#### Geotechnical Engineering

Environmental Engineering

Hydrogeology

Geological Engineering

**Materials Testing** 

**Building Science** 

Archaeological Services

# patersongroup

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

Vacant Lots – Blocks 1, 2 and 21 255 and 285 Mountshannon Drive And 591 Longfields Drive Ottawa, Ontario

### **Prepared For**

Mattino Developments Inc.

#### Paterson Group Inc.

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

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### March 27, 2019

Report: PE4589-1

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### EXECUTIVE SUMMARY

### Assessment

Paterson Group was retained by Mattino Developments Inc. to conduct a Phase I-Environmental Site Assessment (ESA) for the properties located at 255 and 285 Mountshannon Drive and 591 Longfields Drive, in the City of Ottawa, Ontario. The purpose of this Phase I-ESA was to research the past and current use of the subject site and the Phase I Study Area and to identify any environmental concerns with the potential to have impacted the Phase I Properties.

According to the historical research, the Phase I Properties have never been developed and were historically used for agricultural purposes. Historical land use of the neighbouring properties was for residential and agricultural purposes. No potentially contaminating activities were identified with the historical use of the subject site or surrounding lands.

Following the historical research, a site visit was conducted. The subject properties are currently vacant. No potential environmental concerns were noted with the current use of the Phase I Properties. Neighbouring properties in the Phase I Study Area consist of vacant lands, a residential subdivision with schools and a community centre and railway tracks. Railway tracks are considered a potentially contaminating activity, however, based on the nature of their use and distance from the subject site, they are not considered to represent an area of potential environmental concern. Therefore, no areas of potential environmental concern with respect to the Phase I Properties were identified.

Based on the results of the assessment, it is **our opinion that a Phase II-**Environmental Site Assessment is not required for the subject properties.

### **1.0 INTRODUCTION**

At the request of Mattino Developments Inc., Paterson Group (Paterson) conducted a Phase I-Environmental Site Assessment (Phase I-ESA) for the properties located at 255 and 285 Mountshannon Drive (Blocks 1 and 2) and 591 Longfields Drive (Block 21), in the City of Ottawa, Ontario. The purpose of this Phase I-ESA was to research the past and current use of the site and study area and to identify any environmental concerns with the potential to have impacted the subject properties.

Paterson was engaged to conduct this Phase I-ESA by Mr. Giuseppe Matteucci of Mattino Developments Inc. The head office is located at 171 Claridge Drive, Ottawa, Ontario. Mr. Matteucci can be reached by telephone at (613) 254-9643.

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

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

### 2.0 PHASE I PROPERTIES INFORMATION

| Address:                | 255 and 285 Mountshannon Drive and 591 Longfields<br>Drive, Ottawa, Ontario  |  |  |  |
|-------------------------|--|--|--|--|
| Legal Description:      | Blocks 1, 2 and 21 on Plan 4M1527, in the City of Ottawa   |  |  |  |
| Location:               | The site is located on the northwest side of Longfields<br>Drive, where Mountshannon Drive transects with<br>Longfields Drive, in the City of Ottawa, Ontario. Refer<br>to Figure 1 - Key Plan in the Figures section following<br>the text. |  |  |  |
| PIN:                    | 14568-0589, 14568-0590 and 14568-0609  |  |  |  |
| Latitude and Longitude: | 45°17' 13.78" N, 75° 44' 31.39" W  |  |  |  |
| Site Description:       |  |  |  |  |
| Configuration:          | Irregular  |  |  |  |
| Area:                   | 15,000 m <sup>2</sup> (approximately)  |  |  |  |
| Zoning:                 | R4A – Residential, 4 <sup>th</sup> Density Zone  |  |  |  |
| Current Use:            | The subject site is currently vacant and undeveloped land.   |  |  |  |
| Services:               | ne subject site is situated in a municipally serviced ea.  |  |  |  |

### 3.0 SCOPE OF INVESTIGATION

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

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

### 4.0 RECORDS REVIEW

### 4.1 General

### Phase I-ESA Study Area Determination

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

### First Developed Use Determination

Based on an aerial photograph from 1945, the subject site has never been developed.

### Fire Insurance Plans

Fire Insurance Plans (FIPs) are not available for the subject area.

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

There are no city directories for the subject site and study area.

#### Chain of Title

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

### **Previous Engineering Reports**

Paterson Group has conducted environmental investigations in the immediate vicinity of the subject site. Based on a review of our files, no potential environmental concerns were identified on the subject site or neighbouring lands.

A geotechnical investigation was conducted for the subject site in 2013. Based on the subsurface investigation, no signs of environmental contamination or deleterious fill material were observed during the course of the investigation.

### Survey Plan and Plan of Subdivision

A grading plan of the Phase I Properties prepared by Novatech Engineering was reviewed as part of this assessment.

### 4.2 Environmental Source Information

### **Environment Canada**

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on March 22, 2019. The subject site and adjacent properties were not listed in the NPRI database. No records of pollutant release were listed in the database for properties located within the Phase I Study Area.

### **PCB** Inventory

A search of national PCB waste storage sites was conducted. No PCB waste storage sites are located within the Phase I study area.

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

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

### **MECP Submissions**

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

### MECP Incident Reports

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

### MECP Waste Management Records

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

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

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

### MECP Brownfields Environmental Site Registry

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

#### MECP Waste Disposal Site Inventory

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

#### Areas of Natural Significance

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

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

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on March 25, 2019, to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties. No records are

listed in the TSSA registry for the subject site or the adjacent properties. A copy of the TSSA correspondence is included in Appendix 2.

### City of Ottawa Landfill Document

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

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

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

### 4.3 Physical Setting Sources

### Aerial Photographs

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

- 1945 The subject site and surrounding lands appear as agricultural lands at this time. Fallowfield Road and Woodroffe Avenue can be seen in this photograph as well as the railroad tracks that lie to the west of the site.
- 1953 The subject site and surrounding lands appear unchanged from the previous photograph.
- 1963 No significant changes are apparent on the subject site or surrounding lands.
- 1983 The subject site and surrounding lands to the northeast, east, and south appear as agricultural fields. A residential subdivision to the North/northwest is present at this time.
- 1996 No significant changes are apparent to the subject site. Surrounding lands to the northeast, south and southwest appear as vacant lands. Residential and community developments are present east and west of the subject site.

- 2005 The subject site remains unchanged from the previous photograph. More residential and community developments are present further south and west of the subject site.
- 2017 The northern portion of the site appears vacant with a stockpile present. The stockpile is expected to be excess soil from the initial phases of the site development. The remaining two portions of the site appear as vacant lots. Neighbouring lands to the north, east, south and west are occupied by residential dwellings, recreational fields and institutions.

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

### **Topographic Maps**

Topographic maps were obtained from Natural Resources Canada – The Atlas of Canada website and from the City of Ottawa website. The topographic maps indicate that the regional topography in the general area of the site slopes down in a north-easterly direction towards the Rideau River. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report.

### Physiographic Maps

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

### Geological Maps

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on this information, bedrock in the area consists of interbedded sandstone and dolomite, of the March Formation. The surficial geology in the area of the site consists of offshore marine sediments of clay and silt, with a drift thickness ranging from 5 to 10 m.

### Water Well Records

A Well Record search was conducted on March 22, 2019 for all drilled wells within 250 m of the subject site. The well record search returned ten (10) well records, four (4) of which were identified as monitoring wells located outside of

the 250 m study area, three (3) domestic well records from 1975 and three (3) records of abandonment. Based on the new residential and community development in the area, these domestic wells are no longer in use. Copies of the well records have been included in Appendix 2.

### Areas of Natural Significance and Water Bodies

No areas of natural significance or bodies of water were identified in the Phase I Study Area.

### 5.0 INTERVIEWS

### Property Owner Representative

Mattino Developments Inc. was contacted via email as part of this assessment. The subject properties have always been vacant and undeveloped. Mattino Developments Inc. is not aware of any potential environmental concerns with respect to the subject or adjacent properties.

## 6.0 SITE RECONNAISSANCE

### 6.1 General Requirements

The site visit was conducted on March 25, 2019. Weather conditions were sunny with a temperature of approximately -8°C. Ms. Mandy Witteman from the Environmental Department of Paterson conducted the site assessment. In addition to the site, the uses of neighbouring properties within the Phase I Study Area were also assessed at the time of the site visit.

### 6.2 Specific Observations at the Phase I Properties

### **Site Features**

The subject properties are vacant and undeveloped land. At the time of the visit, the ground surface was covered in snow.

Site drainage consists primarily of infiltration. The site topography appeared to be at grade with the adjacent roadways.

The regional topography slopes down in an easterly direction towards the Rideau River.

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

### **Buildings and Structures**

There are no buildings or structures present on the Phase I Properties.

### **Neighbouring Properties**

An inspection of the neighbouring properties was conducted from publicly accessible roadways at the time of the site inspection.

Land use adjacent to the 255 Mountshannon Drive (Block 2) was as follows:

- □ North Residential, followed by Boulder Way;
- □ South Mattino Way, followed by vacant land (Block 1);
- East Mountshannon Drive, followed by a Community Centre and parkland;
- U West Residential, followed by Mattino Way.

Land use adjacent to the 285 Mountshannon Drive (Block 1) was as follows:

- □ North Mattino Way, followed by vacant land (Block 2);
- □ South Longfields Drive, followed by vacant land;
- East Mountshannon Drive, followed by a Community Centre and parkland;
- U West Elementary School, followed by Residential.

Land use adjacent to the 591 Longfields Drive (Block 21) was as follows:

- North Vacant land, followed by residential (northeast) and transit way (northwest);
- South Mattino Way, followed by residential;
- □ East Vacant land and residential, followed by Longfields Drive;
- U West Transit way, followed by railway tracks.

The current use of the immediately adjacent properties is not considered to pose an environmental concern to the Phase I Properties. The railway tracks situated 55 m west of Block 21 represents a potentially contaminating activity (PCA), however, they are not considered to represent an area of potential environmental concern (APEC) on the subject site. Current land use in the Phase I Study Area is illustrated on Drawing PE4589-2 – Surrounding Land Use Plan in the Figures section of this report.

## 7.0 REVIEW AND EVALUATION OF INFORMATION

### 7.1 Land Use History

Based on the available historical records, the Phase I Properties have never been developed. No potential environmental concerns were noted with the historical and current land use of the subject properties.

# Potentially Contaminating Activities and Areas of Potential Environmental Concern

No potentially contaminating activities (PCAs)) were identified on the Phase I Properties. The railway tracks to the west of Block 21 were identified as a PCA within the Phase I Study Area. Based on the nature of the tracks and their distance from the site, the railway line is not considered to represent an area of potential environmental concern (APEC) on the Phase I Property.

### **Contaminants of Potential Concern**

No Contaminants of Potential Concern (CPCs) were identified on the subject site.

### 7.2 Conceptual Site Model

### Geological and Hydrogeological Setting

Based on the information from the Geological Survey of Canada, the overburden in the area consists of offshore marine sediments of clay and silt, with a drift thickness ranging from 5 to 10 m. Bedrock in the area consists of interbedded sandstone and dolomite, of the March Formation.

Groundwater flow is interpreted to be in an easterly direction towards the Rideau River.

### **Existing Buildings and Structures**

There are no buildings or structures on the Phase I Properties.

### Water Bodies and Areas of Natural Significance

No areas of natural significance or water bodies were identified on the Phase I Properties or within the Phase I Study Area.

#### Drinking Water Wells

There are no potable water wells on the subject site. Four (4) domestic well records were identified as well as their respective abandonment records.

### Neighbouring Land Use

Neighbouring land use in the Phase I Study Area consists of vacant land, a residential subdivision with institutional and community centre as well as the transit way and railway tracks.

# Potentially Contaminating Activities and Areas of Potential Environmental Concern

As per Section 7.1 of this report, one PCA (railway tracks) was identified within the Phase I Study Area; however, as discussed previously, it does not represent an area of potential environmental concern to the Phase I Properties.

#### Contaminants of Potential Concern

As per Section 7.1 of this report, no Contaminants of Potential Concern (CPCs) were identified on the Phase I Properties.

#### Assessment of Uncertainty and/or Absence of Information

The information available for review as part of the preparation of this Phase I-ESA is considered to be sufficient to conclude that there are no APECs on the Phase I Properties. A variety of independent sources were consulted as part of this assessment, and as such, the conclusions of this report are not affected by uncertainty which may be present with respect to the individual sources.

### 8.0 CONCLUSIONS

### Assessment

Paterson Group was retained by Mattino Developments Inc. to conduct a Phase I-Environmental Site Assessment (ESA) for the properties located at 255 and 285 Mountshannon Drive and 591 Longfields Drive, in the City of Ottawa, Ontario. The purpose of this Phase I-ESA was to research the past and current use of the subject site and the Phase I Study Area and to identify any environmental concerns with the potential to have impacted the Phase I Properties.

According to the historical research, the Phase I Properties have never been developed and were historically used for agricultural purposes. Historical land use of the neighbouring properties was for residential and agricultural purposes. No potentially contaminating activities were identified with the historical use of the subject site or surrounding lands.

Following the historical research, a site visit was conducted. The subject properties are currently vacant. No potential environmental concerns were noted with the current use of the Phase I Properties. Neighbouring properties in the Phase I Study Area consist of vacant lands, a residential subdivision with schools and a community centre and railway tracks. Railway tracks are considered a potentially contaminating activity, however, based on the nature of their use and distance from the subject site, they are not considered to represent an area of potential environmental concern. Therefore, no areas of potential environmental concern with respect to the Phase I Properties were identified.

Based on the results of the assessment, it is **our opinion that a Phase II-**Environmental Site Assessment is not required for the subject properties.

### 9.0 STATEMENT OF LIMITATIONS

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

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

This report was prepared for the sole use of Mattino Developments Inc. Permission and notification from Mattino Developments Inc. and Paterson will be required to release this report to any other party.

### Paterson Group Inc.

Mandy Witteman, M.A.Sc.



Mark S. D'Arcy, P.Eng.

#### **Report Distribution:**

- Mattino Developments Inc.
- Paterson Group



### **10.0 REFERENCES**

### Federal Records

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

PCB Waste Storage Site Inventory.

### **Provincial Records**

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

### **Municipal Records**

City of Ottawa Document "Old Landfill Management Strategy, Phase I -Identification of Sites.", prepared by Golder Associates, 2004. Intera Technologies Limited Report "Mapping and Assessment of Former Industrial Sites, City of Ottawa", 1988. geoOttawa: City of Ottawa electronic mapping website. City of Ottawa Historical Land Use Inventory (HLUI) Database

### **Local Information Sources**

Personal Interviews.

### **Public Information Sources**

Google Earth. Google Maps/Street View.

# **FIGURES**

FIGURE 1 – KEY PLAN

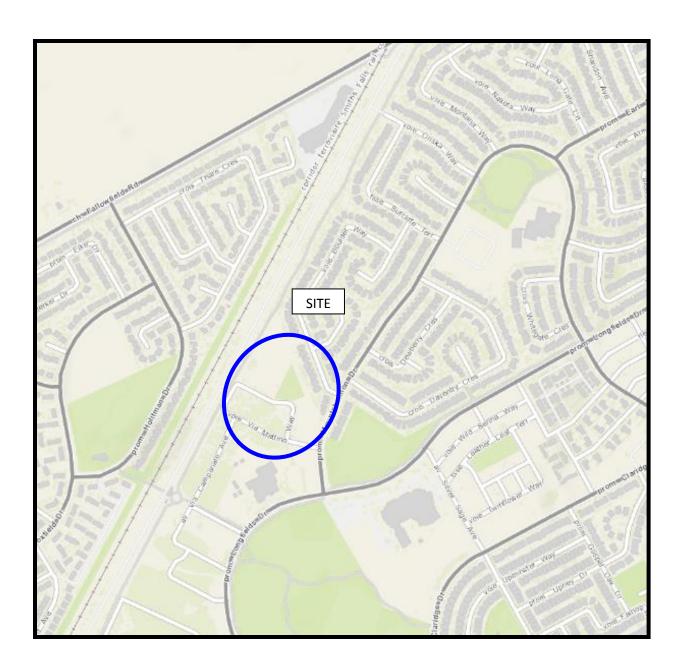
FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE4589-1 – SITE PLAN

DRAWING PE4589-2 – SURROUNDING LAND USE PLAN

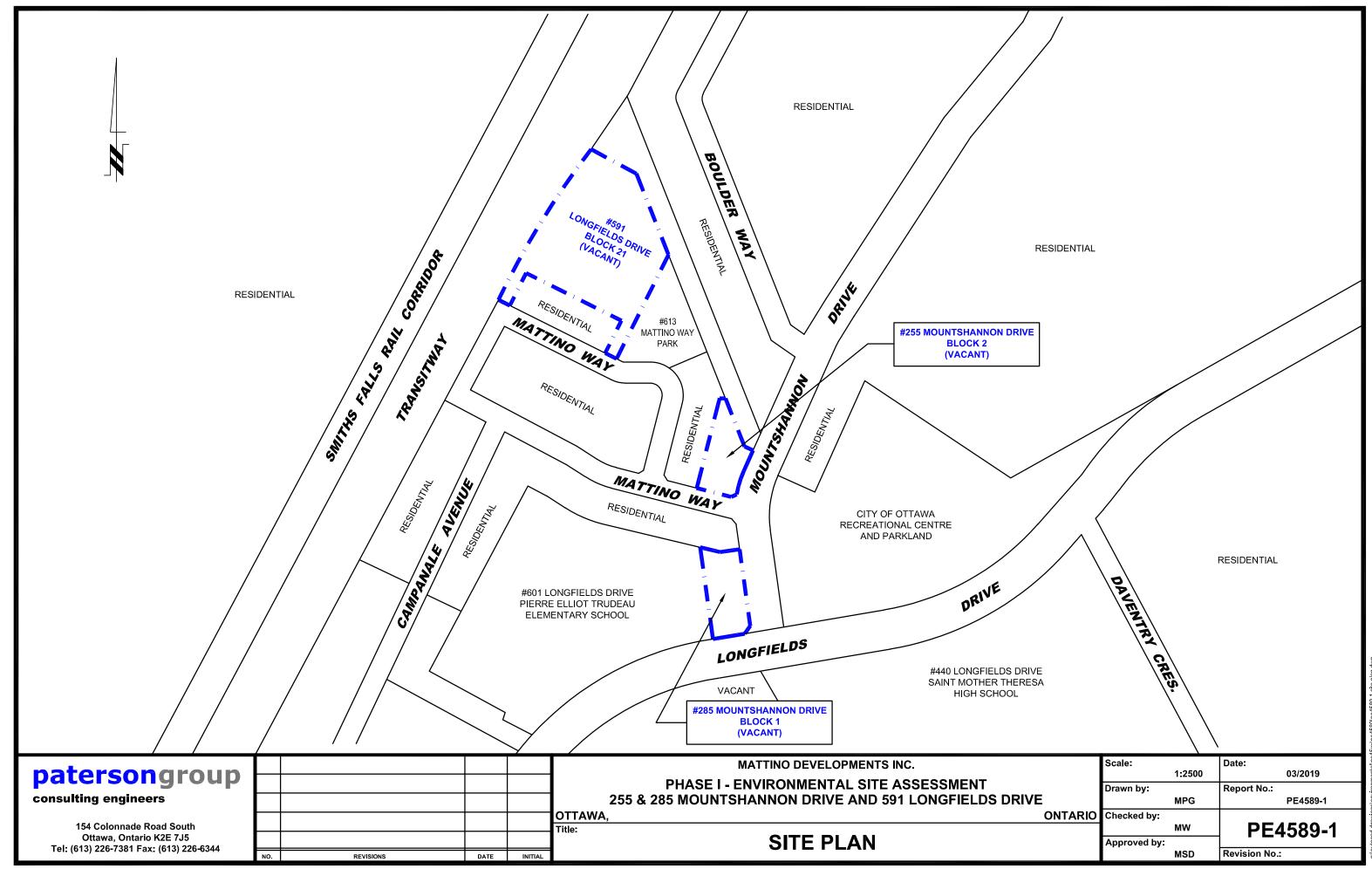
# patersongroup

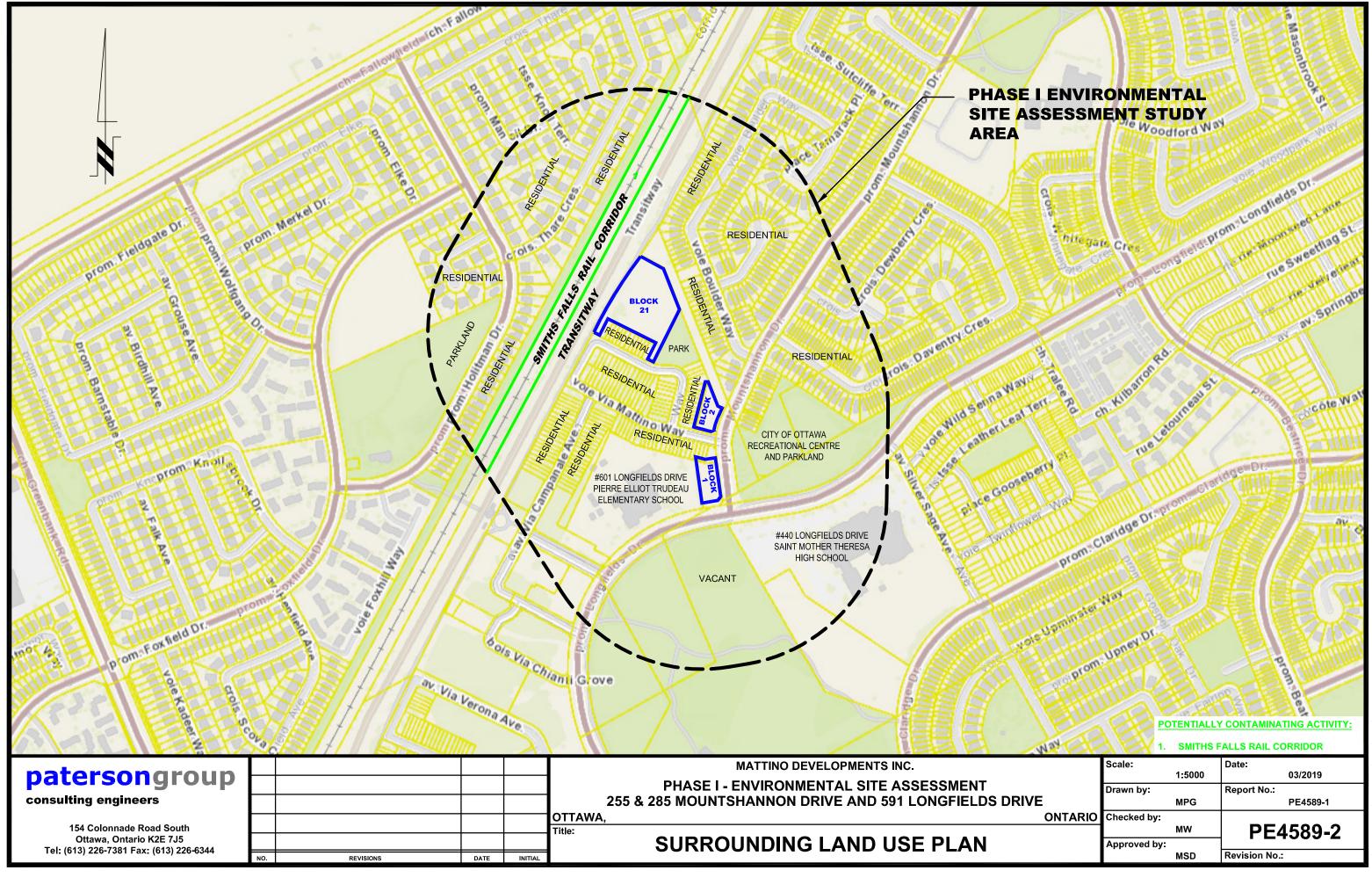
## FIGURE 1 KEY PLAN



# Merivale Station Rideau Glen Gloucester Back Rapids Oast euricaton O. 2 Honeygables Com 0 Nepean SITE munication Barrhaven Hearts Desire ockyale

