Hydrogeological Assessment – Block 21, 200 Codd's Road, Ottawa

June 12, 2026

Prepared for:
Wateridge Lifestyles Ltd. and Canada Lands Corporation

Cambium Reference: 24896.001

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1.0 Introduction

Cambium Inc. (Cambium) was retained by Wateridge Lifestyles Ltd. and Canada Lands Corporation (Client) to complete a dewatering assessment in support of the design of the proposed development to be located at Block 21 of the Wateridge Village.

This report provides the results of the hydrogeological assessment and should be read in conjunction with the "Statement of Qualifications and Limitations" in Section 9.0, which forms an integral part of this document. The reader's attention is specifically drawn to this information, as it is essential for the proper use and interpretation of this report. The data, interpretations, and recommendations contained in this report pertain to a specific project as described in the report and are not applicable to any other project or site location. If the project is modified in concept, location, or elevation, or if the project is not initiated within eighteen months of the date of the report, Cambium should be given an opportunity to confirm that the recommendations in this report are still valid.

1.1 Site Description

The Site is located on the north side of Wateridge Village, ad is currently undeveloped. It is bound to the west and north by Codd's Road, east by Bareille-Snow Street, and fronts Tawadina Road. It is Cambium's understanding that the proposed development will consist of 3 multi-storey apartment buildings ranging in height from 6 to 9 storeys, with one level of underground parking. The parking garages will be partial basement levels which have footprints smaller than the above tower. The three residential building footprints range in size from approximately 1,012 m2 to 3,027 m2.

The parking garage level final floor elevation (FFE) for the Phase 1 is currently set at 87.75 m asl and the parking garage level FFE for Phases 2 and 3 is currently set at 86.56 m asl. The proposed development will be municipally serviced for water supply and wastewater treatment. The regional location of the Site is identified on Figure 1, the property is outlined on Figure 2, and a Site plan is included in Appendix A.

2.0 Physical Setting

2.1 Topography and Drainage

According to topographic data from the MECP, the Site elevation ranges from approximately 85 to 90 meters. The Site Slopes from the southern boundary along Tawadina Rd down to the north-northwest boundary

Surface water drainage within the Site is assumed to either infiltrate or run-off and follow local topography to the north-northwest or be captured by the local municipal storm sewer network. It is assumed that surface water drainage at the Site ultimately ends up in the Ottawa River, located approximately 700 m north of the Site.

2.2 Physiography

The Site is located within the physiographic region known as the Ottawa Valley Clay Plains. The Ottawa Valley Clay Plains is a physiographic region characterized by Precambrian rock overlain by a layer of silty clay of variable depth. The Ottawa Valley Clay Plains are extending along the Ottawa River from Pembroke to Hawkesbury with portions across the provincial boundary into Quebec (Chapman & Putnam, 1984).

2.3 Overburden Geology

According to Miscellaneous Release – Data 128 from the Ontario Geological Survey (2010) the predominant overburden of the Site consists of minimal surficial veneer atop Paleozoic bedrock and fine-textured glaciomarine deposits described as silt and clay, minor sand and gravel.

2.4 Bedrock Geology

According to Miscellaneous Release – Data 219 from the Ontario Geological Survey (2007), the bedrock in the area of the Site consists of the Gull River Formation, part of the Simcoe Group. The Gull River Formation is described as limestone with dolostone towards the base.

2.5 Vulnerable and Regulated Areas

The Site is situated within the Rideau Valley Source Protection Area, under jurisdiction of the Rideau Valley Conservation Authority (RVCA), as per the Source Water Protection Information Atlas from the Ministry of the Environment, Conservation and Parks (MECP) (2026a).

The development area is within a Highly Vulnerable Aquifer (HVA) with a vulnerability score of 6. HVAs are aquifers that are more sensitive to contamination as a result of the proximity to surface (shallow aquifers). By default, all HVA's have a vulnerability score of 6 because they are more sensitive to contamination. Due to the shallow bedrock on Site, the development activities for the Site plan have the potential to impact the groundwater supply. Cambium recommends using best management practices during the Site development to minimize impacts to the water supply aquifer (report and clean spills, proper dewatering practices, etc.).

A review of the Natural Heritage System database from the Ministry of Natural Resources (2026) indicates the development area is not located within any areas of natural significance.

The development area does not fall under a regulated area, as per the RVCA or O.Reg. 41/24.

3.0 Subsurface Lithology

Cambium completed a geotechnical investigation at the Site on December 8 and 9th, 2025, and a total of four (4) boreholes, designated as BH101-25 to BH104-25, were advanced across the Site. The findings of the geotechnical investigation report was provided to the Client under separate cover (Cambium, 2026).

To support the infiltration assessment, three additional overburden boreholes were advanced, and outfitted with monitoring wells within the footprint of proposed LID features on March 20, 2026. These additional wells were designated as MW101-26 to MW103-26 and were terminated at practical refusal atop interpreted bedrock. Additionally, a total of 6 rock probes, numbered RP201-26 through RP206-26 were advanced on March 20, 2026, to further assess depth to bedrock across the site. Table 1 provides a summary of the boreholes, the approximate borehole locations relative to existing conditions are shown on Figure 2 and the borehole logs are provided in Appendix B. Elevations were measured based on the topographic survey (Monument-Urso Surveying Ltd., 2025) and provided based on geodetic metres above seal level (mASL).

Table 1 Borehole Summary

Borehole ID	Surface Elevation (m asl)	Depth (mbgs) / Elevation (m asl)
BH101-25	88.8	6.1 / 82.7
BH102-25	88.7	6.1 / 82.6
BH103-25	88.6	6.1 / 82.5
BH104-25	89.9	6.1 / 83.4
MW101-26	91.9	2.5/89.5
MW102-26	91.3	2.5/88.8
MW103-26	89.8	3.2/86.6
Rock Probes		
RP201-26	89.4	1.9 / 87.5
RP202-26	88.6	1.5 / 87.1
RP203-26	88.7	2.2 / 86.5
RP204-26	91.2	2.0 / 89.2
RP205-26	91.7	2.3 / 89.4
RP206-26	89.7	2.1 / 87.6

A summary of general lithological details is presented below.

3.1 Fill Material

Fill material was encountered form the surface in all borehole locations with a thickness ranging from 0.8 to 2.3 m. The fill material varies in composition between each borehole but is generally cohesionless. The material consists of dark brown sand and silt with trace gravel to some gravel. Rootlets were noted in boreholes BH101-25 and BH102-25, plastic debris was noted in borehole BH101-25, and brick and asphalt debris was noted in borehole BH104-25. Cobbles and boulders were also observed within the fill material at all borehole locations.

3.2 Native Mineral Soils

Native mineral soils were encountered underlying the fill material at 3 of the borehole locations (BH102-25 through BH104-25). The native material is cohesionless and consisted of brown or grey brown silty sand to sand and silt with trace to some gravel, trace clay. Cobbles and boulders were noted in the native material in boreholes BH102-25 and BH103-25.

The native material was encountered at depths ranging from 0.8 to 2.3 mbgs and extended to depths ranging from 1.3 to 2.8 mbgs. The native material has a thickness measured 1.8 m in BH102-25 and 0.5 m in boreholes BH103-25 and BH104-25.

3.3 Bedrock

All boreholes were terminated on the presumed underlying bedrock at the site. The validity of the bedrock contact was confirmed by rock coring and terminated at target depths of about 6.1 mbgs.

The bedrock is limestone of the Gull River Formation, the rock in this area is generally grey, thinly to medium bedded, slightly decomposed, moderately fractured, and of very poor to good quality.

It should be noted that site grades have changed since the time of completion of the geotechnical investigation. Surface elevations and depth to refusal noted will likely differ, however refusal elevations encountered at each location should be the similar. As previously discussed, refusal may have also occurred on boulders within the overburden and do not necessarily indicate bedrock. This is likely the case for BH27-22.

3.4 Subsurface Investigations by Others

The subsurface information is provided in a signed and sealed engineering report and the information contained is relied upon as factual.

A geotechnical investigation was completed by others for Wateridge Village, which included boreholes advanced within the subject site of this investigation (Paterson Group, 2025). All borehole logs were reviewed by Cambium for all holes completed on or near the property. The locations of these boreholes are shown on the attached Figure 2.

The boreholes were advanced to practical refusal, which due to the consistency of confirmed bedrock, is presumed to be on or near the top of bedrock. A summary of the boreholes advanced by Others is provided in the table below:

Table 2 Summary of Boreholes by Others

Borehole ID	Approximate Surface Elevation (m asl)	Refusal Depth (mbgs) / Elevation (m asl)	Approximate Location
BH1-22	87.9	1.8 / 86.1	Codd's Road, west of development
BH2-22	89.2	1.3 / 87.9	Codd's Road, northwest of development
BH3-22	88.4	1.1 / 87.3	Phase 2
BH4-22	89.2	2.1 / 87.1	Codd's Road, north of development
BH8-22	88.8	2.3 / 86.6	Phase 3
BH27-22	89.7	0.4 / 89.3	Phase 2
BH59-22	88.0	2.0 / 86.0	Intersection of Codd's Road and Tawadina Road
BH61-22	89.8	2.5 / 87.2	Phase 1
BH1-23	89.0	2.2 / 86.8	Phase 2
BH2-23	89.2	3.1 / 86.2	Phase 1
BH14-27	90.5	1.8 / 88.7	Phase 1

Based on review of the previously completed borehole information, the subsurface conditions at the site generally consist of cohesionless fill material overlying shallow bedrock. Some native deposits were encountered underlying the fill material at select locations. The native

deposits generally consist of cohesionless deposits of silty sand or glacial till. Anticipated bedrock depths range from 0.4 to 3.1 mbgs (Elevation 86.0 to 89.3 m asl).

A copy of the relevant borehole logs are provided in Appendix B and the approximate locations of the boreholes, based on the borehole location plan provided in the geotechnical report, are provided on our attached Figure 2.

