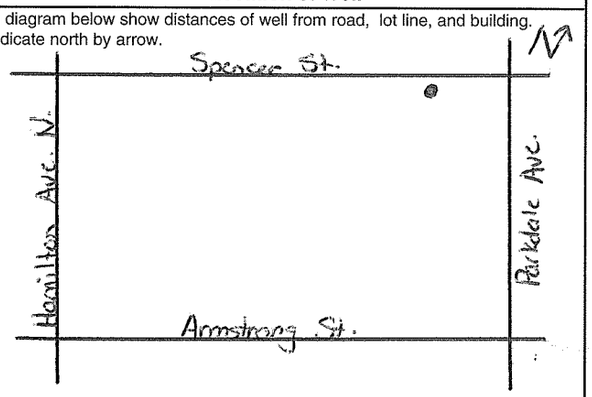
☐ Domestic ☐ Industrial ☐ Public Supply ☒ Other remediation
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

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

Location of Well

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



Audit No. Z 64909

Date Well Completed: YYYY 2007 | MM 03 | DD 16

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

Date Delivered: YYYY MM DD

Well Contractor/Technician Information

Name of Well Contractor: Bernard Marquardt & Son Ltd.

Well Contractor's Licence No.: 3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

Name of Well Technician (last name, first name): Marquardt, Brad

Well Technician's Licence No.: T-2781

Signature of Technician/Contractor: X Wayne B. Marquardt

Date Submitted: YYYY 2007 | MM 03 | DD 22

Ministry Use Only

Data Source | Contractor

Date Received: YYYY MM DD MAR 29 2007 | Date of Inspection: YYYY MM DD

Remarks | Well Record Number

0506E (08/2006)

Ministry's Copy

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Ontario Ministry of the Environment

Well Tag | A 054057 | r below) | A054057

Well Record

Regulation 903 Ontario Water Resources Act

WELL #18 page 1 of 1

Instructions for Completing Form

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- Questions regarding completing this application can be directed to the Water Well Help Desk (Toll Free) at 1-888-396-9355.
- **All metre measurements shall be reported to 1/10th of a metre.**
- Please print clearly in blue or black ink only.

Ministry Use Only

MUN | CON | LOT

Well Owner's Information and Location of Well Information

First Name	Last Name	Mailing Address (Street Number/Name, RR, Lot, Concession)
Honeywell Limited		155 Gordon Baker Road

County/District/Municipality	Township/City/Town/Village	Province	Postal Code	Telephone Number (include area code)
	Toronto	Ontario	M2H 3N7	

Address of Well Location (County/District/Municipality)	Township	Lot	Concession
Ottawa Carleton	Ottawa		

RR#/Street Number/Name	City/Town/Village	Site/Compartment/Block/Tract etc.
3 Hamilton Ave. North		

GPS Reading	NAD	Zone	Easting	Northing	Unit Make/Model	Mode of Operation
	83	18	442873	5027957	Garmin/eTrex	☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To
brown	gravel	sand		0	1.2
grey	limestone			1.2	7.6

Hole Diameter

Depth From	Depth To	Diameter Centimetres
0	2.4	25.4
2.4	7.6	15.2

Water Record

Water found at ___ Metres / Kind of Water

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

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	2.4
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		2.4	7.6

Test of Well Yield

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

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - Metres From	Depth set at - Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	2.4	Holeplug	

Method of Construction

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

Water Use

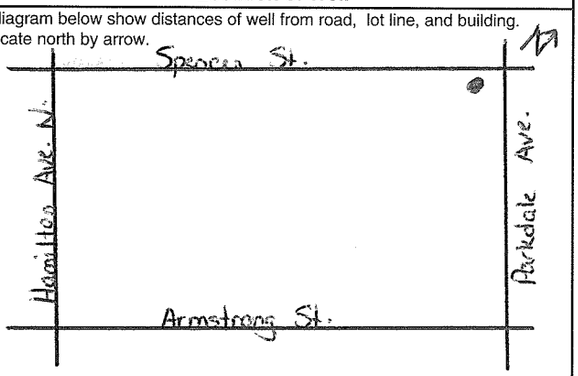
☐ Domestic ☐ Industrial ☐ Public Supply ☒ Other, remediation
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

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

Location of Well

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



Audit No. Z 64911

Date Well Completed YYYY MM DD: 2007 03 16

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

Date Delivered YYYY MM DD

Well Contractor/Technician Information

Name of Well Contractor	Well Contractor's Licence No.
Bernard Marquardt & Son Ltd.	3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

Name of Well Technician (last name, first name)	Well Technician's Licence No.
Marquardt, Brad,	T-2781

Ministry Use Only

Data Source	Contractor
	3651
Date Received YYYY MM DD: MAR 29 2007	Date of Inspection YYYY MM DD
Remarks	Well Record Number

Ontario Ministry of the Environment

Well Tag Number (Plate number below) A 054058

A054058

Well Record

Regulation 903 Ontario Water Resources Act

WELL #19 page 1 of 1

Instructions for Completing Form

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

Ministry Use Only

[redacted]

Address of Well Location (County/District/Municipality): Ottawa Carleton

Township: Ottawa

Lot:

Concession:

RR#/Street Number/Name: 3 Hamilton Ave. North

City/Town/Village:

Site/Compartment/Block/Tract etc.:

GPS Reading: NAD 83 | Zone 18 | Easting 442850 | Northing 5027923

Unit Make/Model: Garmin/eTrex

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

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To (Metres)
brown	gravel	sand		0	0.9
grey	limestone			0.9	7.6

Hole Diameter

Depth From	Depth To (Metres)	Diameter (Centimetres)
0	1.8	25.4
1.8	7.6	15.2

Water Record

Water found at ___ Metres / Kind of Water

seepage ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

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

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To (Metres)
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	1.8
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		1.8	7.6

Test of Well Yield

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

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - From	Depth set at - To (Metres)	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	1.8	Holeplug	

Method of Construction

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

Water Use

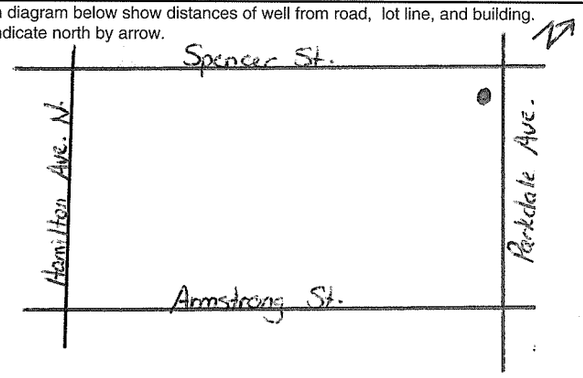
☐ Domestic ☐ Industrial ☐ Public Supply ☒ Other remediation
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

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

Location of Well

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



Audit No. Z 64912

Date Well Completed: YYYY 2007 MM 03 DD 14

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

Date Delivered: YYYY MM DD

Well Contractor/Technician Information

Name of Well Contractor: Bernard Marquardt & Son Ltd.

Well Contractor's Licence No.: 3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

Name of Well Technician (last name, first name): Marquardt, Brad

Well Technician's Licence No.: T-2781

Signature of Technician/Contractor: X Brad Marquardt

Date Submitted: YYYY 2007 MM 03 DD 22

Ministry Use Only

Data Source:

Contractor: 3651

Date Received: YYYY MM DD MAR 29 2007

Date of Inspection: YYYY MM DD

Remarks:

Well Record Number:

0506E (08/2006)

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Ontario Ministry of the Environment

Well Tag ... (er below) A 054059

A054059

Well Record

Regulation 903 Ontario Water Resources Act

WELL #20 page 1 of 1

Instructions for Completing Form

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

Ministry Use Only

[redacted]

Address of Well Location (County/District/Municipality): Ottawa Carleton

Township: Ottawa

Lot:

Concession:

RR#/Street Number/Name: 3 Hamilton Ave. North

City/Town/Village:

Site/Compartment/Block/Tract etc.:

GPS Reading: NAD 83 | Zone 18 | Easting 442878 | Northing 5027913

Unit Make/Model: Garmin/eTrex

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

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To
brown	gravel	sand		0	1.5
grey	limestone			1.5	7.6

Hole Diameter

Depth From	Depth To	Diameter Centimetres
0	2.6	25.4
2.6	7.6	15.2

Water Record

Water found at ___ Metres / Kind of Water

seepage ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

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

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	2.6
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		2.6	7.6

Test of Well Yield

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

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - Metres From	Depth set at - Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	2.6	Holeplug	

Method of Construction

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

Water Use

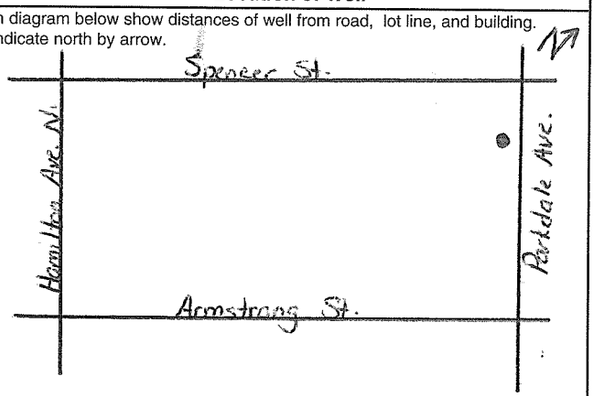
☐ Domestic ☐ Industrial ☐ Public Supply ☒ Other remediation
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

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

Location of Well

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



Audit No. Z 64913

Date Well Completed YYYY MM DD: 2007 03 14

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

Date Delivered YYYY MM DD

Well Contractor/Technician Information

Name of Well Contractor: Bernard Marquardt & Son Ltd.

Well Contractor's Licence No.: 3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

Name of Well Technician (last name, first name): Marquardt, Brad

Well Technician's Licence No.: T-2781

Signature of Technician/Contractor: Bernard Marquardt

Date Submitted YYYY MM DD: 2007 03 22

Ministry Use Only

Data Source

Contractor: 3651

Date Received: MAR 29 2007 YYYY MM DD

Date of Inspection YYYY MM DD

Remarks

Well Record Number

0506E (08/2006)

Ministry's Copy

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Ontario Ministry of the Environment

Well Tag No. (below) A 054060

A054060

Well Record

Regulation 903 Ontario Water Resources Act

WELL #21 page 1 of 1

Instructions for Completing Form

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

Ministry Use Only

[redacted]

Address of Well Location (County/District/Municipality): Ottawa Carleton

Township: Ottawa

Lot:

Concession:

RR#/Street Number/Name: 3 Hamilton Ave. North

City/Town/Village:

Site/Compartment/Block/Tract etc.:

GPS Reading: NAD 83 | Zone 18 | Easting 442848 | Northing 5027909

Unit Make/Model: Garmin/eTrex

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

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To
brown	gravel	sand		0	1.7
grey	limestone			1.7	7.6

Hole Diameter

Depth From	Depth To	Diameter Centimetres
0	2.6	25.4
2.6	7.6	15.2

Water Record

Water found at ___ Metres / Kind of Water

seepage ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

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

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	2.6
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		2.6	7.6

Test of Well Yield

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

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - From	Depth set at - To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	2.6	Holeplug	

Method of Construction

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

Water Use

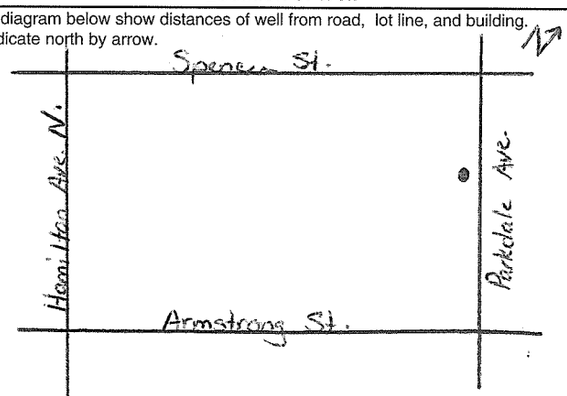
☐ Domestic ☐ Industrial ☐ Public Supply ☒ Other Remediation
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

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

Location of Well

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



Audit No. Z 64914

Date Well Completed YYYY MM DD: 2007 03 14

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

Date Delivered YYYY MM DD

Well Contractor/Technician Information

Name of Well Contractor: Bernard Marquardt & Son Ltd.

