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Geotechnical Engineering

Environmental Engineering

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Materials Testing

Building Science

Preliminary Groundwater Impact Assessment: Proposed Commercial Development

1966 Roger Stevens Drive Ottawa, Ontario

Prepared For

Broccolini Development Group

Paterson Group Inc.

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

Tel: (613) 226-7381 Fax: (613) 226-6344 www.patersongroup.ca July 10, 2019

Report PH3837-REP.01

patersongroup Ottawa Kingston North Bay

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1.0 INTRODUCTION

1.1 Terms of Reference

Paterson Group Inc. (Paterson) was retained by Broccolini Development Group (Broccolini) to carry out a preliminary groundwater impact assessment for a proposed commercial building to be constructed at 1966 Roger Stevens Drive, Ottawa, Ontario. The proposed building is expected to consist of a single-storey, slab-on-grade warehouse building with a footprint of approximately 65,000 m². It is anticipated that associated paved access lanes, vehicle parking areas and landscaped areas will surround the proposed building, and that the building will be privately serviced. Presently, the subject site is undeveloped and consists of agricultural land with a sparsely wooded farm compound that includes a dwelling, a barn and sheds. Reference should be made to Paterson Drawing PH3837 - 1 - Proposed Site Layout Plan in Appendix 2 for the site location and general proposed site layout.

The subject site is located in the rural area of the city where the water supplies of existing users are domestic wells. It is understood that the proposed development will be serviced by a private water well as no municipal water or wastewater services are available. A private wastewater treatment facility with surface discharge is being proposed to handle the wastewater generated by the proposed development. The treatment facility is proposed to discharge highly treated effluent into a proposed stormwater management facility (SWMF-2) that will outlet to the Johnston Municipal Drain located along the southeast boundary of the subject site.

The purpose of this study has been to carry out a groundwater impact assessment to determine the potential impacts related to a surficial discharge of the highly treated sewage effluent within the Johnston Municipal Drain. It is anticipated that the developer will be utilizing a Modified Sequencing Batch Reactor package plant, Membrane Bioreactor package plant or equivalent for the sewage treatment at the proposed development.

The following report has been prepared specifically and solely for the aforementioned project which is described herein. It contains our findings and recommendations pertaining to the private services for the subject development as it is understood at the time of writing this report.

2.0 BACKGROUND

2.1 Subject Site

The subject property is bordered by Highway 416 to the east, Roger Stevens Drive to the north, residential properties to the west and a forested lot along the south and southwest borders. Specifically, the property is located at 1966 Roger Stevens Drive, in the City of Ottawa, Ontario (refer to Paterson Drawing PH3837 - 1 in Appendix 2). The property is approximately rectangular in shape and has an approximate surface area of 48 ha with a section along the western boundary consisting of 6 ha slated to become future development. The property is currently zoned Rural Commercial and Rural General Industrial with an RC, RG and RC[55r] zoning designation.

Presently, the site is mostly undeveloped and consists of agricultural land with a sparsely wooded farm compound that includes a dwelling, a barn and sheds. The farm lands are relatively flat with a geodetic elevation of 87 to 88 m, whereas the farm compound is built on a hill which crosses between the southwest and northeast corners of the site at a geodetic elevation of 94 to 96 m.

The subject site is bounded to the north and south by the Dillon-Wallace and Johnston Municipal Drain, respectively, with roadside ditches transmitting surficial flows to the Drains on a seasonal (intermittent) basis. The Drains have been classified by the Department of Fisheries and Oceans (DFO) as a Class E Drain, which indicates that the Drain has permanent flows. A site specific risk assessment of the Drains may be required given the presence of sensitive fish species associated with the DFO classification. Refer to Paterson Drawing PH3837 - 2 - Municipal Drain Plan for the alignment of the existing municipal drains and ditches.

2.2 Proposed Treatment System(s)

At the time of writing this report, an on-site private collection and treatment facility has not been selected for review. However, it is anticipated that the system will consist of either a Modified Sequencing Batch Reactor (MSBR) package plant or a Membrane Bioreactor (MBR) package plant. Influent wastewater and effluent discharge design values are not available at the time of writing this report. It is expected design parameters will be available subsequent to the mandatory pre-consultation with the MECP for the onsite sewage design. The facility is anticipated to have a surface discharge of the treated effluent to the proposed stormwater management facility-2 (SWMF-2) where it will outlet to the Johnston Municipal Drain located along the southeast boundary of the subject site. The system will be selected based upon the following design parameters provided by Novatech Engineering and upcoming consultations with the City of Ottawa, RVCA as well as the MECP:

Table 1: Water Supply Design Parameters							
Parameter	Unit	Design Value					
Average Daily Flow (ADF)	m³/day	174					
Maximum Daily Flow (MDF)	m³/day	274					

Based upon a cursory review of typical facility options, the available options are expected to meet or exceed the regulatory requirements to treat raw sewage of domestic quality and discharge in accordance to MECP guidelines. The discharge of the final effluent will be coordinated with the MECP and the City of Ottawa. An MECP Environmental Compliance Approval will be filed with the MECP for approval, along with any other required permits.

2.3 Surrounding Land Uses

The general zoning in the area immediately surrounding the subject site consist of the following:

- AG Agricultural
- AG1 Agricultural, Subzone 1
- AG2 Agricultural, Subzone 2
- AG3 Agricultural, Subzone 3
- U V1A Village Residential First Density Zone, Subzone A
- RG1[57r] Rural General Industrial Zone, Subzone 1, with Agricultural Use Exception

The zoning outside of these areas have been designated primarily as AG - Agricultural to the north, east and south. The zoning to the west transitions from V1 - Village Residential First Density Zone to O1 - Parks and Open Space Zone followed by RI - Rural Institutional Zone and V1. Refer to Paterson Drawing PH3837 - 3 - Zoning Designations for the zoning surrounding the subject area.

The specific land uses for the above zones are summarized below.

- □ North:
 - Roger Stevens Drive
 - Agricultural Crops with a single dwelling for farm use
 - Agricultural, Subzone 2 Crops with a single residential dwelling and mature trees

- □ East:
 - Highway 416
 - Agricultural Crops and grazing fields with a single residential dwelling and secondary dwellings for farm use
 - Agricultural, Subzone 1 Crops
- South
 - Agricultural, Subzone 3 Crops with mature trees and single detached residential dwelling
- ❑ West
 - Village Residential First Density Zone, Subzone A Detached single residential dwellings and vacant lots with grass and/or mature trees

2.4 Regional and Site Geology

Published surficial geology mapping for the area in the vicinity of the subject site indicate the site is underlain predominantly by an intermittent glacial till deposit or a brown to grey silty clay stratum. The silty clay is underlain by the glacial till deposit prior to encountering bedrock. Refer to Paterson Drawing PH3837 - 4 - Surficial Geology in Appendix 2 for the Ontario Geological Survey (OGS) mapping.

Based on site specific investigative works carried out by this firm (Paterson Report No. PG4870-1, dated July 2, 2019), the general subsoil profile encountered within the farmland area consisted of a topsoil layer overlying a silty clay or silty sand layer underlain by a silty clay deposit, which is in turn underlain by a glacial till deposit. The subsoil profile encountered within the farm compound generally consisted of a topsoil overlying a glacial till deposit. Reference should be made to Paterson Drawing PG4870-1 - Test Hole Location Plan and the associated Soil Profile and Test Data sheets in Appendix 3 for specific details of the soil profiles encountered at each test hole location.

The overburden across the site ranges in thickness from approximately 6.5 to 16.5 m based upon dynamic cone penetration testing and water well supply installation on the surrounding properties. This information closely coincides with the available mapping from Natural Resources Canada for Drift Thickness.

The OGS mapping indicates that the subject lands are underlain by dolostone bedrock of the Oxford Formation which coincides with the well drillers description on the MECP



water well records (WWR) for the surrounding water well supplies installed within the subject area. Refer to Paterson Drawing PH3837-5 - Bedrock Geology in Appendix 2 for the OGS mapping.



3.0 METHOD OF STUDY

3.1 Geotechnical Investigations

The geotechnical investigation was conducted during the period of June 7 to 14, 2019. The field program consisted of advancing a total of 34 boreholes across the subject site to a maximum depth of 5.4 m bgs.

The boreholes were distributed in a manner to provide general coverage of the subject site taking into consideration underground utilities and site features. The boreholes were completed with a track-mounted auger drill rig operated by a two-person crew. All fieldwork was conducted under the full-time supervision of our personnel under the direction of a senior engineer.

Sampling and In Situ Testing

Soil samples were recovered using a 50 mm diameter split-spoon sampler, a Shelby tube, or from the auger flights. The split-spoon and auger samples were classified onsite and placed in sealed plastic bags. All samples were transported to our laboratory. The depths at which the split-spoon, Shelby tubes and auger samples were recovered from the boreholes are shown as SS, TW and AU, respectively, on the Soil Profile and Test Data sheets in Appendix 3.

A Standard Penetration Test (SPT) was conducted in conjunction with the recovery of the split spoon samples. The SPT results are recorded as "N" values on the Soil Profile and Test Data sheets. The "N" value is the number of blows required to drive the split spoon sampler 300 mm into the soil after a 150 mm initial penetration using a 63.5 kg hammer falling from a height of 760 mm. This testing was done in general accordance with ASTM D1586-11 - Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils.

Undrained shear strength testing, using a vane apparatus, was carried out at regular intervals of depth in cohesive soils. The overburden thickness was evaluated by a dynamic cone penetration test (DCPT) at 5 borehole locations. The DCPT consists of driving a steel drill rod, equipped with a 50 mm diameter cone at the tip, using a 63.5 kg hammer falling from a height of 760 mm. The number of blows required to drive the cone into the soil is recorded for each 300 mm increment.

3.2 Overburden Groundwater Observation

Groundwater levels were measured in the piezometers at the borehole locations using

an electronic water level tape on June 21, 2019. Based on our field observations, experience with the local area, moisture levels and the coloring of the recovered samples, it is expected that the long-term groundwater level can be estimated between 3 to 4 m below existing grade. The depths at which water was encountered in each test hole is indicated on the Soil Profile and Test Data sheets in Appendix 3.



4.0 HYDROGEOLOGICAL SETTING

4.1 REGIONAL GROUNDWATER FLOW DIRECTION

Site specific groundwater data from the current geotechnical study, as shown in Paterson Drawing PH3837-6 - Shallow Overburden Groundwater Flow in Appendix 2, indicates that the surficial groundwater flows in the overburden generally mirror the site topography. The regional groundwater flow is anticipated to be in an easterly direction towards the Rideau River. Based on surrounding WWRs and a previous hydrogeological study report completed by Sauriol Environmental Inc. (1999), the regional bedrock aquifer groundwater flow is also anticipated to be eastwards towards the Rideau River.

A review of the MECP online WWR database indicates that there are approximately 39 mapped water well locations within a 500 m radius surrounding the site. After reviewing the WWR, there are 33 domestic water supply wells, 4 monitoring/test well location and 2 abandoned locations. Upon further review of the MECP online WWR database, it is assumed that 11 domestic water supply wells have been incorrectly mapped. The related WWRs have been attached in Appendix 1 with the mapped water wells shown on Paterson Drawing PH3837 - 7 - MECP Water Well Location Plan in Appendix 2.

The water supply wells within a 500 m radius of the subject site are typically accessing water from the bedrock aquifer of the Oxford formation between 15.2 to 69.2 m below existing grade. The carbonate rich rock of the Oxford formation is considered to be a high quality groundwater aquifer. As shown on the aforementioned Paterson drawing, there are some water supply wells downgradient of the subject site. However, it should be noted that all wells downgradient and within 500 m of the subject site are either erroneously mapped or no longer in use. Furthermore, the existing water supply wells downgradient are accessing water from the bedrock aquifer. The downgradient direction of the Johnston Municipal Drain travels in the approximate northeast direction to Stevens Creek where the creek eventually outlets into the Rideau River.

4.2 LOCAL HYDROGEOLOGY

The shallow groundwater flow in the silty sand overburden stratum is generally influenced by topographical factors and may be affected by local barriers such as Highway 416 or Roger Stevens Drive. The silty clay underlying the site has minimal groundwater flow due to the low hydraulic conductivity and is considered to provide very limited recharge to the underlying glacial till or bedrock aquifers.

The shallow groundwater flow in the silty sand stratum is expected to move horizontally in the upper aquifer until it discharges into local ditches, swales, tile drains, municipal drains and/or watercourses. Groundwater intercepted by ditches, swales or tile drains will re-direct the groundwater directly to the larger surface water system.

4.3 SURFICIAL DRAINAGE SYSTEM

Roadside ditches and topographic relief on-site direct water towards the Dillon-Wallace and Johnston Municipal Drain located in the field to the north of Roger Stevens Drive and along the southeast property boundary, respectively, as illustrated in Paterson Drawing PH3837 - 2 - Municipal Drain Plan in Appendix 2. A minor northerly tributary to the Dillon-Wallace Municipal Drain has been identified along the north property boundary. The Dillon-Wallace Municipal Drain flows approximately 1.7 km in a northeast direction where it connects to the Johnston Municipal Drain. The Johnston Municipal Drain flows approximately 2.5 km in a northeast direction where it connects with the Dillon-Wallace Municipal Drain followed by an additional 0.8 km to Stevens Creek. Stevens Creek is a tributary to the Rideau River where it flows approximately 1.8 km south to the Rideau River. Minor flows from the Johnston Municipal Drain located at southeast corner of the subject site may reach Cranberry Creek via an unnamed tributary. The tributary is approximately 2.5 km in length and drains in a southeast direction.

5.0 GROUNDWATER AND SURFACE WATER QUALITY

Paterson sampled surface water from the Johnston Municipal Drain located along the south property boundary of the subject site and groundwater from BH 29 located within the proposed SWMF-2 for baseline values of nitrogen species. The results are attached in Appendix 4 with the borehole location illustrated on the Paterson Drawing PG4870-1 - Test Hole Location Plan in Appendix 3. The results did not show exceedances of the Ontario drinking water standards (ODWS), for the nitrogen species, in the on-site samples at that time. Nitrate concentrations at the Johnston Drain and BH 29 returned values of 1.02 and 3.16 mg/L, respectively, and is below the ODWS guidelines. It should be noted that groundwater and surface water results from BH 29 and the Johnston Municipal Drain shows total phosphorous values of 0.244 and 0.174 mg/L, respectively, and is above the regulatory interim limit of the Provincial Water Quality Objectives (PWQO).

5.1 GROUNDWATER IMPACT ASSESSMENT

The subsoil profile within the farmland area of the subject site generally consisted of a topsoil layer overlying a silty clay or silty sand layer followed by silty clay deposit, which in turn was underlain by a glacial till deposit. The subsoil profile encountered within the farm compound generally consisted of a topsoil overlying a glacial till deposit.

The hydraulic conductivity values were conservatively estimated based upon previous experience at similar sites in the area, typical values for silty clay and compact to very dense glacial till with a silty sand matrix. These values typically range from 1×10^{-7} to 1×10^{-9} m/sec for brown silty clay and 1×10^{-9} to 1×10^{-11} m/sec for grey silty clay. Compact to very dense glacial till typically ranges from 1×10^{-9} m/sec and is dependent on the ratios of the various materials in the deposit.

It is understood the discharge point for the treated effluent is proposed to be located within the southeast portion of the subject site where the underlying soil is comprised of a silty sand layer followed by a silty clay deposit. The low hydraulic conductivity of the silty clay reduces surficial infiltration to the glacial till and bedrock aquifer. Furthermore, the treated effluent is expected to meet the MECP guidelines for direct discharge with the potential for additional dilution from the SWMF-2. As such, it is not expected to negatively impact the glacial till/ bedrock aquifers from the proposed discharge.

The overburden groundwater test results at the approximate proposed treated effluent discharge area are as follows.

Table 4: Groundwater Summary of Nitrogen Species Testing - June 24, 2019								
Parameter	Units BH 29 Guideline (ODWS)							
N-NO2	mg/L	0.17	1					
N-NO3	mg/L	3.16	10					
pН	-	8.24	6.5-8.5					
N-NH3	mg/L	0.10	-					
TKN	mg/L	1.44	-					

The current test results for the overburden aquifer was recovered from the BH 29 piezometer using low flow sampling techniques. The testing was compared to the ODWS and there were no exceedances of the on-site nitrogen species values.

5.2 SURFACE WATER IMPACT ASSESSMENT

The review of the surface water system provided an overview of the potential surficial connections to the shallow aquifer system. These consisted of potential water supply wells, on-site ditches/swales, municipal drains, and watercourses.

After reviewing the MECP water well mapping in the downgradient direction of the Johnston Municipal Drain and surrounding area, water supply wells were not identified within 100 m of the Johnston Municipal Drain, see Paterson Drawing PH3837 - 7 - MECP Water Well Location Plan in Appendix 2.

It is anticipated that the discharge point for the treated effluent will be to the proposed SWMF-2 located within the southeast portion of the subject site. It is anticipated the proposed SWMF-2 will outlet into the Johnston Municipal Drain located along the south property boundary.

Water sampling was also performed within the Johnston Municipal Drain at the southeast property corner, to provide existing background values. The surface water test results from the Johnston Drain were as follows:

Table 5: Surface Water Summary of Nitrogen Species Testing - June 24, 2019								
Parameter	Units	Johnston Drain	Guideline (ODWS)					
N-NO2	mg/L	≤0.10	1					
N-NO3	mg/L	1.02	10					
рН	-	8.37	6.5-8.5					
N-NH3	mg/L	0.06	-					
TKN	mg/L	0.87	-					

The current test results for the water recovered from the approximate effluent discharge point within the Johnston Drain was compared to the ODWS and there were no exceedances of the on-site nitrogen species values.

As the treated effluent discharge is anticipated to meet or exceed the MECP guidelines for direct discharge of treated sewage effluent, it is not expected that the treated effluent will be required to be diluted to meet MECP guidelines. These values are to be confirmed with the MECP during the pre-consultation meeting. However, the proposed SWMF-2 is expected to discharge into the Johnston Municipal Drain where further dilution is anticipated to further improve the quality of the mixing discharges.

It is expected that the treated effluent discharge will meet or exceed the MECP guidelines and will not negatively impact the surface water flows. The MECP, RVCA and City of Ottawa will be consulted throughout the ECA process. Further evaluation of the proposed effluent can be performed once a specific treatment facility is chosen.

6.0 CONCLUSIONS

Based on the information contained within the body of this study, the following conclusions can be drawn:

- 1. The proposed site is located in an isolated area with generally rural agricultural zoning.
- 2. The subject site will be serviced by a private water supply. Adjacent properties are also serviced by private water supplies (drilled wells).
- 3. The proposed direct discharge of treated sewage effluent is anticipated to meet and/or exceed the MECP guidelines for direct discharge to a dry ditch. The specific sewage facility requirements are still to be determined.
- 4. The Johnston Municipal Drain is a permanent Class E drain that flows year round and may contain sensitive fish species. A site specific risk assessment of the Drains may be required based upon the DFO drain class.
- 5. The treated effluent is expected to meet the MECP guidelines for direct discharge with the potential for additional dilution from the SWMF-2. As such, it is not expected to negatively impact the glacial till/ bedrock aquifers from the proposed discharge or the natural systems within the Johnston Municipal Drain downstream. Additionally, no WWRs were noted to exist in the downstream direction of the Johnston Municipal Drain, within 100 m laterally, for a distance of 2.8 km.
- 6. The subject site is an ideal location for the proposed treated effluent surface discharge due to the lack of potential downstream receptors.
- 7. Nitrate concentrations within the groundwater and surface water at the proposed treated effluent discharge location returned values below the ODWS guidelines. However, total phosphorous values were noted to be above the PWQO interim limit.

The present report applies only to the project described in this document. Use of this report for purposes other than those described herein or by person(s) other than Broccolini Development Group, or their agents is not authorized without review by Paterson for the applicability of our recommendations to the alternative use of the report.

We trust that this report satisfies your present requirements. Should you have any questions regarding this report, do not hesitate to contact us.

PATERSON GROUP INC.

Nicholas Zulinski, P.Geo., géo.

Report Distribution:

- Broccolini Development Group (2 copies)
- Paterson Group (1 copy)

Michael S. Killam, P.Eng.



APPENDIX 1

PUBLISHED MECP WATER WELL RECORDS

GROUND WATER BRANCH 1414161000E UTM 118 iz OCT 27 196115 No THE Ontario Water Resources Commiss ONTARIO WATER RESOURCES COMMISSION Elev Basin North County **A** *O* Date completed Lot. Con. 3 (day an ldress..... **Casing and Screen Record Pumping Test** 18 Inside diameter of casing.... Static level Total length of casing Test-pumping rate G.P.M. Type of screen 30 Pumping level Duration of test pumping / haus Length of screen Depth to top of screen..... Water clear or cloudy at end of test Diameter of finished hole 4 Recommended pumping rate G.P.M. Well Log Water Record Depth(s) at Kind of water From To Overburden and Bedrock Record which water(s) (fresh, salty, ft. ft. found sulphur) For what purpose(s) is the water to be used? Location of Well In diagram below show distances of well from road and lot line. Indicate north by arrow. Is well on upland, in valley, or on hillside? Drilling or Boring Firm Address Q Licence Number. Name of Driller or Borg Address Date. (Signature of Licensed Drilling or Boring Contractor) Form 7 15M Sets 60-5930 CS2.55 OWRC COPY

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grey	hardpan	boulders	packe	<u>d</u>	20	58
grey	Limestone		nediu	<u> </u>		73
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	Two 1					
31) hor	2KI28 CL LAND	00051131 1005001141131	I han 2011 Fl.		. . .	
	ATER RECORD	51 CASING & OPEN HOLE		SIZE(S) OF OPENING (SLOT NO.)	31-33 DIAMETER 34-38	LENGTH 39-40
AT - FEET	FRESH 3 C SULPHUR 14	DIAM. MATERIAL THICKESS INCHES INCHES	FROM TO	MATERIAL AND TYPE	DEPTH TO TO OF SCREEN	P 41-44 80
15-18 1	FRESH 3 SULPHUR 19	C GALVANIZED 188 C 3 CONCRETE		61 PLUGGI	NG & SEALING REC	ORD
20-23 1	FRESH 3 SULPHUR 24	17-18 1 STEEL 19 2 GALVANIZED	20-23	DEPTH SET AT - FEET FROM TO	MATERIAL AND TYPE (CE	MENT GROUT, PACKER, ETC.)
25-28 1 2	FRESH 3 SULPHUR ²⁹ SALTY 4 MINERAL	24-25 1 STEEL 26	27-30	10-13 14-17 18-21 22-25		····· •
30-33 i 2	FRESH 3 SULPHUR 34 80 SALTY 4 MINERAL	2 GALVANIZED 3 CONCRETE 4 OPEN HOLE		26-29 30-33 8	0	
71 PUMPING TEST N	AETHOD 10 PUMPING RATE	E 11-14 DURATION OF PUMPING		LOCATION	OF WELL 43	78
STATIC LEVEL	2 DAILER OOL WATER LEVEL 25 END OF WATER L		IN DIAGE	RAM BELOW SHOW DISTAN	CES OF WELL FROM ROAD ARROW.	AND
	21 22-24 15 MINUTES 26-2	30 MINUTES 45 MINUTES 60 MINUTES 8 29-31 32-34 35-37 0 40 6 40		1		
C IF FLOWING. GIVE RATE	30-41 PUMP INTAKE :	ET V 4UFEET V 4U FEET V 4U FEET SET AT WATER AT END OF TEST 42	l g	t o		
	GPM. PUMP TYPE RECOMMENDED PUMP	FEET 1 LX CLEAR 2 CLOUDY 0 43-45 RECOMMENDED 46-49 PUMPING		× 9	a	
50-53	DEEP SETTING	CIFIC CAPACITY		, asmile		
FINAL STATUS	54 1 WATER SUPPLY 2 OBSERVATION WEL	5 ABANDONED. INSUFFICIENT SUPPLY 6 ABANDONED. POOR QUALITY] *		#	
OF WELL	3 TEST HOLE 4 RECHARGE WELL 55-56 . EL DOMESTIC		-		F	
WATER	2 STOCK 3 IRRIGATION	6 DINUNICIPAL 7 DIPUBLIC SUPPLY		Ø		
		B COULING OF AIR CONDITIONING 9 D NOT USED	H AN	ž		
METHOD	57 1 CABLE TOOL 2 ROTARY (CONVENT 3 ROTARY (REVEPSE	6 □ BORING (IONAL) 7 □ DIAMOND) 8 □ JETTING		ч С		
DRILLING	A D ROTARY (AIR)	9 DRIVING	DRILLERS REMARKS:			
	E CONTRACTOR					63-68 80
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COUNTY OR DISTRICT		TOWNSHIP, BOROUGH, CITY	Y. TOWN. VILLAGE	A * 04 Table 10 - 10 - 10 - 10 - 10 - 10 - 10 - 10	9 CON., BL	10 14 OCK, TRACT, SURVEY, E	15 TC.		22 23 24 0/827
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		Y 0			30	2.6.		<u> </u>	47
GENERAL COLOUR	MOST				S (SEE INST	RUCTIONS)		DEPTH	- FEET
hnoun	COMMON MATERIAL				GENERAL	DESCRIPTION		FROM	то
DTOWN	bardoen	boulders	9)	packe	id			<u> </u>	5
Grey	limestone	DOOTGELS		раске				5	61
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41 WATE		51) CASING & C	PEN HOLE RE		SIZE(S) OF	OPENING 31-33	65 DIAMETER	34-38 L	75 80 ENGTH 39-40
AT - FEET	KIND OF WATER	NSIDE DIAM. MATERIAL NCHES	WALL DE THICKNESS INCHES FROM	PTH - FEET	MATERIAL	AND TYPE	DEPT	INCHES	FEET 41-44 80
0094 ² . s	SALTY 4 MINERAL	10-11 1 STEEL 12	188 0	10 6313-16	ň				FEET
15-18 1 [F 2 [S	FRESH 3 I SULPHUR 19 SALTY 4 MINERAL	CONCRETE	6	3 98	61	PLUGGING &	SEALING	RECO	RD
²⁰⁻²³ ¹ ² ¹ S	FRESH 3 SULPHUR 24 Salty 4 Mineral	2 GALVANIZED 3 CONCRETE		20.23	FROM	TO MATER	RAL AND TYPE	CEMEN	KER. ETC.)
25-28 1 🗌 F 2 🗌 S	FRESH 3 SULPHUR 29	24-25 1 STEEL 26		0098	18-21	22-25			
30-33 1 🗌 F 2 🗍 S	RESH 3 1 SULPHUR 34 60	2 GALVANIZED 3 CONCRETE			26-29	30-33 80			
TI NUMPING TEST METHOD	D 10 PUMPING RATE	15-14 DURATION OF PUN					A/ E 1 (
1 PUMP 2	D BAILER 00 20	GPM 01 15-16 HOUR	5_00_17-18 MINS						
	END OF WATER LEVEL PUMPING 22-24 15 MINUTES 1	S DURING 2 R	ECOVERY	AD LOT LINE.	INDICAT	E NORTH BY ARROW	WELL FROM	RUAD AN	
	55 FEET 0 55 FEET 0	29-31 32-3 55 FEET 0 55 FEE	4 35-37 T 055 FEET	-	11	1.101000			₩==
IF FLOWING GIVE RATE	38-41 PUMP INTAKE SET A	T WATER AT END OF			Hu	y # 16	.*		
RECOMMENDED PUMP T	YPE RECONMENDED PUNP	43-45 RECOMMENDED PUMPING	46-49			-		and the second	
50-53	GPM./FT. SPECIFIC	CAPACITY	C GPM.						
FINAL ;	1 2 WATER SUPPLY	S ABANDONED, INSUFF	ICIENT SUPPLY						
STATUS OF WELL	3 TEST HOLE	7 DINFINISHED	UALIIT					١	
55-56	I DOMESTIC 5							`? ★	
USE USE	3 IRRIGATION 7 4 INDUSTRIAL 0	PUBLIC SUPPLY COOLING OR AIR CONDITI	ONING					C.	
	OTHER	9 🗌 NOT U	ISED	l				\sim	
METHOD 5	1 CABLE TOOL 2 ROTARY (CONVENTIONA 3 ROTARY (BEVENES)	6 D BORING		₹.		•			
	4 ROTARY (AIR) 5 R AIR PERCUSSION	● LI JETTING 9 [] Driving		V					
NAME OF WELL CONT	TRACTOR	LICEN		DATA	58 CONTRA	CTOR 59-62 DATE F	T ROVED	0 -	63-68 80
Capital	1 Water Supply	_td. 1	.558	DATE OF INSPECTION	//		0 01	v 7	5
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Ame OF DRILLER O			ICE NUMBER		~~~			P	R
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LOG OF OVERBURDEN AND BED	ROCK MATERIALS (SEE INSTRUCTIONS)
GENERAL COLOUR MOST COMMON MATERIAL OTHER MATERIALS	GENERAL DESCRIPTION DEPTH - FEET
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41 WATER RECORD 51 CASING & OPEN HOL	ERECORD
AT - FEET KIND OF WATER DIAM MATERIAL WALL DIAM NATERIAL THICKNESS INCHES	DEPTH - FEET INCHES FEET
00 S 2 SALTY 4 MINERAL 10 STEEL 12 15-18 1 G SALTY - MINERAL 2 GALVANIZED / PD	
1 FRESH 3 SULPHUR 3 CONCRETE 2 SALTY 4 MINERAL 4 OPEN HOLE	61 PLUGGING & SEALING RECORD
20-23 1 FRESH 3 SULPHUR 24 2 GALVANIZED 2 SALTY 4 MINERAL 3 CONCRETE	20-23 ULFTH SETAT FEEL MATERIAL AND TYPE (CEMENT GROUT, FROM TO LEAD PACKER, ETC.)
25-28 1 FRESH 3 SULPHUR 29 4 OPEN POLE 2 SALTY 4 MINERAL 24-25 1 STEEL 26	27-30 14-21 22-25
30-33 1 □ FRESH 3 □ SULPHUR 34 CO 2 □ SALTY 4 □ MINERAL	26-29 30-33 80
PUNPING TEST METHOD TO PUNPING RATE B-14 DURATION OF PUNPING	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	LOCATION OF WELL #598
LEVEL PUMPING USA CONTRACT OF	IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.
HOV 150 150 150 150 1050 1050 1050	
IF FLOWING. 38-41 PUMP INTAKE SET AT WATER AT END OF TEST 42	
RECOMMENDED PUMP TYPE RECOMMENDED A3-45 RECOMMENDED PUMP A6-45	
SO-53 GPM./FT. SPECIFIC CAPACITY	
FINAL SI I COWATER SUPPLY S ABANDONED, INSUFFICIENT SUPPLY	D.C. 121. 4
STATUS OF WFIL 0 TEST HOLE 0 POOR QUALITY 1 UNFINISHED	
55-56 I DOMESTIC S COMMERCIAL	Figure ()
WATER 2 D. STOCK 6 D. MUNICIPAL 3 D. IRRIGATION 7 D. PUBLIC SUPPLY	
OSEON INDUSTRIAL INDUSTRIAL ICOLLING OR AIR CONDITIONING	
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OF 3 GROTARY (REVERSE) 0 DIAMOND DRILLING 0 ROTARY (AIR) 0 DRIVING	
\$ CAIR PERCUSSION	DRILLERS REMARKS
& Herry Mains Will Dutting Stat4	DATA SOURCE 56 COMPACTOR 53.62 DATE RECEIVED 63-68 80
To ADDREAS REAL 22/0 12 and 1 it	O DATE OF INSPECTION INSPECTOR
NAME DE DELLER OR BOREN	REMARKS:
SIGNATURE OF COMPRACTOR SUBMISSION DATE	P P
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MINISTRY OF THE ENVIRONMENT COPY	FORM 7 MOE 07-091

