

Hydrogeological Investigation



51-55 Dundas Street West and 60-78 Agnes Street Mississauga, Ontario

G2S24602C

55 Dundas Developments Ltd. 1629 Stillriver Crescent Mississauga, Ontario L5M 3X2

Executive Summary

G2S Consulting Inc. (G2S) was retained by 55 Dundas Developments Ltd. (the Client) to complete a Hydrogeological Investigation for the properties located at 51, 53, 55 and 57 Dundas Street West and 60, 66, 70 and 78 Agnes Street in Mississauga, Ontario (hereinafter referred to as the 'Site'). Authorization to proceed with the Phase One ESA was provided by Akeem Ameen of 55 Dundas Developments Ltd.

The Site is currently developed with commercial, residential, and institutional buildings, covering an approximate plan area of 0.44 hectares (1.1 acres) with frontage of approximately 100 m on Cook Street, approximately 65 m on Agnes Street, and approximately 21 m on Dundas Street West. The Site location is shown on Drawing 1 in Appendix A.

The proposed redevelopment of the Site includes the demolition of the existing buildings and construction of a mixed use high rise building which will comprise of a 34-storey tower extending into a 7-storey podium, and two levels of underground parking

Based on drawings provided by the Client, the proposed underground parking levels will have an approximate footprint of 3,926.21 m², and the lowest underside of footing (USF) is expected to be approximately 7.2 m below ground surface (bgs), elevation 107.20 m above sea level (ASL).

The purpose of this assignment was to prepare a hydrogeological investigation report for the proposed redevelopment of the Site and assess the stratigraphic and hydrogeological conditions for the purpose of assessing short-term (temporary) dewatering requirements during Site development and long term building foundation drainage requirements after the Site has been developed. This report was prepared to present the study findings for supporting a registration on the Environmental Activity and Sector Registry (EASR) or an application for a Permit to Take Water (PTTW), as may be applicable.

To meet these objectives, the following tasks were undertaken:

- 1. Completion of a minimum of three groundwater level monitoring events over a three-month period (March to May 2025);
- 2. Sampling groundwater from one monitoring well for chemical testing and comparison to the City of Mississauga and Region of Peel Sewer Use By-Laws (filtered and unfiltered samples for metals and total suspended solids (TSS));
- 3. Completion of in-situ hydraulic conductivity testing in three monitoring wells;
- 4. Completion of a water well search for properties located within 500 m of the Site;
- 5. Completion of a hydrogeologic analysis, including review of grain size analyses data from the geotechnical investigation;
- 6. Estimation of construction dewatering flow rates (short-term) and estimate foundation drainage estimates (long-term) based on current proposed plans and new monitoring well data; and



7. Preparation of a hydrogeological investigation report to summarize the background review information, field work and laboratory results, subsurface conditions, construction dewatering needs, and assessment of the potential impacts of the dewatering, including conclusions and recommendations together with illustrative tables, figures, drawings and back-up data in appendices.

Based on the proposed development features and our findings of the Site setting, subsurface conditions, results of field work and laboratory analyses, the hydrogeological investigation salient points for the construction and long-term dewatering needs are summarized in the following paragraphs.

- 1. The depth of the proposed excavation at the Site (construction of two levels of underground parking) is approximately 7.2 m below ground surface (bgs) (elevation 107.20 m above sea level (ASL). The proposed development also includes an elevator put, which extends beyond the base of the main excavation to a depth of approximately 8.7 m bgs (105.7 m bgs).
- 2. The subsurface conditions generally consist of sand or silty sand fill materials to depths of up to 3.1 m bgs, over native sand deposits to depths between 2.6 and 3.8 m bgs. A shale/till complex was encountered in the boreholes between depths of 3.1 and 4.6 bgs, and shale bedrock was encountered at depths ranging from 2.3 to 3.8 m bgs.
- 3. Groundwater levels measured within the on-Site monitoring wells screened in shallow unconfined sediments (BH/MW102 and BH/MW104) ranged from 3.08 to 3.28 m bgs in BH/MW102 (111.52 to 111.72 m ASL) between March and May 2025; BH/MW104 (with a total depth of 3.02 m bgs/110.68 m ASL) was dry on all monitoring occasions.
- 4. Groundwater levels measured within the on-Site monitoring wells screened deeper within the underlying shale bedrock (BH/MW101 and BH/MW103) were lower than the groundwater levels in the upper sediments, and ranged from 5.15 to 6.50 m bgs (108.20 to 109.45 m ASL) between March and May 2025.
- 5. The water-bearing units that will be exposed in the excavations during construction consists of native sand and shale bedrock. The calculated hydraulic conductivity (K) value for the overburden (sand) is 4.4×10^{-5} m/s, and the calculated K value for the bedrock (shale) is 6.7×10^{-7} m/s.
- 6. The required groundwater lowering (drawdown) is recommended to be at least 1 m below the base of the excavation to maintain dry working conditions, which is assumed to be 1 m below the lowest footing elevation.
- 7. The estimated peak and average dewatering rates are summarized in the following table:

Parameter	Estimated Peak Groundwater Construction Flow Rate
Estimated groundwater infiltration into excavation from overburden zone	101,000 L/day
Estimated groundwater infiltration into excavation from bedrock zone	104,000 L/day



Parameter	Estimated Peak Groundwater Construction Flow Rate
Estimated groundwater infiltration into excavation for elevator pit	6,000
Rainwater allowance (10 mm rain event)	43,000 L/day
Estimated total	254,000 L/day
Estimated total with x1.5 Safety Factor on groundwater dewatering plus a 10 mm rain event	359,000 L/day

- 8. Construction dewatering will have a potential maximum dewatering requirement of up to 359,000 L/day; therefore, an EASR will be required for the proposed temporary construction dewatering.
- 9. The estimated foundation drainage rates are summarized in the following table:

Parameter	Estimated Foundation Drainage Flow Rate
Estimated groundwater infiltration into foundation drains from overburden zone	33,000 L/day
Estimated groundwater infiltration into foundation drains from bedrock zone	100,000 L/day
Estimated groundwater infiltration into foundation drains for elevator pit	7,000 L/day
Estimated total	140,000 L/day
Estimated total with x1.5 Safety Factor	210,200 L/day

- 10. Long term building foundation drainage will have a potential maximum dewatering requirement of up to 210,200 L/day; therefore, a PTTW will be required if foundation drainage is being considered.
- 11. Based on the groundwater chemical testing results, it was found that the groundwater quality in the unfiltered groundwater sample did not comply with the City of Mississauga storm sewer discharge by-law criteria for total suspended solids (TSS) and total aluminium. Treatment and/or removal of TSS and total aluminium prior to discharge will be a key component of dewatering mitigation. The groundwater will be re-sampled for comparison to the City of Mississauga Storm Sewer discharge package and Region of Peel Storm and Sanitary Sewer discharge package to confirm the results of the April 2025 sampling event. Additional confirmatory sampling and analyses of the construction dewatering discharge are recommended to confirm compliance with the criteria of the receiving system to be used.
- 12. All monitoring wells and dewatering wells should be abandoned in accordance with the Ontario Regulation 903, as amended. The Site owner is considered to be the well owner of the monitoring wells installed at the Site ("well owner" Section 1.0, Regulation 903). When the monitoring wells are no longer required, it is the owner's responsibility to arrange for abandonment in accordance with Ontario Water Resources Act–R.R.O. 1990, Regulation 903 Amended to O. Reg. 128/03.



It is important to note that the design and installation of a construction dewatering system is the responsibility of the construction contractor. The contractor should verify the information presented in this report. This may be done by examining the hydrogeologic conditions in a test pit and a full-range pumping test by the dewatering subcontractor.

Construction dewatering discharges should follow best management practices, including sediment and erosion control measures, removal of suspended solids by decanting pond/tank or similar treatment system, as well as a water quality and quantity control monitoring programs.

A construction dewatering plan should be prepared by the contractor prior to commencement of construction and the construction dewatering activities. The extent and details of the dewatering scheme are left solely to the contractor's discretion to achieve the performance objectives for stable slopes and dry working conditions and will be based on his/her own interpretation and analysis of Site conditions, equipment, experience and plant efficiency.



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1. Introduction

G2S Consulting Inc. (G2S) was retained by 55 Dundas Developments Ltd. (the Client) to complete a Hydrogeological Investigation for the properties located at 51, 53, 55 and 57 Dundas Street West and 60, 66, 70 and 78 Agnes Street in Mississauga, Ontario (hereinafter referred to as the 'Site'). Authorization to proceed with the Phase One ESA was provided by Akeem Ameen of 55 Dundas Developments Ltd.

1.1 Site Description

The Site is currently developed with commercial, residential and institutional buildings, and was first developed with a residential building prior to 1909. The following table includes the Site details, and the Site location is illustrated on Drawing 1 in Appendix A.

Table 1: General Site Details

Municipal Address	51-57 Dundas Street West & 60-78 Agnes Street, Mississauga, Ontario		
UTM Coordinates	17T 611531.09 E, 4826055.27 N		
General Site Location	North side of Dundas Street West, west side of Cook Street, and south side of Agnes Street.		
Approximate Plan Area	Approximate plan area of 0.44 hectares (1.1 acres) with frontage of approximately 100 m on Cook Street, approximately 65 m on Agnes Street, and approximately 21 m on Dundas Street West.		
Property Identification Number (PIN)	51 - 57 Dundas Street West: 13151-0024 (LT) 60 Agnes Street: 13151-0261 (LT) 66 Agnes Street: 13151-0257 (LT) 70 Agnes Street: 13151-0256 (LT) 78 Agnes Street: 13151-0067 (LT)		
Legal Description	51 - 57 Dundas Street West: LT 10, WHS, "PL TOR-12", TORONTO; PT LT 29, WHS, "PL TOR-12", TORONTO AS IN RO586950; MISSISSAUGA. "AMENDED 1999/05/26, LAND REGISTRAR #17". 60 Agnes Street: PART OF LOT 29, PLAN TOR-12, WEST OF HURONTARIO STREET, DESIGNATED AS PART 1 ON REFERENCE PLAN 43R36324 IN THE CITY OF MISSISSAUGA, REGIONAL MUNICIPALITY OF PEEL. 66 Agnes Street: PT LT 29 WHS PL TOR-12 TORONTO DES PTS 3, 4 PL 43R-15014; MISSISSAUGA. 70 Agnes Street: PT LT 29 WHS PL TOR-12 TORONTO DES PTS 1, 2 PL 43R-15014; MISSISSAUGA. 78 Agnes Street: PT LT 29, WHS, "PL TOR-12", TORONTO, AS IN TT30150; MISSISSAUGA. *S/T AN INTEREST IN RO560617* "AMENDED 1999/05/27, LAND REGISTRAR #17". *ADDED 2001/05/17 BY C. COOPER*		
Current Wastewater and Potable Water Servicing	Site is serviced by the City of Mississauga		
Proposed Development Plan	Mixed use high rise building which will comprise of a 34-storey tower extending into a 7-storey podium, and two levels of underground parking.		



Current Site Occupant	51 - 57 Dundas Street West: A1 Copy and Print, Mustay's Braiding Place, Promaster Services 60 Agnes Street: Airwings Travel and Tours, residential tenants 66 Agnes Street: residential tenants 70 Agnes Street: residential tenants 78 Agnes Street: Learning Jungle Cooksville
Surrounding Land Uses	North – Agnes Street followed by vacant undeveloped land. South – 56-58 Dundas Street West: Cash 4 Gold Bountiful Basket Arrangements. 62-68 Dundas Street West: Golden Leaf Cannabis, Manila Foods and Crafts, Wafa Dental. East – Cook Street followed by a parking lot and 47 Dundas Street West (Dentist office). West – 59-77 Dundas Street West (also located south of 66-78 Dundas Street West portion of Site): Braost Inn, Shawarma W, Komal Jain Dentistry, AKFA Computer, Hot Plate, Roay Jewellers, Dundas Jewelry and Pawn, Meena Beauty Parlour, African Caribbean Groceries, Las Delicias. 84 Agnes Street – Residential Followed by a multistorey residential development under construction.

1.2 Proposed Site Development

The proposed redevelopment of the Site includes the demolition of the existing buildings and construction of a mixed use high rise building which will comprise of a 34-storey tower extending into a 7-storey podium, and two levels of underground parking

Based on drawings provided by the Client and prepared by RA Lumbao Architects Inc., the proposed underground parking levels will have an approximate footprint of 3,926.21 m², and the lowest underside of footing (USF) is expected to be approximately 7.2 m below ground surface (bgs), elevation 107.20 m above sea level (ASL).

The architectural drawings provided by the Client are included in Appendix A.



2. Terms of Reference

The purpose of this assignment was to prepare a hydrogeological investigation report for the proposed redevelopment of the Site and assess the stratigraphic and hydrogeological conditions for the purpose of assessing short-term (temporary) dewatering requirements during Site development and long-term building foundation drainage requirements after the Site has been developed. This report was prepared to present the study findings for supporting an application for a Permit to Take Water (PTTW) or Environmental Activity and Sector Registry (EASR).



3. Scope of Work

The scope of work for the hydrogeological assessment will include the following tasks:

- Completion of an elevation survey for the boreholes and monitoring wells installed as part
 of the concurrent Phase Two Environmental Site Assessment (ESA) and Geotechnical
 Investigation;
- 2. Sampling groundwater from one monitoring well for chemical testing and comparison to the City of Mississauga and Region of Peel Sewer Use By-Laws (filtered and unfiltered samples for metals and total suspended solids (TSS));
- 3. Completion of in-situ hydraulic conductivity testing in three monitoring wells;
- 4. Completion of a water well search for properties located within 500 m of the Site;
- 5. Completion of a hydrogeologic analysis, including review of grain size analyses data from the geotechnical investigation;
- 6. Estimation of construction dewatering flow rates (short-term) and estimate foundation drainage estimates (long-term) based on current proposed plans and new monitoring well data; and
- 7. Preparation of a hydrogeological investigation report to summarize the background review information, field work and laboratory results, subsurface conditions, construction dewatering needs, and assessment of the potential impacts of the dewatering, including conclusions and recommendations together with illustrative tables, figures, drawings and back-up data in appendices.



4. Previous Reports

G2S previously completed the following reports for the Site.

- 1. Phase One Environmental Site Assessment, 51-55 Dundas Street West and 60-78 Agnes Street, Mississauga, Ontario. Ref. G2S24602A, dated April 29, 2025.
- 2. Geotechnical Investigation Proposed Residential Development, 51-55 Dundas Street West and 60-78 Agnes Street, Mississauga, Ontario. Ref. G2S24602B, dated May 16, 2025.
- 3. Phase Two Environmental Site Assessment, 51-55 Dundas Street West and 60-78 Agnes Street, Mississauga, Ontario. Ref. G2S24602D, dated May 1, 2025.

As part of the above assignments, six boreholes were advanced on the Site, four of which were completed as groundwater monitoring wells. As well, analysis of grain size distribution testing for five samples was undertaken. G2S utilized this borehole/monitoring well information, where applicable, in conducting this Hydrogeological Investigation.



5. Site Setting and Water Well Survey

5.1 Site Topography and Drainage

There are no drainage features (i.e., open ditches or swales) present on-Site. Surface water is expected to runoff the paved surfaces of the Site and to flow towards catch basins along Cook Street or Dundas Street West.

The nearest water bodies to the Site are Cooksville Creek, located approximately 430 m east, and Mary Fix Creek, located approximately 590 m west, both flowing south towards Lake Ontario located approximately 4.1 km south.

Geodetic elevations at the Site range from about 114.9 m in the northwest portion near Agnes Street to 113.7 m in the southeast portion of the Site near Dundas Street West. The hydrogeology of the Site is primarily controlled by topography, and the regional direction of shallow groundwater flow in the vicinity of the Site is likely south-southeast towards Lake Ontario. Local variations in groundwater flow patterns, however, can be expected due to buried utility infrastructures and buildings.

5.2 Site Physiographic, Geologic and Hydrogeologic Setting

G2S reviewed the Physiography of Southern Ontario map which indicated the Site and Study Area is dominantly coarse textured soils consisting of sand plains. Additionally, the Palaeozoic Geology of Southern Ontario, Map 2254, Ontario Division of Mines, was reviewed which indicated the Site is underlain by grey shale with limestone interbeds of the Georgian Bay (Carlsbad and Russell) Formation.

Based on subsurface investigations completed at the Site, soil stratigraphy encountered includes sand or silty sand fill materials to depths of up to 3.1 m below ground surface (bgs), over native sand deposits to depths between 2.6 and 3.8 m bgs. A shale/till complex was encountered in the boreholes between depths of 3.1 and 4.6 bgs, and shale bedrock was encountered at depths ranging from 2.3 to 3.8 m bgs.

5.3 MECP Water Well Records and Site Observations

The Site and properties within an approximate 500 m radius of the Site were searched within the current MECP Water Well Information System (WWIS) database. A total of 178 water well records were located within the search radius. The locations of the water well records are shown on Drawing 2 in Appendix A and a copy of the well record summary is included in Appendix B.

Of the 178 wells records listed:

- 1 was listed as domestic (DO)
- 40 did not have any details of well use
- 134 were for monitoring (MO), test hole (TH), or monitoring test hole (MT) use
- 3 were listed as other (OT)



Upon further review, the domestic well record located was from 1955, and is located at a property within a residential subdivision. The City of Mississauga supplies potable water from Lake Ontario, and the Site is located within a developed urban area; therefore, it is unlikely any of the wells within the search radius are for drinking water purposes.

A reconnaissance of the Site was conducted during the field work to identify existing structures, land uses, and potential sources of groundwater contamination, if any, which may be located within the potential dewatering zone of influence.

The major features within the study area included:

- a) Major arterial roads, including Dundas Street West, Hurontario Street and Confederation Parkway
- b) Properties primarily used for residential and commercial purposes.
- c) A secondary school building to the north of the Site

Potentially Contaminating Activities (PCAs) and Areas of Potential Environmental Concern (APECs) identified during a Phase One ESA completed by G2S in April 2025 were investigated as part of a Phase Two ESA completed by G2S in May 2025. Groundwater sampling was not conducted as part of the Phase Two ESA since there were no potential contaminants of concern (COCs) identified for groundwater.



6. Field Work and Laboratory Analyses

6.1 Background

As part of the Phase Two ESA and Geotechnical Investigation completed for the Site by G2S, six boreholes were advanced on-Site, four of which were completed as groundwater monitoring wells. These four wells were used during this Hydrogeological Investigation.

Field work for this assignment included the collection of groundwater levels, groundwater sampling, and borehole permeability testing. The borehole and monitoring well locations are shown on Drawing 3 included in Appendix A.

Elevations at the ground surface of the borehole locations were interpolated from the provided topographic survey plan entitled "Existing Survey Plan Site Images (Reference Only)", Project "24018", Drawing SP100, dated March 5, 2025, prepared by RA Lumbao Architects Inc.

The details of the monitoring well construction from this assignment are shown on the Borehole Logs in Appendix C. Groundwater from development and purging of the wells was placed into 205 L steel drums and stored on-Site.

6.2 Groundwater Monitoring, Sampling and Borehole Permeability Testing

6.2.1 Groundwater Monitoring

Water levels were measured in the four newly installed monitoring wells between March and May 2025 using a Solinst[™] water level meter, which was cleaned between uses at each monitoring well location.

6.2.2 Groundwater Sampling

Development/purging of one monitoring well was completed on April 16, 2025, and involved removal of a minimum of three to five well volumes or until the wells were dry in accordance with fixed volume and well evacuation purging procedures as outlined in ASTM D6452-99 (2005). In an effort to minimize potential cross-contamination dedicated sampling equipment was used on the groundwater well. The equipment was used with new nitrile gloves for each well.

Groundwater samples were collected from the monitoring well identified as BH/MW102 on April 16 and April 21, 2025. The groundwater samples were field logged and placed in clean, laboratory provided bottles, stored in an insulated cooler on ice and delivered directly to AGAT Laboratories Ltd. (AGAT) for analysis of the City of Mississauga storm sewer discharge package and the Peel Region sanitary and storm sewer discharge package. Particular attention was applied to visual and olfactory evidence of potential contamination such as odours and sheens during the course of the field work.

6.2.3 Borehole Permeability Testing

In situ borehole permeability testing was determined through rising head testing, in which a bailer was used to cause an instantaneous change in water level with the subsequent recovery of the water level monitored. The rising head testing was performed in monitoring wells MW101, MW102 and MW103 on April 16, 2025. The rising head testing was completed according to ASTM procedure D4044 "Standard Test Method for (Field Procedure) for Instantaneous Change in Head



(Slug) Tests for Determining Hydraulic Properties of Aquifers," and the analysis of the data collected was completed using the Bouwer and Rice (1976) Method. Groundwater levels were monitored before and during the tests using both manual readings with a SolinstTM water level meter and SolinstTM Leveloggers.

6.3 Laboratory Testing

6.3.1 Water Sample Chemical Analyses

To address the potential in-construction groundwater dewatering discharge quality issues, one groundwater sample (collected from BH/MW102) was submitted to AGAT for chemical analysis. AGAT is accredited by the Canadian Association for Laboratory Accreditation (CALA).

The groundwater sample collected from BH/MW102 (identified as sample MW102-UF) was analyzed for the parameters contained within the City of Mississauga Storm Sewer Discharge By-Law and the Regional Municipality of Peel Sanitary Discharge By-law, which includes selected organic, inorganic and microbiological parameters. A filtered sample was also collected from BH/MW102 (identified as sample MW102-F) and analyzed for metals and total suspended solids (TSS).

The following is a summary of the groundwater sample submitted for analysis.

Sample Location	Sample ID	Screened Interval Elevation (m) and Depth (m bgs)	Description	Type of Chemical Analysis
BH/MW102	MW102-UF	112.91 to 111.41 (1.89 to 3.39)	Clear, no odour or sheen	The Corporation of the City of Mississauga Storm Sewer Use (By-Law 0046-2022) discharge parameters. Peel Region Sanitary Sewer Use (By-Law 53-2010) discharge parameters.
	MW102-F			Metals, TSS

Table 2: Samples Submitted for Analytical Testing

6.3.2 Soil Particle Size Distribution Analyses

Particle size distribution analyses for five representative soil samples have been used in this report. The analyzed samples are as follows:

- BH101 S4 (sand, ~2.3 2.9 m bgs)
- BH101 S6 (shale/till complex, ~3.8 4.4 m bgs)
- BH103 S3 (sand, ~1.5 2.1 m bgs)
- BH105 S4 (sand, ~ 1.8 2.4 m bgs)
- BH106 S4A (sand, ~2.3 2.7 m bgs)



7. Findings

7.1 Summarized Subsurface Conditions

Reference is made to Drawing 3 in Appendix A and the Borehole Logs in Appendix C for details of the field work including sampling locations, visual soil classification, standard penetration test N values (where applicable), inferred stratigraphy, groundwater observations and monitoring well installation details.

The boundaries indicated on the borehole logs are intended to reflect transition zones for the purpose of environmental assessment and should not be interpreted as exact planes of geological change.

A description of the soil stratigraphy encountered on the Site, in order of depth, is summarized in the sections below.

7.1.1 Pavement Structure

A pavement structure of approximately 50 to 90 millimetres of asphaltic concrete overlying a granular base material was found in boreholes BH101, BH102, BH104, BH105, and BH106. The thickness of the granular base ranged between 70 and 250 millimetres.

7.1.2 Topsoil

Topsoil was encountered in borehole BH103, with a thickness of approximately 225 mm.

The depth of topsoil must be expected to vary across the Site from the depth encountered at the borehole location. In this report the term "topsoil" has been used from a geotechnical point of view and does not necessarily reflect the suitability of the material to support plant growth. If it is to be used for landscaping or agricultural purposes, its suitability should be confirmed by tests on representative samples for organic and nutrient content and therefore its ability to support plant growth.

7.1.3 Fill

Fill materials were encountered in all boreholes, extending to depths ranging from approximately 1.5 to 3.1 m bgs. The fill consisted predominantly of yellow brown to light brown to brown sand with varying silt content and traces of organics. In BH102 and BH104, construction debris including red bricks, concrete, and slag was observed.

7.1.4 Sand

Native sand deposits were encountered beneath the fill in all boreholes except for BH104, extending to depths of approximately 2.6 to 3.8 m bgs. The sand was generally light brown with trace to some silt content.

7.1.5 Shale/Till Complex

A shale/till complex was encountered below the sand deposit in BH101, BH103, and BH104, and extended to depths ranging between 3.1 and 4.6 m bgs. This material was described as grey in



colour, The till/shale complex consists of a mixture of clayey silt to silt to sandy silt till and highly/completely weathered shale.

There is a gradual transition from this till/shale complex into shale bedrock, and the shale bedrock surface may vary and potentially be found at more shallow depths. The till/shale complex may also contain limestone seams/layers. Hence, it is possible that the till/shale complex may be interpreted as shale bedrock.

7.1.6 Shale Bedrock

Shale bedrock was encountered at depths ranging from approximately 2.4 to 4.9 m bgs. These boreholes were extended into the bedrock using rock coring techniques, with stratigraphy detailed in separate rock core logs in Appendix C. In Boreholes BH102, BH105, and BH106, bedrock surface was inferred by sampler refusal at depths of 3.6, 2.7, and 3.1 m bgs, respectively.

Due to the method of drilling and sampling, the surface elevation of the bedrock can be different than indicated on the borehole logs. Based on our experience, the available published information, and as confirmed by coring, the upper portion of the bedrock is typically weathered and becomes more sound with depth.

7.2 Groundwater Conditions

G2S measured static groundwater levels in accessible monitoring wells across the Site on four occasions between March 26 and May 23, 2025. The well construction details and groundwater level monitoring data are summarized in the following table.

Well Groundwater Elevation (m ASL) Screened Ground Depth And Depth (m bgs) Interval Monitoring Surface from Elevation (m) Well I.D. Elevation Ground March 26. April 16. April 21. May 23. and Depth (m (mASL) Surface 2025 2025 2025 2025 bgs) (m) 107.62 - 104.62 108.22 108.30 108.27 108.20 MW101 114.70 10.08 (7.08 - 10.08)(6.48)(6.40)(6.43)(6.50)112.91 - 111.41 111.52 111.72 111.67 111.58 114.80 MW102 3.39 (1.89 - 3.39)(3.28)(3.08)(3.13)(3.22)107.94 - 104.94109.30 109.40 109.45 109.38 MW103 114.60 9.66 (6.66 - 9.66)(5.30)(5.20)(5.15)(5.22)112.18 - 110.68 MW104 113.70 3.02 DRY DRY DRY (1.52 - 3.02)

Table 3: Summary of Groundwater Levels

Groundwater levels measured by G2S within the on-Site monitoring wells screened in shallow unconfined sediments (BH/MW102 and BH/MW104) ranged from 3.08 to 3.28 m bgs in BH/MW102 (111.52 to 111.72 m ASL); BH/MW104 (with a total depth of 3.02 m bgs/110.68 m ASL) was dry on all monitoring occasions.



Groundwater levels measured by G2S within the on-Site monitoring wells screened deeper within the underlying shale bedrock (BH/MW101 and BH/MW103) were lower than the groundwater levels in the upper sediments, and ranged from 5.15 to 6.50 m bgs (108.20 to 109.45 m ASL).

Groundwater levels are subject to seasonal variability, with fluctuations driven by recharge from precipitation and surface water sources. Shallow groundwater typically peaks during the spring freshet and following storm events, while reaching its lowest levels in late summer and fall. The on-Site groundwater levels from March to May 2025 are considered representative of the high groundwater table across the Site.

7.3 Estimated Hydraulic Conductivity

7.3.1 In-Situ Hydraulic Conductivity Testing

Rising head tests were carried out on April 16, 2025 in MW101, MW102, and MW103. The results of the test were analyzed using the Bouwer and Rice (1976) Method as implemented in a spreadsheet released by the United States Geological Survey. The results of the analyses are presented in Appendix D.

The hydraulic conductivities of the subsurface strata at the Site are as shown in the following table.

Monitoring Well I.D.	Ground Surface Elevation (mASL)	Screened Interval Elevation (m ASL) and Depth (m bgs)	Stratum Captured by Well Screen	Hydraulic Conductivity (Rising Head Test, m/s)
BH/MW101	114.70	107.62 – 104.62 (7.08 – 10.08)	Georgian Bay Formation Shale Bedrock (Confined)	6.7 x 10 ⁻⁷
BH/MW102	114.80	112.91 – 111.41 (1.89 – 3.39)	Sand (Unconfined)	4.4 x 10 ⁻⁵
BH/MW103	114.60	107.94 – 104.94 (6.66 – 9.66)	Georgian Bay Formation Shale Bedrock (Confined)	3.5 x 10 ⁻⁷

Table 4: Hydraulic Conductivity Estimates – Rising Head Tests

7.3.2 Grain Size Analysis

Typical rates of hydraulic conductivity for the soil types found at this Site during the investigation are as follows (Freeze and Cherry, 1979):

- Sand 10⁻⁵ m/s to 10⁻³ m/s
- Shale bedrock 10⁻¹³ to 10⁻¹⁰

The calculated K value based on the slug test in BH/MW102, screened with the shallow sand overburden, was approximately 4.4×10^{-5} m/s, which is consistent with the literature values above. The calculated K values based on the slug tests in BH/MW101 and BH/MW103, screened deeper within weathered shale bedrock, ranged from 3.5×10^{-7} to 6.7×10^{-7} m/s; K values within



the upper weathered shale can be higher than literature ranges for weathered shale bedrock (shown above).

The grain size analysis curves confirming the soil classification and hydraulic conductivity ranges are presented in Appendix E.