Well Contractor's Licence No.: 3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

Name of Well Technician (last name, first name): Marquardt, Brad

Well Technician's Licence No.: T-2781

Signature of Technician/Contractor: X Wayne B Marquardt

Date Submitted YYYY MM DD: 2007 03 22

Ministry Use Only

Data Source

Contractor: 3651

Date Received YYYY MM DD: MAR 29 2007

Date of Inspection YYYY MM DD

Remarks

Well Record Number

0506E (08/2006)

Ministry's Copy

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Ontario Ministry of the Environment

Well Tag (see below) A 054063

A054063

Well Record

Regulation 903 Ontario Water Resources Act

WELL #24 page 1 of 1

Instructions for Completing Form

- For use in the **Province of Ontario** only. This document is a permanent **legal** document. Please retain for future reference.
- All Sections **must** be completed in full to avoid delays in processing. Further instructions and explanations are available on the back of this form.
- Questions regarding completing this application can be directed to the Water Well Help Desk (Toll Free) at 1-888-396-9355.
- **All metre measurements shall be reported to 1/10th of a metre.**
- Please print clearly in blue or black ink only.

Ministry Use Only

[redacted]

Address of Well Location (County/District/Municipality)	Township	Lot	Concession
Ottawa Carleton	Ottawa		

RR#/Street Number/Name	City/Town/Village	Site/Compartment/Block/Tract etc.
3 Hamilton Ave. North		

GPS Reading	NAD	Zone	Easting	Northing	Unit Make/Model	Mode of Operation
	83	18	442863	5027873	Garmin/eTrex	☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To
brown	gravel	sand		0	0.6
grey	limestone			0.6	7.6

Hole Diameter

Depth From	Depth To	Diameter Centimetres
0	2.4	25.4
2.4	7.6	15.2

Water Record

Water found at ___ Metres / Kind of Water

seepage ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

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

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	2.4
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		2.4	7.6

Test of Well Yield

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

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - Metres From	Depth set at - Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	2.4	Holeplug	

Method of Construction

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

Water Use

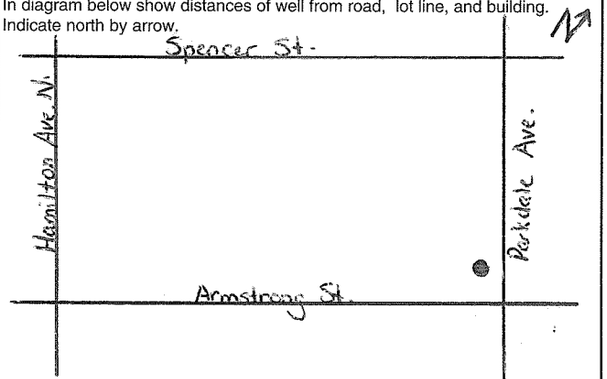
☐ Domestic ☐ Industrial ☐ Public Supply ☒ Other remediation
☐ Stock ☐ Commercial ☐ Not used
☐ Irrigation ☐ Municipal ☐ Cooling & air conditioning

Final Status of Well

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

Location of Well

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



Audit No. Z 64917

Date Well Completed YYYY MM DD: 2007 03 15

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

Date Delivered YYYY MM DD

Well Contractor/Technician Information

Name of Well Contractor	Well Contractor's Licence No.
Bernard Marquardt & Son Ltd.	3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

Name of Well Technician (last name, first name)	Well Technician's Licence No.
Marquardt, Brad	T-2781

Signature of Technician/Contractor: x James B Marquardt

Date Submitted YYYY MM DD: 2007 03 22

Ministry Use Only

Data Source	Contractor
	3651
Date Received YYYY MM DD: MAR 29 2007	Date of Inspection YYYY MM DD
Remarks	Well Record Number

0506E (08/2006)

Ministry's Copy

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Ontario Ministry of the Environment

Well Tag (er below) A 054061

A054061

Well Record

Regulation 903 Ontario Water Resources Act

WELL #22 page 1 of 1

Instructions for Completing Form

- For use in the **Province of Ontario** only. This document is a permanent **legal** document. Please retain for future reference.
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- **All metre measurements shall be reported to 1/10th of a metre.**
- Please print clearly in blue or black ink only.

Ministry Use Only

MUN CON LOT

[redacted]

Address of Well Location (County/District/Municipality): Ottawa Carleton

Township: Ottawa

Lot:

Concession:

RR#/Street Number/Name: 3 Hamilton Ave. North

City/Town/Village:

Site/Compartment/Block/Tract etc.:

GPS Reading: NAD 83 | Zone 18 | Easting 442858 | Northing 5027895

Unit Make/Model: Garmin/eTrex

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

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth From	Depth To
brown	gravel	sand		0	2.6
grey	limestone			2.6	7.6

Hole Diameter

Depth From	Depth To	Diameter Centimetres
0	2.9	25.4
2.9	7.6	15.2

Water Record

Water found at ___ Metres / Kind of Water

seepage ☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

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

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth From	Depth To
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	2.9
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen				
Outside diam	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen				
	☒ Open hole		2.9	7.6

Test of Well Yield

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

Plugging and Sealing Record

☒ Annular space ☐ Abandonment

Depth set at - Metres From	Depth set at - Metres To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	2.9	Holeplug	

Method of Construction

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

Water Use

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

Final Status of Well

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

Well Contractor/Technician Information

Name of Well Contractor: Bernard Marquardt & Son Ltd.

Well Contractor's Licence No.: 3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

Name of Well Technician (last name, first name): Marquardt, Brad

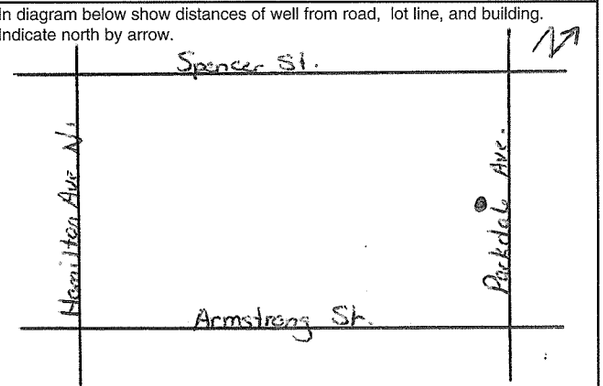
Well Technician's Licence No.: T-2781

Signature of Technician/Contractor: Wayne B Marquardt

Date Submitted YYYY MM DD: 2007 03 22

Location of Well

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



Audit No. Z 64915

Date Well Completed YYYY MM DD: 2007 03 14

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

Date Delivered YYYY MM DD

Ministry Use Only

Data Source

Contractor: 3651

Date Received: MAR 29 2007 YYYY MM DD

Date of Inspection YYYY MM DD

Remarks

Well Record Number

0506E (08/2006)

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Ontario Ministry of the Environment

Well Tag A054062 (number below)

A054062

Well Record

Regulation 903 Ontario Water Resources Act

WELL #23

page 1 of 1

Instructions for Completing Form

- For use in the **Province of Ontario** only. This document is a permanent **legal** document. Please retain for future reference.
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- Questions regarding completing this application can be directed to the Water Well Help Desk (Toll Free) at 1-888-396-9355.
- **All metre measurements shall be reported to 1/10th of a metre.**
- Please print clearly in blue or black ink only.

Ministry Use Only MUN | CON | LOT

Well Owner's Information and Location of Well Information

First Name	Last Name	Mailing Address (Street Number/Name, RR, Lot, Concession)
Honeywell Limited		155 Gordon Baker Road

County/District/Municipality	Township/City/Town/Village	Province	Postal Code	Telephone Number (include area code)
	Toronto	Ontario	M2H 3N7	

Address of Well Location (County/District/Municipality)	Township	Lot	Concession
Ottawa Carleton	Ottawa		

RR#/Street Number/Name	City/Town/Village	Site/Compartment/Block/Tract etc.
3 Hamilton Ave. North		

GPS Reading	NAD	Zone	Easting	Northing	Unit Make/Model	Mode of Operation
	83	18	442861	5027881	Garmin/eTrex	☐ Undifferentiated ☒ Averaged ☐ Differentiated, specify

Log of Overburden and Bedrock Materials (see instructions)

General Colour	Most common material	Other Materials	General Description	Depth (Metres) From	To
brown	gravel	sand		0	2.6
grey	limestone			2.6	7.6

Hole Diameter

Depth (Metres) From	To	Diameter Centimetres
0	2.6	25.4
2.6	7.6	15.2

Water Record

Water found at ___ Metres	Kind of Water
seepage	☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:
___ m	☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:
___ m	☐ Fresh ☐ Sulphur ☐ Gas ☐ Salty ☐ Minerals ☐ Other:

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

Chlorinated ☐ Yes ☒ No

Construction Record

Inside diam centimetres	Material	Wall thickness centimetres	Depth (Metres) From	To
Casing				
15.9	☒ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	.48	0	2.6
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized			
Screen (Outside diam)	☐ Steel ☐ Fibreglass ☐ Plastic ☐ Concrete ☐ Galvanized	Slot No.		
No Casing or Screen	☒ Open hole			7.6

Test of Well Yield

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

Plugging and Sealing Record ☒ Annular space ☐ Abandonment

Depth set at - Metres From	To	Material and type (bentonite slurry, neat cement slurry) etc.	Volume Placed (cubic metres)
0	2.6	Holeplug	

Method of Construction

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

Water Use

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

Final Status of Well

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

Well Contractor/Technician Information

Name of Well Contractor	Well Contractor's Licence No.
Bernard Marquardt & Son Ltd.	3651

Business Address (street name, number, city etc.): 18 Crescent Dr., RR#1, Palmer Rapids, ON K0J 2E0

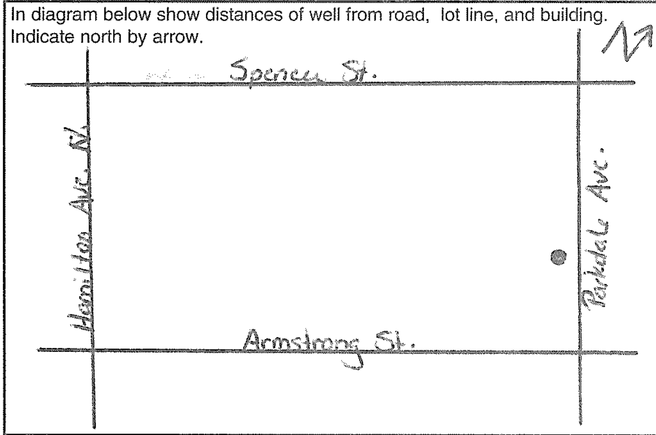
Name of Well Technician (last name, first name)	Well Technician's Licence No.
Marquardt, Brad	T-2781

Signature of Technician/Contractor: [signature]

Date Submitted (YYYY MM DD): 2007 03 22

Location of Well

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



Audit No.	Date Well Completed (YYYY MM DD)
Z 64916	2007 03 14

Was the well owner's information package delivered? ☐ Yes ☒ No | Date Delivered (YYYY MM DD)

Ministry Use Only

Data Source	Contractor 3651
Date Received MAR 29 2007	Date of Inspection
Remarks	Well Record Number

0506E (08/2006) Ministry's Copy *Cette formule est disponible en français*

Ontario Ministry of the Environment

Well Tag No. for Master Well *(Place Sticker and/or Print Below)*: A080380.