FIGURE 2 TOPOGRAPHIC MAP



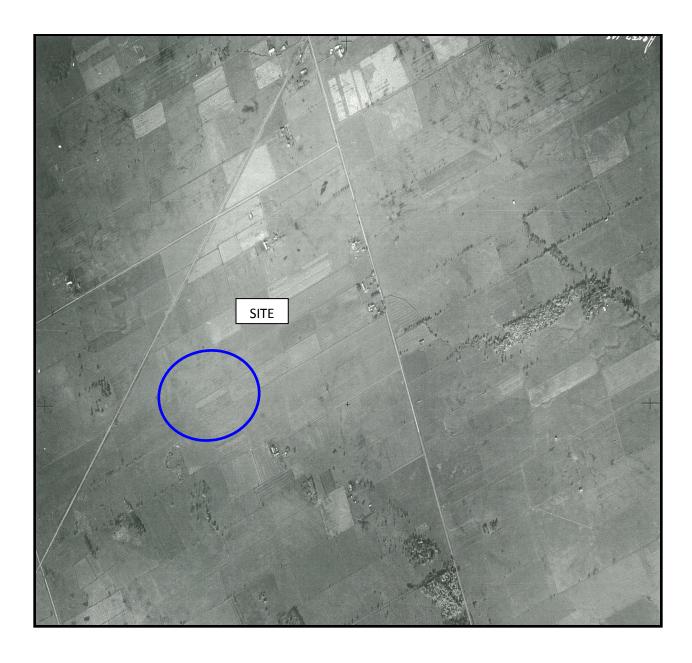


autocad drawings\environmental\pe45xx\pe4589\pe4589-2 slup dv

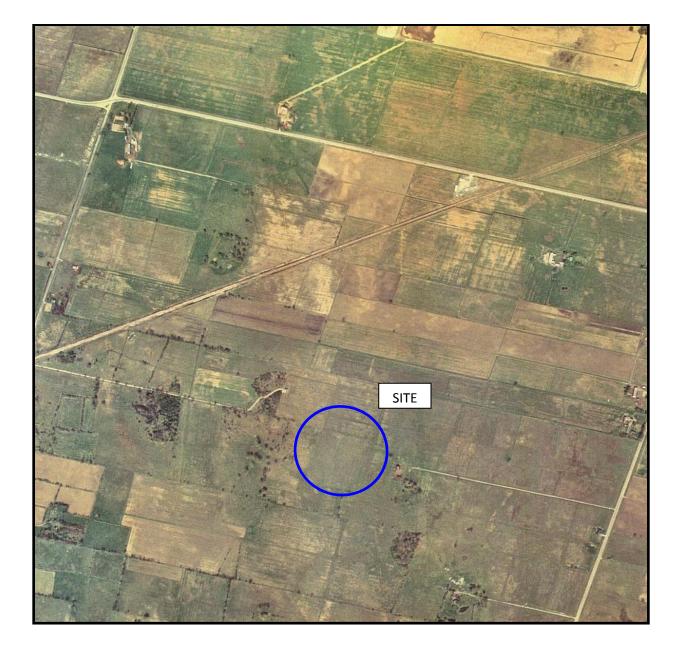
# **APPENDIX 1**

**AERIAL PHOTOGRAPHS** 

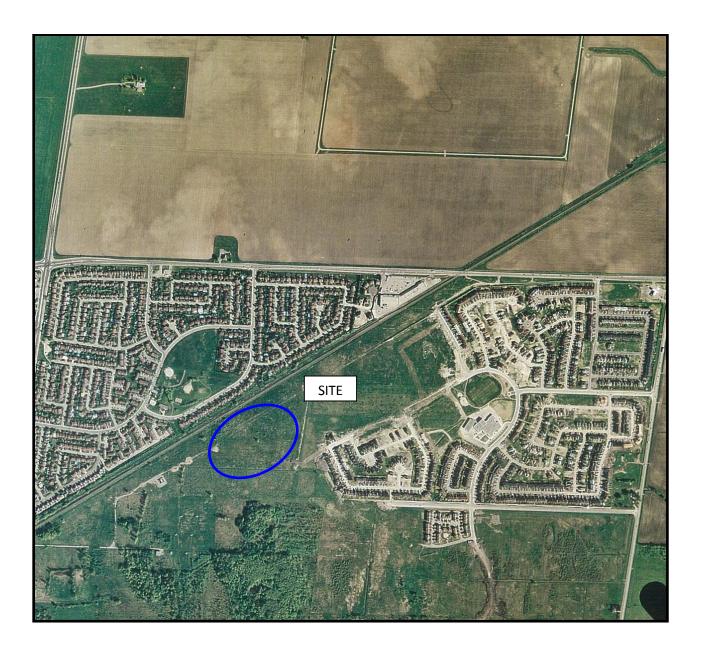
SITE PHOTOGRAPHS



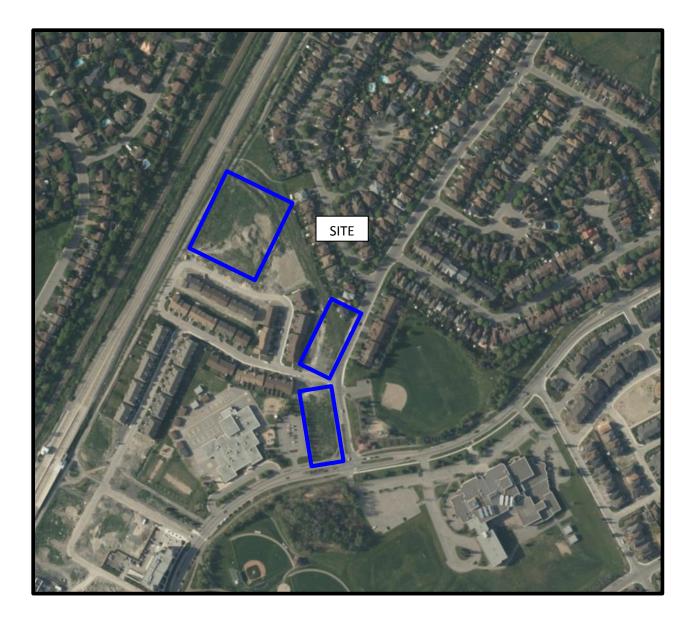












### **Site Photographs**

PE4589

255 and 285 Mountshannon Drive, and 591 Longfields Drive, Ottawa, ON

March 25, 2019



Photograph 1. View of 285 Mountshannon Drive (Block 1), taken from Mountshannon Drive, looking west.



Photograph 2: View of 255 Mountshannon Drive (Block 1), taken from the northeast property boundary, looking southwest.

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### **Site Photographs**

PE4589

255 and 285 Mountshannon Drive, and 591 Longfields Drive, Ottawa, ON

March 25, 2019



Photograph 3: View of 591 Longfields Drive (Block 21), taken from the western property boundary, looking northeast.



Photograph 4: View of 591 Longfields Drive (Block 21), taken from the western property boundary, looking east.

# **APPENDIX 2**

**MECP FREEDOM OF INFORMATION** 

**TSSA CORRESPONDENCE** 

**HLUI RESPONSE** 

MECP WELL RECORDS



Ministry of Environment and Energy

### **Freedom of Information Request**

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

| Name, Company Name, Mailing Address and<br>Mandy Witteman<br>Paterson Group Inc.<br>154 Colonnade Road<br>Ottawa, ON K2E 7J5<br>Email address: mwitteman@  |                                       |  | For Min<br>FOI Request No.<br>Fee Paid<br>ACCT CHQ - | Istry Use Only Date Request Received VISA/MC |  |  |  |
|--|---------------------------------------|--|--|--|--|--|--|
| Telephone/Fax Nos.<br>Tel. 613-226-7381<br>Fax 613-226-6344  | Your Project/Reference No.<br>PE-45XX | Signature/Print /Name of Requester<br>Mandy Witteman | □ CNR □ ER □ NO<br>□ SAC □ IEB □ EA                  |  |  |  |  |
| Request Parameters   |                                       |  |  |  |  |  |  |
| Municipal Address / Lol, Concession, Geographic Township (Municipal address essential for cities, towns or regions)<br>571 Mattino Way (Block 21), 255 + 285 MountShutton Dr., Othruce, Ow<br>Present Property Owner(s) and Date(s) of Ownership<br>Mattino Developments Inc.<br>Previous Property Owner(s) and Date(s) of Ownership<br>Present/Previous Tenant(s). (d' applicable)  |                                       |  |  |  |  |  |  |
| Search Parameters Files older than 2 years may require \$60.00 retrieval cost. There is no guarantee that records responsive to your request will be located. Specify Year(s) Requested  |                                       |  |  |  |  |  |  |
| Environmental concerns (Ge   | all                                   |  |  |  |  |  |  |
| Orders   | all                                   |  |  |  |  |  |  |
| Spills   | all                                   |  |  |  |  |  |  |
| Investigations/prosecutions  | Owner AND tena                        |  | all  |  |  |  |  |
| Waste Generator number/cla   | ISSES                                 |  |  | all  |  |  |  |
| e  | Certificates                          | s of Approval > Proponent infor                      | mation must be provided                              |  |  |  |  |
| Certificates of Approval ➤ Proponent information must be provided<br>1985 and prior records are searched manually. Search fees in excess of \$300.00 could be incurred, depending on the types and years to be searched. Specify<br>Certificates of Approval number(s) (if known). If supporting documents are also required, mark SD box and specify type e.g. maps, plans, reports, etc.<br>SD Specify Year(s) Requested |                                       |  |  |  |  |  |  |
| air - emissions  |                                       |  |  | 1986-present                                 |  |  |  |
| water - mains, treatment, ground le  | 1986-present                          |  |  |  |  |  |  |
| Sewage - sanitary, storm, treatment  | nt, stormwater, leachate &            | leachate treatment & sewage pump station             | s  | 1986-present                                 |  |  |  |
| waste water - industrial discharge   |                                       | 1986-present   |  |  |  |  |  |
| waste sites - disposal, landfill site  | s, transfer stations, proces          |  | 1986-present   |  |  |  |  |
| waste systems - PCB destruction  | & hazardous waste                     | 1986-present   |  |  |  |  |  |
| pesticides - licenses 1986-present<br>\$5.00 non-refundable application fee, payable to the Minister of Finance, is mandatory. The cost of locating on-site and/or preparing any record is   |                                       |  |  |  |  |  |  |

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

#### **Mandy Witteman**

| From:    | Public Information Services < publicinformationservices@tssa.org> |
|----------|---|
| Sent:    | March-25-19 9:37 AM   |
| То:      | Mandy Witteman  |
| Subject: | RE: Records Search Request (PE4589)                               |

Thank you for your inquiry.

We have no record in our database of any fuel storage tanks at the subject address (addresses).

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

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

Thank you and have a great day,

Roxana



#### Roxana Mashtaler | Public Information Agent Facilities 345 Carlingview Drive Toronto, Ontario M9W 6N9 Tel: +1-416-734-3472 | Fax: +1-416-231-6183 | E-Mail: <u>rmashtaler@tssa.org</u> www.tssa.org

From: Mandy Witteman <MWitteman@Patersongroup.ca> Sent: March 25, 2019 9:07 AM To: Public Information Services <publicinformationservices@tssa.org> Subject: Records Search Request (PE4589)

Good Morning,

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

Mountshannon Drive: 255, 285 Longfields Drive: 601, 400, 625, 600 Foxfield Dr: 70,

Thank you.

Cheers,



154 Colonnade Road South Ottawa - Ontario - K2E 7J5 Tel: (613) 226-7381 Fax: (613) 226-6344 Cell: (403)-921-1157 Email: <u>mwitteman@patersongroup.ca</u>

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

March 25, 2019 File: PE4589-HLUI

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

Subject:

## Authorization Letter, HLUI Search Phase I-Environmental Site Assessment 255 and 285 Mountshannon Drive and 591 Longsfield Drive, Ottawa, Ontario

Dear Sir,

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

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

Name of Company/Property Owner:

Name of Representative/Owner

Signature of Representative/Owner

Date

| Mattino Developments inc. |
|---------------------------|
| & Matterici               |
|                           |
| March 25, 2019            |

Well ID Number: 7278712 Well Audit Number: *Z220185* Well Tag Number:

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

#### Well Location

| Address of Well Location         | 124 HOLITMAN DR   |
|----------------------------------|---|
| Township                         | NEPEAN TOWNSHIP   |
| Lot                              | 020   |
| Concession                       | RF 02   |
| County/District/Municipality     | OTTAWA-CARLETON   |
| City/Town/Village                | NEPEAN  |
| Province                         | ON  |
| Postal Code                      | n/a   |
| UTM Coordinates                  | NAD83 — Zone 18<br>Easting: 441279.00<br>Northing: 5015039.00 |
| Municipal Plan and Sublot Number |   |
| Other                            |   |

## **Overburden and Bedrock Materials Interval**

| General Colour Most Common Material | Other Materials | <b>General Description</b> | Depth<br>From | Depth<br>To |  |
|-------------------------------------|-----------------|----------------------------|---------------|-------------|--|
|-------------------------------------|-----------------|----------------------------|---------------|-------------|--|

## **Annular Space/Abandonment Sealing Record**

| Depth<br>From | Depth<br>To | Type of Sealant Used<br>(Material and Type) | Volume<br>Placed |
|---------------|-------------|---|------------------|
| .8 m          | 4.9 m       | BENTONITE GROUT                             |                  |
| .8 m          | 4.9 m       | ABANDONMENT                                 |                  |

## Method of Construction & Well Use

Method of Construction Well Use

Not Used

#### **Status of Well**

Abandoned-Other

# **Construction Record - Casing**

| Inside   | Open Hole or material | Depth | Depth |
|----------|-----------------------|-------|-------|
| Diameter |                       | From  | To    |
| 5 cm     | OTHER                 | .8 m  | 4.9 m |

# **Construction Record - Screen**

Outside Diameter Material Depth Depth From To

# Well Contractor and Well Technician Information

# **Results of Well Yield Testing**

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

#### Draw Down & Recovery

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

#### Water Details

Water Found at Depth Kind

#### **Hole Diameter**

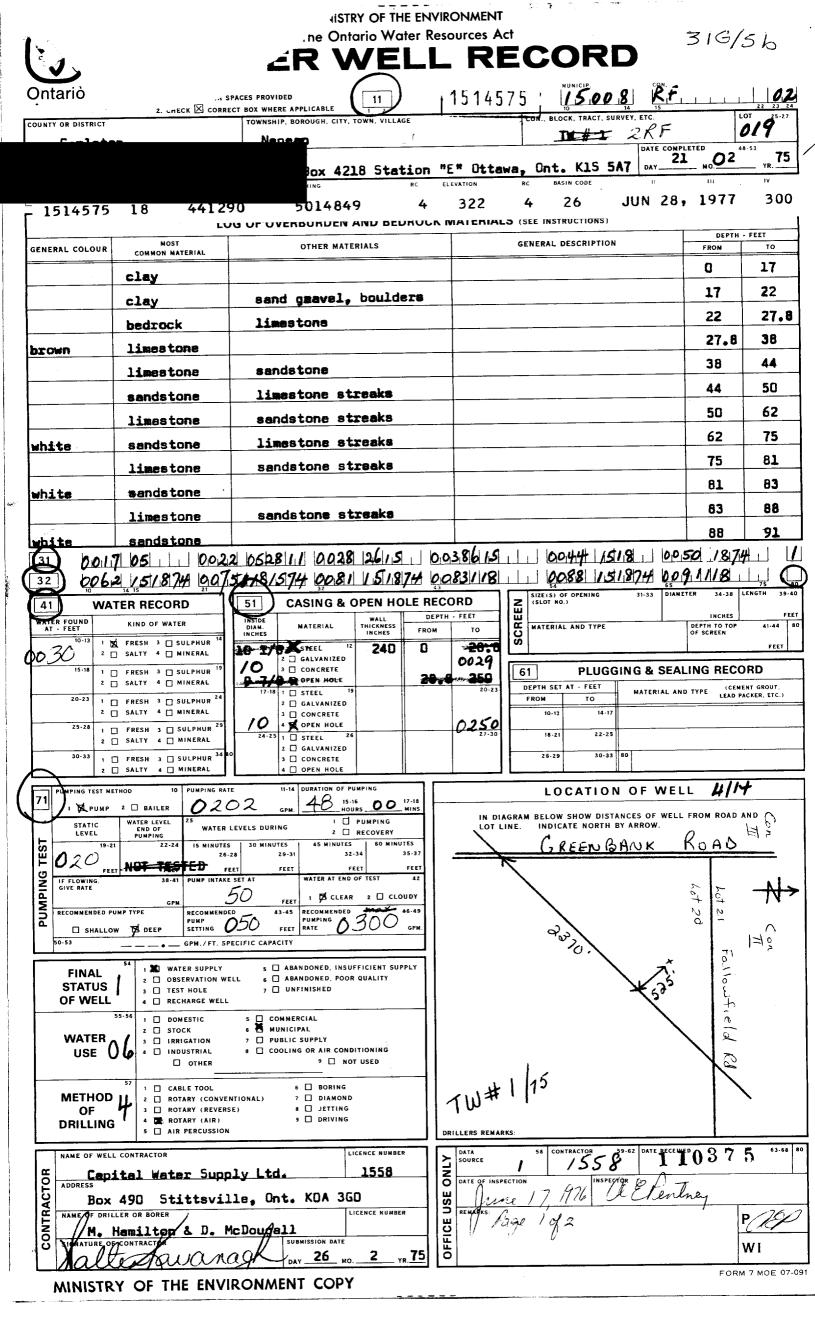
| Depth<br>From | Depth<br>To | Diameter |
|---------------|-------------|----------|
| .8 m          | 4.9 m       | 5 cm     |

