

Updated Hydrogeological Investigation

Proposed Residential Development
13 Mountain Street and 19, 21 & 23 Elm Street
Grimsby, Ontario

Prepared For:

Woolverton Holdings Corp.

Project No.: 25-403-100
Date: January 9th, 2026



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25-403-100

January 9th, 2026

Woolverton Holdings Corp.

Attention: Sanjam Raisuada, Development Coordinator

Via Email: sanjam@castlepointnuma.com

RE: Hydrogeological Investigation – 13 Mountain Street and 19, 21 & 23 Elm Street, Grimsby, Ontario

DS Consultants Limited (DS) was retained by Woolverton Holdings Corp to complete a hydrogeological investigation for the proposed development at 13 Mountain Street and 19, 21 & 23 Elm Street in the Town of Grimsby (hereinafter referred to as “the Site”). The site is an approximate 4,710 m² parcel of land located on the northeast corner of the intersection of Mountain Street and Elm Street in Grimsby. The Site is occupied by a residential house at 13 Mountain Street which has been converted to an office space, a former church at 19 Elm Street which recently used as commercial purposes, a dental clinic at 21 Elm Street and a residential dwelling at 23 Elm Street. The remainder of the Site is paved and used for surface parking. It is DS’s understanding that the proposed development consists of construction of an 8-storey building with one (1) level of underground parking (P1).

The average existing ground elevation at the site is approximately 94 meters above sea level (masl). Based on the architectural drawings provided to DS (Studio JCI, issued on May 16, 2025), the established grade is at 94.45 masl and the finished floor elevation of P1 is at 90.42 masl. Considering the footings and elevator shaft, the maximum excavation depth would be approximately 5.5 meters below ground surface (mbgs) or an approximate elevation of 88.5 masl.

The hydrogeological investigation report has been prepared based on the monitoring wells installed by DS as part of Phase 2 environmental assessment as well as monitoring wells installed by other consultants in March 2021 in support of previous geotechnical and hydrogeological investigations. If needed, the results of this investigation can be used in support of an Environmental Activity Sector Registry (EASR) for construction dewatering from the Ministry of the Environment Conservation and Parks (MECP).

Based on the results of this investigation, the following conclusions and recommendations are presented:

1. Based on the MECP water well records search, there are fifty-three (53) water wells within 500 meters of the development site. No water well is noted as a water supply well (domestic, irrigation, industrial or commercial). All wells are noted as test holes, monitoring wells, not in use or unknown. The study area is serviced with municipal water and therefore, no groundwater users are expected in the area.
2. The investigation included the drilling of eight (8) boreholes (BH1 to BH8) by other consultants to depths ranging from 2 to 18.4 mbgs, with six (6) monitoring wells installed in selected boreholes BH1 to BH6 at depths ranging from 6.1 to 9.8 mbgs. For the purpose of the current investigation, DS utilized four (4) accessible existing monitoring well (BH1, BH3, BH4 and BH5) as well as one (1) monitoring well installed by DS in November 2024 as part of a previous environmental assessment.
3. The surficial geology at the site is characterized as Older alluvial deposits, Coarse-textured glaciolacustrine deposits, Till consists of clay to silt-textured till (derived from glaciolacustrine deposits

or shale) and Paleozoic bedrock. The overburden geology at the site generally consisted of native layer of clayey silt with gravel and some sand extending to depths of 12.6 to 18.3 mbgs. Reddish brown weathered shale bedrock was encountered at a depth of 18.3 mbgs (elevation 74.8 masl).

4. DS measured groundwater levels in accessible monitoring wells on November 26th, 2025. The groundwater level in overburden wells was found at the depth ranging from 1.68 to 4.32 mbgs (Elev. 90.17-91.12 masl). The groundwater levels are subject to seasonal fluctuations and may vary in response to changing climate conditions. The groundwater flow direction is expected to be westerly towards Forty Mile Creek located approximately 120 m west of the site.
5. A total of five (5) Single Well Response Tests (slug test) were completed by DS on November 26th, 2025, to estimate hydraulic conductivity (k) for the representative geological units in which the wells were screened. Hydraulic conductivity (k) values were calculated using the Hvorslev method using the AquiferTest® Software. The results indicated that the k-value is ranging from 1.29×10^{-7} to 1.65×10^{-6} m/s.
6. To assess the suitability for discharge of groundwater to the Niagara Region's Storm Sewers, one (1) unfiltered groundwater sample was collected from monitoring well BH1 on November 26th, 2025. The reported analytical results indicate that there were no exceedances against the Storm Sewer Use By-Law as well as no exceedances reported against the Region's Sanitary Sewer-Use By-Law. As per the Region's Sewer Use Bylaw, no dewatering flows are permitted to be discharged to the sanitary sewer system and all dewatering flows (either temporary during construction or permanent following completion of all construction) are to be directed to the storm sewer system. Therefore, water can be discharged to the Niagara's storm sewer without pre-treatment.
7. The total estimated short-term dewatering rate for the proposed development with one (1) level of underground parking considering the unsealed excavation method would be 67,600 L/day (67.6 m³/day). This estimated conservative value incorporates a safety factor of x2 and a theoretical 10 mm storm event per day estimated at 45,000 L/day (45 m³/day) into the open excavation during construction.
8. Following the construction of the underground structure, long-term groundwater flow to the underfloor drainage system for the building will be a function of the upward flux and drainage along the foundation wall. Based on the assumed design, depth to water and given k-value, the estimated permanent theoretical flow would expect to be 9,000 L/day (9 m³/day). However, if a safety factor x2 is included, a conservative permanent flow of 18,000 L/day (18 m³/day) will be needed to be pumped into the sewer system to manage any unforeseen groundwater issues in the future.
9. There are structures and utilities (structures, buildings, sewers, roads, etc.) expected within the predicted zone of influence, which is estimated at 44 meters from the center of the excavation when considering an unsealed excavation. Since the proposed construction is anticipated to be constructed within the till deposits with relatively low conductivity, an effect of settlement due to dewatering would not be expected. However, DS recommends consulting geotechnical consultants for

settlement monitoring requirements to access potential settlement due to any dewatering activities at the site during construction.

10. Once a groundwater dewatering system is set up at the Site, daily and weekly monitoring should be implemented during construction to assess the groundwater conditions such as water levels, measurement of discharge flow, discharge water quality and any adverse impacts as a result of dewatering including settlement.
11. Following the completion of construction activities, all dewatering wells, well points or eductors if any and monitoring wells installed at various stages of this project must be decommissioned. The installation and eventual decommissioning of the wells and the dewatering system must be carried out by a licensed water well contractor in accordance with Regulation 903 of the Ontario Water Resources Act.

Should you have any questions regarding these findings, please contact the undersigned.

DS Consultants Ltd.

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- Appendix B Hydraulic Conductivity Analysis
- Appendix C Groundwater Quality Certificate of Analysis
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1.0 INTRODUCTION

DS Consultants Limited (DS) was retained by Woolverton Holdings Corp to complete a hydrogeological investigation for the proposed development at 13 Mountain Street and 19, 21 & 23 Elm Street in the Town of Grimsby (hereinafter referred to as “the Site”). The site is an approximate 4,710 m² parcel of land located on the northeast corner of the intersection of Mountain Street and Elm Street in Grimsby. The Site is occupied by a residential house at 13 Mountain Street which has been converted to an office space, a former church at 19 Elm Street which recently used as commercial purposes, a dental clinic at 21 Elm Street and a residential dwelling at 23 Elm Street. The remainder of the Site is paved and used for surface parking. It is DS’s understanding that the proposed development consists of construction of an 8-storey building with one (1) level of underground parking (P1). **Figure 1** presents the site location map that highlights the location of the site and the surrounding area.

The average existing ground elevation at the site is approximately 94 meters above sea level (masl). Based on the architectural drawings provided to DS (Studio JCI, issued on May 16, 2025), the established grade is at 94.45 masl and the finished floor elevation of P1 is at 90.42 masl. Considering the footings and elevator shaft, the maximum excavation depth would be approximately 5.5 meters below ground surface (mbgs) or an approximate elevation of 88.5 masl.

This hydrogeological investigation includes an overview of the existing geological and hydrogeological conditions at the Site and the surrounding area, an assessment of the hydrogeological constraints, and impacts of the proposed development on the local groundwater and provides an estimation of construction dewatering and permanent drainage requirements during the proposed development phase. This investigation is based on the monitoring wells installed by DS as part of Phase 2 environmental assessment as well as monitoring wells installed by other consultants in March 2021 in support of previous geotechnical and hydrogeological investigations.

1.1 Purpose

The purpose of this Hydrogeological Investigation is to assess the current groundwater conditions at the Site to evaluate the following:

- Temporary construction dewatering for the excavations of the proposed building on Site;
- Explore the potential need for an Environmental Activity and Sector Registration (EASR) for Construction Dewatering from the MECP;
- Temporary management and discharge of groundwater during short-term construction dewatering
- Assess permanent drainage requirements; and
- Assess groundwater quality to identify potential adverse impacts to Region’s sewer system.

1.2 Scope of Work

The scope of work for this investigation included:

- Site visits;
- Collecting and interpreting available reports and data including the MECP Water Well Records (WWR), geotechnical, hydrogeological, and environmental studies completed at the Site;
- In-situ hydraulic conductivity testing of monitoring wells;
- Estimation of temporary groundwater flow rate during the construction;
- Estimation of long-term or permanent discharge rate after the construction;
- Assessing groundwater quantity and quality to evaluate discharge options;
- Assessing potential impacts due to dewatering activities; and,
- Data analyses and report preparation.

2.0 PREVIOUS INVESTIGATIONS

DS reviewed the Hydrogeological Assessment completed by Terraprobe in July 2021. The assessment was conducted based on concurrent geotechnical, environmental and hydrogeological investigations completed for the subject property at 13 Mountain Street and 19 Elm Street according to former design for 7-storey building with three (3) levels of underground parking (P3).

The investigation included the drilling of eight (8) boreholes (BH1 to BH8) to depths ranging from 2 to 18.4 metres below ground surface (mbgs), with six (6) monitoring wells installed in selected boreholes BH1 to BH6 at depths ranging from 6.1 to 9.8 mbgs.

3.0 FIELDWORK

- For the purpose of the current investigation DS utilized four (4) accessible existing monitoring well (BH1, BH3, BH4 and BH5) installed Terraprobe as well as one (1) monitoring well installed by DS in November 2024 as part of phase 2 environmental assessment. All monitoring wells were developed before any use to allow for groundwater level monitoring, hydraulic conductivity testing, and to assess groundwater quality.
- A total of five (5) single well response tests (SWRT) were completed by performing a rising head test (slug test) to estimate the hydraulic conductivity values of soils at the site. There was not sufficient water in monitoring well MW3 and MW4 to conduct the slug test.

- One (1) unfiltered groundwater sample was also collected and analyzed for the parameters listed under the Niagara Sewer Use ByLaw – (Sanitary and Storm Sewer Discharge - BL_2024_51) to assess groundwater quality. The borehole (BH) and monitoring well (MW) location plan is shown in **Figure 3**.

3.0 PHYSICAL SETTING

Available topographic maps and environmental, geotechnical and hydrogeological reports were used to develop an understanding of the physical setting of the study area. Borehole logs and the Ministry of the Environment, Conservation and Parks Water Wells Records (MECP WWRs) were used to interpret the geological and hydrogeological conditions at the development site.

3.1 Physiography and Drainage

The topography at the development site is flat with a surface elevation of about 94 masl. The topography within the study area slopes to the north, towards Like Ontario. Drainage is controlled by underground utilities. There are no surface water features at the site. The nearest water body is Forty Mile Creek, located approximately 120 meters west of the site. The creek ultimately discharges into Lake Ontario, which lies about 1.5 kilometres north of the site.

3.2 Geology

The following presents a brief description of regional and development site geology based on the review of available information and development site-specific soil investigations.

3.2.1 Quaternary Geology

According to the Ontario Geological Survey mapping across the region, the site lies within the Sand Plains physiographic region of southern Ontario, and the quaternary geology of the Site is characterized by Halton Till deposits predominantly silt to silty clay matrix, high in matrix carbonate content and clast poor of Pleistocene. The surficial geology at the site is characterized as Older alluvial deposits, Coarse-textured glaciolacustrine deposits, Till consists of clay to silt-textured till (derived from glaciolacustrine deposits or shale) and Paleozoic bedrock. The surficial geology map is shown in **Figure 2**.

3.2.2 Bedrock Geology

According to the Ontario Geological Survey mapping across the region, the bedrock at the site is predominantly comprised of Sandstone, shale, dolostone and siltstone of the Lockport Formation. Bedrock was encountered during drilling activities conducted for previous investigations at the depth of 18.3 mbgs, corresponding to elevation 74.8 masl.

3.2.3 Site Geology

On-site subsurface soil conditions were summarised from the subsurface geotechnical site investigation at the site by Terraprobe. Detailed subsurface conditions are presented in **Figure 4** and the borehole logs are in **Appendix A**. The subsurface conditions in the boreholes are summarized in the following paragraphs.

Surficial Materials: All boreholes except BH6 penetrated asphaltic concrete ranging in thickness from approximately 25 to 55 mm. A granular base layer varying in thickness from 50 to 360 mm was encountered below the asphaltic concrete. BH6 encountered approximately 100 mm of pea gravel at the surface.

Fill Material: Underlying the surficial material at all borehole locations, a layer of fill material was encountered extending to depth of 2.3 to 4 mbgs. The fill material was variable but typically consisted of sand and gravel with varying amounts of silt and clay. Trace brick fragments were observed within the fill material at BH3 and BH4.

Clayey Silt Glacial Till: Underlying the fill material, all boreholes encountered a native layer of clayey silt with gravel and some sand extending to depths of 12.6 to 18.3 mbgs. Borehole BH1, BH3, BH5 and BH7 encountered trace red shale fragments between 7.6 to 9.1 mbgs. All boreholes except BH5 were terminated within the clayey silt.

Bedrock: Borehole BH5 encountered reddish brown weathered shale at a depth of 18.3 mbgs (elevation 74.8 masl). BH5 was terminated within the weathered shale.

3.3 Hydrogeology

The hydrogeology at the development site was evaluated using the on-site monitoring wells installed by DS and other consultants, local domestic wells and existing hydrogeological and geotechnical reports.

3.3.1 Local Groundwater Use

As part of the hydrogeological study, DS completed a search of the Ministry of the Environment, Conservation and Parks (MECP) Water Well Records (WWR) database. Based on the MECP water well records search, there are fifty-three (53) water wells within 500 meters of the development site (**Appendix D**). No water well is noted as a water supply well (domestic, irrigation, industrial or commercial). All wells are noted as test holes, monitoring wells, not in use or unknown. **Figure 1** shows the MECP water well location plan. The study area is serviced with municipal water and therefore, no groundwater users are expected in the area.

3.3.2 Groundwater Conditions

DS measured groundwater levels in monitoring wells on November 26th, 2025. **Table 3-1** presents the groundwater levels in all accessible monitoring wells. The groundwater level in overburden wells was

found at the depth ranging from 1.68 to 4.32 mbgs (Elev. 90.17-91.12 masl). The groundwater levels are subject to seasonal fluctuations and may vary in response to changing climate conditions. The groundwater flow direction is expected to be westerly towards Forty Mile Creek located approximately 120 m west of the site.

Table 3-1: Groundwater Levels in Monitoring Wells

Well ID	Ground Elevation (masl)	Screened Interval (mbgs)	November 26 th , 2025	
			Depth to Water (mbgs)	Groundwater Elevation (masl)
BH1	92.8	6.6-9.6	1.68	91.12
BH3	95.0	6.6-9.6	4.29	90.71
BH4	94.7	3.1-6.1	4.32	90.38
BH5	93.1	3.1-6.1	2.15	90.95
BH24-1	93.7	4.6-8.4	3.53	90.17

3.3.3 Hydraulic Conductivity

A total of five (5) Single Well Response Tests (slug test) were completed by DS on November 26th, 2025, to estimate hydraulic conductivity (k) for the representative geological units in which the wells were screened. SWRT was completed by performing a rising head test (slug test) with the use of Waterra[®] tubing to ‘instantaneously’ remove water from the well. A data logger was placed at the bottom of the well to accurately measure the change in the hydraulic head versus time. Hydraulic conductivity (k) values were calculated using the Hvorslev method using the AquiferTest[®] Software. The semi-log plots for normalized drawdown versus time are provided in **Appendix B**. The results indicated that the k-value is ranging from 1.29×10^{-7} to 1.65×10^{-6} m/s. **Table 3-2** presents the Hydraulic Conductivity (k) value for the representative geological unit.

