



**Hydrogeology Study**  
**Proposed Two-lot Severance (B 26/22 + B 27/22)**  
**676 Foxton Road, Roslin, Ontario**



Prepared for:

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Submitted by:

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March 2024



G R E E R  
G A L L O W A Y  
C O N S U L T I N G  
E N G I N E E R S

March 31, 2024

Project 23-3-8574

Mr. Justin Bell  
676 Foxtan Road  
Roslin, Ontario  
K0K 2Y0

**Hydrogeology Study**  
**Proposed two-lot Severance (B 26/22 + B 27/22)**  
**676 Foxtan Road, Roslin, Ontario**

Dear Justin,

We are pleased to submit this servicing study (water and sewage) report for your proposed two-lot Severance (B 26/22 + B 27/22) at 676 Foxtan Road in Roslin, Ontario.

We trust that this report is complete within our terms of reference and sufficient for your requirements. Please call us if you have any questions about the report or any areas that require clarification. Once you have had the chance to review the draft, we will make any edits required and issue a final document.

Yours very truly,

**THE GREER GALLOWAY GROUP INC.**  
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# 1. Introduction

The Greer Galloway Group was retained by Mr. Justin Bell to complete a Hydrogeology Study for the proposed severance of two lots from an approximately 14.3 ha property located on the east side of Foxton Road, south of Boundary Road, near Roslin, Ontario. The legal description of the property is: Part of Lot 26, Concession 9, Thurlow Township in the City of Belleville. The property is currently in agricultural use.

Proposed severance B 26/22 is approximately 0.84 ha in area and is bounded by Foxton Road on the west and Boundary Road on the north. Proposed severance B 27/22 is approximately 0.45 ha in area and is bounded by proposed severance B 26/22 on the west and Boundary Road on the north. The Belleville Committee of Adjustment has granted consent for both severances subject to the following hydrogeology-related conditions:

- a properly-completed Water Well Record for the severed parcel, certifying the quantity of the water on this parcel is not less than 3.5 gallons per minute and that the water has passed the Health Unit Bacteriological Test;
- a hydrogeological analysis to demonstrate that an adequate water supply exists and that no adverse impacts will result to the surface and groundwater.

Each of the proposed severances has a well that meets the completed Water Well Record condition, so the purpose of this hydrogeology study is to assess the soil and groundwater conditions at the site to demonstrate that the proposed severances can be supported by groundwater and that the property can accommodate private sewage treatment/ disposal in accordance with applicable Provincial standards.

## 2. Investigation Methods

The investigation included a review of water well records, available geologic and hydrogeologic information for the area, a door-to-door inventory of water well supplies within a reasonable distance of the proposed development, pumping tests on the proposed lots in general accordance with MECP Guideline D-5-5 (Technical Guideline for Private Wells; Water Supply Assessment) and an analysis of sewage servicing options in accordance with MECP Guideline D-5-4 (Individual On-Site Sewage Systems). The investigation methods are described further in the following subsections:

### 2.1 Well Records Search and Survey

On June 4, 2023, a door-to-door well survey was carried out for neighbouring wells within an approximately 300 m radius of the proposed severances. Two homes are adjacent to the proposed new lots: The proponent's home at 676 Foxton Road to the south and west of the proposed severances and 349 Boundary Road to the northeast. 349 Boundary Road is supplied by a drilled well which was used as a monitoring location during the pumping tests. This well is located approximately 105 m to the northeast of Well A321307 (the east proposed severance), and 180 m northeast of Well A320558 (the west proposed severance).

The door-to-door well survey was limited to the adjacent properties only. We relied on MECP water well records for more distant residences. MECP Water Well Record sheets for the general area are provided in Appendix A.

## 2.2 Water Supply Assessment

The water supply assessment was based on pumping tests of the wells A321307 on the proposed eastern severance, A320558 on the proposed western severance, and A321308 which is also on the proposed western severance, but was found to have insufficient yield and will be decommissioned.

The pumping tests were performed using a submersible pump with the discharge routed through a flow restriction valve corresponding to the desired pumping rate. Pumped water was discharged approximately 30 m downgradient of each tested well.

Datalogging pressure transducers (Solinst Model 3001) were installed in the tested wells, the well servicing the residential dwelling located on the proposed retained property, and in wells servicing select neighbouring properties. All dataloggers were synchronized prior to the testing and set to record at 1-minute intervals. The water level observations during the test and the recovery period following the testing are included in the figures appended after the text of this report.

### 2.2.1 B 26/22 (West Severance)

This proposed lot contains two 30.5 m deep drilled wells, A321308 and A320558.

A321308 sources a bedrock aquifer, which was encountered at a depth of 3.9 m below ground surface. The driller reportedly encountered water at 4.3, 11.0, and 13.4 m depth. The well was completed with a pitless adaptor and a 6 m steel casing which was grout-sealed in the upper 3 m. The driller-reported yield is 40 L/min.

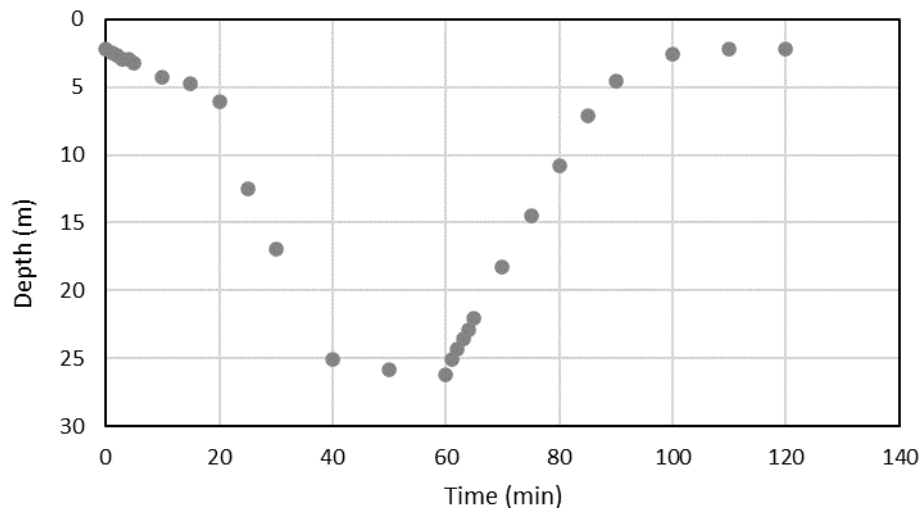


Figure A1 – Graph of driller's yield testing results for Well A321308

A320558 sources a bedrock aquifer, which was encountered at a depth of 3.6 m below ground surface. The driller reportedly encountered water at 4.9, 7.7, and 10.7 m depth. The well was completed with a pitless adaptor and a 6 m steel casing which was grout-sealed in the upper 5 m. Slotted steel casing was installed between depths of 5.5 m and 6.0 m bgs. The driller-reported yield is 23 L/min.

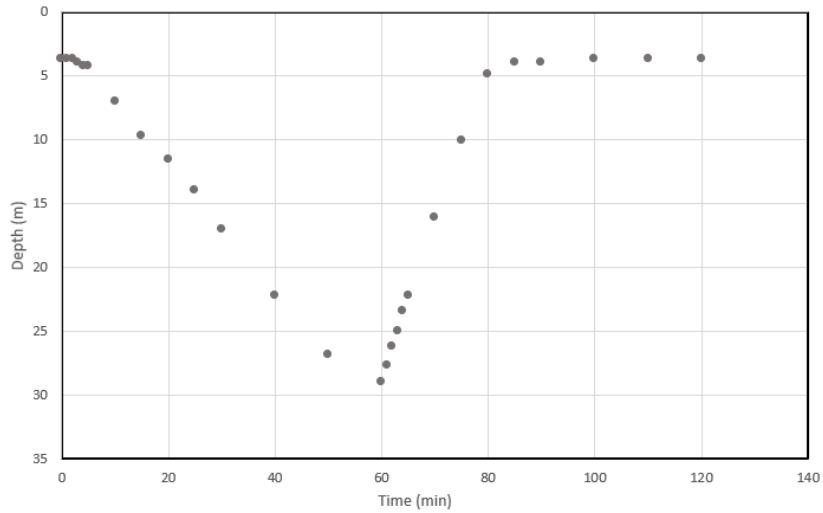


Figure A2 – Graph of driller's yield testing results for Well A320558

### 2.2.2 B 27/22 (East Severance)

This proposed lot contains a 30.5 m deep drilled well (A321307) which sources the bedrock aquifer which was encountered at a depth of 3.2 m below ground surface. The driller reportedly encountered water at 4.0, 7.9, and 10.7 m depth. The well was completed with a pitless adaptor and a 6 m steel casing which was grout-sealed in the upper 3 m. The driller-reported yield is 55 L/min.

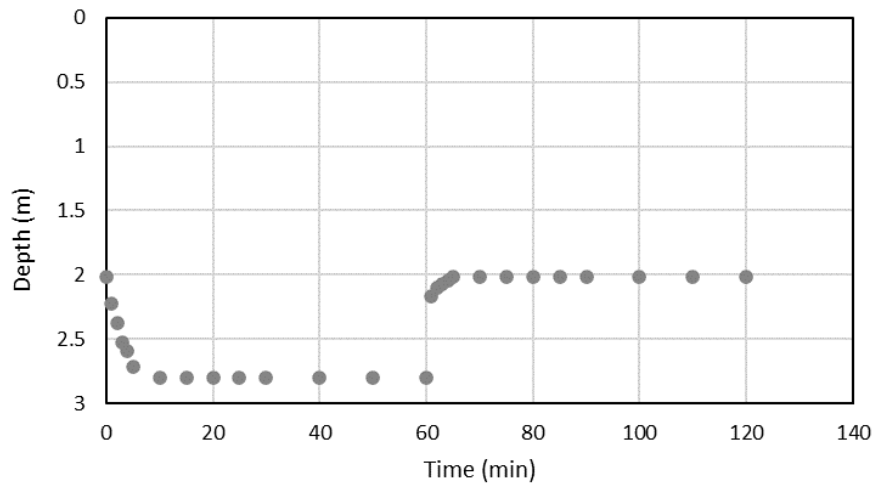


Figure A3 – Graph of driller's yield testing results for Well A321307

## 2.3 Water Quality Assessment

A groundwater sample was obtained from each of the test wells during the last hour of the pumping test for Well A321308 and A320558, and after 290 min of pumping for Well A321307. Prior to taking the samples, it was confirmed that there was no residual free chlorine using a handheld free chlorine colorimeter. The sample bottles were placed in a variety of laboratory-prepared sample containers that were sealed, placed into a cooler with ice packs to maintain a temperature of approximately 4 °C, and transported to Caduceon Laboratories in Kingston, Ontario.

Analytical parameters included E. coli and Total Coliform bacteria and a variety of additional parameters including Alkalinity, pH, Conductivity, Colour, Turbidity, Fluoride, Chloride, Nitrite and Nitrate, Sulphate, TKN, Ammonia, Organic Nitrogen, DOC, Hardness, Calcium, Iron, Magnesium, Manganese, Potassium, Silica, Sodium, and Zinc (refer to the Laboratory Certificate of Analysis in Appendix B).

## 2.4 Karst Hazard Assessment

Karst-related hazards were assessed according to guidelines from Brunton (2013) and included a review of available information for the site and area along with a detailed site inspection to look for indications of potential karst and an assessment of the potential risk and appropriate mitigation measures. Specific geological/hydrogeological characteristics included topography and drainage, surficial geology, bedrock geology, groundwater elevations, groundwater flow patterns, and location of water wells potential recharge and discharge areas (including springs/seepage). Specific risk factors included proximity to bedrock valleys, carbonate rock texture, anomalously high well yields, and sequence stratigraphic breaks occurring at shallow depths.

## 2.5 Septic System Sizing

Representative total daily design sanitary sewage flows were estimated using the Ontario Building Code (OBC) Table 8.2.1.3.A. The water demand was estimated based on a hypothetical 3-bedroom residence on each of the proposed severances.

# 3. Summarized Findings

## 3.1 Site Description

The property covers an area of approximately 14.3 ha property located on the east side of Foxton Road south of Boundary Road near Roslin, Ontario. The legal description of the property is: Part of Lot 26, Concession 9, Thurlow Township in the City of Belleville.

Proposed severance B 26/22 is approximately 0.84 ha in area and is bounded by Foxton Road on the west and Boundary Road on the north. Proposed severance B 27/22 is approximately 0.45 ha in area and is bounded by proposed severance B 26/22 on the west and Boundary Road on the north.

The site itself is about 145 m above mean sea level (mASL). Site drainage is to the north and west, following the local topographic trends. There are no municipal services in the area and all homes are serviced by private water supply wells and private individual septic systems.

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## 3.2 Climate and Water Balance

The area is characterized by mild winters and relatively cool humid summers. Snow typically occurs during 5 months of the year from December to April. Precipitation is approximately 912 mm/a (Canadian Climate Normals for CFB Trenton) with an average annual evapotranspiration (ET) of roughly 500 mm/a based on the site location (Statistics Canada, 2017).

Mapping shows primarily thin surficial soils classified as thin soils over Paleozoic bedrock in the Surficial Geology of Southern Ontario (OGS, 2011). The infiltration for the area was calculated using two methods: infiltration factors as per the Ontario Ministry of the Environment 1995 Hydrogeological Technical Information Requirements for Land Development Applications; and run-off factors as per the Technical and Engineering Guidelines for Stormwater Management Submissions (GRCA, 2014).

The infiltration factors approach is based on three sub-factors which are:

- Topography sub-factor
- Soil sub-factor
- Cover sub-factor

The following table presents infiltration factors based on the details of the ground cover for the area under current conditions:

**Table 2: Estimated infiltration factors**

Site Characteristic	Infiltration Factor
<u>Topography</u>	
<b>Flat Land</b>	<b>0.3</b>
Rolling Land	0.2
Hilly Land	0.1
<u>Soils</u>	
Tight impervious clay	0.1
<b>Medium combinations of clay and loam</b>	<b>0.2</b>
Open Sandy loam	0.4
<u>Cover</u>	
<b>Cultivated Land</b>	<b>0.1</b>
Woodland	0.2
Sum of Infiltration Factors	<b>0.6</b>

Given an average annual moisture surplus (P-ET) of approximately 400 mm/a, and an infiltration factor of 0.6, we estimate an average infiltration of about 240 mm/a, or roughly 6,575 L/day per hectare.

The runoff coefficient approach is similar except that it provides the amount of the water surplus lost to run-off and it typically yields a higher infiltration in most site settings.

**Table 3: Estimated run-off factors (MTO Drainage Manual)**

Topography		Runoff Coefficient Based on Soil Type <sup>1</sup>			Percentage of site area <sup>2</sup>
		Sandy Loam	Silt Loam	Tight Clay Loam	
<b>Vegetated lands</b>	Flat (0 to 5%)	0.08	<b>0.25</b>	0.35	<b>50</b>
	Rolling (5 to 10%)	0.12	<b>0.30</b>	0.42	<b>50</b>
	Hilly (10 to 30%)	0.18	0.35	0.52	<b>0</b>
	Basin (0%)	0.00			<b>0</b>

**Weighted Average: 0.275**

Given an average annual moisture surplus (P-ET) of approximately 400 mm/a, and a runoff coefficient of 0.275, we estimate an average infiltration of about 290 mm/a, or roughly 7,945 L/day per hectare.

For the purposes of nitrate loading calculations, we have elected to assume an infiltration of 250 mm/a (6,850 L/day per ha) in accordance with the MECP's Design Guidelines for Sewage Works (MECP, 2008).

### 3.3 Geology

The surface physiography of the area has resulted primarily from glacial activity that took place during the Late Wisconsinan Substage of the Quaternary period (circa 23,000 to 10,000 BP). During this time, there were repeated advances and retreats of glacial ice lobes removing much of any pre-existing overburden and leaving the bedrock surface exposed or covered by a mantle of unconsolidated sandy-loam textured material overlying Paleozoic bedrock (OGS, 2011). Sand and gravel soils are noted in the drillers well logs for the site, but visual inspection of the shallow soils suggests a loam texture.

The bedrock geology consists of shales and limestones of the middle Ordovician age lower Bobcaygeon Formation. The Bobcaygeon Formation is a light grey-brown to blue-grey to grey-brown, fine- to coarse-textured fossiliferous limestone. Thin shale interbeds and partings are encountered within the limestone and these increase in abundance upward while crinoidal grainstones and nodular textures are more common in the lower part of the Formation. Armstrong and Rhéaume (1994) subdivide the Bobcaygeon Formation into an upper, middle, and lower member with the middle member forming the uppermost bedrock beneath the subject property.

Strata in the area are essentially flat-lying with a slight regional dip to the southwest although steeper bedding angles may occur closer to the Paleozoic-Precambrian boundary where the Paleozoic strata drapes over the pre-existing topography in the Precambrian basement.

### 3.4 Hydrogeology

The fractured limestone bedrock forms the primary source of exploitable groundwater in the area. A search of the Well Record Database from the Ministry of the Environment, Conservation and Parks (MECP) found 17 well records, within an approximately 700 m radius of the subject site. 16 of these records contained useful information regarding aquifer properties, the other being a well alteration record. Wells in the area ranged between 14.6 and 45.7 m depth with an average and median depth

of 25.9 and 21.9 m, respectively. All the wells were completed in the bedrock aquifer. Groundwater was encountered within fractured bedrock or overburden at depths ranging from 8.8 to 53.3 m with static levels occurring 1.5 to 32.6 m below ground surface. Driller-reported well yields ranged from 0 to 136 L/min with average and median yields of 35.8 and 13.6 L/min, respectively. Five dry wells were recorded. Water was generally described as fresh. A summary of the water well data is included on the following table:

**Table 4: Summary of well depths and yields within an approximately 700 m radius of the property**

Well Number	Water Found (m)	Static Level (m)	Yield (L/min)	Overburden Depth (m)	Hole Depth (m)	Water Type	Aquifer
2919737	12.2	6.1	dry	2.4	14.6	Untested	Bedrock
2903354	Multiple	3.0	9.1	2.7	26.8	Fresh	Bedrock
2903355	Multiple	0.3	227.0	0.6	39.9	Fresh	Bedrock
2905459	17.7	7.6	13.6	2.7	18.6	Fresh	Bedrock
7323489	No data – raised casing						
2911851	4.3	1.8	136.2	4.3	37.8	Fresh	Bedrock
2911180	Multiple	4.0	22.7	8.5	22.9	Fresh	Bedrock
2910865	Multiple	2.4	18.2	3.7	19.2	Fresh	Bedrock
2911016	Multiple	1.5	13.6	3.7	18.3	Fresh	Bedrock
2911860	...	1.8	6.8	1.8	21.3	Fresh	Bedrock
2911861	...	...	dry	1.2	22.3	...	Bedrock
2913095	...	...	dry	2.1	16.5	...	Bedrock
2916522	...	...	dry	3.4	24.4	...	
2909438	24.4	2.4	13.6	4.6	27.4	Fresh	Bedrock
2910099	43.3	7.6	22.7	11.0	45.7	Fresh	Bedrock
7203436	...	3.1	20.4	8.5	30.5	Fresh	Bedrock
A320541	...	0.0	dry	3.7	30.5	...	Bedrock
A321308	Multiple	2.2	40.9	3.9	30.5	Untested	Bedrock
A321307	Multiple	2.0	54.5	3.2	30.5	Untested	Bedrock
A320558	Multiple	3.7	22.7	3.4	30.5	Untested	Bedrock

Based on the recorded static levels and the topographic setting, the dominant shallow groundwater flow direction is predicted to be in a western direction toward a wetland area and small creek. Deep groundwater will flow in a southeasterly direction toward the Moira River.

### 3.5 Water Availability

Pumping tests on Wells A321307 and A321308 were performed on June 6, 2023, following 7 days with no precipitation. The pumping test on Well A320558 was performed on February 15, 2024. The pumping tests are summarized in Table 5, and hydrographs are provided after the text of this report.

**Table 5: Summary of pumping tests**

Well Number	A321307	A321308	A320558	349 Boundary Road
Purpose	Test Well	Test Well	Test Well	Observation Well
Static water level (m bgs)	3.49	3.11	2.36	3.01

Well Number	A321307	A321308	A320558	349 Boundary Road
Test date	June 6, 2023	June 6, 2023	February 15, 2024	June 6, 2023
Test type	Pump	Pump	Pump	-
Test rate (L/min)	20.0	15.6	22	-
Duration (min)	503	80	360	-
Max drawdown (m)	0.42	21.5	0.75	0
Recovery	Rapid	Rapid	Rapid	-

Well A321308 was found to have low yield dominated by inflows from shallow bedrock horizons. It was considered unsuitable as a source of potable water for the proposed severance. It was replaced on the West Severance with A320558, which was tested on February 15, 2024.

### 3.6 Water Quality

A groundwater sample was obtained from each tested well and was analyzed at Caduceon Laboratories Ltd. in Kingston, Ontario for selected parameters. Key results of this testing are summarized in Tables 6-8, with the full Laboratory Certificates of Analysis in Appendix B.

**Table 6: Summary of Water Quality Analyses (Well A321308, West Severance)**

	Units	RL	June 6, 2023	Criteria
<b><u>Bacteriological Parameters</u></b>				
Total Coliform	cfu/100mL	1	<b>NDOGT</b>	5
E coli	cfu/100mL	1	<b>NDOGT<sup>2</sup></b>	0
Background	cfu/100mL	1	NDOGT	...
<b><u>Physical/Chemical parameters with Health-related Criteria</u></b>				
Turbidity	NTU	0.1	<b>18.4</b>	5
Nitrite (N)	mg/L	0.1	0.06	1
Nitrate (N)	mg/L	0.1	1.17	10
Fluoride	mg/L	0.1	<0.1	2.4
<b><u>Physical/Chemical parameters with Aesthetic Criteria/Operational Guidelines</u></b>				
Alkalinity(CaCO <sub>3</sub> ) to pH4.5	mg/L	5	266	500 <sup>OG</sup>
pH @25°C	pH Units		8.09	6.5 – 8.5 <sup>OG</sup>
Colour	TCU	2		5 <sup>OG</sup>
Chloride	mg/L	0.5	10.9	250 <sup>AO</sup>
Sulphate	mg/L	1	5	500 <sup>AO</sup>
Dissolved Organic Carbon	mg/L	0.2	2.1	5 <sup>AO</sup>
Sulphide	mg/L	0.01	NP <sup>3</sup>	0.05 <sup>AO</sup>
Hardness (as CaCO <sub>3</sub> )	mg/L	1	260	100 <sup>OG</sup>
Iron	mg/L	0.005	0.237	0.3 <sup>AO</sup>
Manganese	mg/L	0.001		0.05 <sup>AO</sup>
Sodium	mg/L	0.2	9.5	200 <sup>AO</sup>

1) Criteria taken from Ontario Drinking Water Standards except for total coliform bacteria for which the Guideline D-5-5 criterion is used.

- 2) Reported E. coli reflect the overgrown plate and actual E. coli bacteria may or may not be present.
- 3) Based on odour

**Table 7: Summary of Water Quality Analyses (Well A320558, West Severance)**

	Units	RL	February 15, 2024	March 14, 2024	Criteria
<b>Bacteriological Parameters</b>					
Total Coliform	cfu/100mL	1	<b>6</b>		0 (5)
E coli	cfu/100mL	1	0		0
Background	cfu/100mL	1	65		...
<b>Physical/Chemical parameters with Health-related Criteria</b>					
Turbidity	NTU	0.1	0.8	-	5
Nitrite (N)	mg/L	0.1	<0.05	-	1
Nitrate (N)	mg/L	0.1	1.21	-	10
Fluoride	mg/L	0.1	<0.1	-	2.4
<b>Physical/Chemical parameters with Aesthetic Criteria/Operational Guidelines</b>					
Alkalinity(CaCO <sub>3</sub> ) to pH4.5	mg/L	5	254	-	500 <sup>OG</sup>
pH @25°C	pH Units		7.78	-	6.5 – 8.5 <sup>OG</sup>
Colour	TCU	2	4	-	5 <sup>OG</sup>
Chloride	mg/L	0.5	13.7	-	250 <sup>AO</sup>
Sulphate	mg/L	1	7	-	500 <sup>AO</sup>
Dissolved Organic Carbon	mg/L	0.2	4.0	-	5 <sup>AO</sup>
Sulphide	mg/L	0.01	<0.01	-	0.05 <sup>AO</sup>
Hardness (as CaCO <sub>3</sub> )	mg/L	1	268	-	100 <sup>OG</sup>
Iron	mg/L	0.005	0.042	-	0.3 <sup>AO</sup>
Manganese	mg/L	0.001	0.003	-	0.05 <sup>AO</sup>
Sodium	mg/L	0.2	7.7	-	200 <sup>AO</sup>

- 1) Criteria taken from Ontario Drinking Water Standards except for total coliform bacteria for which the Guideline D-5-5 criterion is used.