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	LO	G OF OVERBURDEN AND BEDF	OCK MATERIALS	(SEE INSTRUCTIONS)	DEPTH - FEET
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Brown	Gravel	Fill		······································	-05
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41 WA	14 15 21 TER RECORD	51 CASING & OPEN HOL	E RECORD	Z (SLOT NO.)	1-33 DIAMETER 34-38 LENGTH 39-40
WATER FOUND	KIND OF WATER	INCHES WATERIAL WALL DIAM. MATERIAL THICKNESS INCHES	DEPTH - FEET FROM TO	MATERIAL AND TYPE	DEPTH TO TOP 41-44 80 OF SCREEN
	FRESH 3 SULPHUR 14 SALTY 4 MINERAL	10-11 10 STEEL 12 188	0 00414	S	FEET
15-18 1 C	J FRESH 3 J SULPHUR 19 SALTY 4 MINERAL	06 CONCRETE	44 15	61 PLUGGING	S & SEALING RECORD
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25-28	SALTY 4 MINERAL	CONCRETE OPEN HOLE	0075	10-13 14-17	
		24.26 53 26	[[Z/-39]	18-21 22-231	

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		OG OF OVER	BURDEN AND BI	EDROC	K MATERIAL	LS (SEE)	(NSTRUCTIONS)			
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brown	sand	boulde	3 73			<u> </u>			0	35
brown	sand	stones	<u>i</u>		pack	ed.			35	55
grey	sand			<u> </u>	coar	<u>'98</u>				61
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31 DO3 32 10 41 WA WATEB FOUND TO-13 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	56 28 / 3 1 20 21 14 15 21 TER RECORD KIND OF WATER FRESH 3 SULPHUR ¹⁴ SALTY 4 MINERAL	556281279	010572 01 32 1 32 1 SING & OPEN H WALL THICKNESS STEEL 12 188		2 0 6 1 2 1 1 7 43 ECORD M TO 006 d ³⁻¹⁶	2.9 SCREEN ITAM SCREEN	54 (5) OF OPENING (5) OF OPENING (7) NO) ERIAL AND TYPE	31-33 DIAMET	ER 34-38 INCHES DEPTH TO TOP OF SCREEN	
20-23 1 20-23 1 25-28 1 25-28 1 2 2 25-28 1 2 2 25-28 1 2 2 2 2 25-28 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2] FRESH 3] SULPHUR 19] SALTY 4 MINERAL] FRESH 3] SULPHUR 24] SALTY 4 MINERAL] FRESH 3] SULPHUR 24] FRESH 3] SULPHUR 29] SALTY 4 MINERAL] FRESH 3] SULPHUR 29] SALTY 4 MINERAL] FRESH 3] SULPHUR 34] SALTY 4 MINERAL 34	0 6 17.18 17.18 17.18 1 5 2 G 3 C 4 0 3 C 4 0 5 4 0 5 4 0 5 4 0 5 4 0 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6	ALVANIZED ONCRETE IPEN-HOLE ¹¹ ITEEL 19 JALVANIZED CONCRETE STEEL 26 JALVANIZED CONCRETE SPEN HOLE	60	0061 27:30	61 DEPTH FROM 10 26	PLUGGIN SET AT - FEET 10 0-13 14-17 8-21 22-25 6-29 30-33 80	G & SEAL	ING RECC)RD INT GROUT, ACKER: ETC I
71 UMPING TEST NET 1 PUMP STATIC LEVEL 19-21	THOD 10 PUMPING RATE 2 BAILER 007 WATER LEVEL END OF PUMPING 25 WATER 1 22-24 15 NINUTES 25 FEET 25 F 38-41 PUMP INTAKI GPM INP TYPE RECOMMENDI PUMP SETTING C M DEEP GPM. /FT. S' STING	ТЕ 11-14 DU 15 GPM (LEVELS DURING 5 30 NINUTES -28 29-31 EET 29-31 EET 29-31 EET 29-31 EET 43-45 RF FEET ED 43-45 RF PECIFIC CAPACITY	URATION OF PUMPING 15-16 1 WOURS 00 2 PUMPING 2 RECOVERY 45 MINUTES 32-34 0 MINUTES 32-34 0 MINUTES 45 MINUTES 10 25 FEET 025 WATER AT END OF TEST 1 CLEAR 2 CLI IECOMMENDED UMPING 10 0 5	17-18 WINS J5-37 FEET 	A COT LIN	GRAM BEL	OCATION O	F WELL s of well f irow.	ROM ROAD A	.ND
FINAL STATUS OF WELL	54 1 WATER SUPPLY 2 OBSERVATION WE 3 TEST HOLE 4 RECHARGE WELL 55-56 1 2 DOMESTIC 2 STOCK	S ABAND ELL 6 ABAND 7 UNFIN 5 COMMERCI 6 MUNICIPAI	IONED, INSUFFICIENT SUF JONED, POOR QUALITY VISHED	PPLY					Smul	
	3 IRRIGATION 4 INDUSTRIAL OTHER	7 D PUBLIC SU	PPLY DR AIR CONDITIONING 9 🗍 NOT USED						*	J
METHOD OF DRILLING	5 CABLE TOOL CABLE TOOL CABLE TOOL CONVEN COVEN	6 [ATIONAL) 7 [] (E) 8 [9 []] BORING] DIAMOND] JETTING] DRIVING		DRILLERS REMARKS	S:				
ADDRESSER	CONTRACT tel Vater Support 490	ly Ltd.	LICENCE NUMBER 1558 LICENCE NUMBER ISION DATE 22 MO. 6 YI COPY	₹ ₹ ₽	DATA SOURCE DATE OF INSPEC 2. (; CL REMARKS	58 1 -57(CONTRACTOR 59-62 1558 INSPECTOR	DATE RECEIVED	077 /R.J. P V FORM :	VI 7 MOE 07-091

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2. COUNTY OR DISTRICT	CHECK 🗵 CORRECT BOX WHERE APPLICABL TOWNSHIP, BOROUGH,	E CITY, TOWN, VILLAGE	1010120 -	BLOCK, TRACT, SURVEY E		
Carleton	Rideau (N	orth Gower)	2			0%0" #
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	LOG OF OVERBURD	EN AND BEDROC	K MATERIALS (SEE)	NSTRUCTIONS)		
GENERAL COLOUR COMMON	MATERIAL OTHER	MATERIALS	GENER	AL DESCRIPTION	DEPT FROM	H - FEET
brown clay			boulders		O	24
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The second se						
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AT - FEET KIND OF WAT	R INSTOL	WALL DEPT	H - FEET	OF OPENING 31-33 NO >	DIAMETER 34-38	LENGTH 39-40
0066 10-13 1 FRESH 3 1 5 2 SALTY 4 1	SULPHUR 14	12 198 0		AL AND TYPE	DEPTH TO TOP OF SCREEN	41-44 80
15-18 1 [] FRESH 3 [] S	SULPHUR 19 3 CONCRETE			PILIGGING &	SEALING RECO	
20-23 1 C FRESH 3 C S	SULPHUR 24 17-18 I GALVANIZED	19	20-23 DEPTH SE	T AT - FEET MATER	IAL AND TYPE (CEME	NT GROUT
25-28 1 G FRESH 3 G S	SULPHUR 29 06 3 CONCRETE	- 26	0073 10.1	3 14-17		
30-33 t FRESH 3 S	SULPHUR 3460 3 CONCRETE	29	27-30 18-2	1 22-25 9 30-33 80		
Z SALTY 4 N	PUMPING RATE 11-14 DURATION OF					
PUMP 2 BAILER	0020 GPM 01	15-16 00 17-18 UNS	LC	CATION OF N	NELL	
LEVEL END OF PUMPING 19-21 22-24	WATER LEVELS DURING	PUMPING RECOVERY	LOT LINE. INDIC	SHOW DISTANCES OF ATE NORTH BY ARROW	WELL FROM ROAD A.	ND
	26-28 29-31 20 FEET 020 FEET 020	32-34 35-37 FEET 020 FEET	P			
CIVE RATE	PUMP INTAKE SET AT WATER AT EN	D OF TEST 42	/ 			
RECOMMENDED PUMP TYPE	RECOMMENDED 43-45 RECOMMENDED PUMP SETTING 75 FEFT PATE	46-49				
50-53	GPM. / FT. SPECIFIC CAPACITY		10		ષ્	
FINAL STATUS / 2 OBSE	ER SUPPLY S ABANDONED, INSU RVATION WELL 6 ABANDONED, POO	JFFICIENT SUPPLY R QUALITY	2	5.4	2	
OF WELL 4 RECH	HOLE 7 DUNFINISHED		a le	me white		
	ESTIC 5 COMMERCIAL K 6 MUNICIPAL SATION 7 PHOLIC SUBDLY		3 Re	ine form h	sure A Z	
	STRIAL B COOLING OR AIR CONT OTHER 9 NO	DITIONING		21	S	
	E TOOL 6 BORING		K.Smile	1		
	RT (CONVENTIONAL) 7 DIAMOND RY (REVERSE) 8 JETTING RY (AIR) 9 DRIVING					
	ERCUSSION	DRI	LLERS REMARKS:			5
Capital Water	SUPPLY Ltd.		DATA 58 CON SOURCE 58 CON	1558 DATE R		63-68 80
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H NAME OF DRILLER OF BORER			REMARKS:		P	for
SIGNATURE BUSCHART	SUMISSION DATE	LFIC		1750		
MINISTRY OF TH	E ENVIRONMENT CORV	<u> </u>		•	FORM 7 N	10E 07-091



PENPING TEST METHOD 10 PUMPING RATE 16-14 DURATION OF PUMPING	LOCATION OF WELL
71 1	IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE INDICATE NORTH BY ARROW. N Redene Touriship roads garage
S4 ID WATER SUPPLY S ABANDONED, INSUFFICIENT SUPPLY STATUS OBSERVATION WELL S ABANDONED, POOR QUALITY S I TEST HOLE 7 I UNFINISHED OF WELL RECHARGE WELL	Gouth Gouth D.C. #4
55-56 1 DOMESTIC 5 COMMERCIAL WATER 2 STOCK 6 MUNICIPAL USE 01 3 IRRIGATION 7 PUBLIC SUPPLY 4 INDUSTRIAL 8 COOLING OR AIR CONDITIONING 0 OTHER 9 NOT USED	
S7 1 CABLE TOOL 6 BORING METHOD 2 ROTARY (CONVENTIONAL) 7 DIAMOND OF 3 ROTARY (REVERSE) 8 DITTING DRILLING 1 ROTARY (AIR) 9 DRIVING S DI AIR PERCUSSION 1 REVERSE	DRILLERS REMARKS:



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COUNTY OR DISTRICT). PRINT ONLY IN 2. CHECK 🔀 CORI	SPACES PROVIDED RECT BOX WHERE APPLICABLE		15173	312	1.5.904		1 1 192
Dttoy	Č1	Ride	Citter -	North G	CON.	BLOCK, TRACT, SURVEY, I	c. 2	LOT 25-27
		<u>. R.</u>	🦸 1, Ma	notick, Ont	tario	KOA 2ND	DATE COMPLETED	44-53 2680
<u> </u>	10 12	<u> </u>	18.9.9				"""""	
GENERAL COLOUR	L(MOST			OCK MATERIA	ALS (SEE)		DEPT	H - FEET
Brown	Sandv	Loam		Par	ked		FROM	то
Gray	Hardpan	Gravel 🕹 B	oulders				1	51
Dark Gray L	Limestone			Mec	lium		51	90
Black l	imestone			Sof	't		90	180
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31 000160	02181179 005	12141113 0090	215786	5 6 808 15	85,11			
41 WATER WATER FOUND AT - FEET KIN	RECORD	51 CASING &		RECORD		DF OPENING 31-3 NO 1	3 DIAMETER 34-38	LENGTH 39-40 FEET
10-13 'X FRE 0178' ² □ SAL	SH 3 [] SULPHUR ¹⁴ TY 4 [] MINERAL	INCHES 10-11 1X STEEL 1	INCHES	ROM TO		NAL AND TYPE	DEPTH TO TOP OF SCREEN	41-44 10 FEET
15-18 1 - FRE 2 - SAL	SH 3 [] SULPHUR ¹⁹ TY 4 [] MINERAL	64 CONCRETE 4 OPEN HOLE	188	0 0054	61	PLUGGING &	SEALING RECO	ORD
20-23 1 [] FRE 2 [] SAL1	SH 3 [] SULPHUR 24 TY 4 [] MINERAL	CG CONCRETE		54 0180	FROM 10-	TO MATE	RIAL AND TYPE , LEAD P.	ENT GROUT ACKER, ETC)
23-28 1 _ FRE 2 _ SAL1	SH 3 _ SULPHUR 29 TY 4 _ MINERAL	24-25 1 STEEL 26 24-25 2 GALVANIZED	3	27-30	18-	21 22-25		
1 🛄 FRES 2 🛄 SALT	SH 3 SULPHUR TY 4 HINERAL	3 CONCRETE 4 OPEN HOLE			26-2	30-33 80		
71 PUMPING TEST METHOD	IO PUMPING RATE	11-14 DURATION OF PL 010 GPM 01 15-1 HOU	UMPING 16 00 17-18 RS 00 MINS		L(OCATION OF	WELL	
STATIC WATE LEVEL EN U U 19-21	ER LEVEL 25 ND OF WATER LE INPING 22-24 15 MINUTES	VELS DURING 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2	PUMPING RECOVERY	IN DIA LOT L	GRAM BELO INE INDI	W SHOW DISTANCES OF CATE NORTH BY ARROW	WELL FROM ROAD A /.	D N
	26-28	29-31 32- 150FEET 150 FE T AT WATER AT END (34 35-37 ET 150 FEET			. +	\sim	
GIVE RATE	GPM DECOMMENDED		2 CLOUDY				Conc	~~
G SHALLOW D	DEEP SETTING	160 FEET RATE	0005 GPM			Ĺ	· L.	
FINAL 54	I WATER SUPPLY	s 🗌 ABANDONED, INSUF	FICIENT SUPPLY	*			Jo 100	
STATUS OF WELL	2 X OBSERVATION WELL 3 TEST HOLE 4 RECHARGE WELL	6 🛄 ABANDONED, POOR 7 🗍 UNFINISHED	QUALITY	*	/	.75 mi		, i
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USE	Industrial	COOLING OR AIR CONDIT ODLING OR AIR CONDIT ODLING OR AIR CONDIT	TIONING USED		x f		Onc	Freed
METHOD 2	CABLE TOOL CONVENTION	6 BORING DNAL) 7 DIAMOND		5				
OF 5	ROTARY (REVERSE)	DETTING DRIVING		N.)	TA.		
NAME OF WELL CONTRA	ACTOR	LICI	ENCE NUMBER		58 COI	NTRACTOR 59-62 DATE	22065	2 /1
ADDRESS	ater Supply I	_td.	1558			058	V	
NAME OF DRILLER OR B	D tittsville,	Ontario KOA 3	GO ENCE NUMBER				<u>n</u> m	
SIGNATURE OF CONTRAC	THCKO .	SUBMISSION DATE	76 .87	OFFIC				
MINISTRY	OF THE ENV	IRONMENT COF	<u>γ</u> γ	L			FORM NO. 0506-	4-77 FORM 7

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	of the	nt	1	WA	TER	W	ELL P	REC	ORD
Ontario	1	1. PRINT ONLY IN S 2. CHECK 🗵 CORRE	PACES PROVIDED		1519	044	1.5.0.0.4		
COUNTY OR DIST		lator	TOWNSHIP, BOROUGH	H. CITY. TOWN. VILLA	BTH GON	ER 3	. BLOCK. TRACT SURVEY.	ETC 020	020
			D	RTH G	WER FLEVALION	RC	BASIN CODE		06 vr 84
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	EST METHOD	10 PUMPING RATE		NOLE	17	23	LOCATION O	FWELL	
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DIS 015	055	22-24 IS MINUTES	30 MINUTES 45 M	60 MINUT	ES (5-37) FEET		,		
	G.	38-41 PUMP INTAKE	SET AT WATER	AT END OF TEST	42 IDY			9 (9)	
	DED PUMP TYPE	RECOMMENDED PUMP SETTING	43-45 RECOMI PUMPIN FEET RATE		6-49 GPM			teg	
50-53	54 1 0	WATER SUPPLY	5 🗌 ABANDONEI). INSUFFICIENT SUPI		<u>C</u> #	4 3		
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WATI	55-56 + D 2 D	DOMESTIC STOCK	5 COMMERCIAL 6 MUNICIPAL			S.	1.6Km	de la compañía de la	
USE	01:0		COOLING OR AIL	R CONDITIONING			<u></u>		
METH	OD ⁵⁷ ¹ ¹	CABLE TOOL ROTARY (CONVEN	6 🗍 BO FIONAL) 7 🗌 DI	RING					
OF DRILL		ROTARY (REVERSE ROTARY (AIR) AIR PERCUSSION	;) ■[_]je 9]] DR	TTING IVING	DRILLERS RE	MARKS	LA		
	KAI HO	noh i sr	n(u)	LICENCE NUMBER		Ĭ	CONTRACTOR 59-62 3142	10 °01	784
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COUNTY OR DISTRICT	1. PRINT ONLY IN 2. CHECK 🗵 CORI	SPACES PROVIDED RECT BOX WHERE APPLICABL TOWNSHIP, BOROUGH	E 12 CITY, TOWN, VILLAGE	1 5 2 0 4	CON	TO 14 BLOCK. TRACT. SURVEY			22 23 74
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	12	OG OF OVERBURD	EN AND BEDF	25 26 ROCK MATERIA	LS ISEE IN	31 ISTRUCTIONS1			
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31	<u> </u>	 			. [.]]]
41 WA	KIND OF WATER	51 CASING	& OPEN HOLE	DEPTH - FEET		OF OPENING	11-33 DIAMETER	34-38 LENG	тн 39-40 FEET
28 2	¥ FRESH ³ □ SULPHUR ¹⁴] SALTY ⁴ □ MINERAL	10-11 1 STEEL	12 FD	FRUM TO 13-16		IAL AND TYPE	DEPTH OF SC	TO TOP REEN	41-44 30 FEET
75-18 1 C 2 C] FRESH ³] SULPHUR ¹⁹] SALTY ⁴] MINERAL	17-18 1 - STEEL	£ 158	0 57	61 DEPTH SE		& SEALING) GROUT
25-28 1] FRESH ³ □ SULPHUR] SALTY ⁴ □ MINERAL] FRESH ³ □ SULPHUR ²⁹	 Z GALVANIZ 3 CONCRETE 4 OPEN HOL 	ED '		FROM 10-1	TO 113 14-17		LEAD PACKE	R. ETC)
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71 PUMPING TEST MET	THOD IO PUMPING RATE	4 GOPEN HOL	E DE PUMPING]	L	DCATION O	FWELL]
STATIC LEVEL	2 DAILER WATER LEVEL 25 END OF WATER L PUMPING	EVELS DURING Z	HOURS 30 MINS	IN DIA LOT L	GRAM BELO	W SHOW DISTANCES CATE NORTH BY ARE	OF WELL FROM	ROAD AND	
	22-24 IS MINUTES 26-2 40 FEET AN FEE	30 MINUTES 45 MINU 29-31	01ES 60 MINUTES 32-34 35-37 FEFT FFFT			QI	11.00	139	
IF FLOWING. GIVE RATE	38-41 PUMP INTAKE S	SET AT WATER AT	END OF TEST 42 EAR 2 CLOUDY	Sut	.Lol	14 N/A	~ 7/1	107	./\
C RECONMENDED PU	NP TYPE RECOMMENDED PUMP SETTING	43-45 RECOMMENI PUMPING SO FEET RATE	DED 46-49						
FINAL	S4 1 WATER SUPPLY	S 🔲 ABANDONED. IA	NSUFFICIENT SUPPLY						1
STATUS OF WELL	3 DESERVATION WEL 3 TEST HOLE 4 RECHARGE WELL	L & ABANDONED PO 7 D UNFINISHED	OOR QUALITY	-					<i>′</i>
WATER USE	3-54 1 DOMESTIC 2 D STOCK 3 D IRRIGATION 4 D INDUSTRIAL D OTHER	5 COMMERCIAL 6 MUNICIPAL 7 PUBLIC SUPPLY 9 COOLING OR AIR CC 9 D	DNDITIONING NOT USED			- 30	-A-15		
METHOD OF DRILLING	57 CABLE TOOL 2 ROTARY (CONVENT 3 ROTARY (REVERSE) 4 ROTARY (AIR) 5 AIR PERCUSSION		G ND IG G		A		T		
			LICENCE NUMBER	DATA SOURCE	58 CON	NTRACTOR 59-62 D	200	286	63.68 60
	termorrasper. (Ontario KOG	1117		CTION	INSPECTOR	*		
Walls SIGNATURE OF S	ace Desaulnie	SUBMISSION DATE	1119						
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Ministry of the		The Ontario Water Resources A	ct
Ontario OTTAWA -CARLETON	NORTH GOWER		ECORD
2. CHECK CORREC	TOWNSHIP BOPOUGH PITY TOWN VILAGE	E -// 2/ CON BLOCK-TRACT. SURVEY. ETC	LOT 25-27
Janston	Manulia Manulia	12 four Con L.	QMPLETED // 46.53 87
		RC ELEVATION CC EASTYCODE	
	G OF OVERBURDEN AND BEDF	ROCK MATERIALS (SEE INSTRUCTIONS)	
CONMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	FROM TO
grey hardpan	stores		6 25
grey hardpan			25 65
F ()	to 10		
y un g Varie			63 11
grey timestore			7/ 105
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31			
41 WATER RECORD	CASING & OPEN HOLE		75 80 METER 34 38 LENGTH 39-40
AT - FEET KIND OF WATER	INSIDE MATERIAL WALL DIAM MATERIAL THICKNESS I NCHES I (0-1) DESTEEL 12	FRUM TO MATERIAL AND TYPE	INCHES FEET DEPTH TO TOP 41-44 30 OF SCREEN
$\frac{15.19}{0.0} = \frac{1}{2} \frac{1}$	97 - GALVANIZED CONCRETE OPEN HOLE	U 74 61 PLUGGING & SEA	
20-23 : _ FRESH > _ SULPHUR -4 2 _ SALTY 4 _ MINERAL 25-23	17-13 STEEL '9 t GALVANIZED t GALVANIZED t GOORGETE t GOORGETE	74 105 DEPTH SET AT - FEET MATERIAL A	ND TYPE ICEMENT GROUT
1 FRESH 3 3 SULPHOR 2 SALTY 4 MINERAL 30-33 1 FRESH 3 SULPHUR ³⁴	24-25 : STEEL 25 2 GALVANIZED 3 CONCRETE	27-30 18-21 22-25 26-29 30-33 40	wited
2 SALTY 4 MINERAL	DURATION OF PUMPING		
STATIC WATER LEVEL 25 LEVEL PUMPING WATER LEVEL	GPN	IN DIAGRAM BELOW SHOW DISTANCES OF WELL LOT LINE. INDICATE NORTH BY ARROW.	L FROM ROAD AND
$\begin{array}{c c} SI \\ II $	30 MINUTES 45 MINUTES 60 MINUTES 7029-31 7032-34 7032-34 7035-37 FEET FEET FEET		1
C IP FLOWING. 33 J1 PUMP INTAKE SET A GIVE RATE GPM RECOMMENDED PUMP TYPE RECOMMENDED PUMP TYPE	FEET 1 CLEAR 2 CLOUDY		,
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OF WELL 4 D RECHARGE WELL			14,
WATER 2 USTOCK 5 3 IRRIGATION 7 USE 4 INDUSTRIAL 3	MUNICIPAL PUBLIC SUPPLY COOLING OR AIR CONDITIONING NOT USED	C.C.	
	: BORING		
OF DRILLING ROTARY (REVERSE)	Detring Driving 3644	DRILLERS REMARKS	08669
E Hains Well,	Drilling Sto44	STUDIE VS CONTRACTOR 59.62 PALE RECEIVE	14 1988
ADDRESS JAN 326, Rich NAME OF DRILLER OR BORER	rinond O, A		
SIGNATURE OF CONTRACTOR		E E E E E E E E E E E E E E E E E E E	
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county of district	TOWNSHIP-BOROUGH. CITY. TOWN, VILLA	Richery	CON BLOCK FRACT. SUR	14 15 22 23 74 VEY. ETC LOT 25-27
	hanotie	R Linual	n.l.:	DATE COMPLETED
		RC LEVATION	1/ B BASY CODE	
LOG	OF OVERBURDEN AND BEE	DROCK MATERIAL	30 31 S (SEE INSTRUCTIONS)	47
GENERAL COLOUR COMMON MATERIAL	OTHER MATERIALS		GENERAL DESCRIPTION	DEPTH - FEET FROM TO
yey handpan	stones			0 20
grey hardpan				2071
grey gravel	stones			7/ 73
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grey uneston				73/00
31			1 6 5 6 7 7 7	
4: WATER RECORD 59			54 SIZE(S) OF OPENING (SLOT NO)	5 75 85 31-33 DIAMETER 34-34 LENGTH 39-60
10-13 1 D FRESH 3 D SULPHUR 12 10-13 2 D FRESH 3 D SULPHUR 12 2 D SALTY 4 D WINERAL	AM MATERIAL THICKNESS INCHES	FROM TO	MATERIAL AND TYPE	INCHES FEET DEPTH TO TOP 4:-44 10 OF SCREEN
15-18 ! _ FRESH 3 _ SULPHUR 'B 2 _ SALTY 2 _ MINERAL	$\frac{7}{9} = \frac{1}{9} $	6 76	61 PLUGGIN	G & SEALING RECORD
20 23 : [] FRESH 3 [] SVLPHUR 24 2 [] SALTY 4 [] MINERAL	17-18	76. 144	DEPTH SET AT - FEET	AATERIAL AND TYPE (CEMENT GROUT LEAD PACKER, ETC.)
25-28 1 G FRESH 3 G SULPHUR 25 2 G SALTY 4 G MINERAL		22-30	18-21 22-25	nesure Cement
20-33 : D FRESH ; D SULPHUR 34 C 2 SALTY 4 D MINERAL	3 CONCRETE 4 OPEN HOLE		26-29 30-33 80	groules
71 PUMPING TEST METHOD 12 PUMPING RATE 1 CPUMP 2 BAILER /5	15-16 GPM		LOCATION O	FWELL
STATIC LEVEL END OF WATER LEVELS 0 19-21 22-22 15 WINUTES 30	DURING 3 DUMPING 2 RECOVERY	IN DIAGRA LOT LINE.	M BELOW SHOW DISTANCES INDICATE NORTH BY AR	S OF WELL FROM ROAD AND ROW.
$\begin{array}{ c c c c c c c c } \hline \mu & \mu$	0 FEET 96 FEET 90 FEET	7		
GIVE RATE GPM GPM	FEET 1 CLEAR 2 CLOUDY		\backslash	Λ/.
SHALLOW D-DEEP SETTING 90	43-45 RECOMMENDED 46-49 PUMPING 5 GPM		10(1) 3	_
FINAL 54 T WATER SUPPLY	S] ABANDONED, INSUFFICIENT SUPPLY]	$\sim 10^{-10}$	
STATUS 2 DOBSERVATION WELL 3 D TEST HOLE OF WELL 4 D-RECHARGE WELL	E ABANDONED POOR QUALITY 7 UNFINISHED			
55-56 · DOMESTIC S D	CONMERCIAL MUNICIPAL		o't l	4
	PUBLIC SUPPLY COOLING OR AIR CONDITIONING S D NOT USED		-6(-	Pa
	Boring		0.0	
				0.000
NAME OF WELL CONTRACTOR	LICENCE NUMBER	DRILLERS REMARKS:	55 TON TRAÉTOT 59-67 DA	
ADDRESS ADDRESS	hilling Slo44	IN THE OF INSPRIMENT	11959 <u>28</u>	JAN 1 2 1988
NAME OF DRILLER OR BORER	LICENCE NUMBER			
SIGNATURE OF CONTRACTOR	SUBMISSION DATE	DFFIC		
MINISTRY OF THE ENVIRONMENT				FORM NO. 0506-4-77 FORM 7

