



May 25, 2022

Ahmed Developments Inc.
230 - 2000 Argentia Road Plaza 4
Mississauga, Ontario, L5N 1W1

E-mail: m@ahmed.group

Attention: Mr. Moe Ahmed,
President

Re: Hydrogeological Assessment
1000 & 1024 Dundas Street East, Mississauga, Ontario
Pinchin File: 275471.004

Pinchin Ltd. (Pinchin) has been retained by Ahmed Developments Inc. (Client) to provide a hydrogeological assessment for the proposed redevelopment of the property located at 1000 & 1024 Dundas Street East (Site), in the City of Mississauga (City), Ontario.

A hydrogeological assessment was conducted at the Site to support the Development Application process for the proposed re-development. This letter provides a summary of soil and groundwater conditions at the Site and a conservative estimate of the volume of water that may require management during the construction and operations phases of the re-development of the Site. An evaluation of the quality of groundwater that could theoretically be discharged as part of the potential Site dewatering is also provided.

1.0 INTRODUCTION AND BACKGROUND

The Site is located on the southeast side of Dundas Street East, approximately 70 m northeast of the intersection of Dundas Street East and Tomken Road, and is bounded by the Dundas Street East road allowance and roadway to the northwest and by commercial properties to the northeast, southeast and southwest. The approximate site location is shown in Figure 1.

The Site comprises a total area of approximately 8,700 m² or 2.15 acres, and consists of two parcels of land identified as 1000 and 1024 Dundas Street East, Mississauga. The Site is currently occupied by two commercial buildings, at-grade asphalt parking lot and landscaped areas.

It is Pinchin's understanding that the Client intends to re-develop the Site to construct two mixed-used tower buildings with two levels of common underground parking, with a portion of the Site adjacent to Dundas Street East to be conveyed to the City.



1.1 Purpose

The purpose of this hydrogeological assessment was to characterize the soil and groundwater conditions of the Site, evaluate the dewatering requirements for the proposed construction and operations phases of the development, evaluate the groundwater quality of potential discharge water, assess any potential impacts on the surrounding environment due to the proposed development, and provide recommendations concerning mitigative measures, if required.

1.2 Proposed Development Parameters

It is Pinchin's understanding that the existing structures will be demolished to facilitate the re-development of the Site to include a 16-storey and a 20-storey tower building (Towers A and B) on a 4-storey podium, with a single two-level underground parking structure.

Architectural Site Plans A-200 to A-202 and A-401 dated May 24, 2022, prepared by WZMH Architects, are provided in Appendix I.

For the purpose of dewatering estimates, the following parameters have been assumed:

- The site development area is 8,115.12 m²;
- The P2 underground parking will be 7.1 m below the ground level;
- The footprint of the underground levels is approximately 8,040.7 m².

It is understood that conventional spread footing foundations will be designed for the proposed buildings. Based on the available topographic data, the topographic elevation in the development area is between 120 meters above sea level (masl) and 125 masl. The established grade in Architectural Site Plan A-410 – Building Section is 122.05 masl.

1.3 Previous and Current Investigations

Concurrent with this investigation, Pinchin completed a Phase One Environmental Site Assessment (ESA) and Geotechnical Investigation at the Site. There are no other known subsurface investigations at the Site.

The geologic data obtained from the Geotechnical Investigation was used in this hydrogeological assessment.

2.0 METHODOLOGY

The hydrogeological assessment was conducted at the Site concurrently with a geotechnical investigation, during which six boreholes (BH1 to BH6) were advanced at the Site to depths of approximately 9.1 meters below existing ground surface (mbgs), and completed as monitoring wells identified as BH/MW1 to BH/MW6. The approximate monitoring well locations are shown in Figure 2.



The scope of work for the hydrogeological assessment consisted of the following tasks:

- A review of well installation details obtained from the geotechnical investigation;
- A desktop water well inventory survey using data from the MECP Water Well Information System (WWIS) database within 250 m of the Site property boundaries;
- A Review and summary of the regional geology and hydrogeology, and its linkage to the site-specific geology and hydrogeology;
- Water Level monitoring every two weeks for a period of one month after well installation in November 2021, and subsequently in December 2021, and February, March, April, and May of 2022 (a total of seven monitoring rounds) to capture the seasonal variation in the groundwater table;
- Rising Head Hydraulic Conductivity testing of five selected monitoring wells;
- Preparation of local scale geologic cross-sections, groundwater elevation contours and flow directions;
- Background groundwater quality analysis for Peel Region Sewer Use By-law parameters;
- A review of the conceptual/architectural design and details of the proposed re-development, and completion of a dewatering assessment for the construction and operations phases of the proposed re-development;
- Potential impact assessment with mitigative measures, if required; and
- Preparation of a hydrogeological assessment report summarizing the findings of the investigation.

3.0 WATER WELL RECORDS

Water well records from within a 250 m radius of the Site were accessed from the Ontario Ministry of the Environment, Conservation and Parks (MECP) Water Well Information System (WWIS).

Based on a review of the water well database, a total of 12 water well records were found within a radius of 250 m from the Site. The MECP water well records are provided in Appendix II. All of the available records are related to test holes, observation wells or monitoring wells, and there are no water supply wells. The approximate MECP water well locations are presented on Figure 3.

Based on the water well records, shallow bedrock was encountered at the well locations at depths ranging from 0.3 mbgs to 2.1 mbgs.



4.0 GEOLOGY

Based on data from the Ontario Geological Survey, the Site is located in the Iroquois Plain physiographic region, which is described as a sand plain physiographic landform, covered by coarse-textured glaciolacustrine, foreshore and basinal deposits comprised of sand, gravel, with minor silt and clay and underlain by the Upper Ordovician Georgian Bay Formation consisting of shale and limestone.

5.0 SURFACE WATER AND TOPOGRAPHY

The Site is located in the Lake Ontario Shoreline East Tributaries Subwatershed within the Credit River Watershed, which is under the jurisdiction of Credit Valley Conservation (CVC). No open water body is located on or near the Site. Lake Ontario is located approximately 4.5 km southeast of the Site.

The topographic contours shown on Figure 3 indicated that the Site generally slopes towards the southeast.

6.0 RESULTS

Six boreholes and monitoring wells were completed at the Site as part of the concurrent geotechnical and hydrogeological investigations. The data and information obtained from the geotechnical field programs was incorporated into this report. The six monitoring wells were utilized for the groundwater level monitoring, sampling and hydraulic conductivity testing during this hydrogeological assessment.

The approximate borehole/monitoring well locations are shown on Figure 2. The borehole logs for the boreholes/monitoring wells are provided in Appendix III.

6.1 Soil Stratigraphy

In general, the soil stratigraphy at the drilling locations consists of fill materials under an asphaltic pavement structure, underlain by bedrock or sand and bedrock.

The encountered main stratigraphic units are detailed as follows:

Fill Materials: encountered in all the boreholes, extending to a maximum depth of approximately 4.6 mbgs, and generally consists of sand and gravel, gravelly sand, sand, silt and/or clayey silt.

Sand: encountered only in BH/MW5, with a thickness of approximately 2.3 m.

Shale Bedrock

The shale bedrock was encountered in all the borehole locations at the depths ranging from approximately 3 mbgs to 4.6 mbgs.

The details of the soil descriptions and stratigraphy are presented in the Borehole Logs provided in Appendix III. A cross-section showing the stratigraphy across the Site is provided on Figure 4 of this report.



6.2 Water Level Elevations and Groundwater Flow Regime

Six monitoring wells were completed at the Site. The approximate monitoring well locations are shown in Figure 2 and the monitoring well construction details are presented in Table 1.

Water level measurements were undertaken on eight occasions between November 15, 2021 and May 16, 2022. The groundwater level data is presented in Table 2 of this letter report.

The groundwater levels measured after well development ranged from 3.19 mbgs at BH/MW2 (March 14, 2022) to 6.17 mbgs at BH/MW5 (May 16, 2022), and groundwater level elevations ranged from 114.67 masl at BH/MW5 (May 16, 2022) to 117.39 masl at BH/MW1 (March 14, 2022). It should be noted that the water levels measured prior to well development on November 11, 2021 are not representative of the static water level, since water was used for rock coring during the well installation activities.

The highest water levels to date across the Site were measured on March 14, 2022. Water levels in April and May 2022 have been successively decreasing since the March 2022 event.

Based on the groundwater elevations obtained on November 23, 2021, groundwater elevation contours were prepared and are presented on Figure 5. The groundwater flow directions across the Site were inferred to be generally towards the south.

6.3 Hydraulic Conductivity Estimates

Rising head hydraulic conductivity (K-) tests were conducted at five of the monitoring wells (BH/MW1, BH/MW3, BH/MW4, BH/MW5 and BH/MW6) on November 15, 2021. The results of K tests and data processing records are provided in Appendix IV.

The estimated hydraulic conductivities (K-values) for the tested/screened intervals at the five tested on-Site wells are as follows:

MWs	Screen Interval (mbgs)	Screened Soil	K-Estimate (cm/sec)
BH/MW1	6.1 - 9.1	Shale	5.8×10^{-5}
BH/MW3	6.1 - 9.1	Shale	1.3×10^{-5}
BH/MW4	6.1 - 9.1	Shale	3.5×10^{-5}
BH/MW5	6.1 - 9.1	Shale	2.3×10^{-4}
BH/MW6	6.1 - 9.1	Shale	1.5×10^{-4}

The estimated hydraulic conductivities (K-values) at the Site ranged from a high of 2.3×10^{-4} cm/sec (BH/MW5) to a low of 1.5×10^{-5} cm/sec (BH/MW3), with a geometric mean of 6.2×10^{-5} cm/sec.



7.0 DEWATERING ESTIMATES

Based on the Site Plans provided in Appendix I, the proposed development will have a two-level common underground parking structure. The P2 level is assumed to be at approximately 7.1 m below the ground floor elevation. As mentioned, the elevations surveyed for the six monitoring well locations range from 120.0 masl to 122.2 masl. For the purpose of the dewatering assessment, the established grade from Plan A-410 is 122.05 masl. Therefore, the P2 level floor elevation will be at approximately 114.95 masl.

It is understood that the shale bedrock at the Site is anticipated at depths ranging from 3 mbgs to 4.6 mbgs, and the buildings will be founded on conventional spread footings on bedrock.

Based on the measured static groundwater levels, the groundwater elevations ranged from approximately 114.7 masl to 117.4 masl, which are above the P2 level elevation. Groundwater control will be required during construction and operations phases of the buildings.

7.1 Short-Term Construction Dewatering Assessment

7.1.1 Groundwater Inflow

Given the proposed design provided in Appendix I, shoring and excavation of almost the entire site area is assumed for the underground structure. A conservative groundwater dewatering scenario during construction was undertaken that employed the following parameters and assumptions.

- The site development area is 8,115.12 m² (Note: the underground footprint area is approximately 8,040.7 m²)
- The lowest slab elevation of the two-level underground structure is approximately 114.95 masl. Assuming that the excavation will extend to 1 meter below the underground parking concrete slab for the footing/foundation construction, the excavation bottom will be at 113.95 masl. The excavation will cut through the fill materials and overburden deposits and into the shale bedrock.
- The initial groundwater level will be assumed to be 117.5 masl (highest static groundwater level measured up to date is 117.39 masl at BH/MW1).
- The target water level will be lowered to 0.5 m below the excavation bottom, or 113.45 masl.
- The hydraulic conductivity is 6.2 x 10⁻⁵ cm/sec (the average of the hydraulic conductivity estimates from the five tested monitoring wells).



Based on the above assumptions, the short-term construction dewatering rate and zone of influence were estimated and are presented below.

Excavation Area (m²)	Initial Water Level (masl)	Target Water Level (masl)	K- Estimate (cm/sec)	Estimated Zone of Influence (m from Edge of Excavation)	Dewatering Rate (without Safety Factor) (L/day)	Dewatering Rate Estimate with Safety Factor of 2 or 100% (L/day)
8,115	117.5	113.45	6.2×10^{-5}	10	19,951	39,902

The dewatering estimates are indicative of moderate-permeability formations. It should be noted that the application of a Safety Factor provides a more conservative assessment for planning purposes to account for potential variabilities in the hydraulic conductivities in the soil and bedrock across the Site. In addition, during the initial stages of the construction dewatering, the dewatering volumes would be greater than those under a steady state condition, because the water stored in the soils is also being removed.

The above total volume estimate, assuming that one bulk excavation will be undertaken for the underground structure, and including a Safety Factor of 2, or 100%, is below the threshold for an Environmental Activity Sector Registration (EASR) requirement for construction dewatering of more than 50,000 L/day (50 m³/day) and less than 400,000 L/day (400 m³/day).

7.1.2 Stormwater Inflow

A significant amount of the dewatering demand from any construction project is the volume of water that is derived from stormwater that is generated during and after precipitation events.

For planning purposes, dewatering estimates are developed assuming the potential occurrence of extreme storm events, which are based upon events that have an observed “return period” or period of recurrence.

In the case of the proposed development, it will be necessary to handle stormwater that will accumulate within the excavation footprint.

Based on Canadian Climatic Normals 1981-2010 Station Data for Toronto Pearson International Airport Station, the days which had precipitation rate between 10 mm/day and 25 mm/day vary from 0.77 to 2.6 days per year, with an average of 1.9 days per year, and the days which had a precipitation rate greater than 25 mm/day vary from 0.07 to 0.9 days per year, with an average of 0.4 days per year.

The volume of water that can be generated within the Site at the full excavation extent of the underground levels of approximately 8,115 m² was estimated for a 30 mm/day high-precipitation storm event.



The estimated stormwater inflow is summarized below:

Excavation Area (m ²)	Precipitation Rate (mm/day)	Stormwater Volume (L/day)
8,115	30	243,450

The dewatering requirement from a high-precipitation storm with a rate of 30 mm/day was estimated to be 243,450 L/day. It should be noted that the above estimate does not take into account any infiltration or evaporation in the excavation area. However, it should also be noted that, for infrequent extreme storm events, the great majority of the generated stormwater becomes run-off or accumulates in the excavation area, due to the fixed assimilative capacity of the soils and the minimal evaporation until the cessation of the event.

7.1.3 Summary of Construction Dewatering Estimates

Based on the short-term construction dewatering calculations discussed above, the estimated construction phase dewatering rates are summarized below.

Construction Dewatering	Total Volume without Safety Factor for Groundwater (L/day)	Total Volume with Safety Factor of 2 for Groundwater (L/day)
Discharge of Groundwater	19,951	39,902
Discharge of Stormwater	243,450	243,450
Discharge of Groundwater and Stormwater	263,401	283,352

The volume estimates for the total short-term dewatering rate are above the threshold for an Environmental Activity Sector Registration (EASR) requirement for construction dewatering of more than 50,000 L/day (50 m³/day) and less than 400,000 L/day (400 m³/day). However, they are below the threshold limit of 400,000 L/day for a permit-to-take-water (PTTW) from the MECP.

An EASR registration will be required for the construction dewatering activities for the proposed development.

7.2 Long-Term Dewatering Estimate - Operations

The same calculation methodology for short-term dewatering estimate was used for the long-term dewatering estimate, except for employing different target groundwater levels and drainage area.



The following parameters were employed:

- Building Footprint Area: 8,040.7 m²; and
- Target Water Level: 113.7 m (0.2 m below P2 concrete slab).

The estimated long-term dewatering rate and zone of influence are presented below.

Footprint Area (m ²)	Initial Water Level (masl)	Target Water Level (masl)	K- Estimate (cm/sec)	Estimated Zone of Influence (m from edge of Excavation)	Dewatering Rate (without safety factor) (L/day)	Dewatering Rate Estimate with safety factor of 2 or 100% (L/day)
8,040.7	117.5	114.75	6.2 X 10 ⁻⁵	6	10,532	21,065

The total dewatering volume estimated for long-term building operations, including a Safety Factor of 2, is below the threshold for long-term dewatering of 50,000 L/day (50 m³/day) that triggers a PTTW requirement from the MECP. A PTTW will not be required for the proposed building operations.

8.0 GROUNDWATER QUALITY

Two groundwater samples were obtained on November 15, 2021 from BH/MW1 and BH/MW4 to evaluate the water quality with reference to the Peel Region Sewer Use By-Law parameter criteria, for storm sewer and sanitary sewer discharge.

The groundwater samples were submitted to and analyzed by Bureau Veritas Laboratories (BV). BV has been accredited by Canadian Association For Laboratory Accreditation Inc. (CALA). The laboratory Certificate of Analysis is provided in Appendix V.

The analytical results were compared with the Peel Region Sewer Use Bylaw – Sanitary and Storm Sewer Discharge Limits. Exceedances of the Sanitary Sewer Discharge limits were not detected for any of the analyzed parameters in either of the groundwater samples. However, exceedances of the Storm Sewer Discharge Limits were measured in the analyzed water samples for 4 parameters, including Total Kjeldahl Nitrogen (TKN), total manganese, total suspended solids (TSS) and total cyanide (BH/MW1 only), which are listed below.

The average cyanide concentration from the two sampled wells was below the Sewer Use criterion of 0.020 mg/L (0.0143 mg/L).

Monitoring Well	Parameter	Unit	Storm Water Guideline Value	Sanitary Sewer Guideline Value	Measured Concentration
BH/MW1	TKN	mg/L	<u>1</u>	100	1.8
	TSS	mg/L	<u>15</u>	350	160
	Manganese	mg/L	<u>0.05</u>	5	1.6
	Cyanide	mg/L	<u>0.02</u>	2	0.028
BH/MW4	TKN	mg/L	<u>1</u>	100	2.5
	TSS	mg/L	<u>15</u>	350	86
	Manganese	mg/L	<u>0.05</u>	5	0.63

It is considered that the exceedances of the sewer use discharge limits are attributed to sediment within the sample and may be reduced to acceptable levels following treatment for TSS prior to discharge. It should be noted, however, that manganese is commonly present in elevated concentrations in shallow groundwater in the Greater Toronto Area. Sampling and analysis of a filtered groundwater sample for metals and TKN should be considered to evaluate the affect of filtering discharge groundwater on the concentrations of these parameters.

