October 8, 2024

CRW 1 LP and CRW 2 LP
200 - 121 King Street West
Toronto, ON, M5H 3T9

E-mail: veronica@slateam.com

Attention: Ms. Veronica Jarvis [Client Title]

Re: Preliminary Hydrogeological Assessment
2077, 2087, 2097 and 2105 Royal Windsor Drive, Mississauga, Ontario
Pinchin File: 306354.003

Pinchin Ltd. (Pinchin) has been retained by CRW 1 LP and CRW 2 LP (Client) to conduct a preliminary hydrogeological assessment for the proposed redevelopment of the properties located at 2077, 2087, 2097 and 2105 Royal Windsor Drive (collectively referred to as the Site), in the City of Mississauga (City), Ontario.

It is Pinchin's understanding that the Client is proceeding with *Official Plan Amendment* and *Zoning-By-Law Amendment*. The scope of work for this assessment is considered to be acceptable for this application. Further investigation will be required for Site Plan Approval and supporting detailed design.

A hydrogeological assessment was conducted at the Site to support the Development Application process for the proposed redevelopment. This letter report 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 redevelopment 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 northwest side of Royal Windsor Drive, approximately 50 m southwest of the intersection of Royal Windsor Drive and Southdown Road, in Mississauga. The approximate site location is shown on Figures 1 and 2.

The Site comprises two parcels of land with a total area of approximately 15,146 m^2 (3.74 acres). One parcel has been developed with a one-storey building with a local driveway and parking spaces, and is identified with a municipal address of 2105 Royal Windsor Drive.

The other parcel has been developed with three one-storey buildings with parking spaces, identified as 2077, 2087 and 2097 Royal Windsor Drive. It is understood that the Client intends to redevelop the Site from its current commercial land use to mixed commercial and residential land use, comprised of tower buildings with multiple levels of underground parking facilities.

2.0 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.

2.1 Proposed Development Parameters

The site plans for the proposed development, dated September 25, 2024 and prepared by Gensler are provided in Appendix I.

The proposed development consists of four tower buildings, new private roads, and parkland/landscape open spaces. The development is proposed in two phases:

- Phase 1 (West Block) consists of Tower 1 – 35 storey building and Tower 2 – 31 storey building on a 6-storey podium, sitting on 4 levels of underground parking facility. The underground development area of the Phase 1 (West Block) is 3,844 m^2. The P4 slab elevation is at 85.23 masl; and
- Phase 2 (East Block) consists of Tower 3 – 35 storey building and Tower 4 – 25 storey building on a 6-storey podium, sitting on 3 levels of underground parking facility. The underground development area of the Phase 2 (East Block) is 6,096 m^2 for P1 and P2, and 3,432 m^2 for partial P3, and the P3 Level is at a depth of 10.5 m below ground floor elevation. The P3 slab elevation is 88.23 masl.

Based on the available topographic data, the topographic elevations at the Site are between 95 m above sea level (masl) and 100 masl. The average grade for the proposed development is 99.48 to 99.55 masl (Appendix A – Drawings A2.200 to A2.202).

2.2 Previous and Current Investigations

2.2.1 Previous Investigations

The following previous environmental reports completed for the Site were provided by the Client.

- Report entitled "*Phase I Environmental Site Assessment, 2105 Royal Windsor Drive, Mississauga, Ontario*" dated January 28, 2016, prepared for CS Capital Royal Windsor Inc., by JFM Environmental Limited (JFMEL) (2016 JFMEL Phase I ESA Report).
- Report entitled "*Phase II Environmental Site Assessment, 2077-2105 Royal Windsor Drive, Mississauga, Ontario*" dated January 28, 2016, prepared for CS Capital Royal Windsor Inc., by JFMEL (2016 JFMEL Phase II ESA Report).

2016 JFMEL Phase I ESA

The 2016 JFMEL Phase I ESA was completed in general accordance with the Canadian Standards Association (CSA) document entitled "*Phase I Environmental Site Assessment*" (CSA Document Z768-01), dated November 2001 (reaffirmed 2006), including a review of readily available historical records and reasonably ascertainable regulatory information, a Site reconnaissance, interviews, an evaluation of information and reporting. Based on the findings of the Phase I ESA, potentially contaminating activities (PCAs) were identified on Site, which were classified as "*Commercial Body Shop & Automotive Garage*", and an intrusive investigation in the form of Phase II ESA was recommended.

2016 JFMEL Phase II ESA

The 2016 JFMEL Phase II ESA was conducted based on the conclusions and recommendations made in 2016 JFMEL Phase I ESA.

JFMEL drilled four exterior boreholes at the Site to a maximum depth of 4.57 metres below ground surface (mbgs). Groundwater was not intercepted at any of the four borehole locations. The soils intercepted at all four boreholes were dry or slightly moist in soil at the shale interface. The groundwater regime was inferred to be situated within the underlying shale, beyond the bottom of the drilled boreholes (no monitoring wells were completed).

Soil stratigraphy at the JFMEL borehole locations generally consisted of silt and sand and gravel fill under asphalt cover, underlain by silty sand and silty clay to sandy clay, and then by shale bedrock. The fill materials generally consisted of a mixture of silt and fine-to medium sand, and sand and gravel, with trace brick fragments, and extended to depths ranging from 0.18 to 1.06 mbgs. The shale bedrock was encountered at depths ranging from 1.24 to 2.74 mbgs.

Soil samples were collected and selected for analyses of sodium adsorption ratio, petroleum hydrocarbon (PHCs) fractions F1 to F4 (F1-F4), metals, sodium adsorption ratio (SAR), polycyclic aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs) and/or pH.

The results of the laboratory analyses were compared with the Table 3 Standards and all samples met the applicable standards. Further work to address soil and groundwater conditions at the Site was not deemed warranted by JFMEL.

2.2.2 Current Investigations

Pinchin is conducting a combined investigation including Phase Two ESA, geotechnical investigation and hydrogeological assessment at the Site. A total of nine boreholes were drilled at the Site to the depths ranging from 4.6 to 12.6 mbgs, and were completed as monitoring wells identified as MW22-1 to MW22-9. The approximate borehole and monitoring well locations are shown on Figure 2.

The data obtained from the drilling program was used in this hydrogeological assessment and the monitoring wells were utilized for groundwater monitoring, sampling and testing.

3.0 METHODOLOGY

This preliminary hydrogeological assessment was conducted at the Site concurrently with a Phase Two ESA and geotechnical investigation and based on the provided design drawings. A total of nine monitoring wells identified as BH/MW1 to BH/MW9 were completed at the Site for groundwater monitoring, sampling and testing. The approximate monitoring well locations are shown on Figure 2. The monitoring well construction details are provided in Table 1.

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

- A review of well installation details obtained from the drilling program;
- A desktop water well inventory survey using data from the MECP Water Well Information System (WWIS) database within 500 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;
- Groundwater level monitoring in all the monitoring wells;
- Rising head hydraulic conductivity testing of 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 preliminary site development design for the details of the proposed redevelopment, and completion of a preliminary dewatering assessment for the construction and operations phases of the proposed redevelopment;
- Potential impact assessment with mitigative measures, if required; and

- Preparation of a hydrogeological assessment report summarizing the findings of the investigation.

4.0 WATER WELL RECORDS

Water well records from within a 500 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 29 water well records were found within a radius of 500 m from the Site. The MECP water well records are provided in Appendix II. The approximate MECP water well locations are presented on Figure 3.

Among the identified water well records within the 500 m radius, five were for water supply wells (domestic or commercial), seven are abandoned wells or wells with no details, and the others are monitoring wells, observation wells or test holes. No existing water well was found within the Site area.

Based on the water well records, the encountered soils were variable, including clay, silt, sand or gravel. The shale bedrock was encountered at depths ranging from approximately 1.5 to 5.5 mbgs. All five water supply wells were constructed and completed in bedrock, with the recorded groundwater levels between 2.1 and 4.6 mbgs.

5.0 GEOLOGY

Based on data from the Ontario Geological Survey, the Site is located in the Shale Plain physiographic landform within the South Slope physiographic region, underlain by the Queenston Formation of shale, siltstone, minor limestone and sandstone.

6.0 SURFACE WATER AND TOPOGRAPHY

Based on the Credit Valley Watershed Plan, the Site is located in the Lake Ontario Shoreline West Tributaries Subwatershed within the Credit River Watershed under the jurisdiction of Credit Valley Conservation (CVC).

As shown on Figure 3, the Site generally slopes towards the east, with the elevations ranging between 95 and 100 masl, and a creek named Sheridan Creek is located approximately 330 m east of the Site. It is noted that Lake Ontario is located approximately 2.5 km southeast of the Site.

7.0 RESULTS

7.1 Soil Stratigraphy

In general, the soil stratigraphy at the Site comprises an asphaltic concrete pavement structure underlain by fill material, followed by native clayey silt soil, and then by bedrock to the maximum borehole termination depth of approximately 12.6 mbgs.

Asphaltic concrete was encountered surficially at all borehole locations and was approximately 50 to 100 mm thick. Fill material was encountered below the asphaltic concrete, and generally consisted of sand and gravel, or sand and gravel with clayey silt, extending to depths ranging from 0.3 to 1.5 mbgs.

Clayey silt deposits were encountered below the fill material in all of the boreholes, extending to depths ranging between 2.4 to 3.4 mbgs. The clayey silt deposits had a compact to very dense relative density based on SPT 'N' values of 11 to >50 blows per 300 mm penetration of a split spoon sampler. The results of particle size distribution analysis completed on two samples indicate that the samples contain 1 to 2% gravel, 9 to 16% sand, 60 to 64% silt, and 19 to 29% clay.

Bedrock was encountered in all of the boreholes at depths ranging from 2.3 to 3.4 mbgs and confirmed by rock coring at BH22-4. The Rock Quality Designation (RQD) was calculated for the recovered core samples and the upper 8 metres of the bedrock was highly weathered. The calculated RQD values show that the bedrock classification based on the RQD is in the range of very poor to fair quality.

The details of the soil descriptions and stratigraphy are presented in the Borehole Logs provided in Appendix III. Cross-sections showing the stratigraphy across the Site are provided on Figures 4A and 4B of this report.

7.2 Water Level Elevations and Groundwater Flow Regime

Groundwater level measurements were undertaken in all of the monitoring wells on August 5, 15 and 31, 2022, September 20, 2022 and September 24, 2024. The groundwater level data is presented in Table 2 of this letter report.

The measured groundwater levels ranged from 1.95 mbgs at MW22-6 (September 24, 2024) to 4.08 mbgs at MW22-1 (September 20, 2022), and groundwater level elevations ranged from 95.05 masl at MW22-7 (September 20, 2022) to 96.8 masl at MW22-6 (September 24, 2024). The maximum average of the groundwater levels across the Site was found to be 96.11 masl, measured on August 15, 2022.

Based on the groundwater elevations measured on August 15, 2022, groundwater elevation contours were prepared and are presented on Figure 5. The groundwater flow generally appears to converge towards a low groundwater elevation area located in the northeast portion of the Site, with the groundwater flowing towards the northeast in the southwest portion of the Site and towards the southwest in the northeast portion of the Site.

7.3 Hydraulic Conductivity Estimates

The hydraulic conductivity (K) of the soil/bedrock was estimated based on the rising head hydraulic conductivity tests completed at four monitoring wells. Rising head K- tests were conducted in four monitoring wells (MW22-1 to MW22-4) on August 15, 2022. The results of the K-tests and data processing records are provided in Appendix IV.

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

MWs	Screen Interval (mbgs)	Screened Medium	K-Estimate (cm/sec)
MW22-1	1.5 – 4.6	Clayey Silt; Weathered Shale	1.2×10^{-6}
MW22-2	1.5 – 4.6	Clayey Silt; Weathered Shale	5.1×10^{-6}
MW22-3	1.8 – 4.9	Clayey Silt; Weathered Shale	1.8×10^{-4}
MW22-4	9.2 – 12.2	Shale	2.6×10^{-4}

The K-values for the soil and shale bedrock interface interval ranged from 1.2×10^{-6} cm/sec (MW22-1) to 1.8×10^{-4} cm/sec (MW22-3), and the K-value for the relatively deep shale bedrock was estimated to be 2.6×10^{-4} cm/sec (MW22-4).

8.0 DEWATERING ASSESSMENT

As indicated in Section 1.2, the proposed buildings on Phase 1 (West Block) area will have 4-levels of underground parking and the buildings on Phase 2 (East Block) area will have 3-levels of underground parking. The proposed average grade is at 99.48 to 99.55 masl.

Based on the groundwater monitoring, the groundwater elevations measured in the on-site monitoring wells between August and September 2022 ranged from 95.05 to 96.8 masl, which are above the P4 Level (85.2 masl) and P3 Level (88.2 masl) and the required excavation bottom elevations. Therefore, groundwater control will be required during the construction and operations phases of the proposed buildings.

It is understood that the construction will take place in phases. As a result, the dewatering estimates are provided for Phase 1 (West Block) and Phase 2 (East Block) separately.

8.1 Short-Term Dewatering Estimates

8.1.1 Groundwater Inflow

Based on the conceptual designs provided by the Client, a conservative groundwater dewatering scenario during construction was undertaken that employed the following parameters and assumptions.

- The excavation/dewatering area is 3,844 m^2 for Phase 1 (West Block) area and 6,096 m^2 for Phase 2 (East Block) area (assuming a whole area excavation for footing/foundation construction);
- Assuming that the target dewatering level will be 0.5 m below the excavation bottom, the target groundwater elevation will be 83.73 masl for the P4 Level in the Phase 1 (West Block) area and 86.73 masl for the P3 Level in the Phase 2 (East Block) area;

- The initial groundwater level will be assumed to be 96.2 masl (the highest averaged groundwater level was 96.11 masl).
- The hydraulic conductivity is 2.6 x 10^{-4} cm/sec (the hydraulic conductivity estimated from the bedrock).

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

Phase/ Block	Dewatering Area (m^2)	Initial Water Level (masl)	Target Water Level (masl)	K-Estimate (cm/sec)	Estimated Maximum 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)
Phase 1 (West Block)	3,844	96.2	83.73	2.6 x 10^{-4}	58	112,155	224,310
Phase 2 (East Block)	6,096	96.2	86.73	2.6 x 10^{-4}	43	92,021	184,043

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 soil and bedrock fractures is also being removed.

The above total volume estimates, assuming that one bulk excavation will be undertaken for the underground structure for Phase 1 (West Block) or Phase 2 (East Block), and including a Safety Factor of 2, or 100%, is above the threshold for an Environmental Activity Sector Registration (EASR) requirement for construction dewatering of more than 50,000 L/day (50 m^3/day) and below the threshold limit of 400,000 L/day (400 m^3/day) for a Permit-to-Taka-Water (PTTW) requirement. Therefore, an EASR registration will be required for the construction of the proposed buildings.

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

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.

Based on the Canadian Climatic Normals 1981-2010 Station Data for Toronto Pearson International Airport Station, the days which had a 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 volumes of storm water that can be generated within the Phase 1 (West Block) and Phase 2 (East Block) development areas were estimated for a 30 mm/day high-precipitation storm event, and are summarized below:

Phase/ Block	Excavation Area (m^2)	Precipitation Rate (mm/day)	Stormwater Volume (L/day)
Phase 1 (West Block)	4,245	30	127,350
Phase 2 (East Block)	6,412	30	192,360

It should be noted that the above estimates do 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.

8.1.3 Summary of Construction Dewatering Estimates

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

Phase/ Block	Construction Dewatering	Total Volume without Safety Factor for Groundwater (L/day)	Total Volume with Safety Factor of 2 for Groundwater (L/day)
Phase 1 (West Block)	Discharge of Groundwater	112,155	224,310
	Discharge of Stormwater	127,350	127,350
	Discharge of Groundwater and Stormwater	**239,505**	**351,660**
Phase 2 (East Block)	Discharge of Groundwater	92,021	184,043
	Discharge of Stormwater	192,360	192,360
	Discharge of Groundwater and Stormwater	**284,381**	**376,403**

8.2 Long-Term Dewatering Estimate - Operations

The same calculation methodology for short-term dewatering estimates was used for the long-term dewatering estimates, except for employing a different target groundwater level, which is just below the projected P5 or P3 slab elevation. The following parameters were employed:

- Target Water Level: 87.03 masl for P3 Level and 85.03 masl for the P4 Level (0.2 m below P3/P5 concrete slab).

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

Phase/ Block	Footprint Area (m^2)	Initial Water Level (masl)	Target Water Level (masl)	K-Estimate (cm/sec)	Estimated Maximum 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)
Phase 1 (West Block)	3,844	96.2	85.03	2.6×10^{-4}	58	94,241	188,483
Phase 2 (East Block)	6,096	96.2	88.03	2.6×10^{-4}	43	85,158	170,316

The dewatering volumes estimated for long-term building operations in the Phase 1 (West Block) area and Phase 2 (East Block) area, including a Safety Factor of 2, are above the threshold for long-term dewatering of 50,000 L/day (50 m^3/day) that triggers a PTTW requirement from the MECP. PTTWs will be required for the proposed building operations in Phase 1 (West Block) area and Phase 2 (East Block) area.

9.0 GROUNDWATER QUALITY

One unfiltered groundwater sample was initially obtained on August 8, 2022 from MW22-2 (Sample ID: MW22-2) to evaluate the water quality with reference to the Peel Region Sewer Use By-Law parameter criteria, for storm sewer and sanitary sewer discharge. Re-sampling was conducted from the same well on August 31, 2022 for analysis of selected parameters including total suspended solid (TSS), Total Kjeldahl Nitrogen (TKN), volatile organic compounds (VOCs) and metals.

The groundwater samples were submitted to and analyzed by Bureau Veritas Laboratories (BV). BV has been accredited by the Canadian Association For Laboratory Accreditation Inc. (CALA).

The analytical results were compared with the Peel Region Sewer Use Bylaw – Sanitary and Storm Sewer Discharge Limits. Exceedances of the Sanitary and/or Storm Sewer Discharge limits were detected in the analyzed water samples for a maximum of four parameters, including TSS, TKN, manganese and zinc. In addition, detection limits were raised above the storm sewer criteria for VOC parameters in the initial groundwater sample.

The identified exceedances are listed below.

Date of Sampling	Parameter	Unit	Storm Water Guideline Value	Sanitary Sewer Guideline Value	Measured Concentration
August 8, 2022	TSS	mg/L	**15**	**350**	1000
	TKN	mg/L	**1**	100	4.5
	Manganese	mg/L	**0.05**	5	1.1
	Zinc	mg/L	**0.04**	3	0.084
August 31, 2022	TSS	mg/L	**15**	350	67
	TKN	mg/L	**1**	100	3.7
	Manganese	mg/L	**0.05**	5	0.28
	Dissolved Manganese	mg/L	**0.05**	5	0.24

It is considered that some of 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. However, special treatment shall be considered to reduce manganese and TKN in the groundwater if the storm sewer system is selected for receiving the excess water discharge. Manganese concentrations are often elevated in shallow groundwater in the Greater Toronto Area.

It is recommended that samples from several wells be obtained and be analyzed for TKN to confirm its elevated presence across the Site.

10.0 CONCLUSIONS

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

- The Site is located in the Shale Plain physiographic landform within the South Slope physiographic region, underlain by the Queenston Formation of shale, siltstone, minor limestone and sandstone.
- The Site is located in the Lake Ontario Shoreline West Tributaries Subwatershed within the Credit River Watershed under the jurisdiction of the Credit Valley Conservation (CVC). A creek named Sheridan Creek is located to the east of the Site. It is noted that Lake Ontario is located approximately 2.5 km east of the Site.

- In general, the soil stratigraphy at the Site comprises an asphaltic concrete pavement structure underlain by fill material followed by native soil of clayey silt and then by bedrock. Shale bedrock was encountered at depths ranging from 2.3 to 3.4 mbgs.
- Groundwater level measurements completed in August 2022, September 2022 and September 2024 indicated that the measured groundwater levels ranged from 1.95 mbgs at MW22-6 (September 24, 2024) to 4.08 mbgs at MW22-1 (September 20, 2022), and groundwater level elevations ranged from 95.05 masl at MW22-7 (September 20, 2022) to 96.8 masl at MW22-6 (September 24, 2024). The maximum average of the groundwater levels across the Site was found to be 96.11 masl, measured on August 15, 2022;
- The groundwater flow generally appears to converge towards a low groundwater elevation area located in the northeast portion of the Site, with the groundwater flowing towards the northeast in the southwest portion of the Site and towards the southwest in the northeast portion of the Site;
- The hydraulic conductivities (K-values) estimated for clayey silt and weather shale bedrock from three monitoring wells ranged from 1.2×10^{-6} cm/sec to 1.8×10^{-4} cm/sec, and the K value estimated for shale from one monitoring well was 2.6×10^{-4} cm/sec;
- The short-term dewatering rates that were estimated for the construction phases, including groundwater inflow and stormwater inflow, and incorporating a Safety Factor of 2 for groundwater inflow, are 351,660 L/day for the Phase 1 (West Block) area and 376,403 L/day for the Phase 2 (East Block) area;
- The long-term dewatering rates estimated for the proposed building operations are 188,483 L/day in the Phase 1 (West Block) area with a four-level underground structure, and 170,316 L/day in Phase 2 (East Block) area with a three-level underground structure;
- An EASR registration will be required for the short-term construction dewatering, and PTTWs will be required for the long-term drainage discharges for Phase 1 (West Block) area and Phase 2 (East Block) area; and
- A groundwater quality assessment completed as per Peel Region Sewer Use Bylaw indicated that the water generated at the Site could not be discharged to the local sewer system without appropriate treatment for TSS, and special treatment may be required for TKN and manganese if the storm sewer is selected for receiving the excess water discharge.

11.0 RECOMMENDATIONS

The preliminary hydrogeological assessment was completed based on the soil and groundwater conditions observed and on the information provided in the progressive development plans. Additional boreholes and monitoring wells will be required to be completed at the appropriate depth to support an SPA application and/or for detailed building design. As a result, the preliminary hydrogeological assessment will need to be updated with the data obtained from additional subsurface investigations, based on the detailed design for the development.

It is recommended that samples from several wells be obtained and be analyzed for TKN to confirm its presence in elevated concentrations across the Site.

12.0 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.

Information provided by Pinchin is intended for Client and City of Mississauga use only. Pinchin will not provide results or information to any party other than the Client, unless the Client, in writing, requests information to be provided to a third party or unless disclosure by Pinchin is required by law. Any use by a third party, of reports or documents authored by Pinchin, or any reliance by a third party on or decisions made by a third party based on the findings described in said documents, 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.

