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## **Phase I-Environmental Site Assessment**

10 McArthur Avenue  
Ottawa, Ontario

**Prepared For**

2672915 Ontario Inc.

### **Paterson Group Inc.**

Consulting Engineers  
154 Colonnade Road South  
Ottawa (Nepean), Ontario  
Canada K2E 7J5

Tel: (613) 226-7381  
Fax: (613) 226-6344  
[www.patersongroup.ca](http://www.patersongroup.ca)

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Report: PE4562-1

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## **EXECUTIVE SUMMARY**

### **Assessment**

Paterson Group was retained by 2672915 Ontario Inc. to conduct a Phase I-Environmental Site Assessment (ESA) for 10 McArthur Avenue, in the City of Ottawa, Ontario. The purpose of this Phase I-ESA was to research the past and current use of the subject site and Phase I study area and to identify any environmental concerns with the potential to have impacted the Phase I property.

According to the historical research, the Phase I Property was first developed for residential purposes, circa 1928, with the existing building and later converted into a mixed-use building in the late 1990s. From the late 1990's to 2018, the property was used for commercial (restaurant) and residential purpose. Neighbouring land use consisted of commercial (offices), residential and industrial. Several historical potentially contaminating activities (PCAs) were identified within the study area. However, based on their respective distances and orientations, these PCAs did not represent areas of potential environmental concern (APECs), with the exception of one PCA identified immediately to the west, a former retail fuel outlet (RFO).

A previous Phase I ESA, conducted in May 2007 by Trow Associates Inc., identified the former RFO on the adjacent property as an APEC to the Phase I Property. A Phase II ESA was subsequently conducted to address the potential subsurface impacts. Two (2) boreholes were drilled and completed as monitoring wells along the western property boundary. Soil samples were analyzed for BTEX and PHC (fraction F1-F4) parameters. All soil samples at that time were in compliance with the 2004 MECP Table 3, Commercial Standards. Groundwater was not tested due to insufficient water volume in the wells. Trow concluded that no further environmental work was required.

Soil results comply with the current MECP Standards; however, based on limited sample analyses (no groundwater results), it is difficult to confirm that the presence of the former RFO has had no impact on the subject site. Therefore, the presence of the former RFO, located on the adjacent property to the west, is considered to remain an APEC to the Phase I Property.

Following the historical research, a site visit was conducted. The subject site is occupied by a two (2) storey, mixed-use building that is currently use for residential purposes only. Neighbouring land use in the Phase I Study Area consists of government offices, commercial retailers, residential and parkland. No potentially contaminating activities were identified with the current use of the Phase I Property or

lands within the Study Area. Therefore, no areas of potential environmental concern with respect to the Phase I Property were identified.

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

## **Recommendation**

Based on the age of the subject building, potentially asbestos containing materials (ACMs) observed at the time of the site visit include, plaster, stippled plaster, ceiling stipple and drywall joint compound. Based on date of construction, lead-based paints (LBPs) may be present within the structure on older or original painted surfaces. All building materials and painted surfaces were observed to be in good condition at the time of the site visit and the potential for ACMs and LBPs is not considered to represent an immediate concern.

It is our understanding that the subject building will be demolished in conjunction with future redevelopment. Prior to any demolition activities, a designated substance survey (DSS) must be conducted for the existing structure, in accordance with Ontario Regulation 490/09 under the Occupational Health and Safety Act.

## 1.0 INTRODUCTION

At the request of 2672915 Ontario Inc., Paterson Group (Paterson) conducted a Phase I-Environmental Site Assessment (Phase I-ESA) of the property located at 10 McArthur Avenue, 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. Mo Sleiman with 2672915 Ontario Inc. The head office is located at 2544 Bank Street, Ottawa, Ontario. Mr. Sleiman can be reached by telephone at (613) 288-1999.

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 requirements of Ontario Regulation (O.Reg.) 153/04, as amended, under the Environmental Protection Act, and also complies with the requirements of CSA Z768-01. The conclusions presented herein are based on information gathered from a limited historical review and field inspection program. The findings of the Phase I-ESA are based on a review of readily available geological, historical and regulatory information 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:	10 McArthur Avenue, Ottawa, Ontario
Legal Description:	Part 1; Part of Lot 62, Registered Plan 239, in the City of Ottawa
Location:	The site is located on the south side of McArthur Avenue, 45 m east of where McArthur Avenue transects with North River Road, in the City of Ottawa, Ontario. Refer to Figure 1 - Key Plan in the Figures section following the text.
PIN:	04249-0039
Latitude and Longitude:	45° 25' 50.24" N, 75° 40' 5.85" W
<b>Site Description:</b>	
Configuration:	Rectangular
Area:	405 m <sup>2</sup> (approximately)
Zoning:	TM – Traditional Mainstreet Zone
Current Use:	The subject site is occupied by a mixed-use, two (2)-storey building that is currently being used for residential purposes only.
Services:	The subject site and adjacent lands are 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 O.Reg. 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 study area for this assignment. Properties outside the 250 m radius are not considered to have impacted the subject land, based on their significant distance from the site.

#### **First Developed Use Determination**

According to the city directories, aerial photographs and fire insurance plans (FIPs), the subject property was developed pre-1928. The property was first listed in the directories as residential in 1932. For the purposes of this report, the first developed use of the subject site is considered to be residential.

#### **Fire Insurance Plans**

The 1912 and 1956 fire insurance plans (FIPs) for the Phase I Property and properties within the Phase I Study Area were reviewed from the National Archives. The subject property was not covered in the 1912 FIPs. The 1956 FIPs indicated that the property was occupied by a two-storey residential dwelling and a private garage.

The surrounding properties in 1912 and 1956 were primarily residential with some commercial land use north and east of the subject site.

Based on the review of the FIPS, seven (7) potentially contaminating activities (PCAs) were identified within the Phase I Study Area. The 1912 FIPs identified lumber sheds, lumber and shingle piles, located at 80 John Street (currently Selkirk Street, approximately 160 m northwest of the subject site. The 1956 FIPs identified an automotive garage at 42 Montreal Road, two (2) companies with underground storage tanks (USTs) located at 100 and 130 McArthur Avenue, a machinery warehouse at 106 McArthur Avenue, and a concrete pipes/lumber yard at 395 Marguerite Avenue.

A summary of the PCAs identified from the 1912 and 1956 FIPs review with the respective distances and orientation to the Phase I Property have been provided in Table 1.



<b>TABLE 1. PCAs identified from the 1912 and 1956 FIPs review</b>			
<b>Address</b>	<b>Year of FIP</b>	<b>Listed Activity</b>	<b>Approximate Distance / Orientation from Site</b>
<b>Selkirk Street (formerly John Street)</b>			
80	1912, 1956	Lumber and Shingle yard	155 m N/NE
<b>Montreal Road</b>			
42	1956	Automotive Garage	248 m N
<b>McArthur Avenue</b>			
52	1956	Kingsway Transportation Ltd – 1 UST	170 m E
100-106	1956	Machinery Warehouse	215 m E
110	1956	Brass Foundry	240 m E
130	1956	Eaton Co. Ltd – 2 USTs	250 m E
<b>Marguerite Avenue</b>			
395	1956	Concrete pipes and factory, lumber/pipe yard	200 m SE

Based on the separation distance and/or cross-gradient orientation with respect to the subject site, these off-site PCAs are not considered to represent areas of potential environmental concern (APECs) on the Phase I Property.

### **City of Ottawa Street Directories**

City Directories from 1929 to 2011 were reviewed in approximate 10-year intervals for the subject property and properties within the study area. The Phase I Property was listed as residential dwelling from 1932 to 1998. Then, from the 1998 to 2011, the property was listed as two (2) different business – a Deli and catering company and a residence. Surrounding land use was occupied by a combination of commercial, residential, and industrial.

Thirteen (13) properties were identified as PCAs within the study area, which included automotive garages, lumber and steel/metal yards and retail fuel outlets (RFOs). One RFO was identified immediately west of the subject site at 369 North River Road (formerly River Road), which operated from approximately 1962 to 2000. None of the off-site PCAs, with the exception of the adjacent property, were considered to represent areas of potential environmental concerns (APECs) based on the separation distances and/or cross-gradient location with

respect to the Phase I Property. Off-site PCAs are presented on Drawing PE4562-2 – Surrounding Land Use Plan in the Figures section.

The former RFO located to immediately west of the Phase I Property, at 369 River Road, is considered to represent an APEC.

A summary of the PCAs identified from the city directories review with the respective distances and orientation to the Phase I Property have been provided in Table 2.

<b>TABLE 2. PCAs identified from the City Directories review</b>			
<b>Address</b>	<b>Years Active</b>	<b>Listed Activity</b>	<b>Approximate Distance / Orientation from Site</b>
<b>Marguerite Avenue</b>			
373	1980-2010	Automotive Garage and Body Shop	174 m SE
381	1980-1989	Commercial Cleaning Services	180m SE
395/401	1952-1962	Harry & Son's Building Supplies	200 m SE
<b>McArthur Avenue</b>			
52	1980-2011	Good Year Tire, Automotive Garage	170 m E
52	1952-1962	Kingsway Transportation Ltd – 1 UST	170 m E
100-106	1962-1972	Beechwood Structural Steel and Metal Supply	210 m E
110	1952-1972	Bond Brass Ltd. Foundry	240 m E
<b>Montgomery Street (formerly Victoria Street)</b>			
299	1984-2010	Automotive Transmission Garage	228 m NE
300	1950's	D. Kemp Edwards Ltd. (Lumber yard)	150 m N/NE
350	1954-1993	Automotive garage/ service centre (various owners)	240 m NE
<b>Montreal Road</b>			
42	1984-2010	Vanier Petro Canada	248 m N
42/44	1954-1963	Automotive Repair Garage	248 m N
<b>North River Road (formerly River Road)</b>			
361/369	1962-2000	Charbonneau Service Station; Bourdon Service Station	2 m W

## **Chain of Title**

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

## **Previous Engineering Reports**

A Phase I & II ESAs was conducted by Trow Associates Inc. (Trow) in May 2007. The Phase I ESA identified the adjacent property to the west as a potentially contaminating activity (PCA); a former retail fuel outlet (RFO), which represented an area of potential environmental concern (APEC) to the Phase I Property. A Phase II ESA was subsequently conducted to address this APEC. Two (2) monitoring wells were drilled along the western portion of the site to approximately 4.5 m below ground surface. Soil samples were submitted and analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX) and petroleum hydrocarbons (PHC) fractions, F1-F4. The analytical results were compared to the 2004 MECP Table 3, Commercial Standards, and were found to be in compliance with the selected standards. Groundwater was not tested due to dry wells and/or insufficient water volume. Trow concluded that no further environmental work was required. It should be noted that the soil results would comply with the current standards.

Based on the findings of the Phase II ESA (no groundwater results), it is difficult to confirm that the presence of the former RFO has had no impact on the subject site. Therefore, the presence of the former RFO, located on the adjacent property to the west, is considered to remain an APEC to the Phase I Property.

## **Plan of Survey**

A registered plan of survey, prepared by Annis, O'Sullivan, Vollebekk Ltd. and dated March 27, 2019, was reviewed as part of this assessment. The survey shows the current configuration of the site. A copy of the plan is provided in Appendix I.

## **4.2 Environmental Source Information**

### **Environment Canada**

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on February 25, 2019. 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.

## **Areas of Natural Significance**

A search for areas of natural significance and features within the Phase I study area was conducted on the website of the Ontario Ministry of Natural Resources (MNR) on February 25, 2019. The search did not reveal areas of natural significance within the Phase I study area.

## **Ministry of the Environment, Conservation and Parks (MECP) Instruments**

A request was submitted to the MECP Freedom of Information (FOI) office for information with respect to certificates of approval, permits to take water, certificates of property use or any other similar MECP issued instruments for the site. A response from the MECP, dated March 5, 2019 indicated that there were no records located during a thorough search of their files. A copy of the response is appended to this report in Appendix 2.

## **MECP Submissions**

A request was submitted to the MECP FOI office for information with respect to reports related to environmental conditions for the property. A response from the MECP, dated March 5, 2019 indicated that there were no records located during a thorough search of their files. A copy of the response is appended to this report in Appendix 2.

## **MECP Incident Reports**

A request was submitted to the MECP FOI office for information with respect to records concerning environmental incidents, orders, offences, spills, discharges of contaminants or inspections maintained by the MECP for the site or adjacent properties. A response from the MECP, dated March 5, 2019 indicated that there were no records located during a thorough search of their files. A copy of the response is appended to this report in Appendix 2.

## **MECP Waste Management Records**

A request was submitted to the MECP FOI office for information with respect to waste management records. A response from the MECP, dated March 5, 2019 indicated that there were no records located during a thorough search of their files. A copy of the response is appended to this report in Appendix 2.

### **MECP Coal Gasification Plant Inventory**

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

### **MECP Brownfields Environmental Site Registry**

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

### **MECP Waste Disposal Site Inventory**

The Ontario Ministry of Environment document titled "Waste Disposal Site Inventory in Ontario, 1991" was reviewed as part of the historical research. This document includes all recorded active and closed waste disposal sites, industrial manufactured gas plants and coal tar distillation plants in the Province of Ontario. There are no former waste disposal sites located within 1 km of the Phase I study area.

### **Technical Standards and Safety Authority (TSSA)**

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on February 25, 2019, to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties. No records are listed in the TSSA registry for the subject site or the adjacent properties. A copy of the TSSA correspondence is included in Appendix 2.

### **Former Industrial Sites**

The Intera report entitled "Mapping and Assessment of Former Industrial Sites, City of Ottawa" was reviewed. The Phase I Property or Study Area were not listed in the database as a former industrial site.

### **City of Ottawa Landfill Document**

The document entitled "Old Landfill Management Strategy, Phase I – Identification of Sites, City of Ottawa", was reviewed. There are no closed landfill sites within the vicinity of the Phase I study area.

## **City of Ottawa Historical Land Use Inventory (HLUI)**

A search of the City of Ottawa's Historical Land Use Inventory (HLUI) database was conducted as part of this assessment. At the time of issuance of this report, the HLUI search results had not been received. A copy of the HLUI request form is provided in Appendix 2.

## **4.3 Physical Setting Sources**

### **Aerial Photographs**

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

- |      |  |
|------|--|
| 1928 | The subject site appears to be occupied by a residential dwelling. Neighbouring lands appear as residential to the north, east and south, and vacant to the west. A lumber yard can be seen to the far north. Montreal Road, North River Road/Riverside Drive, Montgomery Street (formerly Victoria Street), Marguerite Avenue and McArthur Avenue are present at this time. |
| 1958 | The subject site appears unchanged from the previous photograph. Surrounding lands are occupied by additional residential dwellings, with the exception of a property on the east side of Marguerite Avenue (further east), which appears industrial.  |
| 1965 | The subject site and surrounding lands appear unchanged from the previous photograph, with the exception of vacant lands on the north side of McArthur Avenue, which were once occupied by residential dwellings and the RFO to the west.  |
| 1976 | No significant changes are apparent on the subject site. Properties to the north, across McArthur Avenue have been redeveloped with the existing government office buildings and additional commercial buildings, followed by a vacant lot, north of the new developments. A parking lot associated with the new office buildings can be seen to the northwest.              |
| 1991 | No significant changes are apparent to the subject site or surrounding lands. The vacant lot, north of the office buildings, has been redeveloped into what appears as a commercial plaza.   |

- 
- |      |  |
|------|--|
| 2002 | The subject site and surrounding lands to the north, west and south, appear unchanged from the previous photograph. Properties further east, across Marguerite Avenue, have been redeveloped with a commercial retail building and associated paved parking lot.   |
| 2011 | No significant changes are apparent to the subject site. The adjacent property to the west has been redeveloped with a large residential condo building. No significant changes are apparent on the surrounding lands, with the exception of a vacant lot to the east, across Marguerite Avenue, which was once occupied by a commercial building. |
| 2017 | The subject site and surrounding lands appear unchanged from the previous photograph.  |

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 down in a westerly direction towards the Rideau River. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report.