7.4 Groundwater Quality

Laboratory certificates of analysis, including chain-of-custody records, compared to the City of Mississauga Storm Sewer (By-Law 0046-2022) and the Regional Municipality of Peel Sanitary Sewer (By-Law 53-2010) discharge parameters criteria are included in Appendix F.

Based on the results of chemical analysis on samples tested, the quality of the groundwater samples complied with the applicable guidelines with the following exceptions below.

Table 5: Exceedances of the City of Mississauga Sewer Discharge Criteria

	City of Region of Peel Mississauga Sanitary		Concentration (mg/L)		
Sample	Parameter	Storm Sewer Discharge Criteria (mg/L)	Sewer Discharge Criteria (mg/L)	Sample I.D.	
Location	r drameter			MW102-UF	MW102-F
DI I/MANA/4 OO	Aluminium	1.0	50	1.83	<0.004
BH/MW102	TSS	15	350	52	<10

Notes: UF – Unfiltered

F - Filtered

NA - Not analyzed

Bold - Concentration exceeds City of Mississauga Storm Sewer Discharge Criteria

<u>Underline</u> - Concentration exceeds Peel Sanitary Sewer Discharge Criteria



8. Construction Dewatering Analysis

Based on excavation locations, dimensions, and depths available from the RA Lumbao Architects Inc. (Lumbao) architectural drawings (included in Appendix A), the soil excavation and subsequent construction of the two-level underground parking structure will require dewatering to lower the water table within the excavation to maintain a dry excavation base and sidewalls.

Temporary dewatering requirements are dependent on factors such as excavation parameters (excavation dimensions, infrastructure invert elevations, the number of concurrent excavations, etc.), hydrogeological conditions at the Site (groundwater levels, soil/bedrock hydrogeological parameters, etc.), construction and dewatering methodologies (open cuts, dewatering pits, sumps, wellpoints, etc.), and the amount of groundwater drawdown required to achieve and maintain dry working conditions and stable excavations. Additionally, factors such as the use of shoring would be expected to influence the rate of groundwater inflow into the excavation. The calculations provided below assume an open excavation as a conservative estimate.

It is important to note that the dewatering contractor retained to perform construction dewatering is solely responsible for achieving and maintaining dry working conditions at the Site at all times. The calculations and dewatering rates/volumes provided below are not directives for a dewatering contractor, and the dewatering contractor must review the information, calculations, and recommendations provided as part of their own assessment of dewatering requirements to determine appropriate methodologies and designs for their construction dewatering project.

8.1 Construction Dewatering Assumptions

For the purpose of this assessment, it was assumed that the excavation for the proposed building will be confined to 110% of the P2 floor area. Elevation values used in the subsequent calculations were derived from plans and surveys prepared by Arcadis (included in Appendix A), as summarized in the following table:

Table 6: Construction Dewatering Assumptions

Parameter	Input Value	Notes
Basement Area (P1/P2)	3,926 m²	Lumbao Drawing G1; Level P1/P2 Gross Construction Area
Basement Perimeter (P1/P2)	311 m	Lumbao Drawing A100
Excavation Area	4,319 m ²	Assumed 110% Basement Area
Excavation Perimeter	342 m	Assumed 110% Basement Perimeter
Established Grade Elevation	114.40 m ASL	Lumbao Drawing A301
Lowest Basement Floor Elevation	107.20 m ASL	Lumbao Drawing A301
Lowest Footing Elevation	106.20 m ASL	Assumed 1.0 m below lowest basement floor elevation
Excavation Base Elevation	105.20 m ASL	Assumed 1.0 m below footing elevation
Dewatering Elevation Target	104.20 m ASL	Assumed 1.0 m below excavation base



Parameter	Input Value	Notes			
Overburden Parameters	Overburden Parameters				
Groundwater Elevation – spring 2025 highest measured	111.72 m ASL	Maximum elevation of water table based on water level data for overburden well BH/MW102			
Groundwater Elevation – max (assumed)	112.72 m ASL	Conservatively assumed 1.0 m above the maximum measured water level			
Base of Aquifer (unconfined sand)	111.17 m ASL	Assumed as top of shale based on borehole log for BH/MW102			
Base of dewatering	111.17 m ASL	Assumed as base of aquifer			
Hydraulic Conductivity (K) – sand overburden	4.4 x 10 ⁻⁵ m/s	From slug tests (result from well screened in sand overburden)			
Bedrock Parameters					
Groundwater Elevation – spring 2025 highest measured	109.45 m ASL	Maximum based on water level data for bedrock wells BH/MW101 and BH/MW103			
Groundwater Elevation – max (assumed)	110.45 m ASL	Conservatively assumed 1.0 m above the maximum measured water level			
Base of Aquifer (shale)	100.9 m ASL	Assumed as lowest observed fractured zone from rock coring logs			
Hydraulic Conductivity (K) – shale bedrock	6.7 x 10 ⁻⁷ m/s	From slug tests (highest result from wells screened in shale)			
Elevator Pit Parameters					
Elevator Pit Area	100 m ²	Assumed 10 m x 5 m for each of two pits			
Elevator Pit Perimeter	40 m	Assumed 10 m x 5 m for each of two pits			
Elevator Pit Base Elevation	105.7 m ASL	Assumed 1.5 m below P2 floor depth			
Elevator Pit Excavation Elevation	104.7 m ASL	Assumed 1.0 m below elevator pit base			
Elevator Pit Dewatering Elevation Target	103.7 m ASL	Assumed 1.0 m below excavation depth			

The dewatering rates should include the removal of rainwater that collects within the excavation. Based on a total excavation area of 4,319 m² and a rainfall event of 10 mm, the estimated volume of direct rainwater collecting in the excavation is approximately 43,000 L. Note that significant rainfall events in excess of 10 mm and/or additional runoff during spring melt periods will result in greater volumes requiring dewatering.

It is very important to consider that all construction dewatering calculations provided in this report are based on the excavation requirements and dimensions outlined above. If design changes or other site plan modifications result in changes to the information listed above, the dewatering calculations below will need to be revised accordingly.



8.2 Dewatering Calculations

To estimate the steady-state dewatering flow rate needed to maintain dry conditions for the excavations at the Site, the following equation (for radial flow to an unconfined aquifer) from Powers (2007) was used (as shown on the dewatering calculations included in Appendix G):

$$Q = \frac{\pi K \left(H^2 - h_w^2\right)}{\ln\left(\frac{R_o}{r_e}\right)}$$

Where:

Q = Flow Rate (m³/sec)

H = Initial Saturated Thickness (Piezometric Head) of Aquifer (m)

h_w = Dewatered Saturated Thickness (Piezometric Head) of Aguifer (m)

K = Soil Hydraulic Conductivity (m/sec)

 r_e = Effective radius, $r_e = \sqrt{(excavation area/\pi)}$ (m)

 $R_o = Radius of influence, R_o = 3000*(H-h_w)*\sqrt{K}$ (m)

Using the assumptions listed in Section 8.1 and its subsections, the estimated peak and average dewatering rates are summarized as follows:

Table 7: Construction Dewatering Volume Estimates

Parameter	Estimated Peak Groundwater Construction Flow Rate
Estimated groundwater infiltration into excavation from overburden zone	101,000 L/day
Estimated groundwater infiltration into excavation from bedrock zone	104,000 L/day
Estimated groundwater infiltration into excavation for elevator pit	6,000
Rainwater allowance (10 mm rain event)	43,000 L/day
Estimated total	254,000 L/day
Estimated total with x1.5 Safety Factor on groundwater dewatering plus a 10 mm rain event	359,000 L/day

The estimated peak construction dewatering flow rate incorporates a safety factor of 1.5. This factor accounts for seasonal variations in groundwater flow, potential contributions from sewer bedding infiltration, and possible deviations in hydrogeological conditions not observed during the study.



8.3 Construction Dewatering Permits

In accordance with the Ontario Water Resources Act, any water taking exceeding 50,000 L/day during construction must be registered with the Environmental Activity and Sector Registry (EASR). Water takings greater than 400,000 L/day require a Permit to Take Water (PTTW) issued by the Ministry of the Environment, Conservation and Parks (MECP).

Calculations indicate that discharge volumes, including groundwater and precipitation, are expected to be up to 359,000 L/day. Based on the estimated dewatering rates, an EASR is expected to be required.

During construction, dewatering contractors should maintain daily records of groundwater discharge volumes. These records should be shared with the engineering team to support optimization of long-term building dewatering strategies.

Prior approval from the City of Mississauga is required for any discharge to the municipal sewer system. This requirement applies to both short-term discharges (construction dewatering) and long-term discharges (building dewatering).

8.4 Construction Dewatering Radius of Influence

The radius of influence from construction dewatering was estimated at up to 15 m beyond the excavation boundaries based on the assumption of a linear excavation for dewatering around the building perimeter. Potential impacts on ground settlement and adjacent properties will be included in the final Hydrogeological Report.

8.5 Construction Below Water Table

Installing buried services below the water table, particularly in lower hydraulic conductivity soils, can inadvertently alter groundwater flow by channeling it through permeable fill materials commonly used at the base of excavated trenches. Over time, this can result in a localized decline in groundwater levels. To mitigate such impacts, best management practices should be employed during installation to maintain natural flow patterns. These include implementing features such as cut-off collars and trench plugs within service trenches to prevent unintended groundwater diversion.



9. Long-Term Building Foundation Drainage

9.1 Foundation Drainage Assumptions

For the purpose of this assessment, it was assumed that foundation drainage for the proposed building will be confined within the P2 level footprint. Elevation values and dimensions were derived from plans and surveys prepared by Lumbao (Appendix A), as summarized in the following table:

Table 8: Foundation Drainage Assumptions

Parameter	Input Value	Notes
Basement Area (P1/P2)	3,926 m ²	Lumbao Drawing G1; Level P1/P2 Gross Construction Area
Basement Perimeter (P1/P2)	311 m	Lumbao Drawing A100
Drainage Area	3,926 m ²	Assumed equal to Basement Area
Established Grade Elevation	114.40 m ASL	Lumbao Drawing A301
Lowest Basement Floor Elevation	107.20 m ASL	Lumbao Drawing A301
Lowest Footing Elevation	106.20 m ASL	Assumed 1.0 m below lowest basement floor elevation
Drainage Elevation Target	105.20 m ASL	Assumed 1.0 m below lowest basement footing
Overburden Parameters		
Groundwater Elevation – spring 2025 highest measured	111.72 m ASL	Maximum elevation of water table based on water level data for overburden well BH/MW102
Base of Aquifer (unconfined sand)	111.17 m ASL	Assumed as top of shale based on borehole log for MW102
Base of dewatering	111.17 m ASL	Assumed as base of aquifer
Hydraulic Conductivity (K) – sand overburden	4.4 x 10 ⁻⁵ m/s	From slug tests (result from well screened in sand overburden)
Bedrock Parameters		
Groundwater Elevation – spring 2025 highest measured	109.45 m ASL	Maximum based on water level data for bedrock wells BH/MW101 and BH/MW103
Base of Aquifer (shale)	100.9 m ASL	Assumed as lowest observed fractured zone from rock coring logs
Hydraulic Conductivity (K) – shale bedrock	6.7 x 10 ⁻⁷ m/s	From slug tests (highest result from wells screened in shale)
Elevator Pit Parameters		
Elevator Pit Area	100 m ²	Assumed 10 m x 5 m for each of two pits
Elevator Pit Perimeter	40 m	Assumed 10 m x 5 m for each of two pits
Elevator Pit Base Elevation	105.7 m ASL	Assumed 1.5 m below P2 floor depth
Elevator Pit Drainage Elevation	104.7 m ASL	Assumed 1.0 m below elevator pit base



9.2 Foundation Drainage Estimate

Based on the assumptions provided, the estimated foundation drainage rates based on Powers (2007) methodology are provided as Appendix G and summarized as follows:

Table 9: Long-Term Building Foundation Discharge Volume Estimates

Parameter	Estimated Foundation Drainage Flow Rate
Estimated groundwater infiltration into foundation drains from overburden zone	33,000 L/day
Estimated groundwater infiltration into foundation drains from bedrock zone	100,000 L/day
Estimated groundwater infiltration into foundation drains for elevator pit	7,000 L/day
Estimated total	140,000 L/day
Estimated total with x1.5 Safety Factor	210,200 L/day

Intermittent cycling of sump pumps and seasonal fluctuations in groundwater regimes should be considered for pump specifications. The flow rate estimate is an indication of average discharge volumes. The actual rate should be confirmed based on observed construction dewatering volumes and again once the subdrain system is operational. Seasonal and daily fluctuations are expected. The estimate may be affected by hydrogeological conditions beyond those encountered during the study, fluctuations in groundwater levels, surrounding site alterations, and existing and future infrastructure changes.

9.3 Building Drainage Permits

The estimated volume of groundwater intercepted by the building foundation drains is 210,000 L/day (includes a x1.5 safety factor) based on the preliminary estimate included herein. A PTTW is required from the MECP for long-term water takings exceeding 50,000 L/day. The requirement to obtain a PTTW for long term building dewatering should be re-evaluated based on the data collected during the construction dewatering process.

Approval from the City of Mississauga is required for any discharge to the municipal sewer system. This requirement applies to both short-term discharges (construction dewatering) and long-term discharges (building dewatering).

9.4 Dewatering Radius of Influence

The radius of influence from building foundation dewatering was estimated at approximately 6 m beyond the foundation drains. A geotechnical letter may be required as part of the permitting process to evaluate the potential impacts on ground settlement and adjacent properties/features.



10. Dewatering Discharge

10.1 Dewatering Discharge

On April 16 and 21, 2025, water chemistry samples were obtained from monitoring well BH/MW102, identified as samples MW102-UF (unfiltered) and MW102-F (filtered). The laboratory Certificates of Analysis are included in Appendix F for reference.

It is important to consider the water chemistry samples were obtained using inertial pumps at each well resulting in the inclusion of sediments into the water samples, causing sediments in the well to be suspended in the water column being sampled. The inclusion of sediments can increase concentrations of parameters such as colour, turbidity, total suspended solids, total dissolved solids, and total metals if metals are adsorbed onto soil particles.

Water chemistry analysis results were compared to the City of Mississauga Storm Sewer Use By-Law parameters for discharge to municipal storm sewers, and to Region of Peel Sanitary Sewer Use By-Law parameters for discharge to municipal sanitary sewers.

10.1.1 City of Mississauga Storm Sewer Use By-Law

Groundwater chemistry samples exhibited exceedances of Total Suspended Solids (TSS) and Total Aluminium for the City of Mississauga Storm Sewer Use By-Law.

Additionally, a permit or written approval from the City of Mississauga would be required to permit long term routing of dewatering discharge to municipal sewers.

10.1.2 Discharge to Municipal Storm Sewers

Based on the analysis results, discharge to municipal storm sewers would require treatments such as settling tanks with flocculation and/or mechanical filtration (using filter bags) to reduce TSS and aluminium concentrations to acceptable levels. The filtered sample collected from MW102 met the applicable criteria for discharge into municipal storm sewers; therefore, the above noted treatment options would be viable dewatering solutions.

During construction dewatering operations, regular sampling and analysis of discharge would be required to confirm continued compliance with the City of Mississauga Storm Sewer Use By-Law. In the event parameter exceedances were measured, treatment of discharge would need to be adjusted/modified/supplemented to City of Mississauga Storm Use By-Law criteria limits.

10.1.3 Region of Peel Sanitary Sewer Use By-Law

The groundwater chemistry samples did not exhibit any exceedances of the Region of Peel Sanitary Sewer Use By-Law discharge criteria. The groundwater will be retested to confirm results prior to construction dewatering operations.

10.1.4 Discharge to Municipal Sanitary Sewers

Based on the analysis results, discharge to municipal sanitary sewers would not require treatment prior to discharge. During construction dewatering operations, regular sampling and analysis of discharge would be required to confirm continued compliance with the Region of Peel Sewer Use By-Law. In the event parameter exceedances are measured, treatment such as settling tanks with



flocculation and/or mechanical filtration (using filter bags), or additional specialized treatment for specific parameters, may be required to achieve Region of Peel Sanitary Sewer Use By-Law criteria limits.

The groundwater will be re-sampled and compared to the Region of Peel Sanitary Sewer discharge parameters prior to construction activities.

10.2 Evaluation of Potential Impacts

10.2.1 Local Groundwater Sources

The Site and properties within an approximate 500 m radius of the Site were searched within the MECP WWIS database. A total of 178 water well records were located within the search radius. The locations of the water well records are shown on Drawing 2 in Appendix A and a copy of the well record summary is included in Appendix B.

One well was identified with domestic (DO) use. The domestic well was installed in 1955 in the location of a residential subdivision which is assumed to be connected to the municipal supply.

The City of Mississauga supplies potable water from Lake Ontario, and the Site is located within a developed urban area; therefore, it is unlikely any of the wells within the search radius are for drinking water purposes. There are no potable well records within the dewatering zone of influence (about 71 m).

10.2.2 Baseflow Reduction in Waterbodies

No waterbodies are located on-Site or within the Study Area. The nearest water body is Cooksville Creek, which is located approximately 430 m east of the Site and flows south to Lake Ontario, located approximately 4.1 km south. Cooksville Creek is outside the radius of influence and, as such, no significant reduction in baseflow is anticipated.

10.2.3 Induced Movement of Contaminant Plumes

Groundwater sampling was not conducted on-Site since there were no potential contaminants of concern (COCs) identified for groundwater; therefore, no contaminant plumes are known to be present.

10.2.4 Confined Groundwater Conditions and Excavation Bottom Heave

While confined aquifer conditions were not observed in the monitoring wells installed on-Site, bottom heave occurring in excavations due to unweighting of the soil/bedrock as a result of excavations removing soil/bedrock weight overlying pressurized aquifer conditions should still be considered a possibility as a conservative factor of safety. Diligent observation of conditions in the excavations is recommended to monitor for potential bottom heaving. In the unlikely event bottom heaving or other issues due to pressurized aquifer conditions occur, the construction and dewatering strategies for the project would need to be revised.



10.2.5 Dewatering Discharge Quantity and Quality

The construction dewatering discharge receptor was not known at the time of the issuance of this report, however discharge to local storm or sanitary sewers is the most likely receptor in the urban setting of the Site.

Based on the limited chemical test results of the non-filtered groundwater samples analyzed, the quality of the water did not comply with the City of Mississauga storm sewer discharge by-law criteria for total suspended solids or total aluminium. There were no exceedances of the corresponding criteria for the Region of Peel storm and sanitary sewer system.

It is important to note that the elevated levels were measured in an unfiltered sample which is not representative of the dewatering discharge from a decantation tank or equivalent treatment system to remove the suspended solids and aluminum. Treatment and/or removal of the parameters exceeding the criteria prior to discharge will be a key component of dewatering mitigation. Additional confirmatory sampling and analyses of the construction dewatering discharge are recommended to confirm compliance with the criteria of the receiving system to be used.

The groundwater will be resampled prior to construction dewatering activities for comparison to the City of Mississauga Storm Sewer and Region of Peel Storm and Sanitary Sewer discharge parameters to confirm the results of the April 2025 sampling event.

Discharge permits are required from the City of Mississauga for short-term and long-term groundwater discharge to the city sewers.

10.2.6 Monitoring Well Decommissioning

The Site owner is considered to be the well owner of the monitoring wells installed at the Site ("well owner" Section 1.0, Regulation 903). When the monitoring wells are no longer required, it is the owner's responsibility to arrange for abandonment in accordance with the Ontario Water Resources Act, O. Reg. 903/90, amended to O. Reg. 372/07.



11. Summary and Conclusions

Based on the proposed development features and our findings of the Site setting, subsurface conditions, results of field work and laboratory analyses, the hydrogeological investigation salient points for the construction and long term dewatering needs are summarized in the following paragraphs.

- 1. The depth of the proposed excavation at the Site (construction of two levels of underground parking) is approximately 7.2 m below ground surface (bgs) (elevation 107.20 m above sea level (ASL). The proposed development also includes an elevator put, which extends beyond the base of the main excavation to a depth of approximately 8.7 m bgs (105.7 m bgs).
- 2. The subsurface conditions generally consist of sand or silty sand fill materials to depths of up to 3.1 m bgs, over native sand deposits to depths between 2.6 and 3.8 m bgs. A shale/till complex was encountered in the boreholes between depths of 3.1 and 4.6 bgs, and shale bedrock was encountered at depths ranging from 2.3 to 3.8 m bgs.
- 3. Groundwater levels measured within the on-Site monitoring wells screened in shallow unconfined sediments (BH/MW102 and BH/MW104) ranged from 3.08 to 3.28 m bgs in BH/MW102 (111.52 to 111.72 m ASL) between March and May 2025; BH/MW104 (with a total depth of 3.02 m bgs/110.68 m ASL) was dry on all monitoring occasions.
- 4. Groundwater levels measured within the on-Site monitoring wells screened deeper within the underlying shale bedrock (BH/MW101 and BH/MW103) were lower than the groundwater levels in the upper sediments, and ranged from 5.15 to 6.50 m bgs (108.20 to 109.45 m ASL) between March and May 2025.
- 5. The water-bearing units that will be exposed in the excavations during construction consists of native sand and shale bedrock. The calculated hydraulic conductivity (K) value for the overburden (sand) is 4.4×10^{-5} m/s, and the calculated K value for the bedrock (shale) is 6.7×10^{-7} m/s.
- 6. The required groundwater lowering (drawdown) is recommended to be at least 1 m below the base of the excavation to maintain dry working conditions, which is assumed to be 1 m below the lowest footing elevation.
- 7. The estimated peak and average dewatering rates are summarized in the following table:

Parameter	Estimated Peak Groundwater Construction Flow Rate
Estimated groundwater infiltration into excavation from overburden zone	101,000 L/day
Estimated groundwater infiltration into excavation from bedrock zone	104,000 L/day
Estimated groundwater infiltration into excavation for elevator pit	6,000
Rainwater allowance (10 mm rain event)	43,000 L/day
Estimated total	254,000 L/day



Parameter	Estimated Peak Groundwater Construction Flow Rate
Estimated total with x1.5 Safety Factor on groundwater dewatering plus a 10 mm rain event	359,000 L/day

- 8. Construction dewatering will have a potential maximum dewatering requirement of up to 359,000 L/day; therefore, an EASR will be required for the proposed temporary construction dewatering.
- 9. The estimated foundation drainage rates are summarized in the following table:

Parameter	Estimated Foundation Drainage Flow Rate
Estimated groundwater infiltration into foundation drains from overburden zone	33,000 L/day
Estimated groundwater infiltration into foundation drains from bedrock zone	100,000 L/day
Estimated groundwater infiltration into foundation drains for elevator pit	7,000 L/day
Estimated total	140,000 L/day
Estimated total with x1.5 Safety Factor	210,200 L/day

- 10. Long term building foundation drainage will have a potential maximum dewatering requirement of up to 210,200 L/day; therefore, a PTTW will be required if foundation drainage is being considered.
- 11. Based on the groundwater chemical testing results, it was found that the groundwater quality in the unfiltered groundwater sample did not comply with the City of Mississauga storm sewer discharge by-law criteria for total suspended solids (TSS) and total aluminium. Treatment and/or removal of TSS and total aluminium prior to discharge will be a key component of dewatering mitigation. The groundwater will be resampled for comparison to the City of Mississauga Storm Sewer and Region of Peel Storm and Sanitary Sewer discharge parameters to confirm the results of the April 2025 sampling event. Additional confirmatory sampling and analyses of the construction dewatering discharge are recommended to confirm compliance with the criteria of the receiving system to be used.
- 12. All monitoring wells and dewatering wells should be abandoned in accordance with the Ontario Regulation 903, as amended. The Site owner is considered to be the well owner of the monitoring wells installed at the Site ("well owner" Section 1.0, Regulation 903). When the monitoring wells are no longer required, it is the owner's responsibility to arrange for abandonment in accordance with Ontario Water Resources Act–R.R.O. 1990, Regulation 903 Amended to O. Reg. 128/03.

It is important to note that the design and installation of a construction dewatering system is the responsibility of the construction contractor. The contractor should verify the information presented in this report. This may be done by examining the hydrogeologic conditions in a test pit and a full-range pumping test by the dewatering subcontractor.



Construction dewatering discharges should follow best management practices, including sediment and erosion control measures, removal of suspended solids by decanting pond/tank or similar treatment system, as well as a water quality and quantity control monitoring programs.

A construction dewatering plan should be prepared by the contractor prior to commencement of construction and the construction dewatering activities. The extent and details of the dewatering scheme are left solely to the contractor's discretion to achieve the performance objectives for stable slopes and dry working conditions and will be based on his/her own interpretation and analysis of Site conditions, equipment, experience and plant efficiency.



12. Limitations

The hydrogeological advice and recommendations provided in this report are based on the factual information obtained during this investigation. It may be possible that the subsurface conditions vary between and beyond the investigated borehole and monitoring well locations. For the purpose of this report, it is assumed that the conditions outside of and between the exact borehole locations are similar to the conditions observed in the boreholes. The change in subsurface stratigraphy reported on the borehole logs has also been interpreted based on non-continuous sampling, therefore, changes in stratigraphy as shown on the borehole logs and as discussed in this report should not be regarded as exact lines of geological change. The subsurface conditions at the Site may change with the passage of time and/or by human intervention.

The findings along with the hydrogeological advice and recommendations provided in this report are limited to the conditions at the Site at the time of this investigation as described herein. Conclusions presented in this report should not be construed as legal advice. If Site conditions or applicable standards change or if any additional information becomes available at a future date, changes to the findings, conclusions and recommendations in this report may be necessary.

Through any subsurface investigation by boreholes and/or monitoring wells, it may not be possible to identify all aspects of the subsurface conditions at the Site that could affect construction costs, techniques, equipment, and scheduling. Contractors bidding on or undertaking work on the project must be directed to draw their own conclusions as to how the subsurface conditions may affect them, based on their interpretation of the subsurface conditions and/or their own investigations.

This report has been prepared for the sole benefit of 55 Dundas Developments Ltd. and is intended to provide hydrogeological advice and recommendations based on the subsurface conditions investigated in the Site monitoring wells. This report is the copyright of G2S Consulting Inc. (G2S) and may not be used by any other person or entity without the expressed written consent of 55 Dundas Developments Ltd. and G2S. Any use which a third party makes of this report, or any reliance on decisions made based on it, is the responsibility of such third parties. G2S accepts no responsibility for damages, if any suffered by any third party as a result of decisions made or actions based on this report. It is recognized that the City of Mississauga in their capacity as the planning and building authority under Provincial statues, may make use of and rely upon this report cognizant of the limitations thereof, both as are expressed and implied.



13. Closing Remarks

We trust this report is satisfactory for your purposes. Should you have any questions, please do not hesitate to contact this office.

Yours truly,

G2S Consulting Inc.

