

# **HYDROGEOLOGICAL IMPACT ASSESSMENT REPORT**

5500 Dundas Street West, Toronto, Ontario

Project #: 25-1032

Prepared for: First Capital Asset Management LP

Date: December 11, 2025

Report Version: 02



December 11, 2025

First Capital Asset Management LP  
85 Hanna Avenue, Suite 400  
Toronto, Ontario M6K 3S3

Attention: Albert Ho, Senior Director, Environmental Programs

**SUBJECT: HYDROGEOLOGICAL IMPACT ASSESSMENT REPORT, 5500 DUNDAS STREET WEST,  
TORONTO, ONTARIO**

EnVision Consultants Ltd. is pleased to present the enclosed Hydrogeological Impact Assessment Report for the above-noted property. The report describes the interpreted hydrogeological conditions based on our assessment and provides conclusions for your consideration.

We thank you for utilizing EnVision for this assignment. If there are any questions regarding the enclosed report, please do not hesitate to contact us.

Yours sincerely,

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## QUALITY MANAGEMENT

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## 1. INTRODUCTION

EnVision Consultants Ltd. (EnVision) was retained by First Capital Asset Management LP (the 'Client') to conduct a hydrogeological investigation for the property located at 5500 Dundas Street West, Toronto, Ontario (the 'Site'). It is our understanding that this assessment has been requested to facilitate the redevelopment of the Site for residential and commercial uses.

EnVision has reviewed the conceptual design drawings, dated October 17, 2025 prepared by Superkül, indicating that the re-development of the property has been proposed in two phases. It is anticipated that two separate midrise buildings (Building A under Phase 1 and Building B under Phase 2) will be constructed at separate times. It is expected that both buildings will feature a common two (2) level underground car parking structure that extends across the entire property. The underground structure will be completed in stages, and eventually connected through a knockout panel wall.

The following report has been prepared to support the ongoing site planning activities, including to support the filing of a Hydrological Review Form, as per the City of Toronto Application Support Materials Terms of Reference. The location of the Site, together with a 500-m buffer extending from the property lines to represent the Study Area, is depicted in **Figure 1**.

The following report has been prepared (where applicable) in accordance with the following:

- Ontario Water Resources Act
- O Reg. 387/04 Water Taking and Transfer
- Toronto Municipal Code Chapter 681-Sewers

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### 1.1. OBJECTIVES AND SCOPE OF WORK

The objective of this hydrogeological investigation is to characterize the geological and hydrogeological conditions at the Site and Study Area:

- Review soil and groundwater data to understand any constraints to the project goals;
- Estimate the need for groundwater control during construction;
- Assess potential dewatering rates to determine the required permitting associated with water takings;
- Assess any short- or long-term impacts on groundwater resources from the construction activities;
- Review mitigation measures to protect groundwater resources during the construction work;
- Determine management options for the handling of any groundwater collected and discharged during construction;
- Recommend a monitoring program for construction dewatering and discharge;
- Prepare a hydrological review form and foundation drainage summary form to support ongoing site planning submission;
- Prepare a Hydrogeological Investigation report to support the design and future construction of the development block.



## 1.2. SITE DESCRIPTION

The Site is located on the north side of Dundas Street West approximately 60 m east of The East Mall Crescent, in a mixed residential and commercial area of Toronto, Ontario. The Site is approximately rectangular in shape, occupying an area of approximately 0.98 hectares (2.4 acres) and is currently occupied by one-storey commercial building operating as a Tesla automotive dealership in the center of the Site. The remainder of the Site is covered by asphalt paving for use as parking areas.

*Table 1-1: Property Information*

CRITERION	INFORMATION
MUNICIPAL ADDRESS	5500 Dundas Street West, Toronto, ON, M9B 1B7
PROPERTY IDENTIFICATION NUMBER (PIN)	PIN(s) and/or a Plan of Survey associated with the Project Area were not provided at the time of this assessment
LEGAL DESCRIPTION	A legal description was not available at the time of report preparation.
PROPERTY SIZE	0.98 hectares (2.4 acres)
GEOGRAPHICAL COORDINATES (UTM)	617116.97 m E 4831938.77 m N

## 1.3. POLICY AND REGULATORY OVERVIEW

A review of the Source Water Protection Policy areas (Ministry of the Environment, Conservation and Parks, 2022) indicates that the Site falls within the Toronto Source Water Protection Area. The Site is not within any wellhead protection areas or intake protection zones and is not considered a significant groundwater recharge area. The Site, however, is considered a highly vulnerable aquifer with a score of 6. A map of the highly vulnerable aquifer area in relation to the Site can be seen in [Figure 2](#).

A review of the Toronto and Region Conservation Authority (TRCA) regulation mapping (Toronto and Region Conservation Authority, 2024) indicates that the Site does not fall within any regulated areas.

## 1.4. ENVIRONMENTAL CONDITIONS

Based on the findings from the EnVision Consultants Ltd. Phase One Environmental Site Assessment (ESA), the property is considered an enhanced investigation property, and has previously been operated as a garage and as such requires a Phase Two ESA to support a filing for a Record of Site Condition. Based on the Phase Two ESA work completed by EnVision in the summer of 2025, soil impacts from road salting activities were noted at shallow depths across the Site. Some PHC's, BTEX, and PAHs impacts in soil above the standards were also identified. Groundwater sampling indicated one exceedance against the standards for chloroform.

It is anticipated that the property will be remediated through the excavation and disposal of all impacted soils and a future RSC will be filed to support a change in land use to a more sensitive class.

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## 1.5. PREVIOUS INVESTIGATIONS

### 1.5.1. *Hydrogeological Investigation – EXP Services Inc. May 2020*

In May of 2020, EXP completed a Hydrogeological Investigation for the property which consisted of the drilling of seven (7) boreholes (BH1 to BH7) in January 2020, to depths ranging from 15.3 to 18.4 meters below ground surface (m BGS). Monitoring wells were installed in five (5) of the boreholes (BH1, BH2, BH4, BH6 and BH7) with screen depths ranging from 9.2 to 12.2m BGS. An additional hole was straight drilled (BH4A) for the installation of a deeper monitoring well screened from 13.8 to 16.8m BGS.

Groundwater levels were measured six (6) times over the three (3) month monitoring period between February and May 2020. Across the monitoring period, the groundwater levels across the Site ranged from 0.5 to 8.7m BGS, corresponding to an elevation of 125.4 to 117.3 meters above sea level (m ASL).

Single well response testing was completed at six (6) locations (BH1, BH2, BH4, BH4A, BH6 and BH7). The results of the testing indicated that the hydraulic of the overburden ranges from  $1.9 \times 10^{-8}$  to  $1.2 \times 10^{-5}$  m/sec.

During the field investigation, EXP collected one (1) groundwater sample from monitoring well BH4 for comparison against the City of Toronto Sanitary and Combined Sewer Discharge Limits (Table 1) and the City of Toronto Storm Sewer Discharge Limits (Table 2). The results of the groundwater sampling indicated no exceedances when compared to the sanitary and combined sewer release limits, however, exceedances for toluene and total xylenes were observed when compared to the Toronto storm sewer release limit.

A construction dewatering assessment was completed based on the assumptions of the construction of an eleven (11) storey tower with two (2) levels of underground parking on the west section of the Site and an eighteen (18) storey tower with three (3) levels of underground parking on the eastern section of the Site. The total daily water takings, including safety factor of 2 and stormwater contribution, were estimated to be 220,000 L/day.

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## 2. REGIONAL SETTING

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### 2.1. GEOLOGY

#### 2.1.1. *Physiography of the Study Area*

The Site and Study Area is located within the physiographic region identified as the South Slope (Chapman, 2007) characterized by bevelled till plain landforms. The Till Plains were created by glacial movement and is characterized by gently sloping topography, with a gradual slope toward Lake Ontario. **Figure 3** highlights the physiography across the Study Area.

#### 2.1.2. *Overburden Geology*

Based on a review of the public geological mapping (Ontario Geological Survey, 1997), the surficial geology across the Site can be described as glaciolacustrine deposits of silt to clayey till. **Figure 4** presents the surficial geology across the Site and Study Area.

#### 2.1.3. *Bedrock Geology*

Bedrock mapping of the Study Area identifies the bedrock to consist of shale with siltstone and limestone layers of the Georgian Bay Formation (Sharpe, 1980). Based on a review of nearby borehole data, the bedrock surface is expected between 13 to 16m BGS at elevation 115 to 114m ASL. **Figure 5** provides an overview of the bedrock mapping and interpreted topographical contouring across the Study Area

Bedrock in the area is generally weathered near the upper contact with improving competency with depth. The weathered rock can provide favourable conditions for significant groundwater storage and transportation due to the secondary porosity (interconnected fractures) and proximity to the Lake Ontario basin. Typically, the weathered bedrock is found in the upper 1.0 to 1.5 meters.

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### 2.2. HYDROGEOLOGICAL SETTING

#### 2.2.1. *Study Area Review of Ministry of the Environment, Conservation and Parks Well Records*

EnVision reviewed the online MECP Water Well Record (Ministry of the Environment, 2018) database to determine the number and reported use of water wells present within the Study Area.

The MECP WWR database indicated that there are 180 water wells in the Study Area. Of the well records returned in the search, 126 records were classified as a monitoring, test, or observation wells, 11 were classified as abandoned and 43 were found to not have a stated final use. No supply wells were identified within the Study Area.

The results of this search have been plotted on **Figure 6**, and a summary of records has been tabulated in **Table A-1, Appendix A**.

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### 2.2.2. *Hydrostratigraphy*

Based on a review of the public records, including work compiled by the Oak Ridges Moraine Groundwater Monitoring Program (Oak Ridges Moraine Groundwater Program, 2025), the stratigraphic sequence below the Site is anticipated to consist of the following general sequence:

- 1) Fill material of various thickness
- 2) Halton till or equivalent (glaciolacustrine, aquitard).
- 3) Lower Newmarket Till
- 4) Scarborough and Don Formation overlying the bedrock and comprised of moderate permeable sands to silt and clay (aquifer).
- 5) Bedrock identified as Georgian Bay formation which can serve as an aquifer in the upper weathered portions.

Regional groundwater flow across the area is expected to be directed south, towards Lake Ontario located approximately 4.8 km south of the Site. Local deviation from the regional groundwater flow pattern may occur in response to changes in topography and/or soils, as well as the presence of surface water features and/or existing subsurface infrastructure.

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### 3. SITE SETTING

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#### 3.1. TOPOGRAPHY AND DRAINAGE

Based on topographic profile from the Provincial Digital Elevation Model, the elevation across the Site is relatively flat, sloping gently from north to south. The elevation is highest at the north central portion of the Site at approximately 128m ASL and lowest on the south side of the Site at approximately 126m ASL.

The Site is covered by impermeable asphalt, and roof cover from the existing building. Precipitation is conveyed by topography to nearby catch basins for collection into the city storm sewer system.

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#### 3.2. SURFACE WATER FEATURES

No surface water features are located onsite. The nearest surface water features are the Etobicoke Creek, located approximately 1.2 km west and the Mimico Creek, located approximately 2.8 km east of the Site, respectively. Lake Ontario is approximately 4.8 km south of the Site.



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## 4. FIELD INVESTIGATION

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### 4.1. BOREHOLE DRILLING

The field investigation included a joint geotechnical, environmental and hydrogeological drilling program. A total of 10 boreholes were advanced across the Site in July 2025. The total depth of boreholes ranged from 9 to 22m BGS. Drilling activities, including soil sampling, rock coring, and geotechnical testing were overseen by EnVision staff and detailed in the geotechnical assessment report.

During the drilling activity, solid stem augers were used to advance through the overburden, switching to diamond drilling with a PQ sized core barrel to advance through the bedrock when needed. The borehole locations were surveyed against a geodetic datum and are plotted on the attached **Figure 7**, with a copy of the borehole logs provided in **Appendix B**.

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### 4.2. SOIL DESCRIPTIONS

Two (2) geological cross sections have been prepared based on the soil conditions described in the geotechnical borehole logs and have been included as **Figure 8A** and **Figure 8B**.

#### 4.2.1. *Fill Material*

Heterogeneous fill material consisting of silty clay/ clayey silt/ silt/ silty sand with trace to some sand and trace gravel and organic soil was found in all boreholes at depths ranging from 2.3 to 3.2m BGS.

#### 4.2.2. *Silty Sand Till/ Sandy Silt Till*

Cohesionless deposits of silty sand till and sandy silt glacial till were encountered in all boreholes at depths ranging from 2.0 to 16.8m BGS, and the thickness of the silty sand till and sandy silt till layers ranged from 0.7 to 11.1m.

#### 4.2.3. *Silty Sand/ Sand/ Gravelly Sand*

Cohesionless deposits of silty sand and sand were encountered in all boreholes apart from BH25-06, BH25-08 and BH25-10 from depths ranging from 3.1 to 15.2m BGS. Gravelly sand was encountered in BH25-04 from 9.1 to 10.7m BGS.

#### 4.2.4. *Silty Clay Till/ Clayey Silt Till/ Silty Clay*

Cohesive deposits of silty clay till, clayey silt till, silty clay were encountered in all boreholes at depths ranging from 2.3 to 18.4m BGS.

#### 4.2.5. *Silty Clay Till/ Shale Complex*

Silty clay / shale complex or shale fragments were encountered in BH25-01 to BH25-04 and BH25-07 at depths ranging from 12.2 to 16.8m BGS.



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#### 4.2.6. *Bedrock (Georgian Bay Formation)*

Bedrock of the Georgian Bay Formation was encountered in the boreholes at depths ranging from 13.4 to 19.2m BGS, corresponding to elevations of 112.5 to 106.9m ASL

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### 4.3. MONITORING WELL INSTALLATION

Monitoring wells were installed in select boreholes upon completion of drilling. Each monitoring well was constructed using 50mm diameter environmental-grade, flush-threaded polyvinyl chloride (PVC) pipe including a screen section with a factory machined slot width of 0.25mm and was completed with a PVC riser pipe. All the pipe material and screen sections were wrapped in plastic which was removed just prior to installation to minimize the potential for contamination. The base of the monitoring well was covered with a PVC cap to prevent the influx of sediment. Clean silica supplied in bags from a commercial supplier of well sand was placed in the annular space between the pipe and the walls of the borehole. The monitoring well was constructed in accordance with Ontario Regulation 903 (amended by O. Reg. 372/07) by extending an impermeable bentonite grout layer from approximately 0.6m above the top of the screened interval to the ground surface.

Each monitoring well was completed by installing a protective well cover finished with flush-mount casing. A total of eight (8) monitoring wells have been installed at the Site with six (6) of the monitoring wells screened across the overburden, and two (2) being screened within the bedrock. Well construction details are provided on the respective borehole logs presented in [Appendix B](#). Ground levels at each monitoring well location was surveyed to an elevation datum and reported on the borehole logs.

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### 4.4. GROUNDWATER LEVEL MONITORING

#### 4.4.1. *Historic Groundwater Monitoring*

In May of 2020, EXP completed a Hydrogeological Investigation for the property which consisted of the installation of six (6) monitoring wells on the Site identified as BH1, BH2, BH4, BH4A, BH6 and BH7. The wells were screened across the overburden at depths ranging from 9.2 to 12.2m BGS apart from BH4, which was screened from 13.8 to 16.8m BGS at the top of the weathered, to highly weathered shale.

Groundwater levels were measured six (6) times over the three (3) month monitoring period between February and May, 2020. Across the monitoring period, the groundwater levels across the Site ranged from 0.5 to 8.7 meters below ground, corresponding to an elevation of 125.4 to 117.3 meters above sea level.

#### 4.4.2. *EnVision 2025 Monitoring*

On August 13, 2025, EnVision staff visited the Site to collect water levels from the newly installed wells, while also attempting to identify existing wells on the property. After a survey of the Site, EnVision staff were able to locate historic EXP wells BH1, BH2, BH4 and BH7 from the EXP May 2020 hydrogeological investigation. These wells were included in the monitoring program.

Groundwater levels at the installed monitoring wells were measured four (4) times between August 13 and September 18, 2025. The water levels were taken using a Heron brand water tape, with depths reported from ground surface. Across the monitoring period, the groundwater level in the overburden and weathered shale ranged from 2.4 to 3.5m BGS, corresponding to an elevation of 123.5 to 123.3m ASL and the groundwater level in the bedrock ranged from 2.8 to 3.8m BGS, corresponding to an elevation of 123.3 to 122.3 m ASL.

As outlined in the City of Toronto Foundation Drainage policy, the maximum anticipated groundwater levels (MAGWL) are to be established based on consecutive groundwater level monitoring. EnVision has reviewed both the historical groundwater levels reported by EXP and the 2025 groundwater levels measured during this investigation to determine the MAGWL. As highlighted below in *Table 4-1*, the MAGWL has been established based on the Spring 2020 groundwater levels. Note that the EXP reported depth to groundwater reported for February of 2020 has been ignored as they appear to be influenced by well drilling activity and not representative of the static groundwater table.

*Table 4-1: Summary of Maximum Anticipated Groundwater Level (MAGWL)*

MONTH	MAXIMUM GROUNDWATER LEVEL (M ASL)	FLUCTUATION ALLOWANCE (M)
MARCH 2020	123.75	1.9
APRIL 2020	123.77	1.6
MAY 2020	123.54	1.3
AUGUST 2025	123.51	2.4
SEPTEMBER 2025	123.35	2.6

Based on the full data reported above, and adhering to **Option 1 – Flexible Year-Round** monitoring option, as outlined in the guidelines (City of Toronto, 2021), the highest groundwater elevation occurred in April of 2020, and therefore with a 1.6m fluctuation allowance applied, the MAGWL has been assessed at **125.37m ASL**.

## 4.5. HYDRAULIC CONDUCTIVITY ASSESSMENT

### 4.5.1. In-Situ Single Well Response Testing (SWRT)

EnVision conducted confirmatory SWRTs at all EnVision monitoring wells. In advance of performing SWRTs, the monitoring wells were developed to remove the potential presence of fine sediments. The development process involved purging of the monitoring wells to induce the flow of fresh formation water through the screen. The monitoring well water levels were permitted to fully recover prior to performing SWRTs.

During the SWRT, a slug of water was near-instantaneously added or removed from the well and the response in water level was recorded. The K values for each of the tested wells were calculated from the SWRT data using Aqtesolv Software and the Bouwer-Rice solutions for unconfined or confined conditions. The semi-log plots for normalized drawdown versus time are included in **Appendix D**. *Table 4-2* presents a summary of the in-situ rising head test results. The SWRT results from the 2020 EXP Hydrogeological Investigation have also been included in the table for comparison.

*Table 4-2: Summary of In-Situ Hydraulic Conductivity Results*

BH ID	TESTING BY	SCREEN DEPTH		SOIL UNIT	HYDRAULIC CONDUCTIVITY – BOUWER-RICE	
		From (m)	To (m)		(m/sec)	(m/day)
BH25-01	EnVision	9.1	10.7	Sandy Silt Till	$3.7 \times 10^{-6}$	$3.2 \times 10^{-1}$
BH25-02	EnVision	13.7	16.8	Bedrock	$9.9 \times 10^{-7}$	$8.6 \times 10^{-2}$
BH25-03	EnVision	2.1	5.1	Fill/ Clay Silt Till	$5.7 \times 10^{-8}$	$4.9 \times 10^{-3}$
BH25-06	EnVision	20.5	22.1	Bedrock	$6.2 \times 10^{-9}$	$5.37 \times 10^{-4}$
BH25-07	EnVision	1.9	4.9	Fill/ Clay Silt Till	$9.7 \times 10^{-9}$	$8.4 \times 10^{-4}$
BH1	EXP	9.2	12.2	Silty Sand	$1.5 \times 10^{-6}$	$1.3 \times 10^{-1}$
BH2	EXP	9.2	12.2	Silty Sand Till/ Sandy Silt Till	$1.2 \times 10^{-5}$	$1.0 \times 10^0$
BH4A	EXP	9.2	12.2	Silty Sand	$3.3 \times 10^{-6}$	$2.9 \times 10^{-1}$
BH6	EXP	9.2	12.2	Sandy Silt Till	$7.5 \times 10^{-7}$	$6.5 \times 10^{-2}$
BH7	EXP	9.2	12.2	Sandy Silt Till	$1.9 \times 10^{-8}$	$1.6 \times 10^{-3}$

The K values have been summarized to provide a range based on the soil unit description in *Table 4-3* below:

Table 4-3: Summary of In-Situ K Value Ranges by Soil Unit

SOIL UNIT	LOW K (m/sec)	HIGH K (m/sec)	AVERAGE K (m/sec)
FILL/ CLAY SILT TILL	9.7 X10 <sup>-8</sup>	5.7 X10 <sup>-8</sup>	7.7 X10 <sup>-8</sup>
SANDY SILT TILL/ SILTY SAND TILL	1.9 X10 <sup>-8</sup>	1.2 X10 <sup>-5</sup>	4.11X10 <sup>-6</sup>
BEDROCK	6.2 X10 <sup>-9</sup>	9.9 X10 <sup>-7</sup>	5.0 X10 <sup>-7</sup>

## 4.6. GROUNDWATER QUALITY ASSESSMENT

### 4.6.1. Groundwater Quality Comparison to the City of Toronto Sewer Use By-Law

To assess the suitability for discharge of pumped groundwater to the City of Toronto Storm/ Sanitary and Combined sewer during dewatering activities, two (2) groundwater samples were collected on August 19, 2025 from BH25-02 and BH25-06. Prior to collection of the samples, approximately three (3) well volumes of standing groundwater were purged from each well.

The suites were collected unfiltered using a Spectra Field-Pro low flow peristaltic pump and placed into pre-cleaned laboratory-supplied vials and/or bottles provided with analytical test group specific preservatives, as required. Dedicated nitrile gloves were used during sample handling. The groundwater samples were submitted to AGAT, a CALA-certified independent laboratory in Mississauga, Ontario.

A summary of the analytical results and the laboratory Certificate of Analysis (CofA) are enclosed in **Appendix E**. A summary of the noted exceedances from the EnVision sampling results and the 2020 EXP sampling results are included in *Table 4-4*.

Table 4-4: Summary of Groundwater Exceedances Against City of Toronto Storm/Sanitary Combined Sewer Use

PARAMETER	UNITS	LIMITS FOR STORM SEWER USE	LIMITS FOR SANITARY/ COMBINED SEWER USE	BH25-02 EV 2025/08/19	BH25-06 EV 2025/08/19	BH4A EXP 2020/04/27
TOTAL SUSPENDED SOLIDS (TSS)	mg/L	15	350	29	28	12
TOTAL ZINC (ZN)	mg/L	0.04	2	<0.02	0.049	<0.005



CHLOROFORM	mg/L	0.002	0.04	<b>0.0045</b>	<0.0002	<0.0004
DI-N-BUTYL PHTHALATE	mg/L	0.002	0.08	<0.0005	<b><u>1.92</u></b>	<0.002
BIS(2- ETHYLHEXYL) PHTHALATE	mg/L	0.0088	0.012	<0.0005	<b><u>0.44</u></b>	<0.002
TOLUENE	mg/L	0.002	0.016	0.0005	0.0004	<b>0.0022</b>
TOTAL XYLENES	mg/L	0.0044	1.4	0.0003	0.0006	<b>0.0051</b>

**NOTES:**

**UNDERLINED BOLD** = EXCEEDS BOTH LIMITS

**BOLD** = EXCEEDS THE STORM SEWER RELEASE LIMITS ONLY

Results from monitoring well BH25-02 indicate no exceedances when compared to the parameters under the sanitary and combined sewer release limit. However, results from BH25-02 indicate two (2) exceedances when compared to the storm sewer release limits, including total suspended solids and chloroform.

Results from BH25-06 indicate two (2) exceedances when compared to the sanitary and combined sewer release limit, including Di-n-butyl phthalate and Bis(2-Ethylhexyl) phthalate and four (4) exceedances when compared to the storm sewer release limits, including total suspended solids, total zinc, Di-n-butyl phthalate and Bis(2-Ethylhexyl) phthalate.

#### 4.6.2. September 4, 2025 Re-Sample for Phthalate Esters

The results of the groundwater sampling event on August 19, 2025 indicated exceedances for Di-n-butyl phthalate and Bis(2-Ethylhexyl) phthalate at BH25-06. To attempt to confirm the exceedances, an additional sample for phthalate esters was collected from BH25-06 on September 4, 2025. Prior to the collection of the sample, an additional one (1) well volume was purged from the well.

The results of the sample indicated no exceedances for Di-n-butyl phthalate and Bis(2-Ethylhexyl) phthalate when compared to the Toronto sanitary/combined sewer or storm sewer release limits.

It is recommended that an additional sample be collected within 9-months prior to construction to confirm any exceedances to the Toronto sanitary/combined or storm sewer release limits.