Master Well Record for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

6108 Page _____ of _____

Master Well Owner's and Land Owner's Information

First Name	Last Name	E-mail Address
	METCALF REALTY COMPANY LTD.	

Mailing Address (Street Number/Name, RR)	Municipality	Province	Postal Code	Telephone No. (inc. area code)
130 ALBERT ST. SUITE 210	OTTAWA.	ON.	K1P 5G4	613-563-4462

Location and Construction of the Master Well in the Cluster

Address of Well Location (Street Number/Name, RR)	Township	Lot	Concession
7 HINTON AVE			

County/District/Municipality	City/Town/Village	Province	Postal Code
	OTTAWA	Ontario	

UTM Coordinates	Zone	Easting	Northing	GPS Unit Make	Model	Mode of Operation
NAD 83	18	442785	5027866			☐ Undifferentiated ☐ Averaged ☐ Differentiated, specify

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

General Colour	Most Common Material	Other Materials	General Description	Depth (Metres) From	Depth (Metres) To
BRN	SAND	GRAVEL	OVERBURDEN	0	2
GRY	LIMESTONE	N/A	BEDROCK	2	10

Hole Details

Depth (Metres) From	Depth (Metres) To	Diameter (Centimetres)
0	2	8.25
2	10	5

Water Use

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

Method of Construction

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

Status of Well

☒ Test Hole ☐ Abandoned, Insufficient Supply
☐ Replacement Well ☐ Abandoned, Poor Water Quality
☐ Dewatering Well ☐ Other, *specify*
☐ Alteration (Construction) ☐ Abandoned, other, *specify*

Construction Details

Inside Diameter (Centimetres)	Material (steel, plastic, fibreglass, concrete, galvanized)	Wall Thickness	Depth (Metres) From	Depth (Metres) To
3.45	PLASTIC	0.356	0	6

No Casing and Screen Used

Open Hole ☐ Yes ☐ No

Static Water Level Test

_____ Metres

Screen

☐ Galvanized ☐ Steel ☐ Fibreglass ☐ Concrete ☒ Plastic

Outside Diameter (Centimetres)	Slot No.
4.21	10

Annular Space/Abandonment Sealing Record

Depth Set at (Metres) From	Depth Set at (Metres) To	Type of Sealant Used (Material and Type)	Volume Used (Cubic Metres)
0	0.3	CONCRETE	
0.3	5.5	BENTONITE	
5.5	10	SILICA SAND	

Water Details

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

Disinfected ☐ Yes ☐ No If no, provide reason:

Date Master Well Completed *(yyyy/mm/dd)*

Cluster Information *(Please also fill out the additional Cluster Well Information for Well Construction for each parcel of land and cluster.)*

Total Wells in Cluster	Please indicate Number of Cluster Well Information Log Sheets Submitted
4	2
Total Wells on this Property: 4	

Location of Well Cluster

Detailed Map must be provided as an attachment no larger than legal size (8.5" x 14"). Sketches are not allowed.

☒ Check box to confirm detailed map is provided as per Section 11.1 (3)

[redacted]

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
STRATA SOIL SAMPLING	7241

Business Address (Street No./Name, number, RR)	Municipality	Province	Postal Code	Business E-mail Address
147 WEST BEAVER CREEK, UNIT 2	RICHMOND HILL	ONT.	L4B 1C6	

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
9057649304	

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

Ministry Use Only

Audit No.	Well Contractor No.
M 03849	
Date Received (yyyy/mm/dd) FEB 23 2009	Date of Inspection (yyyy/mm/dd)
Remarks	

Ministry's Copy

Ontario — Ministry of the Environment

Well Tag No. for Master Well *(Print Well Tag No.)*: A080380

Cluster Well Information for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

6108 Page _____ of _____

Property Owner's Information

First Name	Last Name	Mailing Address (Street No./Name, RR)	Municipality
	METCALF REALTY COMPANY LTD.	130 ALBERT ST. SUITE 210	

Province	Postal Code	E-mail Address	Telephone No. (inc. area code)
ONT	K1P 5G4		613-563-4462

Consent

[redacted]

Signature of Technician/Contractor | Date *(yyyy/mm/dd)*

Cluster Well Information

Address of Well Location (Street Number/Name, RR)	Lot	Concession	Township	County/District/Municipality
7 HINTON AVE.				

City/Town/Village	Province	Postal Code	GPS Unit Make	Model	Unit Mode of Operation
OTTAWA	Ontario				☐ Undifferentiated ☐ Averaged ☐ Differentiated, specify:

Well # on Sketch	UTM Coordinates Zone	Easting	Northing	Full Depth of Hole (metres)	Hole Diameter (cm)	Method of Construction	Casing Material	Casing Length (metres)	Screen Interval (metres) From	To	Annular Space Sealant Used	Static Water Level (metres)	Abandonment Sealant Used	Comments	Date of Completion *(yyyy/mm/dd)*
2	18	442785	5027865	4.8	5	AIR PERCUSSION	PLASTIC	2	2	4.5	BENTONITE				2009/1/21
3	18	442744	5027877	10	5	AIR PERCUSSION	PLASTIC	7	7	10	BENTONITE				2009/1/20
4	18	442746	5027877	6	5	AIR PERCUSSION	PLASTIC	3	3	10	BENTONITE				2009/1/20

Well Contractor and Well Technician Information

Business Name of Well Contractor	Business Address (Street Number/Name, RR)	Municipality	Province
STRATA SOIL SAMPLING	147 WEST BEAVER CREEK UNIT 2	RICHMOND HILL	ON

Postal Code	Business Telephone No. (inc. area code)	Well Contractor's Licence No.	Business E-mail Address
L4B1K6	9057649304		

Name of Well Technician (First Name, Last Name)	Well Technician's Licence No.	Date Submitted *(yyyy/mm/dd)*	Signature of Technician

Date 1st Well in Cluster Constructed *(yyyy/mm/dd)*	Date Last Well in Cluster Constructed *(yyyy/mm/dd)*
2009/1/20	2009/1/27

Ministry Use Only

Date Received *(yyyy/mm/dd)*	Date Inspected *(yyyy/mm/dd)*
FEB 23 2009	
Audit No. C 01676	**Remarks** M03849

Ministry's Copy

Ontario Ministry of the Environment

Well Tag No. for Master Well *(Place Sticker and/or Print Below)*: A080380.

Master Well Record for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

6108 Page _____ of _____

Master Well Owner's and Land Owner's Information

First Name	Last Name	E-mail Address
	METCALF REALTY COMPANY LTD.	

Mailing Address (Street Number/Name, RR)	Municipality	Province	Postal Code	Telephone No. (inc. area code)
130 ALBERT ST. SUITE 210	OTTAWA.	ON.	K1P 5G4	613-563-4462

Location and Construction of the Master Well in the Cluster

Address of Well Location (Street Number/Name, RR)	Township	Lot	Concession
7 HINTON AVE			

County/District/Municipality	City/Town/Village	Province	Postal Code
	OTTAWA	Ontario	

UTM Coordinates	Zone	Easting	Northing	GPS Unit Make	Model	Mode of Operation
NAD 83	18	442785	5027866			☐ Undifferentiated ☐ Averaged ☐ Differentiated, specify

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

General Colour	Most Common Material	Other Materials	General Description	Depth (Metres) From	Depth (Metres) To
BRN	SAND	GRAVEL	OVERBURDEN	0	2
GRY	LIMESTONE	N/A	BEDROCK	2	10

Hole Details

Depth (Metres) From	Depth (Metres) To	Diameter (Centimetres)
0	2	8.25
2	10	5

Water Use

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

Method of Construction

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

Status of Well

☒ Test Hole ☐ Abandoned, Insufficient Supply
☐ Replacement Well ☐ Abandoned, Poor Water Quality
☐ Dewatering Well ☐ Other, *specify*
☐ Alteration (Construction) ☐ Abandoned, other, *specify*

Construction Details

Inside Diameter (Centimetres)	Material (steel, plastic, fibreglass, concrete, galvanized)	Wall Thickness	Depth (Metres) From	Depth (Metres) To
3.45	PLASTIC	0.356	0	6

No Casing and Screen Used

Open Hole ☐ Yes ☐ No

Static Water Level Test

_____ Metres

Screen

☐ Galvanized ☐ Steel ☐ Fibreglass ☐ Concrete ☒ Plastic

Outside Diameter (Centimetres)	Slot No.
4.21	10

Annular Space/Abandonment Sealing Record

Depth Set at (Metres) From	Depth Set at (Metres) To	Type of Sealant Used (Material and Type)	Volume Used (Cubic Metres)
0	0.3	CONCRETE	
0.3	5.5	BENTONITE	
5.5	10	SILICA SAND	

Water Details

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

Disinfected ☐ Yes ☐ No If no, provide reason:

Date Master Well Completed *(yyyy/mm/dd)*

Cluster Information *(Please also fill out the additional Cluster Well Information for Well Construction for each parcel of land and cluster.)*

Total Wells in Cluster	Please indicate Number of Cluster Well Information Log Sheets Submitted
4	2
Total Wells on this Property: 4	

Location of Well Cluster

Detailed Map must be provided as an attachment no larger than legal size (8.5" x 14"). Sketches are not allowed.

☒ Check box to confirm detailed map is provided as per Section 11.1 (3)

[redacted]

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
STRATA SOIL SAMPLING	7241

Business Address (Street No./Name, number, RR)	Municipality	Province	Postal Code	Business E-mail Address
147 WEST BEAVER CREEK, UNIT 2	RICHMOND HILL	ONT.	L4B 1C6	

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
9057649304	

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

Ministry Use Only

Audit No.	Well Contractor No.
M 03849	
Date Received (yyyy/mm/dd) FEB 23 2009	Date of Inspection (yyyy/mm/dd)
Remarks	

Ministry's Copy

Ontario — Ministry of the Environment

Well Tag No. for Master Well *(Print Well Tag No.)*: A080380

Cluster Well Information for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

6108 Page _____ of _____

Property Owner's Information

First Name	Last Name	Mailing Address (Street No./Name, RR)	Municipality
	METCALF REALTY COMPANY LTD.	130 ALBERT ST. SUITE 210	

Province	Postal Code	E-mail Address	Telephone No. (inc. area code)
ONT	K1P 5G4		613-563-4462

Consent

[redacted]

Signature of Technician/Contractor | Date *(yyyy/mm/dd)*

Cluster Well Information

Address of Well Location (Street Number/Name, RR)	Lot	Concession	Township	County/District/Municipality
7 HINTON AVE.				

City/Town/Village	Province	Postal Code	GPS Unit Make	Model	Unit Mode of Operation
OTTAWA	Ontario				☐ Undifferentiated ☐ Averaged ☐ Differentiated, specify:

Well # on Sketch	UTM Coordinates Zone	Easting	Northing	Full Depth of Hole (metres)	Hole Diameter (cm)	Method of Construction	Casing Material	Casing Length (metres)	Screen Interval (metres) From	To	Annular Space Sealant Used	Static Water Level (metres)	Abandonment Sealant Used	Comments	Date of Completion *(yyyy/mm/dd)*
2	18	442785	5027865	4.8	5	AIR PERCUSSION	PLASTIC	2	2	4.5	BENTONITE				2009/1/21
3	18	442744	5027877	10	5	AIR PERCUSSION	PLASTIC	7	7	10	BENTONITE				2009/1/20
4	18	442746	5027877	6	5	AIR PERCUSSION	PLASTIC	3	3	10	BENTONITE				2009/1/20

Well Contractor and Well Technician Information

Business Name of Well Contractor	Business Address (Street Number/Name, RR)	Municipality	Province
STRATA SOIL SAMPLING	147 WEST BEAVER CREEK UNIT 2	RICHMOND HILL	ON

Postal Code	Business Telephone No. (inc. area code)	Well Contractor's Licence No.	Business E-mail Address
L4B1K6	9057649304		

Name of Well Technician (First Name, Last Name)	Well Technician's Licence No.	Date Submitted *(yyyy/mm/dd)*	Signature of Technician

Date 1st Well in Cluster Constructed *(yyyy/mm/dd)*	Date Last Well in Cluster Constructed *(yyyy/mm/dd)*
2009/1/20	2009/1/27

Ministry Use Only

Date Received *(yyyy/mm/dd)*	Date Inspected *(yyyy/mm/dd)*
FEB 23 2009	
Audit No. C 01676	**Remarks** M03849

Ministry's Copy

Ontario Ministry of the Environment

Well Tag No. for Master Well *(Place Sticker and/or Print Below)*: A080380.