9.0 CONCLUSIONS

Pinchin provides the following conclusions arising out of the Hydrogeology Assessment activities to date:

- The Site is located in the Iroquois Plain physiographic region, which is described as a sand plain physiographic landform, covered by coarse-textured glaciolacustrine, foreshore and basinal deposits comprised of sand, gravel, with minor silt and clay and underlain by the Upper Ordovician Georgian Bay Formation consisting of shale and limestone.
- The Site is located in the Lake Ontario Shoreline East Tributaries Subwatershed within the Credit River Watershed, which is under the jurisdiction of Credit Valley Conservation (CVC). No open water body is located on or near the Site. Lake Ontario is located approximately 4.5 km southeast of the Site.
- The soil stratigraphy at the drilling locations generally consists of fill materials under an asphaltic pavement structure, underlain by bedrock or sand and bedrock. Shale bedrock was encountered at depths ranging from approximately 3 mbgs to 4.6 mbgs;



- Water level measurements completed in November 2021 indicated that the measured static groundwater levels ranged from 3.62 mbgs to 6.15 mbgs, with groundwater level elevations ranging from 114.72 masl to 117.30 masl. The groundwater flow direction was inferred to be generally towards the south;
- The hydraulic conductivities (K-values) estimated from five monitoring well locations ranged from a high of 2.3×10^{-4} cm/sec (BH/MW5) to a low of 1.5×10^{-5} cm/sec (BH/MW3), with a geometric mean of 6.2×10^{-5} cm/sec;
- The short-term dewatering rate that was estimated for the construction phase, incorporating a Safety Factor of 2, is 39,902 L/day for dewatering from groundwater, with an estimated maximum discharge of 283,352 L over a 24-hr. period from groundwater plus a high-precipitation storm rate of 30 mm/day.
- The long-term dewatering rate estimated for the building operations phase, incorporating a Safety Factor of 2, is 21,065 L/day;
- A PTTW will not be required either for the short-term or long-term dewatering. However, an EASR registration will be required for the short-term construction dewatering; and
- A groundwater quality assessment completed as per the Peel Region Sewer Use Bylaw indicated that the water generated at the Site could be discharged to the sanitary sewer system. However, it cannot be discharged directly into the storm sewer system without appropriate treatment for TSS, and potentially, manganese and TKN.

10.0 RECOMMENDATIONS

Pinchin present the following recommendations to support detailed design of the proposed development:

- 1) Sampling and analysis of a filtered groundwater sample for metals and TKN is recommended to evaluate the effect of filtering discharge groundwater on the concentrations of these parameters.

11.0 LIMITATIONS

Conclusions derived are specific to the immediate area of study and cannot be extrapolated extensively away from sample or testing locations. Samples have been analyzed for a limited number of parameters, and the absence of information relating to a specific contaminant does not indicate that it is not present.

This report was prepared for the exclusive use of the Client and the City of Mississauga, subject to the terms, conditions and limitations contained within the duly authorized proposal for this project. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, is the sole responsibility of such third parties. Pinchin accepts no responsibility for damages suffered by any third party as a result of decisions made or actions conducted.



If additional parties require reliance on this report, written authorization from Pinchin will be required. Pinchin disclaims responsibility of consequential financial effects on transactions or property values, or requirements for follow-up actions and costs. No other warranties are implied or expressed. Furthermore, this report should not be construed as legal advice. Pinchin will not provide results or information to any party unless disclosure by Pinchin is required by law.

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

Pinchin will not be responsible for any consequential or indirect damages. Pinchin will only be liable for damages resulting from negligence or wilful misconduct of Pinchin. All claims by the Client shall be deemed relinquished if not made within two years after last date of services provided.

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Hydrogeological Assessment

1000 & 1024 Dundas Street East, Mississauga, Ontario
Ahmed Developments Inc.

May 25, 2022

Pinchin File: 275471.004

12.0 CLOSING REMARKS

We trust that the information provided in this letter meets your requirements. If you have any questions, or require additional information, please do not hesitate to contact either of the undersigned.

Yours truly,

Pinchin Ltd.

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Encl.: Figures

Table 1 – Monitoring Well Construction Details

Table 2 – Water Level Summary Table

Appendix I – Site Plans

Appendix II – Water Well Records

Appendix III – Borehole Logs

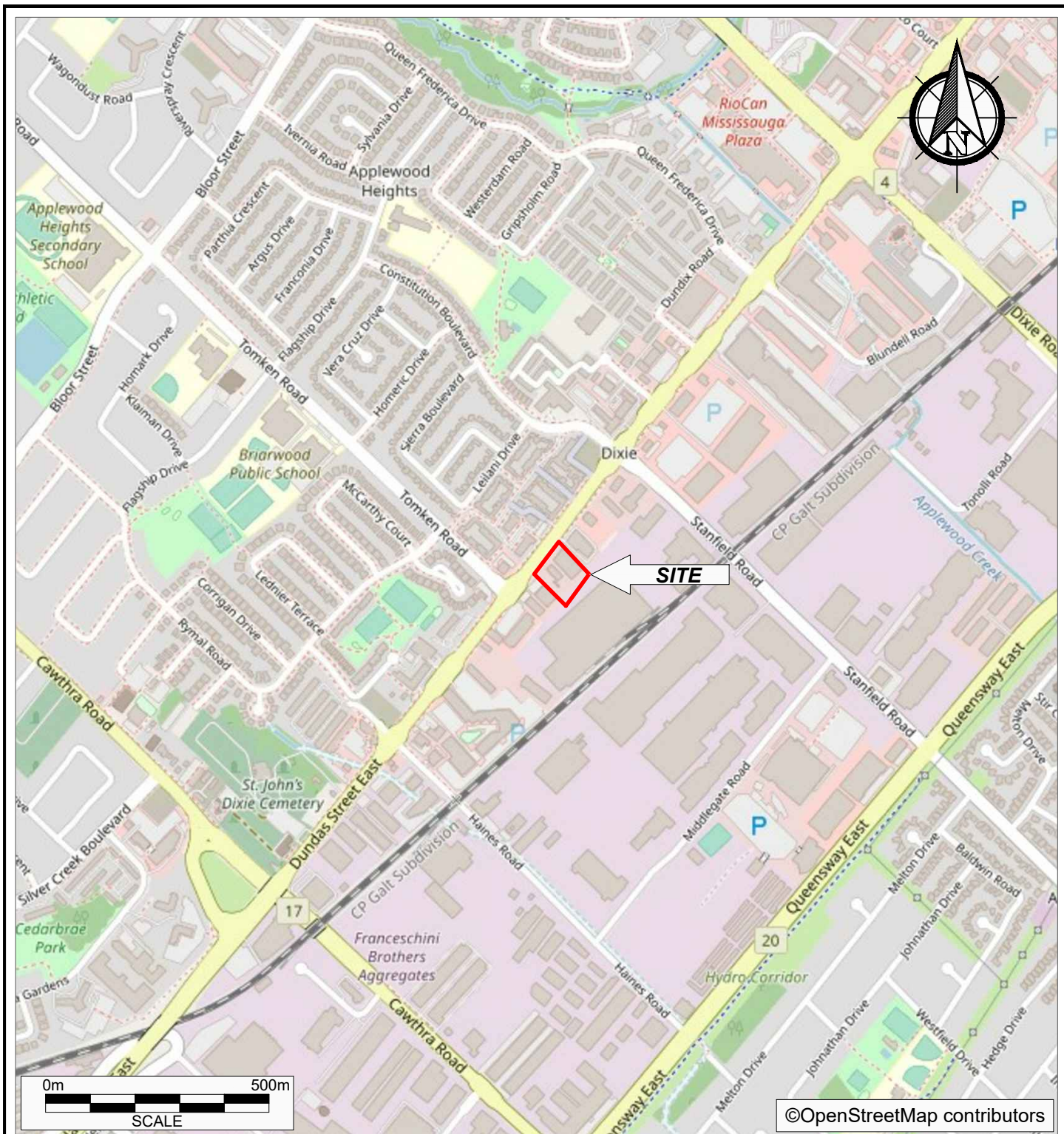
Appendix IV – Rising Head Hydraulic Conductivity Test Curves


Appendix V – Laboratory Certificate of Analysis



275471.004 Hydrogeology Assessment 1000 & 1024 Dundas Street East Mississauga ON May 25 2022.docx

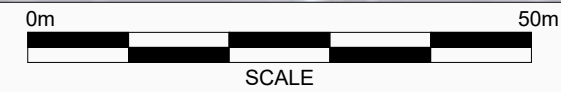
Figures and Tables



	PROJECT NAME			FIGURE NO. 1
	HYDROGEOLOGICAL ASSESSMENT			
	CLIENT NAME			
	AHMED DEVELOPMENTS INC.			
	PROJECT LOCATION			
	1000 AND 1024 DUNDAS STREET EAST, MISSISSAUGA, ONTARIO			
FIGURE NAME			KEY MAP	1
SCALE				
AS SHOWN				
PROJECT NO.		DATE		
275471.004		NOV. 2021		



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LEGEND

- SITE BOUNDARY
- SITE BUILDING
- BOREHOLE/MONITORING WELL (PINCHIN 2021)
- (#) GROUND ELEVATION IN masl
- masl METRES ABOVE SEA LEVEL
- A A' CROSS-SECTION LINE

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INTERPRETATION.

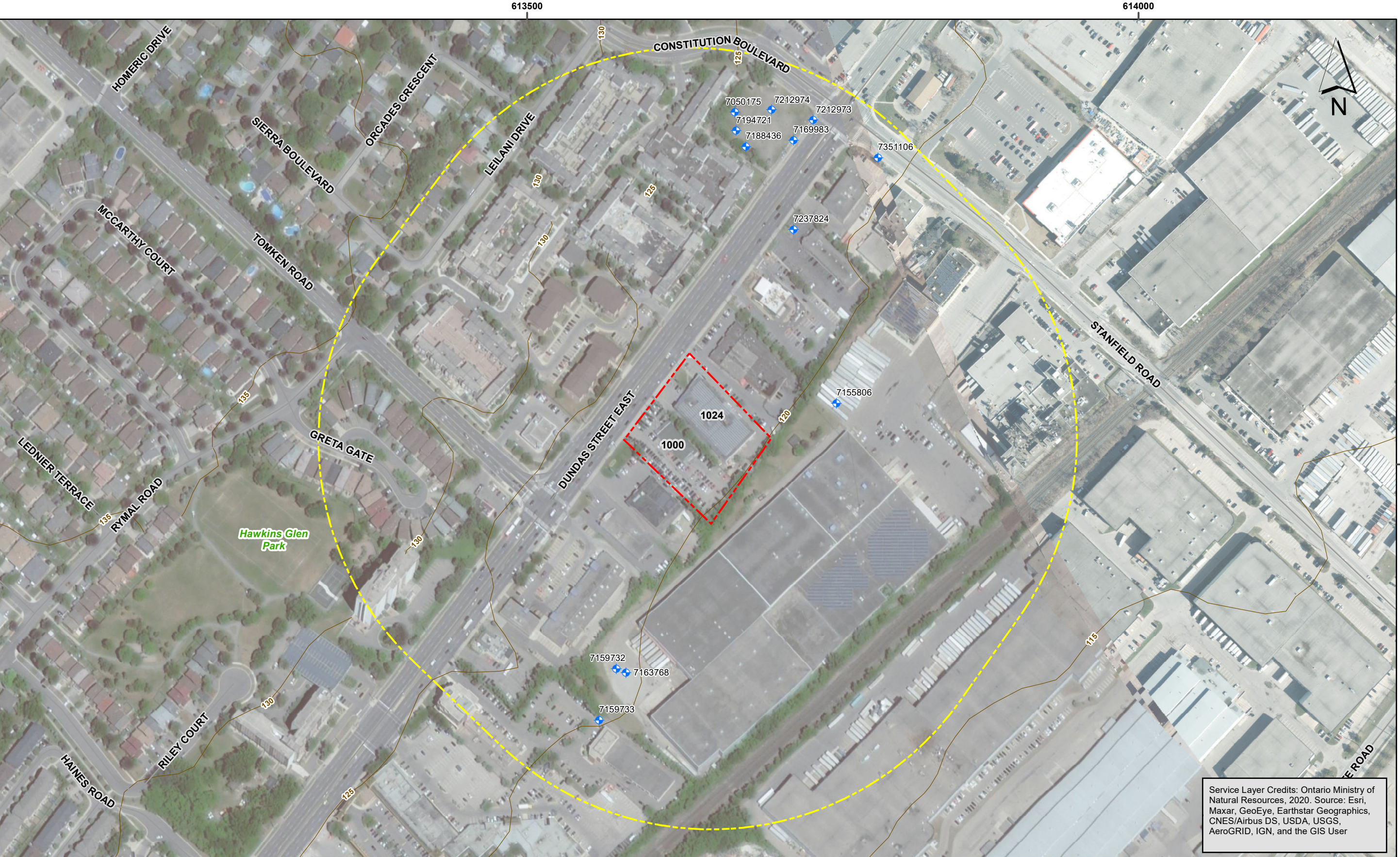
PROJECT NAME:
**HYDROGEOLOGICAL
ASSESSMENT**

CLIENT NAME:
AHMED DEVELOPMENTS INC.


PROJECT LOCATION:
**1000 AND 1024 DUNDAS STREET
EAST, MISSISSAUGA, ONTARIO**

FIGURE NAME:
**BOREHOLE/MONITORING WELL
LOCATION PLAN**

PROJECT NUMBER: 275471.004	SCALE: AS SHOWN
DRAWN BY: KP	REVIEWED BY: BG
DATE: NOV. 2021	FIGURE NUMBER: 2



Service Layer Credits: Ontario Ministry of Natural Resources, 2020. Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User

	PROJECT NAME:	Hydrogeological Assessment	PROJECT NO.	275471.005	LEGEND <div><div><div></div></div> Site Boundary</div> <div><div></div></div> 250 m Radius <div><div></div></div> Roadway <div><div></div></div> Topography Contours (5 m) <div>Ontario Water Well Records <div><div></div></div> Monitoring Well</div>	<div><div>03060120</div><div>Metres</div></div> <div>Coordinate System: NAD 1983 CSRS UTM Zone 17N Projection: Transverse Mercator Datum: North American 1983 CSRS</div>	
	CLIENT NAME:	Ahmed Developments Inc.	DATE:	November 2021			
	PROJECT LOCATION:	1000 and 1024 Dundas Street East, Mississauga, Ontario	SCALE:	1:3,000			
	FIGURE NAME:	Ontario Water Well Records (250 m Radius)	FIGURE NO.	3			
					DRAWN BY: MH REVIEWED BY: BG REVISION: 0		



LEGEND

- SITE BOUNDARY
- SITE BUILDING
- BOREHOLE/MONITORING WELL (PINCHIN 2021)
- GROUNDWATER ELEVATION IN masl
- METRES ABOVE SEA LEVEL
- GROUNDWATER CONTOUR ELEVATION IN masl
- INFERRED GROUNDWATER FLOW DIRECTION

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INTERPRETATION.

PROJECT NAME:
HYDROGEOLOGICAL
ASSESSMENT

CLIENT NAME:
AHMED DEVELOPMENTS INC.