## 5. CONSTRUCTION DEWATERING ASSESSMENT

Water takings within the Province of Ontario are governed by the Ontario Water Resources Act (OWRA), and the Water Taking and Transfer Regulation (O.Reg. 387/04). In addition, O.Reg. 63/16 regulates water takings for temporary activities, such as construction and road work dewatering. As of July 1, 2025 construction dewatering that exceeds 50,000 L/day can be self-registered through the Environmental Permissions service. The proposed work may fall within the following possible categories:

- Surface water diversions without pumping (i.e. non-earth cofferdam, sheet piles, sandbags designed to provide a dry work area) are exempt and do not require permitting.
- Surface water diversions with pumping out of an excavation designed to provide a dry working area is exempt from permitting, except that best management practices listed in the regulation must be followed.
- Pumping of groundwater (construction dewatering) to maintain a dry work area, which falls under one of three scenarios:
  - Volumes of a combination of groundwater and surface water (precipitation) that is below 50,000 L/day are exempt from permitting;
  - Volumes of a combination of groundwater and surface water (precipitation) that is above 50,000 L/day require registration as an EASR;
  - Volumes of groundwater that is above 50,000 L/day with discharge to land area within a WHPA-A Source Water Policy Area will require a Category 3 PTTW.

Both the PTTW and EASR processes have monitoring, discharge quality controls, and groundwater management requirements. These requirements are described within a Water Taking and Discharge Plan. For the subject project, this Hydrogeological Impact Assessment Report contains the required information to satisfy the Water Taking and Discharge Plan requirements for EASR filing.

For purposes of providing an estimation of future water taking rates and potential zone of influence from active groundwater control measures, the following assumptions have been included in the analysis.

- Surface water will be directed away from open excavation areas to limit inputs;
- Groundwater control methods will be utilized that are designed to prevent loss of ground;

The selection of a dewatering system shall be left to the contractor, with recommendations that the dewatering plan be reviewed by a qualified dewatering specialist.

### 5.1. PROJECT OVERVIEW

EnVision has reviewed the conceptual design drawings, dated October 17, 2025 prepared by Superkül, indicating that the re-development of the property has been proposed in two phases. It is anticipated that two separate midrise buildings (Building A under Phase 1 and Building B under Phase 2) will be constructed at separate times. It is expected that both buildings will feature two (2) levels of underground parking that covers the entire building footprint, which will be connected by knockout panels following the completion of Phase 2.

Under the City of Toronto's Foundation Drainage Policy (effective January 1, 2022), on-site management of foundation drainage water is required on each development property to ensure that no permanent foundation drainage to the City's sewer system is necessary. This must be achieved using one or more on-site management options including: foundation waterproofing, modifying the building design such that interception of the groundwater table does not occur, or on-site management by discharge of groundwater to surface (which is not likely feasible or practical at this site).

Based on EnVision geotechnical recommendation, the adoption of a 'tanked' waterproofed raft foundation system, designed to exclude groundwater is preferred.

It is understood that the ground floor elevation for the proposed construction has not yet been established, however, based on the topography across the Site, the ground floor elevation has been estimated at 126.0m ASL. The finished P2 basement floor level is expected to be about 7m BGS, corresponding to an elevation of 119.0m ASL. The underside of the raft foundation is anticipated to be 1.5m below the P2 basement floor level (8.5m BGS or 117.5m ASL). In order to maintain dry and stable base conditions in the excavation, the target dewatering level has been established at 1.0 m below the deepest excavation base. This sets the target dewatering level for a P2 excavation at 9.5m BGS (116.5m ASL).

Based on email communication with the Client on October 23, 2025, and EnVision geotechnical recommendation it is anticipated that the excavation will be completed with a continuous caisson wall (secant pile wall) constructed around the excavation perimeter to create a groundwater cutoff. The caisson wall must be sealed well into the lower aquitard (where present) to cut off the seepage from the sandy deposits and to restrain the base of the shoring system. Where this lower aquitard does not exist, the caisson tips will need to deep enough to reduce the upward hydraulic gradient so that basal heave does not occur due to upward seepage.

The following dewatering assessment is based on data collected by EnVision and provides a short-term water-taking estimate for the proposed excavation of a 2-level underground parking structure completed over two (2) phases. For assessment purposes, the maximum groundwater level is taken from the highest measurement recorded during the groundwater level monitoring period, plus a 1.0m fluctuation to account for seasonal variability. The hydraulic conductivity value has been selected as  $1.0 \times 10^{-8}$  m/sec to simulate minor groundwater seepage which may occur through the caisson wall. The water taking estimates are provided in L/day. The complete dewatering calculations have been provided in **Appendix F**.

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## 5.2. METHODOLOGY

### 5.2.1. *Groundwater Seepage*

To estimate the maximum short-term construction dewatering rate, the 'radial flow to a well in a water table aquifer' method has been selected. The irregular site/excavation area has been approximated as an equivalent radial well.



$$Q = \frac{\pi K (H^2 - h^2)}{\ln R_0 / r_e}$$

Where:

$Q$  = Groundwater discharge ( $m^3/day$ )

$H$  = Initial depth of water (static head) prior to dewatering

$h$  = Elevation of water beneath excavation while pumping

$K$  = Hydraulic Conductivity estimated from the highest approximated value from grain size relationship

$r_e$  = effective radius of excavation,  $r_e = \sqrt{\frac{ab}{\pi}}$

$R_0$  = Zone of influence radius,  $R_0 = r_e + 3000 * (H-h) * K^{0.5}$

Source: (Powers, 2007)

The analytical method above requires an estimate for the equivalent radius of influence ( $R_0$ ) which is a concept that represents the radial distance away from the center of pumping in which the sum of recharge balances the volume of discharge. This area is controlled through complex interactions that involve surface topography, land cover, infiltration from precipitation and nearby reservoirs, such as lakes or rivers. An empirical relationship (Sichardt Approximation) has been developed and is used as an industry standard to provide the approximate radius of influence.

### 5.2.2. Groundwater Storage Volume

During the early stages of dewatering, higher pumping rates are typically required to remove the water that is stored within the overburden materials. The storage volume will drain from the porous media as the water table is lowered. This drainage will be controlled by physical processes and limited by the soil conditions within the excavated area. The volume of storage ( $V_s$ ) can be estimated with the following approximation;

$$V_s = sS_y [lw + \left( \frac{1}{3\pi R_0^2} \right) + lR_0]$$

Where:

$L$  = excavation length (m)

$w$  = excavation width (m)

$s$  = total drawdown (m)

$S'$  = specific yield (0.05 for clay, 0.19 for silt, 0.28 for sand, 0.35 for gravel)

$R_0$  = estimated radius of influence (m)

Based on the volume of storage calculation, the approximate pumping rates can be assessed over a selected period, typically 30 to 60 days.

In addition to the steady-state groundwater flow, and the removal of water from storage, stormwater inflows from direct rainfall/precipitation events are considered in the predicted rates. The assessment includes capacity for typical rainfall events of up to 20mm in 24 hours.



### 5.3. DEWATERING REQUIREMENTS

Based on the conceptual plan to construct a two or three storey underground parking structure, the following assumptions were made in *Table 5-1*.

*Table 5-1: Summary of Dewatering Assumptions*

DESCRIPTION	ASSUMPTION	NOTES
DIMENSIONS OF THE EXCAVATION	Phase 1: 82m X 45m Phase 2: 87m X 45m	Estimated based on Superkül October 17 Conceptual Plan.
GROUNDWATER LEVEL	124.75m ASL	Maximum groundwater level recorded during current monitoring period + 1.0m to account for seasonal variability.
TARGET DEWATERING LEVEL	116.5m ASL	Assumed to be 1.0m below the base of the P2 slab.
HYDRAULIC CONDUCTIVITY	$1.0 \times 10^{-8}$ m/sec	Estimated to simulate groundwater seepage.
SPECIFIC YIELD	0.25	Estimated based on expected excavated soil conditions (Johnson, 1967)
SAFETY FACTOR	2	Assigned to account for unforeseen conditions
STORMWATER CONTRIBUTIONS	Up to 73,800 L/day	Based on a 20mm rain event

### 5.4. RESULTS OF DEWATERING ESTIMATION

Based on the project setting, requirements, and findings from above, *Table 5-2* presents the short-term dewatering results for the two (2) phase construction of two separate midrise buildings with two (2) levels of underground parking. A factor of safety of 2 has been applied to account for unforeseen conditions and appropriate contingency measures.

*Table 5-2: Short-Term Dewatering Summary*

PHASE	ESTIMATED GROUNDWATER SEEPAGE (L/DAY)	GROUNDWATER STORAGE VOLUME (L)	STORMWATER CONTRIBUTION (L/DAY)	60-DAY PUMPING TIME (L/DAY)
PHASE 1	12,400	13,830,000	73,800	473,400
PHASE 2	12,700	14,850,000	78,300	507,700



Based on the proposed construction and the assumptions outlined above, the initial or early dewatering rate for Phase 1 construction, including groundwater storage and groundwater seepage is anticipated to be 242,900 L/day for a 60-day pumping period. Once the initial storage component has been pumped, the groundwater discharge rates are anticipated to reach a steady state around 12,400 L/day. For Phase 2 construction, the initial dewatering rates are estimated to be 260,200 L/day for a 60-day pumping period. Once the initial storage component has been pumped, the groundwater discharge rates are anticipated to reach a steady state around 12,700 L/day.

The dewatering contractor should be prepared to handle up to an additional 78,300 L/day to account for stormwater contribution.

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### 5.5. CONSTRUCTION DEWATERING EASR

Based on the predicted daily water taking rates, the future construction dewatering should be managed through an Environmental Activity and Sector Registry (EASR) for short-term construction dewatering activities (O. Reg. 63/16). The EASR is to be registered by the project owner using the on-line MECP Environmental Permissions portal.

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### 5.6. GROUNDWATER DISCHARGE MANAGEMENT

The handling of construction water should be confirmed by the contractor, however it is recommended that a temporary environmental tank be installed to provide capacity and storage during wet weather events. The tank should be sized to allow for appropriate retention time to allow for suspended solid settlement. The water can then be confirmed acceptable for water quality parameters prior to release to the discharge receptor selected. This receptor may be the City of Toronto sanitary sewer, provided a short-term discharge agreement is arranged with the Environmental Monitoring and Protection Unit.



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## 6. IMPACT ASSESSMENT

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### 6.1. ZONE OF INFLUENCE FROM DEWATERING

The zone of influence (ZOI) for construction dewatering has been estimated based on the empirical Sichardt's Equation. This represents the theoretical distance from the center of dewatering to where the lowering of groundwater becomes insignificant.

It is understood that the proposed construction is anticipated to feature a continuous caisson wall constructed around the excavation perimeter which will extend into the lower aquitard or sufficiently deep to reduce the upward hydraulic gradient, greatly reducing the expected zone of influence from dewatering. If groundwater cutoff is achieved through the proposed construction method, the anticipated zone of influence is expected to extend <3m from the edges of the excavation.

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### 6.2. IMPACTS TO GROUNDWATER USERS

The Site lies within a heavily urbanized area of Toronto, Ontario, which features 100% municipal water supply. The potential for construction dewatering activity to impact private well users within the project limits is expected to be insignificant, based on the following conditions:

- The use of groundwater as a source of water supply is unlikely within 500 m of the Site;
- Minimal radius of influence expected due to watertight design

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### 6.3. IMPACTS TO NEARBY STRUCTURES

There is always a possibility of inducing settlement to neighboring buildings, utilities and underground structures/infrastructure when lowering water levels or depressurizing an aquifer. It is considered a best practice to instigate a pro-active monitoring program in order to identify any potential areas of concern and the need and type of monitoring required. Utilities, and transit owners may have stringent monitoring requirements, which will have to be adhered to.

The use of cut-off structures, (i.e. caisson) along the perimeter of the Site is anticipated in order to reduce the zone of influence due to any active dewatering. It is recommended that the caisson structures be monitored during construction to avoid any shifting during active dewatering and geotechnical assessment for ground settlement be conducted based on the construction method outlined in Section 5.

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### 6.4. IMPACTS TO CITY OF TORONTO SEWER SYSTEMS

Negative impacts to the Municipal sewage works could potentially occur during dewatering, either due to quantity, or quality. The dewatering discharge rates provided in this report do not take into consideration the sewer capacity that the receiving system may hold. This capacity analysis will generally be undertaken by the civil engineer and included in the Functioning Service Report.

The quality of the discharge water must be controlled if it is to be conveyed to the city sewer system. Controls must be put in place to ensure that the construction dewatering quality meets the allowable

limits under the appropriate discharge permit. The groundwater sampling event indicates that the groundwater is of suitable quality for discharge to the sanitary/combined sewer provided that total suspended solids are controlled using filtration or settlement tanks. There is no planned groundwater discharge proposed, however some temporary conveyance of collected stormwater should be anticipated. This water quality would have to be confirmed during the development of construction plans.

It is recommended that an additional sample be collected within 9-months prior to construction to confirm any exceedances to the Toronto sanitary/combined or storm sewer release limits.

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## 6.5. CONTAMINANT MIGRATION DURING DEWATERING

Changes to the hydraulic gradient could potentially influence migration of contaminants from off-site properties. The surrounding area is considered to feature many potential sources of groundwater contaminants. During dewatering activity, it is possible to alter the natural groundwater hydraulic gradient and cause dissolved contaminants to migrate onto the property. The use of caisson wall shoring is expected to greatly reduce the risk of contaminant migration, however, It is recommended that a contaminant monitoring program be implemented during any active dewatering.

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## 6.6. LONG-TERM DRAINAGE

Detailed design plans for the redevelopment have not yet been prepared by the client, however, it is anticipated that the planned development is intended to be constructed as a water-tight design, thereby eliminating the need to install a permanent connection of a passive groundwater drainage system (PWDS) to the City sanitary sewer network. Therefore, the long-term drainage of groundwater resources from the property is not anticipated.



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## 7. WATER TAKING AND DISCHARGE PERMITS

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### 7.1. MECP WATER TAKING PERMIT (EASR/PTTW)

The expected total daily water takings during construction are anticipated to be above 50,000 L/day and will be required to be registered using the Ministry of the Environment's online Environmental Activity and Sector Registry for construction dewatering. This registration can be undertaken approximately 30 days prior to any active dewatering work. A qualified person will be required to facilitate the registration and development of an appropriate water taking and discharge plan.

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### 7.2. DISCHARGE PERMITTING AND TREATMENT

During construction, the discharge of construction dewatering effluent could be conveyed to the City of Toronto Sanitary sewer with some treatment. However, a treatment plan will be required if the discharge of dewatering effluent is to be directed to the storm sewer system. A treatment contractor will be required to review the water taking plan and develop appropriate treatment, based on the discharge receptor selected.



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## 8. MONITORING AND MITIGATION

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### 8.1. CONSTRUCTION DEWATERING MONITORING

The active construction dewatering stage will require monitoring designed to assess the potential for impacts to water levels in aquifers, water quality, and ground settlement. The monitoring program should include the following components:

- Discharge volume reporting
- Discharge water quality monitoring
- Ground settlement monitoring

#### *8.1.1. Discharge Volume Reporting*

During active dewatering, the contractor will be required to document discharge pumping rates as a required condition of the EASR, with regular reporting of water taking volumes via the MECP Water Taking Reporting System. A flow-meter should be supplied, and all discharged ground and storm water should be discharged through the properly field calibrated device. A non-resettable flow meter that records discharge in both instantaneous and cumulative modes is recommended. Daily recording of the discharge volumes will be required for regular reporting. The total combined daily discharge must never exceed the limits as outlined in the EASR. Additional storage measures (such as extra tank storage) can be used to control large rain events and reduce the instantaneous discharge/pumping rates. Further restrictions or conditions may be imposed through the enforced discharge agreement issued by the municipality.

#### *8.1.2. Groundwater Quality Monitoring*

A monitoring program should be implemented that is based on the selected discharge option. The monitoring program should consist of daily visual examination of the construction effluent for the presence of any sheen, foam, or odour. Water clarity and sediment level should also be monitored to ensure that the quality is not degrading during construction. Filters should be examined on a regular basis, and any failures to equipment should be repaired immediately. Discharge permitting may also include specific water quality testing that must be adhered to.

Water pumped from the work area should be treated for suspended solids as necessary, prior to release. Dewatering discharge will be directed through a settling tank prior to discharge to a municipal sewer connection.

Impacts to water quality can be controlled using safe construction practices that eliminate the potential for waste spills and other contamination events. Refueling should be performed in designated areas away from open excavations. In the event of a spill, remedial action must be undertaken immediately by the contractor, following all MECP and provincial spill guidelines.

In addition, the migration of contaminants from off-site properties should be monitored by periodic water quality sampling from monitoring wells located along the property boundary or from the discharge outlet. This periodic sampling should be done frequently during the first month of dewatering; daily for 3 days, weekly afterwards for the first month, and consist of analysis for gasoline by-products. If contaminant migration is noted, and based on the degrading water quality, a treatment



system may be required to ensure discharge water continues to meet the limits of the discharge agreement for the proposed receptor.

#### *8.1.3. Ground Settlement Monitoring*

As discussed previously, the caisson walls and surrounding structures should be monitored to ensure there are no settlement impacts from active dewatering. Monitoring devices should be attached to caisson structures and nearby buildings with maintained scheduled monitoring during active dewatering. The contractor should be prepared to reduce dewatering efforts if undesirable deformation conditions occur.

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## **8.2. SHUTDOWN PROTOCOL**

The following shutdown protocol is described in the event that the dewatering operations are determined to result in unacceptable risk to municipal sewers, private or public infrastructure owners, or to the natural environment. In addition, evidence of the mobilization of contaminants may also require initiation of the shutdown protocol.

A shutdown must be initiated should adverse settlement impacts be noted, particularly to any private or public infrastructure, parking surfaces, road surfaces, or buried infrastructure. In addition, a shutdown must also be initiated should any foam, or sheen be identified in the discharge water.

Notification to the Ministry of the Environment of the shutdown event must be communicated in writing to the district office identified below.

8th floor, 5775 Yonge St.  
North York ON M2M 4J1  
Toll Free: 1-800-810-8048  
Tel: (416) 326-6700 Fax: (416) 325-6346



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## 9. CLOSING

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### 9.1. CONCLUSIONS

Based on the information obtained through this Hydrogeological Investigation, Envision presents the following conclusions and recommendations:

- The Site is situated within the physiographic region of Southern Ontario known as the the South Slope;
- The surficial material consists of glaciolacustrine deposits of silt to clayey till;
- Bedrock identified as Georgian Bay formation is found at less than 13-16 m below ground surface;
- The MECP WWR database indicated that there are 180 water wells in the Study Area. Of the well records returned in the search, 126 records were classified as a monitoring, test, or observation wells, 11 were classified as abandoned and 43 were found to not have a stated final use. No supply wells were identified within the Study Area;
- Across the monitoring period, the groundwater level in the overburden and weathered shale ranged from 2.4 to 3.5m BGS, corresponding to an elevation of 123.5 to 123.3m ASL and the groundwater level in the bedrock ranged from 2.8 to 3.8m BGS, corresponding to an elevation of 123.3 to 122.3 m ASL.
- The maximum groundwater elevation across the site was measured to be **125.37m ASL** as per Option 1 of the Toronto Foundation Drainage Guidelines;
- Based on in-situ single well response tests, the estimated saturated hydraulic conductivity in the overburden ranges from  $9.7 \times 10^{-8}$  to  $1.2 \times 10^{-5}$  m/sec;
- Based on in-situ single well response tests, the estimated saturated hydraulic conductivity in the bedrock ranges from  $6.2 \times 10^{-9}$  to  $9.9 \times 10^{-7}$  m/sec;
- Based on groundwater sampling at BH25-02, no exceedances were observed when compared to the parameters under the sanitary and combined sewer release limit. However, results from BH25-02 indicate two (2) exceedances when compared to the storm sewer release limits, including total suspended solids and chloroform;
- Based on groundwater sampling at BH25-06, two (2) exceedances were observed when compared to the sanitary and combined sewer release limit, including Di-n-butyl phthalate and Bis(2-Ethylhexyl) phthalate and four (4) exceedances when compared to the storm sewer release limits, including total suspended solids, total zinc, Di-n-butyl phthalate and Bis(2-Ethylhexyl) phthalate;
- Phase 1 construction, including groundwater storage and groundwater seepage is anticipated to be 242,900 L/day for a 60-day pumping period. Once the initial storage component has been pumped, the groundwater discharge rates are anticipated to reach a steady state around 12,400 L/day;
- For Phase 2 construction, the initial dewatering rates are estimated to be 260,200 L/day for a 60-day pumping period. Once the initial storage component has been pumped, the groundwater discharge rates are anticipated to reach a steady state around 12,700 L/day..



- The expected water takings are anticipated to be above 50,000 L/day and therefore the activities will require a registration using the Ministry of the Environment's online Environmental Activity and Sector Registry for construction dewatering;
- Approval and a discharge agreement with the City of Toronto will be required to discharge stormwater effluent into the municipal sanitary/combined sewer system.

Based on the above conclusions, the following recommendations are provided:

- 1) All estimates provided should be revised during updated detailed design work as more information becomes available;
- 2) A construction dewatering EASR is required for groundwater control activities and will require filing by a Qualified Person and is to be supported by a Water Taking and Discharge Plan as per O.Reg. 63/16;

## 9.2. QUALIFICATION OF THE ASSESSORS

**Sam Harding, B.Sc.**, is a Project Coordinator with EnVision Consultants Ltd. Sam has obtained an Honours Science degree with a minor in Earth Sciences from the University of Waterloo. Sam has over three years of experience and has been involved in numerous hydrogeological investigations to support construction dewatering for land developments, infrastructure projects and residential developments. Sam's experience includes conducting and leading hydrogeological programs through groundwater sampling, In-Situ single well response testing, water supply assessments, surface water monitoring, groundwater monitoring, and hydrogeological report writing.

**Robin Byers, P.Geo., B.Sc.** is a Senior Hydrogeologist and is a practicing member of the Professional Geoscientists of Ontario with over 9 years of hydrogeological experience working in the Greater Toronto Area and Southern Ontario. He has experience in physical and chemical hydrogeology with foundational knowledge of well construction and design, groundwater modeling, pumping test analysis, and construction dewatering. Rob is also a qualified person as defined by O.Reg 63/16 for purposes of preparing water taking and discharge plans.

## 9.3. CERTIFICATION AND SIGNATURES

EnVision confirms the conclusions and findings of the Hydrogeological Investigation.

Prepared by

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#### 9.4. QUALIFIER

EnVision prepared this report solely for the use of the intended recipient in accordance with the professional services agreement. In the event a contract has not been executed, the parties agree that the EnVision General Terms and Conditions, which were provided prior to the preparation of this report, shall govern their business relationship.

The report is intended to be used in its entirety. No excerpts may be taken to be representative of the findings in the assessment. The conclusions presented in this report are based on work performed by trained, professional and technical staff, in accordance with their reasonable interpretation of current and accepted engineering and scientific practices at the time the work was performed.

The content and opinions contained in the report are based on the observations and/or information available to EnVision at the time of preparation, using investigation techniques and engineering analysis methods consistent with those ordinarily exercised by EnVision and other engineering/scientific practitioners working under similar conditions, and subject to the same time, financial and physical constraints applicable to this project.

