Hydrogeological Study

519 Gore Road,
Carrying Place, Ontario

Prepared for:

Gerald Pulver
519 Gore Road
Carrying Place, ON
K0K 1L0

Prepared by:

ASC Environmental Inc.
1305 Princess St,
Kingston, ON
K7M 3E3

File: ASC-951 101r
October 31, 2024

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1.0 INTRODUCTION

1.1 Initiation and Objective

ASC Environmental Inc. (ASC) was retained by Gerald Pulver (*Client*) to conduct a hydrogeological assessment in support of a potential severance in accordance with County of Prince Edward and the Standard for Hydrogeological Assessments. After confirmation from the client, ASC understands that the potential severance will consist of an existing residential single-family home, and the existing well will service the residential building, the retained portion of the property will remain agricultural fields. We understand that the subject property encompasses approximately 8.12 hectares (0.38 hectares slated for severance) located along the south side of Gore Road, Carrying Place, Ontario. A site location plan is shown on Drawing No. 1 in Appendix A.

The purpose of the hydrogeological study was to assess the viability of one dug well (TW1) to support the proposed severance. The study evaluated whether groundwater quality and quantity are sufficient to support the existing residential land use without adversely impacting upon existing neighbouring wells.

One (1) existing dug well was historically advanced on the severed portion of the subject property. After confirmation from the client, and a database search of MECP records, no well record was identified for the test well.

1.1 Scope of Work

The agreed scope of work included the following efforts:

- Review available Ministry of Environment, Conservation and Parks (MECP) well water records and historical data for the local area.
- Chlorinate the existing test well and circulate water until between 50 and 200 ppm, residual chlorine is measured in the well water.
- Undertake one (1) six-hour pumping test (with recovery) on the existing dug well.
- Monitor water levels in adjacent wells during pumping.
- Collect well water sample in the final hour of the pumping test (approximate 5.5-hour mark) following zero chlorine residual.
- Submit well water sample to a certified laboratory for the required suite of parameters, as indicated in the MECP D-5-5 Procedure.
- Prepare a hydrogeological assessment report, in accordance with the MECP D-5-5 Procedure, including well construction protocols, water quality, water quantity, and potential well interference.
- Conduct a nitrate attenuation assessment of the existing septic system.

2.0 BACKGROUND

2.1 Site Information

The subject property presently includes a single-family residential home on approximately 8.12 hectares, and the proposed severance will encompass approximately 0.38 hectares located adjacent the south side of Gore Road in Carrying Place, Ontario. The subject property generally consists of agricultural fields, a mix of shrubs, coniferous and deciduous trees and manicure lawn, with an earth driveway connecting to Gore Road. A site location plan is shown on Drawing No. 1 in Appendix A.

The site topography on the subject property is primarily flat with a general downward slope to the south towards an unnamed seasonal wetland and associated creek (Sawguin Creek) located approximately 700 m south. The surrounding land use within a 250 m radius consists primarily of agricultural and rural residential properties. The Bay of Quinte is located approximately 3000 metres north of the subject property. No other surface water features are located on or near the subject property.

2.2 Surficial Soil Conditions

The physiographic area is described as Clay Plains.[1]

The MECP online database of well records within a 500 m radius indicate surficial soils consisting of clay, topsoil, and hardpan overlying limestone bedrock.[2] Bedrock is reported encountered between 1.83 m and 7.01 m below ground surface (bgs).[2] The off-site well records may be found in Appendix C.

2.3 Background Geology

Bedrock geology in the study area consists of limestone, dolostone, shale, arkose, and sandstone of the Ottawa Group; Simcoe Group and Shadow Lake Formation.[3]

2.4 Local Hydrogeology

Eight (8) water well summary records (within a 500-metre radius of the test well area) were available for review from the MECP online database (see Appendix C). Review of the well records found the eight (8) records to be domestic wells. Reported well depths ranged from approximately 7.14 m to 30.48 m. Fresh water was reported to be encountered in the limestone bedrock (fractures and joints) at depths ranging from 4.0 m to 27.4 m below ground surface (bgs).

1 Chapman, L.J. and Putnam, D.F. 1972. Physiography of Southern Ontario. Map 2227.
2 Ministry of the Environment, Conservation, and Parks. 2021. Map: Well Records.
3 Ontario Geological Survey. 1991: Bedrock Geology of Ontario, Southern Sheet. Map. 2544.

3.0 WELL CONSTRUCTION

ASC understands through correspondence with the Client that one (1) dug well (TW1) was historically advanced for the purposes of water supply to the existing residential home. No well records were identified from the MECP well records database by ASC personnel and the Client was not aware of existing records for the well.

The date and method of construction for the test well is presently unknown. Visual observations for TW1 show that the test well is constructed with an interlocking stone casing that extends from surface to a depth of approximately 3.74 m. ASC is under the opinion that the test well is completed in the limestone bedrock based on information gathered from offsite well records and wells in the surrounding area. The well location is shown in Drawing No. 2 in Appendix A.

Field observations indicate that the dug well on the subject property is no longer capable of preventing surface water and foreign materials from entering the well due to openings in the concrete casing (likely attributed to weathering) and the absence of a well seal. Field observations further indicated that the well casing appeared to be constructed with interlocking stone and did not appear to be adequately sealed to achieve a watertight bond as per the requirements of Section 13 of O. Reg 903. The height of the casing above grade does not meet Ontario's Revised Regulation (RRO) 903, Wells, amended to Ontario Regulation (O Reg) 372/07, under the *Ontario Water Resources Act*.

No sources of potential contamination were evident during the site work on the subject property. We understand that water from the well is presently supplied using a submersible pump.

Based on field observation by ASC personnel, ASC recommends TW1 be upgraded to meet the present requirements of O. Reg 903 in order to ensure continued good quality groundwater for consumption purposes or abandon well if no longer required.

4.0 WATER QUANTITY

4.1 Background

The quantity of groundwater available for the test well was investigated through one (1) scheduled 6-hour pumping test in accordance with The County of Prince Edward Guideline and MECP Procedure D-5-5 to assess water quantity for the proposed residential severance. The pumping test for TW1 was conducted on October 8, 2024, and was undertaken for a total period of approximately 470 minutes. Referencing Government of Canada precipitation data for the fourteen (14) days prior to the pumping test showed approximately 26.5 mm of rainfall in September and October leading up to the pumping test. On this basis, the pumping test was not undertaken during a period of heavy precipitation. September and October 2024 precipitation data can be found in Appendix F.

Referencing MECP D-5-5 guidelines, the minimum pumping rate per person based on peak demand is 3.75 L/min, with a minimum acceptable pumping rate for the proposed development is 15 L/min. At the time of the pumping test ASC understood that the proposed severance consists of an existing single family three-bedroom dwelling (3 + 1) which the minimum pumping rate would be 15 L/min. On this basis, the test well could be pumped at 15 L/min for purposes of assessing peak demand and long term well yield.

Bedrock hydrogeological values of transmissivity were calculated from the pumping data by the Jacob method, which assumes the heterogeneous limestone bedrock aquifer is analogous to a homogeneous, confined, porous media aquifer of infinite horizontal extent. Recognizing that the limestone bedrock water bearing unit is unconfined, the Jacob method sufficiently estimates the aquifer parameters to assess well hydrogeological conditions.

4.2 Test Well TW1

TW1 is approximately 3.74 metres deep, assumed to be completed in the limestone bedrock. Prior to the initiation of pumping, the static water level was measured to be approximately 1.41 m from the top of the casing. The water in the well was pumped at an initial rate of 40 L/min for a total of 15 minutes, yielding approximately 600 litres of water; the purge rate was decreased to 20 L/min for the 325 mins, yielding approximately 6,500 litres of water; the purge rate was increased to 26 L/min for 130 mins to remove residual chlorine, yielding approximately 3,380 litres of water. A total of approximately 10,480 litres of water was pumped from the well throughout the duration of the test. Maximum drawdown was measured at approximately 1.60 m over the duration of the test. At the completion of the pumping test, approximately 31% of the total well water supply was remaining. Specific capacity calculated over the final 170 minutes of the pumping test was found to be approximately 40.23 litres/minute/metre. A plot of drawdown versus time relationship is shown in Appendix D.

Section 4.3.1 of the Ministry of Environment, Conservation and Parks (MECP*) (previously known*

as the Ministry of Environment) D-5-5 Procedure, Technical Guideline for Private Wells: Water Supply Assessment requires that water level recovery must be monitored in the test well for the lesser of 95% recovery or 24 hours. Seventy-one percent (71%) recovery was reached approximately 24 hours (1440 minutes) following pump shutdown.

The well was pumped at rates of 25 – 40 L/min during portions of the pumping test which may have influenced the overall recovery rate. Based on TW1's ability to store approximately 7,316 litres of water, the ability to yield 10,480 litres of water throughout the duration of the pumping test, the test well's supply remaining following pump shut down (31%), and TW1's ability to recover 71% within 24 hours following pump shutdown; the well has demonstrated sufficient recovery following peak usage periods; to meet the daily requirement for the proposed severance. Furthermore, the test well has been in use supplying potable water to the existing residence for over approximately 60 years and on this basis alone has demonstrated sufficient well yield and recovery for the anticipated future use.

The transmissivity (T) after approximately 100 minutes of pumping was calculated to be approximately 3.76×10^{-5} m^2/s. Hydraulic Conductivity (K = T/b), where b = 2.33 m (represents approximate aquifer thickness at time of pumping), was determined to be approximately $K= 1.61 \times 10^{-5}$ m/s. The test well recovery and transmissivity data may be found in Appendix D.

As indicated above and based on the number of existing bedrooms (3 + 1) for the proposed severance, a minimum pumping rate of 15 L/min is required with a resulting water requirement of 1800 litres/day during peak demand. Peak demand (40 + 20 L/min) was reached approximately 75 minutes into the pumping test, with a measured drawdown of approximately 0.32 m. Additional drawdown recorded over the remainder of the pumping test was 1.28 m. This indicates that the well sufficiently met "peak demand" conditions.

Based on the observations from the drawdown versus time relationship, and recovery time, it is concluded that the long-term yield of TW1 is sufficient to continue to meet the normal domestic supply requirements in accordance with the MECP Procedure D-5-5 and the County of Prince Edward requirements.

Drawdown and recovery measurements obtained during the pumping test are presented in Appendix D.

5.0 INTERFERENCE

5.1 Test Well TW1

Three (3) observation wells, located at 481 Gore Road - House (OW1), 481 Gore Road - Field (OW2), and 488 Gore Road (OW3) were utilized to assess potential interference during the pumping test. The observation wells are located approximately 135 to 180 metres horizontal distance from the subject test well respectively. See Table 1 below, for observation well information.

Table 1. Test Well – TW1 Neighbouring wells involved in hydrogeological assessment at the subject property.