Table 3-2: Summary of Hydraulic Conductivity (k) Test Results

Well ID	Screened Interval (mbgs)	Screened Formation	K-value (m/s)	Geo-mean (m/s)
BH1	6.6-9.6	Clayey Silt with Gravel	1.65×10^{-6}	2.98 x 10 ⁻⁷
BH3	6.6-9.6	Clayey Silt with Gravel	1.46×10^{-7}	
BH4	3.1-6.1	Clayey Silt with Gravel	5.28×10^{-7}	
BH5	3.1-6.1	Clayey Silt with Gravel	1.29×10^{-7}	
BH24-1	4.6-8.4	Clayey Silt with Gravel	1.44×10^{-7}	

3.3.4 Groundwater Quality

One (1) unfiltered groundwater sample was collected from monitoring well BH1 on November 26th, 2025, to assess the suitability for discharge of groundwater to the Niagara Region’s Sanitary/Storm Sewers system. The groundwater samples were submitted to SGS Laboratories in Lakefield, Ontario. SGS is certified by the Canadian Association of Laboratory Accreditation Inc. (CALA) and the Canadian Standard

Association (CSA). The analytical results were compared to Table 1- Limits for Sanitary Sewer Discharge, and Table 2 Limits for Storm Sewer Discharge. The reported analytical results indicate that there were no exceedances against the Storm Sewer Use By-Law as well as no exceedances reported against the Region’s Sanitary Sewer-Use By-Law.

As per the Region’s Sewer Use Bylaw, no dewatering flows are permitted to be discharged to the sanitary sewer system and all dewatering flows (either temporary during construction or permanent following completion of all construction) are to be directed to the storm sewer system. Therefore, water can be discharged to the Niagara’s storm sewer without pre-treatment. The certificates of analyses are provided in **Appendix C**.

4.0 CONSTRUCTION DEWATERING

The proposed development consists of construction of an 8-storey building with one (1) level of underground parking (P1). Based on the architectural drawings provided to DS (Studio JCI, issued on May 16, 2025), the established grade is at 94.45 masl and the finished floor elevation of P1 is at 90.42 masl. Considering the footings and elevator shaft, the maximum excavation depth would be approximately 5.5 mbgs or an approximate elevation of 88.5 masl. For construction dewatering purposes, the groundwater level should be lowered at least one (1) m below the footings and elevator shaft elevation at about 87.5 masl. The unsealed construction excavation method with approximate excavation dimensions of 75 m long and 60 m wide for considered for the proposed development. Since the proposed underground structure will be below the groundwater table, dewatering will be required during the excavation of overburden material.

4.1 Estimation of Flow Rate - Unsealed Excavation

This section calculates the estimated dewatering required during the construction of the proposed building based on the geo-mean k-value, and the highest groundwater elevations at the site using the steady-state flow equation for unsealed excavation as follows. The estimated flow rates for the proposed buildings are summarised in Table 4-1.

$$Q_R = K \times \frac{H^2 - h^2}{0.733} \times \text{Log} (R_0/r_e)$$
$$r_e = \left(\frac{(a \times b)}{\pi} \right)^{0.5}$$
$$R_0 = (r_e + 3000)(H - h)(k^{0.5})$$

Table: 4-1 Estimation of Flow Rate (Short-term Discharge) - Unsealed Excavation

Parameters	P1
K -Hydraulic conductivity (m/s)- Geo-mean Clayey Silt Till	2.98×10^{-7}
H-Distance from water level to the bottom of an aquifer (m)	6.35
h -Depth of water in the well while pumping (m)	1
a- length of excavation (m)	76
b- Width of excavation (m)	60
r_e -equivalent radius, where a and b excavation dimensions (m)	38
R_o - Radius of the cone of depression	44
Estimated Flow Rate- L/day (without safety factor)	11,300
Estimated Flow Rate- L/day (with a safety factor x 2)	22,600

4.2 Estimation of Flow Rate- Storm Water Consideration

During construction, additional removal of stormwater from precipitation into the open excavation will be required. The estimated flow rate is based on the excavation dimensions for the entire development and a theoretical 10 mm precipitation event in 24 hours. The total estimated dewatering that might be needed as a result of a 10 mm precipitation event would be approximately 45,000 L/day (45 m³/day).

4.3 Total Estimation of Flow Rate (Short-Term/ Temporary Discharge)

Considering the unsealed excavation method, the recommended pumping rate for the proposed development considering one (1) level of underground parking would be approximately **67,600 L/day (67.6 m³/day)**. These values incorporate a safety factor of x2 and account for stormwater as a result of a 10 mm precipitation event. The recommended flow rates for the proposed buildings are summarised in Table 4-2.

Table 4-2: Total Construction Dewatering (Short-term Discharge) - Unsealed Excavation

U/G	Flow Rate Q- without a safety factor (L/day)	Flow Rate Q- with a safety factor x2 (L/day)	Storm water (@ 10 mm/24 hrs.) (L/day)	Designed Flow Rate Or Total Flow Rate (L/day)
P1	11,300	22,600	45,000	67,600

It is expected that the initial dewatering rate will be higher to remove groundwater within the overburden formation. The dewatering rates are expected to decrease once the target water level is achieved in the excavation footprint as groundwater will have been removed locally from storage resulting in lower seepage rates into the excavation. The maximum flow calculation is intended to provide a conservative value to account for unforeseeable conditions that may arise during construction.

4.4 Permanent Drainage (Long-term Discharge)

Following the construction of the underground structure, long-term groundwater flow to the underfloor drainage system for the building will be a function of the upward flux and drainage along the foundation wall. Based on the assumed design, depth to water and given k-value, the estimated permanent theoretical flow would expect to be 9,000 L/day (9 m³/day). However, if a safety factor x2 is included, a conservative permanent flow of **18,000 L/day (18 m³/day)** will be needed to be pumped into the sewer system to manage any unforeseen groundwater issues in the future.

4.5 Permit Requirements

4.5.1 Environmental Activity and Sector Registry (EASR) /Permit to Take Water (PTTW) Application

An Environmental Activity Sector Registration (EASR) is required to be submitted to the Ministry of the Environment, Conservation and Parks (MECP) if the taking of groundwater and stormwater for a temporary construction project is more than 50,000 L/day. The EASR application is an online registry and should be submitted to the MECP before any construction dewatering.

Since the expected design dewatering rate for the unsealed excavation is higher than the MECP's daily water-taking limit of 50,000 L/day, an EASR application will be required to be submitted to the MECP for short-term dewatering before starting construction.

4.5.2 Discharge Permits (Construction Dewatering and Permanent Drainage)

A Discharge permit/Batch Discharge will be required from the Region if private water is to be sent to the storm sewer system for Construction Dewatering and Permanent Drainage.

5.0 POTENTIAL IMPACTS

The following are the predicted potential impacts as a result of construction dewatering:

5.1 Local Groundwater Use

The study area is fully serviced by a municipal water supply. Since it is not expected to have any use of groundwater as a source of drinking water within a radius of 500 meters from the development site, there will be no short-term or long-term predicted impacts to private water wells occurring from the proposed dewatering activities.

5.2 Point of Discharge and Groundwater Quality

The analytical results were compared to Table 1- Limits for Sanitary Sewer Discharge, and Table 2 Limits for Storm Sewer Discharge. The reported analytical results indicate that there were no exceedances

against the Storm Sewer Use By-Law as well as no exceedances reported against the Region's Sanitary Sewer-Use By-Law. As per the Region's Sewer Use Bylaw, no dewatering flows are permitted to be discharged to the sanitary sewer system and all dewatering flows (either temporary during construction or permanent following completion of all construction) are to be directed to the storm sewer system. Therefore, water can be discharged to the Niagara's storm sewer without pre-treatment.

5.3 Settlement Due to Dewatering Activities

There are structures and utilities (structures, buildings, sewers, roads, etc.) expected within the predicted zone of influence, which is estimated at 44 meters from the center of the excavation when considering an unsealed excavation. Since the proposed construction is anticipated to be constructed within the till deposits with relatively low conductivity, an effect of settlement due to dewatering would not be expected. However, DS recommends consulting geotechnical consultants for settlement monitoring requirements to assess potential settlement due to any dewatering activities at the site during construction.

6.0 MONITORING AND MITIGATION

Based on the findings of the hydrogeological assessment and associated potential impacts due to development, the following monitoring and mitigation program is provided:

- If a groundwater dewatering system is set up at the Site, daily and weekly monitoring should be implemented during construction to assess the groundwater conditions such as water levels, measurement of discharge flow, discharge water quality and any adverse impacts as a result of dewatering including settlement.
- Baseline groundwater quality has been assessed and established before construction. However, groundwater quality can change based on several factors (land-use change, spills, etc.) and should be monitored during construction dewatering and after construction to ensure that water quality meets the guidelines or regulations associated with any permits from the MECP and the City of Toronto.
- Following the completion of construction activities, all dewatering wells, well points, eductors and monitoring wells installed at various stages of this project must be decommissioned. The installation and eventual decommissioning of the wells and the dewatering system must be carried out by a licensed water well contractor in accordance with Regulation 903 of the Ontario Water Resources Act.

Should you have any questions regarding these findings, please contact the undersigned.

DS Consultants Ltd.

Prepared By:

Reviewed By:



Meysam Jafari, M.Sc., P.Geo.
Project Manager, Hydrogeology



Martin Gedeon, M.Sc., P.Geo.
Vice President, Senior Hydrogeologist

7.0 CONSULTANT QUALIFICATIONS

Martin Gedeon, M.Sc., P.Geo., is a Professional Geoscientist (P.Geo.) with over 28 years of experience as an environmental/hydrogeological consultant in the areas of groundwater and soil monitoring, environmental site assessments, environmental due diligence, and remediation. Martin has significant experience in physical and contaminant hydrogeology across Canada and overseas and has provided hydrogeological/environmental technical support on various projects. Martin has prepared hundreds of hydrogeological reports in support of permit applications for a private sector development application, municipal dewatering operations, and provincial infrastructure projects across the province.

Meysam Jafari, M.Sc., P.Geo., is a Professional Geoscientist (P.Geo.) with DS Consultants Ltd. Meysam holds two master degrees in Engineering Geology and Geology (Soil & Groundwater) and has several years of experience working in the geoscience industry. Meysam has experience with conducting Phase One and Phase Two Environmental Site Assessments, hydrogeological and geotechnical investigations in the Greater Toronto Area (GTA), and has been involved with project management, field assessments, data interpretation and reporting.

8.0 REFERENCES

Chapman, L.J., and D.F. Putnam; The Physiography of Southern Ontario, Third Edition, Ontario Geological Survey Special Volume 2; 1984, & 2007.

Freeze, R.A. and J.A. Cherry. "Groundwater". Prentice-Hall, Inc. Englewood Cliffs, NJ. 1979.

Ontario Regulation 153/04 made under the Environmental Protection Act, July 1, 2011.

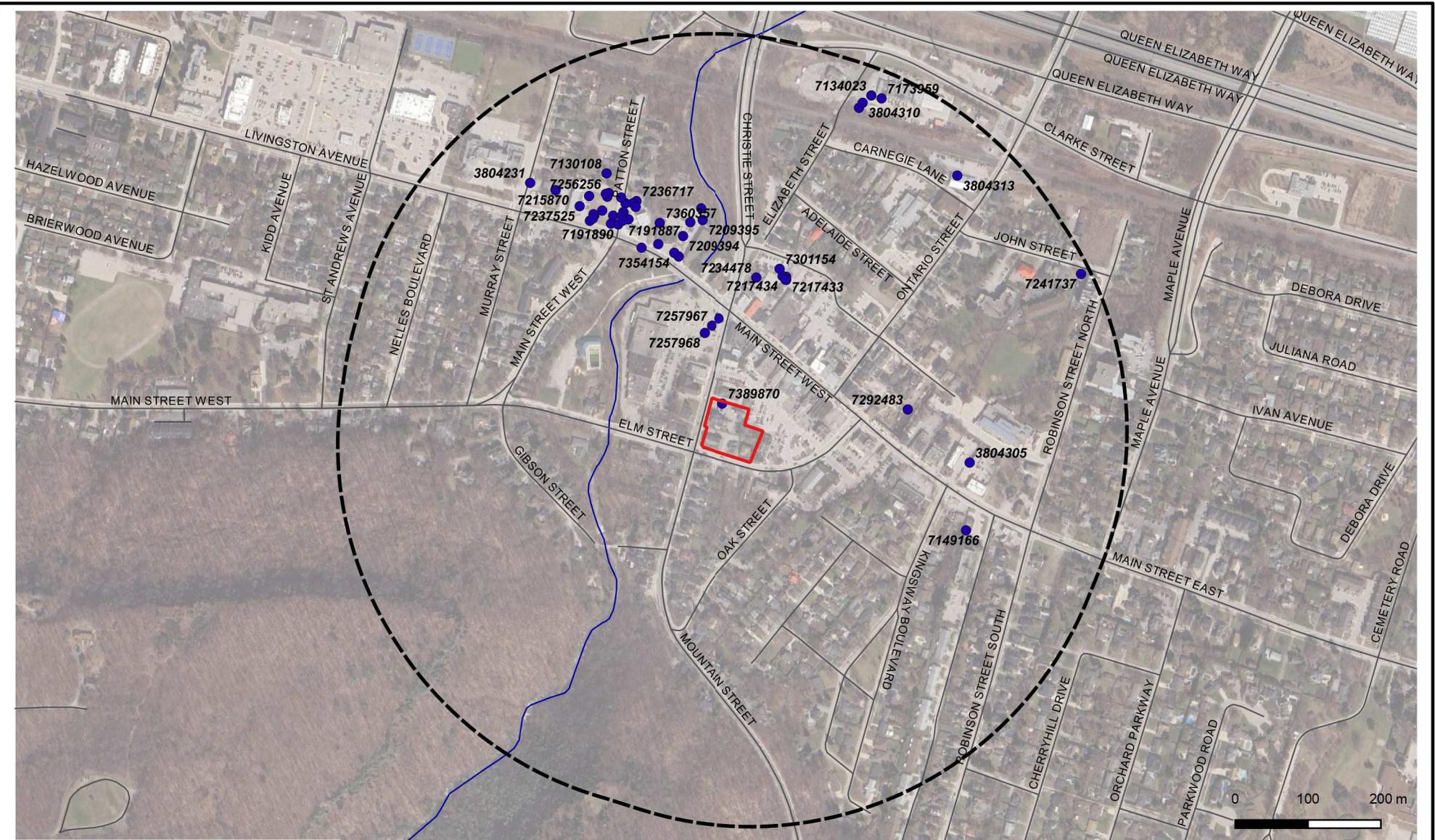
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The Niagara Sewer Use By Law – (Sanitary and Storm Sewer Discharge - BL_2024_51)