**Table 8: Summary of Water Quality Analyses (Well A321307, East Severance)**

	Units	RL	June 6, 2023	March 25, 2024	Criteria
<b>Bacteriological Parameters</b>					
Total Coliform	cfu/100mL	1	<b>10</b>	1	0 (5)
E coli	cfu/100mL	1	0	0	0
Background	cfu/100mL	1	>200	>200	...
<b>Physical/Chemical parameters with Health-related Criteria</b>					
Turbidity	NTU	0.1	0.8	-	5
Nitrite (N)	mg/L	0.1	<0.05	-	1
Nitrate (N)	mg/L	0.1	0.45	-	10
Fluoride	mg/L	0.1	<0.1	-	2.4
<b>Physical/Chemical parameters with Aesthetic Criteria/Operational Guidelines</b>					

	Units	RL	June 6, 2023	March 25, 2024	Criteria
Alkalinity(CaCO <sub>3</sub> ) to pH4.5	mg/L	5	291	-	500 <sup>OG</sup>
pH @25°C	pH Units		7.94	-	6.5 – 8.5 <sup>OG</sup>
Colour	TCU	2	5	-	5 <sup>OG</sup>
Chloride	mg/L	0.5	18.3	-	250 <sup>AO</sup>
Sulphate	mg/L	1	5	-	500 <sup>AO</sup>
Dissolved Organic Carbon	mg/L	0.2	2.2	-	5 <sup>AO</sup>
Sulphide	mg/L	0.01	NP	-	0.05 <sup>AO</sup>
Hardness (as CaCO <sub>3</sub> )	mg/L	1	285	-	100 <sup>OG</sup>
Iron	mg/L	0.005	0.149	-	0.3 <sup>AO</sup>
Sodium	mg/L	0.2	12.6	-	200 <sup>AO</sup>

- 1) Criteria taken from Ontario Drinking Water Standards except for total coliform bacteria for which the Guideline D-5-5 criterion is used.

## 4. Discussion

### 4.1 Servicing Options

Neither municipal water supply nor sewage servicing is available at the property, nor will municipal services be available in this area for the foreseeable future. As such, servicing for the proposed severances will be from private groundwater water supplies and private individual septic systems.

### 4.2 Water Availability

#### 4.2.1 B 26/22 (West Severance)

##### Well A321308

Due to concerns about the well's yield being representative long-term, well A321308 could not be recommended as a potable water supply on the proposed severance. The well is pending decommissioning and was replaced with A320558.

##### Well A320558

The pumping test on well A320558 was started at 10:00 AM on February 15, 2024 at an initial rate of 18 L/min. Minimal drawdown was observed at this flow rate, with the water level stabilizing in under five minutes. At 10:05, the flow rate was increased to 22 L/min for the remainder of the test. The test was stopped at 4:00 PM, after six hours of pumping. A volume of approximately 7,900 L was pumped from the well during the test. Recovery was rapid, with 70% recovery of the initial water column occurring within five minutes, and 95% recovery within 60 minutes of the end of the test.

According to MECP Guideline D-5-5, the per-person water requirement is 450 L/day (though recent data shows that actual per-person usage in Ontario is approximately 225 L/day), with peak demand occurring for a period of 120 minutes each day. Based on a 3-bedroom household with an occupancy

of 4 persons, this is equivalent to a peak demand of 15 L/min. The tested well was able to sustain 6 hours of continuous pumping at a rate exceeding the estimated peak demand.

Given the sustainable pumping rate observed and the rapid recovery of the water column, we conclude that there is sufficient water availability to support the proposed severance. The tested yield is considered to be representative, and the well is expected to be able to meet normal residential water demand during the dry summer months.

#### **4.2.2 B 27/22 (East Severance)**

The pumping test on well A321307 was started at 2:29 PM on June 6, 2023 at a rate of 20 L/min. The well sustained this rate until termination of the test after 503 minutes (and a total of 9,890 L had been pumped from the well). The total drawdown in the well was 0.43 m and recovery was rapid, suggesting that this well has a yield in excess of 20 L/min.

According to MECP Guideline D-5-5, the per-person water requirement is 450 L/day (though recent data shows that actual per-person usage in Ontario is approximately 225 L/day), with peak demand occurring for a period of 120 minutes each day. Based on a 3-bedroom household with an occupancy of 4 persons, this is equivalent to a peak demand of 15 L/min. The tested well was able to sustain 6 hours of continuous pumping at a rate exceeding the estimated peak demand.

Given the sustainable pumping rate observed and the rapid recovery of the water column, we conclude that there is sufficient water availability to support the proposed severance. The tested yield is considered to be representative, and the well is expected to be able to meet normal residential water demand during the dry summer months.

### **4.3 Water Quality**

#### **4.3.1 B 26/22 (West Severance)**

For well A321308, an adverse bacterial result was noted. Total Coliform and E. Coli results could not be counted due to overgrowth of the petri dish. Turbidity was also elevated, at 18.4 NTU. The elevated Turbidity is believed to be the result of incomplete well development (related to the low yield) and not reflective of the bedrock aquifer. Follow-up resamples were not taken because a new well was drilled for this proposed severance.

For well A320558, a Total Coliform exceedance of 6 CFU was observed. The well was chlorinated to a free chlorine residual of approximately 40 mg/L and was resampled after the concentration of free chlorine was confirmed to be below the detection limit of our free chlorine colorimeter. The result of the resample was acceptable.

No other water quality concerns were identified based on our sampling. According to the results of the neighbour survey, the groundwater is of generally good quality, with no objectionable taste, odour, or colour. Ultraviolet sterilization would still be recommended as a minimum level of in-home water treatment for the proposed severance.

### 4.3.2 B 26/22 (East Severance)

For well A321307, a Total Coliform exceedance of 10 CFU was observed. The well was chlorinated to a free chlorine residual of approximately 40 mg/L and was resampled after the concentration of free chlorine was confirmed to be below the detection limit of our free chlorine colorimeter. The result of the resample was acceptable.

No other water quality concerns were identified based on our sampling. According to the results of the neighbour survey, the groundwater is of generally good quality, with no objectionable taste, odour, or colour. Ultraviolet sterilization would still be recommended as a minimum level of in-home water treatment for the proposed severance.

## 4.4 Potential for Well Interference

The radius of influence ( $r$ , metres) between a pumped well and the neighbouring properties may be estimated using the estimated value for  $Q$  (i.e., the average amount pumped per day in litres) and the average recharge ( $R$ , mm per year) to the aquifer according to:

$$Q = \frac{R\pi r^2}{365} \quad [1]$$

This calculation using Equation 1 yields a zone of influence distance of less than 30 m based on a shallow bedrock well, pumping at a rate of 1,000 L/day over the course of a year.

We note that the fractured bedrock aquifer does not behave in the same way as an ideal porous media. Localized zones of higher permeability will be associated with a locally greater radius of influence, while lower permeability zones will have a correspondingly reduced radius of influence.

During each of the pumping tests, the other test well was monitored for well interference, along with the residential well at 349 Boundary Road. No response was noted in any of the wells for any of the pumping tests. Given the high yield and limited drawdown in Well A321307 and A320558, no well interference issues are expected under normal residential use.

## 4.5 Onsite Sewage Treatment

Under MECP Guideline D-5-4, nitrate loading is to be assessed for the full development parcel (i.e., the combined area of the two proposed lots) rather than for individual lots. However, practice within Hastings County has been to apply D-5-4 to individual severances and this is the approach we have followed. The concentration of nitrate at the property boundary of the smaller proposed severance (i.e., B 27/22, or the east severance) was calculated in accordance with MECP Guideline D-5-4 for individual onsite sewage systems:

$$C_T = \frac{(Q_e \times C_O) + (Q_R \times C_R)}{Q_R + Q_O}$$

Where:

- $C_T$  = Nitrate concentration at property boundary (mg/L as N)
- $Q_e$  = Sewage Effluent Volume (L/day)



- $C_e$  = Nitrate concentration of sewage effluent (mg/L as N)
- $Q_R$  = Groundwater recharge or precipitation infiltration (L/day)
- $C_R$  = Nitrate concentration of groundwater recharge (mg/L as N)

Each of these parameters are discussed as follows:

$Q_0$  – Daily sewage flows will be dependent on the number of persons at each residence. Based on a 4 to 5 person household, the daily flow per lot is 1 m<sup>3</sup>/day (1,000 L/day).

$C_0$  – For conventional sewage systems for residential developments, an effluent nitrate of 40 mg/L per building lot is typically assumed for residential developments.

$Q_R$  - A groundwater recharge rate of 250 mm/year and an area of 0.448 ha yields a groundwater recharge of 3,068 L/day.

$C_R$  – Nitrate levels in groundwater recharge are ignored since precipitation does not typically contain detectable levels of nitrate.

$C_T$  - The calculated groundwater nitrate at the property boundary.

These quantities yield a nitrate concentration of less than 10 mg/L in groundwater leaving the property:

$$C_T = \frac{(1,000L \times 40 \text{ mg/L}) + (3,068 \times 0 \text{ mg/L})}{3,068 + 1,000} = 9.8 \text{ mg/L}$$

Because the smaller of the two severances meets D-5-4 criteria with respect to nitrate loading, the larger proposed severance must also meet nitrate loading criteria.

Site conditions are considered suitable for the construction of a private septic system. Such systems must be constructed in accordance with Section 8 of the Ontario Building Code and must meet the following setback distances:

**Table 9: Minimum Clearances for Distribution Piping**

Object	Minimum Setback (m)
Structure	5
Well with a watertight casing to a depth of 6 m	15
Any other well	30
Pond	15
Stream	15
Property Line	3

We note that the casing sealing records for the new wells on the proposed severances indicate that the casings are grout-sealed only to 3 m depth: **therefore, a minimum 30 m separation is required between the wells and any future septic system.**

## 4.6 Karst

Brunton and Dodge (2008) published a karst map for southern Ontario and Manitoulin Island that breaks down karst potential into four categories:

- areas of known karst (red)
- areas of inferred karst that are a natural extrapolation of the known karst areas (orange)
- areas of potential karst (yellow)
- areas of unknown or no observed karst

The proposed severance is mapped as an area of potential karst.

Karst forms a continuum from minimally enhanced fracture permeability to interconnected caves systems where voids represent the majority of the rock mass. Just as karst forms a continuum, so does the associated hazard (Fleury, 2009). Groundwater contamination is typically the dominant source of karst-related risk in immature karst terrains while risk to the structural integrity of buildings and infrastructure becomes an increasing component of karst-related risk in more mature terrains. Risks to groundwater supplies are the main concern in Ontario and this is the main concern for the southern proposed severance at the subject site.

No evidence of karst features was noted at the subject site. The thickness of overburden (> 3 m) is sufficient to reduce any karst-related risk to groundwater.

## 5. Summary

The purpose of the work was to determine soil and groundwater conditions at the site and to demonstrate that the property can accommodate private sewage treatment/disposal systems in accordance with Provincial standards without affecting surrounding private water sources.

Our assessment found the following:

### **B 26/22 (West Severance)**

1. The old drilled well (A321308) on the west proposed severance (B 26/22) did not produce enough yield to meet MECP Guideline D-5-5 requirements. It was replaced with well A320558, which was found to produce adequate yield to meet D-5-5 requirements and support the proposed severance.
2. The yield test is considered to be representative, and the well is expected to meet the needs of the proposed severance during the dry summer months.
3. Water quality results showed that the sample had a marginal exceedance for Total Coliform, but was otherwise of good quality. After chlorination and resampling, the water was found to be within ODWS limits.
4. Well testing did not demonstrate any adverse impacts with the surrounding neighbouring wells or natural ecological features. Well interference is not anticipated to be a concern based on the results of this assessment.
5. The proposed severed lot is large enough to accommodate a Class 4 septic system to meet projected design flows for a 3- or 4-bedroom home. Nitrate dilution calculations demonstrate that the severance is large enough to meet reasonable use criteria with respect to nitrate in groundwater leaving the property.
- 6.

**B 27/22 (East Severance)**

7. The drilled well (A321307) on the east proposed severance (B 27/22) has sufficient yield to support a residential dwelling.
8. Water quality results showed acceptable water quality during the 6-hour pumping test, and laboratory analysis showed no health-related exceedances. The well is considered suitable as a potable water supply, though ultraviolet sterilization and water softening are recommended.
9. Well testing did not demonstrate any adverse impacts with the surrounding neighbouring wells or natural ecological features. Well interference is not anticipated to be a concern based on the results of this assessment.
10. The proposed severed lot is large enough to accommodate a Class 4 septic system to meet projected design flows for a 3- or 4-bedroom home. Nitrate dilution calculations demonstrate that the severance is large enough to meet reasonable use criteria with respect to nitrate in groundwater leaving the property.

We note that Well A321308 is not suitable for potable water supply, and this well must be abandoned in accordance with O.Reg. 903.

All of which is respectfully submitted.

**THE GREER GALLOWAY GROUP INC.  
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Junior Hydrogeologist



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Senior Project Manager

## 6. References

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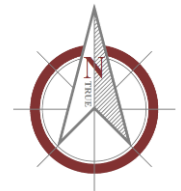
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**NOTES:**

- 1) Base drawing and information: obtained from the Ontario Ministry of Natural Resources and Forestry (MNRF); "Make a Map" Natural Heritage Areas; <https://www.gisapplication.lrc.gov.on.ca/>, accessed May 31, 2023
- 2) Limits of the proposed severances are approximate and subject to change

**LEGEND:**

- Proposed severance boundary
- Retained lands
- Test Well
- Observation Well



PROJECT 2338574:

WATER SUPPLY/WELL INTERFERENCE EVALUATION  
PROPOSED TWO-LOT SEVERANCE (B 26/22 + B 27/22)  
676 FOXTON ROAD, ROSLIN, ONTARIO

DRAWING 1:

SITE PLAN SHOWING TEST WELLS





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**NOTES:**

- 1) Base drawing and information: obtained from the Ontario Ministry of Natural Resources and Forestry (MNR); "Make a Map" Natural Heritage Areas; <https://www.gisapplication.lrc.gov.on.ca/>, accessed May 31, 2023
- 2) Limits of the proposed severance are approximate and subject to change

**LEGEND:**

- Proposed severance boundary
- Retained lands
- 300 m radius from limit of severance

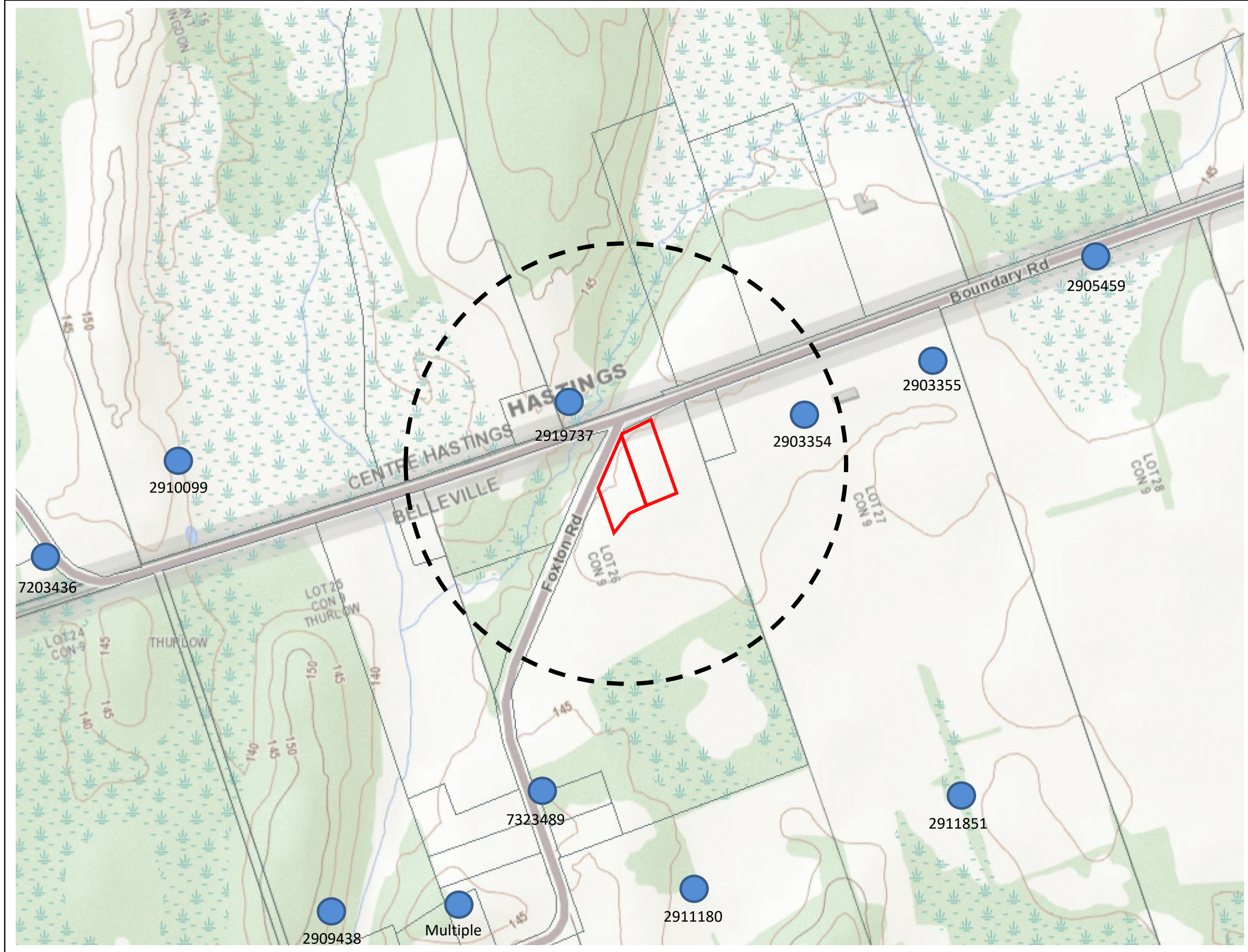


PROJECT 2338574:

WATER SUPPLY/WELL INTERFERENCE EVALUATION  
PROPOSED TWO-LOT SEVERANCE (B 26/22 + B 27/22)  
676 FOXTON ROAD, ROSLIN, ONTARIO

DRAWING 2:

SITE PLAN SHOWING MECP WATER WELLS

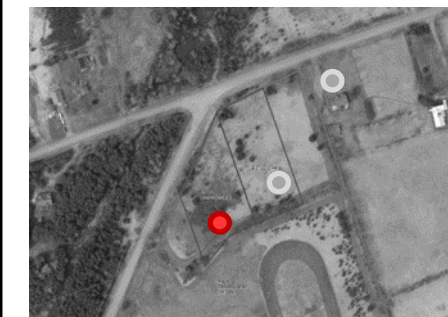




NOTES:

- 1) Test completed June 6, 2023
- 2) On-site pressure and temperature data collected using a Solinst Model 3001 datalogging transducer using 10 s intervals
- 3) Water level data is not corrected for fluctuations in barometric pressure

KEY PLAN:

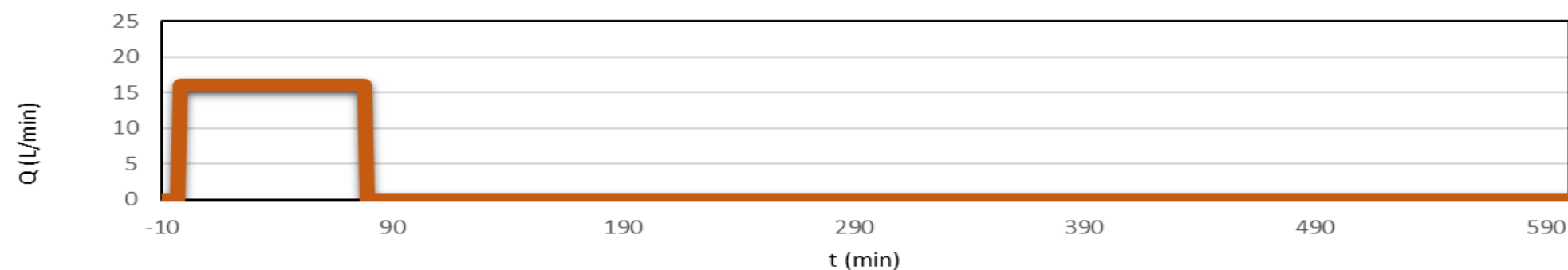
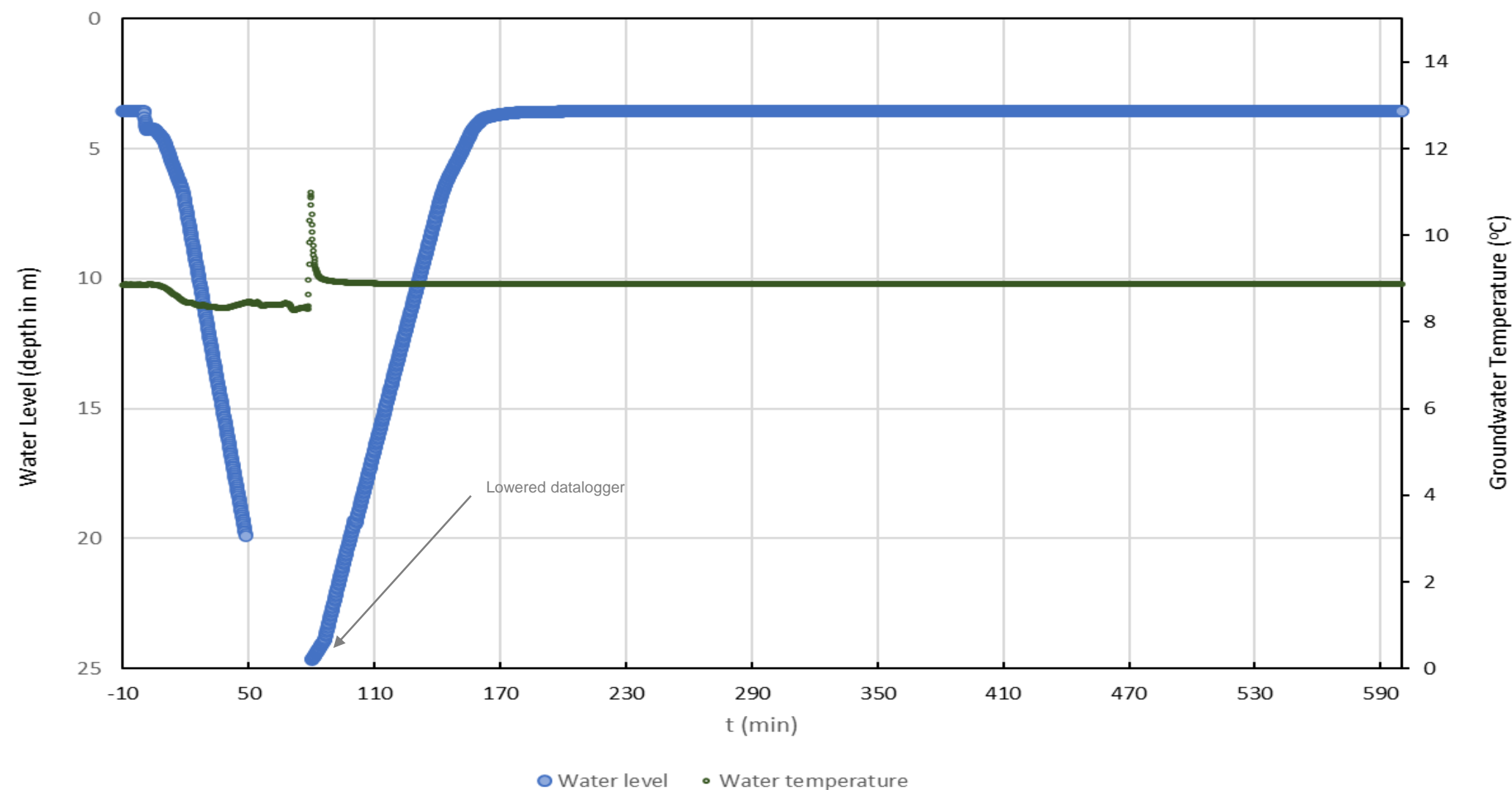


