Phase One Environmental Site Assessment
6171 Hazeldean Road
Ottawa, Ontario

Client:
11654128 Canada Inc.
100-768 St, Joseph Boulevard
Gatineau, Quebec J8Y 4B8

Project Number:
OTT-00258780-C0

Prepared By: Leah Wells, B.A.Sc., EIT

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Type of Document:
Final

Date Submitted:
April 7, 2020

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Date Submitted:
April 7, 2020

Legal Notification

This report was prepared by EXP Services Inc. for the account of **11654128 Canada Inc.**

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. EXP Services Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this project.

Executive Summary

EXP Services Inc. (EXP) was retained by 11654128 Canada Inc. to complete a Phase One Environmental Site Assessment (ESA) of the property located at 6171 Hazeldean Road in Ottawa, Ontario (hereinafter referred to as the "Phase One property"). At the time of the investigation, the site was vacant and undeveloped.

The purpose of this Phase One ESA is to determine if past or present on-site or off-site activities have resulted in actual or potential contamination at the Phase One property. EXP understands this study is being conducted in support of a site application and possible re-zoning application to submitted to the City of Ottawa for the purpose of development of the site with 398 residential dwellings complete with associated underground services, parkland, and access roads. EXP understands that the property is currently vacant and that the proposed future property use is residential.

A Phase One ESA is a systematic qualitative process to assess the environmental condition of a site based on its historical and current uses. This Phase One ESA was conducted in accordance with the Phase One ESA standard as defined by Ontario Regulation 153/04, as amended, and in accordance with generally accepted professional practices. Subject to this standard of care, EXP makes no express or implied warranties regarding its services and no third-party beneficiaries are intended. Limitation of liability, scope of report and third-party reliance are outlined in Section 9 of this report.

Please note that general environmental management and housekeeping practices were reviewed as part of this assessment insofar as they could impact the environmental condition of the property, however, a detailed review of regulatory compliance issues was beyond the scope of our investigation. This Phase One ESA does not constitute an audit of environmental management practices, indicate geotechnical conditions or identify geologic hazards.

The Phase One property is located on the north side of Hazeldean Road, 160 m east of Carp Road, at 6171 Hazeldean Road in Ottawa, Ontario (Figure 1). The property is legally described as PART OF LOT 23 CONCESSION 12, GOULBOURN, PARTS 2, 4 AND 6 PLAN 4R23045 CITY OF OTTAWA and property identification number (PIN) 044871709. The site has a total area of 9.0 hectares and is approximately rectangular in shape. The site is zoned AM9, arterial main street zoning.

At the time of the investigation, the Phase One property was vacant and undeveloped. Surrounding properties consist of residential and vacant properties to the north, and residential and commercial properties to the east, south, and west. It is anticipated that groundwater flows in a northeast direction towards the Feedmill Creek, which is approximately 200 m north of the Phase One property, Feed mill Creek is a tributary of the Carp River. Note that local groundwater flow can be influenced by many features including subgrade utilities.

Based on the results of the Phase One ESA completed, EXP has identified the following area of potential environmental concern:

Table EX.1: **Areas of Potential Environmental Concern**

Area of Potential Environmental Concern (APEC)	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA) as per O. Reg 153/04	Potential Contaminants of Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
APEC 1 – Fill material for site is from unknown source	Entire Phase One property	#30 – Importation of Fill Material of Unknown Quality	Benzene, toluene, ethylbenzene, xylene (BTEX), petroleum hydrocarbons (PHC), and/or metals	Soil

Based on the findings of the Phase One ESA, a Phase Two ESA is recommended to assess the soil conditions on the Phase One property.

This executive summary is a brief synopsis of the report and should not be read in lieu of reading the report in its entirety.

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1. Introduction

EXP Services Inc. (EXP) was retained by 11654128 Canada Inc. to complete a Phase One Environmental Site Assessment (ESA) of the property located at 6171 Hazeldean Road in Ottawa, Ontario (hereinafter referred to as the "Phase One property"). At the time of the investigation, the site was vacant and undeveloped. The Phase One property is owned by the following:

Owner Contact: 11654128 Canada Inc.
Mr. Carmine Zayoun
100-768 St. Joseph Boulevard
Gatineau, Quebec J8Y 4B8

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1.1 Objective

The purpose of this Phase One ESA is to determine if past or present on-site or off-site activities have resulted in actual or potential contamination at the Phase One property. EXP understands this study is being conducted in support of a site application and possible re-zoning application to submitted to the City of Ottawa for the purpose of development of the site with 398 residential dwellings complete with associated underground services, parkland, and access roads. EXP understands that the property is currently vacant and that the proposed future property use is residential.

1.2 Phase One Property Information

The Phase One property is located on the north side of Hazeldean Road, 160 m east of Carp Road, at 6171 Hazeldean Road in Ottawa, Ontario (Figure 1). The property is legally described as PART OF LOT 23 CONCESSION 12, GOULBOURN, PARTS 2, 4 AND 6 PLAN 4R23045 CITY OF OTTAWA and property identification number (PIN) 044871709. The site has a total area of 9.0 hectares and is approximately rectangular in shape. The site is zoned AM9, arterial main street zoning.

At the time of the investigation, the Phase One property was vacant and undeveloped. Surrounding properties consist of residential and vacant properties to the north, and residential and commercial properties to the east, south, and west. It is anticipated that groundwater flows in a northeast direction towards the Feedmill Creek, which is approximately 200 m north of the Phase One property, Feedmill Creek is a tributary of the Carp River (see Section 3.8.2). Note that local groundwater flow can be influenced by many features including subgrade utilities.

The approximate Universal Transverse Mercator (UTM) coordinates for the Phase One property centroid is NAD83, Zone 18, 426475.08 m E, 5013477.78 m N. The UTM coordinates were based on an estimate derived using Google Earth™. The accuracy of the centroid is estimated to range from 5 to 50 m. A topographic map of Ottawa is presented in Appendix B.

2. Scope of Investigation

The scope of work for the Phase One ESA consisted of the following activities:

- Reviewing the historical occupancy of the Phase One property through the use of available, fire insurance plans (FIPs), topographical maps, and aerial photographs;
- Reviewing municipal and provincial records to determine whether activities that have occurred within the Phase One study area pose a potential environmental concern to the Phase One property;
- Obtaining an EcoLog Environmental Risk Information Services Ltd. (ERIS) report for the Phase One property and surrounding properties within a 250-metre radius of the Phase One property;
- Reviewing available geological maps, well records and utility maps for the vicinity of the Phase One property;
- Obtaining a search of land title and assessment rolls for the Phase One property;
- Conducting a reconnaissance of the Phase One property and surrounding properties within a 250 metre radius of the Phase One property in order to identify the presence of actual and/or potential environmental contaminants or concerns of significance;
- Conducting interviews with designated representative(s) as a resource for current and historical information;
- Reviewing the current use of the Phase One property and any land use practices that may have impacted its environmental condition;
- Reviewing the current use of the surrounding properties and any land use practices that may have impacted the environmental condition of the Phase One property; and,
- Preparing a report to document the findings.

In completing the scope of work, EXP did not conduct any intrusive investigations, including sampling, analyses, or monitoring. EXP has confirmed neither the completeness nor the accuracy of any of the records that were obtained or of any of the statements made by others.

It is noted however, a geotechnical investigation was being conducted by EXP for the proposed development concurrently with the Phase One ESA. Information obtained from the geotechnical investigation has been incorporated into this report where appropriate.

EXP personnel who conducted assessment work for this project included Leah Wells, B.A.Sc., EIT and Chris Kimmerly, M.Sc, P.Geo. An outline of their qualifications is provided in Appendix A.

3. Records Review

3.1 Phase One ESA Study Area Determination

The Phase One study area comprises the Phase One property and surrounding properties wholly or partly within 250 metres of the property boundaries. The 250-metre radius was used to gain an understanding of the current and past uses of surrounding properties to determine whether such uses may have contributed to subsurface environmental impacts at the Phase One property.

According to the City of Ottawa GeoOttawa on-line mapping tool, the Phase One property is zoned for AM9, arterial main street zone. Surrounding properties are zoned and used for residential and commercial uses. Surrounding properties consist of residential development to the north and west, and residential/commercial development to east and south.

The Phase One study area is shown on Figure 2 in Appendix B.

3.2 First Developed Use Determination

Based on a review of historical aerial photographs, chain of title information, historical maps, and other records review, it appears the Phase One property has always been undeveloped.

3.3 Fire Insurance Plans

A search of The Catalogue of Canadian Fire Insurance Plans 1875 – 1975 (Catalogue) was conducted. No fire insurance plans exist for the Phase One property.

3.4 Chain of Title

A chain of title was obtained for the Phase One property. Based on the title search, no APECs were identified. The title search is included in Appendix C.

3.5 Previous Reports

The following reports were reviewed by EXP:

Phase I-II Environmental Site Assessment, Vacant Commercial Property, 6171 Hazeldean Road, Ottawa, Ontario dated April 2012 prepared by Paterson Group Inc. (Paterson). The review of this report noted the following:

- The Phase I ESA investigation included a review of past, present, and adjacent land uses, correspondence with the provincial ministry of environment (MOE), and a review of aerial photographs, topographic maps, fire insurance records, and municipal directories available for the Phase One property. A site visit was also conducted to comment on site characteristics and to investigate the potential for on- and off-site contamination sources.
- The Phase II ESA consisted of a subsurface investigation that involved the advancement of nine test pits on the site to a maximum depth of 3.6 m, and submission of soil samples for metals analysis.
- In general, the subsurface profile consisted of a layer of granular fill across the property. Beneath the fill is glacial till, underlain by bedrock. The glacial till layer appeared intermittently across the site. A peat layer was encountered on the south half of the site below the fill.
- Groundwater infiltration was encountered between 0.9 m to 3.0 m.
- Three soil samples were submitted for analysis of metals. None of the sample results exceeded MOE Table 3 standards.
- No further environmental work was recommended for the site.

Geotechnical Investigation, Proposed Development, 6171 Hazeldean Road, Ottawa, Ontario dated May 2019 prepared by Paterson. The review of this report noted the following:

- The geotechnical investigation consisted of the advancement of 14 test pits to a maximum depth of 3 m across the site. References are made to previous geotechnical investigations conducted in 2012 and 2018. The 2018 geotechnical report was not provided for review.
- The subsurface profile consists of a fill layer across most of the site. Construction debris, including asphalt, wood, and rubber were observed in this layer at several test pits locations. A layer of peat was observed in the test pits near Hazeldean Road underlain by silt, sand and gravel glacial till. Bedrock consists of limestone of the Bobcaygeon Formation.
- Groundwater was observed in the test pits between 2.5 to 3.0 mbgs. Seasonal fluctuations are expected.

3.6 Environmental Source Information

Information pertaining to the Phase One property was obtained by reviewing documents that are available to the public through municipal and provincial sources. EXP did not identify the need to contact any federal agencies.

A written response from some of the regulatory agencies typically requires several months to receive. If, upon receipt of the response from the regulatory agencies, significant environmental issues are identified, EXP will forward the response to the client as an addendum to this report.

Written responses from regulatory agencies and copies of documents obtained via searches are provided in Appendix C.

3.6.1 Ontario Ministry of the Environment, Conservation and Parks Records

On March 9th, 2020, records pertaining to the site were requested from the Ministry of the Environment, Conservation and Parks (MECP) through the *Freedom of Information and Protection of Privacy Act* (FOI). To date, no response has been received.

3.6.2 Environmental Registry

On March 9th, 2020, the MECP Environmental Registry website was searched for postings in the vicinity of the Phase One property. Search parameters included: “Hazeldean Road”, “Carp Road”, and “Neil Avenue”.

- A Permit to Take Water was issued in 2016 for 6111-6141 Hazeldean Road to Minto Communities Inc. for construction dewatering.

This record does not pose an environmental concern to the Phase One property.

3.6.3 Access Environment

On March 9th, 2020, the MECP Environmental Access Website was searched for postings in the vicinity of the Phase One property.

- An Environmental Compliance Approval (ECA) was filed for 1145 Carp Road, located 55 mm southwest of the site, for air emissions. Certificate 1358-7KAST8 was issued to Gendron Antiques ML Inc. in 2008.
- An ECA was filed for 6250 Hazeldean Road, located 150 m southwest of the site, for an oil/grit interceptor to discharging to an existing ditch bordering the property. Certificate 8277-68ZVSB was issued to Suncor Energy Products Inc. October 2004.
- An ECA was filed for 1189 Carp Road, 170 m south of the site, for a stormwater management facility, including and oil/grit separator discharging to the storm sewer. Certificate 8768-8S6MV7 was issued to JDNM Holding Ltd. March 2012.
- An ECA was filed for 65 Neil Avenue, 170 m south of the site, for a waste management system for domestic and commercial waste. Certificate 8096-6EBKRH was issued to 1634114 Ontario Inc. July 2005.
- An ECA was filed for 6130 Hazeldean Road, located 100 m east of the site, for sanitary sewer construction for a retirement residence. Certificate 8421-AGTHGF was issued to Hazeldean Gardens Retirement Residence Inc. January 2017.
- An ECA was filed for Eco Woods Subdivision for construction of storm and sanitary sewers. Certificate 0384-5CBLNJ was issued to G. Lemay Construction (1998) Inc. July 2002. This certificate was replaced by Certificate 4093-5D3Q3R issued August 2002.
- An ECA was filed for Eco Woods Subdivision, located northwest adjacent to the site, for an emergency diesel generator. Certificate 4136-5A8LTR was issued to G. Lemay Construction (1998) Inc. September 2002.

- An ECA was filed for Eco Woods Subdivision, located northwest adjacent to the site, for construction of a pumping station, sanitary and storm sewers and a diesel generator. Certificate 7928-52CH8K was issued to G. Lemay Construction (1998) Inc. February 2001.
- An ECA was filed for Hazeldean Road at Hazeldean Creek for temporary stormwater management facility to facilitate road widening. Certificate 2869-7XMQ68 was issued to the City of Ottawa January 2010. Certificate 1962-7ZNQYA was issued for culvert replacement in June 2010.
- An ECA was filed for Eco Woods Subdivision, located northwest adjacent to the site, for the decommissioning of the existing sewage pumping station and forcemain. Certificate 0163-BAVNNT was issued to the City of Ottawa April 2019.

Based on the specifics of the ECAs and/or distance, none of the records reviewed pose an environmental concern to the Phase One property.

3.6.4 Hazardous Waste Information Network

On March 9th, 2020, the MOECC Hazardous Waste Information Network (HWIN) database was searched for registered waste generators in the vicinity of the Phase One property.

- 1189 Carp Road (JNM Holdings) an automotive service shop, located 170 m south of the site, was listed as a registered waste generator of oil skimmings and sludges. The generator number is ON6220277.

This PCA is located potentially upgradient of the Phase One property, however based on the distance from the site, over 100m, it is not considered to pose an environmental concern to the Phase One property

3.6.5 Records of Site Condition

On March 9th, 2020, the MECP Brownfields Registry website was searched for postings of Records of Site Condition within the Phase One study area. No records were found within the study area.

3.6.6 Hazardous Land Use Index

A request for the Site was made to the City of Ottawa for the Hazardous Land Use Index (HLUI). No response has yet been received. A copy of the request is provided in Appendix C.

3.6.7 Coal Gasification Plants

Documents entitled *Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario* prepared by the MOE and *Inventory of Coal Gasification Plant Waste Sites in Ontario* prepared by Intera Technologies Ltd. were reviewed. There were no coal gasification plants identified within the Phase One study area.

3.6.8 PCB Storage Sites

The document entitled *Ontario Inventory of PCB Storage Sites* prepared by the MOE was reviewed. There were no PCB storage sites identified within the Phase One study area.

3.6.9 Waste Disposal Sites

Documents entitled *Old Landfill Management Strategy, Phase 1, Identification of Sites, City of Ottawa, Ontario* prepared by Golder Associates Ltd. and *Waste Disposal Site Inventory* prepared by the MOE were

reviewed. No former or existing landfills or waste disposal sites were identified within the Phase One study area.

3.6.10 Street Directories

EXP reviewed city directories dating from 1992 to 2010 from an ERIS search of Vernon's Ottawa in order to identify the occupancy history of the subject site and neighbouring properties for potential environmental concerns. Directories published in 1992, 1995/96, 1999/00, 2004/05, and 2010 were reviewed. The relevant results of the city directory search are summarized below.

- The Phase One property is not listed in any of the city directories reviewed.
- The Stittsville Market is listed from 1992 to 2005.
- The remainder of the properties in the Phase One study area are primarily unlisted properties.

There are no environmental issues identified as part of the city directory search.

3.7 EcoLog ERIS Database Search

A search of provincial and federal databases for records pertaining to the Phase One property and properties within 250 metres of the Phase One property was conducted by EcoLog Environmental Risk Information Services (or EcoLog ERIS). EcoLog ERIS is an environmental database and information service provider. EXP has confirmed neither the completeness nor the accuracy of the records that were provided. A summary of the more significant findings is provided below. A copy of the EcoLog ERIS report is provided in Appendix D.

Table 3.7: ERIS Findings

Location	Proximity to the Site	Description	Database	Potential Environmental Concern (Yes/No)
Phase One property				
6171 Hazeldean Road	subject site	No Listings	--	No
Surrounding Properties				
No civic address	North adjacent	G. Lemay Construction; ECA for municipal and private sewage works	Environmental Compliance Approval	No, due to inferred operations
6255 Hazeldean Rad	55 m southwest	Dentist Offices; generator of pathological wastes (listed 2016 to 2019)	Ontario Regulation 347 Waste Generators Summary	No, it is likely that limited quantities of wastes are generated at dental office
No civic address	East adjacent	Minto Communities Inc; ECA for municipal and private sewage works	Environmental Compliance Approval	No, due to inferred operations

3.8 Physical Setting Sources

3.8.1 Aerial Photographs

Aerial photographs dated 1976 through 2017 were available for review on the City of Ottawa website. Aerial photographs dated prior to 1976 were not available for review. The following table summarizes the development and land use history of the Phase One property and adjacent properties as depicted on the reviewed aerial photographs. Copies of the aerial photographs are presented in Appendix E.

Table 3.8: Development and Land Use History Summary

Aerial Photograph (year)	Details
1976	The Phase One property is vacant, groundcover consists of woodlot. Rural residential properties are present east of the site. Properties north and west of the site consist of vacant wooded lot. Properties south of the site consist of commercial and residential. Hazeldean Road, Carp Road and Stittsville Main Street have all been constructed.
1991	The Phase One property has been cleared, except for the northwest corner, but remains vacant. The Stittsville Market occupies the lot south across Hazeldean Road. The Phase One property appears to be used for overflow parkin for the market, gravel parking areas are visible in the aerial photo. Additional urban residential development has occurred south of the site. A water tower has been constructed immediately east of the site. Property west, north and east of the site are similar to the 1976 aerial photograph. Stittsville automotive repair shop at 69 Neil Avenue (150 m southeast) has been constructed.
1999	The Phase One property and surrounding properties are similar to the 1991 aerial photograph. The remainder of the Phase One property has been cleared.
2007	The Phase One property is similar to the 1999 aerial photograph. Further urban residential development has occurred on the properties east, north and south of the Phase One property. A gas station has been developed at 1173 Carp Road/6240 Hazeldean Road (tanks are located 150m southwest). The Stittsville market buildings have been demolished.
2014	The Phase One property is similar to the 1990 aerial photo. Urban residential and commercial development has occurred on the property immediately east of the site. Oil Changers automotive service shop has been constructed at 1189 Carp Road (170 m south).
2017	The Phase One area appears to be being used as a staging area/construction access for the residential development occurring immediately north of the site. There appears to be stockpiles of reworked site fill material stored on the northeast halt of the site.

Based on the review of the aerial photography, the following potentially contaminating activities (PCAs) were identified:

- 6240 Hazeldean Road/1173 Carp Road – Petro Canada (retail gasoline service station) tanks are located 150 m southwest of the site.
- 1189 Carp Road – Oil Changers (automotive service shop) located 170 m south of the site.
- 69 Neil Avenue – Stittsville Automotive Repair (automotive service shop) located 170 m south of the site.

All of the PCAs identified in the aerial photographs are located potentially upgradient of the Phase One property, however based on the distance from the site, over 100m, they are not considered to pose an environmental concern to the Phase One property.

3.8.2 Geology, Hydrogeology and Topography

The following information sources were reviewed to determine the nature of the subsurface materials at the site:

1. Geological Survey of Canada; 1982; *Generalized Bedrock Geology* – Ottawa-Hull, Ontario-Quebec: Map 1508A. Scale 1:50,000.
2. Geological Survey of Canada; 1976; *Surficial Geology – Ottawa, Ontario: Map 1506A. Scale 1:50,000*.
3. MOE Water Well Records.
4. Topographic Map available at the Natural Resources Canada (NRC) website

A review of geological maps revealed that, under any fill, the natural overburden deposits in the area is glacial till that would consist of clay, silt, sand, and gravel. Bedrock geology maps indicated limestone of the Bobcaygeon Formation. Based on well records, bedrock is expected approximately 0.5 to 4.5 mbgs.

In March 2020, EXP's geotechnical division completed an investigation that consisted of drilling six boreholes to a maximum depth of 7.2 mbgs and excavating 18 test pits. The investigation determined that the subsurface conditions consist of imported fill between 0.3 to 3.7 mbgs, underlain by native peat and marl encountered at depths between 0.75 to 3.1 mbgs. Underlying this are glacial till deposits extending to refusal on probable bedrock between 0.6 and 6.2 m across the property. Borehole logs and test pits logs are included in Appendix G.

The review of the topographic map indicated that the Phase One property and surrounding area were slope to the northeast. Given the topography at the site, groundwater is inferred to flow north to the northeast towards Feedmill Creek. Feedmill Creek is a tributary to Carp River and located 200 m north of the site.

A copy of the topographic map is presented in Appendix B.

3.8.3 Fill Materials

Based on previous reports and aerial photographs, fill materials have been detected in the Phase One study area. Aerial photographs from 1991 to 2017 show granular fill material on site. This is considered PCA1 (PCA #30 – Importation of Fill Material of Unknown Quality).

As part of the geotechnical investigation competed by EXP in March 2020, soil samples of both fill material and native material were submitted for laboratory analysis of BTEX, PHC, and metals. Based on the laboratory analysis, the samples were not found to exceed the provincial standards.

3.8.4 Water Bodies and Areas of Natural Significance (ANSI)

No water bodies are present on the Phase One property. The closest body of water is Feedmill Creek located approximately 200 m north of the Phase One property. The Phase One property is not located in close proximity to an ANSI, according to the Ministry of Natural Resources Natural Heritage website. The regional groundwater flow is inferred to be northeast towards Feedmill Creek.

3.8.5 Well Records

The Phase One property is not serviced. The surrounding area is municipally serviced with water. There are no wells present on the Phase One property. Based on MOE water well records, 11 domestic wells and 3 monitoring wells are located within 250 m. Depth to bedrock is approximately 0.5 to 4.5 mbgs. Based on the well records, the depth to groundwater ranges between 1.5 and 4.5 mbgs. The well records are presented in Appendix C.

3.9 Site Operating Records

No site operating records were available for review.

3.10 Summary of Records Review

Based on a review of the available records, the following PCA was identified:

- PCA 1 – Fill material of unknown quality may be present on the Phase One property. (PCA #30 – Importation of Fill Material of Unknown Quality). This applies to the entire Phase One property.

4. Interviews

Interviews were attempted by EXP with any individuals identified to be the most knowledgeable about both the current and historical site uses. The purpose of interviews is to obtain information to assist in identifying areas of potential environmental concern and to identify details of potentially contaminating activities or potential contaminant pathways, in, on or below the site.

During the completion of the Phase One ESA, the following individual was interviewed:

Ms. Sharron Kavanaugh, the director of Kavanagh Family Investments Ltd., was interview via telephone April 3, 2020. She indicated the following:

- Kavanagh Family Investments Ltd has owned the property since 1979.
- As far as Ms. Kavanagh is aware the subject site has always been vacant property.
- Ms. Kavanagh indicated that Minto Group used the property as an access route and storage area during the construction of the subdivision north of the subject site. The site was used by Minto for approximately three years between 2015 and 2018. The visible stockpiles in the aerial photographs are related to that work and include reworked site material. The site is to be returned to pre-construction conditions upon construction completion.
- Ms. Kavanagh was unaware of any chemical spills on the property.
- Ms. Kavanaugh was unaware of any wells present on the property.

5. Site Reconnaissance

5.1 General Requirements

On March 9th, 2020 at 2:00 pm, Ms. Leah Wells, EIT of EXP conducted the site visit for the Phase One property. The weather was cloudy with an approximate temperature of 15 degrees Celsius. There was no precipitation during the site visit. A follow-up site visit was completed on March 28, 2020.

The site visits were conducted in accordance with EXP's internal health and safety protocols and with the Ministry of Labour health and safety regulations. The purpose of the site visit was to assess the current conditions of the Phase One property.

Observations of the Phase One property and surrounding properties within the Phase One study area were conducted. Adjoining properties were observed from within the grounds of the Phase One property and from public roads and sidewalks.

Photographs were taken at the Phase One property on March 9 and 28, 2020 and pertinent photographs are included in Appendix H.

5.2 Specific Observations at Phase One Property

5.2.1 Buildings and Structures

At the time of the investigation, the Phase One property was vacant and undeveloped. The site has a total area of 9.0 hectares and is approximately rectangular in shape. The property was snow covered at the time of the site visit on March 9 and partially snow covered on March 28, 2020. Some areas granular fill was observed. The northwest corner of the property has a minor treed area.

5.2.2 Site Utilities and Services

The Phase One property does not currently have any utility services on site. However, it is located in an area of municipally supplied water and sewer.

5.2.3 Site Use

At the time of the investigation, the site was vacant and undeveloped.

5.2.4 Drains, Pits and Sumps

Site drainage is provided overland flow. No sumps or pits were observed on the Phase One property.

5.2.5 Storage Tanks

5.2.6.1 Underground Storage Tanks

EXP did not observe any underground storage tanks (UST) during the site reconnaissance. No visual evidence such as fill / vent pipes, level-o-meters or oil fill lines associated with USTs were observed at the Phase One property.

5.2.6.2 Aboveground Storage Tanks

EXP did not observe any above ground storage tanks (AST) during the site reconnaissance. No visual evidence such as fill / vent pipes or oil fill lines associated with ASTs were observed at the Phase One property.

5.2.6 Chemical Storage and Handling and Floor Condition

No chemicals were observed on the Phase One property.

5.2.7 Areas of Stained Soil, Pavement or Stressed Vegetation

At the time of the site investigations, the ground was snow covered to partially snow covered. No areas of stained soil, pavement or stressed vegetation were identified on the Phase One property.

5.2.8 Fill Material, Debris and Methane

The Phase One property was noted to be at a slightly lower elevation than Hazeldean Road to the south. The properties to the north, east and west appeared to be at a similar elevation to the Phase One property. The Phase One property was mostly snow covered at the time of the site visit, however, several areas appeared to have a groundcover of granular fill.

In March 2020, EXP's geotechnical division completed an investigation that consisted of drilling six boreholes to a maximum depth of 7.2 mbgs and excavating 18 test pits. The investigation determined that the subsurface conditions consist of imported fill between 0.3 to 3.7 mbgs, underlain by native peat and marl encountered at depths between 0.75 to 3.1 mbgs overlying glacial till deposits extending to refusal on probable bedrock between 0.6 and 6.2 m across the property. Borehole logs and test pits logs are included in Appendix G.

Several stockpiles were noted along the western edge of the property. The stockpiles consisted mainly of re-work site material as well as some concrete and mixed asphalt/gravel.

Methane or radon gas-producing materials were not observed on the Phase One property.

5.2.9 Odours

No strong odours were detected during the site visit.

5.2.10 Noise

No excessive noise was detected during the site visit.

5.2.11 Processing and Manufacturing Operations

No processing or manufacturing operations were observed or reported to have been conducted at the Phase One property.

5.2.12 Hazardous Materials Use and Storage

No hazardous materials are used or stored at the Phase One property.

5.2.13 Vehicle and Equipment Maintenance Areas

No vehicle and equipment maintenance activity were observed or reported.

5.2.14 Oil/Water Separators

No oil water separators were observed at the Phase One property.

5.2.15 Sewage and Wastewater Disposal

No sewage or wastewater is generated on the Phase One property.

5.2.16 Solid Waste Generation, Storage & Disposal

No solid waste is generated or stored on the Phase One property.

5.2.17 Liquid Waste Generation, Storage & Disposal

No liquid waste is generated or stored on the Phase One property.

5.2.18 Unidentified Substances

No unidentified substances were observed on the Phase One property at the time of the site visit.

5.2.19 Hydraulic Lift Equipment

No hydraulic equipment was observed the Phase One property.

5.2.20 Mechanical Equipment

No mechanical equipment of concern was present on the Phase One property.

5.2.21 Abandoned and Existing Wells

The Phase One property and surrounding area are municipally serviced with water. There are no wells present on the Phase One property.

5.2.22 Roads, Parking Facilities and Right of Ways

Access to the Phase One property was from Hazeldean Road.

Surrounding properties within the Phase One study area are used for residential and commercial purposes.

5.3 Adjacent and Surrounding Properties

A visual inspection of the adjacent properties and properties within 250 m of the Phase One property was conducted from publicly accessible areas to identify the occupants and document the uses and sources of potential environmental concerns that may impact the Phase One property.

The following land uses border the Phase One property:

North: Residential;

Southwest: Commercial (Petro-Canada service station – 150 m southwest, Oil Changers and Stittsville Automotive Service – 170 m south);

East: Residential, commercial; and

West: Residential, commercial (retail, restaurants).

Based on observations made during the site visit, no potentially contaminating activities that were not previously addressed were identified.

5.4 Enhanced Investigation Property

The site is not considered and enhanced investigation property.

5.5 Written Description of Investigation

Based on the records review, interviews and site reconnaissance, one PCA resulting in one area or potential environmental concern (APEC) was identified on the Phase One property and are described in the following table:

Table 5.2: **Area of Potential Environmental Concern**

Area of Potential Environmental Concern (APEC)	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA) as per O. Reg 153/04	Potential Contaminants of Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
APEC 1 – Fill material for site is from unknown source	Entire Phase One property	PCA 1: PCA#30 – Importation of Fill Material of Unknown Quality	Benzene, toluene, ethylbenzene, xylene (BTEX), petroleum hydrocarbons (PHC), and/or metals	Soil

6. Review and Evaluation of Information

6.1 Current and Past Uses

Based on a review of historical aerial photographs, chain of title information, historical maps, and other records review, it appears the Phase One property has never been developed. The property was used as overflow parking for the Stittsville Market between 1991 and 2007, and as a construction access to the north adjacent property in 2017.

A previous Phase I/II ESA that was conducted in 2012 identified the presence of fill in the subsurface. Limited testing of the fill did not identify the presence of metals in excess of the provincial standards.

6.2 Summary of Potentially Contaminating Activities

Ontario Regulation 153/04 defines a PCA as one of 59 operations set out in Table 2 of Schedule D that occurs or has occurred in a Phase One study area. The following PCA were identified for the Phase One study area:

- PCA 1 – Fill material of unknown quality likely present on the Phase One property. (PCA #30 – Importation of Fill Material of Unknown Quality). This applies to the entire Phase One property.

6.3 Areas of Potential Environmental Concern

Ontario Regulation 153/04 defines an APEC as an area on a property where one or more contaminants are potentially present. As a result of the PCAs, the report identified the following APECs at the Phase One property as shown on Figure 3.

- APEC 1 – 6171 Hazeldean Road – Fill material for the site is of unknown origin. (PCA #30 – Importation of Fill Material of Unknown Quality). This APEC is associated with PCA 1. The potential contaminants of concern include: metals, PHCs and BTEX.

6.4 Phase One ESA Conceptual Site Model

To develop a conceptual model for the Phase One property, the following physical characteristics and pathways were considered in the following sub-sections.

6.4.1 Buildings and Structures

At the time of the investigation, the site was vacant and undeveloped.

6.4.2 Water Bodies and Groundwater Flow Direction

No water bodies are present on the Phase One property. The closest body of water is Feedmill Creek located approximately 200 m north of the Phase One property. It is anticipated that groundwater flows in a northeast direction towards the Feedmill Creek, a tributary of the Carp River. Note that local groundwater flow can be influenced by many features including subgrade utilities

6.4.3 Areas of Natural Significance

The Phase One property is not located in close proximity to an ANSI, according to the Ministry of Natural Resources Natural Heritage website.

6.4.4 Water Wells

There are no potable water wells or monitoring wells on Phase One property.

6.4.5 Underground Utilities

The Phase One property does not currently have any utility services on site. However, it is located in an area of municipally supplied water and sewer.

6.4.6 Subsurface Stratigraphy

A review of geological maps revealed that, under any fill, the natural overburden deposits in the area is glacial till that would consist of clay, silt, sand, and gravel. Bedrock geology maps indicated limestone of the Bobcaygeon Formation. Based on well records, bedrock is expected approximately 0.5 to 4.5 mbgs.

In March 2020, EXP's geotechnical division completed an investigation that consisted of drilling six boreholes to a maximum depth of 7.2 mbgs and excavating 18 test pits. The investigation determined that the subsurface conditions consist of imported fill between 0.3 to 3.7 mbgs, underlain by native peat and marl encountered at depths between 0.75 to 3.1 mbgs overlying glacial till deposits extending to refusal on probable bedrock between 0.6 and 6.2 m across the property. Borehole logs and test pits logs are included in Appendix G.

As part of the geotechnical investigation, soil samples of both fill material and native material were submitted for laboratory analysis of BTEX, PHC, and metals. Based on the laboratory analysis, the samples were not found to exceed the provincial standards.

6.4.7 Uncertainty Analysis

The CSM is a simplification of reality, which aims to provide a description and assessment of any areas where potentially contaminating activity that occurred within the Phase One study area may have adversely affected the Phase One property. All information collected during this investigation, including records, interviews, and site reconnaissance, has contributed to the formulation of the CSM.

Information was assessed for consistency, however EXP has confirmed neither the completeness nor the accuracy of any of the records that were obtained or of any of the statements made by others. All reasonable inquiries to obtain accessible information were made, as required by Schedule D, Table 1, Mandatory Requirements for Phase One Environmental Site Assessment Reports. The CSM reflects our best interpretation of the information that was available during this investigation.

7. Conclusions

Based on the results of the Phase One ESA completed, EXP has identified the following area of potential environmental concern:

Table 7.1: **Area of Potential Environmental Concern**

Area of Potential Environmental Concern (APEC)	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA) as per O. Reg 153/04	Potential Contaminants of Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
APEC 1 – Fill material for site is from unknown source	Entire Phase One property	#30 – Importation of Fill Material of Unknown Quality	Benzene, toluene, ethylbenzene, xylene (BTEX), petroleum hydrocarbons (PHC), and/or metals	Soil

Based on the findings of the Phase One ESA, a Phase Two ESA is required to assess the soil conditions on the Phase One property.

The Qualified Person can confirm that the Phase One Environmental Site Assessment was conducted per the requirements of Ontario Regulation 153/04, as amended, and in accordance with generally accepted professional practices.