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OWNER		LU E FIRST)	F <u> </u>	Mar	olick		····		ON BLOCK	outre	1 Cou	t	23
	Tin	sen	Const.	RP;	43 M	lenic	irth	K	06	INO		2_ мо	аны 2ув <u>88</u>
21		U T M			<u></u> _ [EVATION				<u> </u>		
			MOST		N AND BEDF	ROCK	ATERIA	LS ISE	E INSTRUC	TIONSI			
- GENER			COMMON MATERIAL	OTHER M	ATERIALS			GEN	NERAL DESC	RIPTION	<u> </u>	FROM	- FEET
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31													
41	W	ATER I	RECORD	51 CASING &	OPEN HOLE	RECO			S4	IING 31	-33 DIAMETI	ER 34-38 L	75 80 ENGTH 39-40
WATER F	FOUND FEET	KIN	D OF WATER	INSIDE DIAM MATERIAL INCHES	WALL THICKNESS INCHES	DEPTH -	FEET TO	CREE	TERIAL AND	TYPE		INCHES DEPTH TO TOP OF SCREEN	FEET
5	/ 2 15-18 1	SALT	Y 4 ☐ MINERALS 6 ☐ GAS H 3 ☐ SULPHUR ¹⁹	10/11 1 CASTEEL 2 GALVANIZED 3 CONCRETE 4 OPEN HOLE	" 188	5	¹³⁻¹⁶						FEET
	20-23 1	FRES	$\begin{array}{c} 4 \square \text{ MINERALS} \\ 6 \square \text{ GAS} \end{array}$		19		20-23	DEPT	H SET AT - F		& SEALI		RD
	25-28 1		$\begin{array}{c} 4 & \Box \text{ minerals} \\ 6 & \Box \text{ gas} \\ 1 & 3 & \Box \text{ sulphur } 29 \\ 4 & \Box \text{ minerals} \end{array}$	3 CONCRETE 4 COPEN HOLE 5 PLASTIC		17	64		10-13	14-17 D	resur	Ceme	int
	30-33 1 2		6 □ GAS H 3 □ SULPHUR 34 4 □ MINERALS 6 □ GAS	1 DSTEEL 2 DGALVANIZED 3 DCONCRETE 4 DOPEN HOLE 5 DELASTO			27-30		18-21	22-25 30-33 80	gra	ted	
71	PING TEST I	METHOD	10 PUMPING RA	TE 11-14 DURATION OF	PUMPING				LOCAT		WELL]
	STATIC LEVEL	WATER EN	BAILER R LEVEL 25 D OF WATER	50 GPM HC LEVELS DURING 1	PUMPING			GRAM BE	LOW SHOW	DISTANCES (DF WELL F	ROM ROAD AN	D
TEST	10	" 4	22-24 15 MINUTES	20 30 MINUTES 45 MINUTES 20 20-31 4 31	60 MINUTES		501 21				.		Λ
	FLOWING, TE RATE	ET 7	FEET / UFI 30-41 PUMP INTAKE	ESET AT WATER AT END	DE TEST 42								N
	OMMENDED I	PUMP TYPE	GPM RECOMMENDE PUMP	FEET 1 CLEAN C 43-48 RECOMMENDED PUMPING	2 CLOUDY		•	70					
50-53	LJ SHALLO		EEP SETTING		/ J GPM			2	Clout	here C	u., †		
F	FINAL TATUS	\$4 1 2	G-WATER SUPPLY	ABANDONED. INSU	FFICIENT SUPPLY			1	3101	tr	$\sum_{i=1}^{n}$		
OF	F WELL	3 4	TEST HOLE	7 UNFINISHED 9 Dewatering				1 4 0					
v	VATER	1 2 3		S 🗌 COMMERCIAL 6 🗍 MUNICIPAL 7 🗍 PUBLIC SUPPLY				1 m			V		
	USE			COOLING OR AIR COND P NO	ITIONING FUSED						$\left(\right) $	مر ر	
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CONS	TRUCT		ROTARY (AIR)	DIGGING	OTHER	DRILLE	RS REMARKS					184	11
	of wert		no 1 Doll	Daitlen Well	CONTRACTOR'S		A	54		59-62 DATE	ก็ก็ว่า) f 1988	63-68 80
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of th	e ronment		WA	TE		ME		TE		ND
Ontario		PACES PROVIDED		15	2525	59	1,5,0,0,4	CON		03
	2. CHECK 🛛 CORRE	TOWNSHIP, BOROUGH	E 1 2	GE		CON B	10 14 LOCK, TRACT, SURVEY	IS ETC	LO	22 23 74
COUNTY OR DISTRICT	0/1	>	Vorth	Bon	Net		3	DATE COMPLET	ED 41	20
			1	A.H	Gan	ar (InT	DAY	мо	2 yr. 20
		G	<i>Z</i>	RC. E			BASIN CODE			
	M 10 12						31			"]
		G OF OVERBURD				GENERAL	DESCRIPTION		DEPTH -	FEET
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	Sand grave	1 & Doulders				<u> </u>			56	120
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			G & OPEN HO	DLE REC	ORD	Z SIZE (S	OF OPENING	31-33 DIAMETE	R 34-38 L	ENGTH 39-40
WATER FOUND	KIND OF WATER	INSIDE DIAM MATERIA	WALL THICKNESS	DEPT FROM	H - FEET TO		RIAL AND TYPE		INCHES DEPTH TO TOP DE SCREEN	FEET 41-44 30
	FRESH 3 DSULPHUR SALTY 4 DMINERALS	10-11 1 DKTEEL	12		13-16	S				FEET
77	FRESH 3 USULPHUR			O	11	61	PLUGGIN	G & SEALI	NG RECO	RD
112 2	SALTY 6 GAS		19		20-23	DEPTH S FROM	TO	MATERIAL AND 1	TYPE CEME	NT GROUT NCKER, ETC)
25.28	4 D MINERALS 5 SALTY 6 D GAS	3 - CONCRE 4 - OPEN HO 5 - PLASTIC	TE DLE			10	-13 14-17			
, Z	G FRESH 3 SULPHON 4 MINERALS 5 SALTY 6 GAS	24-25 1 D STEEL 2 D GALVANI	26 IZED		27-30	18	-21 22-25			
30-33 1 2	☐ FRESH 3 □SULPHUR ³⁴ 4 □ MINERALS □ SALTY 6 □ GAS	A CONCRE 4 COPEN HO 5 CPLASTIC	TE OLE	<u> </u>		\ \	30-33			
71 PUMPING TEST	METHOD 10 PUMPING RA	TE 11-14 DURATIC	DN OF PUMPING	17-18		L	OCATION C	OF WELL	•	
	≥ 2 □ BAILER WATER LEVEL 25	14 срм	HOURS	_ MINS		AGRAM BEL	OW SHOW DISTANCI	ES OF WELL F	ROM ROAD	AN D
	END OF WATER PUMPING 21 22-24 IS MINUTE	S 30 MINUTES 45 M	2 RECOVERY	UTES	2011				al	
Ë //,	EET 90 FEET 90 F	-28 20-31 29-31 20 FEET 2	32-34 D FEET 20	35-37 FEET			. 1	11	ΓV ,	1
C IF FLOWING. GIVE RATE	38-41 PUMP INTAK	E SET AT WATER	AT END OF TEST	42 OUDY			60		/	"
RECOMMENDED	GPM PUNP TYPE RECONMEND PUMP	FEET FEET FEED 43-45 RECOM	MENDED	46-49	de la constance		1			
SO-53	OW DEEP SETTING	DO FEET RATE	-14	GPM				135°	ela	
	54 1 DE WATER SUPPLY	s 🗌 ABANDONEI	D. INSUFFICIENT SU	PPLY			. Ikm			
STATUS	2 DOBSERVATION W 3 DTEST HOLE	FELL 6 ABANDONEI 7 UNFINISHE	D POOR QUALITY							
OF WEL	55-56 L DK DOMESTIC		6			Stars				
WATER	2 STOCK	6 D MUNICIPAL 7 D PUBLIC SUPPLY	r		Koger	Of one	~> KJ.			
USE	4 □ INDUSTRIAL □ OTHER	COOLING OR AI	IR CONDITIONING		·					
	57 1 CABLE TOOL	• 🗋 BC	ORING							
METHO OF	D 2 C ROTARY (CONVI 3 ROTARY (REVER	ENTIONAL) 7 DI RSE) B D JE	IAMOND ETTING						89	930
CONSTRUC	TION 4 D ROTARY (AIR) 5 St Air percussio	N			DRILLERS REMA	RKS				
NAME OF WE		11. 0,-	WELL CONTRAC	CTOR'S		58	CONTRACTOR 59-62	DATE RECEIVED	1 0 19	91
	1- Kock Prin	11 ng 8,210	2 - 1/17		O DATE OF INS	PECTION	I I I J INSPECTOR			<u></u>
AAC	WATECHNICIAN	lesper l	WELL TECHNIC	CIAN'S		<u> </u>				
IN NAME OF	How Daland	ices			1CE					
	OF TEONINICIAN/CONTRACTO		20.12	yr 20	OFI					23,25
MINISTR	Y OF THE ENVIRO	NMENT COPY							ORM NO. 0506	5 (11/86) FORM 9

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Ontario	I. PRINT ONLY IN	SPACES PROVIDED		1526	097		H IČP	N	0,3
COUNTY OR DISTRICT	2. CHECK 🗵 CORP	ECT BOX WHERE APPLICABLE	TOWN, VILLAGE		co	10 N. BLOCK. TRACT. SURVI	A 15	L	0T 2 13-27
OTTALLA C		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	ANAN RI	DEAU		COM . XISTEX U.	DATE COMP		
			4 NORTA 	ELEVATION					
DUMES	L	CLL " "	AND BEDRO	CK MATER		31 INSTRUCTIONS)		·····	47
GENERAL COLOUR	NOST COMMON NATERIAL	OTHER MAT	ERIALS		GENE	ERAL DESCRIPTION		DEPTH	FEET
Grey	Clay	Sand, silt,	stones		Packed			0'	46'
Grey	Bedrock			I	Layere	.d		46'	90'
						μ.,			
199 - L									
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) <u> , , , , ,</u> , , , , , ,			
	TER RECORD	51 CASING &	OPEN HOLE	RECORD	Z 50	ZE (S) OF OPENING	31-33 DIAME	TER 34-34 L	75 60 ENGTH 39-40
WATER FOUND AT - FEET	KIND OF WATER	INSIDE DIAM MATERIAL INCHES	WALL THICKNESS INCHES FR	DEPTH - FEET	CREE	ATERIAL AND TYPE		INCHES DEPTH TO TOP OF SCREEN	FEET 41-44 30
65' 2	FRESH 3 🗆 SULPHUR SALTY 4 🗇 MINERALS 6 🗆 GAS	10-11 1 STEEL 2 GALVANIZED 3 CONCRETE	2	1:					FEET
851	FRESH 3 USULPHUR 4 MINERALS SALTY 6 GAS	81 4 DOPEN HOLE 5 PPLASTIC		46	1 61 0-23 DEPT	PLUGGIN	MATERIAL AN	TYPE (CEMET	NT GROUT
25-20	FRESH JUSULPHUR 4 MINERALS 5 ALTY 6 GAS	2 GALVANIZED 3 CONCRETE 4 OPEN HOLE 5 DPLASTIC	188 +2'	46	· 20'	10-13 14-17 461	Cemet	t Grou	t
30-33	☐ FRESH 3 ☐ SULPHOR ☐ SALTY 6 ☐ GAS 3 ☐ SULPHUR 34	24-25 1 STEEL 2 GALVANIZED 3 GONCRETE	•	27	- 30	18-21 22-25 26-29 30-33	sacks	of Hi	ah
2 [SALTY 6 GAS	6" 4 DOPEN HOLE 5 XPLASTIC	46	90	<u> </u>		Early	Cemen	<u>ť</u>
71 PUMPING TEST ME	IO PUMPING RAT 2 BAILER	е 11-14 DURATION OF P 15 дрмно	-16 17-18 URS M1N5				DF WEL		
	WATER LEVEL END OF PUMPING 1 22-24 15 MINUTES	LEVELS DURING	PUMPING RECOVERY		DIAGRAM B DT LINE 1	INDICATE NORTH BY	ARROW.	FROM ROAD A	1
ш цо 15' _{ЕЕЕ}	16 ¹ FEET 15.2	15.35 15.70	2-34 35-37 LET 16 ¹ FEET						, A
GIVE RATE	38-41 PUMP INTAKI GPM	AO FEET CLEAN	OF TEST 42 R 2 □ CLOUDY						
RECOMMENDED PI	UMP TYPE RECOMMEND PUMP W ロ DEEP SETTINラち	ED 43-45 RECOMMENDED PUMPING 1/A01 FEET RATE 10	46-49 /15 GPM		3rd	line rd)	<u> </u>
50-53	54			li <			1		
FINAL STATUS	2 COBSERVATION WE 2 COBSERVATION WE 3 COBSERVATION WE	SLL BAANDONED, INSU LL S ABANDONED POOL 7 UNFINISHED	IFFICIENT ŞUPPLY R QUALITY	v120					
OF WELL	4 C RECHARGE WELL	9 DEWATERING		ven	it it	1	75'		
WATER	2 🗗 STOCK 3 🗍 IRRIGATION 4 🗍 INDUSTRIAL	 MUNICIPAL PUBLIC SUPPLY COOLING OR AIR CONF 		Ste	١L				
	57 OTHER	• [] NG	DT USED	r a	li In	← 60'→	¥ X		
METHOD OF	CABLE TOOL CABLE TOOL CONVERSION	BORING NTIONAL) 7 DIAMOND SE) ID	,	Rog	e		•	201	502
CONSTRUCT	ION 4 D ROTARY (AIR) AIR PERCUSSION		O OTHER	DRILIERS RE	MARKS				JCJ
			L CONTRACTOR'S		5		PEF	2 4 199	12
	IC URILLING	UU.LIMITED Antania KIC (4005 10		INSPECTION	L U Maspellion			i
A BOX 9	P Renwick		LL TECHNICIAN'S ENCE NUMBER						
S GNATURE O	F TECHNICIAN/CONTRACTOR	ec.) Day17 Mg	<u>02</u> y _R 92	OFFI	· 2 1	en de la constance de la consta Anticipada de la constance de la		C	ss.ES
MINISTR	Y OF THE ENVIRO	NMENT COPY		· •		~~~~	F	ORM NO. 0506 (11/86) FORM 9

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County or District	Township/Borough/City/	Town/Village	Con-block tract s	urvey, etc. Lot 25.27
	Address Box 519 K	12 North Goi	Unit. Date complet	ed 29 10 98 day month year
		RC Elevation 24 25 26 3	RC Basin Code ii	
LOG OF (OVERBURDEN AND BED	ROCK MATERIALS (see inst	ructions)	Depth – feet
General colour Most common material	Other materials	Ge		From To
BROKIN [1]	1 Jon 1d	ers Jen	ve	10 20
GREY Boulders		Lon.	se 1000d	25 83
orey lineslove toch	SANG STO	ne par	iency_	
	13.			

)		
31				
			es of opening 31-33 Diar	neter ^{34–38} Length ³⁹⁻⁴
41 WATER RECORD 51 Water found Kind of water diam	Material Wall	Depth - feet	it No.)	inches fee
at - feet inches inches inches	inche	From 10 BE Ma	erial and type	Depth at top of screen 3
2 Salty 6 Gas	Concrete Open hole	0 35		feet
2 Salty 6 Gas 17-18 17-1	Plastic Steel ¹⁹ Steel	20-23 61 .	PLUGGING & SE	ALING RECORD
2 Salty 6 Gas	Concrete Open hole	72 35 Depth :	To Material and ty	pe (Cement grout, bentonite, etc
23-24 1 □ Fresh 3 □ Sulphur 2 □ Salty 4 □ Minerals 2 □ Salty 6 □ Gas	Galvanized	27-30 0	35 Come	Agrant
30-33 1 D E 1 3 D Sulphur 34 60		1 35 03		
2 □ Salty A □ Minerals			29 30-33 80	
* Fresh 4 Minerals 2 Saity 6 Gas	Duration of pumping			
71 Pumping test method ¹⁰ Pumping rate ¹¹⁻¹⁴ Pump A 1 byler ¹⁰ Pumping rate 1	Duration of pumping		LOCATION OF WELL show distances of well from	om road and lot line.
1 Fresh 4 Minerals 2 Salty 6 Gas 71 Pumping test method 10 Pumping rate 11-14 GPM GPM Water level 25 Water levels during 1 Static level end of pumping 22-24 15 minutes 30 minutes	Open noie Open noie Plastic Duration of pumping 17-18 Mins Pumping 2 Recovery 45 minutes 60 minutes	In diagram below s Indicate north by a	LOCATION OF WELL show distances of well fro rrow.	om road and lot line.
1 Fresh 4 Minerals 2 Salty 6 Gas 71 Pumping test method 10 Pumping rate 11-14 GPM GPM Water level 25 Water levels during 1 Static level end of pumping 22-24 15 minutes 30 minutes 19-21 52-24 15 minutes 30 minutes 19-21 6 3 10 10	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	In diagram below s Indicate north by a	LOCATION OF WELL show distances of well fro rrow.	om road and lot line.
Pumping test method 10 Pumping rate 11-14 Pumping test method 10 Pumping rate 11-14 GPM GPM 22-24 15 minutes 30 minutes Static level 6 6 30 minutes 29-31 19-21 19-21 10 22-24 15 minutes 30 minutes 19-21 19-21 19-21 15 minutes 30 minutes 29-31 11 19-21 19-21 15 minutes 30 minutes 29-31 19-21 19-21 6 10 10 10 10 11 19-21 19 10 10 10 29-31 11 19-21 19 10 10 29-31 10 11 19 10 10 10 10 10 10 11 11 10 10 10 10 10 10 10 11 11 10 10 10 10 10 10 10 10 10 10 10 10 10	□ Open noie □ Plastic □ Duration of pumping □ T-18 □ Hours	In diagram below s Indicate north by a	LOCATION OF WELL show distances of well fro rrow.	om road and lot line.
1 Fresh 4 Minerals 2 Salty 6 Gas 71 Pumping test method 10 Pumping rate 11-14 GPM GPM GPM GPM GPM Static level end of pumping 22-24 15 minutes 30 minutes 19-21 GPM 22-24 15 minutes 30 minutes 19-21 GPM 10 10 10 19-21 GPM 15 10 10 19-21 GPM 15 10 10 19-21 GPM 10 10 10 19-21 GPM 15 10 10 19-21 GPM 10 10 10 19-21 GPM 10 10 10 19-21 GPM GPM 10 10 10 11 If flowing give rate 38-41 Pump intake set at 10 10 10 GPM GPM 10 10 10 10 10 11 Homping inverate <td>Open noise Duration of pumping 17-18 Mins Pumping 45 minutes 35 12-34 12-34 13 145 minutes 160 minutes 160 minutes 17-18 17-18 18 19 10 10 10 10 10 10 10 10 11 10 11 12 12 13 14 15 16 16 16 16 17 18 18 19 10 10 10 10 10 10 10 10 10 10 11 12 12 13 14 14 15 16 16 17 16 16</td> <td>In diagram below s Indicate north by a</td> <td>LOCATION OF WELL show distances of well fro rrow.</td> <td>om road and lot line.</td>	Open noise Duration of pumping 17-18 Mins Pumping 45 minutes 35 12-34 12-34 13 145 minutes 160 minutes 160 minutes 17-18 17-18 18 19 10 10 10 10 10 10 10 10 11 10 11 12 12 13 14 15 16 16 16 16 17 18 18 19 10 10 10 10 10 10 10 10 10 10 11 12 12 13 14 14 15 16 16 17 16 16	In diagram below s Indicate north by a	LOCATION OF WELL show distances of well fro rrow.	om road and lot line.
1 Fresh 4 Minerals 2 Saity 6 Gas 71 Pumping test method 10 Pumping rate 11-14 1 Pump Arr Sufer 25 Water level 1 Pump Arr Sufer 25 Water levels during 1 1 Static level Water level 25 Water levels during 1 1 19-21 22-24 15 minutes 30 minutes 29-31 1 Static level feet 15 10 10 10 1 If flowing give rate 38-41 Pump intake set at 10 10 10 1 If flowing give rate 38-41 Pump intake set at 10 10 10 1 Recommended pump type Recommended pump setting 10 10 43-45 1 Stallow Deep Pump setting 10 16et 1 Stallow Deep 10 16et 16et	Open noise Duration of pumping 17-18 Hours Hour	In diagram below s Indicate north by a	Decation of well from the second seco	om road and lot line.
Pumping test method 10 Pumping rate 11-14 Pumping test method 10 Pumping rate 11-14 Static level GPM 22-24 Static levels during 1 Static level Water level 22-24 15 minutes 30 minutes 30 feet feet 15 minutes 30 minutes 11 feet GPM 15 minutes 10 12 19-21 22-24 15 minutes 30 minutes 15 feet 10 10 10 16 GPM GPM 30 minutes 10 16 GPM Set 10 10 17 level gits 15 10 18 GPM GPM 30 10 19 feet Set 10 10	Dependice Open noise	In diagram below s Indicate north by a	De ad Rd	om road and lot line.
1 Fresh 4 Minerais 2 Saity 6 Gas 71 Pumping test method 10 Pumping rate 10-14 1 Pump A7 Buber 25 Water level end of pumping 25 Static level end of pumping 22-24 15 minutes 30 minutes 22-31 19-21 22-24 15 minutes 30 minutes 29-31 10 feet 10 feet 10 feet 19-21 22-24 15 minutes 30 minutes 30 minutes 30 minutes 29-31 15 feet feet Pump intake set at 10 feet 10 feet 10 feet 11 flowing give rate 38-41 Pump intake set at 10 feet 10 feet 11 flowing give rate GPM GPM 6 49-45 11 flowing give rate Set 4-45 10 feet 10 feet 12 Observation well 5 Abandoned, poor quality 5 Abandoned, poor quality 2 Observation well 7 Abandoned (Other) 4 Dewatering	Plastic Plastic Duration of pumping IV-18 Hours Hours Hours Hours Hours Hours IV-18 Hours Hours Hours IV-18 Hours Hours IV-18 Hours	In diagram below s Indicate north by a	DOCATION OF WELL show distances of well fro rrow. MAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	om road and lot line.
Image: Press 4 Minerais 2 Saity 6 Gas 71 Pumping test method 10 Pumping rate Image: Pumping rate 1 Pump AT Static level end of pumping 2 Water level end of pumping 1 Base 10 Pumping rate Image: Pumping rate Image: Pumping rate 1 Image: Pumping Pumping rate 10 Pumping rate 2 Image: Pumping rate	Duration of pumping 17-18 Duration of pumping 17-18 Hours Mins Pumping 2 Recovery 45 minutes 60 minutes 30 35-37 1eet Water at end of test 42 Clear Cloudy Recommended 4e-49 pump rate GPM supply 9 Unfinished 10 Replacement well	In diagram below s Indicate north by a	De 30-33 80 LOCATION OF WELL show distances of well fro rrow. MA	om road and lot line.
Pumping test method 10 Pumping rate 11-14 Pumping test method 10 Pumping rate 11-14 Static level Water level end of pumping Pumping rate 11-14 Static level Water level end of pumping Pumping rate 11-14 Static level Water level end of pumping 25 Water levels during 1 Static level feet feet 15 minutes 29-31 Static level feet feet feet 10 10 10 22-31 Static level feet feet feet 15 minutes 29-31 Static level GPM Static level feet 15 minutes 29-31 Static level GPM Static level feet 15 minutes 29-31 Mater supply feet feet Pump intake set at feet 16 16 Recommended pump type Feet Station feet 10 43-45 10 Static level Station Station Station feet Abandoned, poor	Open noie Open noie	In diagram below s Indicate north by a Lock He $\sqrt{256}$	De 30-33 80 LOCATION OF WELL show distances of well fro rrow. MA	om road and lot line.
2 Saity 4 Minerals 2 Saity 6 Gas 71 Pumping test method 10 Pumping rate 11-14 1 Pump Art GPM 25 GPM Static level end of pumping 15 minutes 30 minutes 3 0 19-21 22-24 15 minutes 30 minutes 3 19-21 19-22-24 15 minutes 30 minutes 29-31 11 feet feet Pump intake set at 10 10 10 11 feet feet Becommended pump type Recommended feet 10 10 11 flowing give rate 38-41 Pump intake set at 10 10 10 11 feet GPM GPM Statis 10 10 10 10 10 10 12 Observation well 0 Deep 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10	Open noie Open noie	In diagram below e Indicate north by a Lock He J 256	De 30-33 80 LOCATION OF WELL show distances of well fro rrow. MA	om road and lot line.
2 Saity 4 Minerals 2 Saity 6 Gas 71 Pumping test method 10 Pumping rate 11-14 Y Pump A-1 Ger 25 Water level end of pumping Water levels during 1 Y Y Static level end of pumping 22-24 15 minutes 30 minutes Y Y feet feet Y 29-31 Y feet feet Y 15 minutes 30 minutes Y feet GPM Feet Y 10 Recommended pump type Recommended pump setting Y 10 44-5 Y Stallow Deep S Abandoned, insufficient s So Test hole 5 Abandoned (Other) 4 So Static S Commercial 5-46 Y Abandoned (Other) S Abandoned (Other) 5-54 Y Abandoned (Other) S Commercial 6 Y Abandoned (Other) S Commercial 6 Mu	Open noie Open noie	In diagram below e Indicate north by a Lock He J 258	De 30-33 80 LOCATION OF WELL show distances of well fro rrow. MA A A A A A A A A A A A A A A A A A A	om road and lot line.
Image: Sector of the sector	Open noie Open noie	In diagram below e Indicate north by a Lock He J 256	De 30-33 80 LOCATION OF WELL show distances of well fro rrow. NA PAD RCL	om road and lot line.
Image: state intervent in	Open noie Open noie	In diagram below e Indicate north by a	De 30-33 80 LOCATION OF WELL show distances of well fro rrow. MA and Red I A A A A A A A A A A A A A	om road and lot line.
Presh 4 Minerals 2 Saity 6 Gas 71 Pumping test method 10 Pumping rate 11-14 Static level Water level 25 Water levels during 1 Static level Water level 25 Water levels during 1 Static level Water level 26 30 minutes 29-31 Joint Static level feet 15 minutes 30 minutes 29-31 Joint Static level feet feet 16 minutes 10 10 Minerals GPM feet 15 minutes 30 minutes 29-31 Joint Static level GPM feet 10 10 10 11 10 Minerals GPM Final GPM feet 10 10 10 10 10 10 10 11 10	Open noise O	$\begin{array}{c c} & & & \\ & & & & \\ & & & & \\ & &$	acctor	om road and lot line.
2 Gaity A Minerais 2 Saity 6 Gas 71 Pumping test method 10 Pumping rate 11-14 1 Pump A7 GPM 25 Water level end of pumping 30 minutes 30 19-21 22-24 15 minutes 30 minutes 22-31 30 feet feet 10 Pump intake set at 10 10 11 If flowing give rate 38-41 Pump intake set at feet 10 10 11 If flowing give rate GPM Recommended 49-45 10 10 11 If flowing give rate GPM Recommended 49-45 10 10 11 Recommended pump type Recommended feet 10 10 10 12 Observation well 5 Abandoned, poor quality 10 Abandoned, poor quality 2 Observation well 6 Abandoned, poor quality 10 Abandoned, foor quality 3 Tertigation 7 Public supply 10 Abandoned, foor qualit	Open noie Open noie	o Data Source Date of inspection	acctor 1 1 29-62 D	om road and lot line.
2 Saity 4 Minerais 2 Saity 6 Gas 71 Pumping test method 10 Pumping rate (1-14) 1 Pump A7 GPM 25 Water level end of pumping 30 minutes 30 19-21 22-24 15 minutes 30 minutes 32-31 30 feet feet feet 10 10 10 11 Board feet 15 minutes 30 minutes 32-31 10 10 11 feet feet feet 10 10 10 10 10 11 feet GPM feet 10	Open noie Open noie	 In diagram below se Indicate north by a Lock He Lock He J 258 J 258 Data source Data of inspection Remarks 	20-33 80 LOCATION OF WELL show distances of well from the standard of th	em road and lot line.

