Hydrogeological Investigation

Proposed Residential Development
1995 Dundas Street East, 3040 and 3044 Universal Drive
Mississauga, Ontario

Prepared For:

Landeal Asset Management Inc.

Project No.: 24-070-100
Date: June 26th, 2024

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24- 070-100 **June 26th, 2024**

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Attention: Pierce Ji
Via email: pierce.ji@landealgroup.com

RE: Hydrogeological Investigation – 1995 Dundas Street East, 3040 and 3044 Universal Drive, Mississauga, Ontario

DS Consultants Limited (DS) was retained by Landeal Asset management Inc. to complete a hydrogeological investigation for the proposed development with municipal addresses 1995 Dundas Street East, 3040 and 3044 Universal Drive in City of Mississauga (Site). The site is an approximate 1.3 ha parcel of land located on the northwest corner of Dundas Street East and Universal Drive intersection and currently occupied with a commercial 1-storey brick building. DS understands that the existing structures will be demolished, and the proposed development includes the construction of two (2) 24 and 25-storey high-rise towers with one (1) level of underground parking (P1).

The average ground elevation at the site is approximately 119.8 meters above sea level (masl). Based on the architectural drawings provided to DS (RAW Design, June 2024), the established ground elevation is 120 masl and the finished floor elevation of P1 is 4.5 meters below ground surface (mbgs) or an elevation of 115.5 masl. However, the assumed finished floor elevation of P1 considering the footings and elevator shaft would be approximately 6.5 mbgs (approx. Elev: 113.5 masl).

This hydrogeological investigation includes an overview of the existing geological and hydrogeological conditions at the Site and the surrounding area, an assessment of the hydrogeological constraints, and impacts of the proposed development on the local groundwater and provides an estimation of construction dewatering and permanent drainage requirements during the proposed development phase. Based on the results of this investigation, the following conclusions and recommendations are presented:

1. Based on the MECP water well records search, there are one-hundred forty-nine (149) water wells within 500 meters of the development site. No water well is noted as a water supply well (domestic, irrigation, industrial) except one (1) well listed as commercial. All wells are noted as test holes, monitoring wells, not in use or unknown. The study area is serviced with municipal water and therefore, no groundwater users are expected in the area.

2. Between April 1 and 4, 2024, DS drilled six (6) boreholes (BH24-1 through BH24-6) at the site as part of the concurrent hydrogeological and geotechnical investigations. The boreholes were advanced to a depth ranging from 5.6 to 15.3 mbgs. A total of four (4) boreholes equipped with a 50 mm dia monitoring well to a depth ranging from 1.5 to 9.1 mbgs.

3. The surficial geology at the site partially is characterized as "Coarse-textured glaciolacustrine deposits" consists of sand, gravel, minor silt and clay, Littoral deposits, "Older alluvial deposits" contains clay, silt, sand, gravel and may contain organic remains and "Till deposits" characterized by clay to silt-textured till (derived from glaciolacustrine deposits or shale). The overburden geology at the site generally consisted of Sand and Gravel to Gravelly Sand Deposits, Sandy Silt to Silty Sand Till Deposits deposits and Sandy Silt Till/Shale Complex. Shale bedrock was found at approximate depths ranging from 4.8 to 11 mbgs, corresponding to elevations varying from 108.4 to 114.6 masl.

4. DS measured groundwater levels in monitoring wells installed on April 10th and 22nd, 2024. The groundwater level in overburden wells ranged from 2.4 to 5.32 mbgs (Elev. 115.9-116.95 masl). The groundwater levels are subject to seasonal fluctuations and may vary in response to changing climate conditions. The groundwater flow direction is expected to be southeasterly towards Etobicoke Creek located approximately 350 m southeast of the Site.

5. A total of four (4) Single Well Response Tests (slug tests) were completed by DS on April 10th, 2024, to estimate hydraulic conductivity (k) for the representative geological units in which the wells were screened. Hydraulic conductivity (k) values were calculated using the Hvorslev method using the AquiferTest® Software. The k-values ranged between 3.02 x 10^{-7} m/s to 5.62 x 10^{-6} m/s.

6. To assess the suitability for discharge of groundwater to the City of Toronto's Sanitary/Storm Sewers, one (1) unfiltered groundwater sample was collected from monitoring well BH24-1 on April 10th, 2024. The reported analytical results indicate that all the parameters met the City of Mississauga Storm Sewer Use By-Law and also there were no exceedances reported against the Peel Region's Sanitary Sewer-Use By-Law. Therefore, water can be discharged to the City/Region's storm and sanitary sewers without pre-treatment.

7. The total estimated short-term dewatering rate for the proposed development with P1 level considering the unsealed excavation method is 231,000 L/day (231 m^3/day). This estimated conservative value incorporates a safety factor of x2 and a theoretical 10 mm storm event per day estimated at 135,000 liters/day into the open excavation during construction. Due to the heterogeneous nature of the soils and presence of sandy units at the site, DS recommends conducting a pumping test for 24 hours to better assess the aquifer parameters (transmissivity and storativity) and more accurately estimate the anticipated dewatering rates. Dewatering values have to be further refined when details design and construction sequencing become available.

8. Following the construction of the underground structure, long-term groundwater flow to the underfloor drainage system for the building will be a function of the upward flux and drainage along the foundation wall. Based on the assumed design, depth to water and given k-value, the estimated permanent theoretical flow would expect to be 40,000 L/day (40 m^3/day). However, if a safety factor x2 is included, a conservative permanent flow of 80,000 L/day (80 m^3/day) will be needed to be pumped into the sewer system to manage any unforeseen groundwater issues in the future.

9. There are structures and utilities (structures, buildings, sewers roads, etc.) expected within the predicted zone of influence, which is estimated at 81 meters from the center of the excavation when considering an unsealed excavation. There may be a possibility of settlement within the zone of influence due to the presence of water-bearing sand and gravely deposits. DS recommends consulting geotechnical consultants to access potential settlement due to any dewatering activities at the Site during construction.

10. Once a groundwater dewatering system is set up at the Site, daily and weekly monitoring should be implemented during construction to assess the groundwater conditions such as water levels, measurement of discharge flow, discharge water quality and any adverse impacts as a result of dewatering including settlement.

11. Following the completion of construction activities, all dewatering wells, well points or eductors if any and monitoring wells installed at various stages of this project must be decommissioned. The installation and eventual decommissioning of the wells and the dewatering system must be carried out by a licensed water well contractor in accordance with Regulation 903 of the Ontario Water Resources Act.

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

DS Consultants Ltd.

Prepared By:

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Project Manager

Reviewed By:

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

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APPENDICES:

1.0 INTRODUCTION

DS Consultants Limited (DS) was retained by Landeal Asset management Inc. to complete a hydrogeological investigation for the proposed development with municipal addresses 1995 Dundas Street East, 3040 and 3044 Universal Drive in City of Mississauga (Site). The site is an approximate 1.3 ha parcel of land located on the northwest corner of Dundas Street East and Universal Drive intersection and currently occupied with a commercial 1-storey brick building. DS understands that the existing structures will be demolished, and the proposed development includes the construction of two (2) 24 and 25-storey high-rise towers with one (1) level of underground parking (P1). **Figure 1** presents the site location map that highlights the location of the site and the surrounding area.

The average ground elevation at the site is approximately 119.8 meters above sea level (masl). Based on the architectural drawings provided to DS (RAW Design, June 2024), the established ground elevation is 120 masl and the finished floor elevation of P1 is 4.5 meters below ground surface (mbgs) or an elevation of 115.5 masl. However, the assumed finished floor elevation of P1 considering the footings and elevator shaft would be approximately 6.5 mbgs (approx. Elev: 113.5 masl).

This hydrogeological investigation includes an overview of the existing geological and hydrogeological conditions at the Site and the surrounding area, an assessment of the hydrogeological constraints, and impacts of the proposed development on the local groundwater and provides an estimation of construction dewatering and permanent drainage requirements during the proposed development phase. This investigation is based on monitoring wells that were installed by DS in support of the geotechnical, and hydrogeological investigations at the site in April 2024.

The hydrogeological investigation report has been prepared in general accordance with the Ontario Water Resource Act (OWRA), the Ontario Water Taking Regulation (O.Reg.387/04), the City of Mississauga Sewers By-law (Storm Sewer Discharge, By-Law 0046-2022) and Peel Region Sewer Use By-Law (Sanitary Sewer Discharge By-Law 53-2010). If needed, the results of this investigation can be used in support of an application for a Category 3 Permit to Take Water (PTTW) or an Environmental Activity Sector Registry (EASR) for construction dewatering from the Ministry of the Environment Conservation and Parks (MECP). The hydrogeological report may also be used to support Site Plan Approval (SPA) and discharge permitting (short and long-term) from the City of Mississauga/Peel Region.

1.1 Purpose

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

- Temporary construction dewatering for the excavations of the proposed building on Site;
- Explore the potential need for a Permit to Take Water (PTTW) or Environmental Activity and Sector Registration (EASR) for Construction Dewatering from the MECP;

- Temporary management and discharge of groundwater during short-term construction dewatering
- Asses permanent drainage requirements; and
- Assess groundwater quality to identify potential adverse impacts to City of Mississauga/Peel Region's sewer system.

1.2 Scope of Work

The scope of work for this investigation included:

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

2.0 FIELDWORK

- Between April 1 and 4, 2024, DS drilled six (6) boreholes (BH24-1 through BH24-6) at the site as part of the concurrent hydrogeological and geotechnical investigations. The boreholes were advanced to a depth ranging from 5.6 to 15.3 mbgs. A total of four (4) boreholes equipped with a 50 mm dia monitoring well to a depth ranging from 1.5 to 9.1 mbgs. All monitoring wells were developed before any use to allow for groundwater level monitoring, hydraulic conductivity testing, and to assess groundwater quality.
- A total of four (4) single well response tests (SWRTs) were completed by performing a rising head test (slug test) to estimate the hydraulic conductivity values of soils at the site.
- One (1) unfiltered groundwater sample was also collected and analyzed for the parameters listed under the City of Mississauga/Peel Region Sewers By-law (By-Law 0046-2022 and 53-2010, Sewers) to assess groundwater quality. The borehole (BH) and monitoring well (MW) location plan is shown in **Figure 3**.

3.0 PHYSICAL SETTING

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

3.1 Physiography and Drainage

The topography at the development site is flat with an average surface elevation of 119.8 masl. The topography within the study area slopes to the southeast, towards Etobicoke Creek. Drainage is controlled by underground utilities. There are no surface water features at the site. The nearest water body is Etobicoke Creek, located about 350 m southeast of the site.

3.2 Geology

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

3.2.1 Quaternary Geology

According to the Ontario Geological Survey mapping across the region, the site lies partially within the Beaches, Till Plains (Drumlinized) and Sand Plains physiographic region of southern Ontario and the quaternary geology of the Site is characterized by glaciolacustrine deposits of sand, gravelly sand and gravel, nearshore and beach deposits of Pleistocene. The surficial geology at the site partially is characterized as “Coarse-textured glaciolacustrine deposits” consists of sand, gravel, minor silt and clay, Littoral deposits, “Older alluvial deposits” contains clay, silt, sand, gravel and may contain organic remains and “Till deposits” characterized by clay to silt-textured till (derived from glaciolacustrine deposits or shale). The surficial geology map is shown in **Figure 2.**

3.2.2 Bedrock Geology

According to the Ontario Geological Survey mapping across the region, the bedrock at the site is predominantly comprised of shale, limestone, dolostone, and siltstone of the Georgian Bay Formation; Blue Mountain Formation; Billings formation; Collingwood Member, and Eastview Member. Bedrock was encountered during the current investigation at depths ranging from 4.8 to 11 mbgs, corresponding to elevations varying from 108.4 to 114.6 masl.

3.2.3 Site Geology

On-site subsurface soil conditions were summarised from the subsurface geotechnical site investigation at the site by DS and, the MECP water wells records. Detailed subsurface conditions are presented in

Figure 4 and the borehole logs are in **Appendix A**. The subsurface conditions in the boreholes are summarized in the following paragraphs.

Pavement Structure: All boreholes were drilled from the existing pavement and encountered a pavement structure consisting of approximately 150 to 200 mm of asphaltic concrete overlying 70 to 950 mm of sand and gravel granular fill materials.

Fill Materials: Fill materials consisting of clayey silt to silty clay, sandy silt to silty sand and/or gravelly sand, with varying inclusions of gravel and organics were encountered in all boreholes, except BH24-4. The fill material extended to depths ranging from 0.6 to 3.3 mbgs. Brick pieces were observed in the fill in BH24-1. A buried asphalt layer was noted below 0.5 m depth and concrete pieces below 0.8 m in BH24-2.

Sand and Gravel to Gravelly Sand Deposits: Cohesionless deposits of sand and gravel to gravelly sand were encountered below the pavement structure in BH24-4 and below the fill materials in the remaining boreholes and extended to depths ranging from 3 to 7.5 mbgs.

Sandy Silt to Silty Sand Till Deposits: Glacial cohesionless sandy silt to silty sand till deposits were encountered below the sand and gravel to gravelly sand deposits in all boreholes and extended to depths ranging from 4.8 to 10.6 mbgs in all boreholes, i.e., maximum depth explored/auger refusal in BH24-3. A gravelly sand layer was embedded in the till between 7.5 and 9 m depths in BH24-4. The deposits contained trace clay and trace to some gravel. Cobbles and boulders were noted in the till during drilling.

Sandy Silt Till/Shale Complex: Below the sandy silt till deposit, sandy silt till/shale complex with a thickness of approximately 400 mm was found overlying shale bedrock in BH24-1. This deposit consisted of sandy silt till mixed with highly weathered shale.

Shale Bedrock: Shale bedrock was found at approximate depths ranging from 4.8 to 11 mbgs, corresponding to elevations varying from 108.4 to 114.6 masl.

3.3 Hydrogeology

The hydrogeology at the development site was evaluated using the on-site monitoring wells installed by DS and water well record (WWR) database.

3.3.1 Local Groundwater Use

As part of the hydrogeological study, DS completed a search of the Ministry of the Environment, Conservation and Parks (MECP) Water Well Records (WWR) database. Based on the MECP water well records search, there are one-hundred forty-nine (149) water wells within 500 meters of the development site (**Appendix D**). No water well is noted as a water supply well (domestic, irrigation, industrial) except one (1) well listed as commercial. All wells are noted as test holes, monitoring wells, not in use or unknown. **Figure**

1 shows the MECP water well location plan. The study area is serviced with municipal water and therefore, no groundwater users are expected in the area.

3.3.2 Groundwater Conditions

DS measured groundwater levels in monitoring wells installed on April 10th and 22nd, 2024. **Table 3-1** presents the groundwater levels in all monitoring wells. The groundwater level in overburden wells ranged from 2.4 to 5.32 mbgs (Elev. 115.9-116.95 masl). The groundwater levels are subject to seasonal fluctuations and may vary in response to changing climate conditions. The groundwater flow direction is expected to be southeasterly towards Etobicoke Creek located approximately 350 m southeast of the Site.

Table 3-1: Groundwater Levels in Monitoring Wells

Well ID	Ground Elevation (masl)	Screened Interval (mbgs)	April 10th ,2024		April 22nd, 2024	
			Depth to Water (mbgs)	Groundwater Elevation (masl)	Depth to Water (mbgs)	Groundwater Elevation (masl)
BH24-1	121.31	6.1-9.1	5.32	115.99	5.07	116.24
BH24-3	119.9	4.6-7.6	3.78	116.12	4	115.9
BH24-5	119.35	1.5-4.5	2.51	116.84	2.4	116.95
BH24-6	120.1	3.1-6.1	3.79	116.31	3.7	116.4

3.3.3 Hydraulic Conductivity

A total of four (4) Single Well Response Tests (slug tests) were completed by DS on April 10th, 2024, to estimate hydraulic conductivity (k) for the representative geological units in which the wells were screened. SWRTs were completed by performing a rising head test (slug test) with the use of Waterra® tubing to 'instantaneously' remove water from the well. A data logger was placed at the bottom of the wells to accurately measure the change in the hydraulic head versus time. Hydraulic conductivity (k) values were calculated using the Hvorslev method using the AquiferTest® Software. The semi-log plots for normalized drawdown versus time are provided in **Appendix B.** The k-values ranged between 3.02 x 10^{-7} m/s to 5.62 x 10^{-6} m/s. **Table 3-2** presents the Hydraulic Conductivity (k) values for the representative geological units.