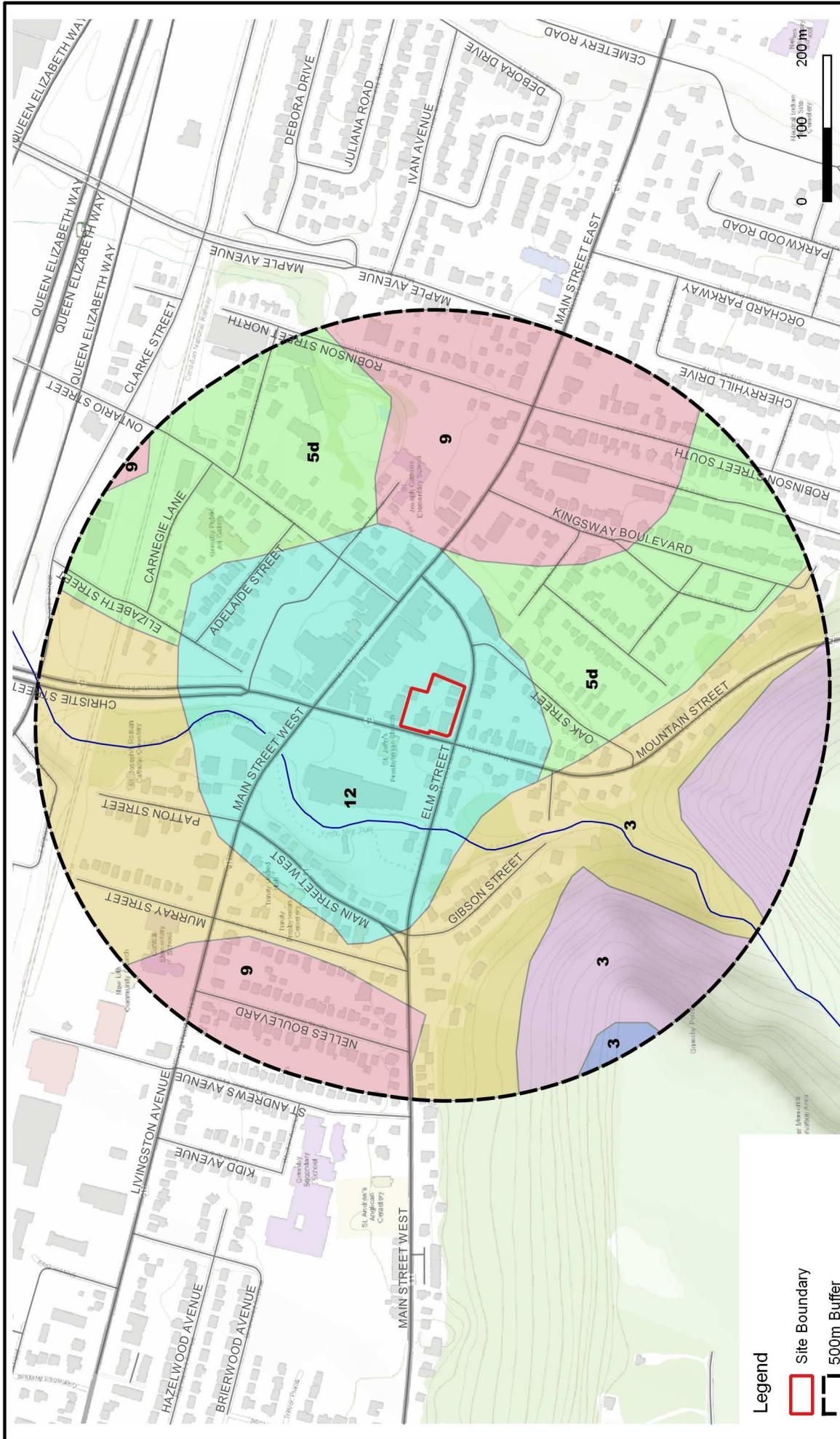
Figures



Legend

- Site Boundary
- 500m Buffer
- Registered Water Well (MECP WWR)

 <p>DS CONSULTANTS LTD. 6221 Highway 7, UNIT 16 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca</p>	Project: HYDROGEOLOGICAL INVESTIGATION 13 Mountain and 19-23 Elm Street, Grimsby, ON			
	Title: SITE LOCATION AND MECP WELL RECORDS			
Client: WOOLVERTON HOLDINGS CORP.	Size: 8.5 x 11	Approved By: M.J	Drawn By: S.Y	Date: December 2025
	Rev: 0	Scale: As Shown	Project No.: 25-403-100	Figure No.: 1
	Image/Map Source: Google Satellite Image			



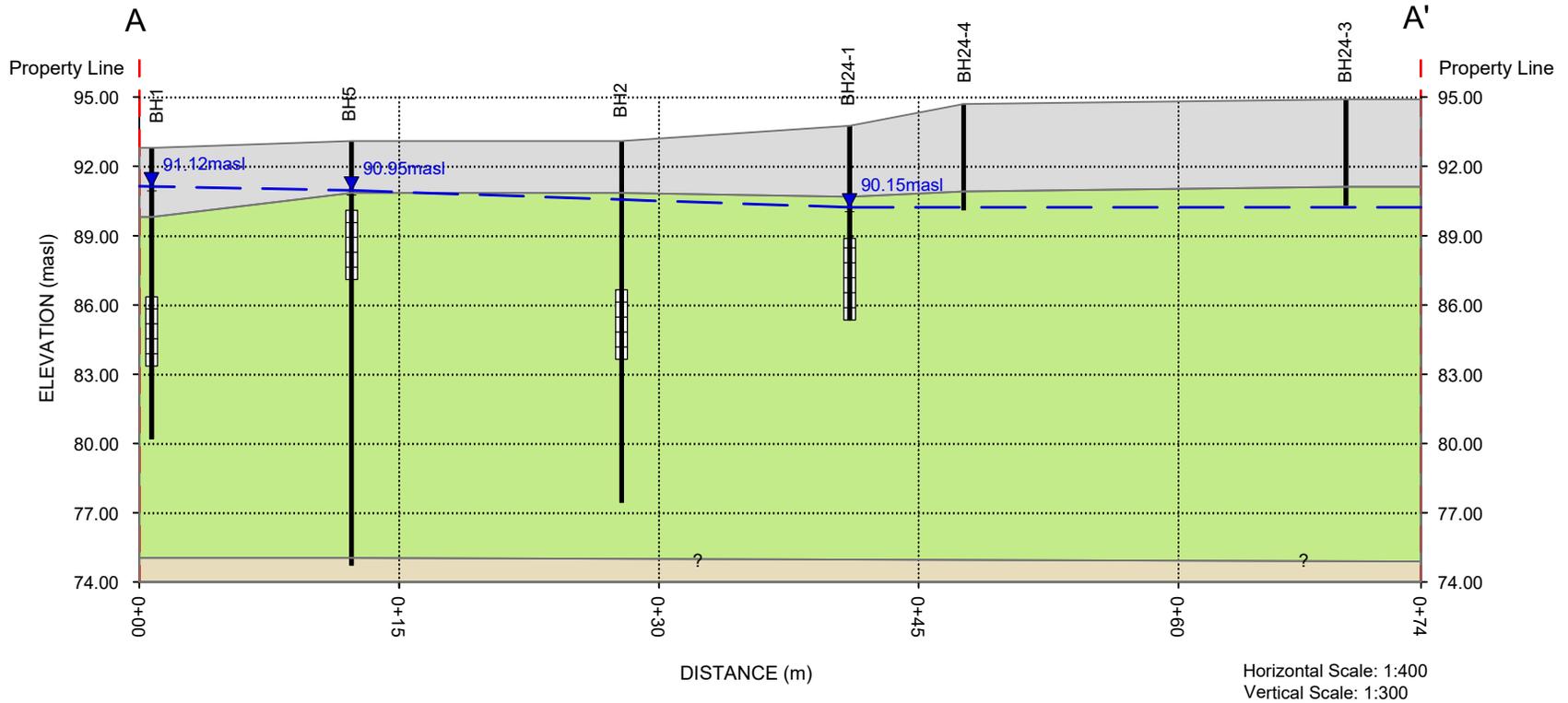
 <p>DS CONSULTANTS LTD. 6221 Highway 7, UNIT 16 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9383 www.dsconsultants.ca</p>		<p>Project: HYDROGEOLOGICAL INVESTIGATION 13 Mountain and 19-23 Elm Street, Grimsby, ON</p>	
<p>Client: WOOLVERTON HOLDINGS CORP.</p>		<p>Title: SURFICIAL GEOLOGY MAP</p>	
<p>Size: 8.5 x 11</p>	<p>Approved By: M.J</p>	<p>Drawn By: S.Y</p>	<p>Date: December 2025</p>
<p>Rev: 0</p>	<p>Scale: As Shown</p>	<p>Project No.: 25-403-100</p>	<p>Figure No.: 2</p>
<p>Image/Map Source: Esri Topo Map & https://www.mndm.gov.on.ca/</p>			



Legend

- Site Boundary
- ⊕ Borehole
- ⊙ Monitoring Well
- ⊕ Borehole by Other
- ⊗ Monitoring Well by Other
- Cross Section

 <p>DS CONSULTANTS LTD. 6221 Highway 7, UNIT 16 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca</p>	Project: HYDROGEOLOGICAL INVESTIGATION 13 Mountain and 19-23 Elm Street, Grimsby, ON			
	Title: BOREHOLE AND MONITORING WELL LOCATIONS			
Client: WOOLVERTON HOLDINGS CORP.	Size: 8.5 x 11	Approved By: M.J	Drawn By: S.Y	Date: December 2025
	Rev: 0	Scale: As Shown	Project No.: 25-403-100	Figure No.: 3
	Image/Map Source: Google Satellite Image			



Fill
 Clayey Silt
 Shale Bedrock

— — — Groundwater Elevation (Nov 26, 2025)



DS CONSULTANTS LTD.
6221 Highway 7, UNIT 16
Vaughan, Ontario L4H 0K8
Telephone: (905) 264-9393
www.dsconsultants.ca

Project: HYDROGEOLOGICAL INVESTIGATION
13 Mountain and 19-23 Elm Street, Grimsby, ON

Title: **GEOLOGICAL CROSS SECTION A-A'**

Client:
WOOLVERTON HOLDINGS CORP.

Size:
8.5 x 11

Approved By:
M.J

Drawn By:
S.Y

Date:
December 2025

Rev. Scale:
As Shown

Project No:
25-403-100

Figure No.
4

Appendices

Appendix A: Borehole Logs

Project No. : 7-18-0051-42

Client : Valentine Coleman 1 Inc. & Valentine Coleman 2 Inc.

Originated by : JM

Date started : March 25, 2021

Project : 13 Mountain Street and 19 Elm Street

Compiled by : TW

Sheet No. : 1 of 1

Location : Grimsby, Ontario

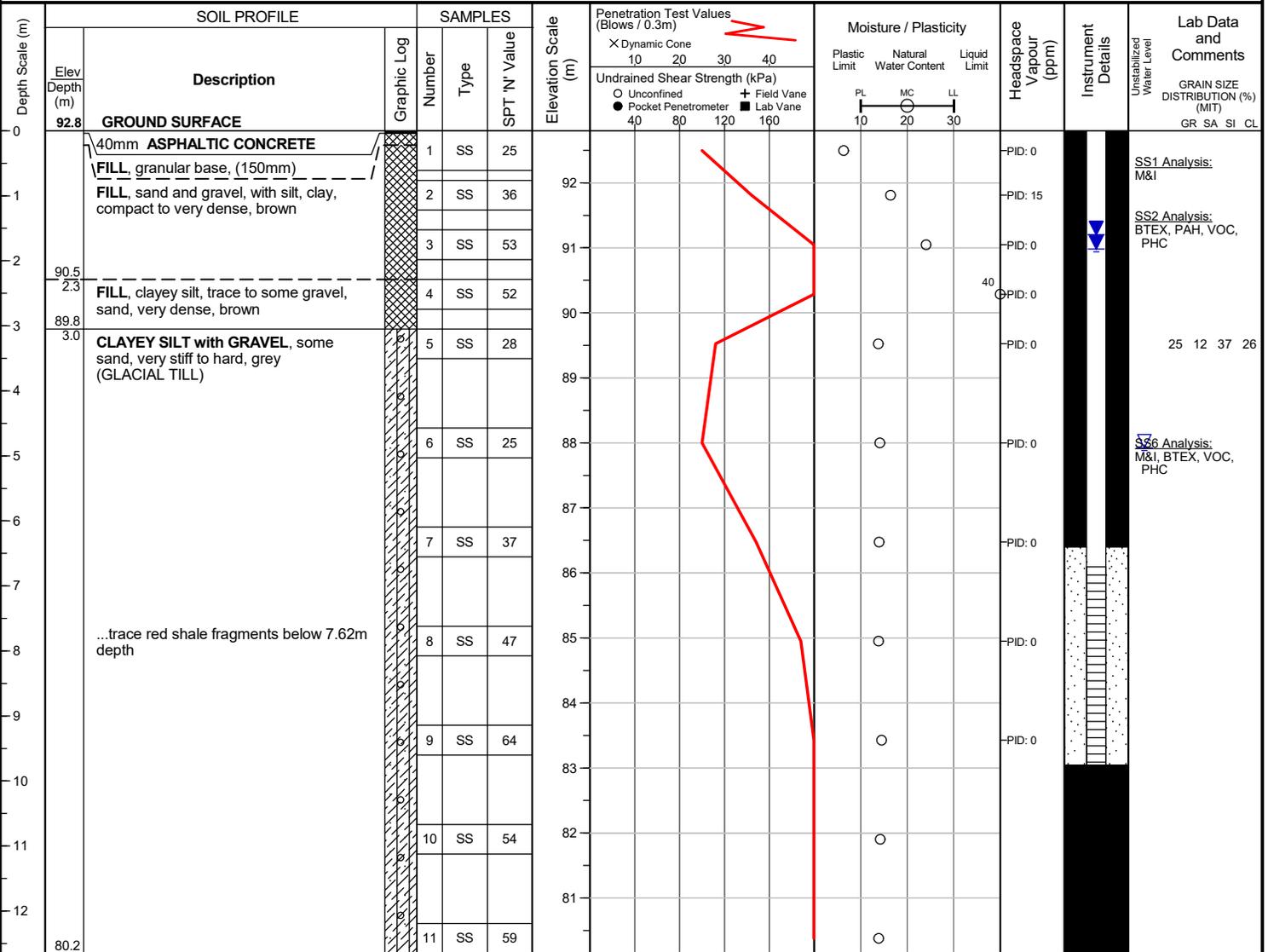
Checked by : TW

Position : E: 616797, N: 4783259 (UTM 17T)

Elevation Datum : Geodetic

Rig type : Mini Mole, track-mounted

Drilling Method : Solid stem augers


END OF BOREHOLE

Unstabilized water level measured at 4.9 m below ground surface; borehole was open upon completion of drilling.

50 mm dia. monitoring well installed.

WATER LEVEL READINGS

Date	Water Depth (m)	Elevation (m)
Mar 31, 2021	1.6	91.2
Apr 19, 2021	1.6	91.2
Apr 27, 2021	1.6	91.2
May 3, 2021	1.6	91.2
May 6, 2021	1.6	91.2
May 19, 2021	1.8	91.0

Project No. : 7-18-0051-42

Client : Valentine Coleman 1 Inc. & Valentine Coleman 2 Inc.