Master Well Record for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

6108 Page _____ of _____

Master Well Owner's and Land Owner's Information

First Name	Last Name	E-mail Address
	METCALF REALTY COMPANY LTD.	

Mailing Address (Street Number/Name, RR)	Municipality	Province	Postal Code	Telephone No. (inc. area code)
130 ALBERT ST. SUITE 210	OTTAWA.	ON.	K1P 5G4	613-563-4462

Location and Construction of the Master Well in the Cluster

Address of Well Location (Street Number/Name, RR)	Township	Lot	Concession
7 HINTON AVE			

County/District/Municipality	City/Town/Village	Province	Postal Code
	OTTAWA	Ontario	

UTM Coordinates	Zone	Easting	Northing	GPS Unit Make	Model	Mode of Operation
NAD 83	18	442785	5027866			☐ Undifferentiated ☐ Averaged ☐ Differentiated, specify

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

General Colour	Most Common Material	Other Materials	General Description	Depth (Metres) From	Depth (Metres) To
BRN	SAND	GRAVEL	OVERBURDEN	0	2
GRY	LIMESTONE	N/A	BEDROCK	2	10

Hole Details

Depth (Metres) From	Depth (Metres) To	Diameter (Centimetres)
0	2	8.25
2	10	5

Water Use

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

Method of Construction

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

Status of Well

☒ Test Hole ☐ Abandoned, Insufficient Supply
☐ Replacement Well ☐ Abandoned, Poor Water Quality
☐ Dewatering Well ☐ Other, *specify*
☐ Alteration (Construction) ☐ Abandoned, other, *specify*

Construction Details

Inside Diameter (Centimetres)	Material (steel, plastic, fibreglass, concrete, galvanized)	Wall Thickness	Depth (Metres) From	Depth (Metres) To
3.45	PLASTIC	0.356	0	6

No Casing and Screen Used

Open Hole ☐ Yes ☐ No

Static Water Level Test

_____ Metres

Screen

☐ Galvanized ☐ Steel ☐ Fibreglass ☐ Concrete ☒ Plastic

Outside Diameter (Centimetres)	Slot No.
4.21	10

Annular Space/Abandonment Sealing Record

Depth Set at (Metres) From	Depth Set at (Metres) To	Type of Sealant Used (Material and Type)	Volume Used (Cubic Metres)
0	0.3	CONCRETE	
0.3	5.5	BENTONITE	
5.5	10	SILICA SAND	

Water Details

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

Disinfected ☐ Yes ☐ No If no, provide reason:

Date Master Well Completed *(yyyy/mm/dd)*

Cluster Information *(Please also fill out the additional Cluster Well Information for Well Construction for each parcel of land and cluster.)*

Total Wells in Cluster	Please indicate Number of Cluster Well Information Log Sheets Submitted
4	2
Total Wells on this Property: 4	

Location of Well Cluster

Detailed Map must be provided as an attachment no larger than legal size (8.5" x 14"). Sketches are not allowed.

☒ Check box to confirm detailed map is provided as per Section 11.1 (3)

[redacted]

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
STRATA SOIL SAMPLING	7241

Business Address (Street No./Name, number, RR)	Municipality	Province	Postal Code	Business E-mail Address
147 WEST BEAVER CREEK, UNIT 2	RICHMOND HILL	ONT.	L4B 1C6	

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
9057649304	

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

Ministry Use Only

Audit No.	Well Contractor No.
M 03849	
Date Received (yyyy/mm/dd) FEB 23 2009	Date of Inspection (yyyy/mm/dd)
Remarks	

Ministry's Copy

Ontario — Ministry of the Environment

Well Tag No. for Master Well *(Print Well Tag No.)*: A080380

Cluster Well Information for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

6108 Page _____ of _____

Property Owner's Information

First Name	Last Name	Mailing Address (Street No./Name, RR)	Municipality
	METCALF REALTY COMPANY LTD.	130 ALBERT ST. SUITE 210	

Province	Postal Code	E-mail Address	Telephone No. (inc. area code)
ONT	K1P 5G4		613-563-4462

Consent

[redacted]

Signature of Technician/Contractor | Date *(yyyy/mm/dd)*

Cluster Well Information

Address of Well Location (Street Number/Name, RR)	Lot	Concession	Township	County/District/Municipality
7 HINTON AVE.				

City/Town/Village	Province	Postal Code	GPS Unit Make	Model	Unit Mode of Operation
OTTAWA	Ontario				☐ Undifferentiated ☐ Averaged ☐ Differentiated, specify:

Well # on Sketch	UTM Coordinates Zone	Easting	Northing	Full Depth of Hole (metres)	Hole Diameter (cm)	Method of Construction	Casing Material	Casing Length (metres)	Screen Interval (metres) From	To	Annular Space Sealant Used	Static Water Level (metres)	Abandonment Sealant Used	Comments	Date of Completion *(yyyy/mm/dd)*
2	18	442785	5027865	4.8	5	AIR PERCUSSION	PLASTIC	2	2	4.5	BENTONITE				2009/1/21
3	18	442744	5027877	10	5	AIR PERCUSSION	PLASTIC	7	7	10	BENTONITE				2009/1/20
4	18	442746	5027877	6	5	AIR PERCUSSION	PLASTIC	3	3	10	BENTONITE				2009/1/20

Well Contractor and Well Technician Information

Business Name of Well Contractor	Business Address (Street Number/Name, RR)	Municipality	Province
STRATA SOIL SAMPLING	147 WEST BEAVER CREEK UNIT 2	RICHMOND HILL	ON

Postal Code	Business Telephone No. (inc. area code)	Well Contractor's Licence No.	Business E-mail Address
L4B1K6	9057649304		

Name of Well Technician (First Name, Last Name)	Well Technician's Licence No.	Date Submitted *(yyyy/mm/dd)*	Signature of Technician

Date 1st Well in Cluster Constructed *(yyyy/mm/dd)*	Date Last Well in Cluster Constructed *(yyyy/mm/dd)*
2009/1/20	2009/1/27

Ministry Use Only

Date Received *(yyyy/mm/dd)*	Date Inspected *(yyyy/mm/dd)*
FEB 23 2009	
Audit No. C 01676	**Remarks** M03849

Ministry's Copy

Ontario — Ministry of the Environment

Measurements recorded in: ☐ Metric ☑ Imperial

Well No. (Place Sticker and/or Print Below) **A 086742** A086742

Well Record

Regulation 903 Ontario Water Resources Act

6462 Page ____ of ____

Well Owner's Information

First Name	Last Name / Organization	E-mail Address	☐ Well Constructed by Well Owner
	Metcalfe Realty Company Ltd.		

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. (inc. area code)
2700 Queensview Dr	Ottawa	ON	K2B8H6	

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
6 Hinton Ave			

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

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	18	442690	5027806		

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0'	1'	Cement	
1'	6'	Bentonite	
6'	12'	Sand.	

Method of Construction

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

Well Use

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

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To
1.25"	Plastic	0.25"	0'	7'

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To
1.25"	Plastic	10	7'	12'

Status of Well

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

Water Details

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

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
0'	12'	3.25"

Results of Well Yield Testing

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

If pumping discontinued, give reason:

Pump intake set at (m/ft)

Pumping rate (l/min / GPM)

Duration of pumping ____ hrs + ____ min

Final water level end of pumping (m/ft)

If flowing give rate (l/min / GPM)

Recommended pump depth (m/ft)

Recommended pump rate (l/min / GPM)

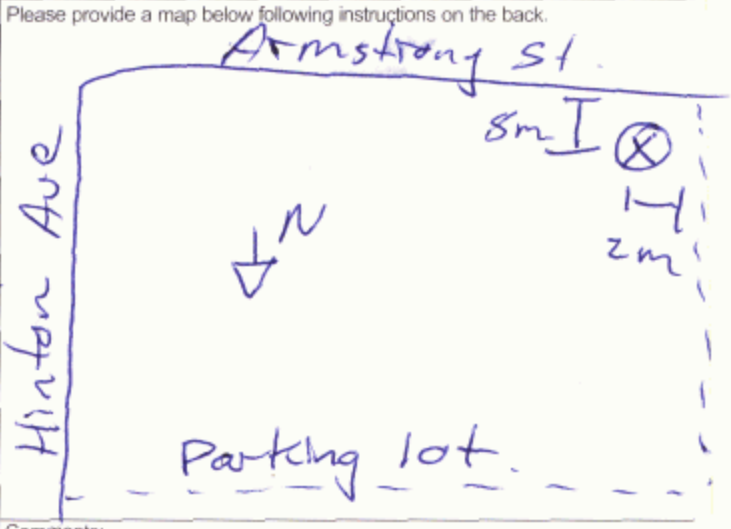
Well production (l/min / GPM)

Disinfected? ☐ Yes ☐ No

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

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Strata Soil Sampling	7241

Business Address (Street Number/Name)	Municipality
2-147 West Beaver Creek Dr	Richmond Hill

Province	Postal Code	Business E-mail Address
ON	L4B1C6	wtrecords@stratasoil.com

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
9057649704	Matt, Mike

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
3448		2009 07 05

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☐ Yes ☐ No	Y Y Y Y M M D D	2009 06 25

Ministry Use Only

Audit No. Z 100285

Received JUL 29 2009

0506E (12/2007) **Ministry's Copy**

Ontario — Ministry of the Environment

Measurements recorded in: ☐ Metric ☑ Imperial

Well (Place Sticker and/or Print Below)

A 087222 AO87222 6462

Well Record

Regulation 903 Ontario Water Resources Act

Page ____ of ____

Well Owner's Information

First Name	Last Name / Organization	E-mail Address	☐ Well Constructed by Well Owner
	Metcalfe Realty Company Ltd		

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. (inc. area code)
2700 Queensview Dr	Ottawa	ON	K2B8H6	

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
6 Hinton Ave			

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

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	18	442717	5027813		

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To

Annular Space

Depth Set at (m/ft) From	Depth Set at (m/ft) To	Type of Sealant Used (Material and Type)	Volume Placed (m^3/ft^3)
0'	1'	Cement	
1'	4'	Bentonite	
4'	15'	Sand	

Method of Construction

☐ Cable Tool ☐ Diamond ☐ Rotary (Conventional) ☐ Jetting ☐ Rotary (Reverse) ☐ Driving ☐ Boring ☐ Digging ☒ Air percussion ☐ Other, specify Direct Push

Well Use

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

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To
1.25"	Plastic	0.25"	0'	5'

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To
1.25"	Plastic	10	5'	15'

Status of Well

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

Water Details

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

Hole Diameter

Depth (m/ft) From	Depth (m/ft) To	Diameter (cm/in)
0'	15'	3.25"

Results of Well Yield Testing

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

If pumping discontinued, give reason:

Pump intake set at (m/ft)

Pumping rate (l/min / GPM)