🗑 Onta	ario Ministry of the Environment			Th	e Ontario Wa WATER V	<i>ter Resou</i> VELL RI	irces Act ECORD
Print only in spac Aark correct box	ces provided. with a checkmark, where appl		15309	536	Municipality 15004		22 23 24
County or District	Caple too	Township/Borough/City	/Town/Village		Con block tract	survey, etc. L	ot 25.27 21
		Address	S	. b a	Date	eted 19 day	05 99 month year
21				evation RC	Basin Code		iv l
	LOG	OF OVERBURDEN AND BED	ROCK MATERIALS	(see instruction	ons)	Dep	th - feet
General colour	Most common material	Other materials		General	description	From	To
SHOWA		l'	P.S.	<u></u> _//	<u>se</u>	8	36
ERey	limes tone	Shale		KAY	ON Ed	36	58
truy	linestone			+14	~/	58	79
31							
32 (R RECORD [51			Sizes of	opening 31-33 Dia	65 meter 34-38 Çen	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Vater found it - feet	Kind of water dia	de Wall n Material thickness inches	Depth - feet From To	U (Slot No.) and type	inches	feet
65 2 0	Tresh 3 Sulphur 14 Salty 6 Gas	1 1 Steel 12 2 Galvanized 3 Concrete	0 40	S			41-44 feet
15-18 1 C	3 □ Sulphur 19 3 □ Sulphur 19 4 □ Minerals 3 Salty 6 □ 6 □ Gas	4 Open hole 5 Plastic	20.23	61	PLUGGING & SEA		D ment
²⁰⁻²³ 1 C 2 C	☐ Fresh ³ ☐ Sulphur ²⁴ ☐ Saity ⁶ ☐ Gas	2 Galvanized 3 Concrete 4 Open hole	42 40	Depth set a From	t - feet To Material and ty	pe (Cement grout, I	bentonite, etc.)
25-28 1 C] Fresh 3 Sulphur 29] Fresh 4 Minerals 2] Salty 6 Gas /	Image: Plastic Plastic 1-25 1 Steel 26 11 2 Galvanized 26	27-30 110 7C	18-21	40 Cen.e	nt gro	ut
30-33 1 [- 2 [Fresh ³ Sulphur ³⁴ ⁶⁰ Salty ₆ Gas	3 ☐ Concrete 4-₽ Open hole 5 ☐ Plastic	40 11	26-29	30-33 80		
Pumping test m	nethod, ¹⁰ Pumping rate	11-14 Duration of pumping 15-16 17-18 GPM Hours Mins		LOG	CATION OF WELL		
Static level W	Vater level 25 and of pumping 222 24	Pumping 2 Recovery	In diagra Indicate	am below show north by arrow	w distances of well fi w.	rom road and I	ot line.
24	$79_{\text{feet}} 21/_{\text{feet}} 30 \text{ minutes}$	$\begin{array}{c c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ 29:31 \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ 29:31 \end{array} \\ \end{array} \\ \begin{array}{c} \begin{array}{c} \\ 32:34 \end{array} \\ \end{array} \\ \begin{array}{c} \\ 32:34 \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ 35:37 \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ 35:37 \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ \\ \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \begin{array}{c} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \\ \\ \end{array} $			TN		
If flowing give ra	ate 38-41 Pump intake set at GPM 79	Water at end of test 42 feet Clear Cloudy]	laun	ty ad the	<u>t 4</u>	
Recommended p	nump type Recommended X Deep pump setting	43-45 Recommended 46-49 pump rate GPM					9
						ć	X
² Observatio	on well 5 Abandoned, insuffic 6 Abandoned, poor q 7 Abandoned (Other)	tient supply 9 🗋 Unfinished Dality 10 🗍 Replacement well			V Ø	i	
⁴ Recharge	well ⁸ Dewatering						18
* Domestic 2 Stock	55-56 5	9 🗌 Not use					ad.
 ³ Irrigation ⁴ Industrial 	 Public supply Cooling & air condi 	tioning					H.
METHOD OF (CONSTRUCTION 57	⁹ 🗋 Driving	1				γ
 ² □ Rotary (cc ³ □ Rotary (re ⁴ - P Rotary (ai 	onventional) ⁶ Doring averse) ⁷ Diamond ir) ⁸ Jetting	¹⁰ ☐ Digging ¹¹ ☐ Other				206	049
Name of Well Contr	our geois Hull De	Well Contractor's Licence No	Data source Date of inspectio	58 Contractor	14 59-62 Dat Inspector	te received	63-68 80 1999
Name of Well Techr	-ALBERT	Well Technician's Licence No	Remarks				
Signature of Technic	in/Contractor	Submission date				CSS.E	S9
All	- Ban to	day no yrg	Ξ			0506 (11/3	98) Front Form (

Ministry Environm and Ener	of nent rgy			The Ontario Wate WATER W	er Resourd ELL REC	es Act CORD
Print only in spa Mark correct bo	aces provided. x with a checkmark, where applica	ble. 11	1530539	Municipality 15004		22 23 24
County or District	Carloton	Township/Borough/City/T	own/Village	Con block tract 2 Date comple RC Basin Code	survey, etc. Lo eted day m	1 25-27 2 / 95 99 onth year
342						47
General colour	Most common material	Other materials	G	eneral description	De	pth - feet
Renna	Clay			Sense	0	7
GROY	Till	Boy loves		11	7	18
Brey	GRAVEL	SANd Bould	nes l	loose	18	24
6 Rey	limestone	<u> </u>		HARD	24	39
GRey		Shale		yered	39	104
		·····				
31						
				res of opening	s meter 34-36 Lenn	75 80 th 39-40
Water found	Kind of water diam	Material Wall	Depth - feet	ot No.)	inches	feet
	Fresh ³ Sulphur ¹⁴ inches Minerals	inches inches Galvanized		iterial and type	Depth at top	of screen ³⁰ .
15-18 1 [Gas Fresh ³ Sulphur ¹⁹	Concrete Open hole Dentio	0 31			teet
20-23	□ Salty 6 □ Gas 17-18	Plasuc Plasuc	20-23	PLUGGING & SE Annular space	ALING RECOR	tD nent
2 [☐ Saity s ☐ Gas 64	3 Concrete 4 Open hole	チン 31 Depth From	set at – feet To Material and ty	pe (Cement grout, b	entonite, etc.)
2 2 2 2 1	☐ Fresh 3 ☐ Sulphur ☐ Salty 4 ☐ Minerals 6 ☐ Gas	1 Steel 26	27-30	3/ 3/ Ceme	nt gro	nt-
30-33 i [2 [□ Fresh ³ □ Sulphur ³⁴ ⁶⁰ 4 □ Minerals □ Salty 5 □ Gas	Concrete Concrete Den hole Den hole Den hole	31 104 -	29 30-33 80		
Pumping test n	method ¹⁰ Pumping rate	Duration of pumping				
71 I Pumper	Bailer 40 GPM	15-16 0 17-18 Hours Mins	In diagram below s	LOCATION OF WELL show distances of well fro	om road and lot l	ine.
Static level	end of pumping Water levels during 1 22-24 15 minutes 30 minutes	45 minutes 60 minutes	Indicate north by a	irrow.		
jeet	104 6 feet 6 feet	et 6 feet 6 feet		TN		
If flowing give r	rate ³⁸⁻⁴¹ Pump intake set at GPM 04 fee	Water at end of test ⁴² et Clear X Cloudy		Sunty the	~	
Recommended	d pump type Recommended 43-4 pump setting	5 Recommended 48-49 pump rate			/	
50-53	fee	ot GPM				7
FINAL STATU	SOF WELL 54 ipply 5 □ Abandoned, insufficien icon well 6 □ Abandoned, poor guali	t supply ⁹ [] Unfinished				\mathcal{N}
3 - Fest hole 4 - Recharge	e well 8 🗋 Dewatering	,	K			
WATER USE	55-56					2
2 Domestic 2 Stock 3 Irrigation	c ⁵ Commercial ⁶ Municipal 1 ⁷ Public supply	9 🗌 Not used 10 🗍 Other				4
4 🗌 Industria	al 8 🗌 Cooling & air condition	ing				10
METHOD OF C	CONSTRUCTION 57 Nol 5 🗌 Air percussion	۶ 🗋 Driving	1			4
2 ☐ Rotary (o 3 ☐ Rotary (r 4 ☐- R otary (a	conventional) © 🗌 Boring reverse) 7 🔲 Diamond air) B 🗌 Jetting	10 Digging 11 Dother			1971	.00
Name of Well Cont	Bour 2001's MUNSR	Well Contractor's Licence No.	Data 58 Contra source	acctor 59-62 Da	ite received	999
Address St.	- ALBERT OF	it.		Inspector		
Name of Well Tech	inician for the second	Well Technician's Licence No.	Remarks		CSS	ESO
Signatur of Techn	ician/Pontractor	Submission date 59	WINK STATE	1		· · · · · · · · · · · · · · · · · · ·
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Ontario Ministry of Environment and Energy		TI	he Ontario Wat WATER W	ter Resources Act ELL RECORD
Print only in spaces provided. Mark correct box with a checkmark, where applic	able. [11]	15305 40	Municipality 15004	
County or District	Township/Borough/City/I	Town/Village	Con block tract	survey, etc. Lot 25-27
NTIAWA LARIATINA	Address	l H.	Date comp	leted 18 05 499
	Northing		C Basin Code	day month year j ii iii iv
	17 13 OF OVERBURDEN AND BEDI	ROCK MATERIALS (see instru	31 Jctions)	47 Depth – feet
General colour Most common material	Other materials	Gen	eral description	From To
BROWN CIAY	Bould	2005	ENSE	9 16
brey Gravel	SAnd Bould	loas K	oo se	16 21
CRey linestone			HARY	24 30
Grey linestore	Shale		gyered	38 42
31				
32			of enging 31-33 Di	65 75 80 mater 3438 Logath 39-40
41 WATER RECORD 51 Water found at - feet Kind of water Inside diam	Material Wall	Depth - feet	No.)	inches feet
10-13 1 - Fresh 3 □ Sulphur 14	I 1 Steel ¹² Galvanized	13-16 S Mater	ial and type	Depth at top of screen 30
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Concrete Open hole S Plastic		PLUGGING & S	
20-23 1 □ Fresh 3 □ Sulphur 24 2 □ Salty 6 □ Gas	1 B Steel 19 2 Galvanized 3 Concrete	12 30 Depth set	Annular space	Abandonment Abandonment (Cement grout, bentonite, etc.)
25-28 1 Fresh 3 Sulphur 29 2 Salty 4 Minerals 24-2:	Copen noie Sel 26 Copen noie Sel 26	27-30	30" Cem	ent grout
30-33 1 Fresh 3 Sulphur 34 60	2 ☐ Galvanized 3 ☐ Concrete 4 - Open hole	30 122 28-23	30-33 80	
Pumping test methods ¹⁰ Pumping rate	5 Plastic	J [] [
71 Pump GF	PM Hours Mins	In diagram below she	ow distances of well fr	om road and lot line.
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	5 45 minutes 60 minutes 32-34 35-37	mulcate north by and	ブ	
Feet feet feet feet f If flowing give rate 38-41 Pump intake set at f	eet feet feet feet Water at end of test 42		N .	8
GPM /2 2 1 Recommended pump type Recommended 40	eet Clear Cloudy			A HAIN
□ Shallow X Deep pump setting /00,	eet GPM	<i>Ca</i>	ounty he	14/
FINAL STATUS OF WELL 54	nt supply 9 🗌 Unfinished			
2 Observation well 6 Abandoned, poor qua 7 Abandoned (Other) 4 Recharge well 8 Observation	llity 10 🗋 Replacement well			*
WATER USE 55-56				han
Commercial Commercial Commercial Stock G Municipal Irrigation Commercial C	9 D Not used 10 D Other	K		130
Cable tool Conventional Air percussion Cable tool Gale tool Cable tool Gale Conventional Gale Gal	9 □ Driving 10 □ Digging			107000
3 ☐ Hotary (reverse) 7 ☐ Diamond - ☐ Hotary (air) 8 ☐ Jetting	11 🗋 Other	1	· .	T310391
Name of Well Contractor	Well Contractor's Licence No.	Data 58 Contracc	tor 1 1 1	ate received 63-68 80
Address ALIDENT	+	Date of inspection	Inspector	<u>אירין די ט אוט ט</u>
Name of Well Technician	Well Technician's Licence No.	Remarks		CSS.ES9
Signature of Temnician/Contractor	7 OL 64 Submission date	LSIN I		
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Ministry of the Environment

The Ontario Water Resources Act WATER WELL RECORD

Print only in spaces provided. Mark correct box with a checkmark, where applicable.	<u>11</u> 1 2	531768	Municipality Con. 5004 Con. 10 14 Con. 15	N
County of District	TownsbiggBorough/City/Town/Villa	ge	Con block tract survey,	etc. Lot 25-27
	Address 26 300 (DD Ha	Date completed	1 2001
	Northing	RC Elevation RC	Basin Code ii	day U month year
	BURDEN AND BEDROCK MA	LE 26	<u>31</u> 31 IS)	47
General colour Most common material	Other materials	General d	escription	Depth - feet From To
Brown clay		Thick		0 10
GRAY Clay		Runn	<i>k</i>	10 20
GRay Clay Sand	y with Bo	ulders,	HappPan	20 36
GRAT Linestone	Broken Lo	yers, Sand	MEDHARD	56 48
GREY Limestone		MED	HARD	48 65
	SOF 6th	casiva		
20	DAP 5" C	asima		
1	Heavy Duty	DRIVE ShAD		
	wellcar			
10	BagsoF	Cement		
31				
				75 80
41 WATER RECORD 51 CAS Water found Kind of water Inside diam M	aterial Wall Dep	h - feet	ening 31-33 Diameter	ches feet
5 ³¹³ 1 Fresh 3 Sulphur 14 1 ¹⁰ Sulphur 14 1 ¹⁰ Sulphur 14	eel ¹²	3 C16 Material an	d type	Depth at top of screen 30
2 Gally 6 Gas 3 Ga 15-18 1 Gresh 3 Galphur 19 4 Gal 4 Gal 4 Gal 4 Gal 4 Gal 6 Gal 6 Gal 7 Gal	oncrete pen hole			feet
2 Salty 6 Gas 20-23 1 Fresh 3 Sulphur 24 20-23 2 Gas	eel ¹⁹ / KS 30 alvanized	503 61	LUGGING & SEALING	Abandonment
2 □ Salty 6 □ Gas 25-28 □ □ □ □ □ □ □ □ □ 3 □ Sulobur 29 4 ₹ 5 □ Pl	pen hole 50	65 From	To Material and type (Cerr	nent grout, bentonite, etc.)
2 Salty 6 Gas 24.25 1 St	eel ²⁶ alvanized	27-30 18-21	22-25 CEME	nt o kowi
30-33 1 □ Fresh 3 □ Sulphur 34 66 3 □ C 2 □ Satty 6 □ Gas 5 □ Pl	poncrete pen hole astic	26-29	30-33 80	w.m
71 Pumping test method 10 Pumping rate	ion of pumping			
Image:	Minš ping 2 🗆 Recovery	In diagram below show	distances of well from roa	ad and lot line.
end of pumping 19-21 22-24 15 minutes 30 minutes 26-28 30 minutes 29-31 45 mi	nutes 32-34 60 minutes 35-37	indicate fields by allow		
1 flowing give rate 38-41 Pump intake set at Water	rat end of test 42 Ro	ger Steven	s dr.	
GPM feet Recommended pump type Recommended	Clear Cloudy ommended 46-49		5	
□ Shallow Deep pump setting 50 test pum	np rate 7 GPM	, Atles		
FINAL STATUS OF WELL 54				RIF
Water supply S Abandoned, insufficient supply Observation well G Abandoned, poor quality T Abandoned (Other)	9 🔲 Unfinished 0 🔲 Replacement well	(Ha-Y	'2 E
4 □ Recharge well 8 □ Dewatering		(5. 116
WATER USE 55-56 1 Domestic 5 Commercial	9 Not use		1	6 11P
3 [] Irrigation 7 [] Public supply 4 [] Industrial 8 [] Cooling & air conditioning				71
METHOD OF CONSTRUCTION 57		nped well T	=o p	0
Cable tool S Air percussion Conventional Botary (conventional) G Botary (reverse) T Diamond T	9 □ Driving 0 □ Digging 1 □ Other	ghes until	-Clear	
4 🗆 Rotary (air) ⁶ 🗋 Jetting				22/611
Name of Well Contractor	ell Contractor's License No.	ta 58 Contractor	59-62 Date receiv	red 63-68 80
Address 1121 ACT DELLING		te of inspection	Spector	
DOX 776 US60DE ON Name of Well Technician		marks		A., 0.5.0 - 0
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Print only in space Mark correct box v	s provided. vith a checkmark, wh	ere applicable.	11 1 2	153	2141				22 23
County or District			Township/Borough/City/	/Town/Village		Con block	tract surv	ey, etc.	Lot 25
Ottawa Ca	rleton		Rideau			2			21
			Address 25-C Banner 1	Rod. Nepea	n, ON. K2	H 8T3	Date completed	19 day	07 01 ⁴⁸ month ye
01	0	1	Northing	RC	Elevation F	RC Basin Code	, li	iii	iv
	T								
		LOG OF OVE	RBURDEN AND BEDF	ROCK MATERIA	LS (see instru	ctions)			
General colour	Most common ma	terial	Other materials		Gene	eral description		Erom	epth - feet
Brown	clay							0	10
Grey	clay							10	23

limestone

Grey

		Note:	casing was	left l	1/2 fe	et ab	ove groun	d level a	t time	of di	illing
31											
32											
41 W	ATER RECORD	51	CASING & OF	PEN HOLE	RECORD		Sizes of or	ening ³¹⁻³³	Diameter	34-38 Leng	th ³⁹⁻⁴⁰
Water found at - feet	Kind of water	Inside diam	Material	Wall thickness	Depth From	- feet To			in	ches	feet
117 10-13	1 DNOB TPS Adduir 14 2 Salty 6 Gas	6"1	1 X Steel 12 2 Galvanized	•188	0	2616	Material ar	id type	1	Depth at top o	of screen 30 41-44
15-18	1 Fresh 3 Sulphur 19 2 Salty 6 Gas		4 Open hole 5 Plastic				61 F	LUGGING & S	SEALING	RECORD	
20-23	1 Fresh 3 Class 1 Fresh 3 Sulphur 24 2 Salty 6 Gas	61	⁸ 1 🖸 Steel ¹⁹ 2 🖸 Galvanized 2 🗍 Concrete		26	²⁰⁻²³	Depth set at	Annular space feet Material a	Ind type (Cem	Abandonm	ent ntonite, etc.)
25-28	1 Fresh 3 Sulphur 29 2 Salty 4 Minerals 6 Gas	24-3	5 Plastic 1 Steel 26 2 Galvanized		~~	27-30	10-13 26	0 ¹⁴⁻¹⁷ Grout	ed-ben	tonite	<u>}</u>
30-33	1 Fresh 3 Sulphur 34 4 Minerals Minerals 6 Gas	60	3 Concrete 4 Open hole 5 Plastic				26-29	30-33 80		.x (2)	