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

Well ID	Screened Interval (mbgs)	Screened Formation	K-value (m/s)	Geomean value
BH24-1	6.1-9.1	Sand & Gravel to Gravelly Sand/Silty Sand to Sandy Silt Till	5.62 x 10^{-6}	1.24 x 10^{-6}
BH24-3	4.6-7.6	Sandy Silt Till	1.12 x 10^{-6}	
BH24-5	1.5-4.5	Sand & Gravel to Gravelly Sand/Silty Sand to Sandy Silt Till	3.02 x 10^{-7}	

BH24-6	3.1-6.1	Sand & Gravel to Gravelly Sand/Silty Sand to Sandy Silt Till/Shale Bedrock	1.25 x 10^{-6}	

3.3.4 Groundwater Quality

One (1) unfiltered groundwater sample was collected from monitoring well BH24-1 on April 10th, 2024, to assess the suitability for discharge of groundwater to the City of Mississauga's Storm Sewers and Peel Region's Sanitary Sewer system. The groundwater samples were submitted to SGS Laboratories in Lakefield, Ontario. SGS is certified by the Canadian Association of Laboratory Accreditation Inc. (CALA) and the Canadian Standard Association (CSA). The reported analytical results indicate that all the parameters met the City of Mississauga Storm Sewer Use By-Law and also there were no exceedances reported against the Peel Region's Sanitary Sewer-Use By-Law. Therefore, water can be discharged to the City/Region's storm and sanitary sewers without pre-treatment. The certificates of analyses are provided in **Appendix C.**

4.0 CONSTRUCTION DEWATERING

The proposed development will include the construction of two (2) 24 to 25-storey high-rise towers with one (1) level of underground parking (P1). Based on the architectural drawings provided to DS (RAW Design, June 2024), the established ground elevation is 120 masl and the finished floor elevation of P1 is 4.5 mbgs or an elevation of 115.5 masl. However, the assumed finished floor elevation of P1 considering the footings and elevator shaft would be approximately 6.5 mbgs (approx. Elev: 113.5 masl). For construction dewatering purposes, the groundwater level should be lowered at least one (1) m below the footings and elevator shaft elevation at about 112.5 masl. The unsealed construction excavation method with approximate excavation dimensions of 150 m long and 90 m wide for considered for the proposed development. Since the proposed underground structure will be below the groundwater table, dewatering will be required during the excavation of overburden material.

Dewatering calculations are based on the assumption that the entire site will be excavated concurrently, as such, dewatering values have to be further refined when details of design and construction sequencing become available.

4.1 Estimation of Flow Rate - Unsealed Excavation

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

$$Q_R = K\, x \frac{H^2 - h^2}{0.733}\, x\, Log\,(R_0/r_e)$$

$$r_e = \left(\frac{(a\ x\ b)}{\pi}\right)^{0.5}$$

$$R_0 = (r_e + 3000)(H - h)(k^{0.5})$$

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

Parameters	P1
K -Hydraulic conductivity (m/s)-Geomean Value	1.24×10^{-6}
H-Distance from water level to the bottom of an aquifer (m)	5.5
h -Depth of water in the well while pumping (m)	1
a- length of excavation (m)	150
b- Width of excavation (m)	90
r_e–equivalent radius, where a and b excavation dimensions (m)	65
R_o- re+Radius of the cone of depression	81
Estimated Flow Rate- L/day (without safety factor)	48,000

4.2 Estimation of Flow Rate- Storm Water Consideration

During construction, additional removal of stormwater from precipitation into the open excavation will be required. The estimated flow rate is based on the excavation dimensions for the entire development and a theoretical 10 mm precipitation event in 24 hours. The total estimated dewatering that might be needed as a result of a 10 mm precipitation event would be approximately 135,000 L/day (135 m^3/day).

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

Considering the unsealed excavation method, the recommended pumping rate for the proposed development considering P1 level would be approximately **231,000 L/day (231 m^3/day)**. These values incorporate a safety factor of x2 and account for stormwater as a result of a 10 mm precipitation event. The recommended flow rates for the proposed buildings are summarised in Table 4-2.

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

U/G	Flow Rate Q- without a safety factor (L/day)	Flow Rate Q- with a safety factor x2 (L/day)	Storm water (@ 10 mm/24 hrs.) (L/day)	Designed Flow Rate Or Total Flow Rate (L/day)
P1	48,000	96,000	135,000	231,000

It is expected that the initial dewatering rate will be higher to remove groundwater within the overburden formation. The dewatering rates are expected to decrease once the target water level is achieved in the excavation footprint as groundwater will have been removed locally from storage resulting in lower seepage rates into the excavation. The maximum flow calculation is intended to provide a conservative value to account for unforeseeable conditions that may arise during construction. Due to the heterogeneous nature of the soils and presence of sandy units at the site, DS recommends conducting a pumping test for 24 hours to better assess the aquifer parameters (transmissivity and storativity) and more accurately estimate the anticipated dewatering rates. Dewatering values have to be further refined when details design and construction sequencing become available.

4.4 Permanent Drainage (Long-term Discharge)

Following the construction of the underground structure, long-term groundwater flow to the underfloor drainage system for the building will be a function of the upward flux and drainage along the foundation wall. Based on the assumed design, depth to water and given k-value, the estimated permanent theoretical flow would expect to be 40,000 L/day (40 m^3/day). However, if a safety factor x2 is included, a conservative permanent flow of **80,000 L/day (80 m^3/day)** will be needed to be pumped into the sewer system to manage any unforeseen groundwater issues in the future.

4.5 Permit Requirements

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

An Environmental Activity Sector Registration (EASR) is required to be submitted to the Ministry of the Environment, Conservation and Parks (MECP) if the taking of groundwater and stormwater for a temporary construction project is between 50,000 L/day and 400,000 L/ day. The EASR application is an online registry and should be submitted to the MECP before any construction dewatering. A PTTW is only required to be submitted to the MECP if the taking of groundwater and stormwater for a temporary construction project is more than 400,000 L/ day, which is not expected for this proposed development.

Since the expected design dewatering rate for the unsealed excavation is between the MECP's daily water-taking limit of 50,000 and 400,000 L/day, an EASR application will be required to be submitted to the MECP for short-term dewatering before starting construction. Since, the long-term (permanent) flow rate is expected to be higher than the MECP's minimum pumping limit of 50,000 L/day, a permit to take water (PTTW) application is required to be submitted to the MECP permanently.

4.5.2 Discharge Permits (Construction Dewatering and Permanent Drainage)

A Discharge permit will be required from the City of Mississauga/Peel Region if private water is to be sent to the sewer system for short-term discharge.

5.0 POTENTIAL IMPACTS

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

5.1 Local Groundwater Use

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

5.2 Point of Discharge and Groundwater Quality

The analytical results were compared to Limits for City of Mississauga Storm Sewer Discharge, and Limits for Peel Region Sanitary Sewer Discharge. The reported analytical results indicate that all the parameters met the City of Mississauga Storm Sewer Use By-Law and also there were no exceedances reported against the Peel Region's Sanitary Sewer-Use By-Law. Therefore, water can be discharged to the City/Region's storm and sanitary sewers without pre-treatment.

5.3 Settlement Due to Dewatering Activities

There are structures and utilities (structures, buildings, sewers roads, etc.) expected within the predicted zone of influence, which is estimated at 81 meters from the center of the excavation when considering an unsealed excavation. There may be a possibility of settlement within the zone of influence due to the presence of water-bearing sand and gravely deposits. DS recommends consulting geotechnical consultants to access potential settlement due to any dewatering activities at the Site during construction.

6.0 MONITORING AND MITIGATION

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

- If a groundwater dewatering system is set up at the Site, daily and weekly monitoring should be implemented during construction to assess the groundwater conditions such as water levels, measurement of discharge flow, discharge water quality and any adverse impacts as a result of dewatering including settlement.

- Baseline groundwater quality has been assessed and established before construction. However, groundwater quality can change based on several factors (land-use change, spills, etc.) and should be monitored during construction dewatering and after construction to ensure that water quality meets the guidelines or regulations associated with any permits from the MECP and the City of Mississauga/Peel Region.

- Following the completion of construction activities, all dewatering wells, well points, eductors and monitoring wells installed at various stages of this project must be decommissioned. The installation and eventual decommissioning of the wells and the dewatering system must be carried out by a licensed water well contractor in accordance with Regulation 903 of the Ontario Water Resources Act.

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

DS Consultants Ltd.

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

Reviewed By:

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

7.0 CONSULTANT QUALIFICATIONS

Martin Gedeon, M.Sc., P.Geo., is a Professional Geoscientist (P.Geo.) with over 27 years of experience as an environmental/hydrogeological consultant in the areas of groundwater and soil monitoring, environmental site assessments, environmental due diligence, and remediation. Martin has significant experience in physical and contaminant hydrogeology across Canada and overseas and has provided hydrogeological/environmental technical support on various projects. Martin has prepared hundreds of hydrogeological reports in support of permit applications for a private sector development application, municipal dewatering operations, and provincial infrastructure projects across the province.

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

8.0 REFERENCES

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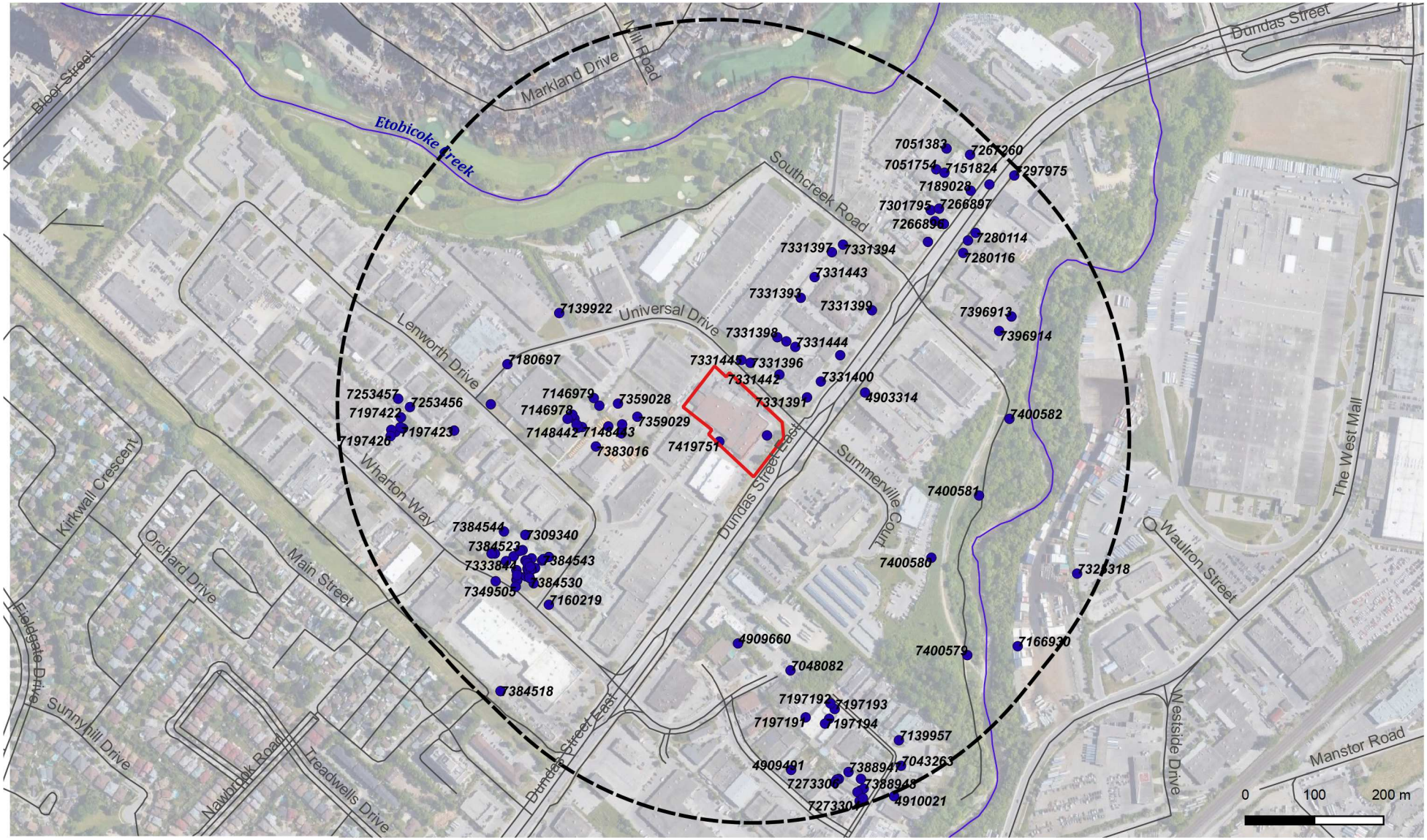
Figures

J:\-GIS\2024 PROJECTS\24-070-100 - 1995 Dundas East Mississauga, ON\1-QGIS\HydroG\Figure 1 – Site Location and MECP Well Records.qgs May-21 22:56



Legend

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

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

Project: HYDROGEOLOGICAL INVESTIGATION
1995 Dundas Street E, 3040 & 3044 Universal Dr., Mississauga, ON

Title: **SITE LOCATION AND MECP WELL RECORDS**

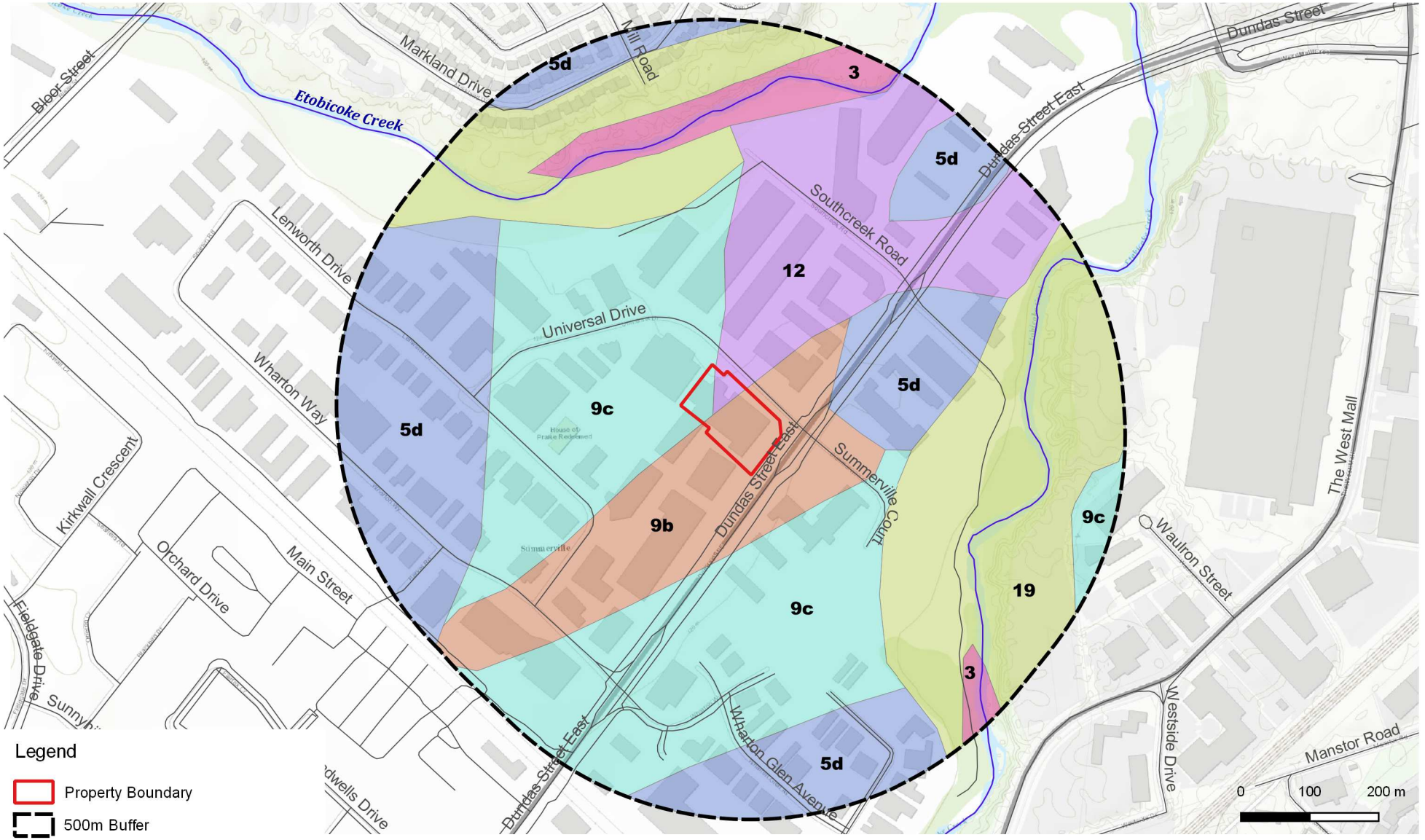
N

Client: LANDEAL ASSET MANAGEMENT INC.