8. References

1. City of Ottawa, GeoOttawa online mapping tool, (maps.ottawa.ca/geoottawa).
2. Dubreuil, L. and C. Woods, *Catalogue of Canadian Fire Insurance Plans, 1875 – 1975,* 2002.
3. Environment Canada, *National Inventory of PCBs in Use and PCB Wastes in Storage in Canada*, 2003 Annual Report, 2004.
4. Geological Survey of Canada; 1980; *Generalized Bedrock Geology* – Ottawa-Hull, Ontario-Quebec: Map 1508A. Scale 1:50,000.
5. Geological Survey of Canada; 1982; *Surficial Geology – Ottawa, Ontario: Map 1506A. Scale 1:50,000.*
6. Golder Associates Ltd., *Old Landfill Management Strategy, Phase 1, Identification of Sites, City of Ottawa, Ontario*, October 2004.
7. Intera Technologies Ltd., *Inventory of Coal Gasification Plant Waste Sites in Ontario, Volume II*, April 1987.
8. Natural Resources Canada, The Atlas of Canada – Toporama website (atlas.gc.ca/toporama/en/)
9. Oil, Gas & Salt Resources Library, website (maps.ogsrlibrary.com/wells).
10. Ontario Ministry of Energy, Northern Development and Mines, Bedrock Geology Application (www.mndm.gov.on.ca/en/mines-and-minerals/applications/ogsearth/bedrock-geology), March 19, 2018.
11. Ontario Ministry of Energy, Northern Development and Mines, Surficial Geology Application (www.mndm.gov.on.ca/en/mines-and-minerals/applications/ogsearth/surficial-geology), May 23, 2017.
12. Ontario Ministry of the Environment, Conservation and Parks, *Access Environment website* (www.accessenvironment.ene.gov.on.ca).
13. Ontario Ministry of the Environment, Conservation and Parks, *Environmental Registry website (www.ebr.gov.on.ca/ERS-WEB-External).*
14. Ontario Ministry of the Environment, Conservation and Parks, *Guide for Completing Phase One Environmental Site Assessments under Ontario Regulation 153/04*, June 2011.
15. Ontario Ministry of the Environment, Conservation and Parks *Hazardous Waste Information Network website* (www.hwin.ca).
16. Ontario Ministry of the Environment, Conservation and Parks, *Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario*, November 1988.
17. Ontario Ministry of the Environment, Conservation and Parks, *Ontario Inventory of PCB Storage Sites*, October 1995.
18. Ontario Ministry of the Environment, Conservation and Parks, *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act*, July 1, 2011.
19. Ontario Ministry of the Environment, Conservation and Parks, Records of Site Condition website (www.lrcsde.lrc.gov.on.ca).

20. Ontario Ministry of the Environment, Conservation and Parks, *Waste Disposal Site Inventory*, June 1991.

21. Ontario Ministry of the Environment, Conservation and Parks, Water Wells website (www.ontario.ca/environment-and-energy/map-well-records water wells).

22. Ontario Ministry of Labour, *Occupational Health and Safety Act*, R.S.O. 1990.

23. Ontario Ministry of Natural Resources and Forestry, Natural Heritage website (www.gisapplication.lrc.gov.on.ca/mamnh/Index.html).

24. Paterson Group, *Phase I-II Environmental Site Assessment Vacant Commercial Property 6171 Hazeldean Road, Ottawa, Ontario*, April 2012.

25. Paterson Group*, Geotechnical Investigation, Proposed Development, 6171 Hazeldean Road, Ottawa, Ontario*, May 2019.

26. Topographic Map available at the Natural Resources Canada (NRC) website (http://atlas.gc.ca/toporama/en/index.html)

9. Limitation of Liability, Scope of Report, and Third Party Reliance

Basis of Report

This report ("Report") is based on site conditions known or inferred by the investigation undertaken as of the date of the Report. Should changes occur which potentially impact the condition of the site the recommendations of EXP may require re-evaluation. Where special concerns exist, or the Client has special considerations or requirements, these should be disclosed to EXP to allow for additional or special investigations to be undertaken not otherwise within the scope of investigation conducted for the purpose of the Report.

Reliance on Information Provided

The evaluation and conclusions contained in the Report are based on conditions in evidence at the time of site inspections and information provided to EXP by the Client and others. The Report has been prepared for the specific site, development, building, design or building assessment objectives and purpose as communicated by the Client. EXP has relied in good faith upon such representations, information and instructions and accepts no responsibility for any deficiency, misstatement or inaccuracy contained in the Report as a result of any misstatements, omissions, misrepresentation or fraudulent acts of persons providing information. Unless specifically stated otherwise, the applicability and reliability of the findings, recommendations, suggestions or opinions expressed in the Report are only valid to the extent that there has been no material alteration to or variation from any of the information provided to exp. If new information about the environmental conditions at the Site is found, the information should be provided to EXP so that it can be reviewed and revisions to the conclusions and/or recommendations can be made, if warranted.

Standard of Care

The Report has been prepared in a manner consistent with the degree of care and skill exercised by engineering consultants currently practicing under similar circumstances and locale. No other warranty, expressed or implied, is made. Unless specifically stated otherwise, the Report does not contain environmental consulting advice.

Complete Report

All documents, records, data and files, whether electronic or otherwise, generated as part of this assignment form part of the Report. This material includes, but is not limited to, the terms of reference given to EXP by the Client, communications between EXP and the Client, other reports, proposals or documents prepared by EXP for the Client in connection with the site described in the Report. In order to properly understand the suggestions, recommendations and opinions expressed in the Report, reference must be made to the Report in its entirety. EXP is not responsible for use by any party of portions of the Report.

Use of Report

The information and opinions expressed in the Report, or any document forming part of the Report, are for the sole benefit of the Client. No other party may use or rely upon the Report in whole or in part without the written consent of EXP. Any use of the Report, or any portion of the Report, by a third party are the sole responsibility of such third party. EXP is not responsible for damages suffered by any third party resulting from unauthorised use of the Report.

Report Format

Where EXP has submitted both electronic file and a hard copy of the Report, or any document forming part of the Report, only the signed and sealed hard copy shall be the original documents for record and working purposes. In the event of a dispute or discrepancy, the hard copy shall govern. Electronic files transmitted by EXP utilize specific software and hardware systems. EXP makes no representation about the compatibility of these files with the Client's current or future software and hardware systems. Regardless of format, the documents described herein are EXP's instruments of professional service and shall not be altered without the written consent of EXP.

Appendices

Appendix A:
Qualifications of Assessors

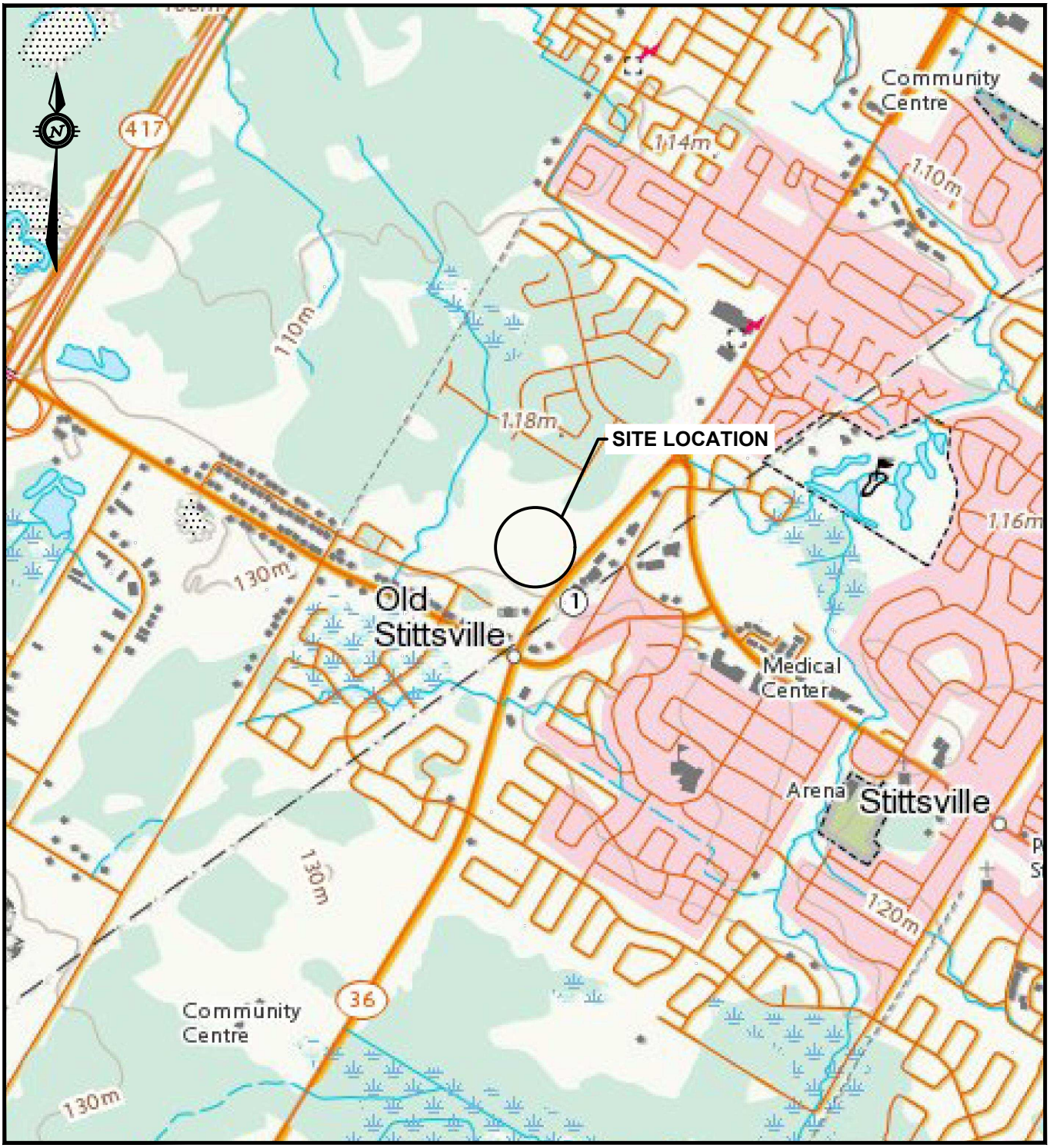
Qualifications of Assessors

EXP provides a full range of environmental services through a full-time Environmental Services Group. EXP's Earth and Environment Group has developed a strong working relationship with clients in both the private and public sectors and has developed a positive relationship with Ontario Ministry of the Environment. Personnel in the numerous branch offices form part of a large network of full-time dedicated environmental professionals in the EXP organization.

Chris Kimmerly, M.Sc., P.Geo., has more than 26 years of environmental consulting experience, 25 of which have been with EXP. A graduate of Brock University with a Master of Science Degree in Geological Science, His technical experience includes managing, coordinating, and conducting environmental site assessments; groundwater sampling programs; soil and groundwater remedial action and risk mitigation plans; mineral aggregate assessments; hydrogeological and terrain analysis assessments; designated substances and hazardous materials surveys.

Leah Wells, B.A.Sc., E.I.T., has three years of experience in the environmental consulting field. She has worked on numerous Phase I Environmental Site Assessments (ESA); Phase II ESAs, completing soil and groundwater sampling, soil vapour sampling, assisting in report preparation and data entry and analysis**.**

Appendix B:
Figures, Maps, Plans



0 200m 400m 800m

HORIZONTAL 1:20,000

exp Services Inc. **www.exp.com**

t: +1.613.688.1899 | f: +1.613.225.7337
2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: MAY 2020	CLIENT: 11654128 CANADA LTD. 6171 HAZELDEAN ROAD, OTTAWA, ON		project no. OTT-00258780-B0
DESIGN: I.T. / CHECKED: I.T.			scale 1:20,000
DRAWN BY: G.C.	TITLE: SITE LOCATION PLAN		FIG 1

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LEGEND

PHASE ONE PROPERTY BOUNDARY

PHASE ONE STUDY AREA (250m)

0 60m 120m 240m

HORIZONTAL 1:6,000

exp Services Inc. **www.exp.com**

t: +1.613.688.1899 | f: +1.613.225.7337
2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: MAR. 2020	CLIENT: 11654128 CANADA INC.	project no.: OTT-00258780-C0
DESIGN: C.K. / CHECKED: P.S.		scale: 1:6,000
DRAWN BY: G.C.	TITLE: PHASE ONE STUDY AREA	FIG 2

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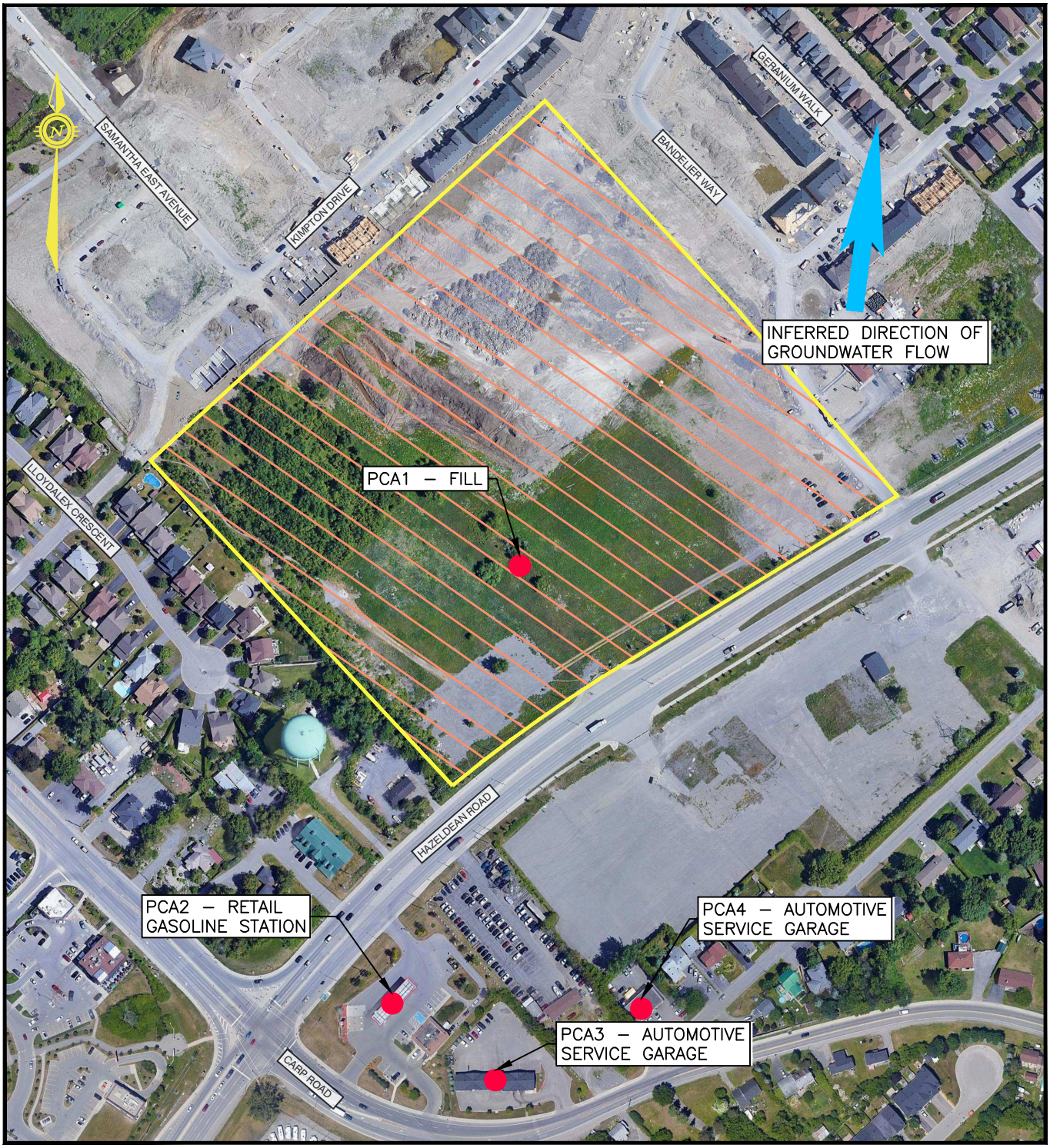

LEGEND

PHASE ONE PROPERTY BOUNDARY

APEC #1

0 10m 20m 120m

HORIZONTAL 1:3,000

exp Services Inc. **www.exp.com**

t: +1.613.688.1899 | f: +1.613.225.7337
2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: MAR. 2020	CLIENT: 11654128 CANADA INC.	project no.: OTT-00258780-CO
DESIGN: C.K. / CHECKED: P.S.		scale: 1:3,000
DRAWN BY: G.C.	TITLE: POTENTIALLY CONTAMINATING ACTIVITIES (PCA) & AREAS OF POTENTIAL ENVIRONMENTAL CONCERN (APEC)	FIG 3

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Appendix C:
Title Search, Municipal Records & Provincial Records, Well Records

READ Abstracts Limited
331 Cooper Street, Suite 300, Ottawa, Ontario K2P 0A4
Email: search@readsearch.com
Tel.: 613-236-0664
Fax: 613-236-3677

ENVIRONMENTAL SEARCH

EXP Services
Attn: Kathy

BRIEF DESCRIPTION OF LAND:

6171 Hazeldean Road
Part of Lot 23, Concession 12, Goulbourn
PIN: 04487-1709

LAST REGISTERED OWNER: Kavanagh Family Investments Limited

CHAIN OF TITLE:

Patent dated April 5, 1824
To Thomas Guile

Patent dated July 16, 1861
To Robert Howard and William Thompson

Deed RO879 registered July 25, 1835
From Samuel Pach to John Moore

Deed RO880 registered July 25, 1835 (See Patent to Howard and Moore)
From John Moore to Robert Howard and William Thompson

Deed RO1581 registered July 13, 1840
From Thomas Guile to Edward Bassett

Deed RO9365 registered January 22, 1856
From Edward Bassett to Jackson Stitt

Deed RO11447 registered September 17, 1857
From Jackson Stitt to William Alexander

Deed RO 11448 registered September 17, 1857
From William Alexander to Andrew Alexander

Deed RO 16969 registered December 24, 1860
From Andrew Alexander to George Bradley

Deed RO 17717 registered May 13, 1861
From Andrew Alexander to John Argue

Deed RO28071 registered March 30, 1868
From George Bradley to Francis Charlebois

Deed 28072 registered March 31, 1868
From Francis Charlebois to Thomas Warren

Deed GB332 registered September 29, 1871
From William Thompson to Rebecca Bradley

Deed GB378 registered March 2, 1872
From Rebecca Bradley to Collen M. Church

Deed GB495 registered April 8, 1873
From Thomas Warren to John Wright

Deed GB1185 registered May 23, 1877
From John S. Argue to John Wright

Deed GB1344 registered March 13, 1878
From John Wright to Richard Kidd

Deed GB1573 registered July 23, 1879
From George Irwin and Rebecca Irwin (Bradley) to John Spearman

Deed GB1849 registered September 20, 1881
From John Spearman to Mary Spearman

Deed GB2219 registered November 26, 1883
From Richard Kidd and Mary Ann kid to James Steele

Deed GB5450 registered January 6, 1906
From Andrew Alexander to James Neil

Deed GB5975 registered April 4, 1908
From Mary Steele (Spearman) to James Steele

Deed GB6646 registered September 13, 1912
From James Steele and Mary Steele to James Steele

Deed GB7058 registered April 13, 1916
From Susan Church (Estate of Collen Church) to James Steele

Deed GB7830 registered November 21, 1922
From From James Steele and Mary Steele to James Steele

Deed GB8952 registered April 10, 1935
From James Steele to Alvan O. Logan

Deed GB9288 registered November 21, 1940
From Alvan O. Logan to Charles R. Lytle

Deed GB9495 registered November 4, 1943
From James Steele to John Potter and Ethel Potter

Deed GB9518 registered March 14, 1944
From Charles Lytle to Fred Bradley

Deed GB10920 registered July 7, 1953
From Estate of James Neil to Maria Neil

Deed GB11002 registered November 23, 1953
From Annie Bradley (wife of Fred Bradley) to William Bradley

Deed GB11148 registered August 6, 1954
From Maria Neil to Beryl Harrison

Deed GB12135 registered December 3, 1957
From Ethel Potter and Milton Potter to Murray Wheaton

Deed GB12703 registered April 21, 1959
From Murray Wheaton to Douglas A. Hyde-Clarke and Dorothy Hyde-Clarke

Deed CT115338 registered January 23, 1970
From William Bradley to John M. Gibson

Deed CT135345 registered June 7, 1971
From Douglas A. Hyde-Clarke and Dorothy Hyde-Clarke to Stanislaw Biel

Deed CT173590 registered June 15, 1973
From John M. Gibson to Cameron Young

Mortgage CT250524 registered June 30, 1977
From Stanislaw Biel to B&M Cantor holdings Limited

Deed NS34387 registered October 31, 1978
From Beryl Harrison to Tony Graham Motors Limited

Deed NS48107 registered March 29, 1979
From William Bradley to John M. Gibson

Deed NS65409 registered August 31, 1979
From John M. Gibson to Joseph G. Kavanagh, in trust

Deed NS65410 registered August 31, 1979
From Cameron young to Joseph G. Kavanagh, in trust

Deed NS86946 registered May 28, 1980
From William Bradley to Joseph G. Kavanagh, in trust

Deed NS64261 registered August 23, 1979
From Tony Graham Motors Ltd. To Dilawri Corp. Inc.

Deed NS85159 registered May 1, 1980
From Dilawri Corp Inc. To Bonaventure Ford Sales Ltd.

Deed NS101370 registered October 24, 1980 (Under Mortgage CT250524)
From B&M Cantor holdings Limited to Joseph G. Kavanagh, in trust

Deed of Trust and Mortgage NS107628 registered January 1, 1981
From Bonaventure Ford Sales Ltd. To Montreal Trust Co.

Deed NS279017 registered March 14, 1985
From Joseph G. Kavanagh to Kavanagh Realty (1982) Ltd.

Deed NS249816 registered July 20, 1984 (under NS107628)
From Montreal Trust Co. To Vic Terkuc, Kenneth Young, and Guido Mirella

Deed N670669 registered October 26, 1993
From Vic Terkuc, Kenneth Young, and Guido Mirella to Kavanagh Realty (1982) Ltd.

Name Change OC400265 registered November 2, 2004
From Kavanagh Realty (1982) Ltd. To Stittsville Flea Market Inc.

Deed OC468626 registered June 1, 2005
From William Bradley to Kavanagh Family Investments Limited

Deed OC650231 registered October 13, 2006
From Stittsville Flea Market Inc. And Kavanagh Family Investments Limited To 2074246 Ontario Inc.

Name Change OC811803 registered December 28, 2007
From Stittsville Flea Market Inc. To Kavanagh Family Investments Limited

Name Change OC1000351 registered July 9, 2009
From 2074246 Ontario Inc. To Canril Corporation

Deed OC1004714 registered July 17, 2009
From Canril Corporation to Kavanagh Family Investments Limited

March 6, 2020

Via email:
hlui@ottawa.ca

Planning Division
City of Ottawa
110 Laurier Avenue West
Ottawa, Ontario

Re: OTT-00258780-C0 **Municipal Information Search Request**
6171 Hazeldean Road, Ottawa, Ontario

To whom it may concern,

Our firm has been retained to conduct a Phase I Environmental Site Assessment for 6171 Hazeldean Road, Ottawa, Ontario. We require information pertaining to the property.

We request that the City of Ottawa search their files and provide any information pertaining to the environmental condition of these properties and surrounding areas, including any past environmental reports, orders, certificates or approvals.

Please find attached the consent letter from the property owner to release this information for the property in question. A request for information form has been completed to initiate a search on the property.

If you should have any questions, please do not hesitate to contact me.

Yours truly,

EXP Services Inc.
Kathy Radisch
Administrative Assistant
Earth & Environment

Attachments: Disclaimer
RFI Form
Consent from Owner

March 10, 2020

VIA FACSIMILE:
416-314-4285

FOI Manager
Freedom of Information & Protection of Privacy Office
Ministry of the Environment, Conservation and Parks
12th Floor, 40 St. Clair Avenue West
Toronto, Ontario M4V 1M2

Re: OTT-00258780-C0 **File Review Request**
6171 Hazeldean Road, Ottawa, Ontario

Dear Sir or Madam:

I am sending a Freedom of Information Request to you for 6171 Hazeldean Road, Ottawa, Ontario. We are conducting an environmental site assessment and require any environmental concerns.

If possible, we would appreciate receiving the documentation by email (kathy.radisch@exp.com) and by mail. If you have any questions, or require any further information, please do not hesitate to contact the undersigned at 613-688-1891, ext. 3296.

Yours truly,
EXP Services Inc.

Kathy Radisch
Administrative Assistant
Earth & Environment

Enclosures: FOI Form
Credit Card Payment Form

100 - 2650 Queensview Drive, Ottawa, Ontario K2B 8H6
T: +1.613.688.1899 • F: +1.613.225.7337 • www.exp.com

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

CITY DIRECTORY

Project Property: *6171 Hazeldean Road, Stittsville, ON*
Report Type: *City Directory*
Order No: *20200304021*
Information Source: *Vernon's Ottawa & Area*
Date Completed: *March 10, 2020*

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

City Directory Information Source
Vernon's Ottawa & Area

PROJECT NUMBER: 20200304021	
Site Address:	6171 Hazeldean Road, Stittsville, ON
Year: 2010	
Site Listing:	-Address Not Listed
Adjacent Properties:	
6130 Hazeldean Road	-Address Not Listed
6150 Hazeldean Road	-Address Not Listed
6176 Hazeldean Road	-Address Not Listed
6230 Hazeldean Road	-Address Not Listed
6231 Hazeldean Road	-Satori Craft Services
6237 Hazeldean Road	-Address Not Listed
6240 Hazeldean Road	-Address Not Listed

1145 Carp Road	-Gendron Antiques
1173 Carp Road	-Address Not Listed
1189 Carp Road	-Address Not Listed

PROJECT NUMBER: 20200304021	
Site Address:	6171 Hazeldean Road, Stittsville, ON
Year: 2004-05	
Site Listing:	-Address Not Listed
Adjacent Properties:	
6130 Hazeldean Road	-Address Not Listed
6150 Hazeldean Road	-Address Not Listed
6176 Hazeldean Road	-Stittsville Market
6230 Hazeldean Road	-Address Not Listed
6231 Hazeldean Road	-Satori Craft Services

6237 Hazeldean Road	-Address Not Listed
6240 Hazeldean Road	-Address Not Listed
1145 Carp Road	-Gendron Antiques
1173 Carp Road	-Address Not Listed
1189 Carp Road	-Address Not Listed

PROJECT NUMBER: 20200304021	
Site Address:	6171 Hazeldean Road, Stittsville, ON
Year: 1999-00	
Site Listing:	-Address Not Listed
Adjacent Properties:	
6130 Hazeldean Road	-Address Not Listed
6150 Hazeldean Road	-Address Not Listed
6176 Hazeldean Road	-Stittsville Market

6230 Hazeldean Road	-Address Not Listed
6231 Hazeldean Road	-Satori Craft Services
6237 Hazeldean Road	-Address Not Listed
6240 Hazeldean Road	-Address Not Listed
1145 Carp Road	-Gendron Antiques
1173 Carp Road	-Address Not Listed
1189 Carp Road	-Address Not Listed

PROJECT NUMBER: 20200304021	
Site Address:	6171 Hazeldean Road, Stittsville, ON
Year: 1995-96	
Site Listing:	-Address Not Listed
Adjacent Properties:	
6130 Hazeldean Road	-Address Not Listed

6150 Hazeldean Road	-Address Not Listed
6176 Hazeldean Road	-Stittsville Market
6230 Hazeldean Road	-Address Not Listed
6231 Hazeldean Road	-Satori Craft Services
6237 Hazeldean Road	-Address Not Listed
6240 Hazeldean Road	-Address Not Listed
1145 Carp Road	-Gendron Antiques
1173 Carp Road	-Address Not Listed
1189 Carp Road	-Address Not Listed

PROJECT NUMBER: 20200304021	
Site Address:	6171 Hazeldean Road, Stittsville, ON
Year: 1992	
Site Listing:	-Address Not Listed

Adjacent Properties:	
6130 Hazeldean Road	-Address Not Listed
6150 Hazeldean Road	-Address Not Listed
6176 Hazeldean Road	-Stittsville Market
6230 Hazeldean Road	-Address Not Listed
6231 Hazeldean Road	-Satori Craft Services
6237 Hazeldean Road	-Address Not Listed
6240 Hazeldean Road	-Address Not Listed
1145 Carp Road	-Gendron Antiques
1173 Carp Road	-Address Not Listed
1189 Carp Road	-Address Not Listed

-All listings for businesses were listed as they are in the city directory.

-Listings that are residential are listed as “residential” with the number of tenants. The name of the residential tenant is not listed in the above city directory.

Stittsville ON is listed from 1992 to 2010 within the city directory archives*

31G/5d "A"

UTM | 1 | 8 | Z | 4 | 2 | 6 | 7 | 6 | 5 | E
| 5 | R | 5 | 0 | 1 | 1 | 3 | 3 | 5 | 0 | N
Elev. | 4 | R | 0 | 4 | 2 | 0 |
Basin | 2 | 5 |

ONTARIO

The Water-well Drillers Act, 1954
Department of Mines

RECEIVED
JUL 4 1956
GEOLOGICAL BRANCH
DEPARTMENT of MINES

No. 2943

Water-Well Record

County or Territorial District Carleton Township, Village, Town or City Goulbourn
[redacted] Village, Town or City)
[redacted] Address Stittsville
[redacted]
(day) (month) (year)

Pipe and Casing Record		Pumping Test	
Casing diameter(s)	2"	Static level	33
Length(s)	45 ft	Pumping rate	250 gals per hr
Type of screen		Pumping level	45 ft
Length of screen		Duration of test	2 hrs

Well Log / **Water Record**

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
Gravel y Sand	0	43			
Limestone	43	74	73	40	fresh

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

Is water clear or cloudy? Clear

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

Drilling firm J B Dufour

Address 1014 Bradland

Name of Driller H Sauve

Address 1014 Bradland

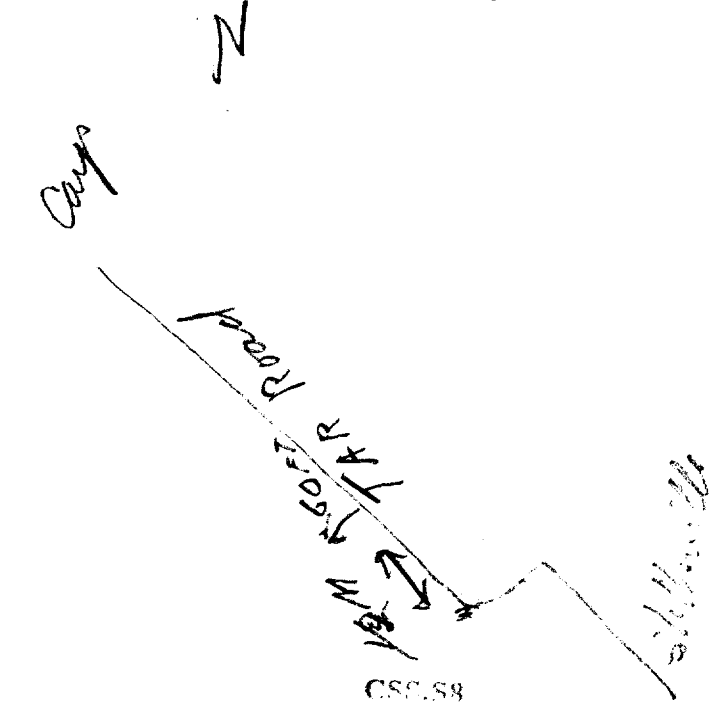
Licence Number 1138

I certify that the foregoing statements of fact are true.

Date June 28 By J B Dufour
Signature of Licensee

Location of Well

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



CSS-58

Form 5

316/5d. "A"

UTM | 1 | 8 | Z | 4 | 2 | 6 | 3 | 9 | 0 | E
| 5 | R | 5 | 0 | 1 | 1 | 2 | 8 | 9 | 1 | 5 | N

Con XII
Lot 23

Elev. | 4 | R | 0 | 4 | 1 | 1 | 2 |
Basin | 2 | 3 |

ONTARIO

GROUND WATER BRANCH
FEB 26 1958
ONTARIO WATER RESOURCES COMMISSION

15 № 2949

The Water-well Drillers Act, 1954
Department of Mines

Water-Well Record

[redacted] Carleton Township, Village, Town or City Goulbourn
[redacted] Village, Town or City)
[redacted] Address Stittsville Ont.
Date completed [redacted]
(day) (month) (year)

Pipe and Casing Record		Pumping Test	
Casing diameter(s)	4 inch	Static level	17 feet
Length(s)	24 feet	Pumping rate	200 g.p.h.
Type of screen	no screen	Pumping level	20 feet
Length of screen	—	Duration of test	half hour

Well Log / **Water Record**

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
coarse gravel	0	17			
red sand	18	22			
grey limestone	22	65	65	46	fresh

For what purpose(s) is the water to be used? private home
Is water clear or cloudy? clear
Is well on upland, in valley, or on hillside? hillside

Drilling firm F. P. Sparks
Address Stittsville Ont.

Name of Driller C. H. Sparks
Address Stittsville Ont.

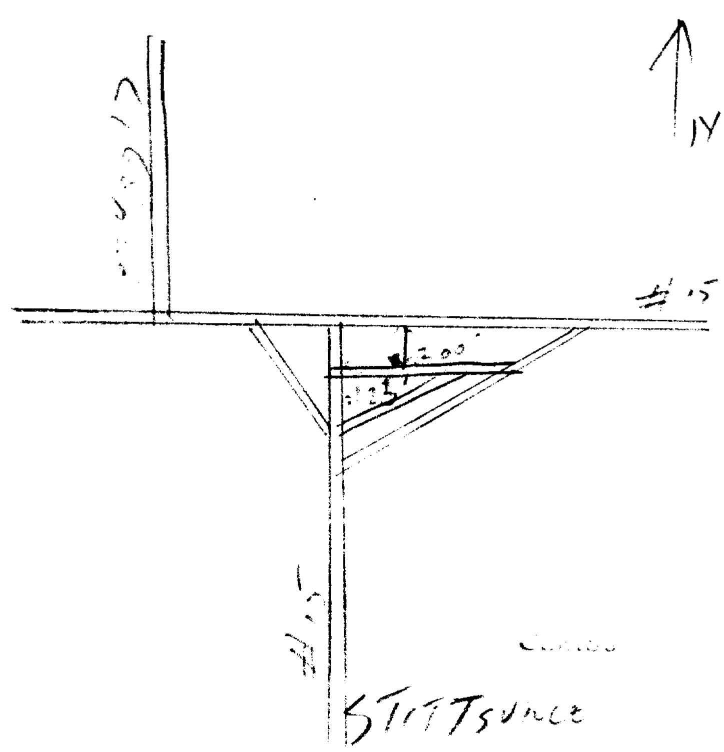
Licence Number 396

I certify that the foregoing statements of fact are true.

Date 26.12.58 Clayton H. Sparks
Signature of Licensee

Location of Well

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



Form 5

31G/5d. "A"

18 Z 4 2 6 3 5 5 E
5 R 5 0 1 2 9 0 0 N
4 R 0 4 1 2
1 G 3 M X 4
LOT 23

ONTARIO

The Water-well Drillers Act, 1954
Department of Mines

15 No 2958

WATER RESOURCES BRANCH
DEC 15 1958
ONTARIO WATER RESOURCES COMMISSION

Water-Well Record

[redacted] ip, Village, Town or City GOULBOURN
Village, Town or City)
Owner [redacted] ddress
Date completed 26 (day) SEP (month) 58 (year)

Pipe and Casing Record

Casing diameter(s) 4"
Length(s) 49'
Type of screen NO
Length of screen

Pumping Test

Static level 36'
Pumping rate 250 GPH
Pumping level 48
Duration of test 1/2 HR

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
SAND & GRAVEL	0	45			
LIMESTONE	45	90	90	54	FRESH

For what purpose(s) is the water to be used?
HOUSE
Is water clear or cloudy? CLEAR
Is well on upland, in valley, or on hillside? ✓

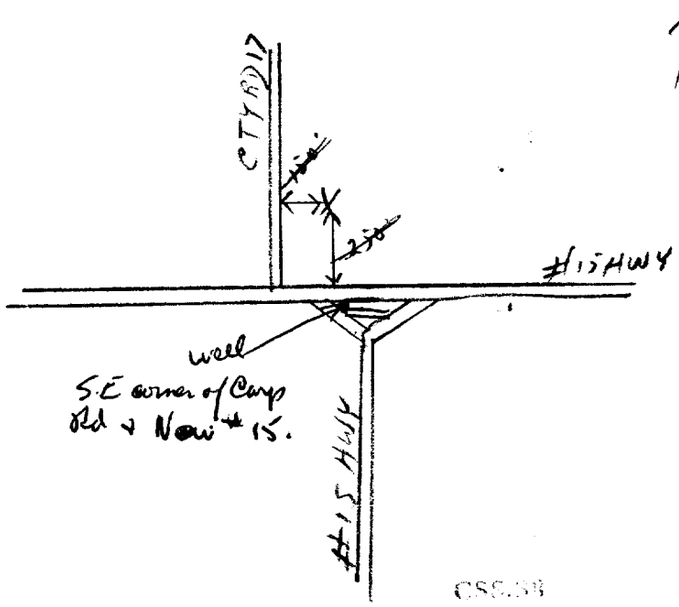
Drilling firm
Address
Name of Driller W J KING
Address BRITANNIA H 2 S
Licence Number 733

I certify that the foregoing statements of fact are true.