13.0 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 – MECP Water Well Records
Appendix III – Borehole Logs
Appendix IV – Rising Head Hydraulic Conductivity Test Curves
Appendix V – Laboratory Analytical Results

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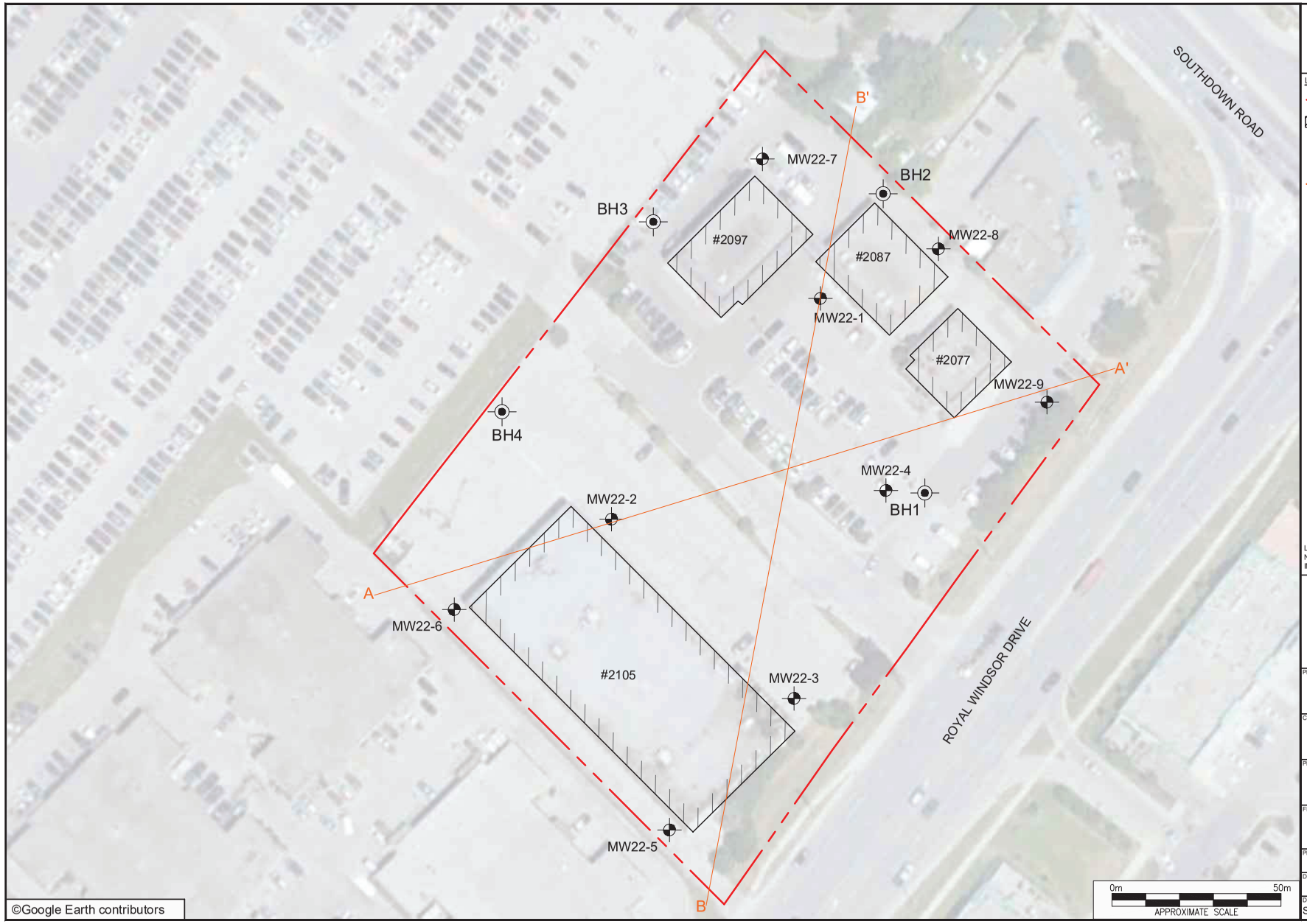
Figures and Tables

PINCHIN

PROJECT NAME:	PRELIMINARY HYDROGEOLOGICAL ASSESSMENT				
CLIENT NAME:	CRW 1 LP AND CRW 2 LP				
PROJECT LOCATION:	2077 - 2105 ROYAL WINDSOR DRIVE, MISSISSAUGA, ONTARIO				
FIGURE NAME:	KEY MAP				FIGURE NUMBER: 1
PROJECT NUMBER: 306354.003	SCALE: 1:12,000	DRAWN BY: KM	REVIEWED BY: BG	DATE: SEPT. 2024	



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LEGEND

- PROPERTY BOUNDARY
- SITE BUILDING
- BOREHOLE (JFMEL, 2016)
- BOREHOLE/MONITORING WELL (PINCHIN, 2022)
- A-A' LINE OF CROSS-SECTION

LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

PINCHIN

PROJECT NAME:
PRELIMINARY HYDROGEOLOGICAL ASSESSMENT

CLIENT NAME:
CRW 1 LP AND CRW 2 LP

PROJECT LOCATION:
2077-2105 ROYAL WINDSOR DRIVE, MISSISSAUGA, ONTARIO

FIGURE NAME:
BOREHOLE AND MONITORING WELL LOCATION PLAN

PROJECT NUMBER:	SCALE:
306354.003	AS SHOWN
DRAWN BY:	REVIEWED BY:
KM	BG
DATE:	FIGURE NUMBER:
SEPT. 2024	2

PINCHIN

PROJECT NAME:	Preliminary Hydrogeological Assessment	**PROJECT NO.**	306354.003
CLIENT NAME:	CRW 1 LP and CRW 2 LP	**DATE:**	SEP. 2024
PROJECT LOCATION:	2077-2105 Royal Windsor Drive, Mississauga, Ontario	**SCALE:**	1:6,000
FIGURE NAME:	Ontario Water Well Records (500 m Radius)	**FIGURE NO.**	3

LEGEND

- Site Boundary
- 500 m Radius
- Topography Contours (5 m)
- Watercourse
- Roadway

Ontario Water Well Records

- Water Supply Well (domestic/commercial)
- Monitoring/Observation/Test Well
- Abandoned Well or Well with no details

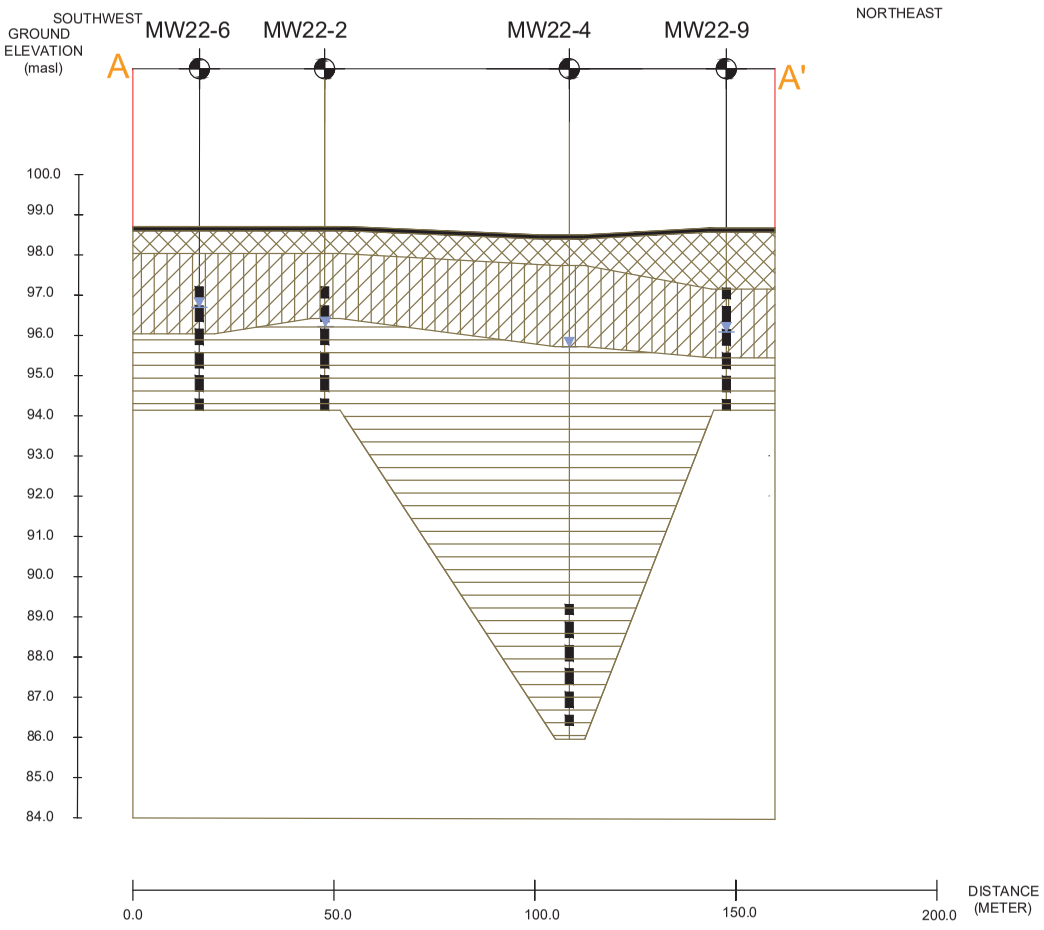
NOTES

1. All features and measurements are approximate and subject to field verification. This map is for planning purposes only.
2. Use dimensions as shown, do not scale drawing.
3. This map is not to be used for legal purposes.

0 60 120 240 Metres

Coordinate System: NAD 1983 CSRS UTM Zone 17N
Projection: Transverse Mercator
Datum: North American 1983 CSRS

DRAWN BY: MH REVIEWED BY: BG REVISION: 1



N

LEGEND

- SITE BOUNDARY
- CROSS SECTION LINE (A A')
- MONITORING WELL
- ASPHALT
- FILL
- CLAYEY SILT
- SHALE
- WELL CASING/ BENTONITE
- MEASURED GROUNDWATER ELEVATION (AUGUST 15, 2022)
- WELL SCREEN

LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

PINCHIN

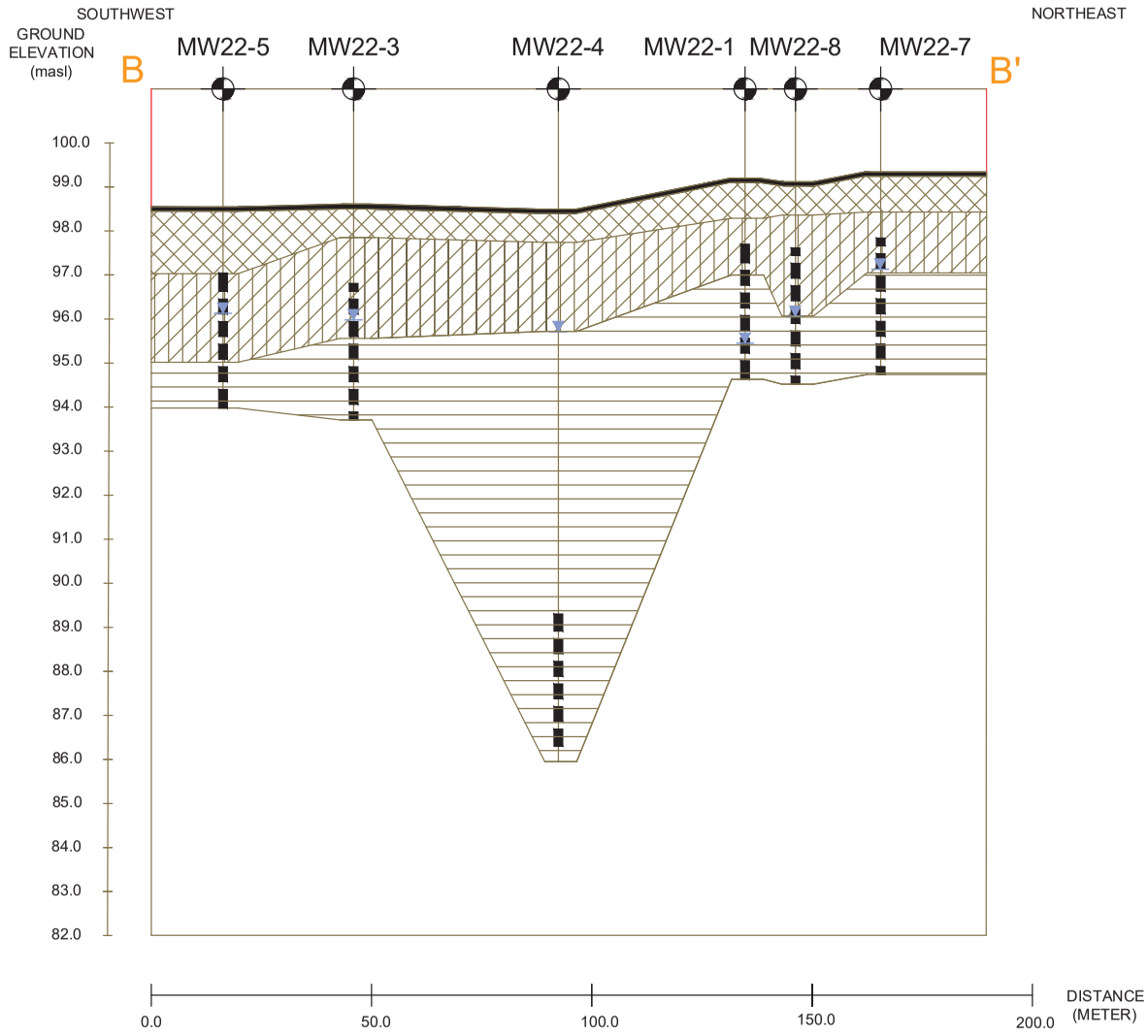
PROJECT NAME:
PRELIMINARY HYDROGEOLOGICAL ASSESSMENT

CLIENT NAME:
CRW 1 LP AND CRW 2 LP

PROJECT LOCATION:
2077-2105 ROYAL WINDSOR DRIVE, MISSISSAUGA, ONTARIO

FIGURE NAME:
CROSS SECTION A-A'

PROJECT NUMBER:	SCALE:
306354.003	AS SHOWN
DRAWN BY:	REVIEWED BY:
KM	BG
DATE:	FIGURE NUMBER:
SEPT. 2024	4A



N

LEGEND

- SITE BOUNDARY
- CROSS SECTION LINE (A A')
- MONITORING WELL
- ASPHALT
- FILL
- CLAYEY SILT
- SHALE
- WELL CASING/ BENTONITE
- MEASURED GROUNDWATER ELEVATION (AUGUST 15, 2022)
- WELL SCREEN

LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

PINCHIN

PROJECT NAME:
PRELIMINARY HYDROGEOLOGICAL ASSESSMENT

CLIENT NAME:
CRW 1 LP AND CRW 2 LP

PROJECT LOCATION:
2077-2105 ROYAL WINDSOR DRIVE, MISSISSAUGA, ONTARIO

FIGURE NAME:
CROSS SECTION B-B'

PROJECT NUMBER:	SCALE:
306354.003	AS SHOWN
DRAWN BY:	REVIEWED BY:
KM	BG
DATE:	FIGURE NUMBER:
SEPT. 2024	4B

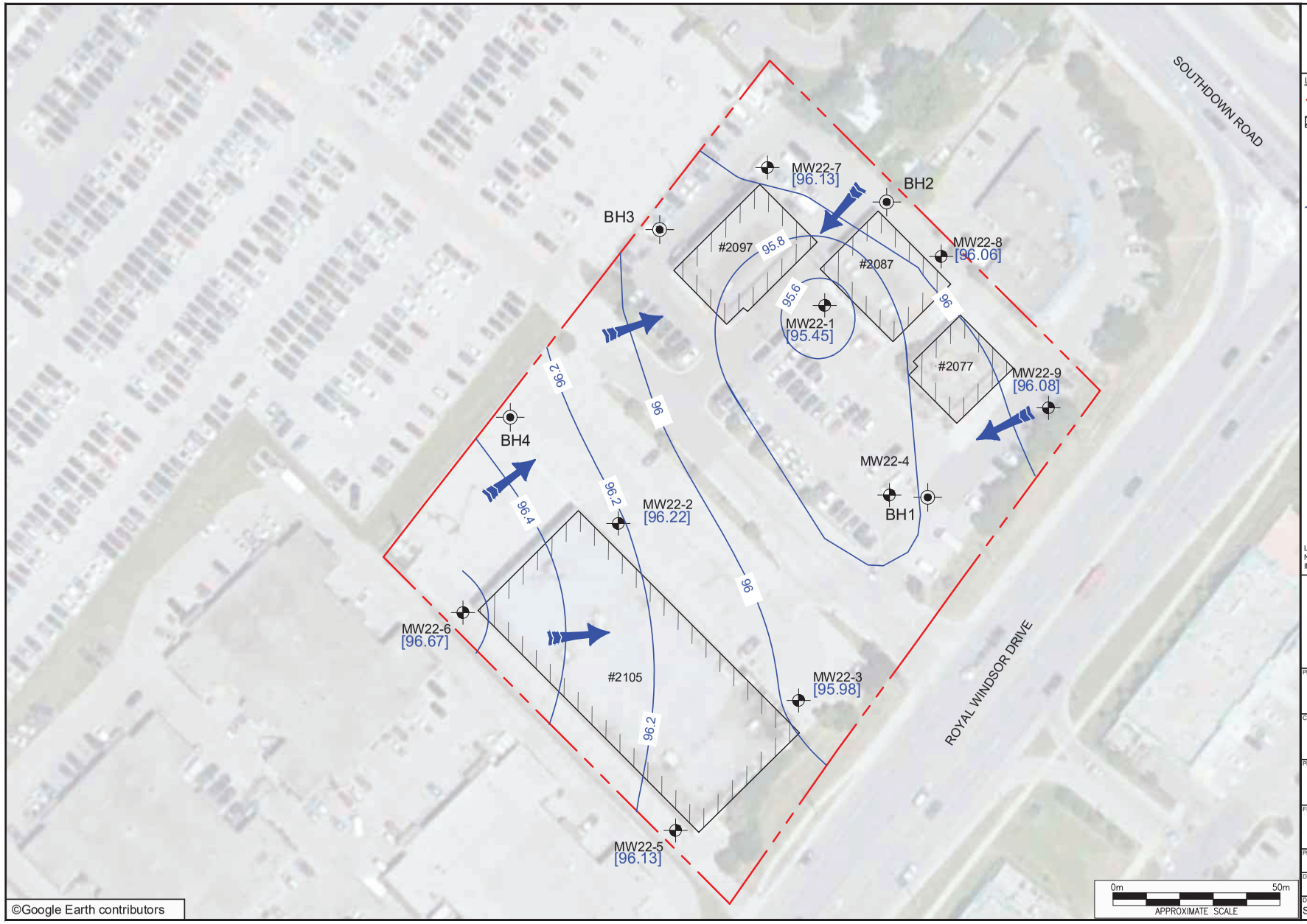

SOUTHDOWN ROAD
ROYAL WINDSOR DRIVE
MW22-7
[96.13]
BH2
BH3
#2097
95.8
MW22-8
[96.06]
#2087
95.6
96
MW22-1
[95.45]
#2077
MW22-9
[96.08]
96.2
96
BH4
MW22-4
96.4
96.2
MW22-2
[96.22]
BH1
96
MW22-6
[96.67]
#2105
MW22-3
[95.98]
96.2
MW22-5
[96.13]
©Google Earth contributors
0m
50m
APPROXIMATE SCALE
N
LEGEND
SITE BOUNDARY
SITE BUILDING
BOREHOLE (JFMEL, 2016)
BOREHOLE MONITORING WELL
[#] GROUNDWATER ELEVATION (masl, dated August 15,2022)
GROUNDWATER CONTOUR LINES
GROUNDWATER FLOW DIRECTION
LEGEND IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.
PINCHIN
PROJECT NAME:
PRELIMINARY HYDROGEOLOGICAL ASSESSMENT
CLIENT NAME:
CRW 1 LP AND CRW 2 LP
PROJECT LOCATION:
2077-2105 ROYAL WINDSOR DRIVE, MISSISSAUGA, ONTARIO
FIGURE NAME:
GROUNDWATER ELEVATIONS AND INFERRED FLOW DIRCTION
PROJECT NUMBER:
306354.003
SCALE:
AS SHOWN
DRAWN BY:
KM
REVIEWED BY:
BG
DATE:
SEPT. 2024
FIGURE NUMBER:
5

TABLE 1 MONITORING WELL CONSTRUCTION DETAILS

CRW 1 LP and CRW 2 LP
2077-2105 Royal Windsor Drive, Mississauga, Ontario

Well Number	*Ground Elevation (masl)*	*TOP Elevation (masl)*	*Surveyed Height of Stickup (m)*	*Borehole Depth (mbgs)*	*Well Size (cm)*	*Screen Interval (mbgs)*	*Screen Length (m)*	*Stratigraphy in Screen Interval*
MW22-1	99.2	99.08	-0.12	4.60	5.1	1.5 ~ 4.6	3.05	Clayey Silt; weathered shale
MW22-2	98.71	98.56	-0.15	4.60	5.1	1.5 ~ 4.6	3.05	Clayey Silt; weathered shale
MW22-3	98.61	98.49	-0.12	5.00	5.1	1.8 ~ 4.9	3.05	Clayey Silt; weathered shale
MW22-4	98.5	98.36	-0.14	12.60	5.1	9.2 ~ 12.2	3.05	shale
MW22-5	98.55	98.46	-0.09	4.60	5.1	1.5 ~ 4.6	3.05	Clayey Silt; weathered shale
MW22-6	98.71	98.64	-0.07	4.60	5.1	1.5 ~ 4.6	3.05	Clayey Silt; weathered shale
MW22-7	98.34	98.24	-0.1	4.60	5.1	1.5 ~ 4.6	3.05	Clayey Silt; weathered shale
MW22-8	99.12	99.07	-0.05	4.60	5.1	1.5 ~ 4.6	3.05	Clayey Silt; weathered shale
MW22-9	98.67	98.6	-0.07	4.60	5.1	1.5 ~ 4.6	3.05	Clayey Silt; weathered shale

Notes:

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

TABLE 2 GROUNDWATER ELEVATION DATA
CRW 1 LP and CRW 2 LP
2077-2105 Royal Windsor Drive, Mississauga, Ontario