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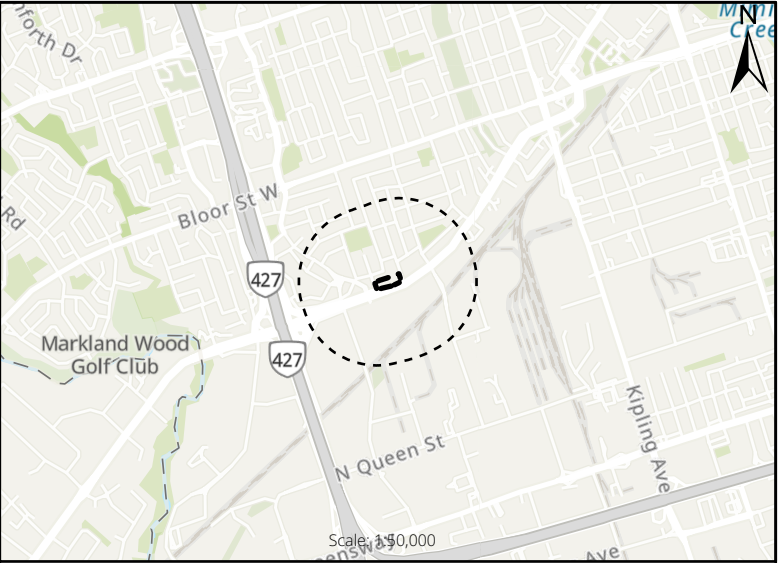
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# FIGURES





LEGEND				
<div><div></div>SITE BOUNDARY</div>				
<div><div></div>500 m STUDY AREA</div>				
<div><div></div>RAILWAY</div>				
<div><div></div>1 m TOPOGRAPHIC CONTOURS (mASL)</div>				
<div><div></div>UNEVALUATED WETLAND</div>				
TITLE				
SITE LOCATION PLAN				
PROJECT			<div><div></div></div>	
HYDROGEOLOGICAL INVESTIGATION 5500 DUNDAS STREET WEST TORONTO, ONTARIO				
CLIENT				
FIRST CAPITAL ASSET MANAGEMENT LP				
PROJECT NO.	DATE	PREPARED BY	APPROVED BY	FIGURE
25-1032	DECEMBER 2025	TP	RB	1





LEGEND

- SITE BOUNDARY
- 500 m BUFFER
- RAILWAY
- HIGHLY VULNERABLE AQUIFER

TITLE  
SOURCE WATER PROTECTION -  
HIGHLY VULNERABLE AQUIFER

PROJECT  
HYDROGEOLOGICAL INVESTIGATION  
5500 DUNDAS STREET WEST  
TORONTO, ONTARIO

CLIENT  
FIRST CAPITAL ASSET MANAGEMENT LP

PROJECT NO.  
25-1032

DATE  
DECEMBER 2025

PREPARED BY  
TP

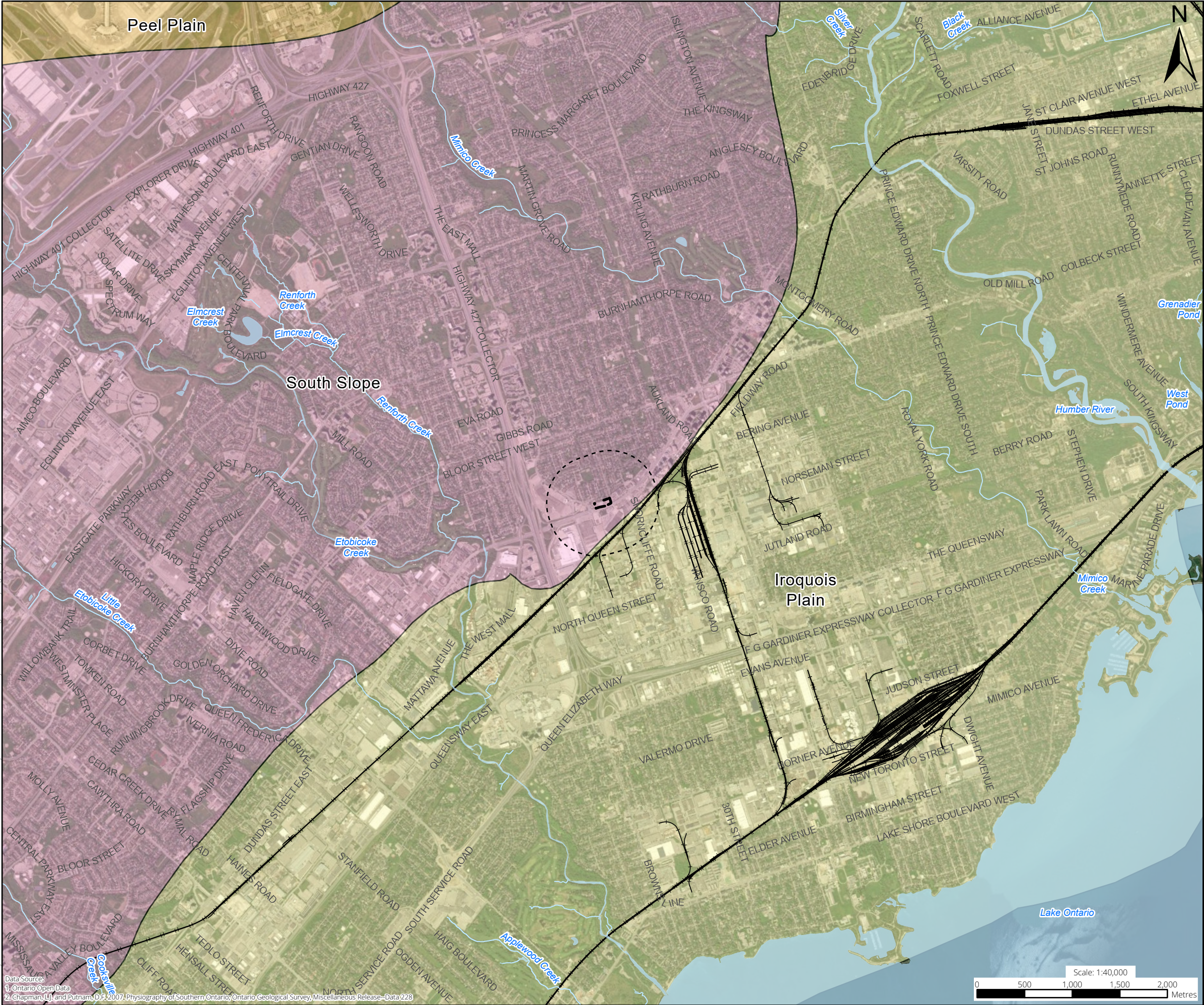
APPROVED BY  
RB

FIGURE  
2



Scale: 1:5,000  
0 50 100 150 200 Metres





Data Source:  
1. Ontario Open Data  
2. Chapman, L.J. and Putnam, D.F. 2007. Physiography of Southern Ontario. Ontario Geological Survey, Miscellaneous Release - Data 228

LEGEND

- SITE BOUNDARY
- 500 m STUDY AREA
- RAILWAY
- WATERCOURSE
- WATERBODY
- PHYSIOGRAPHIC REGION:
  - IROQUOIS PLAIN
  - PEEL PLAIN
  - SOUTH SLOPE

TITLE  
PHYSIOGRAPHIC REGIONS OF THE STUDY AREA

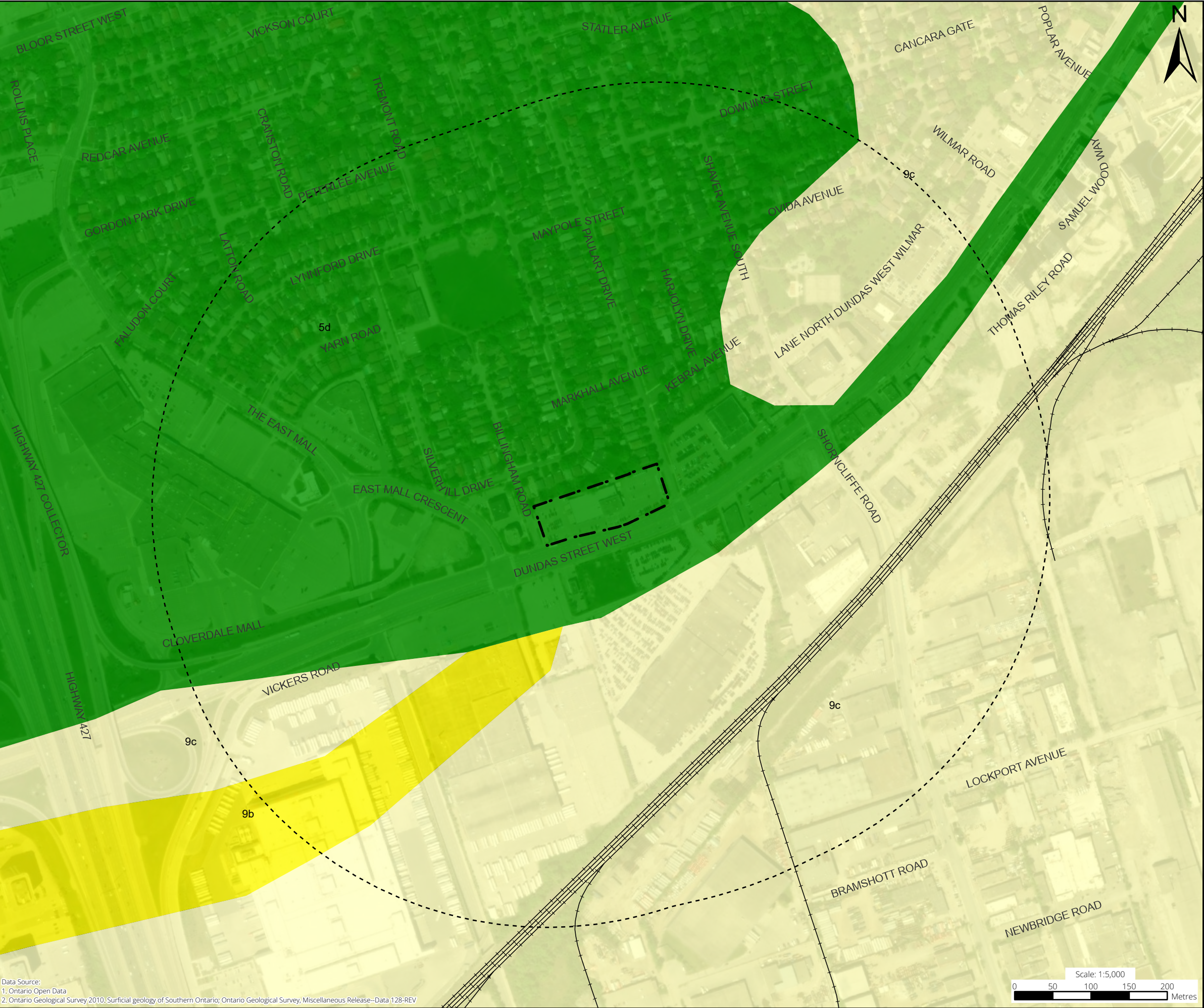
PROJECT  
HYDROGEOLOGICAL INVESTIGATION  
5500 DUNDAS STREET WEST  
TORONTO, ONTARIO

CLIENT  
FIRST CAPITAL ASSET MANAGEMENT LP

PROJECT NO. 25-1032	DATE DECEMBER 2025	PREPARED BY TP	APPROVED BY RB	FIGURE 3
------------------------	-----------------------	-------------------	-------------------	-------------







LEGEND

SITE BOUNDARY

500 m STUDY AREA

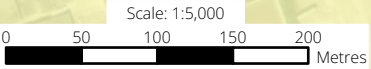
RAILWAY


5D: GLACIOLACUSTRINE-DERIVED SILTY TO CLAYEY TILL

9B: LITTORAL-FORESHORE DEPOSITS

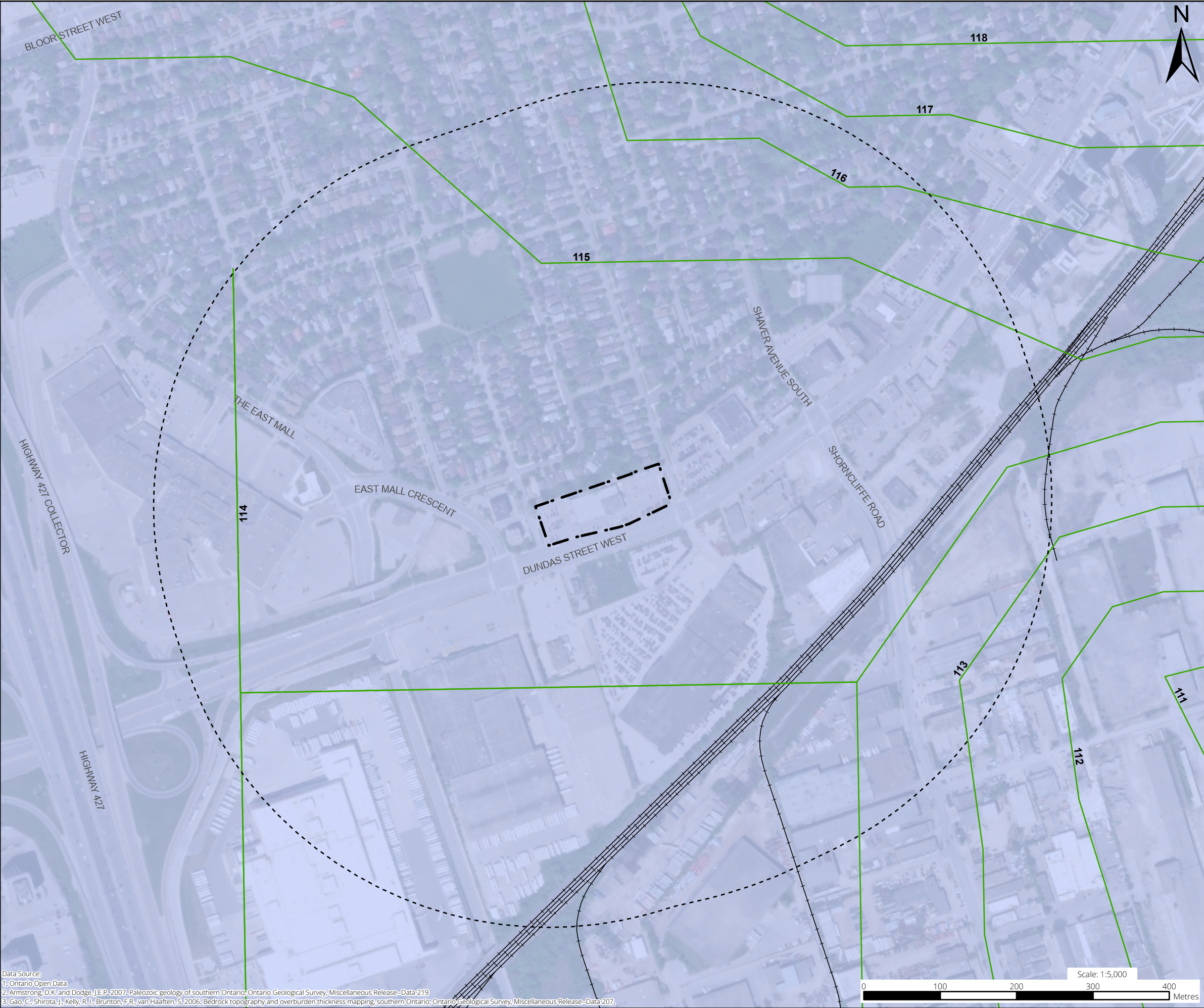
9C: FORESHORE-BASINAL DEPOSITS

Data Source:  
1. Ontario Open Data  
2. Ontario Geological Survey 2010; Surficial geology of Southern Ontario; Ontario Geological Survey, Miscellaneous Release--Data 128-REV



TITLE				
SURFICIAL GEOLOGY OF THE STUDY AREA				
PROJECT				
HYDROGEOLOGICAL INVESTIGATION 5500 DUNDAS STREET WEST TORONTO, ONTARIO				
CLIENT				
FIRST CAPITAL ASSET MANAGEMENT LP				
PROJECT NO.	DATE	PREPARED BY	APPROVED BY	FIGURE
25-1032	DECEMBER 2025	TP	RB	4





LEGEND

- SITE BOUNDARY
- 500 m STUDY AREA
- RAILWAY
- GEORGIAN BAY FORMATION
- BEDROCK TOPOGRAPHY (mASL)

Data Source:  
1. Ontario Open Data  
2. Armstrong, D.K. and Dodge, J.E.P. 2007, Paleozoic geology of southern Ontario, Ontario Geological Survey, Miscellaneous Release--Data 219  
3. Gao, C., Shiota, J., Kelly, R.I., Brunton, F.R., van Haaften, S.J. 2006, Bedrock topography and overburden thickness mapping, southern Ontario, Ontario Geological Survey, Miscellaneous Release--Data 207.

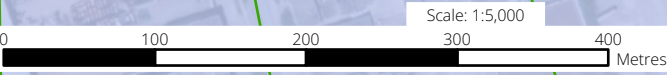
TITLE  
BEDROCK GEOLOGY AND BEDROCK TOPOGRAPHY

PROJECT  
HYDROGEOLOGICAL INVESTIGATION  
5500 DUNDAS STREET WEST  
TORONTO, ONTARIO

CLIENT  
FIRST CAPITAL ASSET MANAGEMENT LP



PROJECT NO. 25-1032	DATE DECEMBER 2025	PREPARED BY TP	APPROVED BY RB	FIGURE 5
------------------------	-----------------------	-------------------	-------------------	-------------







LEGEND

SITE BOUNDARY

500 m BUFFER

RAILWAY

MECP WATER WELL LOCATION

ABANDONED

MONITORING & TEST HOLE

OBSERVATION WELLS

UNKNOWN

TITLE

MECP WATER WELL LOCATIONS

PROJECT

HYDROGEOLOGICAL INVESTIGATION  
5500 DUNDAS STREET WEST  
TORONTO, ONTARIO

CLIENT

FIRST CAPITAL ASSET MANAGEMENT LP

PROJECT NO.

25-1032

DATE

DECEMBER 2025

PREPARED BY

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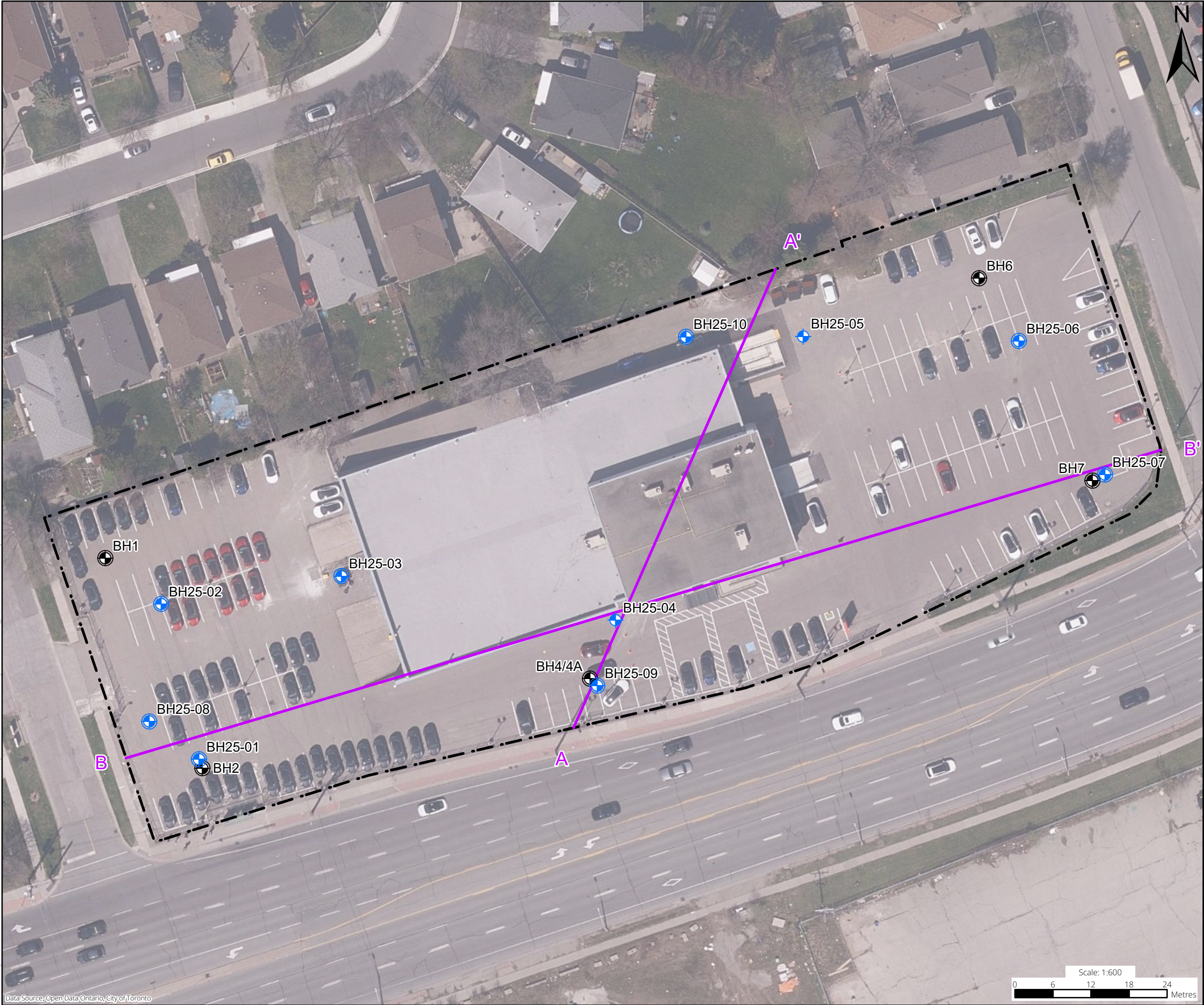
FIGURE

6



Prepared By: Tanya Peterson

C:\Users\Tanya Peterson\OneDrive - Envision Consultants\Documents\12\_GIS\Projects\2025\25-1032\APPX\Hydro\G25-1032\_Figure 6 BH Location Plan.aprx



LEGEND

- SITE BOUNDARY
- BOREHOLE LOCATION (ENVISION, 2025)
- MONITORING WELL LOCATION (ENVISION, 2025)
- MONITORING WELL (EXP, 2020)
- CROSS SECTION

TITLE  
BOREHOLE LOCATION PLAN

PROJECT  
HYDROGEOLOGICAL INVESTIGATION  
5500 DUNDAS STREET WEST  
TORONTO, ONTARIO

CLIENT  
FIRST CAPITAL ASSET MANAGEMENT LP



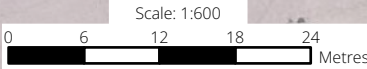
PROJECT NO.  
25-1032

DATE  
DECEMBER 2025

PREPARED BY  
TP

APPROVED BY  
RB

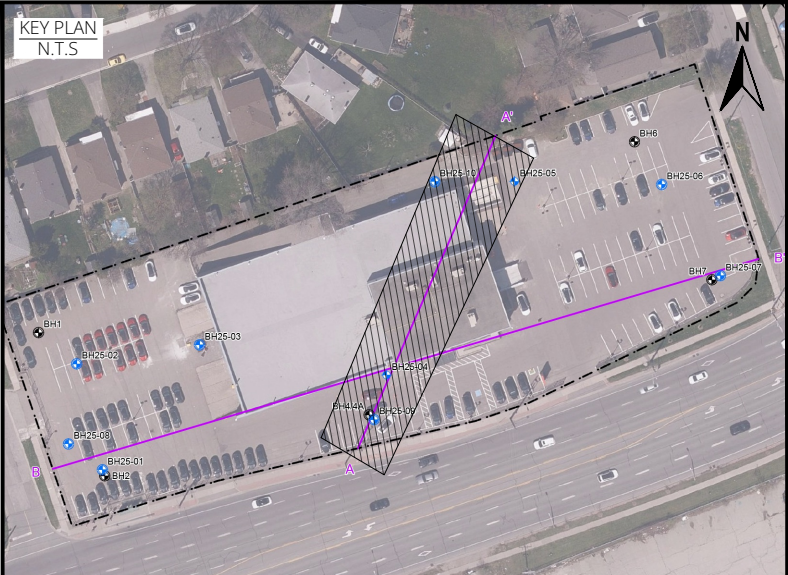
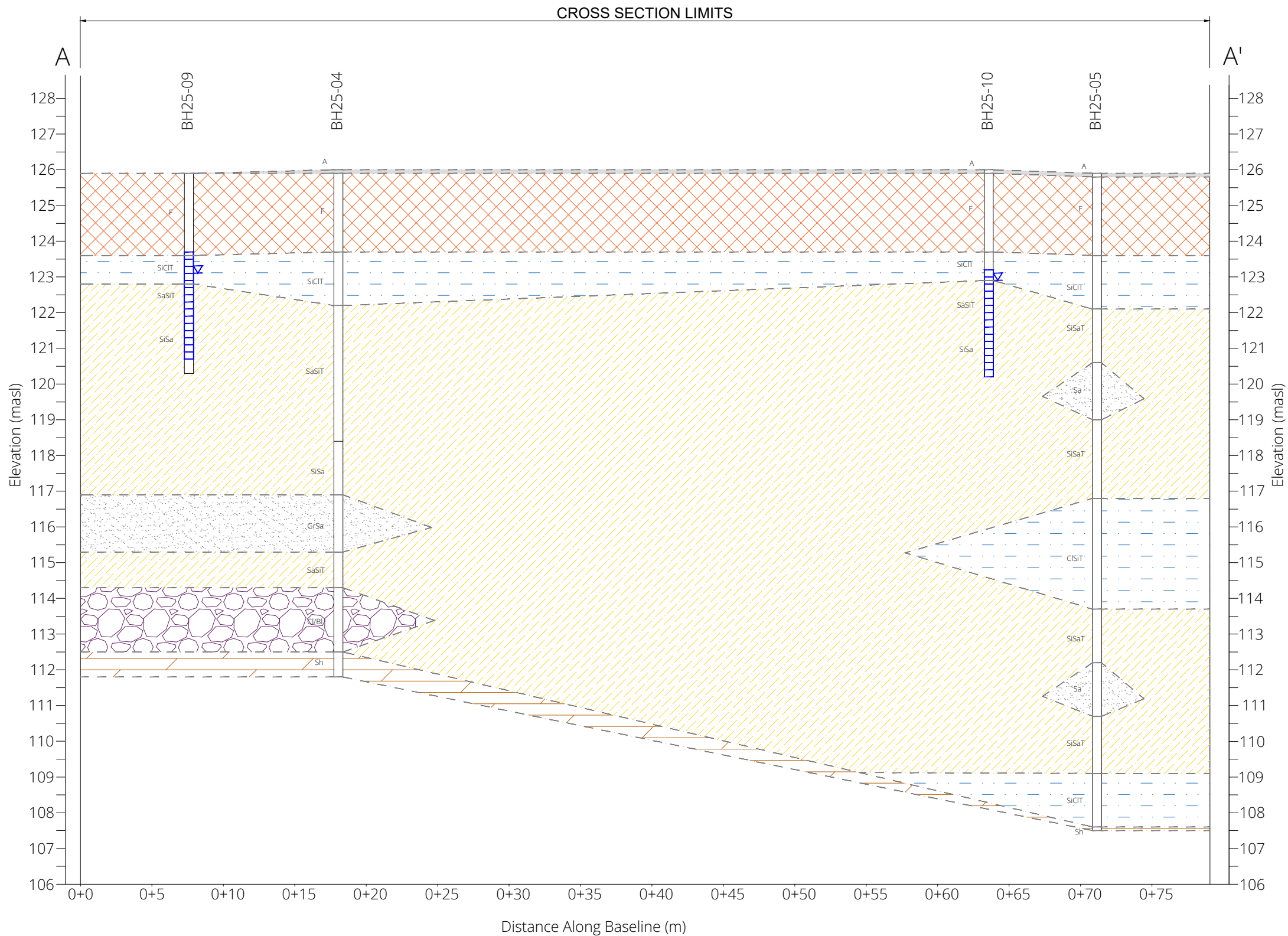
FIGURE  
7