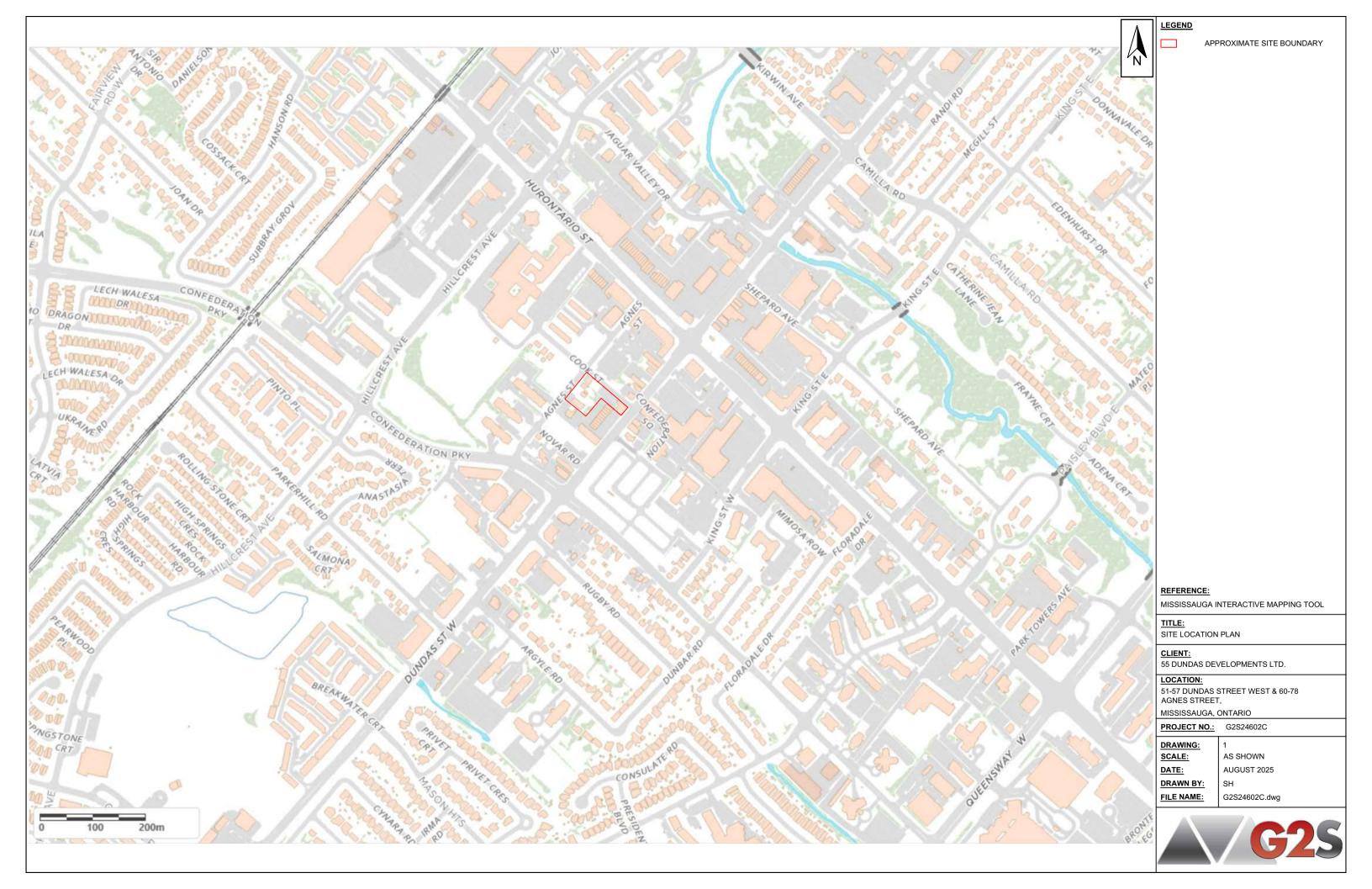
Day Dalet

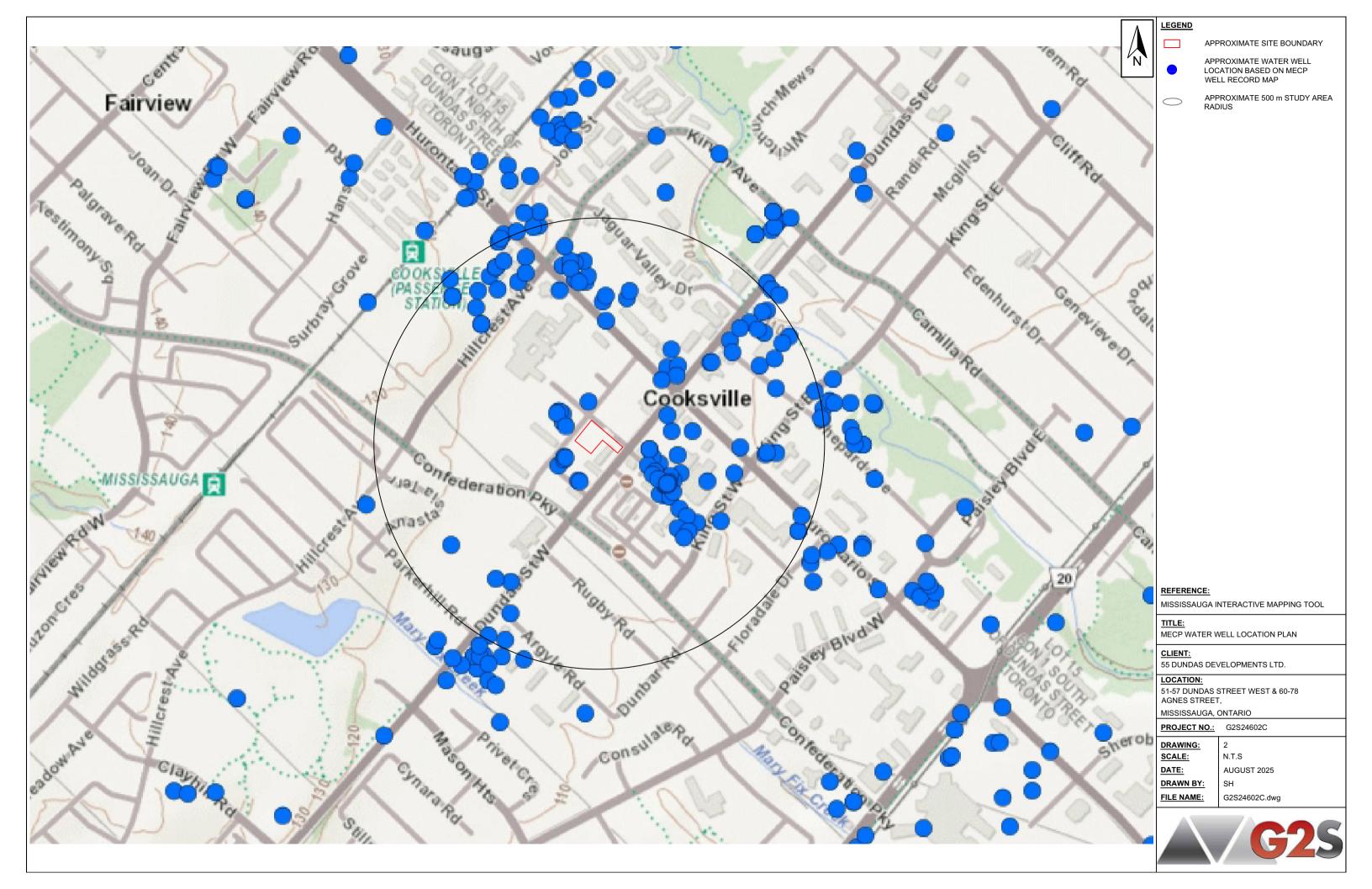
Dana Haslett, B.A. Senior Project Manager Steve Campbell, P.Geo. Principal, Senior Geoscientist

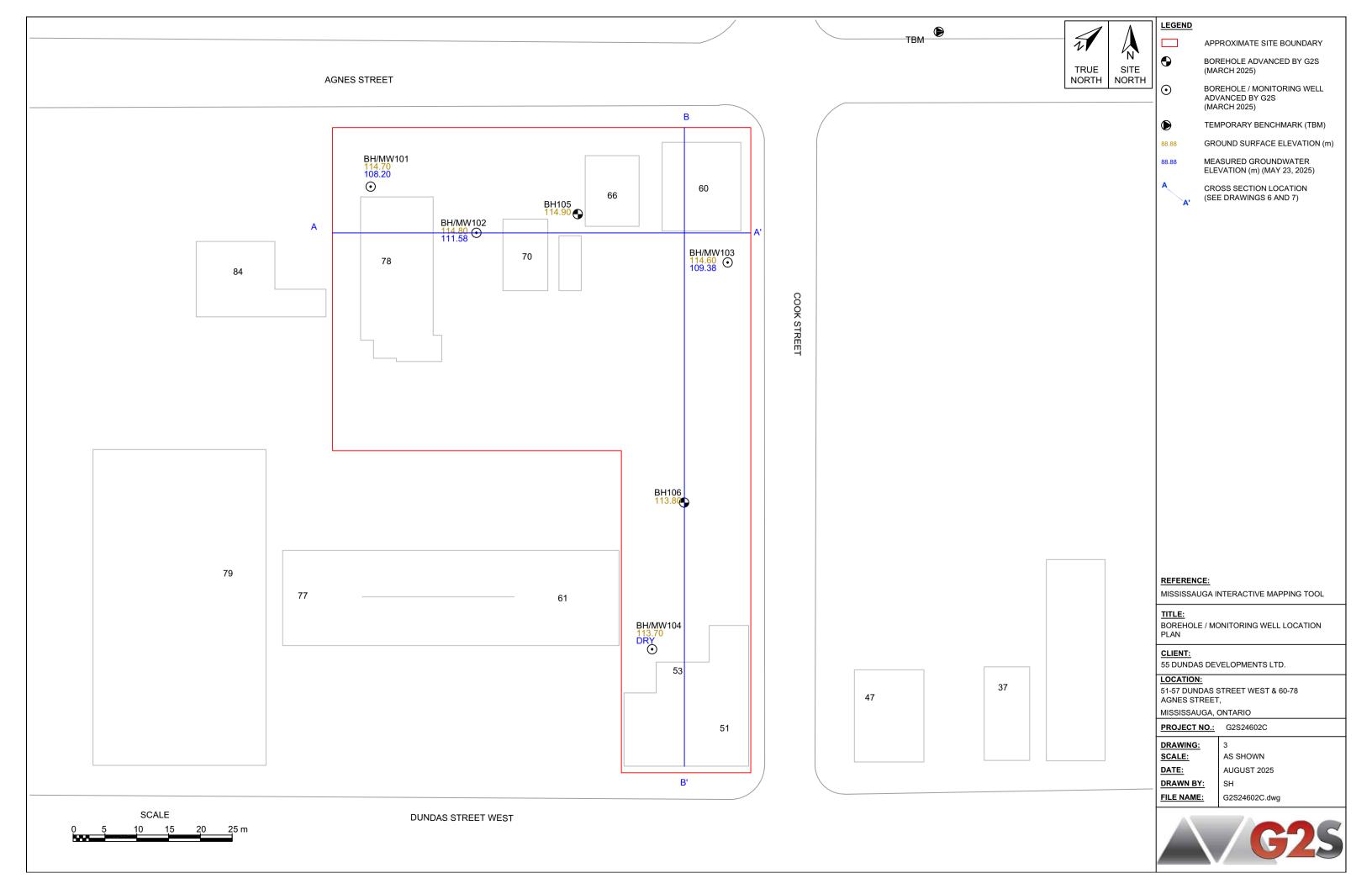


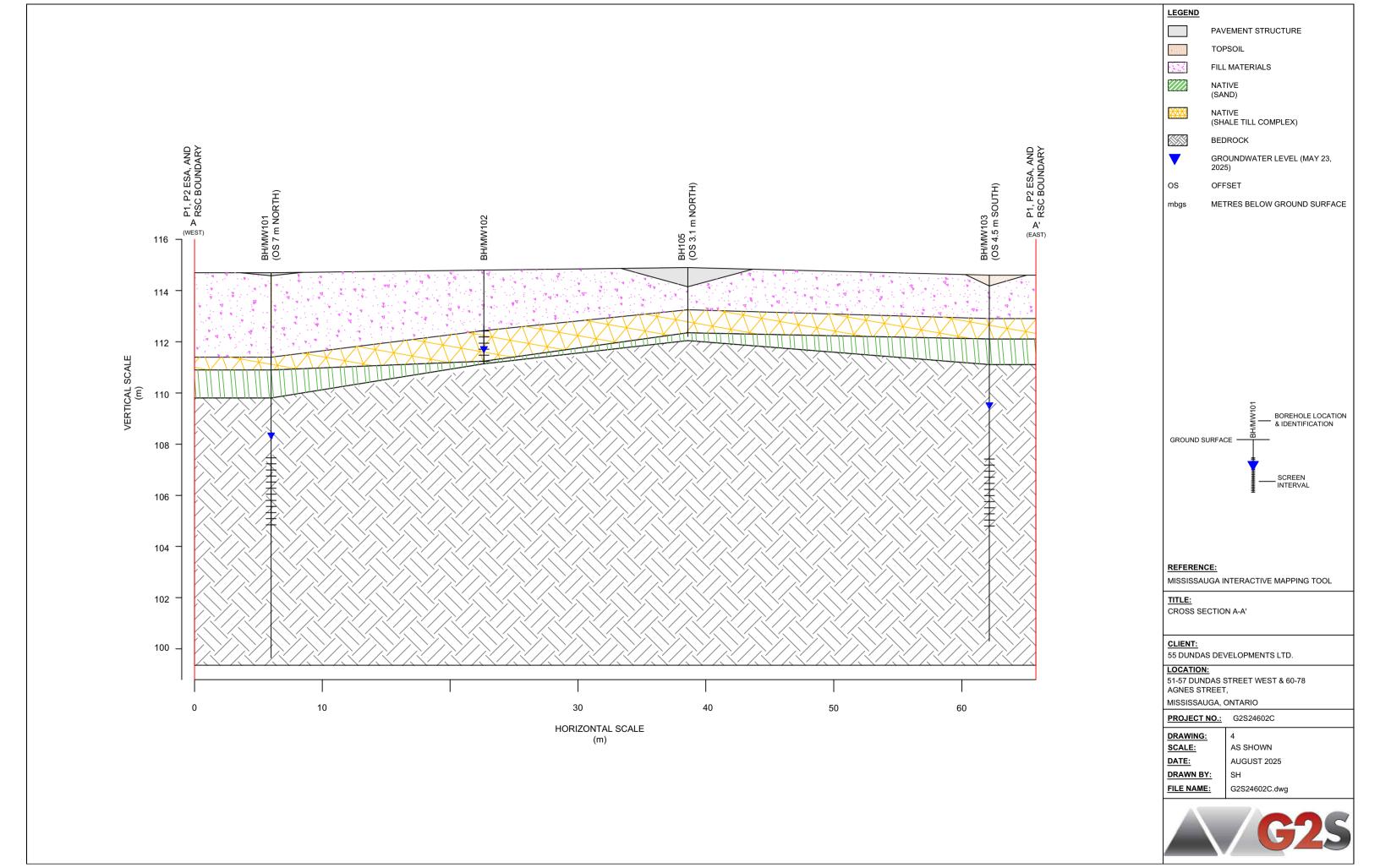
Appendix A: Drawings

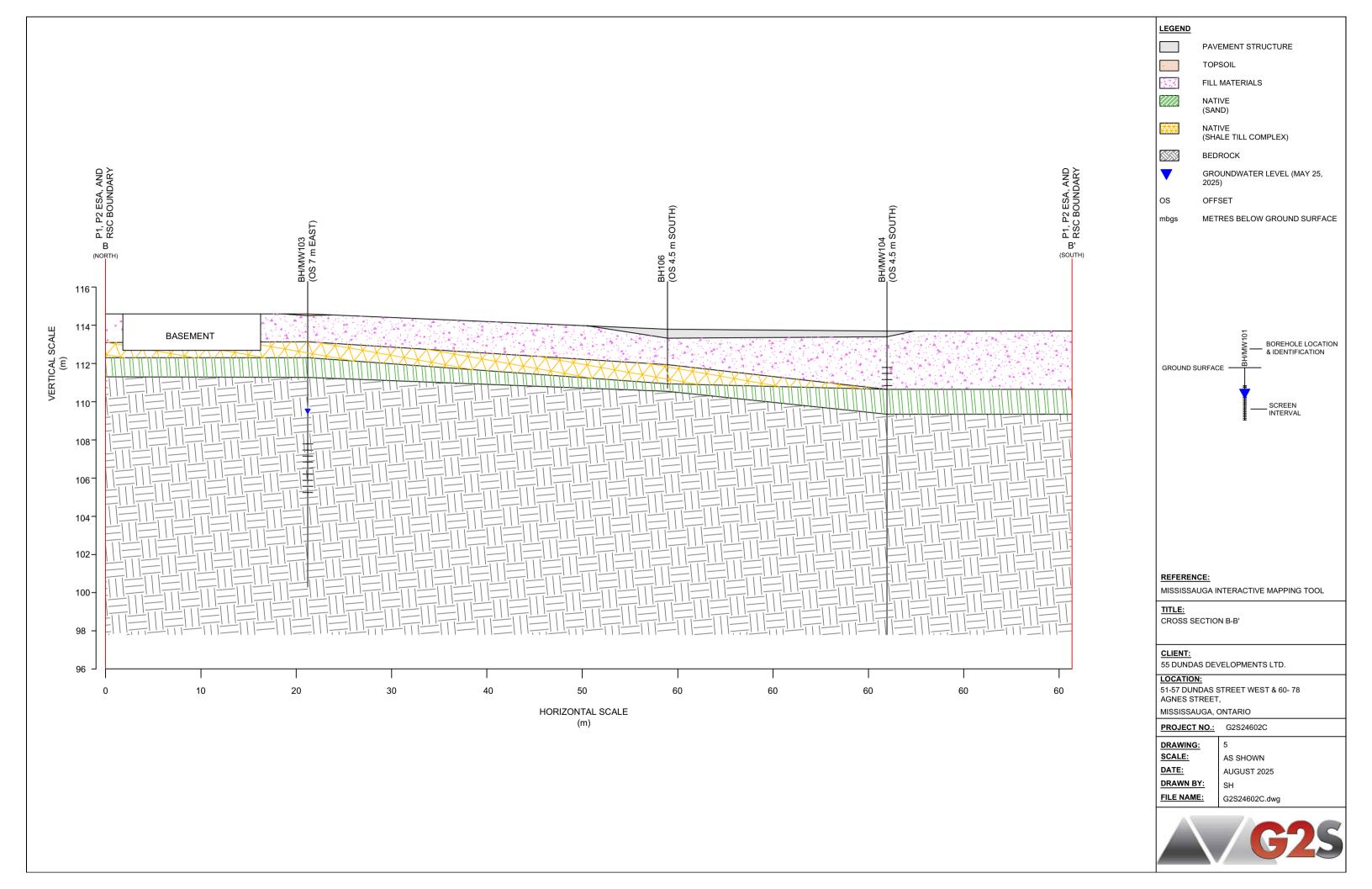












Appendix B: Summary of Water Well Records



August 14, 2025 Water Well Records 12:01:28 PM TOWNSHIP CON LO UTM DATE CNT CASING DIA WATER PUMP TEST WELL USE SCREEN WELL **FORMATION** 17 611449 2015-04 7472 2.04 MO 0021 10 7241290 BLCK LOAM LOOS 0001 BRWN FSND LOOS 0010 MISSISSAUGA CITY 4826107 W (Z211329) GREY SHLE HARD 0025 GREY SHLE HARD 0031 A179693 MISSISSAUGA CITY 17 612069 6946 2 ///: MO 7353411 BLCK SILT 0015 4825818 W (Z329851) A289233 MISSISSAUGA CITY 17 611120 2016-08 7241 1.25 MT 00023 7272079 4826545 W (Z241156) A MT MISSISSAUGA CITY 17 610990 2016-07 7241 2 0003 10 7269996 BRWN SAND CLAY 0005 GREY SHLE WTHD 0013 (Z241101) 4826377 W A184832 MISSISSAUGA CITY 17 611711 2016-04 7241 1.25 MT 00022 7263544 GREY 0000 BRWN FILL 0002 GREY CLAY 0004 4826220 W (Z231466) A197985 MISSISSAUGA CITY 17 611714 2016-04 7241 2 MT 0007 10 7263543 BLCK 0000 BRWN SAND SILT 0005 BRWN SILT CLAY 4826242 W (Z231548) 0014 GREY SHLE 0017 A194940 MISSISSAUGA CITY 17 611689 2016-04 7241 2 MT 0007 10 7263542 BLCK 0000 BRWN SAND SILT 0005 BRWN SILT SAND 4826238 W (Z231549) CLAY 0012 GREY SHLE 0017 A197938 MISSISSAUGA CITY 17 611697 2016-04 7241 2 MT 0007 10 7263541 BLCK 0000 BRWN SAND SILT 0005 BRWN SILT CLAY 4826279 W (Z231550)SAND 0014 GREY 0017 A197898 MO 0005 5 7277547 MISSISSAUGA CITY 17 611677 2016-11 6607 2.00 BRWN SAND GRVL PCKD 0003 BRWN SAND LOOS 4826209 W 0010 (Z240268) A209919 MISSISSAUGA CITY 17 611303 2015-12 7215 7257735 4826539 W (C31927) À175368 P MISSISSAUGA CITY 17 611862 2016-11 6607 2.00 MO 00055 7277548 BRWN SAND GRVL PCKD 0003 BRWN SAND LOOS 4826056 W (Z240269)0010 A209920 MO 0004 5 MISSISSAUGA CITY 17 611333 2014-09 7324 1.97 FR 0008 7236755 **BRWN SAND SILT 0009** 4825662 W (Z168366) À154708 7234673 MISSISSAUGA CITY 17 611181 2014-11 6607 4826433 W (C25835) A175368 P MISSISSAUGA CITY 17 611672 2014-01 7241 2 MT 0005 1 7217459 0010 GREY SILT CLAY 0014 4825979 W (Z183203)

A159213

TOWNSHIP CON LO	UTM	DATE CNT	CASING DIA	WATER	PUMP TEST	WELL USE	SCREEN	WELL	FORMATION
MISSISSAUGA CITY	17 611660 4825990 W	2014-01 7241	2			MT	0005 9	7217458 (Z183204) A159214	0010 GREY SILT CLAY 0014
MISSISSAUGA CITY	17 611947 4826410 W	2013-10 7241	2			MT	0006 10	7210807 (Z179766) A156352	BRWN FILL 0003 BRWN SAND SLTY 0008 GREY CLAY SLTY 0016
MISSISSAUGA CITY	17 611928 4826423 W	2013-10 7241	2			MT	0006 10	7210806 (Z179767) A156350	BLCK 0004 BRWN SAND SLTY 0008 GREY CLAY SLTY 0016
MISSISSAUGA CITY	17 611917 4826437 W	2013-10 7241	2			MT	0008 10	7210777 (Z179768) A156353	BRWN FILL 0003 BRWN SAND SLTY 0010 GREY CLAY SLTY 0018
MISSISSAUGA CITY	17 611787 4825976 W	2012-11 7215						7205508 (C20419) A139585 P	
MISSISSAUGA CITY	17 611284 4825506 W	2014-10 6607						7261648 (C25791) A163441 P	
MISSISSAUGA CITY	17 611943 4826580 W	2017-09 7247	2	UT 0012		TH MO	0015 10	7306688 (Z272465) A223241	BRWN LOAM FILL SILT 0012 BRWN FSND SILT GRVL 0015 GREY SILT CLAY TILL 0025
MISSISSAUGA CITY	17 611735 4825844 W	2024-05 7241						7479397 (Z431568) A407063 P	
MISSISSAUGA CITY	17 611536 4826388 W	2019-07 7241	1.25		///:	MT	0007 5	7345861 (Z305087) A265682	BRWN FILL GRVL 0002 BRWN SAND SILT DRY 0008 BRWN SAND SILT WBRG 0012
MISSISSAUGA CITY	17 611356 4826487 W	2017-07 6607	2.00			МО	0009 10	7320679 (Z278125) A241340	BRWN SAND GRVL FILL 0002 BRWN SAND SILT SOFT 0009 GREY SILT CLAY DNSE 0013 GREY SHLE LMSN ROCK 0019
MISSISSAUGA CITY	17 611305 4826478 W	2018-04 7215						7312572 (C39769) A244321 P	
MISSISSAUGA CITY	17 611286 4826462 W	2018-03 7360	2			MO	0012 8	7308737 (Z284014)	BRWN LOAM 0012 BRWN FILL CLAY 0020 GREY SHLE
MISSISSAUGA CITY	17 611286 4826462 W	2018-03 7360	2			MO	0004 5	7308736 (Z284015)	BRWN LOAM 0002 BRWN FILL CLAY 0008
MISSISSAUGA CITY	17 611245 4826408 W	2018-03 7360	2	UT 0020		MO	0010 10	7308735 (Z284016)	FILL 0005 SAND 0010 SHLE 0020
MISSISSAUGA CITY	17 611334 4826546 W	2016-10 6607	2.00	UT 0011		MO	0012 5	7275986 (Z240214) A209781	BRWN SAND FILL PCKD 0003 BRWN SILT CLAY SOFT 0012 GREY SHLE LMSN LYRD 0017

TOWNSHIP CON LO	UTM	DATE CNT	CASING DIA	WATER	PUMP TEST	WELL USE	SCREEN	WELL	FORMATION
MISSISSAUGA CITY	17 611339 4826430 W	2018-03 7360	2	UT 0020		MO	0015 5	7308732 (Z284019) _NO_TAG	FILL 0005 SAND 0010 SHLE 0020
MISSISSAUGA CITY	17 611691 4825966 W	2013-03 7241	2			MT	0021 5	7202014 (Z167600) A145851	BRWN FILL ROCK 0010 GREY SILT CLAY 0015 GREY SHLE 0018 GREY ROCK 0026
MISSISSAUGA CITY	17 611692 4826127 W	2017-09 7241	2			TH MO	0004 10	7296549 (Z270105) A199313	BLCK 0003 BRWN CLAY SILT 0010 GREY SHLE 0014
MISSISSAUGA CITY	17 611750 4826092 W	2017-09 7241	2			TH	0003 10	7296548 (Z270104) A199312	BLCK 0003 BRWN SILT CLAY 0010 GREY SHLE 0013
MISSISSAUGA CITY	17 611702 4826091 W	2017-09 7241	2			TH MO	0003 10	7296547 (Z270103) A199311	BLCK 0003 BRWN SAND SILT 0006 BRWN CLAY SILT 0009 GREY SHLE 0013
MISSISSAUGA CITY	17 611384 4826560 W	7147	1.97	UT 0009			0008 5	7285534 (Z246132) A217259 A	
MISSISSAUGA CITY	17 611545 4826343 W	2016-11 6607	2.00	UT		MO	0012 5	7278591 (Z240421) A210079	BRWN SILT CLAY HARD 0009 GREY SHLE ROCK 0017
MISSISSAUGA CITY	17 611692 4825968 W	2016-11 7241	2			MT	0006 7	7277826 (Z247425) A211478	BRWN SAND GRVL 0008 GREY SILT SAND TILL 0013
MISSISSAUGA CITY	17 611694 4825967 W	2016-11 7241	2			MT	0006 7	7277825 (Z247424) A211477	BRWN SAND GRVL FILL 0008 GREY SILT SAND TILL 0013
MISSISSAUGA CITY	17 612007 4825900 W	2016-11 6607	2.00	UT 0007		MO	0005 5	7277562 (Z240273) A209773	BRWN SAND GRVL PCKD 0002 BRWN SAND LOOS 0005 GREY SAND LOOS 0010
MISSISSAUGA CITY	17 611292 4826412 W	2018-03 7360	2		<i>III</i> :	МО	0010 2	7308734 (Z284017)	FILL 0005 SAND 0010 SHLE 0012
MISSISSAUGA CITY	17 611674 4826015 W	2010-04 7241	1.59			MT	0011 5	7145319 (Z114335) A085575	BLCK SOFT 0000 BRWN SAND SOFT 0009 GREY SHLE SILT SOFT 0016
MISSISSAUGA CITY	17 611659 4826031 W	2010-09 7241				MT	0013 5	7154120 (Z111726) A092483	BRWN FILL GRVL LOOS 0001 BRWN SAND STNS LOOS 0011 BRWN SAND WBRG 0013 GREY SHLE HARD 0018
MISSISSAUGA CITY	17 611819 4825884 W	2010-10 7241	1.25			MT	0005 10	7154087 (Z122785) A108798	BRWN SAND SILT DNSE 0012 GREY SHLE HARD 0015
MISSISSAUGA CITY	17 611694 4825957 W	2010-09 7241				MT		7154043 (M08056) A107681	BRWN FILL GRVL SOFT 0001 BRWN FSND SOFT 0013 GREY CLAY SILT SOFT 0014 GREY SHLE HARD 0040

TOWNSHIP CON LO	UTM	DATE CNT	CASING DIA	WATER	PUMP TEST	WELL USE	SCREEN	WELL	FORMATION
MISSISSAUGA CITY	17 611249 4825561 W	2010-02 6988	2.00			TH	0003 5	7152092 (Z82961) A087098	BRWN SAND LOOS 0008
MISSISSAUGA CITY	17 611435 4826412 W	2010-06 7241	1.5			МО	0006 10	7148381 (Z119052) A103045	
MISSISSAUGA CITY	17 611598 4826414 W	2010-06 7241	1.36				0003 8	7148380 (Z119051) A103036	BRWN SAND GRVL LOOS 0006 GREY CLAY SILT DNSE 0011
MISSISSAUGA CITY	17 611592 4826397 W	2010-06 7241	1.39			TH	0005 5	7148379 (Z119050) A103044	BRWN SAND GRVL LOOS 0006 BRWN CLAY SILT DNSE 0010
MISSISSAUGA CITY	17 611284 4825611 W	2013-06 7241	2.04			MT	0003 9	7205206 (Z173709) A148752	BRWN FILL GRVL LOOS 0001 BRWN SILT SAND SOFT 0012
MISSISSAUGA CITY	17 611665 4825995 W	2010-04 7241	1.37			MT	0009 10	7147065 (Z114328) A097266	BLCK FILL SOFT 0001 BRWN CLAY SILT SOFT 0006 BRWN CLAY SILT SOFT 0012 BRWN SHLE HARD 0019
MISSISSAUGA CITY	17 611679 4825984 W	2010-09 7241				MT	0015 5	7154123 (Z111731) A092477	BRWN FILL GRVL LOOS 0001 BRWN SAND GRVL SOFT 0009 BRWN SAND STNS SOFT 0013 GREY SHLE HARD 0020
MISSISSAUGA CITY	17 611716 4826036 W	2010-04 7241	1.59			MT	0011 5	7145318 (Z114337) A096456	BLCK SOFT 0000 BRWN SAND SOFT 0009 GREY SHLE SILT HARD 0016
MISSISSAUGA CITY	17 612000 4825865 W	2009-11 6946		OT 0010		МО		7135772 (Z109092) A089842 A	
MISSISSAUGA CITY	17 612000 4825865 W	2009-08 6946	2.04	OT 0010		МО	0011 10	7129796 (Z097866) A089842	BRWN SAND LOAM SLTY 0007 BRWN SAND SILT GRVL 0011 GREY SILT TILL CLYY 0015 GREY SILT TILL SAND 0018 GREY SILT SAND CLYY 0021
MISSISSAUGA CITY	17 612030 4825795 W	2008-11 7215	2			TH	0005 10	7117910 (Z93470) A079259	BRWN LOAM 0002 BRWN SAND WBRG 0010 GREY SILT CLAY ROCK 0015
MISSISSAUGA CITY	17 611258 4825533 W	2008-09 6032	1.97			MO		7113192 (Z82212) A041625	BRWN SAND LOOS 0010 GREY ROCK DNSE 0015
MISSISSAUGA CITY	17 611333 4825736 W	2008-03 7215	0.79			TH	0005 5	7108266 (Z92202) A066123	BRWN SAND GRVL LOOS 0008 GREY SILT SAND WBRG 0010
MISSISSAUGA CITY	17 611299 4825742 W	2008-04 7215	2			TH	0005 5	7108246 (Z92244) A066145	FILL DRY 0002 BRWN SAND WBRG 0011 GREY SHLE DRY 0012