PROJECT 2238574:

WATER SUPPLY/WELL INTERFERENCE EVALUATION  
PROPOSED TWO-LOT SEVERANCE (B 26/22 + B 27/22)  
676 FOXTON ROAD, ROSLIN, ONTARIO

FIGURE B-1:

WELL HYDROGRAPH – TEST WELL 1 (A321308)



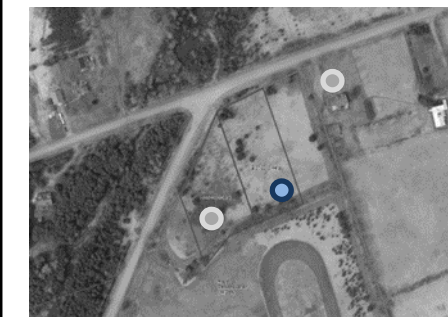


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**NOTES:**

- 1) Test completed June 6, 2023
- 2) On-site pressure and temperature data collected using a Solinst Model 3001 datalogging transducer using 10 s intervals
- 3) Water level data is not corrected for fluctuations in barometric pressure

**KEY PLAN:**

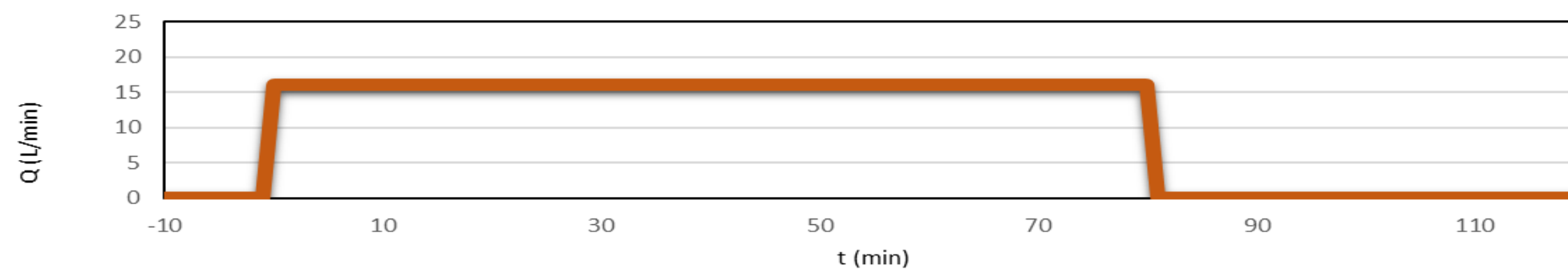
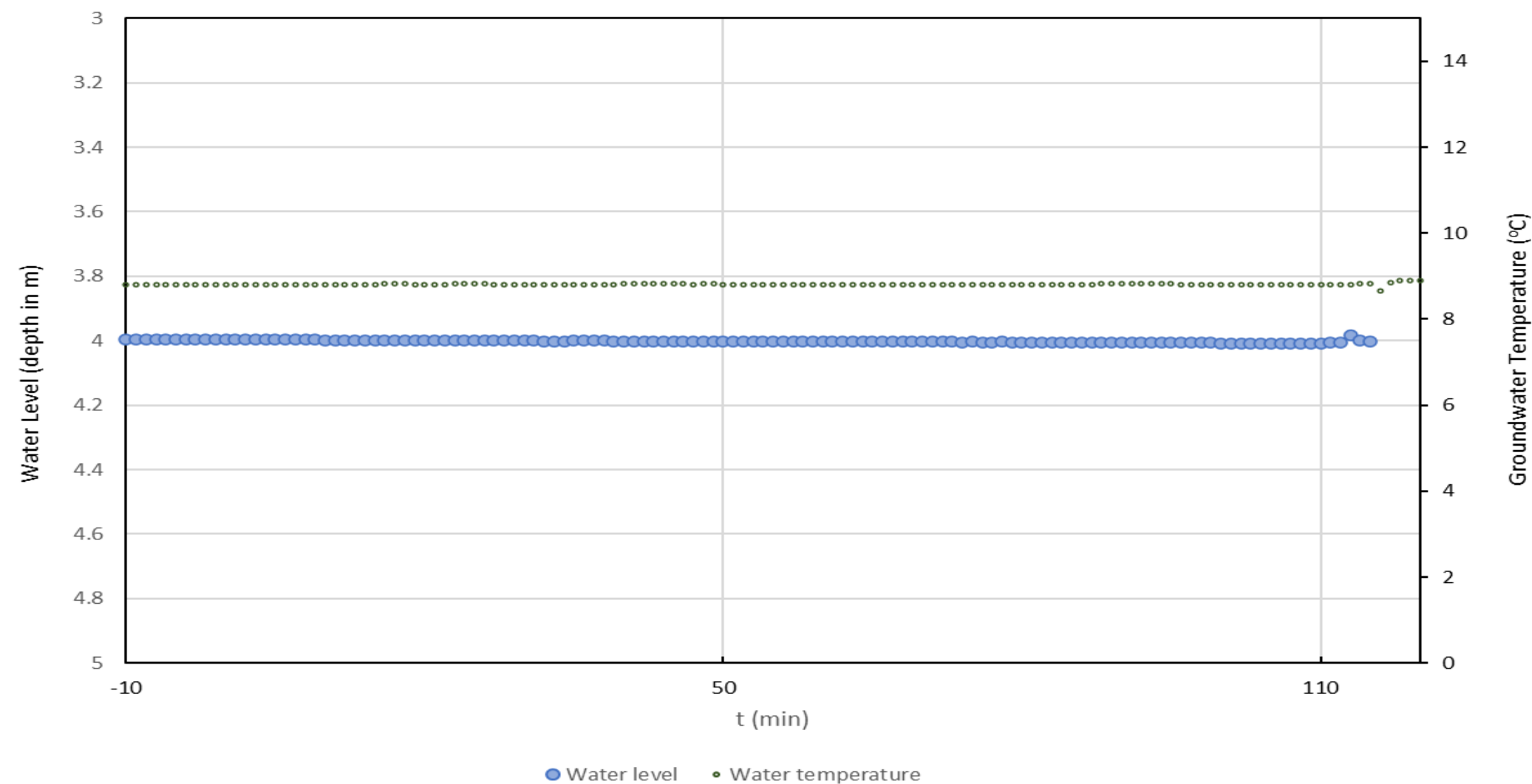


PROJECT 2238574:

WATER SUPPLY/WELL INTERFERENCE EVALUATION  
PROPOSED TWO-LOT SEVERANCE (B 26/22 + B 27/22)  
676 FOXTON ROAD, ROSLIN, ONTARIO

FIGURE B-2:

WELL HYDROGRAPH –  
OBSERVATION WELL 2 (A321307)





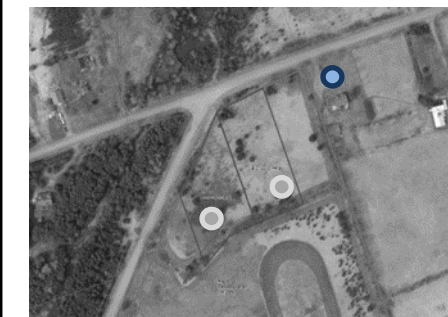


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NOTES:

- 1) Test completed June 6, 2023
- 2) On-site pressure and temperature data collected using a Solinst Model 3001 datalogging transducer using 10 s intervals
- 3) Water level data is not corrected for fluctuations in barometric pressure

KEY PLAN:

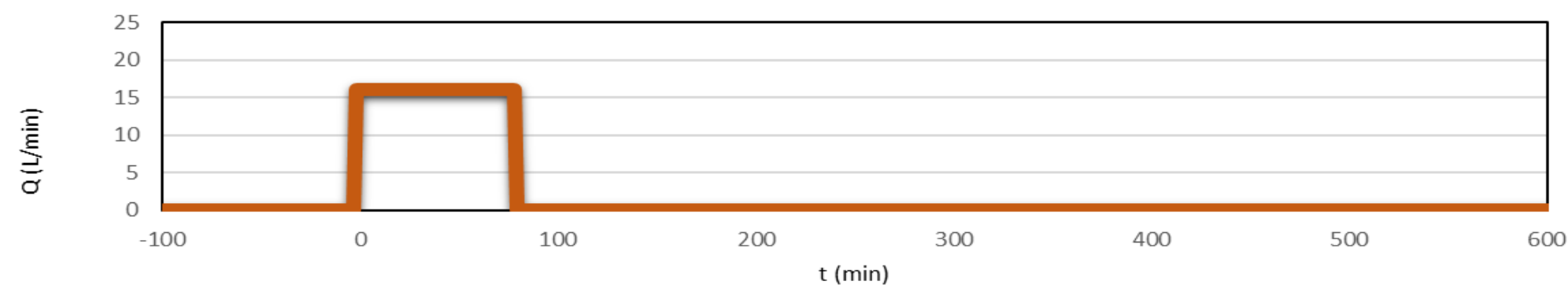
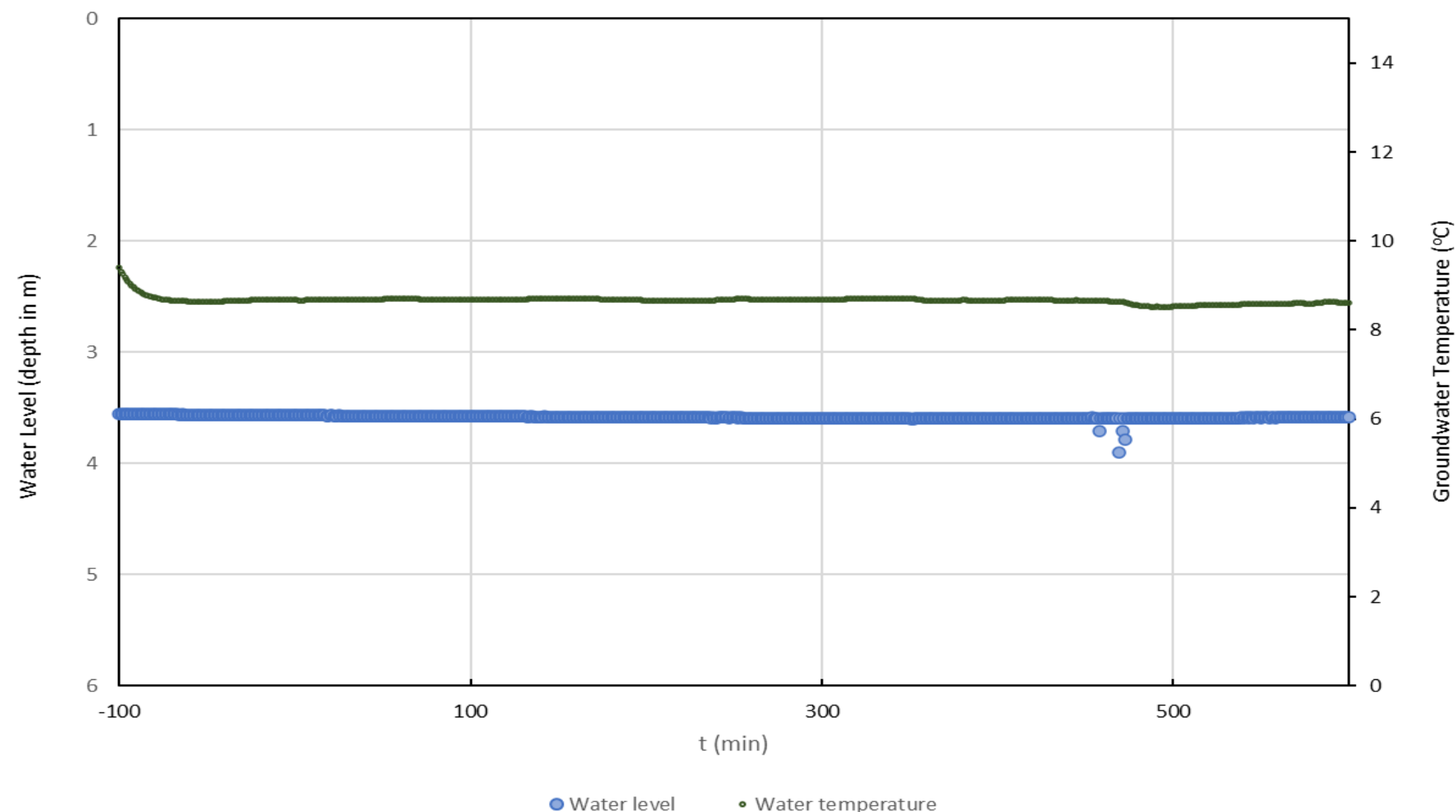


PROJECT 2238574:

WATER SUPPLY/WELL INTERFERENCE EVALUATION  
PROPOSED TWO-LOT SEVERANCE (B 26/22 + B 27/22)  
676 FOXTON ROAD, ROSLIN, ONTARIO

FIGURE B-3:

WELL HYDROGRAPH - 349 BOUNDARY ROAD



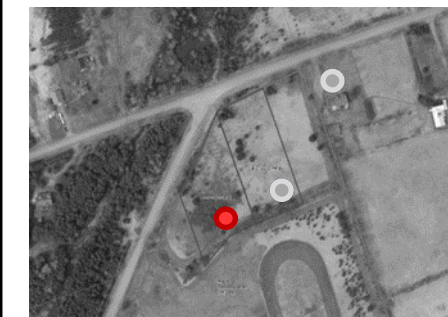


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**NOTES:**

- 1) Test completed June 6, 2023
- 2) On-site pressure and temperature data collected using a Solinst Model 3001 datalogging transducer using 10 s intervals
- 3) Water level data is not corrected for fluctuations in barometric pressure

**KEY PLAN:**

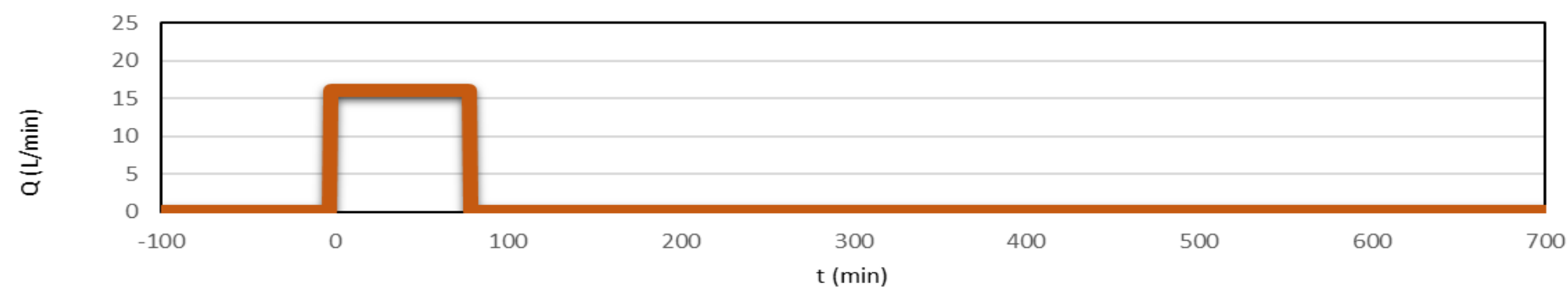
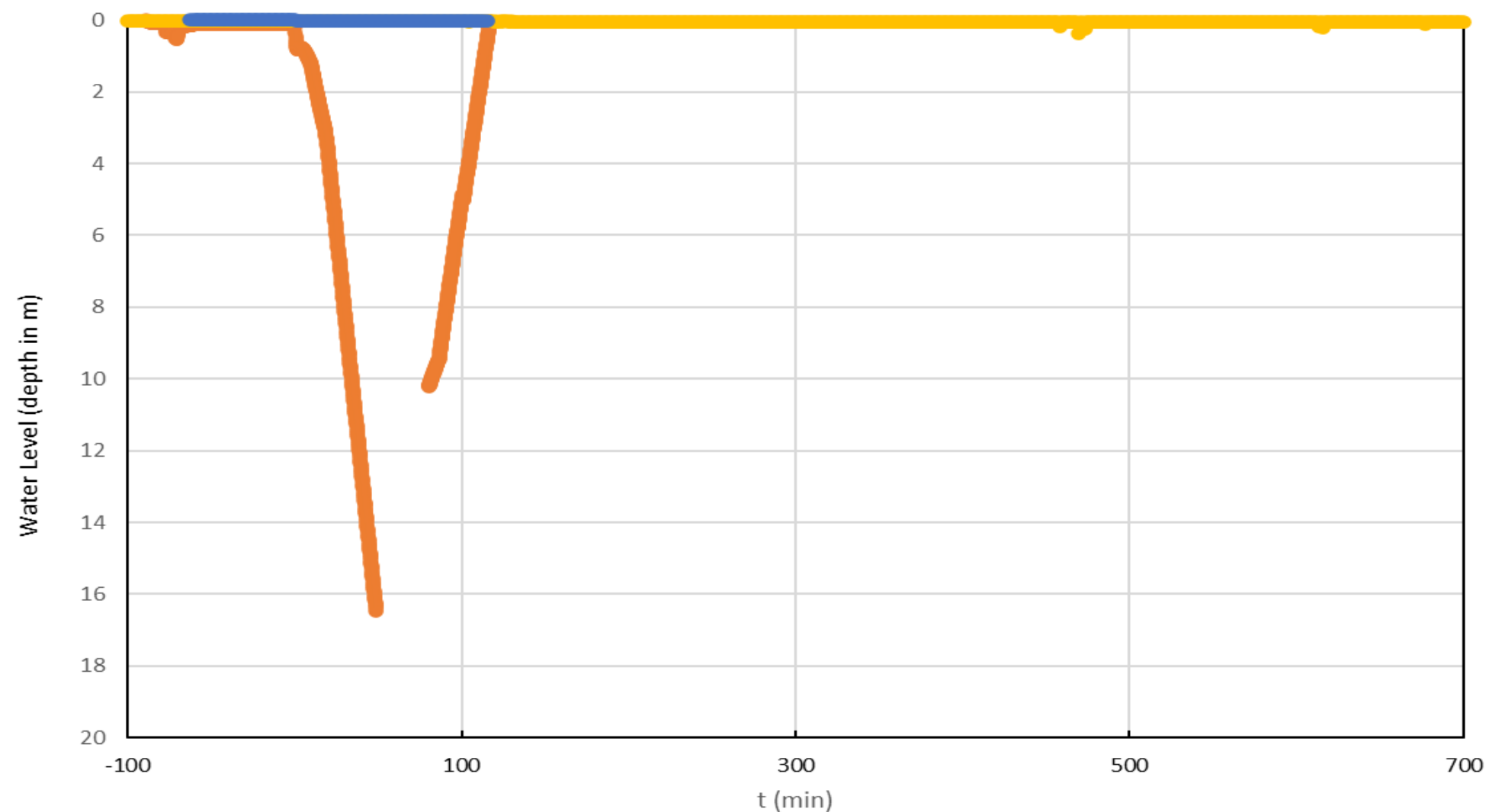


PROJECT 2238574:

WATER SUPPLY/WELL INTERFERENCE EVALUATION  
PROPOSED TWO-LOT SEVERANCE (B 26/22 + B 27/22)  
676 FOXTON ROAD, ROSLIN, ONTARIO

FIGURE B-4:

OBSERVED DRAWDOWNS DURING TEST  
PUMPING OF TEST WELL 1 (A321308)



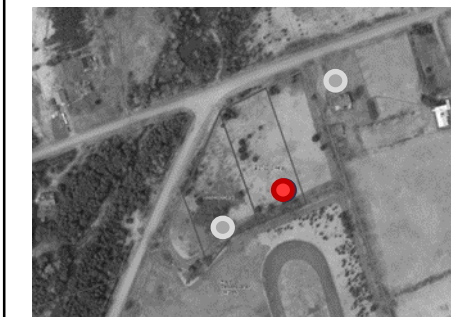


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NOTES:

- 1) Test completed June 6, 2023
- 2) On-site pressure and temperature data collected using a Solinst Model 3001 datalogging transducer using 60 s intervals
- 3) Water level data is not corrected for fluctuations in barometric pressure

KEY PLAN:

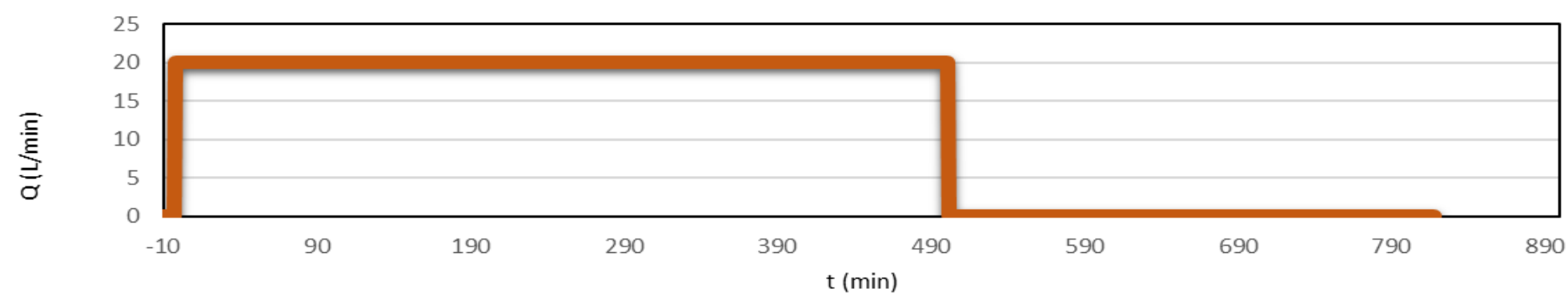
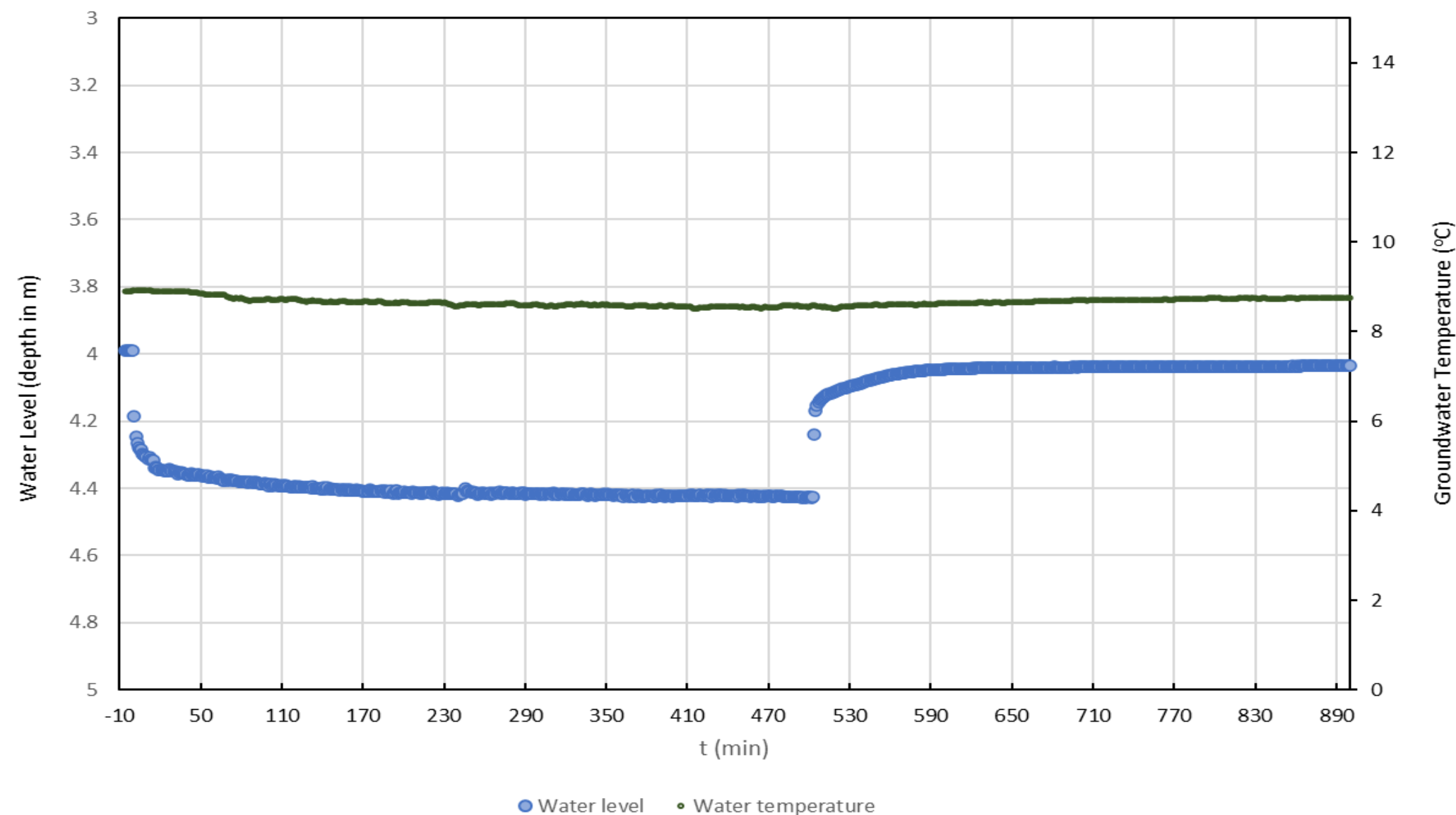