Date DEC 15 W. J King
Signature of Licensee

Location of Well

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



Form 5

31G/5d "A"

UTM 18Z 426430E

5R 5012865N

Elev. 4R 0412

Basin 25

15 No. 1954

GROUND WATER BRANCH
Yo
DEC 6 1960
ONTARIO WATER
RESOURCES COMMISSION

ONTARIO

The Water-well Drillers Act, 1954

Department of Mines

Water-Well Record

County or Territorial District Carlton **Township, Village, Town or City** Goulbourn

Con. 12 **Lot** 23 **Street and Number (if in Village, Town or City)** —

Owner [redacted] **Address** Stittsville Ont.

Date completed 28 (day) Oct (month) 1960 (year)

Pipe and Casing Record

Casing diameter(s) 4"

Length(s) 40'

Type of screen none

Length of screen —

Pumping Test

Static level 30'

Pumping rate 5 g.p.m.

Pumping level 40'

Duration of test ½ hr.

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
Gravel	0	40			
Gray limestone	40	82	82	52	fresh

Water Record

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

house

Is water clear or cloudy? clear

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

Drilling firm J. P. Sparks

Address Stittsville Ont

Name of Driller Clayton H Sparks

Address Stittsville Ont.

Licence Number.....

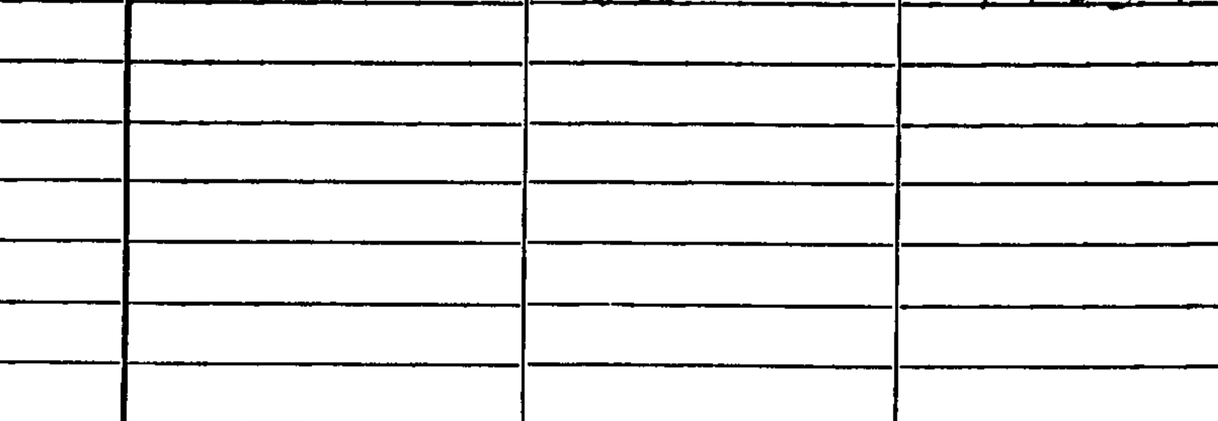
I certify that the foregoing statements of fact are true.

Date Oct 28. J. P. Sparks

Signature of Licensee

Location of Well

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



Form 5

31G/5d. "A"

UTM | 18 Z | 4 2 6 7 9 0 E
| 5 R | 5 0 1 3 1 9 5 N
Elev. 4 R | 0 3 8 2 |
Basin | 2 5 | | | |

ONTARIO

GROUND WATER BRANCH
No. 2960
OCT 29 1957

The Water-well Drillers Act, 1954
Department of Mines

Water-Well Record

Con XII
Lot 24

[redacted] Township, Village, Town or City Gloucester
Village, Town or City)
Address 259 Cowley Ave Ottawa

Date completed 3 (day) 1 (month) 57 (year)

Pipe and Casing Record

Casing diameter(s) 4"
Length(s) 12'
Type of screen
Length of screen

Pumping Test

Static level 10'
Pumping rate 450 G P H.
Pumping level 10'
Duration of test 1/2 Hr

Well Log

Overburden and Bedrock Record	From ft.	To ft.
Rotten Rock	0	10
limestone Rock	12	77

Water Record

Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
75-77'	65'	fresh

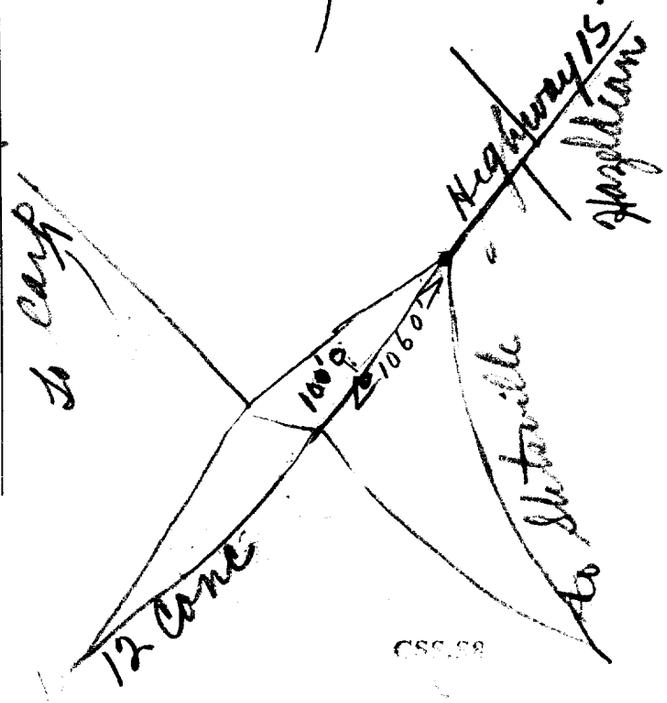
For what purpose(s) is the water to be used?
house
Is water clear or cloudy? clear
Is well on upland, in valley, or on hillside?
upland
Drilling firm W. M. E. Sparks
Address 413 Edgeworth Ave
Name of Driller E Chesbrock
Address Britannia Bay
Licence Number 517

I certify that the foregoing statements of fact are true.

Date Oct 22/57 E Chesbrock
Signature of Licensee
Per A J Sparks

Location of Well

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



Form 5

31G/5d. "A"

65

UTM 1 8 Z 4 2 6 8 6 5 E

35 R 5 0 1 3 2 1 5 N

Elev. 4 R 0 3 8 0

Basin 2 5

The Ontario Water Resources Commission Act

WATER WELL RECORD

15 WATER RESOURCES DIVISION No 9386
NOV 6 1967
STITTSVILLE
ONTARIO WATER RESOURCES COMMISSION

B

County or District Carleton. Township, Village, Town or City Goulbourn

Con. ✓ Lot ✓ Date completed 27th. October 1967. (day month year)

[redacted] Address Stittsville. Ont.

Casing and Screen Record

Inside diameter of casing	6¼"
Total length of casing	8'
Type of screen	
Length of screen	
Depth to top of screen	
Diameter of finished hole	6¼"

Pumping Test

Static level	10'
Test-pumping rate	10 G.P.M.
Pumping level	60
Duration of test pumping	15'
Water clear or cloudy at end of test	clear
Recommended pumping rate	3 G.P.M.
with pump setting of	95' feet below ground surface

Well Log / Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
clay & boulders	0	5'		
limestone rock with some sand layers.	5'	110	85'	fresh

For what purpose(s) is the water to be used? work shop.

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

Drilling or Boring Firm Mel McLaughlin Well Drilling

Address Ashton Ont.

Licence Number 2422.

Name of Driller or Borer Melville McLaughlin

Address Ashton Ont

Date October 28 1967

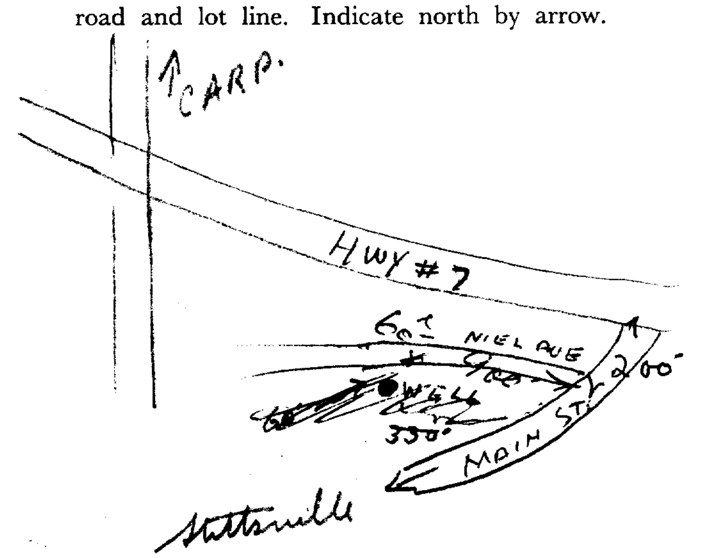
Melville McLaughlin
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M-60-4138

OWRC COPY

Location of Well

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



E.E.
H.S.

The Ontario Water Resources Commission Act

WATER WELL RECORD

31G5d.

Water management in Ontario

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

11 | 1511428 | MUNICIP. 15703 | CON.

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
Carleton	Stittsville	Neil Ave	

OWNER (SURNAME FIRST) [redacted] ADDRESS 1440 Mayview Ave Ottawa

DATE COMPLETED DAY 22 MO. 06 YR. 71

[redacted] 013090 | RC. 4 | ELEVATION 0385 | RC. 4 | BASIN CODE 25

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH – FEET FROM	TO
grey	clay	stones		0	12
grey	hardpan	stones		12	18
grey	limestone			18	58

31 | 0012 2051 2 | 0018 2141 2 | 0058 2 15

32

41 WATER RECORD

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

51 CASING & OPEN HOLE RECORD

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

SCREEN

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

MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

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

71 PUMPING TEST

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

STATIC LEVEL	WATER LEVEL END OF PUMPING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
001 FEET	021 FEET	015 FEET	021 FEET	021 FEET	021 FEET

WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY

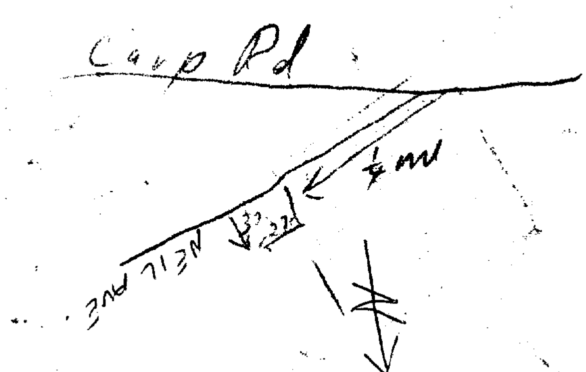
IF FLOWING, GIVE RATE GPM. | PUMP INTAKE SET AT FEET | WATER AT END OF TEST: 1 ☐ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☒ SHALLOW ☐ DEEP | RECOMMENDED PUMP SETTING 025 FEET | RECOMMENDED PUMPING RATE 0010 GPM.

001.1 GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

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



DRILLERS REMARKS:

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

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

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

CONTRACTOR

NAME OF WELL CONTRACTOR: Henry Mains Well Drilling | LICENCE NUMBER

ADDRESS: RR 324 Richmond Ont.

NAME OF DRILLER OR BORER: Henry Mains | LICENCE NUMBER

SIGNATURE OF CONTRACTOR: Henry Mains | SUBMISSION DATE DAY 6 MO. July YR. 71

OFFICE USE ONLY

DATA SOURCE 1 | CONTRACTOR 3644 | DATE RECEIVED 081071

DATE OF INSPECTION | INSPECTOR K

REMARKS: | P K | WI

OWRC COPY

31f5d

The Ontario Water Resources Commission Act

WATER WELL RECORD

Water management in Ontario

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

11 | 1511826 | MUNICIP. 15703 | CON.

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
Carleton	Stittsville	~~Con 12~~	~~23~~

OWNER (SURNAME FIRST) [redacted] ADDRESS Stittsville

DATE COMPLETED: DAY 05 MO. 06 (~~June~~) YR. 72

[redacted] 013100 | RC. 4 | ELEVATION 0395 | RC. 5 | BASIN CODE 25

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH – FEET FROM	TO
grey	clay	stones		0	14
grey	limestone			14	127

31 | 0014205112 | 0127215

32 |

41 WATER RECORD

WATER FOUND AT – FEET	KIND OF WATER
0127	1 ☒ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH – FEET FROM	TO
05	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	188	0	0021 (~~27~~)
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE			0127
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

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

MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

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

71 PUMPING TEST

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

STATIC LEVEL	WATER LEVEL END OF PUMPING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
007 FEET	029 (~~29~~) FEET	018	024	029	029 FEET

WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY

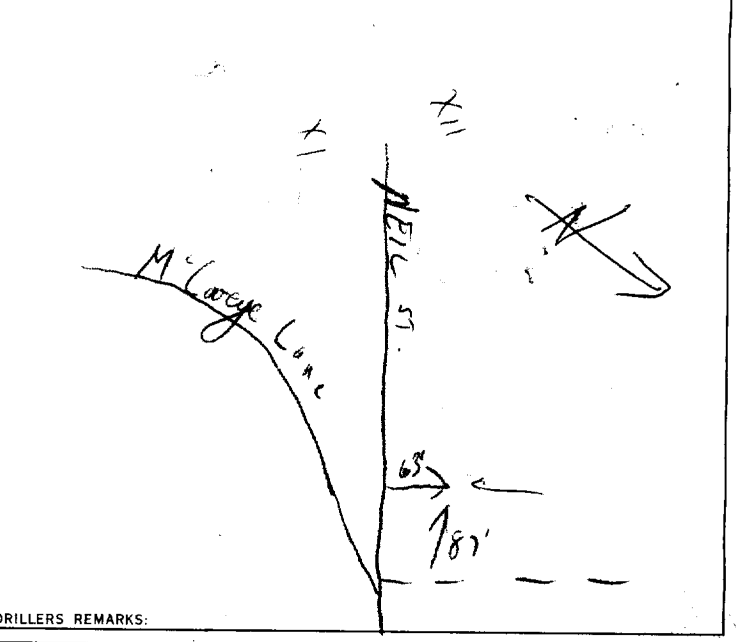
IF FLOWING, GIVE RATE: GPM. | PUMP INTAKE SET AT: FEET | WATER AT END OF TEST: 1 ☐ CLEAR 2 ☒ CLOUDY

RECOMMENDED PUMP TYPE: ☒ SHALLOW ☐ DEEP | RECOMMENDED PUMP SETTING 030 FEET | RECOMMENDED PUMPING RATE 010 GPM.

000.9 GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

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



DRILLERS REMARKS:

FINAL STATUS OF WELL

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

WATER USE 01

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

METHOD OF DRILLING

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

CONTRACTOR

NAME OF WELL CONTRACTOR: Henry Main Well Drilling | LICENCE NUMBER: 3644

ADDRESS: Box 326, Richmond Ont

NAME OF DRILLER OR BORER: George Whittaker | LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: Henry Main | SUBMISSION DATE: DAY 9 MO. June YR. 72

OFFICE USE ONLY

DATA SOURCE 1 | CONTRACTOR 3644 | DATE RECEIVED 180872

DATE OF INSPECTION | INSPECTOR

REMARKS: | P K | WI

OWRC COPY

MINISTRY OF THE ENVIRONMENT

The Ontario Water Resources Act

WATER WELL RECORD

ONTARIO

3 19 | 5 el

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

11 | 1513393 | MUNICIP. 15003 | CON. Con | LOT 23

COUNTY OR DISTRICT: Carleton

TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: Goulbourn

CON., BLOCK, TRACT, SURVEY, ETC.: Con 12.

LOT: 23

ADDRESS: Stittsville

[redacted]

DATE COMPLETED: DAY 03 MO 05 YR 73

21 | 1513393 | 18 | 426666 | NORTHING 5013143 | RC. 4 | ELEVATION 385 | RC. 4 | BASIN CODE 26 | II | III | IV | JAN 12, 1975 | 44

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
grey	clay			0	12
grey	limestone			12	63

31 | 001 22105 | 006 32155

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
063 (10-13)	1 ☒ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL (14)
(15-18)	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL (19)
(20-23)	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL (24)
(25-28)	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL (29)
(30-33)	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL (34) (80)

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
(10-11) 05	(12) 1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	188	0	(13-16) 018
(17-18)	(19) 1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			(20-23)
(24-25)	(26) 1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			(27-30)

SCREEN

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

61 PLUGGING & SEALING RECORD

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

71 PUMPING TEST

PUMPING TEST METHOD (10)	PUMPING RATE (11-14) GPM.	DURATION OF PUMPING (15-16) HOURS (17-18) MINS.
1 ☐ PUMP 2 ☑ BAILER	0020	01 00

STATIC LEVEL (19-21) FEET	WATER LEVEL END OF PUMPING (22-24) FEET	(25) WATER LEVELS DURING 1 ☒ PUMPING 2 ☐ RECOVERY	15 MINUTES (26-28) FEET	30 MINUTES (29-31) FEET	45 MINUTES (32-34) FEET	60 MINUTES (35-37) FEET
000	05		012	014	015	015

IF FLOWING, GIVE RATE (38-41) GPM.	PUMP INTAKE SET AT FEET	WATER AT END OF TEST (42) 1 ☐ CLEAR 2 ☑ CLOUDY
RECOMMENDED PUMP TYPE ☑ SHALLOW ☐ DEEP	RECOMMENDED PUMP SETTING (43-45) 025 FEET	RECOMMENDED PUMPING RATE (46-49) 0010 GPM.

(50-53) ——— GPM./FT. SPECIFIC CAPACITY

FINAL STATUS OF WELL (54)

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

WATER USE (55-56) 01

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

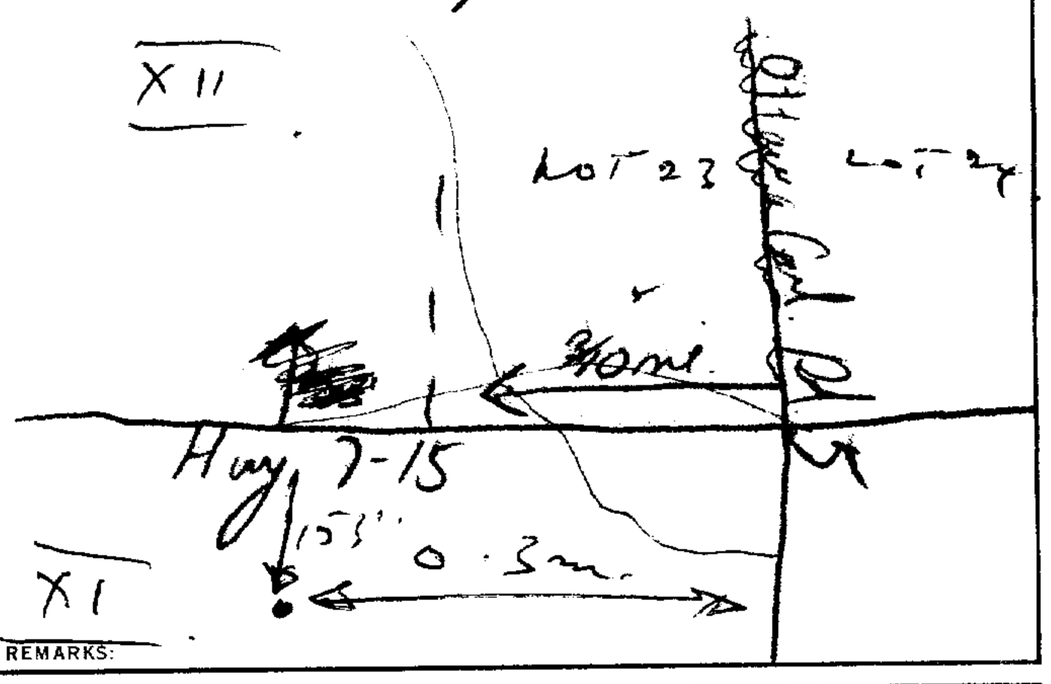
METHOD OF DRILLING (57)

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

LOCATION OF WELL

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

SEE DIAG. AT BACK



DRILLERS REMARKS:

CONTRACTOR

NAME OF WELL CONTRACTOR: Henry Maris Well Drilling | LICENCE NUMBER: 3644

ADDRESS: BX 326, Richmond Ont.

NAME OF DRILLER OR BORER: Henry Maris | LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: Henry Maris | SUBMISSION DATE: DAY 2 MO June YR 73

OFFICE USE ONLY

DATA SOURCE (58) 1 | CONTRACTOR (59-62) 3644 | DATE RECEIVED (63-68) 130873 | (80)

DATE OF INSPECTION | INSPECTOR K.

REMARKS: | P R | WI

FORM 7 07-091

MINISTRY OF THE ENVIRONMENT COPY

MINISTRY OF THE ENVIRONMENT

The Ontario Water Resources Act

WATER WELL RECORD

316/5d

Ontario

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

11 | 1515523 | MUNICIP 15003 | CON. CON 12

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	
Carleton	Goulburn	12	023 25-27

OWNER (SURNAME FIRST) 28-47	ADDRESS	DATE COMPLETED
[redacted]	2622 Traverse Dr. Ottawa, Ontario	DAY 20 MO 07 YR 76

21 | UTM ZONE 18 | EASTING 426520 | NORTHING 5012920 | QUAD 4 | ELEVATION 0405 | PLAN 4 | ORIGIN CODE 26

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
brown	sand	boulders	loose	0	27
grey	limestone		sfot	27	423
grey	limestone	red streaks	soft	423	455
grey	limestone		soft	455	498
grey	limestone		soft	498	520

31 | 0027 | 0423 | 0455 | 0498 | 0520

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0495	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
0518	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. - INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6 06	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE	188	0	027
5 15/16 06	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE		27	498
05	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE		498	0498 520
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE			0520

SCREEN

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

61 PLUGGING & SEALING RECORD

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

71 PUMPING TEST

PUMPING TEST METHOD 10	PUMPING RATE 11-14	DURATION OF PUMPING
1 ☐ PUMP 2 ☒ BAILER	0005 GPM	01 15-16 HOURS 00 17-18 MINS

STATIC LEVEL 19-21	WATER LEVEL END OF PUMPING 22-24	25 WATER LEVELS DURING	15 MINUTES 26-28	30 MINUTES 29-31	45 MINUTES 32-34	60 MINUTES 35-37
035 FEET	100 FEET	1 ☒ PUMPING 2 ☐ RECOVERY	100 FEET	100 FEET	100 FEET	100 FEET

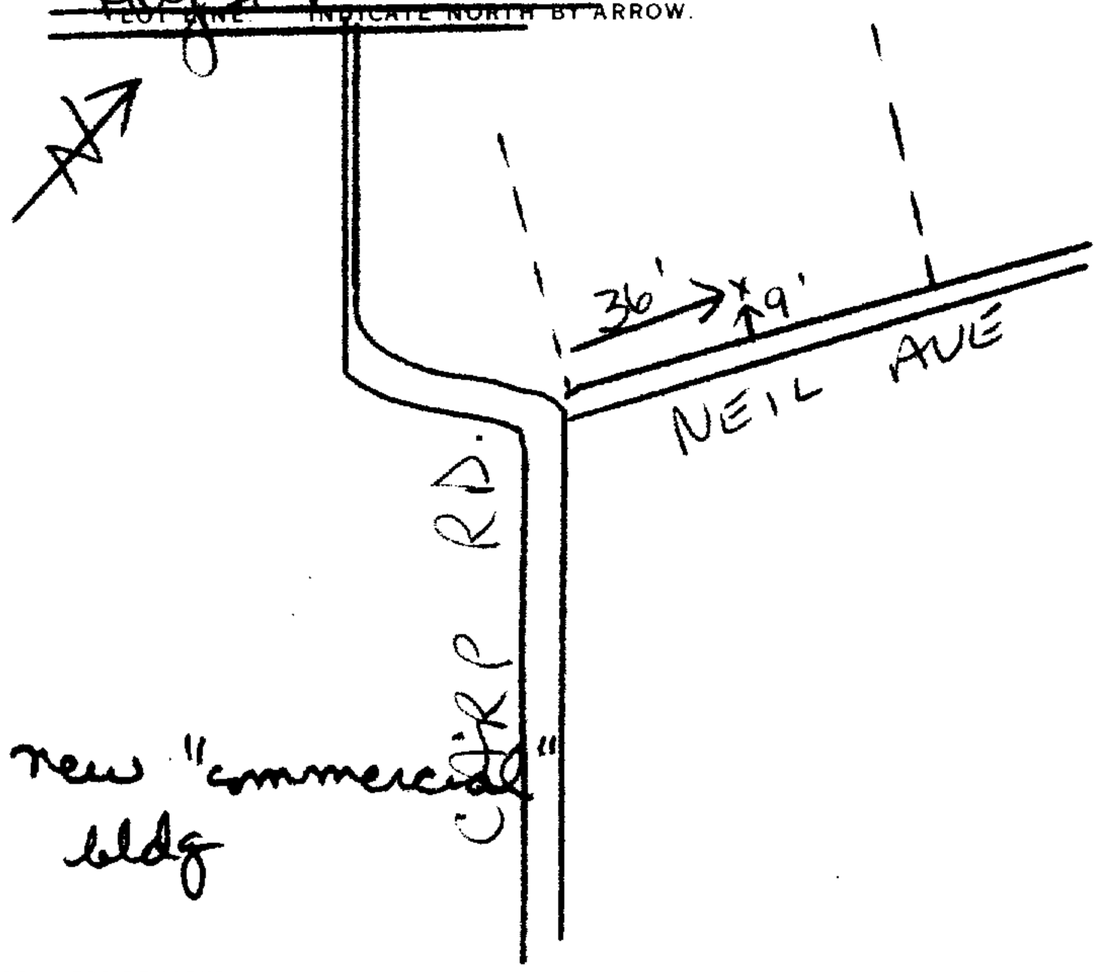
IF FLOWING, GIVE RATE 38-41	PUMP INTAKE SET AT	WATER AT END OF TEST 42
GPM.	FEET	1 ☐ CLEAR 2 ☒ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING 43-45	RECOMMENDED PUMPING RATE 46-49
☐ SHALLOW ☒ DEEP	150 FEET	0005 GPM

50-53 ——— GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

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



new "commercial" bldg

DRILLERS REMARKS:

FINAL STATUS OF WELL 54

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

WATER USE 55-56 01

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

METHOD OF DRILLING 57 1

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

CONTRACTOR

NAME OF WELL CONTRACTOR	LICENCE NUMBER
Capital Water Supply Ltd.	1558
ADDRESS: Box 490 Stittsville, Ontario	
NAME OF DRILLER OR BORER: R. McDougall & E. Maurice	LICENCE NUMBER
SIGNATURE OF CONTRACTOR: Walter Kwiancek	SUBMISSION DATE: DAY 22 MO. 7 YR 76

OFFICE USE ONLY

DATA SOURCE 58	CONTRACTOR 59-62	DATE RECEIVED 63-68	80
1	1558	090876	
DATE OF INSPECTION: 17/6/77	INSPECTOR: Km. PH.		
REMARKS:		P ✓	
		WI	

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FORM 7 MOE 07-091

31G5dl

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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

11 — 1519954 — MUNICIP 15003 — CON. CON 12

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
[redacted]	Goulbourn	Conc. 12	023

[redacted] Stittsville, Ontario K0A 3G0

DATE COMPLETED: DAY 03 MO 12 YR 79

UTHING 0130999 — RC 4 — ELEVATION 0410 — RC 4 — BASIN CODE 26

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
Gray	Sand	Stone's	Packed	0	9
Red	Sand	Boulder's	Loose	9	34
Gray	Limestone		Hard	34	62

31 — 0009 2281279 — 0034 7281377 — 0062 2573

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0060'	1 ☐ FRESH 2 ☐ SALTY 3 ☒ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
06 64	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	188	0	0035
06	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE		35	0062
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

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

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

61 PLUGGING & SEALING RECORD

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

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☐ PUMP 2 ☒ BAILER

PUMPING RATE: 0030 GPM — DURATION OF PUMPING: 02 HOURS 00 MINS

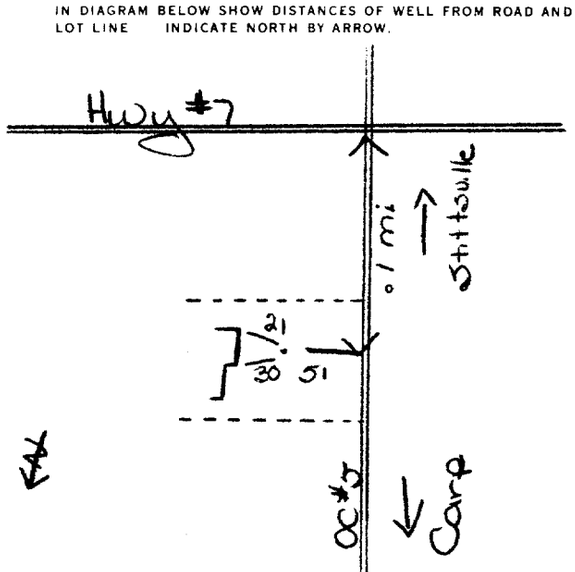
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY			
		15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
010 FEET	020 FEET	020 FEET	020 FEET	020 FEET	020 FEET

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

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

LOCATION OF WELL

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



DRILLERS REMARKS

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

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

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

CONTRACTOR

NAME OF WELL CONTRACTOR: Capital Water Supply Ltd. — LICENCE NUMBER: 1558

ADDRESS: Box 490, Stittsville, Ontario K0A 3G0

NAME OF DRILLER OR BORER: M. Kavanagh — LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: M. Kavanagh — SUBMISSION DATE: DAY 01 MO 12 YR 79

OFFICE USE ONLY

DATA SOURCE 58: 1 — CONTRACTOR 59-62: 1558 — DATE RECEIVED 63-68: 210380 — 80

DATE OF INSPECTION: — INSPECTOR:

REMARKS: Already on the computer file
Changed from 1517251

CSS38

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FORM NO. 0506—4—77

Appendix D:
EcoLog ERIS Report

ENVIRONMENTAL RISK INFORMATION SERVICES

DATABASE REPORT

Project Property:	*Phase I ESA* *6171 Hazeldean Road* *Stittsville ON K2S 1B9*
Project No:	*OTT-00258780-C0*
Report Type:	*Standard Report*
Order No:	*20200304021*
Requested by:	*exp Services Inc.*
Date Completed:	*March 6, 2020*

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

Table of Contents

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Executive Summary

Property Information:

Project Property:	*Phase I ESA* *6171 Hazeldean Road Stittsville ON K2S 1B9*
Project No:	*OTT-00258780-C0*

Coordinates:

Latitude:	*45.27082298*
Longitude:	*-75.93726449*
UTM Northing:	*5,013,468.43*
UTM Easting:	*426,474.76*
UTM Zone:	*18T*

Elevation: *387 FT*
117.84 M

Order Information:

Order No:	*20200304021*
Date Requested:	*March 4, 2020*
Requested by:	*exp Services Inc.*
Report Type:	*Standard Report*

Historical/Products:

City Directory Search	*CD - Subject Site plus 10 Adjacent Properties*
Insurance Products	*Fire Insurance Maps/Inspection Reports/Site Plans*

Executive Summary: Report Summary

Database	Name	Searched	Project Property	Within 0.25 km	Total
AAGR	Abandoned Aggregate Inventory	Y	0	0	0
AGR	Aggregate Inventory	Y	0	0	0
AMIS	Abandoned Mine Information System	Y	0	0	0
ANDR	Anderson's Waste Disposal Sites	Y	0	0	0
AST	Aboveground Storage Tanks	Y	0	0	0
AUWR	Automobile Wrecking & Supplies	Y	0	0	0
BORE	Borehole	Y	0	0	0
CA	Certificates of Approval	Y	0	0	0
CDRY	Dry Cleaning Facilities	Y	0	0	0
CFOT	Commercial Fuel Oil Tanks	Y	0	0	0
CHEM	Chemical Register	Y	0	0	0
CNG	Compressed Natural Gas Stations	Y	0	0	0
COAL	Inventory of Coal Gasification Plants and Coal Tar Sites	Y	0	0	0
CONV	Compliance and Convictions	Y	0	0	0
CPU	Certificates of Property Use	Y	0	0	0
DRL	Drill Hole Database	Y	0	0	0
EASR	Environmental Activity and Sector Registry	Y	0	0	0
EBR	Environmental Registry	Y	0	0	0
ECA	Environmental Compliance Approval	Y	0	11	11
EEM	Environmental Effects Monitoring	Y	0	0	0
EHS	ERIS Historical Searches	Y	1	1	2
EIIS	Environmental Issues Inventory System	Y	0	0	0
EMHE	Emergency Management Historical Event	Y	0	0	0
EPAR	Environmental Penalty Annual Report	Y	0	0	0
EXP	List of Expired Fuels Safety Facilities	Y	0	0	0
FCON	Federal Convictions	Y	0	0	0
FCS	Contaminated Sites on Federal Land	Y	0	0	0
FED TANKS	Federal Identification Registry for Storage Tank Systems (FIRSTS)	Y	0	0	0
FOFT	Fisheries & Oceans Fuel Tanks	Y	0	0	0
FST	Fuel Storage Tank	Y	0	0	0
FSTH	Fuel Storage Tank - Historic	Y	0	0	0
GEN	Ontario Regulation 347 Waste Generators Summary	Y	0	3	3
GHG	Greenhouse Gas Emissions from Large Facilities	Y	0	0	0
HINC	TSSA Historic Incidents	Y	0	0	0
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0
INC	Fuel Oil Spills and Leaks	Y	0	0	0

Database	Name	Searched	Project Property	Within 0.25 km	Total
LIMO	Landfill Inventory Management Ontario	Y	0	0	0
MINE	Canadian Mine Locations	Y	0	0	0
MNR	Mineral Occurrences	Y	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0
NCPL	Non-Compliance Reports	Y	0	0	0
NDFT	National Defense & Canadian Forces Fuel Tanks	Y	0	0	0
NDSP	National Defense & Canadian Forces Spills	Y	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0
NEBI	National Energy Board Pipeline Incidents	Y	0	0	0
NEBP	National Energy Board Wells	Y	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0
NPCB	National PCB Inventory	Y	0	0	0
NPRI	National Pollutant Release Inventory	Y	0	0	0
OGWE	Oil and Gas Wells	Y	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	0	0
OPCB	Inventory of PCB Storage Sites	Y	0	0	0
ORD	Orders	Y	0	0	0
PAP	Canadian Pulp and Paper	Y	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0
PES	Pesticide Register	Y	0	0	0
PINC	Pipeline Incidents	Y	0	0	0
PRT	Private and Retail Fuel Storage Tanks	Y	0	0	0
PTTW	Permit to Take Water	Y	0	0	0
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	0	0
RSC	Record of Site Condition	Y	0	0	0
RST	Retail Fuel Storage Tanks	Y	0	0	0
SCT	Scott's Manufacturing Directory	Y	0	0	0
SPL	Ontario Spills	Y	0	1	1
SRDS	Wastewater Discharger Registration Database	Y	0	0	0
TANK	Anderson's Storage Tanks	Y	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0
VAR	Variances for Abandonment of Underground Storage Tanks	Y	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0
WWIS	Water Well Information System	Y	0	2	2
	Total:		1	18	19