#### Audit Number: Z220185

Date Well Completed: October 13, 2016

#### Date Well Record Received by MOE: January 10, 2017

Updated: March 7, 2019 Rate <u>Rate</u> Share <u>facebook twitter Print</u> Tags



|                            |  | The                                     | NISTRY OF THE E                                   | Resources Ac     | t Britch :                                     |                                   | ( ) <b></b>                       |
|----------------------------|--|---|---|------------------|--|-----------------------------------|-----------------------------------|
| Y                          | WA   | ATER                                    | -   | $\sim$           |  | <b>D</b> ( <i>Tage</i> 2 % con.   | 14575                             |
| Intario                    | 1. PRINT ONLY IN S<br>2. CHECK 🗵 CORRE                     | CT BOX WHERE APPLICAE                   |   | EE PAGI          |  | 14 15                             | LOT 25-27                         |
| UNTY OR DISTRICT           |  | TOWNSHIP, BOROUGH                       | H, CITY, TOWN, VILLAGE                            |                  | CON., BLOCK, TRACT, SUR                        | 2RF                               | set of .                          |
|                            |  | · · ·                                   |   | 101              | Data da  | DATE COMPLETED                    | 48-53<br>2 YR                     |
|                            |  |   | AZI8 Stati  |                  | RC. DASIN CODE                                 |                                   | vi<br>vi                          |
| 2                          | M 10 12  | 17 18                                   |   |                  | S (SEE INSTRUCTIONS)                           |                                   |                                   |
|                            | MOST   |   | R MATERIALS                                       |                  | GENERAL DESCRIPTION                            | DEF                               | TH - FEET                         |
| ENERAL COLOUR              |  |   |   |                  | <u> </u>                                       | 91                                | 95                                |
| CONT*<br>white             | limestone<br>sandstone                                     |   |   |                  |  | 95                                | 108                               |
| WALTS                      | sandstone  | limaston                                | s streaks   |                  |  | 108                               | 124                               |
|                            | limestone  |   | e streaks   |                  |  | 124                               | 165                               |
|                            | sandstone  |   | e streaks   |                  |  | 165                               | 183                               |
|                            | sendstone  | 183                                     |   |                  |  | 183                               | 201                               |
|                            | sandstone  |   |   |                  |  | 201                               | 208                               |
| . 1                        | sandstone  | limestory                               | e stresks   |                  | · · · · · · · · · · · · · · · · · · ·          | 208                               | 212                               |
| white                      | sandstone  |   |   |                  |  | 212                               | 214                               |
|                            | sandstone  | limeston                                | s streaks   |                  | · · · · · · · · · · · · · · · · · · ·          | 214                               | 226                               |
|                            | sandstone  |   |   |                  |  | 226                               | 250                               |
|                            |  |   |   |                  |  |                                   |                                   |
|                            |  |   |   | 43               | SIZE (S) OF OPENING                            | 31-33 DIAMETER 34-3               | 8 LENGTH 3                        |
| 41 WA                      | TER RECORD   |   |   | DEPTH - FEET     | C (SLOT NO.)                                   | INCHE                             | s                                 |
| AT - FEET                  | KIND OF WATER  | DIAM. MATERI<br>INCHES<br>10-11 1 STEEL | INCHES  | ROM TO<br>13-16  | S MATERIAL AND TYPE                            | DEPTH TO T<br>OF SCREEN           | OP 41-44<br>FEET                  |
| ~                          | SALTY 4 MINERAL FRESH 3 SULPHUR 19                         | 2 	G GALVA<br>3 	G CONCE                | NIZED   |                  | 61 PLUGG                                       | ING & SEALING RE                  |                                   |
| 2 [                        | $\Box SALTY 4 \Box MINERAL$ $\Box FRESH 3 \Box SULPHUR 24$ | 4 OPEN<br>17-18 1 STEEL                 | 19  | 20-23            | DEPTH SET AT - FEET<br>FROM TO                 |                                   | CEMENT GROUT,<br>AD PACKER, ETC.) |
| 2                          | SALTY 4 MINERAL  | 2 🗌 GALVA<br>3 🗍 CONCI<br>4 🗍 OPEN      | RETE  |                  | 10-13 14-17                                    |                                   |                                   |
| 2                          | FRESH 3 SULPHUR <sup>29</sup> SALTY 4 MINERAL              | 24-25 1 🗌 STEEL<br>2 🖵 GALVA            | 1 11  | 27-30            | 18-21 22-25<br>26-29 30-33                     | 20                                |                                   |
| 30-33 1<br>2               | ☐ FRESH 3 ☐ SULPHUR <sup>34</sup> 8<br>□ SALTY 4 ☐ MINERAL | 3 🗌 CONCI<br>4 🗌 OPEN                   |   |                  | 26-29 30-33                                    |                                   |                                   |
| 71 PUMPING TEST M          | ETHOD 10 PUMPING RAT                                       | 02 4                                    | ION OF PUMPING                                    |                  | LOCATION                                       | OF WELL                           |                                   |
| STATIC<br>LEVEL            | WATER LEVEL 25<br>END OF WATER                             | LEVELS DURING                           | 1 PUMPING<br>2 RECOVERY                           | IN DIA<br>LOT LI | GRAM BELOW SHOW DISTA<br>INE. INDICATE NORTH B | NCES OF WELL FROM ROA<br>Y ARROW. | AD AND                            |
| 19-2<br>19-2               | PUMPING<br>21 22-24 15 MINUTES<br>26-                      |   | MINUTES 60 MINUTES 32-34 35-37                    | 1                | GREEN  | BANK RO                           | AN                                |
|                            | ET FEET FI   | EET FEET<br>E SET AT WATER              | FEET FEET<br>RATEND OF TEST 42                    | 4 1              | K  |                                   |                                   |
| SILE FLOWING.<br>GIVE RATE | GPN.<br>PUMP TYPE RECONMENDI                               | PELI                                    | CLEAR 2 CLOUDY                                    |                  |  |                                   |                                   |
|                            |  | 50 FEET RATE                            |   |                  | To all   |                                   |                                   |
| 50-53                      | GPM./ET. SP  |   |   | ן  <br>ר         |  |                                   |                                   |
| FINAL<br>STATUS            | 1 WATER SUPPLY<br>2 OBSERVATION WE<br>3 TEST HOLE          |   | ED, INSUFFICIENT SUPPLY<br>ED, POOR QUALITY<br>ED |                  |  | 125                               |                                   |
| OF WELL                    | 4 🗌 RECHARGE WELL  | -                                       |   |                  |  | N.                                |                                   |
| WATER                      | 55-56 1 DOMESTIC<br>2 STOCK<br>3 RRIGATION                 | 6 MUNICIPAL<br>7 🗌 PUBLIC SUPPL         |   |                  |  |                                   |                                   |
| USE                        | 4 INDUSTRIAL   | 8 🗌 COOLING OR A<br>9                   | IR CONDITIONING                                   |                  | 1/15   | $\backslash$                      |                                   |
| метнор                     | 57 1 CABLE TOOL  | 6 🗋 B                                   |   | 1  70#           | 1110   |                                   | N                                 |
| OF                         | 3 ROTARY (REVERS   | _                                       |   |                  |  |                                   |                                   |
|                            | 5 AIR PERCUSSION   | l                                       |   | DRILLERS REMAR   |  | 59.62 DATE BEFEINE A 2            | 7 5 63-                           |
|                            | L CONTRACTOR   | lv I+d                                  | LICENCE NUNBER                                    | DATA<br>SOURCE   |  | 59-62 DATE REEIVEL 03             | • •                               |
| ADDRESS                    | 490 Stittsvill   |   |   |                  | ection inspect                                 | at Kentney                        |                                   |
| H NAME OF DRI              | LLER OR BORER  | 0                                       | LICENCE NUMBER                                    |                  | /2ge 20/2                                      | <u>د</u>                          | P M                               |
|                            | amilton & D. M.  | SUBMISSIO                               |   |                  | i j V  |                                   | WI                                |
|                            | To Anin  | 1 a Chest_2                             | 6_ MO. 2YR75                                      |                  |  |                                   | 1                                 |

|   | Ainistry of<br>he Environment  | Well Tag Number (Pl   | ace sticker and print                   | number below)   | Regulation 903 Ontario   | Nell Record<br>Nater Resources Act               |
|---|--|---|---|---|--|--|
| <ul> <li>All Sections must be com</li> </ul>                                  | of Ontario only. Thi<br>ppleted in full to avo<br>pleting this applicat<br>s shall be reported | s document is a peri<br>id delays in process<br>ion can be directed t | ing. Further in<br>to the Water V<br>e. | Nell Managen  | lease retain for future referend<br>d explanations are available on t<br>nent Coordinator at 416-235-<br>Ministry Use Only | he back of this form.                            |
| Address of Well Location (County,<br>OTTAWA - CAR<br>RR#/Street Number/Name   | District/Winticipality)  | DRIVE   |   | EPEAN<br>PEAN   | Site/Compartment/Blo   | bock/Tract etc.                                  |
| GPS Reading NAD Zon   | 441715   | Sol4616   | Unit Make/Mo                            |   | e of Operation: Undifferentiated   | Decify   |
| Log of Overburden and Be<br>General Colour Most common                        |  | Other Materials   |   | Genera  | I Description  | Depth Metres<br>From To                          |
| CLAY<br>GRAJEL<br>OREY SA<br>GREY PIN   | SAND<br>NDSTONE<br>IK GRAN   | E<br>ITE  |   |   |  | 0 3.35<br>3.35 11.88<br>1.88 54.25<br>4.25 61.87 |
|   |  |   |   |   |  |  |
|   |  |   |   |   |  |  |
|   |  | Construction Bo   |   |   | CHN PLIMBING of Well   | Viala SEFAULT                                    |
| Hole Diameter Depth Metres Diameter   | Inside   | Construction Re<br>Wall   | Depth                                   | Metres  | Pumping test method Draw D   | own Recovery                                     |
| From To Centimetres   | diam Mat<br>centimetres  | erial thickness centimetres   | From                                    | То  |  | etres min Metres                                 |
| 3.87 6187 20.3  |  | Casing  |   | ·<br>·  | (metres)   | ° 30,5<br>1 18,9                                 |
|   |  | Fibreglass  | 0                                       | 14.32   | Pumping rate 1<br>(litres/mi)  | 1  |
| Water Record<br>Water found<br>at   | Galvaniz   | ed  |   | 177   | Duration of pumping 2  | 2 13.9   |
| m Fresh Sulphur   |  | Fibreglass<br>Concrete  |   |   | Final water level end 3<br>of perpoing metres  | 3 [0,1   |
| Gas Salty Salty Comercials  | Gaivaniz   | Fibreglass  |   |   | Recommended pump 4   | 4 7.4  |
| Gas Salty   | [] L   | Concrete  |   |   | Shallow Deep<br>Recommended pump 5   | 5 5.5  |
| Other Or Torus  | Galvaniz   | Screen  |   |   | Recommended pump 10  | 10 2.7   |
| , m Fresh Sulphur<br>Gas Salty Minerals<br>Other:                             | Outside<br>diam  | Fibreglass Slot No.   |   | $\partial \varphi = e^{\frac{1}{2} \frac{1}{2} 1$ | rate. (litres/min) 15<br>If flowing give rate - 20   | 15 <b>D.4</b><br>20 <b>D 3</b>                   |
| After test of well yield, water was   | Plastic [  | Concrete  |   |   | (litres/min) 25  | 25<br>9 25 2.3                                   |
|   |  | No Casing or Se   | creen                                   | · ·   | ued, give reason.  | 9 40   |
| Chlorinateo Yes 🗌 No  | X Open ho  | ble   | 1371                                    | 61.87   | 50<br>60 <b>12</b>   | 50 18<br>58 60                                   |
| Plugging and Se   |  | <u>A</u> <u> </u>   | Abandonment"                            |   | Location of Well   |  |
| Depth set at - Metres Material and ty<br>From To Meterial and ty              | ~  | cement siuny) etc. (cu  | ume Placed<br>bic metres)               | In diagram belo<br>Indicate north b   |  | R (TH)   |
|   |  |   |   |   | km   | LONGFIELDS                                       |
|   | Method of Construc   |   |   | •   | hann   | E  |
| Cable Tool Rotary<br>Rotary (conventional) Air per<br>Rotary (reverse) Boring | cussion  | Diamond<br>] Jetting<br>] Driving                                     | Digging                                 |   | (D= 58M  | 28   |
| Domestic Industr  |  | Public Supply   | Other                                   | RUGB  | FIELD  | A K  |
| Stock Comm  | pal 🗌  | Not used<br>Cooling & air conditioning                                | 1                                       | Audit No. 7   | 23173 Date Well Co   |  |
| Water Supply Recharge v   | · · · · · ·  | ] Unfinished 🔄 Aba  | ndoned, (Other)                         |   | owner's information Date Delivered   |  |
| Observation well Abandoned Test Hole Abandoned                                | , poor quality   | Dewatering Replacement well   |   | package deliver   | Ministry Use Only  |  |
|   | ntractor/Technician  | Well Contractor   | 's Licence No.                          | Data Source   | Contractor   | 1119   |
|   | LNG OL   | -TO TILLE   |   | Date Received   | YYYY DD Date of Inspec   |  |
| Name of Well Technician (last name,   | first-name)  | Well Technician   | 20<br>I's Licence No.                   | OCT 1<br>Remarks  | 2 ZUD   Well Record  | Number   |
| Signature of Technician/Contractor  | SHANNO   |   | 20                                      |   |  |  |
| x Ko  | Contractor's   | Copy ☐ Ministry's Co  |   | ner's Copy 🗌  | Cette formule es   | st disponible en français                        |

. Well tag # A023058

| Well for the rugby field (new irrigation system) $\stackrel{\pm}{\sim}$ |           |                    |   |  |  |
|---|-----------|--------------------|---|--|--|
| Flow USGPM  | Time, min | Measured Level, in | Measured Le   |  |  |
| 0.0   | 0         | 38.4               | 1.0   |  |  |
| N/A*  | 15        | N/A                | <b>N/A</b> <sup>1</sup> ?   |  |  |
| 41.0  | 30        | 350.4              | 4<br><b>€</b><br><b>1</b><br><b>1</b><br><b>1</b><br><b>1</b><br><b>1</b><br><b>1</b><br><b>1</b><br><b>1</b> |  |  |
| 61.3  | 45        | 704.4              | 17.9 -  |  |  |
| 60.5  | 60        | 741.6              | 16.8 🛪  |  |  |
| 80.0  | 75        | 782.4              | 19.9 📅  |  |  |
| 81.5  | 90        | 1332.0             | 33.8 1  |  |  |
| 81.5  | 105       | 1684.8             | 42.8  |  |  |
| 60.0  | 120       | 1227.6             | 31.2  |  |  |
| 60.5  | 135       | 1226.4             | <b>31.2</b> $\stackrel{\circ}{\rightarrow}$   |  |  |
| 61.0  | 150       | 1231.2             | 31.3 🖫  |  |  |
| 60.5  | 165       | 1202.4             | 30.5 m  |  |  |
| 60,5  | 180       | 1200.0             | 30.5 ພ  |  |  |

# Well for the rugby field (new irrigation system)

\*Flow meter, problem couldn't retest without risking going over 50 000Lma

## After pumping (recovery)

| Time elapsed | Measured Level in the well |        |  |
|--------------|----------------------------|--------|--|
| min          | in                         | meters |  |
| 1            | 744.0                      | 18.9   |  |
| 2            | 546.0                      | 13.9   |  |
| 3            | 396.0                      | 10.1   |  |
| 4            | 291.6                      | 7.4    |  |
| 5            | 216.0                      | 5.5    |  |
| 10           | 106.8                      | 2.7    |  |
| 15           | 96.0                       | 2.4    |  |
| 20           | 90.0                       | 2.3    |  |
| 35           | 90.0                       | 2.3    |  |
| 50           | 69.6                       | 1.8    |  |
| 80           | To come                    |        |  |
| . 110        | To come                    |        |  |

Р. 2

2934

OCT 12 2005 Z23173

1119

|  | Ministry of the Environment   | Well Hag Number (F<br>H023                    |                                 | nt number below)  | Regulation 903 Ontar   | Well Record                                       |
|--|---|---|---------------------------------|-------------------|--|---|
| Instructions for Completin   | na Form   | jiin, 6                                       |                                 | L 2 V 4           |  | page of   |
| <ul> <li>For use in the Province</li> <li>All Sections must be con</li> <li>Questions regarding con</li> </ul> | of Ontario only. The mpleted in full to average on the mpleted in full to average on the mpleting this application. | bid delays in process<br>tion can be directed | sing. Further i<br>to the Water | nstructions and   | ease retain for future refer<br>l explanations are available o<br>nent Coordinator at 416-23 | on the back of this form.                         |
| <ul> <li>All metre measurement</li> <li>Please print clearly in blue</li> </ul>                                |   | d to 1/10 <sup>m</sup> of a metr              | re.                             |                   | Ministry Use Only  |   |
| Well Owner's Information   | and Location of   | <b>Well Information</b>                       | MUN                             | cc                | DN   | LOT   |
|  |   |   |                                 |                   |  |   |
| RR#/Street Number/Name<br>F 700 F 706 F<br>GPS Reading NAD 700<br>8 3  |   | DRIVE<br>Dorthing<br>Dorthing<br>A582         | City/Town/Vi                    | EAN               | of Operation: Undifferential   | ted Xeraged                                       |
| Log of Overburden and B<br>General Colour Most common  | ······································  | Other Materials                               |                                 | Genera            | Description  | Depth Metres                                      |
|  | <u>^</u>  | NLDERS  |                                 |                   |  | From To   |
| Limest   | dhe<br>dhe<br>dhe   |   |                                 |                   |  | 11.88 15.54<br>15.54 5(, 20                       |
| · · · · · · · · · · · · · · · · · · ·  |   |   |                                 |                   |  |   |
|  |   |   |                                 |                   |  |   |
|  |   |   |                                 |                   |  |   |
|  |   |   |                                 |                   |  |   |
| Hole Diameter  |   | Construction Re                               | cord                            |                   | GN PLUMBINETest of We  | ell Yield ATTACHEW                                |
| Depth Metres Diameter  | Inside  | Wall  | Depth                           | Metres            | Pumping test method Drav   | w Down Recovery                                   |
| From To Centimetres  | diam Mate<br>centimetres  | erial thickness centimetres                   | From                            | То                | SUBFUMT min  | Vater Level Time Water Level<br>Metres min Metres |
| 122 4100 23  |   | Casing  | No. Strain                      |                   | Pump intake set at - Static<br>(metres) Level  | 4.2 7.3   |
| 15, 5, 00,   | QD Steel  | Fibreglass                                    | -                               |                   | Pumping rate 1   | 156   |
| Water Record   |   | Concrete , 4-8                                | 0                               | 13,77             | Durotion of pumping 2  | 2 5.3   |
| Water found<br>at Kind of Water  | 11 1  | Fibreglass                                    |                                 |                   | Final water level end 3  | 35.2  |
| Gas Salty Mirrorals  | Plastic Galvaniz  | Concrete                                      |                                 |                   | of pumping metres  |   |
| Other TREST  | Steel   | Fibreglass                                    |                                 |                   | type.  | 49.   |
|  | Plastic Galvaniz  | ] Concrete<br>ed                              |                                 |                   | Recommended pump 5<br>depth 5 metres   | 550   |
| Solution   |   | Screen  |                                 |                   | Recommended pump 10  | 10 4 8  |
|  | l ulani   | Fibreglass Slot No.                           |                                 |                   | (litres/min) 15  |   |
| After test of well yield, water was  | Plastic   | Concrete ed                                   |                                 |                   | (litres/min) 25<br>If pumping di≰contin- 30 ≤  | 25  |
| Clear and settiment NoT  |   | No Casing or S                                | creen                           | *                 | If pumping discontin-<br>ued, give reason.   | 5.7 2035 4.5<br>6.4 40                            |
| Chlorinated Xyes No  | Sopen ho  | le  | 13.10                           | 51.20.            | 50<br>60 L   | 50 4.5  |
| Plugging and S   | ealing Record   | X Annular space                               | Abandonment                     |                   | Location of Well   |   |
|  | pe (bentonite slurry, neat o  | omont olurna) etc. Vol                        | lume Placed<br>ubic metres)     | Undicate north by | v show distances of well from road   | d, lot line, and building.                        |
| 310 0 NEAT   | COMENT  | Sully.  | 4086                            | NoR               | H HARROW DRIVE   | *   |
|  |   |   | •                               |                   | A  |   |
|  |   |   |                                 |                   | . Ikan   |   |
|  | Method of Construc  |   |                                 |                   | .16.   | ALTA  |
| Cabfe Tool Rotary Rotary (conventional)  | rcussion  | Diamond<br>Jetting<br>Driving -               | Digging                         | •                 | () 139 M   |   |
| Domestic Industr   | rial  | Public Supply                                 | Other                           | For BALL          | .FIELD   |   |
| Stock Comm   |   | Not used -<br>Cooling & air conditioning      | g                               | Audit No.         | 22172 Date Well  | Completed   |
| Water Supply Recharge v  | Final Status of We  |   | ndoned, (Other)                 | Was the well ov   | Vner's information Date Delive   | ered YYYY MM DD                                   |
| Observation well Abandoned   | 1, insufficient supply  | Dewatering                                    |                                 | package delivere  |  |   |
| Well Co  | l, poor quality<br>ntractor/Technician  |   |                                 | Data Source       | Ministry Use Only<br>Contractor  |   |
| Name of Well Contractor  | into Co   | GD Well'Contractor                            |                                 |                   |  | 1119  |
| Business Address (street name, num   | iber, city etc.)  | DAT KOA                                       | -220                            | Date Received     | 2 2005 MM DD Date of Ins   | pection YYYY MM DD                                |
| Name of Well Technician (last name   | first name)<br>HANNON   | Wall Teomician                                | n's Licence No.                 | Remarks           | ······································   | ord Number  |
| Signature of Technician/Contractor   |   | Date Submitted                                | W MAR DD                        | 4                 |  |   |
| 0506E (09/03)  | Contractor's C  | Copy Ministry's Co                            |                                 | vner's Copy 🗌     | Cette formule  | e est disponible en français                      |

Well tag A023059

# Well for the existing irrigation system

| Flow USGPM | Time, min | Measured Level, in | Measured Level, m |
|------------|-----------|--------------------|-------------------|
| 0.0        | 0         | 164.4              | 4.2               |
| 22.0       | 15        | 196.8              | 5.0               |
| 39.7       | 30        | 223.2              | 5.7               |
| 60.6       | 45        | 252.0              | 6.4               |
| 80.0       | 60        | 268.8              | 6.8               |
| 80.0       | 75 ·      | 273.6              | 6.9               |
| 80.0       | 90        | 277.2              | 7.0               |
| 80.0       | 105       | 279.6              | 7.1               |
| 80.0       | 120       | 282.0              | 7.2               |
| 80.0       | 135       | 284.4              | 7.2               |
| 80.0       | 150       | 284.4              | 7.2               |
| 80.0       | 165       | 286.8              | 7.3               |
| 80.0       | 180       | 288.0              | 7.3               |

#### After pumping (recovery)

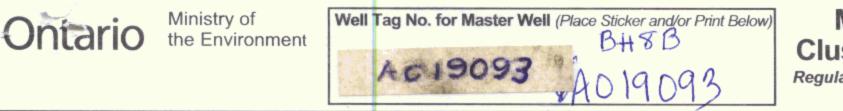
| Time elapsed | Measured | Level in the well |
|--------------|----------|-------------------|
| min          | in       | meters            |
| 1            | 220.8    | 5.6               |
| 2            | 208.8    | 5.3               |
| 3            | 205.2    | 5.2               |
| 4            | 200.4    | 5.1               |
| 5            | 196.8    | 5.0               |
| 10           | 187.2    | 4.8               |
| 15           | 184.8    | 4.7               |
| 20           | 182.4    | 4.6               |
| 35           | 177.6    | 4.5               |
| 50           | 175.2    | 4.5               |
| 80           | 172.8    | 4.4               |
| 110          | 172.8    | 4.4               |