PROJECT 2238574:

WATER SUPPLY/WELL INTERFERENCE EVALUATION  
PROPOSED TWO-LOT SEVERANCE (B 26/22 + B 27/22)  
676 FOXTON ROAD, ROSLIN, ONTARIO

FIGURE C-1:

WELL HYDROGRAPH – TEST WELL 2 (A21307)



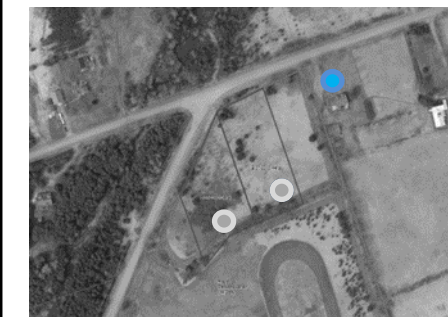


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NOTES:

- 1) Test completed June 6, 2023
- 2) On-site pressure and temperature data collected using a Solinst Model 3001 datalogging transducer using 60 s intervals
- 3) Water level data is not corrected for fluctuations in barometric pressure

KEY PLAN:

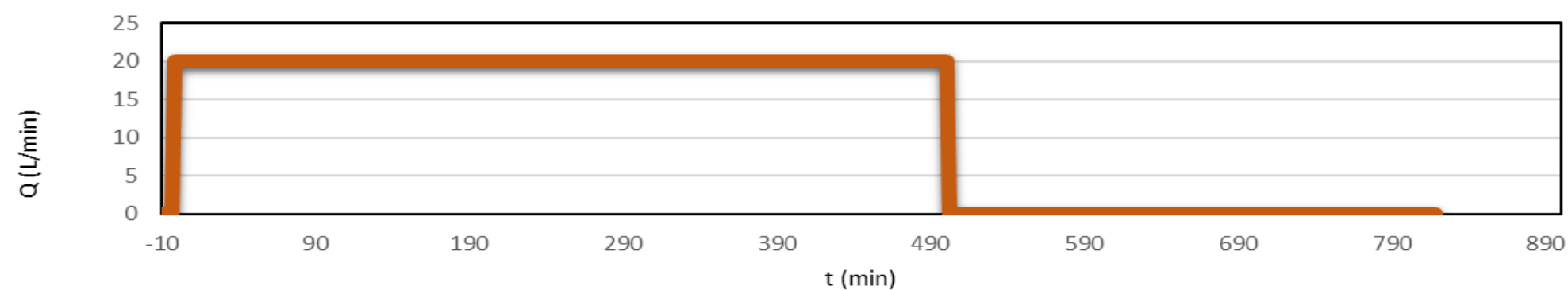
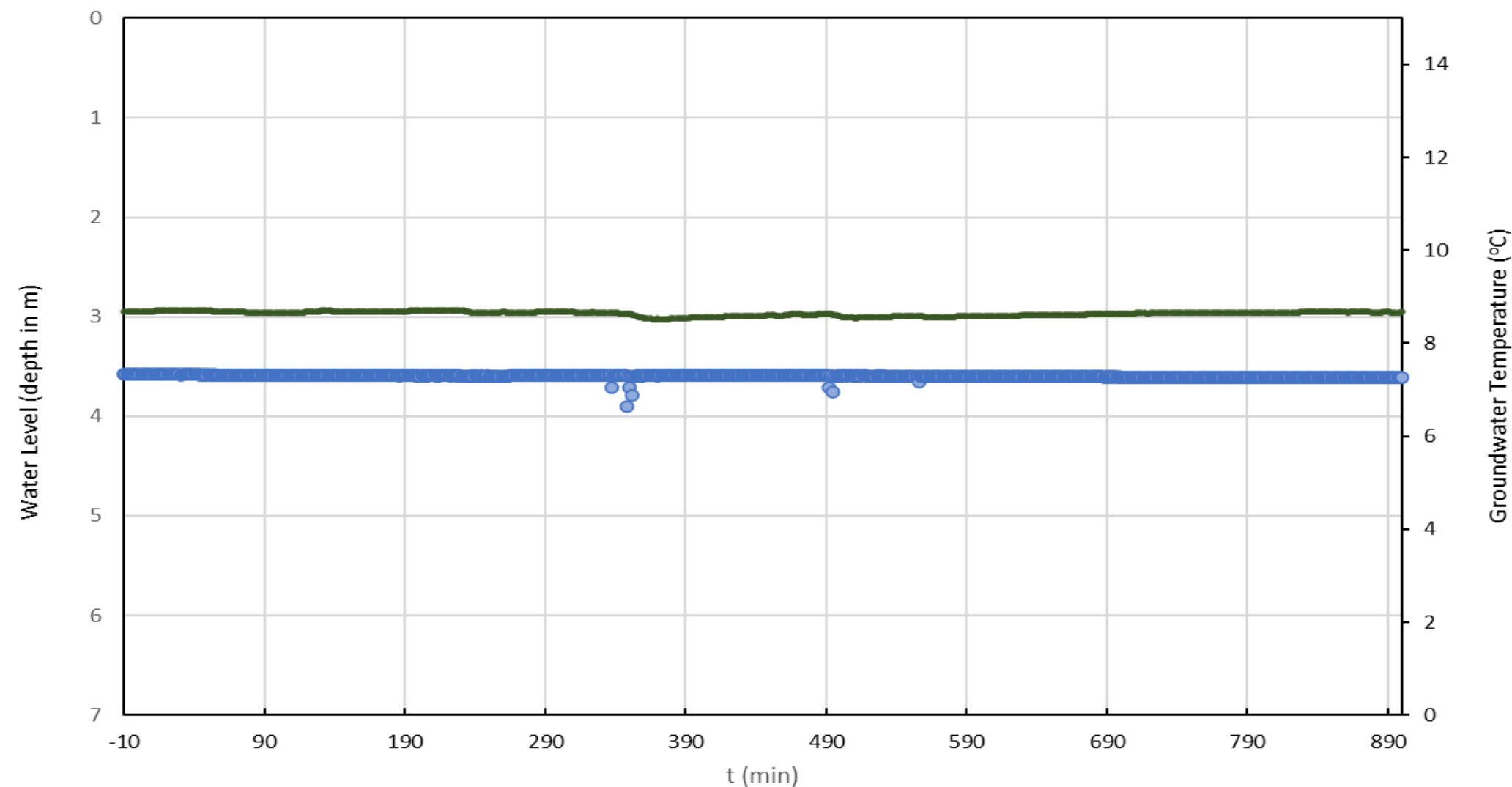


PROJECT 2238574:

WATER SUPPLY/WELL INTERFERENCE EVALUATION  
PROPOSED TWO-LOT SEVERANCE (B 26/22 + B 27/22)  
676 FOXTON ROAD, ROSLIN, ONTARIO

FIGURE C-2:

WELL HYDROGRAPH - 349 BOUNDARY ROAD



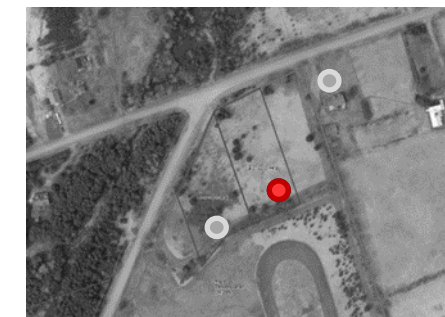


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NOTES:

- 1) Test completed June 6, 2023
- 2) On-site pressure and temperature data collected using a Solinst Model 3001 datalogging transducer using 60 s intervals
- 3) Water level data is not corrected for fluctuations in barometric pressure

KEY PLAN:

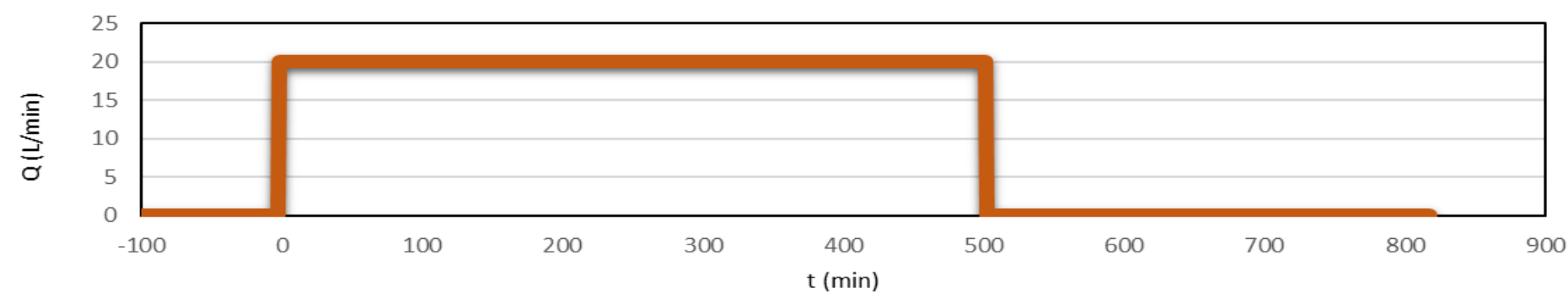
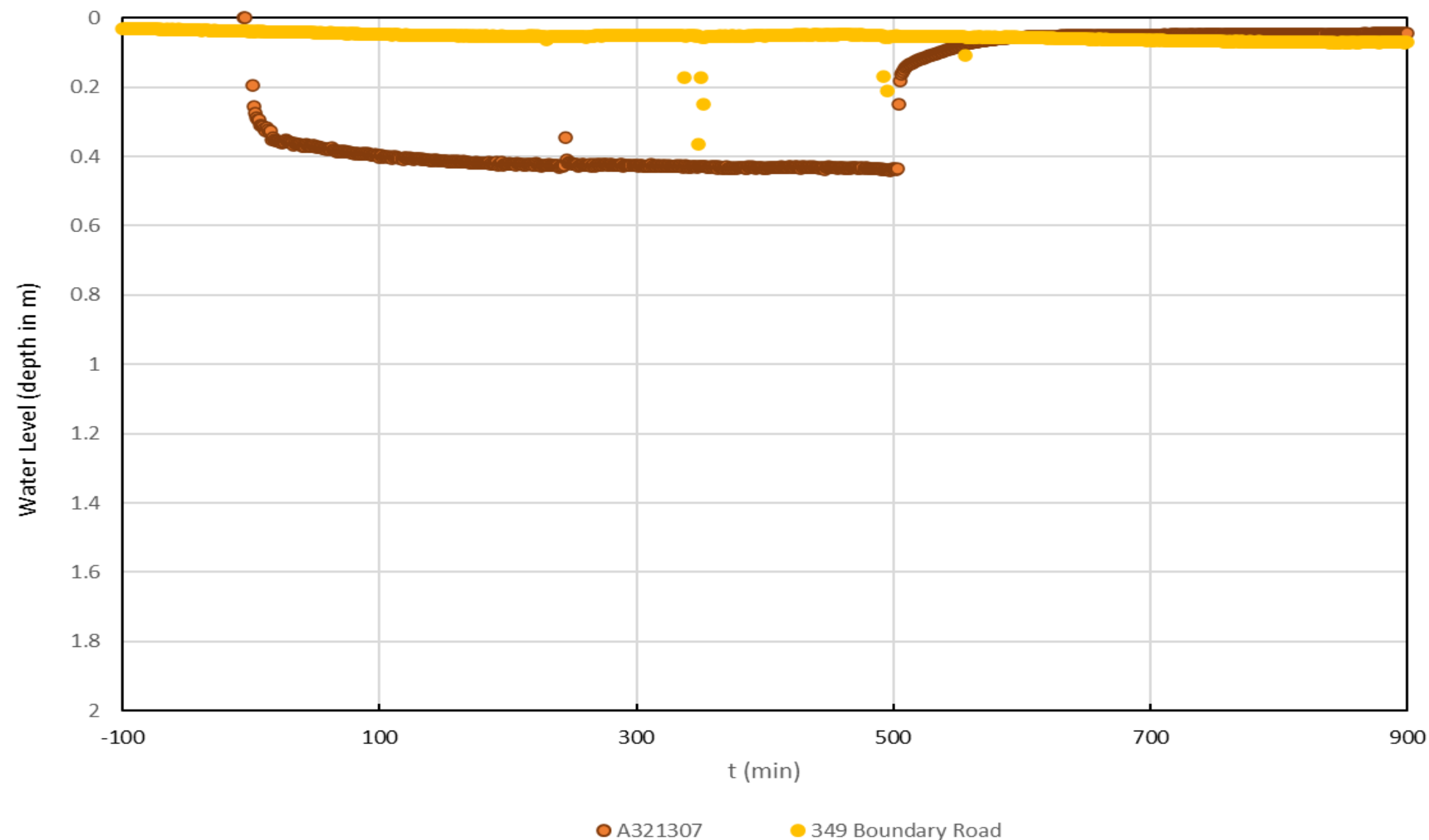


PROJECT 2238574:

WATER SUPPLY/WELL INTERFERENCE EVALUATION  
PROPOSED TWO-LOT SEVERANCE (B 26/22 + B 27/22)  
676 FOXTON ROAD, ROSLIN, ONTARIO

FIGURE C-3:

OBSERVED DRAWDOWNS DURING TEST  
PUMPING OF TEST WELL 2 (A321307)

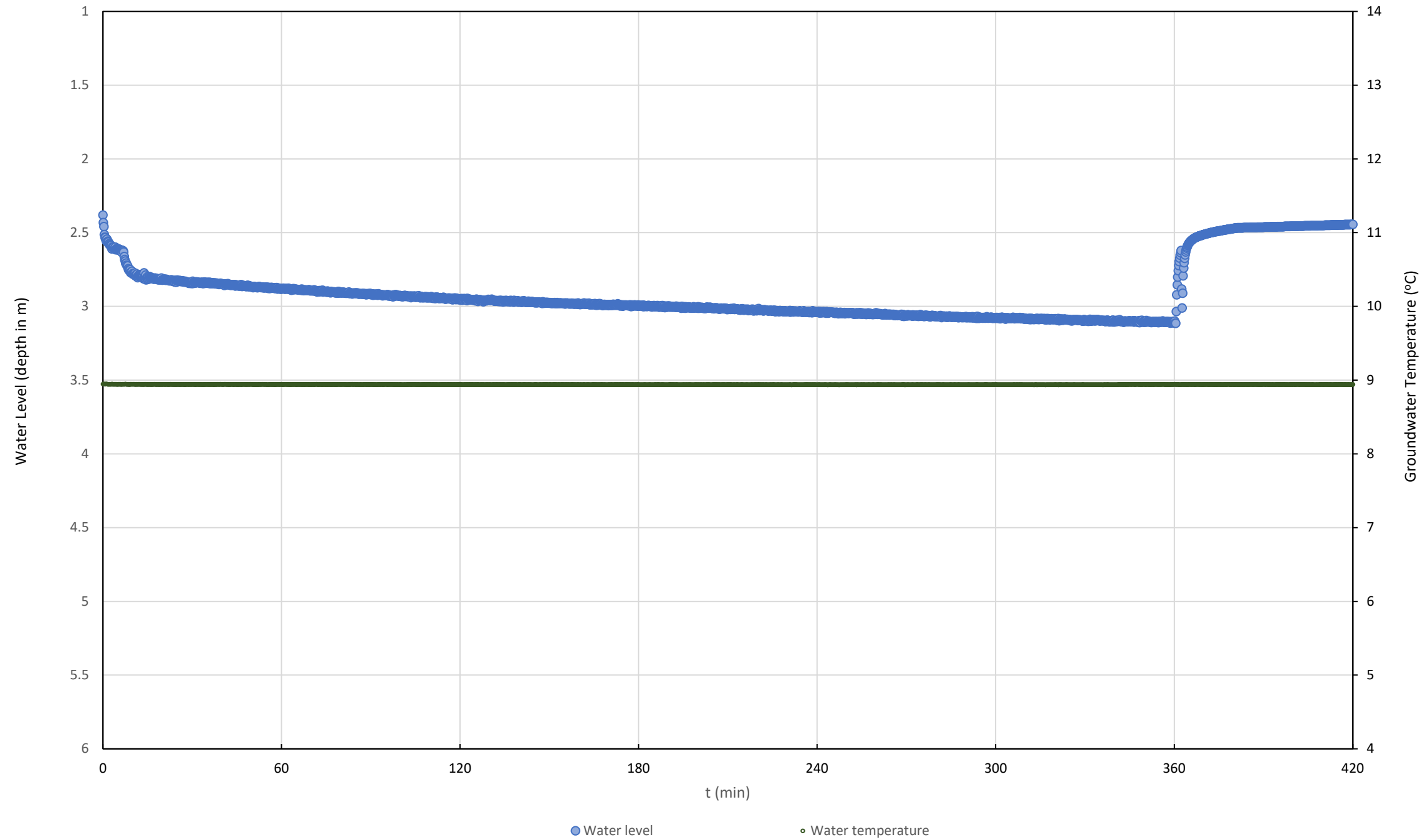




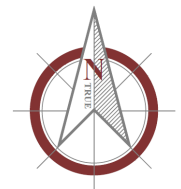
GREER GALLOWAY  
CONSULTING ENGINEERS  
PETERBOROUGH  
BELLEVILLE  
KINGSTON  
1620 WALLBRIDGE LOYALIST ROAD  
BELLEVILLE, ONTARIO, K8N 4Z5  
PHONE: 613-966-3068  
FAX: 613-966-3087

**NOTES:**

- 1) Testing carried out on February 15, 2024
- 2) On-site pressure and temperature data collected using a Solinst Model 3001 datalogger transducer.
- 3) Water level data is not corrected for fluctuations in barometric pressure.



**Key Plan:**

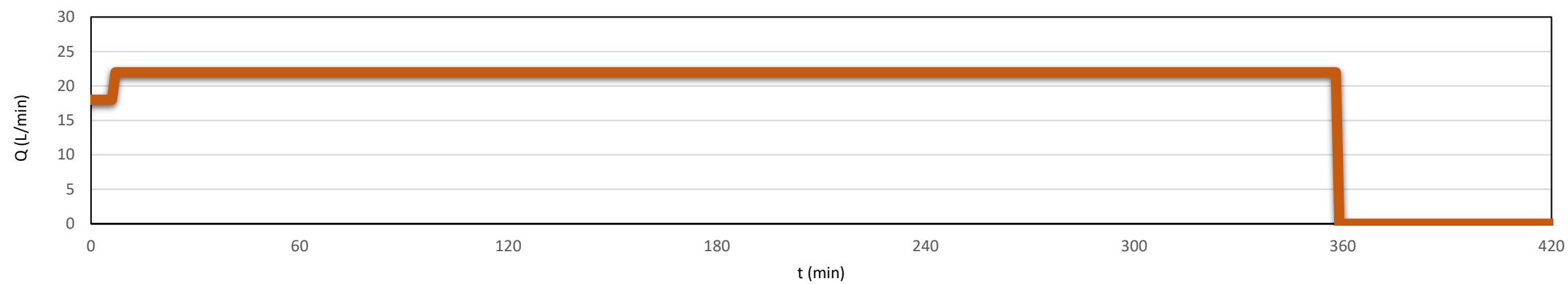


PROJECT 2338574:

**HYDROGEOLOGICAL ASSESSMENT**  
676 FOXTON ROAD  
ROSLIN, ONTARIO

FIGURE 1:

**WELL HYDROGRAPH – A320558 (TW)**  
FEBRUARY 15, 2024



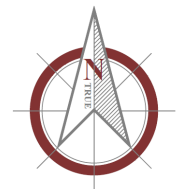
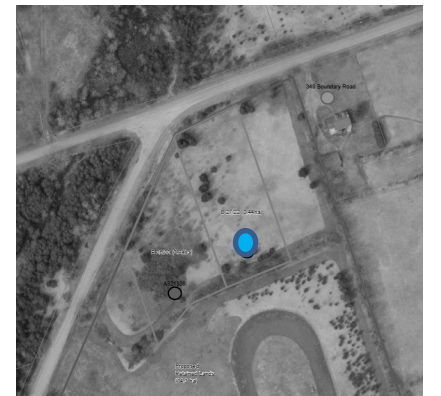


GREER GALLOWAY  
CONSULTING ENGINEERS  
PETERBOROUGH  
BELLEVILLE  
KINGSTON  
1620 WALLBRIDGE LOYALIST ROAD  
BELLEVILLE, ONTARIO, K8N 4Z5  
PHONE: 613-966-3068  
FAX: 613-966-3087

**NOTES:**

- 1) Testing carried out on February 15, 2024
- 2) On-site pressure and temperature data collected using a Solinst Model 3001 datalogger transducer.
- 3) Water level data is not corrected for fluctuations in barometric pressure.