Observation Well ID	Well type	Observation Well Address	Distance from Test Well (m)
OW1	Dug	481 Gore Road - House	135
OW2	Dug	481 Gore Road - Field	180
OW3	Dug	488 Gore Road	135

Potential water quantity problems resulting from mutual well interference are not expected for test well TW1. No drawdown was measured during the pumping test for the three observation wells. The measured influence indicates potential well interference will not create adverse conditions to the existing neighbouring well supply. Copies of the residential water level measurements recorded during the pumping test are presented in Appendix D.

6.0 WATER QUALITY

A well water sample was collected from the test well and stored in a cooler with ice and transported to a Canadian Association of Laboratory Accreditation (CALA) certified laboratory in Kingston, Ontario. Chemical and bacteriological parameter analyses were undertaken in accordance with the MECP Procedure D-5-5 and compared to the Ontario Drinking Water Quality Objectives (ODWO). One (1) water sample was collected from the test well during the last hour of the pumping test (approximate 5.5-hour mark) on October 8, 2024. Results of analyses for the test well (TW1) are presented below.

6.1 TW1

Bacteriological parameter analyses met the MECP Procedure D-5-5 and ODWO for Total Coliform (0 cfu/100ml), E. Coli (0 cfu/100ml), and Fecal Coliform (0 cfu/100ml).

The health-related limit for Turbidity is 1 NTU (Nephelometric Turbidity Unit) and the laboratory sample result showed 1.5 NTU. Field turbidity results showed 0 NTU prior to the collection of the sample. We believe that handling time prior to analyses may have resulted in slight precipitate in solution for the laboratory analyses result. We believe with well development; turbidity will not be a concern.

The health-related limit for sodium is 20 mg/L and the aesthetic objective is 200 mg/L. Sodium sample result for TW1 identified 42.6 mg/L. The health-related limit for sodium is a “warning level” and where this level is exceeded the local Medical Health Officer shall be notified in order to alert individuals with relevant medical conditions.

Remaining health related parameters met the MECP Procedure D-5-5 and ODWO.

The operational guideline for hardness is 80-100 mg/L and the ODWO level is 500 mg/L. Sample analyses for TW1 identified hardness of 388 mg/L and TDS of 478 mg/L. Hardness and TDS in water usually occur when elevated concentrations of calcium, magnesium, and chlorides are present in water. Elevated concentrations of hardness may result in scale build-up and mineral deposits on hot water heaters and plumbing fixtures, corrosion or encrustation of metal fixtures or appliances. Hard water can be readily treated through ion exchange water softening.

Chemical analyses results for the test well did not identify elevated aesthetic parameters (other than hardness and TDS).

To ensure safe drinking water is provided to future residents, we recommend contracting a professional water quality specialist to confirm heath related and aesthetic treatment options. At a minimum, we recommend disinfection (i.e. UV light) of the water source to ensure bacteriological free groundwater for consumption purposes.
Results of laboratory sample analyses are presented in Appendix E.

7.0 LAND AND WATER USE CONFLICTS – NITRATE AND PHOSPHORUS ASSESSMENT

Section 4.6 of the MECP D-5-5 Procedure requires an evaluation into the land and water use conflicts which may exist, within 500 metres of the site. A review of the public records for wells considered to be within 500 metres of the subject property may be found in Section 5.0 above. No land-use conflicts were identified. The area surrounding the subject property is largely rural residential, and agricultural land use activity.

As part of the assessment for the proposed application for consent, for the existing one storey residential dwelling a Nitrate Assessment was undertaken with reference to the MECP Procedure *D-5-4 Individual On-Site Sewage Systems: Water Quality Impact Risk Assessment* guidelines and the Prince Edward County Servicing Report Guidelines – Section 3.0.

In the case of Nitrate, the Ontario Drinking Water Standard of 10 mg/L for nitrate-nitrogen is used as an indicator of groundwater impact potential. Based on the well water chemistry, the background Nitrate concentration for the existing residence is determined to be 0 mg/l for Nitrate attenuation assessment purposes. The concentration of Nitrate (N) at the downgradient boundary (considering the full 8.12 hectares of the subject property); in reference to MECP Guideline D-5-4, and using the PEC Servicing Report Guideline – Section 3.0, N (C_{PB}) is calculated as follows:

Nitrate Attenuation – Down gradient Boundary

$$I = \frac{(A_p)(i)\left(1000\frac{L}{m^3}\right)}{365\frac{days}{year}}$$

$$I = \frac{(8120)(0.25)\left(1000\frac{L}{m^3}\right)}{365\frac{days}{year}}$$

$$I = 5{,}561.64$$

$$N_L = (N_{LP})(P_A) = (10)(0) = 0g$$

$$C = C_{BK} + \frac{40g}{1000L + I}$$

$$C = 0.05\,mg/L + \frac{40g}{1000L + 5{,}561.64}$$

$$C = 0.05\frac{mg}{L} + 6.096\,mg/L$$

$$C = 6.15\,mg/L$$

The analysis indicates a Nitrate concentration of less than 10 mg/L (6.15 mg/L) in groundwater at the down gradient boundary (south towards Sawguin Creek) and therefore on this basis the Nitrate loading will be sufficiently attenuated at the down gradient boundary to meet the requirement of D-5-4 and Section 3.0 of the PEC Servicing Report Guideline..

Phosphorus Attenuation

Referencing physiographic maps of the area; site soils generally consist of Limestone plains, providing a fair to adequate mixing zone regarding phosphorus generation in sewage.

The MECPs standard procedure for proposed developments is to recommend best management practices for potential phosphorus issues. Standard setbacks are usually 15 m – 30 m from surface water bodies, limiting development within these areas. The existing septic system is approximately 700 m north of the down gradient Sawguin Creek.

Based on the size of the existing septic system (standard for a typical residential home), and horizontal distance from the creek, we are of the opinion that the existing residence (0.38 hectare severance) portion of the property; will not result in impact to Sawguin Creek.

Furthermore, sufficient land area is available for installation of private septic services (if required) without causing adverse impact to existing residential neighbours.

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8.0 CONCLUSIONS AND RECOMMENDATIONS

- Based on the field work, pumping test conducted, and available water supply, results indicate that sufficient quantity of groundwater from the limestone bedrock aquifer for the test well, TW1 is available to meet peak demand for normal domestic use for the proposed severance.

- Bacteriological parameter analyses met the MECP Procedure D-5-5 and ODWO.

- The operational guideline for hardness is 80-100 mg/L and the ODWO level is 500 mg/L. Sample analyses for TW1 identified hardness of 388 mg/L and TDS of 478 mg/L. Hardness and TDS in water usually occur when elevated concentrations of calcium, magnesium, and chlorides are present in water. Elevated concentrations of hardness may result in scale build-up and mineral deposits on hot water heaters and plumbing fixtures, corrosion or encrustation of metal fixtures or appliances. Hard water can be readily treated through ion exchange water softening.

- The health-related limit for sodium is 20 mg/L and the aesthetic objective is 200 mg/L. Sample result for TW1 show a sodium concentration of 42.6 mg/L. The health-related limit for sodium is a “warning level” and where this level is exceeded the local Medical Health Officer shall be notified in order to alert individuals with relevant medical conditions.

- Based on field observation by ASC personnel; ASC recommends TW1 be upgraded to meet the present requirements of O. Reg 903 in order to ensure continued good quality groundwater for consumption purposes or abandoned if no longer required.

- Based on the observations from the water well drawdown versus time relationship, and demonstrated past use it is concluded that the long-term yield of TW1 is sufficient to meet normal domestic supply requirements in accordance with the MECP Procedure D-5-5 and the County of Prince Edward protocols to support the proposed severance.

- Potential water quantity problems resulting from mutual well interference are not expected for test well TW1. No drawdown was measured during the pumping test for the three observation wells. The measured influence indicates potential well interference will not create adverse conditions to the existing neighbouring well supply.

- To ensure safe drinking water is provided to future residents, we recommend contracting a professional water quality specialist to confirm heath related and aesthetic treatment options. At a minimum, we recommend disinfection (i.e. UV light) of the water source to ensure bacteriological free groundwater for consumption purposes.

- No land and water use conflicts were identified in an evaluation of the surrounding properties within 500 metres of the subject property. Adjacent property uses within a 500-metre radius consist primarily of rural residential, and agricultural activity.

- Nitrate concentration of less than 10 mg/L (6.15 mg/L) in groundwater was determined at the down gradient boundary of the subject property. Furthermore, based on the distance (~700 m) to the down gradient water body receptor, and standard sized septic system for a single family residential home; Phosphorus would be sufficiently attenuated at the down gradient boundary and therefore meets the requirements of D-5-4 and Section 3.0 of the PEC Servicing Report Guideline.

  Sufficient area is available for both the retained and severed lots for private septic services (if required).

9.0 LIMITATIONS

ASC Environmental (ASC) was retained by Gerald Pulver (*Client*) to undertake a Hydrogeological Assessment for one (1) dug well located at 519 Gore Road, Carrying Place, Ontario, for purposes of a proposed residential severance.

The scope of work for this assessment included:

- Undertaking a six-hour pumping test with recovery on the test well (TW1).
- Monitoring adjacent residential wells during pumping to assess potential interference.
- Collection of well water sample, following confirmation of zero residual chlorine within the last hour of the pumping test (approximate 5.5-hour mark).
- Submission of sample to a certified laboratory for the required suite of parameters.
- Preparation of a hydrogeological assessment report, addressing well construction, water quality and quantity, and potential interference.

The findings reported in this document are based on the tasks completed by ASC under the mutually agreed upon scope of work. Professional judgement, experience with similar investigations, and available data collected within the scope of work form the basis for this report. ASC has prepared this report using information understood to be factual and correct and shall not be responsible for conditions arising from information or facts that were inaccurate, concealed, or not fully disclosed at the time of investigation.

ASC Environmental Inc. makes no other representations whatsoever, including those concerning the legal significance of its findings, or as to other legal matters touched on in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issues, regulatory statutes are subject to interpretation and these interpretations may change over time.

The nature of the investigation makes it possible that contrary conditions may be identified due to seasonal or meteorological changes that are beyond the control of ASC. Groundwater sampling results are current at the time of sampling only, seasonal conditions and future changes to the property may influence groundwater quality. The passage of time affects the information provided in the report. Environmental conditions of a Site can change. Opinions relating to the Site conditions are based upon information that existed at the time that the conclusions were formulated. ASC does not certify or warrant the future environmental/hydrogeological status of the property.

This document has been prepared by ASC Environmental Inc., for the sole use of *Gerald Pulver* and *assignees* to assess hydrogeological conditions related to the subject property. Unauthorized reuse of this document for other purposes, or by any other party,

or any reliance on or decisions to be made based on it, are the responsibility of the third parties. If additional parties require reliance on this report, written authorization from ASC Environmental Inc. will be required. Such reliance will only be provided by ASC Environmental Inc. following written authorization from the Client. ASC Environmental Inc. disclaims responsibility of consequential financial effects on transactions or property values, or requirements for follow-up actions and costs. No other warranties are implied or expressed.