4.0 Groundwater Investigation

4.1 MECP Wel Records Assessment

According to the WWIS well records within 500 m of the Site (Figure 3), a total of 69 well records were identified. 60 of the well records were completed within overburden, and 9 well records were completed within bedrock. Well uses were reported as 23 monitoring/observation/test wells, 14 abandoned wells, 2 domestic supply wells and 30 well records did not contain information. The records for these wells are provided in Appendix C. A summary of the depths, static water levels, and pumping rates for the WWIS well records are shown in Table 3.

Table 3 Summary of Surrounding Water Well Record Information

Well Type		Depth (mbgs)	Water Found at (mbgs)	Static Water Level (mbgs)	Recommended Pumping Rate (L/min)
Overburden Wells = 60	Minimum	2.74	1.57	NV	NV
	Maximum	14.00	3.20	NV	NV
	Geometric Mean	5.57	2.24	NV	NV
Bedrock Wells = 9	Minimum	3.42	3.00	13.72	23*
	Maximum	72.54	72.54	15.24	23*
	Geometric Mean	11.96	21.60	14.46	23*

** Only one value reported*
NV = No value reported

4.2 Monitoring Well Installation

As discussed in Section 3.0, four monitoring wells, denoted as BH101-25, BH102-25, BH103-25 and BH104-25, were installed at the Site by Marathon Underground under the supervision of Cambium staff on December 8th, 2025. Three additional monitoring wells, denoted as MW101-26, MW102-26 and MW103-26, installed by Forage Downing Drilling under the supervision of Cambium staff on March 20th, 2026.

Borehole logs indicate BH101-25 through BH104-25 were installed in bedrock, and MW101-26 through MW103-26 were installed in overburden material. Well construction details and measured water levels are summarized in Table 4 and well logs are included in Appendix B. It should be noted that BH101-25 and BH104-25 were not available during April and May Site

visits. BH101-25 was not suitable for testing, and BH104-25 was expected to have been abandoned.

Table 4 Monitoring Well Construction Details

Well ID	Ground Surface (mASL)	Stick Up (mags*)	Depth (mbgs)	December 16, 2025		April 2, 2026		May 14, 2026	
				mbgs	m asl	mbgs	m asl	mbgs	m asl
BH101-25	88.8	0.84	6.10	4.31	84.5	Obstructed		Obstructed	
BH102-25	88.7	0.89	6.11	2.15	86.6	2.95	85.8	-	-
BH103-25	88.6	0.80	6.05	3.23	85.4	3.29	85.3	-	-
BH104-25	89.9	0.98	6.10	4.61	85.3	Not located		Not located	
MW101-26	91.9	0.85	2.45	Not yet constructed		Dry at 2.5	Dry at 89.4	Dry at 2.5	Dry at 89.4
MW102-26	91.3	0.91	2.34	Not yet constructed		Dry at 2.5	Dry at 88.4	Dry at 2.5	Dry at 88.4
MW103-26	89.8	0.85	3.17	Not yet constructed		0.97	88.9	0.87	88.93

**mags = meters above ground surface*

4.3 Single Well Hydraulic Tests

Cambium staff visited the Site on April 12th, 2026 to perform in-situ single well hydraulic tests (SWHTs) on select monitoring wells.

Rising head tests were conducted in each well by inducing an instantaneous change in head (water level) in the monitoring wells. Water level changes were achieved by purging the well dry with Waterra tubing and foot valve and monitoring well recovery.

Water level recovery was monitored using a Solinst Levelogger pressure transducer data logger, with manual measurements collected simultaneously at regular intervals.

The hydraulic conductivity of the geological formations adjacent to the screened portion of each well was estimated via the AquiferTest Pro software using the Hvorslev method (Hvorslev, 1951). A summary of results is presented in Table 5. Detailed analytical reports are provided in Appendix D.

Table 5 Hydraulic Conductivity Estimates derived via SWHTs

Screened Stratigraphy	Monitoring Well	Hydraulic Conductivity, K (m/s)		
		Test 1	Test 2	Geometric Mean
Bedrock	BH102-25	4.63×10^{-7}	-	4.63×10^{-7}
	BH103-25	2.92×10^{-7}	4.18×10^{-7}	3.49×10^{-7}
Overburden	MW103-26	2.85×10^{-7}	2.69×10^{-7}	2.77×10^{-7}

Estimated hydraulic conductivities for the shallow well screened within the overburden ranged between 2.85×10^{-7} and 2.69×10^{-7} m/s, with an average value of 2.77×10^{-7} m/s. The estimated hydraulic conductivities for the deeper bedrock wells ranged between 2.92×10^{-7} and 4.63×10^{-7} m/s, with an average value of 3.84×10^{-7} m/s. The geometric mean for all materials tested (i.e., bedrock and overburden), was 3.37×10^{-7} m/s These values are consistent with published values for the tested materials (Freeze & Cherry, 1979).

4.4 Groundwater Quality Analysis

Groundwater quality samples were collected from BH103-25 and MW103-26 on May 5, 2026. Samples were submitted to Paracel Laboratories Ltd. in Kingston for analysis of parameters in City of Ottawa Sanitary and Storm Sewer By-law (2025-94). The Certificates of Analysis for the samples are attached in Appendix E. A summary of parameters exceeding the Sewer By-law criteria is provided in Table 6.

Table 6 Summary of Result Exceedances

Parameter	Sanitary Sewer By-Law (mg/L)	Storm Sewer By-Law (mg/L)	Concentration (mg/L)			
			BH103-25	BH103-25 (filtered)	MW103-26	MW103-26 (filtered)
Total Suspended Solids (TSS)	350	**15**	**339**	-	**1050**	-
Manganese	5	**0.05**	**0.17**	<0.05	**0.40**	**0.091**
Zinc	3	**0.04**	**0.05**	<0.02	0.03	<0.02
Total phosphorus	10	**0.4**	0.24	-	**1.01**	-

Based on the results of the groundwater analysis, the following comments on groundwater quality are made.

- The unfiltered samples reported several parameters measured at concentrations in excess of the Storm Sewer By-law criteria for metals and TSS for both wells. Treatment of excavation water would be required prior to discharge to the municipal storm and sanitary sewer system.
- Elevated metals concentrations may be associated with the high suspended sediments content. Treatment of water generated during construction dewatering will be required if not reinfiltrated onto the Site, and discharged to an off-site receptor. If water is reinfiltrated nwithin Site boundaries, it must be demonstrated that the water will not cause negative affects to off-site groundwater or surface water features.
- It is expected that treatment methods such as filtration and/or settlement will reduce concentrations of these parameters to acceptable levels, while also reducing total suspended solids and turbidity, if discharge of water off Site is required. A confirmatory sample of the treated discharge water should be collected to determine the efficacy of the treatment strategy in this scenario.
- Discharge water quality should be confirmed to be suitable for the selected receiver prior to the start of dewatering activities. A sewer use agreement must be formalized with the City of Ottawa before discharging to municipal sewers.
- Confirmatory sampling will be required for comparison to provincial water quality objectives (PWQO) if water is discharged overland off-site.

5.0 Construction Dewatering Assessment

Cambium has provided the following construction dewatering assessment to the best of our knowledge of the proposed development, and the provided Site Plans (Appendix A).

It is Cambium's understanding that the proposed development will consist of 3 multi-storey apartment buildings ranging in height from 6 to 9 storeys, with one level of underground parking. The parking garages will be partial basement levels, with smaller footprints than the above towers. The three residential building footprints range in size from approximately 1,012 m^2 to 3,067 m^2.

The parking garage level FFE for the Phase 1 is currently set at 87.75 m asl and the parking garage level FFE for Phases 2 and 3 is currently set at 86.56 m asl.

The requirements for construction dewatering from open-cut excavations generally depend on a Site's soil and bedrock groundwater conditions including unit type, permeability or hydraulic conductivity, local groundwater levels, and the design of the proposed works, such as the foundation and/or basement elevation, as well as the size of proposed structure/excavation.

The assumptions pertaining to the construction dewatering conditions outlined herein should be confirmed by the Client at a later date.

5.1 Excavation Design Parameters

It is understood that the footprint of the proposed buildings will be irregular, with an approximate footprint area of 1,012 m^2 to 3,027 m^2. Foundation design parameters were obtained from the previously completed geotechnical investigation (Cambium, 2026). For construction planning, the foundation and underground parking excavations are assumed to consist of open excavations with footprints equivalent to the respective structures. The footprint of the underground parking is understood to be smaller than that of the building; however, detailed information regarding the underground parking layout was not available at the time this assessment was completed.

The parking garage level FFE for the Phase 1 is currently set at 87.75 m asl and the parking garage level FFE for Phases 2 and 3 is currently set at 86.56 m asl.

According to water level monitoring conducted from December 16, 2025 to May 14, 2026, water levels within the overburden ranged from greater than 2.5 mbgs to 0.87 m bgs, or 88.93 m asl to less than 89.4 m asl. Water levels within the bedrock ranged from 4.6 mbgs to 2.2 m bgs, or 84.5 m asl to 86.5 m asl. The highest recorded groundwater level elevation (88.93 m asl) was used as the static water level in dewatering calculations to provide the most conservative dewatering rates.

The calculations assumed that the overburden and bedrock aquifers underlying the Site act as a single unconfined, hydrogeological unit. It was also assumed that the construction excavation would extend 1 meter below the FFE of each building, and that the groundwater would need to be lowered 1 meter below the base of the excavation.

The hydraulic conductivities used for each dewatering estimate were determined from SWHT results obtained for monitoring wells on Site. The maximum hydraulic conductivities recorded at the Site monitoring wells were used in the dewatering calculations to provide the most conservative value for potential dewatering rates. The minimum, and geomean hydraulic conductivities were also used for each dewatering estimate to display a potential range of dewatering requirements.