0CT 12 2005 Z 23172

# 1119

.

|                       |   | vironment   | g Number (Face                    | e sticker and prin        | t number below)                       | Regulation 903  | Ontario                             |                               | ources Act                    |
|-----------------------|---|---|-----------------------------------|---------------------------|---------------------------------------|---|-------------------------------------|-------------------------------|-------------------------------|
|                       | <ul> <li>Instructions for Completing For</li> <li>For use in the Province of Ont</li> <li>All Sections must be completed</li> <li>Questions regarding completing</li> <li>All metre measurements shall</li> </ul> | ario only. This docum<br>d in full to avoid delays<br>g this application can b<br>l be reported to 1/10 | s in processing<br>be directed to | g. Further in the Water V | structions and                        | explanations are available and a second s | uilable or<br>416-235               | nce.<br>h the back of         | of<br>this form.              |
| -                     | Please print clearly in blue or bl Well Owner's Information and L   | ······  | ormation                          | MUN                       | CC                                    | Ministry Use  |                                     | LOT                           |                               |
|                       |   | THELON  |                                   | City/Town/Vil             | PEAN                                  | (Site/Compa   | rtment/B                            | Block/Tract et                |                               |
|                       | GPS Reading NAD ZOPE  | looting 🦳 Nort  | VRIVE                             | Jnit Make/Me              |                                       | of Operation: Und   | ifferentiated,                      | d Xaver                       |                               |
|                       | 8 3 6 7<br>Log of Overburden and Bedrocl<br>General Colour Most common materia  | k Materials (see ins  | tructions)                        |                           |                                       |   | renualeo,                           | Depth                         | Metres                        |
|                       |   | LABANDE   | ······                            | 17                        | Genera                                | Description   |                                     | From<br>O                     | 17,68                         |
|                       |   |   |                                   |                           | ·                                     |   |                                     |                               |                               |
|                       |   | · · · · · · · · · · · · · · · · · · ·   |                                   |                           |                                       |   |                                     |                               |                               |
|                       |   |   |                                   |                           |                                       |   |                                     |                               |                               |
|                       | Hole Diameter Depth Metres Diameter Insid   |   | struction Reco                    | <b>rd</b><br>Depth        | Metres                                | Tes<br>Pumping test method  | t of Wel<br>Draw                    |                               | lecovery                      |
|                       | From To Ceptimetres diar centimetres  | m Material  | thickness<br>centimetres          | From                      | To                                    | Pump intake set at -<br>(metres)  | Time Wa<br>min M<br>Static<br>Level | ater Level Time<br>Metres min | Water Level<br>Metres         |
|                       |   | Steel Fibreglass  |                                   |                           |                                       | Pumping rate -<br>(litres/min)  | 1                                   |                               |                               |
|                       | Water Record<br>Water found<br>at Metres Kind of Water  | Plastic Concrete  |                                   |                           |                                       | Duration of pumping<br>hrs + min  | 2                                   | 2                             |                               |
|                       | m Fresh Sulphur<br>Gas Salty Minerals   | Steel Fibreglass  |                                   |                           |                                       | Final water level end<br>of pumpingmetres<br>Recommended pump   | 8                                   | 3                             |                               |
|                       | ☐ Other:  | Steel Fibreglass  |                                   |                           |                                       | type.<br>Shallow Deep<br>Recommended pump   | 4<br>5                              | 4<br>5                        |                               |
|                       | M Fresh Sulphur   | Galvanized  | Screen                            |                           |                                       | depthmetres<br>Recommended pump   | 10                                  | 10                            |                               |
|                       | Gas Salty Minerals Outs   |   | Slot No.                          |                           |                                       | If flowing give rate -  | 15<br>20                            | 15<br>20                      |                               |
|                       | After test of yrell yield, water was  | Galvanized  |                                   |                           |                                       | (litres/min)<br>If pumping discontin-<br>ued, give reason.  | 25<br>30                            | 25<br>30                      |                               |
|                       | Other, specify  | No (  | Casing or Scre                    | en                        |                                       | ueu, give reason.   | 40<br>50                            | 40<br>50                      |                               |
|                       | Chlorinated Yes No<br>Plugging and Sealing I  |   | ar space                          | andonment                 |                                       | Location  | 60                                  | 60                            |                               |
|                       |   | onite slurry, neat cement slurry  | Volum                             | e Placed<br>metres)       | In diagram below<br>Indicate north by | w show distances of well fr   |                                     | lot line, and b               | (N)                           |
|                       | MOSOGI HOLE P   | Event Slu   | ARRY                              |                           |                                       | 14, 2.1   | KM                                  |                               |                               |
|                       |   |   |                                   |                           | ONSFIEL                               |   | CLUB                                |                               |                               |
|                       |   | of Construction   |                                   | Digging                   | SNO                                   |   | inse                                |                               | S                             |
|                       | Cable Tool Rotary (air) Rotary (conventional) Air percussion Rotary (reverse) Boring  | Jetting     Driving   |                                   | Other                     | 100                                   | PARKIN  | 3                                   | )                             | 1                             |
|                       | Domestic Industrial<br>Stock Commercial<br>Irrigation Municipal   | Public Sup  | ply                               | e di er                   | Audit No.                             |   | te WelleC                           | ompleted                      |                               |
| and the second second | Fina Water Supply Recharge well Observation well Abandoned, insuffic  | I Status of Well Unfinished ient supply Dewatering  |                                   | ned, (Other)              | 2                                     |   | C te Delivere                       | ed yyyy                       | 0 <sup>0</sup> 1   13<br>™ □□ |
| Soldieri Canzanian    | Test Hole     Abandoned, poor qu     Well Contracto     Nance of Well Contractor  | r/Technician Informati  | on<br>Vell Contractor's L         | icence No.                | Data Source                           | Ministry Us<br>Co   | e Only                              | 11                            | <b>a</b>                      |
|                       | Name of Wer Contractor DP(LL)<br>ATIK KOCKDP(LL)<br>Business Address (erreet name, number) city   | strught of  | WT KO:                            | A220                      | Date Received                         | , T <sup>***</sup> 2 5 <sup>™</sup> 2005 <sup>De</sup>  | te of Inspe                         | ection YYYY                   |                               |
|                       | Name of Well Technician (last name, filtsman<br>LASAULNIERS<br>Signature of Technician Contractor   | KEN V   | Vell Technician's I               | Licence No.               | Remarks                               |   | ell Record                          | Number                        |                               |
| )                     | X KOM (09/03)   | Contractor's Copy   | Ministry's Copy.                  | 1003                      |                                       | Cette   | formule e                           | əst disponible                | en français                   |



# Master Well Record for Cluster Well Construction

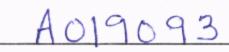
Regulation 903 Ontario Water Resources Act Page \_\_\_\_\_\_ of \_\_\_\_\_

| Address of        | Well Location (Stree   | t Number/Name, RR)                    | ad         | Towns  | ship         |   |   |  | Lot   |                   | Concession  |             |                 |
|-------------------|--|---------------------------------------|------------|--|--------------|---|---|--|---|-------------------|---|-------------|-----------------|
| County/Dis        | trict/Municipality   | offeren in                            | me         |  | own/Villag   |   |   |  |   | Provi             |   | Postal C    | ode             |
| UTM Coord         | inates Zone Eastir   | Northing                              | }          | GPS Uni  | <u> </u>     | Model   |   | Mode of C  | Operation:  | 1                 | erentiated  | Avera       | aged            |
| NAD               |  | 1999501                               | 54         | and a second sec | nin          | and the second se | ret   | Differer   | ntiated, specify  |                   |   |             | -               |
| General           | Most Common  | K Materials (see inst<br>Other        | ruction    | s on the back<br>General   |              | (Metres)  | Depth   | (Metres)   | Hole  | e Detai           | Diameter  |             |                 |
| Colour            | Material   | Materials                             |            | Description  | From         | То  | From  | То   |   |                   | (Centimetres  | )           |                 |
| Grey              | Gravel Fi  | U                                     | Coar       | se graina  | 10           | 0.1   | 0   | 4.3  | 20  |                   |   |             |                 |
| Grey              | Sand Fil   | l.                                    |            | 1 grained  |              | 2.4   | 4.3   | 7.9  | 10  |                   |   |             |                 |
| Brown             | Sand + F   | ravel silt                            | Con        | use graine   | 104          | 4.3   |   |  | 10  |                   |   |             |                 |
| Grey              | la de la constante de la const | Weathere                              |            | the grant  | 4.3          | 79  |   |  |   |                   |   |             |                 |
| Unug              | Mile Storie  | - i weathere                          | <u> </u>   |  | 7. 2         |   |   |  | 10/   |                   |   |             |                 |
|                   |  |                                       |            |  |              |   | Public  | Ir   |   | Not us            |   | ] Other,    | specify         |
|                   |  |                                       |            |  |              |   | Domest  | and the second | the second s  | Dewate            |   |             |                 |
|                   |  |                                       |            |  |              |   | Irrigatio   |  |   |                   | g & Air Conditio  | ning        |                 |
|                   |  |                                       |            |  |              |   |   | F1   | Method of   |                   | 2 N. N. N. S. N. S. |             |                 |
|                   |  |                                       |            |  |              |   | Cable T   | Conventio  | al) Diamo   |                   | Diggin  |             |                 |
|                   |  |                                       |            |  |              |   | Rotary  | 옷 손님은 것을 같은  | Jetting   |                   | HSA   |             |                 |
|                   |  |                                       |            |  |              |   | ,   | </td <td></td> <td>s of W</td> <td>ing a second of the second</td> <td></td> <td></td>                           |   | s of W            | ing a second of the second                              |             |                 |
|                   |  |                                       |            |  |              |   | Pest Ho   | ble  | 14. C.  |                   | nsufficient Supp  | ly          |                 |
| 22.2.5            |  |                                       |            |  |              | Replace   | ement Well<br>ering Well  | Aband  |   | oor Water Qua     | lity  |             |                 |
|                   |  |                                       |            |  |              | 1   | S   | ction) 🗌 Aband   | 4 W. H.   |                   |   |             |                 |
|                   |  |                                       |            |  |              |   |   | creen Used   |   | Static Water      | _evel T   | est         |                 |
|                   |  | Construction De                       | taile      |  |              | Open Hole   | Yes 🚺   | No   |   | Metre             | ;   |             |                 |
| Inside Dian       |  | Material                              |            | Wall   | (Metres)     |   |   |  | creen   |                   |   |             |                 |
| (Centimeti        | PVC  | fibreglass, concrete, g               | alvanize   | sched  | To           | Galvani<br>Outside Dia  | and the second  |  | eglass<br>Slot No   | Concrete          | LPI   | astic       |                 |
| 2.1               | r vC   |                                       |            | 40   | 0            | 4.6   | K   | 5.8  |   |                   | 10  |             |                 |
|                   |  |                                       |            |  |              |   | Water four  | nd at Dent   | Water De  | etails<br>of Wate |   |             |                 |
|                   |  |                                       |            |  |              |   |   | Metres   |   |                   | Salty Sulp  | hur         | Minerals        |
|                   |  |                                       |            |  |              |   | Water four  |  |   | of Wate           | r<br>Salty Sulp   | bur         | Minerals        |
| Depth Set a       | t ( <i>Metres</i> )  | Space/Abandonmer<br>Type of Sealant L |            | ng Record  | Volum        | e Used  | Water four  |  | ouo   | of Wate           |   |             | WINCIUS         |
| From              |  | (Material and Typ                     | e)         |  |              | Metres)   |   | Metres   |   |                   | Salty Sulp  |             |                 |
| 0                 | 4.3 Ben:   | tonite                                |            |  | 88           | Kgs   | Disinfected   | Yes  | Wo If no, prov  | ide reas          | on: Date Mas  |             | Completed       |
|                   |  |                                       |            |  |              |   | Monit   | oring  | wells   |                   | 2000  | 1/04        | 08              |
|                   |  |                                       |            |  |              |   |   |  | (Please also)<br>Il Construction  |                   |   |             |                 |
|                   |  |                                       |            |  |              |   | and the second se | s in Cluste  | and the second se | Pleas             | e indicate Num<br>nation Log She                        | nber of C   | luster Well     |
|                   |  |                                       |            |  |              |   |   | s on this P  |   |                   | 1   | 010 0001    |                 |
|                   |  |                                       |            |  |              |   | unk   | Inn  | Location o  | FWoll             | Cluster   |             |                 |
|                   |  |                                       |            |  |              |   |   |  | e provided as a   | an attac          | and the second second second second second second       | er than le  | egal size       |
|                   |  |                                       |            |  |              |   |   | -  | s are not allowe<br>firm detailed ma  |                   | ovided as per   | Section     | 11.1 (3)        |
|                   |  |                                       |            |  |              |   |   | o release a  | additional info   |                   |   |             |                 |
|                   |  |                                       |            |  |              |   | ine Direcio   | or libon re  | duest   |                   |   |             |                 |
| Business M-       |  | actor and Well Tech                   | nician     |  |              |   |   |  |   |                   |   |             |                 |
| George            | me of Well Contracto   | ng Estate 2<br>mg, number, RR)        | )r:1       | Well Contra  | actor's Lice | ence No.  |   |  |   |                   |   |             |                 |
| Business Ad       |  |                                       |            |  |              |   |   |  |   |                   |   |             |                 |
| 4/0 R<br>Province | VE Principostal Code   | pale Greni<br>Business E-ma           |            | мппэцу   |              | ontractor No.   |   |  |   |                   |   |             |                 |
| QC                | JOVI   | Bo downin<br>Name of Well Technici    | Audit No.  | 04   | 460          |   |   |  |   |                   |   |             |                 |
| Bus.Telephor      | No. (inc. area code)   | Name of Well Technici                 | Date Recei | ved (200   | 2009         | Date of   | Inspection (yyy   | y/mm/dd)   | )   |                   |   |             |                 |
| Well Technicia    | an's Licence No. Signa   | Downing<br>ature of Technician        |            | Date Subr  |              | /y/mm/dd)   | Remarks   |  |   |                   |   |             |                 |
| 21                | 73/3   | Sime / Lu                             | ~          | 2009   |              | 27.   |   |  |   | . The             |   |             | Ser Contraction |
| 1992 (11/2006)    |  | ñ.                                    |            |  | М            | inistry'  | в Сору  |  |   |                   | © Queen's Pri   | nter for Or | ntario, 2006    |



Ministry of the Environment

Well Tag No. for Master Well (Print Well Tag No.)



| Addre               | ss of Well Location (Street Number/Name, RR)         |                               | Lot       | Con                    | cession To       | wnship                 |                     |                      | County                        | ı/District/Muni                | icipality                   | upon request                           |                    |                                    |
|---------------------|--|-------------------------------|-----------|------------------------|------------------|------------------------|---------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--|--------------------|------------------------------------|
| City/T              | own/Village Provin                                   | 1 .                           | Code      |                        |                  | odel                   |                     | e of Opera           |                               | lifferentiated                 | Averaged                    | Signature of Technician/Contracto      |                    | Date (yyyy/mm/dd)                  |
|                     | Ottawa Onta  |                               |           | BA                     | Armin 9          | Trex                   | Differe             | entiated, s          | pecify:                       |                                |                             | - Jours her                            |                    | 009/04/27                          |
| Well #<br>on Sketcl |  |                               |           | ethod of<br>nstruction | Casing Material  | Casing Length (metres) | Screen Inte<br>From | erval (metres)<br>To | Annular Space<br>Sealant Used | Static Water<br>Level (metres) | Abandonment<br>Sealant Used | Comments                               | /                  | Date of Completion<br>(yyyy/mm/dd) |
| BH                  | 184410203015411                                      | 6.3 2                         | 10/10 HS  | ADIA                   | PVC              | 3.2                    | 3.2                 | <i>(</i> e. 3        | Benforite                     | -                              |                             |  |                    | 2009/04/07,                        |
| BH                  | 1844103 (5015437                                     | 4.4 2                         | 20/16 45/ | ANA                    | н                | 3.0                    | 3.0                 | 41                   | μ                             |                                |                             |  |                    | 2009/04/07                         |
| BH<br>SA            | 184419995015428                                      | 4.3 5                         |           | sA                     | 84<br>           | 1.2                    | 1.2                 | 4.3                  | 1ĺ                            |                                |                             |  |                    | 2009/04/08                         |
|                     |  |                               |           |                        |                  |                        |                     |                      |                               |                                |                             |  |                    |                                    |
|                     |  |                               |           |                        |                  |                        |                     |                      |                               |                                |                             |  |                    |                                    |
|                     |  |                               |           |                        |                  |                        |                     |                      |                               |                                |                             |  |                    |                                    |
|                     |  |                               |           |                        |                  |                        |                     |                      |                               |                                |                             |  |                    |                                    |
|                     |  |                               |           |                        |                  |                        |                     |                      |                               |                                |                             |  |                    |                                    |
|                     |  |                               |           |                        |                  |                        |                     |                      |                               |                                |                             |  |                    |                                    |
|                     |  |                               |           |                        |                  |                        |                     |                      |                               |                                |                             |  |                    |                                    |
| 12/20/2020          | Contractor and Well Technician Infe                  | ormation                      | Rusinoss  | Adross (Str            | eet Number/Nar   | ma PP)                 |                     | Municipal            | lity                          |                                | Province                    | Date 1st Well in Cluster Constructed C | ate Last Well in ( |                                    |
| Ge                  | orge Dorming Estate Drill                            | ing Itd.                      | 410 Ru    | e Prin                 | ripale           | Gienvi                 | The Se              | n La                 | Donia                         | 2                              | Province                    | Ministry Use Only                      |                    |                                    |
| 11                  | Code Business Telephone N<br>0   V     B 0 8   9 2 4 | 10. (incl area code)<br>2 4 4 | 49 1      | 84                     | Licence No. Busi | lounin                 | 201                 | rawk                 | 195. n                        | et                             |                             | Date Received (yyyy/mm/dd)             | Dat MAY e Ze C     | (v <b>2009</b> <sup>1/dd)</sup>    |
|                     | of Well Technician (First Name, Last Name)           |                               | Well<br>2 | Technician's           | icence No. Date  | Submitted (v)          |                     | Signature            | of Technician                 | Jan                            |                             | Audit No. <b>c</b> 05166               | Remarks<br>MO      | 1960                               |

| - 3                 | 1 611 1                           | ation (Street Number/Name,<br>FallowField<br>Pro  | Koad                           | Lot<br>ostal Code | GF                        | PS Unit Make N   | ownship<br>1odel<br>ELTEX |                                | le of Opera            | ation 🗌 Und                   | y/District/Mun<br>differentiated | icipality<br>Averaged       | Signature of Technician/Contract                                       |                                   | Date (yyyy/mm/dd)                  |
|---------------------|-----------------------------------|---|--------------------------------|-------------------|---------------------------|------------------|---------------------------|--------------------------------|------------------------|-------------------------------|----------------------------------|-----------------------------|--|-----------------------------------|------------------------------------|
| Well #<br>on Sketcl | h Zone Eastin                     | UTM Coordinates<br>ng Northing  | Full Depth of<br>Hole (metres) | Hole Diameter     | Method of<br>Construction | Casing Material  | Casing Length<br>(metres) | Screen Inte<br>From            | erval (metres)<br>  To | Annular Space<br>Sealant Used | Static Water<br>Level (metres)   | Abandonment<br>Sealant Used | Comments   | /                                 | Date of Completion<br>(yyyy/mm/dd) |
| BH                  |                                   | 1020301541  | 16.3                           | 20/10             | HSA/DIA                   | PVC              | 3.2                       | 3.2                            | 6.3                    | Benjonite                     | -                                |                             |  |                                   | 2009/04/07,                        |
| BA                  | 1844                              | 1031501543  | 1 4.4                          | 20/16             | HSA/DIA                   | ĸ                | 3.0                       | 3.0                            | 41                     | ι                             |                                  |                             |  |                                   | 2009/04/04                         |
| BH<br>SA            | 18:44                             | 1999501542  | 8 4.3                          | 20                | HSA                       | \$1              | 1.2                       | 1.2                            | 4.3                    | 1Í                            |                                  |                             |  |                                   | 2009/04/08                         |
|                     |                                   |   |                                |                   |                           |                  |                           |                                |                        |                               |                                  |                             |  |                                   |                                    |
|                     |                                   |   |                                |                   |                           |                  |                           |                                |                        |                               |                                  |                             |  |                                   |                                    |
|                     |                                   |   |                                |                   |                           |                  |                           |                                |                        |                               |                                  |                             |  |                                   |                                    |
|                     |                                   |   |                                |                   |                           |                  |                           |                                |                        |                               |                                  |                             |  |                                   |                                    |
|                     |                                   |   |                                |                   |                           |                  |                           |                                |                        |                               |                                  |                             |  |                                   |                                    |
|                     |                                   |   |                                |                   |                           |                  |                           |                                |                        |                               |                                  |                             |  |                                   |                                    |
|                     |                                   |   |                                |                   |                           |                  |                           |                                |                        |                               |                                  |                             |  |                                   |                                    |
| 12202355            |                                   | r and Well Technician   | Information                    |                   | nana Address (C           | troot Number/Ne  |                           |                                | Municipa               | 114.7                         |                                  | Densinger                   | Date 1st Well in Cluster Constructed                                   | Date Last Well in<br>(vyvy/mm/dd) | Cluster Constructed                |
| Fosta               | Douge Don<br>I Code<br>8   V   [] | Vell Contractor<br>Ming Estate Di<br>Business Telephon<br>B 0 8 ( 9 2<br>ician (First Name, Last Name | 426                            | Ha. 411           | Well Contractor           | s icence No. Dat | siness E-mail A           | Address<br>2 C 1<br>yyy/mm/dd) | nawk                   | a Rouge                       | 0                                | Province                    | Ministry Use Only<br>Date Received (yyyy/mm/dd)<br>Audit No.<br>c05166 | Dat MAY e 2 e<br>Remarks          | D(y2009 <sup>n/dd)</sup>           |
|                     | <u>uce Dou</u><br>11/2006)        | uning   |                                |                   | 01                        | 1)7              | 09/04/2                   | Ainistry's                     | 12                     | me t                          | tan                              | 7                           | COSTOD   | © Queen's Print                   | er for Ontario, 2006               |