TOWNSHIP CON LO	UTM	DATE CNT	CASING DIA	WATER	PUMP TEST	WELL USE	SCREEN	WELL	FORMATION
MISSISSAUGA CITY	17 611971 4826314 W	2008-06 6032	1.99			МО		7107988 (Z69137) A068177	BLCK PCKD 0000 BRWN GRVL CGVL PCKD 0001 GREY SILT FSND DNSE 0020 FGVL
MISSISSAUGA CITY	17 611724 4825993 W	2010-04 7241	1.37			MT	0012 5	7147066 (Z114330) A097267	BLCK FILL SOFT 0001 BRWN CLAY SILT SOFT 0006 BRWN CLAY SILT SOFT 0012 GREY SHLE HARD 0017
MISSISSAUGA CITY	17 611264 4825563 W	2010-12 7241				MO		7158298 (Z124102) A	
MISSISSAUGA CITY	17 611543 4826401 W	2019-07 7241	1.25		<i>III</i> :	MT	0007 5	7345862 (Z291795) A270998	GREY GRVL 0000 BRWN FILL GRVL SAND 0002 BRWN SAND SILT DRY 0008 BRWN SAND SILT WBRG 0012
MISSISSAUGA CITY	17 611688 4825967 W	2013-03 7241	2			MT	0005 5	7202013 (Z167602) A145852	BRWN FILL 0010
MISSISSAUGA CITY	17 611701 4825938 W	2013-03 7241	2			MT	0005 5	7202012 (Z167601) A145853	BRWN FILL 0010
MISSISSAUGA CITY	17 611692 4825964 W	2013-03 7241	2			MT	0005 5	7202011 (Z167599) A145854	BRWN FILL 0010
MISSISSAUGA CITY	17 611508 4826155 W	2013-02 7472	1.53			MO	0020 20	7198638 (Z166630) A144253	SAND FILL 0012 GREY SHLE ROCK HARD 0040
MISSISSAUGA CITY	17 611918 4826373 W	2012-10 6032	1.97	UT 0010		MT	0012 13	7196498 (Z121323) A084011	BRWN FILL 0015 GREY SILT 0020 GREY DNSE 0025
MISSISSAUGA CITY	17 611848 4825995 W	2012-09 7215						7191792 (C19403) A136194 P	
MISSISSAUGA CITY	17 611651 4826048 W	2011-02 7241	1.36			MT	0005 5	7161350 (Z123984) A103016	BRWN CLAY SOFT 0010
MISSISSAUGA CITY	17 611648 4826011 W	2010-09 7241				MT	0015 5	7154121 (Z111724) A092484	BRWN FILL GRVL LOOS 0001 BRWN SAND GRVL SOFT 0011 BRWN SAND STNS SOFT 0013 GREY SHLE HARD 0020
MISSISSAUGA CITY	17 611222 4825541 W	2010-12 7241				MO		7158299 (Z124103) A	
MISSISSAUGA CITY	17 611688 4825973 W	2010-09 7241				MT	0015 5	7154122 (Z111725) A092485	BRWN FILL GRVL LOOS 0001 BRWN SAND GRVL SOFT 0011 BRWN SAND STNS SOFT 0014 GREY SHLE STNS HARD 0020
MISSISSAUGA CITY	17 611249 4825561 W	2010-12 7241						7158297 (Z124101) A	

TOWNSHIP CON LO	UTM	DATE CNT	CASING DIA	WATER	PUMP TEST	WELL USE	SCREEN	WELL	FORMATION
MISSISSAUGA CITY	17 611274 4825565 W	2010-11 7241	1.36			TH		7157739 (M03219) A097311	BRWN SAND STNS SOFT 0008 GREY SHLE HARD 0015
MISSISSAUGA CITY	17 611677 4825944 W	2010-09 7241	1.25			MT	0006 5	7154243 (Z122025) A107808	GREY ROCK SHLE WTHD 0003 GREY ROCK HARD 0012
MISSISSAUGA CITY	17 611686 4825942 W	2010-09 7241	1.25			MT	0005 6	7154242 (Z122023) A107807	GREY ROCK SILT WBRG 0002 GREY ROCK WTHD HARD 0012
MISSISSAUGA CITY	17 611665 4825997 W	2010-09 7241				MT	0013 5	7154126 (Z111729) A092480	BRWN FILL GRVL LOOS 0001 BRWN SAND STNS SOFT 0011 BRWN SAND SOFT WBRG 0013 GREY SHLE HARD 0018
MISSISSAUGA CITY	17 611700 4825986 W	2010-09 7241				MT	0015 5	7154125 (Z111727) A092479	BRWN FILL GRVL LOOS 0001 BRWN SAND GRVL SOFT 0007 BRWN SAND STNS SOFT 0012 GREY CLAY GRVL SOFT 0014 GREY SHLE HARD 0020
MISSISSAUGA CITY	17 611708 4825977 W	2010-09 7241				MT	0015 5	7154124 (Z111730) A092478	BRWN FILL GRVL LOOS 0001 BRWN SAND GRVL SOFT 0012 BRWN SAND STNS SOFT 0017 GREY SHLE HARD 0020
MISSISSAUGA CITY	17 611708 4825950 W	2013-03 7241	2			MT	0005 5	7202060 (Z167598) A140169	BRWN FILL 0010
MISSISSAUGA CITY	17 611651 4826048 W	2011-02 7241	1.36			MT	0005 17	7161349 (Z123942) A102995	BRWN CLAY GRVL SOFT 0010 GREY SHLE HARD 0022
MISSISSAUGA CITY	17 611366 4825557 W	2023-12 7725						7470711 (Z418359) A391606 P	
MISSISSAUGA CITY	17 611921 4826040 W	2021-06 7241	2		///:	MT	0005 10	7393096 (Z348275) A330551	BRWN SAND 0003 BRWN SILT 0010 GREY SILT SAND 0015
MISSISSAUGA CITY	17 611946 4826044 W	2021-06 7241	2		<i>III</i> :	MT	0005 10	7393097 (Z348276) A323960	BRWN SAND 0003 BRWN SILT 0011 GREY SILT SAND 0015
MISSISSAUGA CITY	17 612078 4826162 W	2021-06 7215	2		///:	TH	0006 10	7394067 (Z358722) A	0016
MISSISSAUGA CITY	17 612036 4825748 W	6946	2		<i>III</i> :	MO	0010 10	7355310 (Z329878) A290537	BRWN SILT CLAY 0004 RED CLAY SILT 0015 RED TILL SILT 0023 RED SHLE ROCK 0024
MISSISSAUGA CITY	17 611490 4825971 W	2022-02 7757						7413845 (Z379725) A P	
MISSISSAUGA CITY	17 611913 4826322 W	2022-03 7215						7423649 (Z373025) A340958 P	

TOWNSHIP CON LO	UTM	DATE CNT	CASING DIA	WATER	PUMP TEST	WELL USE	SCREEN	WELL	FORMATION
MISSISSAUGA CITY	17 611856 4826332 W	2022-03 7215						7423650 (Z373024) A329419 P	
MISSISSAUGA CITY	17 611956 4826298 W	2022-03 7215						7423651 (Z373023) A329418 P	
MISSISSAUGA CITY	17 611897 4826330 W	2022-03 7215						7423652 (Z373021) A329439 P	
MISSISSAUGA CITY	17 611938 4826262 W	2022-03 7215						7423685 (Z373022) A329420 P	
MISSISSAUGA CITY	17 611296 4826530 W	2022-06 7215						7432311 (Z373138) A353307 P	
MISSISSAUGA CITY	17 611194 4825818 W	2021-03 7742						7387077 (C46064) A312422 P	
MISSISSAUGA CITY	17 611315 4825562 W	2023-12 7725						7470710 (Z418358) A391607 P	
MISSISSAUGA CITY	17 611487 4825972 W	2022-02 7757						7413844 (Z379726) A P	
MISSISSAUGA CITY	17 611284 4825545 W	2023-12 7725						7470712 (Z418357) A391609 P	
MISSISSAUGA CITY	17 611323 4825601 W	2023-12 7725						7470713 (Z418356) A382608 P	
MISSISSAUGA CITY	17 611448 4826126 W	2024-04 7241						7476113 (Z428868) A P	
MISSISSAUGA CITY	17 611441 4826132 W	2024-04 7241						7476114 (Z428869) A336287 P	
MISSISSAUGA CITY	17 611435 4826128 W	2024-04 7241						7476115 (Z428871) A P	
MISSISSAUGA CITY	17 611456 4826098 W	2024-04 7241						7476116 (Z428870) A P	

TOWNSHIP CON LO	UTM	DATE CNT	CASING DIA	WATER	PUMP TEST	WELL USE	SCREEN	WELL	FORMATION
MISSISSAUGA CITY	17 612033 4825809 W	2020-08 7215						7479075 (C47974) A284289 P	
MISSISSAUGA CITY	17 611723 4825911 W	2024-05 7241						7479392 (Z431567) A407065 P	
MISSISSAUGA CITY	17 611764 4825879 W	2024-05 7241						7479393 (Z431566) A407066 P	
MISSISSAUGA CITY	17 611741 4825894 W	2024-05 7241						7479394 (Z431565) A407067 P	
MISSISSAUGA CITY	17 611719 4825866 W	2024-05 7241						7479395 (Z431620) A407061 P	
MISSISSAUGA CITY	17 611745 4825859 W	2024-05 7241						7479396 (Z431569) A407062 P	
MISSISSAUGA CITY	17 611480 4826431 W	2023-03 7644						7448480 (Z406741) A377251 P	
MISSISSAUGA CITY	17 611291 4826522 W	2020-12 7644	2		<i>///:</i>	MT	0040 10	7379030 (Z354068) A312051	BRWN SAND 0008 GREY SHLE 0050
MISSISSAUGA CITY	17 612030 4825790 W	6946	2		///:	MO	0010 10	7355311 (Z329877) A290534	BRWN SILT CLAY 0004 RED CLAY SILT 0015 RED TILL SILT 0023 RED SHLE ROCK 0024
MISSISSAUGA CITY	17 612052 4826125 W	2020-04 7241	2		///:	MT	0012 10	7358771 (Z334738) A291836	BRWN SAND 0004 BRWN SILT SAND 0014 GREY SILT SAND 0022
MISSISSAUGA CITY	17 612053 4826149 W	2020-04 7241	2		///:	MT	0006 10	7358772 (Z334739) A291837	BRWN SAND 0002 BRWN SILT SAND 0014 GREY SILT SAND 0016
MISSISSAUGA CITY	17 612068 4826167 W	2020-04 7241	2		///:	MT	0008 10	7358773 (Z334740) A291838	BRWN SAND 0003 BRWN SILT SAND 0014 GREY SILT SAND 0018
MISSISSAUGA CITY	17 611500 4826447 W	2020-03 7472	2		///:	МО	0015 30	7361501 (Z327734) A285527	BLCK HARD 0002 BRWN SAND SILT LOOS 0010 GREY SHLE HARD 0045
MISSISSAUGA CITY	17 611698 4825973 W	2020-06 7241	2		///:	ОТ	0004 10	7365310 (Z340659) A295813	BRWN SAND GRVL 0008 GREY CLAY SHLE WBRG 0014

TOWNSHIP CON LO	UTM	DATE CNT	CASING DIA	WATER	PUMP TEST	WELL USE	SCREEN	WELL	FORMATION
MISSISSAUGA CITY	17 611695 4825970 W	2020-06 7241	2		<i>III</i> :	ОТ	0004 10	7365311 (Z340658) A298651	BRWN SAND GRVL 0008 GREY CLAY SHLE WBRG 0015
MISSISSAUGA CITY	17 611693 4825969 W	2020-06 7241	2		<i>III</i> :	ОТ	0004 10	7365312 (Z340657) A298650	BRWN SAND GRVL 0008 GREY CLAY SHLE WBRG 0014
MISSISSAUGA CITY	17 611455 4826025 W	2022-02 7757						7413846 (Z379727) A P	
MISSISSAUGA CITY	17 611291 4826522 W	2020-12 7644	2		<i>III</i> :	MT	0010 10	7379029 (Z354065) A282827	BRWN SAND 0008 GREY SHLE 0020
MISSISSAUGA CITY	17 611186 4826394 W	2020-12 7644	2		<i>III</i> :	MT	0010 10	7379031 (Z354066) A282828	BRWN SAND 0015 GREY SHLE 0020
MISSISSAUGA CITY	17 611186 4826394 W	2020-12 7644	2		<i>III</i> :	MT	0040 10	7379032 (Z354067) A282829	BRWN SAND 0015 GREY SHLE 0050
MISSISSAUGA CITY	17 611255 4826330 W	2020-12 7644	2		<i>III</i> :	MT	0016 5	7379035 (Z354062) A309614	BRWN SAND 0015 GREY SHLE 0021
MISSISSAUGA CITY	17 611242 4826368 W	2020-12 7644	2		<i>III</i> :	MT	0010 10	7379034 (Z354063) A309616	BRWN SAND 0015 GREY SHLE 0020
MISSISSAUGA CITY	17 611356 4826451 W	2020-12 7644	2		<i>III</i> :	MT	0010 10	7379033 (Z354064) A309615	BRWN SAND 0015 GREY SHLE 0020
MISSISSAUGA CITY	17 611255 4826330 W	2020-12 7644	2		<i>III</i> :	MT	0040 10	7379036 (Z354061) A309618	BRWN SAND 0015 GREY SHLE 0050
MISSISSAUGA CITY DS N 01 014	17 611969 4826588 W	2023-12 7360	2		<i>III</i> :	МО	0008 5	7467677 (K3G2ZNEO) A391915	GRVL SAND FILL 0012
MISSISSAUGA CITY DS N 01 015	17 611461 4826462 W	2022-02 6607	2		<i>III</i> :	МО	0046 5	7414602 (WB954KSR) A344225	BRWN SAND FILL LOOS 0012 GREY SHLE LMSN LYRD 0052
MISSISSAUGA CITY DS N 01 015	17 611385 4826593 W	2019-05 6607	2.00	UT 0010	<i>III</i> :	ТН	0003 9	7337196 (M9N4IOES) A264747	BRWN SAND GRVL PCKD 0012 GREY CLAY SAND DNSE 0013 GREY SHLE LMSN ROCK 0020
MISSISSAUGA CITY DS N 01 015	17 611371 4826558 W	2019-05 6607	2.00		<i>III</i> :	MT	0014 6	7337170 (B96PFG2J) A264658	BRWN SAND GRVL PCKD 0011 GREY CLAY SILT DNSE 0012 GREY SHLE LMSN ROCK 0020

TOWNSHIP CON LO	UTM	DATE CNT	CASING DIA	WATER	PUMP TEST	WELL USE	SCREEN	WELL	FORMATION
MISSISSAUGA CITY DS N 01 015	17 611938 4826579 W	2020-12 7282	2	0018	<i>III</i> :	MO	0012 10	7378766 (KCE2XI4N) A307705	BRWN GRVL SAND 0015 BLUE SHLE WTHD 0022
MISSISSAUGA CITY DS N 01 015	17 611926 4826559 W	2020-12 7282	2		<i>III</i> :	MO	0009 10	7378767 (22K9P6LU) A307718	BRWN GRVL SAND 0015 BLUE SHLE WTHD 0019
MISSISSAUGA CITY DS N 01 015	17 611496 4826433 W	2019-04 6607	2.00		<i>III</i> :	MT	0010 5	7332231 (BALYVF8S) A246265	BLCK 0000 GREY GRVL 0001 BRWN SAND 0005 BRWN SILT CLAY 0007 GREY SHLE WTHD 0015
MISSISSAUGA CITY DS N 01 015	17 611928 4826601 W	2022-04 7282	2	UT 0010	<i>III</i> :	MO	0010 10	7420237 (HKPQD6XM) A346841	BRWN FILL SAND GVLY 0003 GREY TILL GRVL 0010 GREY TILL SHLE WTHD 0020
MISSISSAUGA CITY DS N 01 015	17 611889 4826550 W	2022-04 7282	2	UT 0010	<i>III</i> :	MO	0010 10	7417546 (6BRNHKGO) A346852	BRWN FILL GRVL 0003 GREY TILL GRVL 0020
MISSISSAUGA CITY DS N 01 015	17 611889 4826550 W	2022-04 7282	2	UT 0010	<i>III</i> :	MO	0010 10	7420238 (6BRNHKGO) A346852	BRWN FILL GRVL 0003 GREY TILL GRVL 0020
MISSISSAUGA CITY DS N 01 015	17 611446 4826514 W	2023-12 7360	2		<i>III</i> :	MO	0010 5	7467681 (VMVD4V9U) A395483	GRVL SAND FILL 0007 SHLE 0015
MISSISSAUGA CITY DS N 01 015	17 611933 4826568 W	2020-12 7282	2		<i>III</i> :	MO	0012 10	7378768 (KK5G2P5X) A307719	BRWN GRVL SAND 0015 BLUE SHLE WTHD 0022
MISSISSAUGA CITY DS N 01 015	17 611459 4826481 W	2022-02 6607	2		<i>III</i> :	MO	0007 6	7414601 (U7GDY3PC) A344275	BRWN SAND FILL LOOS 0012
MISSISSAUGA CITY DS N 01 015	17 611461 4826466 W	2022-02 6607	2		<i>III</i> :	MO	0008 5	7414599 (QS6EJ266) A327562	BRWN SAND FILL LOOS 0012
MISSISSAUGA CITY DS N 01 015	17 611470 4826476 W	2022-02 6607	2		<i>III</i> :	MO	0042 5	7414591 (BKOPA82D) A327511	BRWN SAND FILL LOOS 0012 GREY SHLE LMSN LYRD 0046
MISSISSAUGA CITY DS N 01 015	17 611441 4826469 W	2022-02 6607	2		<i>III</i> :	МО	0007 6	7414577 (KXD3EQNF) A344221	BRWN SAND FILL LOOS 0012
MISSISSAUGA CITY DS N 01 015	17 611491 4826481 W	2022-02 6607	2		<i>III</i> :	МО	0008 5	7414572 (CPS7733X) A327508	BRWN SAND FILL LOOS 0012
MISSISSAUGA CITY DS N 01 015	17 611471 4826439 W	2022-02 6607	2		<i>III</i> :	МО	0008 5	7414570 (AAW5EJ5H) A327512	BRWN SAND FILL LOOS 0012

TOWNSHIP CON LO	UTM	DATE CNT	CASING DIA	WATER	PUMP TEST	WELL USE	SCREEN	WELL	FORMATION
MISSISSAUGA CITY DS N 01 015	17 611350 4826590 W	2019-07 6607	2.00	UT 0007	<i>///:</i>	MT	0010 10	7338241 (AFJM5CCY) A241365	BRWN SAND GRVL FILL 0010 BRWN CLAY SILT HARD 0016 GREY SHLE ROCK 0020
MISSISSAUGA CITY DS N 01 015	17 611928 4826601 W	2022-04 7282	2	UT 0010	<i>III</i> :	MO	0010 10	7417545 (HKPQD6XM) A346841	BRWN FILL SAND GVLY 0003 GREY TILL GRVL 0010 GREY TILL SHLE WTHD 0020
MISSISSAUGA CITY DS N 01 016	17 611272 4826442 W	2018-03 7360	2	UT 0020		MO	0010 10	7308733 (Z284018) _NO_TAG	FILL 0005 SAND 0010 SHLE 0020
MISSISSAUGA CITY DS N 01 016	17 611925 4826044 W	2021-10 7241						7404558 (Z374607) A P	
MISSISSAUGA CITY DS N 01 016	17 611454 4826027 W	2021-07 7360	2		<i>III</i> :	MO	0050 10	7394878 (G2ZKVYIJ) A337422	ROCK 0060
MISSISSAUGA CITY DS N 01 016	17 611452 4826021 W	2020-02 7147	1.97	UT 0013	<i>III</i> :	MO	0009 5	7356704 (UW4I7ZU3) A277790	BRWN SAND 0013
MISSISSAUGA CITY DS N 01 016	17 611439 4826007 W	2020-02 7147	1.97	UT 0013	<i>III</i> :	MO	0008 5	7356703 (MI433L75) A277789	BRWN SAND 0013
MISSISSAUGA CITY DS N 01 016	17 611438 4826132 W	2021-09 7644						7402201 (Z370368) A336287 P	
MISSISSAUGA CITY DS N 01 017	17 610995 4825908 W	1955-01 2909	6 6	FR 0051	7/50/3/4:0	DO		4902212 ()	FILL 0002 BLUE CLAY 0008 GREY SHLE 0054
MISSISSAUGA CITY DS N 01 018	17 611159 4825584 W	2020-05 7215						7383924 (C48038) A295188 P	
MISSISSAUGA CITY DS N 01 018	17 611166 4825598 W	2020-10 7215						7383925 (C49497) A295031 P	
MISSISSAUGA CITY DS S 01 015	17 611879 4826345 W	2021-05 7732	1.97		<i>III</i> :	MO	0015 5	7387610 (EKL45O23) A311588	BRWN CLAY SILT 0010 BRWN SILT CLAY 0020
MISSISSAUGA CITY DS S 01 015	17 612075 4826217 W	2022-09 7360	2		<i>III</i> :	MO	0009 5	7428962 (5LGUF4TI) A350090	CLAY SILT TILL 0014
MISSISSAUGA CITY DS S 01 015	17 611903 4826245 W	2021-05 7732	1.97		<i>III</i> :	МО	0011 5	7387609 (U6YFF5O4) A311587	BRWN CLAY SILT 0010 BRWN SILT CLAY 0016
MISSISSAUGA CITY DS S 01 015	17 611835 4826303 W	2021-05 7732	1.97		<i>///:</i>	MO	0015 5	7387611 (D4MOUEY7) A311589	BRWN CLAY SILT 0010 BRWN SILT CLAY 0020

TOWNSHIP CON LO	UTM	DATE CNT	CASING DIA	WATER	PUMP TEST	WELL USE	SCREEN	WELL	FORMATION
MISSISSAUGA CITY DS S 01 015	17 611791 4826252 W	2023-12 7360	2	0015	///:	MO	0020 10	7467680 (B3K5CYWR) A395482	GRVL SAND FILL 0015 BRWN CLAY SILT 0020 GREY CLAY SAND 0030
MISSISSAUGA CITY DS S 01 015	17 611788 4826251 W	2023-12 7360	2		///:	MO	0008 5	7467678 (X78T4ZFL) A395431	GRVL SAND SILT 0012
MISSISSAUGA CITY DS S 01 015	17 611942 4826193 W	2022-09 7360	2		///:	MO	0010 5	7432790 (HGRYGGOF) A364221	FILL SAND SLTY 0001
MISSISSAUGA CITY DS S 01 015	17 611839 4826275 W	2022-09 7360	2		///:	MO	0010 5	7432774 (54FPISWA) A350087	FILL SAND SLTY 0001
MISSISSAUGA CITY DS S 01 015	17 612032 4826188 W	2022-09 7360	2		///:	MO	0009 5	7428963 (WD362ZNP) A350091	CLAY SILT TILL 0014
MISSISSAUGA CITY DS S 01 015	17 612049 4826126 W	2021-06 7215	2		///:	TH	0008 10	7394069 (Z358724) A	0018
MISSISSAUGA CITY DS S 01 015	17 611907 4826370 W	2020-10 7472	2		///:	MO	0010 10	7374024 (OTWVPHOK) A308294	BRWN FILL LOOS 0015 GREY CLAY TILL PCKD 0020
MISSISSAUGA CITY DS S 01 017	17 611262 4825587 W	2014-11 7147						7232882 (C26895) A P	
MISSISSAUGA CITY DS S 01 018	17 611201 4825556 W	2022-03 7472	2		///:	MO	0020 10	7414703 (HOJCTDKN) A346900	BRWN FILL LOOS 0007 GREY TILL SILT PCKD 0030
MISSISSAUGA CITY DS S 01 018	17 611187 4825505 W	2021-12 7774			///:	MO		7411568 (QJ2BJ8TT) _NO_TAG A	

TOWNSHIP CON LO UTM DATE CNT CASING DIA WATER PUMP TEST WELL USE SCREEN WELL FORMATION

SNDS SANDSTONE

SNDY SANDYOAPSTONE

Notes:

DRTY DIRTY

DRY DRY

UTM: UTM in Zone, Easting, Northing and Datum is NAD83; L: UTM estimated from Centroid of Lot; W: UTM not from Lot Centroid

DATE CNTR: Date Work Completedand Well Contractor Licence Number

CASING DIA: .Casing diameter in inches

WATER: Unit of Depth in Fee. See Table 4 for Meaning of Code

HARD HARD

HPAN HARDPAN

PUMP TEST: Static Water Level in Feet / Water Level After Pumping in Feet / Pump Test Rate in GPM / Pump Test Duration in Hour : Minutes

WELL USE: See Table 3 for Meaning of Code SCREEN: Screen Depth and Length in feet

WELL: WEL (AUDIT #) Well Tag . A: Abandonment; P: Partial Data Entry Only

1. Core Material and Descriptive te

Code	Description	Code	Description	Code	Description	Code	Description	Code	Description
BLDR	BOULDERS	FCRD	FRACTURED	IRFM	IRON FORMATION	PORS	POROUS	SOFT	SOFT
BSLT	BASALT	FGRD	FINE-GRAINED	LIMY	LIMY	PRDG	PREVIOUSLY DUG	SPST	SOAPSTONE
CGRD	COARSE-GRAINED	FGVL	FINE GRAVEL	LMSN	LIMESTONE	PRDR	PREV. DRILLED	STKY	STICKY
CGVL	COARSE GRAVEL	FILL	FILL	LOAM	TOPSOIL	QRTZ	QUARTZITE	STNS	STONES
CHRT	CHERT	FLDS	FELDSPAR	LOOS	LOOSE	QSND	QUICKSAND	STNY	STONEY
CLAY	CLAY	FLNT	FLINT	LTCL	LIGHT-COLOURED	QTZ	QUARTZ	THIK	THICK
CLN C	CLEAN	FOSS	FOSILIFEROUS	LYRD	LAYERED	ROCK	ROCK	THIN	THIN
CLYY	CLAYEY	FSND	FINE SAND	MARL	MARL	SAND	SAND	TILL	TILL
CMTD	CEMENTED	GNIS	GNEISS	MGRD	MEDIUM-GRAINED	SHLE	SHALE	UNKN	UNKNOWN TYPE
CONG	CONGLOMERATE	GRNT	GRANITE	MGVL	MEDIUM GRAVEL	SHLY	SHALY	VERY	VERY
CRYS	CRYSTALLINE	GRSN	GREENSTONE	MRBL	MARBLE	SHRP	SHARP	WBRG	WATER-BEARING
CSND	COARSE SAND	GRVL	GRAVEL	MSND	MEDIUM SAND	SHST	SCHIST	WDFR	WOOD FRAGMENTS
DKCL	DARK-COLOURED	GRWK	GREYWACKE	MUCK	MUCK	SILT	SILT	WTHD	WEATHERED
DLMT	DOLOMITE	GVLY	GRAVELLY	OBDN	OVERBURDEN	SLTE	SLATE		
DNSE	DENSE	GYPS	GYPSUM	PCKD	PACKED	SLTY	SILTY		

PEAT PEAT

PGVL PEA GRAVEL

2. Core Color

3. Well Use

Code	Description	Cod	de Description	Coc	de Description
WHIT	WHITE	DO	Domestic	OT	Other
GREY	GREY	ST	Livestock	TH	Test Hole
BLUE	BLUE	IR	Irrigation	DE	Dewatering
GREN	GREEN	IN	Industrial	MO	Monitoring
YLLW	YELLOW	CO	Commercial	MT	Monitoring TestHole
BRWN	BROWN	MN	Municipal		
RED	RED	PS	Public		
BLCK	BLACK	AC	Cooling And A	/C	
BLGY	BLUE-GREY	NU	Not Used		

4. Water Detail

```
Code Description Code Description FR Fresh GS Gas SA Salty IR Iron SU Sulphur MN Mineral UK Unknown
```

Appendix C: Borehole Logs





LIST OF ABBREVIATIONS

Description of Soil

The consistency of cohesive soils and the relative density or compactness of cohesionless soils are described in the following terms:

C	OHESIVE SOIL		COHESION	ILESS SOIL
CONSISTENCY	N (blows/0.3 m)	C (kPa)	DENSENESS	N (blows/0.3 m)
Very Soft	0 – 2	0 – 12	Very Loose	0 – 4
Soft	2 – 4	12 – 25	Loose	4 – 10
Firm	4 – 8	25 – 50	Compact	10 – 30
Stiff	8 – 15	50 – 100	Dense	30 – 50
Very Stiff	15 – 30	100 – 200	Very Dense	>50
Hard	>30	>200		
Moisture conditions				
Moist: dark or greyish color,	may feel cool upon		·	
Wet: same as moist with free	water seepage when handled			

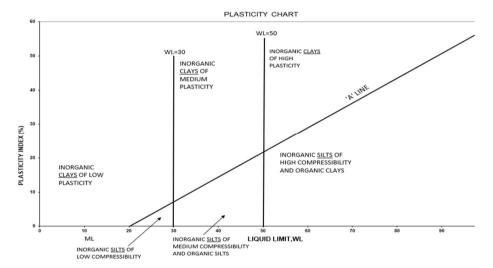
A 1							
Λ	n	^r	\sim	/1	at.	10	nc
$\boldsymbol{-}$	U	JI.	ヒヽ	/ 1	aι	.IU	ns

SS Split Spoon Sample AS Auger Sample GS Grab Sample **Direct Push** DP S Sample RC Rock Core FV/VA

Shear Vane (Field)

Standard Penetration Test SPT Blow counts per 300mm of Ν

penetration. (ASTMD1586) MC Moisture Content PL Plastic Limits LL Liquid Limits Ы Plasticity Index CF Continuous Flight SSA Solid Stem Auger **HSA** Hollow Stem Auger



Penetration Resistance

Standard Penetration Resistance N: The number of blows required to advance a standard split spoon sampler 0.3 m into the subsoil. Driven by means of a 63.5 kg hammer falling freely a distance of 0.76 m. The values reported are as noted in the field without corrections.