### **Physiographic Maps**

The Ontario Geological Survey publication 'The Physiography of Southern Ontario, Third Edition' was reviewed as a part of this assessment. According to the publication, the site is situated within the Ottawa Clay Plain physiographic region.

### **Geological Maps**

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on this information, bedrock in the area of the site consists of shale, of the Billings Formation. The site is located in an area where offshore marine sediments consisting of erosional terraces are present. The drift thickness in the area ranges from 2 to 5 m.

## **Water Well Records**

A Well Record search was conducted on February 25, 2019 for all drilled wells within 250 m of the subject site. The well record search returned sixteen well records, all of which were monitoring wells. Eleven (11) wells were located at 100 McArthur Avenue. The remaining well records were identified approximately 200 m away from the subject site. No potential environmental concerns have been identified with respect to the subject site. A copy of the well records has been included in Appendix 2.

## **Water Bodies and Areas of Natural Significance**

No water bodies are present on the Phase I Property. The Rideau River is the closest water body and is located approximately 175 m west of the Phase I Property. No other water bodies or areas of natural significance were identified in the Phase I Study Area.

## **5.0 INTERVIEWS**

### **Property Owner Representative**

Ms. Jaqueline Stacey of Coldwell Banker, the agent representing the current property owner, was interviewed as part of this assessment. The current owners used the property for both residential and commercial purposes (catering business) for approximately 10 years. The property has been used solely as a residence since February 2018. Ms. Stacey is not aware of any potential environmental concerns with respect to the subject or adjacent properties.

## **6.0 SITE RECONNAISSANCE**

### **6.1 General Requirements**

The site visit was conducted on March 8, 2019. Weather conditions were sunny and windy with a temperature of approximately -18°C. Ms. Mandy Witteman from the Environmental Department of Paterson conducted the site assessment. In addition to the site, 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 two (2)-storey building with a stone and concrete foundation, constructed pre-1928, is present onsite. The exterior of the building is finished in beige vinyl siding and a sloped shingle style roof.

### Site Features

The site is occupied by a mixed-use building that is currently used for residential purposes. The western and southern portions of the property are asphaltic paved areas. The southern exterior area of the site is used for vehicular parking and storage. One groundwater monitoring well was noted on the western part of the property.

The site is slightly above the grade of McArthur Avenue. Site drainage is primarily sheet flow to catch basins on McArthur Avenue. The regional topography slopes down in a westerly direction towards the Rideau River, approximately 170 m west of the subject site.

No underground utilities were noted on-site. No drains or private sewage systems was observed at the subject property at the time of the site visit. No evidence of current or former railway or spur lines were observed on the subject property at the time of the site visit. No areas of stained snow or unidentified substances were observed on-site at this time.

### Interior

A general assessment of the subject building is as follows:

- ☐ The floors throughout the consisted of hardwood, ceramic tiles and concrete (basement);
- ☐ The walls consisted of drywall, lathe and plaster, stippled plaster (basement) and stone and concrete (basement);
- ☐ The ceilings consisted of ceiling stipple (2<sup>nd</sup> floor), plaster, gypsum board, and concrete / stippled plaster (basement);
- ☐ Lighting throughout the building was provided by fluorescent and incandescent fixtures.

The building is currently heated with two (2) natural gas radiant boilers, one each for the upper and ground level floors. Based on the age of the building (circa 1928), it is anticipated that fuel oil was used as the heat source prior to the conversion to natural gas. No evidence of an above ground storage tank (AST) or underground storage tank (UST), spills, unusual olfactory or staining were observed in the basement.

One floor drain was observed in the basement level. The drain appeared to be dry. No other drains or sumps were observed.

No chemicals, with the exception of domestic cleaning products, were noted at the time of the site visit.

### **Hazardous Building Materials**

Based on the date of construction, potentially asbestos-containing materials (ACMs) observed at the time of the site visit include plaster, stippled plaster, ceiling stipple and drywall joint compound. Lead-based paints may also be present on older or original painted surfaces. Building materials and painted surfaces were observed to be in good condition at the time of the site visit.

No signs of UFFI were noted at the time of the site visit, although ceiling cavities were not inspected.

### **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 - McArthur Avenue, followed by a government office building;
- ☐ South - Residential dwellings, followed by Carlotta Avenue;
- ☐ East - Residential dwellings;
- ☐ West - Residential building, followed by North River Road.

The current use of the immediately adjacent properties is not considered to pose an environmental concern to the subject site. Current land use and properties identified as PCAs (in green) within the Phase I Study Area is illustrated on Drawing PE4562-2 – Surrounding Land Use Plan.

## **7.0 REVIEW AND EVALUATION OF INFORMATION**

### **7.1 Land Use History**

Based on the available historical records, the Phase I Property was first developed for residential purposes pre-1928 and later converted into a mixed-use building in the late 1990's until early 2018. Since then, the property has been used only for residential purpose.

#### **Potentially Contaminating Activities and Areas of Potential Environmental Concern**

One potentially contaminating activity (PCA), as per Table 2 O.Reg. 153/04, item number 28: *"Gasoline and Associated Products Storage in Fixed Tanks"* was identified at 369 River Road, the former RFO located to the immediate west of the subject site. Based on proximity and years of operation, the presence of the former RFO represents an area of potential environmental concern (APEC) to the Phase I Property. The location of this APEC is depicted in red on Drawing PE4562-1 – Site Plan in the Figures section of this report.

#### **Contaminants of Potential Concern**

Based on the nature of the APEC identified on the subject site, the contaminants of potential concern (CPCs) are Petroleum Hydrocarbons (PHC F1-F4), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX). The CPCs are expected to be present in the soil and/or groundwater of the subject site.

### **7.2 Conceptual Site Model**

#### **Geological and Hydrogeological Setting**

Based on information from the Geological Survey of Canada, the overburden thickness in the area of the subject site is estimated to be on the order of 2 to 5 m. The overburden consists of offshore marine deposits of erosional terraces. Bedrock in the area consists of shale.

Groundwater flow is interpreted to be in a westerly direction towards the Rideau River.

#### **Contaminants of Potential Concern**

As per Section 7.1 of this report, Contaminants of Potential Concern (CPCs) identified on the subject site include BTEX and PHC (F1-F4).

### **Existing Buildings and Structures**

A two (2)-storey building constructed pre-1928 is present onsite and currently used for residential purposes.

### **Water Bodies and Areas of Natural Significance**

No water bodies or areas of natural significance were identified on the Phase I Property. The Rideau River is the closest water body and is located approximately 175 m west of the Phase I Property.

### **Drinking Water Wells**

No potable wells were identified on the subject site or in the Phase I Study Area.

### **Groundwater Monitoring Wells**

Two (2) monitoring wells are present along the western part of the property.

### **Neighbouring Land Use**

Neighbouring land use in the Phase I Study Area consists of a government/commercial use and parkland to the north and west, respectively, and residential to the east and south.

### **Potentially Contaminating Activities and Areas of Potential Environmental Concern**

As per Section 7.1 of this report, a PCA that was considered to represent an APEC was identified during the historical research and review of previous engineering reports. It is our opinion that the original Phase I and II ESA did not adequately address the groundwater beneath the site due to the former FRO to the west. Therefore, the presence of the former RFO, located on the adjacent property to the west, is considered to remain an APEC to the Phase I 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 is an APEC on the subject site. A variety of independent sources were consulted as part of this assessment, 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 2672915 Ontario Inc. to conduct a Phase I-Environmental Site Assessment (ESA) for 10 McArthur Avenue, in the City of Ottawa, Ontario. The purpose of this Phase I-ESA was to research the past and current use of the subject site and Phase I study area and to identify any environmental concerns with the potential to have impacted the Phase I property.

According to the historical research, the Phase I Property was first developed for residential purposes, circa 1928, with the existing building and later converted into a mixed-use building in the late 1990s. From the late 1990's to 2018, the property was used for commercial (restaurant) and residential purpose. Neighbouring land use consisted of commercial (offices), residential and industrial. Several historical potentially contaminating activities (PCAs) were identified within the study area. However, based on their respective distances and orientations, these PCAs did not represent areas of potential environmental concern (APECs), with the exception of one PCA identified immediately to the west, a former retail fuel outlet (RFO).

A previous Phase I ESA, conducted in May 2007 by Trow Associates Inc., identified the former RFO on the adjacent property as an APEC to the Phase I Property. A Phase II ESA was subsequently conducted to address the potential subsurface impacts. Two (2) boreholes were drilled and completed as monitoring wells along the western property boundary. Soil samples were analyzed for BTEX and PHC (fraction F1-F4) parameters. All soil samples at that time were in compliance with the 2004 MECP Table 3, Commercial Standards. Groundwater was not tested due to insufficient water volume in the wells. Trow concluded that no further environmental work was required.

Soil results comply with the current MECP Standards; however, based on limited sample analyses (no groundwater results), it is difficult to confirm that the presence of the former RFO has had no impact on the subject site. Therefore, the presence of the former RFO, located on the adjacent property to the west, is considered to remain an APEC to the Phase I Property.

Following the historical research, a site visit was conducted. The subject site is occupied by a two (2) storey, mixed-use building that is currently use for residential purposes only. Neighbouring land use in the Phase I Study Area consists of government offices, commercial retailers, residential and parkland.

No potentially contaminating activities were identified with the current use of the Phase I Property or lands within the Study Area. Therefore, no areas of potential environmental concern with respect to the Phase I Property were identified.

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

## **Recommendation**

Based on the age of the subject building, potentially asbestos containing materials (ACMs) observed at the time of the site visit include, plaster, stippled plaster, ceiling stipple and drywall joint compound. Based on date of construction, lead-based paints (LBPs) may be present within the structure on older or original painted surfaces. All building materials and painted surfaces were observed to be in good condition at the time of the site visit and the potential for ACMs and LBPs is not considered to represent an immediate concern.

It is our understanding that the subject building will be demolished in conjunction with future redevelopment. Prior to any demolition activities, a designated substance survey (DSS) must be conducted for the existing structure, in accordance with Ontario Regulation 490/09 under the Occupational Health and Safety Act.

## 9.0 STATEMENT OF LIMITATIONS

This Phase I - Environmental Site Assessment report has been prepared in general accordance with O.Reg. 153/04, as amended, 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 2672915 Ontario Inc. Permission and notification from 2672915 Ontario Inc. and Paterson will be required to release this report to any other party.

### Paterson Group Inc.



Mandy Witteman, M.A.Sc.



Mark S. D'Arcy, P.Eng.



### Report Distribution:

- ☐ 2672915 Ontario Inc.
- ☐ Paterson Group

## 10.0 REFERENCES

### **Federal Records**

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

### **Provincial Records**

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 Record 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.  
geoOttawa: City of Ottawa electronic mapping website.  
City of Ottawa Historical Land Use Inventory (HLUI) Database

### **Local Information Sources**

Personal Interviews.

### **Public Information Sources**

Google Earth.  
Google Maps/Street View.