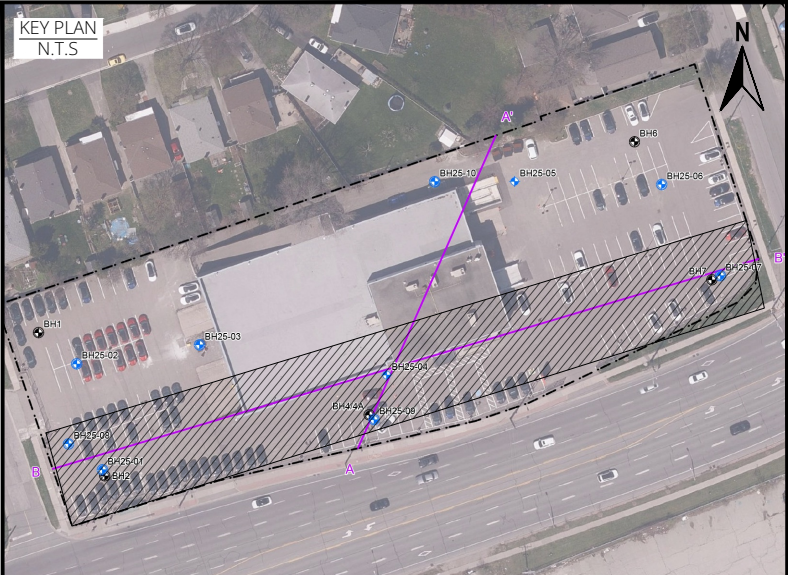












Drafted by: H.U

C:\Users\HoseinUllah\OneDrive - Envision Consultants\Documents - EV\102, Projects\08\_2025\25-1032-1032\_5500 Dundas St W, Etobicoke\04\_Tech Services\03\_hydrogeo\5\_Figures\CAD\1032 hydro geo.dwg



LEGEND				
	SECTION VIEW CUT AREA (KEY PLAN)			
	ENVISION BOREHOLE AND MONITORING WELL LOCATION			
	OTHERS BOREHOLE AND MONITORING WELL LOCATION			
	ASPHALT (A)			
	FILL (F)			
	CLAYEY SILT TIL / SILTY CLAY TIL (CISiT, SiCIT)			
	SANDY SILT TIL / SILTY SAND TIL, SILTY SAND (SaSiT, SiSaT, SiSa)			
	SAND / GRAVEL SAND (Sa, GrSa)			
	COBBLES/BOULDERS (CI/BI)			
	SHALE (Sh)			
TITLE				
SUMMARY OF CHEMICAL ANALYSIS IN SOIL				
PROJECT				
HYDRO GEOLOGICAL REPORT 5500 DUNDAS STREET WEST TORONTO, ONTARIO				
CLIENT				
FIRST CAPITAL ASSET MANAGEMENT LP				
PROJECT NO.	DATE	PREPARED BY	APPROVED BY	FIGURE
25-1032	DECEMBER 2025	HU	RB	8A



LEGEND	
	SECTION VIEW CUT AREA (KEY PLAN)
	ENVISION BOREHOLE AND MONITORING WELL LOCATION
	OTHERS BOREHOLE AND MONITORING WELL LOCATION
	ASPHALT (A)
	FILL (F)
	CLAYEY SILT TIL / SILTY CLAY TIL (CISiT, SiCiT)
	SANDY SILT TIL / SILTY SAND TIL, SILTY SAND (SaSiT, SiSaT, SiSa)
	SAND / GRAVEL SAND (Sa, GrSa)
	COBBLES/BOULDERS (CI/BI)
	SHALE (Sh)

TITLE	SUMMARY OF CHEMICAL ANALYSIS IN SOIL
-------	--------------------------------------

PROJECT

HYDRO GEOLOGICAL REPORT  
5500 DUNDAS STREET WEST  
TORONTO, ONTARIO

CLIENT  
FIRST CAPITAL ASSET MANAGEMENT LP

PROJECT NO.	DATE	PREPARED BY	APPROVED BY	FIGURE
25-1032	DECEMBER 2025	HU	RB	8B





# **APPENDIX A:**

## *MECP Well Records*

Table A-1: MECP Water Well Records

WELL ID	FINAL STATUS	WATER USE	DATE CONSTRUCTED	EASTING	NORTHING	WELL DEPTH (m)
7333947	Monitoring and Test Hole	Monitoring and Test Hole	2019-03-13	617605	4832040	2.4
6929395	Observation Wells	Not Used	2005-09-06	616873	4831696	3.5
7035364	Unknown	Unknown	2006-07-20	617410	4832087	3.7
7357124	Observation Wells	Monitoring		617118	4831913	3.7
7350963	Observation Wells	Monitoring	2019-10-30	616873	4831555	3.8
7347764	Observation Wells	Monitoring	2019-11-20	617396	4831990	4.0
7347771	Observation Wells	Monitoring	2019-11-20	617400	4831982	4.0
7260226	Monitoring and Test Hole	Monitoring and Test Hole	2016-02-09	617591	4832051	4.3
7260461	Monitoring and Test Hole	Monitoring and Test Hole	2016-03-09	617606	4832065	4.3
7260462	Monitoring and Test Hole	Monitoring and Test Hole	2016-03-09	617602	4832072	4.3
7260463	Monitoring and Test Hole	Monitoring and Test Hole	2016-03-09	617595	4832019	4.3
7260464	Monitoring and Test Hole	Monitoring and Test Hole	2016-03-09	617594	4832028	4.3
7333946	Monitoring and Test Hole	Monitoring and Test Hole	2019-03-13	617637	4832055	4.3
7333983	Monitoring and Test Hole	Monitoring and Test Hole	2019-03-12	617547	4831945	4.3
7333984	Monitoring and Test Hole	Monitoring and Test Hole	2019-03-12	617516	4831958	4.3
7333985	Monitoring and Test Hole	Monitoring and Test Hole	2019-03-12	617538	4831936	4.3
7333986	Monitoring and Test Hole	Monitoring and Test Hole	2019-03-12	617599	4832025	4.3
7333987	Monitoring and Test Hole	Monitoring and Test Hole	2019-03-12	617590	4832048	4.3
7333988	Monitoring and Test Hole	Monitoring and Test Hole	2019-03-13	617594	4832033	4.3
7043608	Observation Wells	Unknown	2007-04-02	616553	4831992	4.3
6931052	Observation Wells	Unknown	2006-05-25	617500	4832142	4.3
7116427	Observation Wells	Monitoring	2008-10-16	617640	4831814	4.6
7196156	Observation Wells	Monitoring and Test Hole	2013-01-18	617304	4831904	4.6
7260413	Monitoring and Test Hole	Monitoring and Test Hole	2016-02-24	617601	4832018	4.6
7260414	Monitoring and Test Hole	Monitoring and Test Hole	2016-02-27	617623	4832046	4.6
7260415	Monitoring and Test Hole	Monitoring and Test Hole	2016-02-24	617624	4832035	4.6
7260417	Monitoring and Test Hole	Monitoring and Test Hole	2016-02-25	617580	4832068	4.6
7260418	Monitoring and Test Hole	Monitoring and Test Hole	2016-02-25	617539	4831976	4.6
7261991	Monitoring and Test Hole	Monitoring and Test Hole	2016-03-23	617361	4831462	4.6
7333989	Monitoring and Test Hole	Monitoring and Test Hole	2019-03-13	617515	4832020	4.6
7408788	Observation Wells	Monitoring	2021-12-14	617041	4831856	4.6
7250877	Observation Wells	Monitoring	2015-10-06	617576	4832138	4.6
7138413	Monitoring and Test Hole	Monitoring and Test Hole	2009-12-09	617652	4831802	5.2
7138411	Monitoring and Test Hole	Monitoring and Test Hole	2009-12-09	617594	4831767	5.5
7138412	Monitoring and Test Hole	Monitoring and Test Hole	2009-12-09	617586	4831782	5.5
7150549	Test Hole	Monitoring	2010-08-06	617382	4832012	5.5
7333949	Monitoring and Test Hole	Monitoring and Test Hole	2019-03-13	617592	4832042	5.8
7333950	Monitoring and Test Hole	Monitoring and Test Hole	2019-03-13	617593	4832020	5.8
7333951	Monitoring and Test Hole	Monitoring and Test Hole	2019-03-13	617581	4832044	5.8
7053798	Test Hole	Monitoring	2007-11-08	616865	4831908	5.8
7382134	Observation Wells	Monitoring	2021-02-04	617602	4832213	5.8
4909665	Observation Wells	Unknown	2005-02-04	617053	4831694	6.0
7111565	Test Hole	Monitoring	2008-04-21	617150	4831827	6.0
7128530	Test Hole	Monitoring	2009-05-22	616936	4831855	6.0
7386690	Observation Wells	Monitoring	2021-04-30	616824	4831924	6.0
7386703	Observation Wells	Monitoring	2021-04-30	616861	4831898	6.0
7458286	Observation Wells	Monitoring	2023-06-26	616912	4831847	6.0

Final Status Counts	Totals
Abandoned-Supply	2
Abandoned-Other	8
Abandoned-Quality	1
Monitoring and Test Hole	36
Observation Wells	58
Test Hole	32
Unknown	43
Total	180



WELL ID	FINAL STATUS	WATER USE	DATE CONSTRUCTED	EASTING	NORTHING	WELL DEPTH (m)
7458287	Observation Wells	Monitoring	2023-06-26	616895	4831847	6.0
7458290	Observation Wells	Monitoring	2023-06-26	616887	4831841	6.0
7458292	Observation Wells	Monitoring	2023-06-27	616953	4831876	6.0
7458293	Observation Wells	Monitoring	2023-06-26	616932	4831903	6.0
7458299	Observation Wells	Monitoring	2023-06-27	616923	4831908	6.0
7458310	Observation Wells	Monitoring	2023-06-22	616915	4831911	6.0
7458327	Observation Wells	Monitoring	2023-06-22	616931	4831854	6.0
7458329	Observation Wells	Monitoring	2023-06-21	616906	4831916	6.0
7458335	Observation Wells	Monitoring	2023-06-27	616942	4831891	6.0
7458336	Observation Wells	Monitoring	2023-06-22	616959	4831867	6.0
7304909	Observation Wells	Test Hole		617624	4832175	6.1
7313272	Monitoring and Test Hole	Test Hole	2018-05-01	617543	4832039	6.1
7333948	Monitoring and Test Hole	Monitoring and Test Hole	2019-03-13	617597	4832037	6.1
7468948	Observation Wells	Monitoring	2023-11-30	616938	4832209	6.1
7468949	Observation Wells	Monitoring	2023-12-01	616919	4832169	6.1
7468950	Observation Wells	Monitoring	2023-11-30	616946	4832289	6.1
7468951	Observation Wells	Monitoring	2023-11-30	616869	4832274	6.1
7049690	Observation Wells	Not Used	2007-08-24	616779	4831869	6.1
7110875	Monitoring and Test Hole	Monitoring	2008-07-25	617600	4831803	6.1
7122519	Test Hole	Monitoring and Test Hole	2009-03-17	617269	4831992	6.1
7306825	Observation Wells	Test Hole	2017-10-16	617528	4832146	6.1
7370832	Observation Wells	Monitoring	2020-09-21	617576	4832158	6.1
6928634	Test Hole	Not Used	2004-11-18	617163	4831862	6.6
7118949	Test Hole	Monitoring	2009-01-08	617450	4831750	6.6
7382135	Observation Wells	Monitoring	2021-02-04	617610	4832222	7.0
7333952	Monitoring and Test Hole	Monitoring and Test Hole	2019-03-13	617586	4832035	7.3
6928900	Observation Wells	Unknown	2005-03-11	617478	4832175	7.5
7196157	Observation Wells	Monitoring and Test Hole	2013-01-17	617293	4831903	7.6
7196158	Test Hole	Monitoring and Test Hole	2013-01-17	617283	4831900	7.6
6929130	Observation Wells	Not Used	2005-06-01	616700	4831854	8.0
6930024	Observation Wells	Not Used	2005-12-05	617330	4832050	8.0
7369770	Monitoring and Test Hole	Monitoring and Test Hole	2020-08-17	616866	4831488	8.5
6929133	Observation Wells	Not Used	2005-05-30	617330	4832050	9.0
7376373	Observation Wells	Monitoring	2020-11-26	617615	4832139	9.1
7304625	Monitoring and Test Hole	Test Hole	2018-01-17	617353	4831986	9.1
7304626	Monitoring and Test Hole	Test Hole	2018-01-01	617376	4831977	9.1
7304627	Monitoring and Test Hole	Test Hole	2018-01-18	617373	4831945	9.1
7261635	Observation Wells	Test Hole	2016-03-08	617607	4832046	9.4
7260416	Monitoring and Test Hole	Monitoring and Test Hole	2016-02-24	617637	4832051	10.4
7260412	Monitoring and Test Hole	Monitoring and Test Hole	2016-03-09	617594	4832019	10.7
7274754	Abandoned-Quality	Test Hole	2016-05-17	617629	4832058	10.7
7376365	Observation Wells	Monitoring	2020-11-25	617636	4832110	12.2
7430265	Observation Wells	Monitoring	2022-08-20	617555	4832036	13.7
7430266	Observation Wells	Monitoring	2022-08-26	617536	4831961	13.7
7386698	Observation Wells	Monitoring	2021-04-30	616899	4831873	14.8
7430228	Observation Wells	Monitoring	2022-08-19	617579	4832082	16.5
7430259	Observation Wells	Monitoring	2022-08-22	617560	4831990	16.8
7430260	Observation Wells	Monitoring	2022-08-16	617498	4831931	16.8
7430261	Observation Wells	Monitoring	2022-08-16	617502	4831997	16.8

WELL ID	FINAL STATUS	WATER USE	DATE CONSTRUCTED	EASTING	NORTHING	WELL DEPTH (m)
7430230	Observation Wells	Monitoring	2022-08-15	617638	4832055	18.2
7430231	Observation Wells	Monitoring	2022-08-16	617635	4832086	22.5
7430234	Observation Wells	Monitoring	2022-08-17	617603	4832107	22.8
7430247	Observation Wells	Monitoring	2022-08-15	617498	4831931	22.9
7430250	Observation Wells	Monitoring	2022-08-12	617474	4831957	22.9
7430254	Observation Wells	Monitoring	2022-08-22	617548	4832025	22.9
7430263	Observation Wells	Monitoring	2022-08-20	617566	4831997	22.9
7261636	Observation Wells	Test Hole	2016-03-07	617609	4832048	24.5
7111565	Test Hole	Monitoring	2008-04-21	617113	4831838	Unknown
7111565	Test Hole	Monitoring	2008-04-21	617136	4831833	Unknown
7111565	Test Hole	Monitoring	2008-04-21	617143	4831846	Unknown
7111565	Test Hole	Monitoring	2008-04-21	617129	4831843	Unknown
7114543	Test Hole	Other	2008-09-08	617097	4831835	Unknown
7114543	Test Hole	Other	2008-09-09	617096	4831859	Unknown
7114543	Test Hole	Other	2008-09-08	617111	4831812	Unknown
7114543	Test Hole	Other	2008-09-08	617099	4831845	Unknown
7118949	Test Hole	Monitoring	2009-01-08	617631	4831781	Unknown
7120237	Abandoned-Other	Other	2009-02-13	617602	4831805	Unknown
7128500	Abandoned-Other	Monitoring	2009-05-22	616907	4831823	Unknown
7128500	Abandoned-Other	Monitoring	2009-05-22	616902	4831837	Unknown
7128500	Abandoned-Other	Monitoring	2009-05-22	616928	4831845	Unknown
7128500	Abandoned-Other	Monitoring	2009-05-22	616955	4831858	Unknown
7128530	Test Hole	Monitoring	2009-05-22	616913	4831844	Unknown
7130833	Unknown	Unknown	2009-06-01	616887	4831830	Unknown
7130833	Unknown	Unknown	2009-06-01	616870	4831822	Unknown
7162782	Unknown	Unknown	2011-01-26	617169	4831832	Unknown
7170911	Abandoned-Other	Unknown	2011-09-02	617456	4831632	Unknown
7175397	Unknown	Unknown	2011-11-03	617542	4831890	Unknown
7214404	Unknown	Unknown	2013-11-28	617656	4831932	Unknown
7223054	Unknown	Unknown	2013-11-14	617646	4832114	Unknown
7223762	Unknown	Unknown	2013-08-29	617119	4831813	Unknown
7252564	Unknown	Unknown	2015-10-30	617420	4831487	Unknown
7258924	Unknown	Unknown	2015-09-09	617597	4831675	Unknown
7259428	Unknown	Unknown	2016-02-12	617174	4831848	Unknown
7260196	Unknown	Unknown	2015-11-11	617620	4832067	Unknown



## **APPENDIX B:**

### *Borehole Logs*

PROJECT: Geotechnical Investigation - Dundas Street West  
CLIENT: First Capital Asset Management LP  
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON  
DATUM: Geodetic  
BH LOCATION: N 4831895.6 E 617051

Method: Hollow Stem Augers  
Diameter: 200mm  
Date: Jul-24-2025  
Equipment: Profile B37

REF. NO.: 25-1032  
ENCL NO.:  
ORIGINATED BY JG  
COMPILED BY HK  
CHECKED BY MB

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT				PLASTIC NATURAL LIQUID LIMIT MOISTURE CONTENT LIMIT			POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)				WATER CONTENT (%)					
								○ UNCONFINED + FIELD VANE & Sensitivity ● QUICK TRIAXIAL × LAB VANE				W <sub>p</sub> W W <sub>L</sub>					
								20 40 60 80 100				20 40 60 80 100					
125.9	Ground Surface															GR SA SI CL	
125.0	ASPHALT: 125mm																
0.1	FILL: silty clay/clayey silt, sandy, trace gravel, dark brown to dark grey, moist, firm to stiff trace organics between 0.13 and 1.50 mbgs		1	SS	8												
			2	SS	9												
	some sand to sandy, brown and grey below 1.50 mbgs		3	SS	12												
123.4			4A	SS	33												
2.4	SILTY SAND TILL: trace gravel, trace to some clay, brown, moist, dense		4B	SS													
122.8			5	SS	50/initial 125mm												
3.1	SILTY SAND: trace gravel, brown, moist, very dense																
122.1			6	SS	85/275mm												
3.8	SILTY SAND TILL: trace gravel, trace to some clay, grey, moist, very dense		7	SS	50/125mm												
	wet below 4.9 mbgs		8	SS	98/225mm											7 47 41 5	
			9	SS	70/275mm												
			10	SS	50/initial 25mm												

Continued Next Page

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH  
NOTES

+ 3, × 3: Numbers refer  
to Sensitivity

○ s=3% Strain at Failure

PROJECT: Geotechnical Investigation - Dundas Street West  
CLIENT: First Capital Asset Management LP  
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON  
DATUM: Geodetic  
BH LOCATION: N 4831895.6 E 617051

Method: Hollow Stem Augers  
Diameter: 200mm  
Date: Jul-24-2025  
Equipment: Profile B37

REF. NO.: 25-1032  
ENCL NO.:  
ORIGINATED BY JG  
COMPILED BY HK  
CHECKED BY MB

[illegible]ENVISION-SOIL-ROCK-OCTOBER-12-2021.GLB  
ENVISION SOIL LOG 25-1032.GPJ 25-10-16

## GROUNDWATER ELEVATIONS

	1st	2nd	3rd	4th
Measurement				

GRAPH  
NOTES

$+^3, \times^3$ : Numbers refer to Sensitivity

○  $\epsilon = 3\%$  Strain at Failure

REF. NO.: 25-1032  
ENCL NO.:  
ORIGINATED BY JG  
COMPILED BY HK  
CHECKED BY MB

○  **$\epsilon=3\%$**  Strain at Failure

PROJECT: Geotechnical Investigation - Dundas Street West  
CLIENT: First Capital Asset Management LP  
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON  
DATUM: Geodetic  
BH LOCATION: N 4831920.1 E 617045

Method: Hollow Stem Augers  
Diameter: 200mm  
Date: Jul-25-2025 to Jul-28-2025  
Equipment: Profile B37

REF. NO.: 25-1032  
ENCL NO.:  
ORIGINATED BY JG  
COMPILED BY HK  
CHECKED BY MB

[illegible]

Continued Next Page

### GROUNDWATER ELEVATIONS

	1st	2nd	3rd	4th
Measurement				

GRAPH  
NOTES

$+^3, \times^3$ : Numbers refer to Sensitivity

○  $\epsilon = 3\%$  Strain at Failure

PROJECT: Geotechnical Investigation - Dundas Street West  
CLIENT: First Capital Asset Management LP  
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON  
DATUM: Geodetic  
BH LOCATION: N 4831920.1 E 617045

Method: Hollow Stem Augers  
Diameter: 200mm  
Date: Jul-25-2025 to Jul-28-2025  
Equipment: Profile B37

REF. NO.: 25-1032  
ENCL NO.:  
ORIGINATED BY JG  
COMPILED BY HK  
CHECKED BY MB

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT				PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (C <sub>u</sub> ) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)	
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)										WATER CONTENT (%)
								○ UNCONFINED + FIELD VANE ● QUICK TRIAXIAL × LAB VANE										
	Continued							20	40	60	80	100					GR SA SI CL	
	<b>BEDROCK:</b> grey shale interbedded with siltstone /limestone. (Georgian Bay Formation)																	
	Rock coring started from 13.44 mbgs Refer to rock core log.(Continued)																	
17			3	RC														
18			4	RC														
19																		
19.06.9																		
19.0	<b>END OF BOREHOLE</b>																	
	Notes: 1) 50mm dia. monitoring well was installed upon completion of drilling, screened from 13.7 to 16.8 mbgs.																	
	Water Level Measurement in monitoring well: Date W.L Depth (mbgs) Aug. 13, 2025 3.34 Aug. 19, 2025 3.34 Sep. 04, 2025 3.39 Sep. 18, 2025 3.41																	

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH  
NOTES

+ 3, × 3: Numbers refer to Sensitivity

○ = 3% Strain at Failure



PROJECT: Geotechnical Investigation - Dundas Street West  
CLIENT: First Capital Asset Management LP  
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON  
DATUM: Geodetic  
BH LOCATION: N 4831924.5 E 617073.4

Method: Hollow Stem Augers/Mud Rotary  
Diameter: 200mm/100mm  
Date: Aug-14-2025 to Aug-15-2025  
Equipment: Profile B37