**Key Plan:**

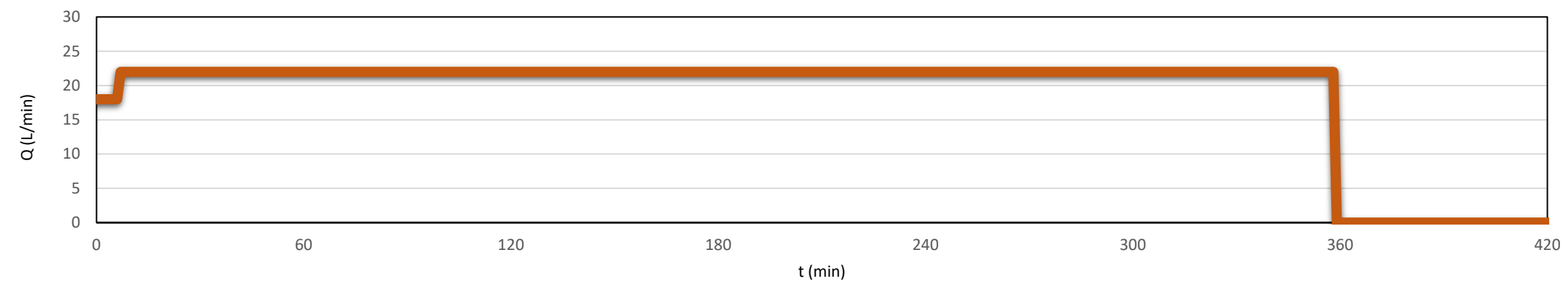
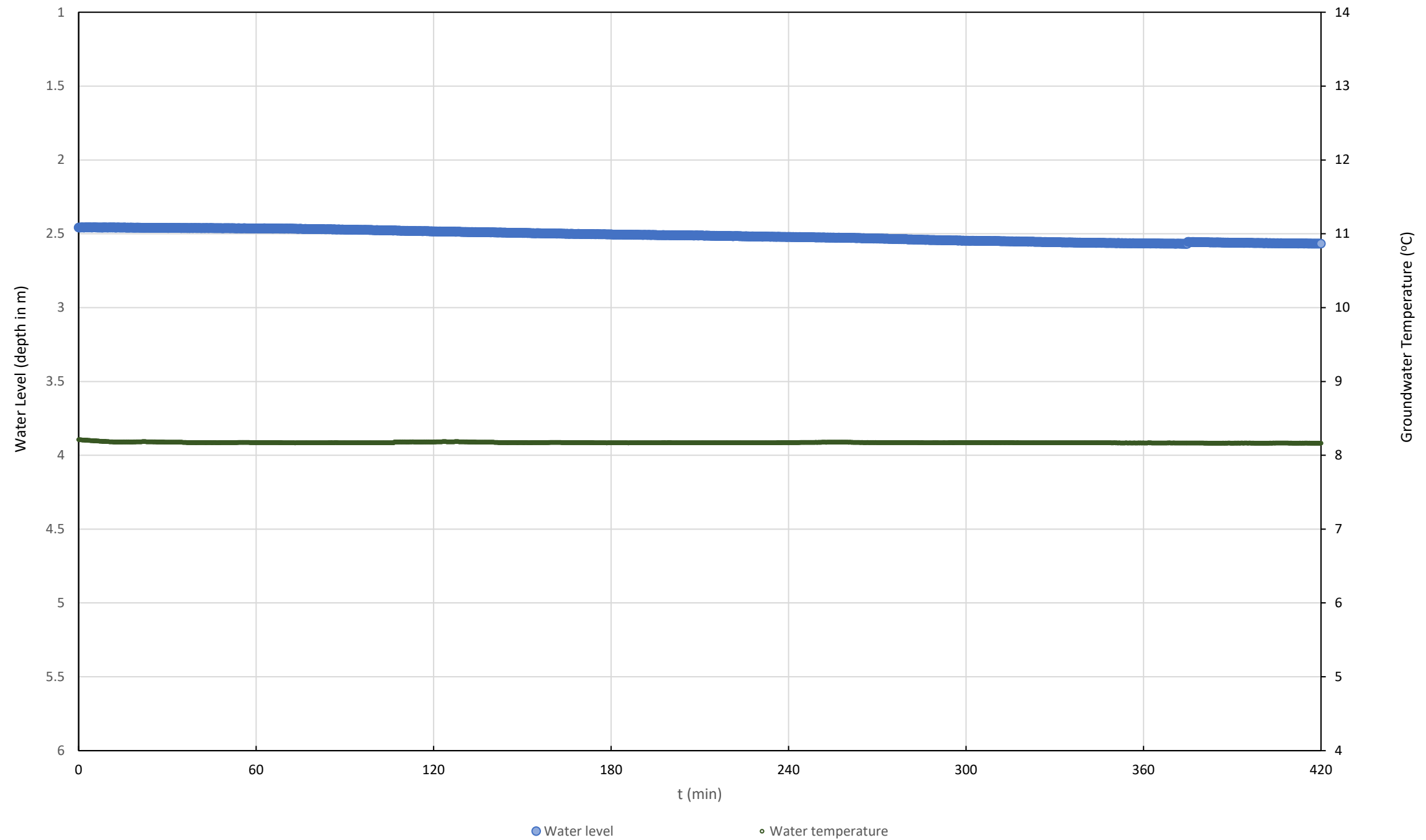


PROJECT 2338574:

**HYDROGEOLOGICAL ASSESSMENT**  
676 FOXTON ROAD  
ROSLIN, ONTARIO

FIGURE 2:

**WELL HYDROGRAPH – A321307 (MW)**  
FEBRUARY 15, 2024



Appendix A

# MECP Water Well Records



Measurements recorded in:  Metric  Imperial

A320558

**Well Owner's Information**

First Name: JUSTIN Last Name/Organization: BELL E-mail Address: \_\_\_\_\_  Well Constructed by Well Owner

Mailing Address (Street Number/Name): 676 FOXTON ROAD Municipality: ROSLIN Province: ON Postal Code: K0K0N0 Telephone No. (inc. area code): \_\_\_\_\_

**Well Location**

Address of Well Location (Street Number/Name): 676 FOXTON ROAD Township: \_\_\_\_\_ Lot: \_\_\_\_\_ Concession: \_\_\_\_\_

County/District/Municipality: HASTINGS City/Town/Village: ROSLIN Province: Ontario Postal Code: K0K0N0

UTM Coordinates Zone: 18R Easting: 312107 Northing: 49112524 Municipal Plan and Sublot Number: \_\_\_\_\_

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

General Colour	Most Common Material	Other Materials	General Description	Depth (mft)	
				From	To
BROWN	TOP SOIL		SOFT	0	1
BROWN	SAND, ROCK		SOFT	1	5
BROWN	SAND, GRAVEL		HARD	5	11
GREY	LIMESTONE		HARD	11	100

**Annular Space**

Depth Set at (mft) From	Depth Set at (mft) To	Type of Sealant Used (Material and Type)	Volume Placed (m <sup>3</sup> )
20	15	3/4 GRAVEL	3.2
15	0	HOLEPLUG	4.8

**Results of Well Yield Testing**

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

If pumping discontinued, give reason: \_\_\_\_\_

Time (min)	Draw Down		Recovery	
	Time (min)	Water Level (mft)	Time (min)	Water Level (mft)
Static Level		12		95
1	1	12	1	91
2	2	12	2	86
3	3	13	3	82
4	4	14	4	77
5	5	14	5	73
10	10	23	10	53
15	15	32	15	33
20	20	38	20	16
25	25	46	25	13
30	30	56	30	13
40	40	73	40	12
50	50	88	50	12
60	60	95	60	12

Pump intake set at (mft): 98  
 Pumping rate (l/min / GPM): 5  
 Duration of pumping: 1 hrs + 0 min  
 Final water level end of pumping (mft): 95  
 If flowing give rate (l/min/GPM): \_\_\_\_\_  
 Recommended pump depth (mft): 98  
 Recommended pump rate (l/min/GPM): 5  
 Well production (l/min/GPM): 4  
 Disinfected?  Yes  No

**Method of Construction**

Cable Tool  Diamond  Public  Commercial  Not used  
 Rotary (Conventional)  Jetting  Domestic  Municipal  Dewatering  
 Rotary (Reverse)  Driving  Livestock  Test Hole  Monitoring  
 Boring  Digging  Irrigation  Cooling & Air Conditioning  
 Air percussion  Industrial  Other, specify \_\_\_\_\_  
 Other, specify \_\_\_\_\_

**Construction Record - Casing**

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Well Thickness (cm/in)	Depth (mft)		Status of Well
			From	To	
6.25	STEEL SLOTTED	1.88	-2	20	<input checked="" type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Attention (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify _____ <input type="checkbox"/> Other, specify _____
			18	20	

**Construction Record - Screen**

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (mft)	
			From	To

**Water Details**

Water found at Depth (mft)	Kind of Water: <input type="checkbox"/> Fresh <input checked="" type="checkbox"/> Untested	Hole Diameter
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____	Depth (mft) From To Diameter (cm/in)
16	<input type="checkbox"/> Gas <input checked="" type="checkbox"/> Other, specify _____	0 20 10
25	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____	20 100 6
35	<input type="checkbox"/> Gas <input checked="" type="checkbox"/> Untested	
35	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____	

**Well Contractor and Well Technician Information**

Business Name of Well Contractor: MPI DRILLING Well Contractor's Licence No.: 6151711

Business Address (Street Number/Name): COMP 6007 Municipality: PICTON

Province: ON Postal Code: K0K0T0 Business E-mail Address: info@mpidrilling.com

Bus. Telephone No. (inc. area code): 6133930165 Name of Well Technician (Last Name, First Name): SCOTT MITCHELL

Well Technician's Dist. No.: 211104 Signature of Technician and/or Contractor: \_\_\_\_\_ Date Submitted: 2023/07/04

**Map of Well Location**

Please provide a map below following instructions on the back.

Comments: SEE ATTACHED MAP

Well owner's information package delivered:  Yes  No

Date Package Delivered: 2023/07/04 Date Work Completed: 2023/07/04

**Ministry Use Only**  
 Audit No. Z393523  
 Received: \_\_\_\_\_

Measurements recorded in:  Metric  Imperial

A320541

Page 1 of 2

Well Owner's Information

First Name: JUSTIN, Last Name/Organization: BELL, E-mail Address: [blank],  Well Constructed by Well Owner  
 Mailing Address (Street Number/Name): 676 FOXTON ROAD, Municipality: ROSLIN, Province: ON, Postal Code: K0K2Y0, Telephone No. (inc. area code): [blank]

Well Location

Address of Well Location (Street Number/Name): 676 FOXTON ROAD, Township: [blank], Lot: [blank], Concession: [blank]  
 County/District/Municipality: HASTINGS, City/Town/Village: ROSLIN, Province: Ontario, Postal Code: K0K2Y0  
 UTM Coordinates: Zone: 18, Easting: 831220, Northing: 4912580, Municipal Plan and Sublot Number: [blank], Other: [blank]

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)	
				From	To
BLACK	TOP SOIL		SOFT	0	0.5
BROWN	SAND	GRAVEL	SOFT	0.5	12
GREY	LIMESTONE			12	100
DRY/ABANDONED - BACK FILLED WITH HYDRATED HOLEPLUG 100 0					

Annular Space		
Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m <sup>3</sup> /ft <sup>3</sup> )
From	To	

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

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

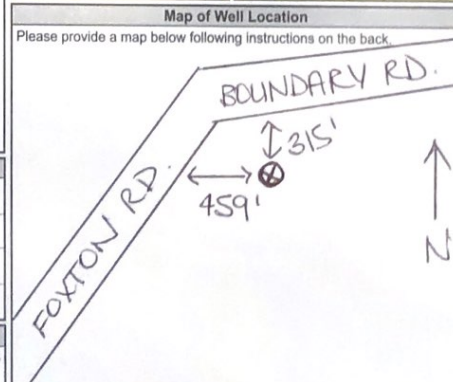
Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		<input type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input type="checkbox"/> Test Hole <input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

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

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

Business Name of Well Contractor: MPI DRILLING, Well Contractor's Licence No.: 65171  
 Business Address (Street Number/Name): COMP 6007, Municipality: PICTON  
 Province: ON, Postal Code: K0K2Y0, Business E-mail Address: info@compdrilling.com

Bus. Telephone No. (inc. area code): 613-932-165, Name of Well Technician (Last Name, First Name): SCOTT HURST  
 Well Technician's Licence No.: 2104, Signature of Technician and/or Contractor: [Signature], Date Submitted: 20030516



Comments: SEE ATTACHED MAP.

Well owner's information package delivered: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date Package Delivered: 20030516	Ministry Use Only Audit No: 2393541
Date Work Completed: 20030501		

Measurements recorded in:  Metric  Imperial

A321307

Page 1 of 2

Well Owner's Information

First Name: JUSTIN, Last Name/Organization: BELL, E-mail Address: [blank],  Well Constructed by Well Owner

Mailing Address (Street Number/Name): 676 FOXTON ROAD, Municipality: ROSLIN, Province: ON, Postal Code: K0K2Y0, Telephone No. (inc. area code): [blank]

Well Location

Address of Well Location (Street Number/Name): 676 FOXTON ROAD, Township: [blank], Lot: [blank], Concession: [blank]

County/District/Municipality: HASTINGS, City/Town/Village: ROSLIN, Province: Ontario, Postal Code: K0K2Y0

UTM Coordinates: Zone: 18, Easting: 31220, Northing: 4902572

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From To
BLACK	TOP SOIL		SOFT	0 0.5
BROWN	SAND	ROCKS	SOFT	0.5 10.5
GREY	LIMESTONE		HARD	10.5 100

Annular Space

Depth Set at (m/ft) From To	Type of Sealant Used (Material and Type)	Volume Placed (m <sup>3</sup> /ft <sup>3</sup> )
20 10	STONE	3.2
10 0	HOLEPLUG	3.2

Method of Construction:  Cable Tool,  Rotary (Conventional),  Rotary (Reverse),  Boring,  Air percussion,  Other, specify

Well Use:  Public,  Domestic,  Commercial,  Municipal,  Industrial,  Other, specify

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		Status of Well
			From	To	
6 1/4	STEEL SLOTTED	.188	-2	20	<input type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify <input type="checkbox"/> Other, specify
			19	20	

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)	
			From	To

Water Details

Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	Depth (m/ft) From To	Diameter (cm/in)
13 (m/ft)	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify		
26 (m/ft)	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	20 100	6
35 (m/ft)	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	0 20	10

Well Contractor and Well Technician Information

Business Name of Well Contractor: MPI DRILLING, Well Contractor's Licence No.: 6151711

Business Address (Street Number/Name): COMP 6007, Municipality: PICTON

Province: ON, Postal Code: K0K2Y0, Business E-mail Address: info@mpidrilling.com

Bus. Telephone No. (inc. area code): 6133932116, Name of Well Technician (Last Name, First Name): SCOTT HURST

Well Technician's Licence No.: 211014, Signature of Technician and/or Contractor: [Signature], Date Submitted: 20230516

Results of Well Yield Testing

Time (min)	Draw Down		Recovery	
	Water Level (m/ft)	Time (min)	Water Level (m/ft)	Time (min)
Static Level	6.6		9.2	
1	7.3	1	7.1	
2	7.8	2	6.9	
3	8.3	3	6.8	
4	8.5	4	6.7	
5	8.9	5	6.6	
10	9.2	10	6.6	
15	9.2	15	6.6	
20	9.2	20	6.6	
25	9.2	25	6.6	
30	9.2	30	6.6	
40	9.2	40	6.6	
50	9.2	50	6.6	
60	9.2	60	6.6	

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

If pumping discontinued, give reason: [blank]

Pump intake set at (m/ft): 98

Pumping rate (l/min / GPM): 12

Duration of pumping: 1 hrs + min

Final water level end of pumping (m/ft): 9.2

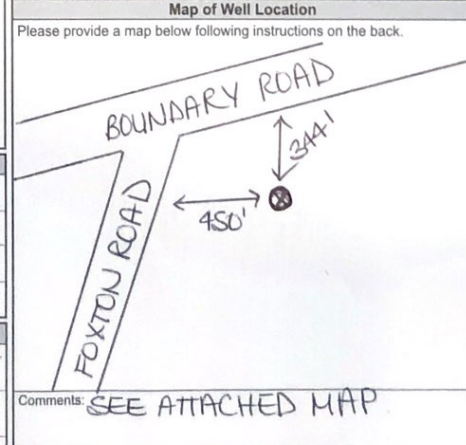
If flowing give rate (l/min/GPM): [blank]

Recommended pump depth (m/ft): 95

Recommended pump rate (l/min/GPM): 10

Well production (l/min/GPM): 12+

Disinfected?  Yes  No



Comments: SEE ATTACHED MAP

Well owner's information package delivered:  Yes  No

Date Package Delivered: 20230516, Date Work Completed: 20230504

Ministry Use Only: Audit No. 2393538, Received: [blank]



Measurements recorded in:  Metric  Imperial

Page 1 of 2

A321308

Well Owner's Information

First Name: JUSTIN, Last Name/Organization: BELL, Mailing Address: 676 FOXTON ROAD, Municipality: ROSLIN, Province: ON, Postal Code: K0K2Y0

Well Location

Address of Well Location: 676 FOXTON ROAD, Township: ROSLIN, County/District/Municipality: HASTINGS, Province: Ontario, Postal Code: K0K2Y0

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

Table with columns: General Colour, Most Common Material, Other Materials, General Description, Depth (m/ft) From, To. Rows include BLACK, BROWN SAND, GREY GRAVEL, GREY LIMESTONE.

Annular Space table with columns: Depth Set at (m/ft) From, To, Type of Sealant Used, Volume Placed (m³/ft³). Rows include 0-10 HOLEPLUG, 10-20 STONE.

Results of Well Yield Testing table with columns: Time (min), Water Level (m/ft), Recovery Time (min), Water Level (m/ft). Includes pumping rate, duration, and final water level data.

Method of Construction and Well Use checkboxes. Includes Cable Tool, Rotary, Boring, etc.

Construction Record - Casing table with columns: Inside Diameter, Open Hole OR Material, Wall Thickness, Depth (m/ft) From, To. Rows include 6 1/4 STEEL SLOTTED.

Construction Record - Screen table with columns: Outside Diameter, Material, Slot No., Depth (m/ft) From, To.

Water Details and Hole Diameter tables. Water found at depths 14, 36, 44 m/ft. Hole diameters at 20, 0 m/ft.

Well Contractor and Well Technician Information. Business Name: MPD DRILLING, License No: 6151711, Technician: SCOTT PUGH.

Map of Well Location showing Boundary Road and Foxton Road with well location marked. Includes Ministry Use Only Audit No: 2393539.



29 No 3354

UTM [ ] Z [ ] E

[5] R [ ] N

The Ontario Water Resources Commission Act

Elev. [5] R [0] 4 [8] 0

# WATER WELL RECORD

Basin [2] 4  
County or District

*Hastings*

Township, Village, Town or City

*Thornhill*

Con. *IX*

Lot

*27*

Date completed

*12*  
(day)

*11*  
month

*1966*  
year)

Address

*Moira L. #1*

### Casing and Screen Record

Inside diameter of casing *6 1/4"*

Total length of casing *15 ft. 4"*

Type of screen *-*

Length of screen *-*

Depth to top of screen *-*

Diameter of finished hole *6 1/4"*

### Pumping Test

Static level *10 ft.*

Test-pumping rate *2* G.P.M.

Pumping level *- Day*

Duration of test pumping *1 hr.*

Water clear or cloudy at end of test *clear*

Recommended pumping rate *up to 2* G.P.M.

with pump setting of *85'* feet below ground surface

### Well Log

### Water Record

#### Overburden and Bedrock Record

	From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
<i>Clay</i>	<i>0</i>	<i>3</i>		
<i>Gravel &amp; Boulders</i>	<i>3</i>	<i>9</i>	<i>50</i>	
<i>Limestone Shale</i>	<i>9</i>	<i>13</i>		
<i>Grey Limestone</i>	<i>13</i>	<i>88</i>	<i>80</i>	<i>fresh</i>

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

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

Drilling or Boring Firm *George H. Chalk*

Address *R. #6 Napanee*

Licence Number *2051*

Name of Driller or Borer *Keith Sells*

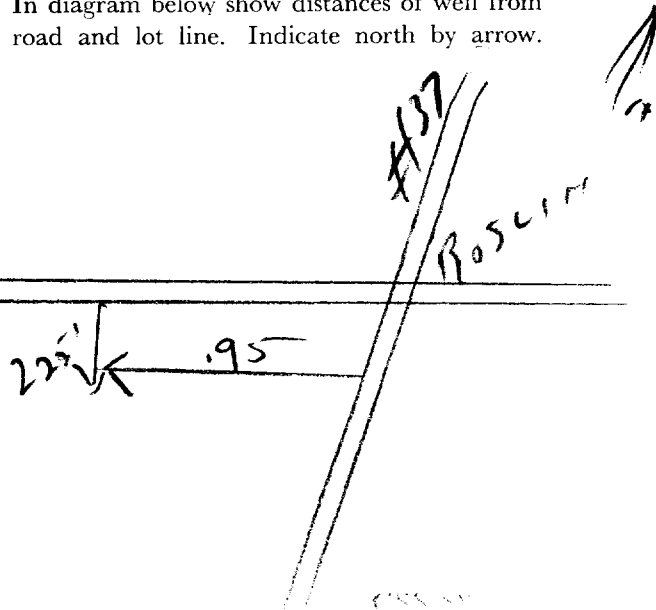
Address *R. #6 Napanee*

Date *Nov. 15/66*

*George H. Chalk per P.P.P.*  
(Signature of Licensed Drilling or Boring Contractor)

### Location of Well

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





29 No 3355

UTM [ ] [ ] Z [ ] [ ] [ ] [ ] [ ] [ ] E

[5] R [ ] [ ] [ ] [ ] [ ] [ ] N

The Ontario Water Resources Commission Act

Elev. [5] R [0] [4] [7] [4]

# WATER WELL RECORD

Basin [2] [4] [ ] [ ]  
County or District *Hastings*

Township *Thurso*, Village, Town or City

Con. *IX* Lot *28*

Date completed *30* *Nov.* *1966*  
(day month year)

Owner [Redacted] (print in block letters)

Address *Roslin*

### Casing and Screen Record

### Pumping Test

Inside diameter of casing *6 1/4"*  
Total length of casing *8' 4"*  
Type of screen *-*  
Length of screen *-*  
Depth to top of screen *-*  
Diameter of finished hole *6 1/8"*

Static level *1'*  
Test-pumping rate *50* G.P.M.  
Pumping level *-*  
Duration of test pumping *2 hrs.*  
Water clear or cloudy at end of test *clear*  
Recommended pumping rate *-* G.P.M.  
with pump setting of *128'* feet below ground surface

### Well Log

### Water Record

#### Overburden and Bedrock Record

*Clay*  
*Limestone shale*  
*Hard grey limestone*

From ft.	To ft.	Depth(s) at which water(s) found	Kind of water (fresh, salty, sulphur)
<i>0</i>	<i>2</i>	<i>30</i>	
<i>2</i>	<i>4</i>		
<i>4</i>	<i>131</i>	<i>90</i>	<i>fresh</i>

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

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

Drilling or Boring Firm *George A. Chalko*

Address *RR6 Napanee*

Licence Number *2051*

Name of Driller or Borer *Keith Hils*

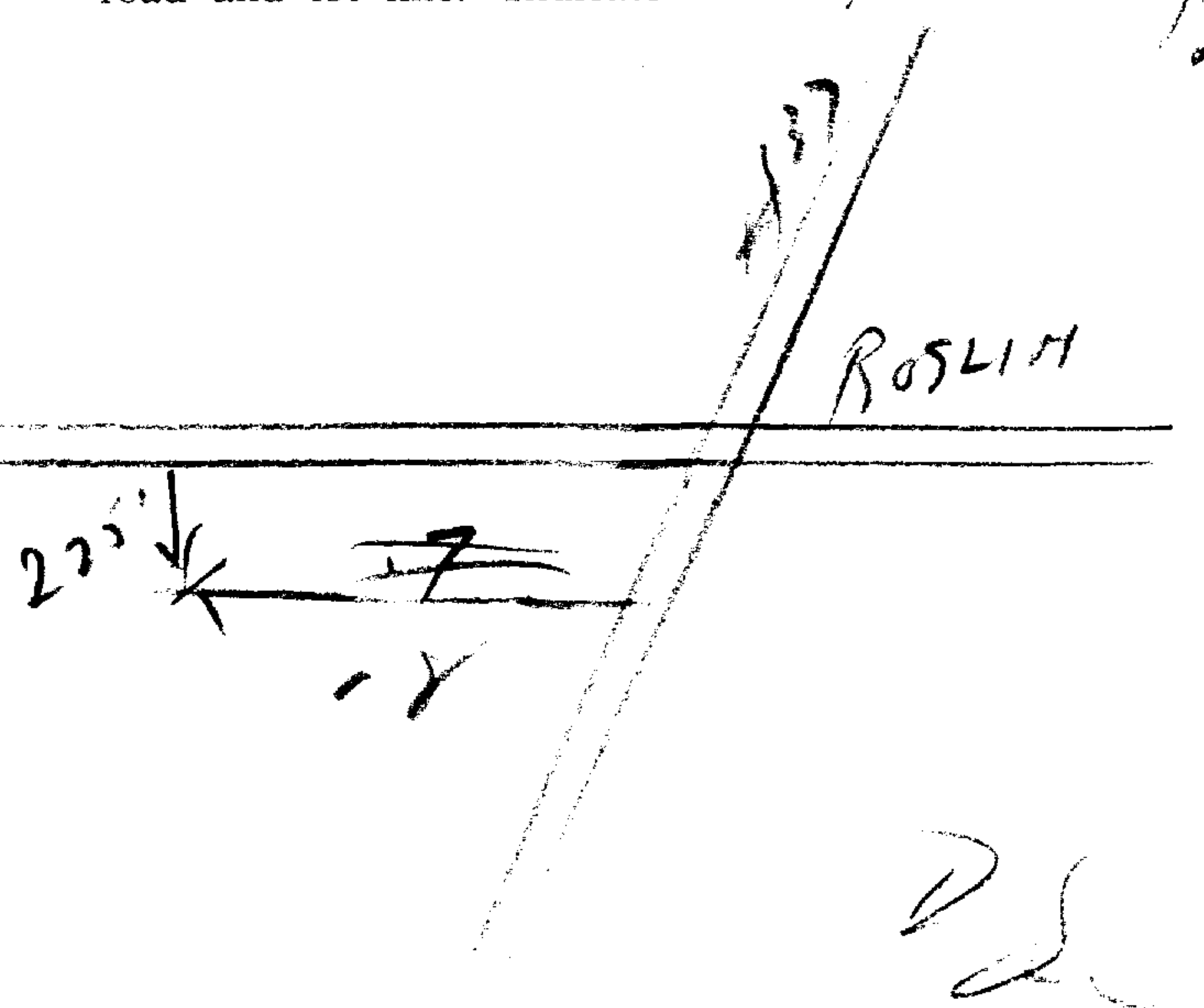
Address *RR6 Napanee*

Date *Nov 30 1966*

*George A. Chalko*  
(Signature of Licensed Drilling or Boring Contractor)

### Location of Well

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





# WATER WELL RECORD

31c6w

Water management in Ontario

1. PRINT ONLY IN SPACES PROVIDED

2. CHECK  CORRECT BOX WHERE APPLICABLE

11

2905459

MUNICIP.