PROJECT LOCATION:
1000 AND 1024 DUNDAS STREET
EAST, MISSISSAUGA, ONTARIO

FIGURE NAME:
GROUNDWATER ELEVATIONS
AND INFERRED FLOW
DIRECTION

PROJECT NUMBER: 275471.004	SCALE: AS SHOWN
DRAWN BY: KP	REVIEWED BY: BG
DATE: NOV. 2021	FIGURE NUMBER: 5

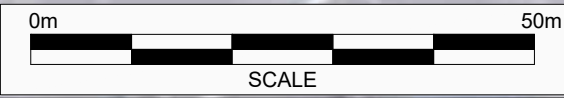




Table 1
MONITORING WELL CONSTRUCTION DETAILS
 Ahmed Developments Inc.
 1000 & 1024 Dundas Street East, Mississauga, Ontario

Monitoring Well	TOP Elevation (masl)	Borehole Depth (mbgs)	Ground Surface Elevation (masl)	Well Construction Details				
				Well Depth (mbgs)	Stick-Up Height (metres)	Well Diameter (centimetres)	Monitoring Well Screen Interval (mbgs)	Screened Soil
BH/MW1	122.15	9.1	122.22	9.1	-0.07	5.1	6.1 - 9.1	shale with limestone/dolostone stringers
BH/MW2	119.98	9.1	120.05	9.1	-0.07	5.1	6.1 - 9.1	shale with limestone/dolostone stringers
BH/MW3	120.75	9.1	120.84	9.1	-0.09	5.1	6.1 - 9.1	shale with limestone/dolostone stringers
BH/MW4	120.39	9.1	120.45	9.1	-0.06	5.1	6.1 - 9.1	shale with limestone/dolostone stringers
BH/MW5	120.82	9.1	120.89	9.1	-0.07	5.1	6.1 - 9.1	shale with limestone/dolostone stringers
BH/MW6	120.68	9.1	120.75	9.1	-0.07	5.1	6.1 - 9.1	shale with limestone/dolostone stringers

Notes:

TOP Top of Pipe
 masl metres above sea level
 mbgs metres below ground surface

TABLE 2
GROUNDWATER ELEVATION DATA
Ahmed Developments Inc.
1000 & 1024 Dundas Street East, Mississauga, Ontario

						November 11, 2021			November 15, 2021			November 23, 2021		
Well Number	TOP Elevation (masl)	Surveyed Ground Elevation (masl)	Well Depth (mbgs)	Screen Interval (mbgs)	Screen Interval Stratigraphy	Water Level from TOP (m)	Water Level from Ground (mbgs)	Calculated Water Level Elevation (masl)	Water Level from TOP (m)	Water Level from Ground (mbgs)	Calculated Water Level Elevation (masl)	Water Level from TOP (m)	Water Level from Ground (mbgs)	Calculated Water Level Elevation (masl)
BH/MW1	122.15	122.22	9.1	6.1 - 9.1	shale with limestone/dolostone stringers	4.03	4.10	118.12	4.85	4.92	117.30	4.87	4.94	117.28
BH/MW2	119.98	120.05	9.1	6.1 - 9.1	shale with limestone/dolostone stringers	3.10	3.17	116.88	-	-	-	3.55	3.62	116.43
BH/MW3	120.75	120.84	9.1	6.1 - 9.1	shale with limestone/dolostone stringers	5.11	5.20	115.64	6.00	6.09	114.75	6.03	6.12	114.72
BH/MW4	120.39	120.45	9.1	6.1 - 9.1	shale with limestone/dolostone stringers	3.20	3.26	117.19	5.07	5.13	115.32	5.42	5.48	114.97
BH/MW5	120.82	120.89	9.1	6.1 - 9.1	shale with limestone/dolostone stringers	5.23	5.30	115.59	6.07	6.14	114.75	6.08	6.15	114.74
BH/MW6	120.68	120.75	9.1	6.1 - 9.1	shale with limestone/dolostone stringers	2.23	2.30	118.45	5.58	5.65	115.10	5.72	5.79	114.96

Notes:

masl Metres Above Sea Level

TOP Top of Pipe

m Metres

mbgs Metres Below Ground Surface

TABLE 2
GROUNDWATER ELEVATION DATA
Ahmed Developments Inc.
1000 & 1024 Dundas Street East, Mississauga, Ontario

						December 7, 2021			December 22, 2021			February 15, 2022		
Well Number	TOP Elevation (masl)	Surveyed Ground Elevation (masl)	Well Depth (mbgs)	Screen Interval (mbgs)	Screen Interval Stratigraphy	Water Level from TOP (m)	Water Level from Ground (mbgs)	Calculated Water Level Elevation (masl)	Water Level from TOP (m)	Water Level from Ground (mbgs)	Calculated Water Level Elevation (masl)	Water Level from TOP (m)	Water Level from Ground (mbgs)	Calculated Water Level Elevation (masl)
BH/MW1	122.15	122.22	9.1	6.1 - 9.1	shale with limestone/dolostone stringers	4.89	4.82	117.26	4.88	4.81	117.27	4.96	4.89	117.19
BH/MW2	119.98	120.05	9.1	6.1 - 9.1	shale with limestone/dolostone stringers	3.44	3.37	116.54	3.42	3.35	116.56	3.50	3.43	116.48
BH/MW3	120.75	120.84	9.1	6.1 - 9.1	shale with limestone/dolostone stringers	6.01	5.92	114.74	5.95	5.86	114.81	5.94	5.85	114.81
BH/MW4	120.39	120.45	9.1	6.1 - 9.1	shale with limestone/dolostone stringers	5.34	5.28	115.05	4.74	4.68	115.65	4.76	4.70	115.63
BH/MW5	120.82	120.89	9.1	6.1 - 9.1	shale with limestone/dolostone stringers	6.07	6.00	114.75	6.01	5.94	114.81	6.11	6.04	114.71
BH/MW6	120.68	120.75	9.1	6.1 - 9.1	shale with limestone/dolostone stringers	5.42	5.35	115.27	5.26	5.19	115.42	5.19	5.12	115.49

Notes:

masl Metres Above Sea Level
TOP Top of Pipe
m Metres
mbgs Metres Below Ground Surface

TABLE 2
GROUNDWATER ELEVATION DATA
Ahmed Developments Inc.
1000 & 1024 Dundas Street East, Mississauga, Ontario

						March 14, 2022			April 14, 2022			May 16, 2022		
Well Number	TOP Elevation (masl)	Surveyed Ground Elevation (masl)	Well Depth (mbgs)	Screen Interval (mbgs)	Screen Interval Stratigraphy	Water Level from TOP (m)	Water Level from Ground (mbgs)	Calculated Water Level Elevation (masl)	Water Level from TOP (m)	Water Level from Ground (mbgs)	Calculated Water Level Elevation (masl)	Water Level from TOP (m)	Water Level from Ground (mbgs)	Calculated Water Level Elevation (masl)
BH/MW1	122.15	122.22	9.1	6.1 - 9.1	shale with limestone/dolostone stringers	4.76	4.69	117.39	4.77	4.84	117.38	4.91	4.98	117.24
BH/MW2	119.98	120.05	9.1	6.1 - 9.1	shale with limestone/dolostone stringers	3.26	3.19	116.72	3.28	3.35	116.70	3.28	3.35	116.70
BH/MW3	120.75	120.84	9.1	6.1 - 9.1	shale with limestone/dolostone stringers	5.79	5.70	114.96	5.86	5.95	114.89	6.08	6.17	114.67
BH/MW4	120.39	120.45	9.1	6.1 - 9.1	shale with limestone/dolostone stringers	4.39	4.33	116.00	4.43	4.49	115.96	4.46	4.52	115.93
BH/MW5	120.82	120.89	9.1	6.1 - 9.1	shale with limestone/dolostone stringers	5.94	5.87	114.88	5.96	6.03	114.86	6.04	6.11	114.78
BH/MW6	120.68	120.75	9.1	6.1 - 9.1	shale with limestone/dolostone stringers	5.04	4.97	115.65	5.10	5.17	115.58	5.20	5.26	115.49

Notes:

masl

Metres Above Sea Level

TOP

Top of Pipe

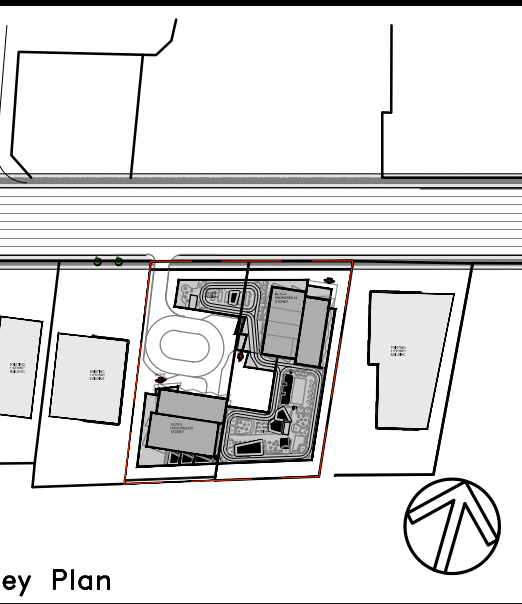
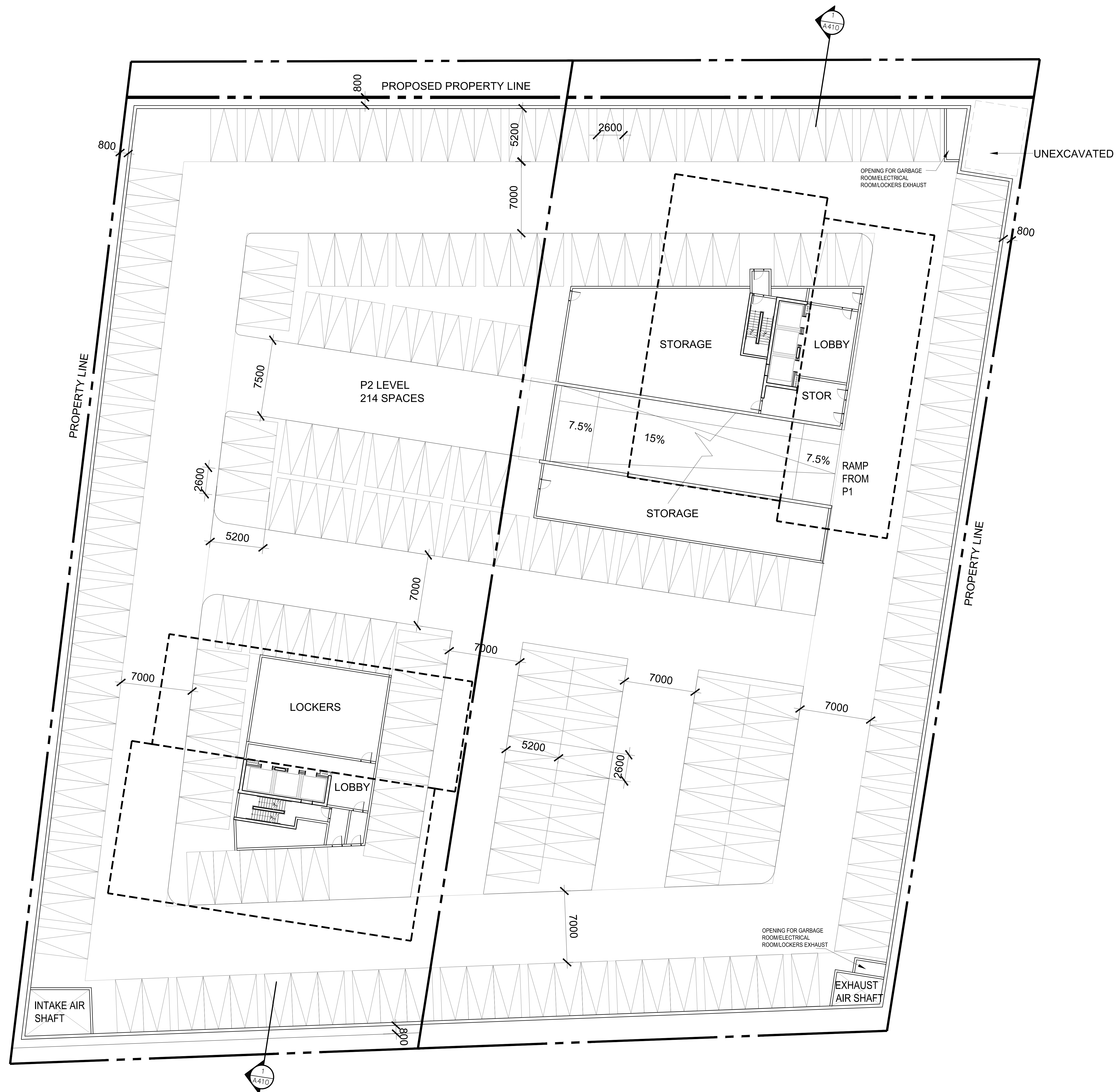
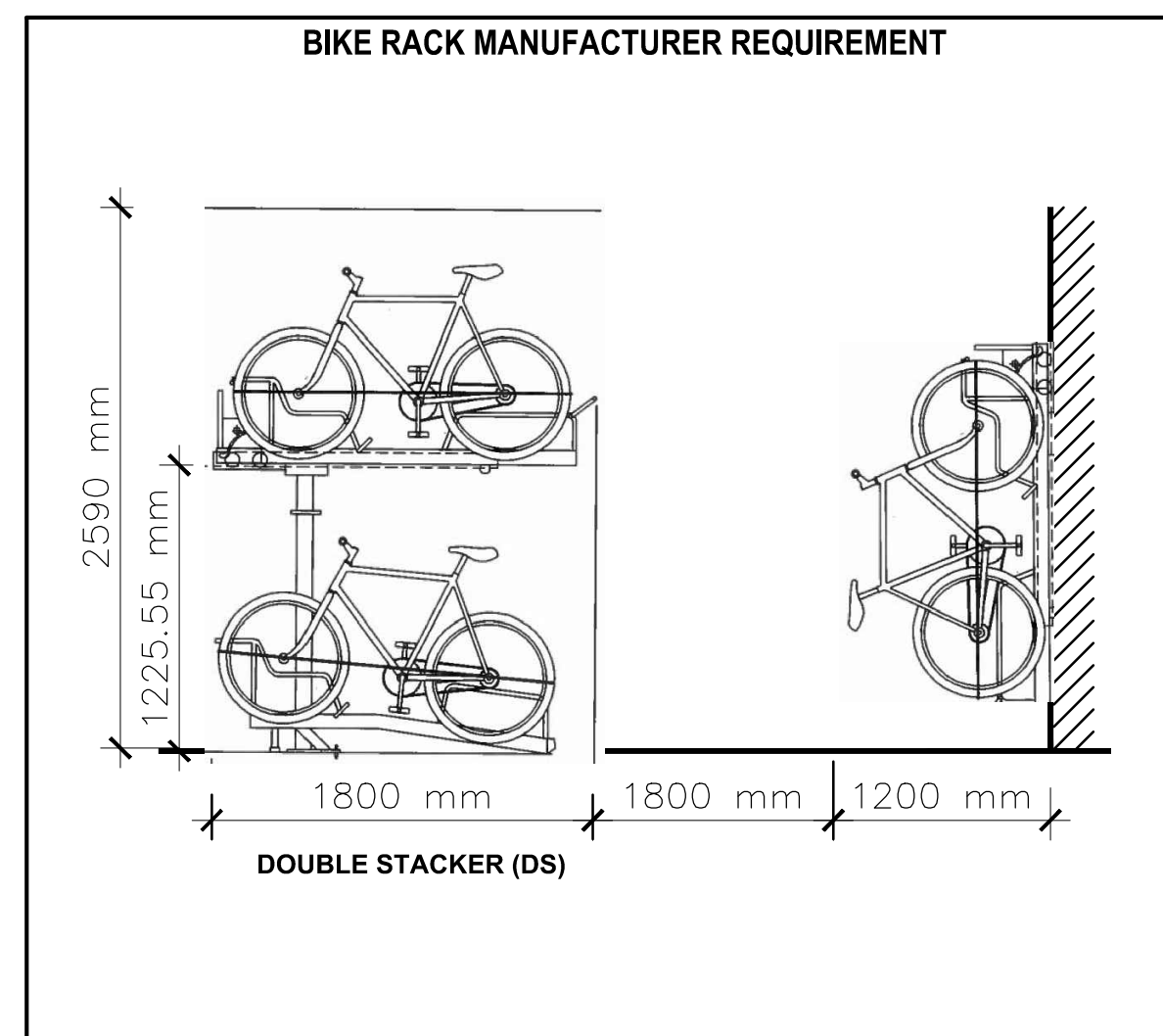
m

Metres

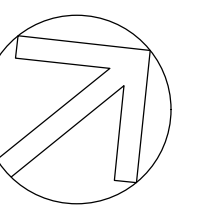
mbgs

Metres Below Ground Surface

APPENDIX I
Site Plans



ISSUED FOR OPA/ZBA – DRAFT	MAY/24/2022
ISSUED FOR CONSULTANT COORDINATION	MAY/30/2022
ISSUED FOR PROGRESS SET	2022
Description	Date



This drawing shall not be used for construction purposes until signed and dated in the space below by the above mentioned consultant.

Issued For Construction	Date
-------------------------	------

WZMH ARCHITECTS

95 St. Clair Av W
Suite 1500
Toronto, Ontario
Canada M6V 1N6
T 416.961.4111
F 416.961.3176

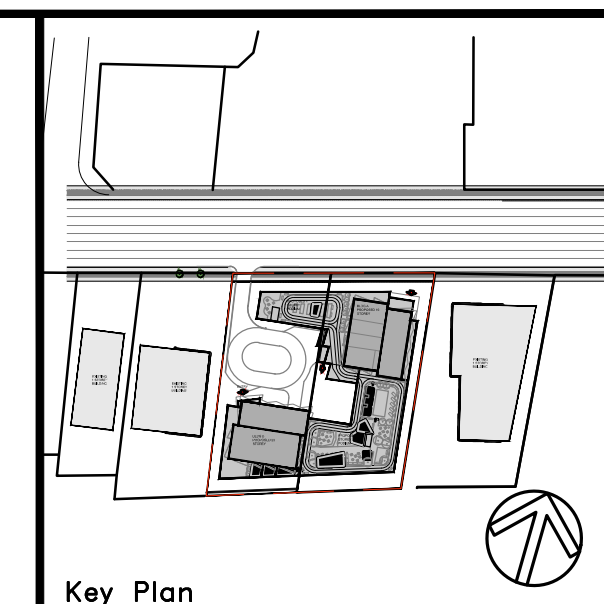
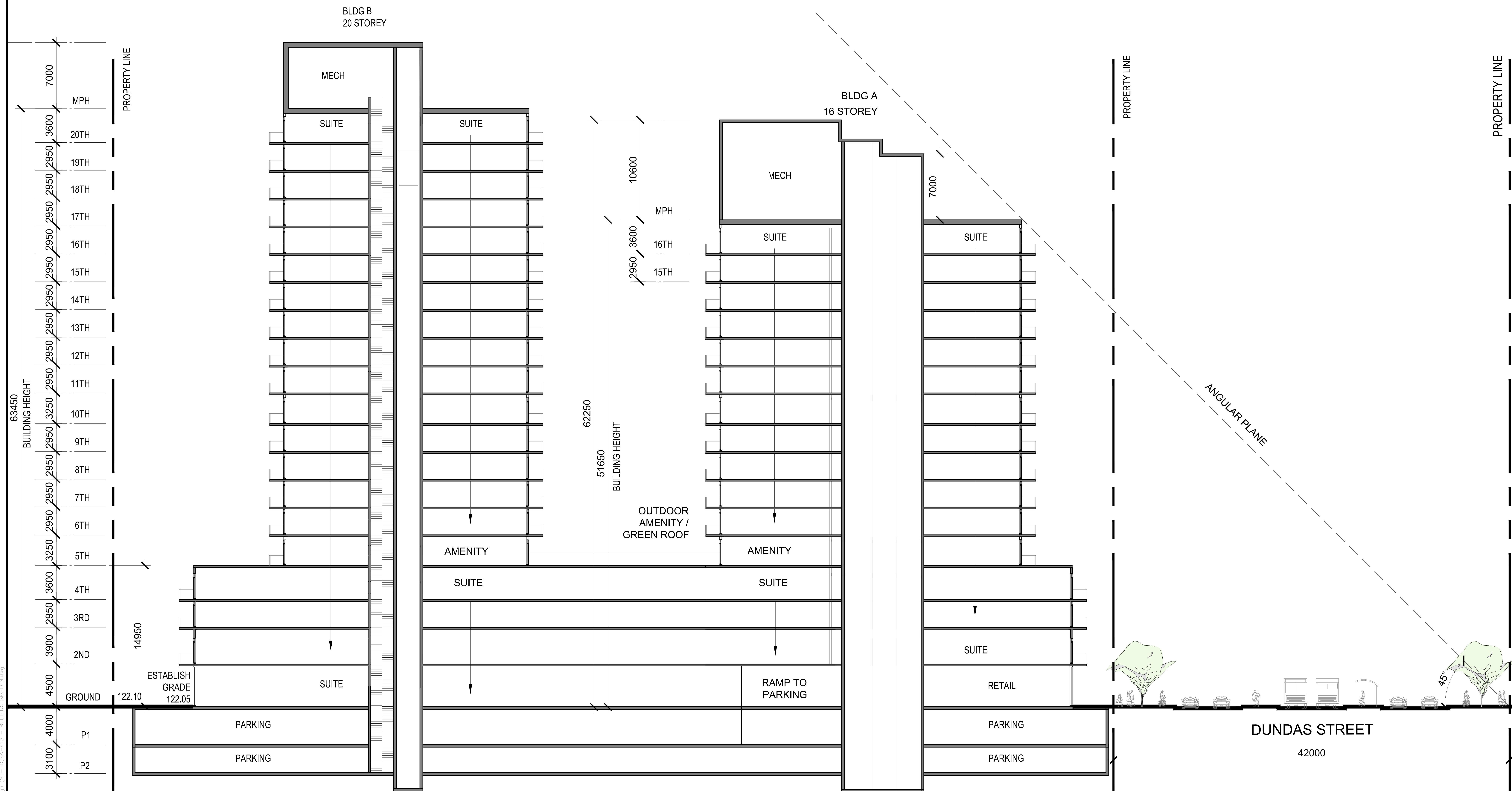
1000-1024 DUNDAS ST EAST
MISSISSAUGA, ONTARIO

get Title
P2 LEVEL

1:150

Project number:	07395.000
-----------------	-----------

A-104

[illegible]