# **FIGURES**

**FIGURE 1 – KEY PLAN**

**FIGURE 2 – TOPOGRAPHIC MAP**

**DRAWING PE4562-1 – SITE PLAN**

**DRAWING PE4562-2 – SURROUNDING LAND USE PLAN**



FIGURE 1  
KEY PLAN

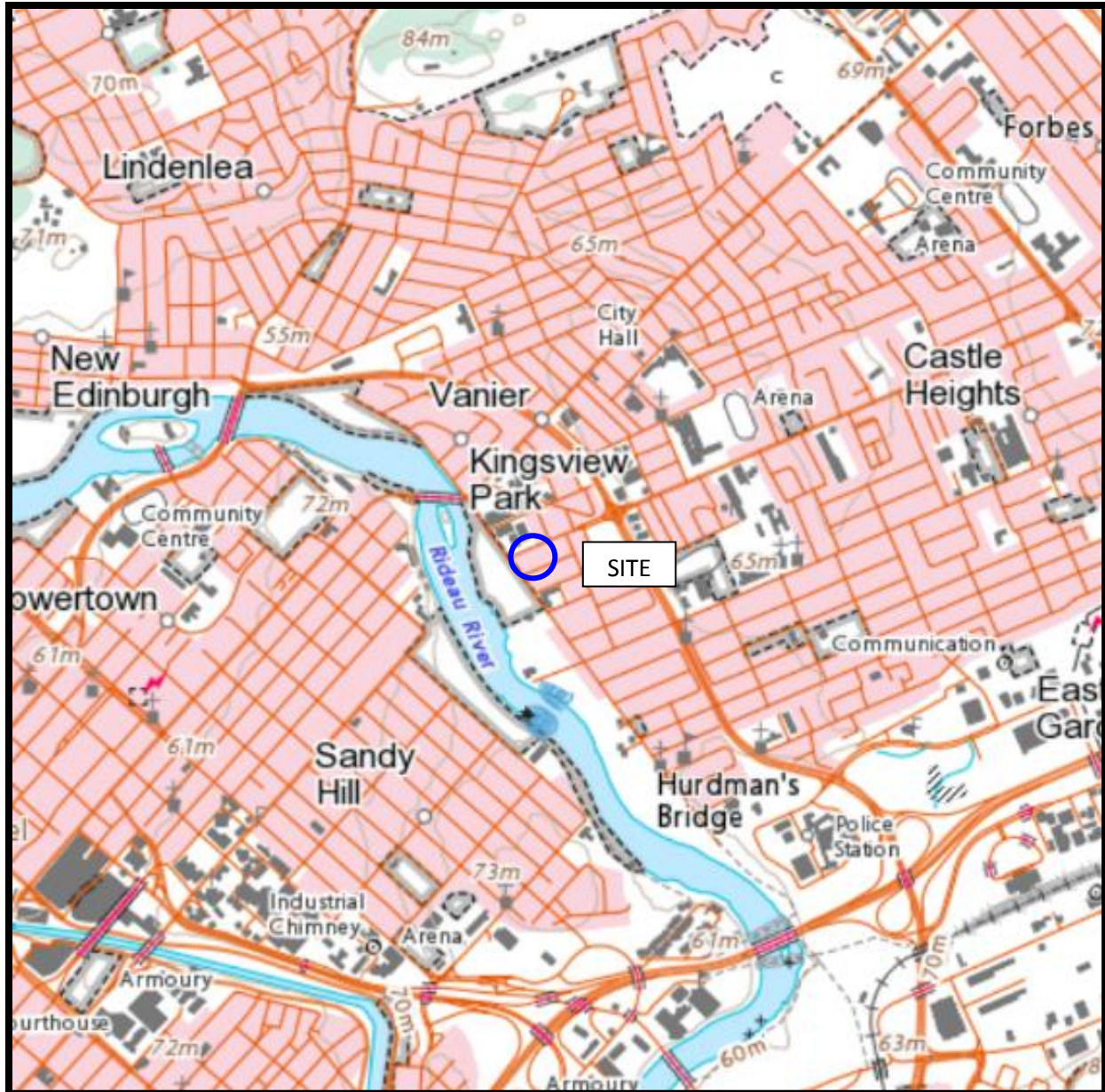
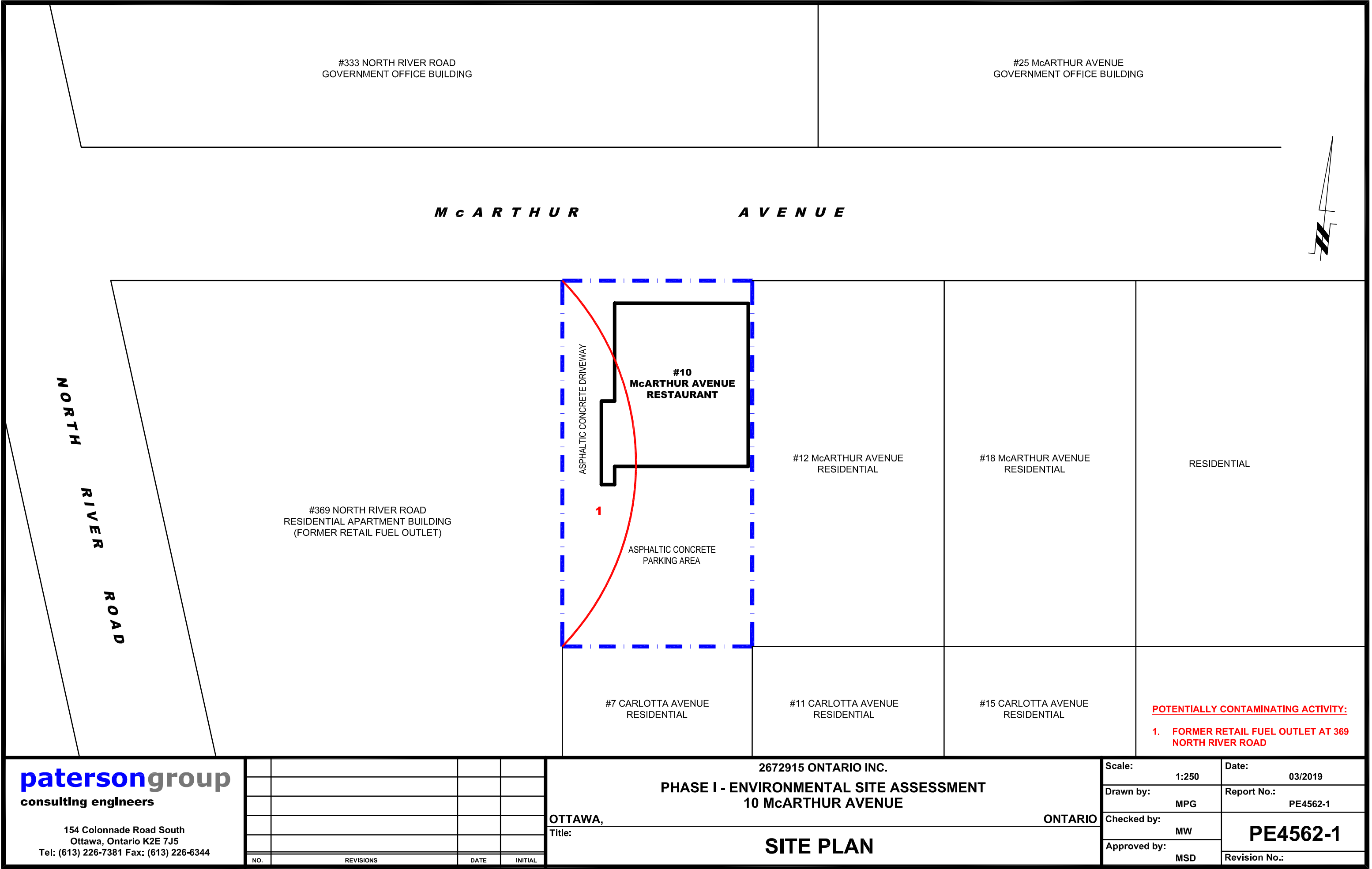
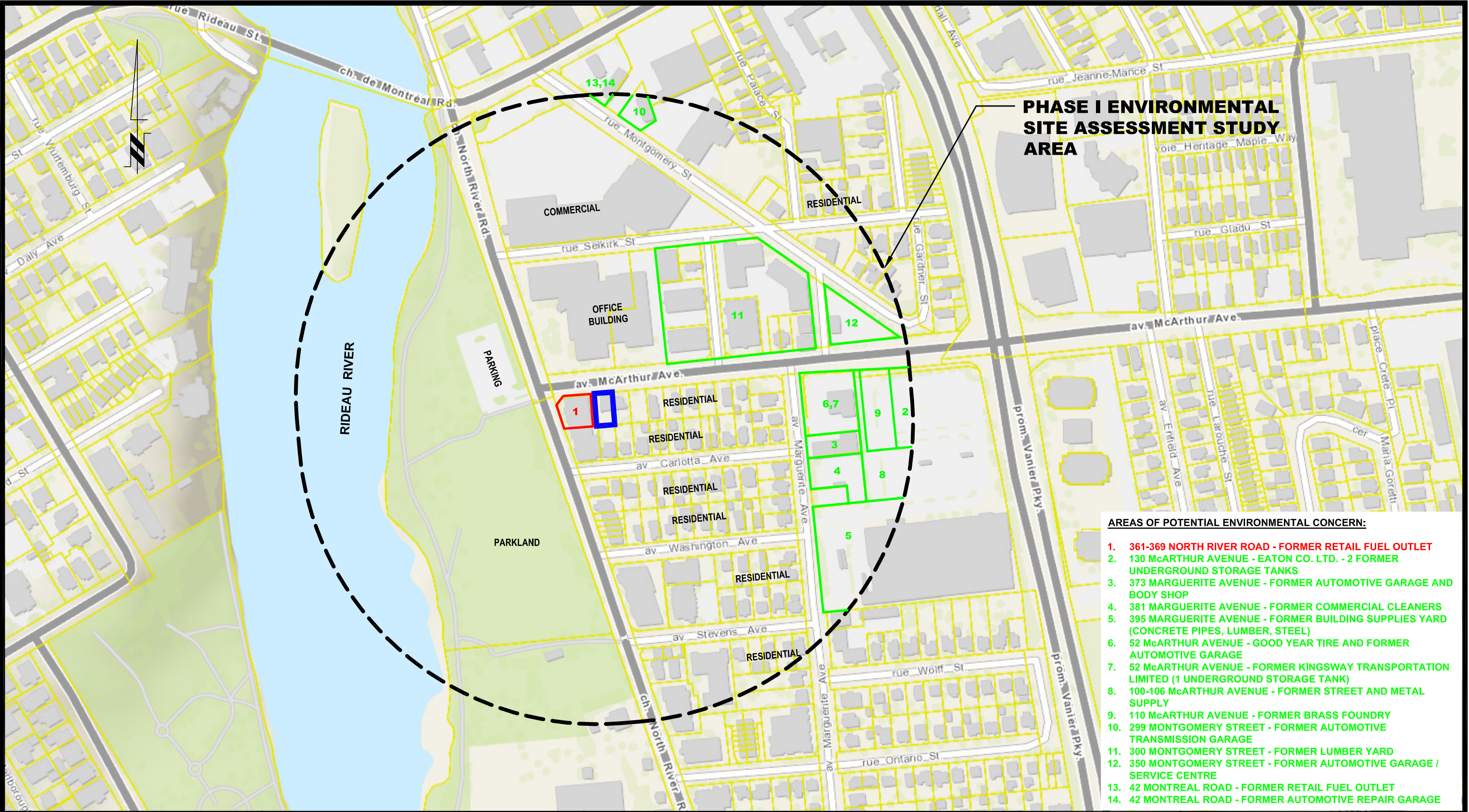


FIGURE 2  
TOPOGRAPHIC MAP







**PHASE I ENVIRONMENTAL  
SITE ASSESSMENT STUDY  
AREA**

**AREAS OF POTENTIAL ENVIRONMENTAL CONCERN:**

- 1. 361-369 NORTH RIVER ROAD - FORMER RETAIL FUEL OUTLET
- 2. 130 McARTHUR AVENUE - EATON CO. LTD. - 2 FORMER UNDERGROUND STORAGE TANKS
- 3. 373 MARGUERITE AVENUE - FORMER AUTOMOTIVE GARAGE AND BODY SHOP
- 4. 381 MARGUERITE AVENUE - FORMER COMMERCIAL CLEANERS
- 5. 395 MARGUERITE AVENUE - FORMER BUILDING SUPPLIES YARD (CONCRETE PIPES, LUMBER, STEEL)
- 6. 52 McARTHUR AVENUE - GOOD YEAR TIRE AND FORMER AUTOMOTIVE GARAGE
- 7. 52 McARTHUR AVENUE - FORMER KINGSWAY TRANSPORTATION LIMITED (1 UNDERGROUND STORAGE TANK)
- 8. 100-106 McARTHUR AVENUE - FORMER STREET AND METAL SUPPLY
- 9. 110 McARTHUR AVENUE - FORMER BRASS FOUNDRY
- 10. 299 MONTGOMERY STREET - FORMER AUTOMOTIVE TRANSMISSION GARAGE
- 11. 300 MONTGOMERY STREET - FORMER LUMBER YARD
- 12. 350 MONTGOMERY STREET - FORMER AUTOMOTIVE GARAGE / SERVICE CENTRE
- 13. 42 MONTREAL ROAD - FORMER RETAIL FUEL OUTLET
- 14. 42 MONTREAL ROAD - FORMER AUTOMOTIVE REPAIR GARAGE

**patersongroup**  
consulting engineers

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

NO.	REVISIONS	DATE	INITIAL

2672915 ONTARIO INC.	
PHASE I - ENVIRONMENTAL SITE ASSESSMENT	
10 McARTHUR AVENUE	
OTTAWA,	ONTARIO
Title:	
SURROUNDING LAND USE PLAN	

Scale:	1:3000	Date:	03/2019
Drawn by:	MPG	Report No.:	PE4562-1
Checked by:	MW	<b>PE4562-2</b>	
Approved by:	MSD		
		Revision No.:	

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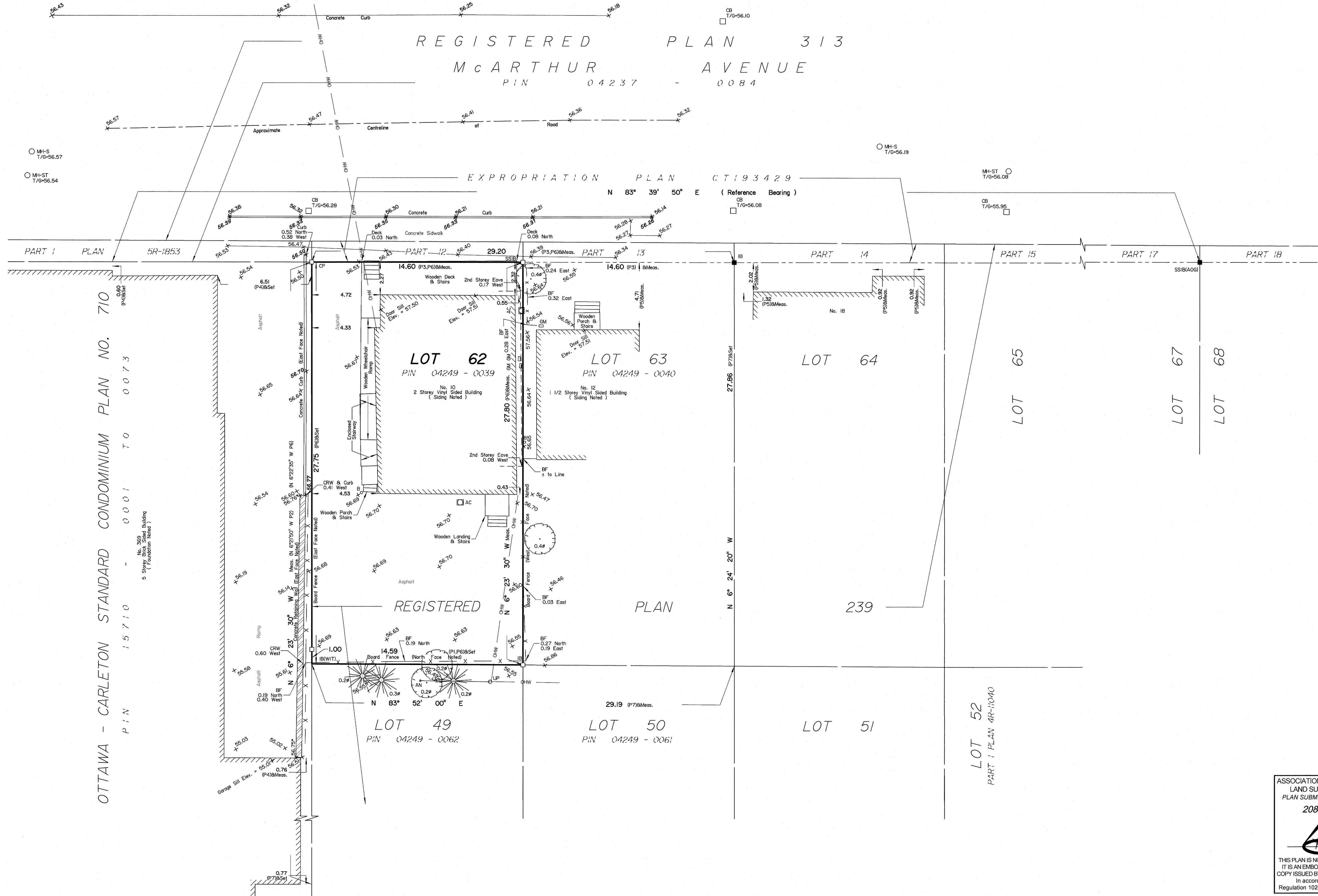
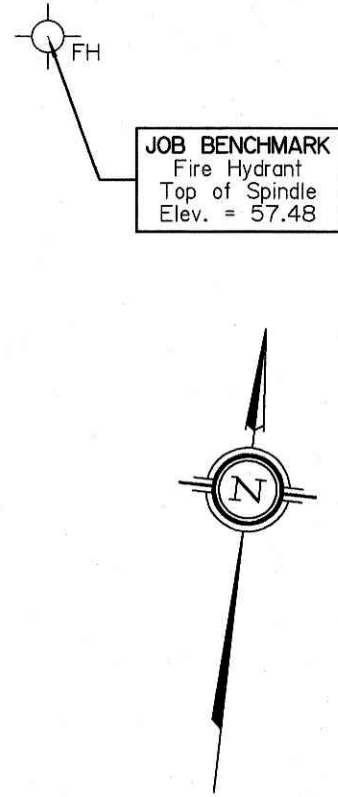


# **APPENDIX 1**

**SURVEY PLAN**

**AERIAL PHOTOGRAPHS**

**SITE PHOTOGRAPHS**



SURVEYOR'S REAL PROPERTY REPORT  
**PART 1** Plan of  
**PART OF LOT 62**  
**REGISTERED PLAN 239**  
**CITY OF OTTAWA**  
Surveyed by Annis, O'Sullivan, Vollebakk Ltd.  
Scale 1 : 150  
Metric  
DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND  
CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

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 Land Titles Act and the regulations  
made under them.  
2. The survey was completed on the 20th day of March, 2019.  
March 27/19  
Date  
V. Andrew Shelp  
Ontario Land Surveyor

**PART 2**  
THIS PLAN MUST BE READ IN CONJUNCTION WITH  
SURVEY REPORT DATED: March 27, 2019

ANNIS, O'SULLIVAN, VOLLEBEKK LTD. grants to  
2672915 Ontario Inc. ("The Client"), their solicitors,  
mortgagees, and other related parties, permission to use original, signed, sealed  
copies of the Surveyor's Real Property Report in transactions involving The Client.