Originated by : JM

Date started : March 23, 2021

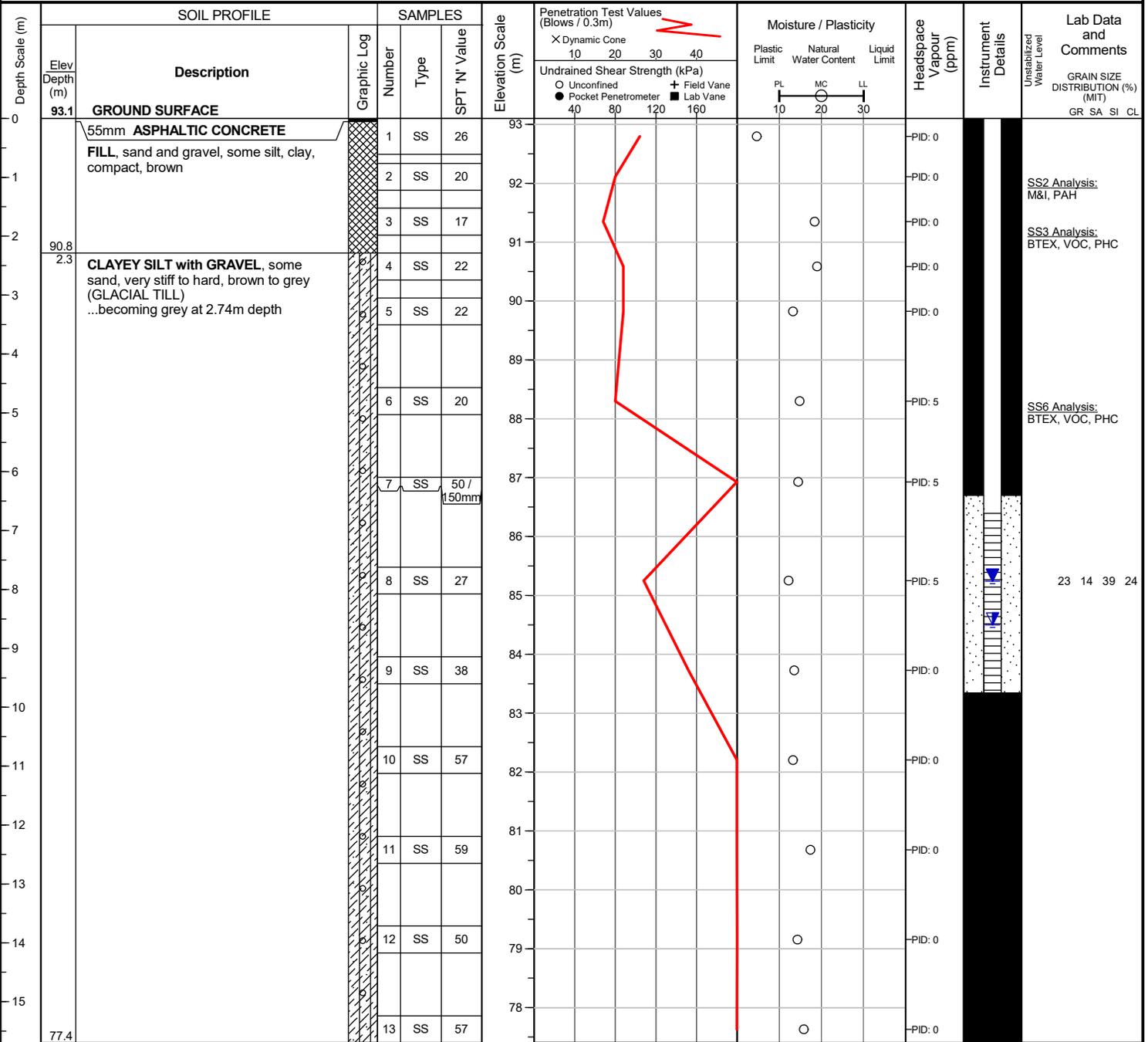
Project : 13 Mountain Street and 19 Elm Street

Compiled by : TW

Sheet No. : 1 of 1

Location : Grimsby, Ontario

Checked by : TW

 Position : E: 616821, N: 4783229 (UTM 17T) Elevation Datum : Geodetic
 Rig type : Mini Mole, track-mounted Drilling Method : Solid stem augers

END OF BOREHOLE

Borehole was dry and open upon completion of drilling.

50 mm dia. monitoring well installed.

WATER LEVEL READINGS

Date	Water Depth (m)	Elevation (m)
Mar 31, 2021	dry	n/a
Apr 19, 2021	8.6	84.5
Apr 27, 2021	8.0	85.1
May 3, 2021	7.3	85.8
May 6, 2021	8.7	84.4
May 19, 2021	7.9	85.2

Project No. : 7-18-0051-42

Client : Valentine Coleman 1 Inc. & Valentine Coleman 2 Inc.

Originated by : JM

Date started : March 26, 2021

Project : 13 Mountain Street and 19 Elm Street

Compiled by : TW

Sheet No. : 1 of 1

Location : Grimsby, Ontario

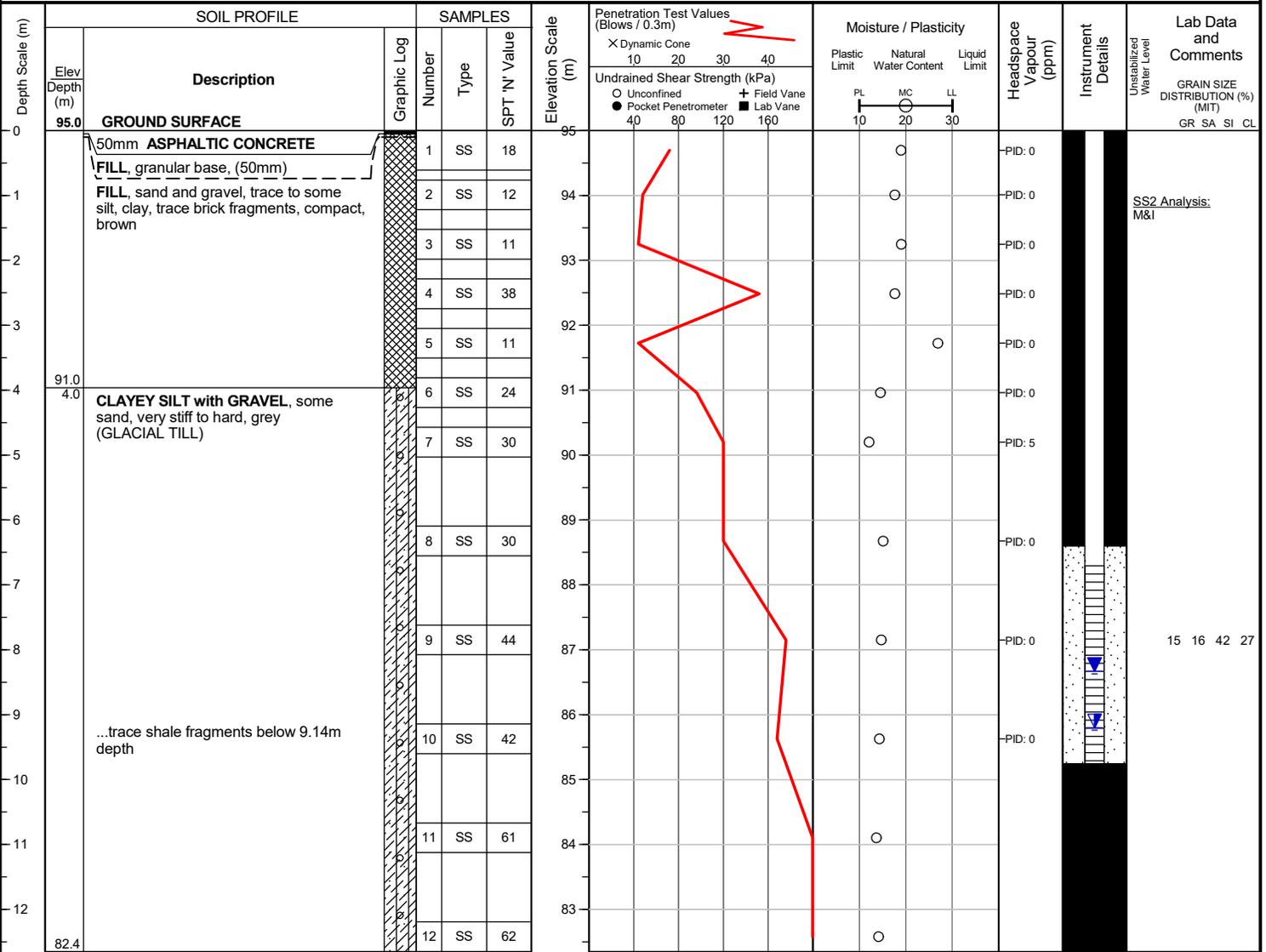
Checked by : TW

Position : E: 616798, N: 4783200 (UTM 17T)

Elevation Datum : Geodetic

Rig type : Mini Mole, track-mounted

Drilling Method : Solid stem augers


END OF BOREHOLE

Borehole was dry and open upon completion of drilling.

50 mm dia. monitoring well installed.

WATER LEVEL READINGS

Date	Water Depth (m)	Elevation (m)
Mar 31, 2021	dry	n/a
Apr 19, 2021	9.2	85.8
Apr 27, 2021	8.6	86.4
May 3, 2021	8.3	86.7
May 6, 2021	9.2	85.8
May 19, 2021	8.3	86.7

Project No. : 7-18-0051-42

Client : Valentine Coleman 1 Inc. & Valentine Coleman 2 Inc.

Originated by : JM

Date started : March 26, 2021

Project : 13 Mountain Street and 19 Elm Street

Compiled by : TW

Sheet No. : 1 of 1

Location : Grimsby, Ontario

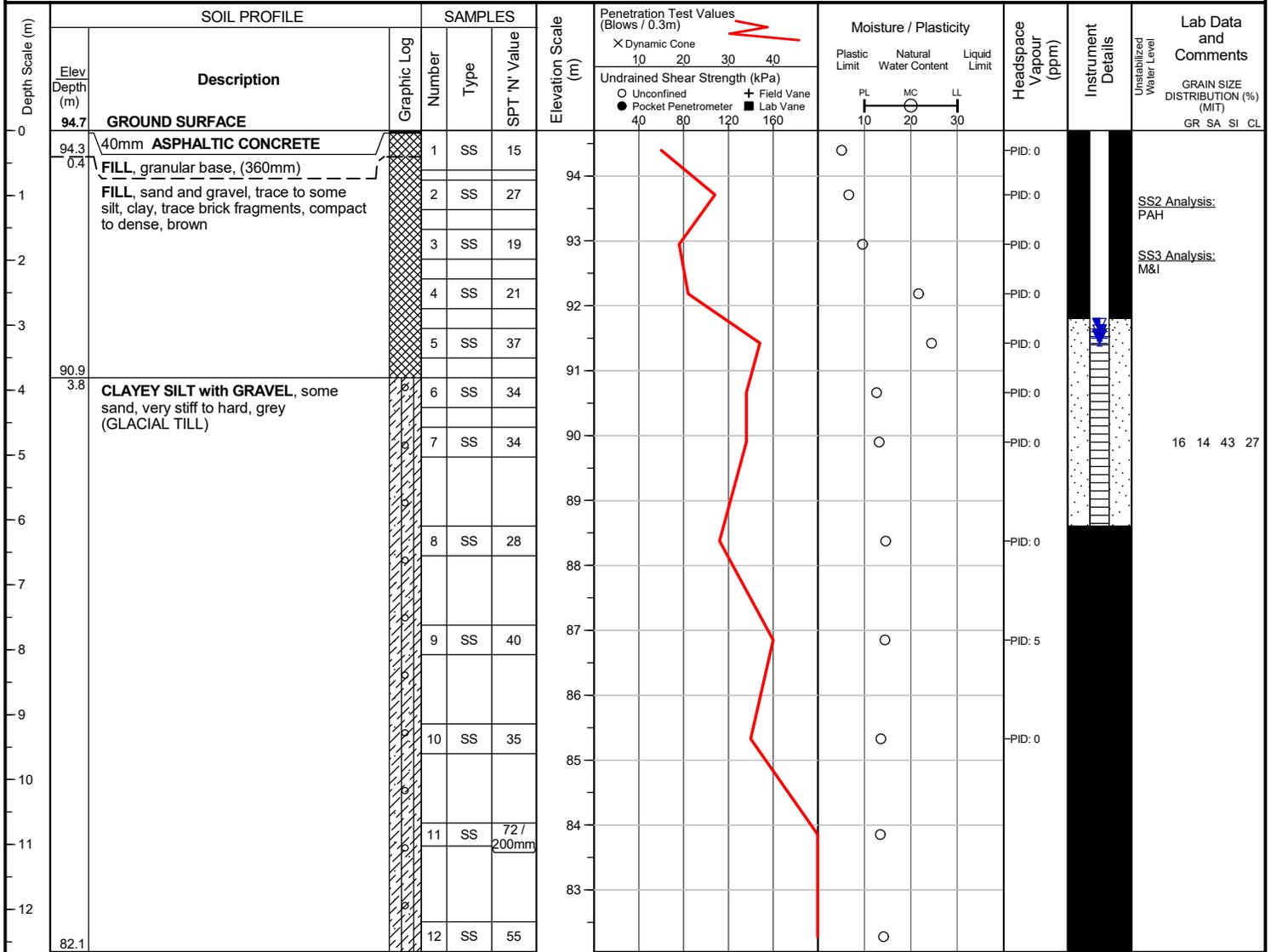
Checked by : TW

Position : E: 616792, N: 4783210 (UTM 17T)

Elevation Datum : Geodetic

Rig type : Mini Mole, track-mounted

Drilling Method : Solid stem augers


END OF BOREHOLE

Borehole was dry and open upon completion of drilling.

50 mm dia. monitoring well installed.

WATER LEVEL READINGS

Date	Water Depth (m)	Elevation (m)
Mar 31, 2021	3.1	91.6
Apr 19, 2021	3.2	91.5
Apr 27, 2021	3.2	91.5
May 3, 2021	3.2	91.5
May 6, 2021	3.2	91.5
May 19, 2021	3.3	91.4

Project No. : 7-18-0051-42

Client : Valentine Coleman 1 Inc. & Valentine Coleman 2 Inc.

Originated by : JM

Date started : March 24, 2021

Project : 13 Mountain Street and 19 Elm Street

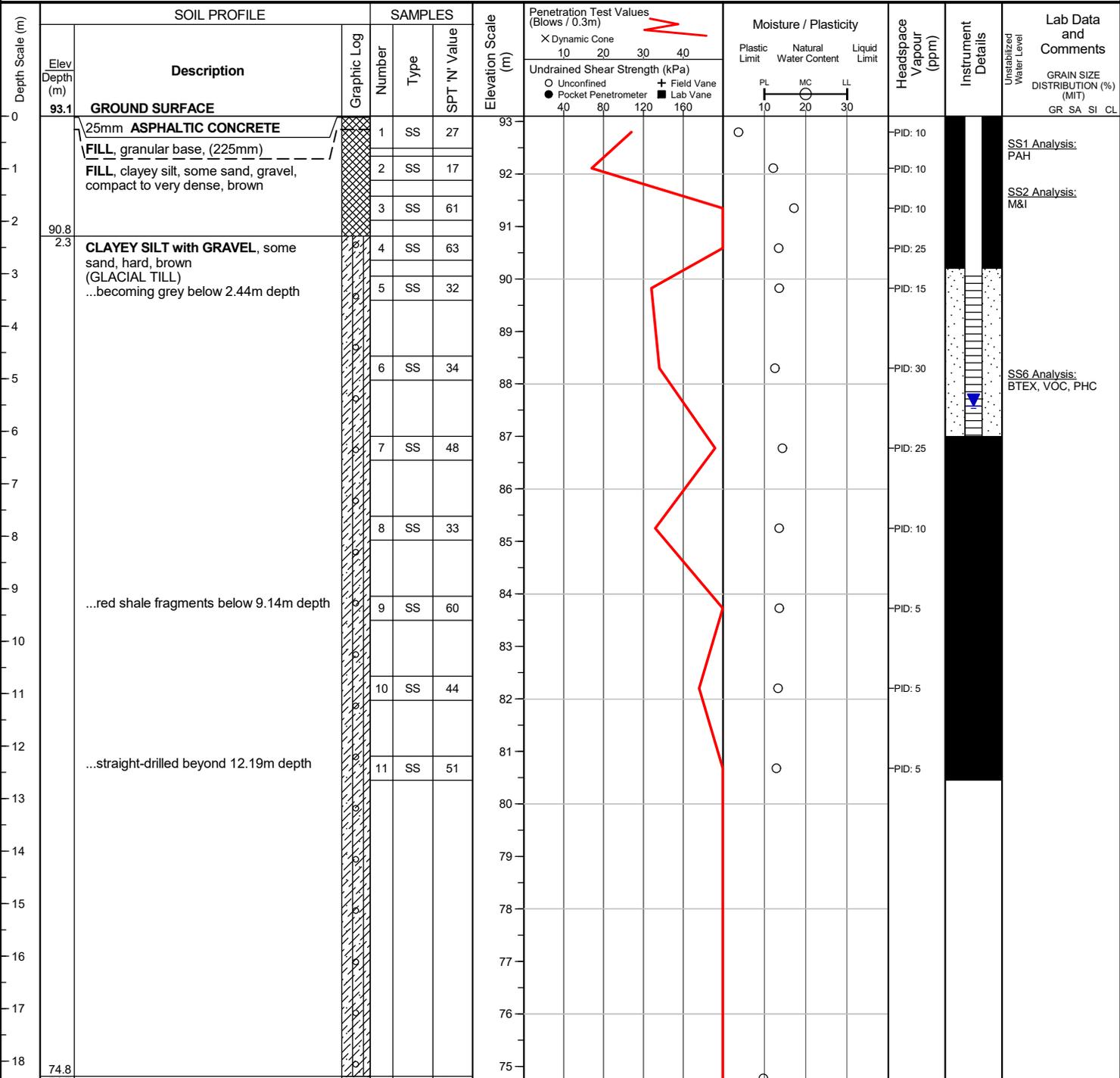
Compiled by : TW

Sheet No. : 1 of 1

Location : Grimsby, Ontario

Checked by : TW

Position : E: 616804, N: 4783243 (UTM 17T) Elevation Datum : Geodetic
 Rig type : Mini Mole, track-mounted Drilling Method : Solid stem augers



WATER LEVEL READINGS		
Date	Water Depth (m)	Elevation (m)
Mar 31, 2021	dry	n/a
Apr 19, 2021	dry	n/a
Apr 27, 2021	6.2	86.9
May 3, 2021	6.0	87.1
May 6, 2021	5.9	87.2
May 19, 2021	5.5	87.6

END OF BOREHOLE

Borehole was dry and open upon completion of drilling.