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	M.J	S.Y	May 2024
Rev: 0	Scale: As Shown	Project No.: 24-070-100	Figure No.: 1

Image/Map Source: *Google Satellite Image*

J:\-GIS\2024 PROJECTS\24-070-100 - 1995 Dundas East Mississauga, ON\1-QGIS\HydroG\Figure 2 – Surficial Geology Map.qgs May-22 08:41



Legend

- Property Boundary
- 500m Buffer
- 12 - Older Terrace Alluvium
- 19 - Modern Alluvium
- 3 - Bedrock
- 5d - Till
- 9b - Lake Iroquois Deposits
- 9c - Deltaic And Lacustrine Deposits

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Project: HYDROGEOLOGICAL INVESTIGATION
1995 Dundas Street E, 3040 & 3044 Universal Dr., Mississauga, ON

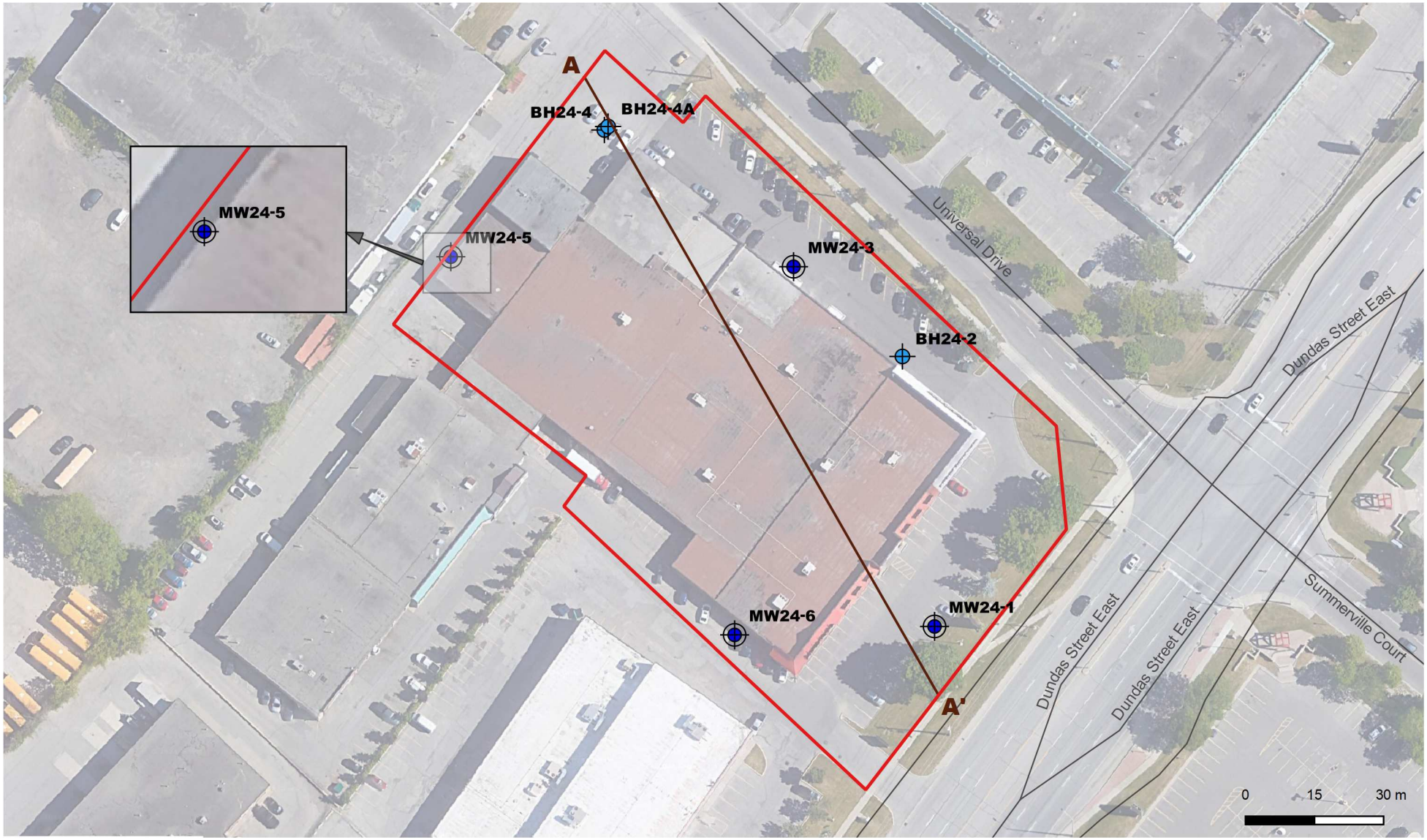
Title: **SURFICIAL GEOLOGY MAP**

Client: LANDEAL ASSET MANAGEMENT INC.

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	M.J	S.Y	May 2024
Rev: 0	Scale: As Shown	Project No.: 24-070-100	Figure No.: 2

Image/Map Source: *Esri Topo Map & https://www.mndm.gov.on.ca/*

J:\-GIS\2024 PROJECTS\24-070-100 - 1995 Dundas East Mississauga, ON\1-QGIS\HydroG\Figure 3 – Borehole and Monitoring Well Locations.qgs May-22 09:26



Legend

- Property Boundary
- Cross Section
- Borehole
- Monitoring Well

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Vaughan, Ontario L4H 0K8
Telephone: (905) 264-9393
www.dsconsultants.ca

Client: LANDEAL ASSET MANAGEMENT INC.

Project: HYDROGEOLOGICAL INVESTIGATION
1995 Dundas Street E, 3040 & 3044 Universal Dr., Mississauga, ON

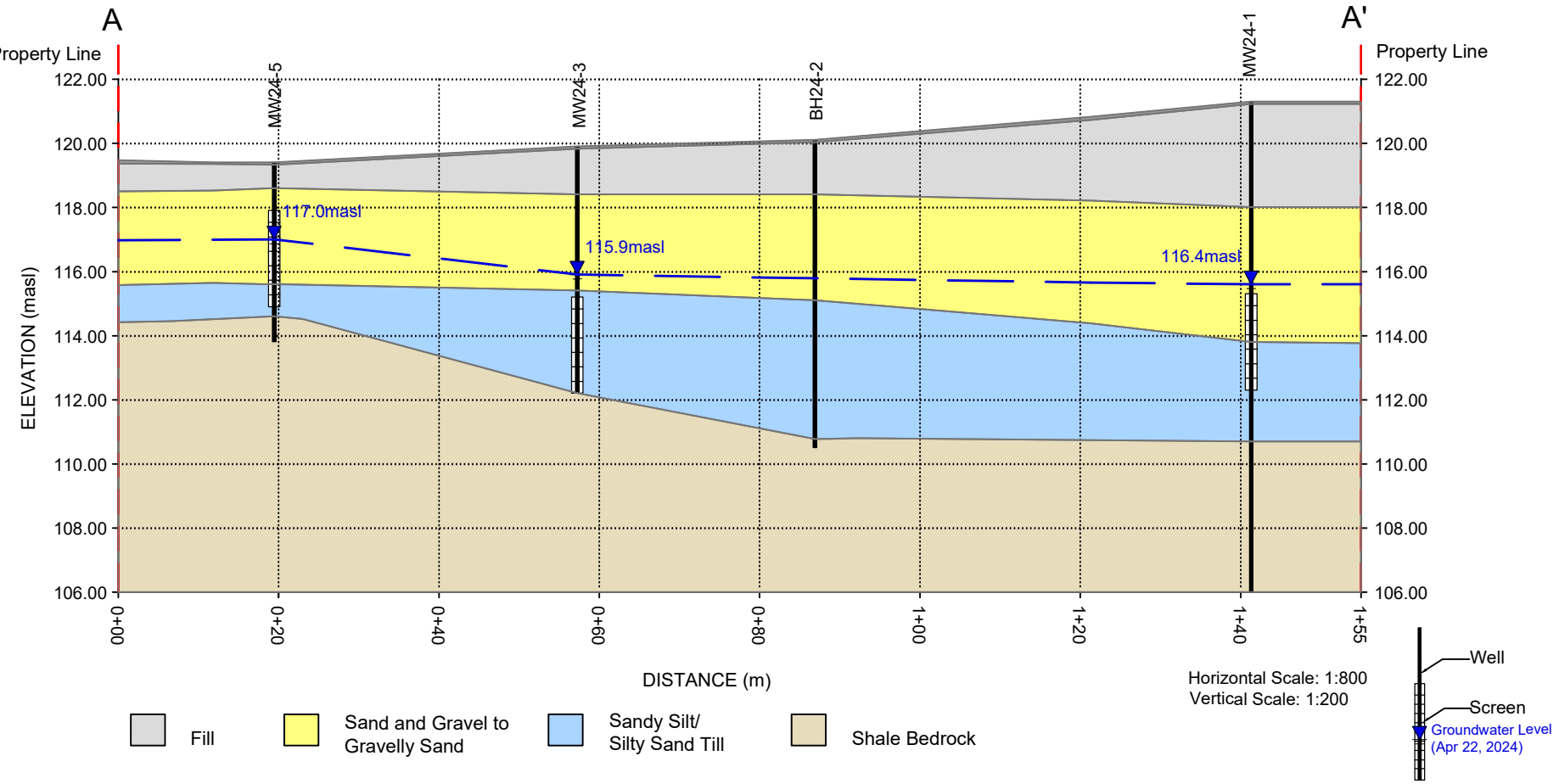
Title: **BOREHOLE AND MONITORING WELL LOCATIONS**

N

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	M.J	S.Y	May 2024
Rev: 0	Scale: As Shown	Project No.: 24-070-100	Figure No.: 3

Image/Map Source: *Google Satellite Image*

Path:j:\-gis\2024 projects\24-070-100 - 1995 dundas east mississauga, on\7-misc\cad\geolgical cross section 24-070.dwg



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Project: HYDROGEOLOGICAL INVESTIGATION
1995 Dundas Street E, 3040 & 3044 Universal Dr., Mississauga, ON

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

Client: LANDEAL ASSET MANAGEMENT INC.

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	M.J	S.Y	May 2024
Rev.	**Scale:**	**Project No:**	**Figure No.**
	As Shown	24-070-100	**4**

Appendices

Appendix A: Borehole Logs

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Geotechnical ◆ Environmental ◆ Materials ◆ Hydrogeology

LOG OF BOREHOLE BH24-1

PROJECT: Geotechnical Investigation
CLIENT: Landeal Asset Management Inc
PROJECT LOCATION: 1995 Dundas St. E, Mississauga, ON
DATUM: Geodetic
BH LOCATION: See Drawing 1 N 4830896.44 E 615318.58

DRILLING DATA
Method: Solid Stem Auger/Mud Rotary
Diameter: 150mm
Date: Apr-01-2024

REF. NO.: 24-070-100
ENCL NO.: 2

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	BLOWS 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (20 40 60 80 100)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
121.3												
121.0 / 0.0	**ASPHALT:** 150mm											
120.7 / 0.3	**GRANULAR BASE:** sand and gravel, 150mm		1	SS	8		121					
1	**FILL:** clayey silt to silty clay, trace sand, trace gravel, brown to dark brown, moist, firm to stiff trace brick pieces, organic staining at 1.5m		2	SS	6							
2			3	SS	9		120					
119.0												
2.3	**FILL:** sandy silt, some clay, some gravel, trace organics, trace brick pieces, brown, moist, compact to very dense		4	SS	12		119					
3												
118.0			5	SS	68		118					
3.3	**SAND AND GRAVEL TO GRAVELLY SAND:** trace to some silt, trace clay, trace cobbles/boulders, brown, moist, very dense											
4	crushed stone fragments at 4.6m		6	SS	50/ 130mm		117					
5												
6	wet at 6.1m					▽	116					
								W. L. 115.6 m Apr 22, 2024				
			7	SS	68		115					41 38 16 5
7												
113.8							114					
7.5	**SANDY SILT TILL:** trace clay, trace gravel, occasional cobbles/boulders, grey, moist to very moist, very dense		8	SS	50/ 130mm							
8							113					
9			9	SS	50/ 130mm		112					
10												
110.7							111					
10.6 / 110.3	**SANDY SILT TILL/SHALE COMPLEX:** trace clay, trace gravel, grey, moist, very dense		10	SS	50/ 100mm							
11.0	**SHALE BEDROCK:** Georgian Bay Formation, grey, weathered						110					
12												
109.0			11	SS	50/ 130mm		109					
12.3	TCR=100%, SCR=43%, RQD=6% Hard layers=10%, Maximum hard layer thickness=50mm Fragmented zones below 12.5m		R1	RC								
13							108					
107.5												
13.8	TCR=100%, SCR=75%, RQD=21% Hard layers=13%, Maximum hard layer thickness=230mm		R2	RC			107					
14												
106.0												
15.3	**END OF BOREHOLE:** Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water Level Readings: Date: Water Level(mbgl): April 22, 2024 5.7											

DS SOIL LOG-2021-FINAL 24-070-100GEO.GPJ DS.GDT 24-5-7

GROUNDWATER ELEVATIONS
Measurement 1st ▽ 2nd ▼ 3rd ▼ 4th ▼

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

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LOG OF BOREHOLE BH24-2

PROJECT: Geotechnical Investigation
CLIENT: Landeal Asset Management Inc
PROJECT LOCATION: 1995 Dundas St. E, Mississauga, ON
DATUM: Geodetic
BH LOCATION: See Drawing 1 N 4830955.04 E 615311.61

DRILLING DATA
Method: Solid Stem Auger/Mud Rotary
Diameter: 150mm
Date: Apr-04-2024

REF. NO.: 24-070-100
ENCL NO.: 3

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	BLOWS 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION
120.1							
119.9 / 0.0	**ASPHALT:** 150mm						
119.6 / 0.3	**GRANULAR BASE:** sand and gravel, 150mm		1	SS	56		
119.3 / 0.6	**FILL:** silty sand, trace gravel, brown, moist, very dense		2	SS	28		119
118.6 / 1.3	**ASPHALT:** layer of asphalt						
118.4 / 1.5	**FILL:** silty sand, some clay, trace concrete pieces, brown, moist, compact		3	SS	16		
1.7	**FILL:** gravelly sand, trace silt, brown, moist, compact		4	SS	46		118
	GRAVELLY SAND TO SAND AND GRAVEL: trace silt, brown, occasional cobbles/boulders, moist, compact to very dense		5	SS	53		117
115.1			6	SS	54		116
5.0	**SANDY SILT TO SILTY SAND TILL:** trace to some clay, trace to some gravel, occasional cobbles/boulders, brown, moist to wet, very dense						115
	grey below 6.1m		7	SS	50/ 100mm		114
	silty sand pockets below 7.6m		8	SS	50/ 100mm		113
110.7			9	SS	50/ 100mm		112
110.5 / 9.6	**SHALE BEDROCK:** Georgian Bay Formation, grey, weathered			SS			111
	END OF BOREHOLE:						

Notes:
1) Water encountered at depth of 4.6m during drilling.