71 1 Date	Pump 2 version 2 version 2 Wate of the second	Bailer ter level	Pumping rate 10 25 Water level) GPM	Pumping	2 Recovery		In diagram belo Indicate north b	LOCATI by show dis by arrow.	ON OF WEI	L Il from road	and lot line.	, ,
2 TES	19-21	22-24	15 minutes 26-28	30 minutes 29-31	45 minutes 32-34	60 minutes 35-37		3rd	Line	Ride	20		
ž ′	feet	ou _{feet}	120 _{feet}	100 feet	75 feet	60 feet						1	-
	ving give rate	38-41	Pump intake se	et at	Water at end of te	est ⁴²			1	#16	58	1	
		GPM		feet	Clear	Cloudy		1	•	. 60	~ ~	ł.	
	hallow	np type XDeep	Hecommended pump setting	100 feet	pump rate	5 GPM	2		• 				
FINAL	STATUS	OF WELL	. 54				Ă		1			1	
1 2 2 3 4 0	Water supply Observation Test hole Recharge we	/ well 911	 ⁵ Abandone ⁶ Abandone ⁷ Abandone ⁸ Abandone ⁸ Dewatering 	d, insufficient su d, poor quality d (Other) g	pply ⁹ □ Unfinis ¹⁰ □ Replac	ihed sement well	Vens		i i			7	
WATEF 1 🕱 2 🗍 3 🗍 4 🗌	R USE Domestic Stock Irrigation Industrial		55-56 Commercia Municipal Dublic sup Cooling &	al ply air conditioning	9 ☐ Not us 10 ☐ Other -	8	ger Ste		I	ራያ	8	10	
METHO	D OF CC	NSTRUC	TION 57				3						
12 23 4 	Cable tool Rotary (conv Rotary (reve Rotary (air)	rentional) rse)	 ⁵ XAir percuss ⁶ Boring ⁷ Diamond ⁸ Jetting 	sion	⁹ Driving ¹⁰ Diggin ¹¹ Other) 9 	M				2	3017	71
Name of V	Vell Contract	tor			Well Contract	or's Licence No.	Dat	a 58 [Coi	ntractor	59-62	Date received		3-68 80
Cap	ital W	later S	Supply L	td.	1558		Sou	rce	15:	58	AUG 2	1 2001	
Address								e of inspection	Inspe	ctor			
Boz	<u>490,</u>	Stitt	sville (<u>On. K2S</u>	1A6	ania Liaanaa Na) Š	naka					
Name of V		an				an s Licence No.		uai no				ADD ED.	
Signation	1111er	n/Contractor	7		Submission d	ate	l SI					000.EQ	ģ
D	Us L.	Javac.	L		day 20no	7,01	W						
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Ontario Ministry of the Environment	n in de la service de la s La service de la service de	7	The Ontario Wate WATER W	er Resources Act ELL RECORD
Print only in spaces provided. Mark correct box with a checkmark, where applicab		1533049	Municipality	
County or District Ottaning - Carleton	Township/Borough/City/T Ridlo Address	own/village	Con block tract su Con block tract su Date comple	ted G_{ay} where C_{ay} and C_{ay} an
$\begin{bmatrix} 21 \\ 1 \\ 2 \end{bmatrix}$ $\begin{bmatrix} 1 \\ 1 \\ 2 \end{bmatrix}$ $\begin{bmatrix} 1 \\ 10 \\ 10 \end{bmatrix}$ $\begin{bmatrix} 1 \\ 12 \\ 12 \end{bmatrix}$	Northing	RC Elevation	RC Bāsin Code ii 30 31	
LOG OF	OVERBURDEN AND BEDR	OCK MATERIALS (see instru	uctions)	Depth - feet
Blance Office				From To
Clou Ismentore.				24/102
	1. 497 - 1999 -			
			<u></u>	
	• • • • •		· · · · · · · · · · · · · · · · · · ·	
VAL 14 15 21 41 WATER RECORD 51		ECORD Size	s of opening 31-33 Diam	eter 34-38 Length 39-40
Water found Kind of water linside diam inches	Wall Material thickness inches	Depth - feet Z (Sidentify and the set of the	erial and two	inches feet
10-13 2 □ Salty 6 □ Gas	1 Concrete	13-16 S		41-44
	4 Open hole 5 Plastic	\mathcal{V} 2 $\hat{\gamma}$ 61	PLUGGING & SEAL	ING RECORD
20-23 70 2 Saturation 3 Sulphur 24 2 Saturation 3 Sulphur 24 2 Saturation 3 Sulphur 24 2 Minerals 2 Saturation 3 Sulphur 24 2 Minerals 2 Saturation 3 Sulphur 24 2 Minerals	Concrete	Depth From	set at - feet To Material and typ	Abandonment e (Cement grout, bentonite, etc.)
25-28 1 □ Fresh ³ □ Sulphur ²⁹ ? □ Salty ⁶ □ Gas	5 Plastic 1 Steel 26	27-30	3 257 Ben	foretoboart
30-33 1 □ Fresh 3 □ Sulphur 34 60 2 □ Salty 4 □ Minerals	2 Galvanized 3 Concrete 4 2 Open hole	27 102 262	9 30-33 80	
Pumping test method 10 Pumping rate 11:1	Duration of numping	[] [<u> </u>	
71 1 12 Pump 2 Bailer 2.2 GPN	Mins 17-18 Mins	In diagram below s	LOCATION OF WELL show distances of well fro	m road and lot line.
Static level end of pumping Water levels during 1 19-21 22-24 15 minutes 26-28 30 minutes 29-3	□ Pumping 2 2 Recovery 31 45 minutes 32-34 60 minutes 35-37	Indicate north by a	rrow.	
10 feet 90 feet 10 feet 10 feet	et /O feet /O feet			
If flowing give rate GPM Feedback at GPM feedb	et Clear 2 Cloudy		C.Je	
□ Shallow Deep □ Shallow □ Deep □ Shallow □ Deep	pump rate	-01		
FINAL STATUS OF WELL 54		Geo		Sr I
1 2 Water supply 5 □ Abandoned, insufficient 2 □ Observation well 6 □ Abandoned, poor quality 3 □ Test hole 7 □ Abandoned (Other)	supply ⁹ Unfinished ¹⁰ Replacement well	009	olm 1	60
4 Recharge well 8 Dewatering			•0.	
WATER USE 55-56 1 1000000000000000000000000000000000000	9 🗆 Not use		0 150	
3 Irrigation 7 Public supply 4 Industrial 8 Cooling & air conditionin	g			
	9 			
Cable tool Jef Air percussion 2 Rotary (conventional) 3 Rotary (reverse) 7 Diamond	¹⁰ Digging			240064
- ⊡ Hotary (air) ° Li Jetting			·····	240004
Name of Well Contractor APE-Rock De 11900 (alt	Well Contractor's Licence No.	Data 58 Contract source	119 ⁵⁹⁻⁶² A	UG 2 7 2002 63-68 80
Address R#Z TALZE I	f	Date of inspection	Inspector	~ 1
Name of Well Technician	Well Technician's Licence No.	Remarks	C	SS FS2
Signature of Technician Contractor	Submission date 200002	SININ		
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County or District	a (a) (c)		Township/Borough/ Address		je	ont	Con block	tract survey Date completed		t 25-27 2 48-53 8 0 2 48-53
21	т <u>т</u>		Northing			vation RC	Basin Code			
General colour	Most common material	OG OF OVEP	BURDEN AND B Other materia	EDROCK MA	TERIALS (s	see instructio	ns) lescription		Dept	n - feet
	sandyc	lay	grau	el						40
grey	linest	one'	0						40	74
				;						
						" State				
	· · ·									
32 10 41 WATE		51 CAS				Sizes of op	pening 31-	33 Diameter	34-38 Leng	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Water found at - feet	Kind of water	Inside diam N inches	laterial Wall inches	3S From	To	Naterial ar	nd type	ii	nches Depth at top o	feet of screen 30
582	Satur 1 Winerals		teel 's alvanized oncrete been hole	20 6	45	о Х				41-44 feet
20-23	Safty 6 Gas		tastic 19 teel 19 talvanized		20-23	61 P	Annular space	SEALING	Abandonm	ent
25-28 1	3 Salty 4 Minerals 6 Gas 7 Fresh 3 Sulphur 29	83 28	oncrete pen hole lastic	0	43	From P13	To Materi	al and type (Cer	ment grout, be	ntonite, etc.)
2 [30-33 1 [Satty 4 Miniferans 6 Gas Fresh 3 Sulphur 34 60	24-25 1 - S 2 - G 3 - G 3 - G	teel ²⁶ jatvanized joncrete	43	74	18-21	22-25			×
	Salty 6 Gas	5 🗆 P	lastic							
71 1 Pump 2 [Bailer Atter level		Hours Mir		In diagram	n below show	ATION OF V distances of	VELL well from ro	bad and lot	line.
	22-24 15 minutes 30	minutes 45 m	inutes 32-34 60 minutes	5-37	mulcale n	North Dy arrow.				
If flowing give ra	teet feet feet ate 38-41 Pump intake set at	feet Wate	feet 1	eet 42		\backslash		2	ere.	-I'N
Recommended p	GPM ump type Recommended pump setting	43-45 Rev feet pur	Clear Cloudy	/ 6-49 DM			~ (ws		
							V P	Ø		2
¹ Water sup ² Observatio ³ Test hole	ply 5 🗌 Abandoned, in on well 6 🗋 Abandoned, px 7 🗋 Abandoned (O	sufficient supply oor quality ther)	 ⁹ D Unfinished ¹⁰ Replacement well 					i	فمردا	2KS
	well ⁸ Dewatering 55-56					23	s Y	310	v	
1 Domestic 2 Stock 3 Irrigation 4 Industrial	5 Commercial 6 Municipal 7 Public supply 8 Cooling & air c	conditioning	9 🗆 Not use 10 🛄 Other			•	165			
METHOD OF C								`		
 Cable tool Rotary (co Rotary (rev Rotary (air 	S Air percussion Air percussion Air percussion C Boring verse) 7 Diamond B Jetting		Driving Digging Other						2483	L04
	actor Drillie	1214	ell Contractor's Licence	No.	a rce	58 Contractor 1	19 *	9-62 Date rece	2 7 200	63-68 80
Addreed	Richn	NONd	Ont		e of inspection	In	Ispector			
Nam of Well Techn	Mon Pul	cell "			narks				-	
Signature of Technic		S S	ay O Gro yr					CSS	S.ES	Eront Form 0
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County or District	C lato		Township/ Address	Borough/City/ Clean Mh E			J	Con bloc	k tract survey	, etc. L	25-27 25-27 25-27 25-27 48-53 month year
21	T M 10				24		ation RC	Basin Code			
General colour	Most common materia	LOG OF OV	ERBURDEN	AND BEDR	OCK MA	FERIALS (s	ee instruct Genera	tions) al description		Dep	th - feet
	Sandyso		2010	1015	<u></u>					From	5
	gravel									5	51
grey	Timptor						Let			51	140
—											
									· · · · ·		
					-						
31					يىتىيا ل. بىر 11	 					
41 WATE	ER RECORD	51 C	ASING & OF	PEN HOLE F	RECORD	- feet	Sizes of Color	of opening o.)	31-33 Diameter	34-38 Len	75 80 gth 39-40
at - feet	Kind of water	diam inches	Material	thickness inches	From	To 13-16	Hateria	al and type		inches Depth at top	feet of screen 30 41-44
15-18 1	Fresh 3 Sulphur 19	64	Galvanized Concrete Open hole	.188	0	60	S				feet
132 ²⁰⁻²³ 1	Fresh 3 Sulphur 24	17-18 1 [2 [☐ Plastic ☐ Steel ¹⁹ ☐ Galvanized			20-23	61	PLUGGINC	G & SEALING	Abandon	D ment
1 25 -28 1 [□ Salty 6 □ Gas □ Fresh 3 □ Sulphur 29		Concrete Open hole Plastic		0	58	From	To Mat	erial and type (Ce		entonite, etc.)
2 [30-33 1 [□ Salty 6 □ Gas □ Fresh 3 □ Sulphur 34 60	24-25 1 [2 [3 [Steel Galvanized Concrete Concrete		58	27-30	18-21	22-25			
2 [6	Plastic			. 10					
71 Pumping test n	method 10 Pumping rate Bailer 25	5 GPM	Duration of pumpin 15-16 Hours	ng 		In diagran	LC n below sho	DCATION OF	WELL of well from r	oad and lo	ot line.
Static level	22-24 15 minutes 34	uning 1 ∐ F 0 minutes 4 29-31	² umping 2 15 minutes 32-34	60 minutes 4 35-37		Indicate n	orth by arro	JW.			
	rate 38-41 Pump intake set a	38 _{feet}	38 feet	$\frac{38}{100}$					1		
Recommended p	GPM pump type Recommended	feet	Clear Recommended	Cloudy 46-49					/		
Shallow	Deep pump setting	50 _{feet}	pump rate			64		.	1		
FINAL STATU	IS OF WELL 54 pply 5 🖸 Abandoned, in	nsufficient supp	ly ⁹ 🗌 Unfinish	ied "	-			5d Nr	eRd		
 ² Observati ³ Test hole ⁴ Recharge 	ion well ° 🗋 Abandoned, p 7 🗌 Abandoned (0 9 well 8 🗋 Dewatering	oor quality Other)		ement well		V	, 'SK	m			
WATER USE	55-56 5 □ Commercial		৽ 🗆 Not use								
2 Stock 3 🔲 Irrigation 4 🗌 Industrial	6	conditioning	10 🗌 Other								
METHOD OF			<u>ه ت مع .</u>					IK	ogen S	tero	
 Cable too 2 Rotary (ci 3 Rotary (ci 4 Rotary (ci 	in sectors in the sectors of the sec	1	¹⁰ Digging ¹¹ Other				ار بالحار المحرار		Dr	248	411
Name of Well Contr	ractor		Well Contracto	r's Licence No.		i rce	58 Contractor	110	59-62 Date reco		63-68 80
Address Q Q d 1	A. d- a.	d n	1117 J			e of inspection	 X ,	Inspector			
Name of Well Tech	inician		Well Technicia	n's Licence No.	N KI Ren	narks		<u> </u>		,	
Signature of Jechn				°03	MINIS					CSS.	ES3
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The Ontario Water Resources Act WATER WELL RECORD

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Municipality Con. 45004 Con. 15 Con. 15 Con. 12 23 24

Address of Weil Location Cate Cate Zone Easting Rid deau - North Gover 2 23 Address of Weil Location Cate Campleted 24day 10 ment/3yeet Construction Rid deau - North Gover Cate Cate Cate State Cate Cate Cate Cate Cate Construction Rid deau North Gover Cate Cate Cate Cate Cate Cate Cate Cate Cate Cate Secord Most common material Other materials General description Pecked 14 Gray Hardpan Boulders Packed 14 35 160 Gaty Gat White Sandstone Cate Cate Cate Cate
Address of Well Location Date Completed 24day 10 mcmit(3) sear 20ne Easting 20ne Easting Will Will UCG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions) LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions) Beneral colour Most common material Other materials General description Brown Hardpan Boulders Packed Off and the second secon
Completed 24day 10 month) Syear LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions) Depth - feet Brown Hard pan Boulders Packed 0 14 Gray Hard pan Boulders Packed 14 35 Gray Limestone Completed 24day 10 month) Syear Completed 24day 10 month) Syear Completed 24day 10 month) Syear Brown Hard pan Boulders Packed 0 14 Gray Limestone Completed 24day 10 month) Syear Gray Limestone Completed 24day 10 month) Syear Same Completed 24day 10 month) Syear Brown Hard pan Boulders Packed 0 14 35 160 <t< td=""></t<>
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Water Record	Galvanize	d		Duration of pumping 2 3.84 2 2.18
at Metres Kind of Water	Steel	Fibreglass Concrete		Final water level end 3 4, 54 3 2.06
Gas Salty Minerals Other: NO (500)	Galvanize	d		Recommended pump 4 4.11 4 2.03
m Fresh Sulphur	Plastic	Fibreglass Concrete		Shallow TO Deep
Other:	Galvanize	d		depth. 15 metres
m Fresh Sulphur Gas Salty Minerals	Outside Steel	Screen		$\begin{array}{c c c c c c c c c c c c c c c c c c c $
After test of well vield, water was	diam Plastic	Concrete		If flowing give rate - 20 4.34 20 2.01 (litres/min) 25 4.34 25 2.01
Clear and sediment free	Galvanized			If pumping discontin- ued, give reason.
		No Casing or Scre	<u>en</u>	$- \frac{40 \ 4, 37 \ 40 \ 1, 93}{50 \ 4, 42 \ 50 \ 1, 93}$
Ves No				60 4.42 60 1.93
Plugging and Se Depth set at - Metres Material and typ	e (bentonite slurry, neat cer	Annular space Ab ment slurry) etc.	andonment e Placed In diagram	Location of Well below show distances of well from road, lot line, and building.
10.21 0 bento	Daily Sler	V 90	allons	rth by arrow.
		·····		overs Ind
				0 DOUS MARINE
				And a
M	lethod of Construction	on		
Rotary (conventional)	air)	etting	Digging Other	3 47
Carl Rotary (reverse)	D	riving		*663UR (170'
Domestic Industria	al P rcial N	ublic Supply	Other	3 Rd
Irrigation Municipa	al C	ooling & air conditioning	Audit No.	
Water Supply Recharge we		nfinished Abando	ned, (Other) Was the we	ell owner's information Date Delivered YYYY MM DD
Deservation well Abandoned, Test Hole Abandoned,	nsuπicient supply D poor quality R	ewatering eplacement well	package de	
Well Cont Name of Well Sontractor	tractor/Technician In	formation Well Contractor's Li	cence No. Data Source	e Contragor I I In
Business Address (street name, number	$\frac{\sqrt{r_{e}}}{\sqrt{r_{e}}}$		Date Aquei	
Name of Well Technician (last name fi	nniord	Well.Technician's I	cence No.	Well Record Number
Signature of Technician/Contractor	Pircel	Date Submitted		
x Remarket		2003		
0000E (03/03)	Contractor's Cop	by 📋 Tiviinistry's Copy 🖗	🖞 weil Owner's Copy 📋	Lette iormule est disponible en français

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🕅 Ontario	Ministry of he Environment	Well Tag Number (Pi	A 004832	Well Record Regulation 903 Ontario Water Resources Act
Instructions for Completin For use in the Province of All Sections must be com Questions regarding com All metre measurement	g Form of Ontario only. This pleted in full to avoid pleting this applicatio s shall be reported t	ACOVE document is a permar delays in processing. n can be directed to th o 1/10 th of a metre.	3 S nent legal document. Further instructions a ne Water Well Manage	page of Please retain for future reference. Ind explanations are available on the back of this form. ement Coordinator at 416-235-6203.
Please print clearly in blu	e or black ink only.			Ministry Use Only
	<u>_</u>	-		
Address of Well Location (County, OHAWA RR#/Street Number/Name GPS Reading NAD Zon	Can leto d L ne Rd Easting UUS619	South Northing USS South	ship Vi alau y/Town/Village ND(4460) hit Make/Model Mod	Lot Concession 2 Site/Compartment/Block/Tract etc. le of Operation: Undifferentiated Paveraged
Log of Overburden and Be	edrock Materials (se	e instructions)	Tugetter	Dinerenitateu, specify
General Colour Most common Sand July 1: MSt	y Clay Dne	other Materials	Gene	ral Description Deput Metres From To 0,7.3 7,318,3
				· · · · · · · · · · · · · · · · · · ·
: 				
Hole Diameter		Construction Record	1	Test of Well Yield
Depth Metres Diameter From To Centimetres	Inside diam Materia centimetres	Wall thickness centimetres	Depth Metres From To	Pumping test method Draw Down Recovery Support Time Water Level Time Water Level min Metres min Metres
	Steel Fi	Casing		(metres) Level 1.52 2.32 Pumping rate - (litres/min) 1 2.20 1 1.68
Water Record Water found at Metres Kind of Water	15,88 Galvanized	ibreglass	0 10.0	Duration of pumping 2 2.2.3 2 1.65
Gas Salty Minerals	Plastic C	oncrete		Final water level end 3 2.23 3 7.64 of pumping netres
Gas Salty Minerals	Steel Fi	breglass oncrete		type. Shallow Deep Recommended pump 5 2.27 5 1.63
Other: 77 SHC4 6 mi Fresh Sulphur	Galvanized	Screen		Recommended pump 10 2.28 10 1.6
Gas Salty Minerals	Outside diam Plastic C	breglass Slot No.		If flowing give rate - 20 2.29 15 1.58
After test of well yield, water was Clear, and sediment free	Galvanized			(litres/min) 25 27, 30 25 1, 57 If pumping discontin- ued, give reason, 30 27, 30 30 1, 57
Other, specify		No Casing or Screer		40 2.31 40 1.5 6 50 2.31 50 1.56
Plugging and Se	aling Record	Annular space 🔲 Aban	donment	
Depth set at - Metres From To	e (bentonite slurry, neat ceme	ent slurry) etc. Volume F (cubic m	Placed In diagram belo etres) Indicate porth	by arrow
9.4 0 Cem	ent 51w	114 0.63	56	
				here Di
			2	ose Ster Sou
Cable Tool Rotary (a	ethod of Construction	n mond Di		300' dhime
Rotary (conventional) Air percer Rotary (reverse) Boring	ussion Use	ving	her	1-33
Tomestic Industria	rcial	blic Supply Ot	her	
Irrigation Municipa	Final Status of Well	oling & air conditioning	Audit No. Z	04944 Date Well Completed
Water Supply Recnarge we Observation well Abandoned, Test Hole Abandoned,	insufficient supply	inished Abandone watering blacement well	d, (Other) Was the well of package delive	ed? Ares No 2004 05 9
Well Cont Name of Well Pontractor	ractor/Technician Info	Well Contractor's Lice	nce No. Data Source	Ministry Use Only Contractor
Businese Address (street name number	er city etc. but c hmond,	Date Received	0 ^{YYYY} MM DD Date of mspection 1 YYY MM DD 0 ^{YY} 2004	
Signature of Technician/Contractor	annon S	Date Submitted		VVell Record Number
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🐨 Ontario	Ministry of the Environment	ell Ta	2766	ber below)	 Regulation 903 Ontai	Well R	
Instructions for Comple	ting Form	ÅØS	276	î la serie de la s		page	of
 For use in the Provinc All Sections must be c Questions regarding cc All metre measureme Please print clearly in the Well Owner's Information 	e of Ontario only. This do ompleted in full to avoid do ompleting this application nts shall be reported to olue or black ink only. n and Location of Wel	pocument is a permi lelays in processin can be directed to 1/10 th of a metre.	anent lega g. Further the Water	al document. F instructions an Well Manage	Please retain for future refe d explanations are available ment Coordinator at 416-2 Ministry Use Only ON	rence. on the back of 35-6203.	f this form.
RF#/Street Number/Name	d Line Ro		H a w	a Carl	For Site/Compartment	/Block/Tract et	с.
813 10	0445830	4998560	EV			l, specify	aged
Log of Overburden and I General Colour Most common	Bedrock Materials (see	e instructions)		Genera	al Description	Depth From	Metres To
Tay Limes	ton e					69	8.7
7						0.1	
Hole Diameter Depth Metres Diameter		Construction Reco	rd		Test of We		
From To Centimetre	diam Material	thickness centimetres	From	To	Pump intake get and Static	Ater Level Time Metres min	Water Level Metres
Water Basard	XSteel Fibre	eglass crete	ð	8.7	(metres) 2 Level Pumping rate - (litres/min) 44	1, 1 2, 4 1	4,3
Water Record	Gaivanized	eglass crete			Lhrs + min Final water level end 3 (1.93	~
Gas Gas Gatty Minieran	Galvanized	eglass crete			Recommended pump 4 type. Shallow Deep	<u> </u>	~
	Galvanized				depth. <u>3</u> metres		
Gas Salty Mineral	S Outside Steel Fibre	eglass Slot No.			rate. (litres/m/n) 15	- <u>10</u> - 15	~
After test of well yield, water was		crete			If flowing give rate - 20 (litres/min) 25	2025	~
Clear and sediment free	Galvanized	No Cooling on Const			If pumping discontin- ued, give reason. 30	^ 30	-
Chlorinated XYes No	Open hole	No Casing or Scree	en		$ \begin{array}{c} 40 \\ 50 \\ 60 \end{array} $	- 40 - 50 - 60	· ·
Plugging and S	Sealing Record	Annular space Aba	ndonment	In diagram bolo	Location of Well	n lot line rand hui	ildin a
From To Material and t	ype (bentonite slurry, neat cement	(cubic r Cubic r Cubic r	metres)	Indicate north by	arrow.		10
		<u>J</u> 5a	55		19.5 ersi	M	rtus
	Method of Construction				. IA	4	,)
Cable Tool Cable Tool Diamond Digging Rotary (conventional) Air percussion Jetting Other Rotary (reverse) Boring Driving Other					Jr.Ne F		N
Domestic Indus	Water Use	: Supply	Other		vay	· 	1
Stock Commercial Not used Irrigation Municipal Cooling & air conditioning Final Status of Well Audit No. Z 42756 Date Well Complete					ompleted 2000	/ ∭ 1 ?3	
Vvater Supply Kecharge Kecharge Abandone Test Hole Mell Co	ea, (Uther)	Image: Stripping of the second sec					
Name of Well Contractor Wall Contractor's Lieence No. Data Source Data Source							
Name of Well Technician (last name	first name)	Well Technician's Lic	cence No.	Remarks	Well Record	Number	
Signature of Technician/Contractor X 2000 0506E (09/03)	Contractor's Copy	Ministry's Copy	/// 13] Well Own	er's Copy 🔲	Cette formule e	əst disponible (ən français

#6614 320 LINEROD River Number/Name, KK)	FAU, Lot Concession
County/District/Municipality	Province Postal Code
UTM Coordinates Zone Easting Northing GPS Unit Make Model	Mode of Operation: Undifferentiated Averaged
NAD 8 3 1 1 4 4 3 3 6 7 1 5 1 5 1 5 5 1 5 5	CONTRACTOR Differentiated, specify
General Colour Most Common Material Other Materials	General Description Depth (Metres)
Clay	0 763
<u>Gravel</u> , Boulders	7.62 (219
Grey Linestone	[2:9 3637
· · · · · · · · · · · · · · · · · · ·	
Annular Space/Abandonment Sealing Record	Results of Well Yield Testing
From To (Material and Type) (Cubic Metres)	Water was: ☐ Clear and Sadt free 3
DIA Neat Const Cillery	state Static Static Static
12 Destante Study	If pumping discoptinued, give reason: 1 4 70 1 7 00
	Pumping test method 2500
Method of Construction Water Use	$\frac{\mathcal{O}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}}{\mathcal{P}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{D}\mathcal{U}\mathcal{U}\mathcal{U}\mathcal{U}\mathcal{U}\mathcal{U}\mathcal{U}\mathcal{U}\mathcal{U}U$
Cable Tool Diamond Public Commercial Not used	Bumping rate // theoreticat
Rotary (Reverse) Driving Livestock Test Hole Monitoring Rotary (Reverse) Driving Livestock Test Hole Monitoring	45.48 \$ 7.60 \$ 2.83
Air percussion Boring Disguing Cooling & Air Conditioning	Duration of pumping $10 \bigcirc 10$ 10 $hrs + \bigcirc min$
Status of Well	Final water level end of pumping
Construction Construction Construction Construction Construction	Recommended pump type
Test Hole Abandoned, Poor Water Quality Other, specify Abandoned, other, specify Abandoned, other, specify	Recommended europ depth
Location of Well	30 Meires 40 70 40
Please provide a map below showing: - all property boundaries, and measurements sufficient to locate the well in relation to fixed points, an opportunities that had a disactive and the sufficient to locate the well in relation to fixed points,	12 Irres/min/145 48 50 10
 an arrow indicating the Norin direction detailed drawings can be provided as attachments no larger than legal size (8.5" by 14") vidioital nictures of inside of well can also be provided 	If flowing give rate (Litres/min) 60 10 (6 60
The provide of the and the set provided	Water Details
Roger Stevens pick	Water Jourd a Depth Kind of Water
A () A	Water found at Depth Kind of Water
100' 000	Water found at Depth Kind of Water
A A MAN SIBOS	Metres Gas Fresh Salty Sulphur Minerals
A= Ho: BEA	Casing Used Screen Used Casing and Well Details Galvanized Diameter of the Hole (Centimetres)
	Steel Steel Depth of the Hole (Metres)
Date Well Completed Was the well owner's information Date the Well Record and Package	Plastic Plastic 36.57
2037-11-19 Aves No 2027-11-19.	No Casing and Screen Used
Well Contractor and Well Technician Information Business Name of Well Contractor Well Contractor's Licence No.	Active Diameter of the Casing (Metres)
HLPKock-PPILLING Co Ltp [19]	Depth of the Casing (Methas)
PR++	Ministry Use Only
Province Postal Code Business E-mail Address	Audit No. Well Contractor No.
Bus. Telephone No. (inc. area code) Name of Well Technician (Last Name, First Name)	Date Received (yyyy/mm/dd) Date of Inspection (yyyy/mm/dd)
Well Technician Spicence No. Signature of Technician Date Submitted (yyy/mm/dd)	BEL 14 200/ Remarks
LIFT HOMED 007-1203	

Ontario Ministry of the Environment

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Well Record

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Regulation 903 Ontario Water Resources Act