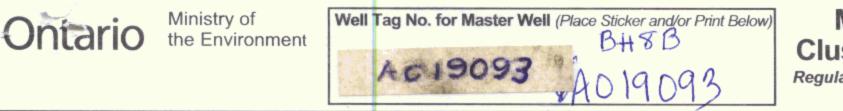
Ministry's Copy

# **Cluster Well Information for Cluster Well Construction**

Regulation 903 Ontario Water Resources Act

of \_\_\_\_ Page





# Master Well Record for Cluster Well Construction

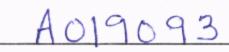
Regulation 903 Ontario Water Resources Act Page \_\_\_\_\_\_ of \_\_\_\_\_

| Address of        | Well Location (Stree   | t Number/Name, RR)                    | ad         | Towns  | ship         |   |   |  | Lot   |                   | Concession   |             |                 |
|-------------------|--|---------------------------------------|------------|--|--------------|---|---|--|---|-------------------|--|-------------|-----------------|
| County/Dis        | trict/Municipality   | offeren in                            | me         |  | own/Villag   |   |   |  |   | Provi             |  | Postal C    | ode             |
| UTM Coord         | inates Zone Eastir   | Northing                              | }          | GPS Uni  | <u> </u>     | Model   |   | Mode of C  | Operation:  | 1                 | erentiated   | Avera       | aged            |
| NAD               |  | 1999501                               | 54         | and a second sec | nin          | and the second se | ret   | Differer   | ntiated, specify  |                   |  |             | -               |
| General           | Most Common  | K Materials (see inst<br>Other        | ruction    | s on the back<br>General   |              | (Metres)  | Depth   | (Metres)   | Hole  | e Detai           | Diameter   |             |                 |
| Colour            | Material   | Materials                             |            | Description  | From         | То  | From  | То   |   |                   | (Centimetres   | )           |                 |
| Grey              | Gravel Fi  | U                                     | Coar       | se graina  | 10           | 0.1   | 0   | 4.3  | 20  |                   |  |             |                 |
| Grey              | Sand Fil   | l.                                    |            | 1 grained  |              | 2.4   | 4.3   | 7.9  | 10  |                   |  |             |                 |
| Brown             | Sand + F   | ravel silt                            | Con        | use graine   | 104          | 4.3   |   |  | 10  |                   |  |             |                 |
| Grey              | la de la constante de la const | Weathere                              |            | the grant  | 4.3          | 79  |   |  |   |                   |  |             |                 |
| Unug              | Mile Storie  | - i weathere                          | <u> </u>   |  | 7. 2         |   |   |  | 10/   |                   |  |             |                 |
|                   |  |                                       |            |  |              |   | Public  | Ir   |   | Not us            |  | ] Other,    | specify         |
|                   |  |                                       |            |  |              |   | Domest  | and the second | the second s  | Dewate            |  |             |                 |
|                   |  |                                       |            |  |              |   | Irrigatio   |  |   |                   | g & Air Conditio   | ning        |                 |
|                   |  |                                       |            |  |              |   |   | F1   | Method of   |                   | 27. N. 1. 25. N. N. S. |             |                 |
|                   |  |                                       |            |  |              |   | Cable T   | Conventio  | al) Diamo   |                   | Diggin   |             |                 |
|                   |  |                                       |            |  |              |   | Rotary  | 옷 손님은 것을 같은  | Jetting   |                   | HSA  |             |                 |
|                   |  |                                       |            |  |              |   | ,   | </td <td></td> <td>s of W</td> <td>ing a second of the second</td> <td></td> <td></td>                           |   | s of W            | ing a second of the second                                 |             |                 |
|                   |  |                                       |            |  |              |   | Pest Ho   | ble  | 14. C.  |                   | nsufficient Supp   | ly          |                 |
| 22.2.5            |  |                                       |            |  |              | Replace   | ement Well<br>ering Well  | Aband  |   | oor Water Qua     | lity   |             |                 |
|                   |  |                                       |            |  |              | 1   | S   | ction) 🗌 Aband   | 100 C 100 C 100   |                   |  |             |                 |
|                   |  |                                       |            |  |              |   |   | creen Used   |   | Static Water      | _evel T  | est         |                 |
|                   |  | Construction De                       | taile      |  |              | Open Hole   | Yes 🚺   | No   |   | Metre             | ;  |             |                 |
| Inside Dian       |  | Material                              |            | Wall   | (Metres)     |   |   |  | creen   |                   |  |             |                 |
| (Centimeti        | PVC  | fibreglass, concrete, g               | alvanize   | sched  | To           | Galvani<br>Outside Dia  | and the second  |  | eglass<br>Slot No   | Concrete          | LPI  | astic       |                 |
| 2.1               | r vC   |                                       |            | 40   | 0            | 4.6   | K   | 5.8  |   |                   | 10   |             |                 |
|                   |  |                                       |            |  |              |   | Water four  | nd at Dent   | Water De  | etails<br>of Wate |  |             |                 |
|                   |  |                                       |            |  |              |   |   | Metres   |   |                   | Salty Sulp   | hur         | Minerals        |
|                   |  |                                       |            |  |              |   | Water four  |  |   | of Wate           | r<br>Salty Sulp  | bur         | Minerals        |
| Depth Set a       | t ( <i>Metres</i> )  | Space/Abandonmer<br>Type of Sealant L |            | ng Record  | Volum        | e Used  | Water four  |  | ouo   | of Wate           |  |             | WINCIUS         |
| From              |  | (Material and Typ                     | e)         |  |              | Metres)   |   | Metres   |   |                   | Salty Sulp   |             |                 |
| 0                 | 4.3 Ben:   | tonite                                |            |  | 88           | Kgs   | Disinfected   | Yes  | Wo If no, prov  | ide reas          | on: Date Mas   |             | Completed       |
|                   |  |                                       |            |  |              |   | Monit   | oring  | wells   |                   | 2000   | 1/04        | 08              |
|                   |  |                                       |            |  |              |   |   |  | (Please also)<br>Il Construction  |                   |  |             |                 |
|                   |  |                                       |            |  |              |   | and the second se | s in Cluste  | and the second se | Pleas             | e indicate Num<br>nation Log She                           | nber of C   | luster Well     |
|                   |  |                                       |            |  |              |   |   | s on this P  |   |                   | 1  | 010 0001    |                 |
|                   |  |                                       |            |  |              |   | unk   | Inn  | Location o  | FWoll             | Cluster  |             |                 |
|                   |  |                                       |            |  |              |   |   |  | e provided as a   | an attac          | and the second second second second second second          | er than le  | egal size       |
|                   |  |                                       |            |  |              |   |   | -  | s are not allowe<br>firm detailed ma  |                   | ovided as per  | Section     | 11.1 (3)        |
|                   |  |                                       |            |  |              |   |   | o release a  | additional info   |                   |  |             |                 |
|                   |  |                                       |            |  |              |   | ine Direcio   | or libon re  | duest   |                   |  |             |                 |
| Business M-       |  | actor and Well Tech                   | nician     |  |              |   |   |  |   |                   |  |             |                 |
| George            | me of Well Contracto   | ng Estate 2<br>mg, number, RR)        | )r:1       | Well Contra  | actor's Lice | ence No.  |   |  |   |                   |  |             |                 |
| Business Ad       |  |                                       |            |  |              |   |   |  |   |                   |  |             |                 |
| 4/0 R<br>Province | VE Principostal Code   | pale Greni<br>Business E-ma           |            | мппэцу   |              | ontractor No.   |   |  |   |                   |  |             |                 |
| QC                | JOVI   | Bo downin<br>Name of Well Technici    | Audit No.  | 04   | 460          |   |   |  |   |                   |  |             |                 |
| Bus.Telephor      | No. (inc. area code)   | Name of Well Technici                 | Date Recei | ved (200   | 2009         | Date of   | Inspection (yyy   | y/mm/dd)   | )   |                   |  |             |                 |
| Well Technicia    | an's Licence No. Signa   | Downing<br>ature of Technician        |            | Date Subr  |              | /y/mm/dd)   | Remarks   |  |   |                   |  |             |                 |
| 21                | 73/3   | Sime / La                             | ~          | 2009   |              | 27.   |   |  |   | . The             |  |             | Ser Contraction |
| 1992 (11/2006)    |  | ñ.                                    |            |  | М            | inistry'  | в Сору  |  |   |                   | © Queen's Pri  | nter for Or | ntario, 2006    |



Ministry of the Environment

Well Tag No. for Master Well (Print Well Tag No.)



| Addre               | ss of Well Location (Street Number/Name, RR)         |                               | Lot       | Con                    | cession To       | wnship                 |                     |                      | County                        | ı/District/Muni                | icipality                   | upon request                           |                    |                                    |
|---------------------|--|-------------------------------|-----------|------------------------|------------------|------------------------|---------------------|----------------------|-------------------------------|--------------------------------|-----------------------------|--|--------------------|------------------------------------|
| City/T              | own/Village Provin                                   | 1 .                           | Code      |                        |                  | odel                   |                     | e of Opera           |                               | lifferentiated                 | Averaged                    | Signature of Technician/Contracto      |                    | Date (yyyy/mm/dd)                  |
|                     | Ottawa Onta  |                               |           | BA                     | Armin 9          | Trex                   | Differe             | entiated, s          | pecify:                       |                                |                             | - Jours her                            |                    | 009/04/27                          |
| Well #<br>on Sketcl |  |                               |           | ethod of<br>nstruction | Casing Material  | Casing Length (metres) | Screen Inte<br>From | erval (metres)<br>To | Annular Space<br>Sealant Used | Static Water<br>Level (metres) | Abandonment<br>Sealant Used | Comments                               | /                  | Date of Completion<br>(yyyy/mm/dd) |
| BH                  | 184410203015411                                      | 6.3 2                         | 10/10 HS  | ADIA                   | PVC              | 3.2                    | 3.2                 | <i>(</i> e. 3        | Benforite                     | -                              |                             |  |                    | 2009/04/07,                        |
| BH                  | 1844103 (5015437                                     | 4.4 2                         | 20/16 45/ | ANA                    | н                | 3.0                    | 3.0                 | 41                   | μ                             |                                |                             |  |                    | 2009/04/07                         |
| BH<br>SA            | 184419995015428                                      | 4.3 5                         |           | sA                     | 84<br>           | 1.2                    | 1.2                 | 4.3                  | 1ĺ                            |                                |                             |  |                    | 2009/04/08                         |
|                     |  |                               |           |                        |                  |                        |                     |                      |                               |                                |                             |  |                    |                                    |
|                     |  |                               |           |                        |                  |                        |                     |                      |                               |                                |                             |  |                    |                                    |
|                     |  |                               |           |                        |                  |                        |                     |                      |                               |                                |                             |  |                    |                                    |
|                     |  |                               |           |                        |                  |                        |                     |                      |                               |                                |                             |  |                    |                                    |
|                     |  |                               |           |                        |                  |                        |                     |                      |                               |                                |                             |  |                    |                                    |
|                     |  |                               |           |                        |                  |                        |                     |                      |                               |                                |                             |  |                    |                                    |
|                     |  |                               |           |                        |                  |                        |                     |                      |                               |                                |                             |  |                    |                                    |
| 12/20/2020          | Contractor and Well Technician Infe                  | ormation                      | Rusinoss  | Adross (Str            | eet Number/Nar   | ma PP)                 |                     | Municipal            | lity                          |                                | Province                    | Date 1st Well in Cluster Constructed C | ate Last Well in ( |                                    |
| Ge                  | orge Dorming Estate Drill                            | ing Itd.                      | 410 Ru    | e Prin                 | ripale           | Gienvi                 | The Se              | n La                 | Donia                         | 2                              | Province                    | Ministry Use Only                      |                    |                                    |
| 11                  | Code Business Telephone N<br>0   V     B 0 8   9 2 4 | 10. (incl area code)<br>2 4 4 | 49 1      | 84                     | Licence No. Busi | lounin                 | 201                 | rawk                 | 195. n                        | et                             |                             | Date Received (yyyy/mm/dd)             | Dat MAY e Ze C     | (v <b>2009</b> <sup>1/dd)</sup>    |
|                     | of Well Technician (First Name, Last Name)           |                               | Well<br>2 | Technician's           | icence No. Date  | Submitted (v)          |                     | Signature            | of Technician                 | Jan                            |                             | Audit No. <b>c</b> 05166               | Remarks<br>MO      | 1960                               |

| - 3                 | 1 611 1                       | ation (Street Number/Name,<br>FallowField<br>Pro  | Koad                           | Lot<br>ostal Code | GF                        | PS Unit Make N   | ownship<br>1odel<br>ELTEX |                     | le of Opera            | ation 🗌 Und                   | y/District/Mun<br>differentiated | icipality<br>Averaged       | Signature of Technician/Contract                                       |                                   | Date (yyyy/mm/dd)                  |
|---------------------|-------------------------------|---|--------------------------------|-------------------|---------------------------|------------------|---------------------------|---------------------|------------------------|-------------------------------|----------------------------------|-----------------------------|--|-----------------------------------|------------------------------------|
| Well #<br>on Sketcl | h Zone Eastin                 | UTM Coordinates<br>ng Northing  | Full Depth of<br>Hole (metres) | Hole Diameter     | Method of<br>Construction | Casing Material  | Casing Length<br>(metres) | Screen Inte<br>From | erval (metres)<br>  To | Annular Space<br>Sealant Used | Static Water<br>Level (metres)   | Abandonment<br>Sealant Used | Comments   | /                                 | Date of Completion<br>(yyyy/mm/dd) |
| BH                  |                               | 1020301541  | 16.3                           | 20/10             | HSA/DIA                   | PVC              | 3.2                       | 3.2                 | 6.3                    | Benjonite                     | -                                |                             |  |                                   | 2009/04/07,                        |
| BA                  | 1844                          | 1031501543  | 1 4.4                          | 20/16             | HSA/DIA                   | ĸ                | 3.0                       | 3.0                 | 41                     | ι                             |                                  |                             |  |                                   | 2009/04/04                         |
| BH<br>SA            | 18:44                         | 1999501542  | 8 4.3                          | 20                | HSA                       | \$1              | 1.2                       | 1.2                 | 4.3                    | 1Í                            |                                  |                             |  |                                   | 2009/04/08                         |
|                     |                               |   |                                |                   |                           |                  |                           |                     |                        |                               |                                  |                             |  |                                   |                                    |
|                     |                               |   |                                |                   |                           |                  |                           |                     |                        |                               |                                  |                             |  |                                   |                                    |
|                     |                               |   |                                |                   |                           |                  |                           |                     |                        |                               |                                  |                             |  |                                   |                                    |
|                     |                               |   |                                |                   |                           |                  |                           |                     |                        |                               |                                  |                             |  |                                   |                                    |
|                     |                               |   |                                |                   |                           |                  |                           |                     |                        |                               |                                  |                             |  |                                   |                                    |
|                     |                               |   |                                |                   |                           |                  |                           |                     |                        |                               |                                  |                             |  |                                   |                                    |
|                     |                               |   |                                |                   |                           |                  |                           |                     |                        |                               |                                  |                             |  |                                   |                                    |
| 12202355            |                               | r and Well Technician   | Information                    |                   | nana Address (C           | troot Number/Ne  |                           |                     | Municipa               | 114.7                         |                                  | Densinger                   | Date 1st Well in Cluster Constructed                                   | Date Last Well in<br>(vyvy/mm/dd) | Cluster Constructed                |
| Fosta               | Douge Don<br>Code<br>8 V   [] | Vell Contractor<br>Ming Estate Di<br>Business Telephon<br>B 0 8 ( 9 2<br>ician (First Name, Last Name | 426                            | Ha. 411           | Well Contractor           | s icence No. Dat | siness E-mail A           | Address<br>2 C 1    | nawk                   | a Rouge                       | 0                                | Province                    | Ministry Use Only<br>Date Received (yyyy/mm/dd)<br>Audit No.<br>c05166 | Dat MAY e 2 e<br>Remarks          | D(y2009 <sup>n/dd)</sup>           |
|                     | <u>uce Dou</u><br>11/2006)    | uning   |                                |                   | 01                        | 1)7              | 09/04/2                   | Ainistry's          | 12                     | me t                          | tan                              | 7                           | COSTOD   | © Queen's Print                   | er for Ontario, 2006               |

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# **Cluster Well Information for Cluster Well Construction**

Regulation 903 Ontario Water Resources Act

of \_\_\_\_ Page





Ontario Ministry of the Environment

Well Tag No. for Master Well (Place Sticker and/or Print Below) 4 m.w. Abandonments Tag A 019093

Master Well Record for **Cluster Well Construction** Regulation 903 Ontario Water Resources Act

| Address o<br>369                      | f Well Location (Stree  | eld Road   |  | Township  |                      |   | Lot   | Concessi                                       | on   |
|---------------------------------------|---|--|--|---|----------------------|---|---|--|--|
|                                       | strict/Municipality   | an nour  |  | City/Town/Village   | 1.0                  | · · ·   |   | Province                                       | Postal Code  |
| UTM Coord                             |   | · · · · · ·  |  | IPS Unit Make   | Na                   | Mode of O   | the second se | Ontario  |  |
| 4                                     | 8311844<br>wrden and Bedroc   | 119191951611<br>(Materials (see inst   |  | GARMIN<br>back of this form   | Ctrex                | Differen  | tiated, specify<br>Hole   | Details  |  |
| General<br>Colour                     | Most Common<br>Material   | Other<br>Materials   | Genera<br>Descripti  |   | etres) De<br>To Fron | pth ( <i>Metres</i> )   |   | Diamet<br>(Centime                             |  |
|                                       | Abandon   | 4 Monst  | pling c  | wells   | $\epsilon$           | > 7.9   | 20/10   |  |  |
|                                       |   |  |  |   |                      |   | andra da  |  |  |
|                                       | Remore ¢  | ading 1 A  | creen  | ; oreidu  | <u>il  </u>          |   |   |  | **************************************   |
| anc                                   | Dackfu  | asing + s<br>11 borched<br>from 7.0  | les un   | th Denter   | hitp                 |   |   |  |  |
| - Unic                                | In sivery   | as per on  | T M Dell   | Don Goz   |                      |   | dustrial  | er Use<br>Not used                             | [] Other, specify  |
|                                       | pur far   | ca per on  |  | Key -103  |                      | estock 🗌 Mi   | micipal 🗍   | Dewatering<br>Monitoring<br>Cooling & Air Cond |  |
| · · · · · · · · · · · · · · · · · · · |   | · · · · · · · · · · · · · · · · · · ·  |  | **************************************  |                      |   | www.constanting   | Construction                                   | anoning  |
|                                       | *   |  | NA/AMMAAA.A  |   | Ro                   | ble Tool<br>tary (Convention  | Air Per<br>al) Diamo  |  |  |
|                                       |   | oo yaa ahaa ahaa ahaa ahaa ahaa ahaa aha   | 1444484411111011114114111411411411411411411411   | 1907;1444 VA Managana and a second |                      | tary (Reverse)<br>tary (Air)  | Jetting   |  | чет, вресії́у  |
|                                       |   | ndan manana mandari 17 ANSTRAN BARAN (AFA AMAMMA)  | ,<br>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,  |   |                      | t Hala  |   | s of Well<br>oned, Insufficient S              |  |
|                                       |   | aniha 11 Aniha 1 Aniha | *******  |   | Rej                  | placement Well<br>watering Well   | Aband   | oned, Poor Water (                             |  |
|                                       |   |  | ану сандалаган таланаад с боролуу у то до устата алаан талаа   |   | 11                   | 100   | tion) 🖸 Aband   | oned, other, specify                           | <u>, <u>A1.</u> <u></u>,</u>   |
|                                       | a 111114A fi Fannan manana manana a sa | adda Anadda Annan an  |  |   | Open F               |   |   | Static Wat                                     | er Level Test  |
| Inside Diar                           | neler   | Construction De  | press and reason based of the second s  | Vall Depth (Me  | (ras)                | Yes VA  |   | Me<br>Deen                                     | tres   |
| (Centimet                             |   | fibreglass, concrete. ga   |  |   | To Gal               | vanized []] Si<br>e Diameter (Cer   | 7,1 9 1,1,5<br>Webershimmen (1999)  | glass []] Conon<br>Słot No.                    |  |
|                                       |   | · · · · · · · · · · · · · · · · · · ·  |  |   |                      |   |   |  | ner allem ein annen statister son statister af verste der son statister för som statister som statister som st |
|                                       | 19 10 10 10 10 10 10 10 10 10 10 10 10 10                               | • •  |  |   | Water                | found at Depth  |   | f Water  |  |
|                                       |   |  |  |   | Water                | Metres found at Depth   | ·····   | sh [_]Salty [_]S<br>[Water                     | Sulphur [] Minerals  |
| Depth Set a                           |   | Space/Abandonmen<br>Type of Sealant U  |  | Volume U  | sed Water            | Metres  |   | sh [_]Salty [_]S                               | Sulphur 🗌 Minerals   |
| From                                  | То  | (Material and Typ  | e)   | (Cubic Mel  | res)                 |   | Gas Free  | sh 🔲 Salty [] S                                | - Ander  |
| 0                                     | 1.9 Den   | onite Come   | vt   | 100 Kq  |                      | cted 🗌 Yes 🗔  | Klo. If no, provi   | (vyyy/n  |  |
|                                       |   |  |  |   | Clust                | er Information  | (Please also f  |  | <u> イ ( 09 / 1 つ .</u><br>mal Cluster Well   |
| ~~                                    |   |  |  |   | Total V              | Nells in Cluster  | Construction  |  | of land and cluster.)<br>lumber of Cluster Well  |
|                                       |   |  |  |   |                      | Vells on this Pr  |   |  | Sheels Submitted   |
|                                       |   |  |  |   |                      | nknow   | Location of   | Well Gluster                                   |  |
| ~                                     |   |  |  |   | (8.5" x              | /14"). Sketches   | are not allowe  | d.   | arger than legal size  |
|                                       |   | <b>11</b>  |  | 97. Falan   | Сопзе                | nt to release a   | dditional infor   | p is provided as p<br>mation concerni          | er Section 11.1 (3)  |
|                                       |   |  |  |   | the Dir              | ector upon rec<br>pe of Technicla   | juest   | Date ()  | yyy/ipm/dd)  |
| Business Na                           | Well Contra<br>ame of Well Contracto                                    | actor and Well Tech  | contrast and the second s | ation<br>ell Contractor's Licence   | No. Master           | Well Owner's  | Land Owner's  | 2 206  | 9/09/23<br>Cluster Form  |
| $\underline{\mathbb{G}}$ Business Ad  | Igless (Street No./Nar  | ne, rumber, RR)  | Inling   | 118 14 14<br>ality 0  | J Signatu            | PILL  | 2   | Date ()  | 9/10/05  |
| 416  <br>Province                     | Le Prine  | isale (3)  | renville.  |   | NGH                  | <del>×   1    </del>  |   | Use Only                                       | <u></u>  |
| 13                                    |   | BIO COM  |  | unko igs.no   |                      | °M 04   | 520   | Well Contractor No                             |  |
| 81193                                 | 1426469   | , Dowhip   | a hre  | Ce  | U                    | 01207/20  | 109   | Date of Inspection (                           | 'yyyyhninidd)  |
| Well Technici                         | an's Licence No. Signa  | une of Technician  | Da Da  | te Submitted (1999/17)<br>2009 /09 123  |                      | <b>S</b>  | 1   |  |  |
| 1992 (11/2006)                        | )   |  | <u> </u>   |   | I [                  | e seguer ann an 1999 ann a<br>Tha ann an 1999 anns |   | © Queen's                                      | Printer for Ontario, 2006  |