ASC Environmental Inc. will not be responsible for any consequential or indirect damages. ASC Environmental Inc. will only be liable for damages resulting from negligence of ASC Environmental Inc. ASC Environmental Inc. will not be liable for any losses or damage if the Client has failed, within a period of two years following the date upon which the claim is discovered (Claim Period), to commence legal proceedings against ASC Environmental Inc. to recover such losses or damage unless the laws of the jurisdiction which govern the Claim Period which is applicable to such claim provides that the application Claim Period is greater than two years and cannot be abridged by the contract between the Client and ASC Environmental Inc., in which case the Claim Period shall be deemed to be extended by the shortest additional period which results in this provision being legally enforceable.

Yours truly,

ASC Environmental Inc.

Paul Johnston, M.Sc., P. Eng. QP$_{ESA}$
President

APPENDIX A
Drawings

ASC Environmental Inc.
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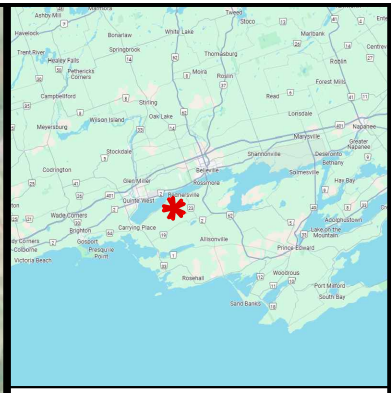

LEGEND

- SUBJECT PROPERTY LOCATION
- APPROXIMATE RETAINED PROPERTY BOUNDARY
- APPROXIMATE SEVERED PROPERTY BOUNDARY

DRAWING TITLE
Site Location Plan

FIGURE NO.	DRAWN BY
01	J. Bell

PROJECT
Hydrogeological Assessment

CLIENT
Gerald Pulver

LOCATION
519 Gore Road, Carrying Place, ON

PROJECT NO.	SCALE:
ASC-951	0 METRES 1150
DATE	
31-Oct-2024	

ASC ENVIRONMENTAL
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www.ascenvironmental.ca

LEGEND

- APPROXIMATE RETAINED PROPERTY BOUNDARY
- APPROXIMATE SEVERED PROPERTY BOUNDARY
- TW1 — APPROXIMATE LOCATION OF TEST WELL
- OW1 — APPROXIMATE LOCATION OF OBSERVATION WELL

DRAWING TITLE
Site Layout Plan

FIGURE NO.	DRAWN BY
02	J. Bell

PROJECT
Hydrogeological Assessment

CLIENT
Gerlad Pulver

LOCATION
519 Gore Road, Carrying Place, ON

PROJECT NO.	SCALE:
ASC-951	0 METRES 85
DATE	
31-Oct-2024	

ASC ENVIRONMENTAL
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APPENDIX B
MECP Water Well Summary Records

ASC Environmental Inc.
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Ontario — Ministry of the Environment, Conservation and Parks

Measurements recorded in: ☑ Metric ☐ Imperial

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

Tag#:A286578

Well Record

Regulation 903 Ontario Water Resources Act

Page _____ of _____

[redacted]

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
4606 GORE RD	AMELIASBURGH	81	1

County/District/Municipality	City/Town/Village	Province	Postal Code
PRINCE EDWARD COUNTY	CARRYING PLACE	Ontario	K0K1L0

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	18	303082	4884381 1		

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

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
BLACK	TOPSOIL			0	.61
GREY	CLAY			.61	2.13
BLUE	LIMESTONE			2.13	7.14

Annular Space

Depth Set at (m/ft) From	Depth Set at (m/ft) To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	2.5	CLAY	20

Method of Construction

☐ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Boring ☑ Digging
☐ Air percussion
☐ Other, *specify* _____

Well Use

☐ Public ☐ Commercial ☐ Not used
☑ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ Industrial
☐ Other, *specify* _____

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To
90	CONCRETE	7.6	0	7.14

Construction Record - Screen

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

Status of Well

☑ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, *specify*
☐ Other, *specify*

Water Details

Water found at Depth (m/ft)	Kind of Water	Gas	Other, specify
4	☑ Fresh ☐ Untested	☐ Gas	☐ Other, specify
Water found at Depth (m/ft)	Kind of Water: ☐ Fresh ☐ Untested	☐ Gas	☐ Other, specify
Water found at Depth (m/ft)	Kind of Water: ☐ Fresh ☐ Untested	☐ Gas	☐ Other, specify

Hole Diameter

Depth (m/ft) From	Depth (m/ft) To	Diameter (cm/in)

Results of Well Yield Testing

After test of well yield, water was:
☑ Clear and sand free
☐ Other, *specify* _____

If pumping discontinued, give reason:

Pump intake set at (m/ft): 7.14

Pumping rate (l/min / GPM): 6.85

Duration of pumping: _____ hrs + 40 min

Final water level end of pumping (m/ft): 6.76

If flowing give rate (l/min / GPM):

Recommended pump depth (m/ft): 7.14

Recommended pump rate (l/min / GPM):

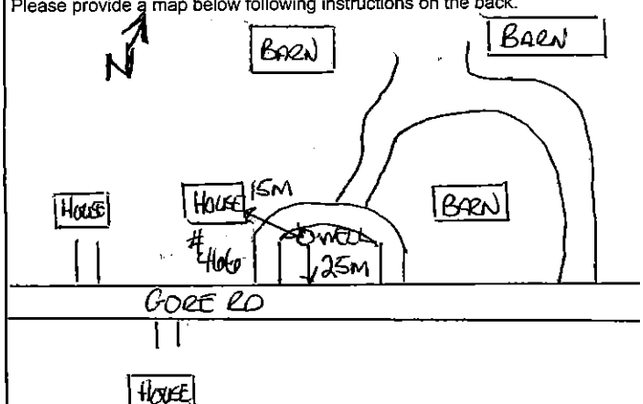
Well production (l/min / GPM):

Disinfected? ☑ Yes ☐ No

	Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level				
1			1	
2	DUG WELL			
3	RESERVE=5850GAL			
4	RECOVERY=28GAL			
5			5	
10			10	
15			15	
20			20	
25			25	
30			30	
40			40	
50			50	
60			60	

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
FRANK'S DRILLING & BLASTING LTD.	6818

Business Address (Street Number/Name)	Municipality
P.O. BOX 100	NEWBURGH

Province	Postal Code	Business E-mail Address
ONT	K0K2S0	info@fdbltd.com

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
6133718211978	PARR GREG

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
21013		2020/04/16

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☑ Yes ☐ No	2020/04/19	2020/02/05

Ministry Use Only

Audit No. Z318619

Received APR 24 2020

0506E (2018/12) **Ministry's Copy**

UTM 18 Z 303128 E
5 R 4784242 N
CON 1
Elev. 64 R 0300
Basin 24 81

31C3D

JUL 1 1 1959
53 No. 184

The Ontario Water Resources Commission Act, 1957

WATER WELL RECORD

County or District Prince Edward Township, Village, Town or City Consecon

Date completed 5 (day) June (month) 59 (year)

Address R.R.#1 Consecon Place

Casing and Screen Record

Inside diameter of casing 6 1/4"
Total length of casing 9 ft.
Type of screen —
Length of screen —
Depth to top of screen —
Diameter of finished hole 6 1/4"

Pumping Test

Static level 20 ft.
Test-pumping rate 200 G.P.H.
Pumping level pump dry
Duration of test pumping 1 hr.
Water clear or cloudy at end of test clear
Recommended pumping rate 200 GPH G.P.H.
with pumping level of DRY

Well Log

Overburden and Bedrock Record	From ft.	To ft.
clay	0	6
limestone	6	99

Water Record

Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, sulphur)
90 ft.	70 ft.	fresh

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

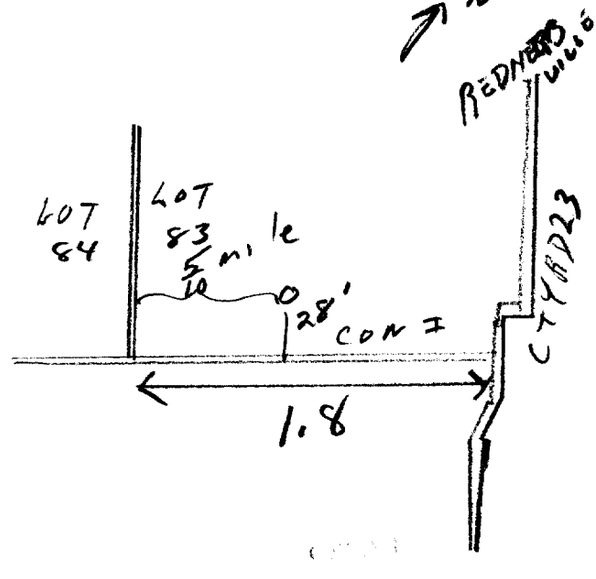
Is well on upland, in valley, or on hillside?
valley

Drilling Firm George D. Chalk Jr. R.R.#6
Address Napanee, Ont.
Licence Number 241
Name of Driller George D. Chalk Jr.
Address R.R.#6 Napanee
Date June 15/59
George D. Chalk Jr.
(Signature of Licensed Drilling Contractor)

Location of Well

warm

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



Form 5
15M-58-4149

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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

11 | 5304368 | MUNICIP. 53001 | CON. CoN | 01

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
Prince Edward	Ameliasburgh	I	82

[redacted]

R.R.#1 Carrying Place

DATE COMPLETED: DAY 27 MO. 11 YR. 84

G | RC | ELEVATION | RC | BASIN CODE | II | III | IV

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
brown	clay		packed	0	7
grey	hardpan		hardpacked	7	8
grey	limestone		hard	8	60

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
30	1 ☒ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR; 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6¼	1 ☒ STEEL; 2 ☐ GALVANIZED; 3 ☐ CONCRETE; 4 ☐ OPEN HOLE	.188	0	11
6¼	1 ☐ STEEL; 2 ☐ GALVANIZED; 3 ☐ CONCRETE; 4 ☒ OPEN HOLE		11	60
	1 ☐ STEEL; 2 ☐ GALVANIZED; 3 ☐ CONCRETE; 4 ☐ OPEN HOLE			

SCREEN

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

MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

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

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☐ PUMP 2 ☒ BAILER	1 GPM	1 HOURS 0 MINS