The dewatering calculation parameters for each maximum rectangular excavation sections are described below and summarized in Table 7. Detailed calculations are provided in Appendix F

Table 7 Summary of Dewatering Calculation Parameters

Excavation	Length (m)	Width (m)	Groundwater Elevation (m asl)	Estimated Excavation Elevation (m asl)	Target Groundwater Elevation (m asl)	Aquifer Base Elevation (m asl)	Depth of Drawdown (m)
Phase 1	100	30	88.93	86.75	85.75	84.16	3.18
Phase 2	100	22	88.93	85.56	84.56	82.38	4.37
Phase 3	33	33	88.93	85.56	84.56	82.38	4.37

5.1.1 Dewatering Rates - Rectangular Excavation

A modified Dupuit-Forchheimer equation was used to estimate the dewatering rate required for the approximately square excavations required for each proposed building and underground parking (Powers J. P., Corwin, Schmall, & Kaeck, 2007):

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

$Where$:

$Q = dewatering\ rate\ (m^3/s)$

$K = hydraulic\ conductivity\ (m/s)$

$H = initial\ hydraulic\ head\ in\ aquifer\ (m)$

$h = target\ hydraulic\ head\ (initial\ hydraulic\ head - target\ drawdown)\ (m)$

$R_0 = distance\ to\ radial\ source\ (from\ excavation\ center) = 3000(H-h)\sqrt{K}\ (m)$

$r_s = equivalent\ single\ well\ radius\ (m)$

For rectangular excavations, the equivalent radius (r_s) can be determined as the radius of a circle with the same area as the excavation, or with the same perimeter as the excavation.

Here, the equivalent area method was used such that

$$r_s = \sqrt{\frac{ab}{\pi}}$$

5.2 Estimated Construction Dewatering Rates

The estimated construction dewatering rates for the Phase 1, 2, and 3 buildings are provided below.

A safety factor has been applied to each calculation to account for unforeseen conditions and uncertainty in measured values. This yields a conservative estimate of the pumping rate required to decrease or maintain the groundwater levels and provides the dewatering contractor with some flexibility to accommodate circumstances should a higher volume of pumping be necessary. Also, the equation used in dewatering rate estimation is for a steady state condition during the construction stage. In general, at the beginning of the dewatering pumping operation, the pumping rates will be higher than that the steady state rates, because

initially the water stored in the soils is removed before the contribution from the recharge flow is noted.

If the contractor encounters a highly saturated granular soil layer during excavation, the contractor should be ready to pump at higher rates and be able to implement the mitigation measures. Construction dewatering rates should be revised once more detailed development plans are available for review.

It is noted that the following calculations are an approximation only, which can be further refined based on results observed during the construction phase of the proposed development. It is also noted that the dewatering calculations were completed to represent conditions during the period of highest groundwater levels. During the low groundwater season (i.e. late summer), it is possible that construction dewatering be significantly less.

5.2.1 Phase 1 Construction Dewatering Rates

Using the hydraulic conductivity estimates presented in Table 8, the estimated radius of influence from the edge of the building footprint ranges from 5.0 to 6.5 m. The estimated dewatering rate ranges from 19,800 L/day to 26,600 L/day (19.8 m^3/day to 26.6 m^3/day), which includes using a safety factor of 2 to account for uncertainty resulting from heterogeneity of subsurface materials, overburden drainage, precipitation, and other unknown factors.

Table 8 Calculated Construction Dewatering Rates – Phase 1

Construction Excavation		Hydraulic Conductivity (K)	Zone of Influence (R_0)	Dewatering Rate (Q)		Dewatering Rate (Q) with Factor of Safety of 2
		(m/s)	(m)	(L/day)	(m^3/day)	(L/day)
Phase 1	Max K	4.6×10^{-7}	6.5	13,300	13.3	26,600
	Geom. Mean K	3.4×10^{-5}	5.5	11,200	11.2	22,400
	Min K	2.7×10^{-6}	5.0	9,900	9.9	19,800

To account for direct precipitation onto the excavations, a 20 mm daily rainfall was considered based on the City of Toronto Wet Weather Flow Management Guidelines (Nov. 2006). The total precipitation volume is given by the following formula:

Total Runoff Volume (V) per day = Excavation Area x Rainfall Intensity

Given a footprint for the Phase 1 excavation of approximately 3,000 m^2, it is possible for an additional 60,000 L/day to accumulate within the excavation.

Accordingly, the total peak short-term dewatering rate during construction for the unit trenches was estimated to range from 79,800 L/day to 86,600 L/day.

5.2.2 Phase 2 Construction Dewatering Rates

Using the hydraulic conductivity estimates presented in Table 9, the estimated radius of influence from the edge of the building footprint ranges from 6.8 to 8.9 m. The estimated dewatering rate ranges from 24,400 L/day to 33,000 L/day (24.4 m^3/day to 33.0 m^3/day), which includes using a safety factor of 2 to account for uncertainty resulting from heterogeneity of subsurface materials, overburden drainage, precipitation, and other unknown factors.

Table 9 Calculated Construction Dewatering Rates – Phase 2

Construction Excavation		Hydraulic Conductivity (K)	Zone of Influence (R_0)	Dewatering Rate (Q)		Dewatering Rate (Q) with Factor of Safety of 2
		(m/s)	(m)	(L/day)	(m^3/day)	(L/day)
Phase 1	Max K	4.6×10^{-7}	8.9	16,500	16.5	33,000
	Geom. Mean K	3.4×10^{-5}	7.6	13,800	13.8	27,600
	Min K	2.7×10^{-6}	6.8	12,200	12.2	24,400

To account for direct precipitation onto the excavations, a 20 mm daily rainfall was considered based on the City of Toronto Wet Weather Flow Management Guidelines (Nov. 2006). The total precipitation volume is given by the following formula:

Total Runoff Volume (V) per day = Excavation Area x Rainfall Intensity

Given a footprint for the Phase 1 excavation of approximately 2,200 m^2, it is possible for an additional 44,000 L/day to accumulate within the excavation.

Accordingly, the total peak short-term dewatering rate during construction for the unit trenches was estimated to range from 68,400 L/day to 77,000 L/day.

5.2.3 Phase 3 Construction Dewatering Rates

Using the hydraulic conductivity estimates presented in Table 10, the estimated radius of influence from the edge of the building footprint ranges from 6.8 to 8.9 m. The estimated dewatering rate ranges from 18,000 L/day to 24,400 L/day (18.0 m^3/day to 24.4 m^3/day), which includes using a safety factor of 2 to account for uncertainty resulting from heterogeneity of subsurface materials, overburden drainage, precipitation, and other unknown factors.

Table 10 Calculated Construction Dewatering Rates – Phase 3

Construction Excavation		Hydraulic Conductivity (K)	Zone of Influence (R_0)	Dewatering Rate (Q)		Dewatering Rate (Q) with Factor of Safety of 2
		(m/s)	(m)	(L/day)	(m^3/day)	(L/day)
Phase 1	Max K	4.6×10^{-7}	8.9	12,200	12.2	24,400
	Geom. Mean K	3.4×10^{-5}	7.6	10,200	10.2	20,400
	Min K	2.7×10^{-6}	6.8	9,000	9.0	18,000

To account for direct precipitation onto the excavations, a 20 mm daily rainfall was considered based on the City of Toronto Wet Weather Flow Management Guidelines (Nov. 2006). The total precipitation volume is given by the following formula:

Total Runoff Volume (V) per day = Excavation Area x Rainfall Intensity

Given a footprint for the Phase 1 excavation of approximately 1,100 m^2, it is possible for an additional 22,000 L/day to accumulate within the excavation.

Accordingly, the total peak short-term dewatering rate during construction for the unit trenches was estimated to range from 40,000 L/day to 46,400 L/day.

5.3 Permanent Drainage & Dewatering

Long-term foundation drainage is anticipated for the completed building, based on the following evidence:

- The parking garage level FFE for the Phase 1 is currently set at 87.75 mASL and the parking garage level FFE for Phases 2 and 3 is currently set at 86.56 mASL, all of which are below the expected seasonally high water table elevations in the overburden.
- According to water level monitoring conducted from December 16, 2025 to May 14, 2026, water levels within the overburden ranged from greater than 2.5 mbgs to 0.87 mbgs, or 88.93 m asl to less than 89.4 m asl. Water levels within the bedrock ranged from 4.6 mbgs to 2.2 m bgs, or 84.5 m asl to 86.5 m asl.
- Estimated hydraulic conductivities for the shallow well screened within the overburden ranged between 2.85 x 10^{-7} and 2.69 x 10^{-7} m/s, with an average value of 2.77 x 10^{-7} m/s. The estimated hydraulic conductivities for the deeper bedrock wells ranged between 2.92 x 10^{-7} and 4.63 x10^{-7} m/s, with an average value of 3.84 x 10^{-7} m/s. Hydraulic conductivities in the overburden and bedrock formation indicate mid to low permeability units, and therefore, significant foundation drainage measures are not expected.
- Based on the temporary construction dewatering assessment, and excluding rainfall input into an open excavation, the estimated maximum long-term foundation drainage requirement is approximately 18,000 to 33,000 L/day. This estimate assumes groundwater levels would be maintained during operation at approximately 2 m below the FFE for each building's parking garage.

It is recommended that exterior grades for the proposed structures be sloped away from the building walls to promote adequate drainage and prevent ponding of water and build up of hydrostatic pressures.

More information on specific recommendations regarding basement drainage designs can be found under a separate letterhead, titled: "Addendum 1 – Subfloor Drainage System Diagram and Additional Subsurface Information – Proposed Development – 100 Bareille Snow Street, Ottawa, Ontario" (Cambium, 2026).

5.4 Assessment of Required Regulatory Permits or Registration

Any construction dewatering or other water taking in Ontario is governed by The Ontario Water Resources Act (Ontario Regulation 387/04 and/or Ontario Regulation 63/16) and/or the Environmental Protection Act (Registrations under Part II.2).

Where construction dewatering is required in amounts in excess of 50,000 L/day, registration through Environmental Activity and Sector Registry (EASR) is required. For dewatering rates less than 50,000 L/day, EASR registration is not required.

As the maximum estimated dewatering rate for the temporary construction activities is expected to be more than 50,000 L/day, EASR registration is expected to be required for the proposed development. It should be noted that the primary driver for water taking is due to the calculated precipitation input, and groundwater taking may be less than 50,000 L/day.

A supporting water taking and discharge report in accordance with Ontario Regulation 63/16 would be required to support registration on the EASR.