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
1	EHS		6171 Hazeldean Rd Ottawa ON K2S1B9	WSW/0.0	0.03	15

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
2	SPL	Enbridge Gas Distribution Inc.	Kimpton Dr and Samanatha Eseop A.v, Stitsville Ottawa ON	WNW/195.1	0.03	15
3	WWIS		lot 23 con 12 ON ***Well ID:*** 1519954	SW/206.9	2.03	15
4	ECA	City of Ottawa	Ottawa ON K2G 6J8	W/219.2	1.31	18
4	ECA	G. Lemay Construction (1998) Inc.	Ottawa ON K1J 9C2	W/219.2	1.31	19
4	ECA	G. Lemay Construction (1998) Inc.	Ottawa ON K1J 9C2	W/219.2	1.31	19
4	ECA	G. Lemay Construction (1998) Inc.	Ottawa ON K1J 9C2	W/219.2	1.31	19
4	ECA	G. Lemay Construction (1998) Inc.	Part of Lot 23, Concession 12 Ottawa ON K1J 9C2	W/219.2	1.31	20
4	ECA	G. Lemay Construction (1998) Inc.	Ottawa ON K1J 9C2	W/219.2	1.31	20
4	ECA	G. Lemay Construction (1998) Inc.	Ottawa ON K1J 9C2	W/219.2	1.31	20
4	ECA	G. Lemay Construction (1998) Inc.	Ottawa ON K1J 9C2	W/219.2	1.31	20
4	ECA	City of Ottawa	Ottawa ON K2G 6J8	W/219.2	1.31	21
4	ECA	G. Lemay Construction (1998) Inc.	Ottawa ON K1J 9C2	W/219.2	1.31	21

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
4	ECA	City of Ottawa	Ottawa ON K2G 6J8	W/219.2	1.31	21
5	EHS		6176 Hazeldean Road Stittsville ON K2S 1B9	SE/234.4	1.03	21
6	WWIS		lot 23 con 12 ON ***Well ID:*** 1513393	ESE/244.8	0.03	22
7	GEN	Deschenes& Poitras Dental Center	6255 Hazeldean Rd Stittsville ON K2S0X4	SW/249.4	2.03	24
7	GEN	Deschenes& Poitras Dental Center	6255 Hazeldean Rd Stittsville ON K2S0X4	SW/249.4	2.03	25
7	GEN	Deschenes Poitras Centre	6255 Hazeldean Road Ottawa ON K2S 0X4	SW/249.4	2.03	25

Executive Summary: Summary By Data Source

ECA - Environmental Compliance Approval

A search of the ECA database, dated Oct 2011-Jan 31, 2020 has found that there are 11 ECA site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
G. Lemay Construction (1998) Inc.	Ottawa ON K1J 9C2	W	219.21	4
City of Ottawa	Ottawa ON K2G 6J8	W	219.21	4
City of Ottawa	Ottawa ON K2G 6J8	W	219.21	4
City of Ottawa	Ottawa ON K2G 6J8	W	219.21	4
G. Lemay Construction (1998) Inc.	Ottawa ON K1J 9C2	W	219.21	4
G. Lemay Construction (1998) Inc.	Ottawa ON K1J 9C2	W	219.21	4
G. Lemay Construction (1998) Inc.	Ottawa ON K1J 9C2	W	219.21	4
G. Lemay Construction (1998) Inc.	Part of Lot 23, Concession 12 Ottawa ON K1J 9C2	W	219.21	4
G. Lemay Construction (1998) Inc.	Ottawa ON K1J 9C2	W	219.21	4
G. Lemay Construction (1998) Inc.	Ottawa ON K1J 9C2	W	219.21	4

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
G. Lemay Construction (1998) Inc.	Ottawa ON K1J 9C2	W	219.21	4

EHS - ERIS Historical Searches

A search of the EHS database, dated 1999-Jan 31, 2020 has found that there are 2 EHS site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	6171 Hazeldean Rd Ottawa ON K2S1B9	WSW	0.00	1
	6176 Hazeldean Road Stittsville ON K2S 1B9	SE	234.44	5

GEN - Ontario Regulation 347 Waste Generators Summary

A search of the GEN database, dated 1986-Jan 31, 2020 has found that there are 3 GEN site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
Deschenes& Poitras Dental Center	6255 Hazeldean Rd Stittsville ON K2S0X4	SW	249.42	7
Deschenes Poitras Centre	6255 Hazeldean Road Ottawa ON K2S 0X4	SW	249.42	7
Deschenes& Poitras Dental Center	6255 Hazeldean Rd Stittsville ON K2S0X4	SW	249.42	7

SPL - Ontario Spills

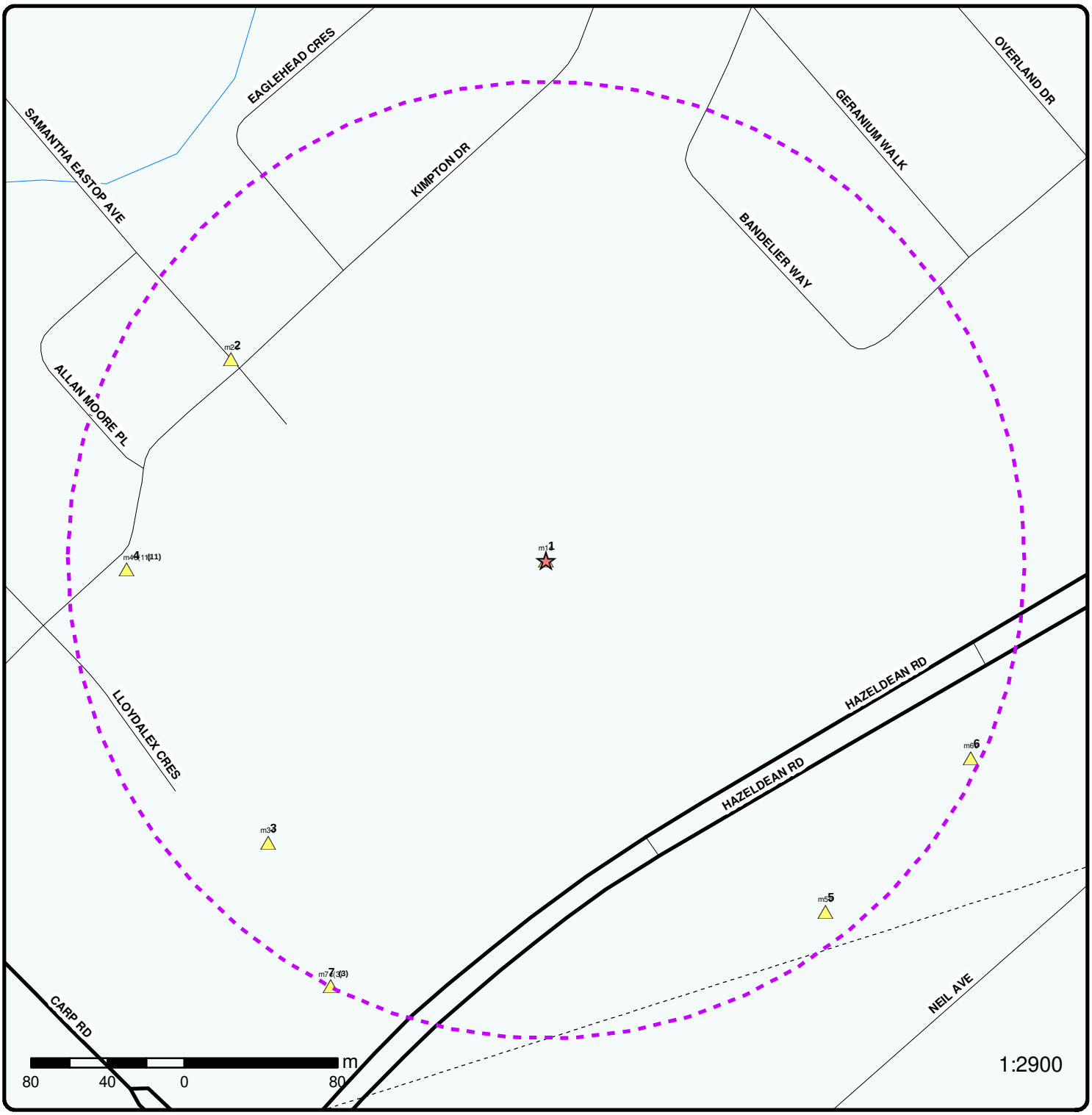
A search of the SPL database, dated 1988-Aug 2019 has found that there are 1 SPL site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
Enbridge Gas Distribution Inc.	Kimpton Dr and Samanatha Eseop A.v, Stitsville Ottawa ON	WNW	195.07	2

WWIS - Water Well Information System

A search of the WWIS database, dated Feb 28, 2019 has found that there are 2 WWIS site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	lot 23 con 12 ON ***Well ID:*** 1519954	SW	206.90	3
	lot 23 con 12 ON ***Well ID:*** 1513393	ESE	244.76	6



Map : 0.25 Kilometer Radius

Order Number: 20200304021

Address: 6171 Hazeldean Road, Stittsville, ON

ERIS ENVIRONMENTAL RISK INFORMATION SERVICES

- Project Property
- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation
- Expressway
- Principal Highway
- Secondary Highway
- Major Road
- Local road
- Trail
- Proposed Road
- Ferry Route/Ice Road
- Industrial and Resource - Regions
- Main Line
- Sidetrack
- Transit Line
- Abandoned Line
- National Park
- Provincial or Territorial Park
- Other Park
- Golf Course or Driving Range
- Park or Sports Field
- Other Recreation Area

Source: © 2015 DMTI Spatial Inc.

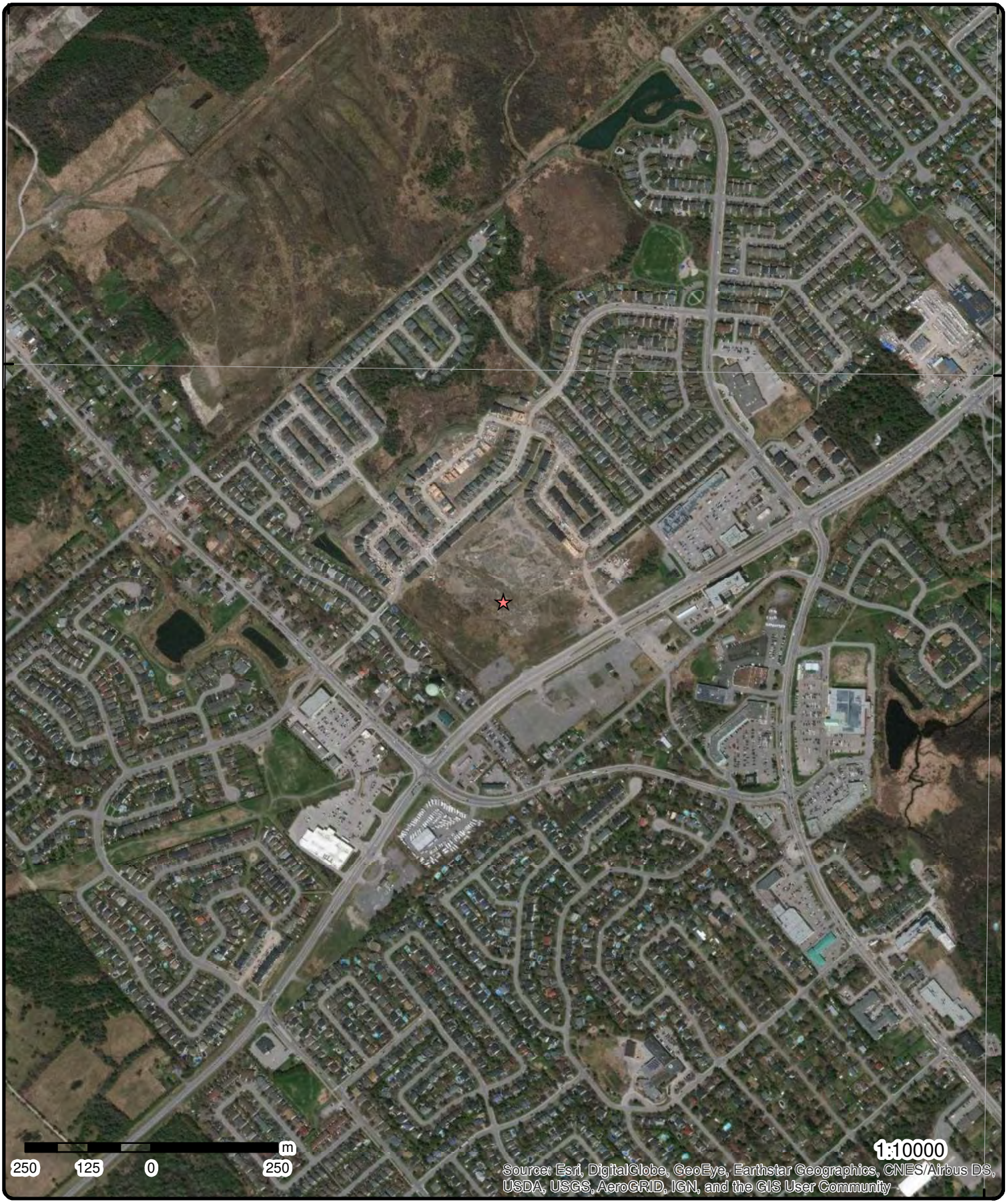
© ERIS Information Limited Partnership

75°57'W

75°55'30"W

45°16'30"N

45°16'30"N



Aerial **Year: 2019**

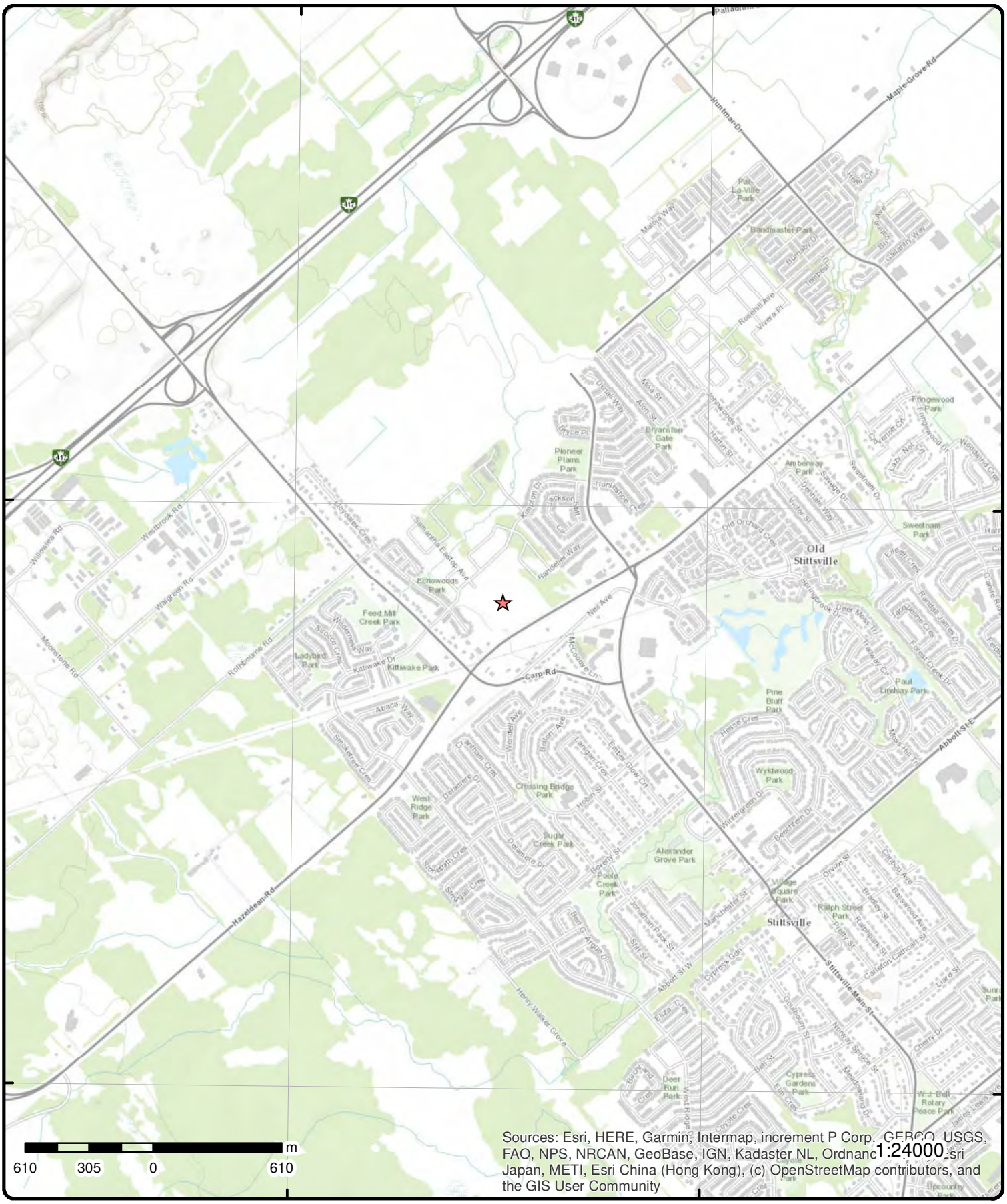
Address: 6171 Hazeldean Road, Stittsville, ON

Source: ESRI World Imagery

Order Number: 20200304021

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

© ERIS Information Limited Partnership



Topographic Map

Address: 6171 Hazeldean Road, ON

Source: ESRI World Topographic Map

Order Number: 20200304021

ERIS ENVIRONMENTAL RISK INFORMATION SERVICES

© ERIS Information Limited Partnership

Detail Report

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	1 of 1	WSW/0.0	117.9 / 0.03	6171 Hazeldean Rd Ottawa ON K2S1B9	EHS

Order No:	20170828063	**Nearest Intersection:**	
Status:	C	**Municipality:**	
Report Type:	Custom Report	**Client Prov/State:**	ON
Report Date:	31-AUG-17	**Search Radius (km):**	.25
Date Received:	28-AUG-17	**X:**	-75.937954
Previous Site Name:		**Y:**	45.271395
Lot/Building Size:			
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
2	1 of 1	WNW/195.1	117.9 / 0.03	Enbridge Gas Distribution Inc. Kimpton Dr and Samanatha Eseop A.v, Stitsville Ottawa ON	SPL

Ref No:	2117-AVDTVX	**Discharger Report:**	
Site No:	NA	**Material Group:**	
Incident Dt:	2018/01/26	**Health/Env Conseq:**	2 - Minor Environment
Year:		**Client Type:**	Corporation
Incident Cause:		**Sector Type:**	Miscellaneous Communal
Incident Event:	Leak/Break	**Agency Involved:**	
Contaminant Code:	35	**Nearest Watercourse:**	
Contaminant Name:	NATURAL GAS (METHANE)	**Site Address:**	Kimpton Dr and Samanatha Eseop A.v, Stitsville
Contaminant Limit 1:		**Site District Office:**	Ottawa
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:	1075	**Site Region:**	Eastern
Environment Impact:		**Site Municipality:**	Ottawa
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:	Air	**Northing:**	
MOE Response:	No	**Easting:**	
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	2018/01/26	**Site Map Datum:**	
Dt Document Closed:	2018/03/17	**SAC Action Class:**	TSSA - Fuel Safety Branch - Hydrocarbon Fuel Release/Spill
Incident Reason:	Operator/Human Error	**Source Type:**	Pipeline/Components
Site Name:	residential - New sub division<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	TSSA - Enbridge, ½" plastic main line IP damaged, made safe		
Contaminant Qty:	0 other - see incident description		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
3	1 of 1	SW/206.9	119.9 / 2.03	lot 23 con 12 ON	WWIS

Well ID:	1519954	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Domestic	**Date Received:**	3/21/1980
Sec. Water Use:	0	**Selected Flag:**	Yes
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	1558

Casing Material:		***Form Version:***	1
Audit No:		***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	OTTAWA-CARLETON
Elevation (m):		***Municipality:***	GOULBOURN TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	023
Well Depth:		***Concession:***	12
Overburden/Bedrock:		***Concession Name:***	CON
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10041804	***Elevation:***	125.437728
DP2BR:	34	***Elevrc:***	
Spatial Status:		***Zone:***	18
Code OB:	r	***East83:***	426329.6
Code OB Desc:	Bedrock	***North83:***	5013321
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	4
Date Completed:	12/3/1979	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	p4
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	931043276
Layer:	1
Color:	2
General Color:	GREY
Mat1:	28
Most Common Material:	SAND
Mat2:	12
Other Materials:	STONES
Mat3:	79
Other Materials:	PACKED
Formation Top Depth:	0
Formation End Depth:	9
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931043278
Layer:	3
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	73
Other Materials:	HARD
Mat3:	
Other Materials:	

Formation Top Depth:	34
Formation End Depth:	62
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931043277
Layer:	2
Color:	7
General Color:	RED
Mat1:	28
Most Common Material:	SAND
Mat2:	13
Other Materials:	BOULDERS
Mat3:	77
Other Materials:	LOOSE
Formation Top Depth:	9
Formation End Depth:	34
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	10590374
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930072994
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	62
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930072993
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	35
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	991519954
Pump Set At:	
Static Level:	10
Final Level After Pumping:	20
Recommended Pump Depth:	30
Pumping Rate:	30
Flowing Rate:	
Recommended Pump Rate:	5
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	2
Water State After Test:	CLOUDY
Pumping Test Method:	2
Pumping Duration HR:	2
Pumping Duration MIN:	0
Flowing:	N

Draw Down & Recovery

Pump Test Detail ID:	934376206
Test Type:	Draw Down
Test Duration:	30
Test Level:	20
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934110241
Test Type:	Draw Down
Test Duration:	15
Test Level:	20
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934654396
Test Type:	Draw Down
Test Duration:	45
Test Level:	20
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934904344
Test Type:	Draw Down
Test Duration:	60
Test Level:	20
Test Level UOM:	ft

Water Details

Water ID:	933477072
Layer:	1
Kind Code:	3
Kind:	SULPHUR
Water Found Depth:	60
Water Found Depth UOM:	ft

4	*1 of 11*	*W/219.2*	*119.2 / 1.31*	*City of Ottawa*	*ECA*

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
				Ottawa ON K2G 6J8	

Approval No: 1962-7ZNQYA
Approval Date: 2010-06-25
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name: Mississippi Valley
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address:
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/5860-7YZRBL-14.pdf

MOE District: Ottawa
City:
Longitude: -75.9401
Latitude: 45.2708
Geometry X:
Geometry Y:

4	2 of 11	W/219.2	119.2 / 1.31	G. Lemay Construction (1998) Inc.	ECA
				Ottawa ON K1J 9C2	

Approval No: 4093-5D3Q3R
Approval Date: 2002-08-18
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name: Mississippi Valley
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address:
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/0984-5D2RSD-14.pdf

MOE District: Ottawa
City:
Longitude: -75.9401
Latitude: 45.2708
Geometry X:
Geometry Y:

4	3 of 11	W/219.2	119.2 / 1.31	G. Lemay Construction (1998) Inc.	ECA
				Ottawa ON K1J 9C2	

Approval No: 0035-5D3PUU
Approval Date: 2002-08-18
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name: Mississippi Valley
Approval Type: ECA-Municipal and Private Water Works
Project Type: Municipal and Private Water Works
Address:
Full Address:
Full PDF Link:

MOE District: Ottawa
City:
Longitude: -75.9401
Latitude: 45.2708
Geometry X:
Geometry Y:

4	4 of 11	W/219.2	119.2 / 1.31	G. Lemay Construction (1998) Inc.	ECA
				Ottawa ON K1J 9C2	

Approval No: 4136-5A8LTR
Approval Date: 2002-09-30
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name: Mississippi Valley
Approval Type: ECA-AIR
Project Type: AIR
Address:
Full Address:

MOE District: Ottawa
City:
Longitude: -75.9401
Latitude: 45.2708
Geometry X:
Geometry Y:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/8435-4ZLMCF-14.pdf

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4 **5 of 11** **W/219.2** **119.2 / 1.31** **G. Lemay Construction (1998) Inc.** **ECA**
Part of Lot 23, Concession 12
Ottawa ON K1J 9C2

Approval No:	7710-4YQSAU	**MOE District:**	Ottawa
Approval Date:	2001-09-07	**City:**	
Status:	Approved	**Longitude:**	-75.9401
Record Type:	ECA	**Latitude:**	45.2708
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Mississippi Valley	**Geometry Y:**	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:	Part of Lot 23, Concession 12		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/3486-4WQNXE-14.pdf		

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4 **6 of 11** **W/219.2** **119.2 / 1.31** **G. Lemay Construction (1998) Inc.** **ECA**
Ottawa ON K1J 9C2

Approval No:	1573-5CBNV6	**MOE District:**	Ottawa
Approval Date:	2002-08-18	**City:**	
Status:	Revoked and/or Replaced	**Longitude:**	-75.9401
Record Type:	ECA	**Latitude:**	45.2708
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Mississippi Valley	**Geometry Y:**	
Approval Type:	ECA-Municipal and Private Water Works		
Project Type:	Municipal and Private Water Works		
Address:			
Full Address:			
Full PDF Link:			

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4 **7 of 11** **W/219.2** **119.2 / 1.31** **G. Lemay Construction (1998) Inc.** **ECA**
Ottawa ON K1J 9C2

Approval No:	0384-5CBLNJ	**MOE District:**	Ottawa
Approval Date:	2002-08-18	**City:**	
Status:	Revoked and/or Replaced	**Longitude:**	-75.9401
Record Type:	ECA	**Latitude:**	45.2708
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Mississippi Valley	**Geometry Y:**	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:			
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/2610-5C7KTS-14.pdf		

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4 **8 of 11** **W/219.2** **119.2 / 1.31** **G. Lemay Construction (1998) Inc.** **ECA**
Ottawa ON K1J 9C2

Approval No:	7616-4ZNKTG	**MOE District:**	Ottawa
Approval Date:	2001-08-17	**City:**	
Status:	Approved	**Longitude:**	-75.9401
Record Type:	ECA	**Latitude:**	45.2708
Link Source:	IDS	**Geometry X:**	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

SWP Area Name: Mississippi Valley **Geometry Y:**
Approval Type: ECA-Municipal and Private Water Works
Project Type: Municipal and Private Water Works
Address:
Full Address:
Full PDF Link:

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4 **9 of 11** **W/219.2** **119.2 / 1.31** **City of Ottawa** **ECA**

Ottawa ON K2G 6J8

Approval No: 2869-7XMQ68 **MOE District:** Ottawa
Approval Date: 2010-01-04 **City:**
Status: Approved **Longitude:** -75.9401
Record Type: ECA **Latitude:** 45.2708
Link Source: IDS **Geometry X:**
SWP Area Name: Mississippi Valley **Geometry Y:**
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address:
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/5109-7X4PM4-14.pdf

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4 **10 of 11** **W/219.2** **119.2 / 1.31** **G. Lemay Construction (1998) Inc.** **ECA**

Ottawa ON K1J 9C2

Approval No: 7928-52CH8K **MOE District:** Ottawa
Approval Date: 2001-09-07 **City:**
Status: Revoked and/or Replaced **Longitude:** -75.9401
Record Type: ECA **Latitude:** 45.2708
Link Source: IDS **Geometry X:**
SWP Area Name: Mississippi Valley **Geometry Y:**
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address:
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/4880-4ZLM8U-14.pdf

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4 **11 of 11** **W/219.2** **119.2 / 1.31** **City of Ottawa** **ECA**

Ottawa ON K2G 6J8

Approval No: 0163-BAVNNT **MOE District:** Ottawa
Approval Date: 2019-04-15 **City:**
Status: Approved **Longitude:** -75.9401
Record Type: ECA **Latitude:** 45.2708
Link Source: IDS **Geometry X:**
SWP Area Name: Mississippi Valley **Geometry Y:**
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address:
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/6195-B7FJTU-14.pdf

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5 **1 of 1** **SE/234.4** **118.9 / 1.03** **6176 Hazeldean Road** **EHS**
Stittsville ON K2S 1B9

Order No: 20200103073 **Nearest Intersection:**

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Status:	C	**Municipality:**	
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	08-JAN-20	**Search Radius (km):**	.25
Date Received:	03-JAN-20	**X:**	-75.9354211
Previous Site Name:		**Y:**	45.2692316
Lot/Building Size:			
Additional Info Ordered:			

6	1 of 1	ESE/244.8	117.9 / 0.03	lot 23 con 12 ON	WWIS

Well ID:	1513393	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Domestic	**Date Received:**	8/13/1973
Sec. Water Use:	0	**Selected Flag:**	Yes
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	3644
Casing Material:		**Form Version:**	1
Audit No:		**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	OTTAWA-CARLETON
Elevation (m):		**Municipality:**	GOULBOURN TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	023
Well Depth:		**Concession:**	12
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10035379	**Elevation:**	118.897842
DP2BR:	12	**Elevrc:**	
Spatial Status:		**Zone:**	18
Code OB:	r	**East83:**	426696.6
Code OB Desc:	Bedrock	**North83:**	5013365
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	4
Date Completed:	5/3/1973	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	p4
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	931023250
Layer:	1
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Other Materials:	
Mat3:	

Other Materials:
Formation Top Depth: 0
Formation End Depth: 12
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931023251
Layer: 2
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 12
Formation End Depth: 63
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 10583949
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930062654
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 18
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 991513393
Pump Set At:
Static Level: 0
Final Level After Pumping: 15
Recommended Pump Depth: 25
Pumping Rate: 20
Flowing Rate:
Recommended Pump Rate: 10
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2

Water State After Test:	CLOUDY
Pumping Test Method:	2
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	N

Draw Down & Recovery

Pump Test Detail ID:	934378619
Test Type:	Draw Down
Test Duration:	30
Test Level:	14
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934897085
Test Type:	Draw Down
Test Duration:	60
Test Level:	15
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934099224
Test Type:	Draw Down
Test Duration:	15
Test Level:	12
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934639614
Test Type:	Draw Down
Test Duration:	45
Test Level:	15
Test Level UOM:	ft

Water Details

Water ID:	933468939
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	63
Water Found Depth UOM:	ft

---

7 | ***1 of 3*** | ***SW/249.4*** | ***119.9 / 2.03*** | ***Deschenes& Poitras Dental Center***
6255 Hazeldean Rd
Stittsville ON K2S0X4 | ***GEN***

Generator No:	ON3346063	**PO Box No:**	
Status:		**Country:**	Canada
Approval Years:	2016	**Choice of Contact:**	CO_ADMIN
Contam. Facility:	No	**Co Admin:**	Rechelle MF Madwid
MHSW Facility:	No	**Phone No Admin:**	6138317750 Ext.
SIC Code:	621210		
SIC Description:	OFFICES OF DENTISTS		

Detail(s)

Waste Class: 312
Waste Class Desc: PATHOLOGICAL WASTES

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7 **2 of 3** **SW/249.4** **119.9 / 2.03** **Deschenes& Poitras Dental Center** **GEN**
6255 Hazeldean Rd
Stittsville ON K2S0X4

Generator No: ON3346063
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 312 P
Waste Class Desc: Pathological wastes

---

7 **3 of 3** **SW/249.4** **119.9 / 2.03** **Deschenes Poitras Centre** **GEN**
6255 Hazeldean Road
Ottawa ON K2S 0X4

Generator No: ON7125986
Status: Registered
Approval Years: As of Oct 2019
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 312 P
Waste Class Desc: Pathological wastes

Unplottable Summary

Total: 29 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
CA		Part of Lot 23, Concession 12	Ottawa ON	
CA	Minto Communities Inc.		Ottawa ON	
ECA	Minto Communities Inc.		Ottawa ON	K1P 0B6
ECA	Minto Communities Inc.	(Ottawa Front)	Ottawa ON	K1P 0B6
ECA	Minto Communities Inc.		Ottawa ON	K1P 0B6
ECA	Minto Communities Inc.		Ottawa ON	K1P 0B6
ECA	Minto Communities Inc.		Ottawa ON	K1P 0B6
ECA	Minto Communities Inc.		Ottawa ON	K1P 0B6
ECA	Minto Communities Inc.		Ottawa ON	K1P 0B6
ECA	Minto Communities Inc.		Ottawa ON	K1P 0B6
ECA	Minto Communities Inc.		Ottawa ON	K1P 0B6
ECA	Minto Communities Inc.		Ottawa ON	K1P 0B6
ECA	Minto Communities Inc.		Ottawa ON	K1P 0B6
ECA	Minto Communities Inc.		Ottawa ON	K1P 0B6
ECA	Minto Communities Inc.		Ottawa ON	K1P 0B6
ECA	Minto Communities Inc.		Ottawa ON	K1P 0B6
ECA	Minto Communities Inc.		Ottawa ON	K1P 0B6
ECA	Minto Communities Inc.		Ottawa ON	K1P 0B6
ECA	Minto Communities Inc.		Ottawa ON	K1P 0B6

ECA	Minto Communities Inc.	(Ottawa Front)	Ottawa ON	K1P 0B6
PTTW	Minto Communities Inc.		ON	
PTTW	Minto Communities Inc.		ON	
RSC		Part Lot 23	Ottawa ON	
RSC		Part Lot 23, Township of Gloucester	Ottawa ON	
SPL		Carp Road (between Hazeldean and Stittsville Main), Stittsville	Ottawa ON	
WWIS		lot 24	ON	
WWIS		lot 23	ON	
WWIS		lot 24	ON	
WWIS		lot 23	ON	

Unplottable Report

Site: **Database:** CA

Part of Lot 23, Concession 12 Ottawa ON

Certificate #:	7710-4YQSAU
Application Year:	01
Issue Date:	9/7/01
Approval Type:	Municipal & Private sewage
Status:	Approved
Application Type:	New Certificate of Approval
Client Name:	G. Lemay Construction (1998) Inc.
Client Address:	5330 Chemin Canotek, Suite 8
Client City:	Ottawa
Client Postal Code:	K1J 9C2
Project Description:	Construction of Stormwater Management Facility to service the Eco Woods Subdivision
Contaminants:	
Emission Control:	

Site: ***Minto Communities Inc.*** **Database:** CA

Ottawa ON

Certificate #:	3058-7JZKTF
Application Year:	2008
Issue Date:	10/7/2008
Approval Type:	Municipal and Private Sewage Works
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***Minto Communities Inc.*** **Database:** ECA

Ottawa ON K1P 0B6

Approval No:	7661-ABCKQL	***MOE District:***	
Approval Date:	2016-06-30	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:			
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/5664-AB4KGV-14.pdf		

Site: ***Minto Communities Inc.*** **Database:** ECA

(Ottawa Front) Ottawa ON K1P 0B6

Approval No:	6097-9N5HW9	***MOE District:***	
Approval Date:	2014-08-22	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	

Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:	(Ottawa Front)		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/9823-9MRHMN-14.pdf		

Site: ***Minto Communities Inc.***
Ottawa ON K1P 0B6

Database: ***ECA***

Approval No:	6142-BEJHCE	***MOE District:***	
Approval Date:	2019-08-01	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	-8403007.4223
SWP Area Name:		***Geometry Y:***	5691058.511699997
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:			
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/0892-BDSKVQ-14.pdf		

Site: ***Minto Communities Inc.***
Ottawa ON K1P 0B6

Database: ***ECA***

Approval No:	1720-AKJGKQ	***MOE District:***	
Approval Date:	2017-03-24	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:			
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/1769-AKEQQZ-14.pdf		