DYNAMIC CONE PENETRATION RESISTANCE PLOT
20 40 60 80 100

SHEAR STRENGTH (kPa)
○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE
20 40 60 80 100

PLASTIC LIMIT w_P | NATURAL MOISTURE CONTENT w | LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30

POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
		10 65 18 7

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

DS SOIL LOG-2021-FINAL 24-070-100GEO.GPJ DS.GDT 24-5-7

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LOG OF BOREHOLE BH24-3

PROJECT: Geotechnical Investigation
CLIENT: Landeal Asset Management Inc
PROJECT LOCATION: 1995 Dundas St. E, Mississauga, ON
DATUM: Geodetic
BH LOCATION: See Drawing 1 N 4830974.51 E 615287.96

DRILLING DATA
Method: Solid Stem Auger/Mud Rotary
Diameter: 150mm
Date: Apr-04-2024

REF. NO.: 24-070-100
ENCL NO.: 4

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	BLOWS 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (20 40 60 80 100)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
119.9												
119.6 0.3	**ASPHALT:** 200mm **GRANULAR BASE:** sand and gravel, 75mm		1	SS	19							
118.4 1.5	**FILL:** silty sand to sandy silt, some gravel, brown, moist, compact		2	SS	10		119					
	GRAVELLY SAND TO SAND AND GRAVEL: trace silt, brown, moist, very dense cobble fragments below 2.3m		3	SS	51		118					
			4	SS	50/ 100mm		117					
			5	SS	50/ 130mm		116					
115.4 4.5	**SANDY SILT TILL:** trace to some clay, trace gravel, ocasional cobbles/boulders, grey, moist to very moist, compact to very dense		6	SS	26	W. L. 115.9 m Apr 22, 2024	115					
			7	SS	57		114					3 39 48 10
112.2 7.7	AUGER REFUSAL at depth of 7.7m on possible boulder/bedrock		8	SS	50/ 100mm		113					
	END OF BOREHOLE:											

Notes:
1) 50mm dia. monitoring well installed upon completion.
2) Water Level Readings:

Date:	Water Level(mbgl):
April 22, 2024	4.0

GROUNDWATER ELEVATIONS
Measurement 1st ▽ 2nd ▼ 3rd ▼ 4th ▼

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

DS SOIL LOG-2021-FINAL 24-070-100GEO.GPJ DS.GDT 24-5-7

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LOG OF BOREHOLE BH24-4

PROJECT: Geotechnical Investigation
CLIENT: Landeal Asset Management Inc
PROJECT LOCATION: 1995 Dundas St. E, Mississauga, ON
DATUM: Geodetic
BH LOCATION: See Drawing 1 N 4831004.19 E 615246.84

DRILLING DATA
Method: Solid Stem Auger/Mud Rotary
Diameter: 150mm
Date: Apr-04-2024

REF. NO.: 24-070-100
ENCL NO.: 5

(m) ELEV / DEPTH	DESCRIPTION	NUMBER	TYPE	BLOWS 0.3 m "N"	ELEVATION	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
119.0						
118.8	**ASPHALT:** 150mm					
118.6	**GRANULAR BASE:** sand and gravel, 70mm	1	SS	11		
0.2						
117.9	**GRANULAR FILL:** sand and gravel, brown, moist, compact to very dense	2	SS	47	118	
1.1	**SAND AND GRAVEL TO GRAVELLY SAND:** trace silt, cobbles/boulders, brown, moist, dense to very dense wet at 2.3m	3	SS	87		
2		4	SS	42	117	
116.0						
3.0	**SANDY SILT TILL:** trace clay, trace gravel, occasional cobbles/boulders, brown, wet, dense to very dense grey, moist to very moist below 3.3m	5	SS	35	116	
4						
5		6	SS	50/ 100mm	115	
6					114	
7		7	SS	50/ 50mm	113	
111.5						
7.5	**GRAVELLY SAND:** trace silt, trace clay, cobbles/boulders, grey, wet, very dense	8	SS	50/ 130mm	112	
8						
110.0					111	
9.0	**SANDY SILT TILL:** trace clay, trace gravel, occasional cobbles/boulders, grey, moist to very moist, very dense	9	SS	50/ 100mm		
9					110	
10		10	SS	200/ 150mm		Auger grinding-Inferred boulders
108.4					109	
10.6	**SHALE BEDROCK:** Georgian Bay Formation, grey, weathered	11	SS	100/ 25mm		
11						
107.8		12	SS	110/ 0mm	108	
11.2	**END OF BOREHOLE:** Notes: 1) Water encountered at depth of 2.4m during drilling. 2) Borehole was moved 1.0m away due auger refusal at 9.8m due to cobble/boulder at initial location.					

SOIL PROFILE | SAMPLES | GROUND WATER CONDITIONS | ELEVATION

DYNAMIC CONE PENETRATION RESISTANCE PLOT
20 40 60 80 100

SHEAR STRENGTH (kPa)
○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE
20 40 60 80 100

PLASTIC LIMIT w_P | NATURAL MOISTURE CONTENT w | LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30

POCKET PEN. (Cu) (kPa) | NATURAL UNIT WT (kN/m³)

GROUNDWATER ELEVATIONS
Measurement 1st ▽ 2nd ▼ 3rd ▼ 4th ▼

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

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LOG OF BOREHOLE BH24-5

PROJECT: Geotechnical Investigation
CLIENT: Landeal Asset Management Inc
PROJECT LOCATION: 1995 Dundas St. E, Mississauga, ON
DATUM: Geodetic
BH LOCATION: See Drawing 1 N 4830976.68 E 615213.51

DRILLING DATA
Method: Solid Stem Auger/Mud Rotary
Diameter: 150mm
Date: Apr-04-2024

REF. NO.: 24-070-100
ENCL NO.: 6

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	BLOWS 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION
119.4							
119.0 / 0.0	**ASPHALT:** 150mm						
118.9 / 0.2	**GRANULAR BASE:** sand and gravel, 70mm		1	SS	20		119
118.8 / 0.6	**FILL:** silty sand, trace gravel, brown, moist, compact		2	SS	42		
1	**GRAVELLY SAND TO SAND AND GRAVEL:** trace to some silt, trace clay, cobbles/boulders, brown, moist, dense to very dense		3	SS	72		118
2			4	SS	50/ 100mm	▽	117
3	wet at 3.1m		5	SS	50/ 75mm		116
115.6							
4 3.8	**SANDY SILT TILL:** trace clay, silty clay pockets, occasional cobbles/boulders, shale fragments inclusions, grey, moist, very dense		6	SS	81		115
114.6			7	SS	50/ 75mm		
5 4.8	**SHALE BEDROCK:** Georgian Bay Formation, grey, weathered						114
113.8			8	SS	50/ 5mm		
5.6	**END OF BOREHOLE:**						

Notes:
1) 50mm dia. monitoring well installed upon completion.
2) Water Level Readings:

Date: Water Level(mbgl):
April 22, 2024 2.4

W. L. 117.0 m
Apr 22, 2024

DYNAMIC CONE PENETRATION RESISTANCE PLOT
20 40 60 80 100

SHEAR STRENGTH (kPa)
○ UNCONFINED + FIELD VANE & Sensitivity
● QUICK TRIAXIAL × LAB VANE
20 40 60 80 100

PLASTIC LIMIT w_P | NATURAL MOISTURE CONTENT w | LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30

POCKET PEN. (Cu) (kPa)

NATURAL UNIT WT (kN/m³)

REMARKS AND GRAIN SIZE DISTRIBUTION (%)

GR	SA	SI	CL
29	51	16	4

GROUNDWATER ELEVATIONS
Measurement 1st ▽ 2nd ▼ 3rd ▼ 4th ▼

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

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LOG OF BOREHOLE BH24-6

PROJECT: Geotechnical Investigation
CLIENT: Landeal Asset Management Inc
PROJECT LOCATION: 1995 Dundas St. E, Mississauga, ON
DATUM: Geodetic
BH LOCATION: See Drawing 1 N 4830894.61 E 615275.17

DRILLING DATA
Method: Solid Stem Auger/Mud Rotary
Diameter: 150mm
Date: Apr-02-2024

REF. NO.: 24-070-100
ENCL NO.: 7

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	BLOWS 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT (20 40 60 80 100) / SHEAR STRENGTH (kPa) ○ UNCONFINED ● QUICK TRIAXIAL + FIELD VANE & Sensitivity × LAB VANE (20 40 60 80 100)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%) (10 20 30)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
120.1												
120.0	**ASPHALT:** 150mm											
119.9 0.2	**GRANULAR BASE:** sand and gravel, 70mm		1	SS	11		120					
1	**FILL:** sand, some gravel, sandy silt pockets, brown, moist, loose		2	SS	8		119					
118.6 1.5	**SAND AND GRAVEL TO GRAVELLY SAND:** trace to some silt, trace clay, cobbles/boulders, brown, moist, loose to very dense		3	SS	6		118					
2			4	SS	7							33 52 11 4
3			5	SS	50/ 0mm	▽	117					
4								W. L. 116.4 m Apr 22, 2024				
115.6 4.5	**SILTY SAND TO SANDY SILT TILL:** trace clay, trace gravel, occasional cobbles/boulders, grey, moist, very dense		6	SS	50/ 100mm		115					
5												
6 114.1 6.0	**SHALE BEDROCK:** Georgian Bay Formation, grey, weathered		7	SS	50/ 30mm		114					
113.7 6.4	TCR=84%, SCR=24%, RQD=12% Hard layers=17%, Maximum hard layer thickness=75mm		R1	RC			113					
7 112.3												
8 7.8	TCR=100%, SCR=70%, RQD=0% Hard layers=15%, Maximum hard layer thickness=50mm		R2	RC			112					
9 110.8							111					
9.3	**END OF BOREHOLE:** Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water Level Readings: Date: Water Level(mbgl): April 22, 2024 3.7											

DS SOIL LOG-2021-FINAL 24-070-100GEO.GPJ DS.GDT 24-5-7

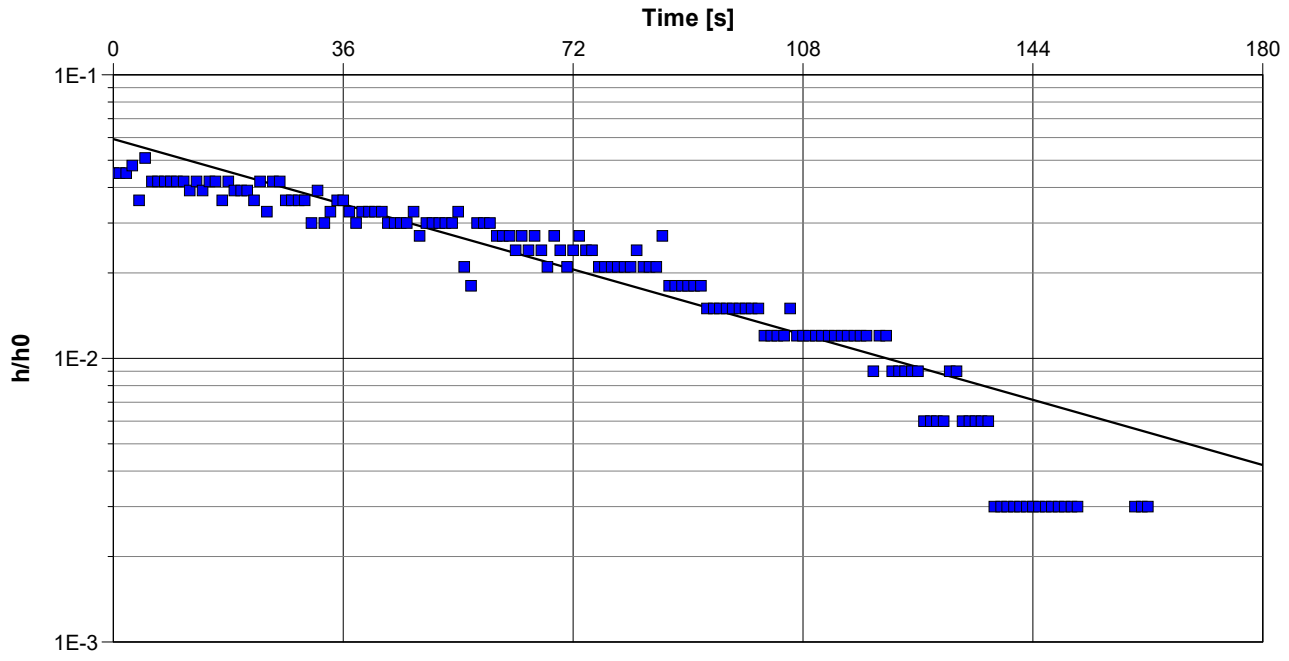
GROUNDWATER ELEVATIONS
Measurement 1st ▽ 2nd ▼ 3rd ▼ 4th ▼

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

Appendix B: Hydraulic Conductivity Analysis

Slug Test Analysis Report	
Project: Hydrogeological Investigation	
Number: 24-070-100	
Client: Landeal Asset Management Inc	

Location: 1995 Dundas St E	Slug Test: BH24-1	Test Well: BH24-1
Test Conducted by: CL		Test Date: 4/10/2024
Analysis Performed by: MJ	Hvorslev	Analysis Date: 5/13/2024
Aquifer Thickness:		