50 mm dia. monitoring well installed.

Project No. : 7-18-0051-42

Client : Valentine Coleman 1 Inc. & Valentine Coleman 2 Inc.

Originated by : JM

Date started : March 25, 2021

Project : 13 Mountain Street and 19 Elm Street

Compiled by : TW

Sheet No. : 1 of 1

Location : Grimsby, Ontario

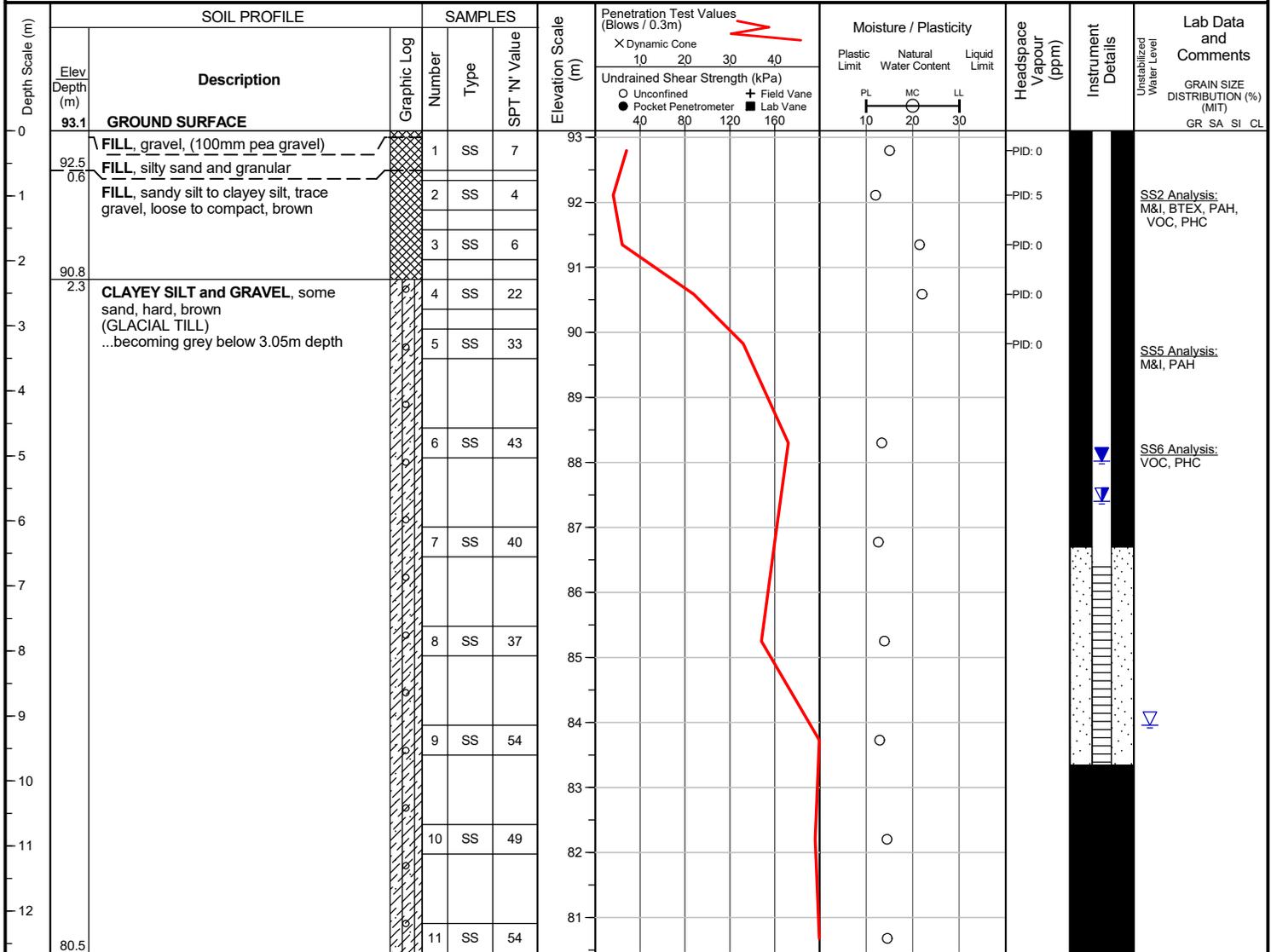
Checked by : TW

Position : E: 616819, N: 4783255 (UTM 17T)

Elevation Datum : Geodetic

Rig type : Mini Mole, track-mounted

Drilling Method : Solid stem augers


END OF BOREHOLE

Unstabilized water level measured at 9.1 m below ground surface; borehole was open upon completion of drilling.

50 mm dia. monitoring well installed.

WATER LEVEL READINGS

Date	Water Depth (m)	Elevation (m)
Mar 31, 2021	dry	n/a
Apr 19, 2021	5.7	87.4
Apr 27, 2021	5.4	87.7
May 3, 2021	5.2	87.9
May 6, 2021	5.1	88.0
May 19, 2021	5.1	88.0

Project No. : 7-18-0051-42

Client : Valentine Coleman 1 Inc. & Valentine Coleman 2 Inc.

Originated by : JM

Date started : March 31, 2021

Project : 13 Mountain Street and 19 Elm Street

Compiled by : TW

Sheet No. : 1 of 1

Location : Grimsby, Ontario

Checked by : TW

Position : E: 616806, N: 4783217 (UTM 17T)

Elevation Datum : Geodetic

Rig type : Mini Mole, track-mounted

Drilling Method : Solid stem augers

Depth Scale (m)	SOIL PROFILE		SAMPLES			Elevation Scale (m)	Penetration Test Values (Blows / 0.3m)	Moisture / Plasticity			Headspace Vapour (ppm)	Instrument Details	Lab Data and Comments
	Elev Depth (m)	Description	Graphic Log	Number	Type			SPT 'N' Value	Dynamic Cone	Plastic Limit			
0	93.5	GROUND SURFACE											
0		50mm ASPHALTIC CONCRETE											
0		FILL , granular with sandy silt, trace to some clay, compact to dense, brown											
1			1	SS	14	93							SS1 Analysis: M&I
1			2	SS	41	92							
2			3	SS	18	91							SS3 Analysis: M&I, PAH
2	91.2	CLAYEY SILT and GRAVEL , some sand, very stiff to hard, brown (GLACIAL TILL) ...becoming grey below 2.59m depth	4	SS	34	90							
3	2.3		5	SS	23	89							
4			6	SS	32	88							
5			7	SS	31	87							
6			8	SS	37	86							
7			9	SS	40	85							
8		...trace shale fragments below 7.62m depth	10	SS	39	84							
9			11	SS	44	83							
10						82							
11						81							
12													
	80.9	END OF BOREHOLE											
	12.6												

Borehole was dry and open upon completion of drilling.

Project No. : 7-18-0051-42

Client : Valentine Coleman 1 Inc. & Valentine Coleman 2 Inc.

Originated by : JM

Date started : March 31, 2021

Project : 13 Mountain Street and 19 Elm Street

Compiled by : TW

Sheet No. : 1 of 1

Location : Grimsby, Ontario

Checked by : TW

Position : E: 616817, N: 4783215 (UTM 17T)

Elevation Datum : Geodetic

Rig type : Mini Mole, track-mounted

Drilling Method : Solid stem augers

Depth Scale (m)	SOIL PROFILE		SAMPLES			Elevation Scale (m)	Penetration Test Values (Blows / 0.3m)	Moisture / Plasticity			Headspace Vapour (ppm)	Instrument Details	Lab Data and Comments
	Elev Depth (m)	Description	Graphic Log	Number	Type			SPT 'N' Value	Plastic Limit	Natural Water Content			
93.5	GROUND SURFACE						X Dynamic Cone 10 20 30 40 Undrained Shear Strength (kPa) O Unconfined + Field Vane ● Pocket Penetrometer ■ Lab Vane	PL MC LL 10 20 30					
0	50mm ASPHALTIC CONCRETE												
	FILL, granular base, (150mm)												
	FILL, clayey silt, some gravel, trace sand, loose to compact, brown to dark brown		1	SS	11	93							SS1 Analysis: M&I, PAH
			2	SS	23								
			3	SS	9	92							SS3 Analysis: M&I, BTEX, VOC, PHC
91.5													
2.0													

END OF BOREHOLE

Borehole was dry and open upon completion of drilling.



PROJECT:	DRILLING DATA
CLIENT: Valentine Coleman 1 Inc. and Valentine Coleman 2 Inc.	Method: Hollow Stem Auger
PROJECT LOCATION: 21 and 23 Elm Street, Grimsby, Ontario	Diameter: 150 mm
DATUM: Geodetic	Date: Nov/22/2024 to Nov/22/2024
BH LOCATION: N 4783217.26 E 616832.562	REF. NO.: 24-330-100
	ENCL NO.:

SOIL PROFILE			SAMPLES			Soil Head Space Vapors		PLASTIC NATURAL LIQUID			POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)	
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (ppm)	W _p				W
93.7	ASPHALT: granular base (150mm) FILL: clayey silt, some gravel, brown, dry to moist		1	SS				25	15					PHCs, BTEXs & VOCs
93.0			2	SS					25	15				
92.0			3	SS					25	15				
91.0			4	SS					25	15				
90.7	CLAYEY SILT WITH GRAVEL: trace tree root, brown, moist		5	SS				25	15				PHCs, BTEXs & VOCs	
90.0			6	SS					25	15				
89.5			7	SS					25	15				
89.0			8	SS					25	15				
88.5			9	SS					25	15				
88.0			10	SS					25	15				
87.5			11	SS					25	15				
85.4	END OF BOREHOLE:													
8.4	<p>Water Level Readings</p> <p>November 26, 2024 Dry</p> <p>Decemeber 6, 2024 Dry</p>													

DS ENVIRO 0-50 PPM-2021_24-330-100.GPJ_DS.GDT_12/16/24

GROUNDWATER ELEVATIONS

1st 2nd 3rd 4th

Measurement

GRAPH NOTES + 3, x 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure



PROJECT:
 CLIENT: Valentine Coleman 1 Inc. and Valentine Coleman 2 Inc.
 PROJECT LOCATION: 21 and 23 Elm Street, Grimsby, Ontario
 DATUM: Geodetic
 BH LOCATION: N 4783182.932 E 616818.19

DRILLING DATA
 Method: Hollow Stem Auger
 Diameter: 150 mm
 Date: Nov/22/2024 to Nov/22/2024
 REF. NO.: 24-330-100
 ENCL NO.:

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		PLASTIC LIMIT W _p	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W _L	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)						
94.7	ASPHALT: granular base (150mm) FILL: clayey silt, red shale fragments, brown, moist ...trace brick pieces, trace gravel, wood pieces		1	SS		94.7	25	15						PAHs PHCs, BTEXs Metals and ORPs	
94.0			2	SS		94.0	25	15							
93.3			3	SS		93.3	25	15							
92.6			4	SS		92.6	25	15							
91.6	FILL: sandy silt, yellow to brown, moist		5	SS		91.6	25	15							
90.9			6	SS		90.9	25	15							
90.1	CLAYEY SILT WITH GRAVEL grey, wet					90.1	25	15							
4.6	END OF BOREHOLE:														

DS ENVIRO 0-50 PPM-2021 24-330-100.GPJ DS.GDT 12/16/24

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH NOTES

+ 3 , × 3: Numbers refer to Sensitivity

○ ●=3% Strain at Failure



PROJECT:	DRILLING DATA
CLIENT: Valentine Coleman 1 Inc. and Valentine Coleman 2 Inc.	Method: Hollow Stem Auger
PROJECT LOCATION: 21 and 23 Elm Street, Grimsby, Ontario	Diameter: 150 mm
DATUM: Geodetic	Date: Nov/22/2024 to Nov/22/2024
BH LOCATION: N 4783186.933 E 616804.05	REF. NO.: 24-330-100
	ENCL NO.:

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		PLASTIC LIMIT W _p	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W _L	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)						
94.9	ASPHALT: granular base (150 mm) FILL: sand and gravel, some clay, brown, moist ...limestone fragments, some sand, trace silt, moist ...sandy silt, yellow to brown, moist		1	SS										Metals and ORPs, PAHs, PHCs, BTEXs	
94.6			2	SS											
94.3			3	SS											
94.0			4	SS											
93.7			5	SS											
91.1			6	SS											
90.3	CLAYEY SILT WITH GRAVEL: brown, moist														
4.6	END OF BOREHOLE:														

DS ENVIRO 0-50 PPM-2021 24-330-100.GPJ DS.GDT 12/16/24

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

GRAPH NOTES + 3, x 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure



PROJECT: CLIENT: Valentine Coleman 1 Inc. and Valentine Coleman 2 Inc. PROJECT LOCATION: 21 and 23 Elm Street, Grimsby, Ontario DATUM: Geodetic BH LOCATION: N 4783209 E 616809.947	DRILLING DATA Method: Hollow Stem Auger Diameter: 150 mm Date: Nov/22/2024 to Nov/22/2024	REF. NO.: 24-330-100 ENCL NO.:
--	---	-----------------------------------

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			PLASTIC LIMIT W _p	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W _L	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
94.7	ASPHALT: granular base (150mm) FILL: silt clay, some sand trace wood pieces, black to brown, moist ...brick pieces, wood pieces, red shale fragments ...some sand, some gravel		1	SS												
94.0			2	SS												PHCs, BTEXs
93.0			3	SS												Metals and ORPs, PAHs
92.0			4	SS												
91.0			5	SS												
90.9	CLAYEY SILT WITH GRAVEL: grey, moist to wet		6	SS											Metals and ORPs	
90.1																
4.6	END OF BOREHOLE:															