Site: ***Minto Communities Inc.***
Ottawa ON K1P 0B6

Database: ***ECA***

Approval No:	7202-97BLB4	***MOE District:***	
Approval Date:	2013-05-23	***City:***	
Status:	Revoked and/or Replaced	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:			
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/4553-95ZKWJ-14.pdf		

Site: ***Minto Communities Inc.***
Ottawa ON K1P 0B6

Database: ***ECA***

Approval No:	0195-95LSVA	***MOE District:***	
Approval Date:	2013-03-22	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		

Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address:
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/1964-8XNJA4-14.pdf

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Site: ***Minto Communities Inc.***
Ottawa ON K1P 0B6

Database: ***ECA***

Approval No: 3053-8YJNWU
Approval Date: 2012-10-01
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name:
MOE District:
City:
Longitude:
Latitude:
Geometry X:
Geometry Y:
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address:
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/1397-8XNJGH-14.pdf

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Site: ***Minto Communities Inc.***
Ottawa ON K1P 0B6

Database: ***ECA***

Approval No: 1554-8Y2HZ6
Approval Date: 2012-09-14
Status: Revoked and/or Replaced
Record Type: ECA
Link Source: IDS
SWP Area Name:
MOE District:
City:
Longitude:
Latitude:
Geometry X:
Geometry Y:
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address:
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/1100-8WTMSY-14.pdf

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Site: ***Minto Communities Inc.***
Ottawa ON K1P 0B6

Database: ***ECA***

Approval No: 3002-8PBSB4
Approval Date: 2012-01-31
Status: Revoked and/or Replaced
Record Type: ECA
Link Source: IDS
SWP Area Name:
MOE District:
City:
Longitude:
Latitude:
Geometry X:
Geometry Y:
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address:
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/6465-8NETCD-14.pdf

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Site: ***Minto Communities Inc.***
Ottawa ON K1P 0B6

Database: ***ECA***

Approval No: 0606-AHXJCH
Approval Date: 2017-02-02
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name:
MOE District:
City:
Longitude:
Latitude:
Geometry X:
Geometry Y:
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address:
Full Address:

Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/4552-AHSJ74-14.pdf

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Site: ***Minto Communities Inc.***
Ottawa ON K1P 0B6

Database: ***ECA***

Approval No:	2268-9WYR3F	***MOE District:***	
Approval Date:	2015-06-08	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	

Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address:
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/3873-9WWLDY-14.pdf

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Site: ***Minto Communities Inc.***
Ottawa ON K1P 0B6

Database: ***ECA***

Approval No:	8813-9WYQ2J	***MOE District:***	
Approval Date:	2015-06-08	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	

Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address:
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/4625-9WXRTA-14.pdf

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Site: ***Minto Communities Inc.***
Ottawa ON K1P 0B6

Database: ***ECA***

Approval No:	7598-94TRX3	***MOE District:***	
Approval Date:	2013-02-26	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	

Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address:
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/2553-8VDQUF-14.pdf

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Site: ***Minto Communities Inc.***
Ottawa ON K1P 0B6

Database: ***ECA***

Approval No:	8605-AYUHJG	***MOE District:***	
Approval Date:	2018-05-30	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	

Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address:
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/7723-AYKNXD-14.pdf

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Site: ***Minto Communities Inc.***
Ottawa ON K1P 0B6

Database: ***ECA***

Approval No:	7971-9EAST8	***MOE District:***	
Approval Date:	2014-01-10	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:			
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/7322-9E4LGN-14.pdf		

Site: ***Minto Communities Inc.***
Ottawa ON K1P 0B6

Database: ***ECA***

Approval No:	3128-AQGJ6T	***MOE District:***	
Approval Date:	2017-08-23	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:			
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/4569-AQCRKJ-14.pdf		

Site: ***Minto Communities Inc.***
Ottawa ON K1P 0B6

Database: ***ECA***

Approval No:	8270-A3ZLU2	***MOE District:***	
Approval Date:	2015-11-10	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:			
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/8185-A3PRB5-14.pdf		

Site: ***Minto Communities Inc.***
(Ottawa Front) Ottawa ON K1P 0B6

Database: ***ECA***

Approval No:	1810-9L6SH8	***MOE District:***	
Approval Date:	2014-06-27	***City:***	
Status:	Approved	***Longitude:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Geometry X:***	
SWP Area Name:		***Geometry Y:***	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:	(Ottawa Front)		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/6653-9KSHJ5-14.pdf		

Site: ***Minto Communities Inc.***
ON

Database: ***PTTW***

EBR Registry No:	012-9800	***Decision Posted:***	

Ministry Ref No: 5771-AJEJDR
Notice Type: Instrument Decision
Notice Stage:
Notice Date: October 06, 2017
Proposal Date: February 13, 2017
Year: 2017
Instrument Type: (OWRA s. 34) - Permit to Take Water
Off Instrument Name:
Posted By:
Company Name: Minto Communities Inc.
Site Address:
Location Other:
Proponent Name:
Proponent Address: 180 Kent Street , Suite 200, Ottawa Ontario, Canada K1P 0B6, Minto Communities Inc., 180 Kent Street , Suite 200, Ottawa Ontario, Canada K1P 0B6
Comment Period:
URL:

Exception Posted:
Section:
Act 1:
Act 2:
Site Location Map:

Site Location Details:

Avalon West Community Address: Lot: 3 & Part of Lot 4, Concession: 11, Geographic Township: CUMBERLAND, Ottawa, City District Office: Ottawa GeoReference: Zone: 18, UTM Easting: 461611, UTM Northing: 5032496, UTM Location Description: S1- Lot 3 Concession 11, Site #: 5712-AJEJLA CITY OF OTTAWA

Site: ***Minto Communities Inc.***
ON

Database: ***PTTW***

EBR Registry No: 011-4898
Ministry Ref No: 3046-8MLKW5
Notice Type: Instrument Decision
Notice Stage:
Notice Date: December 17, 2014
Proposal Date: November 04, 2011
Year: 2011
Instrument Type: (OWRA s. 34) - Permit to Take Water
Off Instrument Name:
Posted By:
Company Name: Minto Communities Inc.
Site Address:
Location Other:
Proponent Name:
Proponent Address: 180 Kent Street , Suite 200, Ottawa Ontario, Canada K1P 0B6, Minto Communities Inc., 180 Kent Street , Suite 200, Ottawa Ontario, Canada K1P 0B6
Comment Period:
URL:

Decision Posted:
Exception Posted:
Section:
Act 1:
Act 2:
Site Location Map:

Site Location Details:

Mahogany Community Development Address: Lot: Part of Lots 4 and 5, Concession: A (Broken Front), Ottawa, City District Office: Ottawa GeoReference: Map Datum: NAD83, Zone: 18, Accuracy Estimate: 1-10 metres eg. Good Quality GPS, UTM Easting: 446650, UTM Northing: 5007555, , LIO GeoReference: Zone: , UTM Easting: , UTM Northing: , Latitude: , Longitude: CITY OF OTTAWA

Site:
Part Lot 23 Ottawa ON

Database: ***RSC***

RSC ID:
RA No:
RSC Type:
Curr Property Use:
Ministry District: Ottawa
Filing Date: 07/05/01
Date Ack: 08/14/01
Date Returned:
Restoration Type: Generic
Soil Type: Medium/Fine

Cert Date:
Cert Prop Use No:
Intended Prop Use:
Qual Person Name:
Stratified (Y/N): N
Audit (Y/N):
Entire Leg Prop. (Y/N):
Accuracy Estimate:
Telephone:
Fax:

Criteria:	Res/parkland + Nonpotable	***Email:***	
CPU Issued Sect 1686:			
Asmt Roll No:			
Prop ID No (PIN):			
Property Municipal Address:			
Mailing Address:			
Latitude & Latitude:			
UTM Coordinates:			
Consultant:	DST Consulting Engineers Inc.		
Filing Owner:			
Legal Desc:			
Measurement Method:			
Applicable Standards:			
RSC PDF:			

Site: ***Database:*** ***RSC***

Part Lot 23, Township of Gloucester Ottawa ON

RSC ID:		***Cert Date:***	
RA No:		***Cert Prop Use No:***	
RSC Type:		***Intended Prop Use:***	
Curr Property Use:		***Qual Person Name:***	
Ministry District:	Ottawa	***Stratified (Y/N):***	
Filing Date:	07/05/01	***Audit (Y/N):***	
Date Ack:		***Entire Leg Prop. (Y/N):***	
Date Returned:	07/23/01	***Accuracy Estimate:***	
Restoration Type:		***Telephone:***	
Soil Type:		***Fax:***	
Criteria:		***Email:***	
CPU Issued Sect 1686:			
Asmt Roll No:			
Prop ID No (PIN):			
Property Municipal Address:			
Mailing Address:			
Latitude & Latitude:			
UTM Coordinates:			
Consultant:	DST Consulting Engineers Inc.		
Filing Owner:			
Legal Desc:			
Measurement Method:			
Applicable Standards:			
RSC PDF:			

Site: ***Database:*** ***SPL***

Carp Road (between Hazeldean and Stittsville Main), Stittsville Ottawa ON

Ref No:	4602-9PMMJY	***Discharger Report:***	
Site No:	NA	***Material Group:***	
Incident Dt:	2014/10/06	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	Unknown / N/A	***Sector Type:***	Sewer (Private or Municipal)
Incident Event:		***Agency Involved:***	
Contaminant Code:	15	***Nearest Watercourse:***	
Contaminant Name:	MOTOR OIL	***Site Address:***	Carp Road (between Hazeldean and Stittsville Main), Stittsville
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	Not Anticipated	***Site Municipality:***	Ottawa
Nature of Impact:	Other Impact(s)	***Site Lot:***	
Receiving Medium:		***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:	No Field Response	***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	2014/10/06	***Site Map Datum:***	
Dt Document Closed:	2014/11/03	***SAC Action Class:***	Land Spills
Incident Reason:	Unknown / N/A	***Source Type:***	

Site Name:	Sanitary sewer<UNOFFICIAL>
Site County/District:	
Site Geo Ref Meth:	
Incident Summary:	Stittsville, motor oil in sewer, city investigating source
Contaminant Qty:	0 other - see incident description

Site:
lot 24 ON

Database:
WWIS

Well ID:	1530330	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Livestock	***Date Received:***	12/8/1998
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Observation Wells	***Abandonment Rec:***	
Water Type:		***Contractor:***	1558
Casing Material:		***Form Version:***	1
Audit No:	194783	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	OTTAWA-CARLETON
Elevation (m):		***Municipality:***	GOULBOURN TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	024
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	CON
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10051865	***Elevation:***	
DP2BR:	11	***Elevrc:***	
Spatial Status:		***Zone:***	18
Code OB:	r	***East83:***	
Code OB Desc:	Bedrock	***North83:***	
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	11/6/1998	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	na
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	931075174
Layer:	2
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	11
Formation End Depth:	90
Formation End Depth UOM:	ft

Overburden and Bedrock

Materials Interval

Formation ID:	931075173
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	02
Other Materials:	TOPSOIL
Mat3:	12
Other Materials:	STONES
Formation Top Depth:	0
Formation End Depth:	11
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	933115464
Layer:	1
Plug From:	4
Plug To:	27
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	2
Method Construction:	Rotary (Convent.)
Other Method Construction:	

Pipe Information

Pipe ID:	10600435
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930090412
Layer:	2
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	90
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930090411
Layer:	1
Material:	2
Open Hole or Material:	GALVANIZED
Depth From:	
Depth To:	27
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID: 991530330
Pump Set At:
Static Level: 17
Final Level After Pumping: 25
Recommended Pump Depth: 70
Pumping Rate: 15
Flowing Rate:
Recommended Pump Rate: 5
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2
Water State After Test: CLOUDY
Pumping Test Method: 2
Pumping Duration HR: 1
Pumping Duration MIN:
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 934118329
Test Type: Draw Down
Test Duration: 15
Test Level: 23
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934393317
Test Type: Draw Down
Test Duration: 30
Test Level: 25
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934911011
Test Type: Draw Down
Test Duration: 60
Test Level: 25
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934662467
Test Type: Draw Down
Test Duration: 45
Test Level: 25
Test Level UOM: ft

Water Details

Water ID: 933490424
Layer: 2
Kind Code: 5
Kind: Not stated
Water Found Depth: 86
Water Found Depth UOM: ft

Water Details

Water ID: 933490423
Layer: 1
Kind Code: 5
Kind: Not stated

Water Found Depth: 74
Water Found Depth UOM: ft

Site:
lot 23 ON

Database:
WWIS

Well ID: 1528156
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 147502
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 9/27/1994
Selected Flag: Yes
Abandonment Rec:
Contractor: 4006
Form Version: 1
Owner:
Street Name:
County: OTTAWA-CARLETON
Municipality: GOULBOURN TOWNSHIP
Site Info:
Lot: 023
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10049695
DP2BR: 35
Spatial Status:
Code OB: r
Code OB Desc: Bedrock
Open Hole:
Cluster Kind:
Date Completed: 8/3/1994
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 18
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 931068758
Layer: 2
Color: 3
General Color: BLUE
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 3
Formation End Depth: 35
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931068761
Layer: 5

Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 78
Other Materials: MEDIUM-GRAINED
Mat3:
Other Materials:
Formation Top Depth: 44
Formation End Depth: 50
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931068757
Layer: 1
Color: 6
General Color: BROWN
Mat1: 02
Most Common Material: TOPSOIL
Mat2: 28
Other Materials: SAND
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 3
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931068760
Layer: 4
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 78
Other Materials: MEDIUM-GRAINED
Mat3: 71
Other Materials: FRACTURED
Formation Top Depth: 38
Formation End Depth: 44
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931068759
Layer: 3
Color: 8
General Color: BLACK
Mat1: 17
Most Common Material: SHALE
Mat2: 71
Other Materials: FRACTURED
Mat3:
Other Materials:
Formation Top Depth: 35
Formation End Depth: 38
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931068762
Layer: 6
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 73
Other Materials: HARD
Mat3:
Other Materials:
Formation Top Depth: 50
Formation End Depth: 120
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933113011
Layer: 1
Plug From: 5
Plug To: 50
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10598265
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930086853
Layer: 1
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 50
Casing Diameter: 10
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930086855
Layer: 3
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 120
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930086854

Layer: 2
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 50
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 991528156
Pump Set At:
Static Level: 4
Final Level After Pumping: 79
Recommended Pump Depth: 100
Pumping Rate: 5
Flowing Rate:
Recommended Pump Rate: 5
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 934387221
Test Type:
Test Duration: 30
Test Level: 31
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934656549
Test Type:
Test Duration: 45
Test Level: 52
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934112412
Test Type:
Test Duration: 15
Test Level: 79
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934905341
Test Type:
Test Duration: 60
Test Level: 79
Test Level UOM: ft

Water Details

Water ID: 933487744
Layer: 1
Kind Code: 5

Kind:	Not stated
Water Found Depth:	72
Water Found Depth UOM:	ft

Water Details

Water ID:	933487745
Layer:	2
Kind Code:	5
Kind:	Not stated
Water Found Depth:	114
Water Found Depth UOM:	ft

Site:

lot 24 ON

Database: ***WWIS***

Well ID:	1525842	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	11/22/1991
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	3749
Casing Material:		***Form Version:***	1
Audit No:	91579	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	OTTAWA-CARLETON
Elevation (m):		***Municipality:***	GOULBOURN TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	024
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10047577	***Elevation:***	
DP2BR:	6	***Elevrc:***	
Spatial Status:		***Zone:***	18
Code OB:	r	***East83:***	
Code OB Desc:	Bedrock	***North83:***	
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	10/9/1991	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	na
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	931062451
Layer:	2
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	73
Other Materials:	HARD
Mat3:	78

Other Materials: MEDIUM-GRAINED
Formation Top Depth: 6
Formation End Depth: 150
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931062450
Layer: 1
Color: 6
General Color: BROWN
Mat1: 14
Most Common Material: HARDPAN
Mat2: 79
Other Materials: PACKED
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 6
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933111393
Layer: 1
Plug From: 4
Plug To: 22
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 10596147
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930083287
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 22
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 991525842
Pump Set At:
Static Level: 42
Final Level After Pumping: 125
Recommended Pump Depth: 142

Pumping Rate: 6
Flowing Rate:
Recommended Pump Rate: 6
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 2
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 934105627
Test Type: Draw Down
Test Duration: 15
Test Level: 86
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934389284
Test Type: Draw Down
Test Duration: 30
Test Level: 118
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934649814
Test Type: Draw Down
Test Duration: 45
Test Level: 125
Test Level UOM: ft

Water Details

Water ID: 933484964
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 81
Water Found Depth UOM: ft

Water Details

Water ID: 933484965
Layer: 2
Kind Code: 1
Kind: FRESH
Water Found Depth: 145
Water Found Depth UOM: ft

Site:
lot 23 ON

Database:
WWIS

Well ID: 1525460
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 91548

Data Entry Status:
Data Src: 1
Date Received: 6/14/1991
Selected Flag: Yes
Abandonment Rec:
Contractor: 3749
Form Version: 1
Owner:

Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Street Name:
County: OTTAWA-CARLETON
Municipality: GOULBOURN TOWNSHIP
Site Info:
Lot: 023
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10047198
DP2BR: 4
Spatial Status:
Code OB: r
Code OB Desc: Bedrock
Open Hole:
Cluster Kind:
Date Completed: 5/13/1991
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 18
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 931061217
Layer: 1
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 12
Other Materials: STONES
Mat3: 14
Other Materials: HARDPAN
Formation Top Depth: 0
Formation End Depth: 4
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931061218
Layer: 2
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 73
Other Materials: HARD
Mat3: 78
Other Materials: MEDIUM-GRAINED
Formation Top Depth: 4
Formation End Depth: 105
Formation End Depth UOM: ft

Annular Space/Abandonment

Sealing Record

Plug ID:	933111215
Layer:	2
Plug From:	7
Plug To:	21
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	933111214
Layer:	1
Plug From:	0
Plug To:	7
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	10595768
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930082636
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	21
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930082637
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	105
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	991525460
Pump Set At:	
Static Level:	6
Final Level After Pumping:	85
Recommended Pump Depth:	95
Pumping Rate:	10
Flowing Rate:	

Recommended Pump Rate: 5
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2
Water State After Test: CLOUDY
Pumping Test Method: 2
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 934905824
Test Type: Draw Down
Test Duration: 60
Test Level: 85
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934387687
Test Type: Draw Down
Test Duration: 30
Test Level: 55
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934112283
Test Type: Draw Down
Test Duration: 15
Test Level: 35
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934648644
Test Type: Draw Down
Test Duration: 45
Test Level: 75
Test Level UOM: ft

Water Details

Water ID: 933484459
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 101
Water Found Depth UOM: ft

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ***Note:*** *Databases denoted with " * " indicates that the database will no longer be updated. See the individual database description for more information.*

Abandoned Aggregate Inventory: Provincial AAGR

The MAAP Program maintains a database of abandoned pits and quarries. Please note that the database is only referenced by lot and concession and city/town location. The database provides information regarding the location, type, size, land use, status and general comments.*

Government Publication Date: Sept 2002*

Aggregate Inventory: Provincial AGR

The Ontario Ministry of Natural Resources maintains a database of all active pits and quarries. The database provides information regarding the registered owner/operator, location name, operation type, approval type, and maximum annual tonnage.

Government Publication Date: Up to Sep 2019

Abandoned Mine Information System: Provincial AMIS

The Abandoned Mines Information System contains data on known abandoned and inactive mines located on both Crown and privately held lands. The information was provided by the Ministry of Northern Development and Mines (MNDM), with the following disclaimer: "the database provided has been compiled from various sources, and the Ministry of Northern Development and Mines makes no representation and takes no responsibility that such information is accurate, current or complete". Reported information includes official mine name, status, background information, mine start/end date, primary commodity, mine features, hazards and remediation.

Government Publication Date: 1800-Oct 2018

Anderson's Waste Disposal Sites: Private ANDR

The information provided in this database was collected by examining various historical documents which aimed to characterize the likely position of former waste disposal sites from 1860 to present. The research initiative behind the creation of this database was to identify those sites that are missing from the Ontario MOE Waste Disposal Site Inventory, as well as to provide revisions and corrections to the positions and descriptions of sites currently listed in the MOE inventory. In addition to historic waste disposal facilities, the database also identifies certain auto wreckers and scrap yards that have been extrapolated from documentary sources. Please note that the data is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1860s-Present

Aboveground Storage Tanks: Provincial AST

Historical listing of aboveground storage tanks made available by the Department of Natural Resources and Forestry. Includes tanks used to hold water or petroleum. This dataset has been retired as of September 25, 2014 and will no longer be updated.

Government Publication Date: May 31, 2014

Automobile Wrecking & Supplies: Private AUWR

This database provides an inventory of known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts & supplies industry. Information is provided on the company name, location and business type.

Government Publication Date: 1999-Jan 31, 2020

Borehole: Provincial BORE

A borehole is the generalized term for any narrow shaft drilled in the ground, either vertically or horizontally. The information here includes geotechnical investigations or environmental site assessments, mineral exploration, or as a pilot hole for installing piers or underground utilities. Information is from many sources such as the Ministry of Transportation (MTO) boreholes from engineering reports and projects from the 1950 to 1990's in Southern Ontario. Boreholes from the Ontario Geological Survey (OGS) including The Urban Geology Analysis Information System (UGAIS) and the York Peel Durham Toronto (YPDT) database of the Conservation Authority Moraine Coalition. This database will include fields such as location, stratigraphy, depth, elevation, year drilled, etc. For all water well data or oil and gas well data for Ontario please refer to WWIS and OOGW.

Government Publication Date: 1875-Jul 2018

Certificates of Approval: Provincial CA

This database contains the following types of approvals: Air & Noise, Industrial Sewage, Municipal & Private Sewage, Waste Management Systems and Renewable Energy Approvals. The MOE in Ontario states that any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste, must have a Certificate of Approval before it can operate lawfully. Fields include approval number, business name, address, approval date, approval type and status. This database will no longer be updated, as CofA's have been replaced by either Environmental Activity and Sector Registry (EASR) or Environmental Compliance Approval (ECA). Please refer to those individual databases for any information after Oct.31, 2011.

Government Publication Date: 1985-Oct 30, 2011*

Dry Cleaning Facilities: Federal CDRY

List of dry cleaning facilities made available by Environment and Climate Change Canada. Environment and Climate Change Canada's Tetrachloroethylene (Use in Dry Cleaning and Reporting Requirements) Regulations (SOR/2003-79) are intended to reduce releases of tetrachloroethylene to the environment from dry cleaning facilities.

Government Publication Date: Jan 2004-Dec 2017

Commercial Fuel Oil Tanks: Provincial CFOT

Locations of commercial underground fuel oil tanks. This is not a comprehensive or complete inventory of commercial fuel tanks in the province; this listing is a copy of records of registered commercial underground fuel oil tanks obtained under Access to Public Information.
Note that the following types of tanks do not require registration: waste oil tanks in apartments, office buildings, residences, etc.; aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2017

Chemical Register: Private CHEM

This database includes information from both a one time study conducted in 1992 and private source and is a listing of facilities that manufacture or distribute chemicals. The production of these chemical substances may involve one or more chemical reactions and/or chemical separation processes (i.e. fractionation, solvent extraction, crystallization, etc.).

Government Publication Date: 1999-Jan 31, 2020

Compressed Natural Gas Stations: Private CNG

Canada has a network of public access compressed natural gas (CNG) refuelling stations. These stations dispense natural gas in compressed form at 3,000 pounds per square inch (psi), the pressure which is allowed within the current Canadian codes and standards. The majority of natural gas refuelling is located at existing retail gasoline that have a separate refuelling island for natural gas. This list of stations is made available by the Canadian Natural Gas Vehicle Alliance.

Government Publication Date: Dec 2012 - Nov 2019

Inventory of Coal Gasification Plants and Coal Tar Sites: Provincial COAL

This inventory includes both the "Inventory of Coal Gasification Plant Waste Sites in Ontario-April 1987" and the Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario-November 1988) collected by the MOE. It identifies industrial sites that produced and continue to produce or use coal tar and other related tars. Detailed information is available and includes: facility type, size, land use, information on adjoining properties, soil condition, site operators/occupants, site description, potential environmental impacts and historic maps available. This was a one-time inventory.*

Government Publication Date: Apr 1987 and Nov 1988*

Compliance and Convictions: Provincial CONV

This database summarizes the fines and convictions handed down by the Ontario courts beginning in 1989. Companies and individuals named here have been found guilty of environmental offenses in Ontario courts of law.

Government Publication Date: 1989-Nov 2019

Certificates of Property Use: Provincial CPU

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all CPU's on the registry such as (EPA s. 168.6) - Certificate of Property Use.

Government Publication Date: 1994-Jan 31, 2020

Drill Hole Database: Provincial DRL

The Ontario Drill Hole Database contains information on more than 113,000 percussion, overburden, sonic and diamond drill holes from assessment files on record with the department of Mines and Minerals. Please note that limited data is available for southern Ontario, as it was the last area to be completed. The database was created when surveys submitted to the Ministry were converted in the Assessment File Research Image Database (AFRI) project. However, the degree of accuracy (coordinates) as to the exact location of drill holes is dependent upon the source document submitted to the MNDM. Levels of accuracy used to locate holes are: centering on the mining claim; a sketch of the mining claim; a 1:50,000 map; a detailed company map; or from submitted a "Report of Work".

Government Publication Date: 1886 - Sep 2019

Environmental Activity and Sector Registry: Provincial EASR

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. The EASR allows businesses to register certain activities with the ministry, rather than apply for an approval. The registry is available for common systems and processes, to which preset rules of operation can be applied. The EASR is currently available for: heating systems, standby power systems and automotive refinishing. Businesses whose activities aren't subject to the EASR may apply for an ECA (Environmental Compliance Approval), Please see our ECA database.

Government Publication Date: Oct 2011-Jan 31, 2020

Environmental Registry: Provincial EBR

The Environmental Registry lists proposals, decisions and exceptions regarding policies, Acts, instruments, or regulations that could significantly affect the environment. Through the Registry, thirteen provincial ministries notify the public of upcoming proposals and invite their comments. For example, if a local business is requesting a permit, license, or certificate of approval to release substances into the air or water; these are notified on the registry. Data includes: Approval for discharge into the natural environment other than water (i.e. Air) - EPA s. 9, Approval for sewage works - OWRA s. 53(1), and EPA s. 27 - Approval for a waste disposal site. For information regarding Permit to Take Water (PTTW), Certificate of Property Use (CPU) and (ORD) Orders please refer to those individual databases.

Government Publication Date: 1994-Jan 31, 2020

Environmental Compliance Approval: Provincial ECA

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. In the past, a business had to apply for multiple approvals (known as certificates of approval) for individual processes and pieces of equipment. Today, a business either registers itself, or applies for a single approval, depending on the types of activities it conducts. Businesses whose activities aren't subject to the EASR may apply for an ECA. A single ECA addresses all of a business's emissions, discharges and wastes. Separate approvals for air, noise and waste are no longer required. This database will also include Renewable Energy Approvals. For certificates of approval prior to Nov 1st, 2011, please refer to the CA database. For all Waste Disposal Sites please refer to the WDS database.

Government Publication Date: Oct 2011-Jan 31, 2020

Environmental Effects Monitoring: Federal EEM

The Environmental Effects Monitoring program assesses the effects of effluent from industrial or other sources on fish, fish habitat and human usage of fisheries resources. Since 1992, pulp and paper mills have been required to conduct EEM studies under the Pulp and Paper Effluent Regulations. This database provides information on the mill name, geographical location and sub-lethal toxicity data.

Government Publication Date: 1992-2007*

ERIS Historical Searches: Private EHS

ERIS has compiled a database of all environmental risk reports completed since March 1999. Available fields for this database include: site location, date of report, type of report, and search radius. As per all other databases, the ERIS database can be referenced on both the map and "Statistical Profile" page.

Government Publication Date: 1999-Jan 31, 2020

Environmental Issues Inventory System: Federal EIIS

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed.

Government Publication Date: 1992-2001*

Emergency Management Historical Event: Provincial EMHE

List of locations of historical occurrences of emergency events, including those assigned to the Ministry of Natural Resources by Order-In-Council (OIC) under the Emergency Management and Civil Protection Act, as well as events where MNR provided requested emergency response assistance. Many of these events will have involved community evacuations, significant structural loss, and/or involvement of MNR emergency response staff. These events fall into one of ten (10) type categories: Dam Failure; Drought / Low Water; Erosion; Flood; Forest Fire; Soil and Bedrock Instability; Petroleum Resource Center Event, EMO Requested Assistance, Continuity of Operations Event, Other Requested Assistance. EMHE record details are reproduced by ERIS under License with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2017.

Government Publication Date: Dec 31, 2016

Environmental Penalty Annual Report: Provincial EPAR

This database contains data from Ontario's annual environmental penalty report published by the Ministry of the Environment and Climate Change. These reports provide information on environmental penalties for land or water violations issued to companies in one of the nine industrial sectors covered by the Municipal Industrial Strategy for Abatement (MISA) regulations.

Government Publication Date: Jan 1, 2011 - Dec 31, 2018

List of Expired Fuels Safety Facilities: Provincial EXP

List of facilities and tanks for which there was once a fuel registration. This is not a comprehensive or complete inventory of expired tanks/tank facilities in the province; this listing is a copy of previously registered tanks and facilities obtained under Access to Public Information. Includes private fuel outlets, bulk plants, fuel oil tanks, gasoline stations, marinas, propane filling stations, liquid fuel tanks, piping systems, etc; includes tanks which have been removed from the ground.
Notes: registration was not required for private fuel underground/aboveground storage tanks prior to January 1990, nor for furnace oil tanks prior to May 1, 2002; registration is not required for waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2017

Federal Convictions: Federal FCON

Environment Canada maintains a database referred to as the "Environmental Registry" that details prosecutions under the Canadian Environmental Protection Act (CEPA) and the Fisheries Act (FA). Information is provided on the company name, location, charge date, offence and penalty.

Government Publication Date: 1988-Jun 2007*

Contaminated Sites on Federal Land: Federal FCS

The Federal Contaminated Sites Inventory includes information on known federal contaminated sites under the custodianship of departments, agencies and consolidated Crown corporations as well as those that are being or have been investigated to determine whether they have contamination arising from past use that could pose a risk to human health or the environment. The inventory also includes non-federal contaminated sites for which the Government of Canada has accepted some or all financial responsibility. It does not include sites where contamination has been caused by, and which are under the control of, enterprise Crown corporations, private individuals, firms or other levels of government.

Government Publication Date: Jun 2000-Nov 2019

Federal Identification Registry for Storage Tank Systems (FIRSTS): Federal FED TANKS

A list of federally regulated Storage tanks from the Federal Identification Registry for Storage Tank Systems (FIRSTS). FIRSTS is Environment and Climate Change Canada's database of storage tank systems subject to the Storage Tank for Petroleum Products and Allied Petroleum Products Regulations. The main objective of the Regulations is to prevent soil and groundwater contamination from storage tank systems located on federal and aboriginal lands. Storage tank systems that do not have a valid identification number displayed in a readily visible location on or near the storage tank system may be refused product delivery.

Government Publication Date: May 31, 2018

Fisheries & Oceans Fuel Tanks: Federal FOFT

Fisheries & Oceans Canada maintains an inventory of aboveground & underground fuel storage tanks located on Fisheries & Oceans property or controlled by DFO. Our inventory provides information on the site name, location, tank owner, tank operator, facility type, storage tank location, tank contents & capacity, and date of tank installation.

Government Publication Date: 1964-Sep 2018

Fuel Storage Tank: Provincial FST

List of registered private and retail fuel storage tanks. This is not a comprehensive or complete inventory of private and retail fuel storage tanks in the province; this listing is a copy of registered private and retail fuel storage tanks, obtained under Access to Public Information.
Notes: registration was not required for private fuel underground/aboveground storage tanks prior to January 1990, nor for furnace oil tanks prior to May 1, 2002; registration is not required for waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2017

Fuel Storage Tank - Historic: Provincial FSTH

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks. Public records of private fuel storage tanks are only available since the registration became effective in September 1989. This information is now collected by the Technical Standards and Safety Authority.

Government Publication Date: Pre-Jan 2010*

Ontario Regulation 347 Waste Generators Summary: Provincial GEN

Regulation 347 of the Ontario EPA defines a waste generation site as any site, equipment and/or operation involved in the production, collection, handling and/or storage of regulated wastes. A generator of regulated waste is required to register the waste generation site and each waste produced, collected, handled, or stored at the site. This database contains the registration number, company name and address of registered generators including the types of hazardous wastes generated. It includes data on waste generating facilities such as: drycleaners, waste treatment and disposal facilities, machine shops, electric power distribution etc. This information is a summary of all years from 1986 including the most currently available data. Some records may contain, within the company name, the phrase "See & Use..." followed by a series of letters and numbers. This occurs when one company is amalgamated with or taken over by another registered company. The number listed as "See & Use", refers to the new ownership and the other identification number refers to the original ownership. This phrase serves as a link between the 2 companies until operations have been fully transferred.

Government Publication Date: 1986-Jan 31, 2020

Greenhouse Gas Emissions from Large Facilities: Federal GHG

List of greenhouse gas emissions from large facilities made available by Environment Canada. Greenhouse gas emissions in kilotonnes of carbon dioxide equivalents (kt CO2 eq).

Government Publication Date: 2013-Dec 2017

TSSA Historic Incidents: Provincial HINC

List of historic incidences of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen recorded by the TSSA in their previous incident tracking system. The TSSA's Fuels Safety Program administers the Technical Standards & Safety Act 2000, providing fuel-related safety services associated with the safe transportation, storage, handling and use of fuels such as gasoline, diesel, propane, natural gas and hydrogen. Under this Act, the TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of historical fuel spills and leaks in the province. This listing is a copy of the data captured at one moment in time and is hence limited by the record date provided here.

Government Publication Date: 2006-June 2009*

Indian & Northern Affairs Fuel Tanks: Federal IAFT

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of aboveground & underground fuel storage tanks located on both federal and crown land. Our inventory provides information on the reserve name, location, facility type, site/facility name, tank type, material & ID number, tank contents & capacity, and date of tank installation.

Government Publication Date: 1950-Aug 2003*

Fuel Oil Spills and Leaks: Provincial INC

Listing of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen reported to the Spills Action Centre (SAC). This is not a comprehensive or complete inventory of fuel-related leaks, spills, and incidents in the province; this listing in a copy of incidents reported to the SAC, obtained under Access to Public Information. Includes incidents from fuel-related hazards such as spills, fires, and explosions. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2017

Landfill Inventory Management Ontario: Provincial LIMO

The Landfill Inventory Management Ontario (LIMO) database is updated every year, as the ministry compiles new and updated information. The inventory will include small and large landfills. Additionally, each year the ministry will request operators of the larger landfills complete a landfill data collection form that will be used to update LIMO and will include the following information from the previous operating year. This will include additional information such as estimated amount of total waste received, landfill capacity, estimated total remaining landfill capacity, fill rates, engineering designs, reporting and monitoring details, size of location, service area, approved waste types, leachate of site treatment, contaminant attenuation zone and more. The small landfills will include information such as site owner, site location and certificate of approval # and status.

Government Publication Date: Feb 28, 2019

Canadian Mine Locations: Private MINE

This information is collected from the Canadian & American Mines Handbook. The Mines database is a national database that provides over 290 listings on mines (listed as public companies) dealing primarily with precious metals and hard rocks. Listed are mines that are currently in operation, closed, suspended, or are still being developed (advanced projects). Their locations are provided as geographic coordinates (x, y and/or longitude, latitude). As of 2002, data pertaining to Canadian smelters and refineries has been appended to this database.