REF. NO.: 25-1032  
ENCL NO.:  
ORIGINATED BY MHS  
COMPILED BY HK  
CHECKED BY MB

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT		PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT		POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kNm <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			20 40 60 80 100	20 40 60 80 100	W <sub>p</sub>	W	W <sub>L</sub>		
126.1	Ground Surface													GR SA SI CL
126.0	ASPHALT: 123mm													
126.0	FILL: sand and gravel, brown, moist, loose		1A	SS			Flush Mount Cover							
0.2	FILL: silty clay/clayey silt, trace sand, trace gravel, trace organics, dark brown to dark grey, moist, firm to stiff		1B	SS	6									
			2	SS	7		Bentonite 123							
	brown and grey at 1.5 mbgs		3	SS	10									
124.1			4	SS	39		Sand 124							
2.0	SANDY SILT TILL: trace to some clay, trace gravel, brown, moist, loose to very dense		5	SS	74		W. L. 123.4 m Aug 18, 2025							
	grey below 3.4 mbgs		6A	SS			Screen							
3.8	SANDY SILT: trace clay, trace gravel, grey, wet, dense		6B	SS										
4.1	CLAYEY SILT TILL: sandy, trace gravel, grey, moist, hard		7A	SS										
			7B	SS										
5.3	SANDY SILT TILL: trace clay, trace gravel, grey, wet, very dense		8	SS	81		Sand							
6.1	SILTY SAND TILL: some gravel to gravelly, grey, wet, very dense		9	SS	72									
			10	SS	50/ 125mm									
7.0	SAND: some gravel, grey, wet, very dense		11	SS	56/ initial 125mm									
7.6	SILTY SAND TILL: trace clay, trace gravel, grey, moist, very dense													

Switched to mud rotary

Auger grinding  
13 46 37 4

Continued Next Page

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH  
NOTES

+ 3, X 3: Numbers refer to Sensitivity

○ s=3% Strain at Failure

PROJECT: Geotechnical Investigation - Dundas Street West						REF. NO.: 25-1032					
CLIENT: First Capital Asset Management LP						ENCL NO.:					
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON						ORIGINATED BY MHS					
DATUM: Geodetic						COMPILED BY HK					
BH LOCATION: N 4831924.5 E 617073.4						CHECKED BY MB					
Method: Hollow Stem Augers/Mud Rotary						Equipment: Profile B37					
Diameter: 200mm/100mm						Date: Aug-14-2025 to Aug-15-2025					
SOIL PROFILE						DYNAMIC CONE PENETRATION RESISTANCE PLOT					
SAMPLES						SHEAR STRENGTH (kPa)					
GROUND WATER CONDITIONS						WATER CONTENT (%)					
ELEVATION						POCKET PEN. (Cu) (kPa)					
ELEVATION						NATURAL UNIT WT (kN/m <sup>3</sup> )					
ELEVATION						REMARKS AND GRAIN SIZE DISTRIBUTION (%)					
ELEVATION						GR SA SI CL					
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GROUNDWATER ELEVATIONS  
1st 2nd 3rd 4th  
Measurement

GRAPH NOTES

+3, ×3: Numbers refer to Sensitivity

○ s=3% Strain at Failure

ENVISION-SOIL-ROCK-OCTOBER-12-2021 (G&B)  
ENVISION LOG LOG 25-1032 (25-15-18)

PROJECT: Geotechnical Investigation - Dundas Street West										REF. NO.: 25-1032									
CLIENT: First Capital Asset Management LP										Method: Hollow Stem Augers/Mud Rotary									
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON										Diameter: 200mm/100mm									
DATUM: Geodetic										Date: Aug-14-2025 to Aug-15-2025									
BH LOCATION: N 4831924.5 E 617073.4										Equipment: Profile B37									
										ORIGINATED BY MHS									
										COMPILED BY HK									
										CHECKED BY MB									
SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT					PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)	
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)					Wp W Wl						
								○ UNCONFINED + FIELD VANE & Sensitivity ● QUICK TRIAXIAL x LAB VANE					WATER CONTENT (%)						
	Continued							20	40	60	80	100	10	20	30			GR SA SI CL	
	1) 50mm dia. monitoring well was installed upon completion of drilling, screened from 2.1 to 5.2 mbgs.																		
	Water Level Measurement in monitoring well: Date W.L Depth (mbgs) Aug. 18, 2025 2.70 Aug. 19, 2025 2.75 Sep. 04, 2025 2.87 Sep. 18, 2025 2.95																		

ENVISION-SOIL-ROCK-OCTOBER-12-2021 (G.L.B.)  
ENVISION-LOG-LOG-25-1032 (G.P.) 25-10-18

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH  
NOTES

+<sup>3</sup>, ×<sup>3</sup>: Numbers refer to Sensitivity

○ s=3% Strain at Failure

PROJECT: Geotechnical Investigation - Dundas Street West  
CLIENT: First Capital Asset Management LP  
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON  
DATUM: Geodetic  
BH LOCATION: N 4831917.5 E 617116.6

Method: Hollow Stem Augers  
Diameter: 200mm  
Date: Jul-29-2025 to Jul-30-2025  
Equipment: Profile B37

REF. NO.: 25-1032  
ENCL NO.:  
ORIGINATED BY JG  
COMPILED BY HK  
CHECKED BY MB

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT		PLASTIC NATURAL LIQUID LIMIT MOISTURE CONTENT		POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)		WATER CONTENT (%)				
126.2	Ground Surface							20 40 60 80 100		10 20 30				GR SA SI CL
126.0	ASPHALT: 120mm							20 40 60 80 100		10 20 30				
0.1	FILL: silty clay/clayey silt, trace to some sand, trace gravel, trace organics, dark brown to dark grey, moist, firm to stiff		1	SS	7		126							
	some organics, dark grey at 0.8 mbgs		2	SS	10		125							
			3	SS	5		124							
123.9	SILTY CLAY TILL: sandy, trace gravel, brown, moist, very stiff to hard		4	SS	27		123							5 29 48 18
2.3			5	SS	50/ 125mm		122							
122.4	SANDY SILT TILL: trace gravel, trace clay, grey, moist, very dense		6	SS	86/ 275mm		121							
3.8			7	SS	62		120							Auger grinding
			8	SS	83/ 275mm		119							Auger grinding
			9	SS	50/ 125mm									Wet spoon
118.6	SILTY SAND: grey, wet, very dense		10	SS	85									0 74 (26)

Continued Next Page

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH  
NOTES

+ 3, × 3: Numbers refer to Sensitivity

○ s=3% Strain at Failure

PROJECT: Geotechnical Investigation - Dundas Street West  
CLIENT: First Capital Asset Management LP  
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON  
DATUM: Geodetic  
BH LOCATION: N 4831917.5 E 617116.6

Method: Hollow Stem Augers  
Diameter: 200mm  
Date: Jul-29-2025 to Jul-30-2025  
Equipment: Profile B37

REF. NO.: 25-1032  
ENCL NO.:  
ORIGINATED BY JG  
COMPILED BY HK  
CHECKED BY MB

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT				PLASTIC LIMIT w <sub>p</sub>	NATURAL MOISTURE CONTENT w	LIQUID LIMIT w <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)									
								20 40 60 80 100									
								○ UNCONFINED + FIELD VANE & Sensitivity									
								● QUICK TRIAXIAL × LAB VANE									
								20 40 60 80 100				WATER CONTENT (%)					
												10 20 30					

## GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH  
NOTES

+ 3 , × 3 : Numbers refer to Sensitivity

○ s=3% Strain at Failure

PROJECT: Geotechnical Investigation - Dundas Street West  
CLIENT: First Capital Asset Management LP  
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON  
DATUM: Geodetic  
BH LOCATION: N 4831962.2 E 617146.2

Method: Hollow Stem Augers/Mud Rotary  
Diameter: 200mm/100mm  
Date: Aug-13-2025 to Aug-14-2025  
Equipment: Profile B37

REF. NO.: 25-1032  
ENCL NO.:  
ORIGINATED BY MHS  
COMPILED BY HK  
CHECKED BY MB

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT		PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT		POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)		W <sub>p</sub> W W <sub>L</sub>				
								○ UNCONFINED + FIELD VANE & Sensitivity	WATER CONTENT (%)					
							● QUICK TRIAXIAL × LAB VANE	20 40 60 80 100	20 40 60 80 100	10 20 30				
126.1	Ground Surface													
126.0	ASPHALT: 126mm		1A	SS			126							
125.9	FILL: sand and gravel, brown, moist, compact		1B	SS	12									
0.2	FILL: silty clay/clayey silt, trace sand, trace gravel, dark grey, moist, soft to stiff													
			2	SS	5		125							
			3	SS	4		124							
123.8	SILTY CLAY TILL: sandy, trace gravel, trace oxidation, brown, moist, hard		4	SS	35		123							
			5	SS	73/ 225mm		122							
122.3	SILTY SAND TILL: trace clay, grey, wet, very dense		6	SS	91		121							
			7	SS	93/ 275mm		120							
120.8	SAND: some gravel to gravelly, grey, wet, very dense		8	SS	50/ 100mm		119							
			9	SS	50/ initial 125mm									
119.3	SILTY SAND TILL: trace gravel, trace clay, grey, moist to wet, very dense		10	SS	50/ initial 100mm									
			11	SS	50/ initial 100mm									

13 70 (17)  
Auger grinding

Auger grinding

6 47 41 6

Continued Next Page

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH  
NOTES

+ 3, X 3: Numbers refer to Sensitivity

○ s=3% Strain at Failure

PROJECT: Geotechnical Investigation - Dundas Street West  
CLIENT: First Capital Asset Management LP  
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON  
DATUM: Geodetic  
BH LOCATION: N 4831962.2 E 617146.2

Method: Hollow Stem Augers/Mud Rotary  
Diameter: 200mm/100mm  
Date: Aug-13-2025 to Aug-14-2025  
Equipment: Profile B37

REF. NO.: 25-1032  
ENCL NO.:  
ORIGINATED BY MHS  
COMPILED BY HK  
CHECKED BY MB

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT				PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			POCKET PEN. (G <sub>p</sub> ) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)				W <sub>p</sub> W W <sub>L</sub>					
								○ UNCONFINED ● QUICK TRIAXIAL	+ FIELD VANE & Sensitivity × LAB VANE	20 40 60 80 100	20 40 60 80 100	10 20 30					
	Continued						118									GR SA SI CL	
	<b>SILTY SAND TILL:</b> trace gravel, trace clay, grey, moist to wet, very dense(Continued)															Auger grinding	
9.1	<b>CLAYEY SILT TILL:</b> sandy, trace gravel, grey, moist, hard		12	SS	50/ initial 100mm		117									Auger grinding	
							116										
			13	SS	50/ initial 100mm		115									Auger grinding	
113.9	<b>SILTY SAND TILL:</b> trace gravel, trace clay, grey, wet, very dense		14	SS	50/ 75mm		114									Auger grinding	
							113										
112.4	<b>SAND:</b> coarse, grey, wet, very dense		15	SS	50/ initial 125mm		112									Auger grinding 6 83 (11)	
							111										
110.9	<b>SILTY SAND TILL:</b> trace clay, trace gravel, grey, wet, very dense		16	SS	50/ initial 75mm												

Continued Next Page

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH  
NOTES

+ 3, × 3: Numbers refer to Sensitivity

○ s=3% Strain at Failure

PROJECT: Geotechnical Investigation - Dundas Street West  
CLIENT: First Capital Asset Management LP  
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON  
DATUM: Geodetic  
BH LOCATION: N 4831962.2 E 617146.2

Method: Hollow Stem Augers/Mud Rotary  
Diameter: 200mm/100mm  
Date: Aug-13-2025 to Aug-14-2025  
Equipment: Profile B37

REF. NO.: 25-1032  
ENCL NO.:  
ORIGINATED BY MHS  
COMPILED BY HK  
CHECKED BY MB

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT			PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)			WATER CONTENT (%)					
	Continued						20 40 60 80 100	○ UNCONFINED	+ FIELD VANE & Sensitivity		W <sub>p</sub>	W	W <sub>L</sub>			GR SA SI CL
	<b>SILTY SAND TILL:</b> trace clay, trace gravel, grey, wet, very dense(Continued)						110									
109.4 16.8 17	<b>SILTY CLAY TILL:</b> trace sand, trace gravel, trace shale fragments, grey, moist, hard		17	SS	50/ 125mm		109									
107.8 18							108									
107.8 18.4	<b>HIGHLY WEATHERED SHALE:</b> grey, moist, hard <b>END OF BOREHOLE</b>		18	SS	100/ initial 75mm											

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH NOTES

+<sup>3</sup>, ×<sup>3</sup>: Numbers refer to Sensitivity

○ s=3% Strain at Failure



PROJECT: Geotechnical Investigation - Dundas Street West  
CLIENT: First Capital Asset Management LP  
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON  
DATUM: Geodetic  
BH LOCATION: N 4831961.5 E 617180.2

Method: Hollow Stem Augers  
Diameter: 200mm  
Date: Jul-31-2025 to Aug-01-2025  
Equipment: Profile B37

REF. NO.: 25-1032  
ENCL NO.:  
ORIGINATED BY JG  
COMPILED BY HK  
CHECKED BY MB

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT		PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT		POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)		WATER CONTENT (%)				
								○ UNCONFINED ● QUICK TRIAXIAL	+ FIELD VANE & Sensitivity × LAB VANE					
126.1	Ground Surface							20 40 60 80 100	20 40 60 80 100	10 20 30				GR SA SI CL
126.0	ASPHALT: 115mm						Flush	Mount Cover						
0.1	FILL: silty clay to clayey silt, trace to some sand, trace gravel, trace organics, dark grey to dark brown, moist, soft to very stiff		1	SS	5									
	some organics, dark brown at 0.8 mbgs		2	SS	5									
			3	SS	3									
			4A	SS	15									
			4B	SS										
123.6	CLAYEY SILT TILL: sandy, trace gravel, trace oxidation, brown, moist, very stiff to hard		5	SS	50/ 75mm									
2.5														
122.3	SANDY SILT TILL: trace gravel, trace clay, grey, moist, dense to very dense		6	SS	30									
3.8	occasional cobbles/boulders at 4.6 mbgs		7	SS	82									
			8	SS	50/ 125mm									
			9	SS	50/ 125mm									
										</				

W. L. 123.3 m  
Aug 13, 2025

Auger grinding

Continued Next Page

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH  
NOTES

+ 3, X 3: Numbers refer to Sensitivity

○ s=3% Strain at Failure

PROJECT: Geotechnical Investigation - Dundas Street West  
CLIENT: First Capital Asset Management LP  
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON  
DATUM: Geodetic  
BH LOCATION: N 4831961.5 E 617180.2

Method: Hollow Stem Augers  
Diameter: 200mm  
Date: Jul-31-2025 to Aug-01-2025  
Equipment: Profile B37

REF. NO.: 25-1032  
ENCL NO.:  
ORIGINATED BY JG  
COMPILED BY HK  
CHECKED BY MB

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT				PLASTIC LIMIT   NATURAL MOISTURE CONTENT   LIQUID LIMIT			POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)				W <sub>p</sub> W                      W <sub>L</sub>					
								○ UNCONFINED                      + FIELD VANE & Sensitivity ● QUICK TRIAXIAL                      × LAB VANE				WATER CONTENT (%)					
	Continued						118										
	SANDY SILT TILL: trace gravel, trace clay, grey, moist, dense to very dense(Continued)																
			11	SS	50/ 125mm												
	occasional cobbles/boulders at 10.7 mbgs																
			12	SS	50/ 100mm												
			1	RC													
			2	RC													

Continued Next Page

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH  
NOTES

+ 3, × 3: Numbers refer to Sensitivity

○ s=3% Strain at Failure

PROJECT: Geotechnical Investigation - Dundas Street West										REF. NO.: 25-1032			
CLIENT: First Capital Asset Management LP										ENCL NO.:			
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON										ORIGINATED BY JG			
DATUM: Geodetic										COMPILED BY HK			
BH LOCATION: N 4831961.5 E 617180.2										CHECKED BY MB			
Method: Hollow Stem Augers													
Diameter: 200mm													
Date: Jul-31-2025 to Aug-01-2025													
Equipment: Profile B37													
SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT			POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)					
	Continued						20 40 60 80 100						
109.7	CLAYEY SILT TILL: contains sand/silty sand seams, trace shale fragments, grey, moist to wet, hard(Continued)						20 40 60 80 100						
16.5	SHALE AND LIMESTONE FRAGMENTS: grey, moist, hard		14	SS	50/initial		20 40 60 80 100						
109.3	cobble/boulder from 16.6 to 16.8 mbgs				100mbgs		20 40 60 80 100						
16.8	SANDY SILT TILL: containing limestone fragments, grey, moist		3	RC			20 40 60 80 100						
	50mm layer of silty clay till at 17.5 mbgs						20 40 60 80 100						
			4	RC			20 40 60 80 100						
							20 40 60 80 100						
107.1	SANDY SILT TILL/SHALE COMPLEX: with shale fragments, grey, moist						20 40 60 80 100						
19.0	BEDROCK: grey shale interbedded with siltstone /limestone. (Georgian Bay Formation)		5	RC			20 40 60 80 100						
106.9							20 40 60 80 100						
19.2	Actual rock coring started from 19.23 mbgs						20 40 60 80 100						
	Refer to rock core log.						20 40 60 80 100						
			6	RC			20 40 60 80 100						
							20 40 60 80 100						
22.1	END OF BOREHOLE						20 40 60 80 100						
Notes: 1) Rock core sampling RC1-RC4 carried out due to encountering off/ on shale bedrock/ boulder within glacial till. 2) 50mm dia. monitoring well was installed upon completion of drilling, screened from 20.5 to 22.1 mbgs.													
Water Level Measurement in monitoring well: Date W.L. Depth (mbgs) Aug. 13, 2025 2.85 Aug. 19, 2025 2.92 Sep. 04, 2025 3.83 Sep. 18, 2025 2.94													

## GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

## GRAPH NOTES

+ 3 , × 3 : Numbers refer to Sensitivity

○ s=3% Strain at Failure

PROJECT: Geotechnical Investigation - Dundas Street West  
CLIENT: First Capital Asset Management LP  
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON  
DATUM: Geodetic  
BH LOCATION: N 4831940.5 E 617193.8

Method: Hollow Stem Augers/Mud Rotary  
Diameter: 200mm/75mm  
Date: Aug-13-2025  
Equipment: Profile B37

REF. NO.: 25-1032  
ENCL NO.:  
ORIGINATED BY MHS  
COMPILED BY HK  
CHECKED BY MB

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT				PLASTIC LIMIT W <sub>P</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (G <sub>u</sub> ) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)			
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)										WATER CONTENT (%)		
								20 40 60 80 100										20 40 60 80 100		
						○ UNCONFINED + FIELD VANE & Sensitivity ● QUICK TRIAXIAL × LAB VANE														
126.7	Ground Surface																			
126.0	ASPHALT: 125mm																			
0.1	FILL: sand and gravel, brown, moist, dense		1	SS	31		126.0													
126.0																				
0.8	FILL: silty sand, trace gravel, black, moist, very loose to compact		2	SS	11		126													
	trace asphalt pieces above 1.5 mbgs																			
	brown below 1.5 mbgs		3	SS	11		125													
			4A	SS																
124.2			4B	SS	3		124													
2.5	FILL: silt, trace sand, some organics, dark brown to dark grey, moist, very loose to compact																			
			5A	SS																
123.5			5B	SS	14		123													
3.2	SILTY CLAY TILL: sandy, trace gravel, grey, moist, stiff to hard																			
			6	SS	57		123													
	occasional cobbles/boulders at 4.6 mbgs																			
			7	SS	50		122													
121.4																				
5.3	SANDY SILT TILL: trace so some clay, trace gravel, grey, moist to wet, very dense		8	SS	50/ 125mm		121													
	trace to some gravel at 6.1 mbgs		9	SS	50/ 75mm		120													
			10	SS	50/ initial 125mm															
119.1																				
7.6	CLAYEY SILT TILL: sandy, trace gravel, grey, moist, hard		11	SS	50/ initial 100mm		119													

Continued Next Page

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH  
NOTES

+ 3, X 3: Numbers refer to Sensitivity

○ s=3% Strain at Failure

ENVISION-SOIL-ROCK-OCTOBER-12-2021 (G.L.B.)  
ENVISION-SOIL-LOG-25-1032 (G.P.) 25-10-18

PROJECT: Geotechnical Investigation - Dundas Street West  
CLIENT: First Capital Asset Management LP  
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON  
DATUM: Geodetic  
BH LOCATION: N 4831940.5 E 617193.8





Method: Hollow Stem Augers/Mud Rotary  
Diameter: 200mm/75mm  
Date: Aug-13-2025  
Equipment: Profile B37

REF. NO.: 25-1032  
ENCL NO.:  
ORIGINATED BY MHS  
COMPILED BY HK  
CHECKED BY MB

[illegible]ENVISION-SOIL-ROCK-OCTOBER-12-2021.GLB  
ENVISION SOIL LOG 25-1032.GPJ 25-10-16

Continued Next Page

## GROUNDWATER ELEVATIONS

	1st	2nd	3rd	4th
Measurement				

GRAPH  
NOTES

$+^3, \times^3$ : Numbers refer to Sensitivity

○  **$\epsilon=3\%$**  Strain at Failure

PROJECT: Geotechnical Investigation - Dundas Street West  
CLIENT: First Capital Asset Management LP  
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON  
DATUM: Geodetic  
BH LOCATION: N 4831940.5 E 617193.8

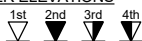
Method: Hollow Stem Augers/Mud Rotary  
Diameter: 200mm/75mm  
Date: Aug-13-2025  
Equipment: Profile B37

REF. NO.: 25-1032  
ENCL NO.:  
ORIGINATED BY MHS  
COMPILED BY HK  
CHECKED BY MB

[illegible]ENVISION-SOIL-ROCK-OCTOBER-12-2021.GLB  
ENVISION SOIL LOG 25-1032.GPJ 25-10-16

### GROUNDWATER ELEVATIONS

## Measurement



GRAPH  
NOTES

$+^3, \times^3$ : Numbers refer to Sensitivity

○  $\epsilon = 3\%$  Strain at Failure

PROJECT: Geotechnical Investigation - Dundas Street West  
CLIENT: First Capital Asset Management LP  
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON  
DATUM: Geodetic  
BH LOCATION: N 4831901.5 E 617043.1

Method: Hollow Stem Augers  
Diameter: 200mm  
Date: Jul-25-2025  
Equipment: Profile B37

REF. NO.: 25-1032  
ENCL NO.:  
ORIGINATED BY JG  
COMPILED BY HK  
CHECKED BY MB

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT				PLASTIC NATURAL LIQUID LIMIT MOISTURE CONTENT			POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)				W <sub>p</sub>	W	W <sub>L</sub>			
125.9	Ground Surface							20 40 60 80 100									GR SA SI CL
126.0	ASPHALT: 125mm							20 40 60 80 100									
0.1	FILL: silty clay to clayey silt, trace to some sand, trace gravel, trace organics, dark grey, moist, soft to stiff		1	SS	3												
	some organics, dark brown to dark grey at 0.8 mbgs		2	SS	8		125										
	brown and grey at 1.5 mbgs		3	SS	7		124										Auger grinding
123.6	SILTY SAND TILL: trace to some gravel, trace clay, brown, moist, dense to very dense		4	SS	37												
	grey below 3.1 mbgs		5	SS	84												
	wet below 3.8 mbgs		6	SS	90/ 275mm		122										6 44 46 4
			7	SS	50/ initial 125mm		121										Auger grinding
	contains silt layers at 5.3 mbgs		8	SS	50/ 125mm		120										Auger grinding
			9	SS	87		119										
			10	SS	50/ 75mm		118										12 54 30 4

Continued Next Page

## GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH  
NOTES

+ 3, × 3: Numbers refer to Sensitivity

○ s=3% Strain at Failure

PROJECT: Geotechnical Investigation - Dundas Street West										REF. NO.: 25-1032					
CLIENT: First Capital Asset Management LP										ENCL NO.:					
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON										ORIGINATED BY JG					
DATUM: Geodetic										COMPILED BY HK					
BH LOCATION: N 4831901.5 E 617043.1										CHECKED BY MB					
Method: Hollow Stem Augers										Diameter: 200mm					
Date: Jul-25-2025										Equipment: Profile B37					
SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT		PLASTIC NATURAL LIQUID LIMIT			POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m)	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)		W <sub>p</sub>	W	W <sub>L</sub>			
ELEV DEPTH								○ UNCONFINED ● QUICK TRIAXIAL	+ FIELD VANE & Sensitivity × LAB VANE						
	Continued						20 40 60 80 100								GR SA SI CL
	SILTY SAND TILL: trace to some gravel, trace clay, brown, moist, dense to very dense(Continued)														Auger grinding
116.8							117								
9.1	END OF BOREHOLE		11	SS	50/ initial 0mm										Auger refusal No recovery at SS11
<div>Notes: 1) Borehole was open and unstabilized water level was at 7.3m below ground surface (mbgs) upon completion of drilling. 2) 50mm dia. monitoring well was installed upon completion of drilling, screened from 3.1 to 6.1mbgs.</div> <div>Water Level Measurement in monitoring well: Date W.L Depth (mbgs) Aug. 13, 2025 3.00 Aug. 19, 2025 2.95 Sep. 04, 2025 2.87 Sep. 18, 2025 2.96</div>															