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

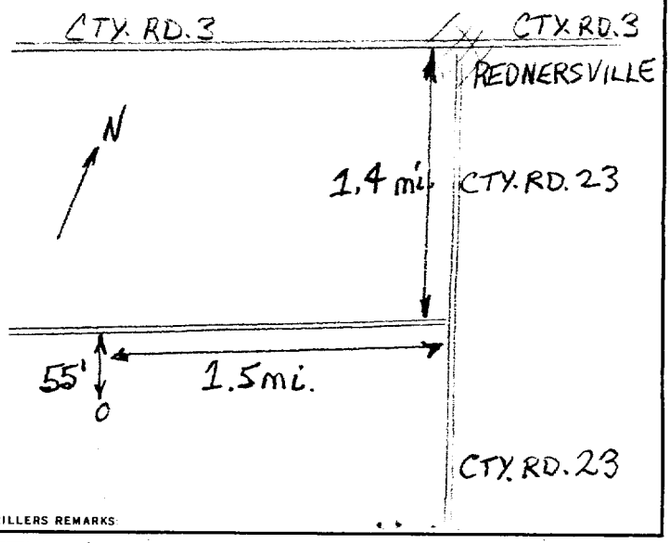
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☐ DEEP	FEET	GPM

LOCATION OF WELL

5716

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



DRILLERS REMARKS:

FINAL STATUS OF WELL	WATER USE	METHOD OF DRILLING
1 ☐ WATER SUPPLY; 2 ☐ OBSERVATION WELL; 3 ☐ TEST HOLE; 4 ☐ RECHARGE WELL; 5 ☒ ABANDONED, INSUFFICIENT SUPPLY; 6 ☐ ABANDONED POOR QUALITY; 7 ☐ UNFINISHED	1 ☐ DOMESTIC; 2 ☐ STOCK; 3 ☐ IRRIGATION; 4 ☐ INDUSTRIAL; ☐ OTHER; 5 ☐ COMMERCIAL; 6 ☐ MUNICIPAL; 7 ☐ PUBLIC SUPPLY; 8 ☐ COOLING OR AIR CONDITIONING; 9 ☒ NOT USED	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: CHALK WELL DRILLING LTD. | LICENCE NUMBER: 1507

ADDRESS: R.R.#6 Napanee

NAME OF DRILLER OR BORER: George R. Chalk | LICENCE NUMBER: 1559

SIGNATURE OF CONTRACTOR: CHALK WELL DRILLING LTD. | SUBMISSION DATE: DAY 27 MO. 11 YR. 84

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR 1507 | RECEIVED 240185

DATE OF INSPECTION | INSPECTOR

REMARKS

WDE

CSS.ES

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506—4—77 FORM 7

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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

11 — 5304247 — MUNICIP 5300 — CON. CON — LOT 01

COUNTY OR DISTRICT: [redacted]
TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: [illegible] BURG
CON., BLOCK, TRACT, SURVEY, ETC: CON 1
LOT: 81
DATE COMPLETED: DAY 27 MO 10 YR 83
[illegible] R#1 CARRYING PLACE
RC. — ELEVATION — RC — BASIN CODE — II — III — IV

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
BROWN	TOPSOIL			0	1
BROWN	CLAY			1	6
GREY	LIMESTONE			6	74

31
32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
25	1 ☒ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6¼	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	0	10
6 CASING	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE		6 RE-DRILLED	74
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

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

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
0	74	DRILL CUTTINGS.

71 PUMPING TEST

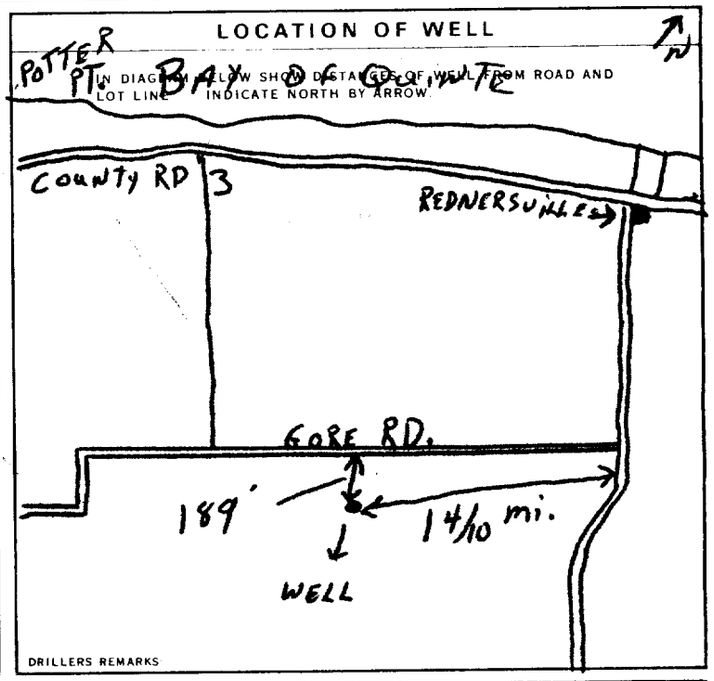
PUMPING TEST METHOD: 1 ☐ PUMP 2 ☐ BAILER — AIR
PUMPING RATE: 1/3 GPM
DURATION OF PUMPING: 1 HOURS 30 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☐ PUMPING 2 ☐ RECOVERY	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
15 FEET	74 FEET		FEET	FEET	FEET	FEET

IF FLOWING, GIVE RATE: GPM
PUMP INTAKE SET AT: FEET
WATER AT END OF TEST: 1 ☒ CLEAR 2 ☐ CLOUDY
RECOMMENDED PUMP TYPE: ☐ SHALLOW ☐ DEEP
RECOMMENDED PUMP SETTING: FEET
RECOMMENDED PUMPING RATE: GPM

LOCATION OF WELL

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



DRILLERS REMARKS

FINAL STATUS OF WELL

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 ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☒ NOT USED

METHOD OF DRILLING

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

CONTRACTOR

NAME OF WELL CONTRACTOR: MANSE DONALDSON WELL DRILLING — LICENCE NUMBER: 1805
ADDRESS: 274 MAIN ST FOXBORO
NAME OF DRILLER OR BORER: KEN DONALDSON — LICENCE NUMBER: 1841
SIGNATURE OF CONTRACTOR: Ken Donaldson
SUBMISSION DATE: DAY 28 MO 10 YR 83

OFFICE USE ONLY

DATA SOURCE — CONTRACTOR 1805 — DATE RECEIVED 07 11 83
DATE OF INSPECTION — INSPECTOR
REMARKS: WDE

CSS.ES

FORM NO. 0506—4—77 FORM 7

MINISTRY OF THE ENVIRONMENT COPY

The Ontario Water Resources Commission Act

WATER WELL RECORD

310/3d

Water management in Ontario

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

11 (1 2) — 5302358 (3 9) — MUNICIP. 53001 (10 14) — CON BS (15) — 01 (22 23 24)

COUNTY OR DISTRICT: PRINCE Edward — TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: AMELIASBURG — CON. 1 BAYSIDE — LOT 082 (25-27)

[redacted] RR 2 Trenton

DATE COMPLETED (48-53): DAY 21 MO. 08 YR. 71

84110 (24) — RC 4 (25) — ELEVATION 0280 (26) — RC 5 (30) — BASIN CODE 24 (31) — I II III IV (47)

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH – FEET FROM	DEPTH – FEET TO
BROWN	CLAY			0	10
GREY	LIMESTONE			10	50

31 aa10dast aa5d2n5

32

41 WATER RECORD

WATER FOUND AT – FEET	KIND OF WATER
0046 (10-13)	1 ☒ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL (14)
(15-18)	1 ☒ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL (19)
(20-23)	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL (24)
(25-28)	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL (29)
(30-33)	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL (34) (80)

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH – FEET FROM	DEPTH – FEET TO
6¼ (13-14)	1 ☒ STEEL (12) 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	0188	0	10
06 (17-18)	1 ☐ STEEL (19) 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☒ OPEN HOLE		0010	0050 (20-23)
(24-25)	1 ☐ STEEL (26) 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			(27-30)

SCREEN

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

61 PLUGGING & SEALING RECORD

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

71 PUMPING TEST

PUMPING TEST METHOD (10)	PUMPING RATE (11-14)	DURATION OF PUMPING (15-16 HOURS, 17-18 MINS.)
1 ☐ PUMP 2 ☒ BAILER	0030 GPM.	01 HOURS 25 MINS.

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (25) 1 ☒ PUMPING 2 ☐ RECOVERY			
		15 MINUTES (26-28)	30 MINUTES (29-31)	45 MINUTES (32-34)	60 MINUTES (35-37)
017 (19-21) FEET	042 (22-24) FEET	042 FEET	042 FEET	042 FEET	042 FEET

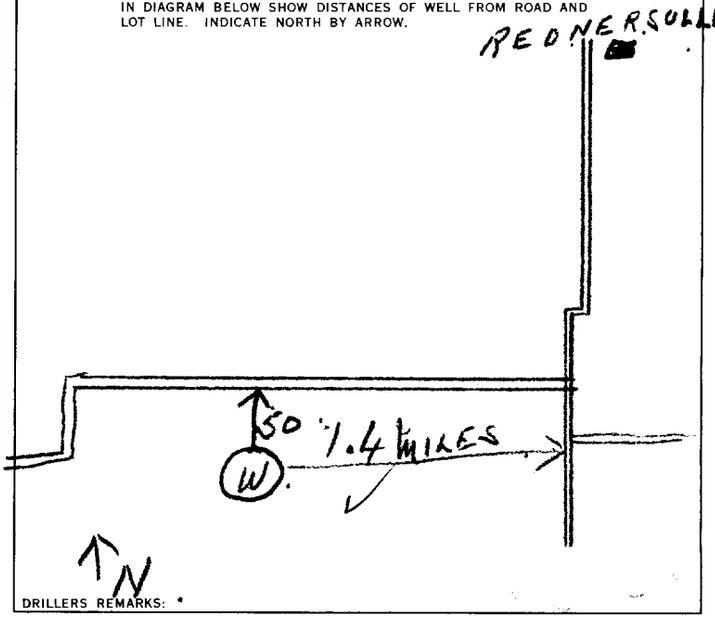
IF FLOWING, GIVE RATE (38-41) GPM.	PUMP INTAKE SET AT FEET	WATER AT END OF TEST (42) 1 ☐ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING (43-45)	RECOMMENDED PUMPING RATE (46-49)
☐ SHALLOW ☒ DEEP	047 FEET	0002 GPM.

(50-53) 001.2 GPM./FT. SPECIFIC CAPACITY

LOCATION OF WELL

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



DRILLERS REMARKS:

FINAL STATUS OF WELL (54)

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

WATER USE (55-56) 01

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

METHOD OF DRILLING (57)

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

CONTRACTOR

NAME OF WELL CONTRACTOR: Ralph Ashton — LICENCE NUMBER: 4630

ADDRESS: Bloomfield Ont.