DS ENVIRO 0-50 PPM-2021 24-330-100.GPJ DS.GDT 12/16/24

GROUNDWATER ELEVATIONS
 Measurement

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure

Appendix B: Hydraulic Conductivity Analysis

Slug Test Analysis Report

Project: Hydrogeological Investigation

Number: 25-403-100

Client: Woolverton Holdings Corp

Location: 13 Mountain St & 19-23 Elm St | Slug Test: BH1

Test Well: BH1

Test Conducted by: CL

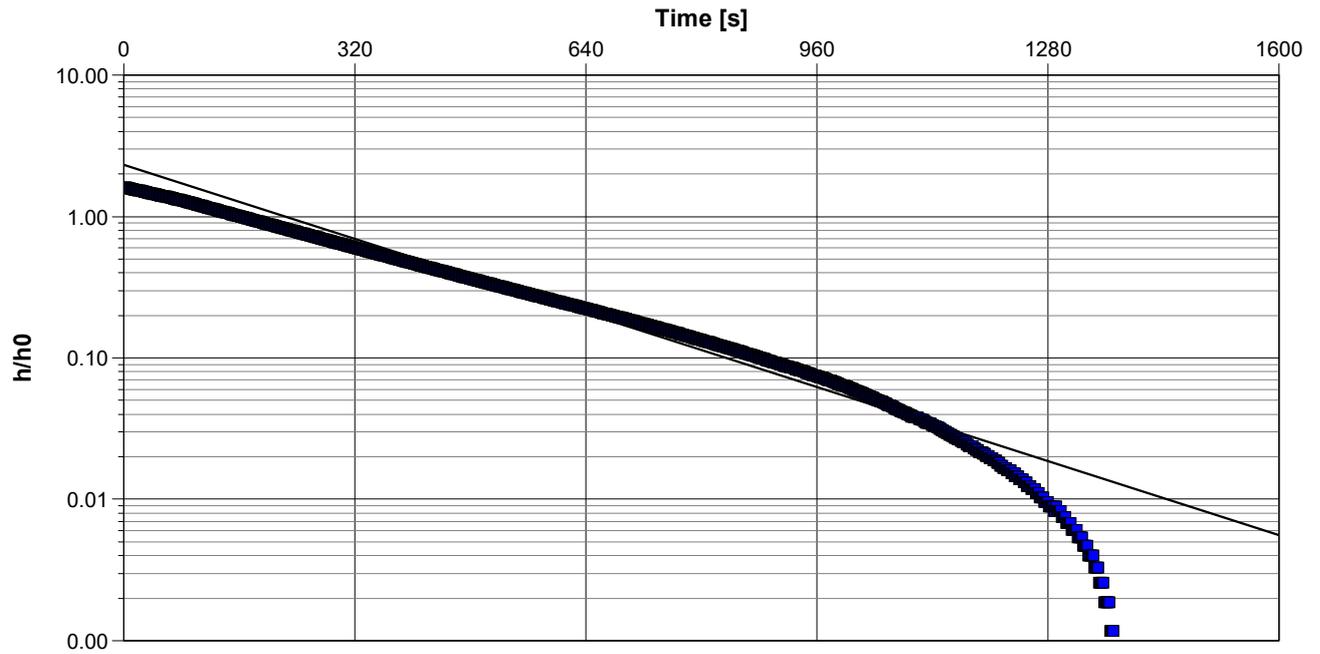
Test Date: 11/26/2025

Analysis Performed by: MJ

Hvorslev

Analysis Date: 11/28/2025

Aquifer Thickness:



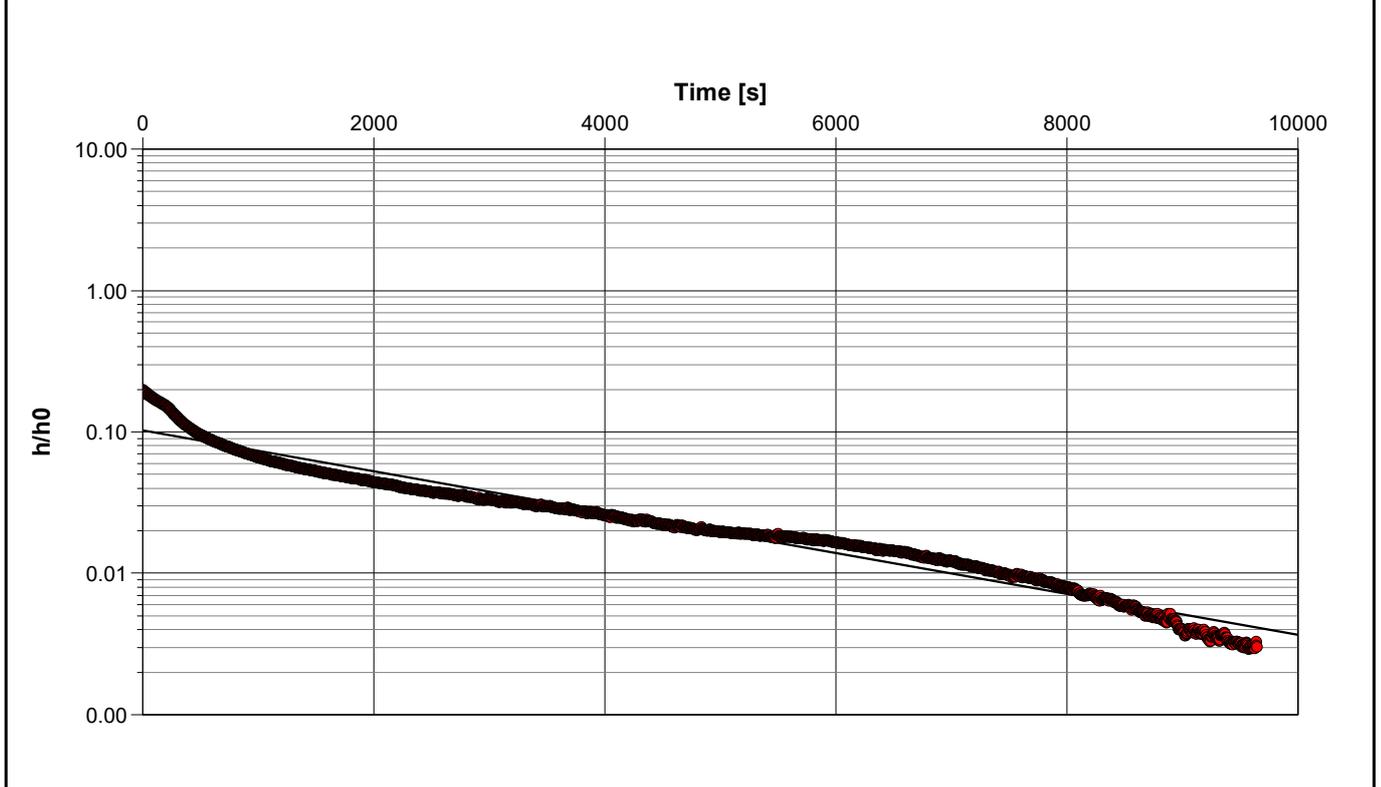
Calculation using Hvorslev

Observation Well	Hydraulic Conductivity [m/s]
BH1	1.65×10^{-6}

		Slug Test Analysis Report	
		Project: Hydrogeological Investigation	
		Number: 25-403-100	
		Client: Woolverton Holdings Corp	

Location: 13 Mountain St & 19-23 Elm St	Slug Test: BH3	Test Well: BH3
Test Conducted by: CL		Test Date: 11/26/2025
Analysis Performed by: MJ	Hvorslev	Analysis Date: 11/28/2025

Aquifer Thickness:



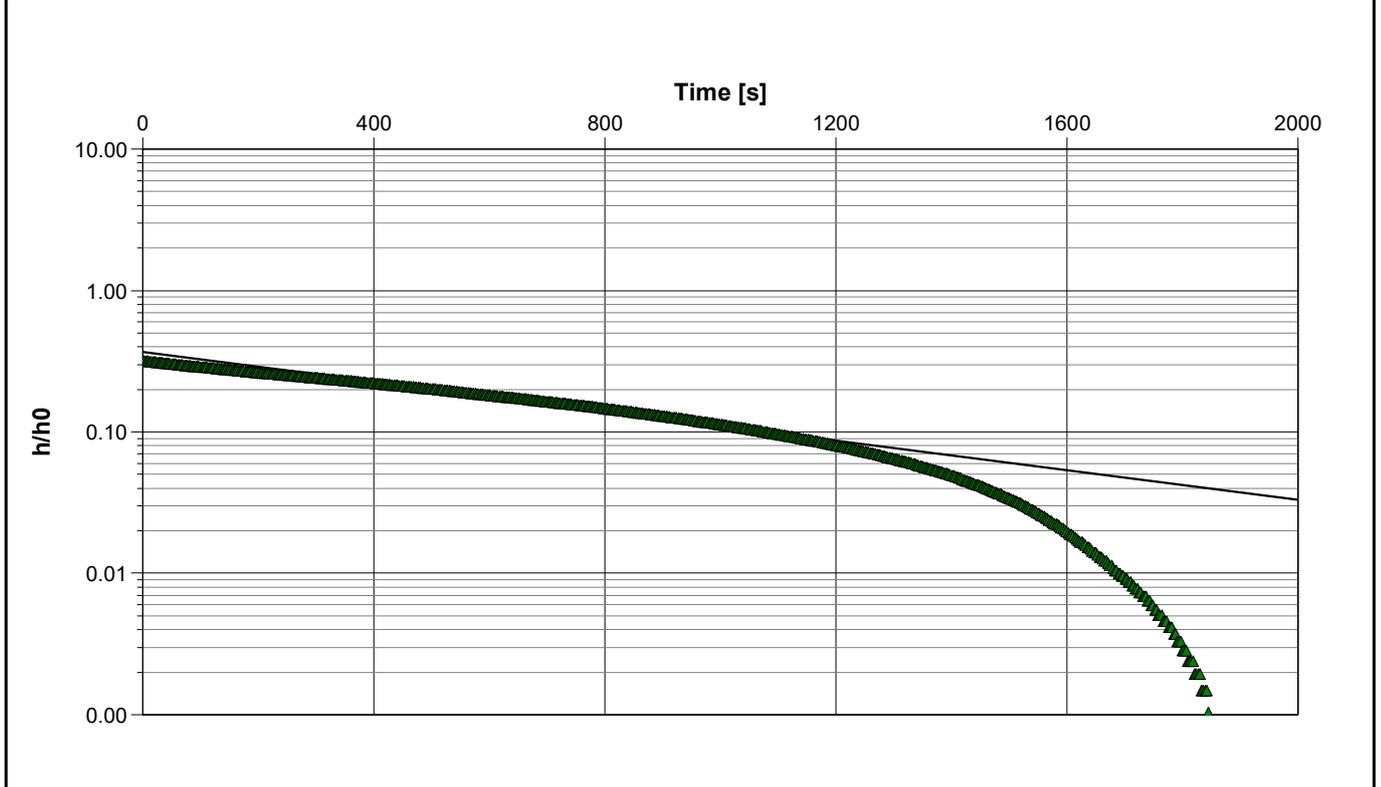
Calculation using Hvorslev		
Observation Well	Hydraulic Conductivity [m/s]	
BH3	1.46×10^{-7}	

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		Slug Test Analysis Report	
		Project: Hydrogeological Investigation	
		Number: 25-403-100	
		Client: Woolverton Holdings Corp	

Location: 13 Mountain St & 19-23 Elm St	Slug Test: BH4	Test Well: BH4
Test Conducted by: CL		Test Date: 11/26/2025
Analysis Performed by: MJ	Hvorslev	Analysis Date: 11/28/2025

Aquifer Thickness:



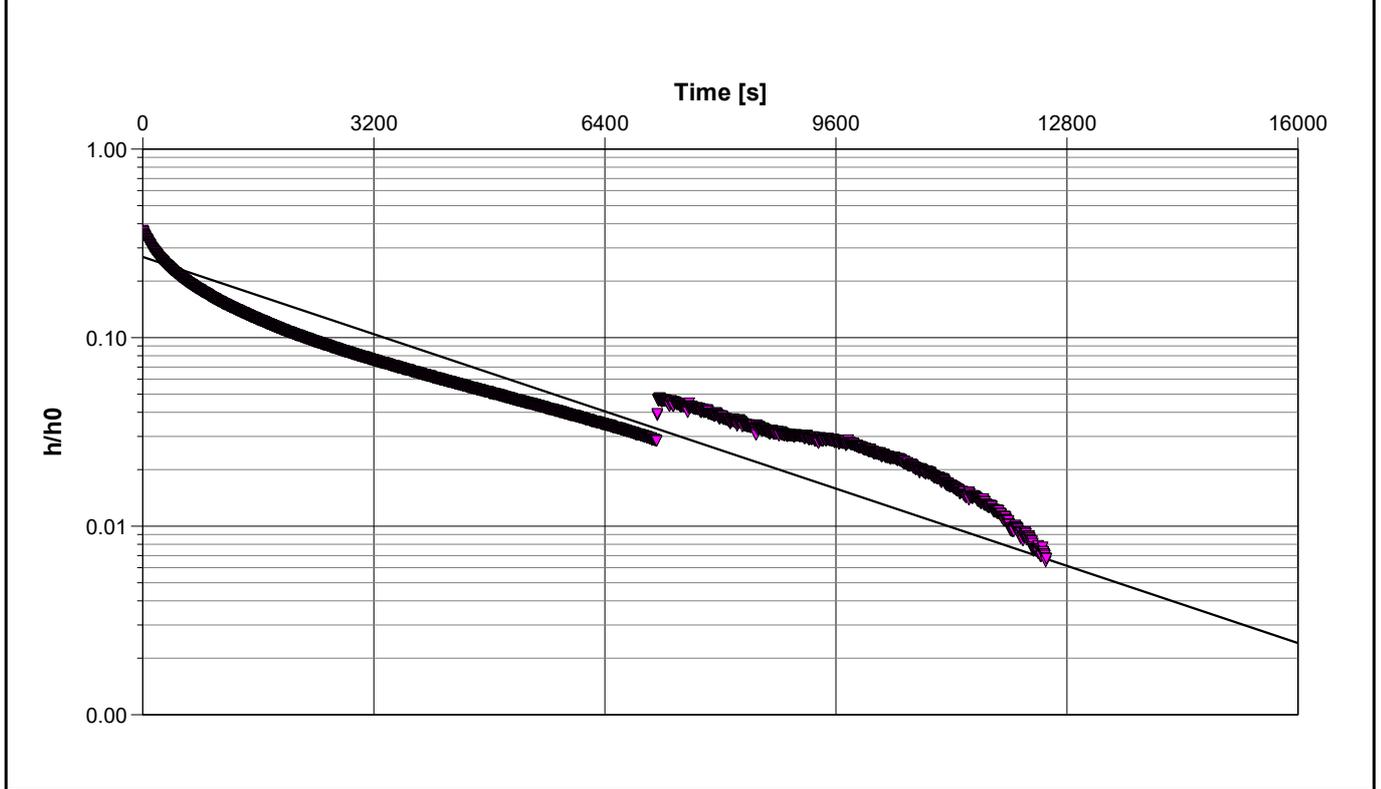
Calculation using Hvorslev		
Observation Well	Hydraulic Conductivity	
	[m/s]	
BH4	5.28×10^{-7}	

--	--	--

		Slug Test Analysis Report	
		Project: Hydrogeological Investigation	
		Number: 25-403-100	
		Client: Woolverton Holdings Corp	

Location: 13 Mountain St & 19-23 Elm St	Slug Test: BH5	Test Well: BH5
Test Conducted by: CL		Test Date: 11/26/2025
Analysis Performed by: MJ	Hvorslev	Analysis Date: 11/28/2025

Aquifer Thickness:



Calculation using Hvorslev		
Observation Well	Hydraulic Conductivity	
	[m/s]	
BH5	1.29×10^{-7}	

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Slug Test Analysis Report

Project: Hydrogeological Investigation

Number: 25-403-100

Client: Woolverton Holdings Corp

Location: 13 Mountain St & 19-23 Elm St | Slug Test: BH24-1

Test Well: BH24-1

Test Conducted by: CL

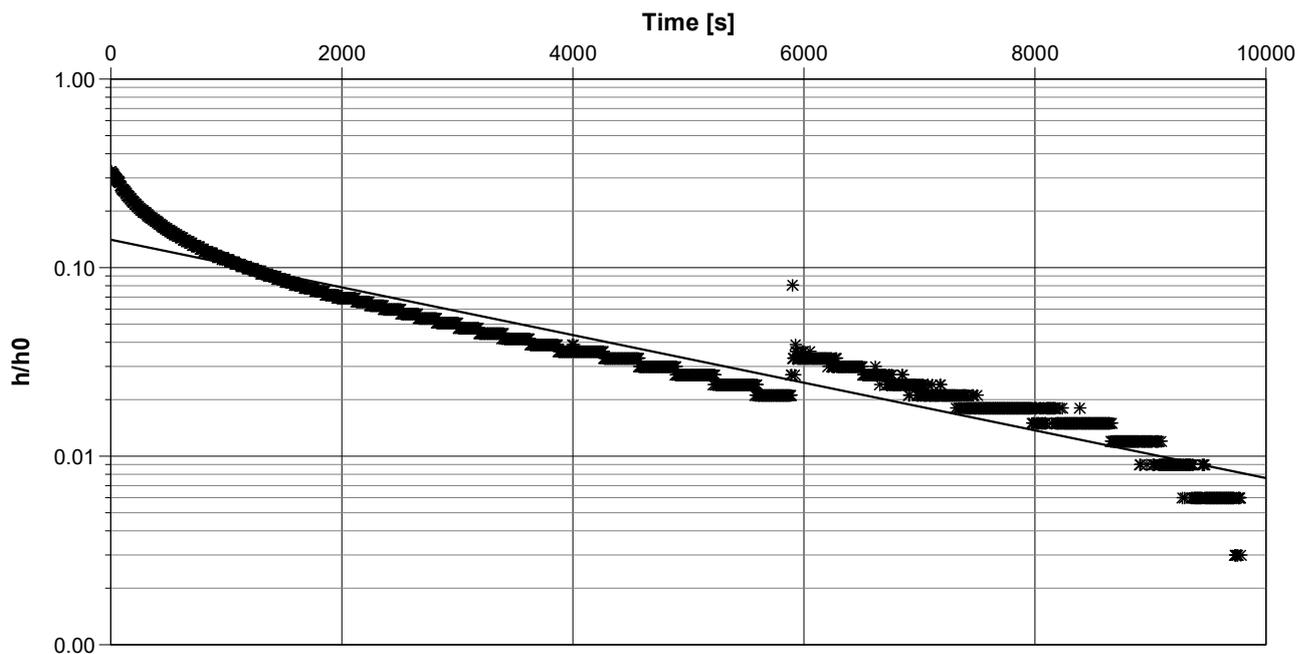
Test Date: 11/26/2025

Analysis Performed by: MJ

Hvorslev

Analysis Date: 11/28/2025

Aquifer Thickness:



Calculation using Hvorslev

Observation Well	Hydraulic Conductivity [m/s]
BH24-1	1.44×10^{-7}

Appendix C: Groundwater Quality Certificate of Analysis



How did we do today?