29020

CON.

09

09

COUNTY OR DISTRICT

HASTINGS

TOWNSHIP BOROUGH, CITY, TOWN, VILLAGE

THURLOW

CON., BLOCK, TRACT, SURVEY, ETC.

IX

LOT

29-288

OWNER (SURNAME FIRST)

28-47

ADDRESS

ROSLIN

DATE COMPLETED

48-53

DAY 04 MO 07 YR 72

9/12/640

RC.

ELEVATION

9

0470

RC.

BASEIN CODE

ST

21A

## LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
BROWN	HARD PAN	SMALL STONE	HARD, PACKED	0	9
GREY	SHALE		LOOSE	9	12 1/2
DARK GREY	LIMESTONE		HARD	12 1/2	61

31	000961412	0012217	0061215
32			

**41 WATER RECORD**

WATER FOUND AT - FEET	KIND OF WATER			
10-13	1 <input checked="" type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	4 <input type="checkbox"/> MINERAL	
15-18	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	4 <input type="checkbox"/> MINERAL	
20-23	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	4 <input type="checkbox"/> MINERAL	
25-28	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	4 <input type="checkbox"/> MINERAL	
30-33	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	4 <input type="checkbox"/> MINERAL	

**51 CASING & OPEN HOLE RECORD**

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
6 1/4	STEEL	188	0	14
6 1/4	STEEL		14	61

**SCREEN**

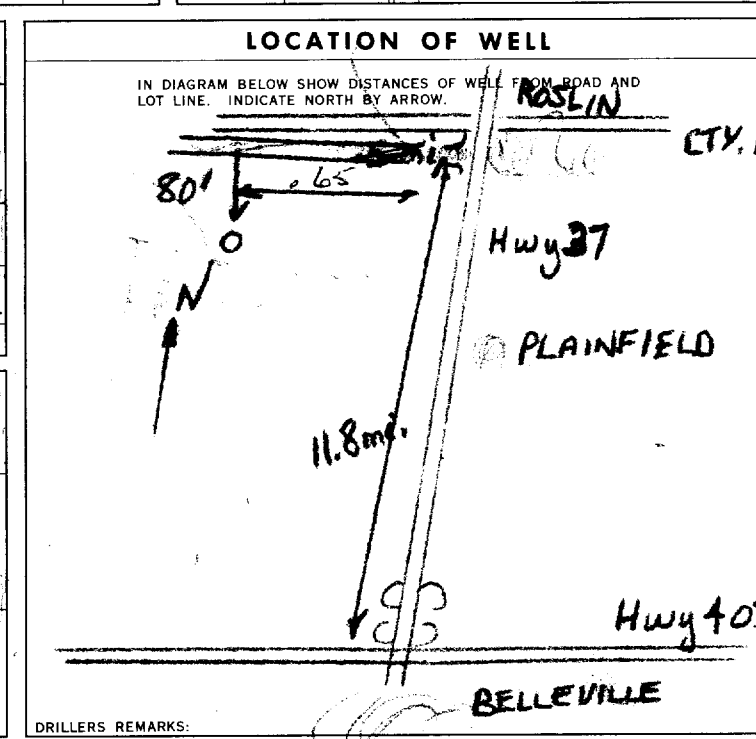
SIZE(S) OF OPENING (SLOT NO.)	DIAMETER	LENGTH

**61 PLUGGING & SEALING RECORD**

DEPTH SET AT - FEET	MATERIAL AND TYPE
10-13	
18-21	
26-29	

**71 PUMPING TEST**

PUMPING TEST METHOD	<input type="checkbox"/> PUMP	<input checked="" type="checkbox"/> BAILER
PUMPING RATE	0003	GPM.
DURATION OF PUMPING	01	HOURS
	00	MIN.
STATIC LEVEL	025	FEET
WATER LEVEL END OF PUMPING	061	FEET
WATER LEVELS DURING	037	FEET
	027	FEET
	025	FEET
	025	FEET
RECOMMENDED PUMP TYPE	<input checked="" type="checkbox"/> SHALLOW	<input type="checkbox"/> DEEP
RECOMMENDED PUMP SETTING	058	FEET
RECOMMENDED PUMPING RATE	0003	GPM.
50-53	0.001	GPM./FT. SPECIFIC CAPACITY



**FINAL STATUS OF WELL**

1 <input checked="" type="checkbox"/> WATER SUPPLY	5 <input type="checkbox"/> ABANDONED, INSUFFICIENT SUPPLY
2 <input type="checkbox"/> OBSERVATION WELL	6 <input type="checkbox"/> ABANDONED, POOR QUALITY
3 <input type="checkbox"/> TEST HOLE	7 <input type="checkbox"/> UNFINISHED
4 <input type="checkbox"/> RECHARGE WELL	

**WATER USE**

1 <input checked="" type="checkbox"/> DOMESTIC	5 <input type="checkbox"/> COMMERCIAL
2 <input type="checkbox"/> STOCK	6 <input type="checkbox"/> MUNICIPAL
3 <input type="checkbox"/> IRRIGATION	7 <input type="checkbox"/> PUBLIC SUPPLY
4 <input type="checkbox"/> INDUSTRIAL	8 <input type="checkbox"/> COOLING OR AIR CONDITIONING
9 <input type="checkbox"/> OTHER	9 <input type="checkbox"/> NOT USED

**METHOD OF DRILLING**

1 <input checked="" type="checkbox"/> CABLE TOOL	6 <input type="checkbox"/> BORING
2 <input type="checkbox"/> ROTARY (CONVENTIONAL)	7 <input type="checkbox"/> DIAMOND
3 <input type="checkbox"/> ROTARY (REVERSE)	8 <input type="checkbox"/> JETTING
4 <input type="checkbox"/> ROTARY (AIR)	9 <input type="checkbox"/> DRIVING
5 <input type="checkbox"/> AIR PERCUSSION	

**CONTRACTOR**

NAME OF WELL CONTRACTOR	LICENCE NUMBER
CHALK WELL DRILLING LTD. 1507	
ADDRESS	
R.P. #6 NAPANEE	
NAME OF DRILLER OR BORER	LICENCE NUMBER
OAKLEY MILLS	
SIGNATURE OF CONTRACTOR	SUBMISSION DATE
CHALK WELL DRILLING LTD.	4 MO 7 YR 72

**OFFICE USE ONLY**

DATA SOURCE	CONTRACTOR	DATE RECEIVED
1	1507	200972
DATE OF INSPECTION	INSPECTOR	
REMARKS:		



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

11

2909438

MUNICIPALITY 29020

CON. CQN

09

COUNTY OR DISTRICT <b>Hastings</b>	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE <b>Thurlow</b>	CON., BLOCK, TRACT, SURVEY, ETC. <b>9</b>	LOT 25-27 <b>025</b>
DATE COMPLETED DAY <b>04</b> MO <b>07</b> YR <b>80</b>			
#1, Roslin, Ont.			
PLANTING <b>9/1/69</b>	RC <b>5</b>	ELEVATION <b>0450</b>	RC <b>5</b>
BASIN CODE <b>24</b>			

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
<b>brown</b>	<b>clay</b>	<b>gravel boulders</b>	<b>packed</b>	<b>0</b>	<b>90</b>
<b>grey</b>	<b>limestone</b>		<b>layered</b>	<b>90</b>	
				<b>0</b>	<b>15</b>
				<b>15</b>	<b>90</b>

31 **00156051/113 009021574**

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
10-13 <b>0080</b>	1 <input checked="" type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
15-18	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
20-23	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
25-28	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
30-33	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
10-11 <b>06 1/2"</b>	1 <input checked="" type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE	<b>.188</b>	<b>0</b>	<b>0015</b>
17-18 <b>06"</b>	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input checked="" type="checkbox"/> OPEN HOLE		<b>15</b>	<b>0090</b>
24-25	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE			

SCREEN

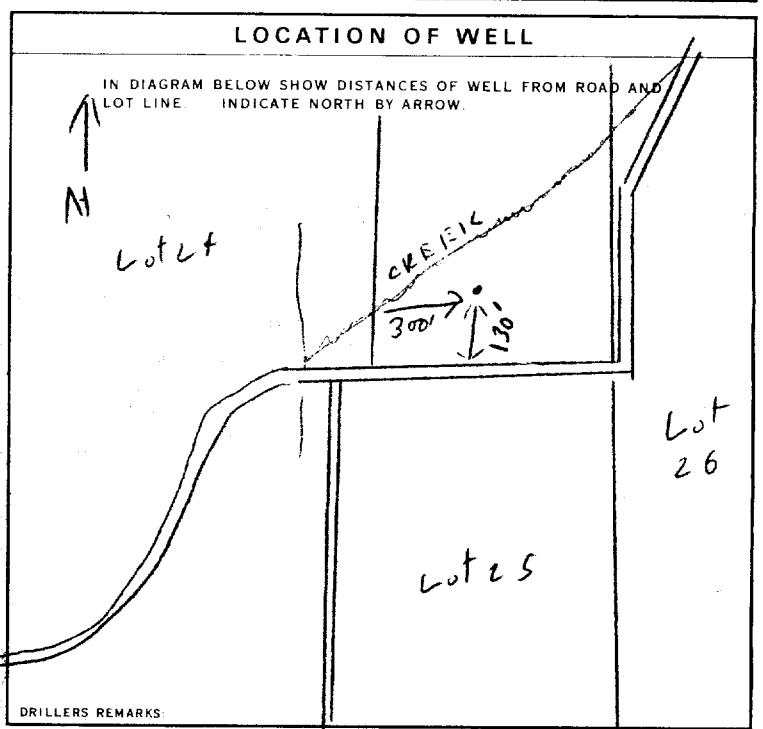
SIZE(S) OF OPENING (SLOT NO.)	DIAMETER	LENGTH
	INCHES	FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN	
		FEET

61 PLUGGING & SEALING RECORD

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

71 PUMPING TEST

PUMPING TEST METHOD 1 <input checked="" type="checkbox"/> PUMP 2 <input type="checkbox"/> HAUL BAILER	PUMPING RATE <b>0004</b> GPM	DURATION OF PUMPING 15-16 HOURS 17-18 MINS <b>00</b>
STATIC LEVEL 19-21 <b>008</b> FEET	WATER LEVEL END OF PUMPING 22-24 <b>090</b> FEET	WATER LEVELS DURING 1 <input type="checkbox"/> PUMPING 2 <input checked="" type="checkbox"/> RECOVERY
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
RECOMMENDED PUMP TYPE <input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/> DEEP	RECOMMENDED PUMP SETTING <b>087</b> FEET	RECOMMENDED PUMPING RATE <b>0003</b> GPH



FINAL STATUS OF WELL

1 <input checked="" type="checkbox"/> WATER SUPPLY	5 <input type="checkbox"/> ABANDONED, INSUFFICIENT SUPPLY
2 <input type="checkbox"/> OBSERVATION WELL	6 <input type="checkbox"/> ABANDONED, POOR QUALITY
3 <input type="checkbox"/> TEST HOLE	7 <input type="checkbox"/> UNFINISHED
4 <input type="checkbox"/> RECHARGE WELL	

WATER USE

1 <input checked="" type="checkbox"/> DOMESTIC	5 <input type="checkbox"/> COMMERCIAL
2 <input type="checkbox"/> STOCK	6 <input type="checkbox"/> MUNICIPAL
3 <input type="checkbox"/> IRRIGATION	7 <input type="checkbox"/> PUBLIC SUPPLY
4 <input type="checkbox"/> INDUSTRIAL	8 <input type="checkbox"/> COOLING OR AIR CONDITIONING
<input type="checkbox"/> OTHER	9 <input type="checkbox"/> NOT USED

METHOD OF DRILLING

1 <input type="checkbox"/> CABLE TOOL	6 <input type="checkbox"/> BORING
2 <input type="checkbox"/> ROTARY (CONVENTIONAL)	7 <input type="checkbox"/> DIAMOND
3 <input type="checkbox"/> ROTARY (REVERSE)	8 <input type="checkbox"/> JETTING
4 <input checked="" type="checkbox"/> ROTARY (AIR)	9 <input type="checkbox"/> DRIVING
5 <input type="checkbox"/> AIR PERCUSSION	

CONTRACTOR

NAME OF WELL CONTRACTOR <b>McClennon Drilling Ltd.</b>	LICENCE NUMBER <b>3516</b>
ADDRESS <b>Wellington, Ont.</b>	
NAME OF DRILLER OR BORER <b>Kenneth W. McClennon</b>	LICENCE NUMBER
SIGNATURE OF CONTRACTOR <i>Kenneth W. McClennon</i>	SUBMISSION DATE
	DAY _____ MO. _____ YR. _____

OFFICE USE ONLY

DATA SOURCE <b>1</b>	CONTRACTOR <b>3516</b>	DATE RECEIVED <b>150480</b>
DATE OF INSPECTION	INSPECTOR	
REMARKS		

**CSS.SS**



# WATER WELL RECORD

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

11

2910099

MUNICIPALITY 29010

CON. CEN

01

COUNTY OR DISTRICT: [REDACTED] TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: HUNTINGDON CON. BLOCK, TRACT, SURVEY, ETC.: 1 LOT: 016  
DATE COMPLETED: DAY 04 MO 08 YR 82  
RC: 12399 ELEVATION: 0450 BASIN CODE: 2H

### LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH FEET	
				FROM	TO
BROWN	TOP SOIL			0	2
GREY	CLAY	BOULDERS		2	36
GREY			LIMESTONE	36	150

31 0002 02 003620513 0150215  
32 UNTESTED

#### 41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER			
01-42	<input checked="" type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL
15-16	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL
20-23	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL
25-28	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL
30-33	<input type="checkbox"/> FRESH	<input type="checkbox"/> SALTY	<input type="checkbox"/> SULPHUR	<input type="checkbox"/> MINERAL

#### 51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH FEET	
			FROM	TO
06 1/4	<input checked="" type="checkbox"/> STEEL	188 W	0	35
	<input type="checkbox"/> GALVANIZED			
	<input type="checkbox"/> CONCRETE			
	<input type="checkbox"/> OPEN HOLE			
	<input type="checkbox"/> STEEL		20-23	
	<input type="checkbox"/> GALVANIZED			
	<input type="checkbox"/> CONCRETE			
	<input checked="" type="checkbox"/> OPEN HOLE		35	150
	<input type="checkbox"/> STEEL		27-30	
	<input type="checkbox"/> GALVANIZED			
	<input type="checkbox"/> CONCRETE			
	<input type="checkbox"/> OPEN HOLE			

#### SCREEN

SIZE(S) OF OPENING (SLOT NO. 1)	D. AMETER INCHES	LENGTH FEET
	34-38	39-40

MATERIAL AND TYPE: \_\_\_\_\_ DEPTH TO TOP OF SCREEN: 41-44 FEET

#### 61 PLUGGING & SEALING RECORD

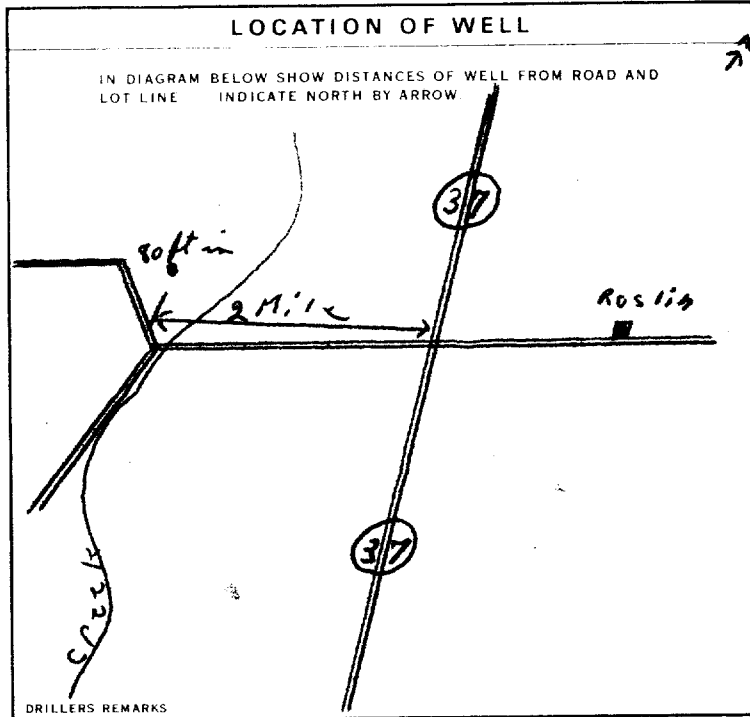
DEPTH SET AT FEET	MATERIAL AND TYPE	CEMENT GROUT LEAD PACKER ETC.
10-13	14-17	
18-21	22-25	
26-29	30-33	80

#### 71 PUMPING TEST

PUMPING TEST METHOD:  PUMP  BAILER  
PUMPING RATE: 0005 GPM  
DURATION OF PUMPING: 01 HOURS 00 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING			
025 FEET	140 FEET	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
		26-28 FEET	29-31 FEET	32-34 FEET	35-37 FEET

IF FLOWING GIVE RATE: \_\_\_\_\_ PUMP INTAKE SET AT: 140 FEET  
WATER AT END OF TEST: 1 CLEAR  CLOUDY   
RECOMMENDED PUMP TYPE:  SHALLOW  DEEP  
RECOMMENDED PUMP SETTING: 140 FEET  
RECOMMENDED PUMPING RATE: 0005 GPM



#### FINAL STATUS OF WELL

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

#### WATER USE

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

#### METHOD OF DRILLING

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

#### CONTRACTOR

NAME OF WELL CONTRACTOR: BILL'S WELL DRILLING LICENCE NUMBER: 1352  
ADDRESS: 271 MAZE ST. FOXBORO  
NAME OF DRILLER OR BORER: WILLIAM DONALDSON LICENCE NUMBER: 1352  
SIGNATURE OF CONTRACTOR: William Donaldson  
SUBMISSION DATE: DAY 4 MO 8 YR 82

#### OFFICE USE ONLY

DATA SOURCE: 1 CONTRACTOR: 1352 DATE RECEIVED: 10 08 82  
DATE OF INSPECTION: \_\_\_\_\_ INSPECTOR: \_\_\_\_\_  
REMARKS: \_\_\_\_\_

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

11 2910865 29020 CON 109

COUNTY OR DISTRICT: **HASTINGS** TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: **THURLOW** CON. BLOCK, TRACT, SURVEY ETC: **9** LOT: **25**  
DATE COMPLETED: DAY **17** MO **4** YR. **85**  
FRANKFORD

**LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)**

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
Brown	Top Soils			1	2
Grey	Clay	Boulders		2	6
Grey		GRAVEL		6	12
Grey			LEIMSTONE	12	63

31  
32

**41 WATER RECORD**

WATER FOUND AT - FEET	KIND OF WATER
10-13 <b>14</b>	1 <input checked="" type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
15-18 <b>30</b>	1 <input checked="" type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
20-23	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
25-28	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
30-33	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL

**51 CASING & OPEN HOLE RECORD**

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
10-11 <b>6 1/4</b>	1 <input checked="" type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE	<b>1 1/2</b>	0	12
17-18	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input checked="" type="checkbox"/> OPEN HOLE		12	63
24-25	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE			

**SCREEN**

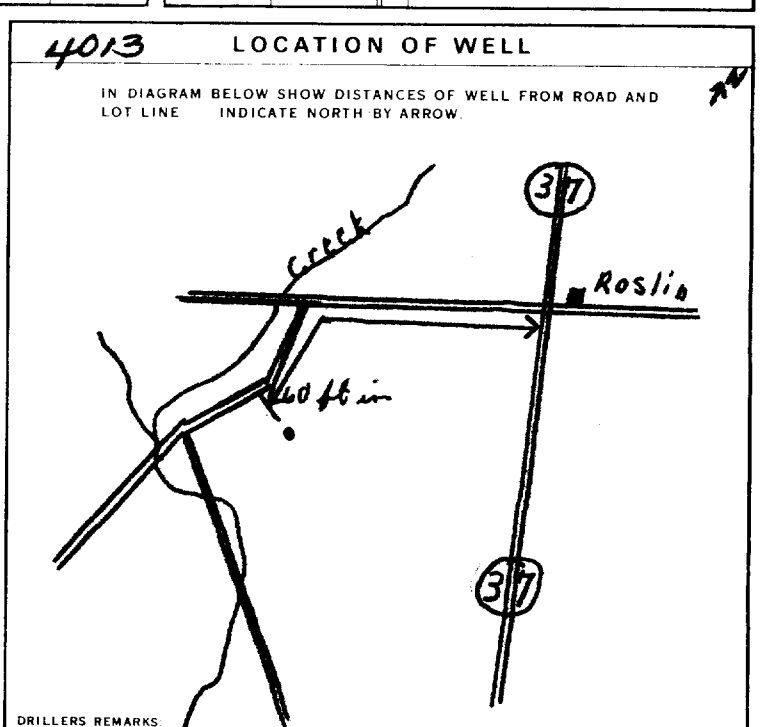
SIZE (S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
	31-33	34-38
MATERIAL AND TYPE		DEPTH TO TOP OF SCREEN FEET
		41-44
		30

**61 PLUGGING & SEALING RECORD**

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

**71 PUMPING TEST**

PUMPING TEST METHOD	PUMPING RATE GPM	DURATION OF PUMPING HOURS
1 <input type="checkbox"/> PUMP 2 <input checked="" type="checkbox"/> BAILER	<b>5</b>	<b>1</b>
STATIC LEVEL FEET	WATER LEVEL END OF PUMPING FEET	WATER LEVELS DURING
<b>8</b>	<b>58</b>	15 MINUTES 26-28 30 MINUTES 29-31 45 MINUTES 32-34 60 MINUTES 35-37
IF FLOWING, GIVE RATE GPM	PUMP INTAKE SET AT FEET	WATER AT END OF TEST FEET
	<b>60</b>	1 <input checked="" type="checkbox"/> CLEAR 2 <input type="checkbox"/> CLOUDY
RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING FEET	RECOMMENDED PUMPING RATE GPM
<input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/> DEEP	<b>60</b>	<b>4</b>