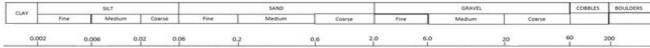
Soil Classification Dynamic Penetration Resistance: The number of blows required to advance a 51 mm, 60-degree cone, fitted to the end of drill rods, 0.3 m into the subsoil. The driving energy being 475 J per blow. Soils descriptions are made per the Canadian Foundations Engineering Manual (CFEM), following the International Society for Soil Mechanics and Foundation Engineering. (ISSMFE)

Notes

Soil samples will be discarded after three months unless directed otherwise by the Client.

Unless the grain size analysis is performed in our lab, soil samples are classified based on visual, tactile, and olfactory examinations, which may not be sufficient for accurate classification or precise grain sizing.

ISSMFE SOIL CLASSIFICATION



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// C	25
Consultino	lnc.

PR	CLIENT D-Stillwaters Development Inc. PROJECT NUMBER G2S24602					_ PR	PROJECT LOCATION 55 Dundas St W, Mississauga, ON								
DR	ILLING	RTED _25-3-12 COMPLETED _ CONTRACTOR _Davis Drilling Ltd. METHOD _CME 55 Track; CFHSA; HQ Core				_ L0	LOGGED BY DB/NS CHECKED BY AA								
DEPTH (m)		MATERIAL DESCRIPTION	ELEVATION (m)	GRAPHIC LOG	NUMBER	TYPE	N VALUE								
-	0.05	ASPHALT: ~50 mm	114.65					Flushmount protective casing							
1	0.99_	GRANULAR: ~70 mm FILL: Sand, yellow brown, trace silt, moist	113.72		S1 S2A	SPT	8	O/O set in concrete O/O O/O O/O O/O O/O O/O O/O							
	'	becoming brown, trace silt			S2B	SPT	7	△ 0/1							
2					S3	SPT	7	▲ • 0/0							
3	2.3	SAND: Light brown, trace silt, moist, dense	112.41		S4	SPT	30	0/0 184 (15							
-	3.8		110.89		S5	SPT	44	I							
4		SHALE / TILL COMPLEX: Grey, trace shale fragments, compact			S6	SPT	19	5/0 39 28 26 7							
5-8-14	4.6	WEATHERED SHALE: Grey	110.13		S7	SPT	50	50/100 mm							
BH DATA TEMPLATE GDT 25-	6.4	SHALE BEDROCK OF GEORGIAN BAY FORMATION: Refer to log of rock core for details of bedrock stratigraphy Run No. 1 Total Recovery - 100% RQD - 77% Good rock quality based on RQD Moderately weathered to highly	108.32		S8	RC									
		weathered. Run No. 2 Total Recovery - 100% RQD - 32% Poor rock quality based on RQD Moderately weathered to highly			S9	RC		Filter sand							
24602 BOREHOLE LOGS	8.0	weathered. Run No. 3 Total Recovery - 100% RQD - 52% Fair rock quality based on RQD Slightly weathered to moderately weathered.	106.72		S10	RC		Slotted screen							
2021 G2S GEOTECH BOREHOLE LOG G2S224602 BOREHOLE LOGS GPJ G2S 2027	9.5	Run No. 4 Total Recovery - 100% RQD - 56% Fair rock quality based on RQD Slightly weathered to moderately weathered.	105.25		S11	RC									
2021 G2S GEOTE		Run No. 5 Total Recovery - 100% RQD - 66% Fair rock quality based on RQD Slightly weathered to highly weathered.	100.70		S12	RC									

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G25
Consulting Inc.

CLIENT D-Stillwaters Development Inc.

PROJECT NAME Proposed Mixed Use Condo Development

PROJECT NUMBER G2S24602

PROJECT LOCATION _55 Dundas St W, Mississauga, ON

(m)		(m) NC	5070	ER	Ш	EU.	SPT N VALUES N values CPT values 10 20 30 40 MOISTURE / PLASTICITY SO NO
DEPTH	MATERIAL DESCRIPTION	ELEVATION (m)	GRAPHIC LOG	NUMBER	TYPE	N VALUE	N values CPT values 10 20 30 40
	12.5	102.20					
13	Run No. 6 Total Recovery - 100% RQD - 77% Good rock quality based on RQD Slightly weathered to unweathered.			S13	RC		
15	Run No. 7 Total Recovery - 100% RQD - 91% Excellent rock quality based on RQD Slightly weathered to unweathered.	100.68		S14	RC		
	15.5	99.16					

Borehole terminated at 15.5 m.

V	Vater Level	Readings:
<u>Date</u>	Depth (m)	Elev. (m)
2025-03-26	6.50	108.20
2025-04-16	6.40	108.30
2025-04-21	5.40	109.30
2025-05-23	6.50	108 20

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G2S Consulting Inc.

CLIENT D-Stillwaters Development Inc.	PROJECT NAME Proposed Mixed Use Condo Development						
PROJECT NUMBER G2S24602	PROJECT LOCATION 55 Dundas St W, Mississauga, ON						
DATE STARTED 25-3-12 COMPLETED 25-3-12	GROUND ELEVATION 114.8 m						
DRILLING CONTRACTOR Davis Drilling Ltd.	LOGGED BY DB/NS CHECKED BY AA						
DRILLING METHOD CME 55 Track; CFHSA	NOTES						
	SPT N VALUES						

DEPTH (m)	MATERIAL DESCRIPTION	ELEVATION (m)	GRAPHIC LOG	NUMBER	TYPE	N VALUE	SPT N VALUES N values CPT values 10 20 30 40 Undrained Shear Strength (kPa) Pocket Penetrometer Vane 40 80 120 160	MOISTURE / PLASTICITY PL MC LL I I 10 20 30	SOIL GAS READINGS HEX/IBL (ppm)	WELL CONSTRUCTION	GRAIN SIZE DISTRIBUTION % GR SA SI &CL
	FILL: Sand, dark brown and brown, some gravel, some silt, debris including slag, organics, moist	114.04	$\overset{\otimes}{\otimes}$	S1	SPT	33	A	•	0/0		Flushmount protective casing set in concrete
1	becoming sand, yellow brown, debris including red brick			S2	SPT	7	A		0/0		Bentonite seal
2	2.3	112.51	\bigotimes	S3	SPT	9	<u> </u>	•	0/0		Filter sand
3	SAND: Light brown, trace silt, very moist, compact			S4	SPT	29	A	•	0/0		Slotted screen
	becoming wet 3.5 WEATHERED SHALE: Grev	111.75 111.27 111.17		S5A S5B	SPT	50	50/125	imm •	0/0		

No further progess due to auger and sampler refusal on probable bedrock Borehole terminated at 3.6 m.

 Water Level Readings:

 Date
 Depth (m)
 Elev. (m)

 2025-04-16
 3.10
 111.70

 2025-03-26
 3.30
 111.50

 2025-05-23
 3.20
 111.60

 2025-04-21
 3.10
 111.70

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CL	CLIENT _D-Stillwaters Development Inc.						PROJECT NAME Proposed Mixed Use Condo Development										
PR	OJECT	NUMBER G2S24602				_ PR	PROJECT LOCATION 55 Dundas St W, Mississauga, ON										
DA	TE STA	ARTED 25-3-11 COMPLETED	25-3-1	1		_ GR											
DR	RILLING	CONTRACTOR Davis Drilling Ltd.				_ LC	OGGE	D BY	_DE	/NS			CHEC	KED I	BY _A	A	
DR	RILLING	METHOD CME 55 Track; CFHSA; HQ Core)			_ NO	TES _										
DEPTH (m)		MATERIAL DESCRIPTION	ELEVATION (m)	GRAPHIC LOG	NUMBER	TYPE	N VALUE	Und Pock	ralue 0 2 Irained et Penete	Shear Someter	UES PT values A 0 40 Strength (kPa) Vane 0 160	MOI PLA	STUR STICI MC	TY	SOIL GAS READINGS HEX/IBL (ppm)	WELL CONSTRUCTION	GRAIN SIZE DISTRIBUTION 9 GR SA SI &CL
-	0.23	TOPSOIL: ~225 mm	114.38	<u> </u>	ľ	SPT	2				:		:	:	0/0		Flushmount protective casing
	0.76	FILL: Sand, yellow brown, trace to some silt, moist	113.84	\bigotimes	S1B	Ŭ	_	Γ			:	•			0/0		set in concrete
1	1.5	becoming brown, rust staining	113.08		S2	SPT	7					•			0/0		
2	-	SAND: Light brown, some silt, reworked appearance, moist, compact			S3	SPT	12		A			•	:		0/0		0 76 20 4
-	2.6		112.00		S4A	SPT	50				50/25	mm			0/0		
3	3.1	SHALE / TILL COMPLEX: Grey, trace shale fragments, very dense	111.55		S4B			-			E0/12	E			0/0		
	3.3	WEATHERED SHALE: Grey	111.35		S5	SPT	50	7			90/12	5 mm	:	:	0/0		
	3.7	SHALE BEDROCK OF GEORGIAN	110.94		S6	RC				:	:	:	:	* * * * * * * * * * * * * * * * * * * *			Bentonite seal
- 4 - 4 - 5 - 8-14 - 5	5.2	BAY FORMATION: Refer to log of rock core for details of bedrock stratigraphy Run No. 1 Total Recovery - 100% RQD - 30% Poor rock quality based on RQD Moderately weathered to highly	109.42		S7	RC											
BH DAIA IEMPLAIE.GDI	6.7	weathered. Run No. 2 Total Recovery - 100% RQD - 27% Poor rock quality based on RQD Moderately weathered to highly weathered.	107.87		S8	RC											Filter sand
7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		Run No. 3 Total Recovery - 100% RQD - 47% Poor rock quality based on RQD Moderately weathered to highly weathered. Run No. 4	400.07		S9	RC											The said
OG G2SZ4602 BOREHOLE	9.8	Total Recovery - 40% RQD - 0% Very poor rock quality based on RQD Highly weathered to completely weathered. Run No. 5 Total Recovery - 100% RQD - 50%	106.37		S10	RC											Slotted screen
2021 G25 GEOTECH BOREHOLE LOG G2554802 BOREHOLE LOGS GPJ G25 2021 BH DATA TEMPLATE.GDT 25-8-14 T1 01 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	11.3	Fair rock quality based on RQD Slightly weathered to moderately weathered. Run No. 6 Total Recovery - 100% RQD - 58% Fair rock quality based on RQD Slightly weathered to completely weathered.	103.32		S11	RC											
12	-										:	:	:	:			

PAGE 2 OF 2

G2S Consulting Inc.

CLIENT _ D-Stillwaters Development Inc.

PROJECT NAME Proposed Mixed Use Condo Development

PROJECT NUMBER G2S24602

PROJECT LOCATION _55 Dundas St W, Mississauga, ON

DEPTH (m)	MATERIAL DESCRIPTION	ELEVATION (m)	GR	NUMBER	N VALUE	SPT N VALUES N values CPT values 10 20 30 40 Undrained Shear Strength (kPa) Pocket Penetrometer Vane 40 80 120 160	MOISTURE / PLASTICITY PL MC LL PL H H H 10 20 30	SOIL GAS READINGS HEX/IBL (ppm) WELL CONSTRUCTION	GRAIN SIZE DISTRIBUTION % GR SA SI &CL
13	Run No. 7 Total Recovery - 100% RQD - 82% Good rock quality based on RQD Unweathered to slightly weathered. (continued)	101.80		12 RC					
14	Run No. 8 Total Recovery - 100% RQD - 51% Fair rock quality based on RQD Slightly weathered to highly weathered.	100.27		13 RC					

Borehole terminated at 14.3 m.

<u>Date</u>	٧	Vater Level Depth (m)	
2025-03 2025-04	1-16	5.30 5.20	109.30 109.40
2025-04 2025-05		5.20 5.20	109.40 109.40

PAGE 1 OF 2



	ENT. DOWN steen Development Lea				-	0.150			· · · · · · · · · · · · · · · · · · ·				. 1 .		
	ENT _D-Stillwaters Development Inc.							-	Proposed Mi						
	DJECT NUMBER G2S24602	25.2	10						N 55 Dund		v , IVIISSI	ssaug	ja, UN	1	
	TE STARTED 25-3-10 COMPLETED ILLING CONTRACTOR Davis Drilling Ltd.	25-3-	10)N <u>113.7 n</u> NS		_ CHECI	KED E	2∨ ∧	. ^	
	ILLING METHOD CME 55 Track; CFHSA; HQ Core	<u> </u>)TES			10		CITECI	NLD L	,, _ <u></u>		
		<u> </u>		1					VALUES						
DEPTH (m)	MATERIAL DESCRIPTION	ELEVATION (m)	GRAPHIC LOG	NUMBER	TYPE	N VALUE	Und Pock	rained Sh	CPT values 30 40 ear Strength (kPa) eter Vane 120 160	MO	ISTURE ASTICIT MC L	Υ	SOIL GAS READINGS HEX/IBL (ppm)	WELL CONSTRUCTION	GRAIN SIZE DISTRIBUTION ' GR SA SI &CL
-	0.09 0.34 ASPHALT: ~90 mm	113.6 113.3	1 6	S1A	ODT					:	:	:	10/0		Flushmount protective casing
	GRANULAR: ~250 mm		\boxtimes	S1B	SPT	16		A		:	•	:	10/1		set in concrete
1	FILL: Sand, light brown, trace silt, debris including concrete, moist		\otimes						<u> </u>		<u></u>	<u>:</u> :			Bentonite seal
-			\otimes	S2	SPT	3	^			•			5/1		Filter sand
			\otimes							:		:			i iitei saitu
2				S3	SPT	6	A	<u> </u>	<u> </u>	•		<u>:</u>	10/0	[計]	
<u> </u>			\bigotimes				1					:			Slotted screen
-			\otimes	S4	SPT	0 .	A		: :	•	:	:	20/1		
3	3.1	110.6	5 💢				<u> </u>					<u>:</u> :			
	SHALE / TILL COMPLEX: Grey, trace shale fragments, very dense			S5	SPT	50			50/12	5 mm		:	15/1		
-	3.8	109.8	9//				-) mm :	:	:			
4	WEATHERED SHALE: Grey			S6	SPT	50]	: :				: :	0/1		
	4.4	109.3	3									:			
5-8-14	SHALE BEDROCK OF GEORGIAN BAY FORMATION: Refer to log of rock			S7	RC							:			
5 5	core for details of bedrock stratigraphy 5.2 Run No. 1	108.5	2 🚫						: :		:	: :			
H -	Total Recovery - 100%											:			
- IPLA	RQD - 12% Very poor rock quality based on RQD									:	:	:			
M 6	Moderately weathered to highly			S8	RC						<u>;</u>	 :			
DAT.	weathered. Run No. 2											:			
計 7	6.8 Total Recovery - 100%	106.9	2						: :	:	:	:			
2S 20	RQD - 35% Poor rock quality based on RQD								······································	<u>:</u>	······································	:			
<u>-</u>	Moderately weathered to completely weathered.			S9	RC							:			
9es.e	Run No. 3														
의 발	Total Recovery - 100% RQD - 69%	105.5						:	: :	:	·····	·}······· :			
와 -	Fair rock quality based on RQD Slightly weathered to moderately											:			
9 BO	weathered.			S10	RC					:	:	:			
\$2460	Run No. 4 Total Recovery - 40%			310	'\\					:		:			
625	RQD - 37% 9.8 Poor rock quality based on RQD	103.9	<u>5</u>								:	:			
10	Slightly weathered to completely weathered.	103.9	\mathbb{X}			1						: : 			
립	Run No. 5											:			
BOR -	Total Recovery - 100% RQD - 71%			S11	RC						:	:			
핊 11	Fair rock quality based on RQD	40-					ļ					<u>;</u>			
2021 G2S GEOTECH BOREHOLE LOG G2S24602 BOREHOLE LOGS.GPJ G2S 2021 BH DATA TEMPLATE.GDT	weathered.	102.5	2	_		1				:	:	:			
1 G2S										:		:			
12 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			Ň	1						:	:	:			

PAGE 2 OF 2

G25
Consulting Inc.

CLIENT D-Stillwaters Development Inc.

PROJECT NAME Proposed Mixed Use Condo Development

PROJECT NUMBER G2S24602

PROJECT LOCATION _55 Dundas St W, Mississauga, ON

DEPTH (m)	MATERIAL DESCRIPTION	ELEVATION (m)	GRAPHIC LOG	NUMBER	TYPE	N VALUE	SPT N VALUES N values CPT values 10 20 30 40 Undrained Shear Strength (kPa) Pocket Penetrometer Vane 40 80 120 160	MOISTURE / PLASTICITY PL MC LL PL MC LL 10 20 30	GRAIN SIZE DISTRIBUTION % GR SA SI & CL
	Run No. 6 Total Recovery - 100% RQD - 85% Good rock quality based on RQD	100.92		S12	RC				
13	Slightly weathered to unweathered. (continued) Run No. 7 Total Recovery - 100% ROD - 77.5%	99.40		S13	RC				
15	Run No. 8 Total Recovery - 100%	97.85		S14	RC				

Borehole terminated at 15.9 m.

Water Level Readings:
Date Depth (m) Elev. (m)

2025-03-26 Dry --2025-04-16 Dry --2025-04-21 Dry --

BOREHOLE NUMBER 105

PAGE 1 OF 1

	25
Consultin	a Inc.

CL	IENT D-Stillwaters Development Inc.				_ PR	OJEC	Proposed Mixed Use Condo Dev	elopment	
PR	OJECT NUMBER G2S24602				_ PR	OJEC	LOCATION 55 Dundas St W, Mississaug	ja, ON	
	TE STARTED 25-3-11 COMPLETED	25-3-1	1				ELEVATION 114.9 m		
DR	ILLING CONTRACTOR Davis Drilling Ltd.				_ LC	GGE	DBY DB/NS CHECKED E	3 Y _AA	
DR	CME 55 Track; CFHSA				_ NO	TES _			
DEPTH (m)	MATERIAL DESCRIPTION	ELEVATION (m)	GRAPHIC LOG	NUMBER	TYPE	N VALUE	SPT N VALUES N values CPT values 10 20 30 40 Undrained Shear Strength (kPa) Pocket Penetrometer Vane 40 80 120 160 MOISTURE / PLASTICITY PLASTICITY	SOIL GAS READINGS HEX/IBL (ppm) WELL CONSTRUCTION	GRAIN SIZE DISTRIBUTION GR SA SI &CL
	0.06 ASPHALT: ~60 mm 0.08 GRANULAR: ~20 mm	114.84 114.82 114.29	\bowtie	S1	SPT	1 .		0/0	
1	FILL: Sand, yellow brown, trace silt		\bigotimes	S2	SPT	6		0/0	
-	1.5 SAND: Light brown, trace to some silt	113.43	\bigotimes	S3A S3B	SPT	13		0/0	
2	2.4	112.46		S4	SPT	29	A	0/1	0 80 (20
ļ.,	2.7 WEATHERED SHALE: Grey	112.21		S5	SPT	50	50/100 mm	0/1	

No further progess due to auger and sampler refusal on probable bedrock Borehole terminated at 2.7 m.

BOREHOLE NUMBER 106

50/1

40/2

0 83 (17)

50/125 mm

PAGE 1 OF 1

			2	5
Cor	sul	tin	g I	nc.

CL	ENT _ D-Stillwaters Development Inc.				_ PR	OJEC ⁻	CT NAME Proposed Mixed Use Condo Development	_
PR	OJECT NUMBER G2S24602				_ PR	OJEC ⁻	CT LOCATION 55 Dundas St W, Mississauga, ON	_
DR	TE STARTED 25-3-10 COMPLETED 2 ILLING CONTRACTOR Davis Drilling Ltd. ILLING METHOD CME 55 Track; CFHSA	25-3-10	0		LC		D ELEVATION	_
DEPTH (m)	MATERIAL DESCRIPTION	ELEVATION (m)	GRAPHIC LOG	NUMBER	TYPE	N VALUE		IN SIZE BUTION A SI &CL
	0.07/ ASPHALT: ~70 mm GRANULAR: ~250 mm 0.76 FILL: Silty cand, dark brown and gray	113.73 113.48 113.04		S1A S1B	SPT	17	△ 0/0 0/0	
1	becoming sand, yellow brown, trace silt			S2	SPT	11	0/1	
2	SAND: Light brown, trace to some silt, compact	112.11		S3A S3B	SPT	17		

111.51

111.08

110.70

S4A

S4B

SPT

S5 SPT

50

50

No further progess due to auger and sampler refusal on probable bedrock Borehole terminated at 3.1 m.

becoming grey, dense

WEATHERED SHALE: Grey



Explanatory Sheet To Core Log

Column No.	Description			
1	Elevation of Geotechnical Bo	oundary		
2	Depth of Geotechnical Bound	dary in Borehole		
3	Geological Symbol for Rock	or Soil Material		
4	General Description of Geote percentage of rock types, fre- strength and general joint spa	quency, and sizes o		
5-11	Joint (Discontinuity) Characte	eristics		
5	Number of Joints in Set: A ro orientation	ck mass can be inte	ersected by a nun	nber of joint sets of varying
6	laint Typa:			
6	Joint Type:	F = Fault		
	B = Bedding Joint			
	C = Cross Joint	S = Shear Plane		
7	Orientation: Only variations in mapping or orientated core F = Flat	n dip can be identifie	ed in core; dip dir	ection is obtained from field
		= 20 – 50°		
	D = Dipping			
	V = Vertical	= 50 – 90°		
8	Joint Spacing: This is an app VW = Very Wide W = Wide M = Moderate C = Close VC = Very Close	= >3 m = 1 to 3 m = 30 cm to 1 m = 5 to 30 cm = <5 cm	of spacing betwee	en joints in specific joint sets
9	Roughness RU = Rough Undulating RP = Routh Planar SU = Smooth Undulating SP = Smooth Planar LU = Slickensided Undulating LP = Slickensided Planar	ng		
10	Filling:	na	Approximate Φ_t $25 - 35^\circ$	
	T = Tight, hard, non-softeni			
	O = Oxidation, surface stair		25 – 30°	
	SA = Slightly altered; clay fr		25 – 30°	
	S = Sandy particles; clay fre		25 – 35°	
	Si = Sandy and silty minor of		20 – 25°	
	NC = Non softening clays (16 – 24°	
	SO = Softening clavs (<5mi	m)	12 – 16°	

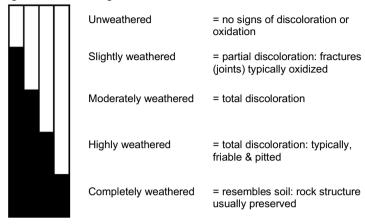
SO = Softening clays (<5mm)
SC = Swelling clay fillings (<5mm)

12 – 16° 6 – 12°



11 Aperture: Estimated size of joint opening

12 Degree of Weathering of Rock Material



13 Strength of Rock Material

Approx. Uniaxial Compressive Strength

Very High Strength	= Specimen can only be chipped by a geological hammer	>200 MPa
High Strength	= Specimen requires a number of blows to fracture it: cannot be scrapped with a pocketknife	50 – 100 MPa
Medium Strength	= Specimen can be fractured by a single blow of geological hammer; can be scrapped with pocketknife, not peeled	15 – 50 MPa
Low Strength	 Shallow indentations made with a firm blow of geological hammer; can be peeled with pocketknife with difficult 	4 – 15 MPa
Very Low Strength	= Crumbles under firm blow with point of geological hammer; can be peeled by pocketknife	1 – 4 MPa

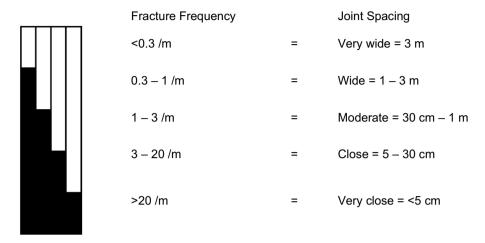


16

17

18

14 Fracture Frequency: Number of natural joints occurring over a mere length of core. All natural joints are counted irrespective of the number of the number of joint sets:



15 Run Number: Drill run number

Core Recovery: Core recovery is the total length of core pieces, irrespective of their individual lengths, obtained in a core run and expressed as a percentage of the length of that core run.

Rock Quality Designation (RQD): The total length of those pieces of sound core which are 10 cm or greater in length in a core run expressed as a percentage of the total length of that core run. Sound pieces of rock are those pieces separated by natural breaks and not machine breaks or subsequent artificial breaks

ROD	Rock Mass Classification (After Deere)
0 – 25%	Very poor
25 – 50%	Poor
50 – 75%	Fair
75 – 90%	Good
90 – 100%	excellent