	ISSUED FOR OPA/ZBA – DRAFT	MAY/24/22
	ISSUED FOR CONSULTANT COORDINATION	MAY032022
–	ISSUED FOR PROGRESS SET	2022
Item	Description	Date
ISSUES/REVISIONS		

--	--	--

Check and verify all dimensions and report any discrepancies to the Consultant whose seal is affixed to this drawing. This drawing is not to be scaled for the purpose of verifying dimensions.

This drawing shall not be used for construction purposes until signed and dated in the space below by the above mentioned Consultant.

.....
Issued For Construction	Date

WZMH ARCHITECTS

95 St. Clair Av W
Suite 1500
Toronto, Ontario
Canada M4V 1N6
T 416.961.4111
F 416.961.3176

1000-1024 DUNDAS ST EAST
MISSISSAUGA, ONTARIO

Sheet Title:
BUILDING SECTION

Scale: 1:150

Project Number:	07395.000
-----------------	-----------

Drawing Number: A-410

APPENDIX II
Water Well Records

MECP Water Well Records

Well ID ^	Well Record Information ↕	Well Tag # (since 2003) ↕	Audit # ↕	Contractor Lic# ↕	Well Depth (m) ↕	Date of Completion (MM/DD/YYYY) ↕
7050175	HTML	A054706	Z60444	6607	4.5	08/14/2007
7155806	PDF HTML	A107665	M07597	7241	19.0	11/14/2010
7159732	PDF HTML	A113563	Z128731	7241	11.9	02/02/2011
7159733	PDF HTML	A112676	Z128732	7241	10.1	02/02/2011
7163768	PDF HTML	A086590	M10625	7241	N/A	05/19/2011
7169983	PDF HTML	A117968	Z133755	7215	6.1	09/28/2011
7188436	HTML	A054706	C17941	6607	N/A	04/23/2012
7194721	HTML	A141645	C19177	6607	N/A	12/19/2012
7212973	HTML	A141645	C23513	7215	N/A	10/23/2013
7212974	HTML	A141645	C23517	7215	N/A	10/24/2013
7237824	HTML	A159012	C24522	6946	N/A	12/24/2014
7351106	HTML	A258469	C43816	7437	N/A	08/26/2019

Showing 1 to 12 of 12 entries

First Previous 1 Next Last

Updated: October 18, 2021

Published: March 20, 2014

Well #: 7050175

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	SAND	SILT		0 m	1.5 m
GREY	SHLE		WTHD	1.5 m	4.5 m

Observation well

Well #: 7155806

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	LOAM	ROCK	LOOS	0 m	5 m
GREY	GRVL	ROCK		5 m	12 m
GREY	CLAY		WBRG	12 m	19 m

Test hole

Well #: 7159732

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	FILL			0 ft	1 ft
GREY	SHLE			1 ft	39 ft

Observation well

Well #: 7159733

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	FILL			0 ft	2 ft
GREY	SHLE			2 ft	33 ft

Observation well

Well #: 7163768; no well details available

Well #: 7169983

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	FILL			0 ft	7 ft
GREY	SHLE	LMSN		7 ft	20 ft

Well #: 7188436; no well details available

Well #: 7194721; no well details available

Well #: 7212973; no well details available

Well #: 7212974; no well details available

Well #: 7237824; no well details available

Well #: 7351106; no well details available

APPENDIX III
Borehole Logs



Log of Borehole: BH1 (MW)

Project #: 275471.003

Logged By: KS

Project: Geotechnical Investigation - Proposed Residential Development

Client: Ahmed Developments Inc.

Location: 1000 and 1024 Dundas Street East, Mississauga, Ontario

Drill Date: October 20, 2021

Project Manager: MYB

SUBSURFACE PROFILE					SAMPLE						
Depth (mbgs)	Graphic Log	Description	Elevation (masl) / Depth (mbgs)	Monitoring Well Details	Sample Type	Sampler Number	Recovery (%)	SPT N-Value	Standard Penetration N-Value 20 40 60	Water Content %	Laboratory Analysis and Comments
0		Ground Surface	122.2								
		Pavement Structure	0.0								
		Asphaltic concrete: 125 mm	121.8		SS	1	20	6		16	
		Aggregate layer: 300 mm	121.4								
1		Fill	0.4		SS	2	30	13		18	
		Brown gravelly sand, trace silt, loose, moist	121.4								
		Brown clayey silt, sandy, trace gravel, trace brick fragments, trace styrofoam, stiff to very stiff, moist	120.7		SS	3	30	16		11	
2		Trace organics	119.9								
		Brown sand, some silt, trace gravel, trace red brick fragments, loose, moist	119.2		SS	4	18	9		15	
3		Trace stone fragments, dense	117.6		SS	5	40	31		11	
4			116.1								
5		Inferred Bedrock	4.6		SS	6	20	>50		6	
		Weathered bedrock with intermittent limestone/dolostone stringers (Georgian Bay Formation)	116.1								
6			114.6		HQ	1	100				
7			7.6								

Rig Type: Track-mount

Grade Elevation: 122.2 masl.

Drilling Method: Split Spoon / Hollow Stem Auger, HQ-Rock Coring

Top of Casing Elevation: N/A

Well Diameter: 51 mm

Sheet: 1 of 2

mbgs - meters below ground surface
mbfs - meters below basement floor slab
masl - meters above sea level



Log of Borehole: BH1 (MW)

Project #: 275471.003

Logged By: KS

Project: Geotechnical Investigation - Proposed Residential Development

Client: Ahmed Developments Inc.

Location: 1000 and 1024 Dundas Street East, Mississauga, Ontario

Drill Date: October 20, 2021

Project Manager: MYB

SUBSURFACE PROFILE					SAMPLE									
Depth (mbgs)	Graphic Log	Description	Elevation (masl) / Depth (mbgs)	Monitoring Well Details	Sample Type	Sampler Number	Recovery (%)	SPT N-Value	Standard Penetration N-Value			Water Content		Laboratory Analysis and Comments
									<div>□204060□</div>	<div>○%○</div>				
8		Georgian Bay Formation Grey shale, very thinly bedded to thinly bedded, weak, joints are horizontal, closed, planar; interbedded with limestone, light grey, strong	113.1 9.1		HQ	2	100							
9		Total Core Recovery: 100% Solid Core Recovery: 88% Rock Quality Designation: 30% ~5% Limestone												
10		Total Core Recovery: 100% Solid Core Recovery: 91% Rock Quality Designation: 60% ~5% Limestone												
11		End of Borehole												
12		Borehole terminated at approximately 9.1 mbgs. Water level and cave were not measured due to the presence of drill fluid.												
13		Water Level Reading Date Water Depth (mbgs) Nov. 11, 2021 4.1												
14														
15														

Rig Type: Track-mount

Grade Elevation: 122.2 masl.

Drilling Method: Split Spoon / Hollow Stem Auger, HQ-Rock Coring

Top of Casing Elevation: N/A

Well Diameter: 51 mm

Sheet: 2 of 2

mbgs - meters below ground surface
mbfs - meters below basement floor slab
masl - meters above sea level



Log of Borehole: BH2 (MW)

Project #: 275471.003

Logged By: KS

Project: Geotechnical Investigation - Proposed Residential Development

Client: Ahmed Developments Inc.

Location: 1000 and 1024 Dundas Street East, Mississauga, Ontario

Drill Date: October 20, 2021

Project Manager: MYB

SUBSURFACE PROFILE					SAMPLE						
Depth (mbgs)	Graphic Log	Description	Elevation (masl) / Depth (mbgs)	Monitoring Well Details	Sample Type	Sampler Number	Recovery (%)	SPT N-Value	Standard Penetration N-Value 20 40 60	Water Content %	Laboratory Analysis and Comments
0		Ground Surface	120.0								
		Pavement Structure	0.0								
		Asphaltic concrete: 100 mm	119.6		SS	1	60	25		6	
		Aggregate layer: 300 mm	0.4								
		Fill	119.3								
1		Brown sand and gravel, trace silt, compact, moist	0.8		SS	2	50	8		8	
		Brown sand, trace to some silt, pockets of clayey silt, loose, moist									
					SS	3	50	8		6	
2			117.8								
		Brown gravelly sand, trace silt, very dense, moist	2.3		SS	4	20	>50		6	
3			117.0								
		Inferred Bedrock	3.0		SS	5	10	>50		5	
		Weathered bedrock with intermittent limestone/dolostone stringers (Georgian Bay Formation)									
4			115.5								
		Georgian Bay Formation	4.6								
5		Grey shale, very thinly bedded to thinly bedded, weak, joints are horizontal, closed, planar; interbedded with limestone, light grey, strong			HQ	1	90				
6		Total Core Recovery: 90% Solid Core Recovery: 90% Rock Quality Designation: 25%	113.9								
		~3% Limestone	6.1								
7		Total Core Recovery: 98% Solid Core Recovery: 93% Rock Quality Designation: 78%			HQ	2	98				
		~5% Limestone	112.4								
			7.6								

Rig Type: Track-mount

Grade Elevation: 120.0 masl.

Drilling Method: Split Spoon / Hollow Stem Auger, HQ-Rock Coring

Top of Casing Elevation: N/A

Well Diameter: 51 mm

Sheet: 1 of 2

mbgs - meters below ground surface
mbfs - meters below basement floor slab
masl - meters above sea level



Log of Borehole: BH2 (MW)

Project #: 275471.003

Logged By: KS

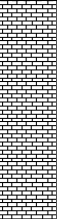

Project: Geotechnical Investigation - Proposed Residential Development

Client: Ahmed Developments Inc.

Location: 1000 and 1024 Dundas Street East, Mississauga, Ontario

Drill Date: October 20, 2021

Project Manager: MYB

SUBSURFACE PROFILE					SAMPLE									
Depth (mbgs)	Graphic Log	Description	Elevation (masl) / Depth (mbgs)	Monitoring Well Details	Sample Type	Sampler Number	Recovery (%)	SPT N-Value	Standard Penetration N-Value			Water Content		Laboratory Analysis and Comments
									20	40	60	%		
8		Total Core Recovery: 100% Solid Core Recovery: 100% Rock Quality Designation: 80% ~5% Limestone			HQ	3	100							
9		End of Borehole Borehole terminated at approximately 9.1 mbgs. Water level and cave were not measured due to the presence of drill fluid. Water Level Reading Date Water Depth (mbgs) Nov. 11, 2021 3.2	110.9 9.1											
10														
11														
12														
13														
14														
15														

Rig Type: Track-mount

Grade Elevation: 120.0 masl.

Drilling Method: Split Spoon / Hollow Stem Auger, HQ-Rock Coring

Top of Casing Elevation: N/A

Well Diameter: 51 mm

Sheet: 2 of 2

mbgs - meters below ground surface
mbfs - meters below basement floor slab
masl - meters above sea level



Log of Borehole: BH3 (MW)

Project #: 275471.003

Logged By: KS

Project: Geotechnical Investigation - Proposed Residential Development

Client: Ahmed Developments Inc.

Location: 1000 and 1024 Dundas Street East, Mississauga, Ontario

Drill Date: October 19, 2021

Project Manager: MYB

SUBSURFACE PROFILE					SAMPLE						
Depth (mbgs)	Graphic Log	Description	Elevation (masl) / Depth (mbgs)	Monitoring Well Details	Sample Type	Sampler Number	Recovery (%)	SPT N-Value	Standard Penetration N-Value 20 40 60	Water Content %	Laboratory Analysis and Comments
0		Ground Surface	120.8								
		Pavement Structure	0.0								
		Asphaltic concrete: 150 mm	120.4		SS	1	30	19		10	
		Aggregate layer: 300 mm	120.1								
1		Fill	0.8		SS	2	30	12		18	
		Brown gravelly sand, trace silt, trace red brick fragments, pockets of clayey silt, compact, moist									
		Brown clayey silt, some sand to sandy, trace gravel, trace stone fragments, trace brick fragments, stiff, moist	119.3		SS	3	20	3		25	
2		dark brown, trace organics, soft	118.6								
		Brown sand, trace silt, trace gravel, pockets of clayey silt, compact to dense, moist	2.3		SS	4	30	21		15	
3		Some silt, trace stone fragments, grey, wet	117.8		SS	5	30	40		7	
4											
			116.3								
5		Inferred Bedrock	4.6		SS	6	10	>50		13	
		Weathered bedrock with intermittent limestone/dolostone stringers (Georgian Bay Formation)									
6			114.7								
			6.1								
7					HQ	1	98				
			113.3								
			7.5								

Rig Type: Track-mount

Grade Elevation: 120.8 masl.

Drilling Method: Split Spoon / Hollow Stem Auger, HQ-Rock Coring

Top of Casing Elevation: N/A

Well Diameter: 51 mm

Sheet: 1 of 2

mbgs - meters below ground surface
mbfs - meters below basement floor slab
masl - meters above sea level



Log of Borehole: BH3 (MW)

Project #: 275471.003

Logged By: KS

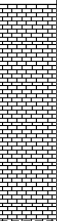

Project: Geotechnical Investigation - Proposed Residential Development

Client: Ahmed Developments Inc.

Location: 1000 and 1024 Dundas Street East, Mississauga, Ontario

Drill Date: October 19, 2021

Project Manager: MYB

SUBSURFACE PROFILE					SAMPLE									
Depth (mbgs)	Graphic Log	Description	Elevation (masl) / Depth (mbgs)	Monitoring Well Details	Sample Type	Sampler Number	Recovery (%)	SPT N-Value	Standard Penetration N-Value			Water Content		Laboratory Analysis and Comments
									<div><div>20</div><div>40</div><div>60</div></div>			<div><div>°</div><div>%</div><div>°</div></div>		
8		Georgian Bay Formation Grey shale, very thinly bedded to thinly bedded, weak, joints are horizontal, closed, planar; interbedded with limestone, light grey, strong			HQ	2	94							
9		Total Core Recovery: 98% Solid Core Recovery: 78% Rock Quality Designation: 37% ~2% Limestone	111.7 9.1											
10		Total Core Recovery: 94% Solid Core Recovery: 83% Rock Quality Designation: 37% ~2% Limestone												
11		End of Borehole												
12		Borehole terminated at approximately 9.1 mbgs. Water level and cave were not measured due to the presence of drill fluid.												
13		Water Level Reading Date Water Depth (mbgs) Nov. 11, 2021 5.2												
14														
15														

Rig Type: Track-mount

Grade Elevation: 120.8 masl.