Your feedback helps us improve our service and takes less than a minute to complete.

[START SURVEY](#)

FINAL REPORT

CA40285-NOV25 R1

25-403-100, 13 Mountain Rd, Grimsby, ON

Prepared for

DS Consultants

First Page

CLIENT DETAILS

Client DS Consultants
 Address 6221 Highway 7 Unit 16
 Vaughan, Ontario
 L4H 0K8, Canada
 Contact Meysam Jafari
 Telephone 905-264-9393
 Facsimile 905-264-2685
 Email mjafari@dsconsultants.ca
 Works #
 Project 25-403-100, 13 Mountain Rd, Grimsby, ON
 Reference
 Batch
 Samples WATER (1)

LABORATORY DETAILS

Project Specialist Jill Campbell, B.Sc.,GISAS
 Laboratory SGS Canada Inc.
 Address 185 Concession St., Lakefield ON, K0L 2H0
 Telephone 2165
 Facsimile 705-652-6365
 Email jill.campbell@sgs.com
 SGS Reference CA40285-NOV25
 Received 2025-11-26
 Approved 12/02/2025
 Report Number CA40285-NOV25 R1
 Date Reported 12/02/2025

COMMENTS

RL - SGS Reporting Limit

Nonylphenol Ethoxylates is the sum of nonylphenol monoethoxylate and nonylphenol diethoxylate.

Total PAH is the sum of anthracene, benzo(a)pyrene, benzo(a)anthracene, benzo(e)pyrene, benzo(b,j)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, chrysene, dibenzo(a,h)anthracene, dibenzo(a,i)pyrene, dibenzo(a,j)acridine, 7H-dibenzo(c,g)carbazole, fluoranthene, indeno(1,2,3-c,d)pyrene, perylene, phenanthrene and pyrene..

Temperature of Sample upon Receipt: 9 degrees C

Cooling Agent Present:Yes

Custody Seal Present:Yes

Chain of Custody Number:046130

SIGNATORIES

Jill Campbell, B.Sc.,GISAS



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FINAL REPORT

CA40285-NOV25 R1

Client: DS Consultants

Project: 25-403-100, 13 Mountain Rd, Grimsby, ON

Project Manager: Meysam Jafari

Samplers: Chaitanya

MATRIX: WATER

Sample Number 8

Sample Name BH 1

Sample Matrix Ground Water

Sample Date 2025-11-26 00:00

L1 = SANSEW / WATER / - - Niagara Sewer Use ByLaw - Sanitary Sewer Discharge - BL_2024_51

L2 = SANSEW / WATER / - - Niagara Sewer Use ByLaw - Storm Sewer Discharge - BL_2024_51

Parameter	Units	RL	L1	L2	Result
-----------	-------	----	----	----	--------

General Chemistry

Biochemical Oxygen Demand (BOD5)	mg/L	2	300		< 4 †
Total Suspended Solids	mg/L	2	350		94
Total Kjeldahl Nitrogen	as N mg/L	0.5	100		< 0.5
Chemical Oxygen Demand	mg/L	8	600		12

Metals and Inorganics

Cyanide (total)	mg/L	0.01	1		< 0.01
Fluoride	mg/L	0.06	10		0.16
Sulphide	mg/L	0.02	1		< 0.02
Sulphate	mg/L	2	1500		190
Antimony (total)	mg/L	0.0009	5		< 0.0009
Arsenic (total)	mg/L	0.0002	1		0.0018
Cadmium (total)	mg/L	0.000003	0.7		0.000153
Chromium (total)	mg/L	0.00008	3		0.00481
Cobalt (total)	mg/L	0.000004	5		0.00147
Copper (total)	mg/L	0.001	3		0.006
Lead (total)	mg/L	0.00009	1		0.00348
Molybdenum (total)	mg/L	0.0004	5		0.0017
Nickel (total)	mg/L	0.0001	2		0.0046
Phosphorus (total)	mg/L	0.003	10		0.101
Selenium (total)	mg/L	0.00004	1		0.00029
Silver (total)	mg/L	0.00005	5		0.00007
Tin (total)	mg/L	0.00006	5		0.00114



FINAL REPORT

CA40285-NOV25 R1

Client: DS Consultants

Project: 25-403-100, 13 Mountain Rd, Grimsby, ON

Project Manager: Meysam Jafari

Samplers: Chaitanya

MATRIX: WATER

Sample Number 8

Sample Name BH 1

Sample Matrix Ground Water

Sample Date 2025-11-26 00:00

L1 = SANSEW / WATER / - - Niagara Sewer Use ByLaw - Sanitary Sewer Discharge - BL_2024_51

L2 = SANSEW / WATER / - - Niagara Sewer Use ByLaw - Storm Sewer Discharge - BL_2024_51

Parameter	Units	RL	L1	L2	Result
Metals and Inorganics (continued)					
Zinc (total)	mg/L	0.002	3		0.026
Microbiology					
Ecoli	mpn/100mL	0		200	0
Oil and Grease					
Oil & Grease (total)	mg/L	2			< 2
Oil & Grease (animal/vegetable)	mg/L	4	150		< 4
Oil & Grease (mineral/synthetic)	mg/L	4	15		< 4
Other (ORP)					
pH	No unit	0.05	11.1	9	7.23
Mercury (total)	mg/L	0.00001	0.01		< 0.00001
PCBs					
Polychlorinated Biphenyls (PCBs) - Total	mg/L	0.0001	0.0001		< 0.0001



FINAL REPORT

CA40285-NOV25 R1

Client: DS Consultants

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Project Manager: Meysam Jafari

Samplers: Chaitanya

MATRIX: WATER

Sample Number 8

Sample Name BH 1

Sample Matrix Ground Water

Sample Date 2025-11-26 00:00

L1 = SANSEW / WATER / - - Niagara Sewer Use ByLaw - Sanitary Sewer Discharge - BL_2024_51

L2 = SANSEW / WATER / - - Niagara Sewer Use ByLaw - Storm Sewer Discharge - BL_2024_51

Parameter	Units	RL	L1	L2	Result
Phenols					
4AAP-Phenolics	mg/L	0.001	1		0.004
SVOCs					
Bis(2-ethylhexyl)phthalate	mg/L	0.002	0.28		0.002
VOCs					
Chloroform	mg/L	0.0005	0.04		< 0.0005
1,2-Dichlorobenzene	mg/L	0.0005	0.05		< 0.0005
1,4-Dichlorobenzene	mg/L	0.0005	0.08		< 0.0005
Methylene Chloride	mg/L	0.0005	0.21		< 0.0005
1,1,1,2-Tetrachloroethane	mg/L	0.0005	0.04		< 0.0005
Tetrachloroethylene (perchloroethylene)	mg/L	0.0005	0.05		< 0.0005
Trichloroethylene	mg/L	0.0005	0.05		< 0.0005
VOCs - BTEX					
Benzene	mg/L	0.0005	0.01		< 0.0005
Ethylbenzene	mg/L	0.0005	0.16		< 0.0005
Toluene	mg/L	0.0005	0.2		< 0.0005
Xylene (total)	mg/L	0.0005	1.4		< 0.0005
m-p-xylene	mg/L	0.0005			< 0.0005
o-xylene	mg/L	0.0005	0.52		< 0.0005

EXCEEDANCE SUMMARY

No exceedances are present above the regulatory limit(s) indicated

QC SUMMARY

Anions by discrete analyzer

Method: US EPA 375.4 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-026

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Sulphate	DIO8034-NOV25	mg/L	2	<2	5	20	106	80	120	105	75	125

Biochemical Oxygen Demand

Method: SM 5210 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-007

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Biochemical Oxygen Demand (BOD5)	BOD0043-NOV25	mg/L	2	< 2	15	30	102	70	130	NV	70	130

Chemical Oxygen Demand

Method: HACH 8000 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-009

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Chemical Oxygen Demand	EWL0598-NOV25	mg/L	8	<8	5	20	84	80	120	101	75	125



FINAL REPORT

CA40285-NOV25 R1

QC SUMMARY

Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-IENVISFA-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Cyanide (total)	SKA0016-DEC25	mg/L	0.01	<0.01	ND	10	100	90	110	99	75	125

Fluoride by Specific Ion Electrode

Method: SM 4500 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-014

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Fluoride	EWL0607-NOV25	mg/L	0.06	<0.06	9	10	100	90	110	NV	75	125

Mercury by CVAAS

Method: EPA 7471A/SM 3112B | Internal ref.: ME-CA-IENVISPE-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Mercury (total)	EHG0067-NOV25	mg/L	0.00001	< 0.00001	ND	20	108	80	120	106	70	130

QC SUMMARY

Metals in aqueous samples - ICP-MS

Method: SM 3030/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver (total)	EMS0362-NOV25	mg/L	0.00005	<0.00005	ND	20	101	90	110	NV	70	130
Arsenic (total)	EMS0362-NOV25	mg/L	0.0002	<0.0002	1	20	102	90	110	86	70	130
Cadmium (total)	EMS0362-NOV25	mg/L	0.000003	<0.000003	7	20	101	90	110	91	70	130
Cobalt (total)	EMS0362-NOV25	mg/L	0.000004	<0.000004	13	20	101	90	110	92	70	130
Chromium (total)	EMS0362-NOV25	mg/L	0.00008	<0.00008	2	20	103	90	110	96	70	130
Copper (total)	EMS0362-NOV25	mg/L	0.001	<0.001	ND	20	99	90	110	102	70	130
Molybdenum (total)	EMS0362-NOV25	mg/L	0.0004	<0.0004	3	20	103	90	110	100	70	130
Nickel (total)	EMS0362-NOV25	mg/L	0.0001	<0.0001	0	20	98	90	110	90	70	130
Lead (total)	EMS0362-NOV25	mg/L	0.00009	<0.00009	15	20	99	90	110	91	70	130
Phosphorus (total)	EMS0362-NOV25	mg/L	0.003	<0.003	2	20	102	90	110	NV	70	130
Antimony (total)	EMS0362-NOV25	mg/L	0.0009	<0.0005	ND	20	98	90	110	89	70	130
Selenium (total)	EMS0362-NOV25	mg/L	0.00004	<0.00004	8	20	100	90	110	95	70	130
Tin (total)	EMS0362-NOV25	mg/L	0.00006	<0.00006	ND	20	103	90	110	NV	70	130
Zinc (total)	EMS0362-NOV25	mg/L	0.002	<0.002	4	20	102	90	110	127	70	130



FINAL REPORT

CA40285-NOV25 R1

QC SUMMARY

Microbiology

Method: SM 9223B | Internal ref.: ME-CA-IENVIMIC-LAK-AN-021

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Ecoli	BAC9393-NOV25	mpn/100mL	-	ACCEPTED	ACCEPTED							

Oil & Grease

Method: MOE E3401 | Internal ref.: ME-CA-IENVIGC-LAK-AN-019

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Oil & Grease (total)	GCM0464-NOV25	mg/L	2	<2	NSS	20	101	75	125			

QC SUMMARY

Oil & Grease-AV/MS

Method: MOE E3401/SM 5520F | Internal ref.: ME-CA-IENVIGC-LAK-AN-019

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Oil & Grease (animal/vegetable)	GCM0464-NOV25	mg/L	4	< 4	NSS	20	NA	70	130			
Oil & Grease (mineral/synthetic)	GCM0464-NOV25	mg/L	4	< 4	NSS	20	NA	70	130			

pH

Method: SM 4500 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
pH	EWL0613-NOV25	No unit	0.05	NA	0		100			NA		

Phenols by SFA

Method: SM 5530B-D | Internal ref.: ME-CA-IENVISFA-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
4AAP-Phenolics	SKA0255-NOV25	mg/L	0.001	<0.001	ND	10	111	80	120	97	75 125	

QC SUMMARY

Polychlorinated Biphenyls

Method: MOE E3400/EPA 8082A | Internal ref.: ME-CA-IENVIGC-LAK-AN-001

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Polychlorinated Biphenyls (PCBs) - Total	GCM0006-DEC25	mg/L	0.0001	<0.0001	NSS	30	105	60	140	NSS	60	140

Semi-Volatile Organics

Method: EPA 3510C/8270D | Internal ref.: ME-CA-IENVIGC-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Bis(2-ethylhexyl)phthalate	GCM0461-NOV25	mg/L	0.002	< 0.002	NSS	30	113	50	140	NSS	50	140

Sulphide by SFA

Method: SM 4500 | Internal ref.: ME-CA-IENVISFA-LAK-AN-008

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Sulphide	SKA0266-NOV25	mg/L	0.02	<0.02	ND	20	100	80	120	NA	75	125



FINAL REPORT

CA40285-NOV25 R1

QC SUMMARY

Suspended Solids

Method: SM 2540D | Internal ref.: ME-CA-IENVIEWL-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Total Suspended Solids	EWL0609-NOV25	mg/L	2	< 2	9	10	95	90	110	NA		

Total Nitrogen

Method: SM 4500-N C/4500-NO3- F | Internal ref.: ME-CA-IENVISFA-LAK-AN-002

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Total Kjeldahl Nitrogen	SKA0008-DEC25	as N mg/L	0.5	<0.5	ND	10	98	90	110	96	75	125

QC SUMMARY

Volatile Organics

Method: EPA 5030B/8260C | Internal ref.: ME-CA-ENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1,1,2,2-Tetrachloroethane	GCM0446-NOV25	mg/L	0.0005	<0.0005	ND	30	91	60	130	97	50	140
1,2-Dichlorobenzene	GCM0446-NOV25	mg/L	0.0005	<0.0005	ND	30	101	60	130	99	50	140
1,4-Dichlorobenzene	GCM0446-NOV25	mg/L	0.0005	<0.0005	ND	30	103	60	130	97	50	140
Benzene	GCM0446-NOV25	mg/L	0.0005	<0.0005	ND	30	104	60	130	100	50	140
Chloroform	GCM0446-NOV25	mg/L	0.0005	<0.0005	ND	30	101	60	130	97	50	140
Ethylbenzene	GCM0446-NOV25	mg/L	0.0005	<0.0005	ND	30	106	60	130	100	50	140
m-p-xylene	GCM0446-NOV25	mg/L	0.0005	<0.0005	ND	30	106	60	130	101	50	140
Methylene Chloride	GCM0446-NOV25	mg/L	0.0005	<0.0005	ND	30	88	60	130	84	50	140
o-xylene	GCM0446-NOV25	mg/L	0.0005	<0.0005	ND	30	105	60	130	102	50	140
Tetrachloroethylene (perchloroethylene)	GCM0446-NOV25	mg/L	0.0005	<0.0005	ND	30	104	60	130	101	50	140
Toluene	GCM0446-NOV25	mg/L	0.0005	<0.0005	ND	30	104	60	130	101	50	140
Trichloroethylene	GCM0446-NOV25	mg/L	0.0005	<0.0005	ND	30	105	60	130	100	50	140

QC SUMMARY

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate laboratory accuracy with sample matrix effects.