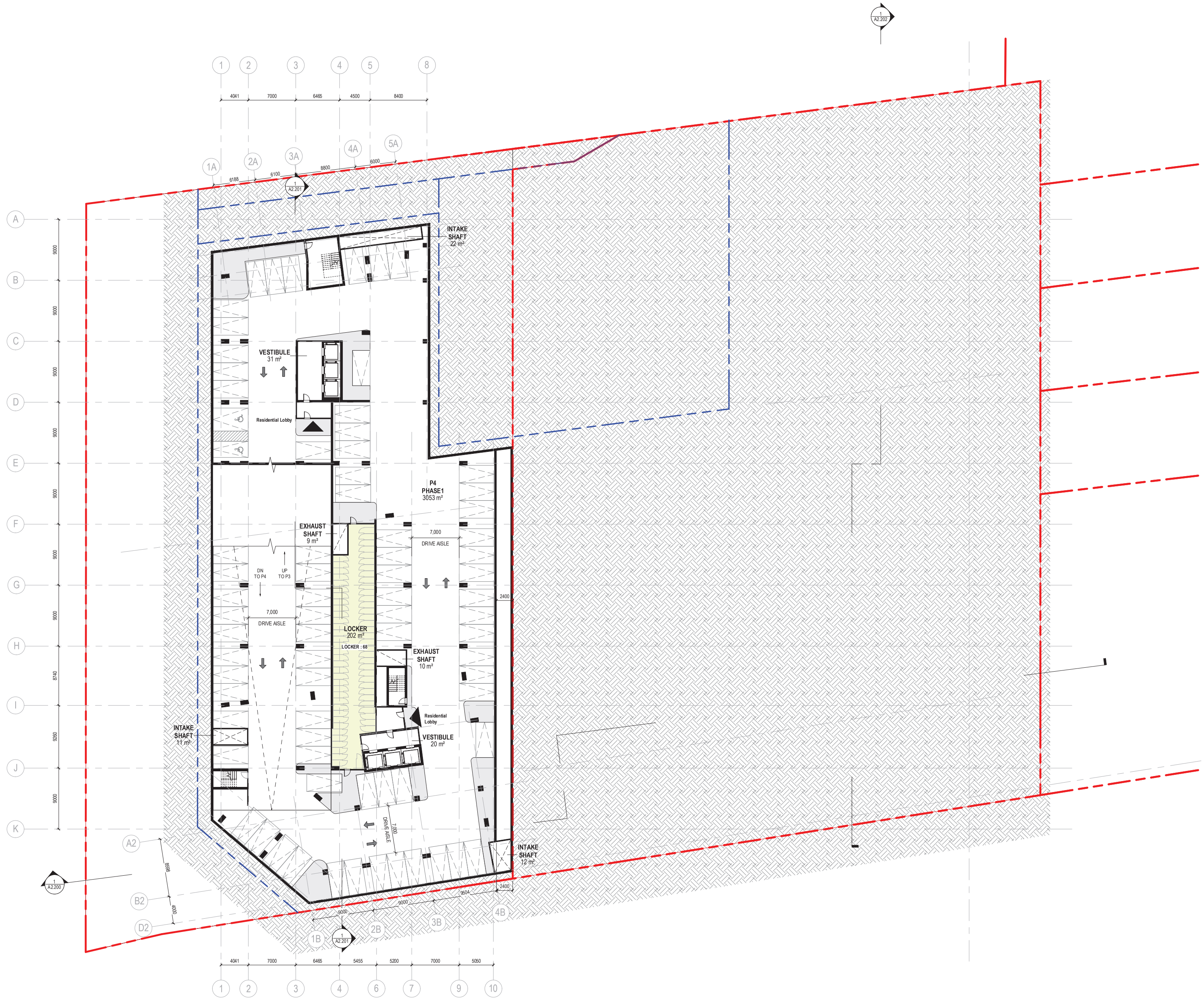
					August 5, 2022			August 15, 2022			August 31, 2022			September 20, 2022			September 24, 2024		
Well Number	*Ground Elevation (masl)*	*TOP Elevation (masl)*	*Height of Stickup (m)*	*Screen Interval (mbgs)*	*Water Level from Top of Pipe (mbTOP)*	*Water Level from Ground Surface (mbgs)*	*Water Level Elevation (masl)*	*Water Level from Top of Pipe (mbTOP)*	*Water Level from Ground Surface (mbgs)*	*Water Level Elevation (masl)*	*Water Level from Top of Pipe (mbTOP)*	*Water Level from Ground Surface (mbgs)*	*Water Level Elevation (masl)*	*Water Level from Top of Pipe (mbTOP)*	*Water Level from Ground Surface (mbgs)*	*Water Level Elevation (masl)*	*Water Level from Top of Pipe (mbTOP)*	*Water Level from Ground Surface (mbgs)*	*Water Level Elevation (masl)*
MW22-1	99.20	99.08	-0.12	1.5 ~ 4.6	Dry	Dry	Dry	3.63	3.75	95.45	2.03	2.15	97.05	3.96	4.08	95.12	2.77	2.89	96.31
MW22-2	98.71	98.56	-0.15	1.5 ~ 4.6	2.43	2.58	96.13	2.34	2.49	96.22	2.37	2.52	96.19	2.41	2.56	96.15	2.29	2.44	96.27
MW22-3	98.61	98.49	-0.12	1.8 ~ 4.9	-	-	-	2.51	2.63	95.98	2.53	2.65	95.96	2.59	2.71	95.90	2.24	2.36	96.25
MW22-4	98.50	98.36	-0.14	9.2 ~ 12.2	2.38	2.52	95.98	2.65	2.79	95.71	2.55	2.69	95.81	2.59	2.73	95.77	-	-	-
MW22-5	98.55	98.46	-0.09	1.5 ~ 4.6	2.22	2.31	96.24	2.33	2.42	96.13	2.33	2.42	96.13	2.44	2.53	96.02	-	-	-
MW22-6	98.71	98.64	-0.07	1.5 ~ 4.6	1.94	2.01	96.70	1.97	2.04	96.67	1.99	2.06	96.65	2.06	2.13	96.58	1.88	1.95	96.76
MW22-7	98.34	98.24	-0.10	1.5 ~ 4.6	3.01	3.11	95.23	2.11	2.21	96.13	3.13	3.23	95.11	3.19	3.29	95.05	3.08	3.18	95.16
MW22-8	99.12	99.07	-0.05	1.5 ~ 4.6	2.98	3.03	96.09	3.01	3.06	96.06	3.02	3.07	96.05	3.13	3.18	95.94	2.98	3.03	96.09
MW22-9	98.67	98.60	-0.07	1.5 ~ 4.6	2.47	2.54	96.13	2.52	2.59	96.08	2.52	2.59	96.08	2.58	2.65	96.02	2.55	2.62	96.05

Notes:

m - Metres
TOC - Top of Casing
masl - Metres Above Sea Level
mbgs - Metres Below Ground Surface

APPENDIX I

Site Plans



1 LEVEL P4
SCALE: 1 : 200

GENERAL NOTES

LEGEND

LOCKERS AND BICYCLE PARKING SPACE DIMENSIONS

LOCKER

DOUBLE SIDED STACKED BICYCLE MIN. HEIGHT CLEARANCE: 2.7M

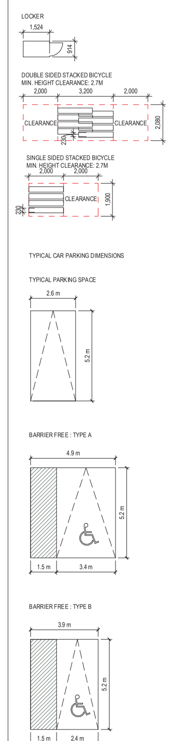
SINGLE SIDED STACKED BICYCLE MIN. HEIGHT CLEARANCE: 2.7M

TYPICAL CAR PARKING DIMENSIONS

TYPICAL PARKING SPACE

BARRIER FREE : TYPE A

BARRIER FREE : TYPE B



CRW 2 L.P., CRW 2 G.P. INC. (c/o Slate Asset Management)

2077 & 2105 Royal Windsor drive
Mississauga ON L5J 1K5

Gensler

150 King Street West
Suite 1400
Toronto, Ontario M5H 1J9 |
Canada
Tel 416.601.3890

Date	Description
1 2024-09-25	OPA/ZBA SUBMISSION

Seal / Signature

Project Name
CLARKSON GO

Project Number
67.1245.000

Description
LOWER LEVEL - P4 TYPICAL PLAN

Scale
As indicated

A1.196

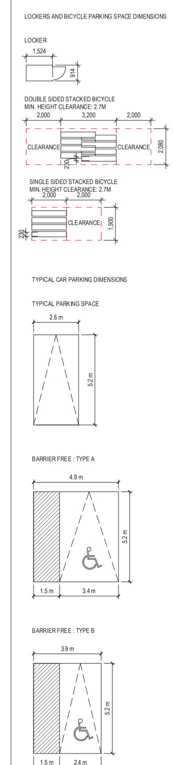

INTAKE SHAFT 22 m²
VESTIBULE 31 m²
DRIVE AISLE
Residential Lobby
EXHAUST SHAFT 9 m²
P3 PHASE1 3035 m²
STANDARD BIKE PARKING SPOT:48
STORAGE 85 m²
EXHAUST SHAFT 10 m²
LOCKER : 14
VESTIBULE 20 m²
LOCKER 50 m²
INTAKE SHAFT 11 m²
INTAKE SHAFT 12 m²
INTAKE SHAFT 18 m²
EXHAUST SHAFT 11 m²
P3 PHASE2 2923 m²
SLOPED SLAB 5%
EXHAUST SHAFT 12 m²
LOCKER : 23
LOCKER 80 m²
VESTIBULE 21 m²
ONE-WAY DRIVE AISLE
LOCKER : 19
LOCKER 68 m²

1 LEVEL P3
SCALE: 1 : 200

GENERAL NOTES

LEGEND

LOCKERS AND BICYCLE PARKING SPACE DIMENSIONS



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Date	Description
1 2024-09-25	OPA/ZBA SUBMISSION

Seal / Signature

Project Name
CLARKSON GO

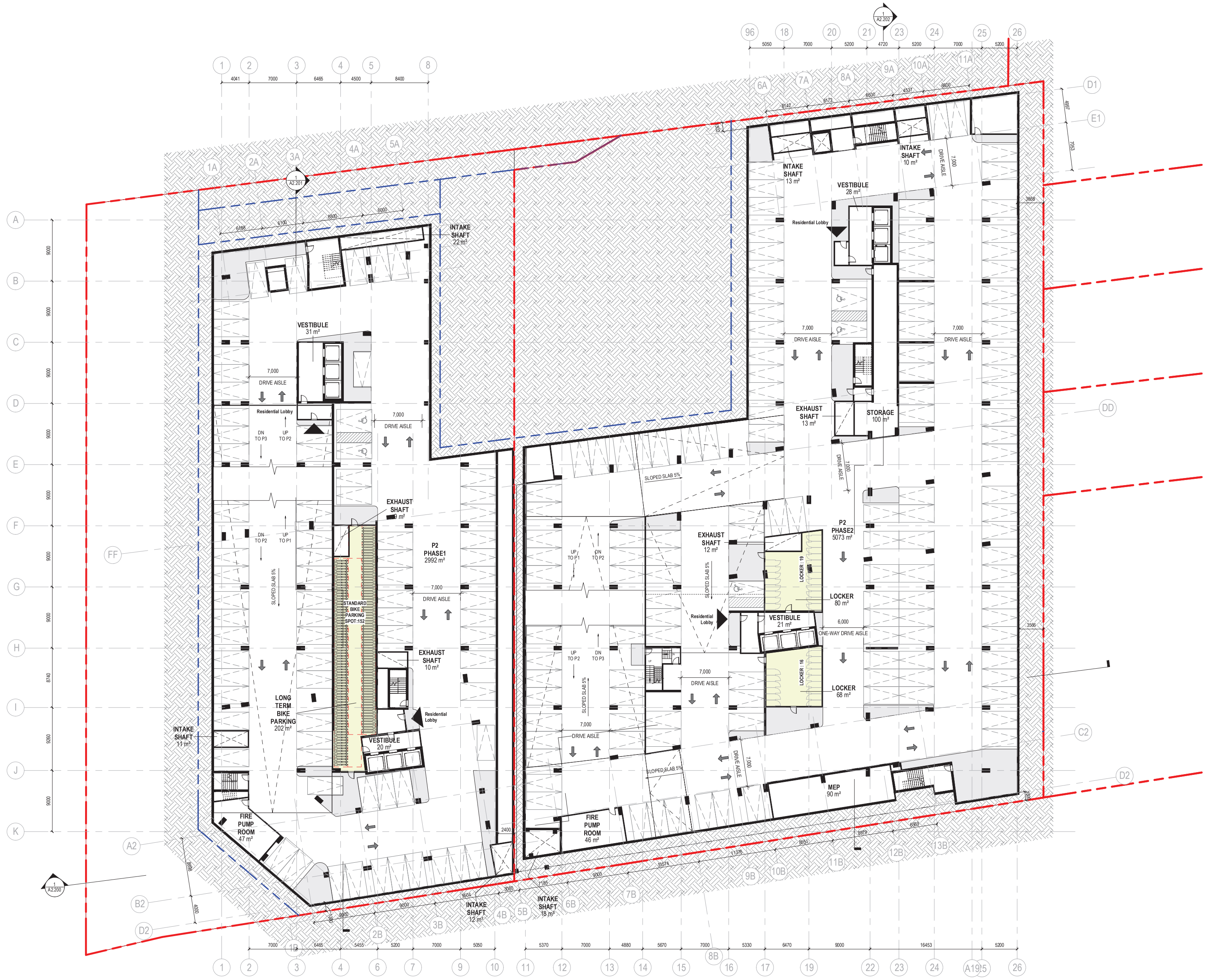
Project Number
67.1245.000

Description
LOWER LEVEL - P3 TYPICAL PLAN

Scale
As indicated

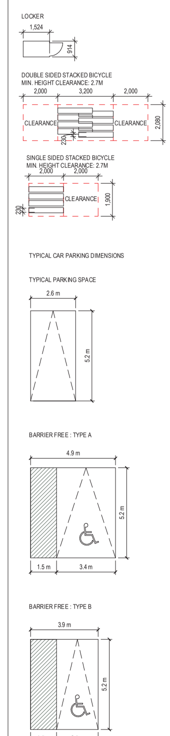
A1.197

GENERAL NOTES


INTAKE SHAFT
22 m²
VESTIBULE
31 m²
DRIVE AISLE
Residential Lobby
EXHAUST SHAFT
P2 PHASE1
2992 m²
STANDARD BIKE PARKING SPOT:152
EXHAUST SHAFT
10 m²
LONG TERM BIKE PARKING
202 m²
INTAKE SHAFT
11 m²
VESTIBULE
20 m²
FIRE PUMP ROOM
47 m²
INTAKE SHAFT
12 m²
INTAKE SHAFT
18 m²
FIRE PUMP ROOM
46 m²
SLOPED SLAB 5%
EXHAUST SHAFT
12 m²
P2 PHASE2
5073 m²
LOCKER : 19
LOCKER
80 m²
VESTIBULE
21 m²
ONE-WAY DRIVE AISLE
LOCKER : 16
LOCKER
68 m²
MEP
90 m²
EXHAUST SHAFT
13 m²
STORAGE
100 m²
VESTIBULE
28 m²
INTAKE SHAFT
13 m²
INTAKE SHAFT
10 m²

LEGEND

LOCKERS AND BICYCLE PARKING SPACE DIMENSIONS


LOCKER
1,524
914
DOUBLE SIDED STACKED BICYCLE
MIN. HEIGHT CLEARANCE: 2.7M
CLEARANCE
SINGLE SIDED STACKED BICYCLE
MIN. HEIGHT CLEARANCE: 2.7M
TYPICAL CAR PARKING DIMENSIONS
TYPICAL PARKING SPACE
2.6 m
5.2 m
BARRIER FREE : TYPE A
4.9 m
1.5 m
3.4 m
BARRIER FREE : TYPE B
3.9 m
1.5 m
2.4 m

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Canada
Tel 416.601.3890

Date	Description
1 2024-09-25	OPA/ZBA SUBMISSION

Seal / Signature

Project Name
CLARKSON GO

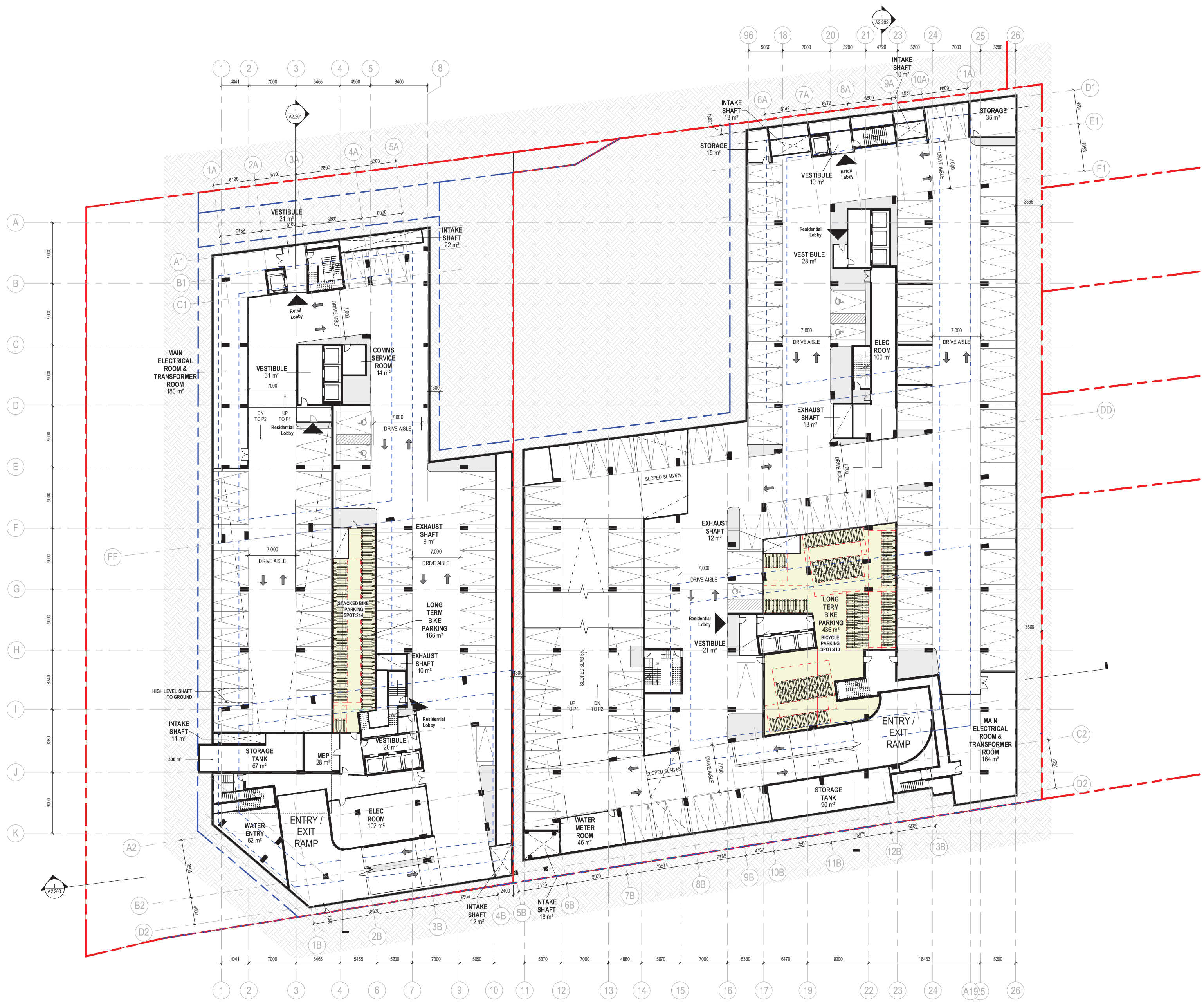
Project Number
67.1245.000

Description
LOWER LEVEL - P2 TYPICAL PLAN

Scale
As indicated

A1.198

GENERAL NOTES

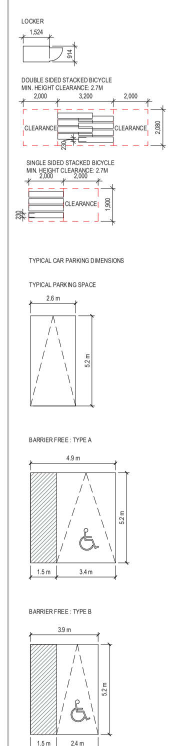


STORAGE 36 m²
STORAGE 15 m²
INTAKE SHAFT 10 m²
INTAKE SHAFT 13 m²
VESTIBULE 10 m²
Retail Lobby
Residential Lobby
VESTIBULE 28 m²
ELEC ROOM 100 m²
EXHAUST SHAFT 13 m²
DRIVE AISLE
EXHAUST SHAFT 12 m²
LONG TERM BIKE PARKING 436 m²
BICYCLE PARKING SPOT:410
VESTIBULE 21 m²
ENTRY / EXIT RAMP
MAIN ELECTRICAL ROOM & TRANSFORMER ROOM 164 m²
STORAGE TANK 90 m²
WATER METER ROOM 46 m²
INTAKE SHAFT 18 m²
INTAKE SHAFT 12 m²
SLOPED SLAB 5%
UP TO P1
DN TO P2
VESTIBULE 21 m²
INTAKE SHAFT 22 m²
MAIN ELECTRICAL ROOM & TRANSFORMER ROOM 180 m²
VESTIBULE 31 m²
COMMS SERVICE ROOM 14 m²
EXHAUST SHAFT 9 m²
LONG TERM BIKE PARKING 166 m²
STACKED BIKE PARKING SPOT:244
EXHAUST SHAFT 10 m²
VESTIBULE 20 m²
HIGH LEVEL SHAFT TO GROUND
INTAKE SHAFT 11 m²
STORAGE TANK 67 m²
MEP 28 m²
WATER ENTRY 62 m²
ELEC ROOM 102 m²

01 LEVEL P1
SCALE: 1 : 200

LEGEND

LOCKERS AND BICYCLE PARKING SPACE DIMENSIONS



LOCKER
1,524
914
DOUBLE SIDED STACKED BICYCLE MIN. HEIGHT CLEARANCE: 2.7M
2,000
3,200
2,000
CLEARANCE
2,080
SINGLE SIDED STACKED BICYCLE MIN. HEIGHT CLEARANCE: 2.7M
1,900
TYPICAL CAR PARKING DIMENSIONS
TYPICAL PARKING SPACE
2.6 m
5.2 m
BARRIER FREE : TYPE A
4.9 m
1.5 m
3.4 m
BARRIER FREE : TYPE B
3.9 m
2.4 m