Water Recovery: The estimated water returning out of the casing

19 Water Colour: The colour of the water returning out the casing

			ROCK CORE										ВН	11/				
PROJI Geo		cal Inv	estigation	ORIE Ver	NTATIO	ON		LEVA 114.7		i (m)	D	ATUM			PRO.	JECT S246		BE
LOCA	TION				STAR	TED		OMP		D		OGGE	BY		DRA			ΙΒΙ
		Stree	t, Mississauga		11-25			03-1				NS	4 DD=:		0::=			_
CLIEN 55 C		s Deve	lopment Inc.	DRIL Dav	L EK ⁄is Drilli	ng Lt	- 1	RILL HQ F		= Coring	1 -	UKE BA HQ	ARREL		SHE		of	
Œ					JOIN'	T CH/			STIC	S	'n			~	(%		(%	
ELEVATION (m)	DEPTH (m)	SYMBOL	GENERAL DESCRIPTION	NO OF SETS	5 Ē	ORIENTATION	SPACING	ROUGHNESS	FILLING	APERTURE (mm)	WEATHERING	STRENGTH	FRACTURE FREQUENCY	RUN NUMBER	RECOVERY (%)	RQD	WATER RECOVERY (%)	
1	2	3	4	5		7	8 8	9	10	11	12	13	14	15	16	17	18	-
09.8	-		GEORGIAN BAY FORMATION SHALE		В	F	VC	SU	so				НП					H
	-5		BEDROCK		B B	F	VC C	SP RP	SA SA									
					В	F	С	RP	SA									
-	-				B B	F	VC C	SU RP	SA SA									
	-				В	F	VC	RU	SA									
					В	F	С	RP	SA									
					B	F	C	RP RP	SA SA									
-	-				В	F	VC	RP	SA									
					В	F	VC	SP	SA									
					B B	F	C	RP RP	SA SA									
	_				В	F	VC	SU	SA					4	100	77	100	
					В	F	C	RP	SA					1	100	77	100	
9.0					В — В	F	VC	SP RP	SA									
ŀ	_		- Fractured Zone		В	F	VC	RP	SA									
8.9			- Limestone slab		<u>В</u> В	F	VC VC	RU SP	SA SA									
		H			_	1												
-	-6				В	F	VC	RP	SA									
					В	F	VC	SU	SA									
Ī																		
-	-																	
		H																
		口																
08.3	_		- Thin limestone slabs		В	F	VC	RP	SA									T
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	-				В	F	VC	SP	Т									
-	-				В	F	VC VC	RP	SA									
					В	F		SP	SA									
					В	F	VC C VC	SP RU RU	SO									
ŀ	1				В	F												
					В	F	VC	SU	SA									
	-7				В	F	VC	RU	Si									
)7.7			- Fractured Zone		75	<u> </u>	1.5	· <u>.</u>	<u> </u>									
														2	100	32	100	
)7.5	-													_		-		'
	-																	
	-				В	F	VC VC	RP	SA									
					В	F	VC	SU	SA									
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	-				В	F	VC	RU RP	Si									
					В	F	VC	RP	SA									
-	<u> </u>				В	F	VC	RU	SA									
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		C	96															
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			ROCK COR	EL	OG	j					BH NO. 101						1	
PROJEC					ENTATI	ON		LEVA		l (m)	D.	DATUM			PRO			IBE
		al Inve	estigation		rtical			114.7		_	4.	00055	N DV			S246		
LOCATIO		Ctroot	Mississauge	I	E STAF -11-25	KIED	1 -	OMP 03-1		:D	- 1	OGGED NS	BY		DRA	WING	NUN	ЛΒ
55 Dur	iuas	Street	, Mississauga		-11-25 L LER			RILL		F		ORE B	∆RREI		SHEI	-T		_
	ndas	Devel	opment Inc.	I .	ıvis Drill	ing Lt				Coring	- 1	HQ	-1111		OHL		of	
(i					JOIN	T CH/	ARAC	TERI	STIC	S					(%)		(9)	. [
	2 DEPTH (m)	SYMBOL	GENERAL DESCRIPTION 4	1	2 NO. OF SETS 2 JOINT TYPE	ORIENTATION	∞ SPACING	ω ROUGHNESS	D FILLING	L APERTURE (mm)	2 WEATHERING	13 STRENGTH	FRACTURE FREQUENCY	TO NUMBER	B RECOVERY (%)	0 0 17	™ WATER (%)	
-	_		·			-												F
06.7 -8	3		- Thin limestone slabs															+
-					F	V	С	RU	SA									
-					В	F	С	RP	SA									
-					В	F	С	RU	SA									
-					В	F	С	RP	SA									
-					В	F	VC	RP	SA									
06.0					В	F	С	RP	SA									
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Ţ		丑			В	F	č	RU	SA									
-9)	\perp			В	F	С	RP	SA									
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ļ					В	F	\c\c\c\c\c\c\c\c	SP RP RU SU SU SU RU	SA SA									
04.2					B B B B	F F F F	VC	SU	SA SA									
-		丑			В	F	C	RU	SA									
04.0					F	V	C	RP	0									
-					ВВ	F	VC C	RU SP	SA									
													шШ	1			<u> </u>	_

on and as D	Togwas 3	digation Mississauga Diment Inc. GENERAL DES 4 Fractured zone	SCRIPTION	Ve DA1 03 DRI Da	S E E E E E E E E E E E E E E E E E E E	NT S	ED	C D	SP SP SP	7 LETE 1-25 TYPI Rock (STIC) STIC	E Coring	L	OGGEI NS ORE B HQ 13		15 RUN NUMBER	G2 DRA' SHE SHE (%) 416	S246 WING	α WATER (%) G G G G G G G G G G G G G G G G G G G	IBΕI
(E) HLG30 2	Togwas 3	GENERAL DES	SCRIPTION	Da	JOI JOI 2 10 2 10 10 10 10 10 10 10 10 10 10 10 10 10	NT	HA CORIENTATION BY	RAC 8 SPACING 8 C AC A	P P P P P P P P P P P P P P P P P P P	STICE STICE STICE STICE STICE SA SA SA SA	APERTURE (mm)	WEATHERING	STRENGTH	FRACTURE FREQUENCY	15 RUN NUMBER	9) RECOVERY (%)	RQD	⇔ WATER (%)	
2	3	4	SCRIPTION		S E E E E E E E E E E E E E E E E E E E	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	규 나 나 나 다 다 다 다 다 다 다 다 다 다 다 다 다 다 다 다	SPACING C	A S S S S S S S S S S S S S S S S S S S	10 SA T Si SA SA SA SA	APERTURE (mm)			TRACTURE PREQUENCY	15	16		18	
11					E E E	333333333333333333333333333333333333333	F F F	VC VC VC VC	SP SP RP RP	SA T Si SA SA	11	12	13	14			17		19
		Fractured zone			E E E	333333333333333333333333333333333333333	F F F	VC VC VC VC	SP SP RP SP	Si SA SA								100	
12					E	3 3 3	F F	vc c vc	RP SP	SA SA								100	
12					E	3 3	F F	C VC	RP SP	SA SA								100	
12					E	3	F	VC C	SP	SA					-			100	
12					E				RP RP									100	
2														1 1 1 1	5	100	66	100	Grey
					E		F	М	RU	SA									
		Fractured zone			E		F	VC C	RU	SA									
		Fractured Zone					'		31	57									
					E	3	F	С	RP	Si									
					E		F F	C C	RU SU	Si SA									
		Thin limestone slabs			E	3	F F F	VC C VC C	RP RU SU SP	SA SA SA SA									
3					E	3	F F	C VC VC	RP RP RU	SA SA SA									
							F F	C C	RP RU	SA T					6	100	77	100	Grey
					E	3	F	M	SU	SA									
13			/ G2 \$	/ G2S	/G2S	- Thin limestone slabs	- Thin limestone slabs B B B B B B B	- Thin limestone slabs B F B F B F B F B F B F B F B F B F B	- Thin limestone slabs B F C B F C B F C B F C B F C B F C B F C B F C C B F C C C C	- Thin limestone slabs B F C RU B F C SP B F C SP B F C RP B F VC RP B F VC RP B F C RP C RU B F C RP C RU	- Thin limestone slabs B F C RU SA B F C SU SA B F C SP SA B F C RP SA B F R R F C R R R R R R R R R R R R R R R	- Thin limestone slabs B F C RU SA B F C SP SA B F C RP SA B F VC RP SA B F C RP SA B F VC RP SA B F C RV T	- Thin limestone slabs B F C RU SA B F C SP SA B F C SP SA B F C RP SA B F VC RP SA B F C RP SA	- Thin limestone slabs B F C RP SA RU SA B F C SP SA B F C SP SA B F C RP SA B F C RP SA B F VC RP SA B F C RU T	- Thin limestone slabs B F C RU SA B F C SP SA B F C SP SA B F C RP SA B F C RP SA B F VC RP SA B F C RP SA	- Thin limestone slabs B	- Thin limestone slabs B F C RU SA B F C SP SA B F C RP SA B F VC RP SA B F C RV SA	B F C RP SA B F VC RP SA B F C RU SA	- Thin limestone slabs B

			ROCK CORE	LC)G	j							ВН	N	D.	10 ⁻	1	
LOCA	otechni NTION		estigation	Verti	cal STAR			114. OMP	7 LETE	N (m)	L	ATUM OGGEI	D BY		G2	S246	NUM 02 NUM	
CLIEN	NT		t, Mississauga	DRILL Davis		ng Lt		03-1 RILL HQ F	TYP	E Coring	С	NS ORE B HQ	ARREL	-	SHE		of	
ELEVATION (m)	DEPTH (m)	SYMBOL	GENERAL DESCRIPTION		JOINT TYPE ON						WEATHERING	STRENGTH	FRACTURE FREQUENCY	RUN NUMBER	RECOVERY (%)	RQD	WATER RECOVERY (%)	WATED CO. D. D.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		17	18	1
100.7	-14				В	F	С	SP	SA									
100.7	-				В	F	С	RP	SA									
100.5	-				В	F	С	RP	NC									
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	-15				В	F	М	RP	SA									
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99.2	_		End of Borehole at 15.5 m															
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			ROCK CORE	E L	OG	;							BH	ΙN	Ο.	10	3	
LOCA	techni		estigation	Ver	NTATIO tical E STAR			114.6 OMP	3			ATUM OGGEI	BY		G	2S246	NUM 602 NUM	
55 C		s Stree	t, Mississauga	03-	11-25 L ER			03-1 ²				NS ORE B	ARRE	=L	SHE	ET		
		s Deve	lopment Inc.	1	/is Drilli JOIN		d.	HQ F	Rock	Coring		HQ	T				of	T = 4
ELEVATION (m)	DEPTH (m)	SYMBOL	GENERAL DESCRIPTION 4			2 ORIENTATION	∞ SPACING S	ω ROUGHNESS	10 FILLING	T APERTURE (mm)	WEATHERING	13 STRENGTH	FRACTURE	TRECOENCY 11		0g 17	∞ WATER RECOVERY (%)	WATER COLOUR
111.4			GEORGIAN BAY FORMATION SHALE		В	F	VC	SP	SA				<u></u>	1	, 10	- 17	10	
-	-		BEDROCK		B B	F F	VC VC	RP RP RU	Si SA					1	100	30	100	Grev
111.1 111.0	=	Ι.	- Limestone slab		В	F	C VC	RP RP	Si SA									
10.9 10.9	-	Ι.	- Limestone slab		B B B	F	VC	SP	SA									
	-4		- Thin Lenses of limestone		B B B B	FFFF	C C VC C	SP RP RU SU RP RU	Si SA SA SA SA									
	-				B B F B F B	F F V F V F	C VC VC VC C C	RU RP RP RV RU RU	SA					2	100	27	100	, au
109.6	5				ВВВ	F F	C C	RU RP										
	_		- Limestone slab															
109.4	-				B F	F V	VC C VC	RU RP SU	SA SA									
109.2 109.2	_		- Thin Lenses of limestone		B B	F	VC VC	RP RU	Si SA									
-					F F B	V V F	C VC C	RU RP RU RP	SA SA SA					3	100	0 47	100	Grev.
-	−6 -				F	V	С	RP RU	SA									

			ROCK COR										BH	١N					
	techni	cal Inv	estigation	ORIEN Vertic	cal			LEVA 114.6	3			ATUM				G25	3246		
LOCA		Stree	t, Mississauga	DATE 9		TED		OMP 03-1		D		OGGEI NS) BY		D	RAV	VING	NUN	ΙB
CLIEN	IT		-	DRILLI	ΞR		D	RILL	TYP		C	ORE B	ARRI	EL	s	HEE			_
55 E	Dundas	s Deve	lopment Inc.	Davis	Drilli JOIN					Coring S		HQ 	T	\top			С	f	Т
ELEVATION (m)	DEPTH (m)	SYMBOL	GENERAL DESCRIPTION	NO. OF SETS	JOINT TYPE	ORIENTATION	SPACING	ROUGHNESS	FILLING	APERTURE (mm)	WEATHERING	STRENGTH	FRACTURE			RECOVERY (%)	RQD	WATER RECOVERY (%)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	1	5	16	17	18	ľ
	-																		
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	-				В	F	VC		SA										
08.0 07.9	_				B F	F V	C	RU RP	Si SA										
07.8					В	F	VC	RP											t
07.7	_		- Fractured Zone		В	F	VC	RP RU	Т										
07.6	-7																		
07.0			- Fractured zone & highly weathered shall	le															
					_	_			۵.										
	-				В	F	VC C	RP	Si						4	53	0	40	
																	Ü	40	
ŀ	-																		
	-																		
	-																		
	-8																		
06.5	-																		
06.4	-		- Thick limestone slabs																Ŧ
	-																		
	-				B B	F	VC VC	RP RP	SA O										
06.1	-					<u>'</u>	70	131											
06.0	-		- Thin slabs of limestone throughout		B B	F	VC VC	RP SP	SA SA										
	_				В	F	С	SP SU SU	Т										
	_							-											
	_																		
	-9														5 1	100	50	100	
	_				F	V	С	RP	SA										
05.4	-				В	F	vc	RP	Si										
	A		C	<u> </u>															_

			ROCK COR		U	7							BH	N	J.	١U٠	3	
PROJ				ORIE	NTATI		E	LEVA		N (m)	ı	DATUM			PRO			IBE
		cal Inv	estigation		tical			114.6			Ц.	0005	DV			S246		
LOCA		o Strac	t Mississauga	I	E STAF 11-25	KIED		OMP 03-1		ט	L	OGGEI NS	RA		DRA	WING	NUN	ıΒ
CLIEN		s ouree	t, Mississauga	DRIL				O3-1		F	-	NS CORE B	ΔRRFI		SHEI	-T		
		s Deve	lopment Inc.		vis Dril	ling Lt				L Coring		HQ			J. 121		of	
Œ						IT CH	ARAC		STIC	S	(1)			~	(%		(%	2
→ ELEVATION (m)	(m) DEPTH (m)	SYMBOL	GENERAL DESCRIPTION 4	0	o NO. OF SE IS	2 ORIENTATION	∞ SPACING	ω ROUGHNESS	DILLING 10	T APERTURE (mm)	2 WEATHERING	13 STRENGTH	FRACTURE FREQUENCY	TO NUMBER	9 RECOVERY (%)	Q 2 17	WATER MECOVERY (%)	1
		3	4	,						- 11	12	13	14	13	10	17	10	Ľ
105.3	-		- Thin slabs of limestone throughout		В	Д <u>Е</u>	\ C	SU	<u> </u>	$\overline{}$								
105.1	-		- Thick limestone slabs		В	F	С	RU	Si									
	-	H	sk innesterio ciabo		В	F	VC	SP	SA									
104.9		Ħ	- Thin slabs of limestone throughout		+			RP										
104.9	_		siabs of inflestone tilloughout		\perp												_	
	-																	
	-				В	F	С	RU	SA									
104.7			- Fractured Zone		+			SU			Ш							
104.6	-10				\perp													
	_		- Thin slabs of limestone throughout															
					F	V	С	RP	SA									
					В	F	VC	RP SU	SA									
104.3	_				В	F	VC	SP	SA									
104.3	-				В	F	VC	SP	Si									
	L				_	,,		RP RU						_				
					F	V	С	RU RP	SA					6	100	58	100	١,
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103.7 103.7	L				+				<u> </u>									
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103.2			Franking d Zor-		\perp													
-	-		- Fractured Zone		В	F	С	SP	Т									
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	, onee	i, iviiosiosauga							E			ARRFI		SHF	ET		
	Deve	opment Inc.	Davis	s Drilli		d.	HQ F	Rock	Coring							of	
						ARAC		STIC		<u>ত</u>			ı,	(%)		(%)	
2 DEPTH (m)	SYMBOL	GENERAL DESCRIPTION 4	o NO. OF SET	9 JOINT TYPE	2 ORIENTATIC	∞ SPACING	∞ ROUGHNES	D FILLING	1 APERTURE (mm)	2 WEATHERIN	STRENGTH	FRACTURE FREQUENCY			08 17	™ WATER © RECOVERY	, , , , , , , , , , , , , , , , , , , ,
-																	
-		- Fractured Zone		В	F	C	SP	T									
-		- Thin slabs of limestone throughout		В	F	C	SP RP	T									
-						1/0											
-		- Fractured Zone					SU										
-13				В	F	С											
-				B B	F	C VC	SP RP	T Si									
-		- Fractured Zone		В	F	VC VC	RU RU	SA									
-																	
-		- Fractured Zone											8	100	51	100	
-				_			0.0	0.4									
-				В	F	M	RP	SA									
-14																	
-																	
		End of Borehole at 14.3 m															
-																	
- 15 -																	
	TION Dundas T Dundas	TION Sundas Stree T Sundas Devel (E) HLdgQ 2 3 3	Technical Investigation TION Dundas Street, Mississauga T Dundas Development Inc. GENERAL DESCRIPTION 2 3 4 - Fractured Zone - Thin slabs of limestone throughout - Fractured Zone GENERAL DESCRIPTION (E) HE	ECT Cechnical Investigation TION DATE STAR (03-11-25) TO PUNIDADE STAR (03-11-25) TO P	technical Investigation TION DATE STARTED 03-11-25 PRILLER Davis Drilling Lt Supply Street, Mississauga Toundas Development Inc. GENERAL DESCRIPTION GENERAL DESCRIPTION - Fractured Zone CECT Cechnical Investigation Cechnical Investigation Cechnical Investigation Cechnical Investigation DATE STARTED CHARACTER Constitution Cechnical Investigation Cechnical Investiga	ECT Cechnical Investigation Vertical Vertical Vertical Vertical COMP Ver	CET technical Investigation Vertical T14.6	CECT ORIENTATION CELEVATION (m) Vertical COMPLETED COM	Computation Computation	Collection Col	Echanical Investigation	Comparison Com	ECT Chechical Investigation TON DATE STARTED QUALIFIED Undata Street, Mississauga Ton Undata Street, Mississauga Undata St	Computer Computer	Computer Computer		

Street	ROCK CORE vestigation et, Mississauga	ORIE Ver	NTATI		F	1 - 7 -			+-							
Street					-	113.7		l (m)	DA	ATUM				JECT 3246	NUM	BE
Devel	et, Mississauga	1	STAF	RTED	c	OMP		D	LC	GGED	BY		DRAN			IBE
		03-	11-25 I FR		Г	03-1 ²		-	- 1	NS DRF BA	ARREL		SHEE	-T		
٥٢ م	elopment Inc.	1	is Drill		d.	HQ F	Rock	Coring		HQ	-1111		OHL		of	
SYMBOL	GENERAL DESCRIPTION	o Ho	or sers	ORIENTATION P	SPACING	ROUGHNESS H		APERTURE (mm)	WEATHERING	STRENGTH	FRACTURE FREQUENCY	RUN NUMBER	RECOVERY (%)	٥	WATER RECOVERY (%)	WATER COLOUR
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3	4		5 6	7	8	9	10	11	12	13	14	15	16	17	18	1
	GEORGIAN BAY FORMATION SHALE BEDROCK		ВВ	F	C VC	RP SU	Si									
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			ВВ	F	C	SP RU	Si SA					1	100	12	100	Grev
			ВВВ	F	C VC	RU	SA Si									C
			B B B	F F	VC C C	RP RP SP	Si SA SA									
			ВВВ	F	CVC	SURU	T SA									
	Eractured Zone	+	В	F	С	RU	SA									
	- Fractured Zone		В	F	VC	SU	Si									
			ВВ	F	C	RU	SA SA									
			B B F	F F D	VC VC VC	SP RP SU	SA SA T									
	- Fractured		В	F	С	SU	SA									
	- Thin Lenses of limestone		B B	F	VC C	SU SP	SA SA					2	100	35	100	Grev
			В	F	С	RU	SA									
			B	F	C VC C	RP RP	SA SA									
			B B B	F F	C VC C	RU RP RU	SA SA Si									
	- Fractured Zone		В	F	VC	RP	SA									
	- Thin Lenses of limestone															
			В	F	С	RP	SA									
			BB	F	VC	SU	SA SA									
				_		Di i	C.4									
			В	F	С	SP	SA									
	- Increase in weathering			-		100	JA									
G		- Increase in weathering	25	B B B B B B	B F B F B F B F B F B F B F B F B F B F	B F C B F C B F C B F C B F C	B F C RP VC SU B F C RU B F C RU B F C RU B F C SP B F C RU	B F C RP SA SA B F C SP SA B F C RU SA B F C RU SA	B F C RP SA SA B F C RU SA B F C SP SA B F C RU SA B F C RU SA B F C RU SA	B F C RP SA SU SA B F C RU SA B F C SP SA B F C RU SA B F C RU SA	B F C RP SA SU SA B F C RU SA B F C SP SA B F C RU SA B F C RU SA	B F C RP SA SA B F C RU SA B F C SP SA B F C RU SA	B F C RP SA SU SA B F C RU SA B F C SP SA B F C RU SA B F C RU SA	B F C RP SA SU SA B F C RU SA B F C SP SA B F C RU SA B F C RU SA B F C RU SA	B F C RP SA SA B F C RU SA B F C SP SA B F C RU SA B F C RU SA C RP SA	B F C RP SA SU SA B F C RU SA B F C SP SA B F C RU SA B F C RU SA B F C RU SA

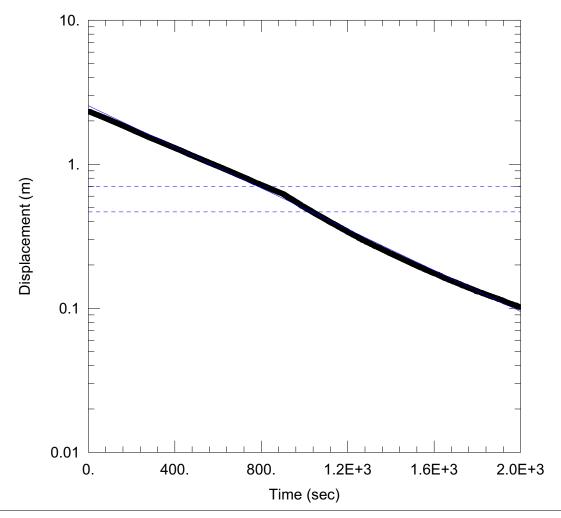
			ROCK COR										ВН	IA	J.	I U	4	
PROJI				1 -	NTATI	ON	E	LEVA		V (m)	D	ATUM			PRO			IBE
Geo L OCA		ical Inv	estigation	Vert	ical STAR	TED		113.7 OMP		- n	-	OGGED) DV		G2	S246		/IDI
		o Stroo	t, Mississauga	l l	1-25	IED	1 -	03-1°		ט		JGGEL NS	BY		DKA	WING	NUN	IBI
CLIEN		S Ollee	i, Mississauga	DRILI				RILL		E			ARREL		SHEI	ET		
		s Devel	lopment Inc.		is Drill		d.	HQ F	Rock	Coring		HQ					of	
(m)				ď	,		ARAC	TERI:	STIC		<u>ত</u>		,	R.	(%)		(%)	2
ELEVATION (m)	DEPTH (m)	SYMBOL	GENERAL DESCRIPTION	CN STAME	JOINT	ORIENTATION	SPACING	ROUGHNESS	FILLING	APERTURE (mm)	WEATHERING	STRENGTH	FRACTURE FREQUENCY	RUN NUMBER	RECOVERY (%)	RQD	WATER RECOVERY (%)	
1	2	3	4	5		7	8	9	10	11	12	13	14	15	16	17	18	1
06.3			- Fractured Zone		<u>В</u>	∤ F F	VC VC	RP RU	SA	\vdash								
06.2	_		- Thin Lenses of limestone		+	l ·	1.0		0, 1					3	100	69	100	
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	-				В	F	С	RU	Si									
İ					В	F	VC	RP	Si									
05.6	-8				В	F	С	RP,	Si									
)5.6)5.6					B	F	VC	RP	Si	\perp								
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_					В	F	С	RU	Si									
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05.2	_				D	┞╌	\ vC	AKU,	<u> </u>									
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			ROCK COR													104		
PROJ		ool lov	estigation	ORIEN Vertic		ON		LEV <i>A</i>		V (m)	1	DATUM			PRO	JECT S246		ΙB
LOCA		Cai iiiv	esugation	DATE		TED		OMP		D	L	OGGE) BY		DRA			ЛB
		Stree	t, Mississauga	03-11				03-1	1-25			NS						
CLIEN		: Dava	opment Inc.	DRILL	E R 3 Drilli	na I t		RILL		E Coring		HQ	ARREL		SHE		of	
33 L	unuas	Deve	opment inc.		JOIN						9	TiQ	Τ	П	T		, i	Τ
ELEVATION (m)	DEPTH (m)	SYMBOL	GENERAL DESCRIPTION	NO. OF SETS	JOINT TYPE	ORIENTATION	SPACING	ROUGHNESS	FILLING	APERTURE (mm)	WEATHERING	STRENGTH	FRACTURE	RUN NUMBER	RECOVERY (%)	RQD	WATER RECOVERY (%)	()
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	†
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-	-				В	F	vc	SU	SA					5	100	71	100	
					_	_												
					В	F	С	RP	SA									
02.9		Ħ			В	F	С	SU	SA									
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)2.5			- Fractured		۵	r	IVI	110	JA					-	+			+
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ŀ					В	F	M	SP	SA SA									
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	-12													6	100	00	100	
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					В	F	M	SP	SA									
					В	F	С	RU	Si									
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24.0	-				В	F	С	RP	SA									
.0.רע		甲			В	F	VC	RP	SA									
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			ROCK CORE									_		ВН	14/				
PROJ		cal Inve	estigation	ORIEN Vertic		ON		113.7		V (m)		DA	TUM			PRO	JECT S246		ΙB
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		Street	, Mississauga	03-11				03-1	1-25			N:							
CLIEN		Devel	opment Inc.	DRILLE Davis		na l +		RILL		E Corin	ູ]	COI		ARREL	-	SHE		of	
33 L	Junuas	Develo	opment inc.			rig Lic					9		Ų.		Π)i	Т
ELEVATION (m)	DЕРТН (m)	SYMBOL	GENERAL DESCRIPTION	OF SETS	JOINT TYPE	ORIENTATION	SPACING	ROUGHNESS	FILLING	APERTURE (mm)	WEATHEDING	D I I I I I I I I I I I I I I I I I I I	STRENGTH	FRACTURE FREQUENCY	RUN NUMBER	RECOVERY (%)	٥	WATER RECOVERY (%)	()
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9.4	-				В	F	С	SP	SA										†
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	-														8	100	90	100	
	-				В	F	М	SP	SA										
	-				'														
					_	_													
					B B	F F	C VC	RP RP	SA SA										
	Ī				В	F	С	RP											
	-																		
-	-				В	F	С	RP	SA										
7.9			End of Borehole at 15.9 m		В	F	С	RP	SA		ш			+++					+
	-16																		
	<u> </u>																		
	_																		
}	-																		
a :	_			l .											<u>'</u>	1			_
		(67)	5																

Appendix D: Hydraulic Testing





MW101 RISING HEAD SLUG TEST (SCREENED IN GEORGIAN BAY FM SHALE)

Data Set: C:\...\MW101.aqt

Date: 08/14/25 Time: 12:46:37

PROJECT INFORMATION

Company: Wellington Hydrogeology Ltd.

Client: G2S

Project: G2S24602

Location: 55 Dundas St W, Mississauga

Test Well: MW101 Test Date: 2025-04-16

AQUIFER DATA

Saturated Thickness: 5.48 m Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW101)

Initial Displacement: 2.334 m

Total Well Penetration Depth: 3.83 m

Casing Radius: 0.0254 m

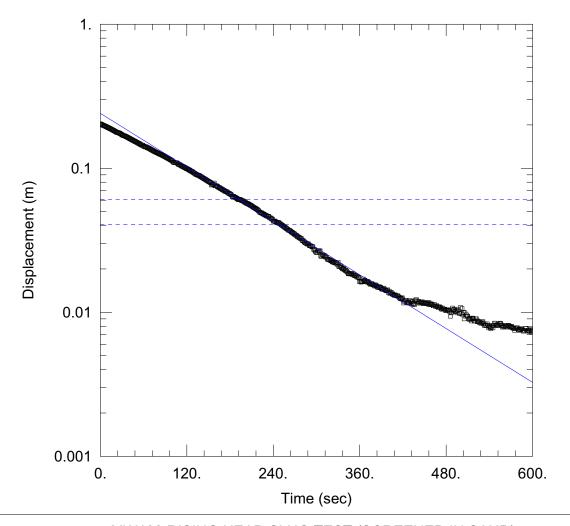
Static Water Column Height: 3.83 m

Screen Length: 3.05 m Well Radius: 0.0508 m

SOLUTION

Aquifer Model: Confined Solution Method: Bouwer-Rice

K = 6.7E-7 m/sec y0 = 2.548 m



MW102 RISING HEAD SLUG TEST (SCREENED IN SAND)

Data Set: C:\...\MW102.aqt

Date: 08/14/25 Time: 12:59:47

PROJECT INFORMATION

Company: Wellington Hydrogeology Ltd.

Client: G2S

Project: G2S24602

Location: 55 Dundas St W, Mississauga

Test Well: MW102 Test Date: 2025-04-16

AQUIFER DATA

Saturated Thickness: 0.52 m Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW102)

Initial Displacement: 0.2029 m

Static Water Column Height: 0.31 m Total Well Penetration Depth: 1.52 m Screen Length: 1.52 m

Casing Radius: 0.0254 m

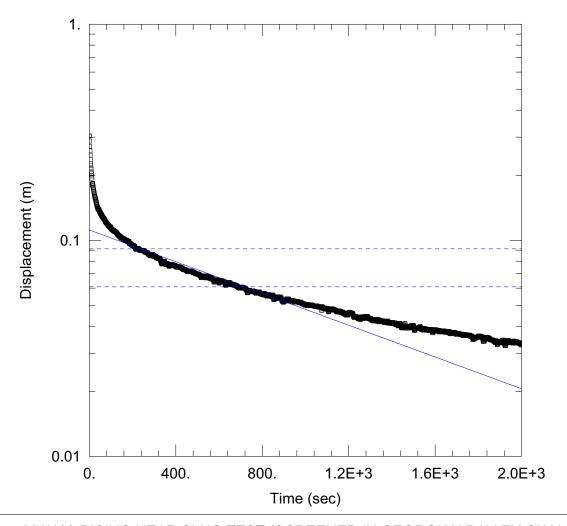
Well Radius: 0.1048 m

Gravel Pack Porosity: 0.3

SOLUTION

Solution Method: Bouwer-Rice Aquifer Model: Unconfined

K = 4.4E-5 m/secy0 = 0.2405 m



MW103 RISING HEAD SLUG TEST (SCREENED IN GEORGIAN BAY FM SHALE)

Data Set: C:\...\MW103.aqt

Date: 08/14/25 Time: 12:55:56

PROJECT INFORMATION

Company: Wellington Hydrogeology Ltd.