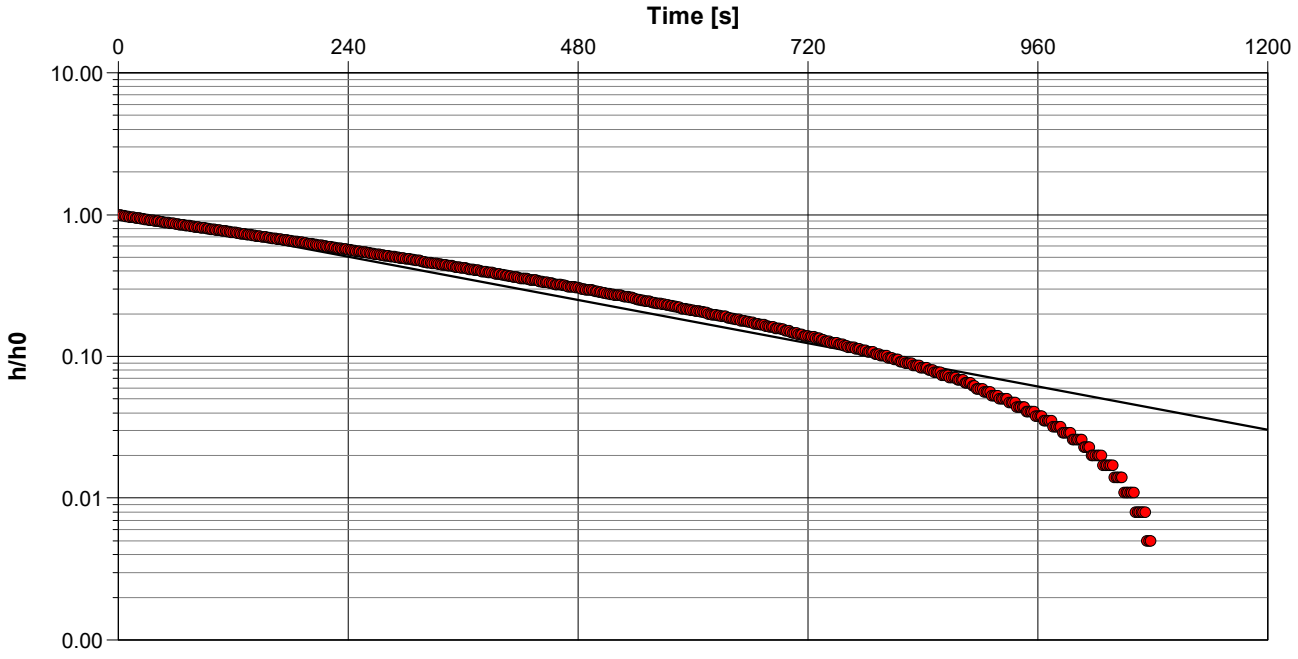


Calculation using Hvorslev

Observation Well	Hydraulic Conductivity [m/s]	
BH24-1	5.62×10^{-6}	

Slug Test Analysis Report	
Project: Hydrogeological Investigation	
Number: 24-070-100	
Client: Landeal Asset Management Inc	

Location: 1995 Dundas St E	Slug Test: BH24-3	Test Well: BH24-3
Test Conducted by: CL		Test Date: 4/10/2024
Analysis Performed by: MJ	Hvorslev	Analysis Date: 5/13/2024
Aquifer Thickness:		

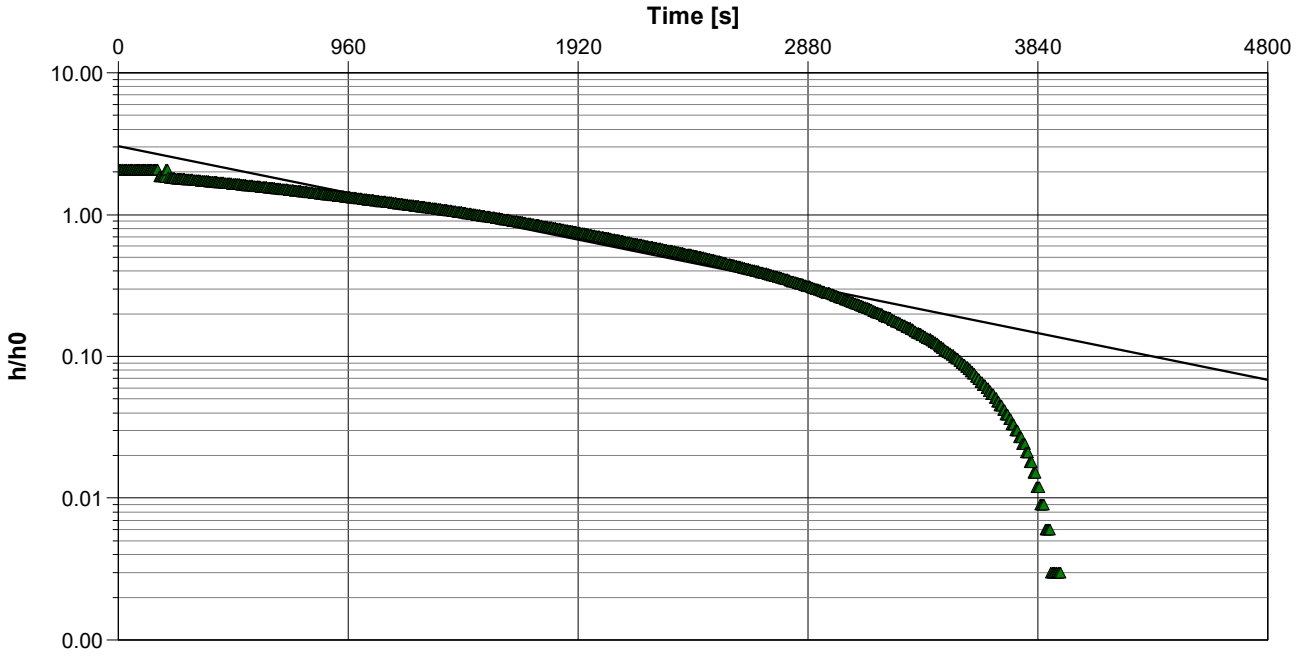


Calculation using Hvorslev

Observation Well	Hydraulic Conductivity [m/s]	
BH24-3	1.12×10^{-6}	

Slug Test Analysis Report	
Project: Hydrogeological Investigation	
Number: 24-070-100	
Client: Landeal Asset Management Inc	

Location: 1995 Dundas St E	Slug Test: BH24-5	Test Well: BH24-5
Test Conducted by: CL		Test Date: 4/10/2024
Analysis Performed by: MJ	Hvorslev	Analysis Date: 5/13/2024
Aquifer Thickness:		

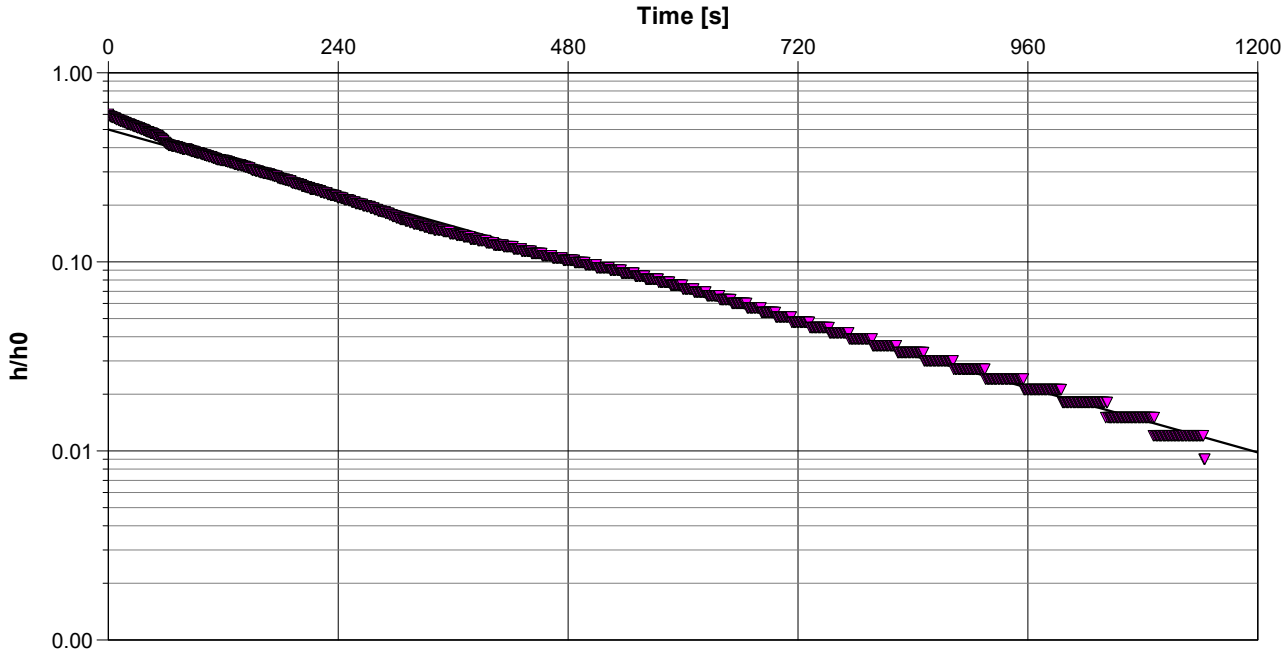


Calculation using Hvorslev

Observation Well	Hydraulic Conductivity [m/s]	
BH24-5	3.02×10^{-7}	

Slug Test Analysis Report	
Project: Hydrogeological Investigation	
Number: 24-070-100	
Client: Landeal Asset Management Inc	

Location: 1995 Dundas St E	Slug Test: BH24-6	Test Well: BH24-6
Test Conducted by: CL		Test Date: 4/10/2024
Analysis Performed by: MJ	Hvorslev	Analysis Date: 5/13/2024
Aquifer Thickness:		



Calculation using Hvorslev

Observation Well	Hydraulic Conductivity [m/s]	
BH24-6	1.25×10^{-6}	

Appendix C: Groundwater Quality Certificate of Analysis

FINAL REPORT

CA40067-APR24 R1

24-070-100, 1995 Dundas St E Mississauga

Prepared for

DS Consultants

FINAL REPORT

First Page

CLIENT DETAILS

Client	DS Consultants
Address	6221 Highway 7 Unit 16 Vaughan, Ontario L4H 0K8. Canada
Contact	Meysam Jafari
Telephone	905-264-9393
Facsimile	905-264-2685
Email	mjafari@dsconsultants.ca
Project	24-070-100, 1995 Dundas St E Mississauga
Order Number	
Samples	Ground Water (1)

LABORATORY DETAILS

Project Specialist	Maarit Wolfe, Hon.B.Sc
Laboratory	SGS Canada Inc.
Address	185 Concession St., Lakefield ON, K0L 2H0
Telephone	705-652-2000
Facsimile	705-652-6365
Email	Maarit.Wolfe@sgs.com
SGS Reference	CA40067-APR24
Received	04/10/2024
Approved	04/17/2024
Report Number	CA40067-APR24 R1
Date Reported	04/17/2024

COMMENTS

RL - SGS Reporting Limit
Temperature of Sample upon Receipt: 9 degrees C
Cooling Agent Present: Yes
Custody Seal Present: Yes

Chain of Custody Number: 035962

Phenol spk low due to sample matrix

SIGNATORIES

Maarit Wolfe, Hon.B.Sc

TABLE OF CONTENTS

Client: DS Consultants
Project: 24-070-100, 1995 Dundas St E Mississauga
Project Manager: Meysam Jafari
Samplers: Chaitanya

MATRIX: WATER

Sample Number 8
Sample Name BH 24-1
Sample Matrix Ground Water
Sample Date 10/04/2024

L1 = SANSEW / WATER / - - Mississauga Sewer Use ByLaw - Storm Sewer Discharge - BL_0046_2022

L2 = SANSEW / WATER / - - Peel Sewer Use ByLaw - Sanitary Sewer Discharge - BL_53_2010

Parameter	Units	RL	L1	L2	Result
General Chemistry					
Biochemical Oxygen Demand (BOD5)	mg/L	2	15	300	< 4 ↑
Total Suspended Solids	mg/L	2	15	350	6
Total Kjeldahl Nitrogen	as N mg/L	0.5		100	1.0
Metals and Inorganics					
Total Chlorine	mg/L	0.02	1		0.16
Fluoride	mg/L	0.06		10	0.14
Cyanide (total)	mg/L	0.01	0.02	2	< 0.01
Sulphate	mg/L	2		1500	86
Aluminum (total)	mg/L	0.001	1	50	0.225
Antimony (total)	mg/L	0.0009		5	< 0.0009
Arsenic (total)	mg/L	0.0002	0.02	1	0.0007
Cadmium (total)	mg/L	0.000003	0.008	0.7	0.000032
Chromium (total)	mg/L	0.00008	0.08	5	0.00144
Copper (total)	mg/L	0.001	0.04	3	< 0.001
Cobalt (total)	mg/L	0.000004		5	0.00232
Lead (total)	mg/L	0.00009	0.12	3	0.00012
Manganese (total)	mg/L	0.00001	2	5	1.27
Molybdenum (total)	mg/L	0.0004		5	0.0044
Nickel (total)	mg/L	0.0001	0.08	3	0.0042
Phosphorus (total)	mg/L	0.003	0.4	10	0.013
Selenium (total)	mg/L	0.00004	0.02	1	< 0.00004

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Parameter	Units	RL	L1	L2	Result
Metals and Inorganics (continued)					
Silver (total)	mg/L	0.00005	0.12	5	< 0.00005
Tin (total)	mg/L	0.00006		5	0.00136
Titanium (total)	mg/L	0.0001		5	0.0078
Zinc (total)	mg/L	0.002	0.2	3	0.003
Microbiology					
E. Coli	cfu/100mL	0	200		0
Nonylphenol and Ethoxylates					
Nonylphenol	mg/L	0.001		0.02	< 0.001
Nonylphenol Ethoxylates	mg/L	0.01		0.2	< 0.01
Nonylphenol diethoxylate	mg/L	0.01			< 0.01
Nonylphenol monoethoxylate	mg/L	0.01			< 0.01
Oil and Grease					
Oil & Grease (total)	mg/L	2			< 2
Oil & Grease (animal/vegetable)	mg/L	4		150	< 4
Oil & Grease (mineral/synthetic)	mg/L	4		15	< 4

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Parameter	Units	RL	L1	L2	Result
Other (ORP)					
pH	No unit	0.05	9	10	7.24
Chromium VI	mg/L	0.0002	0.04		< 0.0002
Mercury (total)	mg/L	0.00001	0.0004	0.01	< 0.00001
PAHs					
Benzo(b+j)fluoranthene	mg/L	0.0001			< 0.0001
PCBs					
Polychlorinated Biphenyls (PCBs) - Total	mg/L	0.0001	0.0004	0.001	< 0.0001
Phenols					
4AAP-Phenolics	mg/L	0.002	0.008	1	0.004
SVOCs					
di-n-Butyl Phthalate	mg/L	0.002		0.08	< 0.002
Bis(2-ethylhexyl)phthalate	mg/L	0.002		0.012	< 0.002
PAHs (Total)	mg/L		0.002		< 0.001
Perylene	mg/L	0.0005			< 0.0005

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Parameter	Units	RL	L1	L2	Result
SVOCs - PAHs					
7Hdibenzo(c,g)carbazole	mg/L	0.0001			< 0.0001
Anthracene	mg/L	0.0001			< 0.0001
Benzo(a)anthracene	mg/L	0.0001			< 0.0001
Benzo(a)pyrene	mg/L	0.0001			< 0.0001
Benzo(e)pyrene	mg/L	0.0001			< 0.0001
Benzo(ghi)perylene	mg/L	0.0002			< 0.0002
Benzo(k)fluoranthene	mg/L	0.0001			< 0.0001
Chrysene	mg/L	0.0001			< 0.0001
Dibenzo(a,h)anthracene	mg/L	0.0001			< 0.0001
Dibenzo(a,i)pyrene	mg/L	0.0001			< 0.0001
Dibenzo(a,j)acridine	mg/L	0.0001			< 0.0001
Fluoranthene	mg/L	0.0001			< 0.0001
Indeno(1,2,3-cd)pyrene	mg/L	0.0002			< 0.0002
Phenanthrene	mg/L	0.0001			< 0.0001
Pyrene	mg/L	0.0001			< 0.0001