Drilling Method: Split Spoon / Hollow Stem Auger, HQ-Rock Coring

Top of Casing Elevation: N/A

Well Diameter: 51 mm

Sheet: 2 of 2

mbgs - meters below ground surface
mbfs - meters below basement floor slab
masl - meters above sea level



Log of Borehole: BH4 (MW)

Project #: 275471.003

Logged By: KS

Project: Geotechnical Investigation - Proposed Residential Development

Client: Ahmed Developments Inc

Location: 1000 and 1024 Dundas Street East, Mississauga, Ontario

Drill Date: October 18, 2021

Project Manager: MYB

SUBSURFACE PROFILE					SAMPLE						
Depth (mbgs)	Graphic Log	Description	Elevation (masl) / Depth (mbgs)	Monitoring Well Details	Sample Type	Sampler Number	Recovery (%)	SPT N-Value	Standard Penetration N-Value 20 40 60	Water Content %	Laboratory Analysis and Comments
0		Ground Surface	120.5								
		Pavement Structure	0.0								
		Asphaltic concrete: 80 mm	120.1		SS	1	10	20		12	
		Aggregate layer: 300 mm	0.4								
		Fill	119.7								
1		Dark brown sand and gravel, some silt, compact, moist	0.8		SS	2	40	13		12	
		Trace silt, trace gravel, pockets of clayey silt									
		Trace brick fragments, loose, dark brown	119.0		SS	3	5	10		12	
2			1.5								
		Trace stone fragments, wet	118.2		SS	4	30	16		18	
			2.3								
3			117.5								
		Inferred Bedrock	3.0		SS	5	50	>50		17	
		Weathered bedrock with intermittent limestone/dolostone stringers (Georgian Bay Formation)									
4			115.9								
		Georgian Bay Formation	4.6								
5		Grey shale, very thinly bedded to thinly bedded, weak, joints are horizontal, closed, planar; interbedded with limestone, light grey, strong			HQ	1	95				
6		Total Core Recovery: 95% Solid Core Recovery: 80% Rock Quality Designation: 10%	114.4								
		~2% Limestone	6.1								
7		Total Core Recovery: 100% Solid Core Recovery: 95% Rock Quality Designation: 30%			HQ	2	100				
		~5% Limestone	112.9								
			7.6								

Rig Type: Track-mount

Grade Elevation: 120.5 masl.

Drilling Method: Split Spoon / Hollow Stem Auger, HQ-Rock Coring

Top of Casing Elevation: N/A

Well Diameter: 51 mm

Sheet: 1 of 2

mbgs - meters below ground surface
mbfs - meters below basement floor slab
masl - meters above sea level



Log of Borehole: BH4 (MW)

Project #: 275471.003

Logged By: KS

Project: Geotechnical Investigation - Proposed Residential Development

Client: Ahmed Developments Inc

Location: 1000 and 1024 Dundas Street East, Mississauga, Ontario

Drill Date: October 18, 2021

Project Manager: MYB

SUBSURFACE PROFILE					SAMPLE										
Depth (mbgs)	Graphic Log	Description	Elevation (masl) / Depth (mbgs)	Monitoring Well Details	Sample Type	Sampler Number	Recovery (%)	SPT N-Value	Standard Penetration N-Value			Water Content %			Laboratory Analysis and Comments
									<div><div></div>20</div>	<div><div></div>40</div>	<div><div></div>60</div>	<div><div></div></div>	<div><div></div>%<div></div></div>		
8		Total Core Recovery: 100% Solid Core Recovery: 100% Rock Quality Designation: 40% ~5% Limestone			HQ	3	100								
9		End of Borehole Borehole terminated at approximately 9.1 mbgs. Water level and cave were not measured due to the presence of drill fluid. Water Level Reading Date Water Depth (mbgs) Nov. 11, 2021 3.3	111.4 9.1												
10															
11															
12															
13															
14															
15															

Rig Type: Track-mount

Grade Elevation: 120.5 masl.

Drilling Method: Split Spoon / Hollow Stem Auger, HQ-Rock Coring

Top of Casing Elevation: N/A

Well Diameter: 51 mm

Sheet: 2 of 2

mbgs - meters below ground surface
mbfs - meters below basement floor slab
masl - meters above sea level



Log of Borehole: BH5 (MW)

Project #: 275471.003

Logged By: KS

Project: Geotechnical Investigation - Proposed Residential Development

Client: Ahmed Developments Inc.

Location: 1000 and 1024 Dundas Street East, Mississauga, Ontario

Drill Date: October 18, 2021

Project Manager: MYB

SUBSURFACE PROFILE					SAMPLE						
Depth (mbgs)	Graphic Log	Description	Elevation (masl) / Depth (mbgs)	Monitoring Well Details	Sample Type	Sampler Number	Recovery (%)	SPT N-Value	Standard Penetration N-Value 20 40 60	Water Content %	Laboratory Analysis and Comments
0		Ground Surface	120.9								
		Pavement Structure	0.0								
		Asphaltic concrete: 100 mm	120.5		SS	1	40	4		9	
		Aggregate layer: 300 mm	120.1								
1		Fill	0.8		SS	2	50	19		12	
		Brown gravelly sand, some silt, pockets of clayey silt, loose, moist									
		Brown sand, trace to some silt, trace clay, trace red brick fragments, trace organics, pockets of clayey silt, loose to compact, moist			SS	3	5	7		6	
2			118.6								
		Sand	2.3		SS	4	50	21		15	
		Brown sand, some silt, compact, wet									
3		Some gravel, grey	117.8		SS	5	50	22		13	
4											
			116.3								
5		Inferred Bedrock	4.6		SS	6	50	>50		6	
		Weathered bedrock with intermittent limestone/dolostone stringers (Georgian Bay Formation)									
6			114.8								
			6.1								
7					HQ	1	100				
			113.3								
			7.6								

Rig Type: Track-mount

Grade Elevation: 120.9 masl.

Drilling Method: Split Spoon / Hollow Stem Auger, HQ-Rock Coring

Top of Casing Elevation: N/A

Well Diameter: 51 mm

Sheet: 1 of 2

mbgs - meters below ground surface
mbfs - meters below basement floor slab
masl - meters above sea level



Log of Borehole: BH5 (MW)

Project #: 275471.003

Logged By: KS

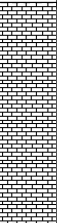

Project: Geotechnical Investigation - Proposed Residential Development

Client: Ahmed Developments Inc.

Location: 1000 and 1024 Dundas Street East, Mississauga, Ontario

Drill Date: October 18, 2021

Project Manager: MYB

SUBSURFACE PROFILE					SAMPLE									
Depth (mbgs)	Graphic Log	Description	Elevation (masl) / Depth (mbgs)	Monitoring Well Details	Sample Type	Sampler Number	Recovery (%)	SPT N-Value	Standard Penetration N-Value			Water Content		Laboratory Analysis and Comments
									<div><div></div>20</div>	<div><div></div>40</div>	<div><div></div>60</div>	<div><div></div>%</div>		
8		Georgian Bay Formation Grey shale, very thinly bedded to thinly bedded, weak, joints are horizontal, closed, planar; interbedded with limestone, light grey, strong	111.7 9.1		HQ	2	100							
9		Total Core Recovery: 100% Solid Core Recovery: 80% Rock Quality Designation: 10% ~10% Limestone												
10		Total Core Recovery: 100% Solid Core Recovery: 95% Rock Quality Designation: 40% ~13% Limestone												
11		End of Borehole Borehole terminated at approximately 9.1 mbgs. Water level and cave were not measured due to the presence of drill fluid.												
12		Water Level Reading Date Water Depth (mbgs) Nov. 11, 2021 5.3												
13														
14														
15														

Rig Type: Track-mount

Grade Elevation: 120.9 masl.

Drilling Method: Split Spoon / Hollow Stem Auger, HQ-Rock Coring

Top of Casing Elevation: N/A

Well Diameter: 51 mm

Sheet: 2 of 2

mbgs - meters below ground surface
mbfs - meters below basement floor slab
masl - meters above sea level



Log of Borehole: BH6 (MW)

Project #: 275471.003

Logged By: KS

Project: Geotechnical Investigation - Proposed Residential Development

Client: Ahmed Developments Inc.

Location: 1000 and 1024 Dundas Street East, Mississauga, Ontario

Drill Date: October 19, 2021

Project Manager: MYB

SUBSURFACE PROFILE					SAMPLE						
Depth (mbgs)	Graphic Log	Description	Elevation (masl) / Depth (mbgs)	Monitoring Well Details	Sample Type	Sampler Number	Recovery (%)	SPT N-Value	Standard Penetration N-Value 20 40 60	Water Content %	Laboratory Analysis and Comments
0		Ground Surface	120.8								
		Pavement Structure	0.0								
		Asphaltic concrete: 100 mm	120.5								
		Aggregate layer: 200 mm	0.3								
		Fill	120.0								
1		Brown gravelly sand, some silt, loose, moist	0.8		SS	1	50	9		14	
		Brown clayey silt, sandy, trace gravel, soft, moist	1.5		SS	2	30	2		16	
2		Brown sand, some gravel, trace silt, very loose, moist	119.3		SS	3	5	2		13	
		Dark brown clayey silt, sandy, trace gravel, trace red brick fragments, soft to stiff, moist	118.5		SS	4	5	11		14	
		Trace concrete pieces	2.3								
3		Brown sand, some silt, trace gravel, trace organics, loose, wet	117.8		SS	5	60	5		28	
4											
		Inferred Bedrock	116.2								
5		Weathered bedrock with intermittent limestone/dolostone stringers (Georgian Bay Formation)	4.6		SS	6	20	>50		10	
6			114.7								
			6.1								
7					HQ	1	100				
			113.2								
			7.6								

Rig Type: Track-mount

Grade Elevation: 120.8 masl.

Drilling Method: Split Spoon / Hollow Stem Auger, HQ-Rock Coring

Top of Casing Elevation: N/A

Well Diameter: 51 mm

Sheet: 1 of 2

mbgs - meters below ground surface
mbfs - meters below basement floor slab
masl - meters above sea level



Log of Borehole: BH6 (MW)

Project #: 275471.003

Logged By: KS

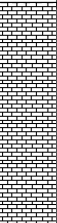
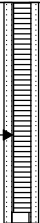
Project: Geotechnical Investigation - Proposed Residential Development

Client: Ahmed Developments Inc.

Location: 1000 and 1024 Dundas Street East, Mississauga, Ontario

Drill Date: October 19, 2021

Project Manager: MYB

SUBSURFACE PROFILE					SAMPLE									
Depth (mbgs)	Graphic Log	Description	Elevation (masl) / Depth (mbgs)	Monitoring Well Details	Sample Type	Sampler Number	Recovery (%)	SPT N-Value	Standard Penetration N-Value			Water Content		Laboratory Analysis and Comments
									20	40	60	%		
8		Georgian Bay Formation Grey shale, very thinly bedded to thinly bedded, weak, joints are horizontal, closed, planar; interbedded with limestone, light grey, strong	111.7 9.1		HQ	2	100							
9		Total Core Recovery: 100% Solid Core Recovery: 100% Rock Quality Designation: 40% ~8% Limestone Total Core Recovery: 100% Solid Core Recovery: 100% Rock Quality Designation: 50% ~10% Limestone End of Borehole Borehole terminated at approximately 9.2 mbgs. Water level and cave were not measured due to the presence of drill fluid. Water Level Reading Date Water Depth (mbgs) Nov. 11, 2021 2.3												
10														
11														
12														
13														
14														
15														

Rig Type: Track-mount

Grade Elevation: 120.8 masl.

Drilling Method: Split Spoon / Hollow Stem Auger, HQ-Rock Coring

Top of Casing Elevation: N/A

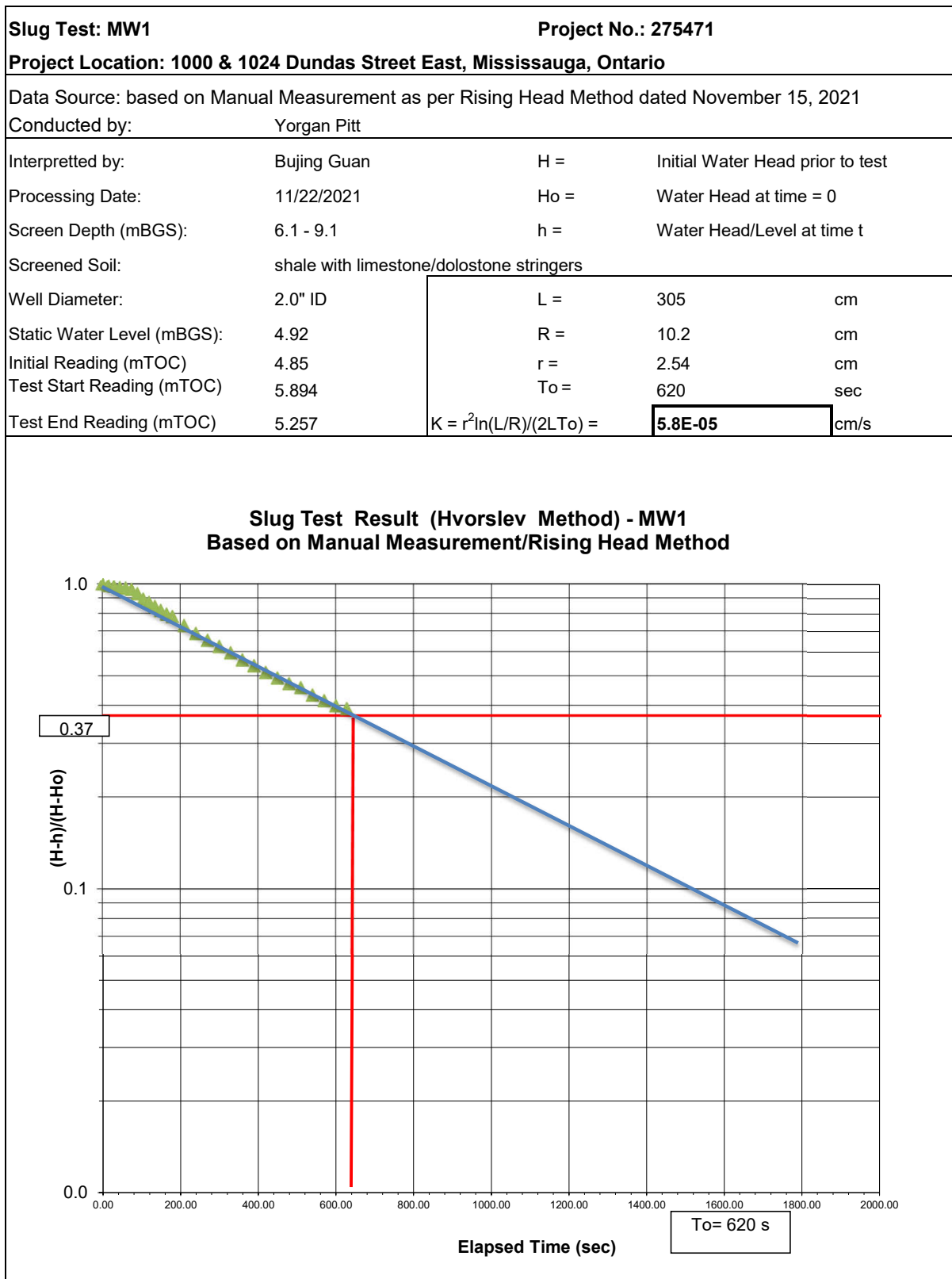
Well Diameter: 51 mm

Sheet: 2 of 2

mbgs - meters below ground surface
mbfs - meters below basement floor slab
masl - meters above sea level

APPENDIX IV

Rising Head Hydraulic Conductivity Test Curves



Slug Test: MW3**Project No.: 275471****Project Location: 1000 & 1024 Dundas Street East, Mississauga, Ontario**

Data Source: based on Manual Measurement as per Rising Head Method dated November 15, 2021