GROUNDWATER ELEVATIONS  
1st 2nd 3rd 4th  
Measurement

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

ENVISION-SOIL-ROCK-OCTOBER-12-2021 (G.L.B)  
ENVISION-LOG-LOG-25-1032 (G.P.) 25-10-18



PROJECT: Geotechnical Investigation - Dundas Street West										REF. NO.: 25-1032									
CLIENT: First Capital Asset Management LP										ENCL NO.:									
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON										ORIGINATED BY MHS									
DATUM: Geodetic										COMPILED BY HK									
BH LOCATION: N 4831907.2 E 617113.7										CHECKED BY MB									
Method: Hollow Stem Augers										Diameter: 200mm									
Date: Aug-15-2025										Equipment: Profile B37									
Equipment: Profile B37										DYNAMIC CONE PENETRATION RESISTANCE PLOT									
SOIL PROFILE										SHEAR STRENGTH (kPa)									
DESCRIPTION										UNCONFINED QUICK TRIAXIAL FIELD VANE & Sensitivity LAB VANE									
STRATA PLOT										WATER CONTENT (%)									
NUMBER										POCKET PEN. (Cu) (kPa)									
TYPE										NATURAL UNIT WT (kN/m³)									
"N" BLOWS 0.3 m										REMARKS AND GRAIN SIZE DISTRIBUTION (%)									
GROUND WATER CONDITIONS										GR SA SI CL									
ELEVATION																			
126.0										Ground Surface									
0.0										FILL: sand and gravel, dark brown, moist, loose									
125.8																			
0.3										FILL: silty clay/clayey silt, trace to some sand, trace gravel, dark brown to dark grey, moist, firm to stiff									
1																			
2																			
123.7										Bentonite									
2.3																			
123.0										Sand									
3.1										SILTY CLAY TILL: sandy, trace gravel, brown, moist, very stiff									
122.2										SANDY SILT TILL: trace gravel, trace clay, grey, moist, very dense									
3.8										SILTY SAND: grey, wet, very dense									
120.4										Screen									
5.6										Bentonite									
END OF BOREHOLE																			
Notes:																			
1) 50mm dia. monitoring well was installed upon completion of drilling, screened from 2.1 to 5.2 mbgs.																			
Water Level Measurement in monitoring well:																			
Date										W.L. Depth (mbgs)									
Aug. 18, 2025										3.18									
Aug. 19, 2025										3.18									
Sep. 04, 2025										2.95									
Sep. 18, 2025										3.01									

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH NOTES

+ 3, × 3: Numbers refer to Sensitivity

○ = 3% Strain at Failure

PROJECT: Geotechnical Investigation - Dundas Street West  
CLIENT: First Capital Asset Management LP  
PROJECT LOCATION: 5500 Dundas Street West, Toronto, ON  
DATUM: Geodetic  
BH LOCATION: N 4831962.2 E 617127.7

Method: Hollow Stem Augers  
Diameter: 200mm  
Date: Aug-01-2025  
Equipment: Profile B37

REF. NO.: 25-1032  
ENCL NO.:  
ORIGINATED BY MHS  
COMPILED BY HK  
CHECKED BY MB

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT				PLASTIC NATURAL LIQUID LIMIT			POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kNm <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m)	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)				W <sub>p</sub>	W	W <sub>L</sub>			
126.2	Ground Surface							20	40	60	80	100					
126.0	ASPHALT: 125mm							20	40	60	80	100					
0.1	FILL: silty clay to clayey silt, trace to some sand, trace gravel, brown to dark brown, moist, soft to firm		1	SS	5		126										
			2	SS	4												
							125										
	trace organics above 1.5 mbgs																
	brown and grey at 1.5 mbgs		3	SS	4												
							124										
123.9	CLAYEY SILT TILL: sandy, trace gravel, brown, moist, hard		4	SS	33												
123.1	SANDY SILT TILL: trace clay, trace gravel, grey, moist, dense to very dense		5	SS	48												
	wet below 3.8 mbgs		6	SS	73/275mm												
121.6	SILTY SAND TILL: trace clay, trace gravel, grey, wet, very dense		7	SS	80												
			8	SS	50/initial 75mm												
120.4	END OF BOREHOLE																
5.8	Notes: 1) Borehole was open and dry upon completion of drilling. 2) 50mm dia. monitoring well was installed upon completion of drilling, screened from 2.7 to 5.8 mbgs.  Water Level Measurement in monitoring well: Date W.L. Depth (mbgs) Aug. 13, 2025 2.80 Aug. 19, 2025 3.11 Sep. 04, 2025 2.80 Sep. 18, 2025 2.89																

## GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

## GRAPH NOTES

+ 3, × 3: Numbers refer to Sensitivity

○ s=3% Strain at Failure



## **APPENDIX C:**

### *Groundwater Level Monitoring*

Table C-1: Groundwater Level Data - Monitoring Wells

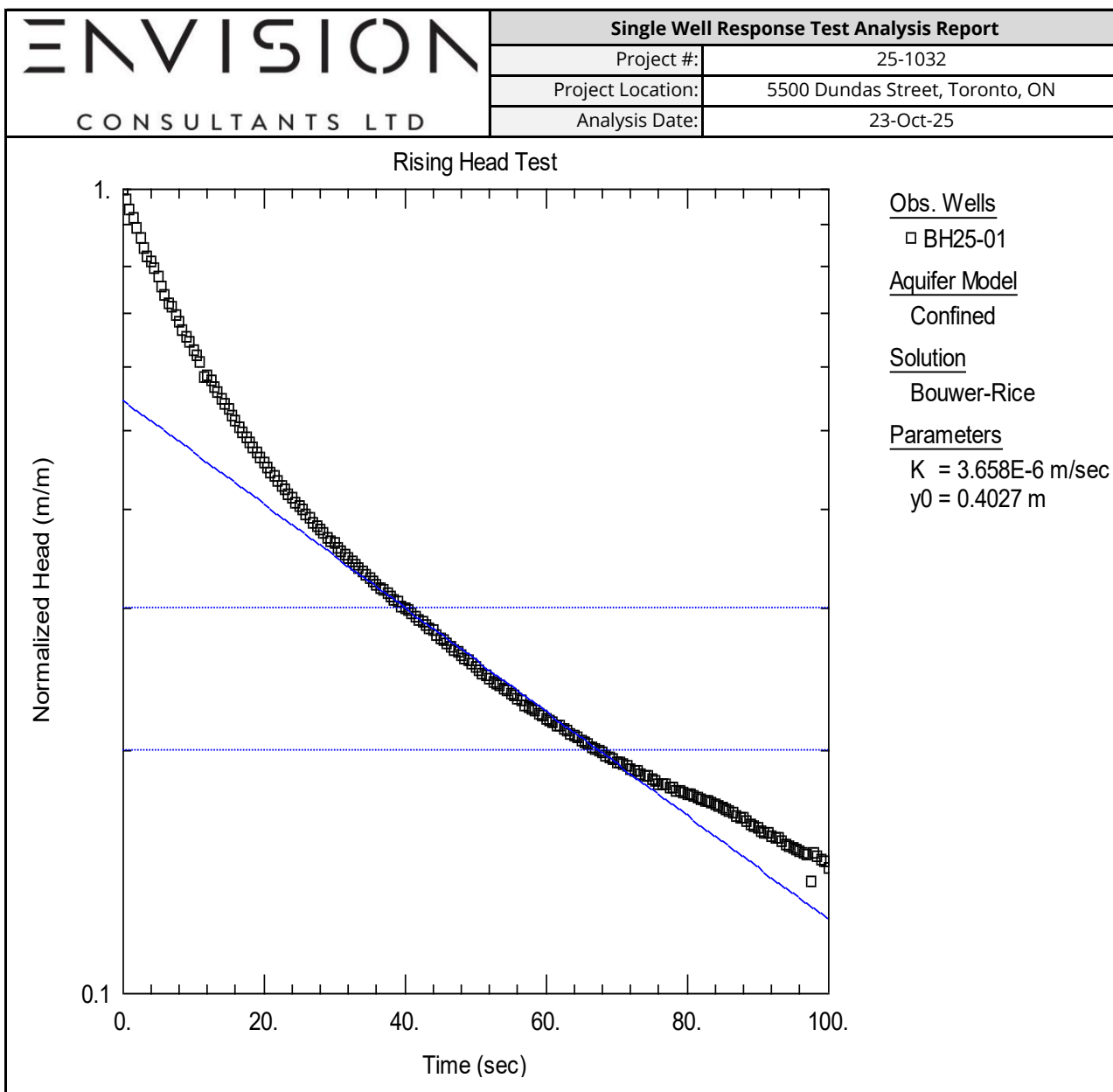
Monitoring Well ID			EnVision Wells							EXP Wells					
			BH25-01	BH25-02	BH25-03	BH25-06	BH25-07	BH25-08	BH25-09	BH25-10	BH1	BH2	BH4	BH7	
Installed By			EnVision	EnVision	EnVision	EnVision	EnVision	EnVision	EnVision	EnVision	EXP	EXP	EXP	EXP	
Installation Date			Jul-24-2025	Jul-25-2025	14-Aug-25	Jun-31-2025	13-Aug-25	Jul-25-2025	15-Aug-25	1-Aug-25	22-Jan-20	24-Jan-20	20-Jan-20		
Well Status			Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	
Well Inner Diameter (mm)			50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	
Casing Type			Flushmount	Flushmount	Flushmount	Flushmount	Flushmount	Flushmount	Flushmount	Flushmount	Flushmount	Flushmount	Flushmount	Flushmount	
Ground Surface Elevation (masl)			125.9	125.9	126.1	126.1	126.7	125.9	126.0	126.2	126.1	125.9	126.1	126.7	
Top of Well Screen			(mbgs)	9.1	13.7	2.1	20.5	1.8	3.1	2.1	2.7	9.2	9.2	13.8	9.2
			(masl)	116.8	112.2	124.0	105.6	124.9	122.8	123.9	126.2	116.9	116.7	112.3	117.5
Screen Length (m)			1.6	3.1	3.1	1.6	3.1	3.0	3.1	3.1	3.0	3.0	3.0	3.0	
Bottom of Screen			(mbgs)	10.7	16.8	5.2	22.1	4.9	6.1	5.2	5.8	12.2	12.2	16.8	12.2
			(masl)	115.2	109.1	120.9	104.0	121.8	119.8	120.8	126.2	126.2	126.2	126.2	126.2
Bedrock or Overburden Installation			overburden	bedrock	overburden	bedrock	overburden	overburden	overburden	overburden	overburden	overburden	transition	overburden	
Soil Formation Screened			Sandy Silt Till	Shale Fragments/ Bedrock	Sandy Silt Till/ Sandy Silt/ Clayey Silt Till	Bedrock	Fill/ Silty Clay Till	Sandy Silt Till	Silty Clay Till/ Sandy Silt Till/ Silty Sand	Clayey Silt Till/ Sandy Silt Till/ Silty Sand Till	Silty Sand	Silty Sand Till/ Sandy Silt Till	Silty Sand/ Sandy Silt Till/ Weathered Shale	Sandy Silt Till	
13-Aug-25	Depth of GW	(mbgs)	2.87	3.34	-	2.85	-	3.00	-	2.80	2.53	2.40	3.30	3.45	
	GW Elevation	(masl)	123.00	122.55	-	123.29	-	122.91	-	123.39	123.55	123.46	122.78	123.29	
18-Aug-25	Depth of GW	(mbgs)	-	-	2.70	-	2.97	-	3.18	-	-	-	-	-	
	GW Elevation	(masl)	-	-	123.36	-	123.75	-	122.85	-	-	-	-	-	
19-Aug-25	Depth of GW	(mbgs)	2.83	3.34	2.75	2.92	3.33	2.95	3.18	3.11	2.56	2.86	2.89	3.38	
	GW Elevation	(masl)	123.04	122.55	123.31	123.22	123.39	122.96	122.85	123.08	123.52	123.00	123.19	123.36	
4-Sep-25	Depth of GW	(mbgs)	2.86	3.39	2.87	3.83	3.19	2.87	2.95	2.80	NA	2.84	2.91	3.43	
	GW Elevation	(masl)	123.01	122.50	123.19	122.31	123.53	123.04	123.08	123.39	NA	123.02	123.17	123.31	
18-Sep-25	Depth of GW	(mbgs)	2.81	3.30	2.84	2.84	3.06	2.77	2.84	2.79	2.99	2.96	3.34	3.47	
	GW Elevation	(masl)	123.06	122.59	123.22	123.30	123.66	123.14	123.19	123.40	123.09	122.90	122.74	123.27	

		STATISTICAL REVIEW											
Site		BH25-01	BH25-02	BH25-03	BH25-06	BH25-07	BH25-08	BH25-09	BH25-10	BH1	BH2	BH4	BH7
Min Depth (m)	2.40	2.81	3.30	2.70	2.84	2.97	2.77	2.84	2.79	2.53	2.40	2.89	3.38
Max Depth (m)	3.83	2.87	3.39	2.87	3.83	3.33	3.00	3.18	3.11	2.99	2.96	3.34	3.47
Max Elev (masl)	123.75	123.06	122.59	123.36	123.30	123.75	123.14	123.19	123.40	123.55	123.46	123.19	123.36
Min Elev. (masl)	122.31	123.00	122.50	123.19	122.31	123.39	122.91	122.85	123.08	123.09	122.90	122.74	123.27
Fluctuation (m)		0.06	0.09	0.17	0.99	0.36	0.23	0.34	0.32	0.46	0.56	0.45	0.09



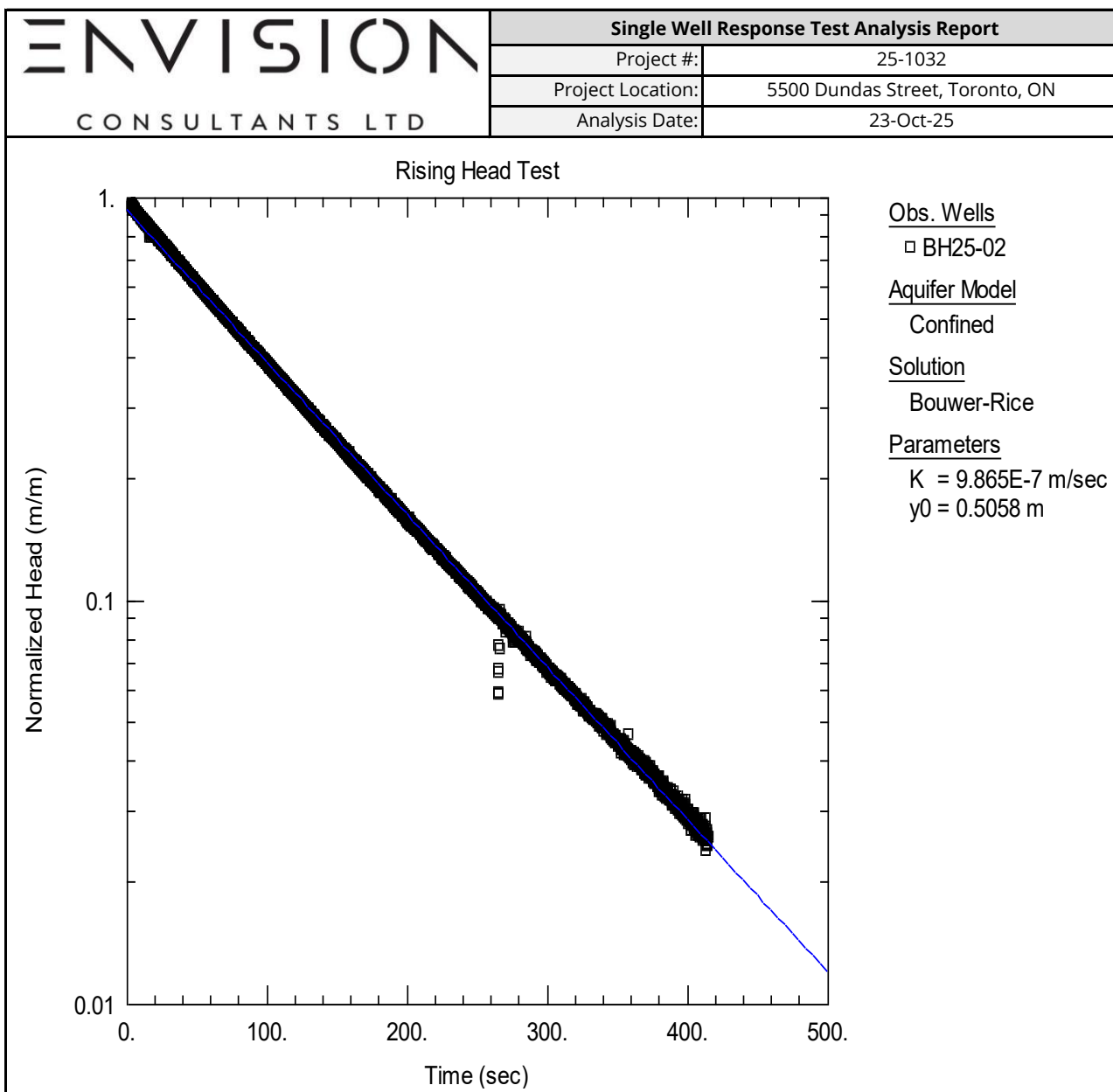
## **APPENDIX D:**

### *In-Situ Single Well Response Testing*



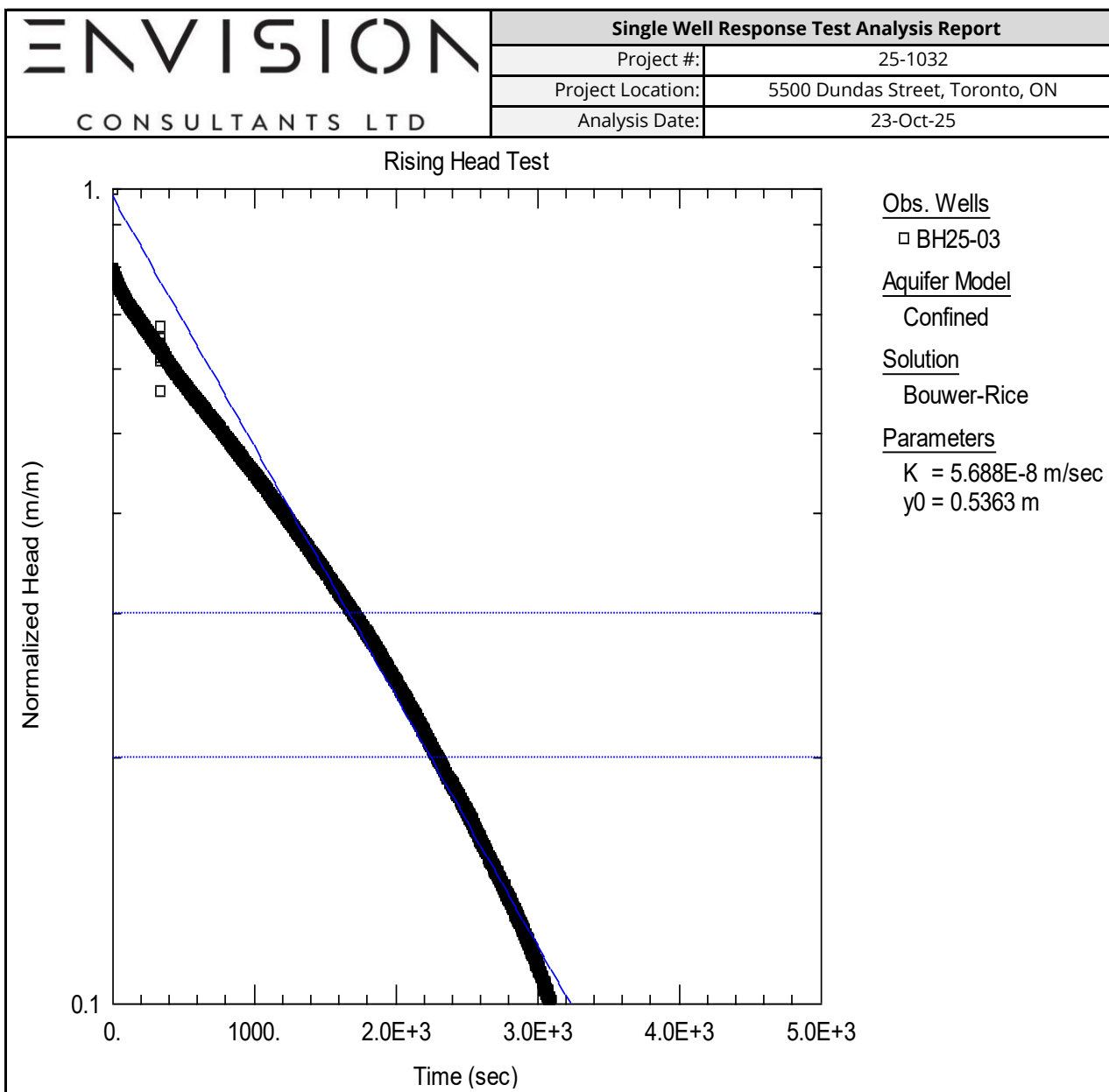
Testing Details	
Well ID:	BH25-01
Field Technician:	SH
Analysis By:	RB
Date of Analysis:	23-Oct-25

Well Details		
Top of Screen	9.1	m
Bottom of Screen	10.7	m
Diam. of well	51	mm
Static Water Level	2.83	m bgs
Formation Screened	Sandy Silt Till	



Testing Details	
Well ID:	BH25-02
Field Technician:	SH
Analysis By:	RB
Date of Analysis:	23-Oct-25

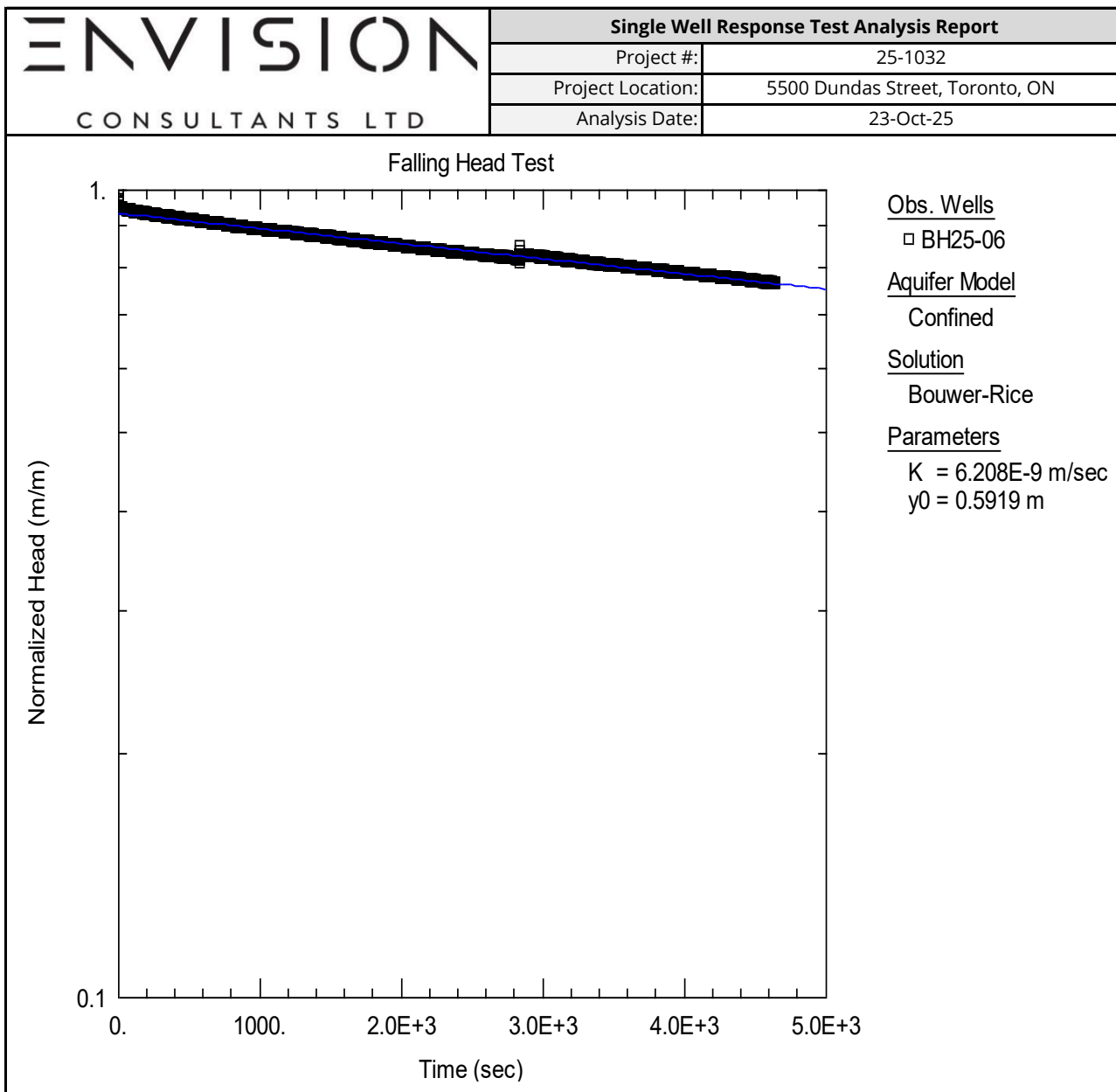
Well Details		
Top of Screen	13.7	m
Bottom of Screen	16.8	m
Diam. of well	51	mm
Static Water Level	3.34	m bgs
Formation Screened	Bedrock	