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Canada
Tel 416.601.3890

Date	Description
1 2024-09-25	OPA/ZBA SUBMISSION

Seal / Signature

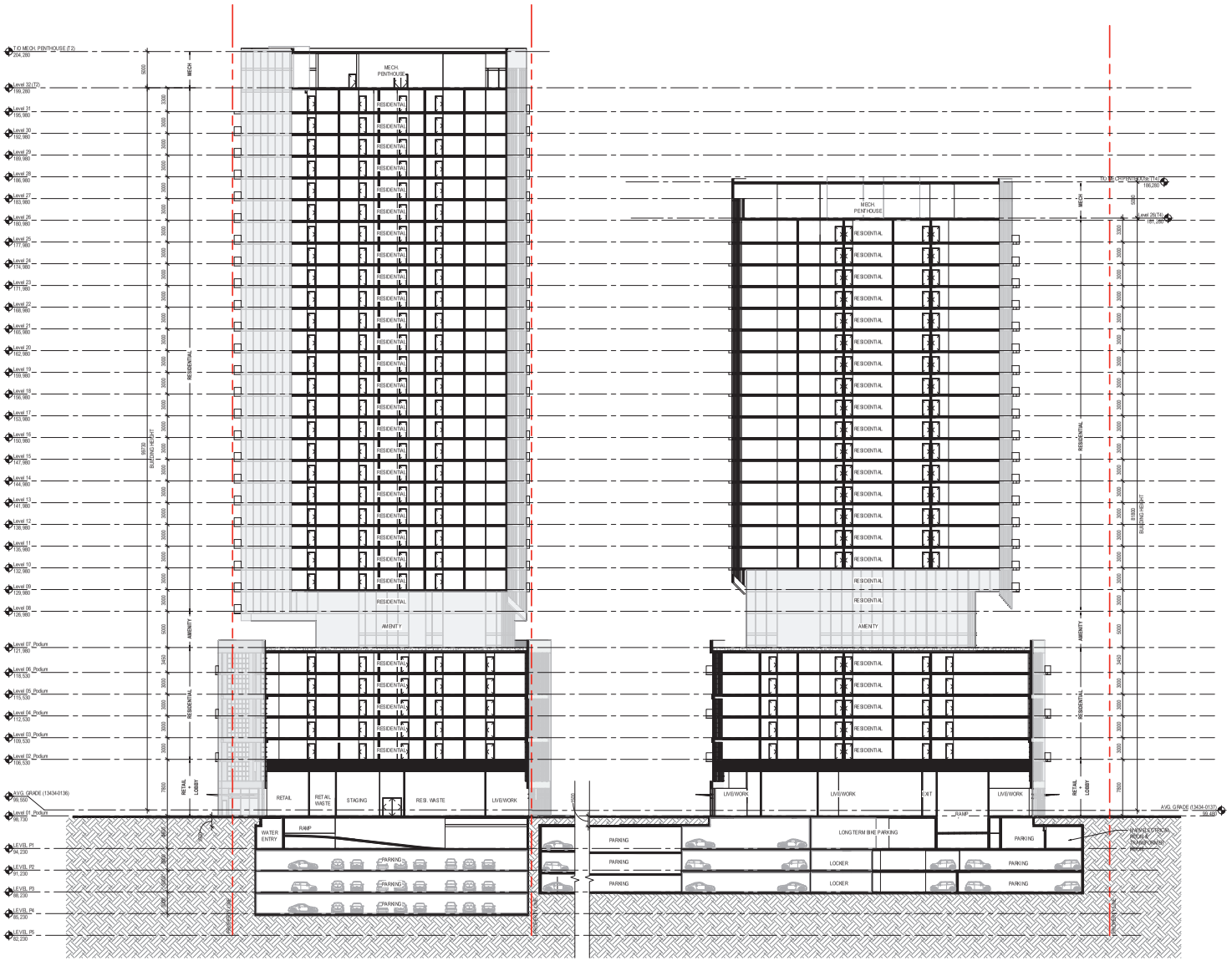
Project Name
CLARKSON GO

Project Number
67.1245.000

Description
LOWER LEVEL- P1 PLAN

Scale
As indicated

A1.199



1 BUILDING SECTION - EW - T2 T4
SCALE: 1 : 200

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Date	Description
1	2024-09-25 OPA/ZBA SUBMISSION

Seal / Signature

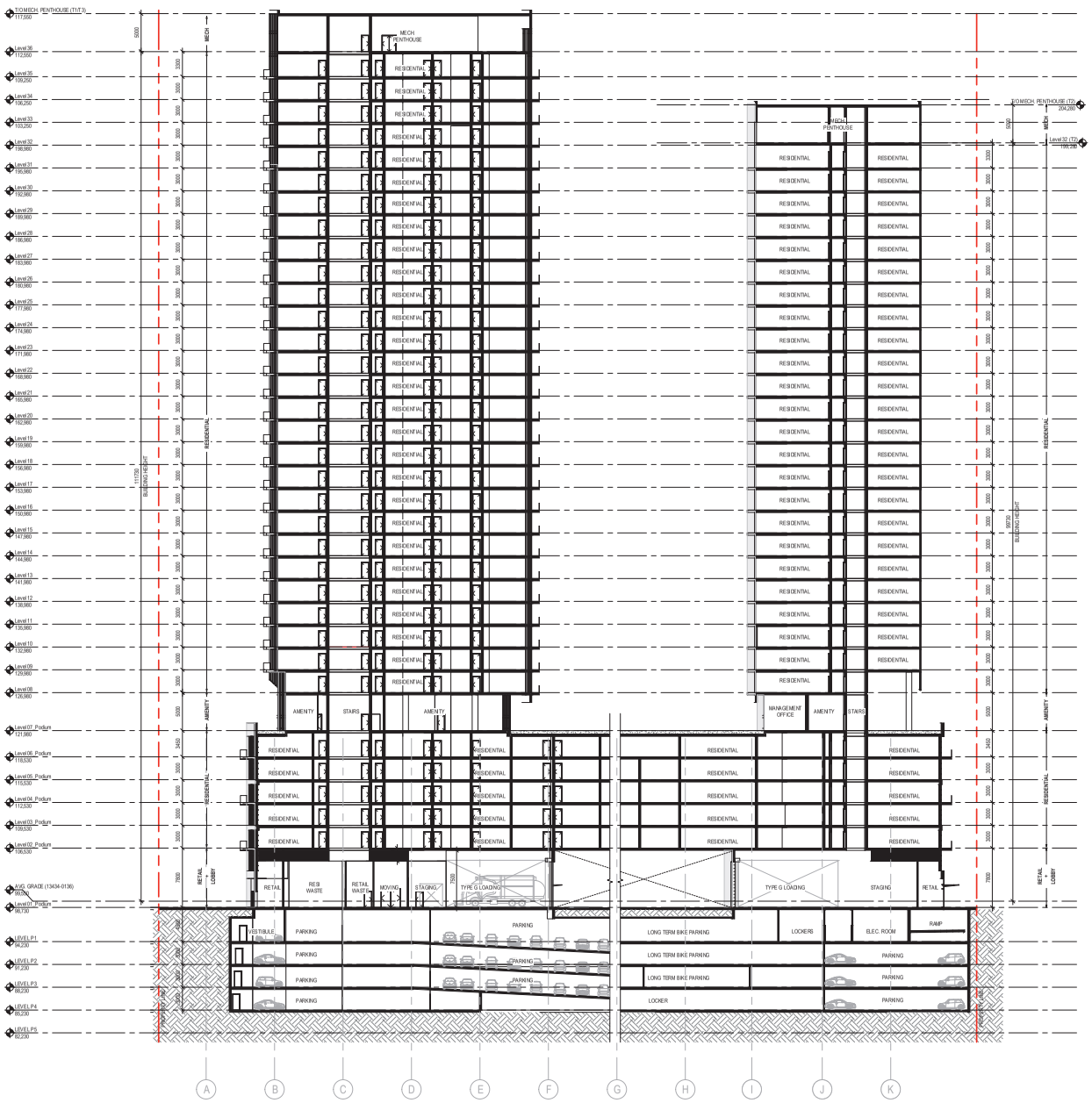
Project Name
CLARKSON GO

Project Number
67.1245.000

Description
BUILDING SECTION T2 T4

Scale
1 : 200

A2.200



1 BUILDING SECTION - EW - T1 T2

SCALE: 1 : 200

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Date	Description
1 2024-09-25	OPA/ZBA SUBMISSION

Seal / Signature

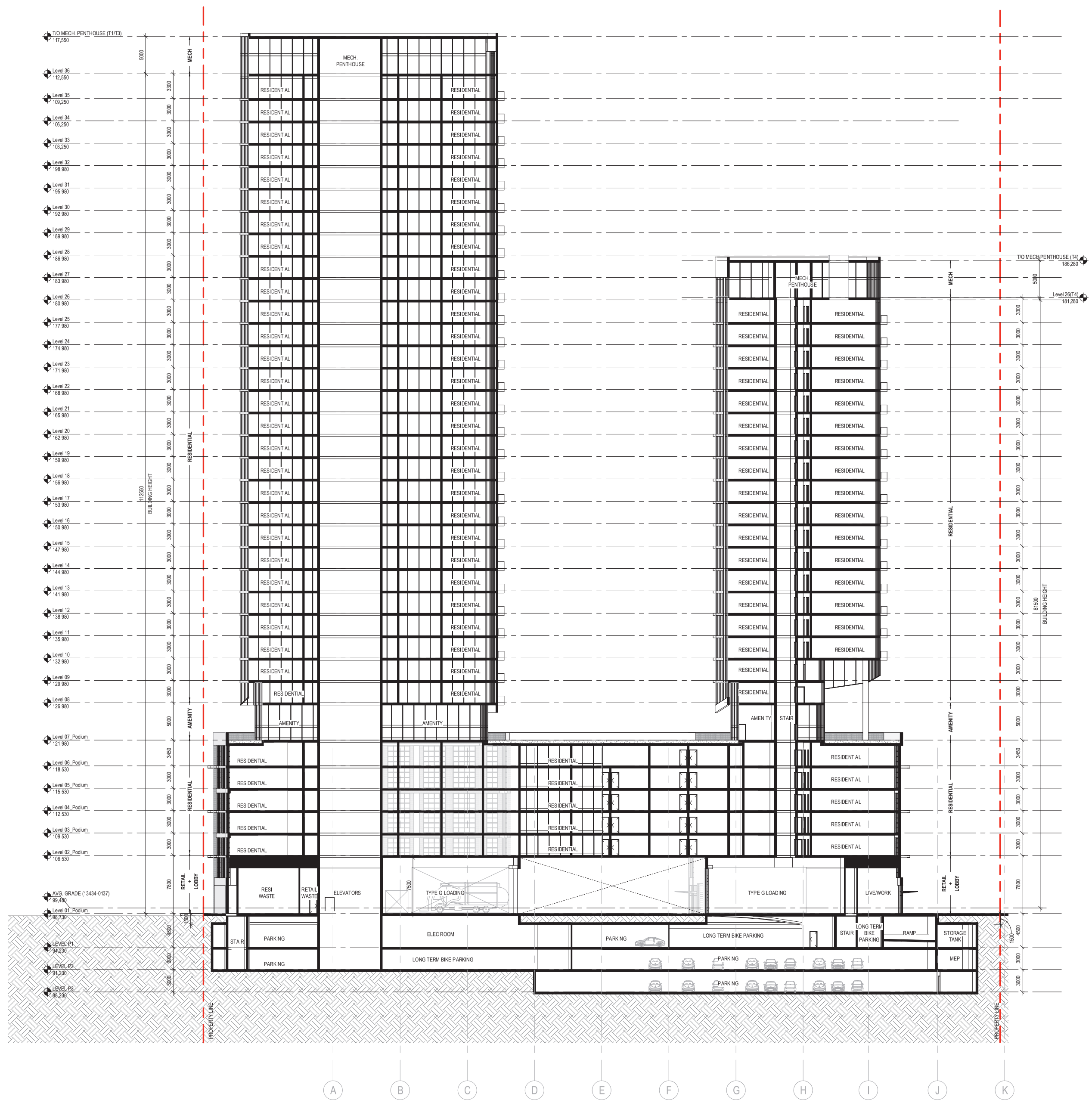
Project Name
CLARKSON GO

Project Number
67.1245.000

Description
BUILDING SECTION T1 T2

Scale
1 : 200

A2.201



1 BUILDING SECTION - NS - T3 T4
SCALE: 1 : 200

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Canada
Tel 416.601.3890

Date	Description
1 2024-09-25	OPA/ZBA SUBMISSION

Seal / Signature

Project Name
CLARKSON GO

Project Number
67.1245.000

Description
BUILDING SECTION T3 T4

Scale
1 : 200

A2.202

CONTEXT PLAN (SCALE: NTS)

DRAWING INDEX	
Sheet Number	Sheet Name
A0.030	STATISTICS
A0.031	ARCHITECTURAL SITE PLAN
A0.032	PHASING PLAN
A0.033	SITE SURVEY
A1.196	LOWER LEVEL - P4 TYPICAL PLAN
A1.197	LOWER LEVEL - P3 TYPICAL PLAN
A1.198	LOWER LEVEL - P2 TYPICAL PLAN
A1.199	LOWER LEVEL- P1 PLAN
A1.201	LEVEL 01 PLAN
A1.201A	LEVEL 01 PLAN - LOADING TRAVEL PATHS
A1.202	LEVEL 02-05 PODIUM TYPICAL PLAN
A1.206	LEVEL 06 PODIUM
A1.207	LEVEL 07 PLAN - AMENITY
A1.208	LEVEL 08 PLAN
A1.209	LEVEL 09 PLAN
A1.210	LEVEL 10-25 TYPICAL PLAN
A1.211	LEVEL 26-31 TYPICAL PLAN
A1.212	LEVEL 32-35 TYPICAL PLAN
A1.213	LEVEL 36 T1-T3 MECH PLAN
A1.214	ROOF PLAN
A2.000	BUILDING ELEVATIONS
A2.001	BUILDING ELEVATIONS
A2.002	BUILDING ELEVATIONS
A2.003	BUILDING ELEVATIONS
A2.004	BUILDING ELEVATIONS
A2.005	BUILDING ELEVATIONS
A2.006	BUILDING ELEVATIONS
A2.007	BUILDING ELEVATIONS
A2.200	BUILDING SECTION T2 T4
A2.201	BUILDING SECTION T1 T2
A2.202	BUILDING SECTION T3 T4
A3.007	3D RENDERING


PARKING LOT
PARKLAND PHASE 1 430 m²
PARKLAND PHASE 2 1320 m²
58.23 m TOWER SEPARATION
52.23 m DISTANCE BETWEEN BUILDINGS
PHASE1
TOWER 1 (T1)
35 STOREYS
GROUND FFE: 98,730 mm
AVERAGE GRADE: 99,550 mm
BUILDING HEIGHT :111,730 mm
PHASE 1
TOWER 2 (T2)
31 STOREYS
GROUND FFE: 98,730 mm
AVERAGE GRADE: 99,550 mm
BUILDING HEIGHT :99,730 mm
PHASE 2
TOWER 3 (T3)
35 STOREYS
GROUND FFE: 98,730 mm
AVERAGE GRADE: 99,480 mm
BUILDING HEIGHT :111,800 mm
PHASE 2
TOWER 4 (T4)
25 STOREYS
GROUND FFE: 98,730 mm
AVERAGE GRADE: 99,480 mm
BUILDING HEIGHT :81,800 mm
PHASE 1
GCA: 57,152 m²
PHASE 2
GCA: 53,082 m²
LEVEL 7 AMENITY
BRIDGE LEVEL 2-6
6 STOREY PODIUM
RESIDENTIAL WASTE
RETAIL WASTE
MECH PENTHOUSE
OUTLINE OF TOWER
TYPE "G" LOADING AT GROUND FLOOR
TYPE "B" LOADING AT GROUND FLOOR
PRIVATE ROAD
PICK-UP / DROP-OFF
FIRE TRUCK PATH
PEDESTRIAN PATH
TOWER SEPARATION
DISTANCE BETWEEN BUILDINGS
UNIFORM PAVING TO ALLOW VEHICLES TO TURN AROUND
TURNING HEAD AREA FOR FIRE TRUCK
EXISTING SHED
PRIVATE SERVICE EASEMENT 1
PRIVATE SERVICE EASEMENT 2
PROPOSED DEVELOPMENT BOUNDARY
PROPERTY LINE
EXISTING BUILDING 1 STOREY
NEW METROLINX EASEMENT ON NEIGHBOURING PROPERTY
PUBLIC ROAD
R.O.W.
FIRE TRUCK LANE
SIDE WALK CONTINUOUS ON GROUND FLOOR
ROYAL WINDSOR DRIVE

01 OVERALL SITE PLAN
SCALE: 1 : 200

SHEET NOTES

1) REFER TO LANDSCAPE DRAWINGS FOR MORE DETAILED INFORMATION ON LANDSCAPE ELEMENTS

2) REFER TO CIVIL ENGINEER'S DRAWINGS FOR MORE DETAILED SITE SERVICING AND GRADING INFORMATION

LEGEND

CRW 2 L.P., CRW 2 G.P. INC. (c/o Slate Asset Management)

2077 & 2105 Royal Windsor drive
Mississauga ON L5J 1K5

Gensler

150 King Street West
Suite 1400
Toronto, Ontario M5H 1J9 |
Canada

Tel 416.601.3890

Date	Description
1 2024-09-25	OPA/ZBA SUBMISSION

Seal / Signature

Project Name
CLARKSON GO

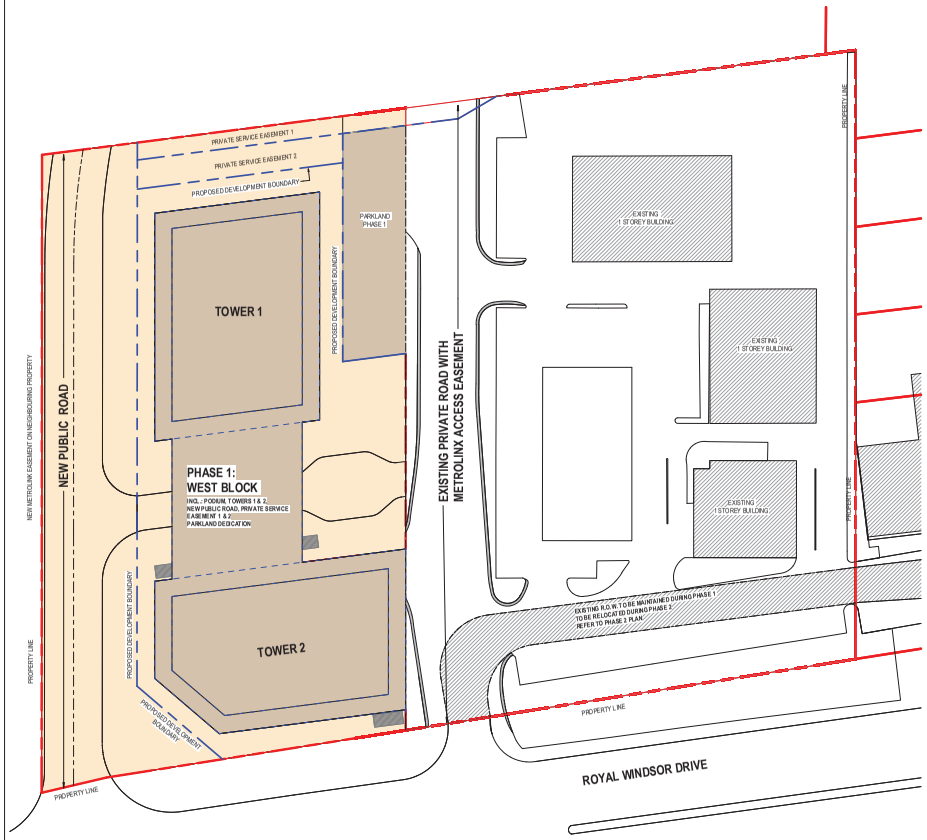
Project Number
67.1245.000

Description
ARCHITECTURAL SITE PLAN

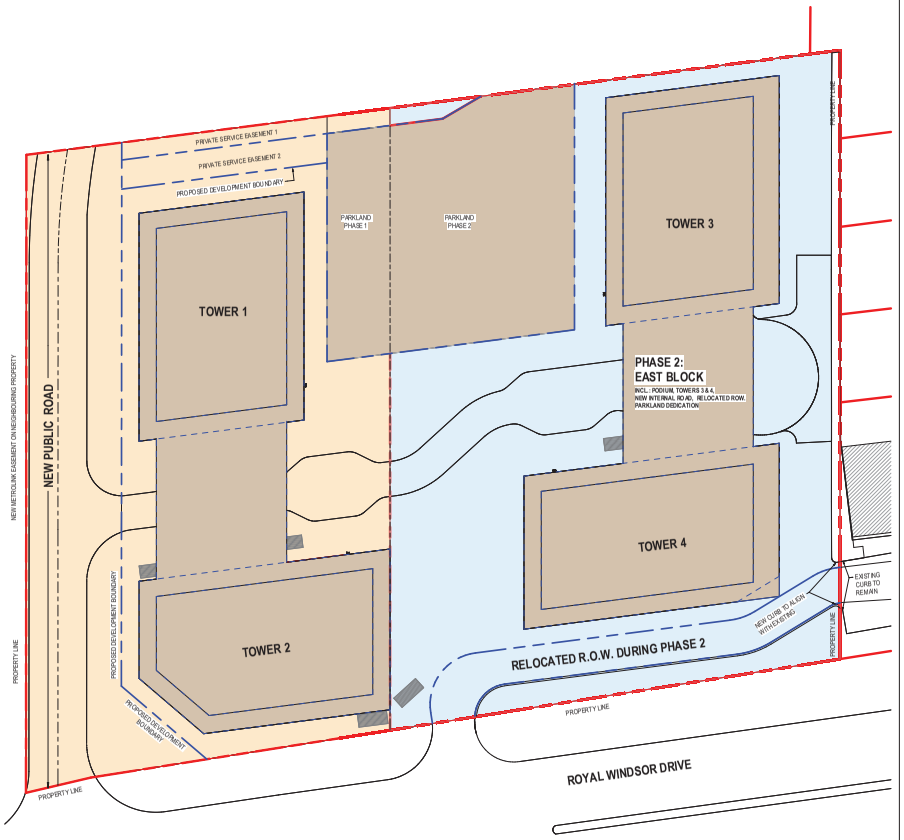
Scale
As indicated

A0.031

2024-09-21 2:16:22 PM Autodesk Docs://067.1245.000 - Clarkson ZBA_R23/Architecture - 67.1245.000 - Clarkson GO_R23.rvt



1 PHASING PLAN - WEST BLOCK
SCALE: 1 : 300



2 PHASING PLAN - EAST BLOCK
SCALE: 1 : 300

LEGEND

- PHASE 1 - WEST BLOCK
- PHASE 2 - EAST BLOCK

CRW 2 L.P., CRW 2 G.P. INC. (c/o Slate Asset Management)

2077 & 2105 Royal Windsor drive
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150 King Street West
Suite 1400
Toronto, Ontario M5H 1J9
Canada

Tel 416.601.3890

Date	Description
1	2024-09-25 OPA/ZBA SUBMISSION

Seal / Signature

Project Name
CLARKSON GO

Project Number
67.1245.000

Description
PHASING PLAN

Scale
As indicated

A0.032

APPENDIX II

Water Well Records

MECP Water Well Records

Well ID: 7194810

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	SAND	SILT	LOAM	0 ft	1 ft
BRWN	SAND	SILT		1 ft	7 ft
GREY	SHLE			7 ft	18.5 ft

Monitoring/observation well, 2” plastic screen 8.5-18.5’

Well ID: 7202215, no details

Well ID: 4902276

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	LOAM			0 ft	1 ft
	MSND			1 ft	4 ft
	GRVL	CLAY	MSND	4 ft	7 ft
	CLAY			7 ft	8 ft
	SHLE	CLAY		8 ft	11 ft
	GRNT			11 ft	12 ft
	LMSN			12 ft	26 ft

Domestic water supply, 5” open hole 8’-26’, fresh water found at 26’, water level at 7’, recommended pump at 24’ with pump rate at 5 GPM.