Permanent foundation drainage, if required, is not anticipated to be significant. Ontario Regulation 387/04 for residential foundation drainage systems requires Permit To Take Water (PTTW) for water taking of more than 379,000 L/day, and is therefore not expected to be required for this proposed development.

5.5 Zone of Influence and Impact Assessment

As part of the dewatering calculations discussed in Section 5.2, the ZOI was calculated to range from 5.0 to 8.9 meters, and therefore, is not expected to extend off the property boundaries. As all properties in the area of the Site are provided water services municipally, no impacts to neighbouring water supply wells are anticipated due to the proposed development. No significant impacts to surrounding natural features are anticipated.

Care should be taken during construction to ensure no ground settlement occurs, which is the responsibility of the contractor. As required, the contractor should develop and design settlement monitoring plans and implement them based on site conditions encountered before, during, and after construction.

6.0 Conclusions and Recommendations

Cambium Inc. completed a hydrogeological assessment in support of the proposed retirement development at Block 21 of Wateridge Village in Ottawa, Ontario. The assessment included groundwater monitoring, hydraulic conductivity testing, groundwater quality sampling, and construction dewatering calculations to evaluate potential groundwater-related constraints associated with the proposed development. The proposed development consists of three multi-storey residential buildings with one level of underground parking. This report presents the findings of the assessment and provides recommendations related to temporary construction dewatering and long-term foundation drainage requirements.

The Site is located within the Ottawa Valley Clay Plains physiographic region and is characterized by shallow overburden overlying Paleozoic limestone bedrock of the Gull River Formation. Site drainage is expected to generally flow north-northwest toward the Ottawa River, which is located approximately 700 m north of the Site. The Site is situated within a Highly Vulnerable Aquifer due to shallow bedrock conditions; however, no significant natural heritage features or regulated areas were identified within the development area. Best management practices should be implemented during construction to minimize potential impacts to groundwater quality.

Groundwater monitoring and hydraulic testing indicate that groundwater conditions at the Site are associated with low- to moderate-permeability overburden and shallow fractured bedrock units. Hydraulic conductivity values derived from single well hydraulic tests ranged from approximately 2.69×10^{-7} to 4.63×10^{-7} m/s, which are consistent with published values for similar materials.

Groundwater quality testing identified exceedances of select Sewer By-law parameters, primarily associated with elevated suspended solids and metals concentrations. Treatment of water generated during construction dewatering will be required if not reinfiltrated onto the Site, and discharged to an off-site receptor. If water is reinfiltrated within Site boundaries, it must be demonstrated that the water will not cause negative affects to off-site groundwater or surface water features.

It is expected that treatment methods such as filtration and/or settlement will reduce concentrations of these parameters to acceptable levels, while also reducing total suspended solids and turbidity, if discharge of water of Site is required.

A confirmatory sample of the treated discharge water should be collected to determine the efficacy of the treatment strategy in this scenario. Discharge water quality should be confirmed to be suitable for the selected receiver prior to the start of dewatering activities. A sewer use agreement must be formalized with the City of Ottawa before discharging to municipal sewers.

Confirmatory sampling will be required for comparison to provincial water quality objectives (PWQO) if water is discharged overland off-site.

Temporary construction dewatering will likely be required to facilitate excavation for the proposed underground parking garages, as the excavation depths are expected to extend below the seasonally high groundwater table. Estimated peak short-term dewatering rates during construction, including direct precipitation input, are anticipated to range from approximately 40,000 L/day to 93,000 L/day and are expected to require registration through the Environmental Activity and Sector Registry (EASR). It should be noted that a significant portion of the estimated construction dewatering rates are due to direct precipitation input.

A supporting water taking and discharge report in accordance with Ontario Regulation 63/16 would be required to support registration on the EASR.

The estimated long-term foundation drainage requirements are expected to range from approximately 18,000 to 33,000 L/day. More information on specific recommendations regarding basement drainage designs can be found in the Cambium Geotechnical Report submitted under a separate letterhead (Cambium, 2026)

The calculated zone of influence associated with construction dewatering is not expected to extend beyond the Site boundaries, and significant impacts to surrounding properties, municipal services, or natural features are not anticipated.

Care should be taken during construction to ensure no ground settlement occurs, which is the responsibility of the contractor. As required, the contractor should develop and design settlement monitoring plans and implement them based on site conditions encountered before, during, and after construction.

7.0 Closing

We trust that the information in this submission meets your current requirements. If you have any questions regarding the contents of this report, please contact the undersigned.

Respectfully submitted,

Cambium Inc.

Signed by:
4FAD6E4E1A664EA...

DS

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PRACTISING MEMBER
3819
ONTARIO

Brent Redmond, M.A.Sc., P. Geo.
Project Manager / Hydrogeologist

2026-06-12

P:\24800 to 24899\24896-001 Wateridge Lifestyles -GEO- Block 21 Hemlock Rd\09-Deliverables\REPORT - Dewatering\2026-06-12 RPT Dewatering- Wateridge.docx

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9.0 Statement of Qualifications & Limitations

Limited Warranty

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The findings, results, information and data prepared by Cambium are based on the materials, documents and information provided by the client to Cambium and on the facts, conditions and circumstances encountered by Cambium during the performance of the work. In formulating its findings, results, information and data, Cambium assumes that the information, documents and materials provided by the client to Cambium are factual, accurate and represent a true depiction of the circumstances that exist at the Project. Cambium relies on its client to inform Cambium if there are changes to any such information, documents and materials. Cambium does not review, analyze or attempt to verify the accuracy or completeness of the information, documents or materials provided by the client, other than in accordance with applicable accepted industry practice. Cambium will not be responsible for matters arising from incomplete, incorrect or misleading information or from facts or circumstances that are not fully disclosed to Cambium, are unknown by Cambium, or are otherwise concealed from Cambium during the provision of its services.

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Site Assessments

A site assessment is created using data and information collected during the investigation of a site and based on conditions encountered at the time and particular locations at which fieldwork is conducted. The information, sample results and data collected represent the conditions only at the specific times at which and at those specific locations from which the information, samples and data were obtained and the information, sample results and data may vary at other locations and times. To the extent that Cambium's work considers any locations or times other than those from which information, sample results and data was specifically received, the work shall be based on a reasonable extrapolation from such information, sample results and data, but the actual conditions encountered may vary from those extrapolations.

Only conditions at the site and locations chosen for study by the client are evaluated; no adjacent or other properties are evaluated unless specifically requested and paid for by the client. Any physical or other aspects of the site chosen for study by the client, or any other matter not specifically addressed in findings, results, information and data prepared by Cambium, are beyond the scopes of the work performed by Cambium and such matters have not been investigated or addressed.

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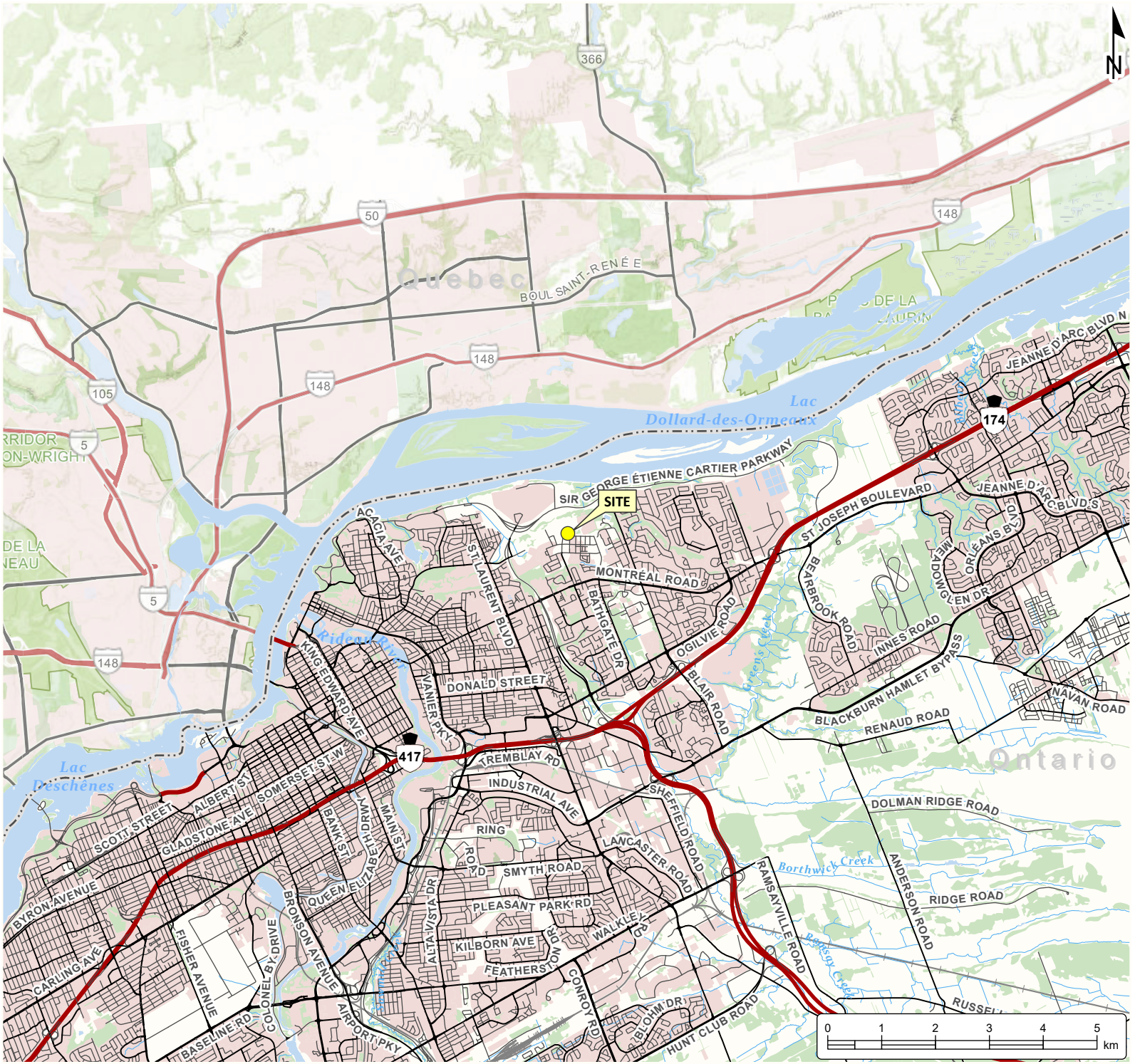
Personal Liability

The client expressly agrees that Cambium employees shall have no personal liability to the client with respect to a claim, whether in contract, tort and/or other cause of action in law. Furthermore, the client agrees that it will bring no proceedings nor take any action in any court of law against Cambium employees in their personal capacity.