Government Publication Date: 1998-2009*

Mineral Occurrences: Provincial MNR

In the early 70's, the Ministry of Northern Development and Mines created an inventory of approximately 19,000 mineral occurrences in Ontario, in regard to metallic and industrial minerals, as well as some information on building stones and aggregate deposits. Please note that the "Horizontal Positional Accuracy" is approximately +/- 200 m. Many reference elements for each record were derived from field sketches using pace or chain/tape measurements against claim posts or topographic features in the area. The primary limiting factor for the level of positional accuracy is the scale of the source material. The testing of horizontal accuracy of the source materials was accomplished by comparing the plan metric (X and Y) coordinates of that point with the coordinates of the same point as defined from a source of higher accuracy.

Government Publication Date: 1846-Jan 2019

National Analysis of Trends in Emergencies System (NATES): Federal NATE

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of significant spill incidents. The data was to be used to assist in directing the work of the emergencies program. NATES ran from 1974 to 1994. Extensive information is available within this database including company names, place where the spill occurred, date of spill, cause, reason and source of spill, damage incurred, and amount, concentration, and volume of materials released.

Government Publication Date: 1974-1994*

Non-Compliance Reports: Provincial NCPL

The Ministry of the Environment provides information about non-compliant discharges of contaminants to air and water that exceed legal allowable limits, from regulated industrial and municipal facilities. A reported non-compliance failure may be in regard to a Control Order, Certificate of Approval, Sectoral Regulation or specific regulation/act.

Government Publication Date: Dec 31, 2018

National Defense & Canadian Forces Fuel Tanks: Federal NDFT

The Department of National Defense and the Canadian Forces maintains an inventory of all aboveground & underground fuel storage tanks located on DND lands. Our inventory provides information on the base name, location, tank type & capacity, tank contents, tank class, date of tank installation, date tank last used, and status of tank as of May 2001. This database will no longer be updated due to the new National Security protocols which have prohibited any release of this database.

Government Publication Date: Up to May 2001*

National Defense & Canadian Forces Spills: Federal NDSP

The Department of National Defense and the Canadian Forces maintains an inventory of spills to land and water. All spill sites have been classified under the "Transportation of Dangerous Goods Act - 1992". Our inventory provides information on the facility name, location, spill ID #, spill date, type of spill, as well as the quantity of substance spilled & recovered.

Government Publication Date: Mar 1999-Apr 2018

National Defence & Canadian Forces Waste Disposal Sites: Federal NDWD

The Department of National Defence and the Canadian Forces maintains an inventory of waste disposal sites located on DND lands. Where available, our inventory provides information on the base name, location, type of waste received, area of site, depth of site, year site opened/closed and status.

Government Publication Date: 2001-Apr 2007*

National Energy Board Pipeline Incidents: Federal NEBI

Locations of pipeline incidents from 2008 to present, made available by the Canada Energy Regulator (CER) - previously the National Energy Board (NEB). Includes incidents reported under the Onshore Pipeline Regulations and the Processing Plant Regulations related to pipelines under federal jurisdiction, does not include incident data related to pipelines under provincial or territorial jurisdiction.

Government Publication Date: 2008-Dec 31, 2019

National Energy Board Wells: Federal NEBP

The NEBW database contains information on onshore & offshore oil and gas wells that are outside provincial jurisdiction(s) and are thereby regulated by the National Energy Board. Data is provided regarding the operator, well name, well ID No./UWI, status, classification, well depth, spud and release date.

Government Publication Date: 1920-Feb 2003*

National Environmental Emergencies System (NEES): Federal NEES

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for previous Environment Canada spill datasets. NEES is composed of the historic datasets ' or Trends ' which dates from approximately 1974 to present. NEES Trends is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

Government Publication Date: 1974-2003*

National PCB Inventory: Federal NPCB

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. Federal out-of-service PCB containing equipment and PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites. Some addresses provided may be Head Office addresses and are not necessarily the location of where the waste is being used or stored.

Government Publication Date: 1988-2008*

National Pollutant Release Inventory: Federal NPRI

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances.

Government Publication Date: 1993-May 2017

Oil and Gas Wells: Private OGWE

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickle's database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Government Publication Date: 1988-Aug 31, 2019

Ontario Oil and Gas Wells: Provincial OOGW

In 1998, the MNR handed over to the Ontario Oil, Gas and Salt Resources Corporation, the responsibility of maintaining a database of oil and gas wells drilled in Ontario. The OGSR Library has over 20,000+ wells in their database. Information available for all wells in the ERIS database include well owner/operator, location, permit issue date, and well cap date, license No., status, depth and the primary target (rock unit) of the well being drilled. All geology/stratigraphy table information, plus all water table information is also provide for each well record.

Government Publication Date: 1800-Jun 2019

Inventory of PCB Storage Sites: Provincial OPCB

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of PCB storage sites within the province. Ontario Regulation 11/82 (Waste Management - PCB) and Regulation 347 (Generator Waste Management) under the Ontario EPA requires the registration of inactive PCB storage equipment and/or disposal sites of PCB waste with the Ontario Ministry of Environment. This database contains information on: 1) waste quantities; 2) major and minor sites storing liquid or solid waste; and 3) a waste storage inventory.

Government Publication Date: 1987-Oct 2004; 2012-Dec 2013

Orders: Provincial ORD

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all Orders on the registry such as (EPA s. 17) - Order for remedial work, (EPA s. 18) - Order for preventative measures, (EPA s. 43) - Order for removal of waste and restoration of site, (EPA s. 44) - Order for conformity with Act for waste disposal sites, (EPA s. 136) - Order for performance of environmental measures.

Government Publication Date: 1994-Jan 31, 2020

Canadian Pulp and Paper: Private PAP

This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

Government Publication Date: 1999, 2002, 2004, 2005, 2009-2014

Parks Canada Fuel Storage Tanks: Federal PCFT

Canadian Heritage maintains an inventory of known fuel storage tanks operated by Parks Canada, in both National Parks and at National Historic Sites. The database details information on site name, location, tank install/removal date, capacity, fuel type, facility type, tank design and owner/operator.

Government Publication Date: 1920-Jan 2005*

Pesticide Register: Provincial PES

The Ontario Ministry of the Environment and Climate Change maintains a database of licensed operators and vendors of registered pesticides.

Government Publication Date: 1988-Jan 2020

Pipeline Incidents: Provincial PINC

List of pipeline incidents (strikes, leaks, spills). This is not a comprehensive or complete inventory of pipeline incidents in the province; this listing in an historical copy of records previously obtained under Access to Public Information. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2017

Private and Retail Fuel Storage Tanks: Provincial PRT

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks and licensed retail fuel outlets. This database includes an inventory of locations that have gasoline, oil, waste oil, natural gas and/or propane storage tanks on their property. The MCCR no longer collects this information. This information is now collected by the Technical Standards and Safety Authority (TSSA).

Government Publication Date: 1989-1996*

Permit to Take Water: Provincial PTTW

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all PTTW's on the registry such as OWRA s. 34 - Permit to take water.

Government Publication Date: 1994-Jan 31, 2020

Ontario Regulation 347 Waste Receivers Summary: Provincial REC

Part V of the Ontario Environmental Protection Act ("EPA") regulates the disposal of regulated waste through an operating waste management system or a waste disposal site operated or used pursuant to the terms and conditions of a Certificate of Approval or a Provisional Certificate of Approval. Regulation 347 of the Ontario EPA defines a waste receiving site as any site or facility to which waste is transferred by a waste carrier. A receiver of regulated waste is required to register the waste receiving facility. This database represents registered receivers of regulated wastes, identified by registration number, company name and address, and includes receivers of waste such as: landfills, incinerators, transfer stations, PCB storage sites, sludge farms and water pollution control plants. This information is a summary of all years from 1986 including the most currently available data.

Government Publication Date: 1986-2016

Record of Site Condition: Provincial RSC

The Record of Site Condition (RSC) is part of the Ministry of the Environment's Brownfields Environmental Site Registry. Protection from environmental cleanup orders for property owners is contingent upon documentation known as a record of site condition (RSC) being filed in the Environmental Site Registry. In order to file an RSC, the property must have been properly assessed and shown to meet the soil, sediment and groundwater standards appropriate for the use (such as residential) proposed to take place on the property. The Record of Site Condition Regulation (O. Reg. 153/04) details requirements related to site assessment and clean up.
RSCs filed after July 1, 2011 will also be included as part of the new (O.Reg. 511/09).

Government Publication Date: 1997-Sept 2001, Oct 2004-Jan 2020

Retail Fuel Storage Tanks: Private RST

This database includes an inventory of retail fuel outlet locations (including marinas) that have on their property gasoline, oil, waste oil, natural gas and / or propane storage tanks.

Government Publication Date: 1999-Jan 31, 2020

Scott's Manufacturing Directory: Private SCT

Scott's Directories is a data bank containing information on over 200,000 manufacturers across Canada. Even though Scott's listings are voluntary, it is the most comprehensive database of Canadian manufacturers available. Information concerning a company's address, plant size, and main products are included in this database.

Government Publication Date: 1992-Mar 2011*

Ontario Spills: Provincial SPL

This database identifies information such as location (approximate), type and quantity of contaminant, date of spill, environmental impact, cause, nature of impact, etc. Information from 1988-2002 was part of the ORIS (Occurrence Reporting Information System). The SAC (Spills Action Centre) handles all spills reported in Ontario. Regulations for spills in Ontario are part of the MOE's Environmental Protection Act, Part X.

Government Publication Date: 1988-Aug 2019

Wastewater Discharger Registration Database: Provincial SRDS

Information under this heading is combination of the following 2 programs. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment maintained a database of all direct dischargers of toxic pollutants within nine sectors including: Electric Power Generation; Mining; Petroleum Refining; Organic Chemicals; Inorganic Chemicals; Pulp & Paper; Metal Casting; Iron & Steel; and Quarries. All sampling information is now collected and stored within the Sample Result Data Store (SRDS).

Government Publication Date: 1990-Dec 31, 2017

Anderson's Storage Tanks: Private TANK

The information provided in this database was collected by examining various historical documents, which identified the location of former storage tanks, containing substances such as fuel, water, gas, oil, and other various types of miscellaneous products. Information is available in regard to business operating at tank site, tank location, permit year, permit & installation type, no. of tanks installed & configuration and tank capacity. Data contained within this database pertains only to the city of Toronto and is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1915-1953*

Transport Canada Fuel Storage Tanks: Federal TCFT

List of fuel storage tanks currently or previously owned or operated by Transport Canada. This inventory also includes tanks on The Pickering Lands, which refers to 7,530 hectares (18,600 acres) of land in Pickering, Markham, and Uxbridge owned by the Government of Canada since 1972; properties on this land has been leased by the government since 1975, and falls under the Site Management Policy of Transport Canada, but is administered by Public Works and Government Services Canada. This inventory provides information on the site name, location, tank age, capacity and fuel type.

Government Publication Date: 1970-Aug 2018

Variances for Abandonment of Underground Storage Tanks: Provincial VAR

Listing of variances granted for storage tank abandonment. This is not a comprehensive or complete inventory of tank abandonment variances in the province; this listing is a copy of tank abandonment variance records previously obtained under Access to Public Information. In Ontario, registered underground storage tanks must be removed within two years of disuse; if removal of a tank is not feasible, an application may be sought for a variance from this code requirement.
Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2017

Waste Disposal Sites - MOE CA Inventory: Provincial WDS

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of known open (active or inactive) and closed disposal sites in the Province of Ontario. Active sites maintain a Certificate of Approval, are approved to receive and are receiving waste. Inactive sites maintain Certificate(s) of Approval but are not receiving waste. Closed sites are not receiving waste. The data contained within this database was compiled from the MOE's Certificate of Approval database. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number. All new Environmental Compliance Approvals handed out after Oct 31, 2011 for Waste Disposal Sites will still be found in this database.

Government Publication Date: Oct 2011-Jan 31, 2020

Waste Disposal Sites - MOE 1991 Historical Approval Inventory: Provincial WDSH

In June 1991, the Ontario Ministry of Environment, Waste Management Branch, published the "June 1991 Waste Disposal Site Inventory", of all known active and closed waste disposal sites as of October 30st, 1990. For each "active" site as of October 31st 1990, information is provided on site location, site/CA number, waste type, site status and site classification. For each "closed" site as of October 31st 1990, information is provided on site location, site/CA number, closure date and site classification. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number.

Government Publication Date: Up to Oct 1990*

Water Well Information System: Provincial WWIS

This database describes locations and characteristics of water wells found within Ontario in accordance with Regulation 903. It includes such information as coordinates, construction date, well depth, primary and secondary use, pump rate, static water level, well status, etc. Also included are detailed stratigraphy information, approximate depth to bedrock and the approximate depth to the water table.

Government Publication Date: Feb 28, 2019

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

Appendix E:
Aerial Photographs

LEGEND

PHASE ONE PROPERTY BOUNDARY

PHASE ONE STUDY AREA (250m)

0 60m 120m 240m

HORIZONTAL 1:6,000

exp Services Inc. **www.exp.com**

t: +1.613.688.1899 | f: +1.613.225.7337
2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: MAR. 2020	CLIENT: 11654128 CANADA INC.	project no.: OTT-00258780-C0
DESIGN: C.K. / CHECKED: P.S.		scale: 1:3,000
DRAWN BY: G.C.	TITLE: 1976 AERIAL PHOTOGRAPH	FIG E-1

Filename: e:\ott\ott-00258780-c0\60 execution\65 drawings\6171 hazeldean fig_1-fig_e6.dwg
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Last Plotted:3/25/2020 3:24:40 PM Pen Table:: exp-64.ctb

LEGEND

PHASE ONE PROPERTY BOUNDARY

PHASE ONE STUDY AREA (250m)

0 60m 120m 240m

HORIZONTAL 1:6,000

exp Services Inc. **www.exp.com**

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2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: MAR. 2020	CLIENT: 11654128 CANADA INC.	project no. OTT-00258780-C0
DESIGN: C.K. / CHECKED: P.S.		scale: 1:6,000
DRAWN BY: G.C.	TITLE: 1991 AERIAL PHOTOGRAPH	FIG E-2

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Last Plotted:3/25/2020 3:24:23 PM

LEGEND

PHASE ONE PROPERTY BOUNDARY

PHASE ONE STUDY AREA (250m)

0 60m 120m 240m

HORIZONTAL 1:6,000

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2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: MAR. 2020	CLIENT: 11654128 CANADA INC.	project no.: OTT-00258780-C0
DESIGN: C.K. / CHECKED: P.S.		scale: 1:6,000
DRAWN BY: G.C.	TITLE: 1999 AERIAL PHOTOGRAPH	FIG E-3

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Last Plotted:3/25/2020 3:23:31 PM Pen Table:: exp-64.ctb

LEGEND

PHASE ONE PROPERTY BOUNDARY

PHASE ONE STUDY AREA (250m)

0 60m 120m 240m

HORIZONTAL 1:6,000

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2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: MAR. 2020	CLIENT: 11654128 CANADA INC.	project no.: OTT-00258780-C0
DESIGN: C.K. / CHECKED: P.S.		scale: 1:6,000
DRAWN BY: G.C.	TITLE: 2007 AERIAL PHOTOGRAPH	FIG E-4

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Last Plotted:3/25/2020 3:23:12 PM

LEGEND

PHASE ONE PROPERTY BOUNDARY

PHASE ONE STUDY AREA (250m)

0 60m 120m 240m

HORIZONTAL 1:6,000

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2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: MAR. 2020	CLIENT: 11654128 CANADA INC.	project no.: OTT-00258780-C0
DESIGN: C.K. / CHECKED: P.S.		scale: 1:6,000
DRAWN BY: G.C.	TITLE: 2014 AERIAL PHOTOGRAPH	FIG E-5

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Last Plotted:3/25/2020 3:22:52 PM Pen Table:: exp-64.ctb

LEGEND

PHASE ONE PROPERTY BOUNDARY

PHASE ONE STUDY AREA (250m)

0 60m 120m 240m

HORIZONTAL 1:6,000

exp Services Inc. **www.exp.com**

t: +1.613.688.1899 | f: +1.613.225.7337
2650 Queensview Drive, Suite 100
Ottawa, ON K2B 8H6, Canada

DATE: MAR. 2020	CLIENT: 11654128 CANADA INC.	project no.: OTT-00258780-C0
DESIGN: C.K. / CHECKED: P.S.		scale: 1:6,000
DRAWN BY: G.C.	TITLE: 2017 AERIAL PHOTOGRAPH	FIG E-6

Filename: e:\ott\ott-00258780-c0\60 execution\65 drawings\6171 hazeldean fig_1-fig_e6.dwg
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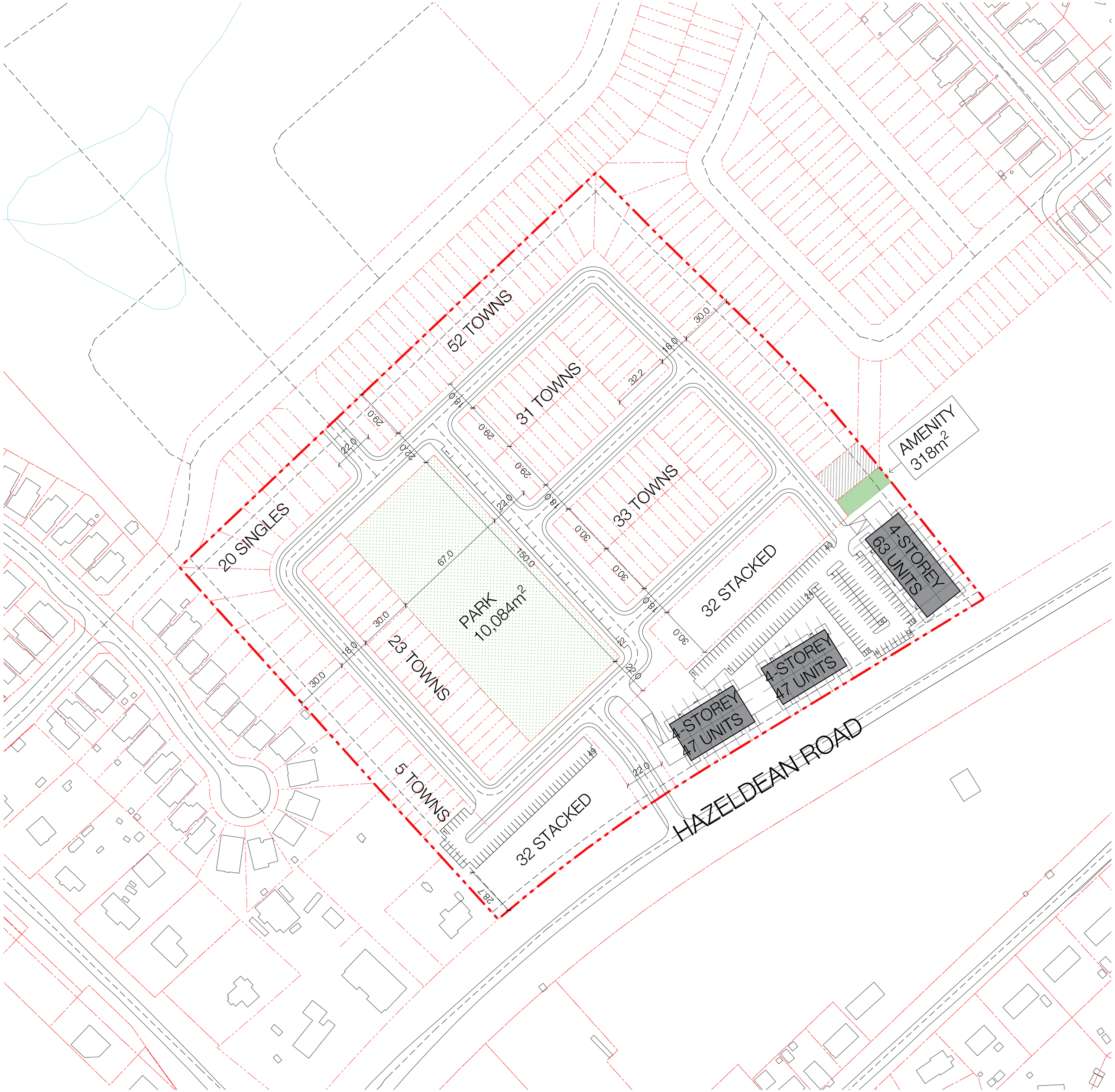
Last Plotted:3/25/2020 3:22:27 PM Pen Table:: exp-64.ctb

Appendix F:
Proposed Site Plan



SITE INFORMATION

ZONING	AM9

SITE AREA	
Total Site Area:	90,253m²

PARKING RATES	REQUIRED
Single/Townhouses:	1.0 p/unit
Stacked/Apartments:	1.2 p/unit
Visitor:	0.2 p/unit

SETBACKS	F.Y.	S.Y.	R.Y.
	5m	7.5m	7.5m

PARKLAND DEDICATION	REQUIRED
Residential:	1 ha/300 units

DEVELOPMENT STATISTICS

RESIDENTIAL UNITS	Units
Single Detached:	20
Townhouses:	148
Stacked Townhouses:	64
Apartments:	157
TOTAL	**389**

PARKING	Required	Provided
Single/Townhouses:	168	168 (+Garage)
Stacked:	77	77
Apartments:	188	~160 (Surface + Underground)
Visitor:	44	44

PARKLAND	Required	Provided
Residential	1.30ha	1.09ha

NOTES

1. The base plan (lot lines, existing roads and surrounding areas) is based on the City's Open Data and aerial images. The site area is approximate and all dimensions need to be confirmed by a proper survey.

2. GFA: as defined in City of Ottawa Zoning Bylaw means the total area of each floor whether located above, at or below grade, measured from the interiors of outside walls, but excluding areas dedicated for uses such as mechanical and electrical rooms, common hallways, corridors, staircases and elevators, interior amenities, bicycle storage and parking. Assume 85% efficiency for Retail, Office and Apartment buildings. Areas are approximate. Building includes interior amenity areas for the residents.

6171 HAZELDEAN RD
DRAFT CONCEPT PLAN

ayoun Group Inc\6171 Hazeldean Road\4.0 CO

LEGEND

- PROPOSED BUILDING
- PARK / OPEN SPACE
- AMENITY SPACE
- SERVICING OUTLET
- PROPERTY BOUNDARY
- SETBACKS

0 25m 50m 100m

No.	REVISION	DATE	BY
6	DRAFT	2020.02.25	CB
5	DRAFT	2020.01.09	EL
4	DRAFT	2019.12.19	EL
3	DRAFT	2019.12.12	EL
2	DRAFT	2019.11.18	CB
1	DRAFT	2019.11.14	CB

CLIENT
ZAYOUN GROUP INC

FOTENN
Planning + Design
223 McLeod Street, Ottawa ON K2P 0Z8
613.730.5709 www.fotenn.com

DESIGNED	CB
REVIEWED	RP
DATE	2019.07.16

P1

Appendix G:
Borehole Logs & Test Pit Logs

Log of Borehole BH-01

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 3

Page. 1 of 1

Date Drilled: 'March 24, 2020

Drill Type: CME 45 Track-Mounted Drill Rig

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample ⊠
Auger Sample ◧
SPT (N) Value ○
Dynamic Cone Test ——
Shelby Tube ■
Shear Strength by Vane Test +S

Combustible Vapour Reading □
Natural Moisture Content ×
Atterberg Limits |—⊖
Undrained Triaxial at % Strain at Failure ⊕
Shear Strength by Penetrometer Test ▲

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth	Standard Penetration Test N Value / Shear Strength kPa	Combustible Vapour Reading (ppm) / Natural Moisture Content % / Atterberg Limits (% Dry Weight)	SAMPLES	Natural Unit Wt. kN/m³
		FILL Sandy silt, trace gravel, trace clay, contains organics and rootlets, dark brown, moist (compact)	117.1	0	14	×	SS1	
		LIMESTONE BEDROCK Limestone with minor shaley laminations and turbidites, grey to dark grey, lightly weathered, moderate to closely spaced fractures, (poor to good quality)	116.4	1				
			115.08	2				
				3				
			112.9	4				
		Borehole Terminated at 4.2 m Depth						

Standard Penetration Test N Value: 20 40 60 80
Shear Strength kPa: 50 100 150 200
Combustible Vapour Reading (ppm): 250 500 750
Natural Moisture Content % / Atterberg Limits (% Dry Weight): 20 40 60

LOG OF BOREHOLE BH LOGS - 258780.GPJ TROW OTTAWA.GDT 7/23/20

NOTES:

1. Borehole data requires interpretation by EXP before use by others
2. Borehole backfilled upon completion of drilling.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report OTT-00258780-B0

WATER LEVEL RECORDS

Date	Water Level (m)	Hole Open To (m)
'March 24, 2020	Dry	
'May 14, 2020	1.2	
July 2, 2020	2.0	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %
1	0.71 - 1.17	100	61
2	1.17 - 2.67	100	34
3	2.67 - 4.22	98	72

Log of Borehole BH-02

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 4

Page. 1 of 1

Date Drilled: 'March 24, 2020

Drill Type: CME 45 Track-Mounted Drill Rig

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample ⊠ | Auger Sample ◧ | SPT (N) Value ○ | Dynamic Cone Test —— | Shelby Tube ■ | Shear Strength by Vane Test +S

Combustible Vapour Reading □ | Natural Moisture Content × | Atterberg Limits —○— | Undrained Triaxial at % Strain at Failure ⊕ | Shear Strength by Penetrometer Test ▲

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth	Standard Penetration Test N Value / Shear Strength kPa	Combustible Vapour Reading (ppm) / Natural Moisture Content % / Atterberg Limits (% Dry Weight)	SAMPLES	Natural Unit Wt. kN/m³
		TOPSOIL ~150 mm thick	119.1	0				
		FILL Silty gravelly sand, trace clay, contains rootlets and organics, brown, moist, no odor	119.0		35	×	SS1	
				1	20	×	SS2	
		PEAT Organic, contains numerous bark pieces and roots, dark brown, very moist, no odor	117.7		4	100 ×	SS3	11.1
		MARL Grey, very moist, no odor	116.8	2	1/HW		SS4	
				3	5	×	SS5	
		GLACIAL TILL Gravelly sand, trace silt, trace clay, grey, moist, no odor (very dense)	115.5 115.3		50/25 mm	× ×	Run 1	
		LIMESTONE BEDROCK Limestone with minor shaley laminations and turbidites, grey to dark grey, lightly weathered, moderate to closely spaced fractures, (fair to good quality)		4				
				5			Run 2	
				6				
							Run 3	
			111.9	7				
		Borehole Terminated at 7.2 m Depth						

LOG OF BOREHOLE BH LOGS - 258780.GPJ TROW OTTAWA.GDT 7/23/20

NOTES:

1. Borehole data requires interpretation by EXP before use by others
2. Borehole backfilled upon completion of drilling.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report OTT-00258780-B0

WATER LEVEL RECORDS

Date	Water Level (m)	Hole Open To (m)
'March 24, 2020	Dry	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %
1	3.79 - 4.17	100	47
2	4.17 - 5.74	97	39
3	5.74 - 7.24	100	61

Log of Borehole BH-03

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 5

Page. 1 of 1

Date Drilled: 'March 24, 2020

Drill Type: CME 45 Track-Mounted Drill Rig

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample ⊠ | Auger Sample ◧ | SPT (N) Value ○ | Dynamic Cone Test —— | Shelby Tube ■ | Shear Strength by Vane Test +S

Combustible Vapour Reading □ | Natural Moisture Content × | Atterberg Limits ⊢○ | Undrained Triaxial at % Strain at Failure ⊕ | Shear Strength by Penetrometer Test ▲

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth	Standard Penetration Test N Value / Shear Strength kPa	Combustible Vapour Reading (ppm) / Natural Moisture Content % / Atterberg Limits (% Dry Weight)	SAMPLES	Natural Unit Wt. kN/m³
		GRANULAR FILL ~50 mm thick	120.4	0				
		FILL Sandy silt to sandy gravelltrace clay, some rootlets, organics and asphalt pieces, boulders and cobbles, brown, moist, no odor (compact) Frozen to 0.6 m depth	120.4		24		SS1	
				1	26		SS2	
					89/280 mm		SS3	
			118.4	2				
		BOULDERS AND COBBLES FILL some silty sand filling between boulders and cobbles.	118.29					
				3			Run 1	
		LIMESTONE BEDROCK Limestone with minor shaley laminations and turbidites, grey to dark grey, lightly weathered, moderate to closely spaced fractures, (very poor to fair quality)	117.0	4			Run 2	
				5			Run 3	
			114.3	6				
		Borehole Terminated at 6.2 m Depth						

NOTES:

1. Borehole data requires interpretation by EXP before use by others
2. Borehole backfilled upon completion of drilling.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report OTT-00258780-B0

WATER LEVEL RECORDS

Date	Water Level (m)	Hole Open To (m)
'March 24, 2020	Dry	
'May 14, 2020	1.6	
July 2, 2020	2.1	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %
1	2.03 - 3.2	48	26
2	3.2 - 3.45	100	0
3	3.45 - 4.62	61	30
4	4.62 - 6.15	85	48

LOG OF BOREHOLE BH LOGS - 258780.GPJ TROW OTTAWA.GDT 7/23/20

Log of Borehole BH-04

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 6

Page. 1 of 1

Date Drilled: 'March 24, 2020

Drill Type: CME 45 Track-Mounted Drill Rig

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample
Auger Sample
SPT (N) Value
Dynamic Cone Test
Shelby Tube
Shear Strength by Vane Test (S)

Combustible Vapour Reading
Natural Moisture Content
Atterberg Limits
Undrained Triaxial at % Strain at Failure
Shear Strength by Penetrometer Test

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth	Standard Penetration Test N Value / Shear Strength kPa	Combustible Vapour Reading (ppm) / Natural Moisture Content % / Atterberg Limits (% Dry Weight)	SAMPLES	Natural Unit Wt. kN/m³
		FILL Silty gravelly sand to silty sand, trace clay, rootlets and organics, cobbles and boulders, asphalt fill between 0.4 to 0.7 m depth, brown, moist, no odor Frozen to 0.4 m depth	117.8	0	60		SS1	
		ORGANIC SANDY SILT Some peat inclusions, green-grey, very moist, no odor	117.1	1	9		SS2	20.5
		FILL Silty sand, grey, wet, no odor	116.4		50 for 130 mm		SS3	
		Refusal to Augers at 1.8 m Depth	116.0					

Standard Penetration Test N Value: 20 40 60 80
Shear Strength kPa: 50 100 150 200
Combustible Vapour Reading (ppm): 250 500 750
Natural Moisture Content % / Atterberg Limits (% Dry Weight): 20 40 60

NOTES:
1. Borehole data requires interpretation by EXP before use by others
2. Borehole backfilled upon completion of drilling.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report OTT-00258780-B0

WATER LEVEL RECORDS

Date	Water Level (m)	Hole Open To (m)
'March 24, 2020	Dry	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

LOG OF BOREHOLE BH LOGS - 258780.GPJ TROW OTTAWA.GDT 7/23/20

Log of Borehole BH-05

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 7

Page. 1 of 1

Date Drilled: 'March 24, 2020

Drill Type: CME 45 Track-Mounted Drill Rig

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample
Auger Sample
SPT (N) Value
Dynamic Cone Test
Shelby Tube
Shear Strength by Vane Test (S)

Combustible Vapour Reading
Natural Moisture Content
Atterberg Limits
Undrained Triaxial at % Strain at Failure
Shear Strength by Penetrometer Test

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth	Standard Penetration Test N Value / Shear Strength kPa	Combustible Vapour Reading (ppm) / Natural Moisture Content % / Atterberg Limits (% Dry Weight)	SAMPLES	Natural Unit Wt. kN/m³
		FILL Gravelly silty sand to sandy silt, cobbles and bolders, grey to brown, moist, no odor Frozen to 0.7 m depth	116.5	0	50 for 130 mm		SS1	
				1	26		SS2	
				2	60 for 280 mm		SS3	
		PEAT TO ORGANIC SANDY SILT Numerous bark pieces and rootlets, dark brown to green grey, very moist, no odor	114.2 113.75		2		SS4	
		SILTY SAND Some sandy gravel seams or pcokets grey to wet, no odor, (compact)	113.5	3	15		SS5	
				4	24		SS6	
				5	22		SS7	
		GLACIAL TILL Silty sand, grace gravel, grey, cobbles, occasional boulders, very moist to wet, no dor, (dense to very dense)	111.2		41		SS8	
			110.3	6	50 for 80 mm		SS9	
		Refusal to Augers at 6.2 m Depth						

LOG OF BOREHOLE BH LOGS - 258780.GPJ TROW OTTAWA.GDT 7/23/20

NOTES:

1. Borehole data requires interpretation by EXP before use by others
2. A 32 mm diameter monitoring well installed as shown.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report OTT-00258780-B0

WATER LEVEL RECORDS

Date	Water Level (m)	Hole Open To (m)
'March 24, 2020	Dry	
'May 14, 2020	2.4	
July 2, 2020	2.8	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

Log of Borehole BH-06

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 8

Page. 1 of 1

Date Drilled: 'March 24, 2020

Drill Type: CME 45 Track-Mounted Drill Rig

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample ⊠ | Auger Sample ◧ | SPT (N) Value ○ | Dynamic Cone Test —— | Shelby Tube ■ | Shear Strength by Vane Test +S

Combustible Vapour Reading □ | Natural Moisture Content × | Atterberg Limits ⊢○ | Undrained Triaxial at % Strain at Failure ⊕ | Shear Strength by Penetrometer Test ▲

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth	Standard Penetration Test N Value / Shear Strength kPa	Combustible Vapour Reading (ppm) / Natural Moisture Content % / Atterberg Limits (% Dry Weight)	SAMPLES	Natural Unit Wt. kN/m³
		TOPSOIL ~200 mm, frozen	120.5	0	25		SS1	
		FILL Sandy silt, trace grave and clay, rootlets and organics, brown, moist, no odor (comapct) Frozen to 0.4 m depth	120.3					
		TILL Gravelly silty sand, trace clay, numerous cobbles and boulders, brown, moist, no odor (very dense)	119.8	1	66		SS2	
				2	97		SS3	
					69		SS4	21.0
				3	60		SS5	
		Refusal to Augers at 3.60 m Depth	116.9					

LOG OF BOREHOLE BH LOGS - 258780.GPJ TROW OTTAWA.GDT 7/23/20

NOTES:

1. Borehole data requires interpretation by EXP before use by others
2. Borehole backfilled upon completion of drilling.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. Log to be read with EXP Report OTT-00258780-B0

WATER LEVEL RECORDS		
Date	Water Level (m)	Hole Open To (m)
'March 24, 2020	Dry	

CORE DRILLING RECORD			
Run No.	Depth (m)	% Rec.	RQD %

Log of Test Pit TP-03

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 9

Page. 1 of 1

Date Drilled: 'March 17, 2020

Drill Type: CAT 320D Excavator

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample	⊠	Combustible Vapour Reading	□
Auger Sample	◧	Natural Moisture Content	×
SPT (N) Value	○	Atterberg Limits	⊢○
Dynamic Cone Test	———	Undrained Triaxial at % Strain at Failure	⊕
Shelby Tube	■	Shear Strength by Penetrometer Test	▲
Shear Strength by Vane Test	+ S		

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth	Standard Penetration Test N Value / Shear Strength kPa	Combustible Vapour Reading (ppm) / Natural Moisture Content % / Atterberg Limits (% Dry Weight)	SAMPLES	Natural Unit Wt. kN/m³
		FILL Gravelly sand to silty sand, some cobbles and boulders, clayey silt inclusions, brown, moist, no odor	116.2	0	20 40 60 80 / 50 100 150 200	250 500 750 / 20 40 60		
			115.6					
		Refusal to Excavator Bucket at 0.6 m Depth on Inferred Bedrock						

NOTES:
1. Borehole/Test Pit data requires Interpretation by exp. before use by others
2. Test pit backfilled with excavated material and nominally compacted using excavator bucket.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. This Figure is to read with exp. Services Inc. report OTT-00258780-B0