NAME OF DRILLER OR BORER: SAME — LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: Ralph Ashton — SUBMISSION DATE: DAY 4 MO. 9 YR. 71

OWRC COPY

OFFICE USE ONLY

DATA SOURCE (58): 1 — CONTRACTOR (59-62): 4630 — DATE RECEIVED (63-68): 151271 (80)

DATE OF INSPECTION — INSPECTOR: K

REMARKS:

P

WI

UTM 18 Z 302338 E
9 R 4883783 N
Elev. 9 R 0281
Basin 24

31C3D

ONTARIO

The Water-well Drillers Act, 1954
Department of Mines

RECEIVED
FEB 12 1957
GEOLOGICAL BRANCH
DEPARTMENT of MINES

53 No 196

Water-Well Record

County or Territorial District. Prince Edward Township, Village, Town or City. Consecon
[redacted] Village, Town or City)
[redacted] ddress R.R.#1 Carrying Place

(day) (month) (year)

Pipe and Casing Record

Casing diameter(s) 6 1/4"
Length(s) 11 ft.
Type of screen —
Length of screen —

Pumping Test

Static level overflows
Pumping rate 100 g.p.h. plus
Pumping level 15 ft.
Duration of test 2 hrs.

Well Log

Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
clay grey limestone	0 9	9 87	30 ft. 84 ft.	overflows	sulphur

For what purpose(s) is the water to be used?
domestic
Is water clear or cloudy? clear
Is well on upland, in valley, or on hillside?
upland
Drilling firm Fenger & Chalk Ltd.
Address R.R.#6
Napanee
Name of Driller Wilfred Lawlor
Address Desmonts

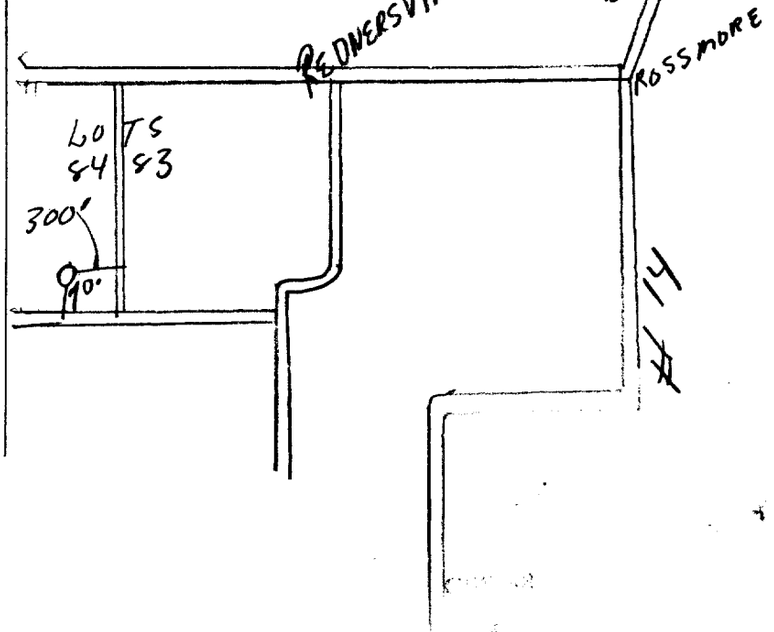
Licence Number 1179

I certify that the foregoing statements of fact are true.

Date Sept. 15/56 Wilfred Lawlor
Signature of Licensee

Location of Well

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



orm 5

UTM 18 Z 302407 E
9 R 4883819 N

Elev. 9 R 0281

Basin 24

Con 7
Lot 84

ONTARIO

The Water-well Drillers Act, 1954
Department of Mines

31C3D

RECEIVED
JUL 3 1956
GEOLOGICAL BRANCH
DEPARTMENT of MINES

53 No. 195

Water-Well Record

County or Territorial District Prince Edward Township, Village, Town or City Wellington

[redacted] Village, Town or City)

[redacted] ddress R.R.#1 Carrying Place

(day) (month) (year)

Pipe and Casing Record

Casing diameter(s) 6"
Length(s) 9 ft.
Type of screen —
Length of screen —

Pumping Test

Static level 21'
Pumping rate 75 G.P.H
Pumping level 0 (pumped dry)
Duration of test 1 hr.

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
Clay	0	6			
Grey limestone	6	100	37'	16'	sulphur

Water Record

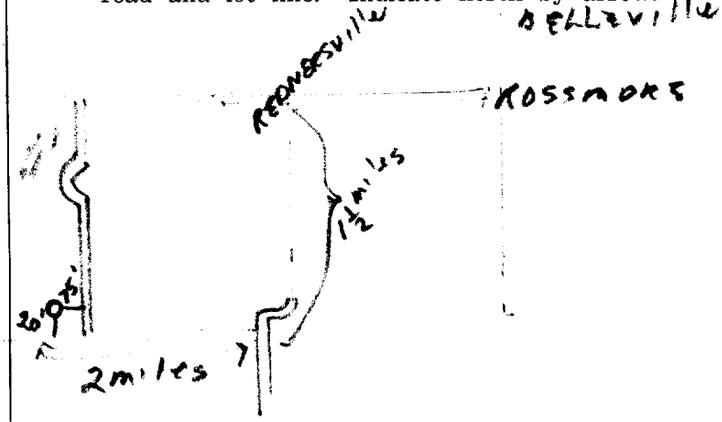
For what purpose(s) is the water to be used?
stock
Is water clear or cloudy? cloudy
Is well on upland, in valley, or on hillside?
upland
Drilling firm George H. Chalk Jr.
Address R.R. #6
Napanee Ont.
Name of Driller George H. Chalk Jr.
Address R.R. 6 Napanee
Licence Number 410

I certify that the foregoing statements of fact are true.

Date Jan 31/57 George H. Chalk Jr.
Signature of Licensee

Location of Well

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



Form 5

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

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

11 | 5304369 | MUNICIP 53001 | CON. CON | 01

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC.	LOT
Prince Edward	Ameliasburgh	I	82

[redacted]

R.R.#1 Carrying Place

DATE COMPLETED: DAY 29 MO 11 YR 84

GROUND ELEVATION | RC | ELEVATION | RC | BASIN CODE

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
brown	clay		packed	0	23
grey	limestone		hard	23	90

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
dry	1 FRESH 3 SULPHUR / 2 SALTY 4 MINERAL
	1 FRESH 3 SULPHUR / 2 SALTY 4 MINERAL
	1 FRESH 3 SULPHUR / 2 SALTY 4 MINERAL
	1 FRESH 3 SULPHUR / 2 SALTY 4 MINERAL
	1 FRESH 3 SULPHUR / 2 SALTY 4 MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6¼	1 ☒ STEEL, 2 GALVANIZED, 3 CONCRETE, 4 OPEN HOLE	.188	0	25
6¼	1 STEEL, 2 GALVANIZED, 3 CONCRETE, 4 ☒ OPEN HOLE		25	90
	1 STEEL, 2 GALVANIZED, 3 CONCRETE, 4 OPEN HOLE			

SCREEN

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

61 PLUGGING & SEALING RECORD

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

71 PUMPING TEST

PUMPING TEST METHOD	PUMPING RATE	DURATION OF PUMPING
1 ☐ PUMP 2 ☐ BAILER	GPM	HOURS MINS

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

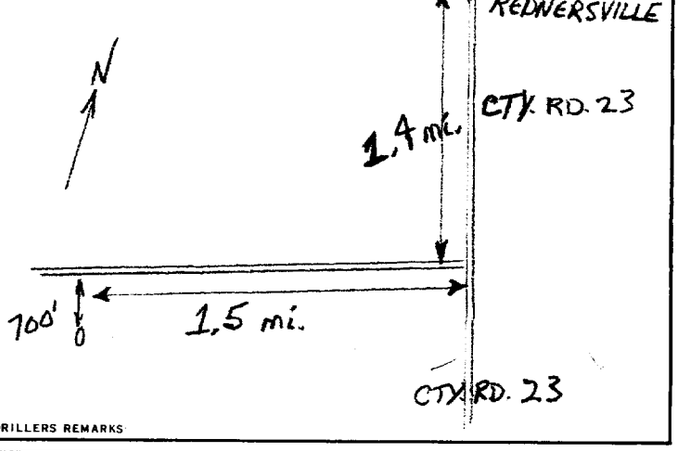
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
GPM	FEET	1 ☐ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☐ DEEP	FEET	GPM

LOCATION OF WELL

5702 BAY OF QUINTE

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



DRILLERS REMARKS

FINAL STATUS OF WELL	WATER USE	METHOD OF DRILLING
1 ☐ WATER SUPPLY	1 ☐ DOMESTIC	1 ☒ CABLE TOOL
2 ☐ OBSERVATION WELL	2 ☐ STOCK	2 ☐ ROTARY (CONVENTIONAL)
3 ☐ TEST HOLE	3 ☐ IRRIGATION	3 ☐ ROTARY (REVERSE)
4 ☐ RECHARGE WELL	4 ☐ INDUSTRIAL	4 ☐ ROTARY (AIR)
5 ☒ ABANDONED, INSUFFICIENT SUPPLY	☐ OTHER	5 ☐ AIR PERCUSSION
6 ☐ ABANDONED, POOR QUALITY	5 ☐ COMMERCIAL	6 ☐ BORING
7 ☐ UNFINISHED	6 ☐ MUNICIPAL	7 ☐ DIAMOND
	7 ☐ PUBLIC SUPPLY	8 ☐ JETTING
	8 ☐ COOLING OR AIR CONDITIONING	9 ☐ DRIVING
	9 ☒ NOT USED	

CONTRACTOR

NAME OF WELL CONTRACTOR	LICENCE NUMBER
CHALK WELL DRILLING LTD.	1507
ADDRESS	
R.R.#6 Napanee	
NAME OF DRILLER OR BORER	LICENCE NUMBER
George R. Chalk	1558
SIGNATURE OF CONTRACTOR	SUBMISSION DATE
CHALK WELL DRILLING LTD.	DAY 29 MO 11 YR 84

OFFICE USE ONLY

DATA SOURCE	CONTRACTOR	DATE RECEIVED
	1507	240185
DATE OF INSPECTION	INSPECTOR	
REMARKS		

WDE

CSS.ES

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506—4—77 FORM 7

APPENDIX C
Test Well Drawdown and Recovery Data

Table 1. Water Quality Field Measurements.