Appended Figures



DEWATERING ASSESSMENT

WATERIDGE LIFESTYLES LTD.
Block 21 - Wateridge Village
Ottawa, Ontario

LEGEND

- Highway
- Major Road
- Minor Road
- Railway
- Watercourse
- Provincial Border
- Water Area
- Wooded Area
- Built Up Area

Notes:
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SITE LOCATION PLAN

Project No.:	Date:
24896.001	May 2026
Scale:	**Projection:**
1:100,000	NAD 1983 UTM Zone 18N
Created by:	**Checked by:**	**Figure:**
CC	BR	1

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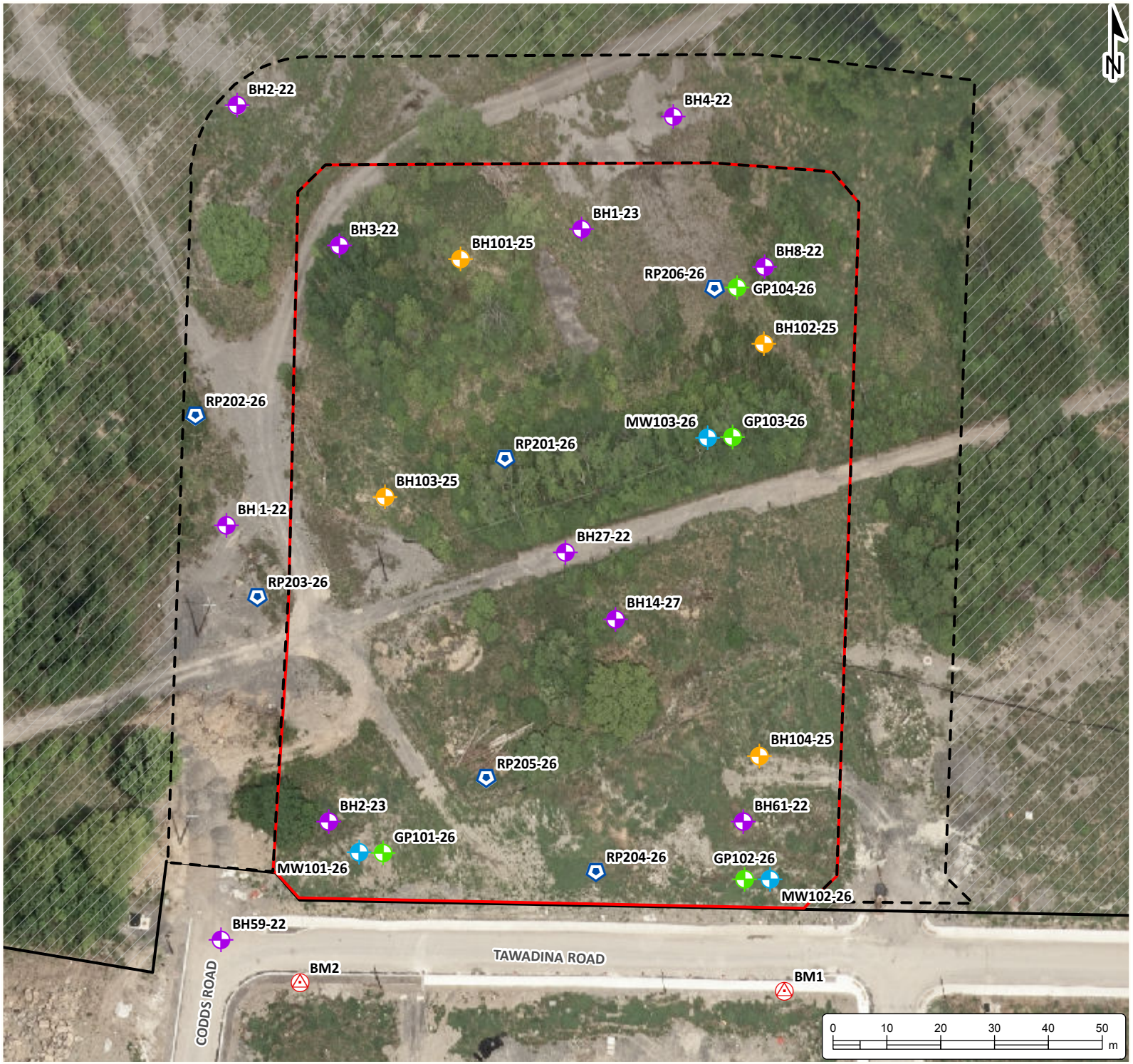

GEOTECHNICAL INVESTIGATION

WATERIDGE LIFESTYLES LTD.
Block 21 - Wateridge Village
Ottawa, Ontario

LEGEND

- Benchmark
- Borehole
- Paterson Borehole
- Monitoring Well
- Rock Point
- Guelph Permeameter Testing Location
- Proposed Road
- Site (approximate)
- Subject Property (approximate)

Notes:
- BM1 and BM2 are top nut of fire hydrant.
- Aerial imagery from the Digital Raster Acquisition Project Eastern Ontario (DRAPE) 2024. Source: Ontario Ministry of Natural Resources and Forestry. © Copyright: 2024 King's Printer of Ontario. All Rights Reserved.
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TEST HOLE LOCATION PLAN

Project No.:	Date:
24896.001	May 2026
Scale: 1:1,000	Projection: NAD 1983 UTM Zone 18N
Created by: NLB	Checked by: BV
Figure: 2	

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DEWATERING ASSESSMENT

WATERIDGE LIFESTYLES LTD.
Block 21 - Wateridge Village
Ottawa, Ontario

LEGEND

- Water Well Record
- Study Area (500m)
- Site (approximate)

Notes:
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MECP WELL RECORDS WITHIN 500M

Project No.: 24896.001		Date: May 2026	
Scale: 1:6,300		Projection: NAD 1983 UTM Zone 18N	
Created by: CC	Checked by: BR	Figure: 3	

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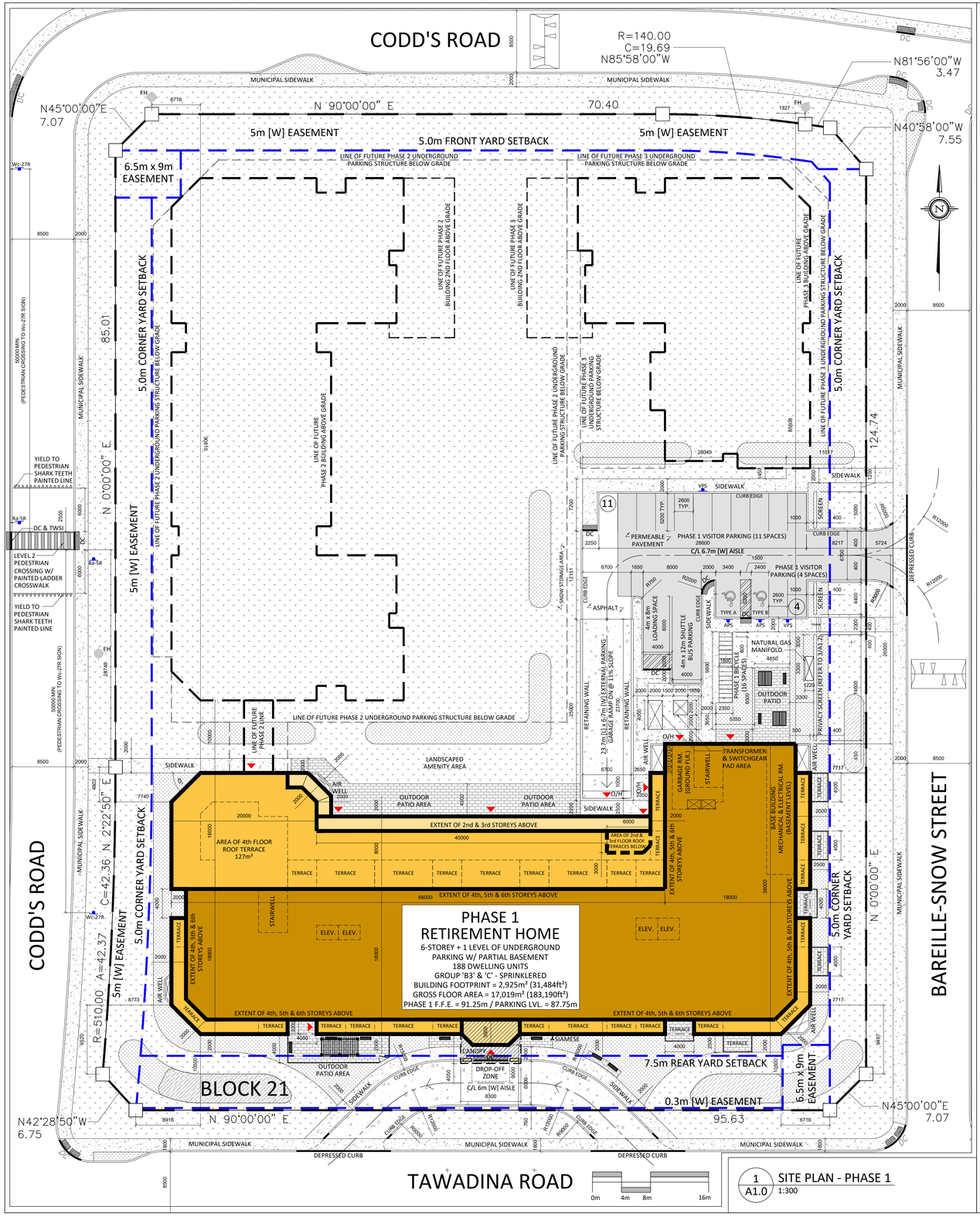
Appendix A

Property and Land Information



Site Information

Legal Description: Part of Lot 23, Concession 1 (Ottawa Front), Geographic Township of Gloucester and Part of Reserve Block 15 on 4M-1651

Block 21 - Lot Area: 14,162m² (1.4162 hectares or 3.5 acres)

Disclaimer: The concept site plan has been compiled using information contained in the Plan of Subdivision - Registered Plan 4M-1651 provided by Annis, O'Sullivan, Vollebekk Ltd., Ontario Land Surveyors.