WATER LEVEL RECORDS

Elapsed Time	Water Level (m)	Hole Open To (m)
'March 17, 2020	Dry	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

LOG OF TEST PIT TP LOGS - 258780.GPJ TROW OTTAWA.GDT 7/5/20

Log of Test Pit TP-04

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 10

Page. 1 of 1

Date Drilled: 'March 17, 2020

Drill Type: CAT 320D Excavator

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample	⊠	Combustible Vapour Reading	□
Auger Sample	◧	Natural Moisture Content	×
SPT (N) Value	○	Atterberg Limits	⊢○
Dynamic Cone Test	———	Undrained Triaxial at % Strain at Failure	⊕
Shelby Tube	■	Shear Strength by Penetrometer Test	▲
Shear Strength by Vane Test	+ S		

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth	Standard Penetration Test N Value / Shear Strength kPa	Combustible Vapour Reading (ppm) / Natural Moisture Content % / Atterberg Limits (% Dry Weight)	SAMPLES	Natural Unit Wt. kN/m³
		FILL Gravelly sand to silty sand, cobbles and boulders, some clayey silt inclusions, brown, moist	117.2	0	20 40 60 80 / 50 100 150 200	250 500 750 / 20 40 60		
			116.7					
		Refusal to Excavator Bucket at 0.5 m Depth on Inferred Bedrock						

NOTES:
1. Borehole/Test Pit data requires Interpretation by exp. before use by others
2. Test pit backfilled with excavated material and nominally compacted using excavator bucket.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. This Figure is to read with exp. Services Inc. report OTT-00258780-B0

WATER LEVEL RECORDS

Elapsed Time	Water Level (m)	Hole Open To (m)
'March 17, 2020	Dry	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

LOG OF TEST PIT TP LOGS - 258780.GPJ TROW OTTAWA.GDT 7/5/20

Log of Test Pit TP-05

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 11

Page. 1 of 1

Date Drilled: 'March 17, 2020

Drill Type: CAT 320D Excavator

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample	⊠	Combustible Vapour Reading	□
Auger Sample	◧	Natural Moisture Content	×
SPT (N) Value	○	Atterberg Limits	⊢○
Dynamic Cone Test	——	Undrained Triaxial at % Strain at Failure	⊕
Shelby Tube	■	Shear Strength by Penetrometer Test	▲
Shear Strength by Vane Test	+ S		

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth	Standard Penetration Test N Value / Shear Strength kPa	Combustible Vapour Reading (ppm) / Natural Moisture Content % / Atterberg Limits (% Dry Weight)	SAMPLES	Natural Unit Wt. kN/m³
		TOPSOIL ~100 mm thick	117.6	0	20 40 60 80 / 50 100 150 200	250 500 750 / 20 40 60		
		FILL Silty sand, some gravel, brown, moist, no odor	117.5					
		Refusal to Excavator Bucket at 0.3 m Depth on Inferred Bedrock	117.3					

NOTES:
1. Borehole/Test Pit data requires Interpretation by exp. before use by others
2. Test pit backfilled with excavated material and nominally compacted using excavator bucket.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. This Figure is to read with exp. Services Inc. report OTT-00258780-B0

WATER LEVEL RECORDS

Elapsed Time	Water Level (m)	Hole Open To (m)
'March 17, 2020	Dry	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

LOG OF TEST PIT TP LOGS - 258780.GPJ TROW OTTAWA.GDT 7/5/20

Log of Test Pit TP-06

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 12

Page. 1 of 1

Date Drilled: 'March 17, 2020

Drill Type: CAT 320D Excavator

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample	⊠	Combustible Vapour Reading	□
Auger Sample	◧	Natural Moisture Content	×
SPT (N) Value	○	Atterberg Limits	⊢○
Dynamic Cone Test	—	Undrained Triaxial at % Strain at Failure	⊕
Shelby Tube	■	Shear Strength by Penetrometer Test	▲
Shear Strength by Vane Test	+ S		

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth
		FILL Gravelly sand to silty sand, cobbles and boulders, rootlets and organics, brown, moist, no odor	118.1	0
		PEAT Numerous bark pieces and rootlers, dark brown, very moist, no odor	117.3	1
▼		**MARL** Green-grey, minor oxidization staining, very moist, no odor	116.7	
		Refusal to Excavator Bucket at 1.9 m Depth on Inferred Bedrock	116.4 116.2	

Standard Penetration Test N Value: 20 40 60 80

Shear Strength: 50 100 150 200 kPa

Combustible Vapour Reading (ppm): 250 500 750

Natural Moisture Content % Atterberg Limits (% Dry Weight): 20 40 60

SAMPLES

Natural Unit Wt. kN/m³

NOTES:
1. Borehole/Test Pit data requires Interpretation by exp. before use by others
2. Test pit backfilled with excavated material and nominally compacted using excavator bucket.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. This Figure is to read with exp. Services Inc. report OTT-00258780-B0

WATER LEVEL RECORDS

Elapsed Time	Water Level (m)	Hole Open To (m)
'March 17, 2020	1.7	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

LOG OF TEST PIT TP LOGS - 258780.GPJ TROW OTTAWA.GDT 7/5/20

Log of Test Pit TP-07

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 13

Page. 1 of 1

Date Drilled: 'March 17, 2020

Drill Type: CAT 320D Excavator

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample	⊠	Combustible Vapour Reading	□
Auger Sample	◧	Natural Moisture Content	×
SPT (N) Value	○	Atterberg Limits	⊖
Dynamic Cone Test	—	Undrained Triaxial at % Strain at Failure	⊕
Shelby Tube	■	Shear Strength by Penetrometer Test	▲
Shear Strength by Vane Test	+ S		

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth
		FILL Gravelly sand to sandy silt, some clay, cobbles and boulders, brown, moist	117.6	0
		FILL Silty sand, some gravel, cobbles, boulders and wood pieces, brown, moist	117.0	1
		PEAT Organic, numerous bark pieces and rootlers, dark brown, very moist, no odor	116.3	
		GLACIAL TILL Gravelly silty sand, numerous cobbles and boulders, grey, wet	116.1	2
		Refusal to Excavator Bucket at 2.3 m Depth on Inferred Bedrock	115.3	

Standard Penetration Test N Value: 20 40 60 80

Shear Strength: 50 100 150 200 kPa

Combustible Vapour Reading (ppm): 250 500 750

Natural Moisture Content % Atterberg Limits (% Dry Weight): 20 40 60

SAMPLES

Natural Unit Wt. kN/m³

NOTES:
1. Borehole/Test Pit data requires Interpretation by exp. before use by others
2. Test pit backfilled with excavated material and nominally compacted using excavator bucket.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. This Figure is to read with exp. Services Inc. report OTT-00258780-B0

WATER LEVEL RECORDS

Elapsed Time	Water Level (m)	Hole Open To (m)
'March 17, 2020	Dry	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

LOG OF TEST PIT TP LOGS - 258780.GPJ TROW OTTAWA.GDT 7/5/20

Log of Test Pit TP-08

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 14

Page. 1 of 1

Date Drilled: 'March 17, 2020

Drill Type: CAT 320D Excavator

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample
Auger Sample
SPT (N) Value
Dynamic Cone Test
Shelby Tube
Shear Strength by Vane Test (S)

Combustible Vapour Reading
Natural Moisture Content
Atterberg Limits
Undrained Triaxial at % Strain at Failure
Shear Strength by Penetrometer Test

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth	Standard Penetration Test N Value / Shear Strength kPa	Combustible Vapour Reading (ppm) / Natural Moisture Content % / Atterberg Limits (% Dry Weight)	SAMPLES	Natural Unit Wt. kN/m³
		FILL Gravelly sand to silty sand, cobbles, boulderrs and wood pieces, brown, moist	118.8	0	20 40 60 80 / 50 100 150 200	250 500 750 / 20 40 60		
		PEAT Organic, numerous bark pieces and rootlets, dark brown, very moist, no odor	117.6	1			100 GS1	
		MARL Green-grey to grey, oxidized stains, very moist to wet, no odor	117.1				GS2	
		GLACIAL TILL Gravelly sand, some silt, numerous cobbles and boulders, grey, wet	116.8	2				
		Refusal to Excavator Bucket at 2.5 m Depth on Inferred Bedrock	116.3					

NOTES:
1. Borehole/Test Pit data requires Interpretation by exp. before use by others
2. Test pit backfilled with excavated material and nominally compacted using excavator bucket.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. This Figure is to read with exp. Services Inc. report OTT-00258780-B0

WATER LEVEL RECORDS

Elapsed Time	Water Level (m)	Hole Open To (m)
'March 17, 2020	Dry	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

LOG OF TEST PIT TP LOGS - 258780.GPJ TROW OTTAWA.GDT 7/5/20

Log of Test Pit TP-09

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 15

Page. 1 of 1

Date Drilled: 'March 17, 2020

Drill Type: CAT 320D Excavator

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample
Auger Sample
SPT (N) Value
Dynamic Cone Test
Shelby Tube
Shear Strength by Vane Test (S)

Combustible Vapour Reading
Natural Moisture Content
Atterberg Limits
Undrained Triaxial at % Strain at Failure
Shear Strength by Penetrometer Test

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth	Standard Penetration Test N Value / Shear Strength kPa	Combustible Vapour Reading (ppm) / Natural Moisture Content % / Atterberg Limits (% Dry Weight)	SAMPLES	Natural Unit Wt. kN/m³
		FILL Gravelly sand, trace silt, brown, moist, no odor	118.8	0	20 40 60 80 / 50 100 150 200	250 500 750 / 20 40 60		
			118.5					
		FILL Silty sand, some gravel, contains cobbles and boulders, contains wood pieces, brown, moist		1				
			117.6					
		MARL Green grey, moist	117.3					
		PEAT Numerous bark pieces and rootletrs, dark brown, very moist, no odor	116.8	2			100 GS1	
		CLAY CRUST Silty clay, trace sand and gravel, light brown, no odor	116.3				GS2	
		MARL Green-grey to dark grey, very moist, no odor	115.7	3				
		Refusal to Excavator Bucket at 3.1 m Depth on Inferred Bedrock						

NOTES:
1. Borehole/Test Pit data requires Interpretation by exp. before use by others
2. Test pit backfilled with excavated material and nominally compacted using excavator bucket.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. This Figure is to read with exp. Services Inc. report OTT-00258780-B0

WATER LEVEL RECORDS

Elapsed Time	Water Level (m)	Hole Open To (m)
'March 17, 2020	Dry	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

LOG OF TEST PIT TP LOGS - 258780.GPJ TROW OTTAWA.GDT 7/5/20

Log of Test Pit TP-10

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 16

Page. 1 of 1

Date Drilled: 'March 17, 2020

Drill Type: CAT 320D Excavator

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample	⊠	Combustible Vapour Reading	□
Auger Sample	◧	Natural Moisture Content	×
SPT (N) Value	○	Atterberg Limits	⊢○
Dynamic Cone Test	——	Undrained Triaxial at % Strain at Failure	⊕
Shelby Tube	■	Shear Strength by Penetrometer Test	▲
Shear Strength by Vane Test	+ S		

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth	Standard Penetration Test N Value / Shear Strength kPa	Combustible Vapour Reading (ppm) / Natural Moisture Content % / Atterberg Limits (% Dry Weight)	SAMPLES	Natural Unit Wt. kN/m³
		FILL Silty sand, some gravel and frequent wood pieces, brown, moist	118.7	0	20 40 60 80 50 100 150 200	250 500 750 20 40 60		
		FILL Silty gravelly sand, numerous cobbles and boulders, brown, moist to wet	117.6	1			GS1	
			116.4	2				
		Refusal to Excavator Bucket at 2.3 m Depth on Inferred Bedrock						

NOTES:
1. Borehole/Test Pit data requires Interpretation by exp. before use by others
2. Test pit backfilled with excavated material and nominally compacted using excavator bucket.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. This Figure is to read with exp. Services Inc. report OTT-00258780-B0

WATER LEVEL RECORDS

Elapsed Time	Water Level (m)	Hole Open To (m)
'March 17, 2020	Dry	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

LOG OF TEST PIT TP LOGS - 258780.GPJ TROW OTTAWA.GDT 7/5/20

Log of Test Pit TP-11

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 17

Page. 1 of 1

Date Drilled: 'March 17, 2020

Drill Type: CAT 320D Excavator

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample
Auger Sample
SPT (N) Value
Dynamic Cone Test
Shelby Tube
Shear Strength by Vane Test (S)

Combustible Vapour Reading
Natural Moisture Content
Atterberg Limits
Undrained Triaxial at % Strain at Failure
Shear Strength by Penetrometer Test

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth	Standard Penetration Test N Value / Shear Strength kPa	Combustible Vapour Reading (ppm) / Natural Moisture Content % / Atterberg Limits (% Dry Weight)	SAMPLES	Natural Unit Wt. kN/m³
		TOPSOIL ~ 100 mm	119.2	0	20 40 60 80 / 50 100 150 200 kPa	250 500 750 / 20 40 60		
		FILL Silty gravelly sand, contains numerous cobbles and boulders, large concrete slabs throughout, brown, moist to wet	119.1					
▼			118.3	1		×	GS1	
		Refusal to Excavator Bucket at 1.4 m Depth on Inferred Bedrock	117.8					

NOTES:
1. Borehole/Test Pit data requires Interpretation by exp. before use by others
2. Test pit backfilled with excavated material and nominally compacted using excavator bucket.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. This Figure is to read with exp. Services Inc. report OTT-00258780-B0

WATER LEVEL RECORDS

Elapsed Time	Water Level (m)	Hole Open To (m)
'March 17, 2020	0.9	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

LOG OF TEST PIT TP LOGS - 258780.GPJ TROW OTTAWA.GDT 7/5/20

Log of Test Pit TP-12

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 18

Page. 1 of 1

Date Drilled: 'March 17, 2020

Drill Type: CAT 320D Excavator

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample ⊠
Auger Sample ◧
SPT (N) Value ○
Dynamic Cone Test ——
Shelby Tube ■
Shear Strength by Vane Test +S

Combustible Vapour Reading □
Natural Moisture Content ×
Atterberg Limits |—○—|
Undrained Triaxial at % Strain at Failure ⊕
Shear Strength by Penetrometer Test ▲

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth	Standard Penetration Test N Value / Shear Strength kPa	Combustible Vapour Reading (ppm) / Natural Moisture Content % / Atterberg Limits (% Dry Weight)	SAMPLES	Natural Unit Wt. kN/m³
		TOPSOIL ~150 mm	119.6	0	20 40 60 80 / 50 100 150 200 kPa	250 500 750 / 20 40 60		
		FILL Silty sand, some gravel, cobbles, boulders and wood pieces, brown, moist	119.5					
▼			118.4	1				
			117.6	2			100	GS1
		PEAT Organic, numerous bark pieces and rootlets, dark brown, very moist, no odor	117.3					
		Refusal to Excavator Bucket at 2.3 m Depth on Inferred Bedrock						

NOTES:
1. Borehole/Test Pit data requires Interpretation by exp. before use by others
2. Test pit backfilled with excavated material and nominally compacted using excavator bucket.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. This Figure is to read with exp. Services Inc. report OTT-00258780-B0

WATER LEVEL RECORDS

Elapsed Time	Water Level (m)	Hole Open To (m)
'March 17, 2020	1.2	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

LOG OF TEST PIT TP LOGS - 258780.GPJ TROW OTTAWA.GDT 7/5/20

Log of Test Pit TP-13

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 19

Page. 1 of 1

Date Drilled: 'March 17, 2020

Drill Type: CAT 320D Excavator

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample	⊠	Combustible Vapour Reading	□
Auger Sample	◧	Natural Moisture Content	×
SPT (N) Value	○	Atterberg Limits	⊢○
Dynamic Cone Test	——	Undrained Triaxial at % Strain at Failure	⊕
Shelby Tube	■	Shear Strength by Penetrometer Test	▲
Shear Strength by Vane Test	+ S		

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth
		TOPSOIL ~ 220 mm	119.4	0
		FILL Silty gravelly sand, numerous cobbles and boulders, large concrete slabs throughout, brown, moist to wet, no odor	119.2	
▼			116.8	2
		Refusal to Excavator Bucket at 2.9 m Depth on Inferred Bedrock	116.5	

Standard Penetration Test N Value: 20 40 60 80

Shear Strength: 50 100 150 200 kPa

Combustible Vapour Reading (ppm): 250 500 750

Natural Moisture Content % Atterberg Limits (% Dry Weight): 20 40 60

SAMPLES

Natural Unit Wt. kN/m³

NOTES:
1. Borehole/Test Pit data requires Interpretation by exp. before use by others
2. Test pit backfilled with excavated material and nominally compacted using excavator bucket.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. This Figure is to read with exp. Services Inc. report OTT-00258780-B0

WATER LEVEL RECORDS

Elapsed Time	Water Level (m)	Hole Open To (m)
'March 17, 2020	2.6	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

LOG OF TEST PIT TP LOGS - 258780.GPJ TROW OTTAWA.GDT 7/5/20

Log of Test Pit TP-14

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 20

Page. 1 of 1

Date Drilled: 'March 17, 2020

Drill Type: CAT 320D Excavator

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample	⊠	Combustible Vapour Reading	□
Auger Sample	◧	Natural Moisture Content	×
SPT (N) Value	○	Atterberg Limits	⊖
Dynamic Cone Test	—	Undrained Triaxial at % Strain at Failure	⊕
Shelby Tube	■	Shear Strength by Penetrometer Test	▲
Shear Strength by Vane Test	+ S		

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth
		FILL Granular fill over silty sand and gravel, wood pieces, brown, moist, no odor	120.1	0
		BOULDERS AND COBBLES FILL Some silty sand inclusions - possible till in lower levels	119.4	1
		Refusal to Excavator Bucket at 2.3 m Depth on Inferred Bedrock	117.8	2

Standard Penetration Test N Value: 20 40 60 80

Shear Strength: 50 100 150 200 kPa

Combustible Vapour Reading (ppm): 250 500 750

Natural Moisture Content % Atterberg Limits (% Dry Weight): 20 40 60

SAMPLES

Natural Unit Wt. kN/m³

NOTES:
1. Borehole/Test Pit data requires Interpretation by exp. before use by others
2. Test pit backfilled with excavated material and nominally compacted using excavator bucket.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. This Figure is to read with exp. Services Inc. report OTT-00258780-B0

WATER LEVEL RECORDS

Elapsed Time	Water Level (m)	Hole Open To (m)
'March 17, 2020	Dry	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

LOG OF TEST PIT TP LOGS - 258780.GPJ TROW OTTAWA.GDT 7/5/20

Log of Test Pit TP-15

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 21

Page. 1 of 1

Date Drilled: 'March 17, 2020

Drill Type: CAT 320D Excavator

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample ⊠
Auger Sample ◧
SPT (N) Value ○
Dynamic Cone Test ——
Shelby Tube ■
Shear Strength by Vane Test +S

Combustible Vapour Reading □
Natural Moisture Content ×
Atterberg Limits ⊢○
Undrained Triaxial at % Strain at Failure ⊕
Shear Strength by Penetrometer Test ▲

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth	Standard Penetration Test N Value / Shear Strength kPa	Combustible Vapour Reading (ppm) / Natural Moisture Content % / Atterberg Limits (% Dry Weight)	SAMPLES	Natural Unit Wt. kN/m³
		FILL Granular fill (150mm) OVER silty sand with gravel, rootlets and asphalt pieces, cobbles and blulders below 0.8 m depth, brown, moist, no odor	120.2	0	20 40 60 80 / 50 100 150 200	250 500 750 / 20 40 60		
				1				
		PEAT Organic, numerous bark pieces and roots, dark brown, very moist, no odor	118.8			×	GS1	
		GLACIAL TILL Gravelly sand, trace silt and gravel, oxidized stains, numerous cobbles and boulders, brown, wet	118.5	2				
		Refusal to Excavator Bucket at 2.2 m Depth on Inferred Bedrock	118.0					

NOTES:
1. Borehole/Test Pit data requires Interpretation by exp. before use by others
2. Test pit backfilled with excavated material and nominally compacted using excavator bucket.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. This Figure is to read with exp. Services Inc. report OTT-00258780-B0

WATER LEVEL RECORDS

Elapsed Time	Water Level (m)	Hole Open To (m)
'March 17, 2020	Dry	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

LOG OF TEST PIT TP LOGS - 258780.GPJ TROW OTTAWA.GDT 7/5/20

Log of Test Pit TP-16

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 22

Page. 1 of 1

Date Drilled: 'March 17, 2020

Drill Type: CAT 320D Excavator

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample ⊠
Auger Sample ◧
SPT (N) Value ○
Dynamic Cone Test ——
Shelby Tube ■
Shear Strength by Vane Test +S

Combustible Vapour Reading □
Natural Moisture Content ×
Atterberg Limits ⊢○
Undrained Triaxial at % Strain at Failure ⊕
Shear Strength by Penetrometer Test ▲

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth
		FILL Silty sand, some gravel, wood pieces troughout, brown, moist	119.9	0
		SILTY SAND (POSSIBLE TILL) Silty gravelly sand, numerous cobbles and boulders, brown, moist to wet	118.9	1
		Refusal to Excavator Bucket at 1.8 m Depth on Inferred Bedrock	118.1	

Standard Penetration Test N Value: 20 40 60 80
Shear Strength: 50 100 150 200 kPa
Combustible Vapour Reading (ppm): 250 500 750
Natural Moisture Content % Atterberg Limits (% Dry Weight): 20 40 60
SAMPLES
Natural Unit Wt. kN/m³

NOTES:
1. Borehole/Test Pit data requires Interpretation by exp. before use by others
2. Test pit backfilled with excavated material and nominally compacted using excavator bucket.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. This Figure is to read with exp. Services Inc. report OTT-00258780-B0

WATER LEVEL RECORDS

Elapsed Time	Water Level (m)	Hole Open To (m)
'March 17, 2020	Dry	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

LOG OF TEST PIT TP LOGS - 258780.GPJ TROW OTTAWA.GDT 7/23/20

Log of Test Pit TP-17

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 23

Page. 1 of 1

Date Drilled: 'March 17, 2020

Drill Type: CAT 320D Excavator

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample ⊠
Auger Sample ◧
SPT (N) Value ○
Dynamic Cone Test ——
Shelby Tube ■
Shear Strength by Vane Test +S

Combustible Vapour Reading □
Natural Moisture Content ×
Atterberg Limits ⊢○
Undrained Triaxial at % Strain at Failure ⊕
Shear Strength by Penetrometer Test ▲

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth
		FILL 150 mm granular fill OVER silty sand and gravel, rootlers, brown, moist, no odor	120.5	0
		BOULDERS AND COBBLES FILL Gravelly silty sand inclusions , some wood pieces, moist	120.0	
		SILTY GRAVELLY SAND (POSSIBLE TILL) numerous cobbles and boulders, brown, wet	118.9	1
▼			117.4	3
		Refusal to Excavator Bucket at 4.2m Depth on Inferred Bedrock	116.3	4

Standard Penetration Test N Value: 20 40 60 80
Shear Strength: 50 100 150 200 kPa

Combustible Vapour Reading (ppm): 250 500 750
Natural Moisture Content % Atterberg Limits (% Dry Weight): 20 40 60

SAMPLES

Natural Unit Wt. kN/m³

NOTES:
1. Borehole/Test Pit data requires Interpretation by exp. before use by others
2. Test pit backfilled with excavated material and nominally compacted using excavator bucket.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. This Figure is to read with exp. Services Inc. report OTT-00258780-B0

WATER LEVEL RECORDS

Elapsed Time	Water Level (m)	Hole Open To (m)
'March 17, 2020	3.1	

CORE DRILLING RECORD

Run No.	Depth (m)	% Rec.	RQD %

LOG OF TEST PIT TP LOGS - 258780.GPJ TROW OTTAWA.GDT 7/23/20

Log of Test Pit TP-18

Project No: OTT-00258780-B0

Project: Geotechnical Investigation - Proposed Residential Development

Location: 6171 Hazeldean Road, Ottawa, Ontario

Figure No. 24

Page. 1 of 1

Date Drilled: 'March 17, 2020

Drill Type: CAT 320D Excavator

Datum: Geodetic Elevation

Logged by: G.C. Checked by: I.T.

Split Spoon Sample ⊠
Auger Sample ◧
SPT (N) Value ○
Dynamic Cone Test ——
Shelby Tube ■
Shear Strength by Vane Test +S

Combustible Vapour Reading □
Natural Moisture Content ×
Atterberg Limits |—○—|
Undrained Triaxial at % Strain at Failure ⊕
Shear Strength by Penetrometer Test ▲

GWL	SYMBOL	SOIL DESCRIPTION	Geodetic Elevation m	Depth
		FILL Granular fill OVER Silty sand with some gravel, brown, moist, no odor	120.8	0
		BOULDERS AND COBBLES FILL Gravelly silty sand inclusions, brown, moist	120.3	1
		SILTY GRAVELLY SAND (POSSIBLE TILL) Numerous boulders and cobbles, brown, moist	118.8	2
			117.1	3
		Refusal to Excavator Bucket at 3.7 m Depth on Inferred Bedrock		

Standard Penetration Test N Value: 20 40 60 80
Shear Strength: 50 100 150 200 kPa

Combustible Vapour Reading (ppm): 250 500 750
Natural Moisture Content % Atterberg Limits (% Dry Weight): 20 40 60

SAMPLES

Natural Unit Wt. kN/m³

NOTES:
1. Borehole/Test Pit data requires Interpretation by exp. before use by others
2. Test pit backfilled with excavated material and nominally compacted using excavator bucket.
3. Field work supervised by an EXP representative.
4. See Notes on Sample Descriptions
5. This Figure is to read with exp. Services Inc. report OTT-00258780-B0

WATER LEVEL RECORDS

Elapsed Time	Water Level (m)	Hole Open To (m)
'March 17, 2020	Dry	

CORE DRILLING RECORD

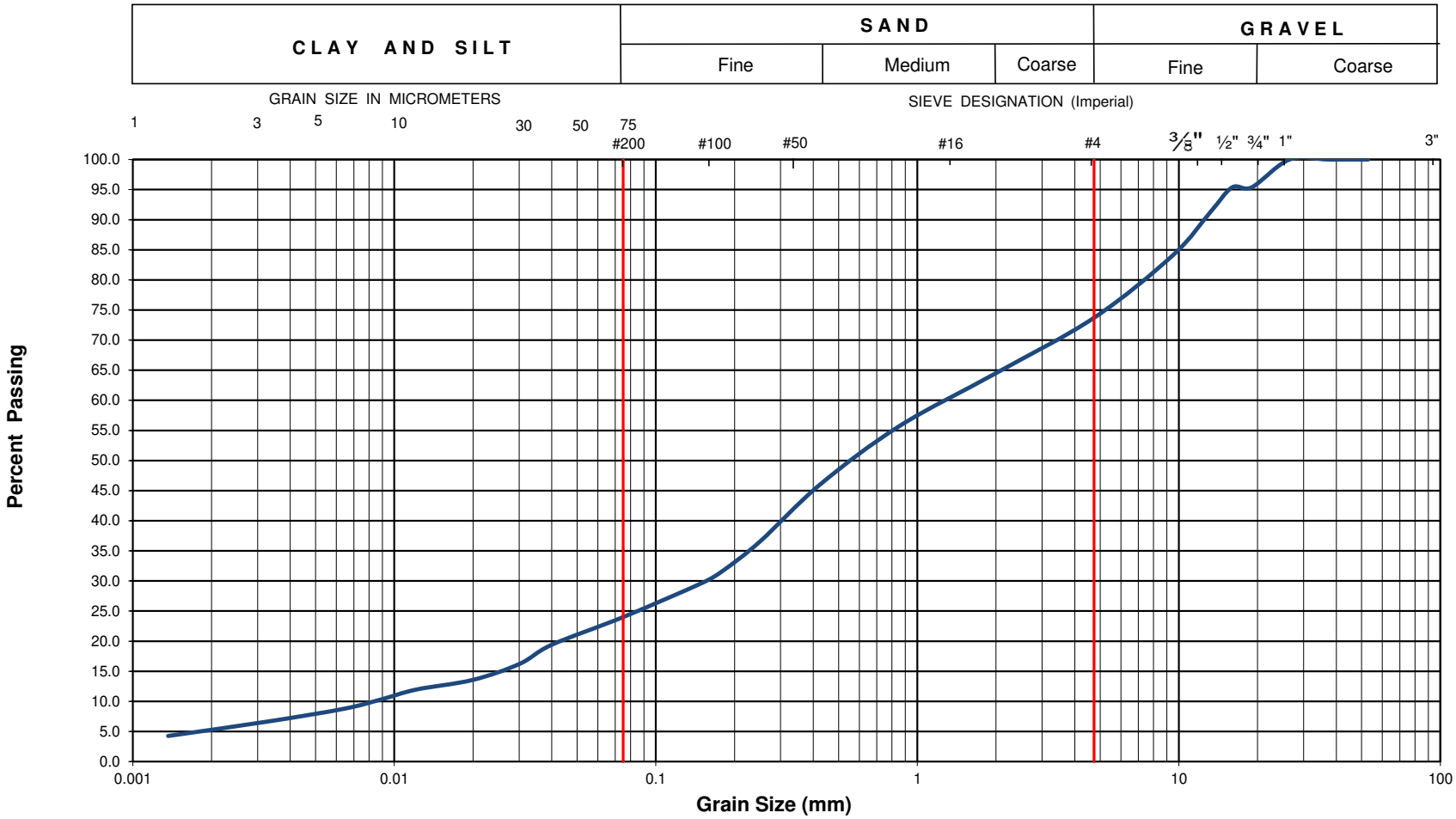
Run No.	Depth (m)	% Rec.	RQD %

LOG OF TEST PIT TP LOGS - 258780.GPJ TROW OTTAWA.GDT 7/23/20

EXP Services Inc.
100-2650 Queensview Drive
Ottawa, ON K2B 8H6

Grain-Size Distribution Curve
Method of Test For Particle Size Analysis of Soil
ASTM C-136/ASTM D422

Unified Soil Classification Svstem

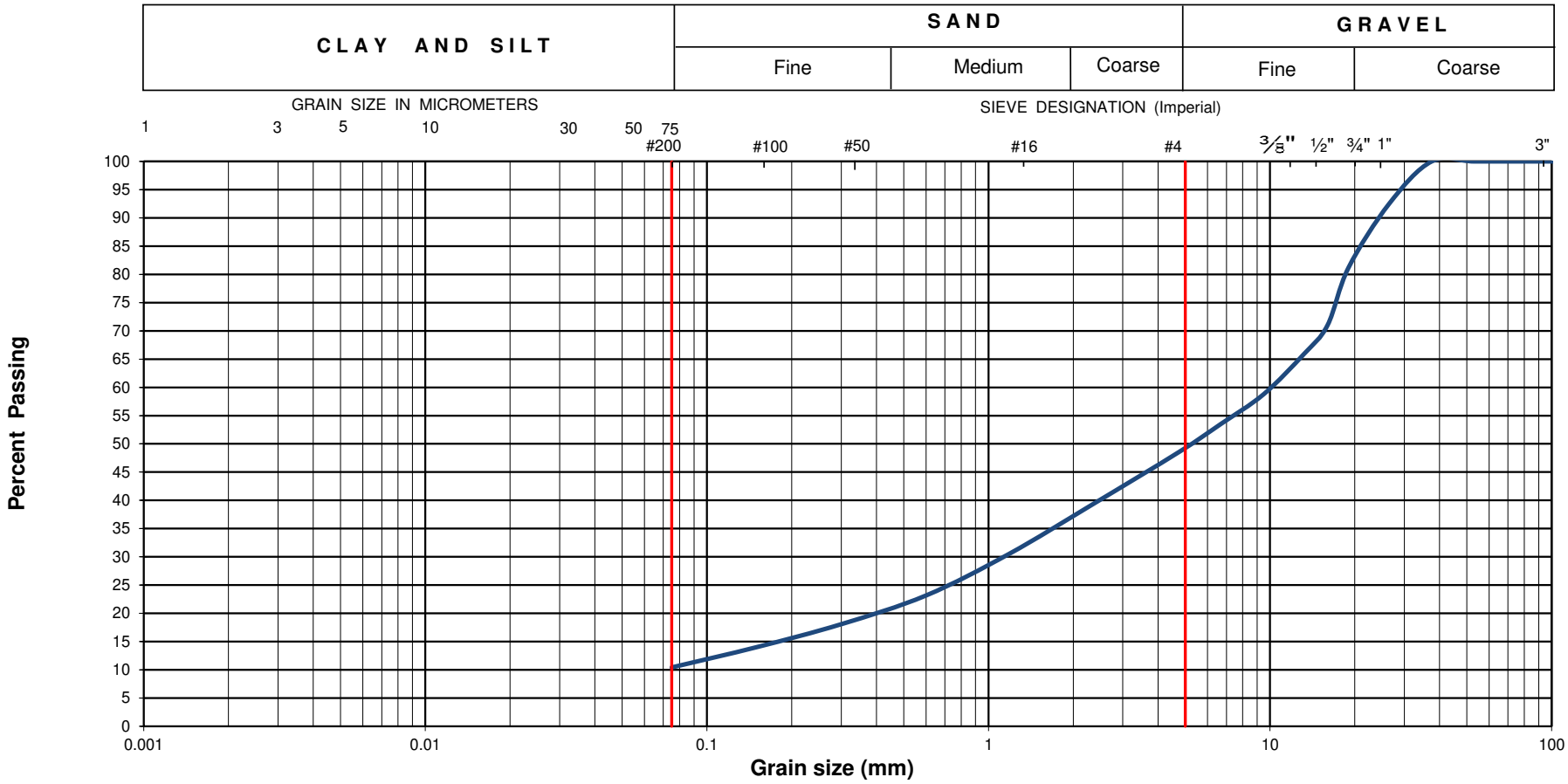


EXP Project No.:	**OTT-00258780-B0**	**Project Name :**	**Geotechnical Investigation - Proposed Residential Development**						
Client :	**11654128 Canada Inc.**	**Project Location :**	**6171 Hazeldean Rd, Ottawa, ON**						
Date Sampled :	**March 20, 2020**	**Borehole No:**	**BH2**	**Sample No.:**	**SS2**	**Depth (m) :**	**0.8-1.4**		
Sample Description :		**% Silt and Clay**	**24**	**% Sand**	**50**	**% Gravel**	**26**	**Figure :**	**25**
Sample Description :		**Silty Gravelly Sand (SM)**							

EXP Services Inc.
100-2650 Queensview Drive
Ottawa, ON K2B 8H6

Grain-Size Distribution Curve
Method of Test For Sieve Analysis of Aggregate
ASTM C-136