Conducted by: Yorgan Pitt

Interpreted by: Bujing Guan H = Initial Water Head prior to test

Processing Date: 11/22/2021 Ho = Water Head at time = 0

Screen Depth (mBGS): 6.1 - 9.1 h = Water Head/Level at time t

Screened Soil: shale with limestone/dolostone stringers

Well Diameter: 2.0" ID

L = 305 cm

Static Water Level (mBGS): 6.08

R = 10.2 cm

Initial Reading (mTOC) 6

r = 2.54 cm

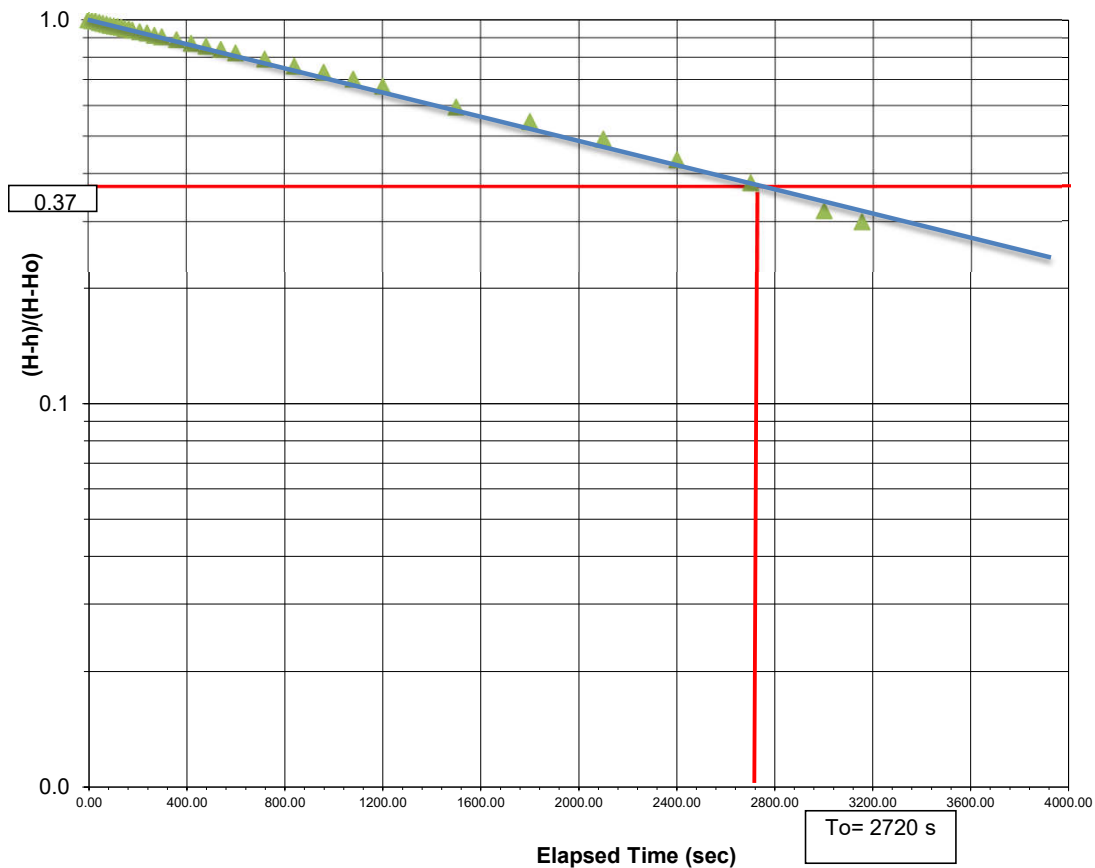
Test Start Reading (mTOC) 7

To = 2720 sec

Test End Reading (mTOC) 6.3

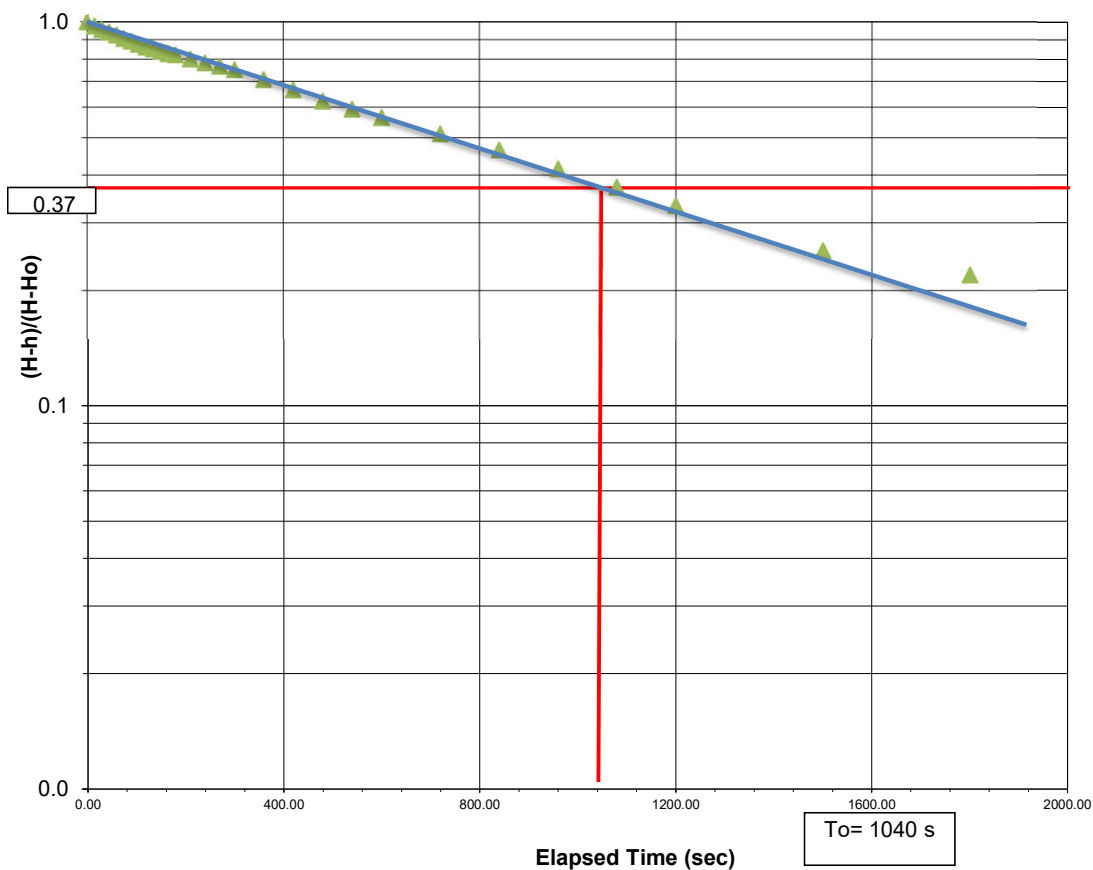
 $K = r^2 \ln(L/R) / (2LT_o) = 1.3E-05$ cm/s

Slug Test Result (Hvorslev Method) - MW3
Based on Manual Measurement/Rising Head Method



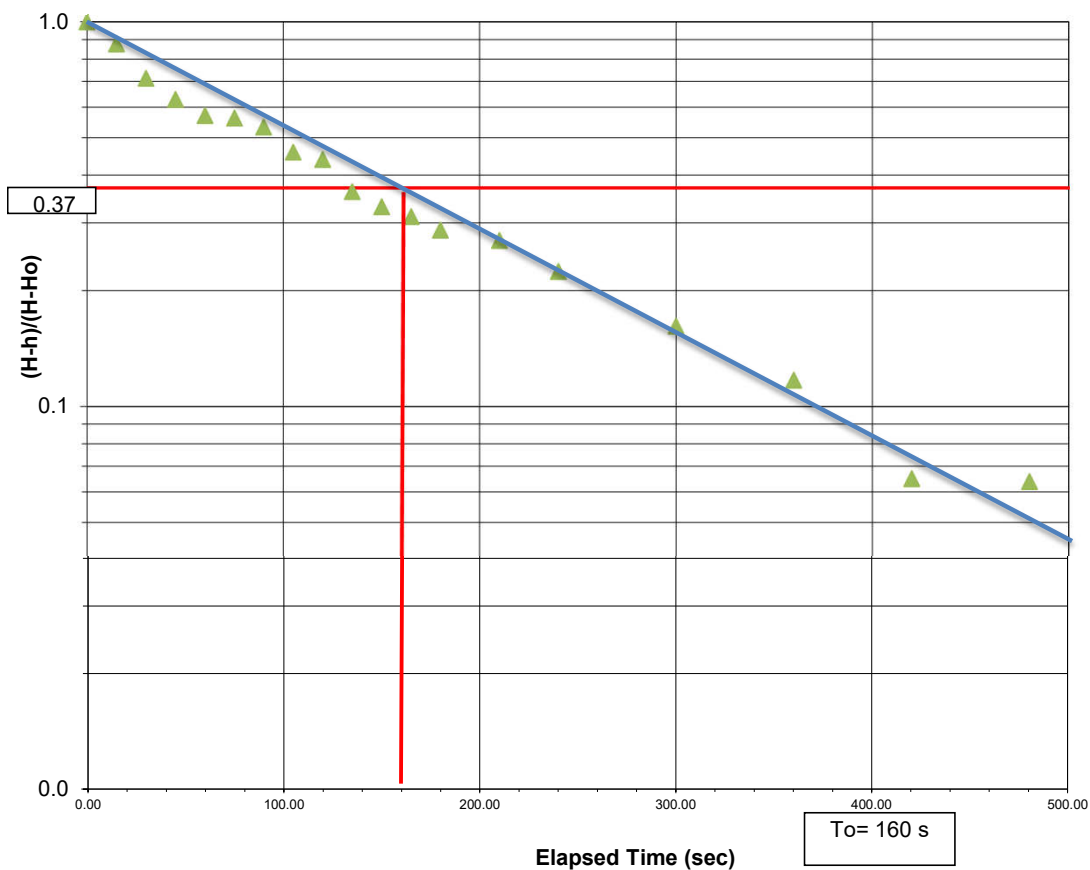
Slug Test: MW4		Project No.: 275471	
Project Location: 1000 & 1024 Dundas Street East, Mississauga, Ontario			
Data Source: based on Manual Measurement as per Rising Head Method dated November 15, 2021			
Conducted by:		Yorgan Pitt	
Interpretted by:	Bujing Guan	H =	Initial Water Head prior to test
Processing Date:	11/22/2021	Ho =	Water Head at time = 0
Screen Depth (mBGS):	6.1 - 9.1	h =	Water Head/Level at time t
Screened Soil:		shale with limestone/dolostone stringers	
Well Diameter:	2.0" ID	L =	305 cm
Static Water Level (mBGS):	5.13	R =	10.2 cm
Initial Reading (mBGS)	5.13	r =	2.54 cm
Test Start Reading (mBGS)	6.92	To =	1040 sec
Test End Reading (mBGS)	5.486	$K = r^2 \ln(L/R)/(2LT_o) =$	<div>3.5E-05 cm/s</div>

Slug Test Result (Hvorslev Method) - MW4
Based on Manual Measurement/Rising Head Method



Slug Test: MW5		Project No.: 275471	
Project Location: 1000 & 1024 Dundas Street East, Mississauga, Ontario			
Data Source: based on Manual Measurement as per Rising Head Method dated November 15, 2021			
Conducted by:		Yorgan Pitt	
Interpretted by:	Bujing Guan	H =	Initial Water Head prior to test
Processing Date:	11/22/2021	Ho =	Water Head at time = 0
Screen Depth (mBGS):	6.1 - 9.1	h =	Water Head/Level at time t
Screened Soil:		shale with limestone/dolostone stringers	
Well Diameter:	2.0" ID	L =	296 cm
Static Water Level (mBGS):	6.14	R =	10.2 cm
Initial Reading (mTOC)	6.07	r =	2.54 cm
Test Start Reading (mTOC)	7.01	To =	160 sec
Test End Reading (mTOC)	6.073	$K = r^2 \ln(L/R)/(2LT_o) =$	<div>2.3E-04 cm/s</div>

Slug Test Result (Hvorslev Method) - MW5
Based on Manual Measurement/Rising Head Method



Slug Test: MW6**Project No.: 275471****Project Location: 1000 & 1024 Dundas Street East, Mississauga, Ontario**

Data Source: based on Manual Measurement as per Rising Head Method dated November 15, 2021

Conducted by: Yorgan Pitt

Interpreted by: Bujing Guan H = Initial Water Head prior to test

Processing Date: 11/22/2021 Ho = Water Head at time = 0

Screen Depth (mBGS): 6.1 - 9.1 h = Water Head/Level at time t

Screened Soil: shale with limestone/dolostone stringers

Well Diameter: 2.0" ID

L = 305 cm

Static Water Level (mBGS): 5.65

R = 10.2 cm

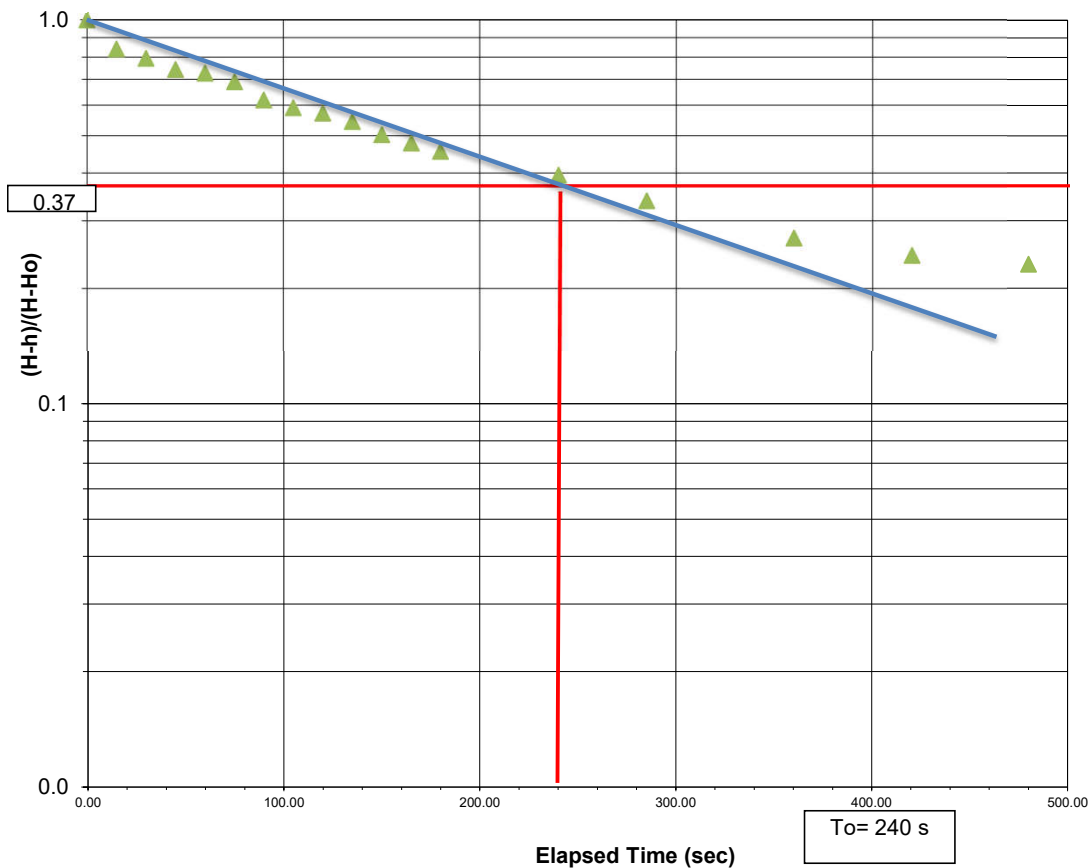
Initial Reading (mTOC) 5.58

r = 2.54 cm

Test Start Reading (mTOC) 6.584

To = 240 sec

Test End Reading (mTOC) 5.741

 $K = r^2 \ln(L/R) / (2LT_o) = 1.5E-04$ cm/s**Slug Test Result (Hvorslev Method) - MW6**
Based on Manual Measurement/Rising Head Method

APPENDIX V
Laboratory Certificate of Analysis



Your Project #: 275471.004
Site Location: 1000 & 1024 Dundas Street East, Mississauga
Your C.O.C. #: 856631-01-01

Attention: Craig Kelly

Pinchin Ltd
2360 Meadowpine Blvd
Unit # 2
Mississauga, ON
CANADA L5N 6S2

Report Date: 2021/12/10
Report #: R6915003
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1X5947

Received: 2021/11/15, 17:23

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
ABN Compounds in Water by GC/MS	2	2021/11/17	2021/11/18	CAM SOP-00301	EPA 8270 m
Carbonaceous BOD	2	2021/11/16	2021/12/08	CAM SOP-00427	SM 23 5210B m
Total Cyanide	2	2021/11/17	2021/11/17	CAM SOP-00457	OMOE E3015 5 m
Fluoride	2	2021/11/16	2021/11/17	CAM SOP-00449	SM 23 4500-F C m
Mercury in Water by CVAA	2	2021/11/17	2021/11/17	CAM SOP-00453	EPA 7470A m
Total Metals Analysis by ICPMS	1	N/A	2021/11/18	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICPMS	1	N/A	2021/12/10	CAM SOP-00447	EPA 6020B m
E.coli, (CFU/100mL)	2	N/A	2021/11/15	CAM SOP-00552	MOE LSB E3371
Total Nonylphenol in Liquids by HPLC	2	2021/11/18	2021/11/19	CAM SOP-00313	In-house Method
Nonylphenol Ethoxylates in Liquids: HPLC	2	2021/11/18	2021/11/19	CAM SOP-00313	BV Labs Method
Animal and Vegetable Oil and Grease	2	N/A	2021/11/20	CAM SOP-00326	EPA1664B m,SM5520B m
Total Oil and Grease	2	2021/11/20	2021/11/20	CAM SOP-00326	EPA1664B m,SM5520B m
Polychlorinated Biphenyl in Water	2	2021/11/16	2021/11/17	CAM SOP-00309	EPA 8082A m
pH	2	2021/11/16	2021/11/17	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	2	N/A	2021/11/16	CAM SOP-00444	OMOE E3179 m
Sulphate by Automated Colourimetry	2	N/A	2021/11/17	CAM SOP-00464	EPA 375.4 m
Total Kjeldahl Nitrogen in Water	2	2021/11/17	2021/11/19	CAM SOP-00938	OMOE E3516 m
Mineral/Synthetic O & G (TPH Heavy Oil) (1)	2	2021/11/20	2021/11/20	CAM SOP-00326	EPA1664B m,SM5520F m
Total Suspended Solids	2	2021/11/17	2021/11/18	CAM SOP-00428	SM 23 2540D m
Volatile Organic Compounds in Water	2	N/A	2021/11/22	CAM SOP-00228	EPA 8260C m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.



Your Project #: 275471.004
Site Location: 1000 & 1024 Dundas Street East, Mississauga
Your C.O.C. #: 856631-01-01

Attention: Craig Kelly

Pinchin Ltd
2360 Meadowpine Blvd
Unit # 2
Mississauga, ON
CANADA L5N 6S2

Report Date: 2021/12/10
Report #: R6915003
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1X5947

Received: 2021/11/15, 17:23

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Note: TPH (Heavy Oil) is equivalent to Mineral / Synthetic Oil & Grease

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Antonella Brasil, Senior Project Manager

Email: Antonella.Brasil@bureauveritas.com

Phone# (905)817-5817

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This report has been generated and distributed using a secure automated process.