Block 21 - Zoning Information GM31 H(30)

GM31 H(30)	Zoning Requirement	Provided
Minimum Front Yard with Residential Land Use at Grade:	5.0m	85.6m (Codd's Road - North)
Minimum Corner Side Yard with Residential Land Use at Grade:	5.0m	7.7m (Bareille-Snow Street & Codd's Rd.- West)
Minimum Interior Side Yard with Residential Land Use at Grade:	3.0m	N/A
Minimum Rear Yard with Residential Land Use at Grade:	7.5m	9.0m (Tawadina Road)
Additional Front & Corner Side Yard Setback Required for 4th Floor:	2.0m	2.0m
Minimum Separation between Portions of a Building above 4 Storeys:	23.0m	28.0m (Phase 1 & Future Phase 2) 39.0m (Phase 1 & Future Phase 3)
Maximum Building Area of Floor Plates at 7th Floor and Above:	750m²	N/A (6-Storey Building)
Maximum Building Height:	30.0m	23.625m (Phase 1 Building / 6-Storeys)

Phase 1 Retirement Home Building Information

Floor Level	Area	Group 'B3' & 'C' Details	Rentable Area of Suites / GFA
Basement Floor Area:	2,956m² (31,818ft²)	(0) Dwelling Units	0m² (0ft²) = 0% of GFA
Ground Floor Area:	2,925m² (31,484ft²)	(6) Dwelling Units	468m² (5,038ft²) = 16% of GFA
2nd Floor Area:	2,773m² (29,848ft²)	(49) Dwelling Units	1,789m² (19,257ft²) = 64% of GFA
3rd Floor Area:	2,773m² (29,848ft²)	(49) Dwelling Units	1,789m² (19,257ft²) = 64% of GFA
4th Floor Area:	1,864m² (20,064ft²)	(28) Dwelling Units	1,520m² (16,361ft²) = 82% of GFA
5th Floor Area:	1,864m² (20,064ft²)	(28) Dwelling Units	1,536m² (16,533ft²) = 82% of GFA
6th Floor Area:	1,864m² (20,064ft²)	(28) Dwelling Units	1,536m² (16,533ft²) = 82% of GFA
Gross Floor Area (GFA):	17,019m² (183,190ft²)	(188) Dwelling Units	8,638m² (92,979ft²) = 51% of GFA

Proposed Building Height: 23.625m measured from grade to top of parapet
Number of Storeys: (6) storeys above grade

Phase 1 Vehicular Parking Information

Phase 1 Retirement Home Building Parking		Zoning Requirement	Provided
Resident:	0.25 spaces per Unit = 188 units x 0.25 = 47 spaces	Table 101 - R20 - Column II	47 spaces (provided in below grade indoor parking garage)
Staff:	1 space per 100m² GFA used for medical, health or personal services = 900m² GFA x 1 = 9 spaces	Table 101 - R20 - Column II	13 spaces * (provided in below grade indoor parking garage)
Visitor:	No requirement for Retirement Home		15 spaces ** (surface parking)
Total Phase 1 Building - Vehicular Parking Required:		= 56 spaces	
Total Phase 1 Building - Vehicular Parking Provided:		= 75 spaces consisting of (15) exterior surface & (60) indoor parking	

General Phase 1 Parking Space Note:

* When the Phase 2 Senior's Apartment Building and underground parking structure is completed, (2) standard indoor parking spaces for Phase 1 staff will be removed to accommodate for the 6.7m [W] drive aisle connection between the Phase 1 & Phase 2 indoor parking garages (Refer to Master Plan - A1.1 and Master Plan - Underground - A1.2).

** When the Phase 3 Senior's Apartment Building and underground parking structure is completed, (11) standard exterior surface spaces for Phase 1 visitors will be transferred to the Phase 3 parking requirements and consisting of (10) standard exterior surface spaces for Phase 3 visitors and (1) Phase 3 loading space (Refer to Master Plan - A1.1 and Master Plan - Underground - A1.2).

Exterior Surface Parking (15 spaces): **

13 standard spaces @ 2.6m x 5.2m
1 accessible Type 'A' space @ 3.4m x 5.2m with 1.5m shared access aisle
1 accessible Type 'B' space @ 2.4m x 5.2m with 1.5m shared access aisle

Underground Indoor Parking (60 spaces): *

38 standard spaces @ 2.6m x 5.2m
16 compact car spaces @ 2.4m x 5.2m
3 parallel spaces @ 2.6m x 6.7m
1 accessible Type 'A' space @ 3.5m x 5.2m with 1.5m shared access aisle
1 accessible Type 'B' space @ 2.6m x 5.2m with 1.5m shared access aisle
1 accessible Type 'B' space @ 2.4m x 5.2m with 1.5m access aisle

Phase 1 Bicycle Parking Information

Phase 1 Retirement Home Building Parking		Zoning Requirement
Resident:	0.25 spaces per Unit = 188 units x 0.25 = 47 spaces	Table 111A (a) - Retirement Home
Total Phase 1 Building - Bicycle Parking Required:		= 47 spaces
Total Phase 1 Building - Bicycle Parking Provided:		= 50 spaces consisting of: 16 (surface) & 34 (indoor) bicycle spaces @ 0.6m x 1.8m space per bicycle with minimum 1.5m access aisle

Site Plan & Master Plan Symbol Legend

- Denotes proposed Phase 1 retirement home building
- Denotes proposed Phase 2 senior's apartment building
- Denotes proposed Phase 3 senior's apartment building
- Denotes concrete surface
- Denotes unit paver surface
- Denotes seed/ sod ground landscape cover
- Denotes shrub / perennial bed
- Denotes bio-retention area
- Denotes building feature above
- Denotes property line
- Denotes site setback
- Denotes proposed phasing line
- Denotes c/l drive aisle
- Denotes building entrance
- Denotes accessible parking
- Denotes depressed curb
- Denotes high colour contrast pavement marking
- Denotes tactile walking surface indicator (TWSI)
- Denotes aluminum sign
- Denotes bench seating
- Denotes fire hydrant

ISSUE RECORD

REV.	DESCRIPTION	DATE
01	FOR SITE PLAN APPROVAL	01/20/2026
02	FOR SITE PLAN APPROVAL	02/27/2026

GENERAL NOTES

1. DO NOT SCALE DRAWINGS. ALL MEASUREMENTS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS ON SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT.
3. ALL WORK DESCRIBED UNDER THIS CONTRACT TO COMPLY WITH ONTARIO BUILDING CODE, 2024 AND/OR NATIONAL BUILDING CODE, 2020 AND OTHER CODES AND BY-LAWS IN EFFECT.
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KEY PLAN