Duration of pumping ____ hrs + ____ min

Final water level end of pumping (m/ft)

If flowing give rate (l/min / GPM)

Recommended pump depth (m/ft)

Recommended pump rate (l/min / GPM)

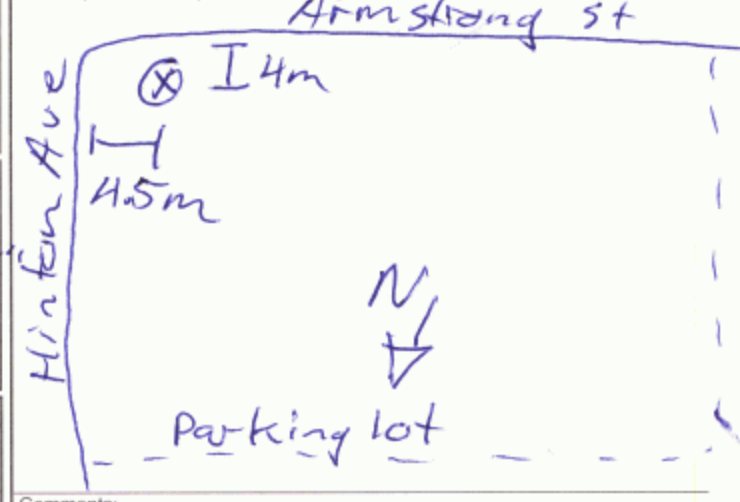
Well production (l/min / GPM)

Disinfected? ☐ Yes ☐ No

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

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Strata Soil Sampling Inc.	7241

Business Address (Street Number/Name)	Municipality	Province	Postal Code	Business E-mail Address
147-2 West Beaver Creek Road	Richmond Hill	Ontario	L4B 1C6	wrecords@stratasoil.com

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)	Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
905-764-9304	Mait, Mike	3448		20090705

Well owner's information package delivered: ☐ Yes ☒ No

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

Date Work Completed: 20090624

Ministry Use Only

Audit No. Z 93059

Received JUL 29 2009

0506E (12/2007)

Ministry's Copy

Ontario — Ministry of the Environment

Measurements recorded in: ☐ Metric ☑ Imperial

Well Tag No. (Place Sticker and/or Print Below): A 087223 A087223

Well Record

Regulation 903 Ontario Water Resources Act

6462 Page 3 of 3

Well Owner's Information

First Name	Last Name / Organization	E-mail Address	☐ Well Constructed by Well Owner
	Metcalfe Realty Company Ltd		

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. (inc. area code)
2700 Queensview Dr	Ottawa	ON	K2B 8H6	

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
6 Hinton Ave			

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

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	18	0442680	5027831		

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
Brn	Fill	Sand / clay		0'	5'
Gry	Granite			5'	15'

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0'	1'	Cement	
1'	4'	Bentonite	
4'	15'	Sand	

Method of Construction

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

Well Use

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

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To
1.25"	Plastic	0.25"	0'	5'

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To
1.25'	Plastic	10	5'	15'

Status of Well

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

Water Details

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

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
0'	15'	3.25"

Results of Well Yield Testing

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

If pumping discontinued, give reason:

Pump intake set at (m/ft)

Pumping rate (l/min / GPM)

Duration of pumping ____ hrs + ____ min

Final water level end of pumping (m/ft)

If flowing give rate (l/min / GPM)

Recommended pump depth (m/ft)

Recommended pump rate (l/min / GPM)

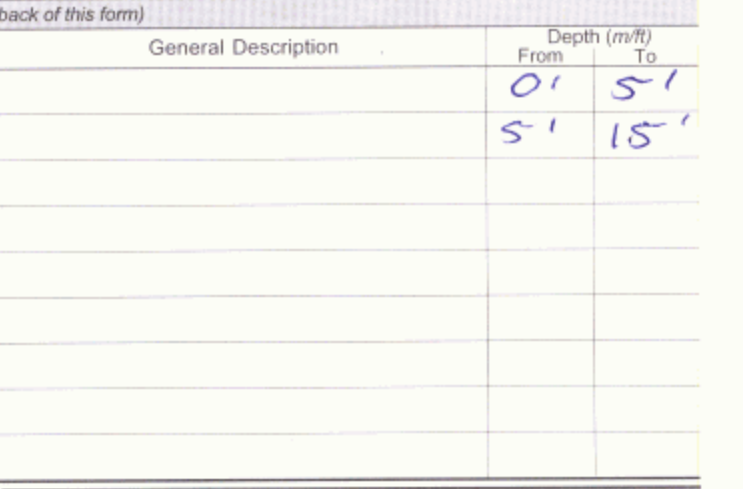
Well production (l/min / GPM)

Disinfected? ☐ Yes ☐ No

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

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Strata Soil Sampling	7241

Business Address (Street Number/Name)	Municipality
2-147 West Beaver Creek Dr	Richmond Hill

Province	Postal Code	Business E-mail Address
ON	L4B 1C6	wrecords@stratasoil.com

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
9057649304	Mike Mair

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
3448	Mike Mair	20090705

Well owner's information package delivered: ☐ Yes ☐ No

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

Date Work Completed: 20090705

Ministry Use Only

Audit No. Z 100300

JUL 29 2009

Received

0506E (12/2007)

Ministry's Copy

Ontario — Ministry of the Environment

Well Record

Regulation 903 Ontario Water Resources Act

Measurements recorded in: ☑ Metric ☐ Imperial

Well Tag No. (Place Sticker and/or Print Below): A090933

A 090933

6782

Page 1 of 2

Well Owner's Information

[redacted]

366 Parkdale Ave

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

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	18	442870	5027762		WKQ-001799 A0 - A01

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
BRN	FILL	Gravel	Loose	0	0.6
BRN	CLAY	SILT	Soft	0.6	3.35
GRY	Bedrock			3.35	5.18

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	0.3	Concrete	
0.3	1.83	Grout	
1.83	5.18	SAND	

Method of Construction

☐ Cable Tool ☐ Diamond ☐ Rotary (Conventional) ☐ Jetting ☐ Rotary (Reverse) ☐ Driving ☐ Boring ☐ Digging ☐ Air percussion ☒ Other, specify: Direct Push

Well Use

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

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To
3.45	Plastic	.356	0	2.13

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To
4.21	Plastic	10	2.13	5.18

Status of Well

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

Water Details

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

Hole Diameter

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

Results of Well Yield Testing

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

If pumping discontinued, give reason:

Pump intake set at (m/ft)

Pumping rate (l/min / GPM)

Duration of pumping ____ hrs + ____ min

Final water level end of pumping (m/ft)

If flowing give rate (l/min / GPM)

Recommended pump depth (m/ft)

Recommended pump rate (l/min / GPM)

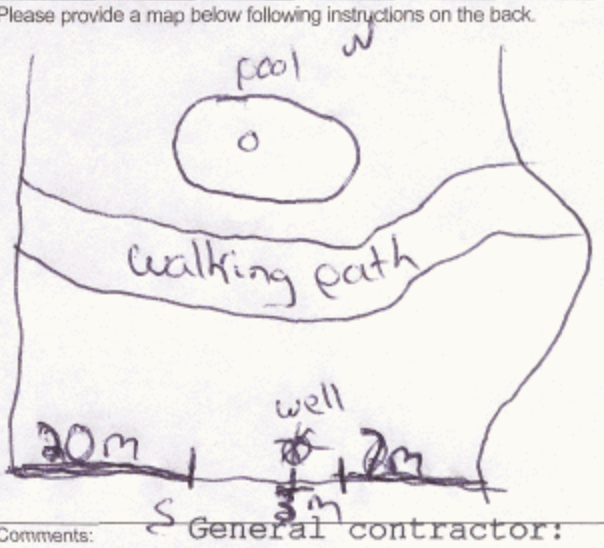
Well production (l/min / GPM)

Disinfected? ☐ Yes ☐ No

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

Map of Well Location

Please provide a map below following instructions on the back.



Comments: General contractor: Intera Engineering Ltd.

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Strata Soil Sampling Inc.	7241

Business Address (Street Number/Name)	Municipality	Province	Postal Code	Business E-mail Address
147-2 West Beaver Creek Road	Richmond Hill	Ontario	L4B 1C6	wrecords@stratasoil.com

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)	Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
905-764-9304	Robinson Tricia	3159		2009/10/16

Well owner's information package delivered: ☐ Yes ☒ No

Date Package Delivered: ____

Date Work Completed: ____

Ministry Use Only

Audit No. Z106669

NOV 13 2009 Received

0506E (12/2007)

Ministry's Copy

EP 1756

Ontario — Ministry of the Environment

Measurements recorded in: ☑ Metric ☐ Imperial

Well Tag No. (Place Sticker and/or Print Below) A090935 **A 090935**

Well Record

Regulation 903 Ontario Water Resources Act

6782 Page 2 of 2

Well Owner's Information

[redacted]

366 Parkdale Ave

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

UTM Coordinates: NAD 83 Zone 18 Easting 445285 Northing 5027769

Municipal Plan and Sublot Number:

Other: WKQ-001799 A0 - A01

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
BRN	~~FILL~~	Gravel	loose	0	0.6
BRN	CLAY	SILT	soft	0.6	2.44
GRY	Bedrock			2.44	6.1

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	0.3	Concret	
0.3	2.74	Grout	
2.74	6.1	SAND	

Method of Construction

☐ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Boring ☐ Digging
☐ Air percussion
☒ Other, specify: Direct Push

Well Use

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

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To
3.45	Plastic	.356	0	3.1

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To
4.21	Plastic	10	3.1	6.1

Status of Well

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

Water Details

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

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
0	2.44	8.25
2.44	6.1	5.71

Results of Well Yield Testing

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

If pumping discontinued, give reason:

Pump intake set at (m/ft)

Pumping rate (l/min / GPM)

Duration of pumping: ____ hrs + ____ min

Final water level end of pumping (m/ft)

If flowing give rate (l/min / GPM)

Recommended pump depth (m/ft)

Recommended pump rate (l/min / GPM)

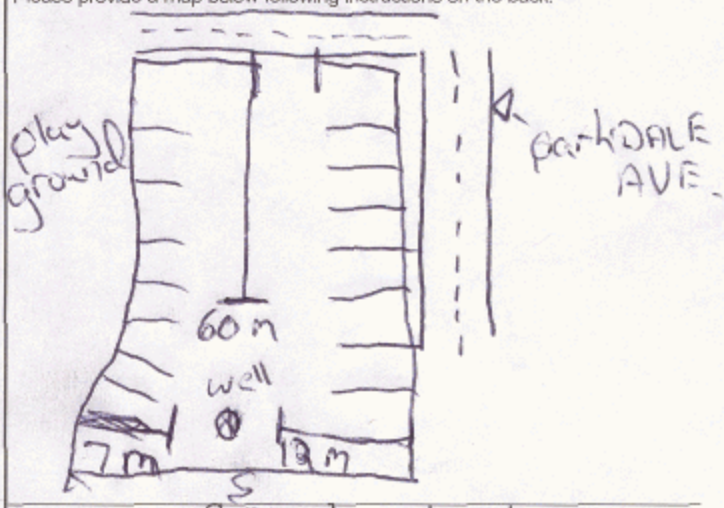
Well production (l/min / GPM)

Disinfected? ☐ Yes ☐ No

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

Map of Well Location

Please provide a map below following instructions on the back.



Comments: General contractor: Intera Engineering Ltd.