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Ontario Ministry of the Environ	ment Nell Tag	A 07	9332 Regulation	Well Record
Measurements recorded in: Metric	mperial A	0193.	32	Page of
Well Owner's Information		REALESSEE	Report to the second second	
First Name	ame / Organization	\	E-mail Address	Well Constructed
Mailing Address (Street Number/Name)	I JUIN S.		Province Pastal Code	by Well Owner
R R T2-	n n	The Const	or Ont COA	2 TO
Well Location				
Address, of Well Location (Street Number/N	lame) CI To	winship	Lot 2 -	Concession
60'11 3'ª Li	he kd 1	rideau	(marlborage)	N
County/District/Municipality	leton	W OWN/VIIIage	Grand	Ontario
UTM Coordinates Zone Easting	Nerthing	unicipal Plan and Suble	of Number	Other
NAD 8 3 844582	84998498	rl and 4	1191	PLS
Overburden and Bedrock Materials/Ab	andonment Sealing Recor	d (see instructions on the	back of this form)	Donth (m/ft)
General Colour Most Common Ma	aterial Othe	er Materials	General Descriptio	n From To ft
Sano	1 CLau	and	Gravel	O 44
Grees	and Bla	lek Liñ	nestone	44 140
- 0				
An	nular Space		Results of W	ell Yield Testing
From To (Mate	of Sealant Used rrial and Type)	Volume Placed (m³//10)	After test of well y reid, water was:	Time Water Level Time Water Level
50° 40 nest Ce	enert Slum	460'	Other, spedify CEP	(min) (m/ft) (min) (m/ft)
40' O Valenta	Le Clucar		If purpoing discontinued, give reason	Level 15 59.1
	the similary	a		120 143
	0		Pump intake set at (n(/ft)	2 27 2 325
			120	3 31 3 71
Method of Construction	Well Use		Pumping rate (Vmin / GPM)	28 21
Cable Tool Diamond	Public Commerce	cial Not used	Duration of pumping	4 38 4 21
Rotary (Reverse)	Livestock Test Hole	Monitoring	hrs +min	5 44 5 18
Boring Digging	Irrigation Cooling 8 Industrial	Air Conditioning	Final water level end of pumping (m/fi	10 52.5 10 IS
Other, specify	Other, specify		If flewing give rate (Vmin-/ GPM)	15 59 15 15
Construction Record	- Casing	Status of Well		20 59 20 (5
Inside Open Hole OR Material Wi Diameter (Galvanized Fibreolass, Thick	all Depth (m/ft)	Water Supply	Recommended pump depth (m/tt)	
(cm/in) Concrete, Plastic, Steel) (cm	vîn) From To	Test Hole	Personmanded gump rate	25 5 9 25
6" Steel 1	8 +2 50'	Recharge Well	(Vmin / GPM)	30 5 7 30
GUP Dog hale	Sciluci	Observation and/or	Well production (Vmin (GPM)	40 59 40
o penion	50110	Monitoring Hole	20	50 59. (50
-		(Construction)	Disinfected?	60 59 60 VI
		L Abandoned, Insufficient Supply		
Outside Outside	- Screen	Abandoned, Poor Water Quality	Please provide a map below following	g instructions on the back.
Diameter (cm/in) (Plastic, Galvanized, Steel) Slot	No. From To	Abandoned, other,	0-05	1
		specity	Even	
		Other, specify	Ster	
				11
Water Details	He Denti	ole Diameter		1.3Km
2 2 m/til Gas Other specify	From From	To (cm/in)	II Y	. []
Water found at Depth Kind of Water:	resh Sptested	140618	7667	
Gas Other, specify	/		2rd lin	\mathbb{A}
Water found at Depth Kind of Water:	resh Untested		3 0.1	
(m/ft) Gas Other, specify	Mall Technician Informat			290
Business Name of Well Contractor	Well Technician Informati	Contractor's Licence No.		
AIR ROCK DRILLIN	NG COLTO	1119		
Business Address (Street Number/Name)	Mur	nicipality	Comments:	
Province Poetal Code Pu	Isiness E-mail Address	chrond		
Out Edored	ances childli Addigas		Well owner's Date Package Deliver	Ministry Use Only
Bus.Telaphone No. (inc. area code) Name of	Well Technician (Last Name, F	First Name)	package a one / /	Audit No.Z 00215
0120382/20 ++	gan Van	O. h W	Date Work Completer	DEC 2 2 00210
wei rechristing Licence No. Signature of Teo	choician and/or Contractor Date	DOXI205	ENO 200811	Becchind
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Well Record

Regulation 903 Ontario Water Resources Act Page of

PLL 22 per/Name) 6676 Third Line Road 3 Rideau County/District/Municipality City/Town/Village Province Postal Code Ottawa-Carleton North Gower Ontario UTM Coordinates Zone Easting NAD 8 3 18 445769 Other Municipal Plan and Sublot Number Northing 4998386 5R-1231 Part 1 Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form) Depth (nett) Most Common Material Other Materials General Description General Colour From 21 Landy Grey Clay 0 21 24 Gravel 38 24 Limestone Grey 4 Brown 56 Grey Limestone 38 4 Brown 71 Grey Limestone 56 q Brown 71' 80 Grey Limestone 9 Brown Well X A **Results of Well Yield Testing** Annular Space Volume Placed Depth Set at (not After test of well yield, water was Draw Down Recovery Type of Sealant Used (Material and Type) Time Water Level Time Water Level From Clear and sand free Other, specify Not tested (min) (m/ft) 31 21 Neat cement slurry 7.8 (m/11) (min) Static 9.7 4.6 If pumping discontinued, give reason 21' 0 ' Bentonite slurry 16.8 Leve 5.3 4.6 1 1 Pump intake set at (n) 2 5.9 2 4.6 60 6.7 3 3 4.6 Pumping rate (1/min / CPMD Well Use Method of Construction 20 7.1 4.6 4 4 Cable Tool Diamond Public Commercial Not used Duration of pumping Comestic Jetting Rotary (Conventional) Municipal Dewatering 7.6 5 5 4.6 1 hrs + 0 min Rotary (Reverse) Driving Livestock Test Hole C Monitoring Final water level end of pumping (m/lt) Boring Digging Irrigation Cooling & Air Conditioning 10 8.1 10 4.6 Air percussion Other, specify 9.7 Industrial Other, specify 15 82 15 4.6 f flowing give rate (I/min / GPM) 25 **Construction Record - Casing** Status of Well 20 8.4 20 4.6 Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel) Depth (math Water Supply Inside Wall Recommended pump depth (not) Thickness Diameter (cmon) Replacement Well 25 8.6 25 60' 4.6 From To (cm/in Recon Test Hole ded pump rate 14 8.8 30 30 4.6 .188 +0 Recharge Well 6 Steel 31' (Vmin / CDIAP 20 Dewatering Well 40 9.1 40 4.6 784 31' 80' Observation and/or Openhole Well production (I/min GPMP Monitoring Hole 20 50 9.4 50 4.6 Alteration nfected? (Construction) Yes 🗌 No 9.7 4.6 60 60 Abandoned, Insufficient Supply Map of Well Location Construction Record - Screen Abandoned, Poor Please provide a map below following instructions on the back Outside Depth (m/ft) Water Quality (Plastic, Galvaniz fevers P b Slot No Abandoned, other, (cm/in) From 10 specify Other, specify Hole Diameter Water Details # 6676 Water found at Depth Kind of Water: Fresh Untested Depth (m/ft) THIPD Diameter 36 (m@ Gas Other, specify From (cm/in) Water found at Depth Kind of Water: Fresh XUntested 31 LINE d 6 (n @ Gas Other, specify Water found at Depth Kind of Water: Fresh Muntested 31 80 57B (m/ft) Gas Other, specify 110 Well Contractor and Well Technician Information Business Name of Well Contractor Well Contractor Licence No Air Rock Drilling Co. Ltd. 1119 Municipality Business Address (Street Number/Name), 6659 Franktown Road, RR#1 Comments R hell X Postal Code Business E-mail Address Province air-rock@sympatico.ca Well owner information ON KOA 2ZO Ministry Use Only Bus Telephone No. (inc. area code) Name of Well Technician (Last Name, First Name) Audit No package 2011 020 1 9915 ia z1 1 GRAHAM RYAN Technician and/or Contractor Date Submitted delivered 61383821 70 Date Work Complet Yes MAR 1 1 2011 No. Sigr 34-84 Ka 2011/01/24 No 20110228 0506E (2007/12) @ Que Ministry's Copy



TELEPHONE: (613) 838-2170 FAX: (613) 838-3277 EMAIL: air-rock@sympatico.ca

Deterio Ministry of	A105550	Well Record Regulation 903 Ontario Water Resources Ac Page of			
Measurements recorded in: Metric	A105550				

Address of Well	Location (Street Numb	ber/Name)	1	Township Didoou		22	C	oncession		
County/District/M	Municipality		(City/Town/Village	ML	1	Province	3	Postal	Code
Ottawa UTM Coordinates	Ottawa Carleton Northing Nuncipal Plan and Subr			Ontario						
NAD 8 3	3 18 44575	49983	88	5R-1231	St Hamber		Part	1		
Overburden ar	nd Bedrock Material	s/Abandonment Se	aling Reco	ord (see instructions on the	e back of this form)	191965			Dent	
General Colour	C	n Material	Otr	ner Materials	General Desc	cription	_		From	To
Grey	sanay	Clay							0	20
-	Roi	Gravel					_		20'	23
Grey C	Plown	Limestone							23	38
Grey q	pown	Limestone							38	56
Grey q	plown	Limestone							56	72
Grey of	provi	Limestone							72	80
A	12P00-	& 2 xt)							
AP	Vana	Annular Space			Poculto	of Mal	Viold	Teeting		
Depth Set at (/	Т	ype of Sealant Used		Volume Placed	After test of well yield, water wa	as:	Draw	/ Down	Re	ecovery
31 2	1 Nort or	ment Sluce		(m()))	Clear and sand free		Time V (min)	Vater Level (m/ft)	Time (min)	Water Level (m/ft)
24 (0	C Destasit	nen sturr	4	1.0	If pumping discontinued, give re	eason:	Static	4.2	1	93
21 0	Dentoniti	esturry		10.8	\times		1	61	1	6.1
					Pump intake set at (10/#1)		2	67	2	4.2
					60 Pumping rate (/min /CPM)		3	80	3	4.2
Method of Cable Tool	of Construction	Public	Well Us	e	20		4	7.4	4	4.2
Rotary (Conve	entional) Usetting	Domestic	Municip	al Dewatering	Duration of pumping	-	5	7.1	-	4.2
Boring	se) 🗌 Driving	Irrigation	Cooling	le Monitoring & Air Conditioning	Final water level end of pumpin	g (m/ft)	10	7.3		4.2
Air percussion		Industrial			9.3	-	10	7.7	10	4.2
	Construction Rec	ord - Casing		Status of Well	If flowing give rate (I/min / GPN	W)	15	7.9	15	4.2
Inside Op Diameter (Ga	en Hole OR Material alvanized, Fibredass	Wall Depth	(m@	Water Supply	Recommended pump depth (m	20	8.1	20	4.2
(cm/in) Cor	ncrete, Plastic, Steel)	(cm/in) From	То	Replacement Well Test Hole	Bacan and a nume rate		25	8.2	25	4.2
6 St	teel	.188 +Q	31	Recharge Well	(I/min AGPM)		30	8.4	30	4.2
578" O	pen Hole	31	80 ′	Observation and/or	Well production (I/min / PMD		40	8.6	40	4.2
				Alteration	20 Disinfected?		50	9.1	50	4.2
				(Construction)	Yes No		60	9.3	60	4.2
	Construction Rec	ord - Screen	100000	Insufficient Supply Abandoned, Poor	Мар	of Wel	I Locat	ion		
Diameter (Plas	Material stic, Galvanized, Steel)	Slot No. From	(<i>m/ft</i>)	Water Quality Abandoned, other,	Please provide a map below fol	llowing in	struction	s on the ba	JACK.	ive
(orran)	\rightarrow			specify	1	a	ve	~>	41	
	1			Other, specify	Posel	2				
	Water Data	le		olo Diamatas	1 to 1					
Water found at D	Depth Kind of Water: (Fresh Untested	Dept	th (m/ft) Diameter	17				,	10
38 (not)	Gas Other, specif		From	To (cm/in)	2KM 1			,1	HI	4
55 (noff)	Gas Other. specif	y Fresh	1	31 6	1 . · · /	46	661	61	00	AD
Water found at D	Depth Kind of Water: [Fresh Vuntested	3	80 57/8	1 77	12	1	NE	FE	
(mOF _	Gas Other, specif	y	Information	ion	CH.	1	L			
Business Name o	of Well Contractor	and wen recrimicial	We	I Contractor's Licence No.	160.	1				
Air Rock D	Street Number No.	a)		1119	Commercia	1			19	<u></u>
6659 Frank	ktown Road, RR#	#1	Mu	Richmond	A I LOO	-#	0) at		
Province	rovince Postal Code Business E-mail Address									
Bus.Telephone No	UN NUA 220 air-rock@sympatico.ca Well owner's Date Package Delivered Ministry Use Only									
613838217		Graham, Ryan	and manne, I		delivered	020	21	z1:	197	74
T3181	All Technician's Licence No. Signature of Technician and/or Contractor Date Submitted					012	1			111
0506E (2007/12) @	© Queen's Printer for Ontario	2007	Y	Ministry's Conv	Y Y Y Y Y	TMID	D Re	ceived 1	1116	ull
1 L X				inning a copy						



TELEPHONE: (613) 838-2170 FAX: (613) 838-3277 EMAIL: air-rock@sympatico.ca

Ontario	N
	-
Measurements recorde	ed in:

Metric Metrial

Tag#: A128028 r Print Below)

A128028

Well Record

Regulation 903 Ontario Water Resources Act ____ of __ Page____

Address of Well Location	on (Street Number/Name)	T	ownship	LOT	Concess	51011	
6558 Third Li	ine Road		Rideau	20	3 Province	Posta	
County/District/Municip					Ontario		
UTM Coordinates Zone	Easting Northing	N	INOTUL SOWER	ot Number	Other		<u> </u>
NAD 8 3 18	445159 4999		-1	A set of the format			
General Colour	Most Common Material	C Sealing Reco	er Materials	General Description	1	De	pth (math
	<u> </u>	- of	Daulahara			0	FA'
	Sand & Grav		Boulders			5A /	122
Grey	Linestone					122 (128 /
Grey	Lineaco	<u> </u>				1 das das	(de 50
					·······		
				Posults of W	all Viold Testi	<u> </u>	
Depth Set at (m(ft))	Type of Sealant U	sed	Volume Placed	After test of well yield, water was:	Draw Dowr	n g n F	Recovery
From To	(Material and Type	9)	(m ⁴ # ³)	Clear and sand free	Time Water L (<i>min</i>) (<i>m/ft</i>)	evel Time	Water Leve (m/ft)
80 50	Neat cement		12.5	If pumping discontinued, give reason:	Static (4	28.8
50 ' 0 '	Bentonite slurry		29.4		1 22 0		17
				Pump intake set at (n@)	2 250	2	15 B
				100	3 00 0	3	10.0
Method of Cor	nstruction	Well Us	e	Pumping rate (I/min / @PM)	20.3		0.00
Cable Tool	Diamond Dublic	Commei	rcial Dewatering	Duration of pumping	- 27.3	4	15.8
Rotary (Reverse)	Driving	Test Hol	le 🗌 Monitoring	hrs + min	5 28.3	5	15.6
Boring	Digging Irrigation		& Air Conditioning		10 28.8	10	15.6
Other, specify	Other, <i>spe</i>	ecify		If flowing give rate (I/min / GPM)	¹⁵ 28.8	15	15.6
Cor	Istruction Record - Casing	Depth (m/ft)	Status of Well	Recommended nump depth (m/ff)	20 28.8	20	15.6
Diameter (Galvanize	d, Fibreglass, Thickness Plastic Steel) (cm/in) Fro	m To	Replacement Well		25 28.8	25	15.6
		((_	Recommended pump rate	30 78 9	30	15.6
<u>8 74 Steel</u>	.188 +2	60	Dewatering Well	20	40 20 0	40	15.6
5 "(16" Open He	<u>ole 60</u>	128	Monitoring Hole	Well production (I/min AGPM)	50 00 0	50	450
	· .		Alteration (Construction)	Disinfected?	60 28.8	<i>4</i> 60	19.0
			Abandoned, Insufficient Supply	Pres No	<u> 00 28.8</u>		15.6
Outside	Instruction Record - Screen	Depth (<i>m/ft</i>)	Abandoned, Poor Water Quality	Please provide a map below following	instructions on th	ne back.	
Diameter (cm/in) (Plastic, Gal	vanized, Steel) Slot No.	um To	Abandoned, other,				
					16	З.	
			Other, <i>specify</i>	and the	:65) (L	r
	Water Details	H	lole Diameter		This		(DOC)
Water found at Depth	Kind of Water: Fresh Unte	ested Dept	th (<i>m/ft</i>) Diameter			Ne	
122 (m(ff) Gas	Other, specify		, 07/	$\ \mathcal{O} \setminus \setminus$			
(<i>m/ft</i>) Gas	Other, specify	0	60 0/8	avent			5
Water found at Depth	Kind of Water: Fresh Unte	ested 60	128 5 16		CLOU	ler.	
(<i>m/ft</i>) [_]Gas	Other, specify				- 30		
Business Name of Well	Contractor and Well Tech	We	Il Contractor's Licence No.	Poque			
Air Rock Drilling	Co. Ltd.	1.		Commonto:			
Business Address (Stre 6659 Franktown	et Number/Name) Road, RR#1	R	ichmond		100 ET		
Province Po	ostal Code Business E-ma	il Address					 1940 - 12 Automatica (************************************
ON M	10A 2Z0 air-re	ock@sympat	ico.ca	Well owner's Date Package Deliver	ed Mi Audit No	nistry Us	e Only
Bus. Lelephone No. (inc. a		aan (Lastiname,	rustindille)	delivered	200	z14.	4688
Well Technician's Licence	No. Signature of Technician and	or Contractor Dat	te Submitted	2012 A 8	17	, and 1	0040
05065 (2007/12)	n's Printer for Ontario 2007	Y	Ministry's Conv		UIU Recent	<u>:p 7.7</u>	2014
with a month and the second of the second se	······································		miniauy a copy				

Go Back to Map

Well ID

Well ID Number: 7218730 Well Audit Number: *Z172464* Well Tag Number: *A123438*

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

Well Location

Address of Well Location	6586 3RD LINE RD. SOUTH
Township	NORTH GOWER TOWNSHIP
Lot	020
Concession	CON 02
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	NORTH GOWER
Province	ON
Postal Code	n/a
	NAD83 — Zone 18
UTM Coordinates	Easting: 445242.00
	Northing: 4998982.00
Municipal Plan and Sublot Number	

Other

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	LOAM	STNS		0 m	1.82 m
BRWN	TILL	BLDR	PCKD	1.82 m	4.87 m

https://www.ontario.ca/environment-and-energy/map-well-records

7/3/2019		Map: Well record	s Ontario.ca	
GREY	TILL	BLDR	PCKD	4.87 m 18.59 m
GREY	LMSN	SNDS	HARD	18.59 m 44.8 m

Annular Space/Abandonment Sealing Record

Depth	Depth	Type of Sealant Used	Volume
From	To	(Material and Type)	Placed
19.81 m	0 m	GROUTED CEMENT & BENTONITE	,

Method of Construction & Well Use

Method of Construction Well Use

Rotary (Convent.)

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside		Depth	Depth	
Diameter Open Hole or material		From	To	
15.86 cm	STEEL	.45 m	19.81 m	

Construction Record - Screen

Outside Diameter Material Depth Depth From To

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 1558

Results of Well Yield Testing

After test of well yield, water was	CLEAR
If pumping discontinued, give reason	
Pump intake set at	30.47 m
Pumping Rate	54.6 LPM
Duration of Pumping	1 h:0 m

7/3/2019	Map: Well records Ontario.ca
Final water level	5.31 m
If flowing give rate	
Recommended pump depth	15.23 m
Recommended pump rate	45.5 LPM
Well Production	
Disinfected?	Y

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL	4.64 m		
1	5.24 m	1	5 m
2	5.26 m	2	4.83 m
3	5.26 m	3	4.69 m
4	5.27 m	4	4.65 m
5	5.27 m	5	4.63 m
10	5.28 m	10	4.64 m
15	5.29 m	15	4.64 m
20	5.29 m	20	4.64 m
25	5.29 m	25	4.64 m
30	2.29 m	30	4.64 m
40	5.3 m	40	4.64 m
45		45	
50	5.3 m	50	4.64 m
60	5.31 m	60	4.64 m

Water Details

Water Found at Depth	Kind
43.27 m	Untested

Hole Diameter

Depth From	Depth To	Diameter
0 m	19.81 m	15.86 cm
19.81 m	44.8 m	15.07 cm

Date Well Completed: December 05, 2013

Date Well Record Received by MOE: March 31, 2014

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

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Well ID

Well ID Number: 7256771 Well Audit Number: *Z191391* Well Tag Number:

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

Well Location

Address of Well Location	1966 ROGER STEVENS DRIVE
Township	NORTH GOWER TOWNSHIP
Lot	
Concession	_
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	KARS
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 446241.00 Northing: 4998849.00
Municipal Plan and Sublot Number	

Other

Overburden and Bedrock Materials Interval

Conoral Colour	Most Common Motorial	Othan Mataniala	Conoral Description	Depth	Depth
General Colour	Wiost Common Wrateria	Other Materials	General Description	From	То

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
4 ft	0 ft	BACKFILL	
79 ft	4 ft	3/8 HOLEPLUG	
0 ft	79 ft	6' DRILLED WELL ABANDONMEN'	Г

Method of Construction & Well Use

Method of Construction Well Use

Status of Well

Abandoned-Other

Construction Record - Casing

Inside	Onan Hala ar matarial	Depth	Depth	
Diameter	Open noie or material	From	То	

Construction Record - Screen

Outside Diameter Material Depth Depth From To

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 1119

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

7/3/2019

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)	Recovery Water level
SWL			
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth Kind

Hole Diameter

Depth Depth From To Diameter Audit Number: Z191391

Date Well Completed: November 18, 2015

Date Well Record Received by MOE: January 21, 2016

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

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Well ID

Well ID Number: 7292235 Well Audit Number: *Z237464* Well Tag Number: *A229258*

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

Well Location

Address of Well Location	6705 THIRD LINE RD S
Township	NORTH GOWER TOWNSHIP
Lot	022
Concession	CON 02
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 446011.00 Northing: 4998257.00
Municipal Plan and Sublot Number	

Other

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
GREY	SAND LMSN	GRVL	CLAY	0 ft 48 ft	48 ft 123 ft

https://www.ontario.ca/environment-and-energy/map-well-records

GREY	LMSN	
GREY	LMSN	
GREY	LMSN	

123 ft	158 ft
158 ft	163 ft
163 ft	170 ft

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant UsedVolume(Material and Type)Placed
0 ft	44 ft	BENTONITE SLURRY
44 ft	54 ft	CEMENT

Method of Construction & Well Use

Method of Construction Well Use

Air Percussion

Domestic

Status of Well

Water Supply

Construction Record - Casing

Inside Diameter	ide Open Hole or material		Depth To
6.25 inch	STEEL	-2 ft	54 ft
6.125 inch	OPEN HOLE	54 ft	170 ft

Construction Record - Screen

Outside Diameter Material Depth Depth From To

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 1119

Results of Well Yield Testing

After test of well yield, water was	OTHER	
If pumping discontinued, give reason		
Pump intake set at	150 ft	
Pumping Rate	20 GPM	

https://www.ontario.ca/environment-and-energy/map-well-records

7/3/2019	
Duration of Pumping	1 h:0 m
Final water level	49.5 ft
If flowing give rate	
Recommended pump depth	100 ft
Recommended pump rate	20 GPM
Well Production	
Disinfected?	Y

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL	33.167 ft		
1	41 ft	1	35.417 ft
2	43.583 ft	2	33.167 ft
3	45.167 ft	3	33.167 ft
4	46 ft	4	33.167 ft
5	46.5 ft	5	33.167 ft
10	47.5 ft	10	33.167 ft
15	47.75 ft	15	33.167 ft
20	48.167 ft	20	33.167 ft
25	48.333 ft	25	33.167 ft
30	48.5 ft	30	33.167 ft
40	49 ft	40	33.167 ft
45		45	
50	49.25 ft	50	33.167 ft
60	49.5 ft	60	33.167 ft

Map: Well records | Ontario.ca

Water Details

Water Found at Depth	Kind
123 ft	Untested
158 ft	Untested
163 ft	Untested

Hole Diameter

Depth From	Depth To	Diameter
0 ft	54 ft	9.75 inch
54 ft	170 ft	6.125 inch

7/3/2019

Audit Number: Z237464

Date Well Completed: June 14, 2017

Date Well Record Received by MOE: August 09, 2017

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

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APPENDIX 2

PH3837 - 1 - PROPOSED SITE LAYOUT PLAN

PH3837 - 2 - MUNICIPAL DRAIN PLAN

PH3837 - 3 - ZONING DESIGNATION

PH3837 - 4 - SURFICIAL GEOLOGY

PH3837 - 5 - BEDROCK GEOLOGY

PH3837 - 6 - SHALLOW OVERBURDEN GROUNDWATER FLOW

PH3837 - 7 - MECP WATER WELL LOCATION PLAN





t\autocad drawings\hydrogeology\ph38xx\ph3837 - gw impact study\ph3837-2 municipal drain plan.dwg.



6	LEGEND:	
1	RC	RURAL COMMERCIAL ZONE
	RG	RURAL COMMERCIAL INDUSTRIAL
	01	PARK AND OPEN SPACE ZONE
/	RI	RURAL INSTITUTIONAL ZONE
	V1	VILLAGE RESIDENTIAL FIRST DENSITY ZONE
9	AG	AGRICULTURAL
	SOURCE:	CITY OF OTTAWA - GEO OTTAWA WEBSITE
	-	

		Scale:		Date:
			1:6000	07/2019
		Drawn by:		Report No.:
Έ			MPG	PH3837-REP.01
	ONTARIO	Checked by:		
			NZ	PH3837-3
		Approved by:		
			CDS	Revision No.:



		Scale:	1:10000	Date: 06/2019
		Drawn by:		Report No.:
/E		-	MPG	PH3837-REP.01
	ONTARIO	Checked by:		
			NZ	PH3837-4
		Approved by:		
			CDS	Revision No.:







LEGEND:

BOREHOLE LOCATION

88.08 GROUND SURFACE ELEVATION (m)

(80.71) PRACTICAL REFUSAL TO DCPT/AUGERING ELEVATION (m)

{87.3} GROUNDWATER SURFACE ELEVATION (m)

4 GROUNDWATER CONTOUR

APPROX. GROUNDWATER FLOW DIRECTION

BOREHOLE LOCATIONS AND GROUND SURFACE ELEVATIONS PROVIDED BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD.