Notes & Legend	
Denotes	Survey Monument Planted
Denotes	Survey Monument Found
SIB	Standard Iron Bar
SSIB	Short Standard Iron Bar
IB	Iron Bar
CP	Concrete Pin
(WIT)	Witness
Meas.	Measured
(AOG)	Annis, O'Sullivan, Vollebakk Ltd.
(P1)	Registered Plan 239
(P2)	Ottawa-Carleton Standard Condominium Plan 710
(P3)	Expropriation Plan CT193429
(P4)	(AOG) Plan, January 5, 2005
(P5)	(AOG) Plan, December 20, 2017
(P6)	(1319) Plan, August 18, 1989
(P7)	(AOG) Plan, September 5, 2014
○ MH-ST	Maintenance Hole (Storm Sewer)
○ MH-S	Maintenance Hole (Sanitary)
□ CB	Catch Basin
T/G	Top of Grate
○ UP	Utility Pole
○ AN	Anchor
○ OHW	Overhead Wires
○ FH	Fire Hydrant
□ GM	Gas Meter
○	Deciduous Tree
○	Coniferous Tree
○	Diameter
○ B	Bollard
CRW	Concrete Retaining Wall
BF	Board Fence
AC	Air Conditioner
+ 65.00	Location of Elevations
+ 65.00	Location of Top of Curb Elevations
+ 65.00	Location of Top of Wall Elevations

**ELEVATION NOTES**  
1. Elevations shown are geodetic and are referred to the CGVD28 geodetic datum.  
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 its 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. A field location of underground plant by the pertinent utility authority is  
mandatory before any work involving breaking ground, probing, excavating etc.  
Bearings are grid, derived from the southerly limit on Expropriation Plan CT193429,  
shown to be N83°39'50"E thereon.

ASSOCIATION OF ONTARIO  
LAND SURVEYORS  
PLAN SUBMISSION FORM  
2086098  
THIS PLAN IS NOT VALID UNLESS  
IT IS AN EMBOSSED ORIGINAL  
COPY ISSUED BY THE SURVEYOR  
In accordance with  
Regulation 1026, Section 29 (3).

© Annis, O'Sullivan, Vollebakk Ltd. 2019. "THIS PLAN IS PROTECTED BY COPYRIGHT"  
**ANNIS, O'SULLIVAN, VOLLEBEKK LTD.**  
14 Concourse Gate, Suite 500  
Nepean, Ont. K2E 7S6  
Phone: (613) 727-0650 / Fax: (613) 727-1079  
Email: nepean@anniss.com  
Ontario  
Land Surveyors  
Job No. 17971-19 2672915 Ontario Inc. PHL62 P239 D F | JSW



AERIAL PHOTOGRAPH  
1928





AERIAL PHOTOGRAPH  
1958



AERIAL PHOTOGRAPH  
1965



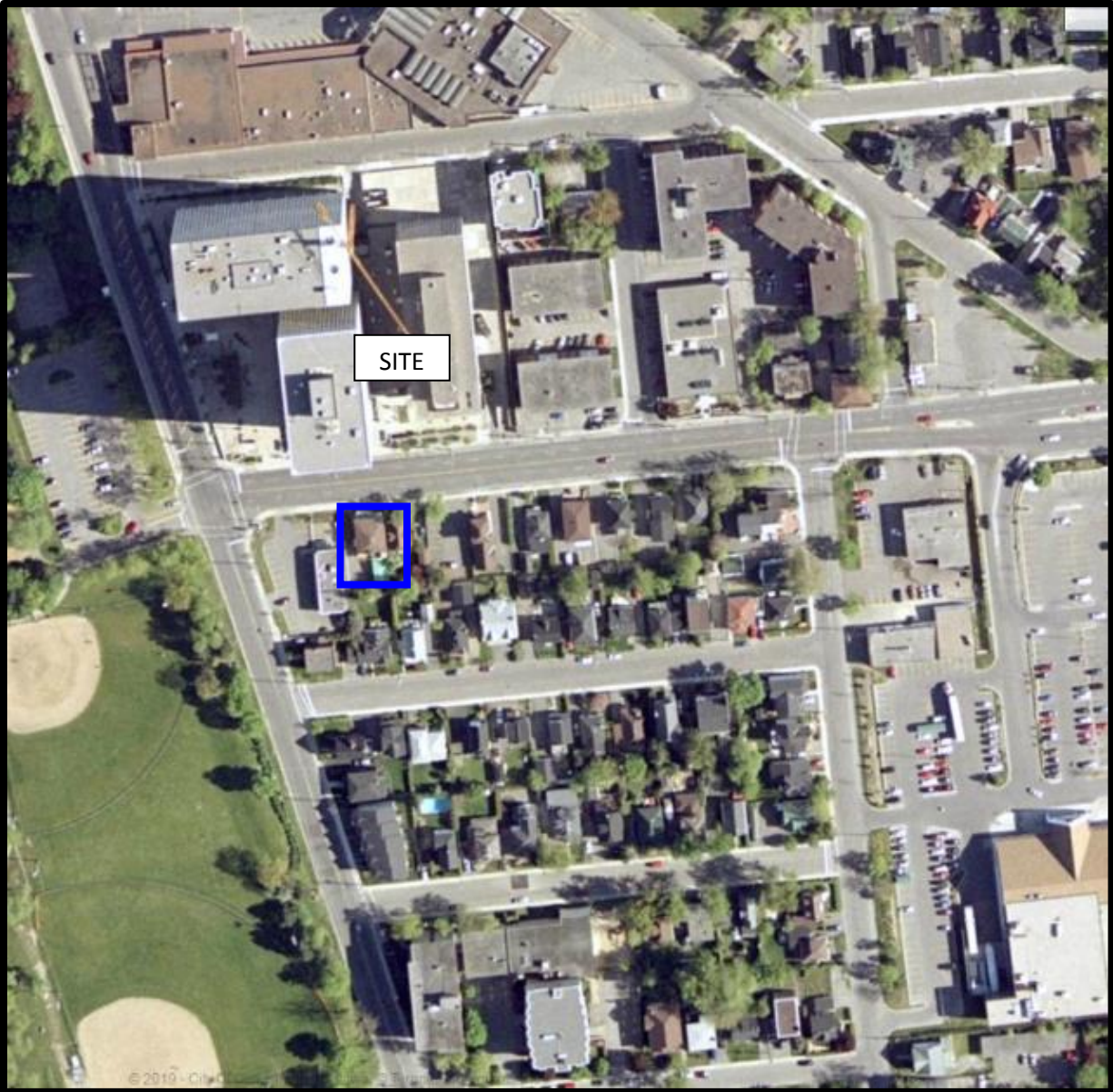


AERIAL PHOTOGRAPH  
1976

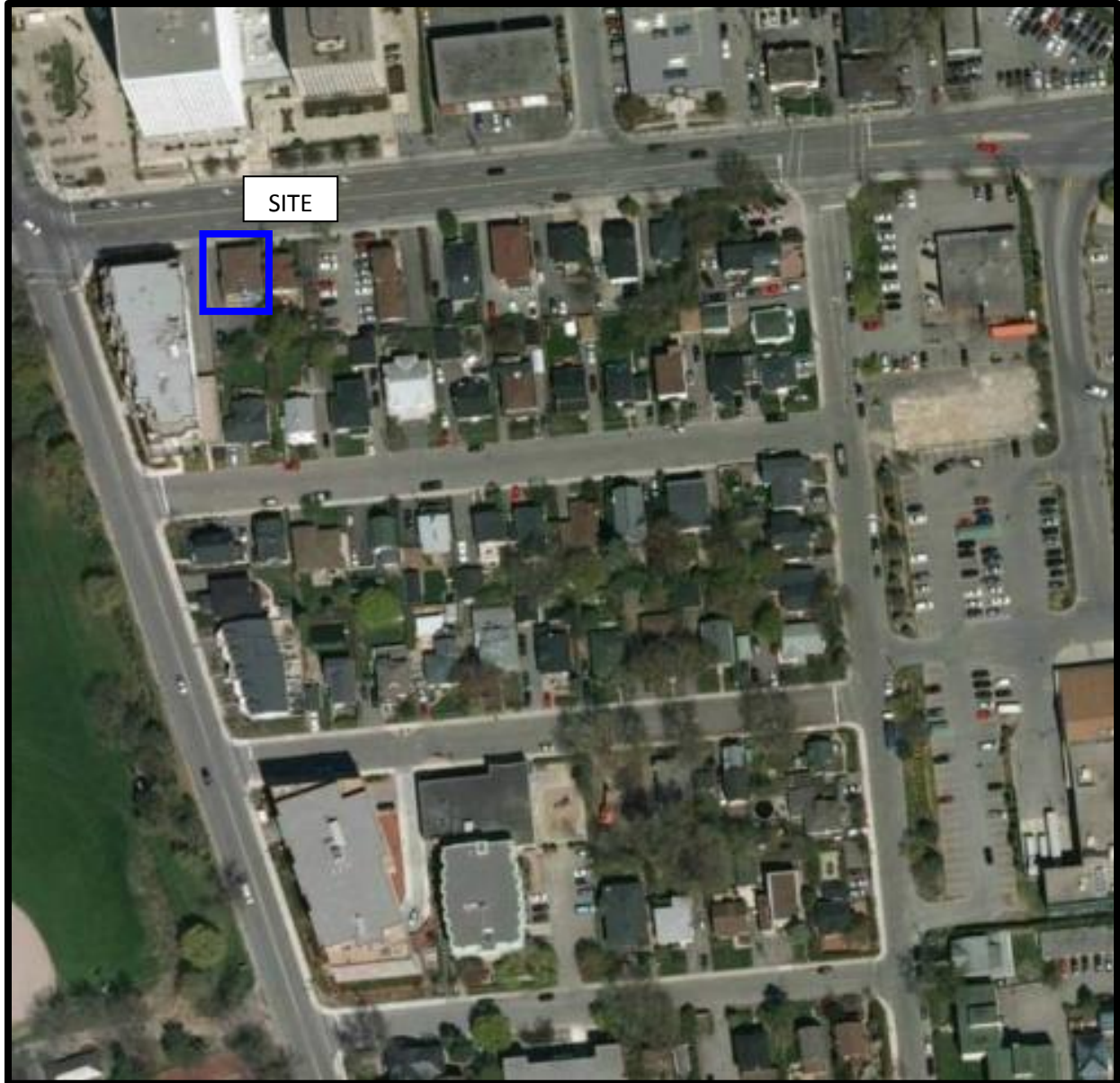


AERIAL PHOTOGRAPH  
1991





AERIAL PHOTOGRAPH  
2002



AERIAL PHOTOGRAPH  
2011





AERIAL PHOTOGRAPH  
2017

## Site Photographs

PE4562

Proposed 10-Unit Building, 10 McArthur Avenue– Ottawa, ON

March 8, 2019



Photograph 1: North face of the subject building, 10 McArthur Avenue, looking south.



Photograph 2: Southern portion of the subject property (rear), looking east.



# **APPENDIX 2**

**MECP FREEDOM OF INFORMATION**

**TSSA CORRESPONDENCE**

**HLUI RESPONSE**

**MECP WELL RECORDS**

**Ministry of the Environment,  
Conservation and Parks**

Access and Privacy Office  
12<sup>th</sup> Floor  
40 St. Clair Avenue West  
Toronto ON M4V 1M2  
Tel: (416) 314-4075  
Fax: (416) 314-4285

**Ministère de l'Environnement, de  
la Protection de la nature et des  
Parcs**

Bureau de l'accès à l'information et  
de la protection de la vie privée  
12<sup>e</sup> étage  
40, avenue St. Clair ouest  
Toronto ON M4V 1M2  
Tél. : (416) 314-4075



March 5, 2019

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

Dear Mandy Witteman:

RE: ***Freedom of Information and Protection of Privacy Act Request***  
**Our File # A-2019-01207, Your Reference PE4562**

This letter is in response to your request made pursuant to the *Freedom of Information and Protection of Privacy Act* relating to 10 MacArthur Avenue, Ottawa.

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

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

If you have any questions regarding this matter, please contact the **Freedom of Information Office at 416-314-4075.**

Yours truly,

for

Janet Dadufalza  
FOI Manager

## Mandy Witteman

---

**From:** Public Information Services <publicinformationsservices@tssa.org>  
**Sent:** February-26-19 7:40 AM  
**To:** Mandy Witteman  
**Subject:** RE: search records request (pPE4562)

### No Records Found

Hello,

Thank you for your request for confirmation of public information.

- We confirm that there are **no fuel storage tanks records** in our database at the subject address(es).

For a further search in our archives please complete our release of public information form found at [https://www.tssa.org/en/about-tssa/release-of-public-information.aspx?\\_mid\\_=392](https://www.tssa.org/en/about-tssa/release-of-public-information.aspx?_mid_=392) and email the completed form to [publicinformationsservices@tssa.org](mailto:publicinformationsservices@tssa.org) or through mail along with a fee of \$56.50 (including HST) per location. The fee is payable with credit card (Visa or MasterCard) or with a Cheque made payable to TSSA.

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

Kind regards,



**Connie Hill | Public Information Agent**

Facilities  
345 Carlingview Drive  
Toronto, Ontario M9W 6N9  
Tel: +1-416-734-3383 | Fax: +1-416-231-6183 | E-Mail: [publicinformationsservices@tssa.org](mailto:publicinformationsservices@tssa.org)  
[www.tssa.org](http://www.tssa.org)



---

**From:** Mandy Witteman <MWitteman@Patersongroup.ca>  
**Sent:** February 25, 2019 4:18 PM  
**To:** Public Information Services <publicinformationsservices@tssa.org>  
**Subject:** search records request (pPE4562)

Good Afternoon,

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

McArthur Ave: 10, 12, 22, 26, 28, 34, 38, 42, 39  
Marguerite Ave: 366

Thank you.

This electronic message and any attached documents are intended only for the named recipients. This communication from the Technical Standards and Safety Authority may contain information that is privileged, confidential or otherwise protected from disclosure and it must not be disclosed, copied, forwarded or distributed without authorization. If you have received this message in error, please notify the sender immediately and delete the original message.