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Strata Soil Sampling Inc.	7241

Business Address (Street Number/Name)	Municipality
147-2 West Beaver Creek Road	Richmond Hill

Province	Postal Code	Business E-mail Address
Ontario	L4B 1C6	wrecords@stratasoil.com

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
905-764-9304	Peterson, Eric

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
3184		2009/11/06

Well owner's information package delivered: ☐ Yes ☒ No

Date Package Delivered: YYYY MM DD

Date Work Completed: YYYY MM DD

Ministry Use Only

Audit No. Z106671

Received NOV 13 2009

0506E (12/2007)

Ministry's Copy

EP 5756

Ontario — Ministry of the Environment

Measurements recorded in: ☑ Metric ☐ Imperial

Well Tag No. *(Place Sticker and/or Print Below)* **A 099842** A099842

Well Record

Regulation 903 Ontario Water Resources Act

8806 Page 1 of 2

[redacted]

Address of Well Location (Street Number/Name)	Township	Lot	Concession
7 Hinton Avenue.			

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

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	18	442785	5027844		

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
Gry	Cobbles		Hard, dry	0	1.22
Brn/Gry	Sand	Silt	Hard, moist	1.22	2.44
Gry	limestone		Hard,	2.44	6.1

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	.31	Concrete / flushmount	
.31	1.83	Holeplug	
1.83	3.1	Grout slurry	
3.1	6.1	Sand	

Method of Construction

☐ Cable Tool ☒ Diamond ☐ Public ☐ Commercial ☐ Not used

☐ Rotary (Conventional) ☐ Jetting ☐ Domestic ☐ Municipal ☐ Dewatering

☐ Rotary (Reverse) ☐ Driving ☐ Livestock ☒ Test Hole ☒ Monitoring

☐ Boring ☐ Digging ☐ Irrigation ☐ Cooling & Air Conditioning

☐ Air percussion ☐ Industrial

☐ Other, specify ☐ Other, specify

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Well Thickness (cm/in)	Depth (m/ft) From	To
3.45	PVC	.356	0	3.35

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To
4.21	PVC	10	3.35	6.1

Status of Well

☐ Water Supply

☐ Replacement Well

☒ Test Hole

☐ Recharge Well

☐ Dewatering Well

☒ Observation and/or Monitoring Hole

☐ Alteration (Construction)

☐ Abandoned, Insufficient Supply

☐ Abandoned, Poor Water Quality

☐ Abandoned, other, specify

☐ Other, specify

Water Details

Water found at Depth (m/ft)	Kind of Water	Hole Diameter Depth From (m/ft)	Depth To (m/ft)	Diameter (cm/in)
☐ Gas	☐ Fresh ☐ Untested ☐ Other, specify	0	2.44	8.25
☐ Gas	☐ Fresh ☐ Untested ☐ Other, specify	2.44	6.1	5.71
☐ Gas	☐ Fresh ☐ Untested ☐ Other, specify			

Results of Well Yield Testing

After test of well yield, water was:

☐ Clear and sand free

☐ Other, specify

If pumping discontinued, give reason:

Pump intake set at (m/ft)

Pumping rate (l/min / GPM)

Duration of pumping ____ hrs + ____ min

Final water level end of pumping (m/ft)

If flowing give rate (l/min / GPM)

Recommended pump depth (m/ft)

Recommended pump rate (l/min / GPM)

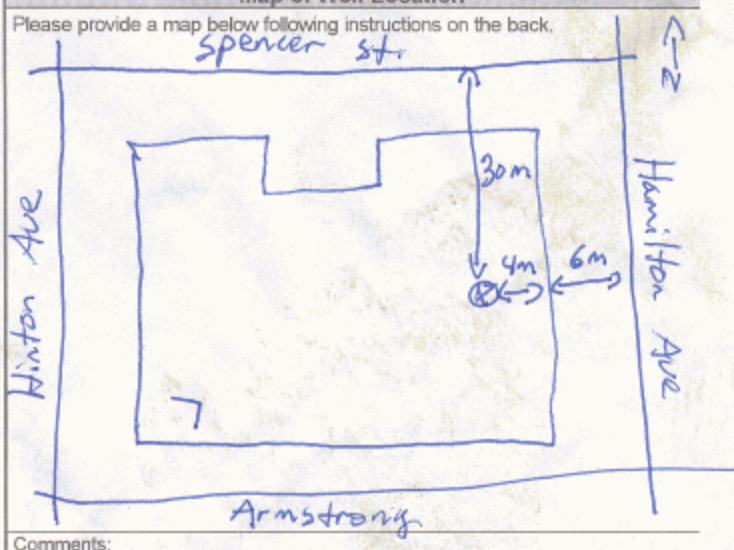
Well production (l/min / GPM)

Disinfected? ☐ Yes ☐ No

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

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Strata Soil Sampling	7241

Business Address (Street Number/Name)	Municipality
147-2 West Beaver Creek Rd	Richmond Hill

Province	Postal Code	Business E-mail Address
Ontario	L4B1C6	wellrecords@stratasoil.com

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
9057649304	Beatty Brian

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
3616		2011/07/06

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☐ Yes ☐ No		2011/07/06

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Audit No. z111755

Received AUG 05 2011

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Ministry of the Environment

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

A 094087 A094087

Well Record

Regulation 903 Ontario Water Resources Act

[redacted]

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
7 Hinton Ave			

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

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 8 3	18	442771	5027889		

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
Brn	Sand	Gravel	Soft, dry	0	1.5
Blk	Top Soil	Sand	Hard, dry	1.5	1.83
Gry	limestone		Hard	1.83	5.55

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	.31	Concrete/flushmount	
.31	1.5	Hole plug	
1.5	2.74	Grout slurry	
2.74	5.55	Sand	

Method of Construction

☐ Cable Tool ☒ Diamond ☐ Public ☐ Commercial ☐ Not used
☐ Rotary (Conventional) ☐ Jetting ☐ Domestic ☐ Municipal ☐ Dewatering
☐ Rotary (Reverse) ☐ Driving ☐ Livestock ☒ Test Hole ☒ Monitoring
☐ Boring ☐ Digging ☐ Irrigation ☐ Cooling & Air Conditioning
☐ Air percussion ☐ Industrial
☐ Other, *specify* ☐ Other, *specify*

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To
3.45	PVC	.356	0	3.1

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To
4.21	PVC	10	3.1	5.55

Status of Well

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

Water Details

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

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
0	1.83	8.25
1.83	5.55	5.71

Results of Well Yield Testing

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

If pumping discontinued, give reason:

Pump intake set at *(m/ft)*

Pumping rate *(l/min / GPM)*

Duration of pumping ____ hrs + ____ min

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

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

Recommended pump depth *(m/ft)*

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

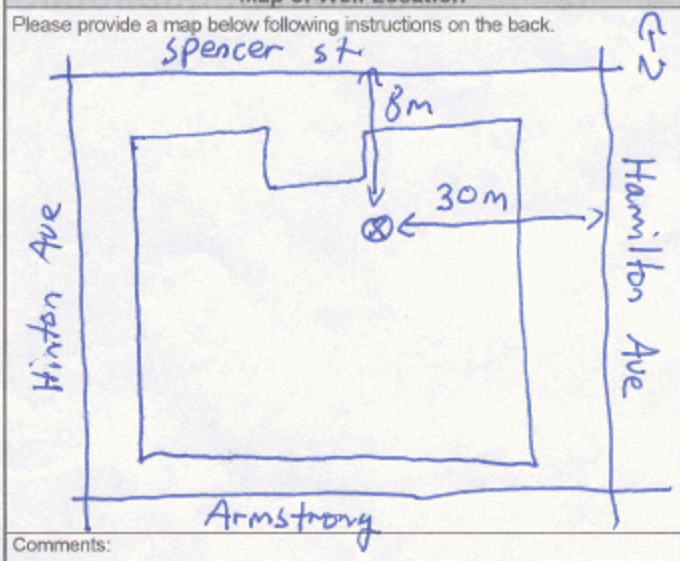
Well production *(l/min / GPM)*

Disinfected? ☐ Yes ☐ No

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

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
Strata Soil Sampling	7241

Business Address (Street Number/Name)	Municipality
147-2 West Beaver Creek Rd	Richmond Hill

Province	Postal Code	Business E-mail Address
Ontario	L4B1C6	wrecords@stratasoil.com

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
9059649304	Beatty Brian

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
3616		2011 07 26

Well owner's information package delivered ☐ Yes ☐ No

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

Date Work Completed: 2011 07 26

Ministry Use Only

Audit No. z111754

Received AUG 05 2011

Ministry's Copy

Ontario — Ministry of the Environment

Well Tag No. for Master Well *(Place Sticker and/or Print Below)*: ABANDONED

Master Well Record for Cluster Well Construction

Regulation 903 Ontario Water Resources Act

Page 1 of 2

Master Well Owner's and Land Owner's Information

First Name	Last Name	E-mail Address
City of Ottawa		

Mailing Address (Street Number/Name, RR)	Municipality	Province	Postal Code	Telephone No. *(inc. area code)*
110 Laurier Ave. West	Ottawa	On	K1P1J1	8662619799

Location and Construction of the Master Well in the Cluster

Address of Well Location (Street Number/Name, RR)	Township	Lot	Concession
Holland Avenue Between Scott st and Tyndall Ave.			

County/District/Municipality	City/Town/Village	Province	Postal Code
	Ottawa	Ontario	K1Y0X9

UTM Coordinates	Zone	Easting	Northing	GPS Unit Make	Model	Mode of Operation:
NAD 83	18	442775	5027587	Garmin	Etrex	☐ Undifferentiated ☐ Averaged ☐ Differentiated, specify

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

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

Hole Details

Depth (Metres) From	Depth (Metres) To	Diameter (Centimetres)
0	5.79	~~3.2~~ 7.6

Construction Details

Inside Diameter (Centimetres)	Material (steel, plastic, fibreglass, concrete, galvanized)	Wall Thickness	Depth (Metres) From	Depth (Metres) To
3.0	plastic	Sch 40	5.79	0

Water Use

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

Method of Construction

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

Status of Well

☐ Test Hole ☐ Abandoned, Insufficient Supply
☐ Replacement Well ☐ Abandoned, Poor Water Quality
☐ Dewatering Well ☐ Other, *specify*
☐ Alteration (Construction) ☑ Abandoned, other, *specify* Construction

No Casing and Screen Used

Open Hole ☐ Yes ☑ No

Static Water Level Test

Metres

Screen

☐ Galvanized ☐ Steel ☐ Fibreglass ☐ Concrete ☑ Plastic

Outside Diameter *(Centimetres)*	Slot No.
3.2	10

Annular Space/Abandonment Sealing Record

Depth Set at (Metres) From	Depth Set at (Metres) To	Type of Sealant Used *(Material and Type)*	Volume Used *(Cubic Metres)*
5.79	0	Hole plug	

Water Details

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

Disinfected ☐ Yes ☐ No If no, provide reason:	Date Master Well Completed *(yyyy/mm/dd)*

Cluster Information *(Please also fill out the additional Cluster Well Information for Well Construction for each parcel of land and cluster.)*

Total Wells in Cluster	Please indicate Number of Cluster Well Information Log Sheets Submitted
8	
Total Wells on this Property	

Location of Well Cluster

Detailed Map must be provided as an attachment no larger than legal size (8.5" x 14"). Sketches are not allowed.
☑ Check box to confirm detailed map is provided as per Section 11.1 (3)

Consent to release additional information concerning the cluster to the Director upon request

Signature of Technician/Contractor	Date *(yyyy/mm/dd)*

Master Well Owner's/Land Owner's consent to use Cluster Form

Signature	Date *(yyyy/mm/dd)*

Well Contractor and Well Technician Information

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

Business Address (Street No./Name, number, RR)	Municipality
6897 Hiram Dr.	Ottawa

Province	Postal Code	Business E-mail Address
Ontario	K4P1A7	jschell@marathondrilling.com