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

**PEEL SANITARY & STORM SEWER (53-2010)**

Bureau Veritas ID				RFU707			
Sampling Date				2021/11/15 11:45			
COC Number				856631-01-01			
	UNITS	Criteria	Criteria-2	MW4 1000 DUNDAS ST E	RDL	MDL	QC Batch
Calculated Parameters							
Total Animal/Vegetable Oil and Grease	mg/L	-	150	<0.50	0.50	0.10	7700791
Inorganics							
Total Carbonaceous BOD	mg/L	15	300	2	2	0.2	7702814
Fluoride (F-)	mg/L	-	10	0.14	0.10	0.020	7704513
Total Kjeldahl Nitrogen (TKN)	mg/L	1	100	2.5	0.20	0.12	7705860
pH	pH	6.0:9.0	5.5:10.0	7.49			7704530
Phenols-4AAP	mg/L	0.008	1	<0.0010	0.0010	0.00030	7703544
Total Suspended Solids	mg/L	15	350	86	10	2.0	7704415
Dissolved Sulphate (SO4)	mg/L	-	1500	99	1.0	0.10	7704654
Total Cyanide (CN)	mg/L	0.02	2	<0.0050	0.0050	0.00010	7705467
Petroleum Hydrocarbons							
Total Oil & Grease	mg/L	-	-	<0.50	0.50	0.10	7713111
TPH - Heavy Oils	mg/L	-	15	<0.50	0.50	0.10	7713113
Miscellaneous Parameters							
Nonylphenol Ethoxylate (Total)	mg/L	-	0.2	<0.025	0.025	0.005	7709126
Nonylphenol (Total)	mg/L	-	0.02	<0.001	0.001	0.0002	7709096
Metals							
Mercury (Hg)	mg/L	0.0004	0.01	0.00015	0.00010	0.000050	7705465
Total Aluminum (Al)	ug/L	-	50000	7800	4.9	2.0	7708001
Total Antimony (Sb)	ug/L	-	5000	0.70	0.50	0.30	7708001
Total Arsenic (As)	ug/L	20	1000	4.3	1.0	0.50	7708001
Total Cadmium (Cd)	ug/L	8	700	<0.090	0.090	0.090	7708001
Total Chromium (Cr)	ug/L	80	5000	11	5.0	5.0	7708001
Total Cobalt (Co)	ug/L	-	5000	7.2	0.50	0.10	7708001
Total Copper (Cu)	ug/L	50	3000	11	0.90	0.50	7708001
Total Lead (Pb)	ug/L	120	3000	2.1	0.50	0.10	7708001
No Fill	No Exceedance						
Grey	Exceeds 1 criteria policy/level						
Black	Exceeds both criteria/levels						
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							
Criteria: The Regional Municipality of Peel Storm Sewer Discharge. By-Law Number 53-2010.							
Criteria-2: The Regional Municipality of Peel Sanitary Sewer Discharge. By-Law Number 53-2010.							

**PEEL SANITARY & STORM SEWER (53-2010)**

Bureau Veritas ID					RFU707			
Sampling Date					2021/11/15 11:45			
COC Number					856631-01-01			
		UNITS	Criteria	Criteria-2	MW4 1000 DUNDAS ST E	RDL	MDL	QC Batch
Total Manganese (Mn)		ug/L	50	5000	630	2.0	0.50	7708001
Total Molybdenum (Mo)		ug/L	-	5000	4.5	0.50	0.20	7708001
Total Nickel (Ni)		ug/L	80	3000	15	1.0	0.50	7708001
Total Phosphorus (P)		ug/L	-	10000	320	100	30	7708001
Total Selenium (Se)		ug/L	20	1000	<2.0	2.0	0.50	7708001
Total Silver (Ag)		ug/L	120	5000	<0.090	0.090	0.070	7708001
Total Tin (Sn)		ug/L	-	5000	<1.0	1.0	0.50	7708001
Total Titanium (Ti)		ug/L	-	5000	75	5.0	4.0	7708001
Total Zinc (Zn)		ug/L	40	3000	31	5.0	3.0	7708001
Semivolatile Organics								
Bis(2-ethylhexyl)phthalate		ug/L	8.8	12	<2.0	2.0	0.10	7705118
Di-N-butyl phthalate		ug/L	15	80	<2.0	2.0	0.10	7705118
Volatile Organics								
Benzene		ug/L	2	10	<0.40	0.40	0.040	7705568
Chloroform		ug/L	2	40	<0.40	0.40	0.10	7705568
1,2-Dichlorobenzene		ug/L	5.6	50	<0.80	0.80	0.10	7705568
1,4-Dichlorobenzene		ug/L	6.8	80	<0.80	0.80	0.10	7705568
cis-1,2-Dichloroethylene		ug/L	5.6	4000	<1.0	1.0	0.10	7705568
trans-1,3-Dichloropropene		ug/L	5.6	140	<0.80	0.80	0.10	7705568
Ethylbenzene		ug/L	2	160	<0.40	0.40	0.020	7705568
Methylene Chloride(Dichloromethane)		ug/L	5.2	2000	<4.0	4.0	0.20	7705568
Methyl Ethyl Ketone (2-Butanone)		ug/L	-	8000	<20	20	1.0	7705568
Styrene		ug/L	-	200	<0.80	0.80	0.10	7705568
1,1,2,2-Tetrachloroethane		ug/L	17	1400	<0.80	0.80	0.10	7705568
Tetrachloroethylene		ug/L	4.4	1000	<0.40	0.40	0.10	7705568
Toluene		ug/L	2	270	<0.40	0.40	0.020	7705568
Trichloroethylene		ug/L	8	400	<0.40	0.40	0.10	7705568
No Fill	No Exceedance							
Grey	Exceeds 1 criteria policy/level							
Black	Exceeds both criteria/levels							
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
Criteria: The Regional Municipality of Peel Storm Sewer Discharge.								
By-Law Number 53-2010.								
Criteria-2: The Regional Municipality of Peel Sanitary Sewer Discharge.								
By-Law Number 53-2010.								

**PEEL SANITARY & STORM SEWER (53-2010)**

Bureau Veritas ID				RFU707			
Sampling Date				2021/11/15 11:45			
COC Number				856631-01-01			
	UNITS	Criteria	Criteria-2	MW4 1000 DUNDAS ST E	RDL	MDL	QC Batch
p+m-Xylene	ug/L	-	-	<0.40	0.40	0.020	7705568
o-Xylene	ug/L	-	-	<0.40	0.40	0.020	7705568
Total Xylenes	ug/L	4.4	1400	<0.40	0.40	0.020	7705568
PCBs							
Total PCB	ug/L	0.4	1	<0.05	0.05	0.01	7704149
Microbiological							
Escherichia coli	CFU/100mL	200	-	<10	10	N/A	7702068
Surrogate Recovery (%)							
2,4,6-Tribromophenol	%	-	-	69			7705118
2-Fluorobiphenyl	%	-	-	78			7705118
2-Fluorophenol	%	-	-	40			7705118
D14-Terphenyl	%	-	-	91			7705118
D5-Nitrobenzene	%	-	-	80			7705118
D5-Phenol	%	-	-	28			7705118
Decachlorobiphenyl	%	-	-	58 (1)			7704149
4-Bromofluorobenzene	%	-	-	81			7705568
D4-1,2-Dichloroethane	%	-	-	106			7705568
D8-Toluene	%	-	-	101			7705568
No Fill	No Exceedance						
Grey	Exceeds 1 criteria policy/level						
Black	Exceeds both criteria/levels						
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							
Criteria: The Regional Municipality of Peel Storm Sewer Discharge.							
By-Law Number 53-2010.							
Criteria-2: The Regional Municipality of Peel Sanitary Sewer Discharge.							
By-Law Number 53-2010.							
N/A = Not Applicable							
(1) Surrogate recovery is below the control limit stipulated by Ont Reg 153, however, this recovery is still within Bureau Veritas performance based limits. Results reported with recoveries within this range are still valid but may have a low bias.							

**PEEL SANITARY & STORM SEWER (53-2010)**

Bureau Veritas ID				RFU708			
Sampling Date				2021/11/15 14:30			
COC Number				856631-01-01			
	UNITS	Criteria	Criteria-2	MW1 1024 DUNDAS ST E	RDL	MDL	QC Batch

Calculated Parameters							
Total Animal/Vegetable Oil and Grease	mg/L	-	150	<0.50	0.50	0.10	7700791
Inorganics							
Total Carbonaceous BOD	mg/L	15	300	<2	2	0.2	7702814
Fluoride (F-)	mg/L	-	10	<0.10	0.10	0.020	7704513
Total Kjeldahl Nitrogen (TKN)	mg/L	1	100	1.8	0.20	0.12	7705860
pH	pH	6.0:9.0	5.5:10.0	7.33			7704530
Phenols-4AAP	mg/L	0.008	1	<0.0010	0.0010	0.00030	7703544
Total Suspended Solids	mg/L	15	350	160	10	2.0	7704415
Dissolved Sulphate (SO4)	mg/L	-	1500	180	1.0	0.10	7704654
Total Cyanide (CN)	mg/L	0.02	2	0.028	0.0050	0.00010	7705467
Petroleum Hydrocarbons							
Total Oil & Grease	mg/L	-	-	<0.50	0.50	0.10	7713111
TPH - Heavy Oils	mg/L	-	15	<0.50	0.50	0.10	7713113
Miscellaneous Parameters							
Nonylphenol Ethoxylate (Total)	mg/L	-	0.2	<0.025	0.025	0.005	7709126
Nonylphenol (Total)	mg/L	-	0.02	<0.001	0.001	0.0002	7709096
Metals							
Mercury (Hg)	mg/L	0.0004	0.01	<0.00010	0.00010	0.000050	7705465
Total Aluminum (Al)	ug/L	-	50000	2400	4.9	2.0	7708001
Total Antimony (Sb)	ug/L	-	5000	<0.50	0.50	0.30	7708001
Total Arsenic (As)	ug/L	20	1000	2.2	1.0	0.50	7708001
Total Cadmium (Cd)	ug/L	8	700	<0.090	0.090	0.090	7708001
Total Chromium (Cr)	ug/L	80	5000	<5.0	5.0	5.0	7708001
Total Cobalt (Co)	ug/L	-	5000	4.8	0.50	0.10	7708001
Total Copper (Cu)	ug/L	50	3000	6.1	0.90	0.50	7708001
Total Lead (Pb)	ug/L	120	3000	1.0	0.50	0.10	7708001

No Fill

No Exceedance

Grey

Exceeds 1 criteria policy/level

Black

Exceeds both criteria/levels

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: The Regional Municipality of Peel Storm Sewer Discharge.

By-Law Number 53-2010.

Criteria-2: The Regional Municipality of Peel Sanitary Sewer Discharge.

By-Law Number 53-2010.

**PEEL SANITARY & STORM SEWER (53-2010)**

Bureau Veritas ID					RFU708			
Sampling Date					2021/11/15 14:30			
COC Number					856631-01-01			
		UNITS	Criteria	Criteria-2	MW1 1024 DUNDAS ST E	RDL	MDL	QC Batch
Total Manganese (Mn)		ug/L	50	5000	1600	2.0	0.50	7708001
Total Molybdenum (Mo)		ug/L	-	5000	6.2	0.50	0.20	7708001
Total Nickel (Ni)		ug/L	80	3000	9.2	1.0	0.50	7708001
Total Phosphorus (P)		ug/L	-	10000	130	100	30	7708001
Total Selenium (Se)		ug/L	20	1000	<2.0	2.0	0.50	7708001
Total Silver (Ag)		ug/L	120	5000	<0.090	0.090	0.070	7708001
Total Tin (Sn)		ug/L	-	5000	<1.0	1.0	0.50	7708001
Total Titanium (Ti)		ug/L	-	5000	27	5.0	4.0	7708001
Total Zinc (Zn)		ug/L	40	3000	8.9	5.0	3.0	7708001
Semivolatile Organics								
Bis(2-ethylhexyl)phthalate		ug/L	8.8	12	<2.0	2.0	0.10	7705118
Di-N-butyl phthalate		ug/L	15	80	<2.0	2.0	0.10	7705118
Volatile Organics								
Benzene		ug/L	2	10	<0.40	0.40	0.040	7705568
Chloroform		ug/L	2	40	<0.40	0.40	0.10	7705568
1,2-Dichlorobenzene		ug/L	5.6	50	<0.80	0.80	0.10	7705568
1,4-Dichlorobenzene		ug/L	6.8	80	<0.80	0.80	0.10	7705568
cis-1,2-Dichloroethylene		ug/L	5.6	4000	<1.0	1.0	0.10	7705568
trans-1,3-Dichloropropene		ug/L	5.6	140	<0.80	0.80	0.10	7705568
Ethylbenzene		ug/L	2	160	<0.40	0.40	0.020	7705568
Methylene Chloride(Dichloromethane)		ug/L	5.2	2000	<4.0	4.0	0.20	7705568
Methyl Ethyl Ketone (2-Butanone)		ug/L	-	8000	<20	20	1.0	7705568
Styrene		ug/L	-	200	<0.80	0.80	0.10	7705568
1,1,2,2-Tetrachloroethane		ug/L	17	1400	<0.80	0.80	0.10	7705568
Tetrachloroethylene		ug/L	4.4	1000	<0.40	0.40	0.10	7705568
Toluene		ug/L	2	270	<0.40	0.40	0.020	7705568
Trichloroethylene		ug/L	8	400	<0.40	0.40	0.10	7705568
No Fill		No Exceedance						
Grey		Exceeds 1 criteria policy/level						
Black		Exceeds both criteria/levels						
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
Criteria: The Regional Municipality of Peel Storm Sewer Discharge.								
By-Law Number 53-2010.								
Criteria-2: The Regional Municipality of Peel Sanitary Sewer Discharge.								
By-Law Number 53-2010.								



PEEL SANITARY & STORM SEWER (53-2010)

Bureau Veritas ID					RFU708			
Sampling Date					2021/11/15 14:30			
COC Number					856631-01-01			
		UNITS	Criteria	Criteria-2	MW1 1024 DUNDAS ST E	RDL	MDL	QC Batch
p+m-Xylene		ug/L	-	-	<0.40	0.40	0.020	7705568
o-Xylene		ug/L	-	-	<0.40	0.40	0.020	7705568
Total Xylenes		ug/L	4.4	1400	<0.40	0.40	0.020	7705568
PCBs								
Total PCB		ug/L	0.4	1	<0.05	0.05	0.01	7704149
Microbiological								
Escherichia coli		CFU/100mL	200	-	<10	10	N/A	7702068
Surrogate Recovery (%)								
2,4,6-Tribromophenol		%	-	-	58			7705118
2-Fluorobiphenyl		%	-	-	72			7705118
2-Fluorophenol		%	-	-	33			7705118
D14-Terphenyl		%	-	-	100			7705118
D5-Nitrobenzene		%	-	-	81			7705118
D5-Phenol		%	-	-	29			7705118
Decachlorobiphenyl		%	-	-	58 (1)			7704149
4-Bromofluorobenzene		%	-	-	81			7705568
D4-1,2-Dichloroethane		%	-	-	106			7705568
D8-Toluene		%	-	-	101			7705568
No Fill	No Exceedance Exceeds 1 criteria policy/level Exceeds both criteria/levels							
Grey								
Black								
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
Criteria: The Regional Municipality of Peel Storm Sewer Discharge.								
By-Law Number 53-2010.								
Criteria-2: The Regional Municipality of Peel Sanitary Sewer Discharge.								
By-Law Number 53-2010.								
N/A = Not Applicable								
(1) Surrogate recovery is below the control limit stipulated by Ont Reg 153, however, this recovery is still within Bureau Veritas performance based limits. Results reported with recoveries within this range are still valid but may have a low bias.								



PEEL SANITARY & STORM SEWER (53-2010)

Bureau Veritas ID				RFU708			
Sampling Date				2021/11/15 14:30			
COC Number				856631-01-01			
	UNITS	Criteria	Criteria-2	MW1 1024 DUNDAS ST E Lab-Dup	RDL	MDL	QC Batch

Miscellaneous Parameters								
Nonylphenol Ethoxylate (Total)	mg/L	-	0.2	<0.025	0.025	0.005	7709126	
No Fill	No Exceedance							
Grey	Exceeds 1 criteria policy/level							
Black	Exceeds both criteria/levels							
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
Lab-Dup = Laboratory Initiated Duplicate								
Criteria: The Regional Municipality of Peel Storm Sewer Discharge.								
By-Law Number 53-2010.								
Criteria-2: The Regional Municipality of Peel Sanitary Sewer Discharge.								
By-Law Number 53-2010.								