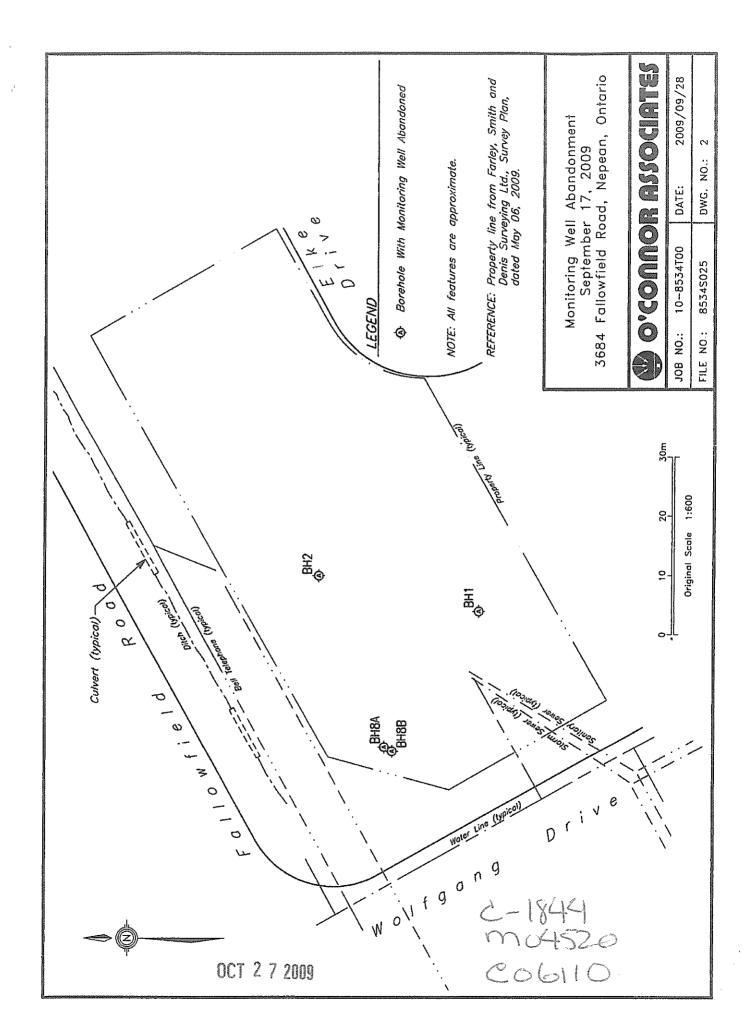
Ministry of the Environment

Well Tag No. for Master Well (Print Well Tag No.) 4 M.W. absence onments Tag A 019 093

**Cluster Well Information for Cluster Well Construction** Regulation 903 Ontario Water Resources Act

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

| Addre               | ss of Well Location                    | (Street Number/Name, RF   | R)                             | Lot                   |                          | Concession          | Township                      |                     |                            | Count                         | y/District/Mur                 | nicipality                  |  |                        |
|---------------------|--|---|--------------------------------|-----------------------|--------------------------|---------------------|-------------------------------|---------------------|----------------------------|-------------------------------|--------------------------------|-----------------------------|--|------------------------|
| 3                   | 1684 Fallor                            | whield.   |                                |                       |                          |                     |                               |                     |                            |                               |                                | 1                           | Signature of Technician/Contractor   | Date (yyyy/mm/dd)      |
| City/To             | own/Village<br>OHawa                   | Provi<br>Ont  | 1                              | stal Code             |                          | GPS Unit Make       | Model<br>Etrez                |                     | le of Opera<br>entiated, s | Sec. 10                       | differentiated                 | Averaged                    | Brunc Daning   | <u> 2009/09/23</u>     |
| Well #<br>on Sketch |  | Coordinates<br>Northing   | Full Depth of<br>Hole (metres) | Hole Diameter<br>(cm) | Method ol<br>Constructio |                     | ial Casing Length<br>(metres) | Screen Inte<br>From | erval (metres)<br>To       | Annular Space<br>Sealant Used | Static Water<br>Level (metres) | Abandonment<br>Sealant Used | Comments   | Date of Concernent (   |
| BH<br>1             | 184410                                 | 205015411   | Le.3                           | 20/10                 |                          |                     |                               |                     |                            |                               |                                | Bentonite                   | cement shurry  | 2009/09/17             |
| 8H<br>2             | 184410                                 | 31150115437   | 6.Y                            | 20/10                 |                          |                     |                               |                     |                            |                               |                                |                             |  |                        |
| Bit<br>8A           | 184419                                 | 9950115428  | 4.3                            | 20                    |                          |                     |                               |                     |                            |                               |                                | ł                           |  | 4                      |
|                     |  |   |                                |                       |                          |                     |                               |                     |                            |                               |                                |                             |  |                        |
|                     |  |   |                                |                       |                          |                     |                               |                     |                            |                               |                                |                             |  |                        |
|                     |  |   |                                |                       |                          |                     |                               |                     |                            |                               |                                |                             |  |                        |
|                     |  | sindianaa<br>sindianaa<br>sindianaa<br>sindianaa<br>sindianaa<br>sindianaa<br>sindianaa<br>sindianaa    |                                |                       |                          |                     |                               |                     |                            |                               |                                |                             |  |                        |
|                     |  |   |                                |                       |                          |                     | -                             |                     |                            |                               |                                |                             |  |                        |
|                     |  |   |                                |                       |                          |                     |                               |                     |                            |                               |                                |                             |  |                        |
| <b></b>             | 10000000000000000000000000000000000000 |   |                                |                       |                          |                     |                               |                     |                            |                               |                                |                             |  |                        |
|                     | Contractor and                         | Well Technician Int   | formation                      | ı Busi                | ness Address             | s (Street Number/   | Name, RR),                    |                     | Municipal                  | íty                           |                                | Province                    | Date 1st Well in Cluster Constructed Date Last Well i<br>(yyy/mm/dd)<br>2009/09/17 | n Cluster Constructed  |
|                     | orge Dow                               | BUSINESS TELEPHONE N  | jilling                        |                       | $\sim$                   | PALCE NO. LE        |                               |                     |                            | La Rou                        | <u>pp.</u>                     | Ge                          | Ministry Use Only  |                        |
| JZ                  | VIIBC                                  | Signeds     Icophone       Signeds     Icophone       Signeds     Icophone       First Name, Last Name) | 126                            | 469                   |                          | ian's Licence No. E | down                          | yeh                 | auho                       | igs ne                        | F                              |                             | UCI 4 / 2003   | ad (yyyy/mm/dd)        |
| <u> </u>            | rice Dou                               | Mine, Last Name)  |                                | <u></u>               |                          | $ \gamma $          | 2009/09                       | iyyy/mm/dd)<br>23   | Signature                  | or rechnician                 | Jun                            | $\sim$                      | Audit No.<br>c06110  | 1520                   |
| 1991 (11            | 1/2006)                                | λ   |                                |                       |                          |                     | Gina                          | /inistry's          | Сору                       |                               |                                |                             |  | nter for Ontario, 2006 |





Ontario Ministry of the Environment

Well Tag No. for Master Well (Place Sticker and/or Print Below) 4 m.w. Abandonments Tag A 019093

Master Well Record for **Cluster Well Construction** Regulation 903 Ontario Water Resources Act

|                                    | of Well Location (Str   | et Number/Name, RR  | )   | Townsh                                      | ip                          |   |  |  | Lot   | Concessi   | on   |
|------------------------------------|---|---|---|---|-----------------------------|---|--|--|---|--|--|
| Sounty/Di                          | istrict/Municipality  |   |   | City/Tov                                    | vn/Villag<br>OH (           | iwa                                     |  |  | <u>.</u>  | Province<br>Ontario  | Postal Code  |
| ITM Coord<br>NAD                   |   | sting Northin<br>111919195161   | · · · · · · · · · · · · · · · · · · ·                                   | SPS Unit<br>GARN                            | Make                        | Model                                   | rex  | Mode of O  | peration:   | Undifferentiated   | PAveraged  |
| Overb<br>General<br>Colour         | burden and Bedro<br>Most Common<br>Material   | ck Materials (see ins<br>Other  | Genera  | e back o<br>al                              | <i>f this fo</i><br>Depth ( | rm)<br>(Metres)                         | Depth  | (Metres)   | Hole  | Details<br>Diamet  |  |
| COOUI                              |   | Materials   |   | ·····                                       | From                        | То                                      | From   | то<br>Л G  | 20/10   | (Centime   | tres)  |
|                                    |   |   |   |   |                             |   |  |  |   |  |  |
|                                    | Removes   | Caping 1 1<br>11 borche   | Jereen  | ې ز   | reic                        | hill                                    |  |  |   |  |  |
| and                                | d backf   | from 7.   | les un  | th  | Dent                        | enit                                    | ×  |  |   | er Use   |  |
| 40                                 |   | as per Or   |   |   | шци<br>903                  |   | Public   |  | dustrial  | Not used<br>Dewatering   | [] Other, specify  |
|                                    |   |   |   | ••••  |                             |   | Livesto  | xck 🔲 M  | inicipal 🔲  | Monitoring<br>Cooling & Air Con                                  | älioning   |
|                                    | α<br>α<br>α<br>α<br>α<br>α<br>α<br>α<br>α<br>α<br>α<br>α<br>α<br>α<br>α<br>α<br>α<br>α<br>α |   |   |   |                             |   | Cable -  | Tool   | Method of   |  | KJIN)  |
|                                    |   | ****  | **************************************                                  |   |                             |   | Rotary   | (Convention<br>(Reverse)   | Jetting   | nd 🗌 Bo  |  |
|                                    |   |   |   | 11410000000000000000000000000000000000      |                             | ·······                                 | Rotary   | (Alf)  | Driving<br>Statu:   |  |  |
| ****                               |   |   |   |   | A                           |   |  | ement Well   |   | oned, Insufficient S<br>oned, Poor Water (                       |  |
| <b></b>                            |   |   |   |   |                             |   |  | aring Well<br>ion (Construc  |   | specify<br>oned, other, specif                                   | v M.W.   |
|                                    | *********   | 5.555 addin Annahi Annani annan an                                      | ***************************************                                 |   |                             | , 111 ( MA Association Adding of Spaces | No Cas<br>Open Hole  |  | reen Used   | Static Wat   | er Level Test  |
| ide Diar                           | meter   | Construction De   | celleration receives appeal available appeal of                         | Wall  | Depth (/                    | Vetres)                                 |  | Yes []YA   | The second se | Teleri<br>Teleri   | etres  |
| entimet                            | tres) (steel, plasti  | ς, fibreglass, concrete. ς  | yalvanized) Thi   | ickness                                     | From                        | То                                      | []] Galvani<br>Outside Di  | ized [_] S<br>ameter (Cer  | 10 9 19 10<br>10 10 10 10 10 10 10 10 10 10 10 10 10 1  | glass [_] Concr<br>Slot No.                                      | ele []] Plastic  |
|                                    |   |   |   |   |                             |   |  |  | Water De  | talls  |  |
|                                    |   | ۰۰۰۰<br>۱۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰ ۲۰۰۰  | 11111221111111111111111111111111111111                                  |   |                             |   | · ·  | nd at Depti<br>Metres  | 1   | f Water<br>sh         Salty           S                          | Sulphur [] Minera  |
|                                    | Annula  | ir Space/Abandonme  | nt Sealing Reco   | ord   |                             |   | · ·  | nd at Depti<br>Metres  | 1   | f Water<br>sh  | Sulphur 🗍 Minera   |
| th Set a                           | at ( <i>Metres</i> )<br>To  | Type of Sealant<br>(Material and Ty   |   |   | Volume<br>(Cubic M          |   | × ,  | nd at Depth<br>Metres  | 1   | f Water<br>shSalty5  | Sulphur 🛄 Minera   |
| 0                                  | M. 9 Bei  | Jonite Come   | nt  |   | 1001                        | iqs                                     | Disinfected  | Yes 🖸  | Wo. If no, provi  | 67772/2  | Master Well Comple<br>n///do)                                  |
|                                    |   |   |   |   |                             |   | Cluster Ir   | formation  | (Please also I  | and the second   | <u>9 (09/17.</u><br>mal Cluster Well                           |
|                                    |   |   |   |   |                             |   | Total Well   | Is in Cluster  | Construction  | Please indicate N  | of land and cluster<br>lumber of Cluster V<br>Sheets Submitted |
|                                    |   | ·····   |   |   |                             |   |  | s on this Pr   |   | _  | 1  |
|                                    |   |   |   |   |                             |   | Detailed M   | 1ap must be  | Location of<br>provided as a  | Well Cluster   | arger than legal siz   |
|                                    |   |   | 1100001100000   |   |                             |   | (8.5" x 14"  | <ol> <li>Sketches</li> </ol>                                       | are not allowe  | d  | per Section 11.1 (3)   |
|                                    |   | ×   | a   |   | ,                           | ······]                                 |  |  |   |  |  |
|                                    |   | ۵ / ـــــــــــــــــــــــــــــــــــ   | * /)  |   |                             | × 11                                    | Consent to   | o release a<br>or upon rec   | juest   |  | ng the cluster to  |
|                                    | Well Con  | tractor and Well Tec  | And contrast in the second second second                                | COLORIZADO DA VERCILION                     |                             |   | Consent to<br>the Directo<br>Signatore   | o release a<br>or upon rec<br>of Technicla                         | juest<br>in Contractor  |  | ww.imm/dd)<br>9/09/23  |
| Gær                                | ame of Well Contrac   | ina Estate  | Drilling  | ell Contrac                                 | tor's Licer                 | nce No.                                 | Consent to<br>the Directo<br>Signatore   | o release a<br>or upon rec<br>of Technicla                         | juest<br>in Contractor  | 2<br>2<br>3 consent to use<br>Date (                             | ww/inm/dd)<br>39/09/23<br>Cluster Form<br>ww/inm/dd)           |
| <u>60)</u><br>ness Ad              | ame of Well Contrac<br>VIL DOWM<br>defess (Street No./N<br>KUL H. N                         | tor<br>1 ha Estate<br>ame, number, RR)<br>Li Dale (5  | Drilling<br>Nenville  | ell Contrac                                 | tor's Licer<br>14<br>La F   | nce No.<br>14<br>Souge                  | Consent to<br>the Directo<br>Signatore<br>Master We<br>Signatule               | o release a<br>or upon rec<br>of Technicla                         | Juest<br>In Contractor<br>/Land Owner's<br>Ministry   | 2 Date (<br>200<br>s consent to use<br>Date (<br>200<br>Use Only | 9999/mm/dd)<br>91/09/23<br>Cluster Form<br>99/10/05            |
| CC)<br>ness Ad<br>1101<br>nince    | ame of Well Contrac<br>defess (Street No./N<br>RUE PFIN<br>Postal Co<br>TOIV                | tor<br>ame, number, RR)<br><u>Cipale</u><br>Business E-m<br>1 BO<br>dr. M                             | Drilling<br>Mungr<br>All Address  | ell Contrac<br>18<br>pality<br>2004<br>2004 | 14<br>LaF                   | 14<br>Zouge                             | Consent to<br>the Director<br>Signature<br>Master We<br>Signature<br>Audit No. | o release a<br>or upon rec<br>of Technicia<br>I Owner's<br>I O 4 ! | VLand Owner's<br>Ministry   | 2<br>Consent to use<br>Date (<br>Date (<br>200                   | 9999/mm/dd)<br>91/09/23<br>Cluster Form<br>99/10/05            |
| ness Ad<br>ince<br>Cec<br>Telephon | ame of Well Contrac<br>defess (Street No./N<br>RUE PFIN<br>Postal Co<br>TOIV                | tor<br>in Storte<br>ame, rumber, RR)<br>de Business E-m<br>IBO down<br>Name of Well Technic<br>Down i | Drilling<br>Munge<br>All Address<br>ail Address<br>ian (Last Mame,<br>B | ell Contrac<br>18<br>pality<br>2004<br>2004 | 14<br>Lat<br>195.1          | 14<br>Zouge<br>Lot                      | Consent to<br>the Director<br>Signature<br>Master We<br>Signature<br>Audit No. | o release a<br>or upon rec<br>of Techniciz<br>U Owner's            | VLand Owner's<br>Ministry   | 2 Date (<br>200<br>s consent to use<br>Date (<br>200<br>Use Only | 1999/1997/2019<br>29/09/23<br>Cluster Form<br>1999/10/05       |



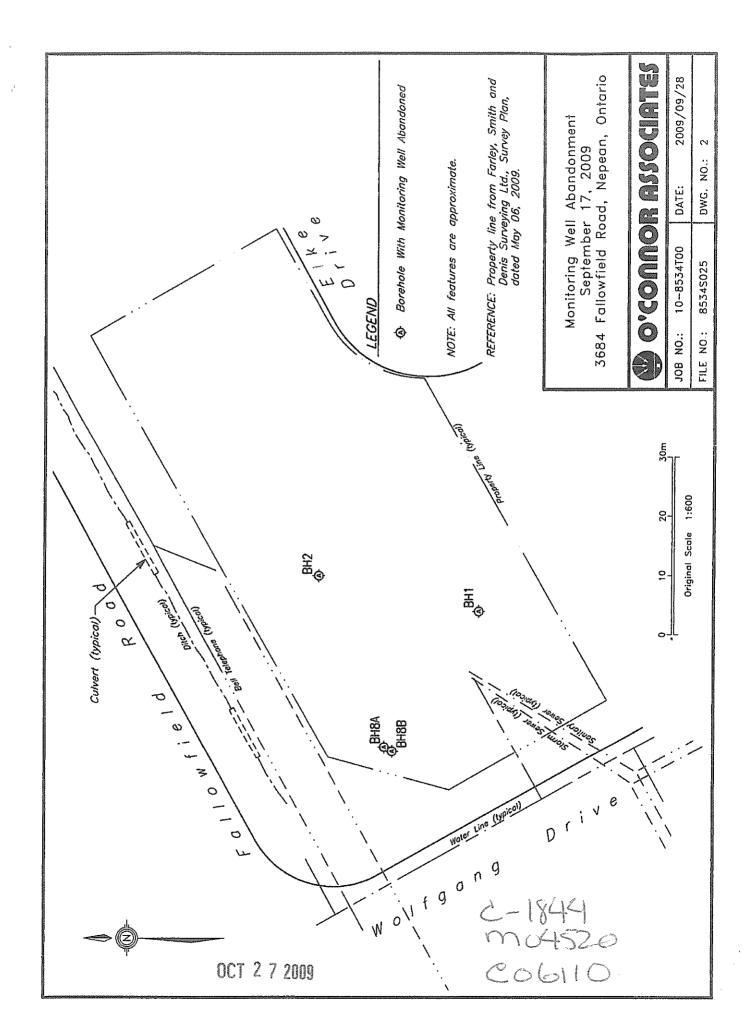
Ministry of the Environment

Well Tag No. for Master Well (Print Well Tag No.) 4 M.W. absence onments Tag A 019 093

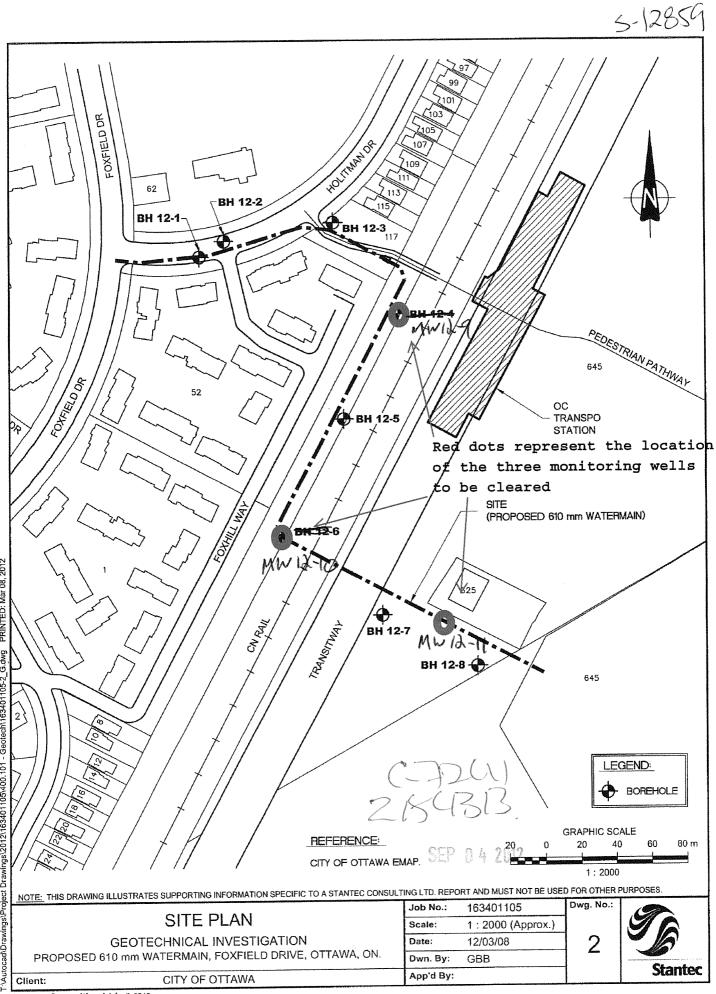
**Cluster Well Information for Cluster Well Construction** Regulation 903 Ontario Water Resources Act