Testing Details	
Well ID:	BH25-03
Field Technician:	SH
Analysis By:	RB
Date of Analysis:	23-Oct-25

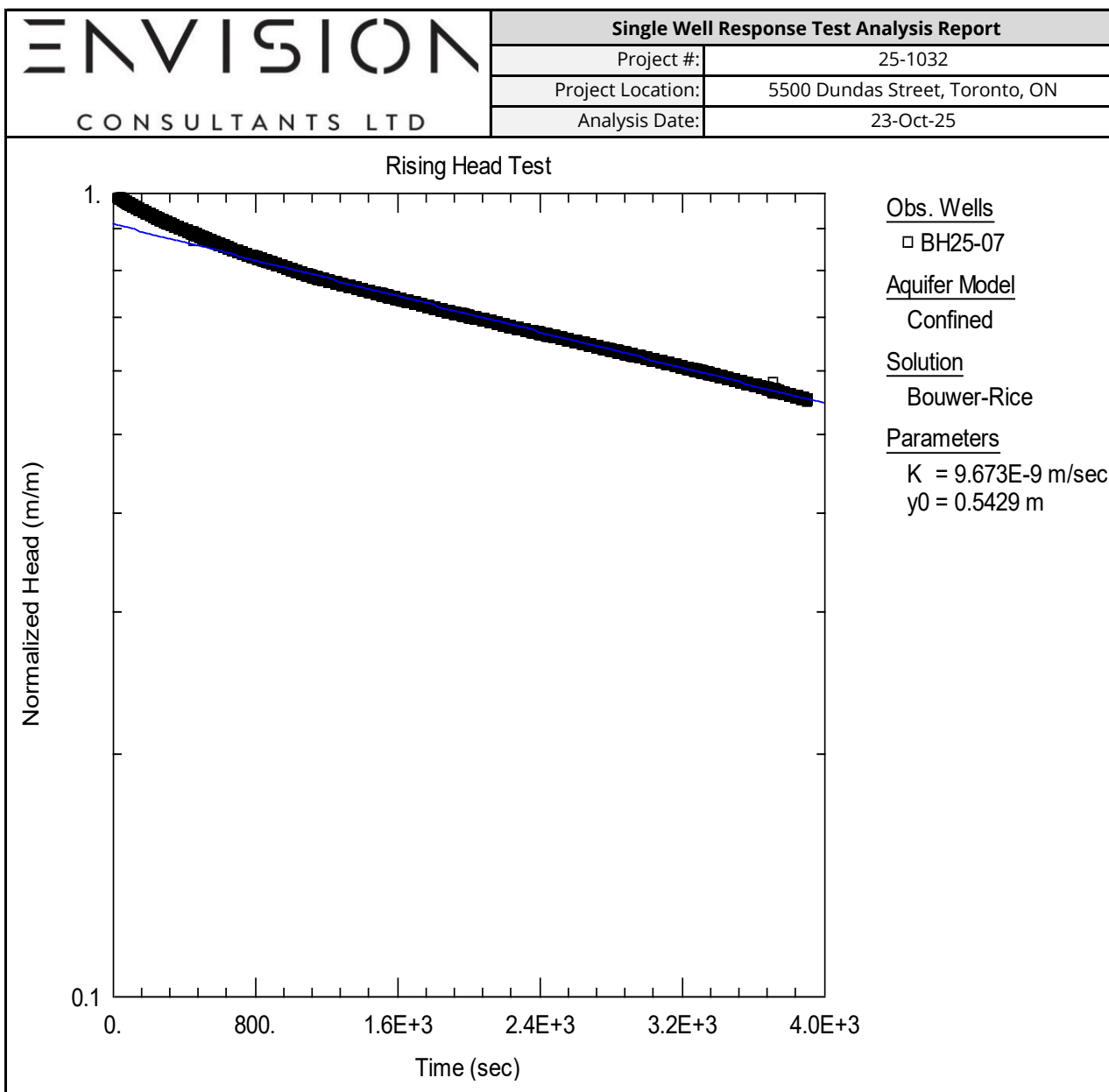
Well Details		
Top of Screen	2.1	m
Bottom of Screen	5.2	m
Diam. of well	51	mm
Static Water Level	2.75	m bgs
Formation Screened	Sandy Silt Till/ Sandy Silt/ Clayey Silt Till	





Testing Details	
Well ID:	BH25-06
Field Technician:	SH
Analysis By:	RB
Date of Analysis:	23-Oct-25

Well Details		
Top of Screen	20.5	m
Bottom of Screen	22.1	m
Diam. of well	51	mm
Static Water Level	2.92	m bgs
Formation Screened	Bedrock	



Testing Details	
Well ID:	BH25-07
Field Technician:	SH
Analysis By:	RB
Date of Analysis:	23-Oct-25

Well Details		
Top of Screen	1.8	m
Bottom of Screen	3.1	m
Diam. of well	51	mm
Static Water Level	2.95	m bgs
Formation Screened	Fill/ Silty Clay Till	



## **APPENDIX E:**

### *Laboratory Certificate of Analysis*

**CLIENT NAME: ENVISION CONSULTANTS LTD**  
**6415 NORTHWEST DRIVE, SUITE 40**  
**MISSISSAUGA, ON L4V 1X1**  
**647-618-7880**

**ATTENTION TO: Ryan Lewis**

**PROJECT: 25-1032.199**

**AGAT WORK ORDER: 25T335040**

**MICROBIOLOGY ANALYSIS REVIEWED BY: Nivine Basily, Inorganic Team Lead**

**TRACE ORGANICS REVIEWED BY: Radhika Chakraborty, Trace Organics Lab Manager**

**WATER ANALYSIS REVIEWED BY: Nivine Basily, Inorganic Team Lead**

**DATE REPORTED: Aug 27, 2025**

**PAGES (INCLUDING COVER): 14**

**VERSION\*: 1**

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

**\*Notes**

**Disclaimer:**

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



**AGAT** Laboratories

## Certificate of Analysis

AGAT WORK ORDER: 25T335040

PROJECT: 25-1032.199

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

CLIENT NAME: ENVISION CONSULTANTS LTD

SAMPLING SITE: 4400 Dundas Street W Etobicoke

ATTENTION TO: Ryan Lewis

SAMPLED BY: RL

### E.Coli (MI-Agar)

DATE RECEIVED: 2025-08-19

DATE REPORTED: 2025-08-27

		SAMPLE DESCRIPTION:		BH25-06	BH25-02
		SAMPLE TYPE:		Water	Water
		DATE SAMPLED:		2025-08-19 13:10	2025-08-19 14:39
Parameter	Unit	G / S	RDL	6982139	6982140
Escherichia coli	CFU/100mL	200		0	0

**Comments:** RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to City of Toronto Storm Sewer Discharge  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

**6982139** Escherichia coli RDL = 2 CFU/100mL.  
RDL > 1 indicates dilutions of the sample.  
The sample was diluted prior to filtration due to the presence of sediments.

**6982140** Escherichia coli RDL = 1 CFU/100mL.  
Analysis performed at AGAT Toronto (unless marked by \*)

**Certified By:**



*Nivine Basly*



**AGAT** Laboratories

# Certificate of Analysis

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<http://www.agatlabs.com>

CLIENT NAME: ENVISION CONSULTANTS LTD

SAMPLING SITE: 4400 Dundas Street W Etobicoke

ATTENTION TO: Ryan Lewis

SAMPLED BY: RL

## Sewer Use - Toronto Sanitary and Combined Sewer Use By-law - Organic

DATE RECEIVED: 2025-08-19

DATE REPORTED: 2025-08-27

Parameter	Unit	SAMPLE DESCRIPTION:			BH25-06	BH25-02
		SAMPLE TYPE:			Water	Water
		DATE SAMPLED:			2025-08-19	2025-08-19
					13:10	14:39
		G / S: A	G / S: B	RDL	6982139	6982140
Oil and Grease (animal/vegetable) in water	mg/L	150		0.5	1.0[<A]	<0.5[<A]
Oil and Grease (mineral) in water	mg/L	15		0.5	<0.5[<A]	<0.5[<A]
Methylene Chloride	mg/L	2	0.0052	0.0003	<0.0003[<B]	<0.0003[<B]
trans-1,3-Dichloropropylene	mg/L	0.14	0.0056	0.0003	<0.0003[<B]	<0.0003[<B]
cis-1,2-Dichloroethylene	mg/L	4	0.0056	0.0002	<0.0002[<B]	<0.0002[<B]
Chloroform	mg/L	0.04	0.002	0.0002	<0.0002[<B]	0.0045[B-A]
Benzene	mg/L	0.01	0.002	0.0002	<0.0002[<B]	0.0002[<B]
Trichloroethylene	mg/L	0.4	0.0076	0.0002	<0.0002[<B]	<0.0002[<B]
Toluene	mg/L	0.016	0.002	0.0002	0.0004[<B]	0.0005[<B]
Tetrachloroethylene	mg/L	1	0.0044	0.0001	<0.0001[<B]	<0.0001[<B]
Ethylbenzene	mg/L	0.16	0.002	0.0002	<0.0002[<B]	<0.0002[<B]
1,1,2,2-Tetrachloroethane	mg/L	1.4	0.017	0.0002	<0.0002[<B]	<0.0002[<B]
1,2-Dichlorobenzene	mg/L	0.05	0.0056	0.0002	<0.0002[<B]	<0.0002[<B]
1,4-Dichlorobenzene	mg/L	0.08	0.0068	0.0002	<0.0002[<B]	<0.0002[<B]
Xylenes (Total)	mg/L	1.4	0.0044	0.0002	0.0006[<B]	0.0003[<B]
PCBs	mg/L	0.001	0.0004	0.0002	<0.0002[<B]	<0.0002[<B]
Pentachlorophenol	mg/L	0.005	0.002	0.0005	<0.0005[<B]	<0.0005[<B]
Di-n-butyl phthalate	mg/L	0.08	0.015	0.0005	1.92[>A]	<0.0005[<B]
3,3'-Dichlorobenzidine	mg/L	0.002	0.0008	0.0001	<0.0001[<B]	<0.0001[<B]
Bis(2-Ethylhexyl)phthalate	mg/L	0.012	0.0088	0.0005	0.44[>A]	<0.0005[<B]
Nonylphenols	mg/L	0.02	0.001	0.001	<0.001[<B]	<0.001[<B]
Nonylphenol Ethoxylates	mg/L	0.2	0.01	0.01	<0.01[<B]	<0.01[<B]

**Certified By:**

R. Chakraborty



**AGAT** Laboratories

# Certificate of Analysis

AGAT WORK ORDER: 25T335040

PROJECT: 25-1032.199

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

CLIENT NAME: ENVISION CONSULTANTS LTD

SAMPLING SITE: 4400 Dundas Street W Etobicoke

ATTENTION TO: Ryan Lewis

SAMPLED BY: RL

## Sewer Use - Toronto Sanitary and Combined Sewer Use By-law - Organic

DATE RECEIVED: 2025-08-19

DATE REPORTED: 2025-08-27

			SAMPLE DESCRIPTION:	BH25-06	BH25-02
			SAMPLE TYPE:	Water	Water
			DATE SAMPLED:	2025-08-19 13:10	2025-08-19 14:39
Surrogate	Unit	Acceptable Limits		6982139	6982140
Toluene-d8	% Recovery	50-140		66	94
4-Bromofluorobenzene	% Recovery	50-140		108	106
Decachlorobiphenyl	%	50-140		83	83
2,4,6-Tribromophenol	%	50-140		85	98
2-Fluorophenol	%	50-140		78	74
Chrysene-d12	%	50-140		92	102
phenol-d6 surrogate	%	50-140		102	105

**Comments:** RDL - Reported Detection Limit; G / S - Guideline / Standard: A Refers to City of Toronto Sanitary and Combined Sewers Discharge, B Refers to City of Toronto Storm Sewer Discharge. Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

**6982139-6982140** Oil and Grease animal/vegetable is a calculated parameter. The calculated value is the difference between Total O&G and Mineral O&G.

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

Note: The result for Benzo(b+j)Flouranthene is the total of the Benzo(b)&(j)Flouranthene isomers because the isomers co-elute on the GC column.

Total PAHs is calculated as sum of Anthracene, Benzo(a)pyrene, Benzo(a)anthracene, Benzo(e)pyrene\*, Benzo(b+j)fluoranthene, Benzo(k)fluoranthene, Benzo(g,h,i)perylene, Chrysene, Dibenz(a,h)anthracene, Dibenzo(a,i)pyrene\*, Dibenzo(a,j) Acridine\*, 7H-Dibenzo(c,g)carbazole\*, Fluoranthene, Indeno(1,2,3-cd)pyrene, Perylene, Phenanthrene and Pyrene.

\*-not accredited parameters.

Nonylphenols is a calculated parameter. The calculated value is the sum of Nonylphenol (NP) and 4n-Nonylphenol (4n-NP).

Nonylphenol Ethoxylates is a calculated parameter. The calculated value is the sum of Nonylphenol Monoethoxylate (NP1EO) and Nonylphenol Diethoxylate (NP2EO).

The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by \*)

**Certified By:**

R. Chakraborty



**AGAT** Laboratories

## Certificate of Analysis

AGAT WORK ORDER: 25T335040

PROJECT: 25-1032.199

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

CLIENT NAME: ENVISION CONSULTANTS LTD

SAMPLING SITE: 4400 Dundas Street W Etobicoke

ATTENTION TO: Ryan Lewis

SAMPLED BY: RL

### BOD5

DATE RECEIVED: 2025-08-19

DATE REPORTED: 2025-08-27

		SAMPLE DESCRIPTION: BH25-06		BH25-02	
		SAMPLE TYPE: Water		Water	
		DATE SAMPLED: 2025-08-19 13:10		2025-08-19 14:39	
Parameter	Unit	G / S	RDL	RDL	
Biochemical Oxygen Demand, Total	mg/L	4	<4	2	4

**Comments:** RDL - Reported Detection Limit; G / S - Guideline / Standard

**6982139** RDL for BOD is raised due to insufficient DO depletion at selected dilution levels.

Analysis performed at AGAT Halifax (unless marked by \*)

**Certified By:**



*Nivine Basly*





## Certificate of Analysis

AGAT WORK ORDER: 25T335040

PROJECT: 25-1032.199

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<http://www.agatlabs.com>

CLIENT NAME: ENVISION CONSULTANTS LTD

SAMPLING SITE: 4400 Dundas Street W Etobicoke

ATTENTION TO: Ryan Lewis

SAMPLED BY: RL

### Sewer Use - Toronto Sanitary and Combined Sewer Use By-law - Inorganics

DATE RECEIVED: 2025-08-19

DATE REPORTED: 2025-08-27

SAMPLE DESCRIPTION:					BH25-06	BH25-02
SAMPLE TYPE:					Water	Water
DATE SAMPLED:					2025-08-19 13:10	2025-08-19 14:39
Parameter	Unit	G / S: A	G / S: B	RDL	6982139	6982140
pH	pH Units	6.0-11.5	6.0-9.5	NA	7.44	7.53
Fluoride	mg/L	10		0.05	0.95[<A]	0.79[<A]
Total Kjeldahl Nitrogen	mg/L	100		0.10	0.30[<A]	0.57[<A]
Total Phosphorus	mg/L	10	0.4	0.02	0.09[<B]	0.07[<B]
Cyanide, SAD	mg/L	2	0.02	0.002	<0.002[<B]	<0.002[<B]
Phenols	mg/L	1.0	0.008	0.001	<0.001[<B]	0.001[<B]
Total Suspended Solids	mg/L	350	15	10	28[B-A]	29[B-A]
Total Aluminum	mg/L	50		0.010	2.48[<A]	0.904[<A]
Total Antimony	mg/L	5		0.003	<0.003[<A]	<0.003[<A]
Total Arsenic	mg/L	1	0.02	0.003	<0.003[<B]	<0.003[<B]
Total Cadmium	mg/L	0.7	0.008	0.0001	0.0007[<B]	<0.0001[<B]
Total Chromium	mg/L	4	0.08	0.003	0.004[<B]	0.004[<B]
Chromium VI	mg/L	2	0.04	0.002	<0.002[<B]	<0.002[<B]
Total Cobalt	mg/L	5		0.0005	0.0013[<A]	<0.0005[<A]
Total Copper	mg/L	2	0.04	0.002	<0.002[<B]	<0.002[<B]
Total Lead	mg/L	1	0.12	0.0005	0.0010[<B]	<0.0005[<B]
Total Manganese	mg/L	5	0.05	0.002	0.049[<B]	0.050[B]
Total Mercury	mg/L	0.01	0.0004	0.0002	<0.0002[<B]	<0.0002[<B]
Total Molybdenum	mg/L	5		0.002	0.009[<A]	0.082[<A]
Total Nickel	mg/L	2	0.08	0.003	<0.003[<B]	<0.003[<B]
Total Selenium	mg/L	1	0.02	0.002	0.003[<B]	0.004[<B]
Total Silver	mg/L	5	0.12	0.0001	<0.0001[<B]	<0.0001[<B]
Total Tin	mg/L	5		0.002	<0.002[<A]	<0.002[<A]
Total Titanium	mg/L	5		0.010	0.036[<A]	<0.010[<A]
Total Zinc	mg/L	2	0.04	0.020	0.049[B-A]	<0.020[<B]

**Comments:** RDL - Reported Detection Limit; G / S - Guideline / Standard: A Refers to City of Toronto Sanitary and Combined Sewers Discharge, B Refers to City of Toronto Storm Sewer Discharge  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Toronto (unless marked by \*)

**Certified By:**



*Nivine Basly*

**Exceedance Summary**

AGAT WORK ORDER: 25T335040

PROJECT: 25-1032.199

5835 COOPERS AVENUE  
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<http://www.agatlabs.com>

CLIENT NAME: ENVISION CONSULTANTS LTD

ATTENTION TO: Ryan Lewis

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	UNIT	GUIDEVALUE	RESULT
6982139	BH25-06	ON Toronto SM	Sewer Use - Toronto Sanitary and Combined Sewer Use By-law - Inorganics	Total Suspended Solids	mg/L	15	28
6982139	BH25-06	ON Toronto SM	Sewer Use - Toronto Sanitary and Combined Sewer Use By-law - Inorganics	Total Zinc	mg/L	0.04	0.049
6982139	BH25-06	ON Toronto SM	Sewer Use - Toronto Sanitary and Combined Sewer Use By-law - Organic	Bis(2-Ethylhexyl)phthalate	mg/L	0.0088	0.44
6982139	BH25-06	ON Toronto SM	Sewer Use - Toronto Sanitary and Combined Sewer Use By-law - Organic	Di-n-butyl phthalate	mg/L	0.015	1.92
6982139	BH25-06	ON Toronto SN	Sewer Use - Toronto Sanitary and Combined Sewer Use By-law - Organic	Bis(2-Ethylhexyl)phthalate	mg/L	0.012	0.44
6982139	BH25-06	ON Toronto SN	Sewer Use - Toronto Sanitary and Combined Sewer Use By-law - Organic	Di-n-butyl phthalate	mg/L	0.08	1.92
6982140	BH25-02	ON Toronto SM	Sewer Use - Toronto Sanitary and Combined Sewer Use By-law - Inorganics	Total Suspended Solids	mg/L	15	29
6982140	BH25-02	ON Toronto SM	Sewer Use - Toronto Sanitary and Combined Sewer Use By-law - Organic	Chloroform	mg/L	0.002	0.0045

## Quality Assurance

CLIENT NAME: ENVISION CONSULTANTS LTD

AGAT WORK ORDER: 25T335040

PROJECT: 25-1032.199

ATTENTION TO: Ryan Lewis

SAMPLING SITE: 4400 Dundas Street W Etobicoke

SAMPLED BY: RL

### Microbiology Analysis

RPT Date: Aug 27, 2025			DUPLICATE			Method Blank	REFERENCE MATERIAL		METHOD BLANK SPIKE		MATRIX SPIKE	
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper

**E.Coli (MI-Agar)**

Escherichia coli	6983418		0	0	NA
------------------	---------	--	---	---	----

Comments: NA - % RPD Not Applicable.