BUREAU
VERITAS

Bureau Veritas Job #: C1X5947

Report Date: 2021/12/10

Pinchin Ltd

Client Project #: 275471.004

Site Location: 1000 & 1024 Dundas Street East, Mississauga

Sampler Initials: YP

TEST SUMMARY

Bureau Veritas ID: RFU707
Sample ID: MW4 1000 DUNDAS ST E
Matrix: Water

Collected: 2021/11/15
Shipped:
Received: 2021/11/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by GC/MS	GC/MS	7705118	2021/11/17	2021/11/18	Anh Lieu
Carbonaceous BOD	DO	7702814	2021/11/16	2021/12/08	Prakash Piya
Total Cyanide	SKAL/CN	7705467	2021/11/17	2021/11/17	Aditiben Patel
Fluoride	ISE	7704513	2021/11/16	2021/11/17	Surinder Rai
Mercury in Water by CVAA	CV/AA	7705465	2021/11/17	2021/11/17	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7708001	N/A	2021/11/18	Azita Fazaeli
E.coli, (CFU/100mL)	PL	7702068	N/A	2021/11/15	Sirimathie Aluthwala
Total Nonylphenol in Liquids by HPLC	LC/FLU	7709096	2021/11/18	2021/11/19	Furneesh Kumar
Nonylphenol Ethoxylates in Liquids: HPLC	LC/FLU	7709126	2021/11/18	2021/11/19	Furneesh Kumar
Animal and Vegetable Oil and Grease	BAL	7700791	N/A	2021/11/20	Automated Statchk
Total Oil and Grease	BAL	7713111	2021/11/20	2021/11/20	Saumya Modh
Polychlorinated Biphenyl in Water	GC/ECD	7704149	2021/11/16	2021/11/17	Dawn Howard
pH	AT	7704530	2021/11/16	2021/11/17	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7703544	N/A	2021/11/16	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7704654	N/A	2021/11/17	Avneet Kour Sudan
Total Kjeldahl Nitrogen in Water	SKAL	7705860	2021/11/17	2021/11/19	Massarat Jan
Mineral/Synthetic O & G (TPH Heavy Oil)	BAL	7713113	2021/11/20	2021/11/20	Saumya Modh
Total Suspended Solids	BAL	7704415	2021/11/17	2021/11/18	Shaneil Hall
Volatile Organic Compounds in Water	GC/MS	7705568	N/A	2021/11/22	Manpreet Sarao

Bureau Veritas ID: RFU708
Sample ID: MW1 1024 DUNDAS ST E
Matrix: Water

Collected: 2021/11/15
Shipped:
Received: 2021/11/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by GC/MS	GC/MS	7705118	2021/11/17	2021/11/18	Anh Lieu
Carbonaceous BOD	DO	7702814	2021/11/16	2021/12/08	Prakash Piya
Total Cyanide	SKAL/CN	7705467	2021/11/17	2021/11/17	Aditiben Patel
Fluoride	ISE	7704513	2021/11/16	2021/11/17	Surinder Rai
Mercury in Water by CVAA	CV/AA	7705465	2021/11/17	2021/11/17	Medhat Nasr
Total Metals Analysis by ICPMS	ICP/MS	7708001	N/A	2021/12/10	Azita Fazaeli
E.coli, (CFU/100mL)	PL	7702068	N/A	2021/11/15	Sirimathie Aluthwala
Total Nonylphenol in Liquids by HPLC	LC/FLU	7709096	2021/11/18	2021/11/19	Furneesh Kumar
Nonylphenol Ethoxylates in Liquids: HPLC	LC/FLU	7709126	2021/11/18	2021/11/19	Furneesh Kumar
Animal and Vegetable Oil and Grease	BAL	7700791	N/A	2021/11/20	Automated Statchk
Total Oil and Grease	BAL	7713111	2021/11/20	2021/11/20	Saumya Modh
Polychlorinated Biphenyl in Water	GC/ECD	7704149	2021/11/16	2021/11/17	Dawn Howard
pH	AT	7704530	2021/11/16	2021/11/17	Surinder Rai
Phenols (4AAP)	TECH/PHEN	7703544	N/A	2021/11/16	Deonarine Ramnarine
Sulphate by Automated Colourimetry	KONE	7704654	N/A	2021/11/17	Avneet Kour Sudan
Total Kjeldahl Nitrogen in Water	SKAL	7705860	2021/11/17	2021/11/19	Massarat Jan
Mineral/Synthetic O & G (TPH Heavy Oil)	BAL	7713113	2021/11/20	2021/11/20	Saumya Modh
Total Suspended Solids	BAL	7704415	2021/11/17	2021/11/18	Shaneil Hall
Volatile Organic Compounds in Water	GC/MS	7705568	N/A	2021/11/22	Manpreet Sarao



BUREAU
VERITAS

Bureau Veritas Job #: C1X5947

Report Date: 2021/12/10

Pinchin Ltd

Client Project #: 275471.004

Site Location: 1000 & 1024 Dundas Street East, Mississauga

Sampler Initials: YP

TEST SUMMARY

Bureau Veritas ID: RFU708 Dup
Sample ID: MW1 1024 DUNDAS ST E
Matrix: Water

Collected: 2021/11/15
Shipped:
Received: 2021/11/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nonylphenol Ethoxylates in Liquids: HPLC	LC/FLU	7709126	2021/11/18	2021/11/19	Furneesh Kumar



GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	10.0°C
Package 2	6.0°C

All 40 ml vials contained visible sediment.

All 250mL plastic General and solid bottles contained visible sediment.

All 125mL plastic bottles contained visible sediment.

All 120mL plastic bottle for metal analysis contained visible sediment.

All 100mL clear glass bottles contained visible sediment.

All 1L amber glass bottles contained visible sediment.

All 500mL amber glass bottles contained visible sediment.

All 120mL preserved Nutrients plastic bottle contained visible sediment.

All 120mL amber glass bottle for phenols analysis contained visible sediment.

All 120mL plastic bottles contained visible sediment.

All 300mL Sterilized bottles for Microanalysis analysis contained visible sediment

Sample RFU707 [MW4 1000 DUNDAS ST E] : VOC Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample RFU708 [MW1 1024 DUNDAS ST E] : VOC Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Results relate only to the items tested.

BUREAU
VERITAS

Bureau Veritas Job #: C1X5947

Report Date: 2021/12/10

QUALITY ASSURANCE REPORT

Pinchin Ltd

Client Project #: 275471.004

Site Location: 1000 & 1024 Dundas Street East, Mississauga

Sampler Initials: YP

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7704149	Decachlorobiphenyl	2021/11/17	99	60 - 130	81	60 - 130	77	%				
7705118	2,4,6-Tribromophenol	2021/11/17	92	10 - 130	92	10 - 130	79	%				
7705118	2-Fluorobiphenyl	2021/11/17	63	30 - 130	68	30 - 130	57	%				
7705118	2-Fluorophenol	2021/11/17	48	10 - 130	49	10 - 130	49	%				
7705118	D14-Terphenyl	2021/11/17	96	30 - 130	92	30 - 130	84	%				
7705118	D5-Nitrobenzene	2021/11/17	88	30 - 130	91	30 - 130	85	%				
7705118	D5-Phenol	2021/11/17	36	10 - 130	34	10 - 130	33	%				
7705568	4-Bromofluorobenzene	2021/11/21	92	70 - 130	91	70 - 130	87	%				
7705568	D4-1,2-Dichloroethane	2021/11/21	107	70 - 130	103	70 - 130	105	%				
7705568	D8-Toluene	2021/11/21	104	70 - 130	105	70 - 130	99	%				
7702814	Total Carbonaceous BOD	2021/12/08					<2	mg/L	17	30	96	85 - 115
7703544	Phenols-4AAP	2021/11/16	91	80 - 120	99	80 - 120	<0.0010	mg/L	NC	20		
7704149	Total PCB	2021/11/17	97	60 - 130	100	60 - 130	<0.05	ug/L	NC	40		
7704415	Total Suspended Solids	2021/11/18					<10	mg/L	NC	25	95	85 - 115
7704513	Fluoride (F-)	2021/11/17	65 (1)	80 - 120	102	80 - 120	<0.10	mg/L	0.96	20		
7704530	pH	2021/11/17			102	98 - 103			0.99	N/A		
7704654	Dissolved Sulphate (SO4)	2021/11/17	127 (1)	75 - 125	106	80 - 120	<1.0	mg/L	0.060	20		
7705118	Bis(2-ethylhexyl)phthalate	2021/11/18	98	30 - 130	95	30 - 130	<2.0	ug/L	NC	40		
7705118	Di-N-butyl phthalate	2021/11/18	97	30 - 130	95	30 - 130	<2.0	ug/L	NC	40		
7705465	Mercury (Hg)	2021/11/17	97	75 - 125	96	80 - 120	<0.00010	mg/L	NC	20		
7705467	Total Cyanide (CN)	2021/11/17	96	80 - 120	98	80 - 120	<0.0050	mg/L	NC	20		
7705568	1,1,2,2-Tetrachloroethane	2021/11/22	116	70 - 130	99	70 - 130	<0.40	ug/L	NC	30		
7705568	1,2-Dichlorobenzene	2021/11/22	100	70 - 130	92	70 - 130	<0.40	ug/L	NC	30		
7705568	1,4-Dichlorobenzene	2021/11/22	114	70 - 130	106	70 - 130	<0.40	ug/L	NC	30		
7705568	Benzene	2021/11/22	94	70 - 130	86	70 - 130	<0.20	ug/L	8.6	30		
7705568	Chloroform	2021/11/22	107	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
7705568	cis-1,2-Dichloroethylene	2021/11/22	106	70 - 130	97	70 - 130	<0.50	ug/L	8.3	30		
7705568	Ethylbenzene	2021/11/22	91	70 - 130	86	70 - 130	<0.20	ug/L	NC	30		
7705568	Methyl Ethyl Ketone (2-Butanone)	2021/11/22	113	60 - 140	93	60 - 140	<10	ug/L	NC	30		
7705568	Methylene Chloride(Dichloromethane)	2021/11/22	115	70 - 130	105	70 - 130	<2.0	ug/L	NC	30		
7705568	o-Xylene	2021/11/22	89	70 - 130	85	70 - 130	<0.20	ug/L	NC	30		

BUREAU
VERITAS

Bureau Veritas Job #: C1X5947

Report Date: 2021/12/10

QUALITY ASSURANCE REPORT(CONT'D)

Pinchin Ltd

Client Project #: 275471.004

Site Location: 1000 & 1024 Dundas Street East, Mississauga

Sampler Initials: YP

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7705568	p+m-Xylene	2021/11/22	94	70 - 130	88	70 - 130	<0.20	ug/L	NC	30		
7705568	Styrene	2021/11/22	106	70 - 130	101	70 - 130	<0.40	ug/L	NC	30		
7705568	Tetrachloroethylene	2021/11/22	88	70 - 130	84	70 - 130	<0.20	ug/L	NC	30		
7705568	Toluene	2021/11/22	93	70 - 130	87	70 - 130	<0.20	ug/L	NC	30		
7705568	Total Xylenes	2021/11/22					<0.20	ug/L	NC	30		
7705568	trans-1,3-Dichloropropene	2021/11/22	110	70 - 130	102	70 - 130	<0.40	ug/L	NC	30		
7705568	Trichloroethylene	2021/11/22	102	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
7705860	Total Kjeldahl Nitrogen (TKN)	2021/11/18	98	80 - 120	95	80 - 120	<0.10	mg/L	2.9	20	99	80 - 120
7708001	Total Aluminum (Al)	2021/11/18	101	80 - 120	100	80 - 120	<4.9	ug/L	4.6	20		
7708001	Total Antimony (Sb)	2021/11/18	101	80 - 120	99	80 - 120	<0.50	ug/L				
7708001	Total Arsenic (As)	2021/11/18	98	80 - 120	98	80 - 120	<1.0	ug/L				
7708001	Total Cadmium (Cd)	2021/11/18	97	80 - 120	98	80 - 120	<0.090	ug/L	NC	20		
7708001	Total Chromium (Cr)	2021/11/18	97	80 - 120	95	80 - 120	<5.0	ug/L	NC	20		
7708001	Total Cobalt (Co)	2021/11/18	97	80 - 120	96	80 - 120	<0.50	ug/L				
7708001	Total Copper (Cu)	2021/11/18	98	80 - 120	99	80 - 120	<0.90	ug/L	3.9	20		
7708001	Total Lead (Pb)	2021/11/18	93	80 - 120	93	80 - 120	<0.50	ug/L	1.7	20		
7708001	Total Manganese (Mn)	2021/11/18	98	80 - 120	97	80 - 120	<2.0	ug/L				
7708001	Total Molybdenum (Mo)	2021/11/18	101	80 - 120	100	80 - 120	<0.50	ug/L				
7708001	Total Nickel (Ni)	2021/11/18	95	80 - 120	95	80 - 120	<1.0	ug/L	NC	20		
7708001	Total Phosphorus (P)	2021/11/18	97	80 - 120	103	80 - 120	<100	ug/L				
7708001	Total Selenium (Se)	2021/11/18	102	80 - 120	101	80 - 120	<2.0	ug/L				
7708001	Total Silver (Ag)	2021/11/18	98	80 - 120	97	80 - 120	<0.090	ug/L				
7708001	Total Tin (Sn)	2021/11/18	99	80 - 120	100	80 - 120	<1.0	ug/L				
7708001	Total Titanium (Ti)	2021/11/18	96	80 - 120	94	80 - 120	<5.0	ug/L				
7708001	Total Zinc (Zn)	2021/11/18	98	80 - 120	99	80 - 120	<5.0	ug/L	1.1	20		
7709096	Nonylphenol (Total)	2021/11/19	NC (2)	50 - 130	98	50 - 130	<0.001	mg/L	NC	40		
7709126	Nonylphenol Ethoxylate (Total)	2021/11/19	78	50 - 130	82	50 - 130	<0.025	mg/L	NC	40		
7713111	Total Oil & Grease	2021/11/20			97	85 - 115	<0.50	mg/L	2.3	25		



BUREAU
VERITAS

Bureau Veritas Job #: C1X5947

Report Date: 2021/12/10

QUALITY ASSURANCE REPORT(CONT'D)

Pinchin Ltd

Client Project #: 275471.004

Site Location: 1000 & 1024 Dundas Street East, Mississauga

Sampler Initials: YP

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7713113	TPH - Heavy Oils	2021/11/20			92	85 - 115	<0.50	mg/L	3.8	25		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

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

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference $\leq 2 \times \text{RDL}$).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(2) The recovery of the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation.



FUNDAMENTAL LABORATORY ACCEPTANCE GUIDELINE

Invoice To:

Pinchin Ltd
ATTN: Accounts Payable
2360 Meadowpine Blvd
Unit # 2
Mississauga, ON
CANADA L5N 6S2
Client Contact:
Craig Kelly

Bureau Veritas Job #: C1X5947
Date Received: 2021/11/15
Your C.O.C. #: 856631-01-01
Your Project #: 275471.004
Bureau Veritas Project Manager: Antonella Brasil
Quote #: A70927

No discrepancies noted.

Report Comments

Received Date:	<u>2021/11/15</u>	Time:	<u>17:23</u>	By:	_____
Inspected Date:	_____	Time:	_____	By:	_____
FLAG Created Date:	_____	Time:	_____	By:	_____



BUREAU
VERITAS

Bureau Veritas Job #: C1X5947

Report Date: 2021/12/10

Pinchin Ltd

Client Project #: 275471.004

Site Location: 1000 & 1024 Dundas Street East, Mississauga

Sampler Initials: YP

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Brad Newman, B.Sc., C.Chem., Scientific Service Specialist

Eva Pranjić, M.Sc., C.Chem, Scientific Specialist

Sirimathie Aluthwala, Team Lead

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



MICRO

Bureau Veritas Laboratories
6740 Campbell Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

CHAIN OF CUSTODY RECORD

Page of

INVOICE TO: Company Name: #3103 Pinchin Ltd Attention: Accounts Payable Address: 2360 Meadowpine Blvd Unit # 2 Mississauga ON L5N 6S2 Tel: (905) 363-0678 Fax: (905) 363-0681 Email: ap@pinchin.com		REPORT TO: Company Name: Craig Kelly Attention: Address: Tel: (905) 363-1352 Fax: Email: cckelly@pinchin.com; bguan@pinchin.com		PROJECT INFORMATION: Quotation #: A70927 P.O. #: Project: 275471.004 Project Name: Site #: Sampled By:		15-Nov-21 17:23 Antonella Brasil C1X5947 1 nager: Brasil	
MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY				ANALYSIS REQUESTED (PLEASE BE SPECIFIC)		Turnaround Time (TAT) Required Please provide advance notice for rush projects	
Regulation 153 (2011) <input type="checkbox"/> Table 1 <input type="checkbox"/> Res/Park <input type="checkbox"/> Medium/Fine <input type="checkbox"/> Table 2 <input type="checkbox"/> Ind/Comm <input type="checkbox"/> Coarse <input type="checkbox"/> Table 3 <input type="checkbox"/> Agri/Other <input type="checkbox"/> For RSC <input type="checkbox"/> Table		Other Regulations <input type="checkbox"/> CCME <input checked="" type="checkbox"/> Sanitary Sewer Bylaw <input type="checkbox"/> Reg 558 <input checked="" type="checkbox"/> Storm Sewer Bylaw <input type="checkbox"/> MISA Municipality <u>Peel</u> <input type="checkbox"/> PWQO <input type="checkbox"/> Reg 406 Table <input type="checkbox"/> Other		Special Instructions		Regular (Standard) TAT: (will be applied if Rush TAT is not specified): Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details. Job Specific Rush TAT (if applies to entire submission) Date Required: Time Required: <input type="checkbox"/> Rush Confirmation Number: (call lab for #)	
Include Criteria on Certificate of Analysis (Y/N)? <u>Y</u>							
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr / VI	Peel Sanitary & Storm Sewer (53-2010)	ANALYSIS REQUESTED (PLEASE BE SPECIFIC)
1 MW4	1000 Dundas St E	Nov 15/21	11:45	GW		✓	
2 MW1	1024 Dundas St E	Nov 15/21	14:30	GW		✓	
3							
4							
5							
6							
7							
8							
9							
10							

* RELINQUISHED BY: (Signature/Print) <u>Yanyan P. H. Yanyan</u>		Date: (YY/MM/DD) <u>21/11/16</u>	Time <u>17:18</u>	RECEIVED BY: (Signature/Print) <u>SHANNOY KEE</u>		Date: (YY/MM/DD) <u>21/11/15</u>	Time <u>17:23</u>	# jars used and not submitted	Laboratory Use Only Time Sensitive <input type="checkbox"/> Temperature (°C) on Recl: <u>5.8.5</u> Custody Seal Present <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		
--	--	-------------------------------------	----------------------	--	--	-------------------------------------	----------------------	-------------------------------	--	--	--

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.
 * IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.
 ** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

10,10,10

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

White: Bureau Veritas Yellow: Client

Bureau Veritas Canada (2019) Inc.



Exceedance Summary Table – Peel Region Storm 2010

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
MW4 1000 DUNDAS ST E	RFU707-08	Total Kjeldahl Nitrogen (TKN)	1	2.5	0.20	mg/L
MW4 1000 DUNDAS ST E	RFU707-09	Total Manganese (Mn)	50	630	2.0	ug/L
MW4 1000 DUNDAS ST E	RFU707-06	Total Suspended Solids	15	86	10	mg/L
MW1 1024 DUNDAS ST E	RFU708-08	Total Kjeldahl Nitrogen (TKN)	1	1.8	0.20	mg/L
MW1 1024 DUNDAS ST E	RFU708-09	Total Manganese (Mn)	50	1600	2.0	ug/L
MW1 1024 DUNDAS ST E	RFU708-06	Total Suspended Solids	15	160	10	mg/L
MW1 1024 DUNDAS ST E	RFU708-10	Total Cyanide (CN)	0.02	0.028	0.0050	mg/L

The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Exceedance Summary Table – Peel Region Sanitary 2010

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						
The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						