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

| Addre               | ss of Well Location                       | (Street Number/Name, RF   | 3)                             | Lot                   |                          | Concession          | Township                      |                     |                            | Count                         | y/District/Mur                 | nicipality                  |                                    |                                   |
|---------------------|---|---|--------------------------------|-----------------------|--------------------------|---------------------|-------------------------------|---------------------|----------------------------|-------------------------------|--------------------------------|-----------------------------|------------------------------------|-----------------------------------|
|                     | 1684 Fallor                               | whield.   |                                |                       |                          |                     |                               |                     |                            |                               |                                | 1                           | Signature of Technician/Contractor | Date (yyyy/mm/dd)                 |
| City/To             | own/Village<br>DHawa                      | Provi<br>Ont  | 1                              | stal Code             |                          | GPS Unit Make       | Model<br>Etrez                |                     | le of Opera<br>entiated, s | \$101-C                       | differentiated                 | Averaged                    | Brune Daning                       | 8009/09/23                        |
| Well #<br>on Sketch |   | Coordinates<br>Northing   | Full Depth of<br>Hole (metres) | Hole Diameter<br>(cm) | Method of<br>Constructio |                     | ial Casing Length<br>(metres) | Screen Inte<br>From | erval (metres)             | Annular Space<br>Sealant Used | Static Water<br>Level (metres) | Abandonment<br>Sealant Used | Comments                           | Date of concord (<br>(vyyy/mm/dd) |
| BH<br>1             | 184410                                    | 205015411   | Le. 3                          | 20/10                 |                          |                     |                               |                     |                            |                               |                                | Bentonite                   | cement shory                       | 2009/09/17                        |
| BH<br>2             | 184410                                    | 31150115437   | Le. 4                          | 20/10                 |                          |                     |                               |                     |                            |                               |                                |                             |                                    |                                   |
| BH<br>8A            | 184419                                    | 9950115428  | 4.3                            | 20                    |                          |                     |                               |                     |                            |                               |                                | ł                           |                                    | -                                 |
|                     |   |   |                                |                       |                          |                     |                               |                     |                            |                               |                                |                             |                                    |                                   |
|                     |   |   |                                |                       |                          |                     |                               |                     |                            |                               |                                |                             |                                    |                                   |
|                     |   |   |                                |                       |                          |                     |                               |                     |                            |                               |                                |                             |                                    |                                   |
|                     |   | sindianaa<br>sindianaa<br>sindianaa<br>sindianaa<br>sindianaa<br>sindianaa<br>sindianaa<br>sindianaa    |                                |                       |                          |                     |                               |                     |                            |                               |                                |                             |                                    |                                   |
|                     |   |   |                                |                       |                          |                     | -                             |                     |                            |                               |                                |                             |                                    |                                   |
| ******              |   |   |                                |                       |                          |                     |                               |                     |                            |                               |                                |                             |                                    |                                   |
| *···                | 2010-00-00-00-00-00-00-00-00-00-00-00-00- |   |                                |                       |                          |                     |                               |                     |                            |                               |                                |                             |                                    |                                   |
|                     | Contractor and                            | I Well Technician Int   | formation                      | Busi                  | ness Address             | s (Street Number/   | Name, RR),                    |                     | Municipal                  | íty                           |                                | Province                    |                                    | n Cluster Constructed             |
| Postal              | Me Dow                                    | NINS ZSTALE D<br>Business Telephone N   | jilling                        | Lld 4                 | 10 Rue                   | P.M.C.P.C.          | le Gre                        |                     | L                          | La Rou                        | <u>pp.</u>                     | Ge                          | Ministry Use Only                  |                                   |
| JZ                  | VIIBC                                     | Signeds     Icophone       Signeds     Icophone       Signeds     Icophone       First Name, Last Name) | 126                            | 469                   |                          | ian's Licence No. E | down                          | yeh                 | auh                        | igs ne                        | F                              |                             | VG1 4 7 2003                       | əd (yyyy/mm/dd)                   |
| <u> </u>            | Mice Day                                  | Mine, Last Name)  |                                |                       |                          | $ \gamma $          | 2009/09                       | iyyy/mm/dd)<br>23   | Signature                  | or rechnician                 | Jun                            | $\sim$                      | Audit No.<br>c06110                | 1520                              |
| 1991 (1             | 1/2006)                                   | λ   |                                |                       |                          |                     | Gina                          | /inistry's          | Сору                       |                               |                                |                             |                                    | nter for Ontario, 2006            |



| · Do                                  | Intario                                       | Ministry of             |   | Well Ta              | ag No. (Place Sticker                               |                                     |                         |                 |                       | 'ell F        | Record                   |
|---------------------------------------|---|-------------------------|---|----------------------|---|-------------------------------------|-------------------------|-----------------|-----------------------|---------------|--------------------------|
| <i>V</i> (                            |   | the Environme           |   | neT                  | #: A133499  | A13                                 | 349 eRegulatio          | on 903 O        | ntario Wa             | ter Re        | sources Act              |
|                                       | nents recorded in:<br>vner's Informati        |                         | Imperial  | 149                  |   | -                                   |                         |                 | Page                  |               |                          |
| First Nam                             |   |                         |   |                      | ALLA  | E-mail Ad                           | dress                   |                 | C                     |               | Constructed              |
| Mailing Ac                            | ddress (Street Numb                           | per/Name)               | UT UT   |                      | AwA<br>Municipality                                 | Province                            | Postal Code             | e T             | Felephone             | -             | ell Owner                |
| 110                                   | Couriel                                       | - Avenue                | e west  |                      | ottawa  | ON                                  |                         |                 |                       |               |                          |
| Well Loo<br>Address o                 | sation<br>of Well Accation (Stre              | eet Number/Nar          | 1е)   | ·                    | Township  |                                     | Lot                     | 10              | Concessio             | 1<br>1        |                          |
|                                       |   | ) rive.                 | -   |                      |   |                                     |                         |                 |                       |               |                          |
| County/Di                             | strict/Municipality                           |                         |   |                      | City/Town/Village                                   |                                     |                         | Province Onta   |                       | Posta         | I Code                   |
|                                       | dinates Zone Easti                            |                         | Northing  |                      | Municipal Plan and Sul                              | lot Number                          |                         | Other           |                       |               |                          |
|                                       |   | I 368<br>Materials/Aban |   |                      | ord (see instructions on t                          | ie back of this form                | J                       |                 |                       |               |                          |
| General C                             |   | Common Mate             | 1   |                      | ner Materials                                       |                                     | General Description     | n               |                       | Dep<br>From   | oth ( <i>m/ft)</i><br>To |
| BK                                    | Tor   | 050.1                   |   |                      | A   | <u>)</u>                            | 1 <sub>M</sub>          |                 |                       | 0             | .07                      |
| Bm                                    | . Cla   | Υ                       |   | S /                  |   | Sof                                 | K. ,                    |                 |                       | ,07           | 3.1                      |
| Binn                                  | clay  | 1                       |   | 51 /                 | <i>d</i> -  | Soft                                | , met                   |                 |                       | 3,1           | 5.49                     |
|                                       | /   |                         |   |                      |   |                                     | -                       |                 |                       |               |                          |
|                                       |   |                         |   |                      |   |                                     |                         |                 |                       |               |                          |
|                                       | ÷   |                         |   |                      |   |                                     |                         |                 |                       |               |                          |
| ·                                     |   |                         |   |                      |   |                                     |                         |                 |                       |               |                          |
|                                       |   |                         |   |                      |   |                                     |                         |                 |                       |               |                          |
|                                       |   | Annul                   | ar Space  |                      |   | 1                                   | Results of W            | ell Yield       | Testing               |               |                          |
| Depth S<br>From                       | et at ( <i>m/ft)</i>                          |                         | ealant Used<br>and Type)  |                      | Volume Placed<br>(m <sup>3</sup> /ft <sup>3</sup> ) | After test of wel                   | l yield, water was:     | Dra             | w Down<br>Water Level |               | ecovery                  |
| 0                                     | 212   | Reso                    | D,  |                      |   | $\Box$ Other, spe                   |                         | ( <i>min</i> )  | ( <i>m/ft</i> )       | Time<br>(min) | Water Level<br>(m/ft)    |
| 2.13                                  | 5.49  | Sard.                   |   |                      | -   | If pumping disc                     | ontinued, give reason:  | Static<br>Level |                       |               | <u>Alexa</u>             |
|                                       |   |                         |   |                      |   |                                     |                         | 1               |                       | 1             |                          |
|                                       |   |                         |   |                      |   | Pump intake s                       | et at <i>(m/ft)</i>     | 2               |                       | 2             |                          |
| Met                                   | hod of Construct                              | ion                     |   | Well Us              | e   | Pumping rate (                      | l/min / GPM)            | 3               |                       | 3             |                          |
|                                       |   |                         | Public  |                      |   | Duration of pur                     | npina                   | 4               |                       | 4             |                          |
| Rotary (F                             |   | iving 🗌 l               | Domestic<br>.ivestock   | Municipa             | le Monitoring                                       | hrs +                               | min                     | 5               |                       | 5             |                          |
| Boring                                | ussion  |                         | rrigation<br>ndustrial  | Cooling              | & Air Conditioning                                  | Final water leve                    | l end of pumping (m/ft) | 10              |                       | 10            |                          |
| M Other, s                            |   |                         | Other, specify _  |                      |   | If flowing give r                   | ate (I/min / GPM)       | 15              |                       | 15            |                          |
| Inside                                | Open Hole OR Mate                             |                         |   | n ( <i>m/ft</i> )    | Status of Well                                      | Recommended                         | pump depth (m/ft)       | 20              |                       | 20            |                          |
| Diameter<br>(cm/in)                   | (Galvanized, Fibregl<br>Concrete, Plastic, Sl |                         | From  | То                   | Replacement Well                                    |                                     |                         | 25              |                       | 25            |                          |
| 3.45                                  | plastre                                       | 25.                     | 0   | 2.44                 | Recharge Well                                       | Recommended<br>(I/min / GPM)        | pump rate               | 30              |                       | 30            |                          |
|                                       | 1   |                         |   |                      | Dewatering Well                                     | Well production                     | (l/min / GPM)           | 40              |                       | 40            |                          |
|                                       |   |                         |   |                      | Monitoring Hole                                     | Disinfected?                        |                         | 50              |                       | 50            |                          |
|                                       |   |                         |   |                      | - (Construction)                                    | Yes N                               | lo                      | 60              |                       | 60            |                          |
|                                       | Constructi                                    | ion Record - Sc         | reen  |                      | Insufficient Supply                                 |                                     | Map of We               |                 |                       |               |                          |
| Outside<br>Diameter<br><i>(cm/in)</i> | Material<br>(Plastic, Galvanized, S           | Steel) Slot No.         | Depth<br>From   | ( <i>m/ft)</i><br>To | Water Quality                                       | Please provide a                    | a map below following   |                 |                       | ack.          |                          |
| 4.21                                  | 1 de  | 10                      | 2,44  | 5.49                 | specify   |                                     | Labelle                 |                 | 0                     |               |                          |
|                                       | pus   | ~                       |   |                      | Other, <i>specify</i>                               |                                     | MWI                     | 9-,             | 1                     |               |                          |
|                                       | Wate  | r Details               |   | H                    | ole Diameter  |                                     | Labele<br>MW1<br>on     | mp              | •                     |               |                          |
|                                       | d at Depth Kind of V                          | Water: 🗌 Fresh          | Untested  |                      | m ( <i>m/ft)</i> Diameter                           |                                     | ,                       | •               |                       |               |                          |
|                                       | //ft) Gas Other                               |                         | Untested  | Ø                    | 5.49 8:25   |                                     |                         |                 |                       |               |                          |
|                                       | /ft) Gas Other                                |                         |   |                      |   |                                     |                         |                 |                       |               |                          |
|                                       | d at Depth Kind of \<br>//t) □Gas □Othei      |                         | Untested  |                      | 30  |                                     |                         |                 |                       |               |                          |
|                                       | Well Contr                                    | ractor and We           | I Technicia   | n Informati          | ion   |                                     |                         |                 |                       |               |                          |
|                                       | ame of Well Contract                          | ior                     |   | Well                 | Contractor's Licence No.                            |                                     |                         |                 |                       |               |                          |
| Business Ac                           | dress (Street Numbe                           |                         | enter<br>Enter  | Mur                  | nicipality  | Comments:                           |                         |                 |                       |               |                          |
| B-H                                   |   | Bue ce                  | mention and a second |                      | chand H. 11   |                                     |                         |                 |                       |               |                          |
| Province                              | Postal Cod<br>L   4   B   I                   |                         | is E-mail Addi  | oss sta              | tesor 1. con  |                                     | ate Package Delivered   |                 | Ministi               | y Use         | Only                     |
| Bus.Telephor                          | ne No. (inc. area code)                       |                         |   |                      | irst Name)  | information<br>package<br>delivered |                         |                 | udit No.              |               |                          |
| 905<br>Well Technicia                 | 7649900<br>an's Licence No. Signa             | St                      |   | Brian                | Submitted   | Yes                                 | ate Work Completed      |                 | 2 J                   | . 04          | 313                      |
| 3 6                                   | 16  | 1 A                     | 2   | 21                   | 2120803   | No d                                | 2012080                 | 2 R             | eceivateP             | 04            | 2012                     |
| 0506E (2007/1)                        | <ol> <li>© Queen's Printer for</li> </ol>     | ur Untario, 2007"       |   |                      | Ministry's Copy                                     |                                     |                         |                 |                       |               |                          |