February 25, 2019  
File: PE4562-HLUI

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

Subject: **Authorization Letter, HLUI Search  
Phase I-Environmental Site Assessment  
10 McArthur Ave  
Ottawa, Ontario**

Dear Sir,

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

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



**Name of Company/Property Owner:**

Eric Patenaude & Todd Christopher

**Name of Representative/Owner**

**Signature of Representative/Owner**

**Date**

DocuSigned by:  DocuSigned by:   
40E7864ABB04432... 2/26/2019 | 6:47 PM EST 9A0B623B3C2B4B5...

owners do not authorize entry into their home. Preferred time of visitation is during the weekends

Well ID Number: 7218032  
Well Audit Number: Z179982  
Well Tag Number: A157820

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

Well Location

Address of Well Location	50 SELKIRK ST.
Township	GLOUCESTER TOWNSHIP
Lot	
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	OTTAWA
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18
	Easting: 447824.00 Northing: 5031131.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
GREY	FILL	GRVL	LOOS	0 m	.61 m
BRWN	FSND		SOFT	.61 m	2.14 m
BRWN	FSND		SOFT	2.14 m	3.68 m
BLCK	CLAY	GRVL	HARD	3.68 m	4.57 m

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 m	.31 m	CONCRETE/FLUSHMOUNT	
.31 m	1.22 m	BENTONITE	
1.22 m	4.57 m	SAND	

Method of Construction & Well Use

Method of Construction	Well Use
Direct Push	Monitoring and Test Hole

Status of Well

Observation Wells

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
4.03 cm	PLASTIC	0 m	1.5 m

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
4.82 cm	PLASTIC	1.5 m	4.57 m

## Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7241

## Results of Well Yield Testing

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

## Draw Down & Recovery

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

## Water Details

Water Found at Depth	Kind
----------------------	------

## Hole Diameter

Depth From	Depth To	Diameter
0 m	4.57 m	8.25 cm

Audit Number: Z179982

Date Well Completed: February 20, 2014

Date Well Record Received by MOE: March 20, 2014

Well ID Number: 7218033  
Well Audit Number: Z179981  
Well Tag Number: A157821

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

Well Location

Address of Well Location	350 MAYFIELD
Township	VANIER CITY
Lot	
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	OTTAWA
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18
	Easting: 447861.00
	Northing: 5031090.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
GREY	FILL	GRVL	DRY	0 m	.61 m
BRWN	FSND		DRY	.61 m	2.14 m
BRWN	FSND		SOFT	2.14 m	3.1 m
BLCK	SILT	CLAY	SOFT	3.1 m	4.27 m

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 m	.31 m	FLUSHMOUNT	
.31 m	.91 m	BENTONITE	
.91 m	4.27 m	SAND	

Method of Construction & Well Use

Method of Construction	Well Use
Direct Push	Monitoring and Test Hole

Status of Well

Observation Wells

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
4.03 cm	PLASTIC	0 m	1.22 m

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
4.82 cm	PLASTIC	1.22 m	4.27 m



# Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7241

## Results of Well Yield Testing

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

## Draw Down & Recovery

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

## Water Details

Water Found at Depth	Kind
----------------------	------

## Hole Diameter

Depth From	Depth To	Diameter
0 m	4.27 m	8.25 cm

Audit Number: Z179981

Date Well Completed: February 20, 2014

Date Well Record Received by MOE: March 20, 2014

Well ID Number: 7218170  
Well Audit Number: Z179984  
Well Tag Number: A157823

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

Well Location

Address of Well Location	360 DUNDAS ST. WEST
Township	GLOUCESTER TOWNSHIP
Lot	
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	Ottawa
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18
	Easting: 447790.00
	Northing: 5031036.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
GREY	GRVL		SOFT	0 m	.31 m
GREY	GRVL	CLAY	SOFT	.31 m	.61 m
BRWN	CLAY		SOFT	.61 m	5.79 m

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 m	.31 m	FLUSHMOUNT/ CONCRETE	
.31 m	1.22 m	BENTONITE	
1.22 m	5.79 m	SAND	

Method of Construction & Well Use

Method of Construction	Well Use
Direct Push	Monitoring and Test Hole

Status of Well

Observation Wells

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
4.08 cm	PLASTIC	0 m	1.5 m

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
4.82 cm	PLASTIC	1.5 m	5.79 m

# Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7241

## Results of Well Yield Testing

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

## Draw Down & Recovery

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

## Water Details

Water Found at Depth	Kind
----------------------	------

## Hole Diameter

Depth From	Depth To	Diameter
0 m	5.79 m	5.71 cm

Audit Number: Z179984

Date Well Completed: February 24, 2014

Date Well Record Received by MOE: March 20, 2014

Well ID Number: 7236606  
Well Audit Number: Z191601  
Well Tag Number: A147952

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

Well Location

Address of Well Location	307 MONTGOMERY STREET
Township	GLOUCESTER TOWNSHIP
Lot	
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	Ottawa
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18
	Easting: 447768.00
	Northing: 5031241.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	----			0 m	.25 m
BRWN	FILL	SAND	GRVL	.25 m	1.45 m
BRWN	TILL	SAND	GRVL	1.45 m	6 m

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
.9 m	3.9 m	BENTONITE	

Method of Construction & Well Use

Method of Construction	Well Use
H.S.A.	Monitoring

Status of Well

Observation Wells

Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
5.08 cm	PLASTIC	0 m	4.5 m

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
5.86 cm	PLASTIC	4.5 m	6 m

Well Contractor and Well Technician Information

## Results of Well Yield Testing

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

## Draw Down & Recovery

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

## Water Details

Water Found at Depth	Kind
5.8 m	Untested

## Hole Diameter

Depth From	Depth To	Diameter
0 m	6 m	20.3 cm

**Audit Number:** Z191601

**Date Well Completed:** May 17, 2013

**Date Well Record Received by MOE:** January 29, 2015

Updated: February 20, 2019

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Well ID Number: 7241411  
Well Audit Number: C26583  
Well Tag Number: A156850

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

Well Location

Address of Well Location	
Township	GLOUCESTER TOWNSHIP
Lot	
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18
	Easting: 447618.00
	Northing: 5031230.00
Municipal Plan and Sublot Number	
Other	

Overburden and Bedrock Materials Interval

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

Annular Space/Abandonment Sealing Record

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

Method of Construction & Well Use

Method of Construction	Well Use
------------------------	----------

Status of Well

Construction Record - Casing

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

Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
------------------	----------	------------	----------

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 1844

Results of Well Yield Testing

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

## Draw Down & Recovery

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

## Water Details

Water Found at Depth	Kind
----------------------	------

## Hole Diameter

Depth From	Depth To	Diameter
------------	----------	----------

**Audit Number:** C26583

**Date Well Completed:** October 08, 2014

**Date Well Record Received by MOE:** May 11, 2015

Updated: February 20, 2019

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Tags

- [Environment and energy.](#)
- [Drinking water.](#)
- [Well water](#)



Ministry of  
the Environment

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

A 145354

Regulation 903 Ontario Water Resources Act

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Measurements recorded in: ☒ Metric ☐ Imperial

### Well Owner's Information

First Name	Last Name / Organization Loblaw Properties Ltd	E-mail Address	<input type="checkbox"/> Well Constructed by Well Owner
Mailing Address (Street Number/Name) 1 President's Choice Circle	Municipality Ottawa	Province ON	Postal Code K1M 1S5

### Well Location

Address of Well Location (Street Number/Name) 100 MacArthur Ave.	Township	Lot	Concession
County/District/Municipality	City/Town/Village Ottawa	Province Ontario	Postal Code
UTM Coordinates NAD 83 18 44 78 81 14 03 08 74	Zone	Easting	North
Municipal Plan and Sublot Number		Other	

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
BLK	asphalt	gravel	loose	0	3.31
BRN	sand	silt, gravel	sand	3.31	3.35
BLK	shale		layered	3.35	7.96

Annular Space			
Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	3.31	concrete/mushroom	
3.31	4.57	bentonite	
4.57	7.96	filter sand	

Method of Construction	Well Use
<input type="checkbox"/> Cable Tool	<input type="checkbox"/> Public
<input type="checkbox"/> Rotary (Conventional)	<input type="checkbox"/> Domestic
<input type="checkbox"/> Rotary (Reverse)	<input type="checkbox"/> Municipal
<input type="checkbox"/> Boring	<input type="checkbox"/> Livestock
<input checked="" type="checkbox"/> Air percussion	<input type="checkbox"/> Irrigation
<input type="checkbox"/> Other, specify	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Other, specify
	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Not used
	<input type="checkbox"/> Dewatering
	<input checked="" type="checkbox"/> Test Hole
	<input checked="" type="checkbox"/> Monitoring
	<input type="checkbox"/> Cooling & Air Conditioning

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To	
3.45	PVC	3.56	0	4.88	<input type="checkbox"/> Water Supply
					<input type="checkbox"/> Replacement Well
					<input type="checkbox"/> Test Hole
					<input type="checkbox"/> Recharge Well
					<input type="checkbox"/> Dewatering Well
					<input checked="" type="checkbox"/> Observation and/or Monitoring Hole
					<input type="checkbox"/> Alteration (Construction)
					<input type="checkbox"/> Abandoned, Insufficient Supply
					<input type="checkbox"/> Abandoned, Poor Water Quality
					<input type="checkbox"/> Abandoned, other, specify
					<input type="checkbox"/> Other, specify

Construction Record - Screen				
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To
4.21	PVC	10	4.88	7.96

Water Details		Hole Diameter	
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested	Depth (m/ft) From	To
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	0	3.33
			7.96

Business Name of Well Contractor Stark Drilling Group		Well Contractor's Licence No. 7271
Business Address (Street Number/Name) 147 West Beaver Creek		Municipality Richmond Hill
Province ON	Postal Code L4B 1K6	Business E-mail Address info@starkdrilling.com
Bus. Telephone No. (inc. area code) 905-764-9304	Name of Well Technician (Last Name, First Name) Mr. Coy, James	
Well Technician's Licence No. 3652	Signature of Technician and/or Contractor	Date Submitted 2013 05 17

5-13796

Well Record

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Measurements recorded in: ☒ Metric ☐ Imperial

### Well Owner's Information

First Name	Last Name / Organization Loblaw Properties Ltd	E-mail Address	<input type="checkbox"/> Well Constructed by Well Owner
Mailing Address (Street Number/Name) 1 President's Choice Circle	Municipality Ottawa	Province ON	Postal Code K1M 1S5

### Well Location

Address of Well Location (Street Number/Name) 100 MacArthur Ave.	Township	Lot	Concession
County/District/Municipality	City/Town/Village Ottawa	Province Ontario	Postal Code
UTM Coordinates NAD 83 18 44 78 81 14 03 08 74	Zone	Easting	North
Municipal Plan and Sublot Number		Other	

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
BLK	asphalt	gravel	loose	0	3.31
BRN	sand	silt, gravel	sand	3.31	3.35
BLK	shale		layered	3.35	7.96

Annular Space			
Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	3.31	concrete/mushroom	
3.31	4.57	bentonite	
4.57	7.96	filter sand	

Method of Construction	Well Use
<input type="checkbox"/> Cable Tool	<input type="checkbox"/> Public
<input type="checkbox"/> Rotary (Conventional)	<input type="checkbox"/> Domestic
<input type="checkbox"/> Rotary (Reverse)	<input type="checkbox"/> Municipal
<input type="checkbox"/> Boring	<input type="checkbox"/> Livestock
<input checked="" type="checkbox"/> Air percussion	<input type="checkbox"/> Irrigation
<input type="checkbox"/> Other, specify	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Other, specify
	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Not used
	<input type="checkbox"/> Dewatering
	<input checked="" type="checkbox"/> Test Hole
	<input checked="" type="checkbox"/> Monitoring
	<input type="checkbox"/> Cooling & Air Conditioning

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To	
3.45	PVC	3.56	0	4.88	<input type="checkbox"/> Water Supply
					<input type="checkbox"/> Replacement Well
					<input type="checkbox"/> Test Hole
					<input type="checkbox"/> Recharge Well
					<input type="checkbox"/> Dewatering Well
					<input checked="" type="checkbox"/> Observation and/or Monitoring Hole
					<input type="checkbox"/> Alteration (Construction)
					<input type="checkbox"/> Abandoned, Insufficient Supply
					<input type="checkbox"/> Abandoned, Poor Water Quality
					<input type="checkbox"/> Abandoned, other, specify
					<input type="checkbox"/> Other, specify

Construction Record - Screen				
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To
4.21	PVC	10	4.88	7.96

Water Details		Hole Diameter	
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested	Depth (m/ft) From	To
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	0	3.33
			7.96

Business Name of Well Contractor Stark Drilling Group		Well Contractor's Licence No. 7271
Business Address (Street Number/Name) 147 West Beaver Creek		Municipality Richmond Hill
Province ON	Postal Code L4B 1K6	Business E-mail Address info@starkdrilling.com
Bus. Telephone No. (inc. area code) 905-764-9304	Name of Well Technician (Last Name, First Name) Mr. Coy, James	
Well Technician's Licence No. 3652	Signature of Technician and/or Contractor	Date Submitted 2013 05 17

5-13796

Well Record

Regulation 903 Ontario Water Resources Act

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Measurements recorded in: ☒ Metric ☐ Imperial

### Well Owner's Information

First Name	Last Name / Organization Loblaw Properties Ltd	E-mail Address	<input type="checkbox"/> Well Constructed by Well Owner
Mailing Address (Street Number/Name) 1 President's Choice Circle	Municipality Ottawa	Province ON	Postal Code K1M 1S5

### Well Location

Address of Well Location (Street Number/Name) 100 MacArthur Ave.	Township	Lot	Concession
County/District/Municipality	City/Town/Village Ottawa	Province Ontario	Postal Code
UTM Coordinates NAD 83 18 44 78 81 14 03 08 74	Zone	Easting	North
Municipal Plan and Sublot Number		Other	

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
BLK	asphalt	gravel	loose	0	3.31
BRN	sand	silt, gravel	sand	3.31	3.35
BLK	shale		layered	3.35	7.96

Annular Space			
Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	3.31	concrete/mushroom	
3.31	4.57	bentonite	
4.57	7.96	filter sand	

Method of Construction	Well Use
<input type="checkbox"/> Cable Tool	<input type="checkbox"/> Public
<input type="checkbox"/> Rotary (Conventional)	<input type="checkbox"/> Domestic
<input type="checkbox"/> Rotary (Reverse)	<input type="checkbox"/> Municipal
<input type="checkbox"/> Boring	<input type="checkbox"/> Livestock
<input checked="" type="checkbox"/> Air percussion	<input type="checkbox"/> Irrigation
<input type="checkbox"/> Other, specify	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Other, specify
	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Not used
	<input type="checkbox"/> Dewatering
	<input checked="" type="checkbox"/> Test Hole
	<input checked="" type="checkbox"/> Monitoring
	<input type="checkbox"/> Cooling & Air Conditioning

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To	
3.45	PVC	3.56	0	4.88	<input type="checkbox"/> Water Supply
					<input type="checkbox"/> Replacement Well
					<input type="checkbox"/> Test Hole
					<input type="checkbox"/> Recharge Well
					<input type="checkbox"/> Dewatering Well
					<input checked="" type="checkbox"/> Observation and/or Monitoring Hole
					<input type="checkbox"/> Alteration (Construction)
					<input type="checkbox"/> Abandoned, Insufficient Supply
					<input type="checkbox"/> Abandoned, Poor Water Quality
					<input type="checkbox"/> Abandoned, other, specify
					<input type="checkbox"/> Other, specify

Construction Record - Screen				
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To
4.21	PVC	10	4.88	7.96

Water Details		Hole Diameter	
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested	Depth (m/ft) From	To
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	0	3.33
			7.96

Business Name of Well Contractor Stark Drilling Group		Well Contractor's Licence No. 7271
Business Address (Street Number/Name) 147 West Beaver Creek		Municipality Richmond Hill
Province ON	Postal Code L4B 1K6	Business E-mail Address info@starkdrilling.com
Bus. Telephone No. (inc. area code) 905-764-9304	Name of Well Technician (Last Name, First Name) Mr. Coy, James	
Well Technician's Licence No. 3652	Signature of Technician and/or Contractor	Date Submitted 2013 05 17

5-13796

Well Record

Regulation 903 Ontario Water Resources Act

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Measurements recorded in: ☒ Metric ☐ Imperial

### Well Owner's Information

First Name	Last Name / Organization Loblaw Properties Ltd	E-mail Address	<input type="checkbox"/> Well Constructed by Well Owner
Mailing Address (Street Number/Name) 1 President's Choice Circle	Municipality Ottawa	Province ON	Postal Code K1M 1S5

### Well Location

Address of Well Location (Street Number/Name) 100 MacArthur Ave.	Township	Lot	Concession
County/District/Municipality	City/Town/Village Ottawa	Province Ontario	Postal Code
UTM Coordinates NAD 83 18 44 78 81 14 03 08 74	Zone	Easting	North
Municipal Plan and Sublot Number		Other	