Unified Soil Classification System

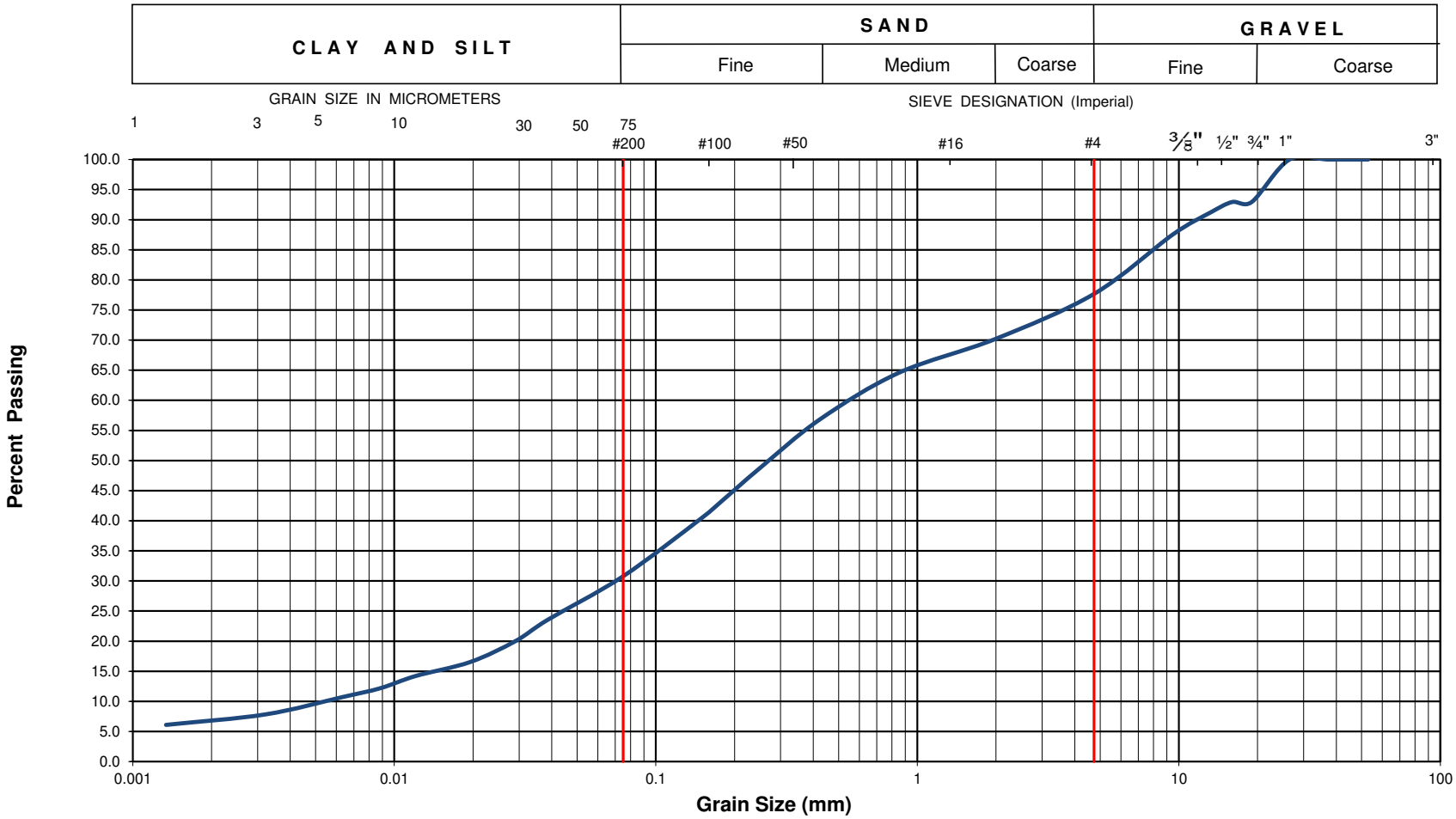


EXP Project No.:	**OTT-00258780-B0**	**Project Name :**	**Geotechnical Investigation - Proposed Residential Development**					
Client :	**11654128 Canada Inc.**	**Project Location :**	**6171 Hazeldean Rd, Ottawa, ON**					
Date Sampled :	**March 24, 2020**	**Borehole No:**	**BH3**	**Sample:**	**SS2**		**Depth (m) :**	**0.8-1.4**
Sample Composition :		**Gravel (%)**	**51**	**Sand (%)**	**39**	**Silt & Clay (%)**	**10**	**Figure :** **26**
Sample Description :	**Well Graded Sandy Gravel (GW)**							

EXP Services Inc.
100-2650 Queensview Drive
Ottawa, ON K2B 8H6

Grain-Size Distribution Curve
Method of Test For Particle Size Analysis of Soil
ASTM C-136/ASTM D422

Unified Soil Classification System



EXP Project No.:	**OTT-00258780-B0**	**Project Name :**	**Geotechnical Investigation - Proposed Residential Development**						
Client :	**11654128 Canada Inc.**	**Project Location :**	**6171 Hazeldean Rd, Ottawa, ON**						
Date Sampled :	**March 24, 2020**	**Borehole No:**	**BH4**	**Sample No.:**	**SS1**	**Depth (m) :**	**0-0.6**		
Sample Description :		**% Silt and Clay**	**31**	**% Sand**	**47**	**% Gravel**	**22**	**Figure :**	**27**
Sample Description :		**Silty Gravelly Sand (SM)**							

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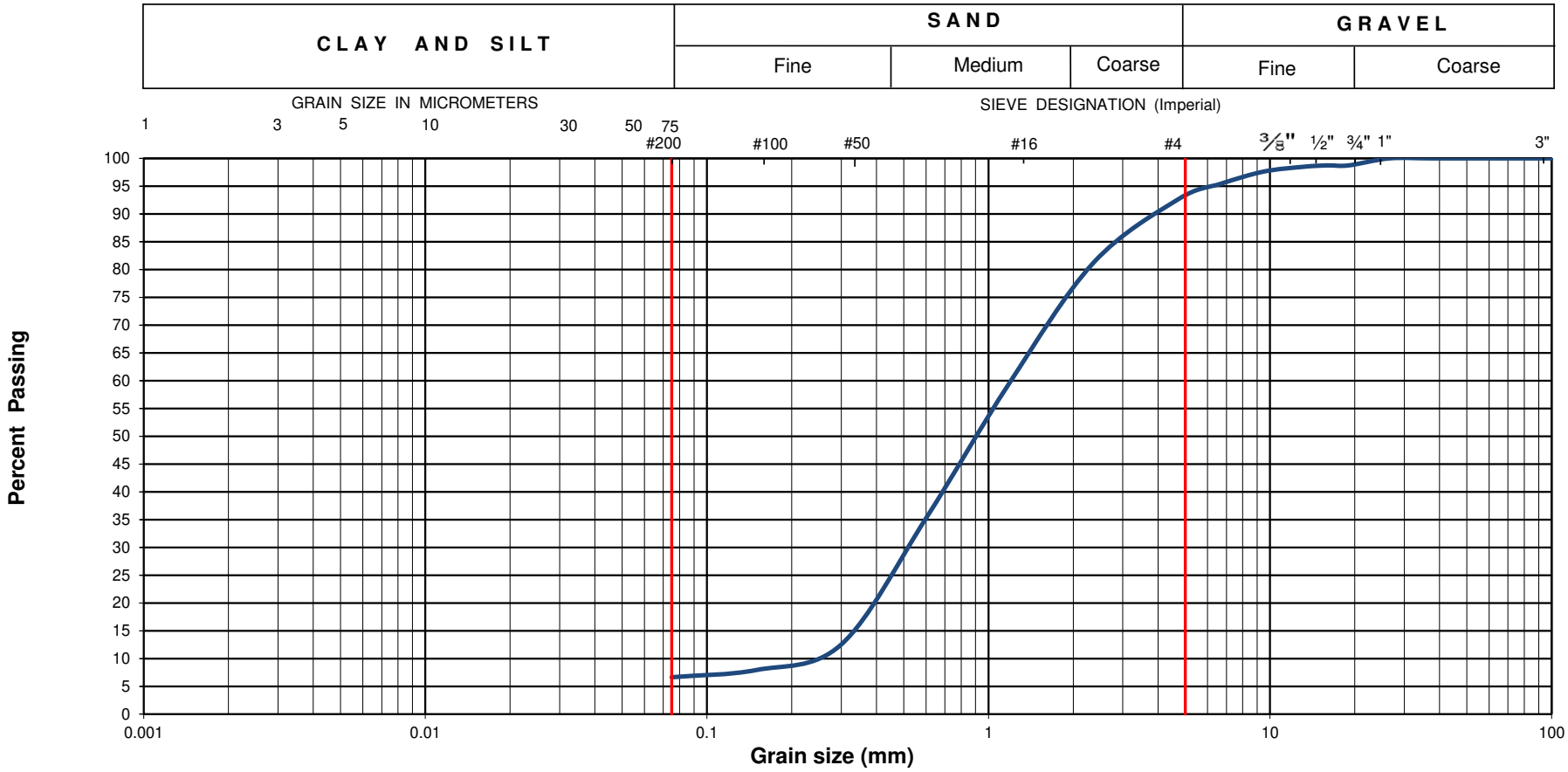
Grain-Size Distribution Curve
Method of Test For Sieve Analysis of Aggregate
ASTM C-136

Unified Soil Classification System



EXP Project No.:	**OTT-00258780-B0**	**Project Name :**	**Geotechnical Investigation - Proposed Residential Development**						
Client :	**11654128 Canada Inc.**	**Project Location :**	**6171 Hazeldean Rd, Ottawa, ON**						
Date Sampled :	**March 17, 2020**	**Borehole No:**	**TP14**	**Sample:**	**AS1**	**Depth (m) :**	**0 - 0.6**		
Sample Composition :		**Gravel (%)**	**7**	**Sand (%)**	**86**	**Silt & Clay (%)**	**7**	**Figure :**	**28**
Sample Description :		**Well Graded Sand (SW)**							

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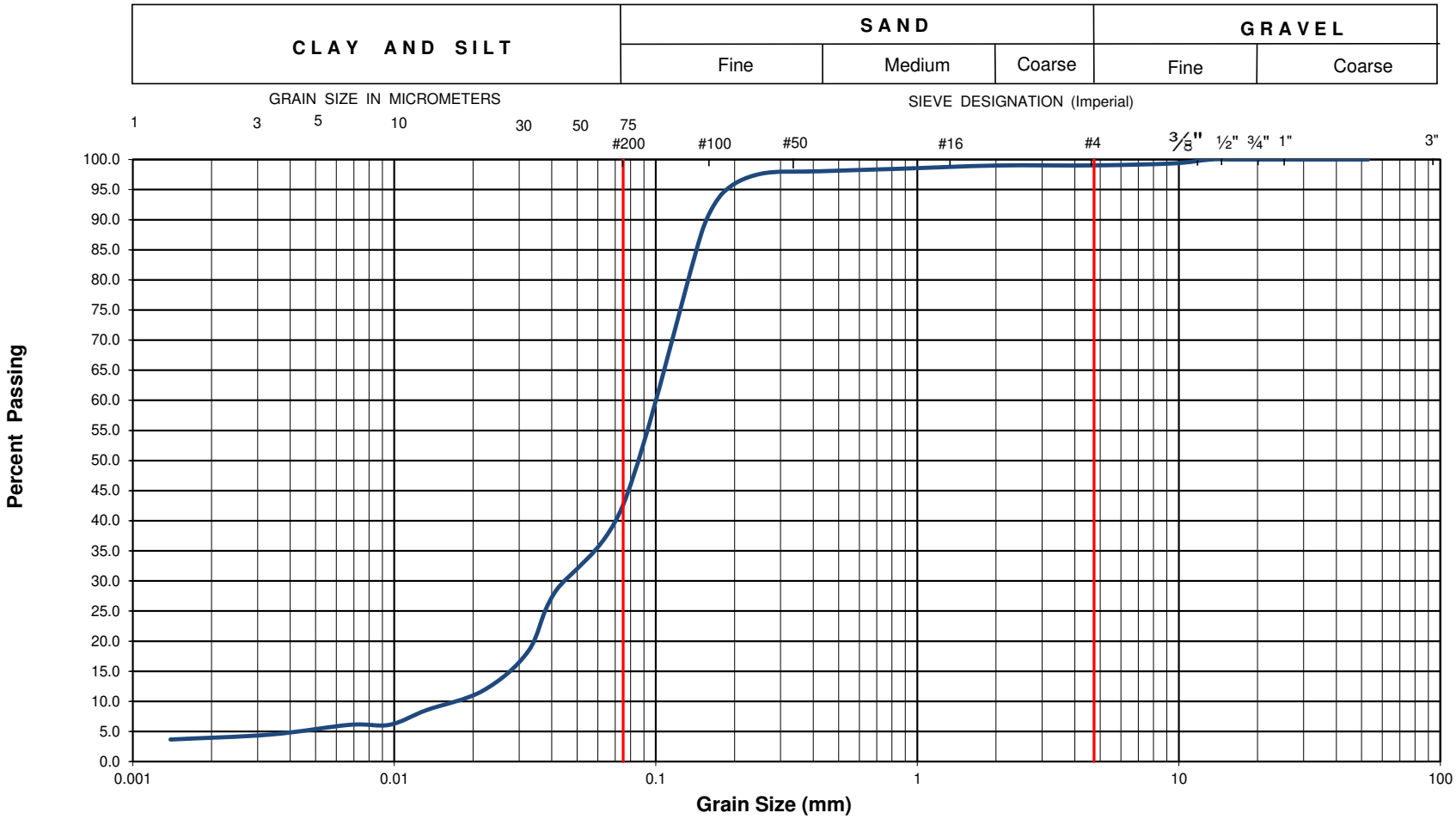
Grain-Size Distribution Curve
Method of Test For Particle Size Analysis of Soil
ASTM C-136/ASTM D422

Unified Soil Classification System



EXP Project No.:	**OTT-00258780-B0**	**Project Name :**	**Geotechnical Investigation - Proposed Residential Development**						
Client :	**11654128 Canada Inc.**	**Project Location :**	**6171 Hazeldean Rd, Ottawa, ON**						
Date Sampled :	**March 24, 2020**	**Borehole No:**	**BH5**	**Sample No.:**	**SS6**	**Depth (m) :**	**3.8-4.4**		
Sample Description :		**% Silt and Clay**	**43**	**% Sand**	**56**	**% Gravel**	**1**	**Figure :**	**29**
Sample Description :		**Silty Sand (SM)**							

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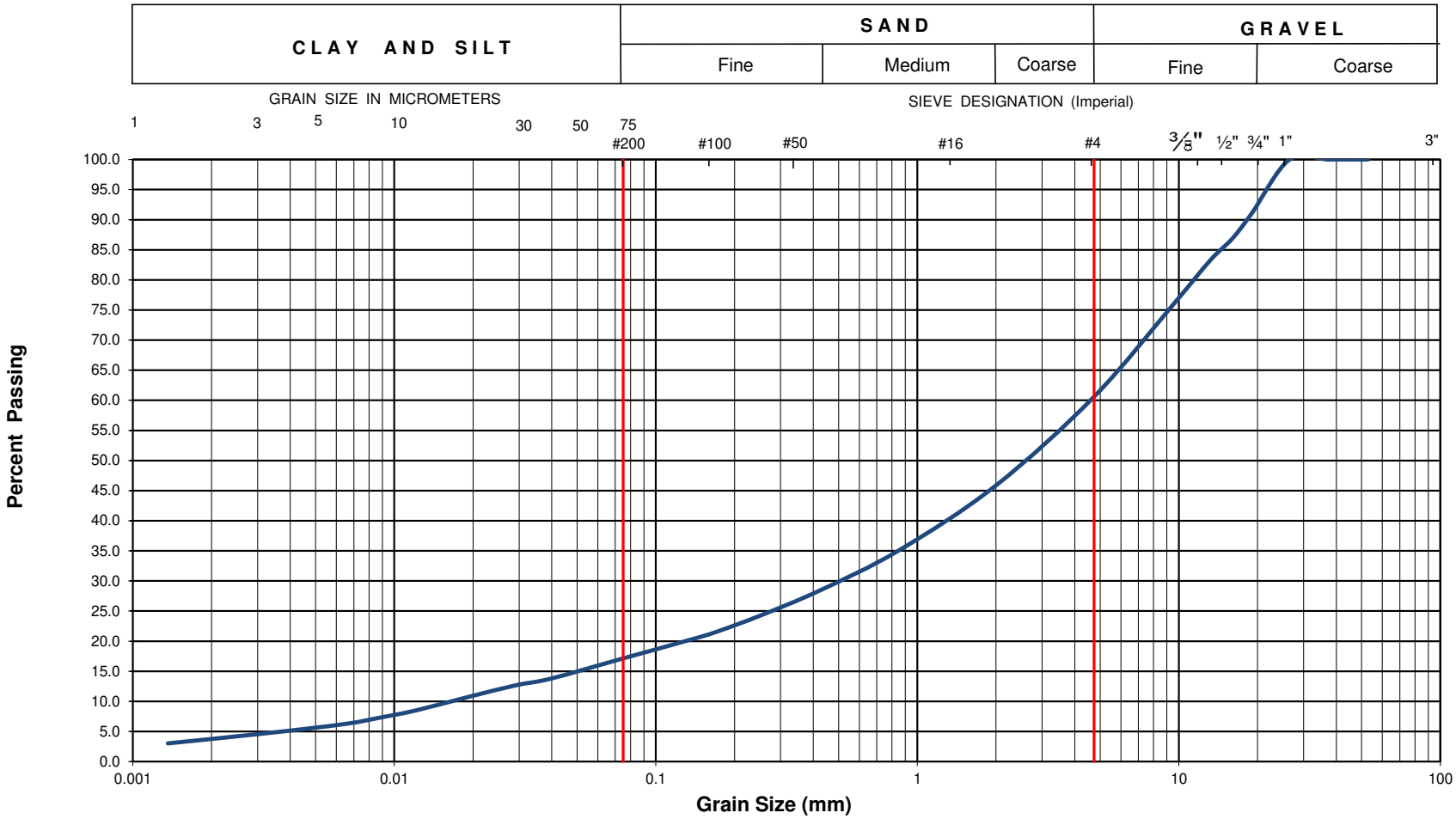
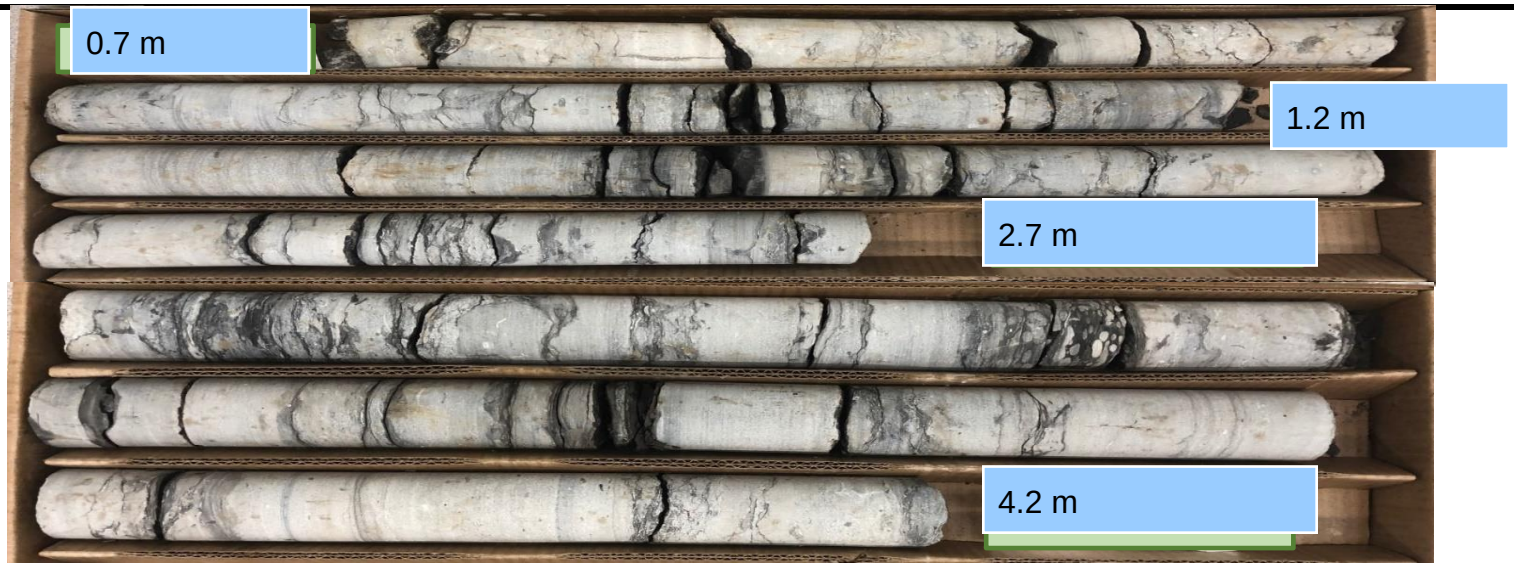
Grain-Size Distribution Curve
Method of Test For Particle Size Analysis of Soil
ASTM C-136/ASTM D422

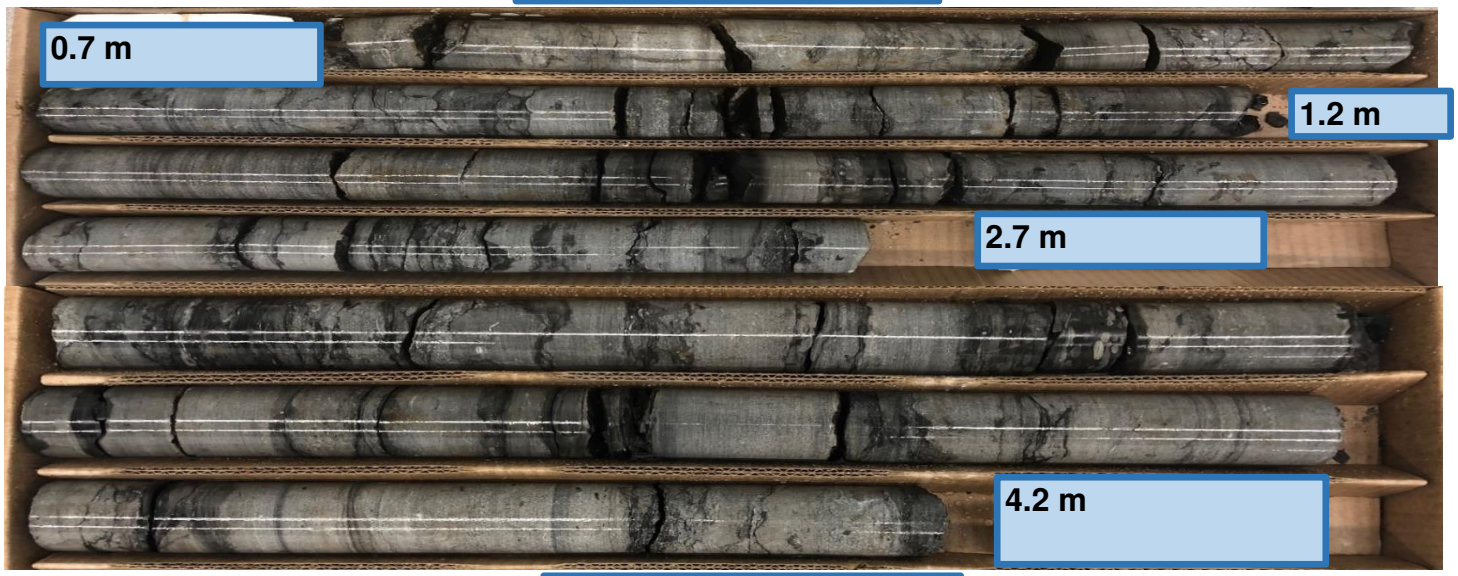
Unified Soil Classification System



EXP Project No.:	**OTT-00258780-B0**	**Project Name :**	**Geotechnical Investigation - Proposed Residential Development**						
Client :	**1165128 Canada Inc.**	**Project Location :**	**6171 Hazeldean Rd, Ottawa, ON**						
Date Sampled :	**March 24, 2020**	**Borehole No:**	**BH6**	**Sample No.:**	**SS5**	**Depth (m) :**	**3.0-3.6**		
Sample Description :		**% Silt and Clay**	**17**	**% Sand**	**44**	**% Gravel**	**39**	**Figure :**	**30**
Sample Description :		**Silty Sand & Gravel (SM)**							

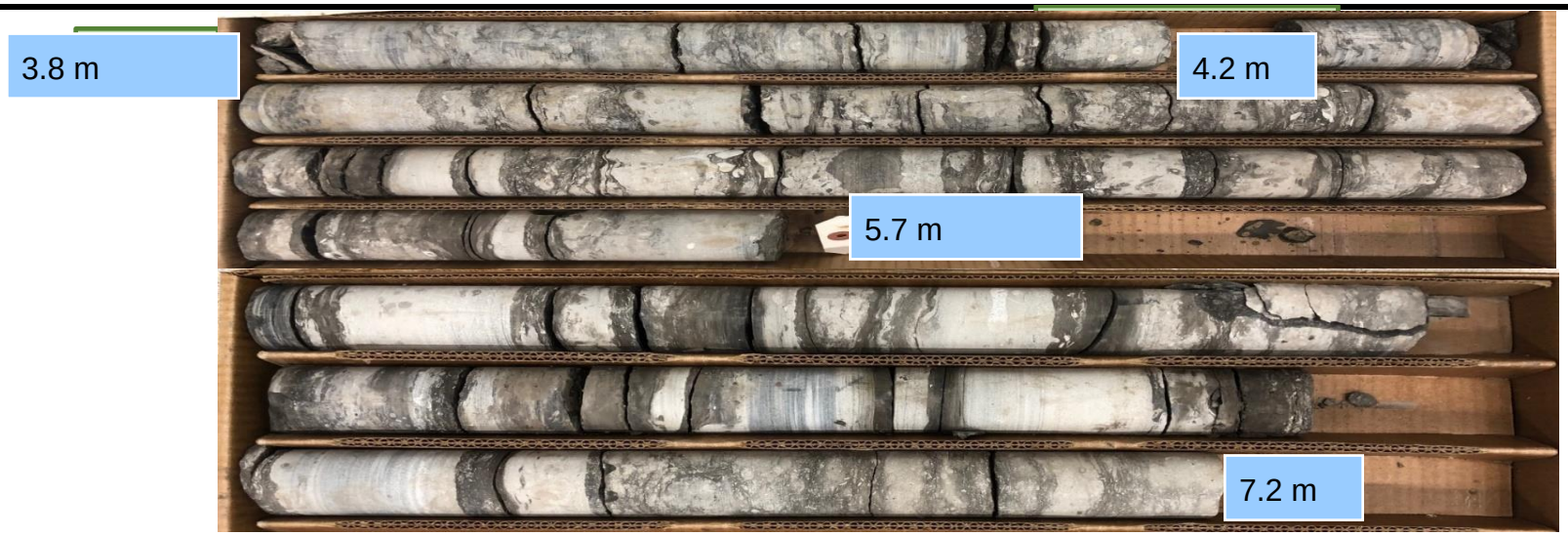


DRY BEDROCK CORES

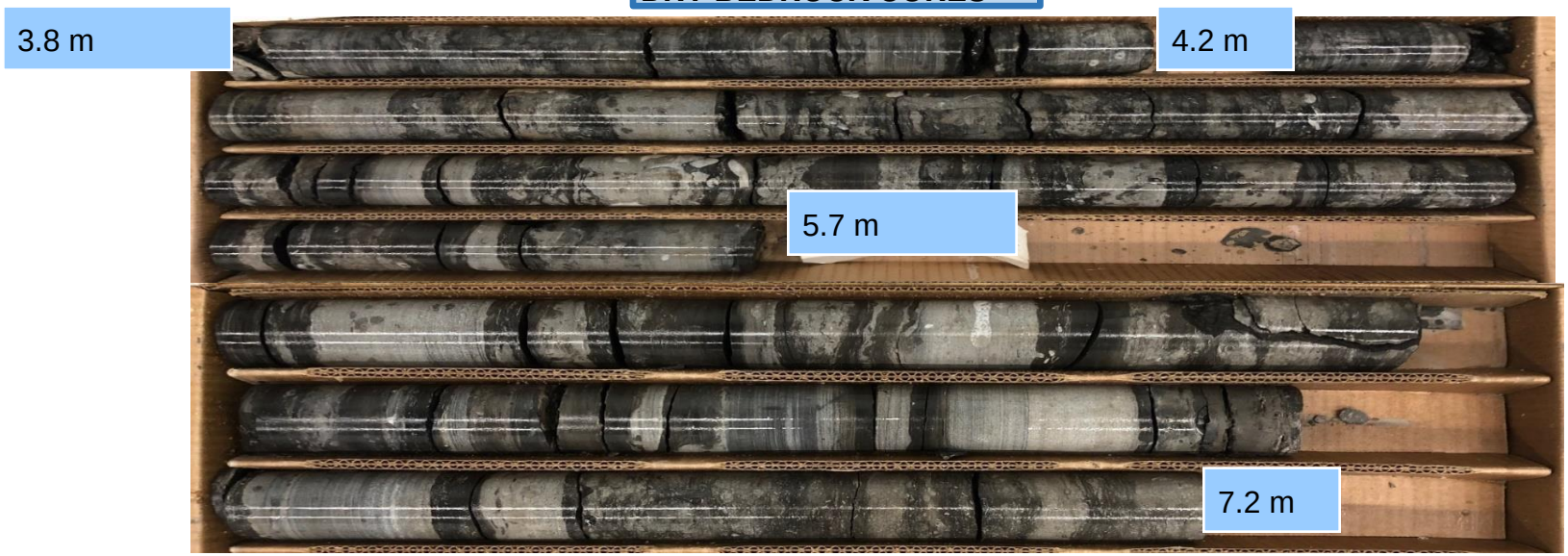


WET BEDROCK CORES

Borehole No. **BH-1**	**Core Runs** Run 1 : 0.7 - 1.2 m Run 2 : 1.2 - 2.7 m Run 3> 2.7 - 4.2 m	Project Name: **Propsoed Residential Development. 6171 Hazeldean Road, Ottawa, ON**	Project No: **OTT-000258780-B0**
		ROCK CORE PHOTOGRAPHS	Figure No: **Fig 31**

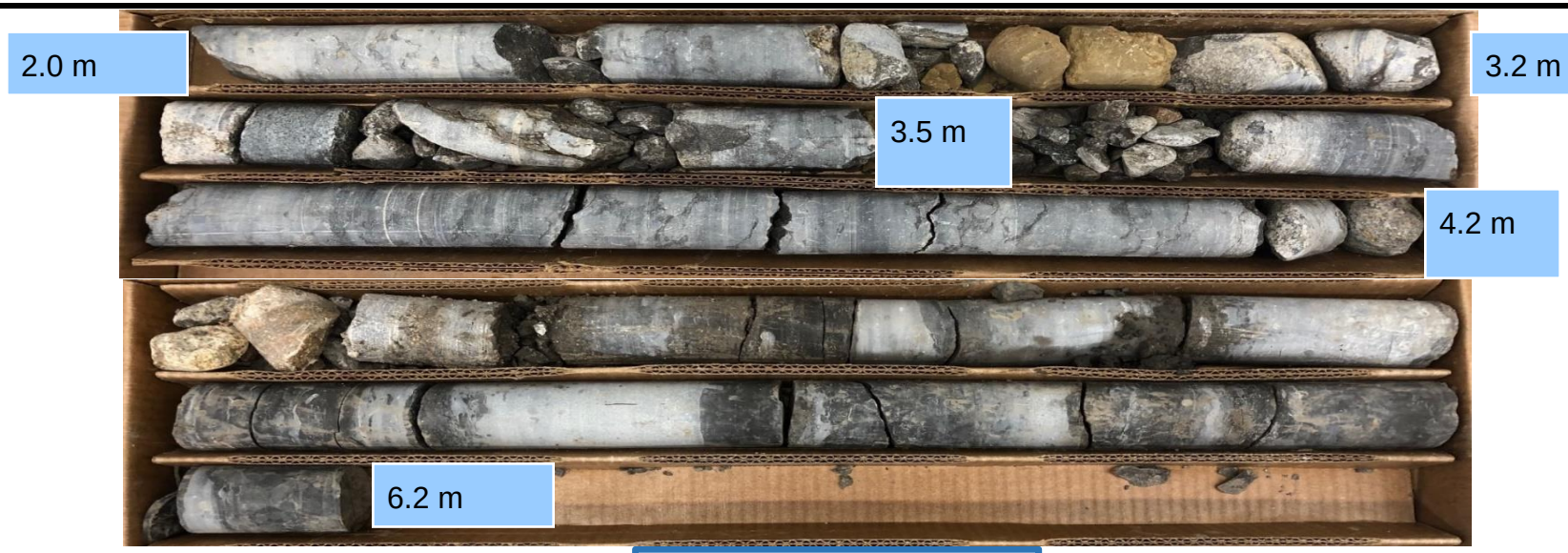


DRY BEDROCK CORES

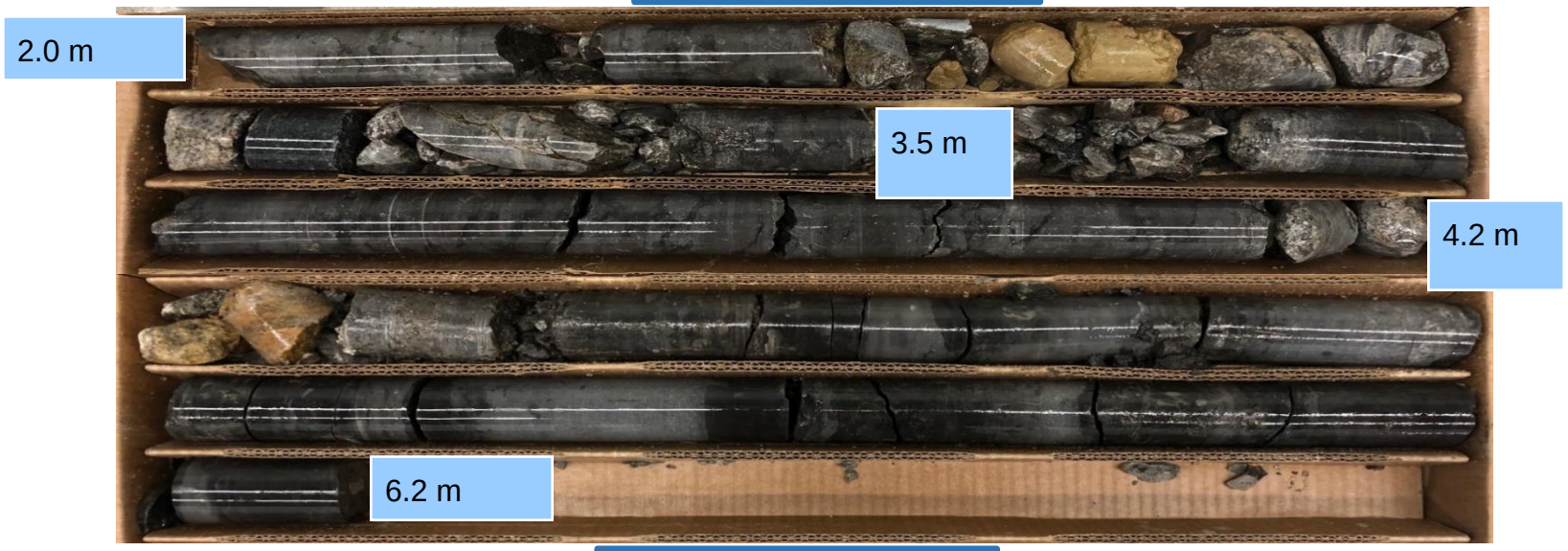


WET BEDROCK CORES

Borehole No. **BH-2**	**Core Runs** Run 1 : 3.8 - 4.2 m Run 2 : 4.2 - 5.7 m Run 3: 5.7 - 7.2 m	Project Name: **Propsoed Residential Development. 6171 Hazeldean Road, Ottawa, ON**	Project No: **OTT-000258780-B0**
		ROCK CORE PHOTOGRAPHS	Figure No: **Fig 32**



DRY BEDROCK CORES



WET BEDROCK CORES

Borehole No. **BH-3**	**Core Runs** Run 1 : 2.0 - 3.2 m Run 2 : 3.2 - 3.5 m Run 3: 3.5 - 4.6 m Run 4: 4.6 - 6.2 m	Project Name: **Propsoed Residential Development. 6171 Hazeldean Road, Ottawa, ON**	Project No: **OTT-000258780-B0**
		ROCK CORE PHOTOGRAPHS	Figure No: **Fig 33**

Appendix H:
Site Photographs

Photograph No. 1

View of west part Phase One property looking northwest

Photograph No. 2

View of east part of Phase One property looking north

Photograph No. 3

View of the west adjacent properties looking west

Photograph No. 4

View of the east adjacent properties looking east

Photograph No. 5

View of fill piles along west property line

Photograph No. 6

View of fill piles along west property line