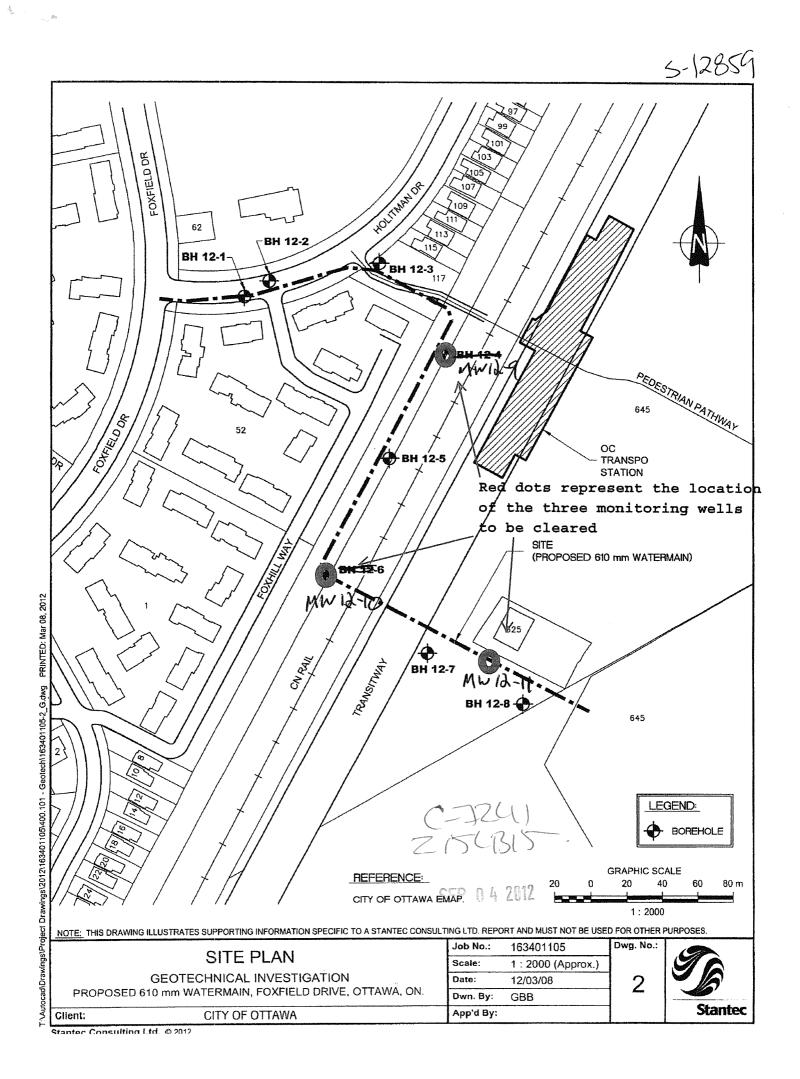


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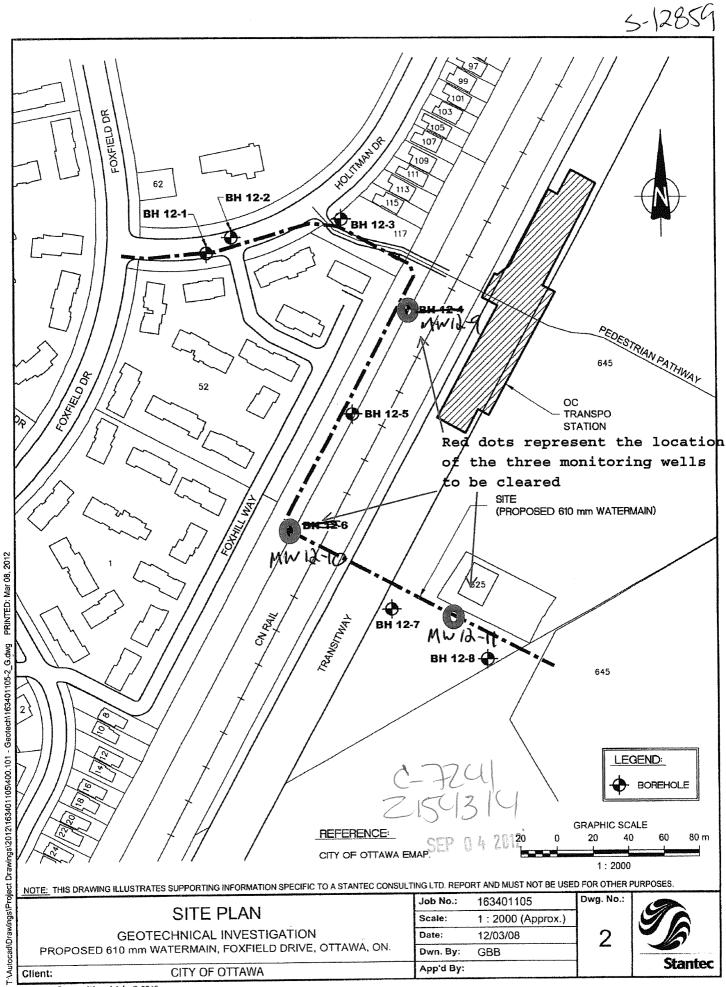
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| D>C                         |  | try of<br>nvironment                          |                          | ag No. (Place Sticker a                           | ,                                 | S-12   | I               |                                 | Record                      |
|-----------------------------|--|---|--------------------------|---|-----------------------------------|--|-----------------|---------------------------------|-----------------------------|
| Measuren                    | nents recorded in: 🖄   |   | Tag                      | g#: A133500                                       | A33500                            | , Regulatio  | n 903 Om        | t <b>ario Water Res</b><br>Page | of                          |
|                             | vner's Information   |   |                          |   |                                   | <u></u>  |                 | - uge                           |                             |
| First Name                  |  | Last Name Organiz                             |                          |   | E-mail Address                    |  |                 |                                 | Constructed                 |
| Mailing Ad                  | Idress (Street Number/Na   | City at                                       | Ottown                   |   | Province                          | Postal Code  | e Tel           | by We<br>ephone No. (inc.       | ell Owner                   |
| 1100                        | aurol Avenu  | e wgt   |                          | Municipality<br>OTTAWA                            | ON                                | Postal Gode  | J I             |                                 |                             |
| Well Loc                    |  |   |                          |   |                                   |  |                 |                                 | ( )                         |
| (men 1)                     | Well Location (Street Nu   | ,   |                          | Township  |                                   | Lot  | Co              | ncession                        |                             |
|                             | strict/Municipality  | ,<br>   |                          | City/Town/Village                                 |                                   |  | Province        | Postal                          | Code                        |
| LITM Coor                   | diastas Zono Fasting   | Nextbine                                      |                          | OTAWA,  |                                   |  | Ontar           | io                              |                             |
| NAD                         | dinates         Zone         Easting           8         3         1         5         4         4         1 | 2985011                                       | 4824                     | Municipal Plan and Subl                           | ot number                         |  | Other           |                                 |                             |
|                             | len and Bedrock Materi   | أحصيه والمستعدية والمستعد والمستعد والمستعدية | - I wanted a second      | ord (see instructions on th                       | e back of this form)              |  | I               |                                 |                             |
| General C                   | 7  | mon Material                                  |                          | her Materials                                     | Gene                              | ral Descriptior  | 1               | Dep<br>From                     | th ( <i>m/ft)</i><br>To     |
| BIK                         | Tops.  | 0-51  |                          | J .   | Dry                               |  |                 |                                 | ,07                         |
| Brin                        | Clay   |   | : ک                      | 14  | soft!                             |  |                 | ,07                             | 3.1                         |
| Brm/                        | by clay  |   |                          | 14  | Soft 6                            | met.   |                 | 3.1                             | 5.79                        |
| /                           |  |   |                          | er en a   |                                   |  |                 |                                 |                             |
|                             |  |   |                          |   |                                   | a di sa di sa  |                 |                                 |                             |
|                             |  |   |                          |   |                                   |  |                 |                                 | in the second second second |
|                             |  |   |                          |   |                                   |  |                 |                                 | in the sec                  |
|                             |  |   |                          |   |                                   |  |                 |                                 |                             |
|                             |  | a an      |                          |   |                                   |  |                 |                                 |                             |
|                             |  | Annular Space                                 |                          |   |                                   | Results of We  | ell Yield T     | esting                          |                             |
| Depth S<br>From             | et at ( <i>m/ft)</i><br>To   | Type of Sealant Use<br>(Material and Type)    | ed                       | Volume Placed<br>(m³/ft³)                         | After test of well yield,         |  | Draw            |                                 | ecovery<br>Water Level      |
| 0                           | DBE Flus   | hand/ca                                       | refe                     |   | Other, <i>specify</i>             |  | (min)           | (m/ft) (min)                    | (m/ft)                      |
| 31                          | 2.13 B   | n sol   |                          |   | If pumping discontinue            | ed, give reason:   | Static<br>Level |                                 |                             |
|                             | F  | Sand  |                          |   |                                   |  | 1               | 1                               |                             |
| 2,13                        | 5.79   | > and   |                          |   | Pump intake set at (n             | n/ft)  | 2               | 2                               |                             |
|                             |  |   |                          |   | Pumping rate (I/min /             | GPM)   | 3               | 3                               |                             |
| Meti                        | hod of Construction  |   | Well Us                  |   |                                   |  | 4               | 4                               |                             |
| Rotary (                    | Conventional)  | Domestic                                      | 🗌 Municip                | bal Dewatering                                    | Duration of pumping<br>hrs + r    | nin  | 5               | 5                               |                             |
| Boring                      | Reverse)   Driving  Digging  | Livestock                                     | , ↓ Test Ho<br>☐ Cooling | ble Monitoring                                    | Final water level end o           | a de présentes de la competition de la | 10              | 10                              |                             |
| Air percu                   | ussion pred push   | ☐ Industrial                                  | ίfν                      |   |                                   |  |                 |                                 |                             |
| 2 o mor, o                  | Construction R   |   |                          | Status of Well                                    | If flowing give rate (I/r         | nin / GPM)   | 15              | 15                              |                             |
| Inside                      | Open Hole OR Material  | Wall D  | epth ( <i>m/ft</i> )     | Water Supply                                      | Recommended pump                  | o depth (m/ft)   | 20              | 20                              |                             |
| Diameter<br>(cm/in)         | (Galvanized, Fibreglass,<br>Concrete, Plastic, Steel)  | Thickness<br>(cm/in) From                     |                          | Replacement Well                                  |                                   |  | 25              | 25                              |                             |
| 3.45                        | dustic.  | 356 0   | 2.74                     | Recharge Well                                     | Recommended pump<br>(I/min / GPM) | Tale   | 30              | 30                              |                             |
|                             | /  |   |                          | Dewatering Well     Deservation and/or            | Well production (I/min            | / GPM)   | 40              | 40                              |                             |
|                             |  |   |                          | Monitoring Hole                                   |                                   | ,  | 50              | 50                              |                             |
|                             |  |   |                          | (Construction)                                    | Disinfected?                      |  | 60              | 60                              |                             |
|                             | Construction R   | ecord - Screen                                |                          | Insufficient Supply                               |                                   | Map of W   | ell Locati      | on                              |                             |
| Outside<br>Diameter         | Material   | D<br>Slot No.                                 | epth ( <i>m/ft)</i>      | Water Quality                                     | Please provide a map              | . ^  |                 |                                 |                             |
| (En/in)                     | (Plastic, Galvanized, Steel)   | Fron  |                          | Abandoned, other, <i>specify</i>                  | /                                 | belle  | b               |                                 |                             |
| 571                         | photie   | 10 2.7  | 4 5.79                   | Other, specify                                    |                                   | - hele<br>mw   | 12-             | 10                              |                             |
|                             | r  |   |                          |   |                                   | ·  | м               | - 0                             |                             |
|                             | Water Det  | tails   |                          | lole Diameter                                     |                                   | on   | 7.0             | S.                              |                             |
|                             | id at Depth Kind of Water  |   | ted Dep<br>From          | th ( <i>m/ft)</i> Diameter<br>To <b>(</b> Con/in) |                                   |  |                 |                                 |                             |
|                             | n/ft) Gas Other, spe<br>nd at Depth Kind of Water  |   | ted O                    | 5.79 8.25   |                                   |  |                 |                                 |                             |
|                             | n/ft) Gas Other, spe   |   |                          |   |                                   |  |                 |                                 |                             |
|                             | nd at Depth Kind of Water  |   | ted                      |   |                                   |  |                 |                                 |                             |
| <u>,,,</u>                  | n/ft)GasOther, spe<br>Well Contracto   | or and Well Techni                            | cian Informa             | tion  |                                   |  |                 |                                 |                             |
|                             | ame of Well Contractor   | i   |                          | ell Contractor's Licence No.                      |                                   |  |                 |                                 |                             |
| Shot                        | ddragg (Street Number/No   | nphy  | Ν.Λ.                     | ) <u>} </u> 4 <u>[</u>                            | Comments:                         |  |                 |                                 |                             |
| L - 14                      |  | w well h                                      | I. $R$                   | chrond Hill                                       |                                   |  |                 |                                 |                             |
| rovince                     | Postal Code  | Business E-mail                               |                          |   |                                   | 400-111-1,   |                 |                                 |                             |
|                             |  | 6 W Neen                                      | LSQ 54                   | Streen/ Com.                                      | information                       | ackage Delivere  | 137(5)322       | Ministry Use<br>dit No.         | Only                        |
|                             | one No. <i>(inc. area code)</i> Na<br>7 6 9 9 3 9 4  | ime of Well Technicia<br>Beath                | Brian                    | nist indilie)                                     | package v v                       | <u> </u>   |                 | z 154                           | 315                         |
| Vell Technic                | ian's Licence No. Signature  |   | Contractor Da            |   | Yes                               | •  |                 |                                 |                             |
| <u>36</u><br>30506E (2007/* | 12) © Queen's Printer for Ont  | ario 2007                                     | Ø                        | 1011 120 1803                                     | No RC                             | 1208   |                 | certred 4 71                    | <u>.</u>                    |
| JUUE (20077                 | (4) Sequeens Primer for Unit   | 0.10, 2001                                    |                          | Ministry's Copy                                   |                                   |  |                 |                                 |                             |

Ministry's Copy



| UN UNITARIO the  | nistry of<br>Environm  | ent                            | I                       | ag No. (Place Sticker ar<br>#: A133501 | nd/or Print Below)        | S-12<br>Regulation     | n 903 Ontari                   | Well R       | ources Act              |
|--|--|--------------------------------|-------------------------|--|---------------------------|------------------------|--------------------------------|--------------|-------------------------|
|  | Metric   | Imperial                       | Tay                     | #. A10000 .                            | 4.33-201                  | 1                      | F                              | Page         | of                      |
| Well Owner's Information<br>First Name                     | Last Nam   | ne Organizatio                 | on )                    |  | E-mail Address            |                        | <u></u>                        | Well C       | onstructed              |
|  | City   | S-                             | Otta                    |  | Drovingo                  | Postal Code            | Telent                         | by We        | I Owner                 |
| Mailing Address (Street Number                             | Name)  | ugd                            |                         | Municipality<br>ONAWA                  | Province                  | Rostal Code            | 71 Leich                       |              |                         |
| Well Location  | -  |                                |                         |  |                           |                        |                                |              |                         |
| Address of Well Location (Stree                            |  | ime)                           |                         | Township                               |                           | Lot                    | Conc                           | ession       |                         |
| Forbold Dr<br>County/District/Municipality                 | <del>र</del> •   |                                |                         | City/Town/Village                      |                           |                        | Province                       | Postal       | Code                    |
| -  |  |                                |                         | OTVAWA                                 | 6 N 1                     |                        | Ontario<br>Other               |              |                         |
| UTM Coordinates Zone Easting                               | 1391   | Northing<br>5014               |                         | Municipal Plan and Suble               | ot Number                 |                        | Other                          |              |                         |
| NAD 8 3 1 0 9 9<br>Overburden and Bedrock Ma               |  |                                |                         | ord (see instructions on the           | back of this form)        |                        |                                |              | ( (5))                  |
| General Colour Most C                                      | common Mat   | erial                          | 01                      | her Materials                          | Gene                      | ral Description        |                                | From         | h ( <i>m/ft</i> )<br>To |
| BIK Tops.  | oil  |                                | 5,                      | 1                                      | Dry                       | /                      |                                | 0            | .07                     |
| Bron Silh  | 1 Send   | ·                              | Sila                    | f-,                                    | Dry L                     | erre                   |                                | .07          | 1,5                     |
| Bron Till  |  |                                |                         |  | Alint.                    |                        |                                | 2+1          | 3-1                     |
| Gry Salsta   | . <i>مــ</i>   |                                |                         |  |                           |                        |                                | 3.(          | 333                     |
| Bin Till   |  |                                |                         |  | wet.                      |                        |                                | 3,3          | 5.79.                   |
|  |  |                                |                         |  |                           |                        |                                |              |                         |
|  |  |                                |                         |  |                           |                        |                                |              |                         |
|  |  |                                |                         |  |                           |                        |                                |              |                         |
|  |  |                                |                         |  |                           |                        |                                |              |                         |
|  |  | ular Space                     |                         | Volume Placed                          | After test of well vield. | Results of W           | Il Yield Tes                   |              | covery                  |
| Depth Set at ( <i>m/ft</i> )<br>From To                    | (Materi  | f Sealant Used<br>al and Type) |                         | (m <sup>3</sup> /ft <sup>3</sup> )     | Clear and sand f          |                        | Time Wate                      | r Level Time | Water Level             |
| 0 31 1   | Wishing  | nt Can                         | rete                    |  | Other, specify            | d dive reason:         | ( <i>min</i> ) (r<br>Static    | n/ft) (min)  | (m/ft)                  |
|  | Berson   | 0                              |                         |  |                           | su, give reason.       | Level                          |              |                         |
| 213 5.79   | Sal  |                                |                         |  | Pump intake set at (r     | n/ft)                  | 1                              | 1            |                         |
|  |  |                                |                         |  |                           | 1011                   | 2                              | 2            |                         |
| Method of Construction                                     | on   |                                | Well U                  | Se                                     | Pumping rate (I/min /     | GPM)                   | 3                              | 3            |                         |
| Cable Tool Dia   | mond   | Public                         | Comm                    |  | Duration of pumping       |                        | 4                              | 4            |                         |
| Rotary (Conventional) Jett     Rotary (Reverse) Driv       |  | Domestic                       | Munici                  | -                                      | hrs + r                   | min                    | 5                              | 5            |                         |
| Boring Dig   |  | ] Irrigation<br>] Industrial   | Coolin                  | g & Air Conditioning                   | Final water level end c   | of pumping (m/ft)      | 10                             | 10           |                         |
| All percussion Divert fr                                   |  | ] Other, specify               |                         |  | If flowing give rate (1/1 | min / GPM)             | 15                             | 15           |                         |
| Constructio  | 1  |                                |                         | Status of Well                         |                           | 1 ( FI)                | 20                             | 20           |                         |
| Inside Open Hole OR Mate<br>Diameter (Galvanized, Fibregla | iss, Thickn  | ess                            | th ( <i>m/ft)</i><br>To | Water Supply                           | Recommended pum           | p depth ( <i>m/ft)</i> | 25                             | 25           |                         |
| (gm/in) Concrete, Plastic, Ste                             |  |                                |                         | Test Hole                              | Recommended pump          | p rate                 | 30                             | 30           |                         |
| 3.45 plaster   | -35  | 60                             | 2.70                    | Dewatering Well                        | (I/min / GPM)             |                        | 40                             | 40           |                         |
| f*   |  |                                |                         | Observation and/or<br>Monitoring Hole  | Well production (I/mir    | n / GPM)               | 50                             | 50           |                         |
|  |  |                                |                         | Alteration<br>(Construction)           | Disinfected?              |                        | 1                              |              |                         |
|  |  |                                |                         | Abandoned,<br>Insufficient Supply      | Yes No                    | 2.2.2                  | 60                             | 60           |                         |
| Outoida  | on Record -  |                                | th ( <i>m/ft</i> )      | Abandoned, Poor<br>Water Quality       | Please provide a map      |                        | ell Location<br>instructions o |              | <u></u>                 |
| Diameter<br>(cm)(n) (Plastic, Galvanized, S                | steel) Slot N  |                                | То                      | Abandoned, other,                      |                           | N N 1                  |                                |              |                         |
| 4.21 plaste  | 10   | 2.74                           | 5.99                    |  | La                        | yester                 | 1 -11                          |              |                         |
| 1-W. Persite   | 10   |                                | 1                       | Other, <i>specify</i>                  |                           | Jella<br>MW<br>on      |                                |              |                         |
| *  | r Details  |                                |                         | Hole Diameter                          |                           | on                     | Map                            | <b>)</b> :   |                         |
| Water found at Depth Kind of V                             |  | sh Unteste                     | d De                    | pth ( <i>m/ft</i> ) Diameter           |                           |                        | V                              |              |                         |
| (m/ft) Gas Other   |  |                                | From                    | To (cm/in)                             |                           |                        |                                |              |                         |
| Water found at Depth Kind of V<br>(m/ft) Gas Other         |  | esh Unteste                    | u                       |  |                           |                        |                                |              |                         |
| Water found at Depth Kind of V                             |  | esh Unteste                    | d 2.7                   | 5.79 5.71                              |                           |                        |                                |              |                         |
| (m/ft) Gas Other   |  |                                |                         |  |                           |                        |                                |              |                         |
| Well Contr<br>Business Name of Well Contract               | Construction of the second | Vell Technici                  |                         | ation<br>Vell Contractor's Licence No. |                           |                        |                                |              |                         |
| Strata Soil  | Som  | hiz                            |                         | 7241                                   |                           |                        |                                |              |                         |
| Business Address (Street Number 2 - 147 West B             | er/Name)<br>Quello C   | ole 0                          | N. N                    | Iunicipality                           | Comments:                 |                        |                                |              |                         |
| Province Postal Cod  | le Bus   | iness E-mail Ad                |                         | prover 411                             |                           |                        |                                |              |                         |
| ON LYB,  | 166 1  | vreed                          |                         |  | Well owner's Date F       | Package Deliver        | ed Audit                       | Ministry Use | Only                    |
| Bus. Telephone No. (inc. area code)<br>9 1 1 5 7 6 4 9 5 0 |  | Vell Technician<br>Beath       | (Last Name              |  | package Y Y               |                        |                                | z154         | 314                     |
| Well Technician's Licence No. Sign                         |  |                                | Contractor D            | ate Submitted                          | Yes 2.                    | Nork Completed         | and se                         | 01 6A.       |                         |
| 3616   | <u>pp</u>  | /                              | ò                       | 20 11 208 03                           | No XO                     | 1208                   | U Ø Ross                       | Ned 14 M Zi  | <u>J12</u>              |
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Stantec Consulting Ltd. @ 2012

Well ID Number: 1514574 Well Audit Number: Well Tag Number:

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

## **Well Location**

| Address of Well Location         |   |
|----------------------------------|---|
| Township                         | NEPEAN TOWNSHIP   |
| Lot                              | 020   |
| Concession                       | RF 02   |
| County/District/Municipality     | OTTAWA-CARLETON   |
| City/Town/Village                |   |
| Province                         | ON  |
| Postal Code                      | n/a   |
| UTM Coordinates                  | NAD83 — Zone 18<br>Easting: 441421.70<br>Northing: 5015601.00 |
| Municipal Plan and Sublot Number |   |
| Other                            |   |

# **Overburden and Bedrock Materials Interval**

| General Colour | Most Common Material | Other Materials | General Description | Depth<br>From | Depth<br>To |
|----------------|----------------------|-----------------|---------------------|---------------|-------------|
|                | CLAY                 | GRVL            |                     | 0 ft          | 13 ft       |
|                | ROCK                 | LMSN            |                     | 13 ft         | 19 ft       |
|                | SNDS                 | LMSN            | LYRD                | 19 ft         | 64 ft       |
|                | LMSN                 |                 |                     | 64 ft         | 69 ft       |
|                | SNDS                 | LMSN            | LYRD                | 69 ft         | 72 ft       |
| WHIT           | SNDS                 |                 |                     | 72 ft         | 82 ft       |
|                | SNDS                 | LMSN            | LYRD                | 82 ft         | 132 ft      |
| GREY           | LMSN                 |                 |                     | 132 ft        | 133 ft      |
|                | SNDS                 | LMSN            | LYRD                | 133 ft        | 146 ft      |
| WHIT           | SNDS                 |                 |                     | 146 ft        | 155 ft      |
| WHIT           | SNDS                 | LYRD            |                     | 155 ft        | 175 ft      |

# **Annular Space/Abandonment Sealing Record**

| Depth | Depth | <b>Type of Sealant Used</b> | Volume |
|-------|-------|-----------------------------|--------|
| From  | То    | (Material and Type)         | Placed |

# Method of Construction & Well Use

 Method of Construction
 Well Use

 Rotary (Reverse)
 Municipal

**Status of Well** 

Water Supply

# **Construction Record - Casing**

| Inside<br>Diameter | Open Hole or material | Depth<br>From | Depth<br>To |
|--------------------|-----------------------|---------------|-------------|
| 10 inch            | STEEL                 |               | 19 ft       |
| 10 inch            | OPEN HOLE             |               | 175 ft      |

# **Construction Record - Screen**

# Well Contractor and Well Technician Information

Well Contractor's Licence Number: 1558

# **Results of Well Yield Testing**

| After test of well yield, water was  |        |
|--------------------------------------|--------|
| If pumping discontinued, give reason |        |
| Pump intake set at                   |        |
| Pumping Rate                         | 20 GPM |
| Duration of Pumping                  |        |
| Final water level                    |        |
| If flowing give rate                 |        |
| Recommended pump depth               |        |
| Recommended pump rate                |        |
| Well Production                      | PUMP   |
| Disinfected?                         |        |

## Draw Down & Recovery

| Draw Down Time(min) | Draw Down Water level | Recovery Time(min) | <b>Recovery Water level</b> |
|---------------------|-----------------------|--------------------|-----------------------------|
| SWL                 | 34 ft                 |                    |                             |
| 1                   |                       | 1                  |                             |
| 2                   |                       | 2                  |                             |
| 3                   |                       | 3                  |                             |
| 4                   |                       | 4                  |                             |
| 5                   |                       | 5                  |                             |
| 10                  |                       | 10                 |                             |
| 15                  |                       | 15                 |                             |
| 20                  |                       | 20                 |                             |
| 25                  |                       | 25                 |                             |
| 30                  |                       | 30                 |                             |
| 40                  |                       | 40                 |                             |
| 45                  |                       | 45                 |                             |
| 50                  |                       | 50                 |                             |
| 60                  |                       | 60                 |                             |

#### Water Details

Water Found at Depth Kind Fresh

#### **Hole Diameter**

Depth Depth From To Diameter

# **APPENDIX 3**

QUALIFICATIONS OF ASSESSORS

# Mandy Witteman, E.I.T.

# patersongroup

Geotechnical Engineering

Environmental Engineering

Hydrogeology

Geological Engineering

**Materials Testing** 

**Building Science** 

Archaeological Services

## POSITION

**Environmental Engineer** 

# EDUCATION

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

# **MEMBERSHIPS & AWARDS**

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

## EXPERIENCE

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

2014 – 2015

**Thurber Engineering Limited** Oil Sand Tailings Group Tailings Engineer

2014 - 2013

**Carleton University** Department of Civil & Environmental Engineering Research Engineer

2013 - 2009 Carleton University Department of Civil & Environmental Engineering Research Assistant and Teachers Assistant

2008 – 2009 SLR Consulting Limited Contaminated Sites Junior Environmental Engineer

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

# patersongroup

Geotechnical Engineering

Environmental Engineering

Hydrogeology

Geological Engineering

**Materials Testing** 

**Building Science** 

Archaeological Services

#### POSITION

Associate and Supervisor of the Environmental Division Senior Environmental/Geotechnical Engineer

#### EDUCATION

Queen's University, B.A.Sc.Eng, 1991 Geotechnical / Geological Engineering

## **MEMBERSHIPS**

Ottawa Geotechnical Group Professional Engineers of Ontario

# **EXPERIENCE**

1991 to Present **Paterson Group Inc.** Associate and Senior Environmental/Geotechnical Engineer Environmental and Geotechnical Division Supervisor of the Environmental Division

# SELECT LIST OF PROJECTS

Mary River Exploration Mine Site - Northern Baffin Island Agricultural Supply Facilities - Eastern Ontario Laboratory Facility - Edmonton (Alberta) Ottawa International Airport - Contaminant Migration Study - Ottawa **Richmond Road Reconstruction - Ottawa** Billings Hurdman Interconnect - Ottawa Bank Street Reconstruction - Ottawa Environmental Review - Various Laboratories across Canada - CFIA Dwyer Hill Training Centre - Ottawa Nortel Networks Environmental Monitoring - Carling Campus - Ottawa Remediation Program - Block D Lands - Kingston Investigation of former landfill sites - City of Ottawa Record of Site Condition for Railway Lands - North Bay Commercial Properties - Guelph and Brampton Brownfields Remediation - Alcan Site - Kingston Montreal Road Reconstruction - Ottawa Appleford Street Residential Development - Ottawa Remediation Program - Ottawa Train Yards Remediation Program - Bayshore and Heron Gate Gladstone Avenue Reconstruction - Ottawa Somerset Avenue West Reconstruction - Ottawa