Well ID: 7355168
Monitoring/observation well, 2.75” plastic 8-18’, untested water found at 12’

Well ID: 4902280

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	LOAM	MSND		0 ft	5 ft
	SHLE			5 ft	76 ft

Domestic water supply, 4” open hole 10’-76’, fresh water found at 27’, water level at 12’

Well ID: 7125275, abandoned well

Well ID: 7355157

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	----			0	
	SILT				
	CLAY				
	SAND				15 ft

Monitoring/observation well, 2.375” plastic 5-15’

Well ID: 7120158

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	SAND	GRVL	HARD	0 m	3 m
GREY	SHLE			3 m	6 m

Monitoring/observation well, 6.4 cm plastic 3-6 m

Well ID: 4909936

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BLCK				0 m	.15 m
RED	SILT	GRVL		.15 m	.6 m
BRWN	SILT	SAND		.6 m	3.3 m
GREY	SHLE	LMSN	CLAY	3.3 m	8.35 m

Observation well, 2.7 cm plastic 4.8-8.35 m

Well ID: 4902279

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	FSND			0 ft	10 ft
GREY	SHLE			10 ft	51 ft

Domestic water supply, 12" open hole 13'-51', fresh water found at 25', water level at 8', recommended pump at 51' with pump rate at 2 GPM.

Well ID: 7312445

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	SAND	GRVL		0 ft	7 ft
	SHLE			7 ft	8 ft
	ROCK			8 ft	50.5 ft

Monitoring/observation well, 2" plastic 9-19', untested water found at 15'

Well ID: 7355169
Monitoring/observation well, 2.375" plastic 6-16', untested water found at 10'

Well ID: 4910293

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	FILL			0 m	4.2 m
GREY	SHLE			4.2 m	6 m

Observation well, 6.4 cm plastic 4.5-6 m, water found at 4.8 m

Well ID: 4909713

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	SAND			0 m	1.1 m
BRWN	SILT	STNS		1.1 m	3 m
BRWN	LMSN			3 m	4.5 m
GREY	LMSN			4.5 m	5.1 m

Observation well, 6.4 cm plastic 1.7-5.1 m

Well ID: 7106569; abandoned well

Well ID: 7046409

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	SAND	LOAM		0 m	.3 m
BRWN	CLAY	SILT	SAND	.3 m	2.7 m
GREY	SHLE	WTHD		2.7 m	7.2 m
GREY	SHLE	FCRD		7.2 m	14.8 m

Observation well, 4.2 cm plastic 13.3-14.8 m, fresh water found at 5.8 m

Well ID: 7106564; abandoned well

Well ID: 4902293

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
	PRDG			0 ft	18 ft
GREY	SHLE			18 ft	28 ft

Commercial water supply, 6" open hole 18-28', fresh water found at 28', water level at 13'

Well ID: 7049659; abandoned well

Well ID: 7253416

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
GREY				0 ft	6 ft
BRWN	SILT	CLAY	HARD	6 ft	9 ft
GREY	SHLE		WTHD	9 ft	15 ft

Monitoring/observation well, 1.75" plastic 5-15'

Well ID: 7253417

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
GREY				0 ft	6 ft
BRWN	SILT	CLAY	HARD	6 ft	9 ft
GREY	SHLE		WTHD	9 ft	15 ft

Monitoring/observation well, 1.75" plastic 5-15'

Well ID: 7253418

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
GREY	GRVL			0 ft	5 ft
BRWN	SILT	CLAY	HARD	5 ft	9 ft
GREY	SHLE		WTHD	9 ft	15 ft

Monitoring/observation well, 1.75" plastic 5-15'

Well ID: 7253419

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	SILT	CLAY		0 ft	8 ft
GREY	SHLE		WTHD	8 ft	15 ft

Monitoring/observation well, 1.75" plastic 5-15'

Well ID: 7043665

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	LOAM			0 m	.3 m
BRWN	CLAY	DRY		.3 m	1.5 m
BRWN	CLAY	TILL	DRY	1.5 m	3.3 m
GREY	ROCK	SHLE		3.3 m	8.1 m

Monitoring/observation well, 6.4 cm plastic 3.6 – 8.1 m

Well ID: 4902294

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
YLLW	CLAY			0 ft	15 ft
BLUE	SHLE			15 ft	90 ft

Commercial water supply, 6" open hole 15-90', fresh water found at 75', water level at 15'

Well ID: 4910038

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	SAND	GRVL	FILL	0 m	.8 m
BRWN	SILT	SAND	GRVL	.8 m	1.8 m
GREY	SHLE	WTHD		1.8 m	4.1 m

Monitoring/observation well, 6.4 cm plastic 1.1 – 4.1 m

Well ID: 4910066; abandoned well

Well ID: 7267442

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BLCK	----			0 ft	3 ft
BRWN	SAND	GRVL		3 ft	3 ft
BRWN	CLAY			3 ft	11 ft
GREY	SHLE		WTHD	11 ft	13 ft

Monitoring/observation well, 2.25" plastic 3 – 13'

Well ID: 7337084, no details

APPENDIX III
Borehole Logs

Log of Borehole: BH22-1 (MW)

Project #: 306354.002 **Logged By:** KS

Project: Geotechnical Investigation

Client: Slate Asset Managementt LP

Location: 2077-2105 Royal Windsor Drive, Mississauga, ON

Drill Date: August 3, 2022 **Project Manager:** RM

SUBSURFACE PROFILE

Depth (m)	Description	Elevation (m)
0	Ground Surface	99.20
	Asphalt Asphaltic concrete - 100 mm	
	Fill Brown sand and gravel, dense, moist	98.44
	Mottled grey/brown clayey silt, trace sand and gravel, hard, DTPL	98.29
1	**Silt** Mottled grey/brown clayey silt, hard, DTPL	97.68
	Brown, with oxidation	
2		
		96.36
	inferred weathered shale	96.15
3	**Unsampled** Augers advanced to 4.6 mbgs to install monitoring well	
4		94.63
	End of Borehole	
5	Borehole terminated at 4.6 mbgs.	
6		

Monitoring Well Details: Bentonite, Riser, Silica Sand, Screen

Water level = 2.15 mbgs, as measured on August 31, 2022

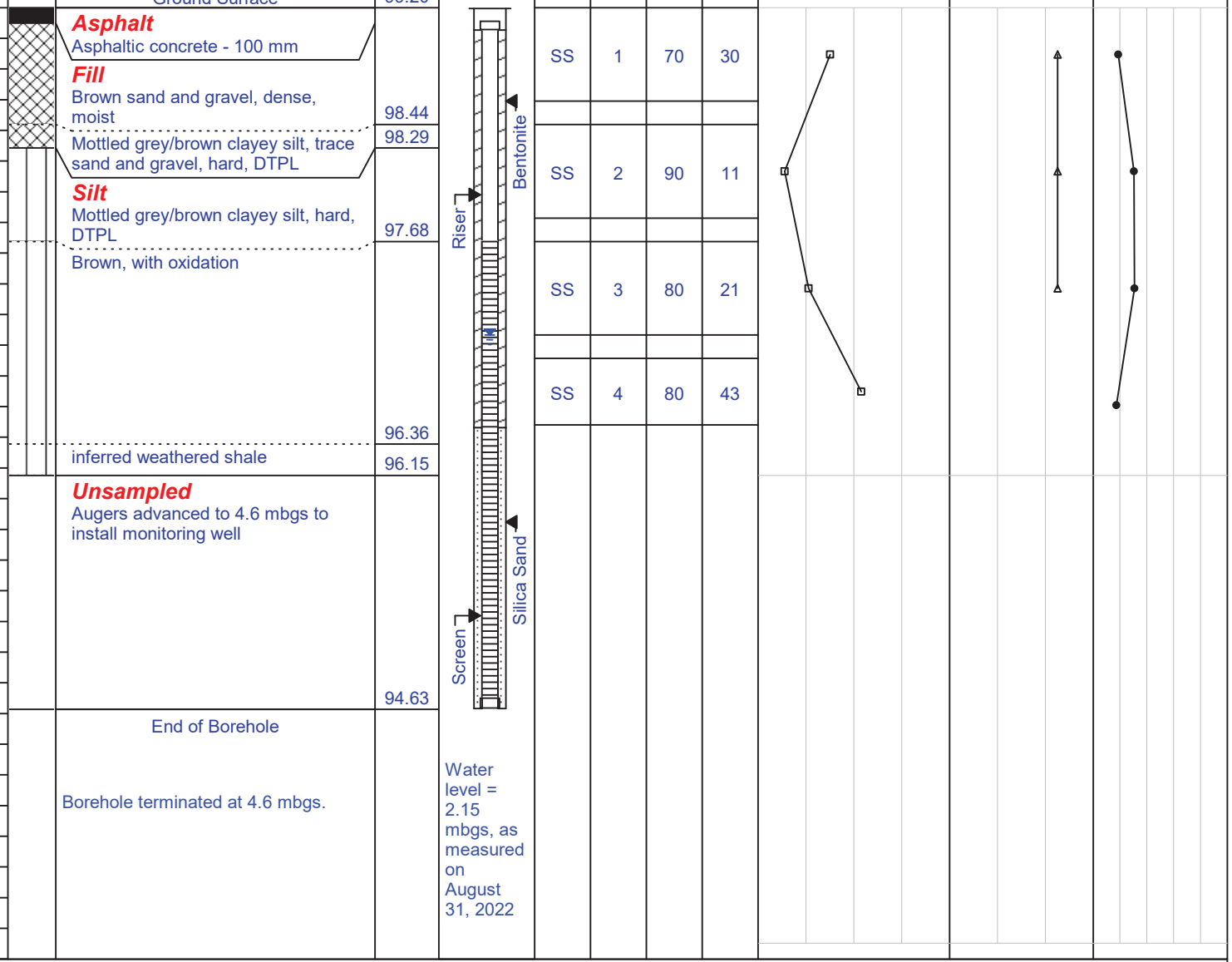
SAMPLE

Sample Type	Sampler #	Recovery (%)	SPT N-Value
SS	1	70	30
SS	2	90	11
SS	3	80	21
SS	4	80	43

Standard Penetration N-Value (20, 40, 60)

Shear Strength kPa (100, 200)

Water Content % (10, 20, 30, 40)



Contractor: Strata Drilling Inc.

Grade Elevation: 99.20 masl

Drilling Method: Hollow Stem Augers

Top of Casing Elevation: 99.08 masl

Well Casing Size: 51 mm

Sheet: 1 of 1

Log of Borehole: BH22-2 (MW)

Project #: 306354.002 **Logged By:** KS

Project: Geotechnical Investigation

Client: Slate Asset Managementt LP

Location: 2077-2105 Royal Windsor Drive, Mississauga, ON

Drill Date: August 3, 2022 **Project Manager:** RM

Depth (m)	Description	Elevation (m)
0	Ground Surface	98.71
	Asphalt Asphaltic concrete - 75 mm	98.51
	Fill Dark brown sand and gravel, loose,moist	97.95
1	Mottled grey/brown clayey silt, trace sand and gravel, hard, DTPL	
	Silt Mottled grey/brown clayey silt, trace sand and gravel, hard, DTPL	97.19
	Clayey silt, with oxidation	
2		96.42
	inferred weathered shale	96.00
3	**Unsampled** Augers advanced to 4.6 mbgs to install monitoring well	
4		94.14
	End of Borehole	
5	Borehole terminated at 4.6 mbgs.	
6		

Monitoring Well Details: Bentonite, Riser, Silica Sand, Screen

Water level = 2.52 mbgs, as measured on August 31, 2022

Sample Type	Sampler #	Recovery (%)	SPT N-Value
SS	1	60	9
SS	2	60	15
SS	3	80	21
SS	4	60	gt 50

Standard Penetration N-Value: 20, 40, 60

Shear Strength kPa: 100, 200

Water Content %: 10, 20, 30, 40

Contractor: Strata Drilling Inc.

Drilling Method: Hollow Stem Augers

Well Casing Size: 51 mm

Grade Elevation: 98.71 masl

Top of Casing Elevation: 98.56 masl

Sheet: 1 of 1

Log of Borehole: BH22-3 (MW)

Project #: 306354.002 **Logged By:** KS

Project: Geotechnical Investigation

Client: Slate Asset Managementt LP

Location: 2077-2105 Royal Windsor Drive, Mississauga, ON

Drill Date: August 5, 2022 **Project Manager:** RM

SUBSURFACE PROFILE

Depth (m)	Symbol	Description	Elevation (m)
0		Ground Surface	98.61
		Asphalt Asphaltic concrete - 50 mm	98.40
		Fill Brown sand and gravel, very loose, moist	97.85
1		Grey/black clayey silt, some gravel, compact, moist	
		Silt Grey clayey silt, some gravel, compact, moist to highly weathered shale	
2			
3			95.56
		inferred weathered shale	95.26
		Unsampled Augers advanced to 4.6 mbgs to install monitoring well	
4			
5			93.61
		End of Borehole	
		Borehole terminated at 5.0 mbgs.	
6			

Monitoring Well Details: Riser, Bentonite, Screen, Silica Sand

Water level = 2.65 mbgs, as measured on August 31, 2022

SAMPLE

Sample Type	Sampler #	Recovery (%)	SPT N-Value
SS	1	70	4
SS	2	90	13
SS	3	80	19
SS	4	80	26
SS	5	70	>50

Standard Penetration N-Value: 20, 40, 60

Shear Strength kPa: 100, 200

Water Content %: 10, 20, 30, 40

Contractor: Strata Drilling Inc.

Grade Elevation: 98.61 masl

Drilling Method: Hollow Stem Augers

Top of Casing Elevation: 98.49 masl

Well Casing Size: 51 mm

Sheet: 1 of 1

Log of Borehole: BH22-4 (MW)

Project #: 306354.002 **Logged By:** KS

Project: Geotechnical Investigation

Client: Slate Asset Managementt LP

Location: 2077-2105 Royal Windsor Drive, Mississauga, ON

Drill Date: August 4, 2022 **Project Manager:** RM

SUBSURFACE PROFILE

Depth (m)	Description	Elevation (m)
0	Ground Surface	98.50
	Asphalt Asphaltic concrete - 100 mm	97.74
1	**Fill** Brown sand and gravel, compact, moist	96.98
2	**Silt** Mottled grey/brown clayey silt, trace sand and gravel, hard, DTPL with oxidation	95.72
3	Brown inferred weathered shale	95.15
4	**Bedrock - Cored** Very poor quality (RQD = 0%)	93.55
5	Poor quality (RQD = 31%) Poor quality (RQD = 30%)	
6	Poor quality (RQD = 26%)	92.05
7		90.53
8	Poor quality (RQD = 46%)	
9	Poor quality (RQD = 25%)	89.00
10		
11	Fair quality (RQD = 66%)	87.48
12		85.95
13	End of Borehole Borehole terminated at 12.6 mbgs.	
14		

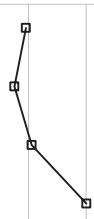
Monitoring Well Details: Bentonite, Riser, Screen, Silica Sand

Water level = 2.69 mbgs, as measured on August 31, 2022

SAMPLE

Sample Type	Sampler #	Recovery (%)	SPT N-Value
SS	1	50	19
SS	2	60	15
SS	3	70	21
SS	4	60	40
RC	1	100	
RC	2	100	
RC	3	100	
RC	4	100	
RC	5	100	
RC	6	100	
RC	7	100	

Standard Penetration N-Value (20, 40, 60)



Shear Strength kPa (100, 200)

Water Content % (10, 20, 30, 40)

Contractor: Strata Drilling Inc.

Drilling Method: Hollow Stem Augers

Well Casing Size: 51 mm

Grade Elevation: 98.50 masl

Top of Casing Elevation: 98.36 masl

Sheet: 1 of 1

Log of Borehole: BH22-5 (MW)

Project #: 306354.002 **Logged By:** KS

Project: Geotechnical Investigation

Client: Slate Asset Managementt LP

Location: 2077-2105 Royal Windsor Drive, Mississauga, ON

Drill Date: August 3, 2022 **Project Manager:** RM

SUBSURFACE PROFILE

Depth (m)	Symbol	Description	Elevation (m)
0		Ground Surface	98.55
		Asphalt Asphaltic concrete - 100 mm	98.30
		Fill Dark brown sand and gravel, very loose, moist	97.79
		Grey clayey silt, trace gravel, stiff, APL trace organics	97.64
1		Brown sand and gravel, loose	
		Mottled grey/brown clayey silt, trace gravel, hard, APL	97.03
		Silt Mottled grey/brown clayey silt, hard, DTPL with oxidation	
2			
3		inferred weathered shale	95.20
			94.89
		Unsampled Augers advanced to 4.6 mbgs to install monitoring well	
4			93.98
		End of Borehole	
5		Borehole terminated at 4.6 mbgs.	
6			

Monitoring Well Details: Riser, Bentonite, Silica Sand, Screen

Water level = 2.42 mbgs, as measured on August 31, 2022

SAMPLE

Sample Type	Sampler #	Recovery (%)	SPT N-Value
SS	1	70	4
SS	2	80	8
SS	3	90	24
SS	4	90	18
SS	5	50	>50

Standard Penetration N-Value: 20, 40, 60

Shear Strength kPa: 100, 200

Water Content %: 10, 20, 30, 40

Contractor: Strata Drilling Inc.

Grade Elevation: 98.55 masl

Drilling Method: Hollow Stem Augers

Top of Casing Elevation: 98.46 masl

Well Casing Size: 51 mm

Sheet: 1 of 1

Log of Borehole: BH22-6 (MW)

Project #: 306354.002 **Logged By:** KS

Project: Geotechnical Investigation

Client: Slate Asset Managementt LP

Location: 2077-2105 Royal Windsor Drive, Mississauga, ON

Drill Date: August 3, 2022 **Project Manager:** RM

SUBSURFACE PROFILE

Depth (m)	Symbol	Description	Elevation (m)
0		Ground Surface	98.71
		Asphalt Asphaltic concrete - 100 mm	98.40
		Fill Brown sand and gravel, loose, moist	97.95
1		**Silt** Mottled grey/brown clayey silt, hard, DTPL Clayey silt, with oxidation	
2		inferred weathered shale	96.42
			96.12
		Unsampled Augers advanced to 4.6 mbgs to install monitoring well	
3			
4			94.14
		End of Borehole	
5		Borehole terminated at 4.6 mbgs.	
6			

Monitoring Well Details: Riser, Bentonite, Silica Sand, Screen

Water level = 2.06 mbgs, as measured on August 31, 2022

SAMPLE

Sample Type	Sampler #	Recovery (%)	SPT N-Value
SS	1	80	9
SS	2	80	20
SS	3	90	25
SS	4	40	>50

Standard Penetration N-Value: 20, 40, 60

Shear Strength kPa: 100, 200

Water Content %: 10, 20, 30, 40

Contractor: Strata Drilling Inc.