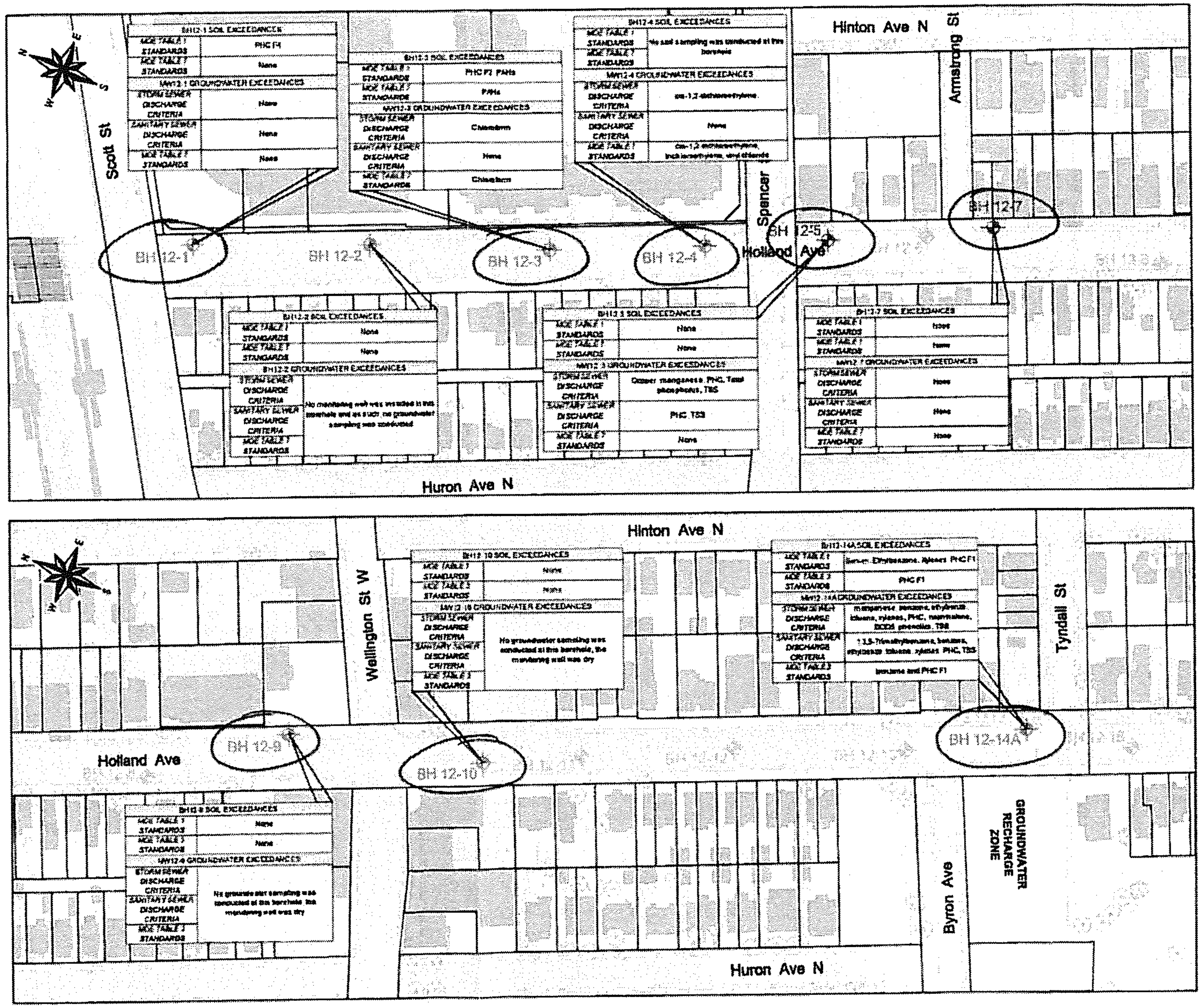
Bus. Telephone No. *(inc. area code)*	Name of Well Technician (Last Name, First Name)
6138220571	Matthew Webb

Well Technician's Licence No.	Signature of Technician	Date Submitted *(yyyy/mm/dd)*
3279		July 26th/2012

Ministry Use Only

Audit No.	Well Contractor No.
M 05028	
Date Received *(yyyy/mm/dd)* JUL 31 2012	Date of Inspection *(yyyy/mm/dd)*
Remarks	

JUL 3 1 2012



LEGEND

- APPROXIMATE LOCATION OF GEO-ENVIRONMENTAL BOREHOLES
- APPROXIMATE LOCATION OF ENVIRONMENTAL BOREHOLES
- APPROXIMATE LOCATION OF GEOTECHNICAL BOREHOLES

30 0 30
SCALE 1:1,500 METRES

REFERENCE

BASE MAP PROVIDED IN ELECTRONIC FORMAT BY THE CITY OF OTTAWA

NOTE

THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT No. 11-1121-0281/400

PROJECT

PHASE II ESA - HOLLAND AVENUE WATERMAIN AND SANITARY SEWER REPLACEMENT

TITLE

APPROXIMATE BOREHOLE LOCATION AND SOIL AND GROUNDWATER EXCEEDANCES

Golder Associates
Ottawa, Ontario

PROJECT No. 11-1121-0281			FILE No. 1111210281-400-02.dwg	
DESIGN	MS	May 2012	SCALE 1:1,500	REV.
CADD	JDA/BR	May 2012	FIGURE	
CHECK	MS	May 2012	2	
REVIEW	DHP	May 2012		

FILENAME: N:\Active\2011\1121 - Geotechnical\11-1121-0281 JLR Holland Ave\Spatial\CAD\400 - Phase II\1111210281-400-02.dwg

C-6894
M05028.

Ontario Ministry of the Environment

Well Record for Well Cluster - Part 1 of 3

(Only for Multiple Test Holes or Dewatering Wells)

Regulation 903 Ontario Water Resources Act

Page 1 of 1

All measurements recorded in: ☑ Metric ☐ Imperial

Follow instructions on the front and back of this form. Print or Type

Well Tag No. of Deepest Well: *(Print Well Tag No.)* A122972

Well # on Drawing of Deepest Well: E-3

Well Cluster Location Information

Address of Well Location (Street Number(s)/Name(s), RR, if available)	Lot(s)	Concession(s)	Geographic Township	County/District/Upper Tier Municipality
233 ARMSTRONG ST.				

City, Town, Village or Hamlet	Province	GPS Unit Make	Model	Unit Mode of Operation
OTTAWA	Ontario	GARMIN	ETREX	☐ Undifferentiated ☑ Averaged ☐ Differentiated, specify:

Mandatory Attachments/Additional Information

☒ Land Owner Consent Form must be attached.

☒ Detailed Drawing of All Well Locations must be attached.

I, the person constructing the well, will promptly submit to the Director, on request, any additional information in my custody or control related to any well in the well cluster that I have constructed.

Signature of Technician/Contractor — Date (yyyy/mm/dd)

Well Details

Well # on Drawing	UTM Coordinates Zone	Easting	Northing	Hole Depth (m/ft)	Hole Diameter (cm/in)	Method of Construction	Casing Material; Diameter (cm/in)	Casing (m/ft) From	Casing (m/ft) To	Screen Interval (m/ft) From	Screen Interval (m/ft) To	Annular Space Material (m/ft) From	Annular Space Material (m/ft) To	Annular Space Material: Material:	Overburden/Bedrock or Abandonment Filing Material Intervals (m/ft)	Static Water Level (m/ft)	Date of Completion (yyyy/mm/dd)
VP 12-02	18	442822	5027835	1.3	8.9	GeoProbe	3.2	0	0.95	0.95	1.3	0.3	0.9	bentonite	Asphaltic Concrete; Brown sand & gravel; some clay	N/A	12/4/17
VP 12-03	18	442845	5027875	1.3	8.9	GeoProbe	3.2	0	1.0	1.0	1.3	0.3	0.8	bentonite	asphaltic Concrete, Brown sand & gravel, some clay	N/A	12/4/17
VP 12-01	18	442847	5027869	1.2	8.9	GeoProbe	3.2	0	0.9	0.9	1.2	0.3	0.8	bentonite	Asphaltic Concrete (fill); Brown sand & gravel	N/A	12/4/17
E-4	18	442848	5027875	11	10.16	Diamond	7.6	0	2.5	open hole		0	2.5	Cement/	overburden; limestone, dolostone, limestone, siltstone, sandstone	N/A	12/4/12
E-3	18	442847	5027877	11	10.16	Diamond	7.6	0	2.5	open hole		0	2.5	Cement	overburden; limestone, dolostone, limestone, siltstone, sandstone	N/A	12/4/12
E-2	18	442836	5027893	11	10.16	Diamond	7.6	0	2.5	open hole		0	2.5	Cement	overburden; limestone, dolostone, limestone, siltstone, sandstone	N/A	12/4/18

Well Contractor and Well Technician Information

Business Name of Well Contractor	Business Address (Street Number/Name, RR)	Municipality	Province
George Downing Estate Drilling LTD	410 Rue Principale	Grenville-sur-la-Rouge	Qc

Postal Code	Bus. Telephone No.	Well Contractor's Licence No.	Business E-mail Address
J0V 1B0	819-242-6469	1844	downing@hawkiigs.net

Name of Well Technician (First Name, Last Name)	Well Technician's Licence No.	Signature of Well Technician	Date Submitted (yyyy/mm/dd)
Stephen Downing	3326		

Date First Well in Cluster Constructed or Abandoned (yyyy/mm/dd)	Date Last Well in Cluster Completed (yyyy/mm/dd)
2012/4/12	2012/4/18

Well Abandonment

Person Abandoning the Wells:

Name (Print or Type) - See instruction 11 on the back of this form

Ministry Use Only

Date Received (yyyy/mm/dd): APR 17 2013

Audit No.: C 20576

Comments:

1991E (2011/04)

Ministry's Copy

Ontario Ministry of the Environment

Well Record for Well Cluster - Part 2 of 3
Land Owner Consent

This form is to be completed by the person who constructs or abandons test holes or dewatering wells that form all or part of a well cluster. If this form is being used to report any well abandonment, these wells must have been previously reported as part of a single well cluster.

Note: For well cluster records, only the owners of the land on which the wells are situated are to give written consent. If the well purchaser (e.g. a consultant who hires the driller) is not the owner of the land, then the well purchaser cannot sign the consent form.

By signing this form, land owners are providing consent to use one well record to report a well cluster of test holes or dewatering wells in accordance with section 16.4 of Regulation 903 made under the *Ontario Water Resources Act*.

This completed **Well Record for Well Cluster Part 2 - Land Owner Consent** must be attached to Parts 1 and 3.

* Please PRINT if completing by hand.