		Scale:		Date:
			1:4000	07/2019
		Drawn by:		Report No.:
/E			MPG	PH3837-REP.01
	ONTARIO	Checked by:		
			NZ	PH3837-6
0	W I	Approved by:		
			CDS	Revision No.:



	LEGEND:		
	۲	DOMEST	IC WELLS
2	۲	MONITO	RING WELL / TEST WELL
	۲	ABANDC	NED WELLS
	Scale:		Date:
		1:10000	07/2019
	Drawn by:		Report No.:
		MPG	PH3837-REP.01
rio	Checked by:		

APPENDIX 3

PG4870-1 - SOIL PROFILE AND TEST DATA

PG4870-1 - TEST HOLE LOCATION PLAN

natersonar		In	SOIL PROFILE AND TEST DATA								
154 Colonnade Road South, Ottawa, On	tario I	(2E 7J	Eng	ineers	Geotechnical Investigation Prop. Warehouse Complex - 1966 Roger Stevens Drive Ottawa, Ontario						
DATUM Ground surface elevations	prov	ided b	y Anr	nis, O'S	Sulliv	an, Vollet	pekk Ltd.	FILE NO.			
REMARKS								HOLE NO.			
BORINGS BY CME 55 Power Auger	1	1		DA	TE	2019 Jun	e 10	BH 1			
SOIL DESCRIPTION	PLOT		SAN	/IPLE			ELEV.	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone			
	STRATA	ТҮРЕ	NUMBER	% RECOVERY	N VALUE or ROD		(11)	O Water Content %			
TOPSOIL 0.20		×		н 		- 0-	-88.08				
Loose, brown SILTY SAND, some		SS	1 2	100	5	1-	-87.08	T			
gravel		ss	3	100	3	2-	-86.08				
<u>2.6</u> 4		ss	4	92	5	3-	-85.08				
Grey SILTY CLAY with sand		ss	5	71	2						
		ss	6	38	8	4-	-84.08				
<u>4.93</u>						5-	-83.08				
GLACIAL TILL: Compact to dense, grey silty sand with gravel, cobbles and boulders		ss	7	88	36	6-	-82.08				
6.70 Dynamic Cone Penetration Test commenced at 6.70m depth. Inferred GLACIAL TILL Find of Borehole Practical DCPT refusal at 7.37m depth (GWL @ 1.05m - June 21, 2019)		ss	8	83	35	7-	-81.08				
								20 40 60 80 100 Shear Strength (kPa) ▲ Undisturbed △ Remoulded			

natersonar		ır	Con	sulting		SOII	_ PRO	FILE AND	TEST DATA	
154 Colonnade Road South, Ottawa, On	tario k	(2E 7J	Eng	ineers	F	Geotechnic Prop. Ware Ottawa, Or	cal Invest house C	igation omplex - 1966	Roger Stevens D	rive
DATUM Ground surface elevations	prov	ided b	oy Anr	nis, O'S	Sulli	van, Vollet	oekk Ltd.	FILI	E NO. PG4870	
REMARKS								НО	LE NO	
BORINGS BY CME 55 Power Auger	1			DA	TE	2019 Jun	e 11		BH 2	1
SOIL DESCRIPTION	PLOT		SAN	IPLE		DEPTH	ELEV.	Pen. Resist • 50 mn	t. Blows/0.3m n Dia. Cone	er on
	TRATA	ТҮРЕ	IUMBER	°° COVERY	VALUE			○ Water	Content %	ezomete onstructi
GROUND SURFACE	ω	~	Z	RE	z (- 0-	-88.19	20 40	60 80	ы С Б
<u>0.28</u>		SS	1	100	3	1-	-87.19			
Very stiff to stiff, brown SILTY CLAY						2-	-86.19	4	1	69 ↓ 20
						3-	-85.19 -84.19	<u>А</u>		
- firm by 4.5m depth						5-	-83.19			
Loose, grey SANDY SILT, trace clay		ss	3	100	9					
End of Borehole										
(GWL @ 1.99m - June 21, 2019)								20 40	60 80 1	00
								Shear Str Undisturbed	rength (kPa)	

natersonar		ır	Con	sulting	3	SOIL	- PRO	FILE AI		ST DATA	
154 Colonnade Road South, Ottawa, Ont	tario I	2E 7J	Eng 15	ineers	G P	eotechnic rop. Ware ttawa, Or	al Invest house C ntario	tigation omplex - 1	1966 Roge	er Stevens D	rive
DATUM Ground surface elevations	prov	ided b	y Anr	nis, O'S	Sulliv	an, Vollet	pekk Ltd.		FILE NO.	PC /1970	
REMARKS									HOLE NO	PG4070	
BORINGS BY CME 55 Power Auger	1	1		D	ATE	2019 Jun	e 7	1		BH 3	
SOIL DESCRIPTION	РІОТ		SAN			DEPTH	ELEV.	Pen. R	esist. Blo 60 mm Dia	ows/0.3m a. Cone	n n
	FRATA	IYPE	JMBER	°° SOVERY	VALUE ROD		(11)	0 V	Vater Cor	ntent %	zomete
GROUND SURFACE	_ ເ		N	REC	z ⁶		07 50	20	40 6	60 80	C Pie
TOPSOIL 0.30		AU	1			- 0-	-87.58				Ţ
Loose, brown SILTY SAND, some gravel		ss	2	100	6	1-	-86.58				
2.29		ss	3	100	4	2-	-85.58				
		ss	4	100	2	3-	-84.58				
Stiff to firm, grey-brown SILTY CLAY, some sand - grey by 3.8m depth						4-	-83.58	A			
						5-	-82.58				
<u>6.32</u>		ss ss ss	5 6	100 60	15 50+	6-	-81.58				
End of Borehole											
(GWL @ 0.35m - June 21, 2019)								20 Shea ▲ Undis	40 6 ar Streng turbed △	0 80 1 th (kPa) Remoulded	00

natersonar	3	SOIL PROFILE AND TEST DATA									
154 Colonnade Road South, Ottawa, On	tario I	<2E 7J	Engi 5	ineers	G Pi O	eotechnic op. Ware ttawa. Or	al Invest house C ntario	tigation omplex - 1	966 Roge	r Stevens D	rive
DATUM Ground surface elevations	s prov	ided b	y Anr	nis, O'S	Sulliv	an, Vollet	oekk Ltd.		FILE NO.	PG 4870	
REMARKS									HOLE NO		
BORINGS BY CME 55 Power Auger				D	ATE	2019 Jun	e 7			BH 4	1
SOIL DESCRIPTION	PLOT		SAN			DEPTH	ELEV.	Pen. R	esist. Blo 0 mm Dia	er ion	
	STRATA	ТҮРЕ	NUMBER	% RECOVER!	N VALUE or RQD			• V	Vater Con	tent %	Piezomet
TOPSOIL 0.2F	5	×		-		- 0-	88.28	20	40 00		
Very loose, brown SILTY SAND with clay		SS AU	1 2	100	3	1-	-87.28				
2.29)	ss	3	100	3	2-	-86.28				
Stiff, grey SILTY CLAY		ss	4	50	7	3-	-85.28				
		ss	5	38	25	4-	-84.28				
GLACIAL TILL: Compact, grey silty sand with clay, gravel, cobbles and boulders		∦ ss ∏	6	75	31	5-	-83.28				
		∬ ss ∏	7	46	37	6-	-82.28				
6.70)	ss	8	33	20						
(GWL @ 0.23m - June 21, 2019)								20 She	40 60 ar Strenot) 80 1 h (kPa)	00
								▲ Undis	turbed \triangle	Remoulded	

natereonar	SOIL PROFILE AND TEST DATA										
154 Colonnade Road South, Ottawa, Or	ntario I	(2E 7J	Eng	ineers	G	eotechnic rop. Ware	al Invest house C	tigation omplex - 1	966 Roge	er Stevens D	rive
DATUM Ground surface elevation	s prov	ided b	y Anr	nis, O'S	ulliv	an, Vollet	pekk Ltd.		FILE NO.	DC/1970	
REMARKS									HOLE NO	FG4070	
BORINGS BY CME 55 Power Auger		1		DA	TE	2019 Jun	e 7	1		BH 5	
SOIL DESCRIPTION	TOT		SAN	IPLE		DEPTH	ELEV.	Pen. R	esist. Blo 0 mm Dia	ows/0.3m 1. Cone	2 5
	RATA I	Ч	MBER	°% OVERY	VALUE ROD	(m)	(m)		Vater Cor	itent %	zomete
GROUND SURFACE	LS	F	NN	REC	N O			20	40 6	0 80	Piez
TOPSOIL0.23	3	×	4			- 0-	-87.70				
Loose, brown SILTY SAND, some		ss	2	100	6	1-	-86.70				
gravel		ss	3	100	4	2-	-85.70				
2.24)	ss	4	92	1		84 70				
Firm, grey SILTY CLAY with sand						3-	- 84.70	4			
		ss	6	25	30	5-	-82 70				
Dense, grey SAND with gravel	3	ss	7	83	40	5	02.70				
6.10)	Ц +				6-	-81.70				
(GWL @ 0.80m - June 21, 2019)											
								Shea	ar Strengt	t h (kPa) Remoulded	UU

natorsonar		Ir	Cor	nsulting		SOIL	_ PRO	FILE AI		ST DATA	
154 Colonnade Road South, Ottawa, Or	utario I	K2E 7J	Eng	gineers	G Pr	eotechnic op. Ware	al Invest house C	tigation omplex - 1	966 Rog	ger Stevens D)rive
DATUM Ground surface elevation	s prov	rided b	y An	nis, O'S	ulliv	an, Vollet	pekk Ltd.		FILE NO).	
REMARKS										PG4870)
BORINGS BY CME 55 Power Auger				DA	TE	2019 Jun	e 14			BH 5A	
	LOT		SA	MPLE		DEPTH	ELEV.	Pen. R	esist. B	lows/0.3m	
SOIL DESCRIPTION	TA P	ᅜ	ER	ERY	E Q	(m)	(m)				neter uctio
	STRA	ТYР	NUMB	ecoγ.	N VAI OF R			• V	Vater Co	ontent %	iezor
GROUND SURFACE				<u></u>	-	- 0-	87.70	20	40	60 80	
OVERBURDEN						1-	-86.70				
						2-	-85.70				
<u>3.0</u>	<u>.05</u>					3-	-84.70				· · ·
Firm, grey SILTY CLAY		TW	1				92 70			· · · · · · · · · · · · · · · · · · ·	
End of Borehole						4	-03.70	<u> </u>			
								20 Shea ▲ Undist	40 ar Streng	60 80 1 gth (kPa) ∆ Remoulded	⊣ I 00

natersonar		In		SOIL PROFILE AND TEST DATA							
154 Colonnade Road South, Ottawa, On	tario k	(2E 7J	Eng 5	ineers	C P C	eotechnic Prop. Ware Ottawa, Or	al Invest house C ntario	tigation omplex - 1	966 Roge	r Stevens D	rive
DATUM Ground surface elevations	prov	ided b	y Anr	nis, O'S	Sulliv	van, Vollet	oekk Ltd.		FILE NO.	PG4870	
REMARKS									HOLE NO.		
BORINGS BY CME 55 Power Auger				DA	ATE	2019 Jun	e 11			BH 6	
SOIL DESCRIPTION	PLOT		SAN			DEPTH (m)	ELEV. (m)	Pen. Re ● 50	esist. Blo 0 mm Dia.	ws/0.3m Cone	er ion
	STRATA	ТҮРЕ	NUMBER	ECOVER	VALUE OF ROD			• N	later Cont	ent %	iezomet
GROUND SURFACE	_	×	-	8	2	- 0-	87.86	20	40 60	80	
0.28		¥ AU SS	1 2	100	4	1-	-86.86				
						2-	-85.86			21	
Hard to very stiff, brown SILTY CLAY - stiff to firm and grey by 3.0m depth						3-	-84.86				
						4-	-83.86	·····			
						5-	-82.86				
6.40						6-	-81.86				
(GWL @ 4.99m - June 21, 2019)								20 Shea	40 60 ar Strengtl) 80 1(h (kPa)	00

natersonar		Ir	Con	sulting		SOIL	_ PRO	FILE AND TEST DATA				
154 Colonnade Road South, Ottawa, Or	tario l	K2E 7J	Eng	ineers	Geotechnical Investigation Prop. Warehouse Complex - 1966 Roger Stevens Drive Ottawa, Ontario							
DATUM Ground surface elevations	s prov	rided b	oy Ani	nis, O'S	Sulliv	an, Vollet	pekk Ltd.	FILE NO.				
REMARKS								HOLE NO.				
BORINGS BY CME 55 Power Auger				DA	TE	2019 Jun	e 14	BH 6A				
SOIL DESCRIPTION	PLOT		SAN			DEPTH	ELEV.	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone				
	TRATA	ТҮРЕ	UMBER	COVERS	VALUE r RQD		(,	• Water Content %				
GROUND SURFACE	Ñ	_	ž	RE	zö	0-	-87 86	20 40 60 80 <u>0</u> C				
						1-	-86.86					
OVERBURDEN						2-	-85.86					
						3-	-84.86					
						5-	-83.86					
<u>5.33</u> Stiff, grey SILTY CLAY	3	тw	1			6-	-81.86					
<u>6.4(</u> End of Borehole												
								20 40 60 80 100 Shear Strength (kPa) ▲ Undisturbed △ Remoulded				

SOIL PROFILE AND TEST DATA patersongroup **Geotechnical Investigation** Prop. Warehouse Complex - 1966 Roger Stevens Drive 154 Colonnade Road South, Ottawa, Ontario K2E 7J5 Ottawa, Ontario DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd. FILE NO. **PG4870** REMARKS HOLE NO. BH 7 BORINGS BY CME 55 Power Auger DATE 2019 June 11 SAMPLE Pen. Resist. Blows/0.3m STRATA PLOT DEPTH ELEV. Piezometer Construction SOIL DESCRIPTION 50 mm Dia. Cone • (m) (m) RECOVERY N VALUE or RQD NUMBER TYPE o/0 \bigcirc Water Content % **GROUND SURFACE** 80 20 40 60 0 + 89.26TOPSOIL 0.30 AU 1 1+88.26 2 SS 83 22 SS 3 100 50 +2 + 87.26100 SS 4 50+ GLACIAL TILL: Very dense to dense, brown SILTY SAND with 3+86.26 clay, gravel, cobbles and boulders SS 5 58 45 4+85.26 SS 6 62 45 SS 7 87 62 5+84.26 SS 8 79 49 6+83.26 6.10 GLACIAL TILL: Grey silty clay with sand and gravel SS 9 75 51 6.70 End of Borehole (GWL @ 1.16m - June 21, 2019) 20 40 60 80 100 Shear Strength (kPa) Undisturbed △ Remoulded

natersonar		In	Con	sulting		SOIL	- PRO	FILE AI	ND -	TEST	DATA	
154 Colonnade Road South, Ottawa, Ont	ario k	(2E 7J	Eng 5	ineers	G Pi O	eotechnic rop. Ware ttawa. Or	al Invest house C ntario	igation omplex - 1	966 F	Roger S	tevens D	rive
DATUM Ground surface elevations	prov	ided b	y Anr	nis, O'S	Sulliv	an, Vollet	oekk Ltd.		FILE	E NO.	PG4870	
REMARKS									HOL	.E NO.		
BORINGS BY CME 55 Power Auger				DA	ATE	2019 Jun	e 11			В	H 8	
SOIL DESCRIPTION	PLOT		SAN	MPLE		DEPTH (m)	ELEV. (m)	Pen. R ● 5	esist. 0 mm	. Blows n Dia. Co	/0.3m one	er tion
	STRATA	ТҮРЕ	NUMBER	SCOVER.	NALUE			• v	Vater	Conten	t %	ezomet
GROUND SURFACE		8	-	8	z °	- 0-	-88.89	20	40	60	80	С Б Ж
<u>0.36</u>		Sau Sau ∏	1							• • • • • • • • • • • • • •		
Very stiff, brown SILTY CLAY		ss V	2	100	7	1-	-87.89					T
		SS	3	100	5	2-	-86.89					
<u>3.05</u>		ss	4	67	23	3-	-85.89					
		ss	5	100	50+	4-	-84.89					
GLACIAL TILL: Compact to dense, brown silty sand with gravel, cobbles and boulders, trace clay		ss	6	62	18	5-	-83.89					
		ss	7	67	32	6-	-82.89					
6.70 End of Borehole		ss	8	100	50+							
(GWL @ 1.31m - June 21, 2019)												
								20 Shea ▲ Undis	40 ar Str turbed	60 ength (I △ Rer	80 1 (Pa) moulded	ÖO

natersonar	In	Con	sulting	g SOIL PROFILE AND TEST DATA										
154 Colonnade Road South, Ottawa, Ont	tario ł	(2E 7J	Eng 5	ineers	G P O	Geotechnical Investigation Prop. Warehouse Complex - 1966 Roger Stevens Drive Ottawa, Ontario								
DATUM Ground surface elevations	prov	ided b	y Anr	nis, O'S	Sulliv	van, Vollet	oekk Ltd.	FILE NO.						
REMARKS								HOLE NO.						
BORINGS BY CME 55 Power Auger	1			D	ATE	2019 Jun	e 13	BH 9						
SOIL DESCRIPTION	PLOT		SAN	IPLE		DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone						
GROUND SURFACE	STRATA	ТҮРЕ	NUMBER	* RECOVER	N VALUE or ROD			O Water Content % 20 40 60 80						
TOPSOIL						- 0-	-94.47							
<u>0.36</u>		ss	1	67	48	1-	-93.47							
		∐ ∑ss	3	100	50+									
GLACIAL TILL: Dense to very dense, brown silty sand with gravel, cobbles and boulders				100	50	2-	-92.47							
		A 22	4	100	50+		01.47							
		ss	5	100	50+		91.47							
3.83		- SS	6	0	50+									
Practical refusal to augering at 3.83m depth														
2.22m - June 21, 2019)														
								20 40 60 80 100 Shear Strength (kPa) ▲ Undisturbed △ Remoulded						

natersonar		ır	Con	sulting	g	SOII	_ PRO	FILE AND TEST DATA					
154 Colonnade Road South, Ottawa, On	tario ł	<2E 7J	Eng	ineers	F	Geotechnical Investigation Prop. Warehouse Complex - 1966 Roger Stevens Drive Ottawa, Ontario							
DATUM Ground surface elevations	prov	ided b	y Anr	nis, O'	Sulli	van, Vollek	oekk Ltd.	FILE NO.					
REMARKS													
BORINGS BY CME 55 Power Auger	1	1		D	ATE	2019 Jun	e 14	BH10					
SOIL DESCRIPTION	PLOT		SAN	/IPLE		DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone					
GROUND SURFACE	STRATA	ТҮРЕ	NUMBER	% RECOVER	N VALUE		00.07	O Water Content % Diagonal of the content % 20 40 60 80					
TOPSOIL 0.36		× AII	1			- 0-	-92.67						
						1-	-91 67						
		SS	2	/1	49		51.07						
		≍ SS	3	75	50-	-							
						2-	90.67						
GLACIAL TILL: Dense to very dense, brown silty sand with gravel,		ss	4	100	50-	-							
		∦ ∑ss	5	100	50-	. 3-	-89.67						
		ss	6	42	60	4-	-88.67						
4.78		SS ↓	6	50	50-	-							
End of Borehole													
depth													
(GWL @ 1.99m - June 21, 2019)													
								20 40 60 80 100 Shear Strength (kPa) ▲ Undisturbed △ Remoulded					

SOIL PROFILE AND TEST DATA patersongroup **Geotechnical Investigation** Prop. Warehouse Complex - 1966 Roger Stevens Drive 154 Colonnade Road South, Ottawa, Ontario K2E 7J5 Ottawa, Ontario DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd. FILE NO. **PG4870** REMARKS HOLE NO. **BH11** BORINGS BY CME 55 Power Auger DATE 2019 June 14 SAMPLE Pen. Resist. Blows/0.3m STRATA PLOT DEPTH ELEV. Piezometer Construction SOIL DESCRIPTION 50 mm Dia. Cone (m) (m) RECOVERY N VALUE or RQD NUMBER TYPE o/0 \bigcirc Water Content % **GROUND SURFACE** 80 20 40 60 0 + 89.20TOPSOIL 0.30 AU 1 Loose, brown SILTY SAND with ×XX clay 0.76 1+88.20 SS 2 83 6 Brown CLAYEY SAND with silt SS 3 75 1 2 + 87.202.29 Compact, brown SILTY SAND with SS 4 79 28 gravel 3.05 3+86.20 SS 5 50+ 29 4+85.20 SS 6 67 25 GLACIAL TILL: Very dense, grey X SS 7 0 50+ sandy silt with gravel, cobbles and boulders 5+84.20 SS 8 75 50 +6+83.20 SS 9 52 58 6.70 End of Borehole (GWL @ 1.32m - June 21, 2019) 40 60 80 100 20 Shear Strength (kPa) Undisturbed △ Remoulded

SOIL PROFILE AND TEST DATA patersongroup **Geotechnical Investigation** Prop. Warehouse Complex - 1966 Roger Stevens Drive 154 Colonnade Road South, Ottawa, Ontario K2E 7J5 Ottawa, Ontario DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd. FILE NO. **PG4870** REMARKS HOLE NO. **BH12** BORINGS BY CME 55 Power Auger DATE 2019 June 7 SAMPLE Pen. Resist. Blows/0.3m STRATA PLOT DEPTH ELEV. Piezometer Construction SOIL DESCRIPTION 50 mm Dia. Cone • (m) (m) RECOVERY N VALUE or RQD NUMBER TYPE o/0 \bigcirc Water Content % **GROUND SURFACE** 80 20 40 60 0+92.08TOPSOIL 0.25 AU 1 1+91.08 SS 2 75 23 SS 3 79 52 2+90.08SS 4 67 37 3+89.08 **GLACIAL TILL:** Compact to very SS 5 50 +100 dense, brown silty sand with gravel, cobbles and boulders SS 6 100 50 +4+88.08 SS 7 67 50 +5+87.08 s ss 8 100 50 +6+86.08 SS 9 94 50+ 6.50 End of Borehole Practical DCPT refusal at 6.50m depth (GWL @ 0.81m - June 21, 2019) 20 40 60 80 100 Shear Strength (kPa) Undisturbed △ Remoulded

SOIL PROFILE AND TEST DATA patersongroup **Geotechnical Investigation** Prop. Warehouse Complex - 1966 Roger Stevens Drive 154 Colonnade Road South, Ottawa, Ontario K2E 7J5 Ottawa, Ontario DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd. FILE NO. **PG4870** REMARKS HOLE NO. **BH13** BORINGS BY CME 55 Power Auger DATE 2019 June 10 SAMPLE Pen. Resist. Blows/0.3m STRATA PLOT DEPTH ELEV. Piezometer Construction SOIL DESCRIPTION 50 mm Dia. Cone • (m) (m) RECOVERY N VALUE or RQD NUMBER TYPE o/0 \bigcirc Water Content % **GROUND SURFACE** 80 20 40 60 0+91.70TOPSOIL 0.28 AU 1 £ Loose, brown SILTY SAND with 1 + 90.70SS 2 71 4 clay and gravel 1.83 SS 3 67 65 2 + 89.70SS 4 50 40 3+88.70 SS 5 83 23 **GLACIAL TILL:** Compact to very dense, brown silty sand with gravel, SS 6 80 50+ 4+87.70 cobbles and boulders 7 SS 29 16 5 + 86.70- grey by 5.3m depth SS 8 41 36 6+85.70 SS 9 80 50 +6.70 End of Borehole (GWL @ 2.47m - June 21, 2019) 20 40 60 80 100 Shear Strength (kPa) Undisturbed △ Remoulded

natersonar		ır	Con	sulting	3	SOII	_ PRO	FILE AND TEST DATA					
154 Colonnade Road South, Ottawa, Ont	tario ł	2E 7J	Eng	ineers	Geotechnical Investigation Prop. Warehouse Complex - 1966 Roger Stevens Drive Ottawa, Ontario								
DATUM Ground surface elevations	prov	ided b	y Anr	nis, O'S	Sulliv	/an, Vollet	pekk Ltd.	FILE NO.					
REMARKS								HOLE NO.					
BORINGS BY CME 55 Power Auger	1	1		D	ATE	2019 Jun	e 13	BH14					
SOIL DESCRIPTION	PLOT		SAN	IPLE		DEPTH	ELEV.	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone					
GROUND SURFACE	STRATA	ТҮРЕ	NUMBER	°° RECOVERY	N VALUE of ROD		05.77	O Water Content % 0					
TOPSOIL0.33		× AU	1			- 0-	-95.77						
		ss	2	67	35	1-	-94.77						
GLACIAL TILL: Dense to very		⊻ ≽ SS	3	0	50+								
dense, brown silty sand with gravel, cobbles and boulders						2-	-93.77						
		∦ ss	4	76	62	3-	-92.77						
<u>3.58</u>		∦ ss	5	100	50+								
Practical refusal to augering at 3.58m													
(Piezometer blocked and dry to 2.47m - June 21, 2019)													
								20 40 60 80 100 Shear Strength (kPa) ▲ Undisturbed △ Remoulded					

SOIL PROFILE AND TEST DATA patersongroup **Geotechnical Investigation** Prop. Warehouse Complex - 1966 Roger Stevens Drive 154 Colonnade Road South, Ottawa, Ontario K2E 7J5 Ottawa, Ontario DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd. FILE NO. **PG4870** REMARKS HOLE NO. **BH15** BORINGS BY CME 55 Power Auger DATE 2019 June 14 SAMPLE Pen. Resist. Blows/0.3m STRATA PLOT DEPTH ELEV. Piezometer Construction SOIL DESCRIPTION 50 mm Dia. Cone • (m) (m) RECOVERY N VALUE or RQD NUMBER TYPE o/0 \bigcirc Water Content % **GROUND SURFACE** 80 20 40 60 0+92.49TOPSOIL 0.36 AU 1 1 + 91.49SS 2 78 86 SS 3 50 +100 2+90.49SS 4 75 58 3+89.49 GLACIAL TILL: Very dense, brown silty sand/sandy silt with gravel, SS 5 100 50 +cobbles and boulders SS 6 100 50+ 4+88.49 SS 7 62 50 +5+87.49 SS 8 50 50 +6+86.49 50+ SS 9 93 6.70 End of Borehole (GWL @ 2.27m - June 21, 2019) 20 40 60 80 100 Shear Strength (kPa) Undisturbed △ Remoulded