Field Water Quality Analysis		Test Well:	TW1
Project No.:	ASC-951	Date:	8-Oct-24
Client:	Gerlad Pulver	Recorded By: T.C.	
Location:	519 Gore Road, PEC, ON		
Started pumping 20 L/min at 7:55 am			

Pumping Test Elapsed Time (min)	Odour	Temperature (°C)	pH	Conductivity (µS)	Total Dissolved Solids (ppm)	Turbidity NTU	Chlorine (Total) (mg/L)
2	Cl- Odour	-	-	-	-	-	-
5	Cl- Odour	14.32	6.98	896	573	0	25
15	Cl- Odour	-	-	-	-	-	-
20	Cl- Odour	-	-	-	-	-	-
30	Cl- Odour	16.3	7.18	883	565	0	>2.2
60	Cl- Odour	16.51	7.2	887	567	0	>2.2
90	Slight Cl- Odour	15.89	7.41	892	571	0	>2.2
120	Slight Cl- Odour	16.03	7.51	885	566	0	>2.2
150	Slight Cl- Odour	16.94	7.37	884	566	0	>2.2
180	Slight Cl- Odour	17.18	7.35	879	562	0	>2.2
210	Slight Cl- Odour	17.3	7.3	873	559	0	>2.2
240	Slight Cl- Odour	17.72	7.34	870	557	0	>2.2
270	No Odour	17.7	7.32	872	559	0	>2.2
300	No Odour	17.71	7.32	867	555	0	>2.2
330	No Odour	17.08	7.31	880	563	0	>2.2
360	No Odour	16.21	7.47	874	559	0	>2.2
390	No Odour	-	-	-	-	-	>2.2
420	No Odour	-	-	-	-	-	>2.2
435	No Odour	-	-	-	-	-	>2.2
450	No Odour	-	-	-	-	-	>2.2
460	No Odour	16.76	7.3	850	544	0	>2.2
470	No Odour	PUMP OFF					
Notes	1. Test well water circulated at 150ppm chlorine residual for 60 minutes prior to pumping						

Field Analysis Equipment	
Chlorine :	Hach DR 900 Colorimeter
Temp./pH/Cond./TDS :	Horiba U-52 Multiparameter Meter
Turbidity :	Hach DR 900 Colorimeter

Table 2. Test Well drawdown during pumping test.

	Pumping Test - Drawdown		Test Well: TW1
	Project No.:	ASC-951	Date: 8-Oct-2024
	Client:	Gerald Pulver	Recorded By: T.C.
	Location:	519 Gore Road, PEC, ON	

Pumping Rate (Q) (L/min)	Elapsed Time (ET) (min)	Well Level (WL) (m)	Drawdown (DD) (m)
40	0	1.41	0.00
40	1	1.44	0.03
40	2	1.44	0.03
40	3	1.46	0.05
40	4	1.47	0.06
40	5	1.47	0.06
40	6	1.48	0.06
40	7	1.48	0.07
40	8	1.49	0.08
40	9	1.50	0.09
40	10	1.51	0.10
40	15	1.54	0.13
20	20	1.57	0.16
20	25	1.58	0.17
20	30	1.60	0.19
20	35	1.61	0.20
20	40	1.62	0.21
20	45	1.64	0.23
20	50	1.66	0.25
20	60	1.68	0.27
20	70	1.72	0.31
20	80	1.75	0.34
20	90	1.77	0.36
20	100	1.80	0.39
20	120	1.86	0.45
20	140	1.93	0.52
20	160	1.99	0.58
20	180	2.04	0.63
20	195	2.08	0.67
20	220	2.15	0.74
20	240	2.22	0.81
20	260	2.27	0.86
20	280	2.33	0.92
20	300	2.39	0.98
20	330	2.47	1.06
26	340	2.50	1.09
26	360	2.58	1.17
26	390	2.69	1.28
26	420	2.81	1.40
26	450	2.92	1.51
26	470	3.01	1.60

TW1	(m)		L/min	m^3/day
$\Delta s_{0\text{-}1min}$	1.44	$Q_{0\text{-}1min}$	40.00	57.6
$\Delta s_{1\text{-}10min}$	0.07	$Q_{1\text{-}10min}$	40.00	57.6
$\Delta s_{10\text{-}100min}$	0.45	$Q_{10\text{-}100min}$	22.22	32.0
$\Delta s_{100\text{-}1000min}$	1.80	$Q_{100\text{-}1000min}$	22.11	31.8
	m^2/day	m^2/s		
$T_{0\text{-}1min}$	7.35	8.50E-05		
$T_{1\text{-}10min}$	151.08	1.75E-03		
$T_{10\text{-}100min}$	13.07	1.51E-04		
$T_{100\text{-}1000min}$	3.25	3.76E-05		

Notes			
1		Δs	Drawdown over one Log Cycle based on Trend Line
Q	Volumetric Flow Rate	L/min	Litres per Minute
T	Coefficient of Transmissivity	gpm	Gallon per Minute

ASC Environmental Inc.
ASC-951, Gerald Pulver, 519 Gore Road,
PEC, ON
Figure 1. TW1 Pumping Test Drawdown

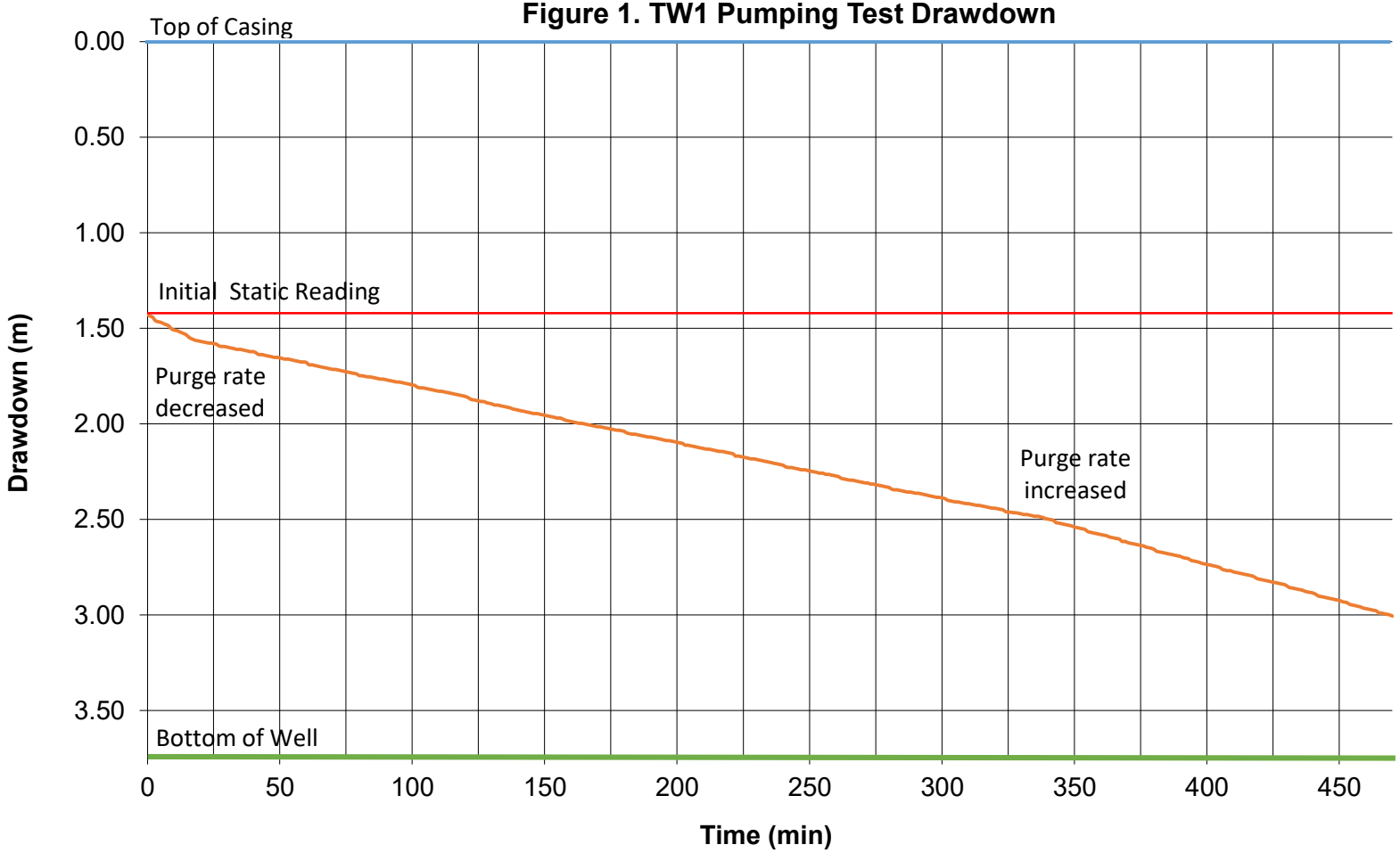


Table 3. Observation well drawdown during pumping test.

Pumping Test - Drawdown		Test Well:	TW1
Project No.:	ASC-951	Date:	8-Oct-2024
Client:	Gerlad Pulver	Pumping start time	
Location:	519 Gore Road, PEC, ON	8 0	AM

481 Gore Road - House (OW1)					481 Gore Road - Field (OW2)				
WL (ft)	WL (m)	DD (m)	Time H:Min	ET (min)	WL (ft)	WL (m)	DD (m)	Time H:Min	ET (min)
5.971	1.820	0.000	7 45	0	4.429	1.350	0.000	7 42	0
5.971	1.820	0.000	9 7	67	4.331	1.320	-0.030	9 8	68
5.971	1.820	0.000	10 7	127	4.331	1.320	-0.030	10 8	128
5.971	1.820	0.000	11 7	187	4.331	1.320	-0.030	11 8	188
5.971	1.820	0.000	12 7	247	4.298	1.310	-0.040	12 8	248
5.971	1.820	0.000	13 7	307	4.232	1.290	-0.060	13 8	308
5.971	1.820	0.000	14 7	367	4.232	1.290	-0.060	14 8	368
5.971	1.820	0.000	16 18	498	4.232	1.290	-0.060	16 19	499

488 Gore Road (OW3)				
WL (ft)	WL (m)	DD (m)	Time H:Min	ET (min)
5.906	1.800	0.000	7 47	0
5.906	1.800	0.000	9 6	66
5.906	1.800	0.000	10 6	126
5.906	1.800	0.000	11 6	186
5.906	1.800	0.000	12 6	246
5.906	1.800	0.000	13 6	306
5.906	1.800	0.000	14 6	366
5.906	1.800	0.000	16 17	497

Distance to Observation Wells (metres)	
481 Gore Road - House (OW1)	135
481 Gore Road - Field (OW2)	180
488 Gore Road (OW3)	135

ASC Environmental Inc.
ASC-951, Gerald Pulver, 519 Gore Road,
PEC, ON
Figure 2. Pumping Test Influence on Neighbouring Wells
TW1 Pumping Test Zone of Influence