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
BLK	asphalt	gravel	loose	0	3.31
BRN	sand	silt, gravel	sand	3.31	3.35
BLK	shale		layered	3.35	7.96

Annular Space			
Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	3.31	concrete/mushroom	
3.31	4.57	bentonite	
4.57	7.96	filter sand	

Method of Construction	Well Use
<input type="checkbox"/> Cable Tool	<input type="checkbox"/> Public
<input type="checkbox"/> Rotary (Conventional)	<input type="checkbox"/> Domestic
<input type="checkbox"/> Rotary (Reverse)	<input type="checkbox"/> Municipal
<input type="checkbox"/> Boring	<input type="checkbox"/> Livestock
<input checked="" type="checkbox"/> Air percussion	<input type="checkbox"/> Irrigation
<input type="checkbox"/> Other, specify	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Other, specify
	<input type="checkbox"/> Commercial
	<input type="checkbox"/> Not used
	<input type="checkbox"/> Dewatering
	<input checked="" type="checkbox"/> Test Hole
	<input checked="" type="checkbox"/> Monitoring
	<input type="checkbox"/> Cooling & Air Conditioning

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To	
3.45	PVC	3.56	0	4.88	<input type="checkbox"/> Water Supply
					<input type="checkbox"/> Replacement Well
					<input type="checkbox"/> Test Hole
					<input type="checkbox"/> Recharge Well
					<input type="checkbox"/> Dewatering Well
					<input checked="" type="checkbox"/> Observation and/or Monitoring Hole
					<input type="checkbox"/> Alteration (Construction)
					<input type="checkbox"/> Abandoned, Insufficient Supply
					<input type="checkbox"/> Abandoned, Poor Water Quality
					<input type="checkbox"/> Abandoned, other, specify
					<input type="checkbox"/> Other, specify

Construction Record - Screen				
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To
4.21	PVC	10	4.88	7.96





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

A145348

5-13796

Well Record

Regulation 903 Ontario Water Resources Act

Measurements recorded in: ☒ Metric ☐ Imperial

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### Well Owner's Information

First Name	Last Name / Organization Loblaw Properties Ltd	E-mail Address	<input type="checkbox"/> Well Constructed by Well Owner
Mailing Address (Street Number/Name) 1 Presidents Choice Circle	Municipality Brampton	Province CN	Postal Code L6Y 5S5

### Well Location

Address of Well Location (Street Number/Name) 100 McArthur Ave.	Township	Lot	Concession
County/District/Municipality	City/Town/Village Oshawa	Province Ontario	Postal Code
UTM Coordinates NAD 83 18 44 788 11403 0874	Zone Easting	Northings	Municipal Plan and Sublot Number
			Other

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
BLK	asphalt	gravel	loose	0	31
BRN	sand	silt, gravel	soft	31	3.35
BLK	shale		layered	3.35	7.96

Annular Space			
Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	31	concrete flush mount	
31	4.57	bentonite	
4.57	7.96	filter sand	

Method of Construction	Well Use
<input type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary (Conventional) <input type="checkbox"/> Rotary (Reverse) <input type="checkbox"/> Boring <input checked="" type="checkbox"/> Air percussion <input type="checkbox"/> Other, specify	<input type="checkbox"/> Diamond <input type="checkbox"/> Jetting <input type="checkbox"/> Driving <input type="checkbox"/> Digging <input type="checkbox"/> Public <input type="checkbox"/> Domestic <input type="checkbox"/> Livestock <input type="checkbox"/> Irrigation <input type="checkbox"/> Industrial <input type="checkbox"/> Other, specify
	<input type="checkbox"/> Commercial <input type="checkbox"/> Municipal <input checked="" type="checkbox"/> Test Hole <input type="checkbox"/> Cooling & Air Conditioning <input type="checkbox"/> Not used <input type="checkbox"/> Dewatering <input checked="" type="checkbox"/> Monitoring

Construction Record - Casing			Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To
3.45	PVC	3.56	0	4.88

<input type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input checked="" type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input checked="" type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify <input type="checkbox"/> Other, specify
---

Construction Record - Screen				Status of Well	
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To	
4.21	PVC	10	4.88	7.92	

<input type="checkbox"/> Other, specify
---

Water Details		Hole Diameter	
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	Depth (m/ft) From	To
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	0	3.35
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	3.35	7.96

Well Contractor and Well Technician Information			
Business Name of Well Contractor Strata Drilling Group	Well Contractor's Licence No. 7291		
Business Address (Street Number/Name) 147 West Beaver Creek	Municipality Richmond Hill		
Province ON	Postal Code L4B 1C6	Business E-mail Address wrecords@strataoil.com	
Bus. Telephone No. (inc. area code) 905 764-9304	Name of Well Technician (Last Name, First Name) McLoy, James		
Well Technician's Licence No. 7656	Signature of Technician and/or Contractor		Date Submitted 2013 05 17

Results of Well Yield Testing			
After test of well yield, water was:		Draw Down	
<input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify		Time (min)	Water Level (m/ft)
If pumping discontinued, give reason:		Static Level	Recovery
			Time (min)
Pump intake set at (m/ft)		1	1
Pumping rate (l/min / GPM)		2	2
Duration of pumping hrs + min		3	3
Final water level end of pumping (m/ft)		4	4
If flowing give rate (l/min / GPM)		5	5
Recommended pump depth (m/ft)		10	10
Recommended pump rate (l/min / GPM)		15	15
Well production (l/min / GPM)		20	20
Disinfected?		25	25
<input type="checkbox"/> Yes <input type="checkbox"/> No		30	30
		40	40
		50	50
		60	60

Map of Well Location	
Please provide a map below following instructions on the back.	
Comments:	

Well owner's information package delivered <input type="checkbox"/> Yes <input type="checkbox"/> No	Date Package Delivered Y Y Y Y M M D D D 2013 04 03	Ministry Use Only Audit No. Z168597 MAY 15 2013 Received
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Tag#: A145296 A145296

Measurements recorded in: ☒ Metric ☐ Imperial

Well Owner's Information

First Name LOBLAW PROPERTY INC.	Last Name / Organization	E-mail Address	<input type="checkbox"/> Well Constructed by Well Owner
Mailing Address (Street Number/Name) 1 PRESIDENTS CHOICE CIRCLE	Municipality BRANTFORD	Province ONTARIO	Postal Code L6Y 5S5

Well Location

Address of Well Location (Street Number/Name) 100 MACARTHUR	Township	Lot	Concession
County/District/Municipality	City/Town/Village OTTAWA	Province Ontario	Postal Code
UTM Coordinates NAD 83 18 44 78 81 40 30 87 4	Zone	Easting	Northing
Municipal Plan and Sublot Number			Other

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
BLACK	ASPHALT	GRAVEL	HARD	0.	0.31
BROWN	SAND	GRAVEL	SOFT	0.31	3.35
BLACK	SHALE		FRACTURED	3.35	7.93

Annular Space			
Depth Set at (m/ft) From	Depth Set at (m/ft) To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	0.31	CONCRETE W/ FLUSH MOUNT	
0.31	4.57	BENSEAL	
4.57	7.93	SILICA SAND	

Method of Construction	Well Use
<input type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary (Conventional) <input type="checkbox"/> Rotary (Reverse) <input type="checkbox"/> Boring <input checked="" type="checkbox"/> Air percussion <input type="checkbox"/> Other, specify Direct Push	<input type="checkbox"/> Public <input type="checkbox"/> Domestic <input type="checkbox"/> Livestock <input type="checkbox"/> Irrigation <input type="checkbox"/> Industrial <input type="checkbox"/> Other, specify
<input type="checkbox"/> Diamond <input type="checkbox"/> Jetting <input type="checkbox"/> Driving <input type="checkbox"/> Digging	<input type="checkbox"/> Commercial <input type="checkbox"/> Municipal <input checked="" type="checkbox"/> Test Hole <input type="checkbox"/> Cooling & Air Conditioning <input type="checkbox"/> Not used <input type="checkbox"/> Dewatering <input checked="" type="checkbox"/> Monitoring

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To	
3.45	PVC	0.356	0	4.88	<input type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input checked="" type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify <input type="checkbox"/> Other, specify

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	4.88	7.93

Water Details		Hole Diameter	
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	Depth (m/ft) From	Depth (m/ft) To
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	0	3.96
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	3.96	7.93

Well Contractor and Well Technician Information			
Business Name of Well Contractor Strata Soil Sampling Inc.	Well Contractor's Licence No. 7 2 4 1		
Business Address (Street Number/Name) 147-2 West Beaver Creek Road	Municipality Richmond Hill		
Province Ontario	Postal Code L4B 1C6	Business E-mail Address wrecords@stratasoil.com	
Bus. Telephone No. (inc. area code) 905-764-9304	Name of Well Technician (Last Name, First Name) McCoy, JAMES		
Well Technician's Licence No. 3 6 5 6	Signature of Technician and/or Contractor		Date Submitted 20130328

Results of Well Yield Testing				
After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason:	Static Level			
	1		1	
Pump intake set at (m/ft)	2		2	
Pumping rate (l/min / GPM)	3		3	
Duration of pumping hrs + min	4		4	
Final water level end of pumping (m/ft)	5		5	
If flowing give rate (l/min / GPM)	10		10	
Recommended pump depth (m/ft)	15		15	
Recommended pump rate (l/min / GPM)	20		20	
Well production (l/min / GPM)	25		25	
Disinfected?	30		30	
<input type="checkbox"/> Yes <input type="checkbox"/> No	40		40	
	50		50	
	60		60	

Map of Well Location	
Please provide a map below following instructions on the back.	
Comments:	

Well owner's information package delivered <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date Package Delivered Y Y Y Y M M D D D 20130326	Date Work Completed 20130326	Ministry Use Only Audit No. Z151027 Received MAY 15 2013
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Tag#: A145298

A145298

Measurements recorded in: ☒ Metric ☐ Imperial

Well Owner's Information

First Name LOBLAW PROPERTY INC	Last Name / Organization	E-mail Address	<input type="checkbox"/> Well Constructed by Well Owner
Mailing Address (Street Number/Name) 1 PRESIDENTS CHOICE CIRCLE	Municipality BRAMPTON	Province ON	Postal Code L6Y5S5

Well Location

Address of Well Location (Street Number/Name) 100 MACARTHUR	Township	Lot	Concession
County/District/Municipality	City/Town/Village OTTAWA	Province Ontario	Postal Code
UTM Coordinates NAD 83 17 44 789 15030891	Zone 17	Easting 44	Northing 789 15030891
Municipal Plan and Sublot Number			Other

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
BLACK	ASPHALT	GRAVEL	HARD	0	.31
BROWN	SAND	GRAVEL	SOFT	.31	3.35
BLACK	SHALE		FRATURED	3.35	7.93

Annular Space			
Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	.31	CONCRETE W/ FLUSH MOUNT	
.31	4.57	BEUSEAL	
4.57	7.93	SILICA SAND	

Method of Construction	Well Use
<input type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary (Conventional) <input type="checkbox"/> Rotary (Reverse) <input type="checkbox"/> Boring <input type="checkbox"/> Air percussion <input checked="" type="checkbox"/> Other, specify Direct Push	<input type="checkbox"/> Public <input type="checkbox"/> Domestic <input type="checkbox"/> Livestock <input type="checkbox"/> Irrigation <input type="checkbox"/> Industrial <input type="checkbox"/> Other, specify
<input type="checkbox"/> Diamond <input type="checkbox"/> Jetting <input type="checkbox"/> Driving <input type="checkbox"/> Digging	<input type="checkbox"/> Commercial <input type="checkbox"/> Municipal <input checked="" type="checkbox"/> Test Hole <input type="checkbox"/> Cooling & Air Conditioning <input type="checkbox"/> Not used <input type="checkbox"/> Dewatering <input checked="" type="checkbox"/> Monitoring

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To	
3.45	PVC	0.356	0	4.88	<input type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input checked="" type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify <input type="checkbox"/> Other, specify

Construction Record - Screen				
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To
4.21	PVC	10	4.88	7.93

Water Details		Hole Diameter		
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	Depth (m/ft) From	To	Diameter (cm/in)
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	0	3.96	11.43
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	3.96	7.93	7.62

Well Contractor and Well Technician Information			
Business Name of Well Contractor Strata Soil Sampling Inc.	Well Contractor's Licence No. 7 2 4 1	Business Address (Street Number/Name) 147-2 West Beaver Creek Road	Municipality Richmond Hill
Province Ontario	Postal Code L4B 1C6	Business E-mail Address wrecords@stratasoil.com	
Bus. Telephone No. (inc. area code) 905-764-9304	Name of Well Technician (Last Name, First Name) McLoughlin, James	Well Technician's Licence No. 3 6 5 6	Signature of Technician and/or Contractor 
Date Submitted 20130328			

Results of Well Yield Testing			
After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify		Draw Down	
If pumping discontinued, give reason:		Time (min)	Water Level (m/ft)
Pump intake set at (m/ft)		1	1
Pumping rate (l/min / GPM)		2	2
Duration of pumping hrs + min		3	3
Final water level end of pumping (m/ft)		4	4
If flowing give rate (l/min / GPM)		5	5
Recommended pump depth (m/ft)		10	10
Recommended pump rate (l/min / GPM)		15	15
Well production (l/min / GPM)		20	20
Disinfected? <input type="checkbox"/> Yes <input type="checkbox"/> No		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 owner's information package delivered <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date Package Delivered Y Y Y Y M M D D 20130326	Date Work Completed 20130326	Ministry Use Only Audit No. Z151028 Received MAY 15 2013
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Ministry of  
the Environment

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

Tag#: A145297 A145297

Regulation 903 Ontario Water Resources Act

Page \_\_\_\_\_ of \_\_\_\_\_

Measurements recorded in: ☒ Metric ☐ Imperial

### Well Owner's Information

First Name <b>LOBBAN PROPERTY INC.</b>	Last Name / Organization	E-mail Address	<input type="checkbox"/> Well Constructed by Well Owner
Mailing Address (Street Number/Name) <b>1 PRESIDENTS CHOICE CIRCLE</b>		Municipality <b>BRAMPTON</b>	Province <b>ONTARIO</b>
		Postal Code <b>L6Y 5S5</b>	Telephone No. (inc. area code)

### Well Location

Address of Well Location (Street Number/Name) <b>100 MACARTHUR</b>		Township	Lot	Concession
County/District/Municipality		City/Town/Village <b>OTTAWA</b>	Province <b>Ontario</b>	Postal Code
UTM Coordinates NAD 83	Zone <b>18</b>	Easting <b>447921</b>	Northings <b>5030838</b>	Municipal Plan and Sublot Number
				Other

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
BLACK	ASHPAALT	GRAVEL	HARD.	0	.31
BROWN	SAND	GRAVEL	SOFT	.31	3.35
BREY BLACK	SHALE		FRATURED	3.35	7.93

Annular Space			
Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
2.31	.31	CONCRETE W FLUSH MOUNT	
.31	4.57	BEUSEAL	
4.57	7.93	SILICA SAND	

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

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To	
3.45	PVC	0.386	0	7.93	<input type="checkbox"/> Water Supply
				4.88	<input type="checkbox"/> Replacement Well
					<input checked="" type="checkbox"/> Test Hole
					<input type="checkbox"/> Recharge Well
					<input type="checkbox"/> Dewatering Well
					<input checked="" type="checkbox"/> Observation and/or Monitoring Hole
					<input type="checkbox"/> Alteration (Construction)
					<input type="checkbox"/> Abandoned, Insufficient Supply
					<input type="checkbox"/> Abandoned, Poor Water Quality
					<input type="checkbox"/> Abandoned, other, specify
					<input type="checkbox"/> Other, specify