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Parameter	Units	RL	L1	L2	Result
VOCs					
Chloroform	mg/L	0.0005		0.04	< 0.0005
1,2-Dichlorobenzene	mg/L	0.0005	0.0056	0.05	< 0.0005
1,4-Dichlorobenzene	mg/L	0.0005	0.0068	0.08	< 0.0005
cis-1,2-Dichloroethene	mg/L	0.0005		4	< 0.0005
trans-1,3-Dichloropropene	mg/L	0.0005		0.14	< 0.0005
1,1,1,2-Tetrachloroethane	mg/L	0.0005	0.017		< 0.0005
Methylene Chloride	mg/L	0.0005		2	< 0.0005
1,1,2,2-Tetrachloroethane	mg/L	0.0005	0.017	1.4	< 0.0005
Methyl ethyl ketone	mg/L	0.02		8	< 0.02
Styrene	mg/L	0.0005		0.2	< 0.0005
Tetrachloroethylene (perchloroethylene)	mg/L	0.0005	0.0044	1	< 0.0005
Trichloroethylene	mg/L	0.0005	0.0076	0.4	< 0.0005
VOCs - BTEX					
Benzene	mg/L	0.0005	0.002	0.01	< 0.0005
Ethylbenzene	mg/L	0.0005	0.002	0.16	< 0.0005
Toluene	mg/L	0.0005	0.002	0.27	< 0.0005
Xylene (total)	mg/L	0.0005	0.0044	1.4	< 0.0005
m-p-xylene	mg/L	0.0005			< 0.0005
o-xylene	mg/L	0.0005			< 0.0005

EXCEEDANCE SUMMARY

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

QC SUMMARY

Anions by discrete analyzer

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

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Sulphate	DIO8028-APR24	mg/L	2	<2	1	20	101	80	120	90	75	125

Biochemical Oxygen Demand

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

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Biochemical Oxygen Demand (BOD5)	BOD0022-APR24	mg/L	2	< 2	4	30	112	70	130	76	70	130

Chlorine

Method: SM 4500 I Internal ref.: ME-CA-IENVIEWL-LAK-AN-008

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Total Chlorine	EWL0289-APR24	mg/L	0.02	< 0.02	6	20	100	90	110	NA		

QC SUMMARY

Cyanide by SFA

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

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Cyanide (total)	SKA0114-APR24	mg/L	0.01	<0.01	ND	10	95	90	110	91	75	125

Fluoride by Specific Ion Electrode

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

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Fluoride	EWL0256-APR24	mg/L	0.06	<0.06	ND	10	100	90	110	86	75	125

Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A I Internal ref.: ME-CA-IENVISKA-LAK-AN-012

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Chromium VI	SKA0133-APR24	mg/L	0.0002	<0.0002	ND	20	98	80	120	96	75	125

QC SUMMARY

Mercury by CVAAS

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

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Mercury (total)	EHG0028-APR24	mg/L	0.00001	< 0.00001	13	20	101	80	120	90	70	130

QC SUMMARY

Metals in aqueous samples - ICP-MS

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

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver (total)	EMS0119-APR24	mg/L	0.00005	<0.00005	ND	20	102	90	110	89	70	130
Aluminum (total)	EMS0119-APR24	mg/L	0.001	<0.001	11	20	101	90	110	97	70	130
Arsenic (total)	EMS0119-APR24	mg/L	0.0002	<0.0002	2	20	94	90	110	105	70	130
Cadmium (total)	EMS0119-APR24	mg/L	0.000003	<0.000003	11	20	102	90	110	102	70	130
Cobalt (total)	EMS0119-APR24	mg/L	0.000004	<0.000004	1	20	101	90	110	101	70	130
Chromium (total)	EMS0119-APR24	mg/L	0.00008	<0.00008	7	20	103	90	110	106	70	130
Copper (total)	EMS0119-APR24	mg/L	0.001	<0.001	3	20	103	90	110	117	70	130
Manganese (total)	EMS0119-APR24	mg/L	0.00001	<0.00001	1	20	102	90	110	80	70	130
Molybdenum (total)	EMS0119-APR24	mg/L	0.0004	<0.0004	1	20	103	90	110	116	70	130
Nickel (total)	EMS0119-APR24	mg/L	0.0001	<0.0001	1	20	103	90	110	103	70	130
Lead (total)	EMS0119-APR24	mg/L	0.00009	<0.00009	3	20	99	90	110	91	70	130
Phosphorus (total)	EMS0119-APR24	mg/L	0.003	<0.003	2	20	101	90	110	NV	70	130
Antimony (total)	EMS0119-APR24	mg/L	0.0009	<0.0009	1	20	109	90	110	109	70	130
Selenium (total)	EMS0119-APR24	mg/L	0.00004	<0.00004	6	20	100	90	110	101	70	130
Tin (total)	EMS0119-APR24	mg/L	0.00006	<0.00006	ND	20	102	90	110	NV	70	130
Titanium (total)	EMS0119-APR24	mg/L	0.0001	<0.0001	2	20	104	90	110	NV	70	130
Zinc (total)	EMS0119-APR24	mg/L	0.002	<0.002	0	20	102	90	110	103	70	130

QC SUMMARY

Microbiology

Method: SM 9222D | Internal ref.: ME-CA-IENVIMIC-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
E. Coli	BAC9192-APR24	cfu/100mL	-	ACCEPTED	ACCEPTED							

Nonylphenol and Ethoxylates

Method: ASTM D7065-06 | Internal ref.: ME-CA-IENVIGC-LAK-AN-015

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Nonylphenol diethoxylate	GCM0237-APR24	mg/L	0.01	<0.01			90	55	120			
Nonylphenol Ethoxylates	GCM0237-APR24	mg/L	0.01	<0.01								
Nonylphenol monoethoxylate	GCM0237-APR24	mg/L	0.01	<0.01			86	55	120			
Nonylphenol	GCM0237-APR24	mg/L	0.001	<0.001			61	55	120			

QC SUMMARY

Oil & Grease

Method: MOE E3401 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-019

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Oil & Grease (total)	GCM0224-APR24	mg/L	2	<2	NSS	20	116	75	125			

Oil & Grease-AV/MS

Method: MOE E3401/SM 5520F | Internal ref.: ME-CA-[ENV]GC-LAK-AN-019

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Oil & Grease (animal/vegetable)	GCM0224-APR24	mg/L	4	< 4	NSS	20	NA	70	130			
Oil & Grease (mineral/synthetic)	GCM0224-APR24	mg/L	4	< 4	NSS	20	NA	70	130			

pH

Method: SM 4500 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
pH	EWL0300-APR24	No unit	0.05	NA	0		100			NA		

QC SUMMARY

Phenols by SFA

Method: SM 5530B-D | Internal ref.: ME-CA-[ENV]SFA-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
4AAP-Phenolics	SKA0117-APR24	mg/L	0.002	<0.002	ND	10	98	80	120	72	75	125

Polychlorinated Biphenyls

Method: MOE E3400/EPA 8082A | Internal ref.: ME-CA-[ENV]GC-LAK-AN-001

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Polychlorinated Biphenyls (PCBs) - Total	GCM0229-APR24	mg/L	0.0001	<0.0001	NSS	30	99	60	140	NSS	60	140

QC SUMMARY

Semi-Volatile Organics

Method: EPA 3510C/8270D | Internal ref.: ME-CA-[ENV]GC-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
7Hdibenzo(c,g)carbazole	GCM0230-APR24	mg/L	0.0001	< 0.0001	NSS	30	111	50	140	NSS	50	140
Anthracene	GCM0230-APR24	mg/L	0.0001	< 0.0001	NSS	30	88	50	140	NSS	50	140
Benzo(a)anthracene	GCM0230-APR24	mg/L	0.0001	< 0.0001	NSS	30	94	50	140	NSS	50	140
Benzo(a)pyrene	GCM0230-APR24	mg/L	0.0001	< 0.0001	NSS	30	103	50	140	NSS	50	140
Benzo(b+j)fluoranthene	GCM0230-APR24	mg/L	0.0001	< 0.0001	NSS	30	105	50	140	NSS	50	140
Benzo(e)pyrene	GCM0230-APR24	mg/L	0.0001	< 0.0001	NSS	30	102	50	140	NSS	50	140
Benzo(ghi)perylene	GCM0230-APR24	mg/L	0.0002	< 0.0002	NSS	30	102	50	140	NSS	50	140
Benzo(k)fluoranthene	GCM0230-APR24	mg/L	0.0001	< 0.0001	NSS	30	90	50	140	NSS	50	140
Bis(2-ethylhexyl)phthalate	GCM0230-APR24	mg/L	0.002	< 0.002	NSS	30	112	50	140	NSS	50	140
Chrysene	GCM0230-APR24	mg/L	0.0001	< 0.0001	NSS	30	95	50	140	NSS	50	140
di-n-Butyl Phthalate	GCM0230-APR24	mg/L	0.002	< 0.002	NSS	30	103	50	140	NSS	50	140
Dibenzo(a,h)anthracene	GCM0230-APR24	mg/L	0.0001	< 0.0001	NSS	30	100	50	140	NSS	50	140
Dibenzo(a,i)pyrene	GCM0230-APR24	mg/L	0.0001	< 0.0001	NSS	30	111	50	140	NSS	50	140
Dibenzo(a,j)acridine	GCM0230-APR24	mg/L	0.0001	< 0.0001	NSS	30	94	50	140	NSS	50	140
Fluoranthene	GCM0230-APR24	mg/L	0.0001	< 0.0001	NSS	30	95	50	140	NSS	50	140
Indeno(1,2,3-cd)pyrene	GCM0230-APR24	mg/L	0.0002	< 0.0002	NSS	30	102	50	140	NSS	50	140
Perylene	GCM0230-APR24	mg/L	0.0005	< 0.0005	NSS	30	90	50	140	NSS	50	140
Phenanthrene	GCM0230-APR24	mg/L	0.0001	< 0.0001	NSS	30	89	50	140	NSS	50	140
Pyrene	GCM0230-APR24	mg/L	0.0001	< 0.0001	NSS	30	97	50	140	NSS	50	140

QC SUMMARY

Suspended Solids

Method: SM 2540D | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Total Suspended Solids	EWL0398-APR24	mg/L	2	< 2	0	10	93	90	110	NA		

Total Nitrogen

Method: SM 4500-N C/4500-NO3- F | Internal ref.: ME-CA-[ENV]SFA-LAK-AN-002

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Total Kjeldahl Nitrogen	SKA0139-APR24	as N mg/L	0.5	<0.5	ND	10	94	90	110	107	75	125

QC SUMMARY

Volatile Organics

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

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1,1,1,2-Tetrachloroethane	GCM0243-APR24	mg/L	0.0005	<0.0005	ND	30	93	60	130	93	50	140
1,1,2,2-Tetrachloroethane	GCM0243-APR24	mg/L	0.0005	<0.0005	ND	30	94	60	130	101	50	140
1,2-Dichlorobenzene	GCM0243-APR24	mg/L	0.0005	<0.0005	ND	30	94	60	130	95	50	140
1,4-Dichlorobenzene	GCM0243-APR24	mg/L	0.0005	<0.0005	ND	30	93	60	130	94	50	140
Benzene	GCM0243-APR24	mg/L	0.0005	<0.0005	ND	30	94	60	130	93	50	140
Chloroform	GCM0243-APR24	mg/L	0.0005	<0.0005	ND	30	93	60	130	92	50	140
cis-1,2-Dichloroethene	GCM0243-APR24	mg/L	0.0005	<0.0005	ND	30	93	60	130	92	50	140
Ethylbenzene	GCM0243-APR24	mg/L	0.0005	<0.0005	ND	30	94	60	130	95	50	140
m-p-xylene	GCM0243-APR24	mg/L	0.0005	<0.0005	ND	30	94	60	130	95	50	140
Methyl ethyl ketone	GCM0243-APR24	mg/L	0.02	<0.02	ND	30	95	50	140	93	50	140
Methylene Chloride	GCM0243-APR24	mg/L	0.0005	<0.0005	ND	30	95	60	130	92	50	140
o-xylene	GCM0243-APR24	mg/L	0.0005	<0.0005	ND	30	93	60	130	95	50	140
Styrene	GCM0243-APR24	mg/L	0.0005	<0.0005	ND	30	95	60	130	95	50	140
Tetrachloroethylene (perchloroethylene)	GCM0243-APR24	mg/L	0.0005	<0.0005	ND	30	93	60	130	94	50	140
Toluene	GCM0243-APR24	mg/L	0.0005	<0.0005	ND	30	93	60	130	94	50	140
trans-1,3-Dichloropropene	GCM0243-APR24	mg/L	0.0005	<0.0005	ND	30	94	60	130	95	50	140
Trichloroethylene	GCM0243-APR24	mg/L	0.0005	<0.0005	ND	30	92	60	130	91	50	140

QC SUMMARY

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

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

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

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

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

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

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

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

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

LEGEND

FOOTNOTES

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

Results relate only to the sample tested.
Data reported represent the sample as submitted to SGS. Solid samples expressed on a dry weight basis.
"Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.
Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the "Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act and Excess Soil Quality" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated.

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

This report supersedes all previous versions.

-- End of Analytical Report --

Request for Laboratory Services and CHAIN OF CUSTODY

No: 035962

Page 1 of 1

SGS Industries & Environment - Lakefield: 185 Concession St., Lakefield, ON K0L 2H0 Phone: 705-652-2000 Fax: 705-652-6365 Web: www.sgs.com/environment
- London: 657 Consortium Court, London, ON, N6E 2S8 Phone: 519-672-4500 Toll Free: 877-848-8060 Fax: 519-672-0361

Laboratory Information Section - Lab use only

Received By: Sathya
Received Date: 04/10/2024 (mm/dd/yy)
Received Time: 13:30 (hr : min)
Received By (signature):
Custody Seal Present: Yes ☐ No ☐
Custody Seal Intact: Yes ☑ No ☐
Cooling Agent Present: Yes ☐ No ☐ Type: ice
Temperature Upon Receipt (°C): 9 & 3
LAB LIMS #: CA40067-Apr 24

REPORT INFORMATION

Company: DS Consultants Ltd.
Contact: Meysam Jafari
Address: 6221 Hwy 7, Unit-16, Vaughan, ON
Phone: 647-831-3596
Fax:
Email: mjafari@dsconsultants.ca

INVOICE INFORMATION

☐ (same as Report Information)
Company:
Contact: Accounting
Address:
Phone:
Email:

Quotation #:
Project #: 24-070-100
P.O. #:
Site Location/ID: 1995 Dundas St E. Mississauga

TURNAROUND TIME (TAT) REQUIRED

☑ Regular TAT (5-7days)

TAT's are quoted in business days (exclude statutory holidays & weekends).
Samples received after 6pm or on weekends: TAT begins next business day

RUSH TAT (Additional Charges May Apply): ☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 4 Days

PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION

Specify Due Date:

*NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

REGULATIONS

☐ O.Reg 153/04 ☐ O.Reg 406/19

☐ Table 1 ☐ Res/Park Soil Texture:
☐ Table 2 ☐ Ind/Com ☐ Coarse
☐ Table 3 ☐ Agri/Other ☐ Medium/Fine
☐ Table ____ Appx. ____
Soil Volume ☐ <350m3 ☐ >350m3

Other Regulations:
☐ Reg 347/558 (3 Day min TAT)
☐ PWQO ☐ MMER
☐ CCME ☐ Other:
☐ MISA
☐ ODWS Not Reportable *See note

Sewer By-Law:
☑ Sanitary
☑ Storm
Municipality: Peel
Mississauga Storm

RECORD OF SITE CONDITION (RSC) ☐ YES ☐ NO

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX	Field Filtered (Y/N)	M & I: Metals & Inorganics (incl CrVI, CN, Hg pH,(B(HWS),EC,SAR–soil) (Cl, Na–water))	M & I: Full Metals Suite (ICP metals plus B(HWS–soil only), Hg, CrVI	M & I: ICP Metals only Sb,As,Ba,Be,B,Cd, Cr,Co,Cu,Pb,Mo,Ni,Se,Ag,Tl,U,V,Zn	SVOC: PAHs only	SVOC: SVOCs all incl PAHs, ABNs, CPs	PCB: PCBs Total ☐ Aroclor ☐	PHC: F1-F4 + BTEX	PHC: F1-F4 only no BTEX	VOC: VOCs all incl BTEX	VOC: BTEX only	Pest: Pesticides Organochlorine or specify other	Other (please specify): Peel Sanitary / Storm sewer use By-law Mississauga Storm per client PW	Other	Other	Other	Sewer Use: Specify pkg:	Water Characterization Pkg: General ☐ Extended ☐	SPLP: Specify tests: ☐ Metals ☐ VOC ☐ 1,4-Dioxane ☐ OCP ☐ ABN	TCLP: Specify tests: ☐ M&I ☐ VOC ☐ PCB ☐ B(a)P ☐ ABN ☐ Ignit.	COMMENTS:
1	BH1 24-1	4/10/24	PM	2	GW	N												✓								Non filtered sample
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