**54 FINAL STATUS OF WELL**

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

**55-56 WATER USE**

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

**57 METHOD OF DRILLING**

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

**CONTRACTOR**

NAME OF WELL CONTRACTOR: **Bell's Well Drilling** LICENCE NUMBER: **1352**  
ADDRESS: **RRI Foxboro**  
NAME OF DRILLER OR BORER: **William Donaldson** LICENCE NUMBER: **1352**  
SIGNATURE OF CONTRACTOR: *William Donaldson* SUBMISSION DATE: DAY **17** MO **4** YR. **85**

**OFFICE USE ONLY**

DATA SOURCE: **1352** CONTRACTOR: **1352** DATE: **28 05 85**  
DATE OF INSPECTION: \_\_\_\_\_ INSPECTOR: \_\_\_\_\_  
REMARKS: **WDE** **CSS.ES**

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

11 2911016 MUNICIPAL 29020 CON. COM. 109

COUNTY OR DISTRICT: **HASTINGS** TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: **THURLOW** CON. BLOCK, TRACT, SURVEY, ETC: **9** LOT: **25**  
 DATE COMPLETED: **16** DAY **9** MO **9** YR **85**  
 R2 Roslin KOK 240

**LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)**

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
Brown	Top Soil			0	2
Grey	CLAY	Boulders		2	6
Grey	GRAVEL			6	10
Grey		SHALE	LIMESTONE	10	12
Grey			LIMESTONE	12	60

31 32

**41 WATER RECORD**

WATER FOUND AT - FEET	KIND OF WATER
10-13 12	1 <input checked="" type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
15-18 58	1 <input checked="" type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
20-23	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
25-28	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
30-33	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL

**51 CASING & OPEN HOLE RECORD**

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
10-11 6 1/4	1 <input checked="" type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE	1 1/2	0	11
17-18	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input checked="" type="checkbox"/> OPEN HOLE		11	60
24-25	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE			

**SCREEN**

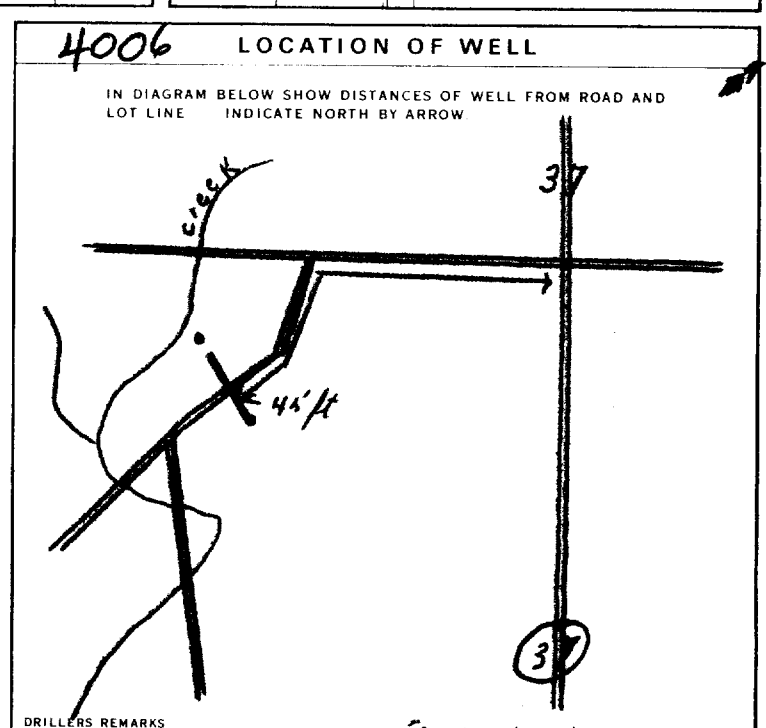
SIZE (S) OF OPENING (SLOT NO.)	DIAMETER	LENGTH
	INCHES	FEET
MATERIAL AND TYPE		DEPTH TO TOP OF SCREEN
		FEET

**61 PLUGGING & SEALING RECORD**

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

**71 PUMPING TEST**

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 <input type="checkbox"/> PUMP 2 <input checked="" type="checkbox"/> BAILER	3 GPM	1 15-16 HOURS 17-18 MINS
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING
5 FEET	58 FEET	15 MINUTES 26-28 FEET 30 MINUTES 29-31 FEET 45 MINUTES 32-34 FEET 60 MINUTES 35-37 FEET
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
	59 GPM	1 <input checked="" type="checkbox"/> CLEAR 2 <input type="checkbox"/> CLOUDY
RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
<input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/> DEEP	59 FEET	3 GPM



**FINAL STATUS OF WELL**

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

**WATER USE**

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

**METHOD OF DRILLING**

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

**CONTRACTOR**

NAME OF WELL CONTRACTOR: **Beal's Well Drilling** LICENCE NUMBER: **1352**  
 ADDRESS: **RR1 Foxboro Ont**  
 NAME OF DRILLER OR BORER: **William Donaldson** LICENCE NUMBER: **1352**  
 SIGNATURE OF CONTRACTOR: *William Donaldson* SUBMISSION DATE: **16** DAY **9** MO **85** YR

**OFFICE USE ONLY**

DATA SOURCE: **1352** CONTRACTOR: **011185**  
 DATE OF INSPECTION: \_\_\_\_\_ INSPECTOR: \_\_\_\_\_  
 REMARKS: \_\_\_\_\_  
 CSS.S8

2911180

1. PRINT ONLY IN SPACES PROVIDED  
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COUNTY OR DISTRICT: HASTINGS TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: TILBROW CON. BLOCK, TRACT, SURVEY, ETC.: 9 LOT: 26  
DATE COMPLETED: DAY 22 NO 5 YR 86  
79 South Foster Ave. Belleville

**LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)**

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
BROWN	Top Soil			0	1
GREY	CLAY	+ Boulders		1	28
GREY			LIMESTONE	28	75

31  
32

**41 WATER RECORD**

WATER FOUND AT - FEET	KIND OF WATER
10-13 30	1 <input checked="" type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
15-18 71	1 <input checked="" type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
20-23	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
25-28	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
30-33	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL

**51 CASING & OPEN HOLE RECORD**

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
10-11 6 1/4	1 <input checked="" type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE	188 0	0	28
17-18	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input checked="" type="checkbox"/> OPEN HOLE		28	75
24-25	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE			27-30

**SCREEN**

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
	1	

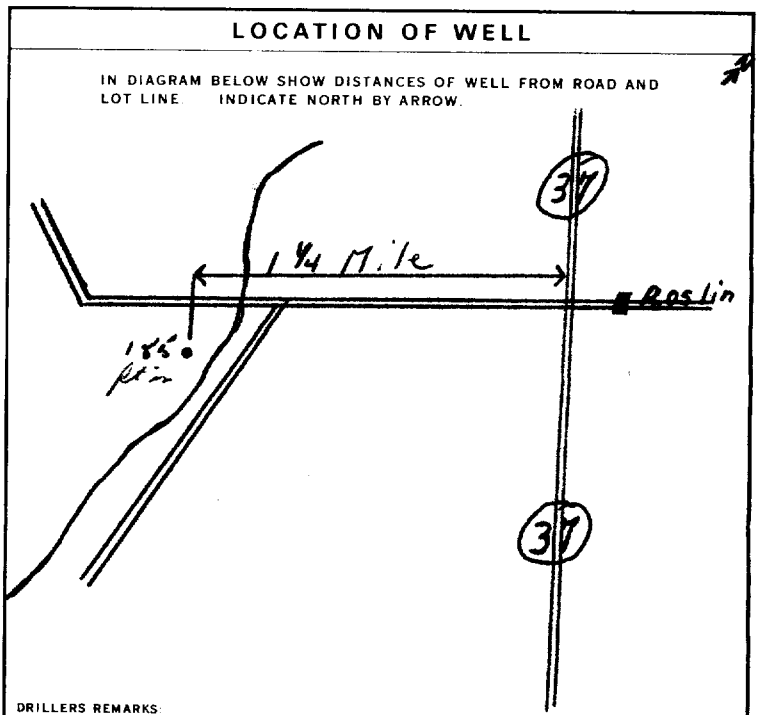
MATERIAL AND TYPE: \_\_\_\_\_ DEPTH TO TOP OF SCREEN: 41-44 FEET

**61 PLUGGING & SEALING RECORD**

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

**71 PUMPING TEST**

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 <input type="checkbox"/> PUMP 2 <input checked="" type="checkbox"/> BAILER	5 GPM	2 HOURS -
STATIC LEVEL: 19-21 FEET	WATER LEVEL END OF PUMPING: 22-24 FEET	WATER LEVELS DURING:
13 FEET	70 FEET	15 MINUTES: 26-28 FEET
		30 MINUTES: 29-31 FEET
		45 MINUTES: 32-34 FEET
		60 MINUTES: 35-37 FEET
IF FLOWING, GIVE RATE: _____ GPM	PUMP INTAKE SET AT: 38-41 FEET	WATER AT END OF TEST: 42 FEET
RECOMMENDED PUMP TYPE: <input type="checkbox"/> SHALLOW <input checked="" type="checkbox"/> DEEP	RECOMMENDED PUMP SETTING: 43-45 FEET	RECOMMENDED PUMPING RATE: 45-49 GPM
	73 FEET	5 GPM



**FINAL STATUS OF WELL**

1 <input checked="" type="checkbox"/> WATER SUPPLY	5 <input type="checkbox"/> ABANDONED, INSUFFICIENT SUPPLY
2 <input type="checkbox"/> OBSERVATION WELL	6 <input type="checkbox"/> ABANDONED, POOR QUALITY
3 <input type="checkbox"/> TEST HOLE	7 <input type="checkbox"/> UNFINISHED
4 <input type="checkbox"/> RECHARGE WELL	

**WATER USE**

1 <input checked="" type="checkbox"/> DOMESTIC	5 <input type="checkbox"/> COMMERCIAL
2 <input type="checkbox"/> STOCK	6 <input type="checkbox"/> MUNICIPAL
3 <input type="checkbox"/> IRRIGATION	7 <input type="checkbox"/> PUBLIC SUPPLY
4 <input type="checkbox"/> INDUSTRIAL	8 <input type="checkbox"/> COOLING OR AIR CONDITIONING
<input type="checkbox"/> OTHER	9 <input type="checkbox"/> NOT USED

**METHOD OF DRILLING**

1 <input checked="" type="checkbox"/> CABLE TOOL	6 <input type="checkbox"/> BORING
2 <input type="checkbox"/> ROTARY (CONVENTIONAL)	7 <input type="checkbox"/> DIAMOND
3 <input type="checkbox"/> ROTARY (REVERSE)	8 <input type="checkbox"/> JETTING
4 <input type="checkbox"/> ROTARY (AIR)	9 <input type="checkbox"/> DRIVING
5 <input type="checkbox"/> AIR PERCUSSION	

**CONTRACTOR**

NAME OF WELL CONTRACTOR: BILL'S WELL DRILLING LICENCE NUMBER: 1352  
ADDRESS: RR1 FOXBORO ONT  
NAME OF DRILLER OR BORER: WILLIAM DONALDSON LICENCE NUMBER: 1352  
SIGNATURE OF CONTRACTOR: William Donaldson SUBMISSION DATE: DAY 22 NO 5 YR 86

**OFFICE USE ONLY**

DATA SOURCE: \_\_\_\_\_ CONTRACTOR: \_\_\_\_\_ DATE RECEIVED: 27 06 86  
DATE OF INSPECTION: \_\_\_\_\_ INSPECTOR: \_\_\_\_\_  
REMARKS: \_\_\_\_\_

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2911851

MUNICIPALITY: \_\_\_\_\_ CON. NO.: \_\_\_\_\_

COUNTY OR DISTRICT: **Napanee** TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: **Thurlow** CON. BLOCK, TRACT, SURVEY, ETC.: **8** LOT: **27**  
**R.R.#2 Roslin** DATE COMPLETED: DAY **12** MO **3** YR **87**

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
brown	topsoil		loose	0	3
brown	hardpan	boulders	hard packed	3	14
grey	limestone		hard	14	60
brown	limestone		hard	60	124

31 \_\_\_\_\_ 32 \_\_\_\_\_

**41 WATER RECORD**

WATER FOUND AT - FEET	KIND OF WATER
10-13	1 <input checked="" type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 4 <input type="checkbox"/> MINERAL
15-18	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 4 <input type="checkbox"/> MINERAL
20-23	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 4 <input type="checkbox"/> MINERAL
25-28	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 4 <input type="checkbox"/> MINERAL
30-33	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 4 <input type="checkbox"/> MINERAL

**51 CASING & OPEN HOLE RECORD**

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
6 1/4	1 <input checked="" type="checkbox"/> STEEL 2 <input checked="" type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE	.188	0	15
6 1/4	1 <input type="checkbox"/> STEEL 2 <input checked="" type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE		15	124

**SCREEN**

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
31-33	34-38	39-40

MATERIAL AND TYPE: \_\_\_\_\_ DEPTH TO TOP OF SCREEN: 41-44 FEET

**61 PLUGGING & SEALING RECORD**

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

**71 PUMPING TEST**

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 <input type="checkbox"/> PUMP 2 <input checked="" type="checkbox"/> BAILER	30 GPM	1 15-16 HOURS 15 17-18 MINS

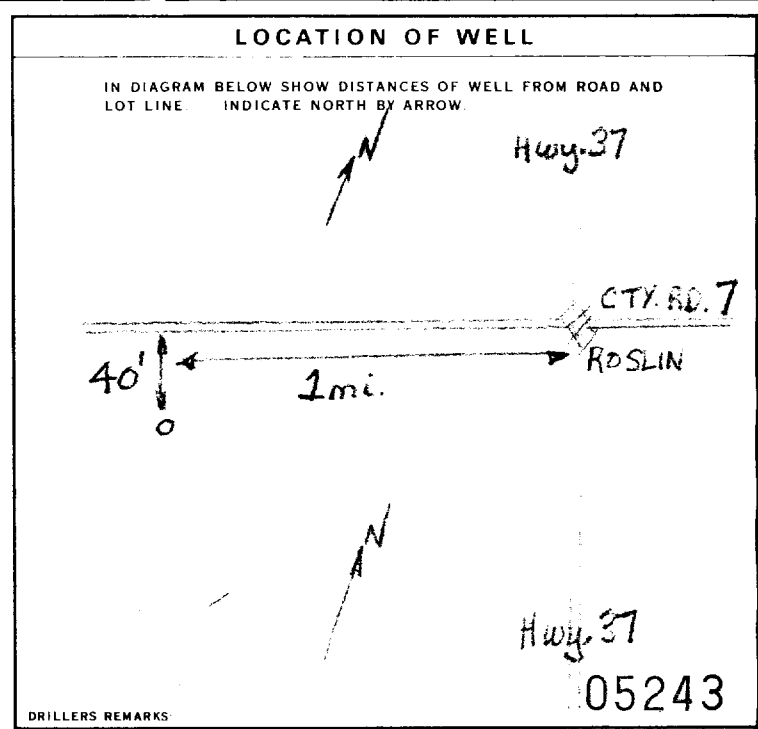
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING			
6 FEET	15 FEET	15 FEET	15 FEET	15 FEET	15 FEET

IF FLOWING, GIVE RATE: \_\_\_\_\_ GPM

RECOMMENDED PUMP TYPE:  SHALLOW  DEEP

RECOMMENDED PUMP SETTING: 100 FEET

RECOMMENDED PUMPING RATE: 30 GPM



**FINAL STATUS OF WELL**

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

**WATER USE**

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

**METHOD OF DRILLING**

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

**CONTRACTOR**

NAME OF WELL CONTRACTOR: **CHALK WELL DRILLING LTD.** LICENCE NUMBER: **1507**  
 ADDRESS: **R.R.#6 Napanee**  
 NAME OF DRILLER OR BORER: **Don Davey** LICENCE NUMBER: **1-0025**  
 SIGNATURE OF CONTRACTOR: \_\_\_\_\_ SUBMISSION DATE: DAY **12** MO **3** YR **87**

**OFFICE USE ONLY**

DATE RECEIVED: **FEB 03 1988**  
 DATE OF INSPECTION: \_\_\_\_\_ INSPECTOR: \_\_\_\_\_





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11 2913095 29020 CON. 09

COUNTY OR DISTRICT: Hastings TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: Therrow CON. BLOCK, TRACT, SURVEY ETC: CON. 9 LOT: 25  
DATE COMPLETED: DAY 06 NO 09 YR 89

1 2 10 12 17 18 24 25 26 30 31 III IV

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)					
GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
BROWN	TOPSOIL			0	2
BROWN	CLAY			2	5
GREY	CLAY	GRAVEL		5	7
GREY	LIMESTONE			7	54
3 LOTS EAST SOUTH LOT NORTH SURVEY TO THE WELL STAKE 30 FT. SOUTH, 41 FT. WEST					

31 32

**41 WATER RECORD**

WATER FOUND AT - FEET	KIND OF WATER	
10-13	1 <input checked="" type="checkbox"/> FRESH 2 <input type="checkbox"/> SALTY	3 <input type="checkbox"/> SULPHUR 4 <input type="checkbox"/> MINERALS 6 <input type="checkbox"/> GAS
15-18	1 <input type="checkbox"/> FRESH 2 <input type="checkbox"/> SALTY	3 <input type="checkbox"/> SULPHUR 4 <input type="checkbox"/> MINERALS 6 <input type="checkbox"/> GAS
20-23	1 <input type="checkbox"/> FRESH 2 <input type="checkbox"/> SALTY	3 <input type="checkbox"/> SULPHUR 4 <input type="checkbox"/> MINERALS 6 <input type="checkbox"/> GAS
25-28	1 <input type="checkbox"/> FRESH 2 <input type="checkbox"/> SALTY	3 <input type="checkbox"/> SULPHUR 4 <input type="checkbox"/> MINERALS 6 <input type="checkbox"/> GAS
30-33	1 <input type="checkbox"/> FRESH 2 <input type="checkbox"/> SALTY	3 <input type="checkbox"/> SULPHUR 4 <input type="checkbox"/> MINERALS 6 <input type="checkbox"/> GAS

**51 CASING & OPEN HOLE RECORD**

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
10-11	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE 5 <input type="checkbox"/> PLASTIC			13-16
17-18	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE 5 <input type="checkbox"/> PLASTIC			20-23
24-25	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE 5 <input type="checkbox"/> PLASTIC			27-30

*CASING REMOVED*

**SCREEN**

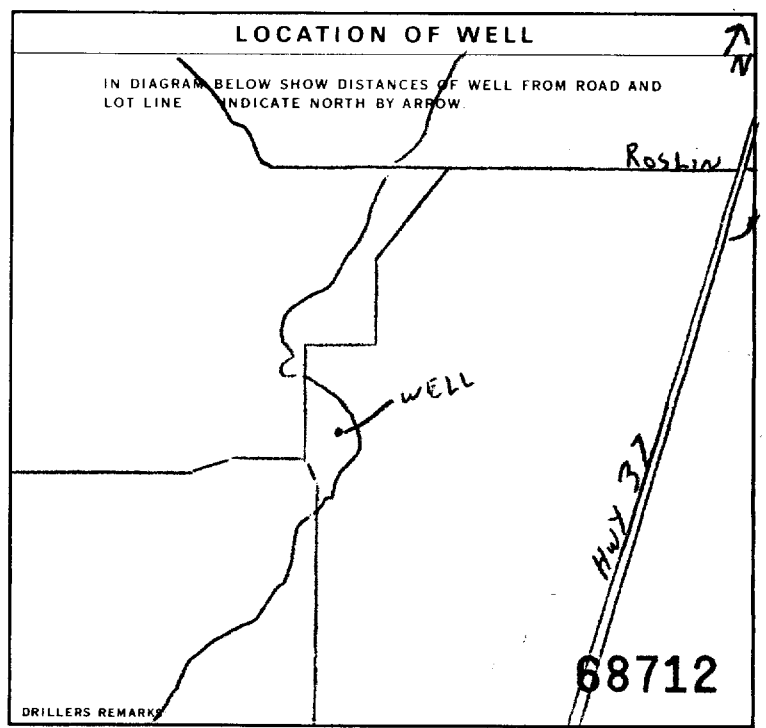
SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
31-33	34-38	39-40
MATERIAL AND TYPE		DEPTH TO TOP OF SCREEN 41-44 FEET

**61 PLUGGING & SEALING RECORD**

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

**71 PUMPING TEST**

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 <input type="checkbox"/> PUMP 2 <input type="checkbox"/> BAILER	GPM	HOURS MINS
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING
19-21 FEET	22-24 FEET	15 MINUTES 26-28 FEET 30 MINUTES 29-31 FEET 45 MINUTES 32-34 FEET 60 MINUTES 35-37 FEET
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	1 <input checked="" type="checkbox"/> CLEAR 2 <input type="checkbox"/> CLOUDY
RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
<input type="checkbox"/> SHALLOW <input type="checkbox"/> DEEP	FEET	GPM



**FINAL STATUS OF WELL**

1 <input type="checkbox"/> WATER SUPPLY	5 <input checked="" type="checkbox"/> ABANDONED, INSUFFICIENT SUPPLY
2 <input type="checkbox"/> OBSERVATION WELL	6 <input type="checkbox"/> ABANDONED POOR QUALITY
3 <input type="checkbox"/> TEST HOLE	7 <input type="checkbox"/> UNFINISHED
4 <input type="checkbox"/> RECHARGE WELL	<input type="checkbox"/> DEWATERING

**WATER USE**

1 <input type="checkbox"/> DOMESTIC	5 <input type="checkbox"/> COMMERCIAL
2 <input type="checkbox"/> STOCK	6 <input type="checkbox"/> MUNICIPAL
3 <input type="checkbox"/> IRRIGATION	7 <input type="checkbox"/> PUBLIC SUPPLY
4 <input type="checkbox"/> INDUSTRIAL	8 <input type="checkbox"/> COOLING OR AIR CONDITIONING
<input type="checkbox"/> OTHER	9 <input checked="" type="checkbox"/> NOT USED

**METHOD OF CONSTRUCTION**

1 <input type="checkbox"/> CABLE TOOL	6 <input type="checkbox"/> BORING
2 <input type="checkbox"/> ROTARY (CONVENTIONAL)	7 <input type="checkbox"/> DIAMOND
3 <input type="checkbox"/> ROTARY (REVERSE)	8 <input type="checkbox"/> JETTING
4 <input checked="" type="checkbox"/> ROTARY (AIR)	9 <input type="checkbox"/> DRIVING
5 <input checked="" type="checkbox"/> AIR PERCUSSION	<input type="checkbox"/> DIGGING <input type="checkbox"/> OTHER

**CONTRACTOR**

NAME OF WELL CONTRACTOR: WELL MANSE DONALDSON DRILLING WELL CONTRACTOR'S LICENCE NUMBER: 1805  
ADDRESS: RR#5 BELLEVILLE ONT.  
NAME OF WELL TECHNICIAN: KEN DONALDSON WELL TECHNICIAN'S LICENCE NUMBER: T-0019  
SIGNATURE OF TECHNICIAN/CONTRACTOR: Ken Donaldson SUBMISSION DATE: DAY 11 MO 09 YR 89

**OFFICE USE ONLY**

DATA SOURCE: 1805 CONTRACTOR: 1805 DATE RECEIVED: OCT 05 1989  
DATE OF INSPECTION: \_\_\_\_\_ INSPECTOR: \_\_\_\_\_  
REMARKS: \_\_\_\_\_

CSS.ES



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11

2916522

MUNICIPALITY 29020

CON. C.O.N.