SOIL PROFILE AND TEST DATA patersongroup **Geotechnical Investigation** Prop. Warehouse Complex - 1966 Roger Stevens Drive 154 Colonnade Road South, Ottawa, Ontario K2E 7J5 Ottawa, Ontario DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd. FILE NO. **PG4870** REMARKS HOLE NO. **BH16** BORINGS BY CME 55 Power Auger DATE 2019 June 12 SAMPLE Pen. Resist. Blows/0.3m STRATA PLOT DEPTH ELEV. Piezometer Construction SOIL DESCRIPTION 50 mm Dia. Cone • (m) (m) RECOVERY N VALUE or RQD NUMBER TYPE o/0 \bigcirc Water Content % **GROUND SURFACE** 80 20 40 60 0 + 88.98TOPSOIL 0.30 AU 1 Ê Compact, brown SILTY SAND with clay 1+87.98 1.12 SS 2 67 14 SS 3 71 19 2 + 86.98SS 4 75 30 3+85.98 SS 5 50+ 0 GLACIAL TILL: Compact to dense, brown silty sand with gravel, cobbles and boulders SS 6 0 50+ 4+84.98 - grey by 4.6m depth 7 SS 58 12 5+83.98 SS 8 67 55 6+82.98 SS 9 24 6.70 End of Borehole (GWL @ 1.43m - June 21, 2019) 20 40 60 80 100 Shear Strength (kPa) Undisturbed △ Remoulded

natersonar		In	Con	sulting	1	SOIL	- PRO	FILE AI	ND T	EST	DATA			
154 Colonnade Road South, Ottawa, Ont	tario I	(2E 7J	Eng 5	ineers	 Geotechnical Investigation Prop. Warehouse Complex - 1966 Roger Stevens Drive Ottawa, Ontario 									
DATUM Ground surface elevations	prov	ided b	y Anr	nis, O'S	Sulliv	an, Vollet	pekk Ltd.		FILE	NO.	004070			
REMARKS									HOLE		G4070			
BORINGS BY CME 55 Power Auger	1	1		DA	ATE	2019 Jun	e 11	1		B	H17			
SOIL DESCRIPTION	LOT		SAN	IPLE		DEPTH	ELEV.	Pen. R	esist. 0 mm	Blows Dia, Co	/0.3m	. 5		
	TRATA I	ТҮРЕ	UMBER	% COVERY	VALUE r RQD	(m)	(m)	• •	Vater C	Conten	t %	ezometei instructic		
GROUND SURFACE	N	~	N	RE	z °	0-	-88.86	20	40	60	80	S Pi		
TOPSOIL 0.30 Brown SILTY CLAY with sand		AU	1			0	00.00							
seams		ss	2	100	3	1-	-87.86				· · · · · · · · · · · · · · · · · · ·	Ţ		
		ss	3	88	49	2-	-86.86							
		ss	4	42	68	3-	-85.86							
GLACIAL TILL: Dense to very dense, brown silty sand with clay,		∦ ss	5	100	50+									
gravel, cobbles and boulders		∦ss ∏	6	100	65	4-	-84.86							
		X SS ≍ SS	7 8	100 100	50+ 50+	5-	-83.86							
<u>6.17</u>		≍ SS	9	100	50+	6-	-82.86							
						7-	-81.86							
End of Borehole												•		
Practical DCPT refusal at 7.19m depth														
(GWL @ 1.13m - June 21, 2019)														
								20 Shea ▲ Undis	40 ar Stre turbed	60 ngth (k ∆ Ren	80 1 (Pa) noulded	00		

natersonar		ır	Con	sulting		SOIL	- PRO	FILE A	ND TE	ST DAT	'A
154 Colonnade Road South, Ottawa, Ont	tario I	2E 7J	Eng	ineers	G P C	eotechnic rop. Ware	al Invest house C	tigation omplex - 1	1966 Rog	jer Steven:	s Drive
DATUM Ground surface elevations	prov	ided b	y Anr	nis, O'S	Sulliv	van, Vollet	pekk Ltd.		FILE NC		70
REMARKS									HOLE N	0.	10
BORINGS BY CME 55 Power Auger		1		DA	TE	2019 Jun	e 11	1		BH18	
SOIL DESCRIPTION	РГОТ		SAN	IPLE		DEPTH	ELEV.	Pen. R	lesist. B 50 mm Di	lows/0.3m a. Cone	÷ 0
	TRATA	ТҮРЕ	UMBER	°% COVERY	VALUE r ROD	(11)	(11)	0	Nater Co	ntent %	zomete nstructi
GROUND SURFACE	Ñ		Ň	REC	zö	0-	-88 32	20	40	60 80	C Pie
TOPSOIL 0.33		AU	1				00.32				
		ss ss	2 3	100	2 5		-07.32				
Very stiff to stiff, brown SILTY CLAY						2-	-86.32	A			-149 <u>▼</u>
- grey by 3.0m depth						3-	-85.32	A			
						4-	-84.32				
- firm by 5.3m depth						5-	-83.32				
6.40						6-	-82.32				
(GWL @ 2.42m - June 21, 2019)											
								20 She ▲ Undis	40 ar Streng turbed 2	60 80 g th (kPa) ∆ Remoulded	100

natersonar		ır	Con	sulting		SOIL	- PRO	FILE AI	ND TES	T DATA	
154 Colonnade Road South, Ottawa, On	tario I	K2E 7J	Eng	ineers	Ge Pro Ott	otechnic op. Ware tawa. Or	al Invest house C ntario	tigation omplex - 1	966 Roge	r Stevens D	rive
DATUM Ground surface elevations	s prov	ided b	oy Ani	nis, O'S	ulliva	ın, Vollet	pekk Ltd.		FILE NO.	PG /1870	
REMARKS									HOLE NO.		
BORINGS BY CME 55 Power Auger				DA	TE 2	2019 Jun	e 14			BH18A	
SOIL DESCRIPTION	PLOT		SAN			DEPTH (m)	ELEV. (m)	Pen. R • 5	esist. Blo 0 mm Dia.	ws/0.3m . Cone	er ion
	TRATA	ТҮРЕ	UMBER	° ∾ COVER	VALUE r RQD	()		• V	Vater Cont	tent %	ezomet
GROUND SURFACE	ß		Z	RE	z ^o	0-	-88.32	20	40 60	80	ĕ°
						1-	00.02				-
						1-	-07.32				
OVERBURDEN						2-	-86.32				
Stiff, grey SILTY CLAY						3-	-85.32				
						4-	-84.32				
5.33						5-	-83.32				
6.40		TW	1			6-	-82.32				-
End of Borehole											
								20 Shea ▲ Undist	40 60 ar Strengt turbed △) 80 1 h (kPa) Remoulded	¹ 00

SOIL PROFILE AND TEST DATA patersongroup **Geotechnical Investigation** Prop. Warehouse Complex - 1966 Roger Stevens Drive 154 Colonnade Road South, Ottawa, Ontario K2E 7J5 Ottawa, Ontario DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd. FILE NO. **PG4870** REMARKS HOLE NO. **BH19** BORINGS BY CME 55 Power Auger DATE 2019 June 10 SAMPLE Pen. Resist. Blows/0.3m STRATA PLOT DEPTH ELEV. Piezometer Construction SOIL DESCRIPTION 50 mm Dia. Cone • (m) (m) RECOVERY N VALUE or RQD NUMBER TYPE o/0 \bigcirc Water Content % **GROUND SURFACE** 80 20 40 60 0+94.89TOPSOIL 0.36 AU 1 1 + 93.89SS 2 66 81 SS 3 50 50 +2 + 92.89SS 4 89 50 +GLACIAL TILL: Very dense, brown silty sand with gravel, cobbles and boulders 3+91.89 SS 5 50+ 100 - grey by 3.8m depth 4 + 90.89SS 6 100 35 SS 7 71 55 5+89.89 SS 8 76 50 6 + 88.89SS 9 61 43 6.70 End of Borehole (Piezometer blocked and dry to 5.09m - June 21, 2019) 40 60 80 100 20 Shear Strength (kPa) Undisturbed △ Remoulded

natersonar	sulting	SOIL PROFILE AND TEST DATA											
154 Colonnade Road South, Ottawa, On	tario ł	(2E 7J	Engi 5	ineers	Geotechnical Investigation Prop. Warehouse Complex - 1966 Roger Stevens Drive Ottawa, Ontario								
DATUM Ground surface elevations	prov	ided b	y Anr	nis, O'S	Sulliv	ran, Vollet	pekk Ltd.		FILE N	0. D(2/1870		
REMARKS									HOLE	NO	4070		
BORINGS BY CME 55 Power Auger				D	ATE	2019 Jun	e 13			BF	120		
SOIL DESCRIPTION	PLOT		SAN			DEPTH	ELEV.	Pen. R ● 5	esist. E 0 mm D	Blows/0 9ia. Cor).3m ne	er Ion	
	STRATA	ТҮРЕ	NUMBER	COVER)	VALUE		(,	• V	Vater Co	ontent	%	ezomet	
GROUND SURFACE	02	×	4	R	z	- 0-	-94.89	20	40	60 	80	ŭ⊡ ‱∭‱	
		AU	1										
		ss	2	55	50+	1-	-93.89						
GLACIAL TILL: Very dense, brown		x ss	3	40	50+	2-	-92 89						
boulders		x ss	4	100	50+		52.00						
		∑ ss	5	100	50+	3-	-91.89						
4.04		ss	6	71	50+	4-	-90.89				· · · · · · · · · · · · · · · · · · ·		
Practical refusal to augering at 4.04m depth.													
(GWL @ 1.45m - June 21, 2019)													
								20 Shea ▲ Undist	40 ar Stren turbed	60 gth (kF △ Remo	80 10 9a) builded	00	

SOIL PROFILE AND TEST DATA patersongroup **Geotechnical Investigation** Prop. Warehouse Complex - 1966 Roger Stevens Drive 154 Colonnade Road South, Ottawa, Ontario K2E 7J5 Ottawa, Ontario DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd. FILE NO. **PG4870** REMARKS HOLE NO. **BH21** BORINGS BY CME 55 Power Auger DATE 2019 June 13 SAMPLE Pen. Resist. Blows/0.3m STRATA PLOT DEPTH ELEV. Piezometer Construction SOIL DESCRIPTION 50 mm Dia. Cone • (m) (m) RECOVERY N VALUE or RQD NUMBER TYPE o/0 \bigcirc Water Content % **GROUND SURFACE** 80 20 40 60 0+91.07TOPSOIL <u>0.25</u> AU 1 Compact, brown SAND with gravel 0.97 1 + 90.07SS 2 83 16 Compact, brown SILTY SAND, trace clay SS 3 67 24 1.98 2 + 89.07SS 4 72 70 3+88.07 SS 5 50 +64 GLACIAL TILL: Compact to very dense, brown silty sand with gravel, cobbles and boulders 4+87.07 SS 6 62 29 SS 7 42 33 5+86.07 5.43 <u>^^^</u> SS 8 50 +100 End of Borehole Practical refusal to augering at 5.43m depth (GWL @ 1.88m - June 21, 2019) 20 40 60 80 100 Shear Strength (kPa) Undisturbed △ Remoulded

natersonar		ır	Con	sulting	3	SOIL	_ PRO	FILE AI	ND TES	T DATA			
154 Colonnade Road South, Ottawa, On	tario I	2E 7J	Eng 15	ineers	Geotechnical Investigation Prop. Warehouse Complex - 1966 Roger Stevens Drive Ottawa, Ontario								
DATUM Ground surface elevations	s prov	ided b	y Anr	nis, O'S	Sulliv	an, Vollet	pekk Ltd.		FILE NO.	DC/1970			
REMARKS									HOLE NO.	FG4070			
BORINGS BY CME 55 Power Auger	1	1		D	ATE	2019 Jun	e 13	1		BH22			
SOIL DESCRIPTION	PLOT		SAN			DEPTH	ELEV.	Pen. R • 5	esist. Blo 0 mm Dia.	ws/0.3m Cone	er on		
GROUND SURFACE	STRATA	TYPE	NUMBER	% RECOVERY	N VALUE or ROD	(,	(,	0 V 20	Vater Cont 40 60	ent %	Piezomete Constructi		
TOPSOIL0.28	8	×	4			- 0-	-88.31						
Loose, brown SILTY SAND , some clay		SS	2	83	4	1-	-87.31				Ţ		
2 3/		ss	3	100	5	2-	-86.31						
Firm to soft, brown SILTY CLAY		ss	4	100	3	3-	-85.31	<u>А</u>					
4.42						4-	-84.31						
GIACIAL TILL Grey silty sand with		ss	6	21	9	5-	-83.31						
gravel, cobbles and boulders		ss	7	71	22	6-	-82.31						
6.70) , , , , , , , , , , , , ,	∦ ss	8	100	50+								
End of Borehole													
(GWL @ 1.37m - June 21, 2019)								20 Shea ▲ Undist	40 60 ar Strengtł urbed △	80 11 1 (kPa) Remoulded	00		

natorsonar		In	Cor	nsulting		SOIL	_ PRO	FILE AND TEST DATA				
154 Colonnade Road South, Ottawa, On	tario I	K2E 7J	Eng	gineers	G Pi O	eotechnic rop. Ware ttawa. Or	al Invest house C ntario	tigation Complex - 1966 Roger Stevens Drive				
DATUM Ground surface elevations	s prov	rided b	y An	nis, O'S	ulliv	an, Vollet	oekk Ltd.	. FILE NO.				
REMARKS								HOLE NO.				
BORINGS BY CME 55 Power Auger				DA	TE	2019 Jun	e 14	BH22A				
SOIL DESCRIPTION	PLOT		SAN			DEPTH	ELEV.	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone				
	TRATA	ТҮРЕ	UMBER	COVERY	VALUE r ROD	(,	(,	• Water Content %				
GROUND SURFACE	ß		Z	RE	z °	0-	-88.31	20 40 60 80				
						1-	-87.31					
OVERBURDEN						2-	-86.31					
<u>3.05</u> Stiff, grey SILTY CLAY		тw	1			3-	-85.31					
End of Borehole 3.66												
								20 40 60 80 100 Shear Strength (kPa) ▲ Undisturbed △ Remoulded				
natersonar	,	SOIL PROFILE AND TEST DATA										
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154 Colonnade Road South, Ottawa, On	tario I	K2E 7J	Eng	ineers	F	Geotechnical Investigation Prop. Warehouse Complex - 1966 Roger Stevens Drive Ottawa Ontario						
DATUM Ground surface elevations	prov	ided b	y Anr	nis, O'S	Sulli	van, Vollet	pekk Ltd.		FILE NO.	DC/970		
REMARKS									HOLE NO	PG4070		
BORINGS BY CME 55 Power Auger	BORINGS BY CME 55 Power Auger DA									BH23		
SOIL DESCRIPTION	PLOT		SAN			DEPTH (m)	ELEV. (m)	Pen. R • 5	esist. Blo 0 mm Dia	ows/0.3m . Cone	er ion	
	STRATA	ТҮРЕ	NUMBER	* ECOVER	VALUE			• v	Vater Con	tent %	iezomet	
GROUND SURFACE		×		Ř	4	- 0-	-87.81	20	40 6	0 80		
Loose, brown SILTY SAND with clay, some gravel		SS	1 2	100	4	1-	-86.81				T	
2.29		ss	3	100	4	2-	-85.81					
Very stiff to stiff, brown SILTY CLAY with sand - grey by 3.0m depth						3-	-84.81	<u></u>		1		
firm by 5 3m donth						5-	-82.81					
6 70						6-	-81.81					
End of Borehole									À			
(GWL @ 0.27m - June 21, 2019)								20 Shea	40 6 ar Strengt	0 80 10 th (kPa)	00	

natersonar		ır	Con	sulting		SOIL	- PRO	FILE AI	ND TEST DAT	Ά	
154 Colonnade Road South, Ottawa, Or	utario I	K2E 7J	Eng	ineers	Geotechnical Investigation Prop. Warehouse Complex - 1966 Roger Stevens Drive Ottawa Ontario						
DATUM Ground surface elevations	s prov	ided b	oy Anr	nis, O'S	ulliva	an, Vollet	pekk Ltd.		FILE NO.	70	
REMARKS										70	
BORINGS BY CME 55 Power Auger				DA	TE 2	2019 Jun	e 12		BH24		
	FO		SAN	IPLE		DEPTH	ELEV.	Pen. R	esist. Blows/0.3m		
SOIL DESCRIPTION	A PI		ж	RY	ЩО	(m)	(m)	• 5	0 mm Dia. Cone	eter ctior	
	FRAT	ΓΥΡΕ	JMBE:	COVE	VALU RQ			o v	Vater Content %	zome	
GROUND SURFACE			Ŋ	REC	z ^ö		00.40	20	40 60 80	C Bi	
TOPSOIL0.20			4			0-	-88.46				
		AU XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX									
Loose, brown SILTY SAND with clay		$\overline{\mathbf{N}}$									
		SS	2	100	4	1-	-87.46				
1.62	<u>></u>										
		ss	3	100	2						
		1				2-	-86.46				
Stiff, brown SILIY CLAY with sand											
- grey by 3.0m depth						3-	-85.46				
<u>3.8</u>								<u>λ</u>	Å		
		ss	4	67	3	4-	-84.46				
		Δ									
			5	0.0	7						
		1 33	5	03	7	5-	-83.46				
Very loose to compact, grey SILTY		M									
SAND		ss	6	100	21						
						6-	-82.46				
		ss	7	100	16						
6.7(411	4									
(GWL @ 1.37m June 21.2019)											
(GWL @ 1.3/11 - 3016 21, 2019)											
								20	40 60 80	100	
								Shea	ar Strength (kPa)		
								L ▲ Undist	turbed \triangle Remoulded	b	

SOIL PROFILE AND TEST DATA patersongroup **Geotechnical Investigation** Prop. Warehouse Complex - 1966 Roger Stevens Drive 154 Colonnade Road South, Ottawa, Ontario K2E 7J5 Ottawa, Ontario DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd. FILE NO. **PG4870** REMARKS HOLE NO. **BH25** BORINGS BY CME 55 Power Auger DATE 2019 June 10 SAMPLE Pen. Resist. Blows/0.3m STRATA PLOT DEPTH ELEV. Piezometer Construction SOIL DESCRIPTION 50 mm Dia. Cone • (m) (m) RECOVERY N VALUE or RQD NUMBER TYPE o/0 \bigcirc Water Content % **GROUND SURFACE** 80 20 40 60 0 + 89.43TOPSOIL 0.30 AU 1 Ê Loose, brown SILTY SAND with clay 1+88.43 2 <u>1.1</u>7 SS 100 4 Brown SILTY CLAY with sand, some gravel SS 3 100 50 +1.83 2 + 87.43SS 4 62 28 **GLACIAL TILL:** Compact to very dense, brown silty sand with gravel, cobbles and boulders 3+86.43 SS 5 65 58 - grey by 3.0m depth SS 6 70 50+ 4+85.43 k ss 7 100 50 +5 + 84.43k ss 8 60 50 +6+83.43 SS 9 80 50+ 6.70 End of Borehole (GWL @ 1.19m - June 21, 2019) 20 40 60 80 100 Shear Strength (kPa) Undisturbed △ Remoulded

SOIL PROFILE AND TEST DATA patersongroup **Geotechnical Investigation** Prop. Warehouse Complex - 1966 Roger Stevens Drive 154 Colonnade Road South, Ottawa, Ontario K2E 7J5 Ottawa, Ontario DATUM Ground surface elevations provided by Annis, O'Sullivan, Vollebekk Ltd. FILE NO. **PG4870** REMARKS HOLE NO. **BH26** BORINGS BY CME 55 Power Auger DATE 2019 June 10 SAMPLE Pen. Resist. Blows/0.3m STRATA PLOT DEPTH ELEV. Piezometer Construction SOIL DESCRIPTION 50 mm Dia. Cone • (m) (m) RECOVERY N VALUE or RQD NUMBER TYPE o/0 \bigcirc Water Content % 80 **GROUND SURFACE** 20 40 60 0+90.88TOPSOIL 0.30 AU 1 Brown SAND with organics <u>1.0</u>1 1+89.88 SS 2 92 17 Compact, brown SANDY SILT 1.83 SS 3 83 70 2 + 88.88SS 4 79 48 3+87.88 GLACIAL TILL: Very dense, brown SS 5 80 50 +silty sand with gravel, cobbles and boulders - grey by 3.8m depth 4+86.88 SS 6 79 88 ≍ SS 7 100 50 +5 + 85.88SS 8 79 44 6+84.88 SS 9 100 50 +6.70 **Dynamic Cone Penetration Test** commenced at 6.70m depth. 7.06 7+83.88 Inferred GLACIAL TILL End of Borehole Practical DCPT refusal at 7.06m depth (GWL @ 1.85m - June 21, 2019) 20 40 60 80 100 Shear Strength (kPa) Undisturbed △ Remoulded

natersonar		In	Con	sulting		SOII	_ PRO	FILE AI	ND TES	ST DATA		
154 Colonnade Road South, Ottawa, On	tario I	2E 7J	Eng	ineers	G Pi	Geotechnical Investigation Prop. Warehouse Complex - 1966 Roger Stevens Drive Ottawa. Ontario						
DATUM Ground surface elevations	s prov	ided b	oy Anr	nis, O'S	Sulliv	an, Vollet	pekk Ltd.		FILE NO.	DC 4070		
REMARKS										PG4870		
BORINGS BY CME 55 Power Auger	-	1		D	ATE	2019 Jun	e 13			[°] BH27		
SOIL DESCRIPTION	PLOT		SAN	IPLE			ELEV.	Pen. R ● 5	esist. Blo 0 mm Dia	ows/0.3m . Cone	- 5	
GROUND SURFACE	STRATA	ТҮРЕ	NUMBER	% RECOVERY	N VALUE or ROD	(m)	(m)	0 V 20	Vater Cor 40 6	1 tent % 0 80	Piezomete Constructio	
TOPSOIL0.20		× 11	4			- 0-	-88.72					
		ss	2	92	36	1-	-87.72				Ţ	
GLACIAL TILL: Dense to very dense, brown silty sand with gravel, cobbles and boulders		ss ss	3	67 42	23 17	2-	-86.72					
		ss	5	79	46	3-	-85.72					
		∦ ss	6	82	50+	4-	-84.72					
4.72	<u>2 [^^^^/</u>	SS	7	100	50+							
Practical refusal to augering at 4.72m depth (GWL @ 1.65m - June 21, 2019)												
								20 Shea ▲ Undist	40 6 ar Strengt turbed △	0 80 1 t h (kPa) Remoulded	00	

natersonar		In	Con	sulting		SOIL	- PRO	FILE AI	ND TES	T DATA		
154 Colonnade Road South, Ottawa, On	tario ł	2E 7J	Eng 5	ineers	Geotechnical Investigation Prop. Warehouse Complex - 1966 Roger Stevens Drive Ottawa Ontario							
DATUM Ground surface elevations	s prov	ided b	y Anr	nis, O'S	ulliva	an, Vollet	pekk Ltd.		FILE NO.			
REMARKS									HOLE NO.	FG4070		
BORINGS BY CME 55 Power Auger	1	1		DA	TE 2	2019 Jun	e 12			BH28	1	
SOIL DESCRIPTION	PLOT		SAN	IPLE		DEPTH	ELEV.	Pen. R • 5	esist. Blov 0 mm Dia.	vs/0.3m Cone	n on	
	STRATA	TYPE	NUMBER	% ECOVERY	N VALUE or RQD	(11)	(11)	• V	Vater Conte	ent %	iezomete onstructi	
TOPSOIL 0.23	2	×		<u> </u>		0-	-88.31	20	40 60	80		
Loose, brown SILTY SAND, some clay		SS	1 2	100	4	1 -	-87.31				Ŧ	
Stiff, brown SILTY CLAY with sand		ss	3	100	2	2-	-86.31					
- grey by 3.0m depth						3-	-85.31	<u> </u>				
<u>4.5</u> 7						4-	-84.31					
		ss	5	67	45	5-	-83.31					
grey silty sand with gravel, cobbles and boulders		ss	6	25	19	6-	-82.31					
6.70 End of Borehole (GWL @ 0.86m - June 21, 2019)	(^^^^^) (^^^^^) (^^^^^) (^^^^^)	ss	7	62	26							
								20 Shea ▲ Undist	40 60 ar Strength turbed △ F	80 1 (kPa) Remoulded	00	

natersonar		ır	Con	sulting		SOIL	_ PRO	FILE AI		ST DATA		
154 Colonnade Road South, Ottawa, On	tario I	K2E 7J	Eng	jineers	Geotechnical Investigation Prop. Warehouse Complex - 1966 Roger Stevens Drive Ottawa. Ontario							
DATUM Ground surface elevations	s prov	ided b	y Anı	nis, O'S	ulliv	an, Vollet	bekk Ltd.		FILE NO.	DC 4070		
REMARKS										PG4870)	
BORINGS BY CME 55 Power Auger		1		DA	TE	2019 Jun	e 14	1		BH28A		
SOIL DESCRIPTION	PLOT		SAN	MPLE		DEPTH	ELEV.	Pen. R • 5	esist. Bl 0 mm Dia	ows/0.3m a. Cone	u on	
	FRATA	ТYPE	JMBER	JMBER % COVERS				• V	Vater Cor	zomete istructic		
GROUND SURFACE	<u>د</u>		N	REC	zö	0	-88 31	20	40 6	50 80	Pie Cor	
						1-	-87.31					
OVERBURDEN						2-	-86.31					
		тw	1			3-	-85.31					
End of Borehole						4-	-84.31	Δ				
								20 Shea	40 G	50 80 1 th (kPa)		

natersonar		Ir	Con	sulting		SOIL	- PRO	FILE AN	D TEST DATA			
154 Colonnade Road South, Ottawa, On	tario	K2E 7J	Eng	ineers	Ge Pr	Geotechnical Investigation Prop. Warehouse Complex - 1966 Roger Stevens Drive Ottawa, Ontario						
DATUM Ground surface elevations	s prov	vided b	oy Anr	nis, O'S	ulliv	an, Vollet	pekk Ltd.		FILE NO.	<u> </u>		
REMARKS								_		,		
BORINGS BY CME 55 Power Auger		-		DA	TE	2019 Jun	e 12		BH29			
SOIL DESCRIPTION	LOT		SAN	IPLE		DEPTH	ELEV.	Pen. Res	sist. Blows/0.3m mm Dia. Cone	, L		
	TRATA I	ЗdХJ	JMBER	°°°	* COVERY VALUE r RQD		(m)	⊖ Wa	Water Content %			
GROUND SURFACE	S.		N	REC	z ⁶			20	40 60 80	Pie Cor		
TOPSOIL0.23	8	8				- 0-	-88.06					
Loose, brown SILTY SAND with gravel		AU SS	1	100	5	1-	-87.06					
		ss	3	100	3	2-	-86.06					
Stiff, brown SILTY CLAY - firm to stiff and grey by 3.0m depth						3-	-85.06					
						4-	-84.06	4				
						5-	-83.06	4				
						6-	-82.06					
6.70	YKX	1										
(GWL @ 1.16m - June 21, 2019)												
								20 Shear ▲ Undistur	40 60 80 Strength (kPa) rbed △ Remoulded	100		

natersonar		In	Con	sulting		SOIL	- PRO	FILE AI	ND TEST D	ΔТА			
154 Colonnade Road South, Ottawa, On	tario l	K2E 7J	Eng	ineers	G Pr	Geotechnical Investigation Prop. Warehouse Complex - 1966 Roger Stevens Drive Ottawa, Ontario							
DATUM Ground surface elevations	s prov	ided b	y Anr	nis, O'S	ulliv	an, Vollet	pekk Ltd.		FILE NO.	1870			
REMARKS										+070			
BORINGS BY CME 55 Power Auger				DA	TE	2019 Jun	e 12	1	BH3	80			
	LOT		SAMPLE			DEPTH	ELEV.	Pen. R	lesist. Blows/0.3	Sm			
SOIL DESCRIPTION	ľà P	ы	R	IRY	Вg	(m)	(m)			leter			
	TRA.	ІАХТ	IUMBI		VAL F R(0 V	Water Content %	ezon			
GROUND SURFACE	03	~	N	RE	z ^o	- 0-	-88.27	20	40 60 80	o ĔŬ			
	<u>8</u> . .	8 8 AU	1										
Very loose, brown SILTY SAND													
with clay			2	100	1	1-	-87.27			¥			
			2		1								
<u>1.5</u> 2													
						2-	-86.27						
								···· / - ····					
Very stiff to stiff, brown SILTY CLAY with sand						3-	-85.27	4					
- firm and grey by 3.0m depth													
						4-	-84 27						
							04.27						
						5-	-83.07						
							00.27		···· • • • • • • • • • • • • • • • • •				
						6-	- 82 27						
							02.21						
6.70													
End of Borehole													
(GWL @ 0.92m - June 21, 2019)													
								20 Cha	40 60 80	0 100			
									turbed \triangle Remou) lded			



stocad drawings\geotechnical\pg48xx\pg4870\pg4870-1(rev.1) thlp.dw

APPENDIX 4

LABORATORY WATER QUALITY ANALYSIS REPORTS



Environment Testing

Client:	Paterson Group
	154 Colonnade Rd. South
	Nepean, ON
	K2E 7T7
Attention:	Mr. Mike Killam
PO#:	24752
Invoice to:	Paterson Group

🛟 eurofins

Report Number:	1910525
Date Submitted:	2019-06-25
Date Reported:	2019-07-02
Project:	PH 3837
COC #:	90496

				Lab I.D. Sample Matrix Sample Type Sampling Date Sample I.D.	1435449 GW 2019-06-24 GW - Well	1435450 GW 2019-06-24 GW - Ditch
Group	Analyte	MRL	Units	Guideline		
Anions	N-NO2	0.10	mg/L		0.17	<0.10
	N-NO3	0.10	mg/L		3.16	1.02
General Chemistry	рН	1.00			8.24	8.37
Metals	Р	0.002	mg/L		0.244	0.174
Subcontract	N-NH3	0.010	mg/L		0.096	0.055
	Total Kjeldahl Nitrogen	0.15	mg/L		1.44	0.87

Guideline =

* = Guideline Exceedence

Results relate only to the parameters tested on the samples submitted. Methods references and/or additional QA/QC information available on request.