Well Tag Number: # A122972

"Well Record for Well Cluster" Audit Number: # C20576

Well # on Detailed Drawing	Property Location Description	Land Owner's Name	Signature of Land Owner	Date Signed (yyyy/mm/dd)
VP12-02 VP12-03	233 Armstrong St. Ottawa ON	Troy Kennedy 101 Columbia Rd Hwy-3 Morristown, NJ 07962		2013/04/11
VP12-01 E2	"	Carleton Tavern 233 Armstrong St Ottawa, ON		
E3 E4	"	"		
	APR 17 2013			
	C-1844 C20576			

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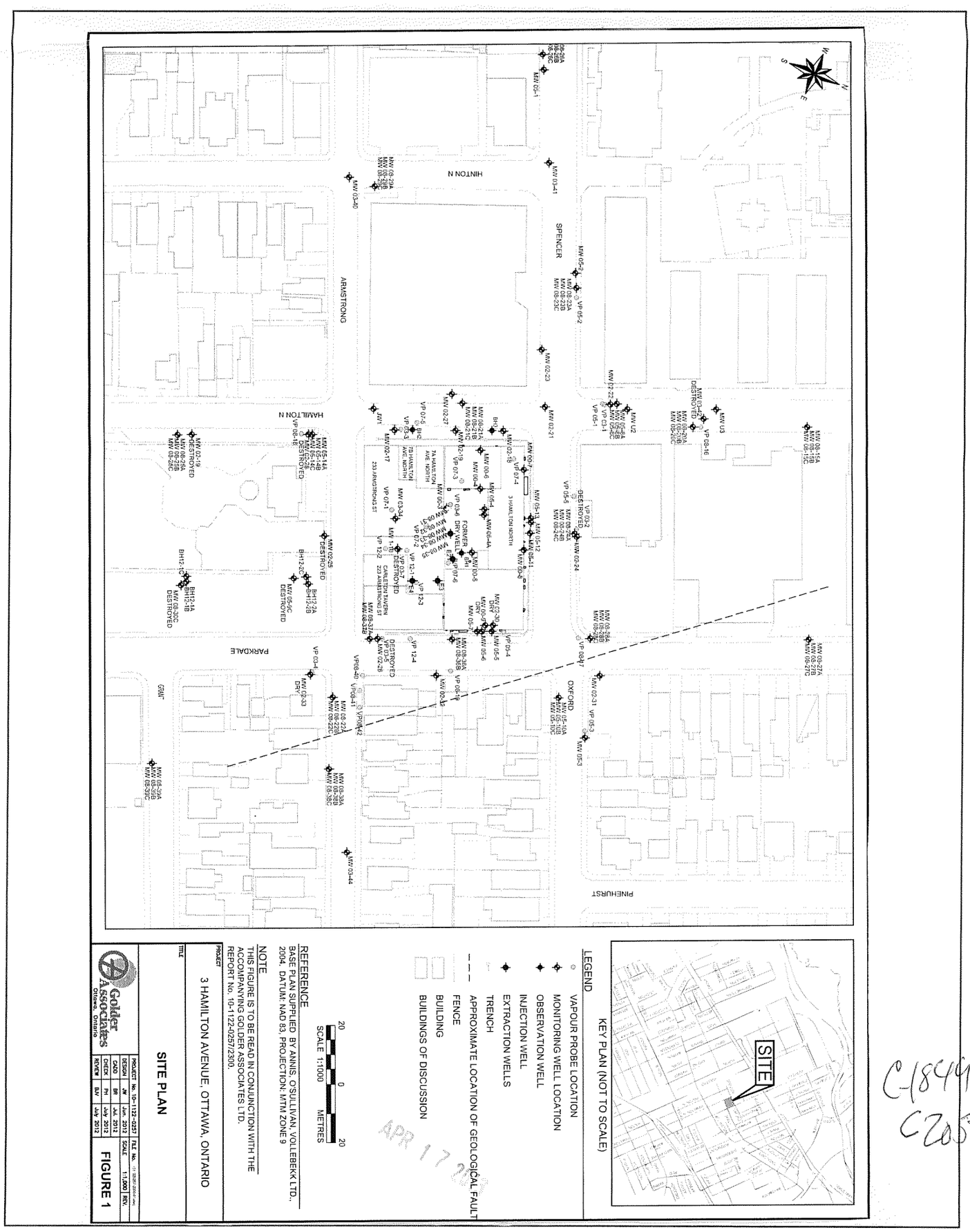
Ontario Ministry of the Environment

Well Record for Well Cluster - Part 3 of 3
Detailed Drawing of All Well Locations

Note: This **Well Record for Well Cluster Part 3 - Detailed Drawing of all Well Locations,** must be attached to Parts 1 and 2. The drawing must include all property boundaries, an arrow indicating the North direction, all named roads and sufficient measurements to locate all wells in the cluster in relation to fixed points. The drawing must show the location of each well and each well must be *numbered* on the drawing to match number used for that well on the **Well Record for Well Cluster Parts 1 and 2.** The well with the well tag must be clearly identified on the Drawing.
UTM coordinates should appear beside each well, if space permits. Additional comments on wells can be included on the drawing

Well Tag Number: # A122972

"Well Record for Well Cluster" Form Audit Number: # ~~E3~~ C 20576



C-1849
C20576

APR 17 2013

Ontario — Ministry of the Environment

Well Tag No. *(Place Sticker and/or Print Below)*: A142507

Well Record

Regulation 903 Ontario Water Resources Act

Measurements recorded in: ☒ Metric ☐ Imperial

Page 1 of 1

Well Owner's Information

First Name	Last Name / Organization	E-mail Address	☐ Well Constructed by Well Owner
—	TAGGART INVESTMENTS		

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. *(inc. area code)*
3187 ALBION ROAD SOUTH	OTTAWA	ON		

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
1156 WELLINGTON STREET WEST			

County/District/Municipality	City/Town/Village	Province	Postal Code
	OTTAWA	Ontario	

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	18	442968	5027723		

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
N/A	ASPHALTIC CONCRETE	CRUSHED STONE, SAND, GRAVEL		0	0.69
BROWN	FILL	SILTY SAND, GRAVEL, COBBLE, BRICK		0.69	1.80
GREY	BEDROCK (LIMESTONE)	—		1.80	7.65
			END OF BOREHOLE		

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used *(Material and Type)*	Volume Placed (m^3/ft^3)
0	1.1	CEMENT	
1.1	3.3	BENTONITE	

Method of Construction

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

Well Use

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

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To
3	PVC	SCHED 40	0	4.81
1 1/4"				

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To
4.21	PVC	10	4.81	7.65

Status of Well

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

Water Details

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

Hole Diameter

Depth (m/ft) From	To	Diameter (cm/in)
0	1.80	20.3
1.80	7.65	7.6

Results of Well Yield Testing

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

If pumping discontinued, give reason:

Pump intake set at (m/ft)

Pumping rate (l/min / GPM)

Duration of pumping ____ hrs + ____ min

Final water level end of pumping (m/ft)

If flowing give rate (l/min / GPM)

Recommended pump depth (m/ft)

Recommended pump rate (l/min / GPM)

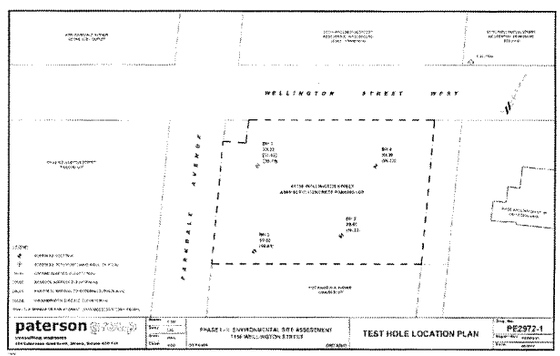
Well production (l/min / GPM)

Disinfected? ☐ Yes ☐ No

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

Map of Well Location

Please provide a map below following instructions on the back.



Comments:
ALSO SEE ATTACHED (ENLARGED)

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
EASTERN ONTARIO DIAMOND DRILLING	7328

Business Address (Street Number/Name)	Municipality
3780 COUNTY ROAD 17, P.O. BOX 33	HAWKESBURY

Province	Postal Code	Business E-mail Address
ON	K6A2R4	ontariodiamond@hawk.igs.net

Bus. Telephone No. *(inc. area code)*	Name of Well Technician (Last Name, First Name)
6136327769	DOWNING, STEPHEN

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
3326		2013 06 20

Well owner's information package delivered: ☐ Yes ☒ No

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

Date Work Completed: 2013 04 30

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Audit No. Z171306

Received JUN 25 2013

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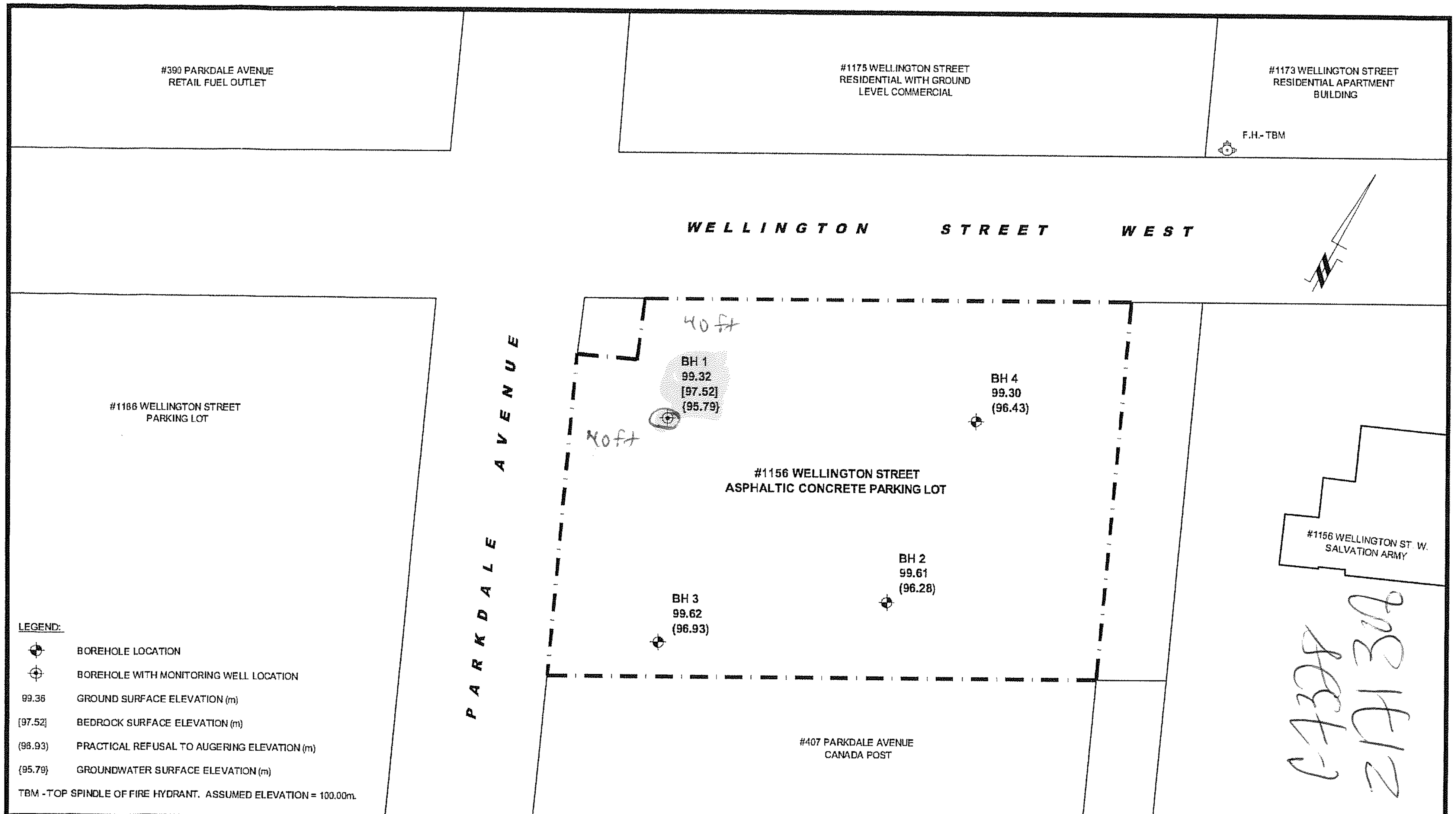

JUN 25 2013

paterson group consulting engineers 154 Colonnade Road South, Ottawa, Ontario K2E 7J5	Scale: 1:300 Des.: LAL Dwn: MPG Chkd: MSD	PHASE I - II ENVIRONMENTAL SITE ASSESSMENT 1156 WELLINGTON STREET OTTAWA, ONTARIO	**TEST HOLE LOCATION PLAN**	Dwg. No. PE2972-1 Report No.: PE2972-01 Date: 05/2013

11x17

APPENDIX 3

QUALIFICATIONS OF ASSESSORS

Karyn Munch, P.ENG.

patersongroup

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 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.

patersongroup

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