### Certified By:





## Quality Assurance

CLIENT NAME: ENVISION CONSULTANTS LTD

PROJECT: 25-1032.199

SAMPLING SITE: 4400 Dundas Street W Etobicoke

AGAT WORK ORDER: 25T335040

ATTENTION TO: Ryan Lewis

SAMPLED BY: RL

### Trace Organics Analysis

RPT Date: Aug 27, 2025

RPT Date: Aug 27, 2025			DUPLICATE			Method Blank	REFERENCE MATERIAL		METHOD BLANK SPIKE		MATRIX SPIKE			
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits	Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower		Upper	Lower		Upper	Lower

#### Sewer Use - Toronto Sanitary and Combined Sewer Use By-law - Organic

Methylene Chloride	6795184		< 0.0003	< 0.0003	NA	< 0.0003	101%	50%	140%	90%	60%	130%	75%	50%	140%
trans-1,3-Dichloropropylene	6795184		< 0.0003	< 0.0003	NA	< 0.0003	101%	50%	140%	98%	60%	130%	98%	50%	140%
Chloroform	6795184		< 0.0002	< 0.0002	NA	< 0.0002	99%	50%	140%	98%	60%	130%	98%	50%	140%
Benzene	6795184		< 0.0002	< 0.0002	NA	< 0.0002	102%	50%	140%	90%	60%	130%	98%	50%	140%
Trichloroethylene	6795184		< 0.0002	< 0.0002	NA	< 0.0002	104%	50%	140%	89%	60%	130%	74%	50%	140%
Toluene	6795184		< 0.0002	< 0.0002	NA	< 0.0002	95%	50%	140%	85%	60%	130%	85%	50%	140%
Tetrachloroethylene	6795184		< 0.0002	< 0.0002	NA	< 0.0001	95%	50%	140%	85%	60%	130%	98%	50%	140%
Ethylbenzene	6795184		< 0.0001	< 0.0001	NA	< 0.0002	101%	50%	140%	74%	60%	130%	85%	50%	140%
1,1,2,2-Tetrachloroethane	6795184		< 0.0001	< 0.0001	NA	< 0.0002	99%	50%	140%	105%	60%	130%	99%	50%	140%
1,2-Dichlorobenzene	6795184		< 0.0001	< 0.0001	NA	< 0.0002	102%	50%	140%	85%	60%	130%	96%	50%	140%
1,4-Dichlorobenzene	6795184		< 0.0001	< 0.0001	NA	< 0.0002	103%	50%	140%	74%	60%	130%	87%	50%	140%

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

#### Sewer Use - Toronto Sanitary and Combined Sewer Use By-law - Organic

Oil and Grease (animal/vegetable) in water	6964205		< 0.5	< 0.5	NA	< 0.5	102%	70%	130%	106%	70%	130%	106%	70%	130%
Oil and Grease (mineral) in water	6964205		< 0.5	< 0.5	NA	< 0.5	96%	70%	130%	95%	70%	130%	89%	70%	130%
PCBs	6983552		< 0.0002	< 0.0002	NA	< 0.0002	93%	50%	140%	93%	50%	140%	94%	50%	140%
Pentachlorophenol	6939849		< 0.0005	< 0.0005	NA	< 0.0005	74%	50%	140%	80%	50%	140%	78%	50%	140%
Di-n-butyl phthalate	6939849		< 0.0005	< 0.0005	NA	< 0.0005	85%	50%	140%	78%	50%	140%	109%	50%	140%
3,3'-Dichlorobenzidine	6939849		< 0.0001	< 0.0001	NA	< 0.0001	88%	30%	130%	77%	30%	130%	78%	30%	130%
Bis(2-Ethylhexyl)phthalate	6939849		< 0.0005	< 0.0005	NA	< 0.0005	74%	50%	140%	74%	50%	140%	77%	50%	140%

**Certified By:**

R. Chakraborty

## Quality Assurance

CLIENT NAME: ENVISION CONSULTANTS LTD

PROJECT: 25-1032.199

SAMPLING SITE: 4400 Dundas Street W Etobicoke

AGAT WORK ORDER: 25T335040

ATTENTION TO: Ryan Lewis

SAMPLED BY: RL

Water Analysis															
RPT Date: Aug 27, 2025			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

### Sewer Use - Toronto Sanitary and Combined Sewer Use By-law - Inorganics

pH	6982058		7.17	7.32	2.1%	NA	99%	90%	110%						
Fluoride	6980891		<0.05	<0.05	NA	< 0.05	105%	70%	130%	100%	80%	120%	92%	70%	130%
Total Kjeldahl Nitrogen	6974659		0.54	0.55	1.8%	< 0.10	103%	70%	130%	108%	80%	120%	97%	70%	130%
Total Phosphorus	6982061		<0.02	<0.02	NA	< 0.02	99%	70%	130%	108%	80%	120%	89%	70%	130%
Cyanide, SAD	6957159		<0.002	<0.002	NA	< 0.002	108%	70%	130%	92%	80%	120%	88%	70%	130%
Phenols	6985514		0.001	<0.001	NA	< 0.001	102%	90%	110%	100%	90%	110%	99%	80%	120%
Total Suspended Solids	6983291		<10	<10	NA	< 10	92%	80%	120%						
Total Aluminum	6982139	6982139	2.48	2.91	16.0%	< 0.010	82%	70%	130%	82%	80%	120%	NA	70%	130%
Total Antimony	6982139	6982139	<0.003	<0.003	NA	< 0.003	105%	70%	130%	103%	80%	120%	102%	70%	130%
Total Arsenic	6982139	6982139	<0.003	<0.003	NA	< 0.003	96%	70%	130%	102%	80%	120%	104%	70%	130%
Total Cadmium	6982139	6982139	0.0007	<0.0001	NA	< 0.0001	97%	70%	130%	94%	80%	120%	105%	70%	130%
Total Chromium	6982139	6982139	0.004	0.005	NA	< 0.003	91%	70%	130%	92%	80%	120%	98%	70%	130%
Chromium VI	6981646		<0.002	<0.002	NA	< 0.002	98%	70%	130%	100%	80%	120%	99%	70%	130%
Total Cobalt	6982139	6982139	0.0013	0.0006	NA	< 0.0005	91%	70%	130%	92%	80%	120%	94%	70%	130%
Total Copper	6982139	6982139	<0.002	<0.002	NA	< 0.002	101%	70%	130%	101%	80%	120%	98%	70%	130%
Total Lead	6982139	6982139	0.0010	0.0007	NA	< 0.0005	96%	70%	130%	96%	80%	120%	96%	70%	130%
Total Manganese	6982139	6982139	0.049	0.055	11.5%	< 0.002	95%	70%	130%	90%	80%	120%	94%	70%	130%
Total Mercury	6982061		<0.0002	<0.0002	NA	< 0.0002	100%	70%	130%	100%	80%	120%	97%	70%	130%
Total Molybdenum	6982139	6982139	0.009	0.006	NA	< 0.002	102%	70%	130%	102%	80%	120%	113%	70%	130%
Total Nickel	6982139	6982139	<0.003	<0.003	NA	< 0.003	91%	70%	130%	93%	80%	120%	90%	70%	130%
Total Selenium	6982139	6982139	0.003	<0.002	NA	< 0.002	96%	70%	130%	96%	80%	120%	100%	70%	130%
Total Silver	6982139	6982139	<0.0001	<0.0001	NA	< 0.0001	105%	70%	130%	105%	80%	120%	103%	70%	130%
Total Tin	6982139	6982139	<0.002	<0.002	NA	< 0.002	103%	70%	130%	107%	80%	120%	104%	70%	130%
Total Titanium	6982139	6982139	0.036	0.035	NA	< 0.010	81%	70%	130%	91%	80%	120%	91%	70%	130%
Total Zinc	6982139	6982139	0.049	0.045	NA	< 0.020	98%	70%	130%	82%	80%	120%	98%	70%	130%

Comments: NA signifies Not Applicable.

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

Matrix spike NA: Spike level &lt; native concentration. Matrix spike acceptance limits do not apply and are not calculated.

### BOD5

Biochemical Oxygen Demand, Total 6983383	486	423	13.9%	< 2	96%	70%	130%
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## Certified By:


*Nivine Basily*

## Method Summary

CLIENT NAME: ENVISION CONSULTANTS LTD

AGAT WORK ORDER: 25T335040

PROJECT: 25-1032.199

ATTENTION TO: Ryan Lewis

SAMPLING SITE: 4400 Dundas Street W Etobicoke

SAMPLED BY: RL

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



## Method Summary

**CLIENT NAME: ENVISION CONSULTANTS LTD**
**AGAT WORK ORDER: 25T335040**
**PROJECT: 25-1032.199**
**ATTENTION TO: Ryan Lewis**
**SAMPLING SITE: 4400 Dundas Street W Etobicoke**
**SAMPLED BY: RL**

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
<b>Trace Organics Analysis</b>			
Oil and Grease (animal/vegetable) in water	VOL-91-5011	EPA SW-846 1664A & SM 5520	GRAVIMETRIC
Oil and Grease (mineral) in water	VOL-91-5011	EPA SW-846 1664A & SM 5520	GRAVIMETRIC
Methylene Chloride	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
trans-1,3-Dichloropropylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
cis- 1,2-Dichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Chloroform	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Benzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Toluene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Xylenes (Total)	VOL-91-5001	modified from EPA 5030B & EPA 8260D	CALCULATION
Toluene-d8	VOL-91- 5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91- 5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
PCBs	ORG-91-5112	modified from EPA SW-846 3510C & 8082A	GC/ECD
Decachlorobiphenyl	ORG-91-5112	modified from EPA SW846 3510C & 8082A	GC/ECD
Pentachlorophenol	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Di-n-butyl phthalate	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
3,3'-Dichlorobenzidine	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Bis(2-Ethylhexyl)phthalate	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
2,4,6-Tribromophenol	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
2-Fluorophenol	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Chrysene-d12	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
phenol-d6 surrogate	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Nonylphenols	ORG-91-5122	modified ASTM D7485-16	CALCULATION
Nonylphenol Ethoxylates	ORG-91-5122	modified ASTM D7485-16	CALCULATION

## Method Summary

**CLIENT NAME: ENVISION CONSULTANTS LTD**
**AGAT WORK ORDER: 25T335040**
**PROJECT: 25-1032.199**
**ATTENTION TO: Ryan Lewis**
**SAMPLING SITE: 4400 Dundas Street W Etobicoke**
**SAMPLED BY: RL**

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
<b>Water Analysis</b>			
Biochemical Oxygen Demand, Total	INOR-121-6023	SM 5210 B	INCUBATOR
pH	INOR-93-6000	modified from SM 4500-H+ B	PC TITRATE
Fluoride	INOR-93-6004	modified from SM 4110 B	ION CHROMATOGRAPH
Total Kjeldahl Nitrogen	INOR-93-6048	modified from EPA 351.2 and SM 4500-NORG D	LACHAT FIA
Total Phosphorus	INOR-93-6022	modified from SM 4500-P B and SM 4500-P E	SPECTROPHOTOMETER
Cyanide, SAD	INOR-93-6051	modified from MOECC E3015; SM 4500-CN- A, B, & C	SEGMENTED FLOW ANALYSIS
Phenols	INOR-93-6072	mod from SM 510C, EPA 420.2, ISO 3696, ASTM D1193	SEGMENTED FLOW ANALYSIS
Total Suspended Solids	INOR-93-6028	modified from EPA 1684, ON MOECC E3139, SM 2540C, D	BALANCE
Total Aluminum	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Antimony	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Arsenic	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Cadmium	MET -93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Chromium	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Chromium VI	INOR-93-6073	modified from SM 3500-CR B	LACHAT FIA
Total Cobalt	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Copper	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Lead	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Manganese	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Mercury	MET-93-6100	modified from EPA 245.2 and SM 3112 B	CVAAS
Total Molybdenum	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Nickel	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Selenium	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Silver	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Tin	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Titanium	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS
Total Zinc	MET-93-6103	modified from EPA 200.8, 3005A, 3010A & 6020B	ICP-MS



## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

### Report Information:

Company: EnVision Consultants Ltd.  
Contact: RYAN LEWIS  
Address: 6415 Northwest Dr. Units 3740  
Mississauga ON, L4V 1X1  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
Reports to be sent to:  
1. Email: rl@envisionconsultants.ca  
2. Email: jkeirsage@envisionconsultants.ca

### Project Information:

Project: 2S - 1032.199  
Site Location: 5500 Dundas Street W, Etobicoke  
Sampled By: RL  
AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_  
Please note: If quotation number is not provided, client will be billed full price for analysis.

### Invoice Information:

Bill To Same: Yes ☒ No ☐

Company: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Email: \_\_\_\_\_

### Regulatory Requirements:

(Please check all applicable boxes)

☐ Regulation 153/04

Table Indicate One

☐ Ind/Com

☐ Res/Park

☐ Agriculture

Soil Texture (Check One)

☐ Coarse

☐ Fine

☐ Regulation 406

Table Indicate One

☐ Ind/Com

☐ Res/Park

☐ Agriculture

☐ Regulation 558

☐ CCME

☒ Sewer Use

☒ Sanitary ☒ Storm

Region

☐ Prov. Water Quality Objectives (PWQO)

☐ Other

Indicate One

Is this submission for a Record of Site Condition (RSC)?

☐ Yes

☐ No

Report Guideline on Certificate of Analysis

☐ Yes

☐ No

Legal Sample ☐

### Sample Matrix Legend

GW Ground Water SD Sediment  
O Oil SW Surface Water  
P Paint R Rock/Shale  
S Soil

Sample Identification		Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N	Metals	Metals	BTEX, x	VOC	PAHs	PCBs: A	Regulation	pH, Me	EC, SA	Regulation	mSPLP	Landfill	TCLP: <input type="checkbox"/>	Corrosi	Total							Potentia
1.	BH25-06	08/19/25	1:10	AM	22	GW	2															X							
2.	BH25-02	08/19/25	2:39	PM	22	GW	2															X							
3.				PM																									
4.				AM																									
5.				PM																									
6.				AM																									
7.				PM																									
8.				AM																									
9.				PM																									
10.				AM																									
11.				PM																									

Samples Relinquished By (Print Name and Sign):

Date

Time

Samples Received By (Print Name and Sign):

Date

Time

Samples Relinquished By (Print Name and Sign):

Date

Time

Samples Received By (Print Name and Sign):

Date

Time

Samples Relinquished By (Print Name and Sign):

Date

Time

Samples Received By (Print Name and Sign):

Date

Time

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

N: T-171272

### Laboratory Use Only

Work Order #: 25T335040

Cooler Quantity: 2 Large

Arrival Temperatures: 6.8 | 5.1 | 4.2

Depot Temperatures: 3.9 | 3.0 | 1.1

Custody Seal Intact: ☐ Yes ☐ No ☒ N/A

Notes: Bagged ice

### Turnaround Time (TAT) Required:

Regular TAT ☒ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT  
\*TAT is exclusive of weekends and statutory holidays

For 'Same Day' analysis, please contact your AGAT CSR

**CLIENT NAME: ENVISION CONSULTANTS LTD**  
**6415 NORTHWEST DRIVE, SUITE 40**  
**MISSISSAUGA, ON L4V 1X1**  
**647-618-7880**

**ATTENTION TO: Meagan Fullerton**

**PROJECT: 25-1032.199**

**AGAT WORK ORDER: 25T340977**

**TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist**

**DATE REPORTED: Sep 10, 2025**

**PAGES (INCLUDING COVER): 5**

**VERSION\*: 1**

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

**\*Notes**

**Disclaimer:**

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





## Certificate of Analysis

AGAT WORK ORDER: 25T340977

PROJECT: 25-1032.199

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

CLIENT NAME: ENVISION CONSULTANTS LTD

SAMPLING SITE: 5500 Dundas St W, Etobicoke

ATTENTION TO: Meagan Fullerton

SAMPLED BY: RL

### Toronto Sanitary and Combined Sewer Use By-law - Organic

DATE RECEIVED: 2025-09-04

DATE REPORTED: 2025-09-10

SAMPLE DESCRIPTION: BH 25-06					
SAMPLE TYPE: Water					
DATE SAMPLED: 2025-09-04 13:57					
Parameter	Unit	G / S: A	G / S: B	RDL	7026232
Di-n-butyl phthalate	mg/L	0.08	0.015	0.0005	<0.0005[<B]
Bis(2-Ethylhexyl)phthalate	mg/L	0.012	0.0088	0.0005	<0.0005[<B]
Total PAHs	mg/L	0.005	0.002	0.0003	<0.0003[<B]
Surrogate	Unit	Acceptable Limits			
2,4,6-Tribromophenol	%	50-140		85	
2-Fluorophenol	%	50-140		74	
Chrysene-d12	%	50-140		103	
phenol-d6 surrogate	%	50-140		98	

**Comments:** RDL - Reported Detection Limit; G / S - Guideline / Standard: A Refers to City of Toronto Sanitary and Combined Sewers Discharge, B Refers to City of Toronto Storm Sewer Discharge  
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

**7026232** Oil and Grease animal/vegetable is a calculated parameter. The calculated value is the difference between Total O&G and Mineral O&G.  
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.  
Note: The result for Benzo(b+j)Flouranthene is the total of the Benzo(b)&(j)Flouranthene isomers because the isomers co-elute on the GC column.  
Total PAHs is calculated as sum of Anthracene, Benzo(a)pyrene, Benzo(a)anthracene, Benzo(e)pyrene\*, Benzo(b+j)fluoranthene, Benzo(k)fluoranthene, Benzo(g,h,i)perylene, Chrysene, Dibenz(a,h)anthracene, Dibenzo(a,i)pyrene\*, Dibenzo(a,j) Acridine\*, 7H-Dibenzo(c,g)carbazole\*, Fluoranthene, Indeno(1,2,3-cd)pyrene, Perylene, Phenanthrene and Pyrene.  
\*-not accredited parameters.  
Nonylphenols is a calculated parameter. The calculated value is the sum of Nonylphenol (NP) and 4n-Nonylphenol (4n-NP).  
Nonylphenol Ethoxylates is a calculated parameter. The calculated value is the sum of Nonylphenol Monoethoxylate (NP1EO) and Nonylphenol Diethoxylate (NP2EO).  
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by \*)

**Certified By:**



## Quality Assurance

CLIENT NAME: ENVISION CONSULTANTS LTD

PROJECT: 25-1032.199

SAMPLING SITE: 5500 Dundas St W, Etobicoke

AGAT WORK ORDER: 25T340977

ATTENTION TO: Meagan Fullerton

SAMPLED BY: RL

### Trace Organics Analysis

RPT Date: Sep 10, 2025

RPT Date: Sep 10, 2025			DUPLICATE			Method Blank	REFERENCE MATERIAL		METHOD BLANK SPIKE			MATRIX SPIKE			
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

#### Toronto Sanitary and Combined Sewer Use By-law - Organic

Di-n-butyl phthalate	7023516	< 0.0005	< 0.0005	NA	< 0.0005	74%	50%	140%	95%	50%	140%	88%	50%	140%
Bis(2-Ethylhexyl)phthalate	7023516	< 0.0005	< 0.0005	NA	< 0.0005	85%	50%	140%	101%	50%	140%	102%	50%	140%

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

Certified By:



## Method Summary

**CLIENT NAME:** ENVISION CONSULTANTS LTD

**PROJECT:** 25-1032.199

**SAMPLING SITE:**5500 Dundas St W, Etobicoke

**AGAT WORK ORDER:** 25T340977

**ATTENTION TO:** Meagan Fullerton

**SAMPLED BY:**RL

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
<b>Trace Organics Analysis</b>			
Di-n-butyl phthalate	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Bis(2-Ethylhexyl)phthalate	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Total PAHs	ORG-91-5114	modified from EPA 3510C and EPA 8270E	CALCULATION
2,4,6-Tribromophenol	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
2-Fluorophenol	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
Chrysene-d12	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS
phenol-d6 surrogate	ORG-91-5114	modified from EPA 3510C and EPA 8270E	GC/MS



## Laboratory Use Only

Work Order #: 25T3 40977

Cooler Quantity: 1 med  
Arrival Temperatures: 9.2 | 9.5 | 9.9  
Depot Temperatures: \_\_\_\_\_  
Custody Seal Intact: ☐ Yes ☐ No ☒ N/A  
Notes: 100% IL

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

### Report Information:

Company: EnVision Consultants Ltd.  
Contact: Meagan Fullerton  
Address: 6415 Northwest Dr. Units 37-40  
MISSISSAUGA ON, L4V1X7  
(905) 677-0202 Fax: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Reports to be sent to: mfullerton@envisionconsultants.ca  
1. Email: jkeirsage@envisionconsultants.ca  
2. Email: \_\_\_\_\_

### Project Information:

Project: 25-1032.199  
Site Location: 5500 Dundas St W, Etobicoke  
Sampled By: RL  
AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_  
Please note: If quotation number is not provided, client will be billed full price for analysis.

### Invoice Information:

Bill To Same: Yes ☒ No ☐

Company: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Email: \_\_\_\_\_

### Regulatory Requirements:

(Please check all applicable boxes)

☐ Regulation 153/04

Table Indicate One

- ☐ Ind/Com  
☐ Res/Park  
☐ Agriculture

Soil Texture (Check One)

- ☐ Coarse  
☐ Fine

☐ Regulation 406

Table Indicate One

- ☐ Ind/Com  
☐ Res/Park  
☐ Agriculture

☐ Regulation 558

☐ CCME

☒ Sewer Use  
☒ Sanitary ☒ Storm  
Toronto  
Region

☐ Prov. Water Quality Objectives (PWQO)

☐ Other

Indicate One

Is this submission for a Record of Site Condition (RSC)?

- ☐ Yes ☐ No

Report Guideline on Certificate of Analysis

- ☐ Yes ☐ No

Legal Sample ☐

### Sample Matrix Legend

GW Ground Water SD Sediment  
O Oil SW Surface Water  
P Paint R Rock/Shale  
S Soil

Field Filtered - Metals, Hg, CrVI, DOC

O. Reg 153

Metals & Inorganics

Metals - ☐ CrVI ☐ Hg ☐ HWSB

BTEX, F1-F4 PHCs

VOC

PAHs

PCBs: Aroclors ☐

Regulation 406 Characterization Package

pH, Metals, BTEX, F1-F4

EC, SAR

Regulation 406 SPLP Rainwater Leach

mSPLP: ☐ Metals ☐ VOCs ☐ SVOCs ☐ OC

Landfill Disposal Characterization TCLP:

TCLP: ☐ IM&I ☐ VOCs ☐ ABNs ☐ BOP ☐ PCBs

Corrosivity: ☐ Moisture ☐ Sulphide

O. Reg 558

Potentially Hazardous or High Concentration (Y/N)

Sample Identification		Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N	Metals	Metals	BTEX, F	VOC	PAHs	PCBs: A	Regulation pH, Metals	EC, SAR	Regulation mSPLP:	Landfill	TCLP: <input type="checkbox"/>	Corrosi	Bis	Di-	Potentia
1.	BH25-06	09/04/25	1:57 PM	4	GW		✓													X	X	
2.			AM PM																			
3.			AM PM																			
4.			AM PM																			
5.			AM PM																			
6.			AM PM																			
7.			AM PM																			
8.			AM PM																			
9.			AM PM																			
10.			AM PM																			
11.			AM PM																			

Samples Relinquished By (Print Name and Sign):

RYAN LEWIS

Samples Relinquished By (Print Name and Sign):

Samples Relinquished By (Print Name and Sign):

Date:

09/04/25

Date:

Date:

Time:

3:05 PM

Time:

Time:

Samples Received By (Print Name and Sign):

Tiff

Samples Received By (Print Name and Sign):

Samples Received By (Print Name and Sign):

Date:

Date:

Date:

Date:

Time:

Time:

Time:

Time:

25 SEP 4 3:06 PM

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

No: T-171575



## **APPENDIX F:**

### *Groundwater Control*

Table G-1: Short-Term Dewatering Rates

Dewatering Source Information								Source Outputs		
Source #	Description	UTM 17N Coordinates			Dimensions (m)			Surface Area (m²)	Volume (m³)	R <sub>eff</sub> (m)
		Northing	Easting	Elevation	Width	Length	Depth			
1	P2 - Phase 1	4861699	608023	126.00	45.00	82.00	9.50	3690	35055	34.3
2	P2 - Phase 2	4861699	608023	126.00	45.00	87.00	9.50	3915	37192.5	35.3

Hydraulic Parameters									
Description	Source								
	1		2						
Max. Water Table Elevation (m)	124.75	masl	124.75	masl		masl		masl	
Aquifer Saturated Thickness (H)	13.75	m	13.75	m		m		m	
Target Dewatered Elev. (m)	116.5	masl	116.5	masl		masl		masl	
Dewatered Aquifer Saturated Thickness (h)	5.5	m	5.5	m		m		m	
Hydraulic Conductivity (K)	1.00E-08	m/sec	1.00E-08	m/sec		m/sec		m/sec	
Base of Aquifer (m)	111.00	masl	111.00	masl		masl		masl	
Ground Elevation (m)	126.0	masl	126.0	masl		masl		masl	

Dewatering Assessment										
Source #	H	h	K	r <sub>eff</sub>	R <sub>scih</sub>	R <sub>0</sub>	R <sub>0_ass</sub>	Q	S. Factor	Q
	(m)	(m)	(m/sec)	(m)	(m)	(m)	(m)	(m3/day)		(L/day)
1	13.75	5.5	1.00E-08	34.3	2.5	36.7	36.7	6.2	2	12,400
2	13.75	5.5	1.00E-08	35.3	2.5	37.8	37.8	6.4	2	12,700

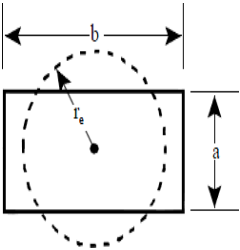
Stormwater Contribution			Storage Calculation			Pumping Time		Dewatering Discharge Rates (Maximum Expected with Stormwater)		
Source	Precipitation	Volume	s	Sy	V <sub>s</sub>	30	60	Source	Q (30 Days Pumping)	Q (60 Days Pumping)
	(mm/day)	(m <sup>3</sup> /day)	(m)	Unitless	(m3)	(L/day)	(L/day)		(L/day)	(L/day)
1	20	73.80	8	0.25	13,830	461,000	230,500	1	473,400	242,900
2	20	78.30	8	0.25	14,850	495,000	247,500	2	507,700	260,200

Effective Radius Approximation

$$R_{eff} = \sqrt{\frac{ab}{\pi}}$$

Where;

R<sub>eff</sub> = Effective radius of the excavation (m)  
a = width of excavation (m)  
b = length of excavation (m)



Conversion Factors Used (Typical)		
1 m	=	3.28 ft
1 cu. m.	=	1000 L
1 day	=	1440 min
1 day	=	86,400 sec.

Sichardt Approximation for Radius of Influence

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

Where;

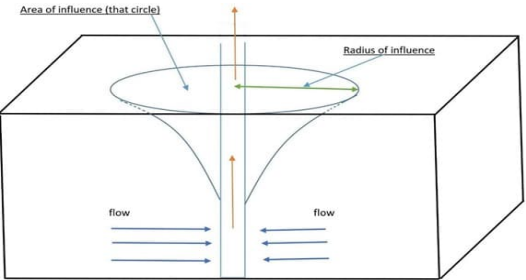
R<sub>0</sub> = Radius of influence(m)  
(H-h) = change in aquifer saturated thickness (m)  
K =hydraulic conductivity(m/sec)

Radial Flow to Source (Unconfined)

$$Q = \frac{\pi K(H^2 - h^2)}{\ln R_0/r_{eff}}$$

Where;

Q = discharge volume (m³/day)  
K = hydraulic conductivity (m/day)  
H = saturated aquifer thickness (m)  
h = dewatered aquifer thickness (m)  
R<sub>0</sub> = Radius of influence (m)  
R<sub>eff</sub> = Effective radius of the excavation (m)



Sources:

Construction dewatering and groundwater control, Powers, J.P., 2007  
Kyrieleis, W., Sichardt, W. – Grundwasserabsenkung bei Fundierungsarbeiten, Springer, Berlin, 1930