Grade Elevation: 98.71 masl

Drilling Method: Hollow Stem Augers

Top of Casing Elevation: 98.64 masl

Well Casing Size: 51 mm

Sheet: 1 of 1

Log of Borehole: BH22-7 (MW)

Project #: 306354.002 **Logged By:** KS

Project: Geotechnical Investigation

Client: Slate Asset Managementt LP

Location: 2077-2105 Royal Windsor Drive, Mississauga, ON

Drill Date: August 2, 2022 **Project Manager:** RM

SUBSURFACE PROFILE

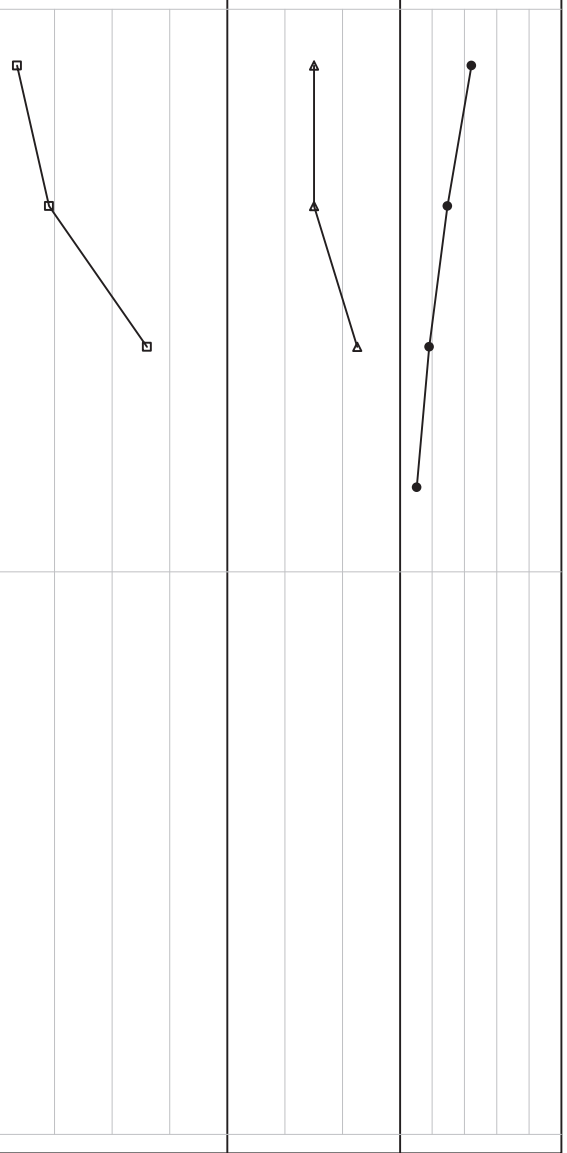
Depth (m)	Description	Elevation (m)
0	Ground Surface	99.34
	Asphalt Asphaltic concrete - 100 mm	
	Fill Grey/brown sand and gravel, loose, moist	
	Mottled grey/brown clayey silt, some gravel, very stiff, APL	98.43
1	**Silt** Mottled grey/brown clayey silt, trace sand and gravel, very stiff, DTPL with oxidation	
	hard	97.82
2	inferred weathered shale	97.05
		96.63
	Unsampled Augers advanced to 4.6 mbgs to install monitoring well	
3		
4		94.77
	End of Borehole	
5	Borehole terminated at 4.6 mbgs.	
6		

Monitoring Well Details: Riser, Bentonite, Silica Sand, Screen

Water level = 3.23 mbgs, as measured on August 31, 2022

SAMPLE

Sample Type	Sampler #	Recovery (%)	SPT N-Value
SS	1	80	7
SS	2	70	18
SS	3	90	52
SS	4	60	>50



Contractor: Strata Drilling Inc.

Grade Elevation: 99.34 masl

Drilling Method: Hollow Stem Augers

Top of Casing Elevation: 99.24 masl

Well Casing Size: 51 mm

Sheet: 1 of 1

Log of Borehole: BH22-8 (MW)

Project #: 306354.002 **Logged By:** KS

Project: Geotechnical Investigation

Client: Slate Asset Managementt LP

Location: 2077-2105 Royal Windsor Drive, Mississauga, ON

Drill Date: August 2, 2022 **Project Manager:** RM

SUBSURFACE PROFILE

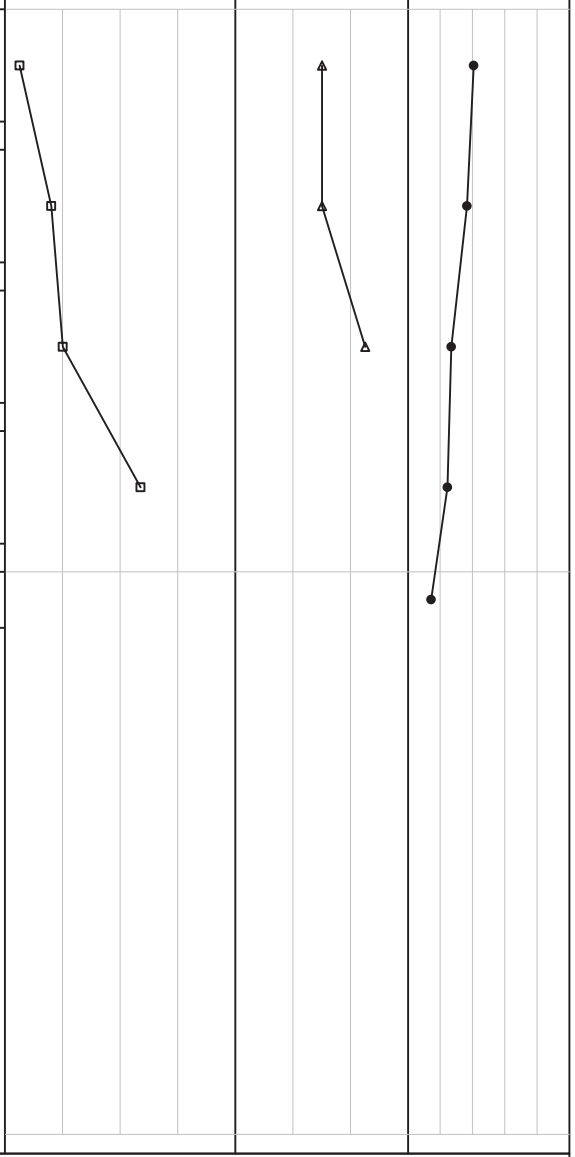
Depth (m)	Description	Elevation (m)
0	Ground Surface	99.12
	Asphalt Asphaltic concrete - 100 mm	98.87
	Fill Dark brown sand and gravel, loose, moist	98.36
1	Grey/brown clayey silt, very stiff, APL	
	Silt Mottled grey/brown clayey silt, hard, DTPL with trace organics/rootlets	97.60
2	Brown, with oxidation	
3	inferred weathered shale	96.07
		95.77
	Unsampled Augers advanced to 4.6 mbgs to install monitoring well	
4		94.55
	End of Borehole	
5	Borehole terminated at 4.6 mbgs.	
6		

Monitoring Well Details: Riser, Bentonite, Silica Sand, Screen

Water level = 3.07 mbgs, as measured on August 31, 2022

SAMPLE

Sample Type	Sampler #	Recovery (%)	SPT N-Value
SS	1	60	5
SS	2	70	16
SS	3	90	20
SS	4	90	47
SS	5	60	>50



Contractor: Strata Drilling Inc.

Drilling Method: Hollow Stem Augers

Well Casing Size: 51 mm

Grade Elevation: 99.12 masl

Top of Casing Elevation: 99.07 masl

Sheet: 1 of 1

Log of Borehole: BH22-9 (MW)

Project #: 306354.002 **Logged By:** KS

Project: Geotechnical Investigation

Client: Slate Asset Managementt LP

Location: 2077-2105 Royal Windsor Drive, Mississauga, ON

Drill Date: August 2, 2022 **Project Manager:** RM

SUBSURFACE PROFILE

Depth (m)	Description	Elevation (m)
0	Ground Surface	98.67
	Asphalt Asphaltic concrete - 100 mm	98.42
	Fill Dark brown sand and gravel, loose, moist	
1	Mottled grey/brown clayey silt, very stiff, APL, with oxidation	97.15
	Silt Mottled grey/brown clayey silt, hard, DTPL with oxidation	
2		96.38
	Brown	
3		95.44
	inferred weathered shale	95.32
	Unsampled Augers advanced to 4.6 mbgs to install monitoring well	
4		94.10
	End of Borehole	
5	Borehole terminated at 4.6 mbgs.	
6		

Monitoring Well Details: Bentonite, Riser, Silica Sand, Screen

Water level = 2.59 mbgs, as measured on August 31, 2022

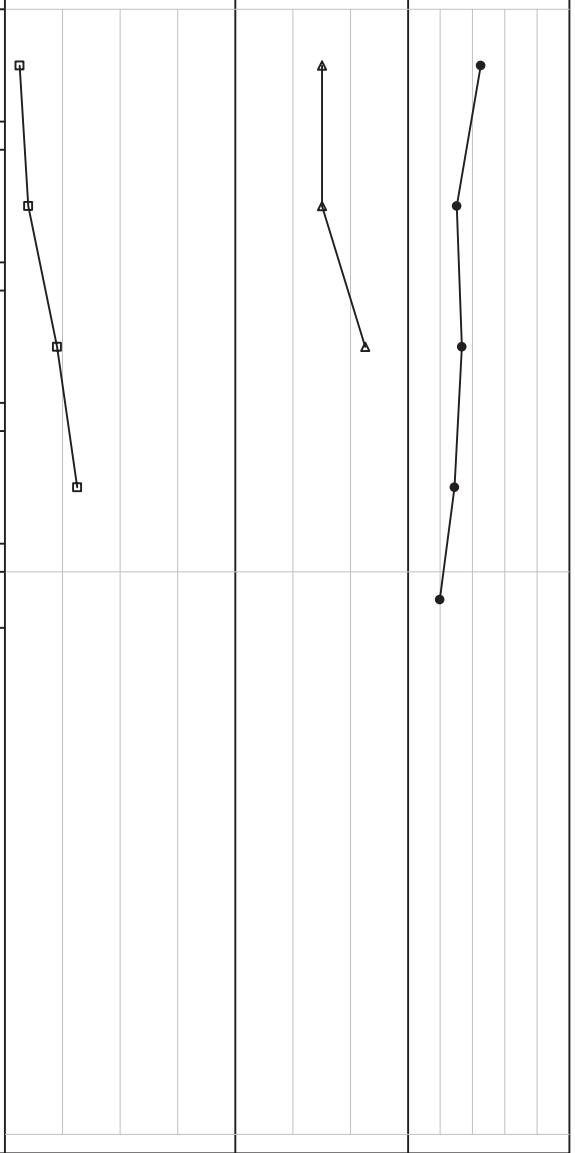
SAMPLE

Sample Type	Sampler #	Recovery (%)	SPT N-Value
SS	1	80	5
SS	2	80	8
SS	3	90	18
SS	4	90	25
SS	5	90	>50

Standard Penetration N-Value: 20, 40, 60

Shear Strength kPa: 100, 200

Water Content %: 10, 20, 30, 40



Contractor: Strata Drilling Inc.

Grade Elevation: 98.67 masl

Drilling Method: Hollow Stem Augers

Top of Casing Elevation: 98.60 masl

Well Casing Size: 51 mm

Sheet: 1 of 1

APPENDIX IV

Rising Head Hydraulic Conductivity Test Curves

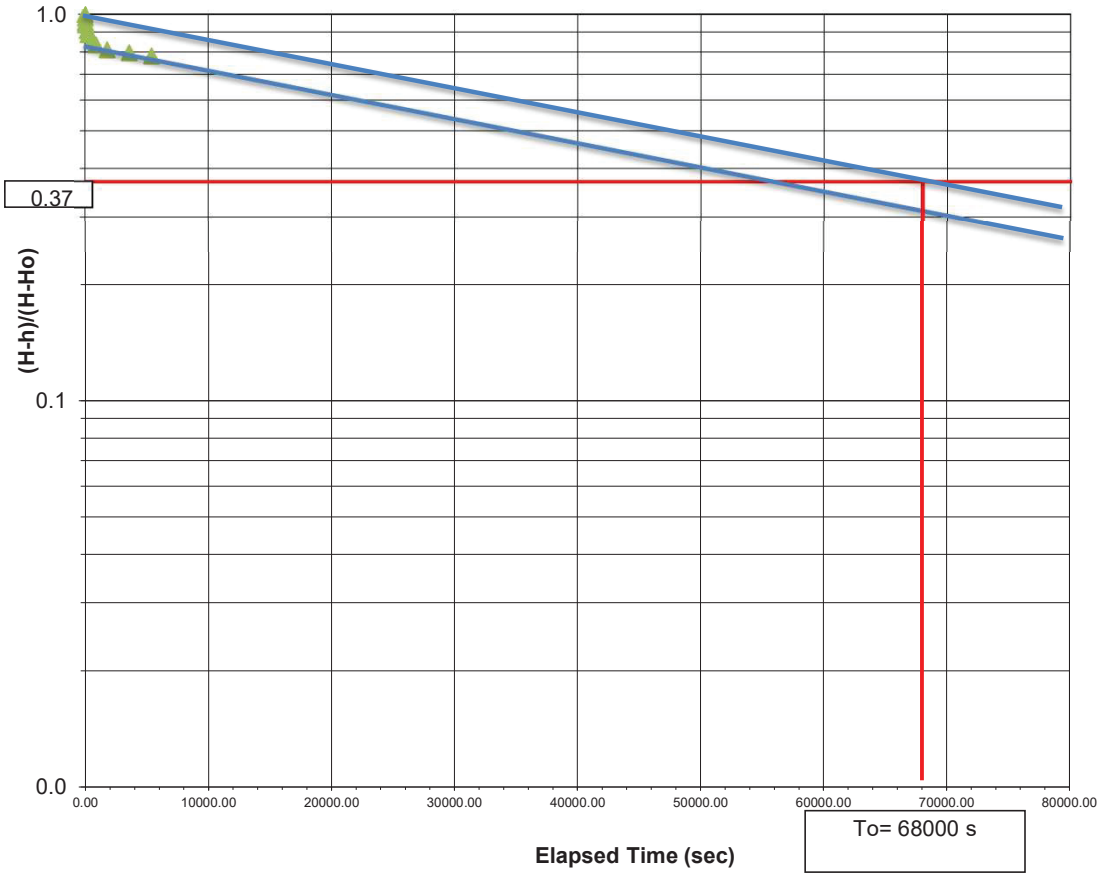
Slug Test: MW22-1 **Project No.: 306354.003**

Project Location: 2077-2105 Royal Windsor Drive, Mississauga, Ontario

Data Source: Based on Manual Measurements as per Rising Head Method dated August 15, 2022

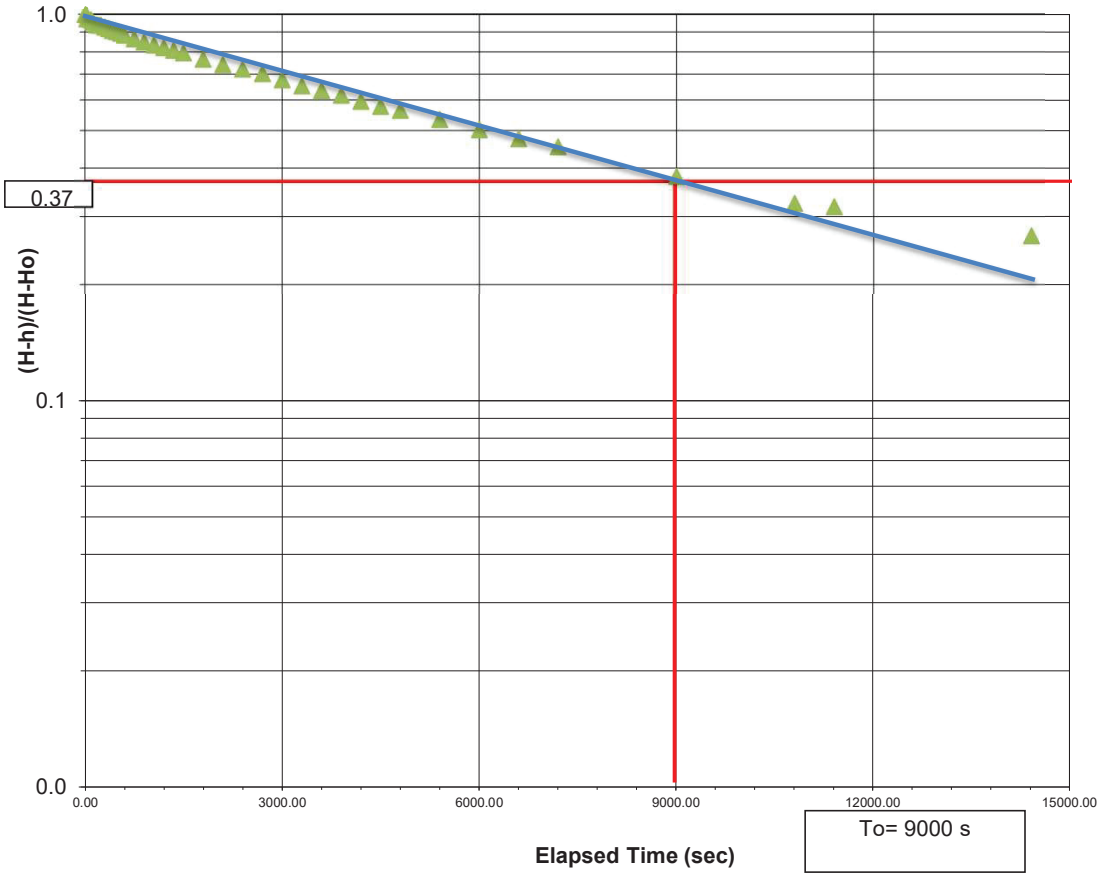
Conducted by:	Rishi M.			
Interpreted by:	Bujing Guan	H =	Initial Water Head prior to test	
Processing Date:	Aug. 16, 2022	Ho =	Water Head at time = 0	
Screen Depth (mbgs):	1.5 ~ 4.6	h =	Water Head/Level at time t	
Screened Soil:	Clayey Silt; weathered shale			
Well Diameter:	2"	L =	87	cm
Static Water Level (mbgs):	3.73	R =	10.2	cm
Initial Reading (mTOP)	3.63	r =	2.54	cm
Test Start Reading (H0) (mTOP)	4.06	To =	68000	sec
Test End Reading (mTOP)	3.966	$K = r^2 \ln(L/R)/(2LTo) =$	**1.2E-06**	cm/s

Slug Test Result (Hvorslev Method) - MW22-1
Based on Manual Measurements/Rising Head Method



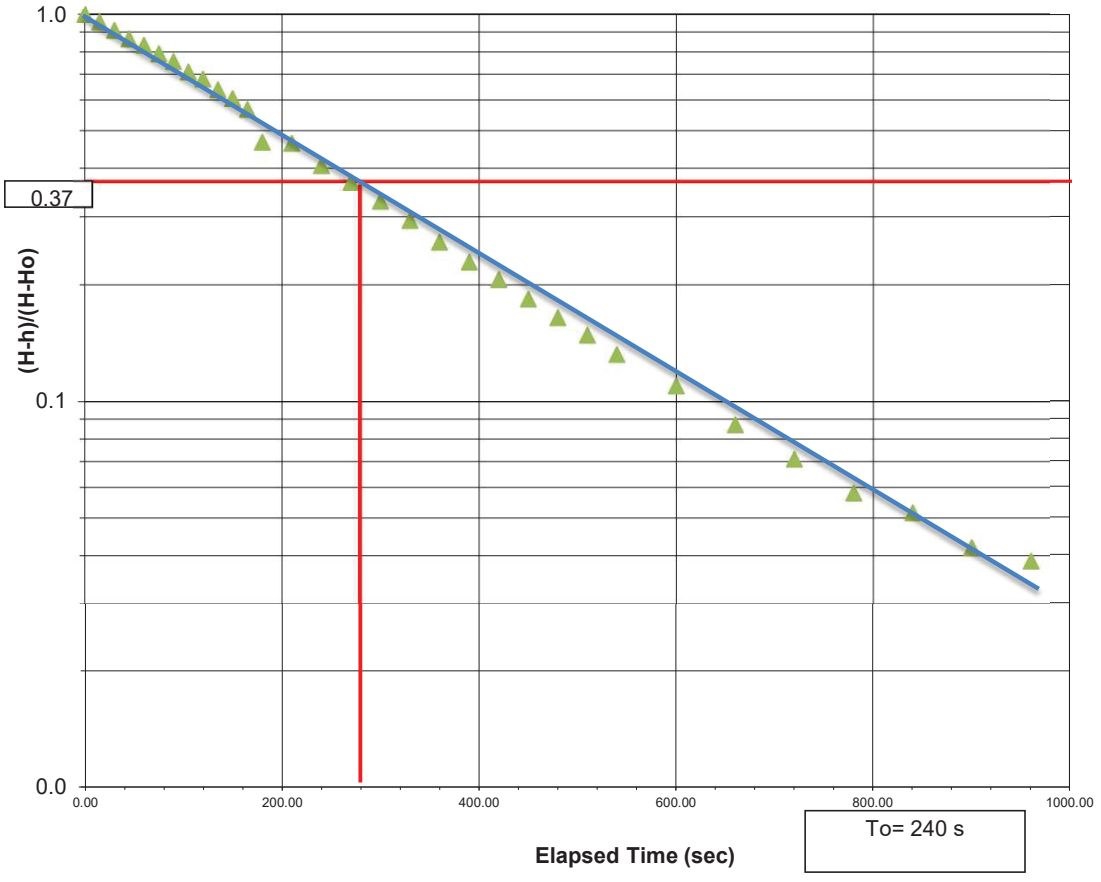
Slug Test: MW22-2		**Project No.: 306354.003**		
Project Location: 2077-2105 Royal Windsor Drive, Mississauga, Ontario				
Data Source: Based on Manual Measurements as per Rising Head Method dated August 15, 2022				
Conducted by:	Rishi M.			
Interpreted by:	Bujing Guan	H =	Initial Water Head prior to test	
Processing Date:	Aug. 16, 2022	Ho =	Water Head at time = 0	
Screen Depth (mbgs):	1.5 ~ 4.6	h =	Water Head/Level at time t	
Screened Soil:	Clayey Silt; weathered shale			
Well Diameter:	2"	L =	216	cm
Static Water Level (mbgs):	2.44	R =	10.2	cm
Initial Reading (mTOP)	2.34	r =	2.54	cm
Test Start Reading (H0) (mTOP)	4.07	To =	9000	sec
Test End Reading (mTOP)	2.803	$K = r^2 \ln(L/R)/(2LTo) =$	**5.1E-06**	cm/s

Slug Test Result (Hvorslev Method) - MW22-2
Based on Manual Measurements/Rising Head Method



Slug Test: MW22-3		**Project No.: 306354.003**		
Project Location: 2077-2105 Royal Windsor Drive, Mississauga, Ontario				
Data Source: Based on Manual Measurements as per Rising Head Method dated August 15, 2022				
Conducted by:	Rishi M.			
Interpreted by:	Bujing Guan	H =	Initial Water Head prior to test	
Processing Date:	Aug. 16, 2022	Ho =	Water Head at time = 0	
Screen Depth (mbgs):	1.8 ~ 4.9	h =	Water Head/Level at time t	
Screened Soil:	Clayey Silt; weathered shale			
Well Diameter:	2"	L =	229	cm
Static Water Level (mbgs):	2.61	R =	10.2	cm
Initial Reading (mTOP)	2.51	r =	2.54	cm
Test Start Reading (H0) (mTOP)	4.06	To =	240	sec
Test End Reading (mTOP)	2.525	$K = r^2 \ln(L/R)/(2LTo) =$	**1.8E-04**	cm/s

Slug Test Result (Hvorslev Method) - MW22-3
Based on Manual Measurements/Rising Head Method