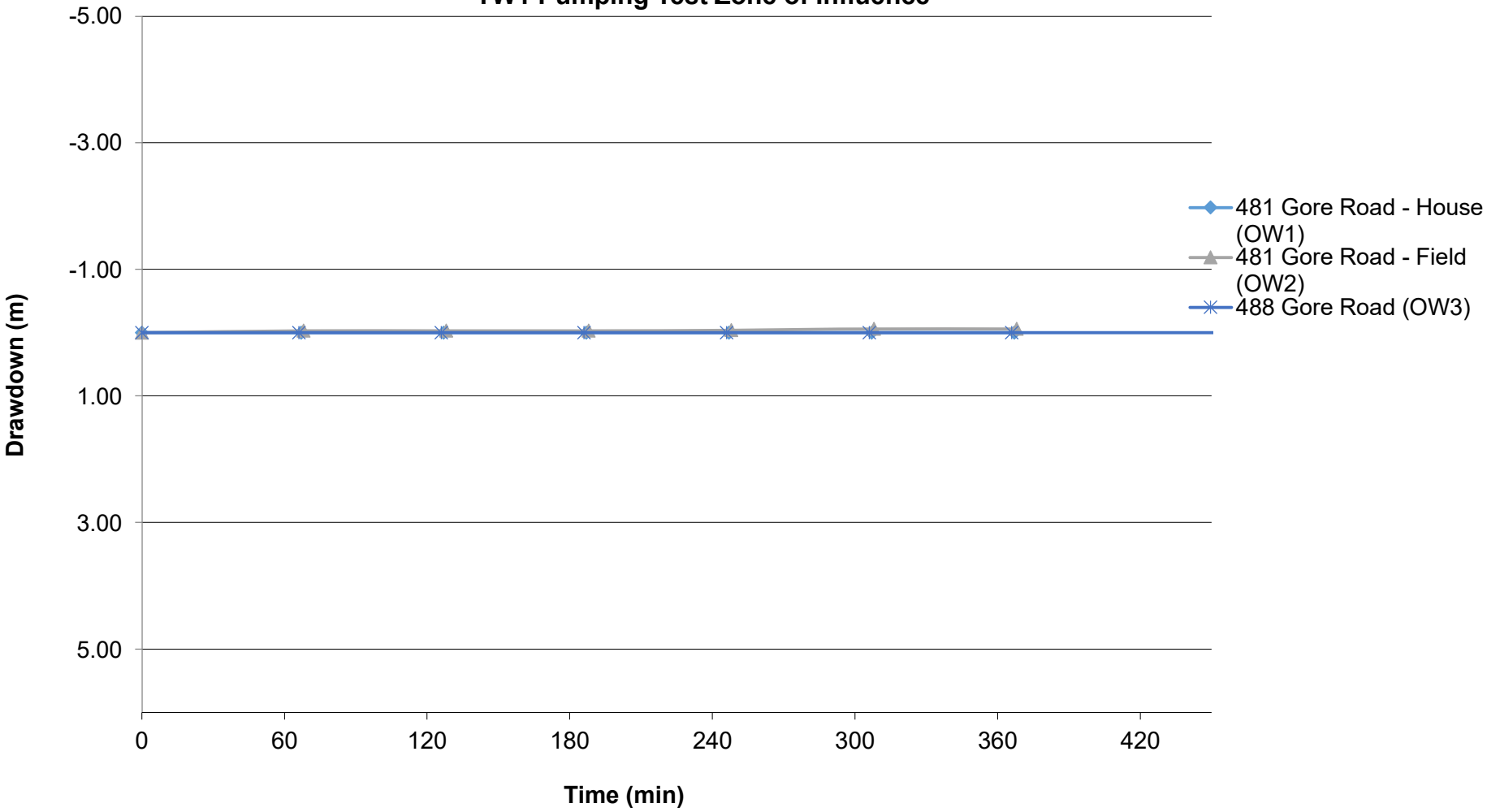
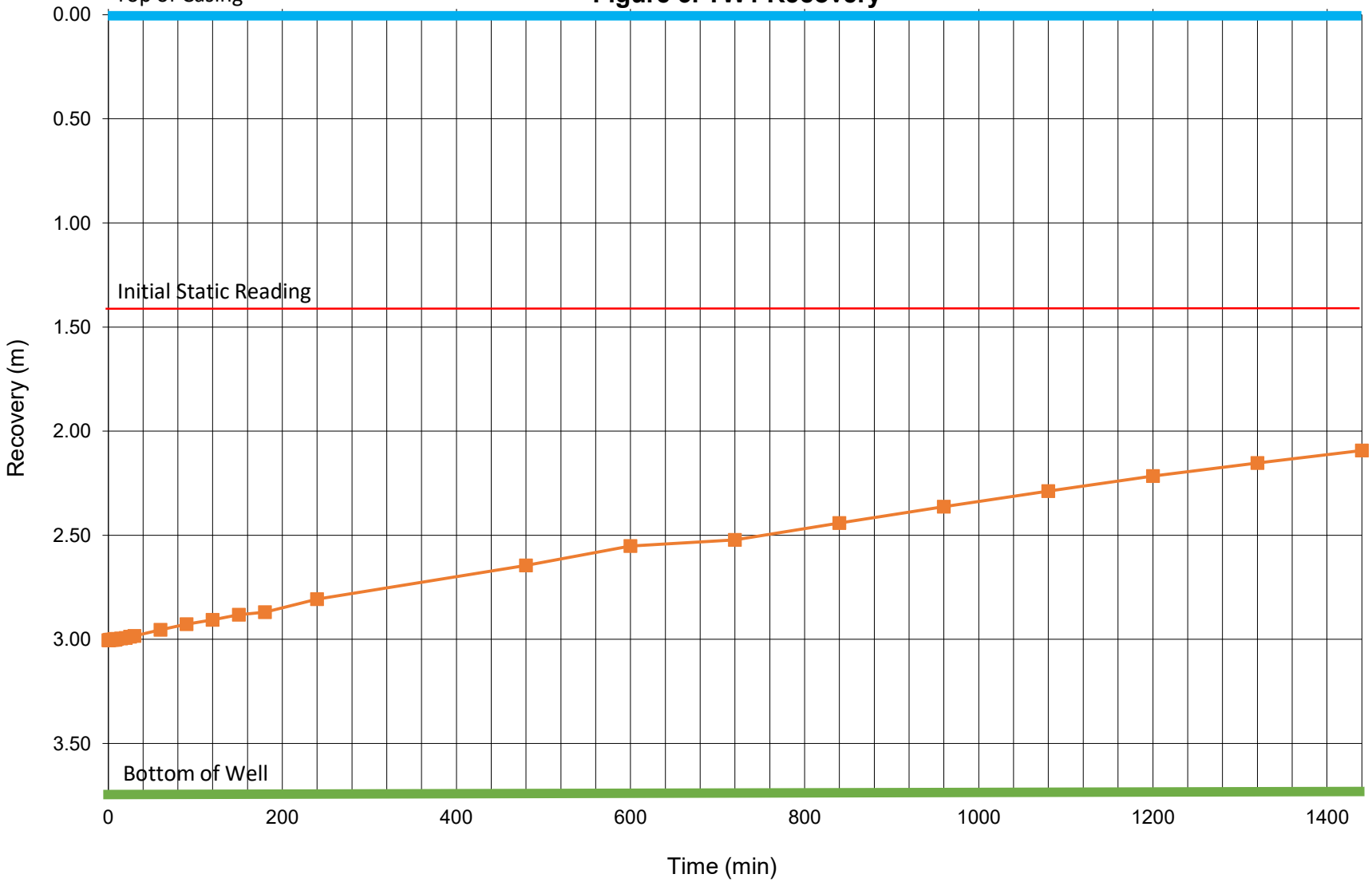


Table 4. Test well recovery after pumping test.

Pumping Test - Recovery		**Test Well:**	**TW1**
Project No.:	ASC-951	Date:	8-Oct-24
Client:	Gerlad Pulver		Recorded By: T.C.
Location:	519 Gore Road, PEC, ON		

		Test Well	
Pumping	Elapsed Time (min)	Well Level (WL) (m)	Drawdown (m)
0	0	3.01	1.60
0	1	3.01	1.58
0	2	3.00	1.57
0	3	3.00	1.57
0	4	3.00	1.57
0	5	3.00	1.57
0	6	3.00	1.57
0	7	3.00	1.57
0	8	3.00	1.57
0	9	3.00	1.57
0	10	3.00	1.57
0	15	3.00	1.57
0	20	2.99	1.56
0	25	2.99	1.56
0	30	2.98	1.55
0	60	2.95	1.52
0	90	2.93	1.50
0	120	2.91	1.48
0	150	2.88	1.45
0	180	2.87	1.44
0	240	2.81	1.38
0	480	2.65	1.22
0	600	2.55	1.12
0	720	2.52	1.09
0	840	2.44	1.01
0	960	2.36	0.93
0	1080	2.29	0.86
0	1200	2.22	0.79
0	1320	2.15	0.72
0	1440	2.09	0.66
WL at 95% Recovery =		1.49	

ASC Environmental Inc.
ASC-962, Lloyd Robinson, 484 McAlpine Road,
Maynooth, ON
Figure 3. TW1 Recovery



APPENDIX D
Laboratory Analytical Certificates

CADUCEON ENVIRONMENTAL LABORATORIES
Client committed. Quality assured. Canadian owned.

CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G 130175

REPORT No: 24-031689 - Rev. 0

Report To:
ASC Environmental
1305 Princess St.
Kingston, ON K7M 3E3

CADUCEON Environmental Laboratories
285 Dalton Ave
Kingston, ON K7K 6Z1

Attention: Tanner Cook

DATE RECEIVED: 2024-Oct-09
DATE REPORTED: 2024-Oct-17
SAMPLE MATRIX: Ground Water

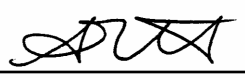
CUSTOMER PROJECT: ASC-951
P.O. NUMBER:

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Anions (Liquid)	1	OTTAWA	PCURIEL	2024-Oct-12	A-IC-01	SM 4110B
Colour (Liquid)	1	OTTAWA	STAILLON	2024-Oct-16	A-COL-01	SM 2120C
Cond/pH/Alk Auto (Liquid)	1	OTTAWA	SBOUDREAU	2024-Oct-11	COND-02/PH-02/ALK-02	SM 2510B/4500H/2320B
Coliforms - DC Media (Liquid)	1	KINGSTON	BBURTCH	2024-Oct-09	ECTC-001	MECP E3407
DOC/DIC (Liquid)	1	OTTAWA	SLOZO	2024-Oct-16	C-OC-01	EPA 415.2
Fecal Coliforms (Liquid)	1	KINGSTON	BBURTCH	2024-Oct-09	FC-001	SM 9222D
HPC MF (Liquid)	1	KINGSTON	BBURTCH	2024-Oct-09	HPC-001	SM 9215D
Ion Balance (Calc.)	1	OTTAWA	ASCHNEIDER		CP-028	MECP E3196
ICP/OES (Liquid)	1	OTTAWA	APRUDYVUS	2024-Oct-16	D-ICP-01	SM 3120B
Ammonia & o-Phosphate (Liquid)	1	KINGSTON	JYEARWOOD	2024-Oct-17	NH3-001	SM 4500NH3
Phenols (Liquid)	1	KINGSTON	EHINCH	2024-Oct-11	PHEN-01	MECP E3179
Sulphide (Liquid)	1	KINGSTON	KDIBBITS	2024-Oct-10	H2S-001	SM 4500-S2
Tannins (Liquid)	1	KINGSTON	EHINCH	2024-Oct-10	TAN-001	SM 5550
TP & TKN (Liquid)	1	KINGSTON	KDIBBITS	2024-Oct-15	TPTKN-001	MECP E3516.2
Turbidity (Liquid)	1	OTTAWA	PLUSSIER	2024-Oct-10	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 *