109

COUNTY OR DISTRICT: **Hastings**  
 TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: **Thurston**  
 CON. BLOCK, TRACT, SURVEY ETC: **IX**  
 LOT: **25**  
 R. R. # **2** Roslin, Ontario  
 DATE COMPLETED: DAY **11** MO **05** YR **94**

**LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)**

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
Brown	Hardpan	Boulders	Packed	0	11
Grey	Limestone		Hard	11	80

31

32

**41 WATER RECORD**

WATER FOUND AT - FEET	KIND OF WATER					
10-13	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	4 <input type="checkbox"/> MINERALS	5 <input type="checkbox"/> GAS	6 <input type="checkbox"/>	7 <input type="checkbox"/>
15-18	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	4 <input type="checkbox"/> MINERALS	5 <input type="checkbox"/> GAS	6 <input type="checkbox"/>	7 <input type="checkbox"/>
20-23	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	4 <input type="checkbox"/> MINERALS	5 <input type="checkbox"/> GAS	6 <input type="checkbox"/>	7 <input type="checkbox"/>
25-28	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	4 <input type="checkbox"/> MINERALS	5 <input type="checkbox"/> GAS	6 <input type="checkbox"/>	7 <input type="checkbox"/>
30-33	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	4 <input type="checkbox"/> MINERALS	5 <input type="checkbox"/> GAS	6 <input type="checkbox"/>	7 <input type="checkbox"/>

**51 CASING & OPEN HOLE RECORD**

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
9"	1 <input type="checkbox"/> STEEL 2 <input checked="" type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE 5 <input type="checkbox"/> PLASTIC		0	20'6"
6"	1 <input type="checkbox"/> STEEL 2 <input checked="" type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE 5 <input type="checkbox"/> PLASTIC		20'6"	80

**SCREEN**

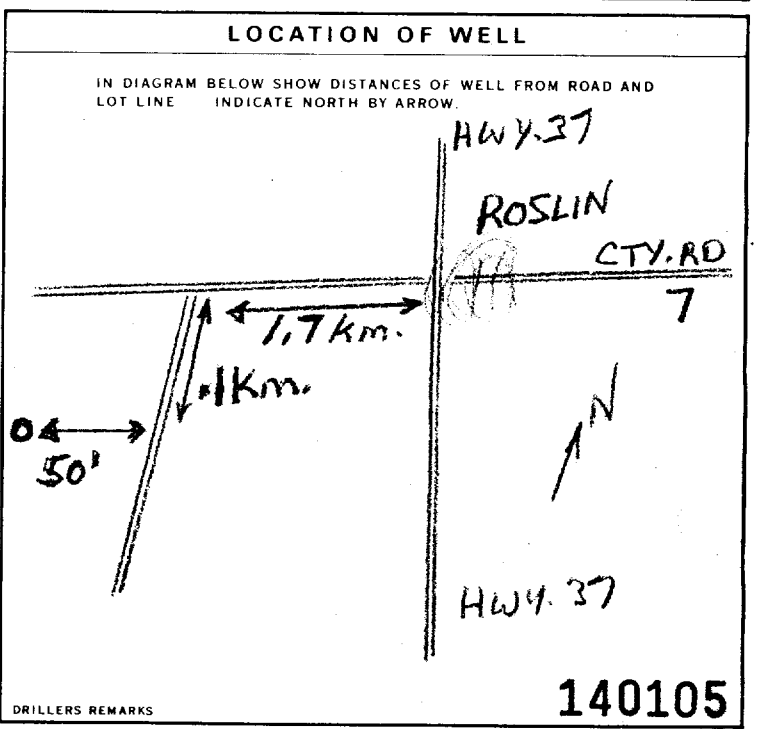
SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

**61 PLUGGING & SEALING RECORD**

DEPTH SET AT - FEET	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
80	15' Pea Gravel
15	0' Cement

**71 PUMPING TEST**

PUMPING TEST METHOD	PUMPING RATE GPM	DURATION OF PUMPING HOURS
1 <input type="checkbox"/> PUMP 2 <input type="checkbox"/> BAILER	<b>DRY</b>	
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING
18-21	22-24	15 MINUTES 28-28, 30 MINUTES 29-31, 45 MINUTES 32-34, 60 MINUTES 35-37
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
		1 <input type="checkbox"/> CLEAR 2 <input type="checkbox"/> CLOUDY
RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
<input type="checkbox"/> SHALLOW <input type="checkbox"/> DEEP		



**FINAL STATUS OF WELL**

1 <input type="checkbox"/> WATER SUPPLY	5 <input checked="" type="checkbox"/> ABANDONED, INSUFFICIENT SUPPLY
2 <input type="checkbox"/> OBSERVATION WELL	6 <input type="checkbox"/> ABANDONED POOR QUALITY
3 <input type="checkbox"/> TEST HOLE	7 <input type="checkbox"/> UNFINISHED
4 <input type="checkbox"/> RECHARGE WELL	8 <input type="checkbox"/> DEWATERING

**WATER USE**

1 <input type="checkbox"/> DOMESTIC	5 <input type="checkbox"/> COMMERCIAL
2 <input type="checkbox"/> STOCK	6 <input type="checkbox"/> MUNICIPAL
3 <input type="checkbox"/> IRRIGATION	7 <input type="checkbox"/> PUBLIC SUPPLY
4 <input type="checkbox"/> INDUSTRIAL	8 <input type="checkbox"/> COOLING OR AIR CONDITIONING
9 <input checked="" type="checkbox"/> OTHER	9 <input checked="" type="checkbox"/> NOT USED

**METHOD OF CONSTRUCTION**

1 <input checked="" type="checkbox"/> CABLE TOOL	6 <input type="checkbox"/> BORING
2 <input type="checkbox"/> ROTARY (CONVENTIONAL)	7 <input type="checkbox"/> DIAMOND
3 <input type="checkbox"/> ROTARY (REVERSE)	8 <input type="checkbox"/> JETTING
4 <input type="checkbox"/> ROTARY (AIR)	9 <input type="checkbox"/> DRIVING
5 <input type="checkbox"/> AIR PERCUSSION	10 <input type="checkbox"/> DIGGING <input type="checkbox"/> OTHER

**CONTRACTOR**

NAME OF WELL CONTRACTOR: **CHALK WELL DRILLING LTD.**  
 WELL CONTRACTOR'S LICENCE NUMBER: **1507**  
 ADDRESS: **R. R. # 6, Napanee, Ontario**  
 NAME OF WELL TECHNICIAN: **K. Chalk**  
 WELL TECHNICIAN'S LICENCE NUMBER: **T-0627**  
 SIGNATURE OF TECHNICIAN/CONTRACTOR: **CHALK WELL DRILLING LTD.**  
 SUBMISSION DATE: DAY **11** MO **05** YR **94**

**DRILLERS REMARKS**

140105

**CONTRACTOR** 1507 **DATE RECEIVED** JAN 09 1995

**DATA SOURCE** **INSPECTOR**

REMARKS: *[Handwritten signature]*

CSS.ES



Print only in spaces provided.  
Mark correct box with a checkmark, where applicable.

2919737

Municipality 29010 Con. CON 01

11

County or District <b>Hastings</b>	Township/Borough/City/Town/Village <b>Huntingdon</b>	Con block tract survey, etc. <b>I</b>	Lot <b>17</b>
Address <b>R. R. # 2, Roslin, Ont</b>		Date completed <b>30 05 02</b> day month year	

21 2  
M 10 12 17 18 24 25 26 30 31 47

General colour	Most common material	Other materials	General description	Depth - feet	
				From	To
Brown	Hardpan	Small Stone	Hard Packed	0	8
Grey	Limestone		Broken	8	13
Grey	Limestone		Hard	13	48

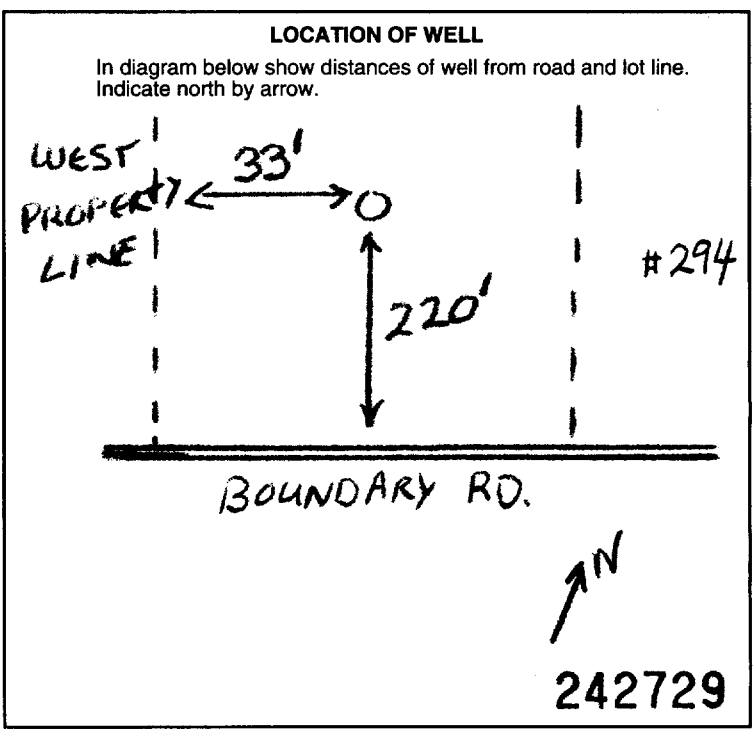
31 32  
10 14 15 21 32 43 54 65 75 80

Water found at - feet	Kind of water
40	1 <input checked="" type="checkbox"/> Fresh 3 <input checked="" type="checkbox"/> Sulphur 2 <input checked="" type="checkbox"/> Salty 4 <input checked="" type="checkbox"/> Minerals 5 <input checked="" type="checkbox"/> Gas 6 <input type="checkbox"/> Gas
15-18	1 <input type="checkbox"/> Fresh 3 <input type="checkbox"/> Sulphur 2 <input type="checkbox"/> Salty 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas 6 <input type="checkbox"/> Gas
20-23	1 <input type="checkbox"/> Fresh 3 <input type="checkbox"/> Sulphur 2 <input type="checkbox"/> Salty 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas 6 <input type="checkbox"/> Gas
25-28	1 <input type="checkbox"/> Fresh 3 <input type="checkbox"/> Sulphur 2 <input type="checkbox"/> Salty 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas 6 <input type="checkbox"/> Gas
30-33	1 <input type="checkbox"/> Fresh 3 <input type="checkbox"/> Sulphur 2 <input type="checkbox"/> Salty 4 <input type="checkbox"/> Minerals 5 <input type="checkbox"/> Gas 6 <input type="checkbox"/> Gas

Inside diam inches	Material	Wall thickness inches	Depth - feet	
			From	To
6 1/4"	1 <input checked="" type="checkbox"/> Steel 2 <input type="checkbox"/> Galvanized 3 <input type="checkbox"/> Concrete 4 <input type="checkbox"/> Open hole 5 <input type="checkbox"/> Plastic	.188	0	22
6"	1 <input type="checkbox"/> Steel 2 <input type="checkbox"/> Galvanized 3 <input type="checkbox"/> Concrete 4 <input checked="" type="checkbox"/> Open hole 5 <input type="checkbox"/> Plastic		20'6"	48
24-25	1 <input type="checkbox"/> Steel 2 <input type="checkbox"/> Galvanized 3 <input type="checkbox"/> Concrete 4 <input type="checkbox"/> Open hole 5 <input type="checkbox"/> Plastic			27-30

Sizes of opening (Slot No.)	Diameter	Length
	inches	feet
Material and type		Depth at top of screen
		feet
<input checked="" type="checkbox"/> Annular space <input type="checkbox"/> Abandonment		
Depth set at - feet		
From	To	Material and type (Cement grout, bentonite, etc.)
20	0	Cement
18-21	22-25	
26-29	30-33	

Pumping test method 1 <input type="checkbox"/> Pump 2 <input checked="" type="checkbox"/> Bailer	Pumping rate <b>6</b> GPM	Duration of pumping <b>1</b> Hours <b>0</b> Mins
Static level <b>20</b> feet	Water level end of pumping <b>46</b> feet	Water levels during
		15 minutes <b>23</b> feet
		30 minutes <b>21</b> feet
		45 minutes <b>21</b> feet
		60 minutes <b>21</b> feet
If flowing give rate GPM	Pump intake set at feet	Water at end of test <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Cloudy
Recommended pump type <input type="checkbox"/> Shallow <input checked="" type="checkbox"/> Deep	Recommended pump setting <b>45</b> feet	Recommended pump rate <b>6</b> GPM



1 <input checked="" type="checkbox"/> Water supply	5 <input type="checkbox"/> Abandoned, insufficient supply	9 <input type="checkbox"/> Unfinished
2 <input type="checkbox"/> Observation well	6 <input type="checkbox"/> Abandoned, poor quality	10 <input type="checkbox"/> Replacement well
3 <input type="checkbox"/> Test hole	7 <input type="checkbox"/> Abandoned (Other)	
4 <input type="checkbox"/> Recharge well	8 <input type="checkbox"/> Dewatering	

1 <input checked="" type="checkbox"/> Domestic	5 <input type="checkbox"/> Commercial	9 <input type="checkbox"/> Not use
2 <input type="checkbox"/> Stock	6 <input type="checkbox"/> Municipal	10 <input type="checkbox"/> Other
3 <input type="checkbox"/> Irrigation	7 <input type="checkbox"/> Public supply	
4 <input type="checkbox"/> Industrial	8 <input type="checkbox"/> Cooling & air conditioning	

1 <input checked="" type="checkbox"/> Cable tool	5 <input type="checkbox"/> Air percussion	9 <input type="checkbox"/> Driving
2 <input type="checkbox"/> Rotary (conventional)	6 <input type="checkbox"/> Boring	10 <input type="checkbox"/> Digging
3 <input type="checkbox"/> Rotary (reverse)	7 <input type="checkbox"/> Diamond	11 <input type="checkbox"/> Other
4 <input type="checkbox"/> Rotary (air)	8 <input type="checkbox"/> Jetting	

Name of Well Contractor <b>CHALK WELL DRILLING LTD.</b>	Well Contractor's Licence No. <b>1507</b>
Address <b>R. R. # 6, Napanee, Ontario</b>	
Name of Well Technician <b>George R. Chalk</b>	Well Technician's Licence No. <b>T-0024</b>
Signature of Technician/Contractor <b>CHALK WELL DRILLING LTD.</b>	Submission date <b>30 05 02</b> day mo yr

MINISTRY USE ONLY	Data source <b>1507</b>	Contractor <b>1507</b>	Date received <b>JAN 16 2003</b>
	Date of inspection	Inspector	
Remarks		<b>CSS.ES3</b>	



Measurements recorded in:  Metric  Imperial

Tag#: A247118

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

Well Owner's Information

First Name	Last Name / Organization Hilden Homes Ltd.	E-mail Address	<input type="checkbox"/> Well Constructed by Well Owner
Mailing Address (Street Number/Name) 393 Sidney Street	Municipality Belleville	Province ON	Postal Code K8P3Z9
		Telephone No. (inc. area code) 416 396 2460	

Well Location

Address of Well Location (Street Number/Name) 622 Foxton Road	Township Thurlow	Lot Part lot 26	Concession 9
County/District/Municipality Hastings	City/Town/Village Roslin	Province Ontario	Postal Code K0K2Y0
UTM Coordinates Zone Easting Northing NAD 83 18 2863 1114882889	Municipal Plan and Sublot Number Part 1 Plan 21R2664	Other	

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From To
	Property grade was changed. Added 96" of well casing to accommodate for this change and affixed M.O.E. well tag.			

Annular Space		
Depth Set at (m/ft) From To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)

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

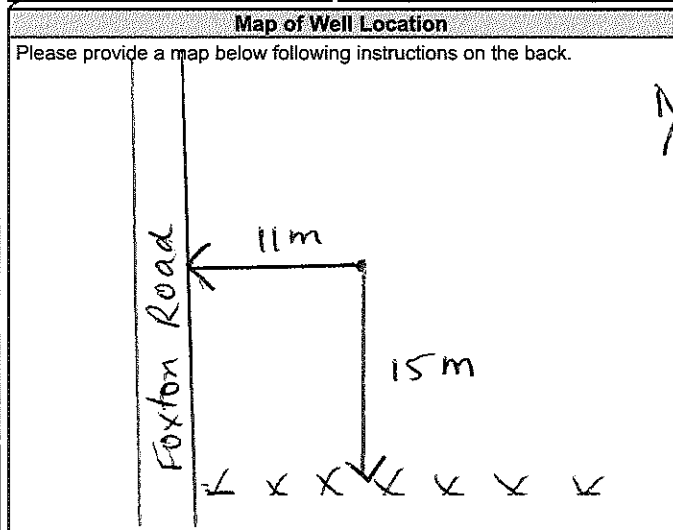
Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		<input type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input type="checkbox"/> Test Hole <input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

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

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

Well Contractor and Well Technician Information			
Business Name of Well Contractor Well Busters Canada Inc.	Well Contractor's Licence No. 73219		
Business Address (Street Number/Name) 673 Wallbridge Loyalist Rd	Municipality Belleville		
Province ON	Postal Code K8N4Z5	Business E-mail Address info@wellbusters.com	
Bus. Telephone No. (inc. area code) 613 968 1474	Name of Well Technician (Last Name, First Name) Hitchon Stewart		
Well Technician's Licence No. 10141	Signature of Technician and/or Contractor <i>[Signature]</i>		Date Submitted 20181123

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



Comments:  
Well Depth 19.31 m. Static Level 4.43 m.

Well owner's information package delivered <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date Package Delivered Y Y Y Y M M D D 20181123	Ministry Use Only Audit No. 2293865 DEC 3 2018
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Appendix B

# Laboratory Certificates of Analysis

**C.O.C.: Foxton**

**REPORT No: 24-004566 - Rev. 0**

**Report To:**

The Greer Galloway Group  
 1620 Wallbridge-Loyalist Road, RR #5  
 Belleville, ON K8N 4Z5

**CADUCEON Environmental Laboratories**

285 Dalton Ave  
 Kingston, ON K7K 6Z1

**Attention: Kirby Magee-Dittburner**

DATE RECEIVED: 2024-Feb-16  
 DATE REPORTED: 2024-Feb-26  
 SAMPLE MATRIX: Ground Water

CUSTOMER PROJECT: Foxton Road  
 P.O. NUMBER: PO#2338574

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Anions (Liquid)	1	OTTAWA	PCURIEL	2024-Feb-20	A-IC-01	SM 4110B
Colour (Liquid)	1	OTTAWA	AWILSON	2024-Feb-21	A-COL-01	SM 2120C
Cond/pH/Alk Auto (Liquid)	1	OTTAWA	SBOUDREAU	2024-Feb-20	COND-02/PH-02/A LK-02	SM 2510B/4500H/ 2320B
Coliforms - DC Media (Liquid)	1	KINGSTON	BBURTCH	2024-Feb-16	ECTC-001	MECP E3407
DOC/DIC (Liquid)	1	OTTAWA	VKASYAN	2024-Feb-21	C-OC-01	EPA 415.2
Fecal Coliforms (Liquid)	1	KINGSTON	BBURTCH	2024-Feb-16	FC-001	SM 9222D
ICP/MS (Liquid)	1	OTTAWA	AOZKAYMAK	2024-Feb-21	D-ICPMS-01	EPA 200.8
ICP/OES (Liquid)	1	OTTAWA	APRUDYVUS	2024-Feb-20	D-ICP-01	SM 3120B
Sulphide (Liquid)	1	KINGSTON	EHINCH	2024-Feb-20	H2S-001	SM 4500-S2
Tannins (Liquid)	1	KINGSTON	EHINCH	2024-Feb-21	TAN-001	SM 5550
TP & TKN (Liquid)	1	KINGSTON	KDIBBITS	2024-Feb-23	TPTKN-001	MECP E3516.2
Turbidity (Liquid)	1	OTTAWA	AWILSON	2024-Feb-21	A-TURB-01	SM 2130B

R.L. = Reporting Limit

NC = Not Calculated

Test methods may be modified from specified reference method unless indicated by an \*



**Michelle Dubien**  
**Data Specialist**

Parameter	Units	R.L.	Client I.D.
			TW
			Sample I.D.
			24-004566-1
			Date Collected
			2024-02-15
			-
Total Coliform (DC Media)	CFU/100mL	1	6
E coli (DC Media)	CFU/100mL	1	0
Background (DC Media)	CFU/100mL	1	65
Fecal Coliform	CFU/100mL	1	0
Alkalinity(CaCO3) to pH4.5	mg/L	5	254
Conductivity @25°C	uS/cm	1	540
pH @25°C	pH units	-	7.78
Colour	TCU	2	4
Turbidity	NTU	0.1	0.8
Fluoride	mg/L	0.1	<0.1
Chloride	mg/L	0.5	13.7
Nitrate (N)	mg/L	0.05	1.21
Nitrite (N)	mg/L	0.05	<0.05
Sulphate	mg/L	1	7
Phosphorus (Total)	mg/L	0.01	0.01
Total Kjeldahl Nitrogen	mg/L	0.1	0.3
Dissolved Organic Carbon	mg/L	0.2	4.0
Tannin & Lignin	mg/L	0.5	<0.5
Sulphide	mg/L	0.01	<0.01
Hardness (as CaCO3)	mg/L	0.02	268
Calcium	mg/L	0.02	100



**Michelle Dubien**  
 Data Specialist

		Client I.D.	TW
		Sample I.D.	24-004566-1
		Date Collected	2024-02-15
<b>Parameter</b>	<b>Units</b>	<b>R.L.</b>	<b>-</b>
Iron	mg/L	0.005	0.042
Magnesium	mg/L	0.02	4.48
Manganese	mg/L	0.001	0.003
Sodium	mg/L	0.2	7.7
Lead	mg/L	0.00002	<0.00002



**Michelle Dubien**  
**Data Specialist**

**C.O.C.:** Foxton

**REPORT No:** 24-008073 - Rev. 0

**Report To:**

The Greer Galloway Group  
 1620 Wallbridge-Loyalist Road, RR #5  
 Belleville, ON K8N 4Z5

**CADUCEON Environmental Laboratories**

285 Dalton Ave  
 Kingston, ON K7K 6Z1

**Attention: Kirby Magee-Dittburner**

DATE RECEIVED: 2024-Mar-26  
 DATE REPORTED: 2024-Mar-28  
 SAMPLE MATRIX: Ground Water

CUSTOMER PROJECT: Foxton Road  
 P.O. NUMBER: 2338574

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Coliforms - DC Media (Liquid)	1	KINGSTON	BBURTCH	2024-Mar-26	ECTC-001	MECP E3407
Fecal Coliforms (Liquid)	1	KINGSTON	BBURTCH	2024-Mar-26	FC-001	SM 9222D

R.L. = Reporting Limit

NC = Not Calculated

Test methods may be modified from specified reference method unless indicated by an \*

Client I.D.	Sample I.D.	Date Collected	Parameter	Total Coliform (DC Media)	E coli (DC Media)	Background (DC Media)	Fecal Coliform
			Units	CFU/100mL	CFU/100mL	CFU/100mL	CFU/100mL
R.L.				1	1	1	1
				-	-	-	-
Resample	24-008073-1	2024-Mar-26		1	0	>200	0



**Brandon Burtch**  
**Microbiology Supervisor**



**C.O.C.:** Foxton

**REPORT No:** 24-007045 - Rev. 0

**Report To:**

The Greer Galloway Group  
 1620 Wallbridge-Loyalist Road, RR #5  
 Belleville, ON K8N 4Z5

**CADUCEON Environmental Laboratories**

285 Dalton Ave  
 Kingston, ON K7K 6Z1

**Attention: Kirby Magee-Dittburner**

DATE RECEIVED: 2024-Mar-14  
 DATE REPORTED: 2024-Mar-18  
 SAMPLE MATRIX: Ground Water

CUSTOMER PROJECT: Foxton Road  
 P.O. NUMBER: 2338574

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Coliforms - DC Media (Liquid)	1	KINGSTON	BBURTCH	2024-Mar-14	ECTC-001	MECP E3407
Fecal Coliforms (Liquid)	1	KINGSTON	BBURTCH	2024-Mar-14	FC-001	SM 9222D

R.L. = Reporting Limit

NC = Not Calculated

Test methods may be modified from specified reference method unless indicated by an \*

Client I.D.	Sample I.D.	Date Collected	Parameter	Total Coliform (DC Media)	E coli (DC Media)	Background (DC Media)	Fecal Coliform
			Units	CFU/100mL	CFU/100mL	CFU/100mL	CFU/100mL
			R.L.	1	1	1	1
				-	-	-	-
Resample	24-007045-1	2024-Mar-14		0	0	>200	0



**Brandon Burtch**  
**Microbiology Supervisor**