Client: G2S

Project: G2S24602

Location: 55 Dundas St W, Mississauga

Test Well: MW103 Test Date: 2025-04-16

AQUIFER DATA

Saturated Thickness: 6.56 m Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA (MW103)

Initial Displacement: <u>0.3042</u> m

Total Well Penetration Depth: 4.46 m

Casing Radius: 0.0254 m

Static Water Column Height: 4.46 m

Screen Length: 3.05 m Well Radius: 0.0508 m

SOLUTION

Aquifer Model: Confined Solution Method: Bouwer-Rice

K = 3.5E-7 m/sec y0 = 0.1115 m

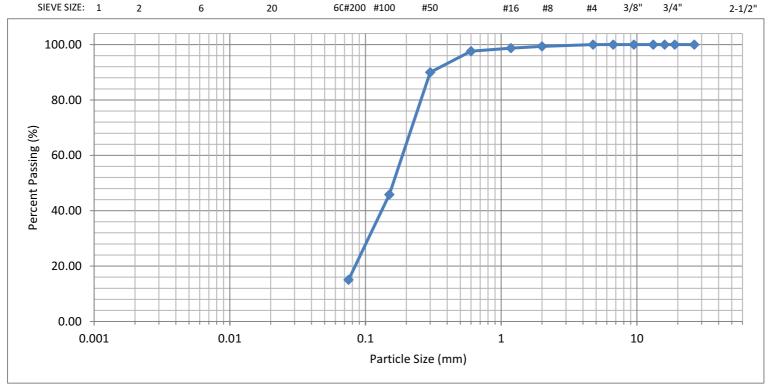
Appendix E: Grain Size Analyses





Project No.:G2S24602BLab No.:25037AProject Name:Proposed Residential Development - 55 Dundas St. W, MississaugaBorehole/Sample No.:BH101-S4

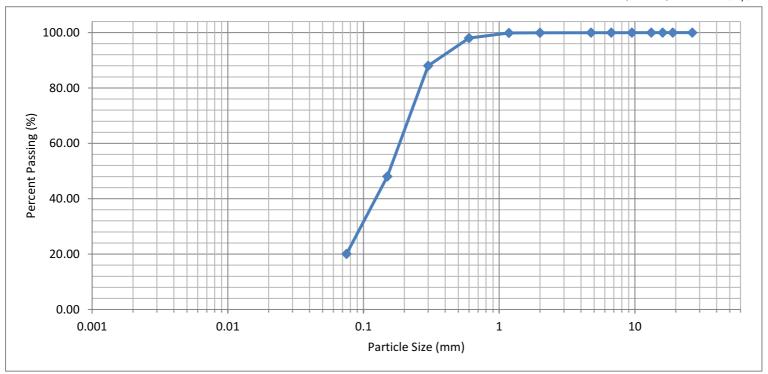
	CLAV			SILT			SAND				GRAVE	EL		
	CLAY		FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	F	INE	MEDIU	М	COARSE	
E SIZE:	1	2		6 2	0	6C#200 #100	#50	#16	#8	#4	3/8"	3/4	." 2-1	1/2"





Project No.:G2S24602BLab No.:25037DProject Name:Proposed Residential Development - 55 Dundas St. W, MississaugaBorehole/Sample No.:BH105-S4

	CLAV			SILT			SAND				GRAVI	EL		
	CLAT		FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FI	INE	MEDIU	М	COARSE	
SIEVE SIZE:	1	2	6	5 20) 6	C#200 #100	#50	#16	#8	#4	3/8"	3/4	" 2-	1/2"

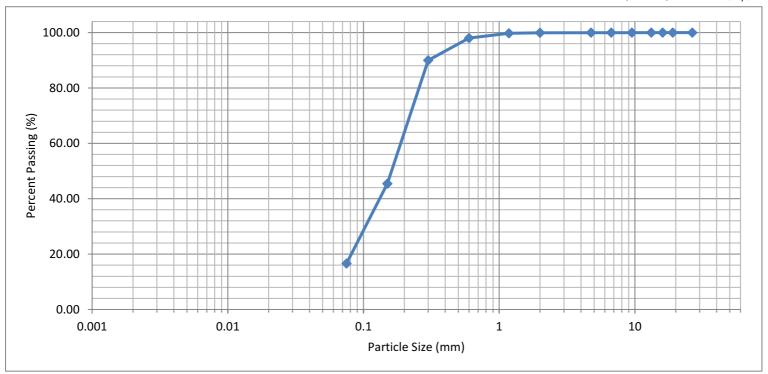




 Project No.:
 G2S24602B
 Lab No.:
 25037E

Project Name: Proposed Residential Development - 55 Dundas St. W, Mississauga Borehole/Sample No.: BH106-S4A

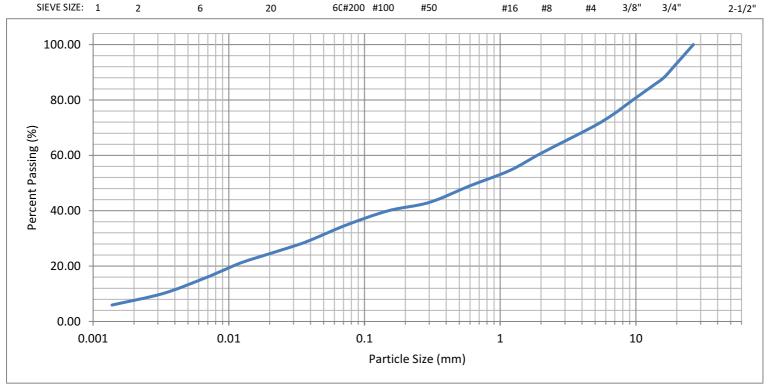
	CLAV				SILT				SAND				GRAV	EL		
	CLAT		FINE		MEDIUM	COARSE	FII	NE	MEDIUM	COARSE		FINE	MEDIL	JM	COARSE	
SIEVE SIZE:	1	2		6	20) (5C#200	#100	#50	#16	#8	#4	3/8"	3/4	1" 2	2-1/2"





Project No.:G2S24602BLab No.:25037BProject Name:Proposed Residential Development - 55 Dundas St. W, MississaugaBorehole/Sample No.:BH101-S6

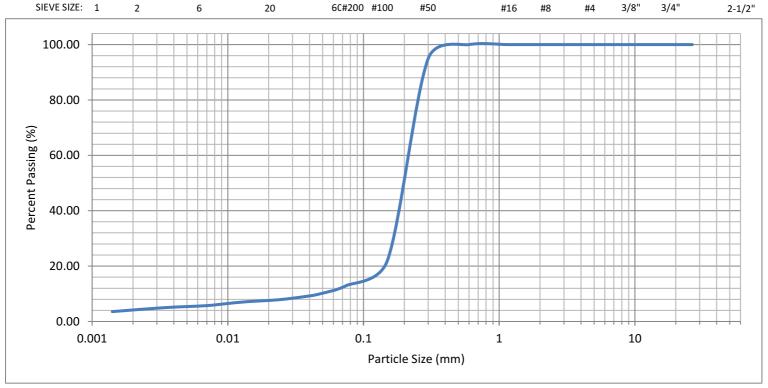
	CLAY		SILT				SAND		GRAVEL						
	CLAT	FINE	MEDIU	м со	OARSE	FINE	MEDIUM	COARSE	F	INE	MEDIU	М	COARSE		
:	1	2	6	20	60	C#200 #100	#50	#16	#8	#4	3/8"	3/4	" 2-1	1/2	





Project No.:G2S24602BLab No.:25037CProject Name:Proposed Residential Development - 55 Dundas St. W, MississaugaBorehole/Sample No.:BH103-S3

	CLAY		SILT			SAND		GRAVEL						
	CLAT	FINE	MEDIUM	COARSE	FINE	MEDIUM	COARSE	FIN	ΙE	MEDIU	М	COARSE		
:	1	2	6 2	0 6	5C#200 #100	#50	#16	#8	#4	3/8"	3/4	" 2-	1/2	



Appendix F: Laboratory Certificates of Analysis





CLIENT NAME: G2S ENVIRONMENTAL CONSULTING INC 4361 HARVESTERROAD, UNIT 12 **BURLINGTON. ON L7L 5M4** (905) 331-3735

ATTENTION TO: Whitney Bowden

PROJECT: G2S24602 AGAT WORK ORDER: 25T272082

MICROBIOLOGY ANALYSIS REVIEWED BY: Sheetal Koul, Laboratory Team Lead

DATE REPORTED: Apr 22, 2025

PAGES (INCLUDING COVER): 5 **VERSION*: 1**

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*Notes	

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the
- This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
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- All reportable information is available on request from AGAT Laboratories, in accordance with ISO/IEC 17025:2017, ISO/IEC 17025:2005 (Quebec), DR-12-PALA and/or NELAP Standards.
- This document is signed by an authorized signatory who meets the requirements of the MELCCFP, CALA, CCN and NELAP.
- For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.

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Certificate of Analysis

AGAT WORK ORDER: 25T272082

PROJECT: G2S24602

5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: G2S ENVIRONMENTAL CONSULTING INC

SAMPLING SITE:55 Dundas St W. Mississauga

ATTENTION TO: Whitney Bowden SAMPLED BY:SH / RD

E.Coli (M	ll-Agar)
-----------	----------

DATE RECEIVED: 2025-04-16 DATE REPORTED: 2025-04-22

SAMPLE DESCRIPTION: MW102-UF
SAMPLE TYPE: Water
DATE SAMPLED: 2025-04-16
12:00

 Parameter
 Unit
 G / S
 RDL
 6665192

 Escherichia coli
 CFU/100mL
 200
 0

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to City of Mississauga - Storm Sewer Discharge

Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

6665192 Escherichia coli, RDL = 10 CFU/100mL.

RDL > 1 indicates dilutions of the sample.

The sample was diluted prior to filtration due to the presence of sediments.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

Shefal



Quality Assurance

CLIENT NAME: G2S ENVIRONMENTAL CONSULTING INC

SAMPLING SITE:55 Dundas St W. Mississauga

PROJECT: G2S24602

AGAT WORK ORDER: 25T272082 ATTENTION TO: Whitney Bowden

SAMPLED BY:SH / RD

	Microbiology Analysis														
RPT Date: Apr 22, 2025		С	DUPLICATE			REFEREN	ICE MA	TERIAL	METHOD	BLANK	SPIKE	MAT	KE		
PARAMETER	Batch	Sample	Dup #1	Dup #2	RPD	Method Blank	Measured	Acceptable Limits		Recovery	Acceptable ry Limits		Recovery	Acceptabl Limits	
		ld					Value	Lower	Upper		Lower Uppe			Lower	Upper

E.Coli (MI-Agar)

Escherichia coli 6665094 0 0 NA

Comments: NA - % RPD Not Applicable.

Certified By:

Shefal



Method Summary

CLIENT NAME: G2S ENVIRONMENTAL CONSULTING INC

AGAT WORK ORDER: 25T272082
ATTENTION TO: Whitney Bowden

SAMPLING SITE:55 Dundas St W. Mississauga

PROJECT: G2S24602

SAMPLED BY:SH / RD

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Microbiology Analysis			
Escherichia coli	MIC-93-7010	EPA 1604	Membrane Filtration



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Only		-
5T2	7208	\$2
_	_	
8-8	8-21	
Yes	□No No	N/A
	ST2	ST27208

												Cooler Q	uantity:	_		_				_
Chain of Custody Recor	'd If this is a D	rinking Water s	ample, pleas	e use Drink	ing Water Chain of Custody Form (p	otable water o	onsumed	by huma	ns)			Arrival T	emperat	tures:	8	8	8-	21		=
Deport Information:	7776 V			7.	fulatory Requirements: check all applicable boxes)						- 11	Custody Notes:	Seal Int		-Y	'es 190	d I	10		 /A
Company: Contact: Address: 436114a	ey Boy	Ed Sw	te 12	Re	gulation 153/04 Regulation			tary			-	Turnaround Time (TAT) Required:								
1416-620-8	5N4,	Burl	ngto		ole	1	Prov.	Region Nater (-	Regular TAT									
Phone: Reports to be sent to: 1. Email:	3 CG LSC	onsulfi	2016	Soil Te								3 Business 2 Business Days Days Days								
2. Email: Sam HCG	Reports to be sent to: 1. Email: 2. Email: San HCG2SCorsulting Com					☐ Coarse ☐ Indicate One						(DR Date	Requir	ed (Ru	ush Surcl	narges f	May Appl	y):	
Project Information: Project: Site Location: 55 Punds	02 5 St W	. Musi	ssavga	Red	this submission for a cord of Site Condition? Yes No	Cei	port G tificate Yes	of A		ls			TAT is ex	clusive	of we	ekends a	and stat	or rush TA tutory hol your AGA	lidays	
Sampled By: Star Country Star C	el po-				nple Matrix Legend	000	0. R	eg 153				0. Reg 558	O. Re	eg 406						(N/K)
AGAT Quote #: Please note: Inquotation number is not provided, effent will be billed full price for analysis: Invoice Information: Company: Contact: Address: Email:				= GW	Ground Water Oil Paint Soil Sediment Surface Water	Field Filtered - Metals, Hg, GrVI, I	norganics Inorganics □ crvl, □ Hg, □ HWSB			Aroclors	PCBs: Aroclors Landfill Disposal Characterization TCLP: TCLP: TM& TVOCs ABNA Regulation 406 SPLP Rainwater Leach SPLP SPLP	P Rainwater	Characte Is, BTEX,	Corrosivity: ☐ Molsture ☐ Sulphide	: رما :				Potentially Hazardous or High Concentration (Y/N)	
Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y/N	Metals	Metals - I	VOC	PAHS	PCBs	Land	Regu	Regu pH, IC	Corre	Ш				Poten
1. MW 102	roistant 1			GW					<u> </u>				-							
2.		AM PM						_	-		-	-							+	
3.		AM PM						-			-	-		-	-				+	\dashv
4.		AM PM					-	_	+		-			-			+		+-	\vdash
5.		AM PM						_	-		-	-	-	-					-	\vdash
6.		AM PM									_				_					\vdash
7.		AM PM												-						
8.		AM PM																		
9.		AM PM									_									
10.		AN PN									_	-	-	-	-			_	-	\vdash
11.		AN PN												1			105	APR1		3-4-5
Samples Relinquished By (Print Name and Sign):		Date	Time		Samples Received By (Print Name and Sign):	~				Date			ime					HI PAG	U s	_ 2 2
Samples Resiriquished By (Print Name and Sign):		Date	Time		Samples Received By (Print Name and Sign)					Date		T	ime			Page		_ of		
Samples Relinquished By (Print Name and Sign): Deta Time				Samples Received By (Print Name and Sign):					Date		Т	ime		Nº:						



CLIENT NAME: G2S ENVIRONMENTAL CONSULTING INC 4361 HARVESTERROAD, UNIT 12 BURLINGTON, ON L7L 5M4

(905) 331-3735

ATTENTION TO: Whitney Bowden

PROJECT: G2S24602 AGAT WORK ORDER: 25T273118

WATER ANALYSIS REVIEWED BY: Nivine Basily, Inorganic Team Lead

DATE REPORTED: Apr 29, 2025

PAGES (INCLUDING COVER): 5 VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

<u>^Notes</u>			

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- This document is signed by an authorized signatory who meets the requirements of the MELCCFP, CALA, CCN and NELAP.
- For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.

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Certificate of Analysis

AGAT WORK ORDER: 25T273118

PROJECT: G2S24602

Mississauga Storm Sewer Use Bylaw - Inorganics

5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: G2S ENVIRONMENTAL CONSULTING INC

SAMPLING SITE:51 Dundas

ATTENTION TO: Whitney Bowden

SAMPLED BY:

•	 	
		DATE REPORTED: 2025-04-29

DATE RECEIVED: 2025-04-21						DATE REPORTED: 2025-04-29
			SAMPLE DE	SCRIPTION:	MW102-F	
			SAI	MPLE TYPE:	Water	
			DATE	SAMPLED:	2025-04-21	
Parameter	Unit	G / S: A	G / S: B	RDL	6674294	
Total Suspended Solids	mg/L	15	350	10	<10[<a]< td=""><td></td></a]<>	
Dissolved Aluminum	mg/L			0.004	<0.004	
Dissolved Arsenic	mg/L			0.001	<0.001	
Dissolved Cadmium	mg/L			0.0001	<0.0001	
Dissolved Chromium	mg/L			0.002	<0.002	
Dissolved Copper	mg/L			0.001	0.002	
Dissolved Lead	mg/L			0.0005	0.0014	
Dissolved Manganese	mg/L			0.002	0.006	
Dissolved Nickel	mg/L			0.001	0.001	
Dissolved Selenium	mg/L			0.001	0.006	
Dissolved Silver	mg/L			0.0001	<0.0001	
Dissolved Zinc	mg/L			0.005	< 0.005	

RDL - Reported Detection Limit; G / S - Guideline / Standard: A Refers to City of Mississauga - Storm Sewer Discharge, B Refers to Peel Sanitary By-Law 53-2010 Comments: Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation. Analysis performed at AGAT Toronto (unless marked by *)





ATTENTION TO: Whitney Bowden

Quality Assurance

CLIENT NAME: G2S ENVIRONMENTAL CONSULTING INC AGAT WORK ORDER: 25T273118

SAMPLING SITE:51 Dundas SAMPLED BY:

SAMPLING SITE. ST Dulluas	MIVIE		1.												
				Wate	er Ar	nalysi	is								
RPT Date: Apr 29, 2025				UPLICATE			REFEREN	NCE MATERIAL		METHOD BLANK SPIKE			MAT	KE	
PARAMETER	Batch	Sample	Dup #1	";		Method Blank	Measured		ptable nits	Recovery	1 :	ptable nits	Recovery	1 1:	eptable mits
		ld					Value	Lower	Upper		Lower	Upper		Lower	Upper
Mississauga Storm Sewer Use	Bylaw - Inorg	anics													
Total Suspended Solids	6673637		128	124	3.6%	< 10	98%	80%	120%						
Dissolved Aluminum	6666693		<0.004	<0.004	NA	< 0.004	95%	70%	130%	102%	80%	120%	97%	70%	130%
Dissolved Arsenic	6666693		<0.001	<0.001	NA	< 0.001	103%	70%	130%	95%	80%	120%	106%	70%	130%
Dissolved Cadmium	6666693		<0.0001	<0.0001	NA	< 0.0001	102%	70%	130%	95%	80%	120%	95%	70%	130%
Dissolved Chromium	6666693		<0.002	<0.002	NA	< 0.002	101%	70%	130%	107%	80%	120%	106%	70%	130%
Dissolved Copper	6666693		0.001	0.001	NA	< 0.001	100%	70%	130%	105%	80%	120%	102%	70%	130%
Dissolved Lead	6666693		<0.0005	<0.0005	NA	< 0.0005	94%	70%	130%	99%	80%	120%	98%	70%	130%
Dissolved Manganese	6666693		0.185	0.187	1.4%	< 0.002	106%	70%	130%	104%	80%	120%	103%	70%	130%
Dissolved Nickel	6666693		0.006	0.006	6.8%	< 0.001	100%	70%	130%	105%	80%	120%	103%	70%	130%
Dissolved Selenium	6666693		<0.001	<0.001	NA	< 0.001	97%	70%	130%	92%	80%	120%	111%	70%	130%
Dissolved Silver	6666693		<0.0001	<0.0001	NA	< 0.0001	94%	70%	130%	95%	80%	120%	90%	70%	130%
Dissolved Zinc	6666693		<0.005	<0.005	NA	< 0.005	103%	70%	130%	97%	80%	120%	100%	70%	130%

Comments: NA signifies Not Applicable.

PROJECT: G2S24602

Duplicate NA: results are under 5X the RDL and will not be calculated.

CHEMIST OF CHARTERED STATES OF CHEMIST OF CHARTERED STATES OF CHEMIST OF CHEMIST OF CHARTER OF CHAR



Method Summary

CLIENT NAME: G2S ENVIRONMENTAL CONSULTING INC

AGAT WORK ORDER: 25T273118

PROJECT: G2S24602

ATTENTION TO: Whitney Bowden

SAMPLING SITE:51 Dundas SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis	,		
Total Suspended Solids	INOR-93-6028	modified from EPA 1684,ON MOECC E3139,SM 2540C,D	BALANCE
Dissolved Aluminum	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Arsenic	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Cadmium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Chromium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Copper	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Lead	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Manganese	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Nickel	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Selenium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Silver	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Zinc	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS

AGAT Laboratories

Have feedback? Scan here for a quick survey!



5835 Coopers Avenue Mississauga, Ontario L4Z 1Y2 Ph: 905.712.5100 Fax: 905.712.5122 webearth.agatlabs.com

Laboratory Use	Only
Work Order #:	25T273118
Cooler Quantity: Arrival Temperatures:	1 med/L 5.215.115.7
Custody Seal Intact:	□Yes □No ₹N/A

Chain of Custody Record	If this is a	Drinking Water s	ample, pleas	se use Drink	ding Water Chain o	of Custody Form (pot	able water c	onsume	d by hu	ımans)			A	rrivai ie	mperat	ures:	2.	-	1		<u>ا</u>	1
Report Information: Company: (1) S CONSU	Itng.	Inc.		Reg (Please	Sulatory Required to the check all applicable boxe	25)								ustody s lotes:	Seal Int	act:	Y	'es L		□No	P	ÍN/A
Contact: Whitney R Address: H361 Harv	ester	Poac		Tal	egulation 153/04 ble Ind/Com	Regulation 40		Sew Se Se	anitary	alu	orm		Turnaround Time (TAT) Required: Regular TAT									
Phone: Reports to be sent to: 1. Email: 2. Email:	Fax: 92/2001	osultin	g-con	Soil Te	Res/Park Agriculture exture (Check One) Coarse Fine	Regulation 58		Othe	ectives	(PWQ			□ □ Days □					_ 2 Business Next Busines				siness
Project Information: Project: 92524602 Site Location: 51 Dundas				Red	this submissi cord of Site C		Cer	port tifica Yes	te of		ysls		Please provide prior notification for r *TAT is exclusive of weekends and statut For 'Same Day' analysis, please contact you					tatutory	/ holidays			
Sampled By: AGAT Quote #: Please note: If quotation number is n	PO: not provided, client will	be billed full price for a	inelysis.	San	npie Matrix Le	egend	SrVI, DOC	0.	Reg 15	53				O. Reg 558 SBO-U	ach	Backage Package	lde					ation (Y/N)
Invoice Information: Company: Contact: Address: Email:	В	ill To Same: Ye	si⁄ZÍ No □		Oil Paint Soil Sediment Surface Water		Field Filtered - Metals, Hg, CrVI, DOC	s & Inorganics	Metals - □ CrVI, □ Hg, □ HWSB	F1-F4 PHCs			PCBs: Aroclors	Landfill Disposal Characterization TCLP: TCLP: □ M& □ Vocs □ ABNs □ B(a)P□ PCBs	Regulation 406 SPLP Rainwater Les SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	haracterization s, BTEX, F1-F4	□ Mol	SS				Potentially Hazardous or High Concentration (Y/N)
Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix		nments/ Instructions	Y/N	Metals	Meta	BTEX,	PAHS	PCBs	PCBs	Landf	Regu	Regulation pH, ICPMS	Corro					Poten
1. mw10a	1405- 2UE	S AM		GW			Y		V		4						-	V				1
2.		AM PM									1											-
3.		AM PM										-		_					_	-		-
4.		AM PM																				_
5.		AM PM																				
-6.		AM-PM																				
7.		AN PN																				
8.		AN PN																				
9.		AN PN																				
10.		AM					100															
11.		AM										П										
Samples Reinquished By (Print Name and Sign): ROW an Over +y have Samples Relinquished By (Print Name and Sign):	Doh	Date 1	Time	lph	Samoles Received the	(Print Rame and Sign):					C	ate VY ate	- 2	Tir	3:	50	p	Pa	ge_]	of ,	1	
Samoles Relinouished By (Print Name and Sign):		Date	Time			(Print Name and Sign):											Nº:			Detail	sued: Mar 30	0.2022
December 10: 01/179 4511 022	nd for consider pro	vided by AGAT Labe	are nursuant	to the terms a	and conditions as set	forth at www.ngatisb	s.com/term	sandcor	ndition	unless	otherwi	se agre	ed in a	a current	written o	contracti	ual doc	ument		Date Iss	ued: Mar 30	J, 2023



CLIENT NAME: G2S ENVIRONMENTAL CONSULTING INC 4361 HARVESTERROAD, UNIT 12 BURLINGTON, ON L7L 5M4 (905) 331-3735

ATTENTION TO: Whitney Bowden

PROJECT: G2S24602 AGAT WORK ORDER: 25T273551

TRACE ORGANICS REVIEWED BY: Oksana Gushyla, Trace Organics Lab Supervisor

WATER ANALYSIS REVIEWED BY: Yris Verastegui, Inorganic Team Lead

DATE REPORTED: May 01, 2025

PAGES (INCLUDING COVER): 11
VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*Notes	

Disclaimer

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may
 incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may
 be exempt, please contact your Client Project Manager for details.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other
 third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the
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- This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of
 merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines
 contained in this document.
- All reportable information is available on request from AGAT Laboratories, in accordance with ISO/IEC 17025:2017, ISO/IEC 17025:2005 (Quebec), DR-12-PALA and/or NELAP Standards.
- This document is signed by an authorized signatory who meets the requirements of the MELCCFP, CALA, CCN and NELAP.
- For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.

AGAT Laboratories (V1)

Page 1 of 11

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Western Enviro-Agricultural Laboratory Association (WEALA) Environmental Services Association of Alberta (ESAA) AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation. Measurement Uncertainty is not taken into consideration when stating conformity with a specified requirement.



Certificate of Analysis

AGAT WORK ORDER: 25T273551

PROJECT: G2S24602

5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: G2S ENVIRONMENTAL CONSULTING INC

SAMPLING SITE: Dundas

ATTENTION TO: Whitney Bowden SAMPLED BY:

SAMPLING SITE: Dundas						SAIVIP	LED BY:	
				Missis	sauga Storm -	Organics		
DATE RECEIVED: 2025-04-21							DATE REP	ORTED: 2025-05-01
			SA	SCRIPTION:	MW102-UF Water			
Parameter	Unit	G / S: A	G / S: B	E SAMPLED: RDL	2025-04-16 6676957			
Benzene	mg/L	0.002	0.01	0.0002	<0.0002[<a]< td=""><td></td><td></td><td></td></a]<>			
Toluene	mg/L	0.002	0.27	0.0002	<0.0002[<a]< td=""><td></td><td></td><td></td></a]<>			
Ethylbenzene	mg/L	0.002	0.16	0.0001	<0.0001[<a]< td=""><td></td><td></td><td></td></a]<>			
m & p-Xylene	mg/L			0.0002	<0.0002			
o-Xylene	mg/L			0.0001	<0.0001			
Xylenes (Total)	mg/L	0.0044	1.4	0.0001	<0.0001[<a]< td=""><td></td><td></td><td></td></a]<>			
Acenaphthene	mg/L			0.001	<0.001			
Acenaphthylene	mg/L			0.001	<0.001			
Anthracene	mg/L			0.0003	<0.0003			
Benzo(a)anthracene	mg/L			0.0002	<0.0002			
Benzo(a)pyrene	mg/L			0.0001	<0.0001			
Benzo(b)fluoranthene	mg/L			0.0002	<0.0002			
Benzo(ghi)perylene	mg/L			0.0002	<0.0002			
Benzo(k)fluoranthene	mg/L			0.0002	<0.0002			
Chrysene	mg/L			0.0003	<0.0003			
Dibenzo(a,h)anthracene	mg/L			0.0002	<0.0002			
Fluoranthene	mg/L			0.0003	<0.0003			
Fluorene	mg/L			0.0003	<0.0003			
Indeno(1,2,3-cd)pyrene	mg/L			0.0003	<0.0003			
Naphthalene	mg/L			0.0003	<0.0003			
Phenanthrene	mg/L			0.0003	<0.0003			
Pyrene	mg/L			0.0002	<0.0002			
Total PAHs	mg/L	0.002		0.0003	<0.0003[<a]< td=""><td></td><td></td><td></td></a]<>			
1,2-Dichlorobenzene	mg/L	0.0056	0.05	0.0001	<0.0001[<a]< td=""><td></td><td></td><td></td></a]<>			
1,4-Dichlorobenzene	mg/L	0.0068	0.08	0.0001	<0.0001[<a]< td=""><td></td><td></td><td></td></a]<>			
Dichloromethane	mg/L	0.0052	2	0.0001	<0.0001[<a]< td=""><td></td><td></td><td></td></a]<>			
Tetrachloroethylene	mg/L	0.0044	1	0.0001	<0.0001[<a]< td=""><td></td><td></td><td></td></a]<>			
Trichloroethylene	mg/L	0.0076		0.0002	<0.0002[<a]< td=""><td></td><td></td><td></td></a]<>			
Tetrachloroethene	mg/L	0.017	1	0.0002	<0.0002[<a]< td=""><td></td><td></td><td></td></a]<>			
PCBs	mg/L	0.0004	0.001	0.0002	<0.0002[<a]< td=""><td></td><td></td><td></td></a]<>			





CLIENT NAME: G2S ENVIRONMENTAL CONSULTING INC

SAMPLING SITE: Dundas

Certificate of Analysis

AGAT WORK ORDER: 25T273551

PROJECT: G2S24602

ATTENTION TO: Whitney Bowden

SAMPLED BY:

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Mississauga Storm - Organics

			J	
DATE RECEIVED: 2025-04	-21			DATE REPORTED: 2025-05-01
		SAMPLE DESCRIPTION:	MW102-UF	
		SAMPLE TYPE:	Water	
		DATE SAMPLED:	2025-04-16	
Surrogate	Unit	Acceptable Limits	6676957	
Toluene-d8	% Recovery	50-140	114	
4-Bromofluorobenzene	% Recovery	50-140	82	
Acridine-d9	%	50-140	85	
Naphthalene-d8	%	50-140	95	
Terphenyl-d14	%	50-140	105	
Decachlorobiphenyl	%	50-140	98	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: A Refers to City of Mississauga - Storm Sewer Discharge, B Refers to Peel Sanitary By-Law 53-2010

Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

6676957 Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.