Observations/Comments/Special Instructions

Sampled By (NAME): Chaitanya Signature: Date: 4/10/24 (mm/dd/yy)
Relinquished by (NAME): Chaitanya Signature: Date: 4/10/24 (mm/dd/yy)

Pink Copy - Client
Yellow & White Copy - SGS

Revision #: 1.7
Date of Issue: 07 JUNE 2023

Appendix D: MECP Water Wells Records

Hydrogeological Investigation- 1995 Dundas Street East, 3040 and 3044 Universal Drive, Mississauga, Ontario												
TOWNSHIP C	**UTM**	**E**	**N**	**DATE CNTR**	**CASING**	**WATER**	**PUMP TEST**	**WELL USE**	**SCREEN**	**WELL**	**1**	**FORMATION**
ETOBICOKE BOROUGH	17 W	615686	4830616	2011-06 7215	2			TH	0028 10	7166930	(Z133675) A117946	GREY FILL 0008 GREY WBRG 0016 GREY CLAY TILL 0025 GREY SHLE DRY 0028
ETOBICOKE BOROUGH	17 W	615772	4830721	2017-11 7437						7325318	(C38269) A239447 P	
MISSISSAUGA CITY	17 W	614789	4830974	2015-11 7241	2			MT	0010 10	7253457	(Z217954) A185535	BLCK 0000 BRWN FILL GRVL 0006 BRWN SAND 0012 GREY SILT SAND 0015 GREY SHLE 0020
MISSISSAUGA CITY	17 W	615566	4831231	2016-06 7383	2	15		TH	0010 0	7266893	(Z231885) A206490	
MISSISSAUGA CITY	17 W	614796	4830931	2012-04 7215						7202128	(C18097) A117997 P	
MISSISSAUGA CITY	17 W	614937	4830551	2013-04 7215	2			TH	0018 10	7202084	(Z159944) A142376	BRWN FILL SAND LOOS 0004 BRWN SILT GRVL 0009 GREY SILT GRVL DRY 0016 GREY 0018
MISSISSAUGA CITY	17 W	614806	4830962	2015-11 7241	2			MT	0010 10	7253456	(Z217955) A185534	BLCK 0000 BRWN FILL GRVL 0006 BRWN SAND 0012 GREY SILT SAND 0015 GREY SHLE 0020
MISSISSAUGA CITY	17 W	615044	4830945	2012-11 7464	1.97			MO	0022 5	7200095	(Z157975) A141423	BRWN SAND SILT 0010 BRWN SAND SILT CLAY 0027
MISSISSAUGA CITY	17 W	615556	4831201	2016-06 7383	2	15		TH	0010 10	7266894	(Z231886) A206491	
MISSISSAUGA CITY	17 W	614785	4830926	2013-01 7366	1.37				0019 5	7197425	(Z161317) A140509	BRWN FILL 0015 RED SHLE 0018 GREY SHLE 0024
MISSISSAUGA CITY	17 W	615617	4831327	2014-08 6607						7267260	(C23992) A163484 P	
MISSISSAUGA CITY	17 W	614779	4830929	2013-01 7366	1.5			MO	0019 5	7197424	(Z161316) A140511	BRWN FILL LOOS 0014 RED SHLE DNSE 0015 GREY SHLE DNSE 0024
MISSISSAUGA CITY	17 W	614792	4830933	2013-01 7366	1.5			MO	0016 5	7197423	(Z161315) A140510	BLUE FILL LOOS 0015 GREY SHLE DNSE 0021

MISSISSAUGA CITY	17 W	614793	4830947	2013-01 7366	1.5			MO	0015 5	7197422	(Z161314) A140507	BRWN FILL LOOS 0004 BRWN SILT STNS 0010 GREY SHLE 0020
MISSISSAUGA CITY	17 W	615413	4830511	2013-01 7241	2			MT	0005 5	7197195	(Z165634) A143721	BLCK 0000 BRWN SAND GRVL LOOS 0001 BRWN SILT CLAY LOOS 0010
MISSISSAUGA CITY	17 W	614778	4830920	2013-01 7366	1.5			MO	0019 5	7197426	(Z161318) A140508	BRWN FILL 0015 RED SHLE 0018 GREY SHLE 0024
MISSISSAUGA CITY	17 W	615614	4831203	2016-11 7241	2			MT	0025 10	7280115	(Z247543) A211551	BLCK CMTD 0000 BRWN FILL 0003 BRWN SILT SAND 0013 GREY SHLE WTHD 0035
MISSISSAUGA CITY	17 W	615381	4830976	2019-03 7360	2	UT 0013		MO	0015 10	7331391	(Z309321) A266664	GRVL FILL 0005 SAND GRVL 0010 ROCK 0020 CLAY SILT 0025
MISSISSAUGA CITY	17 W	614985	4830707	2018-03 7615	2	UT 0022		MO	0020 5	7309342	(Z281087) A244903	BRWN FILL SAND SILT 0008 GREY TILL SAND SILT 0024
MISSISSAUGA CITY	17 W	614929	4830750	2018-03 7615	2	UT 0018		MO	0018 5	7309341	(Z281086) A244906	BRWN FILL SAND SILT 0010 GREY TILL SAND SILT 0023
MISSISSAUGA CITY	17 W	614973	4830777	2018-03 7615	2	UT 0018		MO	0014 5	7309340	(Z281085) A228803	BRWN FILL SAND GRVL 0007 GREY TILL SAND SILT 0020
MISSISSAUGA CITY	17 W	615007	4830745	2018-03 7615	2	UT 0020		MO	0020 5	7309339	(Z281084) A244904	BRWN FILL SAND SILT 0008 GREY TILL SAND SILT 0025
MISSISSAUGA CITY	17 W	615113	4830937	2018-01 7215						7307849	(C39716) A241974 P	
MISSISSAUGA CITY	17 W	615560	4831247	2017-11 7383	2			TH MO	0006 10	7301795	(Z269744) A239136	BRWN CLAY SAND 0004 GREY CLAY SILT 0012 GREY SHLE 0016
MISSISSAUGA CITY	17 W	615681	4831297	2017-08 7282	2			MO	0010 10	7297975	(Z273860) A230904	BRWN FILL STNS DRY 0007 GREY TILL CLAY HARD 0020
MISSISSAUGA CITY	17 W	615579	4831227	2016-06 7383	2	15		TH	0010 10	7266896	(Z231888) A206488	
MISSISSAUGA CITY	17 W	615607	4831185	2016-12 7241	2			MT	0004 10	7280116	(Z247568) A215531	BRWN GRVL SAND 0014
MISSISSAUGA CITY	17 W	615579	4831227	2016-06 7383	2	15		TH	0010 10	7266895	(Z231887) A206487	

MISSISSAUGA CITY	17 W	615625	4831214	2016-11 7241	2			MT	0013 10	7280114	(Z247544) A211550	BLCK CMTD 0000 BRWN FILL 0003 BRWN SILT SAND 0014 GREY SHLE WTHD 0023
MISSISSAUGA CITY	17 W	615427	4830424	2016-09 7241	1.25			MT	0004 5	7273306	(Z238204) A205871	BRWN SAND GRVL 0004 BRWN SILT SAND SHLE 0009
MISSISSAUGA CITY	17 W	615424	4830423	2016-09 7241	1.25			MT	0005 5	7273305	(Z238203) A205872	BRWN SAND GRVL 0004 BRWN SILT SAND SHLE 0010
MISSISSAUGA CITY	17 W	615457	4830392	2016-09 7241	1.25			MT	0005 5	7273304	(Z238202) A205865	BLCK ---- 0000 BRWN SAND GRVL 0003 BRWN SILT SAND SHLE 0010
MISSISSAUGA CITY	17 W	615421	4830419	2016-09 7241	1.25			MT	0005 5	7273303	(Z238201) A205873	BRWN SAND GRVL 0004 BRWN SILT SAND SHLE 0010
MISSISSAUGA CITY	17 W	615458	4830407	2016-04 7241	1.25				0004 5	7273302	(Z241209) A205865	BRWN SAND GRVL 0005 BRWN SILT SAND SHLE 0009
MISSISSAUGA CITY	17 W	615572	4831249	2016-06 7383	2	15		TH	0010 10	7266897	(Z231889) A206489	
MISSISSAUGA CITY	17 W	615407	4830504	2013-01 7241	2			MT	0010 5	7197194	(Z165770) A143670	BLCK 0000 BRWN SAND GRVL LOOS 0001 BRWN SILT CLAY LOOS 0010 GREY SILT CLAY LOOS 0015
MISSISSAUGA CITY	17 W	615421	4830525	2013-01 7241	2			MT	0010 5	7197193	(Z165633) A143669	BRWN SAND GRVL LOOS 0001 BRWN SAND SILT LOOS 0010 GREY SILT CLAY LOOS 0015
MISSISSAUGA CITY	17 W	615514	4830480	2010-01 6946	2.04	OT 0002		MO	0010 10	7139957	(Z109101) A094453	BRWN SAND STNS LOOS 0002 BRWN SILT CLAY SAND 0004 BRWN SILT CLAY STNS 0007 BRWN SILT CLAY STNS 0010 GREY SILT WBRG ---- 0020
MISSISSAUGA CITY	17 W	615041	4830951	2010-06 7241	1.59			MT	0007 10	7146978	(Z116090) A099957	BLCK FILL ---- 0001 BRWN SAND GRVL SOFT 0012 BRWN GRVL SAND HARD 0017

MISSISSAUGA CITY	17 W	615517	4830443	2007-02 7241	2				0014 10	7043263	(Z59441) A051854	BRWN FILL SAND GRVL 0006 GREY SILT SAND GRVL 0017 GREY SILT SAND GRVL 0019 GREY 0024
MISSISSAUGA CITY	17 W	615507	4830399	2005-12 7215	1.25			NU	0003 10	4910021	(Z38613) A026745	
MISSISSAUGA CITY	17 W	615281	4830620	2005-01 7215	2			NU	0003 10	4909660	(Z26010) A020503	
MISSISSAUGA CITY	17 W	615568	4831306	2007-08 6607	2	FR 0010	///:	MO		7051754	(Z60465) A065569	BRWN SAND GRVL 0005 BRWN TILL 0010 GREY SHLE 0015
MISSISSAUGA CITY	17 W	615583	4831336	2007-09 6607	1.25	UK 0017	///:	MO		7051383	(Z60477) A065589	BLCK FILL 0002 BRWN TILL SILT 0010 GREY SHLE 0022
MISSISSAUGA CITY	17 W	615357	4830581	2007-07 7241	1.5			NU	0003 10	7048082	(Z74067) A056123	BRWN GRVL SAND FILL 0004 BRWN SAND GRVL 0008 GREY CLAY SILT DNSE 0012 GREY SHLE WTHD 0013
MISSISSAUGA CITY	17 W	615415	4830533	2013-01 7241	2			MT	0004 5	7197192	(Z165632) A143720	BRWN SAND GRVL LOOS 0001 BRWN SAND SILT LOOS 0009
MISSISSAUGA CITY	17 W	615433	4831197	2019-04 7360	2	UT 0008		MO	0025 10	7331394	(Z309326) A266706	SAND GRVL FILL 0010 GREY CLAY 0020 SHLE ROCK 0035
MISSISSAUGA CITY	17 W	615379	4830513	2013-01 7241	2			MT	0010 5	7197191	(Z165631) A143719	BLCK 0000 BRWN SAND GRVL LOOS 0001 BRWN SILT CLAY LOOS 0010 GREY SILT CLAY LOOS 0015
MISSISSAUGA CITY	17 W	615618	4831275	2012-04 6607						7189028	(C17944) A100691 P	
MISSISSAUGA CITY	17 W	615022	4831098	2009-12 7215				TH	0010 5	7139922	(Z110024) A093132	BRWN FILL GRVL LOOS 0005 BRWN SAND GRVL WBRG 0015
MISSISSAUGA CITY	17 W	614923	4830966	2012-03 7241	1.75			MT	0003 5	7180696	(Z147233) A132342	BRWN FILL ROCK DNSE 0005 GREY SILT SHLE DNSE 0008
MISSISSAUGA CITY	17 W	615645	4831284	2011-05 6607						7164083	(M08502) A110339 P	

MISSISSAUGA CITY	17 W	615007	4830676	2011-01 6032				MO		7160219	(Z121201) A093913	BRWN FILL LOOS 0010 BRWN SILT SAND GRVL 0020
MISSISSAUGA CITY	17 W	615580	4831301	2010-08 6607	2.00 2.00	FR 0008		MO		7151824	(M07303) A100961	BRWN SAND GRVL FILL 0007 GREY SILT SAND DNSE 0012
MISSISSAUGA CITY	17 W	615034	4830945	2010-06 7241	1.5			MT	0008 10	7148444	(Z111271) A091070	BRWN SAND DNSE 0008 BRWN SAND ROCK DNSE 0018
MISSISSAUGA CITY	17 W	615055	4830933	2010-06 7241	1.5			MT	0008 10	7148443	(Z111272) A091068	BRWN SAND DNSE 0008 BRWN SAND ROCK DNSE 0018
MISSISSAUGA CITY	17 W	615049	4830932	2010-06 7241	1.5			MT	0008 10	7148442	(Z116218) A103031	BRWN SAND DNSE 0008 BRWN SAND ROCK DNSE 0018
MISSISSAUGA CITY	17 W	615047	4830937	2010-06 7241	1.25			MT	0007 5	7148441	(Z116219) A099922	BRWN SAND SILT 0003 BRWN SILT SAND 0006 BRWN SAND CGRD 0012
MISSISSAUGA CITY	17 W	615080	4830964	2010-06 7241	1.59			MT	0009 10	7146980	(Z116091) A099958	BLCK FILL ---- 0001 BRWN SAND GRVL SOFT 0013 BRWN GRVL SAND HARD 0019
MISSISSAUGA CITY	17 W	615072	4830975	2010-06 7241	1.59			MT	0008 10	7146979	(Z116092) A099959	BLCK FILL ---- 0001 BRWN SAND GRVL SOFT 0011 BRWN GRVL SAND HARD 0018
MISSISSAUGA CITY	17 W	614947	4831024	2012-03 7241	1.75			MT	0003 5	7180697	(Z147232) A132341	BRWN FILL ROCK DNSE 0005 GREY SILT SHLE DNSE 0008
MISSISSAUGA CITY	17 W	615659	4831072	2021-07 7241						7396914	(Z367954) A230905 P	
MISSISSAUGA CITY	17 W	614975	4830740	2019-11 6607	2		///:	MO	0035 5	7349356	(9USC35S5) A279577	RED SAND GRVL LOOS 0005 BRWN SAND GRVL DNSE 0030 GREY SILT LMSN TILL 0040
MISSISSAUGA CITY	17 W	614976	4830728	2019-11 6607	2		///:	MO	0030 10	7349432	(H3RX2V2U) A279554	RED SAND GRVL LOOS 0005 BRWN SAND GRVL DNSE 0030 GREY SILT LMSN TILL 0040
MISSISSAUGA CITY	17 W	614964	4830717	2019-11 6607	2		///:	MO	0015 10	7349440	(JYVZ7WUZ) A279484	RED SAND GRVL LOOS 0005 BRWN SAND GRVL DNSE 0030