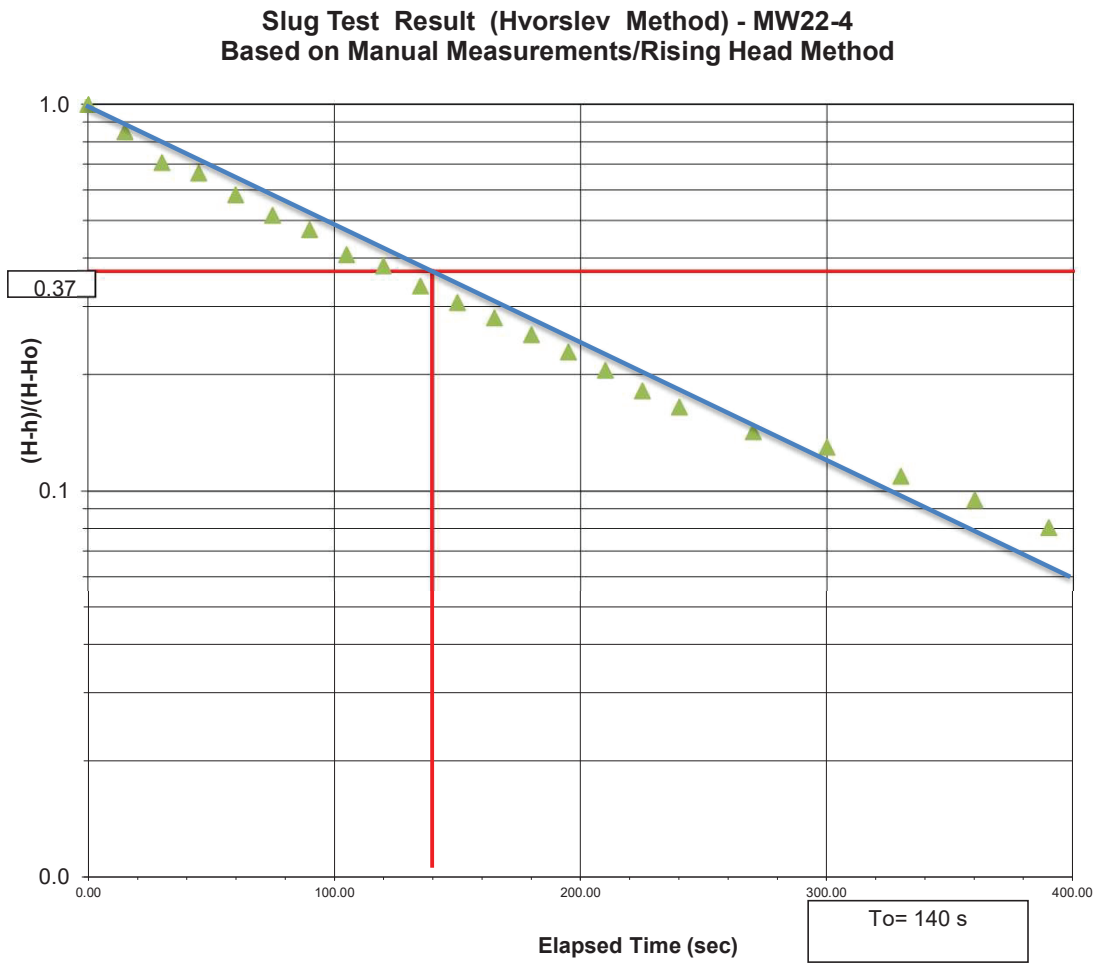


Slug Test: MW22-4 **Project No.: 306354.003**

Project Location: 2077-2105 Royal Windsor Drive, Mississauga, Ontario

Data Source: Based on Manual Measurements as per Rising Head Method dated August 15, 2022

Conducted by:	Rishi M.			
Interpreted by:	Bujing Guan	H =	Initial Water Head prior to test	
Processing Date:	Aug. 16, 2022	Ho =	Water Head at time = 0	
Screen Depth (mbgs):	9.2 ~ 12.2	h =	Water Head/Level at time t	
Screened Soil:	Shale			
Well Diameter:	2"	L =	305	cm
Static Water Level (mbgs):	2.79	R =	10.2	cm
Initial Reading (mTOP)	2.65	r =	2.54	cm
Test Start Reading (H0) (mTOP)	7.5	To =	140	sec
Test End Reading (mTOP)	2.645	$K = r^2 \ln(L/R)/(2LTo) =$	**2.6E-04**	cm/s



APPENDIX V
Laboratory Analytical Results

Your Project #: 306354
Site Location: ROYAL WINDSOR SITE
Your C.O.C. #: 891788-01-01

Attention: Bujing Guan

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

Report Date: 2022/08/17
Report #: R7257300
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C2M2908
Received: 2022/08/08, 16:17

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
ABN Compounds in Water by GC/MS	1	2022/08/14	2022/08/15	CAM SOP-00301	EPA 8270 m
Carbonaceous BOD	1	2022/08/10	2022/08/15	CAM SOP-00427	SM 23 5210B m
Total Cyanide	1	2022/08/10	2022/08/10	CAM SOP-00457	OMOE E3015 5 m
Fluoride	1	2022/08/09	2022/08/10	CAM SOP-00449	SM 23 4500-F C m
Mercury in Water by CVAA	1	2022/08/12	2022/08/12	CAM SOP-00453	EPA 7470A m
Total Metals Analysis by ICPMS	1	N/A	2022/08/11	CAM SOP-00447	EPA 6020B m
E.coli, (CFU/100mL)	1	N/A	2022/08/08	CAM SOP-00552	MECP E3433
Total Nonylphenol in Liquids by HPLC	1	2022/08/15	2022/08/16	CAM SOP-00313	In-house Method
Nonylphenol Ethoxylates in Liquids: HPLC	1	2022/08/15	2022/08/16	CAM SOP-00313	BV Labs Method
Animal and Vegetable Oil and Grease	1	N/A	2022/08/11	CAM SOP-00326	EPA1664B m,SM5520B m
Total Oil and Grease	1	2022/08/11	2022/08/11	CAM SOP-00326	EPA1664B m,SM5520B m
Polychlorinated Biphenyl in Water	1	2022/08/09	2022/08/10	CAM SOP-00309	EPA 8082A m
pH	1	2022/08/09	2022/08/10	CAM SOP-00413	SM 4500H+ B m
Phenols (4AAP)	1	N/A	2022/08/11	CAM SOP-00444	OMOE E3179 m
Sulphate by Automated Colourimetry	1	N/A	2022/08/10	CAM SOP-00464	EPA 375.4 m
Total Kjeldahl Nitrogen in Water	1	2022/08/10	2022/08/11	CAM SOP-00938	OMOE E3516 m
Mineral/Synthetic O & G (TPH Heavy Oil) (1)	1	2022/08/11	2022/08/11	CAM SOP-00326	EPA1664B m,SM5520F m
Total Suspended Solids	1	2022/08/10	2022/08/11	CAM SOP-00428	SM 23 2540D m
Volatile Organic Compounds in Water	1	N/A	2022/08/10	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.

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

Your Project #: 306354
Site Location: ROYAL WINDSOR SITE
Your C.O.C. #: 891788-01-01

Attention: Bujing Guan

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

Report Date: 2022/08/17
Report #: R7257300
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C2M2908
Received: 2022/08/08, 16:17

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.

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
==========
Bureau Veritas 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.

Bureau Veritas Job #: C2M2908
Report Date: 2022/08/17

Pinchin Ltd
Client Project #: 306354
Site Location: ROYAL WINDSOR SITE
Sampler Initials: EC

PEEL SANITARY & STORM SEWER (53-2010)

Bureau Veritas ID				TJS069			
Sampling Date				2022/08/08 15:30			
	UNITS	Criteria	Criteria-2	MW22 - 2	RDL	MDL	QC Batch
Calculated Parameters							
Total Animal/Vegetable Oil and Grease	mg/L	-	150	4.7	0.50	0.10	8152799
Inorganics							
Total Carbonaceous BOD	mg/L	15	300	<2	2	0.2	8157607
Fluoride (F-)	mg/L	-	10	0.28	0.10	0.020	8157136
Total Kjeldahl Nitrogen (TKN)	mg/L	1	100	**4.5**	0.10	0.060	8157953
pH	pH	6.0:9.0	5.5:10.0	7.54			8157137
Phenols-4AAP	mg/L	0.008	1	0.0025	0.0010	0.00030	8160871
Total Suspended Solids	mg/L	15	350	**1000**	20	4.0	8157679
Dissolved Sulphate (SO4)	mg/L	-	1500	110	1.0	0.10	8157180
Total Cyanide (CN)	mg/L	0.02	2	<0.0050	0.0050	0.00010	8157419
Petroleum Hydrocarbons							
Total Oil & Grease	mg/L	-	-	5.4	0.50	0.10	8160207
TPH - Heavy Oils	mg/L	-	15	0.70	0.50	0.10	8160211
Miscellaneous Parameters							
Nonylphenol Ethoxylate (Total)	mg/L	-	0.2	<0.2	0.2	0.04	8167187
Nonylphenol (Total)	mg/L	-	0.02	<0.001	0.001	0.0002	8167167
Metals							
Mercury (Hg)	mg/L	0.0004	0.01	<0.00010	0.00010	0.000050	8162674
Total Aluminum (Al)	ug/L	-	50000	21000	25	10	8160171
Total Antimony (Sb)	ug/L	-	5000	0.55	0.50	0.30	8160171
Total Arsenic (As)	ug/L	20	1000	8.8	1.0	0.50	8160171
Total Cadmium (Cd)	ug/L	8	700	<0.090	0.090	0.090	8160171
Total Chromium (Cr)	ug/L	80	5000	32	5.0	5.0	8160171
Total Cobalt (Co)	ug/L	-	5000	20	0.50	0.10	8160171
Total Copper (Cu)	ug/L	50	3000	23	0.90	0.50	8160171
Total Lead (Pb)	ug/L	120	3000	2.9	0.50	0.10	8160171
Total Manganese (Mn)	ug/L	50	5000	**1100**	2.0	0.50	8160171

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.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

PEEL SANITARY & STORM SEWER (53-2010)

Bureau Veritas ID				TJS069			
Sampling Date				2022/08/08 15:30			
	UNITS	Criteria	Criteria-2	MW22 - 2	RDL	MDL	QC Batch
Total Molybdenum (Mo)	ug/L	-	5000	4.4	0.50	0.20	8160171
Total Nickel (Ni)	ug/L	80	3000	42	1.0	0.50	8160171
Total Phosphorus (P)	ug/L	-	10000	900	100	30	8160171
Total Selenium (Se)	ug/L	20	1000	<2.0	2.0	0.50	8160171
Total Silver (Ag)	ug/L	120	5000	<0.090	0.090	0.070	8160171
Total Tin (Sn)	ug/L	-	5000	1.1	1.0	0.50	8160171
Total Titanium (Ti)	ug/L	-	5000	180	5.0	4.0	8160171
Total Zinc (Zn)	ug/L	40	3000	**84**	5.0	3.0	8160171
Semivolatile Organics							
Bis(2-ethylhexyl)phthalate	ug/L	8.8	12	<2.0	2.0	0.10	8165355
Di-N-butyl phthalate	ug/L	15	80	2.3	2.0	0.10	8165355
Volatile Organics							
Benzene	ug/L	2	10	**<10 (1)**	10	1.0	8156330
Chloroform	ug/L	2	40	**<10 (1)**	10	2.5	8156330
1,2-Dichlorobenzene	ug/L	5.6	50	**<20 (1)**	20	2.5	8156330
1,4-Dichlorobenzene	ug/L	6.8	80	**<20 (1)**	20	2.5	8156330
cis-1,2-Dichloroethylene	ug/L	5.6	4000	**<25 (1)**	25	2.5	8156330
trans-1,3-Dichloropropene	ug/L	5.6	140	**<20 (1)**	20	2.5	8156330
Ethylbenzene	ug/L	2	160	**<10 (1)**	10	0.50	8156330
Methylene Chloride(Dichloromethane)	ug/L	5.2	2000	**<100 (1)**	100	5.0	8156330
Methyl Ethyl Ketone (2-Butanone)	ug/L	-	8000	<500	500	25	8156330
Styrene	ug/L	-	200	<20	20	2.5	8156330
1,1,2,2-Tetrachloroethane	ug/L	17	1400	**<20 (1)**	20	2.5	8156330
Tetrachloroethylene	ug/L	4.4	1000	**<10 (1)**	10	2.5	8156330
Toluene	ug/L	2	270	**<10 (1)**	10	0.50	8156330
Trichloroethylene	ug/L	8	400	**<10 (1)**	10	2.5	8156330
p+m-Xylene	ug/L	-	-	<10	10	0.50	8156330

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.
(1) RDL exceeds criteria

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Bureau Veritas Job #: C2M2908
Report Date: 2022/08/17

Pinchin Ltd
Client Project #: 306354
Site Location: ROYAL WINDSOR SITE
Sampler Initials: EC

PEEL SANITARY & STORM SEWER (53-2010)

Bureau Veritas ID				TJS069			
Sampling Date				2022/08/08 15:30			
	UNITS	Criteria	Criteria-2	MW22 - 2	RDL	MDL	QC Batch
o-Xylene	ug/L	-	-	<10	10	0.50	8156330
Total Xylenes	ug/L	4.4	1400	**<10 (1)**	10	0.50	8156330
PCBs							
Total PCB	ug/L	0.4	1	<0.05	0.05	0.01	8156405
Microbiological							
Escherichia coli	CFU/100mL	200	-	<10	10	N/A	8154425
Surrogate Recovery (%)							
2,4,6-Tribromophenol	%	-	-	83			8165355
2-Fluorobiphenyl	%	-	-	83			8165355
2-Fluorophenol	%	-	-	44			8165355
D14-Terphenyl	%	-	-	94			8165355
D5-Nitrobenzene	%	-	-	90			8165355
D5-Phenol	%	-	-	31			8165355
Decachlorobiphenyl	%	-	-	97			8156405
4-Bromofluorobenzene	%	-	-	98			8156330
D4-1,2-Dichloroethane	%	-	-	96			8156330
D8-Toluene	%	-	-	99			8156330

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) RDL exceeds criteria

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

Bureau Veritas Job #: C2M2908
Report Date: 2022/08/17

Pinchin Ltd
Client Project #: 306354
Site Location: ROYAL WINDSOR SITE
Sampler Initials: EC

PEEL SANITARY & STORM SEWER (53-2010)

Bureau Veritas ID				TJS069			
Sampling Date				2022/08/08 15:30			
	UNITS	Criteria	Criteria-2	MW22 - 2 Lab-Dup	RDL	MDL	QC Batch
Miscellaneous Parameters							
Nonylphenol Ethoxylate (Total)	mg/L	-	0.2	<0.2	0.2	0.04	8167187

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.

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Bureau Veritas Job #: C2M2908
Report Date: 2022/08/17

Pinchin Ltd
Client Project #: 306354
Site Location: ROYAL WINDSOR SITE
Sampler Initials: EC

TEST SUMMARY

Bureau Veritas ID: TJS069
Sample ID: MW22 - 2
Matrix: Water

Collected: 2022/08/08
Shipped:
Received: 2022/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in Water by GC/MS	GC/MS	8165355	2022/08/14	2022/08/15	Anh Lieu
Carbonaceous BOD	DO	8157607	2022/08/10	2022/08/15	Gurjot Kaur
Total Cyanide	SKAL/CN	8157419	2022/08/10	2022/08/10	Prgya Panchal
Fluoride	ISE	8157136	2022/08/09	2022/08/10	Kien Tran
Mercury in Water by CVAA	CV/AA	8162674	2022/08/12	2022/08/12	Japneet Gill
Total Metals Analysis by ICPMS	ICP/MS	8160171	N/A	2022/08/11	Daniel Teclu
E.coli, (CFU/100mL)	PL	8154425	N/A	2022/08/08	Sonja Elavinamannil
Total Nonylphenol in Liquids by HPLC	LC/FLU	8167167	2022/08/15	2022/08/16	Dennis Boodram
Nonylphenol Ethoxylates in Liquids: HPLC	LC/FLU	8167187	2022/08/15	2022/08/16	Dennis Boodram
Animal and Vegetable Oil and Grease	BAL	8152799	N/A	2022/08/11	Automated Statchk
Total Oil and Grease	BAL	8160207	2022/08/11	2022/08/11	Mitul Patel
Polychlorinated Biphenyl in Water	GC/ECD	8156405	2022/08/09	2022/08/10	Svitlana Shaula
pH	AT	8157137	2022/08/09	2022/08/10	Kien Tran
Phenols (4AAP)	TECH/PHEN	8160871	N/A	2022/08/11	Mandeep Kaur
Sulphate by Automated Colourimetry	KONE	8157180	N/A	2022/08/10	Samuel Law
Total Kjeldahl Nitrogen in Water	SKAL	8157953	2022/08/10	2022/08/11	Rajni Tyagi
Mineral/Synthetic O & G (TPH Heavy Oil)	BAL	8160211	2022/08/11	2022/08/11	Mitul Patel
Total Suspended Solids	BAL	8157679	2022/08/10	2022/08/11	Shaneil Hall
Volatile Organic Compounds in Water	GC/MS	8156330	N/A	2022/08/10	Narayan Ghimire

Bureau Veritas ID: TJS069 Dup
Sample ID: MW22 - 2
Matrix: Water

Collected: 2022/08/08
Shipped:
Received: 2022/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nonylphenol Ethoxylates in Liquids: HPLC	LC/FLU	8167187	2022/08/15	2022/08/16	Dennis Boodram

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GENERAL COMMENTS

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

Package 1	10.3°C

Sample TJS069 [MW22 - 2] : VOC Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Nonylphenol and Nonylphenol Ethoxylates Analysis:
Due to background interference, sample required dilution. The Detection limit was adjusted accordingly.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8156330	4-Bromofluorobenzene	2022/08/10			99	70 - 130	102	%				
8156330	D4-1,2-Dichloroethane	2022/08/10			97	70 - 130	98	%				
8156330	D8-Toluene	2022/08/10			103	70 - 130	97	%				
8156405	Decachlorobiphenyl	2022/08/10	87	60 - 130	98	60 - 130	90	%				
8165355	2,4,6-Tribromophenol	2022/08/15	90	10 - 130	90	10 - 130	45	%				
8165355	2-Fluorobiphenyl	2022/08/15	73	30 - 130	74	30 - 130	86	%				
8165355	2-Fluorophenol	2022/08/15	46	10 - 130	49	10 - 130	29	%				
8165355	D14-Terphenyl	2022/08/15	91	30 - 130	94	30 - 130	93	%				
8165355	D5-Nitrobenzene	2022/08/15	80	30 - 130	90	30 - 130	90	%				
8165355	D5-Phenol	2022/08/15	31	10 - 130	32	10 - 130	27	%				
8156330	1,1,2,2-Tetrachloroethane	2022/08/10			81	70 - 130	<0.40	ug/L	NC	30		
8156330	1,2-Dichlorobenzene	2022/08/10			88	70 - 130	<0.40	ug/L	NC	30		
8156330	1,4-Dichlorobenzene	2022/08/10			104	70 - 130	<0.40	ug/L	NC	30		
8156330	Benzene	2022/08/10			87	70 - 130	<0.20	ug/L	NC	30		
8156330	Chloroform	2022/08/10			91	70 - 130	<0.20	ug/L	NC	30		
8156330	cis-1,2-Dichloroethylene	2022/08/10			92	70 - 130	<0.50	ug/L	NC	30		
8156330	Ethylbenzene	2022/08/10			89	70 - 130	<0.20	ug/L	NC	30		
8156330	Methyl Ethyl Ketone (2-Butanone)	2022/08/10			96	60 - 140	<10	ug/L	NC	30		
8156330	Methylene Chloride(Dichloromethane)	2022/08/10			90	70 - 130	<2.0	ug/L	NC	30		
8156330	o-Xylene	2022/08/10			88	70 - 130	<0.20	ug/L	NC	30		
8156330	p+m-Xylene	2022/08/10			93	70 - 130	<0.20	ug/L	NC	30		
8156330	Styrene	2022/08/10			94	70 - 130	<0.40	ug/L	NC	30		
8156330	Tetrachloroethylene	2022/08/10			88	70 - 130	<0.20	ug/L	NC	30		
8156330	Toluene	2022/08/10			90	70 - 130	<0.20	ug/L	NC	30		
8156330	Total Xylenes	2022/08/10					<0.20	ug/L	NC	30		
8156330	trans-1,3-Dichloropropene	2022/08/10			93	70 - 130	<0.40	ug/L	NC	30		
8156330	Trichloroethylene	2022/08/10			97	70 - 130	<0.20	ug/L	NC	30		
8156405	Total PCB	2022/08/10	65	60 - 130	96	60 - 130	<0.05	ug/L	NC	40		
8157136	Fluoride (F-)	2022/08/10	105	80 - 120	106	80 - 120	<0.10	mg/L	1.4	20		
8157137	pH	2022/08/10			102	98 - 103			0.074	N/A		
8157180	Dissolved Sulphate (SO4)	2022/08/10	NC	75 - 125	97	80 - 120	<1.0	mg/L	0.70	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8157419	Total Cyanide (CN)	2022/08/10	95	80 - 120	93	80 - 120	<0.0050	mg/L	NC	20		
8157607	Total Carbonaceous BOD	2022/08/15					<2	mg/L	2.9	30	88	85 - 115
8157679	Total Suspended Solids	2022/08/11					<10	mg/L	NC	25	96	85 - 115
8157953	Total Kjeldahl Nitrogen (TKN)	2022/08/11	85	80 - 120	97	80 - 120	<0.10	mg/L	NC (1)	20	96	80 - 120
8160171	Total Aluminum (Al)	2022/08/11	101	80 - 120	101	80 - 120	<4.9	ug/L	0.52	20		
8160171	Total Antimony (Sb)	2022/08/11	108	80 - 120	107	80 - 120	<0.50	ug/L	NC	20		
8160171	Total Arsenic (As)	2022/08/11	102	80 - 120	99	80 - 120	<1.0	ug/L	NC	20		
8160171	Total Cadmium (Cd)	2022/08/11	100	80 - 120	101	80 - 120	<0.090	ug/L	NC	20		
8160171	Total Chromium (Cr)	2022/08/11	96	80 - 120	94	80 - 120	<5.0	ug/L	NC	20		
8160171	Total Cobalt (Co)	2022/08/11	100	80 - 120	99	80 - 120	<0.50	ug/L	NC	20		
8160171	Total Copper (Cu)	2022/08/11	97	80 - 120	98	80 - 120	<0.90	ug/L	4.2	20		
8160171	Total Lead (Pb)	2022/08/11	94	80 - 120	98	80 - 120	<0.50	ug/L	NC	20		
8160171	Total Manganese (Mn)	2022/08/11	100	80 - 120	98	80 - 120	<2.0	ug/L	3.6	20		
8160171	Total Molybdenum (Mo)	2022/08/11	104	80 - 120	96	80 - 120	<0.50	ug/L	1.2	20		
8160171	Total Nickel (Ni)	2022/08/11	100	80 - 120	100	80 - 120	<1.0	ug/L	3.2	20		
8160171	Total Phosphorus (P)	2022/08/11	103	80 - 120	110	80 - 120	<100	ug/L	NC	20		
8160171	Total Selenium (Se)	2022/08/11	101	80 - 120	101	80 - 120	<2.0	ug/L	NC	20		
8160171	Total Silver (Ag)	2022/08/11	95	80 - 120	97	80 - 120	<0.090	ug/L	NC	20		
8160171	Total Tin (Sn)	2022/08/11	103	80 - 120	100	80 - 120	<1.0	ug/L	NC	20		
8160171	Total Titanium (Ti)	2022/08/11	98	80 - 120	97	80 - 120	<5.0	ug/L	NC	20		
8160171	Total Zinc (Zn)	2022/08/11	100	80 - 120	101	80 - 120	<5.0	ug/L	NC	20		
8160207	Total Oil & Grease	2022/08/11			100	85 - 115	<0.50	mg/L	1.3	25		
8160211	TPH - Heavy Oils	2022/08/11			97	85 - 115	<0.50	mg/L	1.6	25		
8160871	Phenols-4AAP	2022/08/11	103	80 - 120	100	80 - 120	<0.0010	mg/L	9.5	20		
8162674	Mercury (Hg)	2022/08/12	92	75 - 125	96	80 - 120	<0.00010	mg/L	NC	20		
8165355	Bis(2-ethylhexyl)phthalate	2022/08/15	102	30 - 130	107	30 - 130	<2.0	ug/L	NC	40		
8165355	Di-N-butyl phthalate	2022/08/15	103	30 - 130	110	30 - 130	<2.0	ug/L	NC	40		
8167167	Nonylphenol (Total)	2022/08/16	104	50 - 130	105	50 - 130	<0.001	mg/L	NC	40		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8167187	Nonylphenol Ethoxylate (Total)	2022/08/16	104	50 - 130	109	50 - 130	<0.025	mg/L	NC	40		

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 <= 2x RDL).