Analysis performed at AGAT Toronto (unless marked by *)





Unit

CLIENT NAME: G2S ENVIRONMENTAL CONSULTING INC

Certificate of Analysis

AGAT WORK ORDER: 25T273551

PROJECT: G2S24602

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5835 COOPERS AVENUE

ATTENTION TO: Whitney Bowden

SAMPLED BY:

N 4	A l	: \ \ / - 4	/T-1-1\
Mercury	Analysis	ın vvater	(Total)

DATE RECEIVED: 2025-04-21 DATE REPORTED: 2025-05-01

SAMPLE DESCRIPTION: MW102-UF

SAMPLE TYPE: Water

DATE SAMPLED: 2025-04-16 G / S: B RDL 6676957

Total Mercury ug/L 0.4 0.026 <0.026[<A]

G / S: A

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: A Refers to City of Mississauga - Storm Sewer Discharge, B Refers to Peel Sanitary By-Law 53-2010

Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Halifax (unless marked by *)

SAMPLING SITE: Dundas

Parameter





Certificate of Analysis

AGAT WORK ORDER: 25T273551

PROJECT: G2S24602

ATTENTION TO: Whitney Bowden

SAMPLED BY:

FAX (905)712-5122 http://www.agatlabs.com

5835 COOPERS AVENUE

MISSISSAUGA, ONTARIO

CANADA L4Z 1Y2

TEL (905)712-5100

CLIENT NAME: G2S ENVIRONMENTAL CONSULTING INC

SAMPLING SITE: Dundas

Mississauga Storm Sewer Use Bylaw - Inorganics

			IVIIOOIOO	auga Oto	TIII OCWCI OS	C Dylaw - Inorganics	
DATE RECEIVED: 2025-04-2	.1						DATE REPORTED: 2025-05-01
			SAMPLE DE	SCRIPTION:	MW102-UF		
			SA	MPLE TYPE:	Water		
			DAT	E SAMPLED:	2025-04-16		
Parameter	Unit	G / S: A	G / S: B	RDL	6676957		
Н	pH Units	6.0-9.0	5.5-10	NA	7.61		
3OD (5)	mg/L	15		2	<2[<a]< td=""><td></td><td></td></a]<>		
otal Suspended Solids	mg/L	15	350	10	52[A-B]		
Total Residual Chlorine	mg/L	1.0		0.01	0.02[<a]< td=""><td></td><td></td></a]<>		
Cyanide, SAD	mg/L	0.02	2	0.002	<0.002[<a]< td=""><td></td><td></td></a]<>		
Phenols	mg/L	0.008	1.0	0.001	<0.001[<a]< td=""><td></td><td></td></a]<>		
Total Phosphorus	mg/L	0.4	10	0.02	0.15[<a]< td=""><td></td><td></td></a]<>		
otal Aluminum	mg/L	1.0	50	0.020	1.83[A-B]		
Total Arsenic	mg/L	0.02	1	0.006	<0.006[<a]< td=""><td></td><td></td></a]<>		
Total Cadmium	mg/L	0.008	0.7	0.0002	<0.0002[<a]< td=""><td></td><td></td></a]<>		
Total Chromium	mg/L	0.08	5	0.006	<0.006[<a]< td=""><td></td><td></td></a]<>		
Chromium VI	mg/L	0.04		0.002	<0.002[<a]< td=""><td></td><td></td></a]<>		
Total Copper	mg/L	0.04	3	0.004	0.006[<a]< td=""><td></td><td></td></a]<>		
Гotal Lead	mg/L	0.12	3	0.0010	0.0026[<a]< td=""><td></td><td></td></a]<>		
Total Manganese	mg/L	2.0	5	0.004	0.078[<a]< td=""><td></td><td></td></a]<>		
otal Nickel	mg/L	0.08	3	0.006	<0.006[<a]< td=""><td></td><td></td></a]<>		
Total Selenium	mg/L	0.02	1	0.004	<0.004[<a]< td=""><td></td><td></td></a]<>		
Total Silver	mg/L	0.12	5	0.0002	<0.0002[<a]< td=""><td></td><td></td></a]<>		
Total Zinc	mg/L	0.2	3	0.040	<0.040[<a]< td=""><td></td><td></td></a]<>		

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: A Refers to City of Mississauga - Storm Sewer Discharge, B Refers to Peel Sanitary By-Law 53-2010

Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

6676957 Residual Chlorine: Due to the instability of chlorine in aqueous solutions, the results reported may be biased low and should be reviewed with discretion.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

Tris Verastegui



Exceedance Summary

AGAT WORK ORDER: 25T273551

PROJECT: G2S24602

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CLIENT NAME: G2S ENVIRONMENTAL CONSULTING INC

ATTENTION TO: Whitney Bowden

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	UNIT	GUIDEVALUE	RESULT
6676957	MW102-UF	ON Mississauga SM	Mississauga Storm Sewer Use Bylaw - Inorganics	Total Aluminum	mg/L	1.0	1.83
6676957	MW102-UF	ON Mississauga SM	Mississauga Storm Sewer Use Bylaw - Inorganics	Total Suspended Solids	mg/L	15	52



Quality Assurance

CLIENT NAME: G2S ENVIRONMENTAL CONSULTING INC

AGAT WORK ORDER: 25T273551

PROJECT: G2S24602

ATTENTION TO: Whitney Bowden

SAMPLING SITE:Dundas SAMPLED BY:

AMILENO STEEDUNGS															
	Trace Organics Analysis														
RPT Date: May 01, 2025				UPLICATI	E		REFERE	NCE MA	TERIAL	METHOD	BLANK	SPIKE	MAT	RIX SPI	KE
PARAMETER	Batch	Sample	Dup #1	Dup #2	RPD	Method Blank	Measured		eptable mits	Recovery	Acceptable Limits		Recovery		ptable nits
		ld	.,	.,			Value	Lower	Upper	,	Lower	Upper]	Lower	Upper
Mississauga Storm - Organics	•	•	•			•		•	•			•	•	•	
Benzene	6689551		0.0006	0.0006	NA	< 0.0002	111%	50%	140%	116%	60%	130%	71%	50%	140%
m & p-Xylene	6689551		<0.0002	<0.0002	NA	< 0.0002	88%	50%	140%	93%	60%	130%	94%	50%	140%
o-Xylene	6689551		<0.0001	<0.0001	NA	< 0.0001	88%	50%	140%	79%	60%	130%	96%	50%	140%
Acenaphthene	1	TW	< 0.001	< 0.001	NA	< 0.001	99%	50%	140%	80%	50%	140%	100%	50%	140%
Acenaphthylene	1	TW	< 0.001	< 0.001	NA	< 0.001	99%	50%	140%	86%	50%	140%	80%	50%	140%
Anthracene	1	TW	< 0.0003	< 0.0003	NA	< 0.0003	84%	50%	140%	96%	50%	140%	89%	50%	140%
Benzo(a)anthracene	1	TW	< 0.0002	< 0.0002	NA	< 0.0002	102%	50%	140%	93%	50%	140%	85%	50%	140%
Benzo(a)pyrene	1	TW	< 0.0001	< 0.0001	NA	< 0.0001	85%	50%	140%	96%	50%	140%	85%	50%	140%
Benzo(b)fluoranthene	1	TW	< 0.0002	< 0.0002	NA	< 0.0002	101%	50%	140%	88%	50%	140%	97%	50%	140%
Benzo(ghi)perylene	1	TW	< 0.0002	< 0.0002	NA	< 0.0002	88%	50%	140%	85%	50%	140%	84%	50%	140%
Benzo(k)fluoranthene	1	TW	< 0.0002	< 0.0002	NA	< 0.0002	104%	50%	140%	95%	50%	140%	101%	50%	140%
Chrysene	1	TW	< 0.0003	< 0.0003	NA	< 0.0003	100%	50%	140%	97%	50%	140%	94%	50%	140%
Dibenzo(a,h)anthracene	1	TW	< 0.0002	< 0.0002	NA	< 0.0002	89%	50%	140%	87%	50%	140%	75%	50%	140%
Fluoranthene	1	TW	< 0.0003	< 0.0003	NA	< 0.0003	98%	50%	140%	93%	50%	140%	99%	50%	140%
Fluorene	1	TW	< 0.0003	< 0.0003	NA	< 0.0003	91%	50%	140%	90%	50%	140%	83%	50%	140%
Indeno(1,2,3-cd)pyrene	1	TW	< 0.0003	< 0.0003	NA	< 0.0003	93%	50%	140%	95%	50%	140%	102%	50%	140%
Naphthalene	1	TW	< 0.0003	< 0.0003	NA	< 0.0003	105%	50%	140%	73%	50%	140%	100%	50%	140%
Phenanthrene	1	TW	< 0.0003	< 0.0003	NA	< 0.0003	104%	50%	140%	98%	50%	140%	81%	50%	140%
Pyrene	1	TW	< 0.0002	< 0.0002	NA	< 0.0002	89%	50%	140%	91%	50%	140%	103%	50%	140%
1,2-Dichlorobenzene	6689551		<0.0001	<0.0001	NA	< 0.0001	79%	50%	140%	95%	60%	130%	107%	50%	140%
1,4-Dichlorobenzene	6689551		<0.0001	<0.0001	NA	< 0.0001	82%	50%	140%	68%	60%	130%	76%	50%	140%
Dichloromethane	6689551		<0.0001	<0.0001	NA	< 0.0001	69%	50%	140%	94%	60%	130%	118%	50%	140%
Trichloroethylene	6689551		<0.0002	<0.0002	NA	< 0.0002	88%	50%	140%	85%	60%	130%	84%	50%	140%
Tetrachloroethene	6689551		<0.0002	<0.0002	NA	< 0.0002	101%	50%	140%	91%	60%	130%	118%	50%	140%
PCBs	6678815		< 0.0002	< 0.0002	NA	< 0.0002	98%	50%	140%	101%	50%	140%	92%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By:

Jeurg



Quality Assurance

CLIENT NAME: G2S ENVIRONMENTAL CONSULTING INC AGAT WORK ORDER: 25T273551

PROJECT: G2S24602 ATTENTION TO: Whitney Bowden

SAMPLING SITE:Dundas SAMPLED BY:

OAMI EIIVO OITE. Dulluas								J/ (IVII L		••					
				Wate	er Ar	nalysi	is								
RPT Date: May 01, 2025				UPLICATE	Ē		REFERE	NCE MA	TERIAL	METHOD	BLANK	SPIKE	MAT	RIX SPI	KE
PARAMETER	Batch	Sample	Dup #1	Dup #2	RPD	Method Blank	Measured		ptable nits	Recovery	1 :	ptable nits	Recovery		ptable
TATOWNETER	Date.	ld	Jup ;; .	Sup	2		Value	Lower	Upper	1.00070.7	l	Upper		Lower	Upper
Mississauga Storm Sewer Use E	Bylaw - Inorg	janics	•					•			•				•
рН	6676370		6.91	7.13	3.1%	NA	100%	90%	110%						
BOD (5)	6676957	6676957	<2	<2	NA	< 2	102%	75%	125%						
Total Suspended Solids	6676957	6676957	52	48	NA	< 10	104%	80%	120%						
Total Residual Chlorine	6676957	6676957	0.02	0.02	NA	< 0.01	103%	80%	120%	104%	90%	110%	91%	80%	120%
Cyanide, SAD	6667776		<0.002	<0.002	NA	< 0.002	99%	70%	130%	105%	80%	120%	108%	70%	130%
Phenols	6678281		<0.001	<0.001	NA	< 0.001	100%	90%	110%	97%	90%	110%	95%	80%	120%
Total Phosphorus	6676370		0.03	0.03	NA	< 0.02	98%	70%	130%	99%	80%	120%	96%	70%	130%
Total Aluminum	6675636		0.026	0.024	NA	< 0.010	106%	70%	130%	102%	80%	120%	97%	70%	130%
Total Arsenic	6675636		<0.003	0.003	NA	< 0.003	98%	70%	130%	101%	80%	120%	92%	70%	130%
Total Cadmium	6675636		<0.0001	<0.0001	NA	< 0.0001	100%	70%	130%	98%	80%	120%	96%	70%	130%
Total Chromium	6675636		<0.003	<0.003	NA	< 0.003	98%	70%	130%	97%	80%	120%	90%	70%	130%
Chromium VI	6678594		<0.002	<0.002	NA	< 0.002	99%	70%	130%	101%	80%	120%	98%	70%	130%
Total Copper	6675636		0.145	0.136	6.4%	< 0.002	98%	70%	130%	93%	80%	120%	79%	70%	130%
Total Lead	6675636		0.0184	0.0178	3.3%	< 0.0005	90%	70%	130%	88%	80%	120%	82%	70%	130%
Total Manganese	6675636		0.822	0.723	12.8%	< 0.002	89%	70%	130%	96%	80%	120%	93%	70%	130%
Total Nickel	6675636		0.004	<0.003	NA	< 0.003	90%	70%	130%	92%	80%	120%	89%	70%	130%
Total Selenium	6675636		<0.002	< 0.002	NA	< 0.002	102%	70%	130%	98%	80%	120%	97%	70%	130%
Total Silver	6675636		0.0003	0.0005	NA	< 0.0001	94%	70%	130%	91%	80%	120%	93%	70%	130%
Total Zinc	6675636		<0.020	<0.020	NA	< 0.020	96%	70%	130%	87%	80%	120%	89%	70%	130%
Comments: NA signifies Not Applicate NA: results are under 5X		will not be	calculated	l.											
Mercury Analysis in Water (Tota	l)														
Total Mercury	6693759		<0.026	<0.026	NA	< 0.026	95%	80%	120%	95%	80%	120%	76%	70%	130%

Comments: If RPD value is NA, the results of the duplicates are less than 5x the RDL and the RPD will not be calculated.

Certified By:

Inis Verástegui

Method Summary

CLIENT NAME: G2S ENVIRONMENTAL CONSULTING INC

AGAT WORK ORDER: 25T273551

PROJECT: G2S24602

ATTENTION TO: Whitney Bowden

SAMPLING SITE:Dundas SAMPLED BY:

SAMPLING SITE: Dundas		SAMPLED BY:	
PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Benzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Toluene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	P&TGC/MS
Ethylbenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	P&TGC/MS
m & p-Xylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Xylenes (Total)	VOL-91-5001	modified from EPA 5030B & EPA 8260D	CALCULATION
Toluene-d8	VOL-91- 5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91- 5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Acenaphthene	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Acenaphthylene	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Anthracene	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(a)anthracene	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(ghi)perylene	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Chrysene	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Dibenzo(a,h)anthracene	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Fluoranthene	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Fluorene	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Naphthalene	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Phenanthrene	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Pyrene	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Total PAHs	ORG-91-5114	modified from EPA 3510C and EPA 8270E	CALCULATION
Acridine-d9	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Naphthalene-d8	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS

Method Summary

CLIENT NAME: G2S ENVIRONMENTAL CONSULTING INC

AGAT WORK ORDER: 25T273551

PROJECT: G2S24602

ATTENTION TO: Whitney Bowden

SAMPLING SITE: Dundas SAMPLED BY:

		SAMPLED BY.	T
PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Terphenyl-d14	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
1,2-Dichlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Dichloromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Tetrachloroethene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
PCBs	ORG-91-5112	EPA SW-846 3510 & 8082	GC/ECD
Decachlorobiphenyl	ORG-91-5112	modified from EPA SW846 3510C & 8082A	GC/ECD
Water Analysis			
Total Mercury	MET-121-6107	SM 3112 B	CV/AA
pH	INOR-93-6000	modified from SM 4500-H+ B	PC TITRATE
BOD (5)	INOR-93-6006	Modified from SM 5210 B	DO METER
Total Suspended Solids	INOR-93-6028	modified from EPA 1684,ON MOECC E3139,SM 2540C,D	BALANCE
Total Residual Chlorine	INOR-93-6060	modified from SM 4500-CL- G	SPECTROPHOTOMETER
Cyanide, SAD	INOR-93-6051	modified from MOECC E3015; SM 4500-CN- A, B, & C	SEGMENTED FLOW ANALYSIS
Phenols	INOR-93-6072	mod from SM 510C, EPA 420.2, ISO 3696, ASTM D1193	SEGMENTED FLOW ANALYSIS
Total Phosphorus	INOR-93-6022	modified from SM 4500-P B and SM 4500-P E	SPECTROPHOTOMETER
Total Aluminum	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Arsenic	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Cadmium	MET -93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Chromium VI	INOR-93-6073	modified from SM 3500-CR B	LACHAT FIA
Total Copper	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Lead	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Manganese	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Nickel	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Selenium	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Silver	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Zinc	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS

AGAT Laboratories

Have feedback? Scan here for a quick survey!



5835 Coopers Avenue Mississauga, Ontario L4Z 1Y2 Ph: 905.712.5100 Fax: 905.712.5122 webearth.agatlabs.com

١	Laboratory Use Only
	Work Order #: 25T273551
	Cooler Quantity: 1 med L
	Arrival Temperatures: 5251557
	Custody Seal Intact:

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Company: Gas Consulting inc. Contact: Whithey Bowden Address: H3WI Harvester Road			- Re	Regulation 153/04 Regulation 406 Sewer Use Sanitary Storm			Notes: Turnaround Time (TAT) Required:															
Phone:	Fax:				Table Indicate One		Regular TAT 5 to 7 Business Days Rush TAT (Rush Surcharges Apply)															
Reports to be sent to: 1. Email: Whitney b	@ 9 as	Consu	lting (Soil Te	exture (Check One)	CCME		Othe	r	(PWQC	')				Busine Days OR Date		Ш	2 Busi Days ush Su		⊔ Da	-,	ness
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Sampled By: AGAT Quote #: Please note: If quotation number is a				= GW	nple Matrix Leg	end	, crvl, Doc	0.1	Reg 15	3				O Ess PDPCBs 8529		Package Package	Sulphide	Mississau				ntration (Y/N)
Invoice Information: Company: Contact: Address: Email:	Bi	II To Same: Ye	s⊠ No L	O P S SD SW	Oil Paint Soil Sediment Surface Water		Field Filtered - Metals, Hg,	s & Inorganics	□ crvl, □ Hg, □ HWSB	F1-F4 PHCs			PCBs: Aroclors	Landfill Disposal Characterization TCLP: TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	Regulation 406 SPLP Rainwater Leach SPLP: ☐ Metals ☐ VOCS ☐ SVOCS	ulation 406 Characterization Package ICPMS Metals. BTEX. F1-F4	□ Molsture □	er usel				Ally Hazardous or High Conce
Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comm Special In	nents/ structions	Y/N	Metals	Metals	BTEX,	PAHs	PCBs	PCBs:	Landfil TCLP: [Regula SPLP:	Regulation nH. ICPMS	Corros	SEN				Dotont
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Date Issued: Mar 30, 2023

of_

Nº:

Appendix G: Dewatering Calculations



55 Dundas Street West, Mississauga, Ontario

Construction Dewatering Calculations (Worst-Case Conditions Estimate)

Dupuit-Forchheimer equation to calculate flow from a line source into a trench or linear excavation in an unconfined aquifer:

 $Q = \frac{xK(H^2 - h^2)}{L}$

Note: formula estimates flow from both sides of the linear

Where:

Q = pumping rate (m^3/s)

x = length of the trench (m)

K = hydraulic conductivity (m/s)

H = hydraulic head of the original water table (m)

h = hydraulic head at the base of the trench (m)

L = equivalent radius of influence for a line source (m)

 R_o = radius of influence of Well or Point Source (m)

Sichardt and Kryieleis equation to estimate the equivalent radius of

influence (R_o) from a line source (L):

 $R_0 = 3000(H - h)\sqrt{K}$

Equivalent distance to linear source (L) from radius of influence (Ro):

$$L = R_o/2$$

OVERBURDEN ESTIMATE

Input Parameters:

Ground Surface Elevation	114.40 m asl	building ground elev
Static Water Elevation	112.72 m amsl	highest measured + 1.0 m
Excavation Base Elevation	111.17 m amsl	assumed as top of shale
Dewatering Base Elevation	111.17 m amsl	assumed as top of shale
Dewatering Drawdown	1.55 m	
Base of Aquifer	111.17 m amsl	assumed as top of shale
Hydraulic Conductivity K =	4.40E-05 m/s	K from slug test in overburden
Excavation Length x =	342 m	110% of P2 dimensions
Excavation Area =	4,319 m ²	110% of P2 dimensions
Calculated Flow Q for Construction Dewatering:		
Q =	0.00234 m ³ /s	Flow from both sides of trench
Q =	203 m³/day	Flow from both sides of trench
Q/2 =	101 m³/day	Flow from one side of trench only
	101,269 L/day	Estimated peak daily flow
	151,904 L/day	Incorporates x1.5 safety factor
Rainwater Allowance	10 mm/day	
Rainwater Volume	43,190 L/day	
Total Estimated Q =	144,459 L/day	Estimated peak daily flow plus rainwater allowance
	195,094 L/day	Incorporates x1.5 safety factor plus rainwater allowance

Reference:

Calculated Parameters:

Saturated aquifer thickness (static) H =

Radius of Dewatering Influence Ro =

Saturated aquifer thickness (pumping) h =

Dewatering Influence - Line Source Distance L =

Powers, J.P., A.B. Corwin, P.C. Schmall and W.E. Kaeck. 2007. Construction dewatering and groundwater control, new methods and approaches, 3rd ed. John Wiley & Sons, Inc.

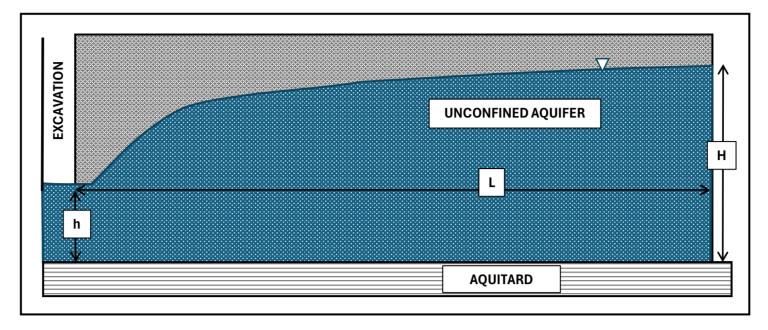
1.55 m

30.8 m

15.4 m

0 m

Unconfined flow from a line source to a drainage trench



BEDROCK ESTIMATE

Calculated Parameters:

Input Parameters:

Static Water Elevation	110.45 m amsl	highest measured + 1.0 m
Excavation Base Elevation	105.20 m amsl	
Dewatering Base Elevation	104.20 m amsl	
Dewatering Drawdown	6.25 m	
Base of Aquifer	100.90 m amsl	bottom of fractured zones from BH logs
Hydraulic Conductivity K =	6.70E-07 m/s	K from slug tests in shale
Excavation Length $x =$	342 m	110% of P2 dimensions
Excavation Area =	4,319 m ²	110% of P2 dimensions
Calculated Flow Q for Construction Dewatering:		
Q =	0.00240 m ³ /s	Flow from both sides of trench
Q =	207 m³/day	Flow from both sides of trench
Q/2 =	104 m³/day	Flow from one side of trench only
	103,600 L/day	Estimated peak daily flow
	155,400 L/day	Incorporates x1.5 safety factor

ELEVATOR PIT ESTIMATE

Input Parameters:

iliput Palai	ileteis.	
Static Water Elevation	104.20 m amsl	dewatering base from bedrock estimate
Excavation Base Elevation	104.70 m amsl	assumed 1.5 m below P2 floor depth + 1.0 m excavation depth
Dewatering Base Elevation	103.70 m amsl	
Dewatering Drawdown	0.50 m	
Base of Aquifer	100.90 m amsl	bottom of fractured zones from BH logs
Hydraulic Conductivity K =	6.70E-07 m/s	K from slug tests in shale
Excavation Length x =	40 m	estimated elevator pit dimensions
Excavation Area =	100 m ²	estimated elevator pit dimensions
<u>Calculated</u>	Flow Q for Construct	ion Dewatering:
Q =	0.00013 m ³ /s	Flow from both sides of trench
Q =	12 m³/day	Flow from both sides of trench
Q/2 =	6 m³/day	Flow from one side of trench only
	5,752 L/day	Estimated peak daily flow
	Static Water Elevation Excavation Base Elevation Dewatering Base Elevation Dewatering Drawdown Base of Aquifer Hydraulic Conductivity K = Excavation Length x = Excavation Area = Calculated Q = Q =	Excavation Base Elevation Dewatering Base Elevation Dewatering Drawdown Base of Aquifer Hydraulic Conductivity $K = 6.70E-07$ m/s Excavation Length $x = 40$ m Excavation Area = 100 m^2 $Calculated Flow Q for Construct$ $Q = 0.00013 \text{ m}^3/\text{s}$ $Q = 12 \text{ m}^3/\text{day}$ $Q/2 = 6 \text{ m}^3/\text{day}$

Incorporates x1.5 safety factor

Wellington Hydrogeology Ltd.

Calculated Parameters:
<u>Odiculated Farameters.</u>

Saturated aquifer thickness (static) H =	9.55 m	Saturated aquifer thickness (static) H =	3.3 m
Saturated aquifer thickness (pumping) h =	3.3 m	Saturated aquifer thickness (pumping) h =	2.8 m
Radius of Dewatering Influence Ro =	15.3 m	Radius of Dewatering Influence Ro =	1.2 m
Dewatering Influence - Line Source Distance L =	7.7 m	Dewatering Influence - Line Source Distance L =	0.6 m

Groundwater Dewatering Calculations

Wellington Hydrogeology Ltd.

55 Dundas Street West, Mississauga, Ontario

Preliminary Long-Term Foundation Drainage Estimate

Dupuit-Forchheimer equation to calculate flow from a line source into a

trench or linear excavation in an unconfined aquifer:

Note: formula estimates flow from both sides of the linear

excavation

Where:

Q = pumping rate (m³/s)

x = length of the trench (m)

K = hydraulic conductivity (m/s)

H = hydraulic head of the original water table (m)

h = hydraulic head at the base of the trench (m) L = equivalent radius of influence for a line source (m)

 R_o = radius of influence of Well or Point Source (m)

Sichardt and Kryieleis equation to estimate the equivalent radius of

influence (R_o) from a line source (L):

 $R_0 = 3000(H - h)\sqrt{K}$

Equivalent distance to linear source (L) from radius of influence (Ro):

 $L = R_o/2$

OVERBURDEN ESTIMATE

Input Parameters:

Ground Surface Elevation	114.40 m asl	building ground elev
Static Water Elevation	111.72 m amsl	highest measured
Dewatering Base Elevation	111.17 m amsl	assumed as top of shale
Dewatering Drawdown	0.55 m	
Base of Aquifer	111.17 m amsl	assumed as top of shale
Hydraulic Conductivity K =	4.40E-05 m/s	K from slug test in overburden
Excavation Length x =	311 m	P2 dimensions
Excavation Area =	3,926 m ²	P2 dimensions

Calculated Flow Q for Foundation Dewatering:

	49,015 L/day	Incorporates x1.5 safety factor
	32,677 L/day	Estimated peak daily flow
Q/2 =	33 m³/day	Flow from one side of trench only
Q =	65 m³/day	Flow from both sides of trench
Q =	0.00076 m ³ /s	Flow from both sides of trench

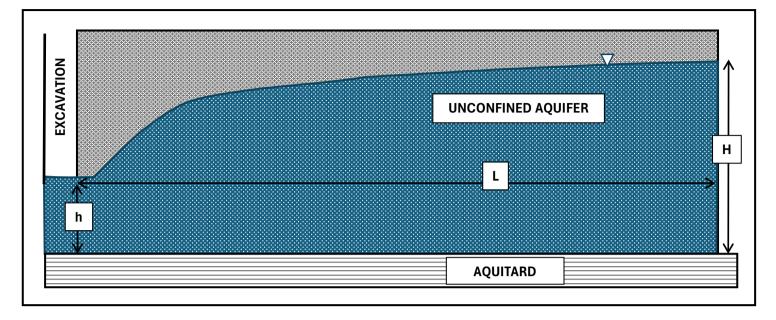
Calculated Parameters:

Saturated aquifer thickness (static) H =	0.55 m
Saturated aquifer thickness (pumping) h =	0 m
Radius of Dewatering Influence Ro =	10.9 m
Dewatering Influence - Line Source Distance L =	5.5 m

Reference:

Powers, J.P., A.B. Corwin, P.C. Schmall and W.E. Kaeck. 2007. Construction dewatering and groundwater control, new methods and approaches, 3rd ed. John Wiley & Sons, Inc.

Unconfined flow from a line source to a drainage trench



BEDROCK ESTIMATE

Input Parameters:

Static Water Elevation	110.25 m amsl	highest measured	Static Water Elevation	105.20 m amsl	dewatering base from bedrock estimate
Dewatering Base Elevation	105.20 m amsl	assumed as 2 m below basement floor elevation	Dewatering Base Elevation	104.70 m amsl	
Dewatering Drawdown	5.05 m		Dewatering Drawdown	0.50 m	
Base of Aquifer	100.90 m amsl	bottom of fractured zones from BH logs	Base of Aquifer	100.90 m amsl	bottom of fractured zones from BH logs
Hydraulic Conductivity K =	6.70E-07 m/s	K from slug tests in shale	Hydraulic Conductivity K =	6.70E-07 m/s	K from slug tests in shale
Excavation Length x =	311 m	P2 dimensions	Excavation Length $x =$	40 m	estimated elevator pit dimensions
Excavation Area =	3,926 m ²	P2 dimensions	Excavation Area =	100 m ²	estimated elevator pit dimensions
Calculated Flow Q for Foundation Dewatering:			<u>Calculated</u>	Flow Q for Foundation	n Dewatering:
Q =	0.00232 m ³ /s	Flow from both sides of trench	Q =	0.00018 m ³ /s	Flow from both sides of trench
Q =	200 m³/day	Flow from both sides of trench	Q =	15 m³/day	Flow from both sides of trench
Q/2 =	100 m³/day	Flow from one side of trench only	Q/2 =	8 m³/day	Flow from one side of trench only
	100,074 L/day	Estimated peak daily flow		7,638 L/day	Estimated peak daily flow
	150,112 L/day	Incorporates x1.5 safety factor		11,457 L/day	Incorporates x1.5 safety factor

ELEVATOR PIT ESTIMATE

Input Parameters:

Calculated Parameters:		<u>Calculated Par</u>	Calculated Parameters:	
Saturated aquifer thickness (static) H =	9.35 m	Saturated aquifer thickness (static) H =	4.3 m	

Saturated aquiler thickness (static) H =	9.35 111	Saturated aquiler thickness (static) H =	4.3 111
Saturated aquifer thickness (pumping) h =	4.3 m	Saturated aquifer thickness (pumping) h =	3.8 m
Radius of Dewatering Influence Ro =	12.4 m	Radius of Dewatering Influence Ro =	1.2 m
Dewatering Influence - Line Source Distance L =	6.2 m	Dewatering Influence - Line Source Distance L =	0.6 m