MISSISSAUGA CITY	17 W	614961	4830719	2019-11 6607	2		///:	MO	0015 10	7349442	(K5C6A9FF) A279489	RED SAND GRVL LOOS 0005 BRWN SAND GRVL DNSE 0030
MISSISSAUGA CITY	17 W	614959	4830702	2019-11 6607	2		///:	MO	0015 10	7349505	(QGO63PGR) A279464	RED SAND GRVL LOOS 0005 BRWN SAND GRVL DNSE 0030
MISSISSAUGA CITY	17 W	615107	4830967	2020-02 7241						7359028	(Z330381) A288643 P	
MISSISSAUGA CITY	17 W	615135	4830948	2020-02 7241						7359029	(Z330371) A288644 P	
MISSISSAUGA CITY	17 W	615254	4830912	2022-05 7241						7419751	(Z387768) A346699 P	
MISSISSAUGA CITY	17 W	615674	4830945	2021-06 7472	2		///:	MO	0020 10	7400582	(FIKITI4D) A333744	BRWN FILL LOOS 0010 GREY SHLE HARD 0030
MISSISSAUGA CITY	17 W	615630	4830834	2021-06 7472	2		///:	MO	0007 5	7400581	(KN9VP333) A333733	BRWN FILL LOOS 0010 GREY SHLE HARD 0012
MISSISSAUGA CITY	17 W	614980	4830731	2019-11 6607	2		///:	MO	0030 10	7349349	(56NBESQD) A279571	RED SAND GRVL LOOS 0005 BRWN SAND GRVL DNSE 0030 GREY SILT LMSN TILL 0040
MISSISSAUGA CITY	17 W	615613	4830603	2021-06 7472	2		///:	MO	0005 5	7400579	(3HWG4D83) A333741	BRWN FILL LOOS 0010
MISSISSAUGA CITY	17 W	614978	4830726	2019-11 6607	2		///:	MO	0030 10	7349458	(MX5BLOXU) A279555	RED SAND GRVL LOOS 0005 BRWN SAND GRVL DNSE 0030 GREY SILT LMSN TILL 0040
MISSISSAUGA CITY	17 W	615093	4830934	2021-03 6946						7383015	(Z356999) A316615 P	
MISSISSAUGA CITY	17 W	615075	4830905	2021-03 6946						7383016	(Z356998) A316614 P	
MISSISSAUGA CITY	17 W	615112	4830924	2021-03 6946						7383017	(Z357000) A316698 P	
MISSISSAUGA CITY	17 W	615372	4831120	2019-03 7360	2			MO	0013 10	7331393	(Z309323) A266662	SAND GRVL FILL 0010 SILT TILL 0015 SHLE ROCK HARD 0023
MISSISSAUGA CITY	17 W	615677	4831093	2021-07 7241						7396913	(Z367955) A230904 P	
MISSISSAUGA CITY	17 W	615429	4831037	2019-03 7360	2	UT 0011		MO	0025 10	7331392	(Z309322) A266663	SAND GRVL 0005 BRWN FILL 0010 GRVL STNS 0015 SHLE ROCK HARD 0035

MISSISSAUGA CITY	17 W	615463	4830410	2021-05 6946						7388948	(Z362097) A323775 P	
MISSISSAUGA CITY	17 W	615441	4830434	2021-05 6946						7388947	(Z362099) A323777 P	
MISSISSAUGA CITY	17 W	615459	4830424	2021-05 6946						7388946	(Z362098) A323776 P	
MISSISSAUGA CITY	17 W	615561	4830744	2021-06 7472	2		///:	MO	0005 10	7400580	(285R5VA4) A333743	BRWN FILL LOOS 0010 GREY SHLE HARD 0015
MISSISSAUGA CITY	17 W	615341	4831009	2019-03 7360	2	UT 0014	///:	MO	0015 10	7331442	(Z309316) A259810	BLCK ---- 0001 BRWN FILL 0015 GREY SHLE 0025
MISSISSAUGA CITY	17 W	615323	4830921	2022-05 7241						7419752	(Z387769) A346657 P	
MISSISSAUGA CITY	17 W	615351	4831057	2019-04 7360	2	UT 0010			0015 10	7331395	(Z309325) A266707	GRVL FILL 0015 0025
MISSISSAUGA CITY	17 W	615299	4831026	2019-04 7360	2	UT 0008		MO	0047 10	7331396	(Z309324) A266708	SAND GRVL 0015 SILT CLAY 0030 SHLE ROCK 0057
MISSISSAUGA CITY	17 W	615417	4831186	2019-04 7360	2	UT 0008		MO	0043 10	7331397	(Z309327) A266709	SAND GRVL 0005 0020 SHLE 0035 ROCK 0053
MISSISSAUGA CITY	17 W	615338	4831063	2019-03 7360	2	UT 0009		MO	0015 10	7331398	(Z309315) A245780	BLCK 0002 GREY FILL 0025
MISSISSAUGA CITY	17 W	614870	4830928	2019-06 6988						7352680	(C40798) A256469 P	
MISSISSAUGA CITY	17 W	615401	4830999	2019-03 7360	2			MO	0020 5	7331400	(Z309317) A245781	BLCK 0002 BRWN FILL 0017 GREY SHLE 0025
MISSISSAUGA CITY	17 W	615454	4830405	2019-09 7241	2		///:	MT	0004 6	7346066	(Z323575) A281657	GREY ---- 0000 BRWN SILT SAND SHLE 0010
MISSISSAUGA CITY	17 W	615392	4831150	2019-04 7360	2		///:	MO	0015 10	7331443	(Z309314) A266723	BLCK ---- 0003 BRWN ---- 0005 GREY TILL SLTY HARD 0025
MISSISSAUGA CITY	17 W	615364	4831049	2019-03 7360	2	UT 0013	///:	MO	0047 10	7331444	(Z309319) A266665	GRVL FILL 0015 BLDR STNS 0025 TILL HARD 0030 SHLE HARD 0050 SHLE ROCK 0058
MISSISSAUGA CITY	17 W	615286	4831030	2019-03 7360	2	UT 0006	///:	MO	0014 11	7331445	(Z309320) A266666	GRVL FILL 0015 SHLE 0020 ROCK 0024
MISSISSAUGA CITY	17 W	614956	4830746	2019-03 7241	2		///:	MT	0015 10	7333828	(Z308196) A263426	BLCK ---- 0003 BRWN TILL 0015 GREY TILL 0025

MISSISSAUGA CITY	17 W	614987	4830729	2019-07 7282	2	30	///:	MO	0030 10	7344730	(Z318934) A273771	BRWN SAND GRVL DRY 0022 GREY SHLE DRY 0040
MISSISSAUGA CITY	17 W	615475	4831102	2019-04 7360	2	UT 0008		MO	0011 14	7331399	(Z309318) A266722	BLCK 0003 BRWN 0008 GREY SILT 0025
MISSISSAUGA CITY	17 W	615462	4830396	2019-09 7241	2		///:	MT	0005 8	7346065	(Z323574) A281658	BLCK ---- 0003 BRWN SILT SAND 0008 GREY SILT SAND TILL 0013
MISSISSAUGA CITY	17 W	614976	4830739	2019-03 7241	2		///:	MT	0035 5	7333829	(Z308198) A263424	GREY ---- 0006 BRWN FILL 0004 BRWN TILL 0020 GREY CLAY TILL 0037 RED SHLE 0040
MISSISSAUGA CITY	17 W	614982	4830743	2019-07 7282	2	UT 0030	///:	MO	0030 10	7344729	(Z318935) A273770	BRWN SAND GRVL DRY 0022 GREY SHLE DRY 0040
MISSISSAUGA CITY	17 W	614973	4830740	2019-03 7241	2		///:	MT	0013 10	7333845	(Z308131) A265545	GREY ---- 0006 BRWN TILL 0023
MISSISSAUGA CITY	17 W	614960	4830726	2019-03 7241	2		///:	MT	0015 10	7333844	(Z308130) A265543	GREY ---- 0006 BRWN TILL 0025
MISSISSAUGA CITY	17 W	614974	4830717	2019-03 7241	2		///:	TH	0014 10	7333843	(Z308129) A265542	BLCK LOAM 0006 BRWN TILL 0024
MISSISSAUGA CITY	17 W	614965	4830754	2019-03 7241	2		///:	MT	0015 10	7333842	(Z308197) A263425	BLCK ---- 0003 BRWN CLAY TILL 0015 GREY CLAY TILL 0025
MISSISSAUGA CITY	17 W	614945	4830739	2019-03 7241	2		///:	MT	0015 10	7333841	(Z308195) A263427	BLCK ---- 0003 BRWN CLAY TILL 0015 GREY CLAY TILL DNSE 0025
MISSISSAUGA CITY	17 W	614981	4830727	2019-03 7241	2		///:	MT	0039 5	7333831	(Z308200) A263332	GREY ---- 0006 BRWN FILL 0004 BRWN TILL 0020 GREY TILL 0037 GREY SHLE 0044
MISSISSAUGA CITY	17 W	614982	4830727	2019-03 7241	2		///:	MT	0037 3	7333830	(Z308199) A263333	GREY ---- 0000 BRWN FILL 0004 BRWN TILL 0020 GREY TILL 0037 GREY SHLE 0042
MISSISSAUGA CITY DS N 01 003	17 W	614997	4830740	2021-03 7615						7384543	(Z340561) A288398 P	
MISSISSAUGA CITY DS N 01 003	17 W	614978	4830719	2021-03 7615						7384535	(Z340512) A287187 P	

MISSISSAUGA CITY DS N 01 003	17 W	614964	4830717	2021-03 7615						7384536	(Z340514) A279484 P	
MISSISSAUGA CITY DS N 01 003	17 W	614987	4830729	2021-03 7615						7384537	(Z340515) A273771 P	
MISSISSAUGA CITY DS N 01 003	17 W	615007	4830745	2021-03 7615						7384538	(Z340516) A244904 P	
MISSISSAUGA CITY DS N 01 003	17 W	614976	4830739	2021-03 7615						7384539	(Z340559) A263424 P	
MISSISSAUGA CITY DS N 01 003	17 W	614969	4830755	2021-03 7615						7384540	(Z340517) A243078 P	
MISSISSAUGA CITY DS N 01 003	17 W	614930	4830710	2021-03 7615						7384545	(Z340563) A288396 P	
MISSISSAUGA CITY DS N 01 003	17 W	614999	4830742	2021-03 7615						7384542	(Z340519) A288399 P	
MISSISSAUGA CITY DS N 01 003	17 W	614979	4830715	2021-03 7615						7384534	(Z340511) A287190 P	
MISSISSAUGA CITY DS N 01 003	17 W	614942	4830782	2021-03 7615						7384544	(Z340562) A288397 P	
MISSISSAUGA CITY DS N 01 003	17 W	614974	4830717	2021-03 7615						7384511	(Z340502) A265542 P	
MISSISSAUGA CITY DS N 01 003	17 W	614982	4830743	2021-03 7615						7384541	(Z340518) A273770 P	
MISSISSAUGA CITY DS N 01 003	17 W	614924	4830750	2021-03 7615						7384521	(Z340567) A244906 P	
MISSISSAUGA CITY DS N 01 003	17 W	614979	4830715	2020-03 6607	2	UT 0020	///:	MT	0030 10	7360100	(2RLEMHJK) A287040	BRWN SAND GRVL LOOS 0005 BRWN SAND GRVL DNSE 0030 GREY SILT LMSN HARD 0040

MISSISSAUGA CITY DS N 01 003	17 W	614978	4830719	2020-03 6607	2	UT 0022	///:	MT	0031 10	7360149	(DMYKBFYS) A287187	RED SAND GRVL LOOS 0005 BRWN SAND GRVL DNSE 0030 GREY SILT LMSN HARD 0042
MISSISSAUGA CITY DS N 01 003	17 W	614961	4830711	2020-03 6607	2		///:	MT	0016 10	7360150	(DNE89PJ5) A287023	BRWN SAND GRVL LOOS 0008 BRWN SAND GRVL DNSE 0026
MISSISSAUGA CITY DS N 01 003	17 W	614960	4830712	2020-03 6607	2		///:	MT	0016 10	7360153	(EKFDJSMZ) A287211	BRWN SAND GRVL LOOS 0008 BRWN SAND GRVL DNSE 0026
MISSISSAUGA CITY DS N 01 003	17 W	614979	4830715	2020-03 6607	2	UT 0020	///:	MT	0031 10	7360165	(IIEHKCG2) A287190	RED SAND GRVL LOOS 0005 BRWN SAND GRVL DNSE 0030 GREY SILT LMSN HARD 0042
MISSISSAUGA CITY DS N 01 003	17 W	614976	4830736	2020-03 6607	2	UT 0020	///:	MT	0030 10	7360239	(XXVI5X3F) A287049	RED SAND GRVL LOOS 0005 BRWN SAND GRVL DNSE 0030 GREY SILT LMSN HARD 0040
MISSISSAUGA CITY DS N 01 003	17 W	614976	4830728	2021-03 7615						7384516	(Z340513) A279554 P	
MISSISSAUGA CITY DS N 01 003	17 W	614937	4830551	2021-03 7615						7384518	(Z340499) A142376 P	
MISSISSAUGA CITY DS N 01 003	17 W	614973	4830777	2021-03 7615						7384517	(Z340498) A228803 P	
MISSISSAUGA CITY DS N 01 003	17 W	614960	4830726	2021-03 7615						7384520	(Z340503) A265543 P	
MISSISSAUGA CITY DS N 01 003	17 W	614978	4830726	2021-03 7615						7384533	(Z340510) A279555 P	
MISSISSAUGA CITY DS N 01 003	17 W	614956	4830746	2021-03 7615						7384522	(Z340566) A263426 P	
MISSISSAUGA CITY DS N 01 003	17 W	614965	4830754	2021-03 7615						7384523	(Z340565) A263425 P	
MISSISSAUGA CITY DS N 01 003	17 W	614982	4830727	2021-03 7615						7384524	(Z340497) A263333 P	

MISSISSAUGA CITY DS N 01 003	17 W	614981	4830727	2021-03 7615						7384525	(Z340501) A263332 P	
MISSISSAUGA CITY DS N 01 003	17 W	614975	4830740	2021-03 7615						7384526	(Z340564) A288395 P	
MISSISSAUGA CITY DS N 01 003	17 W	614961	4830711	2021-03 7615						7384527	(Z340504) A287023 P	
MISSISSAUGA CITY DS N 01 003	17 W	614976	4830736	2021-03 7615						7384528	(Z340505) A287049 P	
MISSISSAUGA CITY DS N 01 003	17 W	614959	4830702	2021-03 7615						7384529	(Z340506) A279464 P	
MISSISSAUGA CITY DS N 01 003	17 W	614979	4830715	2021-03 7615						7384530	(Z340507) A287040 P	
MISSISSAUGA CITY DS N 01 003	17 W	614980	4830731	2021-03 7615						7384531	(Z340508) A279571 P	
MISSISSAUGA CITY DS N 01 003	17 W	614961	4830719	2021-03 7615						7384532	(Z340509) A279489 P	
MISSISSAUGA CITY DS N 01 003	17 W	614945	4830739	2021-03 7615						7384519	(Z340571) A263427 P	
MISSISSAUGA CITY DS S 01 001	17 W	615465	4830983	1969-07 3637	30	FR 0018	18/25//:	CO		4903314	()	BRWN FILL 0003 BRWN CLAY 0006 BRWN GRVL CSND 0026
MISSISSAUGA CITY HSE	17 W	615358	4830437	2004-06 6032	1.97 1.97			NU	0005 10	4909491	(Z05474) A005315	BRWN CLAY GRVL DNSE 0005 GREY SHLE DNSE 0017