(1) Due to a high concentration of NOx, the sample required dilution. The detection limit was adjusted accordingly.

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Bureau Veritas Job #: C2M2908
Report Date: 2022/08/17

Pinchin Ltd
Client Project #: 306354
Site Location: ROYAL WINDSOR SITE
Sampler Initials: EC

VALIDATION SIGNATURE PAGE

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

Cristina Carriere, Senior Scientific Specialist

Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

Sonja Elavinamannil, Master of Biochemistry, Team Lead

Bureau Veritas 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.

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MICRO

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

08-Aug-22 16:17
Antonella Brasil
C2M2908
SBS ENV-1735

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#3103 Pinchin Ltd	Company Name:		Quotation #:	C20345
Attention:	Accounts Payable	Attention:	Bujing Guan , Edward Chen	P.O. #:	
Address:	2360 Meadowpine Blvd Unit # 2	Address:		Project:	306354
	Mississauga ON L5N 6S2			Project Name:	
Tel:	(905) 363-0678 Fax: (905) 363-0681	Tel:	Fax:	Site #:	Royal Windsor Site
Email:	ap@pinchin.com	Email:	bguan@pinchin.com , echen@pinchin.com	Sampled By:	E.C

C#891788-01-01

Bottle Order #: 891788

Project Manager: Antonella Brasil

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- ☐ Table 1 ☐ Res/Park ☐ Medium/Fine
- ☐ Table 2 ☐ Ind/Comm ☐ Coarse
- ☐ Table 3 ☐ Agri/Other ☐ For RSC
- ☐ Table ___

Other Regulations
- ☐ CCME ☐ Sanitary Sewer Bylaw
- ☐ Reg 558. ☐ Storm Sewer Bylaw
- ☐ MISA Municipality ___
- ☐ PWQO ☐ Reg 406 Table ___
- ☐ Other ___

Special Instructions
Not for RSC.
Peel Region Sewer Use Bylaw (Sanitary & Storm)

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

	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)	# of Bottles	Comments
1		MW22-2	Aug 8 2022	3:30	GW	✓	✓	17	
2									
3									
4									
5									
6									
7									
8									
9									
10									

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

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: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
E.Chen / Edward Chen	22/08/08	4:15		08/08/08	1617	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	1.9 7.8 1.9	Present	✓	
		Intact	✓	

* 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.BVNA.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.BVNA.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

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
MW22 - 2	TJS069-10	Total Kjeldahl Nitrogen (TKN)	1	4.5	0.10	mg/L
MW22 - 2	TJS069-09	Total Manganese (Mn)	50	1100	2.0	ug/L
MW22 - 2	TJS069-06	Total Suspended Solids	15	1000	20	mg/L
MW22 - 2	TJS069-09	Total Zinc (Zn)	40	84	5.0	ug/L

Detection Limit Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
MW22 - 2	TJS069-13	1,1,2,2-Tetrachloroethane	17	<20	20	ug/L
MW22 - 2	TJS069-13	1,2-Dichlorobenzene	5.6	<20	20	ug/L
MW22 - 2	TJS069-13	1,4-Dichlorobenzene	6.8	<20	20	ug/L
MW22 - 2	TJS069-13	Benzene	2	<10	10	ug/L
MW22 - 2	TJS069-13	Chloroform	2	<10	10	ug/L
MW22 - 2	TJS069-13	cis-1,2-Dichloroethylene	5.6	<25	25	ug/L
MW22 - 2	TJS069-13	Ethylbenzene	2	<10	10	ug/L
MW22 - 2	TJS069-13	Methylene Chloride (Dichloromethane)	5.2	<100	100	ug/L
MW22 - 2	TJS069-13	Tetrachloroethylene	4.4	<10	10	ug/L
MW22 - 2	TJS069-13	Toluene	2	<10	10	ug/L
MW22 - 2	TJS069-13	Total Xylenes	4.4	<10	10	ug/L
MW22 - 2	TJS069-13	trans-1,3-Dichloropropene	5.6	<20	20	ug/L
MW22 - 2	TJS069-13	Trichloroethylene	8	<10	10	ug/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
MW22 - 2	TJS069-06	Total Suspended Solids	350	1000	20	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.

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Your Project #: 306354.003
Site Location: 2077-2105 ROYAL WINDSOR DR., MISSISSAUGA
Your C.O.C. #: 895232-01-01

Attention: Bujing Guan

Pinchin Ltd
80 Tiverton Court, Suite 101
Markham, ON
CANADA L3R 0G4

Report Date: 2022/09/21
Report #: R7307091
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C2P0389
Received: 2022/08/31, 17:54

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Lab Filtered Metals by ICPMS	1	2022/09/20	2022/09/21	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICPMS	1	N/A	2022/09/07	CAM SOP-00447	EPA 6020B m
Total Kjeldahl Nitrogen in Water	1	2022/09/02	2022/09/08	CAM SOP-00938	OMOE E3516 m
Total Suspended Solids	1	2022/09/02	2022/09/07	CAM SOP-00428	SM 23 2540D m
Volatile Organic Compounds in Water	1	N/A	2022/09/03	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.

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.

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.

Your Project #: 306354.003
Site Location: 2077-2105 ROYAL WINDSOR DR., MISSISSAUGA
Your C.O.C. #: 895232-01-01

Attention: Bujing Guan

Pinchin Ltd
80 Tiverton Court, Suite 101
Markham, ON
CANADA L3R 0G4

Report Date: 2022/09/21
Report #: R7307091
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C2P0389
Received: 2022/08/31, 17:54

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
==========
Bureau Veritas 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.

Bureau Veritas Job #: C2P0389
Report Date: 2022/09/21

Pinchin Ltd
Client Project #: 306354.003
Site Location: 2077-2105 ROYAL WINDSOR DR., MISSISSAUGA
Sampler Initials: JP

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID				TPN761	TPN761			
Sampling Date				2022/08/31 14:45	2022/08/31 14:45			
COC Number				895232-01-01	895232-01-01			
	UNITS	Criteria	Criteria-2	MW22-2	MW22-2 Lab-Dup	RDL	MDL	QC Batch
Inorganics								
Total Kjeldahl Nitrogen (TKN)	mg/L	100	1	**3.7**	N/A	0.10	0.060	8204122
Total Suspended Solids	mg/L	350	15	**67**	**73**	10	2.0	8203717

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 Sanitary Sewer Discharge. By-Law Number 53-2010.
Criteria-2: The Regional Municipality of Peel Storm Sewer Discharge. By-Law Number 53-2010.
N/A = Not Applicable

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Bureau Veritas Job #: C2P0389
Report Date: 2022/09/21

Pinchin Ltd
Client Project #: 306354.003
Site Location: 2077-2105 ROYAL WINDSOR DR., MISSISSAUGA
Sampler Initials: JP

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID				TPN761	TPN761			
Sampling Date				2022/08/31 14:45	2022/08/31 14:45			
COC Number				895232-01-01	895232-01-01			
	UNITS	Criteria	Criteria-2	MW22-2	MW22-2 Lab-Dup	RDL	MDL	QC Batch
Metals								
Total Aluminum (Al)	ug/L	50000	-	1700	1700	4.9	2.0	8209243
Total Antimony (Sb)	ug/L	5000	-	<0.50	<0.50	0.50	0.30	8209243
Total Arsenic (As)	ug/L	1000	20	1.0	1.1	1.0	0.50	8209243
Total Cadmium (Cd)	ug/L	700	8	<0.090	<0.090	0.090	0.090	8209243
Total Chromium (Cr)	ug/L	5000	80	<5.0	<5.0	5.0	5.0	8209243
Total Cobalt (Co)	ug/L	5000	-	3.7	3.5	0.50	0.10	8209243
Total Copper (Cu)	ug/L	3000	50	1.4	1.3	0.90	0.50	8209243
Total Lead (Pb)	ug/L	3000	120	<0.50	<0.50	0.50	0.10	8209243
Dissolved Manganese (Mn)	ug/L	5000	50	**240**	N/A	2.0	N/A	8235334
Total Manganese (Mn)	ug/L	5000	50	**280**	**280**	2.0	0.50	8209243
Total Molybdenum (Mo)	ug/L	5000	-	3.1	3.2	0.50	0.20	8209243
Total Nickel (Ni)	ug/L	3000	80	3.9	3.9	1.0	0.50	8209243
Total Phosphorus (P)	ug/L	10000	-	<100	<100	100	30	8209243
Total Selenium (Se)	ug/L	1000	20	<2.0	<2.0	2.0	0.50	8209243
Total Silver (Ag)	ug/L	5000	120	<0.090	<0.090	0.090	0.070	8209243
Total Tin (Sn)	ug/L	5000	-	3.5	3.2	1.0	0.50	8209243
Total Titanium (Ti)	ug/L	5000	-	34	37	5.0	4.0	8209243
Total Zinc (Zn)	ug/L	3000	40	11	10	5.0	3.0	8209243

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 Sanitary Sewer Discharge. By-Law Number 53-2010.
Criteria-2: The Regional Municipality of Peel Storm Sewer Discharge. By-Law Number 53-2010.
N/A = Not Applicable

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VOLATILE ORGANICS BY GC/MS (WATER)

Bureau Veritas ID				TPN761			
Sampling Date				2022/08/31 14:45			
COC Number				895232-01-01			
	UNITS	Criteria	Criteria-2	MW22-2	RDL	MDL	QC Batch
Volatile Organics							
Benzene	ug/L	10	2	<0.40	0.40	0.040	8204734
Chloroform	ug/L	40	2	<0.40	0.40	0.10	8204734
1,2-Dichlorobenzene	ug/L	50	5.6	<0.80	0.80	0.10	8204734
1,4-Dichlorobenzene	ug/L	80	6.8	<0.80	0.80	0.10	8204734
cis-1,2-Dichloroethylene	ug/L	4000	5.6	<1.0	1.0	0.10	8204734
trans-1,3-Dichloropropene	ug/L	140	5.6	<0.80	0.80	0.10	8204734
Ethylbenzene	ug/L	160	2	<0.40	0.40	0.020	8204734
Methylene Chloride(Dichloromethane)	ug/L	2000	5.2	<4.0	4.0	0.20	8204734
Methyl Ethyl Ketone (2-Butanone)	ug/L	8000	-	<20	20	1.0	8204734
Styrene	ug/L	200	-	<0.80	0.80	0.10	8204734
1,1,2,2-Tetrachloroethane	ug/L	1400	17	<0.80	0.80	0.10	8204734
Tetrachloroethylene	ug/L	1000	4.4	<0.40	0.40	0.10	8204734
Toluene	ug/L	270	2	<0.40	0.40	0.020	8204734
Trichloroethylene	ug/L	400	8	<0.40	0.40	0.10	8204734
p+m-Xylene	ug/L	-	-	<0.40	0.40	0.020	8204734
o-Xylene	ug/L	-	-	<0.40	0.40	0.020	8204734
Total Xylenes	ug/L	1400	4.4	<0.40	0.40	0.020	8204734
Surrogate Recovery (%)							
4-Bromofluorobenzene	%	-	-	84	N/A	N/A	8204734
D4-1,2-Dichloroethane	%	-	-	118	N/A	N/A	8204734
D8-Toluene	%	-	-	100	N/A	N/A	8204734

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 Sanitary Sewer Discharge.
By-Law Number 53-2010.
Criteria-2: The Regional Municipality of Peel Storm Sewer Discharge.
By-Law Number 53-2010.
N/A = Not Applicable

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GENERAL COMMENTS

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

Package 1	5.3°C

Revised Report (2022/09/21): Dissolved Mn included as per client request .

Sample TPN761 [MW22-2] : VOC Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Results relate only to the items tested.

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Bureau Veritas Job #: C2P0389
Report Date: 2022/09/21

QUALITY ASSURANCE REPORT

Pinchin Ltd
Client Project #: 306354.003
Site Location: 2077-2105 ROYAL WINDSOR DR., MISSISSAUGA
Sampler Initials: JP

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8204734	4-Bromofluorobenzene	2022/09/03	92	70 - 130	92	70 - 130	88	%				
8204734	D4-1,2-Dichloroethane	2022/09/03	109	70 - 130	111	70 - 130	112	%				
8204734	D8-Toluene	2022/09/03	110	70 - 130	109	70 - 130	103	%				
8203717	Total Suspended Solids	2022/09/07					<10	mg/L	8.6	25	95	85 - 115
8204122	Total Kjeldahl Nitrogen (TKN)	2022/09/08	96	80 - 120	96	80 - 120	<0.10	mg/L	2.3	20	95	80 - 120
8204734	1,1,2,2-Tetrachloroethane	2022/09/03	97	70 - 130	100	70 - 130	<0.40	ug/L	NC	30		
8204734	1,2-Dichlorobenzene	2022/09/03	105	70 - 130	105	70 - 130	<0.40	ug/L	NC	30		
8204734	1,4-Dichlorobenzene	2022/09/03	120	70 - 130	119	70 - 130	<0.40	ug/L	NC	30		
8204734	Benzene	2022/09/03	97	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
8204734	Chloroform	2022/09/03	103	70 - 130	104	70 - 130	<0.20	ug/L	7.3	30		
8204734	cis-1,2-Dichloroethylene	2022/09/03	112	70 - 130	113	70 - 130	<0.50	ug/L	NC	30		
8204734	Ethylbenzene	2022/09/03	100	70 - 130	99	70 - 130	<0.20	ug/L	NC	30		
8204734	Methyl Ethyl Ketone (2-Butanone)	2022/09/03	125	60 - 140	132	60 - 140	<10	ug/L	NC	30		
8204734	Methylene Chloride(Dichloromethane)	2022/09/03	101	70 - 130	103	70 - 130	<2.0	ug/L	NC	30		
8204734	o-Xylene	2022/09/03	99	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
8204734	p+m-Xylene	2022/09/03	105	70 - 130	104	70 - 130	<0.20	ug/L	NC	30		
8204734	Styrene	2022/09/03	105	70 - 130	107	70 - 130	<0.40	ug/L	NC	30		
8204734	Tetrachloroethylene	2022/09/03	96	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
8204734	Toluene	2022/09/03	106	70 - 130	105	70 - 130	<0.20	ug/L	NC	30		
8204734	Total Xylenes	2022/09/03					<0.20	ug/L	NC	30		
8204734	trans-1,3-Dichloropropene	2022/09/03	97	70 - 130	100	70 - 130	<0.40	ug/L	NC	30		
8204734	Trichloroethylene	2022/09/03	99	70 - 130	99	70 - 130	<0.20	ug/L	NC	30		
8209243	Total Aluminum (Al)	2022/09/07	NC	80 - 120	103	80 - 120	<4.9	ug/L	0.86	20		
8209243	Total Antimony (Sb)	2022/09/07	105	80 - 120	99	80 - 120	<0.50	ug/L	NC	20		
8209243	Total Arsenic (As)	2022/09/07	101	80 - 120	99	80 - 120	<1.0	ug/L	9.9	20		
8209243	Total Cadmium (Cd)	2022/09/07	98	80 - 120	97	80 - 120	<0.090	ug/L	NC	20		
8209243	Total Chromium (Cr)	2022/09/07	100	80 - 120	98	80 - 120	<5.0	ug/L	NC	20		
8209243	Total Cobalt (Co)	2022/09/07	96	80 - 120	97	80 - 120	<0.50	ug/L	5.3	20		
8209243	Total Copper (Cu)	2022/09/07	99	80 - 120	98	80 - 120	<0.90	ug/L	7.1	20		
8209243	Total Lead (Pb)	2022/09/07	88	80 - 120	93	80 - 120	<0.50	ug/L	NC	20		
8209243	Total Manganese (Mn)	2022/09/07	100	80 - 120	97	80 - 120	<2.0	ug/L	1.5	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8209243	Total Molybdenum (Mo)	2022/09/07	108	80 - 120	98	80 - 120	<0.50	ug/L	3.4	20		
8209243	Total Nickel (Ni)	2022/09/07	93	80 - 120	98	80 - 120	<1.0	ug/L	0.31	20		
8209243	Total Phosphorus (P)	2022/09/07	116	80 - 120	109	80 - 120	<100	ug/L	NC	20		
8209243	Total Selenium (Se)	2022/09/07	104	80 - 120	105	80 - 120	<2.0	ug/L	NC	20		
8209243	Total Silver (Ag)	2022/09/07	99	80 - 120	98	80 - 120	<0.090	ug/L	NC	20		
8209243	Total Tin (Sn)	2022/09/07	103	80 - 120	97	80 - 120	<1.0	ug/L	9.6	20		
8209243	Total Titanium (Ti)	2022/09/07	110	80 - 120	96	80 - 120	<5.0	ug/L	10	20		
8209243	Total Zinc (Zn)	2022/09/07	91	80 - 120	102	80 - 120	<5.0	ug/L	4.5	20		
8235334	Dissolved Manganese (Mn)	2022/09/21	98	80 - 120	100	80 - 120	<2.0	ug/L	3.2	20		

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 <= 2x RDL).

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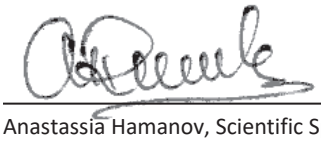
Bureau Veritas Job #: C2P0389
Report Date: 2022/09/21

Pinchin Ltd
Client Project #: 306354.003
Site Location: 2077-2105 ROYAL WINDSOR DR., MISSISSAUGA
Sampler Initials: JP

VALIDATION SIGNATURE PAGE

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



Anastassia Hamanov, Scientific Specialist

Bureau Veritas 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.

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CHAIN OF CUSTODY RECORD

Page 1 of 1

31-Aug-22 17:54
Antonella Brasil
C2P0389
IGM ENV-1716

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#36377 Pinchin Ltd	Company Name:		Quotation #:	C20345
Attention:	Accounts Payable	Attention:	Bujing Guan, Jenny Pinks, Kara Woolley	P.O. #:	
Address:	80 Tiverton Court, Suite 101	Address:		Project:	306354.003
	Markham ON L3R 0G4			Project Name:	
Tel:	(365) 873-0301 Fax:	Tel: Kwoolley	(437) 993-1832 Fax:	Site #:	2077 - 2105 Royal Windsor Dr, Mississauga
Email:	ap@pinchin.com	Email: @pinchin.com	bguan@pinchin.com, JParkes@Pinchin.com	Sampled By:	JT

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- ☐ Table 1 ☐ Res/Park ☐ Medium/Fine
- ☐ Table 2 ☐ Ind/Comm ☑ Coarse
- ☐ Table 3 ☐ Agr/Other ☐ For RSC
- ☐ Table

Other Regulations
- ☐ CCME ☑ Sanitary Sewer Bylaw
- ☐ Reg 558 ☑ Storm Sewer Bylaw
- ☐ MISA Municipality Peel Region
- ☐ PWQO ☐ Reg 406 Table
- ☐ Other

Special Instructions
NJT
GW
RSC

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

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: ☐
Rush Confirmation Number: *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	Total Kjeldahl Nitrogen in Water	Total Suspended Solids	Volatile Organic Compounds in Water	Total Metals Analysis by ICPMS	# of Bottles	Comments
1		MW 22-2	2022/08/31	2:45p	GW	N	✓	✓	✓	✓	5	
2												
3												
4												
5												
6												
7												
8												
9												
10												

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	22/08/31	3:15p		22/08/31	17:54	0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	7.5,4	Present		
		Intact	Y	

* 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.BVNA.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.BVNA.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

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.

Bureau Veritas Job #: C2P0389
Report Date: 2022/09/21

Pinchin Ltd
Client Project #: 306354.003
Site Location: 2077-2105 ROYAL WINDSOR DR., MISSISSAUGA
Sampler Initials: JP

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.

Exceedance Summary Table – Peel Region Storm 2010

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
MW22-2	TPN761-03	Total Kjeldahl Nitrogen (TKN)	1	3.7	0.10	mg/L
MW22-2	TPN761-02-Lab Dup	Total Manganese (Mn)	50	280	2.0	ug/L
MW22-2	TPN761-02	Total Manganese (Mn)	50	280	2.0	ug/L
MW22-2	TPN761-01	Dissolved Manganese (Mn)	50	240	2.0	ug/L
MW22-2	TPN761-01	Total Suspended Solids	15	67	10	mg/L
MW22-2	TPN761-01-Lab Dup	Total Suspended Solids	15	73	10	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.

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