Steve Garrett
Director of Laboratory Services

		Client I.D.	TW1-1
		Sample I.D.	24-031689-1
		Date Collected	2024-10-08
Parameter	**Units**	**R.L.**	-
Total Coliform (DC Media)	CFU/100mL	1	0
E coli (DC Media)	CFU/100mL	1	0
Heterotrophic Plate Count	CFU/1mL	10	<10
Fecal Coliform	CFU/100mL	1	0
Alkalinity(CaCO3) to pH4.5	mg/L	5	365
TDS (Calc. from Cond.)	mg/L	3	442
Conductivity @25°C	uS/cm	1	838
pH @25°C	pH units	-	7.89
Colour	TCU	2	<2
Turbidity	NTU	0.1	1.5
Fluoride	mg/L	0.1	<0.1
Chloride	mg/L	0.5	41.1
Nitrate (N)	mg/L	0.05	<0.05
Nitrite (N)	mg/L	0.05	<0.05
Sulphate	mg/L	1	23
Phosphorus (Total)	mg/L	0.01	0.05
Total Kjeldahl Nitrogen	mg/L	0.1	0.3
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05	<0.05
Dissolved Organic Carbon	mg/L	0.2	5.0
Tannin & Lignin	mg/L	0.5	<0.5
Sulphide	mg/L	0.01	<0.01



Steve Garrett

Director of Laboratory Services

		Client I.D.	TW1-1
		Sample I.D.	24-031689-1
		Date Collected	2024-10-08
Parameter	**Units**	**R.L.**	-
Phenolics	mg/L	0.001	<0.001
Hardness (as CaCO3)	mg/L as CaCO3	0.02	388
Calcium	mg/L	0.02	140
Iron	mg/L	0.005	0.064
Magnesium	mg/L	0.02	9.18
Manganese	mg/L	0.001	0.030
Potassium	mg/L	0.1	2.7
Sodium	mg/L	0.2	42.6
Anion Sum	meq/L	-	8.93
Cation Sum	meq/L	-	9.67
% Difference	%	-	3.98
TDS (Ion Sum Calc)	mg/L	1	478
Conductivity Calc	µmho/cm	-	853

Steve Garrett

Director of Laboratory Services

APPENDIX E
Precipitation Data

ASC Environmental Inc.
1305 Princess Street,
Kingston, ON K7M 3E3
Tel: (613) 634-5596

Daily Data Report for September 2024

TRENTON A
ONTARIO
Current Station Operator: DND

Latitude:	44°07'08.000" N	**Longitude**:	77°31'41.000" W
Elevation:	86.30 m	**Climate ID**:	6158875
WMO ID:	71621	**TC ID**:	YTR

DAY	Max Temp °C	Min Temp °C	Mean Temp °C	Heat Deg Days	Cool Deg Days	Total Rain mm	Total Snow cm	Total Precip mm	Snow on Grnd cm	Dir of Max Gust 10's deg	Spd of Max Gust km/h
01	26.5	13.8	20.2	0.0	2.2	0.0	0.0	0.0		27	44
02	20.6	10.4	15.5	2.5	0.0	0.0	0.0	0.0		31	31
03	23.3	9.7	16.5	1.5	0.0	0.0	0.0	0.0		23	35
04	23.6	8.6	16.1	1.9	0.0	0.0	0.0	0.0			
05	24.0	10.1	17.1	0.9	0.0	0.0	0.0	0.0			
06	23.3	16.8	20.1	0.0	2.1	3.6	0.0	3.6			
07	17.5	7.7	12.6	5.4	0.0	12.7	0.0	12.7		29	54
08	17.8	6.9	12.4	5.6	0.0	T	0.0	T		28	48
09	17.4	7.2	12.3	5.7	0.0	12.0	0.0	12.0			
10	20.9	8.1	14.5	3.5	0.0	0.0	0.0	0.0		21	31
11	23.1	7.3	15.2	2.8	0.0	0.0	0.0	0.0			
12	25.6	10.3	18.0	0.0	0.0	0.0	0.0	0.0			
13	27.1	12.1	19.6	0.0	1.6	0.0	0.0	0.0			
14	27.6	12.9	20.3	0.0	2.3	0.0	0.0	0.0			
15	27.5	12.9	20.2	0.0	2.2	0.0	0.0	0.0			
16	27.7	13.8	20.8	0.0	2.8	0.0	0.0	0.0			

DAY	Max Temp °C	Min Temp °C	Mean Temp °C	Heat Deg Days	Cool Deg Days	Total Rain mm	Total Snow cm	Total Precip mm	Snow on Grnd cm	Dir of Max Gust 10's deg	Spd of Max Gust km/h
17	26.9	12.8	19.9	0.0	1.9	0.0	0.0	0.0			
18	26.0	12.4	19.2	0.0	1.2	0.0	0.0	0.0			
19											
20	26.0	11.6	18.8	0.0	0.8	0.0	0.0	0.0			
21	25.5	15.4	20.5	0.0	2.5	0.0	0.0	0.0			
22	26.1	14.2	20.2	0.0	2.2	0.0	0.0	0.0			
23	20.3	16.7	18.5	0.0	0.5	17.0	0.0	17.0			
24	18.1	15.6	16.9	1.1	0.0	5.6	0.0	5.6		14	35
25	19.8	15.9	17.9	0.1	0.0	14.0	0.0	14.0		15	33
26	24.3	12.1	18.2	0.0	0.2	0.0	0.0	0.0			
27	23.9	10.8	17.4	0.6	0.0	0.0	0.0	0.0			
28	24.8	12.0	18.4	0.0	0.4	0.0	0.0	0.0			
29	21.9	12.3	17.1	0.9	0.0	0.0	0.0	0.0			
30	24.3	11.5	17.9	0.1	0.0	0.0	0.0	0.0			
Sum				32.6^	22.9^	64.9^	0.0^	64.9^			
Avg	23.5^	11.8^	17.7^								
Xtrm	27.7^	6.9^				17.0^	0.0^	17.0^		29^	54^

Summary, average and extreme values are based on the data above.

Legend

- A = Accumulated
- C = Precipitation occurred, amount uncertain
- E = Estimated
- F = Accumulated and estimated
- L = Precipitation may or may not have occurred
- M = Missing
- N = Temperature missing but known to be > 0
- S = More than one occurrence
- T = Trace
- Y = Temperature missing but known to be < 0
- [empty] = Indicates an unobserved value
- ^ = The value displayed is based on incomplete data
- † = Data that is not subject to review by the National Climate Archives

Date modified:

2024-10-01

Daily Data Report for October 2024

TRENTON A
ONTARIO
Current Station Operator: DND

Latitude:	44°07'08.000" N	**Longitude**:	77°31'41.000" W
Elevation:	86.30 m	**Climate ID**:	6158875
WMO ID:	71621	**TC ID**:	YTR

DAY	Max Temp °C	Min Temp °C	Mean Temp °C	Heat Deg Days	Cool Deg Days	Total Rain mm	Total Snow cm	Total Precip mm	Snow on Grnd cm	Dir of Max Gust 10's deg	Spd of Max Gust km/h
01	22.1	11.3	16.7	1.3	0.0	T	0.0	T			
02	18.6	7.5	13.1	4.9	0.0	3.6	0.0	3.6			
03	19.6	5.8	12.7	5.3	0.0	0.0	0.0	0.0		22	37
04	22.6	8.6	15.6	2.4	0.0	1.1	0.0	1.1		33	41
05	19.1	5.9	12.5	5.5	0.0	0.0	0.0	0.0			
06	20.8	5.1	13.0	5.0	0.0	2.2	0.0	2.2		30	39
07	16.6	6.5	11.6	6.4	0.0	T	0.0	T		28	48
08	16.2	3.9	10.1	7.9	0.0	0.2	0.0	0.2		31	39
09	12.9	1.9	7.4	10.6	0.0	2.4	0.0	2.4		30	54
10	14.2	1.8	8.0	10.0	0.0	0.0	0.0	0.0			
11	19.0	1.3	10.2	7.8	0.0	0.0	0.0	0.0		23	57
12	16.4	6.2	11.3	6.7	0.0	0.0	0.0	0.0		31	39
13	11.4	3.6	7.5	10.5	0.0	T	0.0	T		6	31
14	11.2	3.3	7.3	10.7	0.0	0.0	0.0	0.0		34	46
15	10.9	1.3	6.1	11.9	0.0	T	0.0	T		30	35
16	11.8	2.7	7.3	10.7	0.0	0.0	0.0	0.0			

DAY	Max Temp °C	Min Temp °C	Mean Temp °C	Heat Deg Days	Cool Deg Days	Total Rain mm	Total Snow cm	Total Precip mm	Snow on Grnd cm	Dir of Max Gust 10's deg	Spd of Max Gust km/h
17	13.3	0.9	7.1	10.9	0.0	0.0	0.0	0.0		21	31
18	16.0	-0.7	7.7	10.3	0.0	0.0	0.0	0.0			
19	15.7	0.6	8.2	9.8	0.0	0.0	0.0	0.0			
20	19.6	4.1	11.9	6.1	0.0	0.0	0.0	0.0		22	41
21	22.5	9.8	16.2	1.8	0.0	0.0	0.0	0.0		23	41
22	19.6	7.4	13.5	4.5	0.0	0.0	0.0	0.0			
23	20.7	7.1	13.9	4.1	0.0	0.8	0.0	0.8		23	50
24	12.3	0.8	6.6	11.4	0.0	0.0	0.0	0.0			
25	12.5	-1.5	5.5	12.5	0.0	0.4	0.0	0.4			
26	12.7	1.0	6.9	11.1	0.0	0.2	0.0	0.2		31	48
27	11.6	-2.2	4.7	13.3	0.0	0.0	0.0	0.0		24	35
28	9.7	0.7	5.2	12.8	0.0	0.0	0.0	0.0			
29	14.4	-0.3	7.1	10.9	0.0	8.4	0.0	8.4			
30	21.0	10.3	15.7	2.3	0.0	0.0	0.0	0.0		22	52
31	21.6	12.4	17.0	1.0	0.0	1.4	0.0	1.4		23	52
Sum				240.4	0.0	20.7	0.0	20.7			
Avg	16.3	4.1	10.2								
Xtrm	22.6	-2.2				8.4	0.0	8.4		23^	57^

Summary, average and extreme values are based on the data above.

Legend

- A = Accumulated
- C = Precipitation occurred, amount uncertain
- E = Estimated
- F = Accumulated and estimated
- L = Precipitation may or may not have occurred
- M = Missing
- N = Temperature missing but known to be > 0
- S = More than one occurrence
- T = Trace
- Y = Temperature missing but known to be < 0
- [empty] = Indicates an unobserved value
- ^ = The value displayed is based on incomplete data
- † = Data that is not subject to review by the National Climate Archives

Date modified:

2024-10-01