Construction Record - Screen				
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To
4.21	PVC	10	4.88	7.93

Water Details		Hole Diameter		
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested	Depth (m/ft) From	To	Diameter (cm/in)
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	0	3.96	11.43
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	3.96	7.93	7.62
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify			

Well Contractor and Well Technician Information			
Business Name of Well Contractor <b>Strata Soil Sampling Inc.</b>		Well Contractor's Licence No. <b>7 2 4 1</b>	
Business Address (Street Number/Name) <b>147-2 West Beaver Creek Road</b>		Municipality <b>Richmond Hill</b>	
Province <b>Ontario</b>	Postal Code <b>L4B 1C6</b>	Business E-mail Address <b>wrecords@stratasoil.com</b>	
Bus. Telephone No. (inc. area code) <b>905-764-9804</b>		Name of Well Technician (Last Name, First Name) <b>MCCOY JAMES</b>	
Well Technician's Licence No. <b>3 6 5 6</b>		Signature of Technician and/or Contractor 	
		Date Submitted <b>2013 03 28</b>	

5-13796 Well Record

Results of Well Yield Testing				
After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify _____	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason:	Static Level			
	1		1	
Pump intake set at (m/ft)	2		2	
Pumping rate (l/min / GPM)	3		3	
	4		4	
Duration of pumping _____ hrs + _____ min	5		5	
Final water level end of pumping (m/ft)	10		10	
If flowing give rate (l/min / GPM)	15		15	
	20		20	
Recommended pump depth (m/ft)	25		25	
	30		30	
Recommended pump rate (l/min / GPM)	40		40	
	50		50	
Well production (l/min / GPM)	60		60	
Disinfected? <input type="checkbox"/> Yes <input type="checkbox"/> No				

Map of Well Location	
Please provide a map below following instructions on the back.	
Comments:	
Well owner's information package delivered <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date Package Delivered <b>2013 03 28</b>
Date Work Completed <b>2013 03 28</b>	
Ministry Use Only	
Audit No. <b>2151025</b>	
Recorded <b>MAY 15 2013</b>	





Ministry of  
the Environment

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

A152027

Well Record

Regulation 903 Ontario Water Resources Act

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Measurements recorded in: ☒ Metric ☐ Imperial

### Well Owner's Information

First Name	Last Name / Organization Loblaw Properties Ltd	E-mail Address	<input type="checkbox"/> Well Constructed by Well Owner
Mailing Address (Street Number/Name) 1 Presidents Choice Circle Brampton	Municipality ON	Postal Code L6Y5S5	Telephone No. (inc. area code)

### Well Location

Address of Well Location (Street Number/Name) 100 MacArthur Ave	Township	Lot	Concession
County/District/Municipality	City/Town/Village Ottawa	Province Ontario	Postal Code
UTM Coordinates NAD 83 18 44 79 06 50 30 90 7	Zone Easting Northing	Municipal Plan and Sublot Number	Other

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
BLK	asphalt	gravel	hard	0	0.31
BRN	sand	fill, gravel	loose	0.31	1.82
GRY	silt	gravel	soft	1.82	3.66
BLK	shale		layered	3.66	7.92

Annular Space			Volume Placed (m³/ft³)
Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	
0	0.31	concrete/flush mount	
0.31	4.57	bentonite	
4.57	7.92	filter sand	

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

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To	
5.20	PVC	0.340	0	4.88	<input type="checkbox"/> Water Supply
					<input type="checkbox"/> Replacement Well
					<input checked="" type="checkbox"/> Test Hole
					<input type="checkbox"/> Recharge Well
					<input type="checkbox"/> Dewatering Well
					<input checked="" type="checkbox"/> Observation and/or Monitoring Hole
					<input type="checkbox"/> Alteration (Construction)
					<input type="checkbox"/> Abandoned, Insufficient Supply
					<input type="checkbox"/> Abandoned, Poor Water Quality
					<input type="checkbox"/> Abandoned, other, specify
					<input type="checkbox"/> Other, specify

Construction Record - Screen				Status of Well	
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	To	
6.03	PVC	10	4.88	7.92	<input type="checkbox"/> Water Supply
					<input type="checkbox"/> Replacement Well
					<input checked="" type="checkbox"/> Test Hole
					<input type="checkbox"/> Recharge Well
					<input type="checkbox"/> Dewatering Well
					<input checked="" type="checkbox"/> Observation and/or Monitoring Hole
					<input type="checkbox"/> Alteration (Construction)
					<input type="checkbox"/> Abandoned, Insufficient Supply
					<input type="checkbox"/> Abandoned, Poor Water Quality
					<input type="checkbox"/> Abandoned, other, specify
					<input type="checkbox"/> Other, specify

Water Details		Hole Diameter	
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	Depth (m/ft) From	To
		0	3.66
		3.66	7.92

Business Name of Well Contractor Shasta Drilling Group		Well Contractor's Licence No. 7241
Business Address (Street Number/Name) 147 West Beaver Creek Richmond Hill		Municipality
Province ON	Postal Code L4B1C6	Business E-mail Address wrecord@shasta-soil.com
Bus. Telephone No. (inc. area code) 905 1764 9304	Name of Well Technician (Last Name, First Name) McLug, James	
Well Technician's Licence No. 3656	Signature of Technician and/or Contractor [Signature]	
Date Submitted 20130920		

Results of Well Yield Testing				
After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, <i>specify</i>	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason:	Static Level			
	1		1	
Pump intake set at (m/ft)	2		2	
Pumping rate (l/min / GPM)	3		3	
	4		4	
Duration of pumping _____ hrs + _____ min	5		5	
Final water level end of pumping (m/ft)	10		10	
	15		15	
If flowing give rate (l/min / GPM)	20		20	
Recommended pump depth (m/ft)	25		25	
Recommended pump rate (l/min / GPM)	30		30	
	40		40	
Well production (l/min / GPM)	50		50	
Disinfected? <input type="checkbox"/> Yes <input type="checkbox"/> No	60		60	

Map of Well Location

Please provide a map below following instructions on the back.

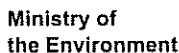
MacArthur Ave

150m

8m

100

Well owner's information package delivered <input type="checkbox"/> Yes <input type="checkbox"/> No	Date Package Delivered Y Y Y Y M M D D 20130817	Date Work Completed 20130817	Ministry Use Only Audit No. Z152734 OCT 02 2013
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A150675

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Measurements recorded in: ☒ Metric ☐ Imperial

## Well Owner's Information

First Name	Last Name / Organization <i>Loblaw Properties Ltd</i>	E-mail Address	<input type="checkbox"/> Well Constructed by Well Owner
Mailing Address (Street Number/Name)	Municipality	Province	Postal Code
<i>1 Presidents Choice Circle</i>	<i>Brampton</i>	<i>ON</i>	<i>L6Y 5S5</i>
Telephone No. (inc. area code)			

## Well Location

Address of Well Location (Street Number/Name) 100 Mac Arthur Ave				Township		Lot		Concession	
County/District/Municipality				City/Town/Village Oshawa				Province Ontario	
UTM Coordinates		Zone	Easting	Northing	Municipal Plan and Sublot Number				Other
NAD 83		18	447909	5030952					

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)	
				From	To
BLK	asphalt	gravel	hard	0	.31
BRN	sand	fill, brick, gravel	loose	.31	1.82
GRY	concrete	fill, brick	hard	1.82	3.1
BLK	shale		layered	3.1	7.46

## Annular Space

Depth Set at (m/ft)		Type of Sealant Used (Material and Type)	Volume Placed (m <sup>3</sup> /ft <sup>3</sup> )
From	To		
0	1.31	concrete/flushment	
1.31	4.57	butonite	
4.57	7.92	1.75cc sand	

### Method of Construction

- |  |   |
|--|---|
| <input type="checkbox"/> Cable Tool                | <input checked="" type="checkbox"/> Diamond |
| <input type="checkbox"/> Rotary (Conventional)     | <input type="checkbox"/> Jetting            |
| <input type="checkbox"/> Rotary (Reverse)          | <input type="checkbox"/> Driving            |
| <input type="checkbox"/> Boring                    | <input type="checkbox"/> Digging            |
| <input checked="" type="checkbox"/> Air percussion |   |
| <input type="checkbox"/> Other, <i>specify</i>     |   |

## 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)		<input type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input checked="" type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input checked="" type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned,
			From	To	
5.21	PVC	1.390	0	4.88	

## Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)		<input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify _____ <input type="checkbox"/> Other, specify _____
			From	To	
6.03	PVC	10	4.58	7.92	

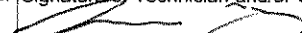
## Water Details

Water found at Depth (m/ft) <input type="checkbox"/> Gas	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Other, specify _____
Water found at Depth (m/ft) <input type="checkbox"/> Gas	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Other, specify _____
Water found at Depth (m/ft) <input type="checkbox"/> Gas	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Other, specify _____

### Hole Diameter

Depth (m/ft)		Diameter (cm/in)
From	To	
0	3.66	11.43
3.66	7.92	7.62

## Well Contractor and Well Technician Information

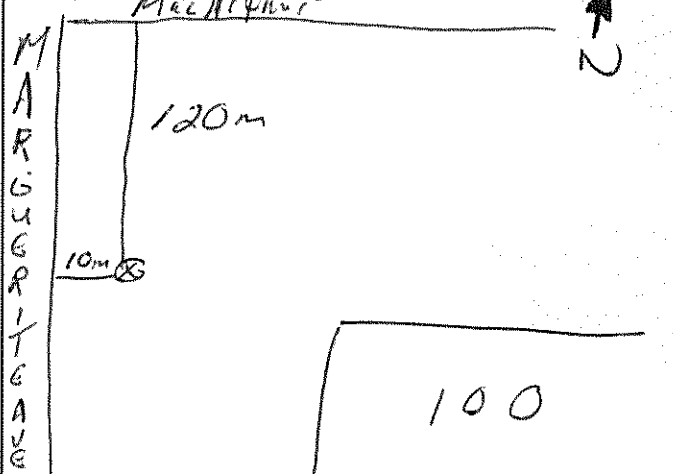
Business Name of Well Contractor <i>Strata Drilling Group</i>		Well Contractor's Licence No. <i>7241</i>
Business Address (Street Number/Name) <i>147 West Beaver Creek</i>		Municipality <i>Richmond Hill</i>
Province <i>ON</i>	Postal Code <i>L4B 1C6</i>	Business E-mail Address <i>wrecords@strataoil.com</i>
Bus. Telephone No. (inc. area code) <i>905 764-9304</i>	Name of Well Technician (Last Name, First Name) <i>MCCLY, JAMES</i>	
Well Technician's Licence No. <i>3656</i>	Signature of Technician and/or Contractor 	Date Submitted <i>2013 09 20</i>

### Results of Well Yield Testing

After test of well yield, water was:		Draw Down		Recovery	
<input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, <i>specify</i> _____		Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason:		Static Level			
		1		1	
Pump intake set at (m/ft)		2		2	
Pumping rate (l/min / GPM)		3		3	
		4		4	
Duration of pumping _____ hrs + _____ min		5		5	
Final water level end of pumping (m/ft)		10		10	
If flowing give rate (l/min / GPM)		15		15	
		20		20	
Recommended pump depth (m/ft)		25		25	
Recommended pump rate (l/min / GPM)		30		30	
Well production (l/min / GPM)		40		40	
		50		50	
Disinfected? <input type="checkbox"/> Yes <input type="checkbox"/> No		60		60	

### Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well owner's information package delivered	Date Package Delivered	Ministry Use Only
	Y Y Y Y M M D D	
<input type="checkbox"/> Yes <input type="checkbox"/> No	Date Work Completed 20130817	OCT 02 2013

Measurements recorded in: ☒ Metric ☐ Imperial

A152628

### Well Owner's Information

First Name	Last Name / Organization	E-mail Address	<input type="checkbox"/> Well Constructed by Well Owner	
	Loblaws Properties Ltd			
Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. (inc. area code)
1 President Circle	Brampton	ON	L6Y 5S5	

## Well Location

Address of Well Location (Street Number/Name) 100 MacMillan St. Ave				Township		Lot		Concession	
County/District/Municipality				City/Town/Village Oshawa				Province Ontario	
UTM Coordinates		Zone		Easting		Northing		Municipal Plan and Sublot Number	
NAD 83		18		447959		5036980			
								Other	

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

Overburden and Bedrock Material Identification				Depth (m/ft)	
General Colour	Most Common Material	Other Materials	General Description	From	To
BLK	asphalt	gravel	hard	0	.71
BRN	sand	silt, gravel	loose	.71	1.82
GRY	silt	gravel	soft	1.82	3.66
BLK	shale		layered	3.66	7.9

## Annular Space

Depth Set at (m/ft)		Type of Sealant Used (Material and Type)	Volume Placed (m <sup>3</sup> /ft <sup>3</sup> )
From	To		
0	.31	concrete flush mount	
.31	4.57	bentonite	
4.57	7.92	filter sand	

### Method of Construction

<input type="checkbox"/> Cable Tool	<input checked="" type="checkbox"/> Diamond	<input type="checkbox"/> Public	<input type="checkbox"/> Commercial	<input type="checkbox"/> Not used
<input type="checkbox"/> Rotary (Conventional)	<input type="checkbox"/> Jetting	<input type="checkbox"/> Domestic	<input type="checkbox"/> Municipal	<input type="checkbox"/> Dewatering
<input type="checkbox"/> Rotary (Reverse)	<input type="checkbox"/> Driving	<input type="checkbox"/> Livestock	<input checked="" type="checkbox"/> Test Hole	<input checked="" type="checkbox"/> Monitoring
<input type="checkbox"/> Boring	<input type="checkbox"/> Digging	<input type="checkbox"/> Irrigation	<input type="checkbox"/> Cooling & Air Conditioning	
<input checked="" type="checkbox"/> Air percussion		<input type="checkbox"/> Industrial		
<input type="checkbox"/> Other, specify _____		<input type="checkbox"/> Other, specify _____		

## Well Use

<input type="checkbox"/> Public	<input type="checkbox"/> Commercial	<input type="checkbox"/> Not used
<input type="checkbox"/> Domestic	<input type="checkbox"/> Municipal	<input type="checkbox"/> Dewatering
<input type="checkbox"/> Livestock	<input checked="" type="checkbox"/> Test Hole	<input checked="" type="checkbox"/> Monitoring
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Cooling & Air Conditioning	
<input type="checkbox"/> Industrial		
<input type="checkbox"/> Other, <i>specify</i> _____		

### Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		<input type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input checked="" type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input checked="" type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Inefficient Supply
			From	To	
5.20	PVC	.390	0	4.88	

## Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)		<input type="checkbox"/> Abandoned, but Water Quality <input type="checkbox"/> Abandoned, other, specify <input type="checkbox"/> Other, specify
			From	To	
6.03	PVC	10	4.88	7.92	

## Water Details

Water found at Depth _____ (m/ft) <input type="checkbox"/> Gas	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Other, specify _____
Water found at Depth _____ (m/ft) <input type="checkbox"/> Gas	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Other, specify _____
Water found at Depth _____ (m/ft) <input type="checkbox"/> Gas	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Other, specify _____

### Hole Diameter

Depth (m/ft)		Diameter (cm/in)
From	To	
0	3.66	11.4
3.66	7.92	7.62

### Well Contractor and Well Technician Information

Business Name of Well Contractor <i>Strata Drilling Group</i>		Well Contractor's Licence No. <i>7 2 4 1</i>
Business Address (Street Number/Name) <i>147 West Beaver Creek</i>		Municipality <i>Richmond Hill</i>
Province <i>ON</i>	Postal Code <i>L4B 1C6</i>	Business E-mail Address <i>wrecords@strataoil.com</i>
Bus. Telephone No. (inc. area code) <i>905 764-9304</i>	Name of Well Technician (Last Name, First Name) <i>McCoy, JAMES</i>	
Well Technician's Licence No. <i>3 6 5 6</i>	Signature of Technician and/or Contractor <i>[Signature]</i>	Date Submitted <i>2013 09 26</i>

### Results of Well Yield Testing

After test of well yield, water was:	Draw Down		Recovery	
<input type="checkbox"/> Clear and sand free	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
<input type="checkbox"/> Other, <i>specify</i> _____	Static Level			
If pumping discontinued, give reason:	1		1	
Pump intake set at (m/ft)	2		2	
Pumping rate (l/min / GPM)	3		3	
Duration of pumping	4		4	
hrs + min	5		5	
Final water level end of pumping (m/ft)	10		10	
If flowing give rate (l/min / GPM)	15		15	
Recommended pump depth (m/ft)	20		20	
Recommended pump rate (l/min / GPM)	25		25	
Well production (l/min / GPM)	30		30	
Disinfected?	40		40	
<input type="checkbox"/> Yes <input type="checkbox"/> No	50		50	
	60		60	

### Map of Well Location

Please provide a map below following instructions on the back.