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

Multielement Scan Qualifier: as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

Duplicate Qualifier: for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

Matrix Spike Qualifier: for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

LEGEND

FOOTNOTES

NSS Insufficient sample for analysis.
RL Reporting Limit.
 ↑ Reporting limit raised.
 ↓ Reporting limit lowered.
NA The sample was not analysed for this analyte
ND Non Detect

Results relate only to the sample tested.

Data reported represent the sample as submitted to SGS.

Reproduction of this analytical report in full or in part is prohibited.

Please refer to SGS General Conditions of Services located at http://www.sgs.com/terms_and_conditions.htm (Printed copies are available upon request.)

Test method information available upon request.

"Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

SGS Canada Inc. statement of conformity decision rule does not consider uncertainty when analytical results are compared to a specified standard or regulation.

-- End of Analytical Report --



Request for Laboratory Services and CHAIN OF CUSTODY

Received By: Ami Cookman
 Received Date: 11/26/25 (mm/dd/yy)
 Received Time: 11:30 AM (hr : min)

Received By (signature): [Signature]
 Custody Seal Present: Yes No
 Custody Seal In tact: Yes No

Cooling Agent Present: Yes No
 Temperature Upon Receipt (°C): 9.5 Type: ice

LAB LIMS # CA-40285-NOV25

REPORT INFORMATION

Company: AS Consultants Ltd.
 Contact: Megson Johnson
 Address: 621 Hwy 7, Unit 16, Vaughan, ON
 Phone: 416-831-5596
 Fax: _____
 Email: MJohnson@asconsultants.com

INVOICE INFORMATION

Company: (Same as Report Information)
 Contact: Accounting
 Address: _____
 Phone: _____

REGULATIONS

O.Reg 153/04 O.Reg 406/19
 Table 1 Res/Park Soil Texture:
 Table 2 Ind/Com Coarse
 Table 3 Agr/Other Medium/Fine
 Table Appx.
 Soil Volume <350m3 >350m3

Sewer By-Law:

Sanitary
 Storm
 Municipal
 Niagara

RECORD OF SITE CONDITION (RSC)

YES NO

ANALYSIS REQUESTED

Quotation #: _____
 Project #: 25-403-100
 Client Regular TAT
 Regular TAT (5-7days)
 RUSH TAT (Additional Charges May Apply): 1 Day 2 Days 3 Days 4 Days
 PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION
 NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

TURNAROUND TIME (TAT) REQUIRED

P.O. #: _____
 Site Location/ID: 13 Mountain Rd.

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX	ANALYSIS REQUESTED															
					M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)	SPLP	TCLP							
1 BH-1	11/26/25	PM	17	Soil	Field Filtered (Y/N)	Metals & Inorganics <small>incl CrVI, CN, Hg, pH, (B)(HWS), EC, SAR, SO₄ (Cl, Na-water)</small>	Full Metals Suite <small>ICP metals plus B(HWS-soil only) Hg, CrVI</small>	ICP Metals only <small>Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, Ag, Ti, U, V, Zn</small>	PAHs only	SVOCs <small>all incl PAHs, ABNs, CPs</small>	PCBs <small>Total <input type="checkbox"/> Aroclor <input type="checkbox"/></small>	F1-F4 + BTEX	F1-F4 only <small>no BTEX</small>	VOCs <small>all incl BTEX</small>	BTEX only	Pesticides <small>Organochlorine or specify other</small>	Sewer Use: <small>Specify pkg:</small>	Water Characterization Pkg <small>General <input type="checkbox"/> Extended <input type="checkbox"/></small>	Specify tests	Specify tests

COMMENTS:

untested sample

Observations/Comments/Special Instructions

Sampled By (NAME): Chaitanya Signature: [Signature] Date: 11/26/25 (mm/dd/yy)

Relinquished by (NAME): Chaitanya Signature: [Signature] Date: 11/26/25 (mm/dd/yy)

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Appendix D: MECP Water Wells Records

Hydrogeological Investigation- 13 Mountain Street and 19, 21 & 23 Elm Street, Grimsby, Ontario

TOWNSHIP C	UTM	E	N	DATE CNTR	CASING	WATER	PUMP TEST	WELL USE	SCREEN	WELL	1	FORMATION
GRIMSBY TOWN	17	616637	4783573	2009-09 7238				TH		7130108	(M04663) A086152	BRWN SAND GRVL 0002 BRWN SILT SAND 0012 GREY CLAY SILT 0015
GRIMSBY TOWN 134	17	616532	4783560	2005-03 7295	1.97	FR 0013		NU	0011 11	3804231	(Z23648) A023402	RED SAND SILT SLTY 0010 BRWN SAND SILT 0011 GREY CLAY SILT SLTY 0022
GRIMSBY TOWN (NORTH	17	616620	4783515	2015-01 7241	2			MT	0005 10	7237521	(Z167446) A161934	BRWN SAND SILT SOFT 0010 BRWN CLAY SAND SOFT 0015
GRIMSBY TOWN (NORTH	17	616567	4783550	2013-11 7464	1.97			NU	0005 10	7215870	(Z167990) A154586	GREY 0001 RED SAND SILT 0009 RED SAND 0014 GREY CLAY SILT 0015
GRIMSBY TOWN (NORTH	17	616885	4783431	2014-02 7241	2			MT	0005 10	7217433	(Z184558) A159281	BLCK FILL LOOS 0001 RED CLAY SILT DNSE 0015
GRIMSBY TOWN (NORTH	17	616880	4783432	2014-02 7241	2			MT	0005 10	7217434	(Z184557) A157884	BLCK FILL LOOS 0002 RED CLAY SILT DNSE 0015
GRIMSBY TOWN (NORTH	17	616885	4783427	2014-02 7241	2			MT	0005 10	7217435	(Z184555) A159282	BLCK FILL LOOS 0002 RED CLAY SILT DNSE 0015
GRIMSBY TOWN (NORTH	17	616884	4783427	2013-12 7464						7225161	(C23341) A154595 P	
GRIMSBY TOWN (NORTH	17	616643	4783504	2014-08 7241	1.75	9		MT		7227835	(Z194975) A	
GRIMSBY TOWN (NORTH	17	616646	4783515	2014-08 7241	1.75	10		MT		7227836	(Z194976) A	
GRIMSBY TOWN (NORTH	17	616769	4783509	2013-09 7320	2	UT 0004		TH	0005 10	7209395	(Z176208) A152530	BRWN SAND GRVL FILL 0004 BRWN SAND GRVL WBRG 0010 GREY SILT GRVL WBRG 0013 GREY SILT GRVL 0015
GRIMSBY TOWN (NORTH	17	616619	4783517	2015-01 7241	2			MT	0005 10	7237520	(Z167444) A161936	BRWN SAND SILT SOFT 0010 BRWN CLAY SAND SOFT 0015
GRIMSBY TOWN (NORTH	17	616653	4783503	2012-10 6607	2.13			TH	0005 5	7191890	(Z147906) A134066	GRVL 0003 SILT SAND 0010
GRIMSBY TOWN (NORTH	17	616614	4783508	2015-01 7241	2.04			MT	0005 10	7237522	(Z167449) A161931	BRWN SAND GRVL SOFT 0011 GREY SILT CLAY SOFT 0015
GRIMSBY TOWN (NORTH	17	616618	4783511	2015-01 7241	2			MT	0005 10	7237523	(Z167448) A161932	BRWN SAND SILT SOFT 0010 BRWN CLAY SAND SOFT 0015
GRIMSBY TOWN (NORTH	17	616600	4783528	2015-01 7241	2.04			MT	0005 10	7237525	(Z167447) A161933	BRWN SAND GRVL SOFT 0010 GREY SILT CLAY SOFT 0015
GRIMSBY TOWN (NORTH	17	616678	4783535	2014-12 7324	1.97	FR 0008		MO	0004 5	7236717	(Z178451) A154693	BRWN SAND SILT FILL 0009

GRIMSBY TOWN (NORTH	17	617016	4783676	2011-07 7295	1.79			MO	0010 10	7173959	(Z128958) A113814	BRWN GRVL SAND PCKD 0002 BRWN SAND STNS DNSE 0008 RED SHLE HARD 0020
GRIMSBY TOWN (NORTH	17	617137	4783176	2005-10 6607	2				0005 10	3804305	(Z38234) A034535	BRWN SAND GRVL FILL 0001 BRWN FSND 0005 BRWN CLAY SILT 0015
GRIMSBY TOWN (NORTH	17	617002	4783680	2009-09 7295	1.79			MO	0020 10	7134023	(Z86942) A090344	---- 0001 FILL 0008 RED SHLE 0030
GRIMSBY TOWN (NORTH	17	616667	4783510	2010-07 6607	2	FR 0009		MO	0004 10	7149431	(M07268) A100971	BRWN SAND GRVL FILL 0006 GREY CLAY SILT DNSE 0014
GRIMSBY TOWN (NORTH	17	616673	4783532	2010-07 6607	2			MO		7149433	(M07270) A	
GRIMSBY TOWN (NORTH	17	616736	4783459	2013-09 7320	2	UT 0013		TH	0010 10	7209393	(Z176220) A152532	BRWN SAND GRVL FILL 0015 BRWN SAND GRVL WBRG 0016 GREY SILT WBRG 0200
GRIMSBY TOWN (NORTH	17	616742	4783487	2013-09 7320	2	UT		TH	0005 10	7209394	(Z176207) A152531	BRWN SAND GRVL FILL 0009 BRWN SAND GRVL FILL 0011 GREY SILT GRVL WBRG 0013 GREY SILT GRVL 0015
GRIMSBY TOWN (NORTH	17	616663	4783532	2012-10 6607	2.13			MO	0005 10	7191884	(Z147908) A134156	GREY GRVL 0003 BRWN SILT SAND 0015
GRIMSBY TOWN (NORTH	17	616660	4783520	2012-10 6607	2.13			MO	0005 10	7191885	(Z147909) A134052	GREY GRVL 0003 BRWN SILT SAND 0015
GRIMSBY TOWN (NORTH	17	616658	4783515	2012-10 6607	2.13			MO	0005 10	7191886	(Z147910) A134123	GREY GRVL 0003 BRWN SILT SAND 0015
GRIMSBY TOWN (NORTH	17	616659	4783508	2012-10 6607	2.13			MO	0005 10	7191887	(Z147911) A134050	GREY GRVL 0003 BRWN SILT SAND 0015
GRIMSBY TOWN (NORTH	17	617290	4783435	2015-05 7464						7241737	(C29668) A184239 P	
GRIMSBY TOWN (NORTH	17	616657	4783540	2012-10 6607	2.13			MO	0005 5	7191891	(Z147907) A134158	GREY GRVL 0003 BRWN SILT SAND 0010
GRIMSBY TOWN (NORTH	17	616640	4783546	2015-10 7215				MO		7254466	(Z203557) A197147 A	
GRIMSBY TOWN (NORTH	17	616685	4783471	2022-08 7324						7435261	(C57909) A353131 P	
GRIMSBY TOWN (NORTH	17	616708	4783476	2020-01 7241	2		///:	TH MO	0015 10	7354155	(Z329076) A283802	BRWN SAND 0008 BRWN SILT 0016 GREY SILT SAND 0025
GRIMSBY TOWN (NORTH	17	616985	4783663	2020-10 7687	2			MO	0017 12	7373653	(Z340232) A299797	BRWN FILL 0006 RED SHLE ROCK 0017
GRIMSBY TOWN (NORTH	17	616767	4783525	2020-01 7241	2		///:	TH MO	0005 10	7354153	(Z329078) A283804	BRWN SAND 0002 BRWN SAND SILT 0010 BRWN SILT SAND 0015

GRIMSBY TOWN (NORTH	17	616730	4783464	2020-01 7241	2		///:	TH MO	0007 10	7354154	(Z329077) A283803	BRWN SAND 0004 BRWN SILT 0012 GREY SILT 0017
GRIMSBY TOWN (NORTH	17	616797	4783257	2021-03 6988						7389870	(C49293) A314260 P	
GRIMSBY TOWN (NORTH	17	616677	4783527	2014-12 7324	1.97	FR 0008		MO	0004 5	7267158	(Z178449) A154693	BRWN SAND SILT 0009
GRIMSBY TOWN (NORTH	17	616772	4783354	2016-01 7241	2			MT	0010 10	7257968	(Z209988) A177072	BLCK ---- HARD 0000 BRWN TILL CLAY SOFT 0010 BRWN CLAY TILL SOFT 0020
GRIMSBY TOWN (NORTH	17	616876	4783442	2017-11 7215	2	13		TH	0010 10	7301154	(Z274508) A238148	BRWN FILL LOOS 0010 BRWN CLAY SILT 0020
GRIMSBY TOWN (NORTH	17	616792	4783374	2016-01 7241	2			MT	0010 10	7257966	(Z209990) A177074	BLCK ---- HARD 0000 BRWN TILL CLAY SOFT 0010 BRWN CLAY TILL SOFT 0020
GRIMSBY TOWN (NORTH	17	616631	4783522	2015-08 7215	2	UT 0009		TH	0015 10	7256257	(Z203519) A197147	FILL 0013 RED CLAY WBRG 0015
GRIMSBY TOWN (NORTH 01 434	17	617120	4783570	2004-08 6607	1.97	FR 0013		NU	0007 10	3804313	(Z17064) A015794	CLAY 0003 SAND 0013 CLAY 0017
GRIMSBY TOWN (NORTH 04 434	17	616990	4783670	2005-12 6607						3804310	(Z24171) A015794 A	
GRIMSBY TOWN (NORTH CON 01 009	17	617052	4783249	2017-05 7472	2			MO	0015 10	7292483	(Z259581) A227342	RED CLAY SILT PCKD 0025
GRIMSBY TOWN (NORTH CON 01 009	17	617132	4783083	2010-07 6946	2.04	0		MO	0010 7	7149166	(Z109139) A091093	BRWN SAND GRVL LOOS 0001 BRWN SAND LOOS 0005 GREY SILT CLAY TILL 0008 BRWN SILT CLAY TILL 0020
GRIMSBY TOWN (NORTH CON 01 010	17	616782	4783364	2016-01 7241	2			MT	0015 10	7257967	(Z209989) A177073	BLCK ---- HARD 0000 BRWN TILL CLAY SOFT 0010 BRWN CLAY TILL SOFT 0025
GRIMSBY TOWN (NORTH CON 01 010	17	616613	4783542	2004-09 7215	1				0007 10	3804207	(Z15676) A015587	
GRIMSBY TOWN (NORTH CON 01 010	17	616752	4783506	2020-01 7282	2	5	///:	MO	0006 5	7360356	(RJ6ARJ6L) A269940	FILL GRVL 0001 BRWN SAND 0011
GRIMSBY TOWN (NORTH CON 01 010	17	616844	4783430	2014-10 7295	1.79			MO	0005 10	7234478	(Z192920) A156066	BRWN FILL 0005 BRWN CLAY 0015
GRIMSBY TOWN (NORTH CON 01 010	17	616710	4783505	2020-01 7282	2	5	///:	MO	0004 10	7360357	(2P4BW97H) A269940	FILL GRVL 0001 BRWN SAND 0014

GRIMSBY TOWN (NORTH CON 01 010	17	616638	4783541	2015-01 7241	2.04			MT	0005 10	7237524	(Z167445) A161935	BRWN SAND GRVL SOFT 0011 GREY SILT CLAY SOFT 0015
GRIMSBY TOWN (NORTH CON 01 010	17	616636	4783545	2015-08 7215	0			TH	0015 10	7256256	(Z203518) A189448	FILL 0002 RED CLAY WBRG 0014 GREY CLAY 0015