A hand-drawn map showing a rectangular area. The top boundary is labeled "Machikethur". The left boundary is labeled "MAGUERITE AVENUE". The bottom boundary is labeled "100". The right boundary is labeled "100m". The interior of the rectangle is labeled "150m". A north arrow is drawn in the top right corner, pointing upwards and labeled "N". A small circle is drawn at the intersection of the left and bottom boundaries.

Comments

Well owner  
information  
package  
delivered

Date Package Delivered

Y	Y	Y	Y	M	M	D	D
---	---	---	---	---	---	---	---

Date Work Completed  
20130816

## Ministry Use Only

Audit No. **z 152733**  
**OCT 02 2013**



A150769

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Measurements recorded in: ☒ Metric ☐ Imperial

### Well Owner's Information

First Name	Last Name / Organization	E-mail Address	<input type="checkbox"/> Well Constructed by Well Owner	
	Koblaw Properties Ltd.			
Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. (inc. area code)
1 Presidents Choice Circle	Brampton	ON	L6Y5S5	

## Well Location

Address of Well Location (Street Number/Name) 100 MacArthur		Township	Lot	Concession	
County/District/Municipality		City/Town/Village OHawa	Province Ontario		Postal Code 
UTM Coordinates		Municipal Plan and Sublot Number		Other	
NAD	8 3 1 8 4479 3750 36928				

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)	
				From	To
BLK	asphalt	gravel	hard	0	1.31
BRN	sand	brick, gravel	loose	1.31	1.82
GRY	silt	gravel	soft	1.82	3.66
BLK	shale		layered	3.66	7.92

## Annular Space

Depth Set at (m/ft)		Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
From	To		
0	1.31	concrete/plasterboard	
1.31	4.57	butonite	
4.57	7.92	litter sand	

### Method of Construction

<input type="checkbox"/> Cable Tool	<input checked="" type="checkbox"/> Diamond	<input type="checkbox"/> Public	<input type="checkbox"/> Commercial	<input type="checkbox"/> Not used
<input type="checkbox"/> Rotary (Conventional)	<input type="checkbox"/> Jetting	<input type="checkbox"/> Domestic	<input type="checkbox"/> Municipal	<input type="checkbox"/> Dewatering
<input type="checkbox"/> Rotary (Reverse)	<input type="checkbox"/> Driving	<input type="checkbox"/> Livestock	<input checked="" type="checkbox"/> Test Hole	<input checked="" type="checkbox"/> Monitoring
<input type="checkbox"/> Boring	<input type="checkbox"/> Digging	<input type="checkbox"/> Irrigation	<input type="checkbox"/> Cooling & Air Conditioning	
<input checked="" type="checkbox"/> Air percussion		<input type="checkbox"/> Industrial		
<input type="checkbox"/> Other, <i>specify</i> _____		<input type="checkbox"/> Other, <i>specify</i> _____		

### 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)		<input type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input checked="" type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input checked="" type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned,
			From	To	
520	PVC	390	0	4.88	

### Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)		<input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify _____ <input type="checkbox"/> Other, specify _____
			From	To	
6.03	PVC	10	4.88	7.92	


## Water Details

Water found at Depth _____ (m/ft) <input type="checkbox"/> Gas	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Other, specify _____
Water found at Depth _____ (m/ft) <input type="checkbox"/> Gas	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Other, specify _____
Water found at Depth _____ (m/ft) <input type="checkbox"/> Gas	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Other, specify _____

## Hole Diameter

Depth (m/ft)		Diameter (cm/in)
From	To	
0	3.66	11.43
3.66	7.92	7.62

### Well Contractor and Well Technician Information

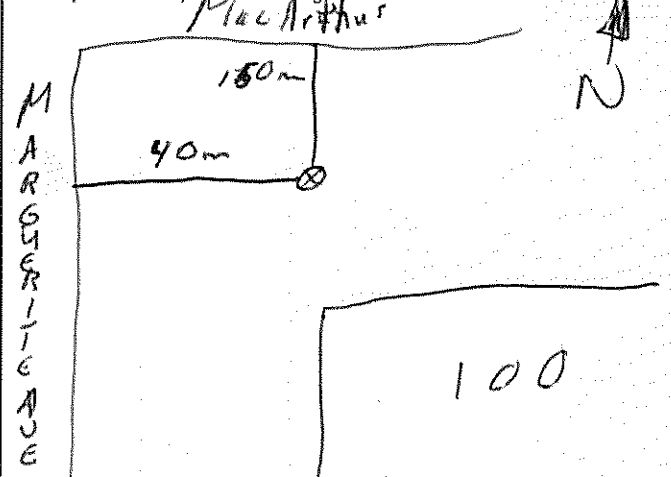
Business Name of Well Contractor		Well Contractor's Licence No.
Strata Drilling Group		7241
Business Address (Street Number/Name)		Municipality
147 West Beaver Creek		Richmond Hill
Province	Postal Code	Business E-mail Address
ON	L4B1C6	wrcoids@stratasoil.ca
Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)	
9057649304	Mr. C. Log, J. Marks	
Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
3656		20130920

### Results of Well Yield Testing

After test of well yield, water was:		Draw Down		Recovery	
<input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, <i>specify</i>		Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason:		Static Level			
		1		1	
Pump intake set at (m/ft)		2		2	
Pumping rate (l/min / GPM)		3		3	
Duration of pumping hrs + min		4		4	
Final water level end of pumping (m/ft)		5		5	
If flowing give rate (l/min / GPM)		10		10	
Recommended pump depth (m/ft)		15		15	
		20		20	
Recommended pump rate (l/min / GPM)		25		25	
Well production (l/min / GPM)		30		30	
		40		40	
Disinfected?		50		50	
<input type="checkbox"/> Yes <input type="checkbox"/> No		60		60	

### Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well owner's information package delivered  <input type="checkbox"/> Yes <input type="checkbox"/> No	Date Package Delivered Y Y Y Y M M D D	<b>Ministry Use Only</b> Audit No. <b>z 152736</b> <b>OCT 02 2013</b> Received
	Date Work Completed 10/13/08	





Ministry of  
the Environment

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

Well Record

Regulation 903 Ontario Water Resources Act

Measurements recorded in: ☒ Metric ☐ Imperial

A156406 Tag#: A156406

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### Well Owner's Information

First Name	Last Name / Organization Loblaws Properties Inc	E-mail Address	<input type="checkbox"/> Well Constructed by Well Owner
Mailing Address (Street Number/Name) 1 Presidents Choice Circle	Municipality Brampton	Province ON	Postal Code L6Y5S5
Telephone No. (inc. area code)			

### Well Location

Address of Well Location (Street Number/Name) 100 McArthur Ave.	Township	Lot	Concession
County/District/Municipality	City/Town/Village Ottawa	Province Ontario	Postal Code
UTM Coordinates NAD 83 184979465030977	Zone	Easting	Northing
Municipal Plan and Sublot Number		Other	

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From To
BLK	asphalt	gravel		0 .31
BRN	sand	gravel	loose	.31 2.44
GRY	slt	clay	soft	2.44 3.66
BLK	shale		layered	3.66 8.23

Annular Space		
Depth Set at (m/ft) From To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0 .31	concrete/flush mount	
.31 4.88	bentonite	
4.88 8.23	filter sand	

Method of Construction	Well Use
<input type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary (Conventional) <input type="checkbox"/> Rotary (Reverse) <input type="checkbox"/> Boring <input checked="" type="checkbox"/> Air percussion <input type="checkbox"/> Other, specify	<input type="checkbox"/> Diamond <input type="checkbox"/> Jetting <input type="checkbox"/> Driving <input type="checkbox"/> Digging <input type="checkbox"/> Public <input type="checkbox"/> Domestic <input type="checkbox"/> Livestock <input type="checkbox"/> Irrigation <input type="checkbox"/> Industrial <input type="checkbox"/> Other, specify

Construction Record - Casing			Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From To	
5.20	PVC	.390	0 5.18	<input type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input checked="" type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input checked="" type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify <input type="checkbox"/> Other, specify

Construction Record - Screen			
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From To
6.03	PVC	10	5.18 8.23

Water Details		Hole Diameter	
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	Depth (m/ft) From To	Diameter (cm/in)
0 8.23		0 8.23	11.43

Business Name of Well Contractor Strata Drilling Group		Well Contractor's Licence No. 2241
Business Address (Street Number/Name) 147 West Beaver Creek		Municipality Richmond Hill
Province ON	Postal Code L4B1C6	Business E-mail Address 6wrcards@stratasoil.com
Bus. Telephone No. (inc. area code) 9057649304	Name of Well Technician (Last Name, First Name) McL, James	
Well Technician's Licence No. 3656	Signature of Technician and/or Contractor	Date Submitted 20140224

Results of Well Yield Testing				
After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, <i>specify</i>	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason:	Static Level			
	1		1	
Pump intake set at (m/ft)	2		2	
Pumping rate (l/min / GPM)	3		3	
	4		4	
Duration of pumping ____ hrs + ____ min	5		5	
Final water level end of pumping (m/ft)	10		10	
If flowing give rate (l/min / GPM)	15		15	
	20		20	
Recommended pump depth (m/ft)	25		25	
Recommended pump rate (l/min / GPM)	30		30	
	40		40	
Well production (l/min / GPM)	50		50	
Disinfected? <input type="checkbox"/> Yes <input type="checkbox"/> No	60		60	

Map of Well Location	
Please provide a map below following instructions on the back.	
Comments:	
Well owner's information package delivered <input type="checkbox"/> Yes <input type="checkbox"/> No	Date Package Delivered Y Y Y Y M M D D 20140220
Ministry Use Only	
Audit No. Z 178056	
APR 23 2014	



Ministry of  
the Environment

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

Well Record

Measurements recorded in: ☒ Metric ☐ Imperial

A156407

Tag#: A156407

Regulation 903 Ontario Water Resources Act

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### Well Owner's Information

First Name	Last Name / Organization Coburns Properties Inc	E-mail Address	<input type="checkbox"/> Well Constructed by Well Owner
Mailing Address (Street Number/Name) 1 Presidents Choice Circle	Municipality Brampton	Province ON	Postal Code L6Y 5S5
Telephone No. (inc. area code)			

### Well Location

Address of Well Location (Street Number/Name) 108 McArthur	Township	Lot	Concession
County/District/Municipality	City/Town/Village Ottawa	Province Ontario	Postal Code
UTM Coordinates NAD 83 18 44 79 62 50 36 99 12	Easting	North	Municipal Plan and Sublot Number
Other			

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	To
BLK	asphalt	gravel	hard	0	0.31
BRN	sand	gravel	soft	0.31	2.49
GRY	silt	clay	soft	2.49	3.35
BLK	shale		layered	3.35	7.62

Annular Space		
Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)
0	0.31	concrete / high modulus
0.31	4.27	bentonite
4.27	7.62	filter sand

Method of Construction	Well Use
<input type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary (Conventional) <input type="checkbox"/> Rotary (Reverse) <input type="checkbox"/> Boring <input checked="" type="checkbox"/> Air percussion <input type="checkbox"/> Other, specify	<input type="checkbox"/> Public <input type="checkbox"/> Commercial <input type="checkbox"/> Domestic <input type="checkbox"/> Municipal <input type="checkbox"/> Livestock <input type="checkbox"/> Irrigation <input type="checkbox"/> Industrial <input type="checkbox"/> Other, specify

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	To	
5.20	PVC	3.68	0	4.57	<input type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input checked="" type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input checked="" type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify <input type="checkbox"/> Other, specify

Construction Record - Screen				
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)	
			From	To
6.03	PVC	10	4.57	7.62

☐ Insufficient Supply

☐ Abandoned, Poor Water Quality

☐ Abandoned, other, specify

☐ Other, specify

Water Details		Hole Diameter	
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	Depth (m/ft) From	To
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	0	7.62
Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify		11.43

Business Name of Well Contractor Strata Drilling Group		Well Contractor's Licence No. 722411
Business Address (Street Number/Name) 147 West Beaver Creek		Municipality Richmond Hill
Province ON	Postal Code L4B 1K6	Business E-mail Address wrecords@stratasoil.com
Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name) McLug, James	
Well Technician's Licence No. 3656	Signature of Technician and/or Contractor	Date Submitted Y Y Y Y M M D D

Results of Well Yield Testing				
After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, <i>specify</i> _____	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason:	Static Level			
	1		1	
Pump intake set at (m/ft)	2		2	
Pumping rate (l/min / GPM)	3		3	
Duration of pumping _____ hrs + _____ min	4		4	
Final water level end of pumping (m/ft)	5		5	
If flowing give rate (l/min / GPM)	10		10	
Recommended pump depth (m/ft)	15		15	
	20		20	
Recommended pump rate (l/min / GPM)	25		25	
Well production (l/min / GPM)	30		30	
	40		40	
Disinfected? <input type="checkbox"/> Yes <input type="checkbox"/> No	50		50	
	60		60	

Map of Well Location	
Please provide a map below following instructions on the back.	
Comments:	
Well owner's information package delivered <input type="checkbox"/> Yes <input type="checkbox"/> No	Date Package Delivered Y Y Y Y M M D D 20140224
Ministry Use Only Audit No. Z 162998 Date Work Completed 20140224 Received 23 2014	

# **APPENDIX 3**

## **QUALIFICATIONS OF ASSESSORS**

Geotechnical  
Engineering

Environmental  
Engineering

Hydrogeology

Geological  
Engineering

Materials Testing

Building Science

Archaeological  
Services

## POSITION

Environmental Engineer

## EDUCATION

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

## MEMBERSHIPS & AWARDS

Alberta Professional Engineers and Geoscience Association  
NSERC Industry R&D Scholarship

## EXPERIENCE

*2018 – Present*

**Paterson Group Inc.**

Consulting Engineers  
Geotechnical and Environmental Division  
Environmental Engineer

*2014 – 2015*

**Thurber Engineering Limited**

Oil Sand Tailings Group  
Tailings Engineer

*2014 – 2013*

**Carleton University**

Department of Civil & Environmental Engineering  
Research Engineer

*2013 - 2009*

**Carleton University**

Department of Civil & Environmental Engineering  
Research Assistant and Teachers Assistant

*2008 – 2009*

**SLR Consulting Limited**

Contaminated Sites  
Junior Environmental Engineer

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