ONTARIO ASSOCIATION OF ARCHITECTS
TOMMY R. BONHOMME
LICENCE
11096

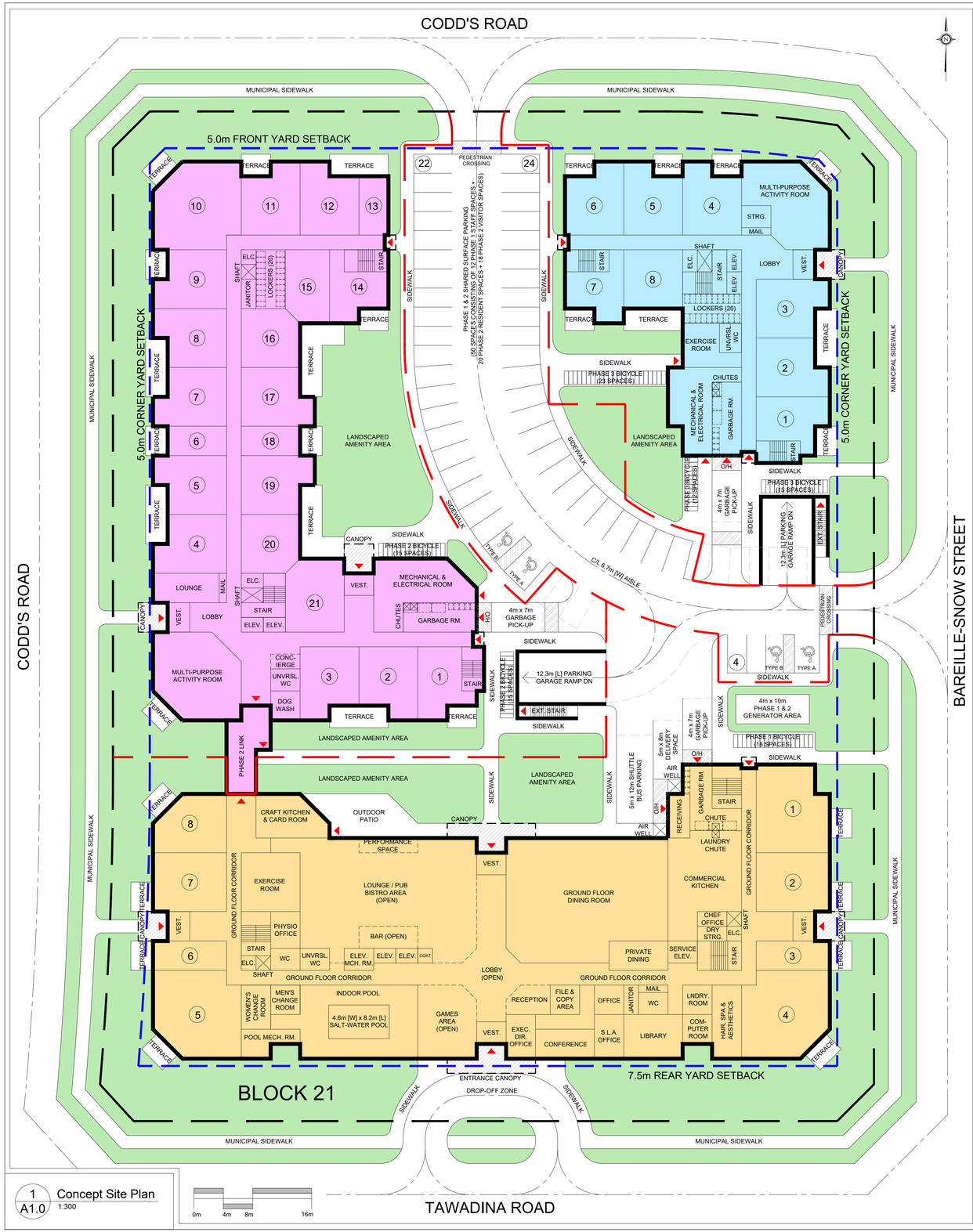
T Bonhomme Architect

PROJECT TITLE
WATERIDGE LIFESTYLES - PHASE 1 RETIREMENT HOME
BLOCK 21 WATERIDGE VILLAGE
200 CODD'S ROAD, OTTAWA ON K1K 5C6

DRAWING LIST
SITE PLAN - PHASE 1

JOB No.	TBA-2026-01	DRAWING No.
DATE	01/20/2026	A1.0
SCALE	AS NOTED	
DRAWN & REVIEWED BY T.B.		

FILE No. xx / PLAN No. xx



Site Information

Legal Description: Part of Lots 21, 22 and 23, Concession 1 (Ottawa Front), Geographic Township of Gloucester
Registered Plan 4M-1651, City of Ottawa

Block 21 - Lot Area: 14,162m² (1.4162 hectares or 3.5 acres)

Disclaimer: The concept site plan has been compiled using information contained in the Plan of Subdivision - Registered Plan 4M-1651 provided by Annis, O'Sullivan, Vollebekk Ltd., Ontario Land Surveyors.

Block 21 - Zoning Information GM31 H(30)

GM31 H(30)	Zoning Requirement	Provided
Minimum Front Yard with Residential Land Use at Grade:	5.0m	>5.0m (Codd's Road - North)
Minimum Corner Side Yard with Residential Land Use at Grade:	5.0m	>5.0m (Bareille-Snow Street & Codd's Road)
Minimum Interior Side Yard with Residential Land Use at Grade:	3.0m	N/A
Minimum Rear Yard with Residential Land Use at Grade:	7.5m	>7.5m (Tawadina Road)
Additional Front & Corner Side Yard Setback Required for 4th Floor:	2.0m	2.0m
Minimum Separation between Portions of a Building above 4 Storeys :	23.0m	24.0m
Maximum Building Area of Floor Plates at 7th Floor and Above:	750m²	Phase 1 - N/A / Phase 2 - 744m² / Phase 3 - 680m²
Maximum Building Height:	30.0m	20.85m (Phase 1 Building / 6-Storeys) 30.0m (Phase 2 & 3 Buildings / 9-Storeys)

Phase 1 Retirement Home Building Information

Proposed Retirement Home Building	Details	Group 'B3' & 'C' Retirement Home Building
Basement Floor Area:	959m² (10,323ft²)	
Ground Floor Area / Footprint:	3,027m² (32,582ft²)	(8) Dwelling Units
2nd Floor Area:	2,943m² (31,678ft²)	(47) Dwelling Units
3rd Floor Area:	2,943m² (31,678ft²)	(47) Dwelling Units
4th Floor Area:	1,982m² (21,334ft²)	(46) Dwelling Units
5th Floor Area:	1,982m² (21,334ft²)	(25) Dwelling Units
6th Floor Area:	1,982m² (21,334ft²)	(25) Dwelling Units
Gross Floor Area (GFA):	15,818m² (170,263ft²)	(198) Dwelling Units
Proposed Building Height:	20.85m measured from grade to top of parapet	
Number of Storeys:	(6) storeys above grade	

Phase 2 Senior's Apartment Building Information

Proposed Apartment Building	Details	Group 'C' Apartment Building
Underground Parking Garage Area:	4,923m² (52,991ft²)	
Link between Phase 1 & 2 Buildings:	56m² (603ft²)	
Ground Floor Area / Footprint:	2,180m² (23,465ft²)	(21) Dwelling Units
2nd Floor Area:	2,180m² (23,465ft²)	(27) Dwelling Units
3rd Floor Area:	2,180m² (23,465ft²)	(27) Dwelling Units
4th Floor Area:	1,930m² (20,774ft²)	(26) Dwelling Units
5th Floor Area:	1,930m² (20,774ft²)	(26) Dwelling Units
6th Floor Area:	1,930m² (20,774ft²)	(26) Dwelling Units
7th Floor Area:	744m² (8,008ft²)	(9) Dwelling Units
8th Floor Area:	744m² (8,008ft²)	(9) Dwelling Units
9th Floor Area:	744m² (8,008ft²)	(9) Dwelling Units
Gross Floor Area (GFA):	19,541m² (210,335ft²)	(180) Dwelling Units
Proposed Building Height:	30.0m measured from grade to top of parapet	
Number of Storeys:	(9) storeys above grade	

Phase 3 Apartment Building Information

Proposed Apartment Building	Details	Group 'C' Apartment Building
Underground Parking Garage Area:	1,910m² (20,559ft²)	
Ground Floor Area / Footprint:	1,084m² (11,668ft²)	(8) Dwelling Units
2nd Floor Area:	1,084m² (11,668ft²)	(13) Dwelling Units
3rd Floor Area:	1,084m² (11,668ft²)	(13) Dwelling Units
4th Floor Area:	968m² (10,419ft²)	(13) Dwelling Units
5th Floor Area:	968m² (10,419ft²)	(13) Dwelling Units
6th Floor Area:	968m² (10,419ft²)	(13) Dwelling Units
7th Floor Area:	680m² (7,319ft²)	(9) Dwelling Units
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Gross Floor Area (GFA):	10,106m² (108,777ft²)	(100) Dwelling Units
Proposed Building Height:	30.0m measured from grade to top of parapet	
Number of Storeys:	(9) storeys above grade	

Parking Information

Phase 1 Retirement Home Building Parking		Zoning Requirement	Provided
Resident:	0.25 spaces per Unit = 198 units x 0.25 = 50 spaces	Table 101 - R20 - Column II	50 spaces (below grade indoor shared w/ Phase 2 requirements)
Staff:	1 space per 100m² GFA used for medical, health or personal services = 500m² GFA x 1 = 5 spaces	Table 101 - R20 - Column II	12 spaces (surface parking shared w/ Phase 2 requirements

Phase 2 Senior's Apartment Building (Mid-High Rise) Parking		Zoning Requirement	Provided
Resident:	0.5 spaces per Unit = 180 units x 0.5 = 90 spaces * (0.75 spaces per unit provided = 180 units x 0.75 =135 spaces)	Table 101 - R12 - Column II	*115 spaces (below grade indoor shared w/ Phase 1 requirements) * 20 spaces (surface parking shared w/ Phase 1 requirements)
Visitor:	0.1 spaces per Unit = 180 units x 0.1 = 18 spaces	Table 102 - Mid-High Rise - Column II	18 spaces (surface parking shared w/ Phase 1 requirements)

Phase 3 Apartment Building (Mid-High Rise) Parking		Zoning Requirement	Provided
Resident:	0.5 spaces per Unit = 100 units x 0.5 = 50 spaces	Table 101 - R12 - Column II	50 spaces (below grade indoor)
Visitor:	0.1 spaces per Unit = 100 units x 0.1 = 10 spaces	Table 102 - Mid-High Rise - Column II	10 spaces (below grade indoor)

No.:	Issued For:	Date:
01	For Review	09-19-2025
02	For Review	10-06-2025

Symbol Legend:

- DENOTES PROPOSED RETIREMENT HOME BUILDING
- DENOTES PROPOSED SENIOR'S APARTMENT BUILDING
- DENOTES PROPOSED APARTMENT BUILDING
- DENOTES LANDSCAPE AREA
- DENOTES CANOPY
- DENOTES PROPERTY LINE
- DENOTES SITE SETBACK
- DENOTES PROPOSED SEVERANCE, PHASING AND/OR EASEMENT LINE
- DENOTES C/L FIRE ACCESS ROUTE AND/OR DRIVE AISLE
- DENOTES BUILDING ENTRANCE
- DENOTES ACCESSIBLE PARKING SPACE
- DENOTES HIGH COLOUR CONTRAST PAVEMENT MARKING

Key Plan:

Project North Arrow:

Actual North Arrow:

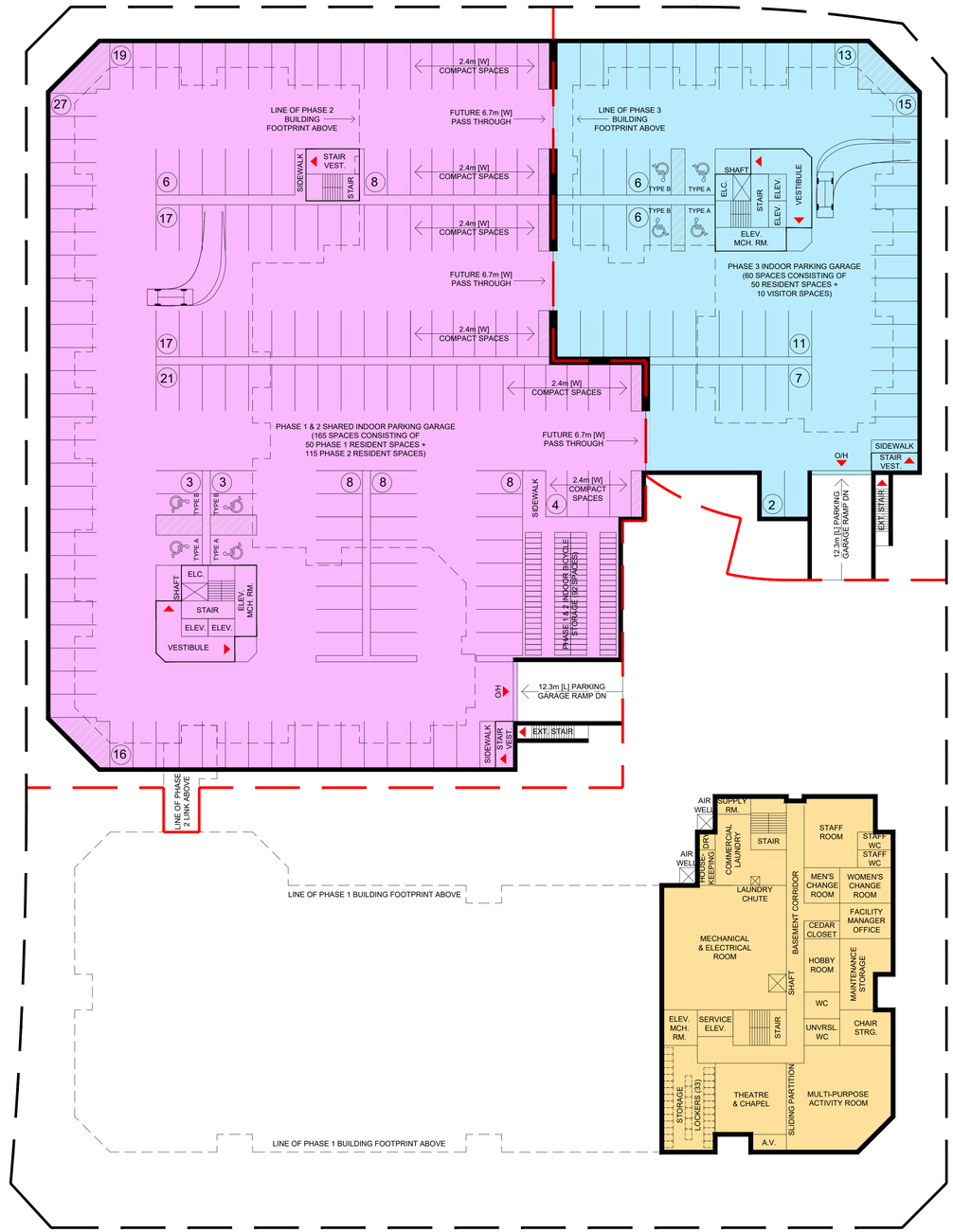
ONTARIO ASSOCIATION OF ARCHITECTS
PETER MANSFIELD
LICENCE
5450

Architect:
Peter Mansfield, Architect
B. Tech., M. Arch., O.A.A.
122 Bridge Street, Almonte, ON
613-715-0431

Project Title:
Retirement Residence & Apartment Buildings
Block 21 - Wateridge Village
Ottawa ON

Drawing List:
Concept Site Plan

Job No.:	2506	Drawing No.:
Scale:	As Noted	A1.0
Drawn By:	Reviewed By:	
TB	PM	



1 A2.0 Phase 1 - Basement Floor Plan / Phase 2 & 3 Underground Parking Garage Plan

1:300

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It is the responsibility of the appropriate Contractor to verify all dimensions on site and report all errors and/or omissions to the Architect. All Contractors must comply with pertinent codes & by-laws.
Do not scale drawings. This drawing may not be used for construction until signed. Architect's copyright reserved.
Metric Scale Drawing: All measurements are in millimeters (mm) unless otherwise noted.

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Key Plan:

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Actual North Arrow:

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PETER MANSFIELD
LICENCE
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Architect:

Peter Mansfield, Architect
B. Tech., M. Arch., O.A.A.
122 Bridge Street, Almonte, ON
613-715-0431

Project Title:

Retirement Residence & Apartment Buildings
Block 21 - Wateridge Village
Ottawa ON

Drawing List:

Concept Plan - Phase 1 Basement & Parking Garages

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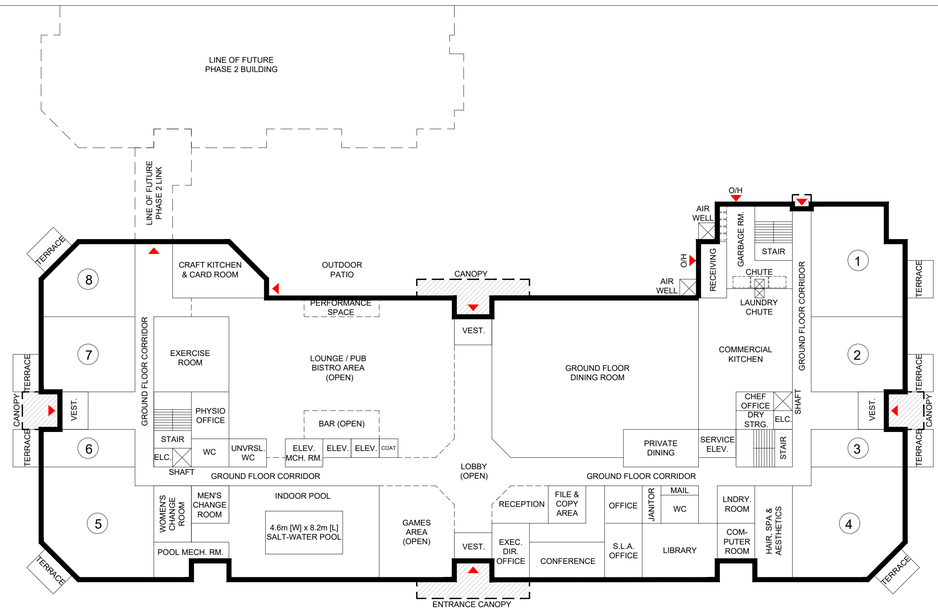
Scale:	As Noted	A2.0
Drawn By:	Reviewed By:	
TB	PM	



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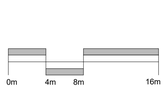

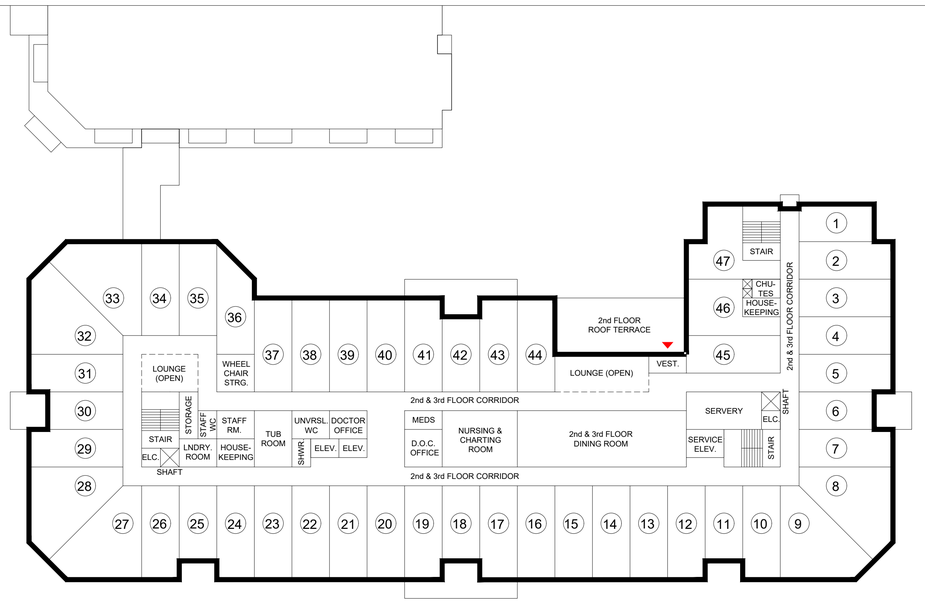

1 A2.1 Phase 1 - 2nd & 3rd Floor Plans
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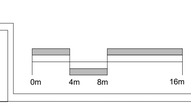

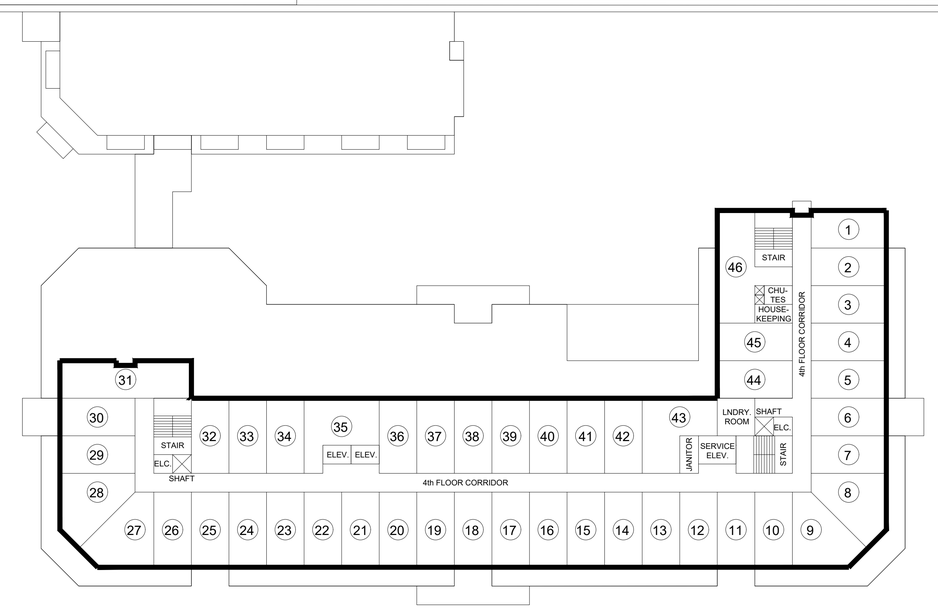

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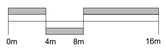

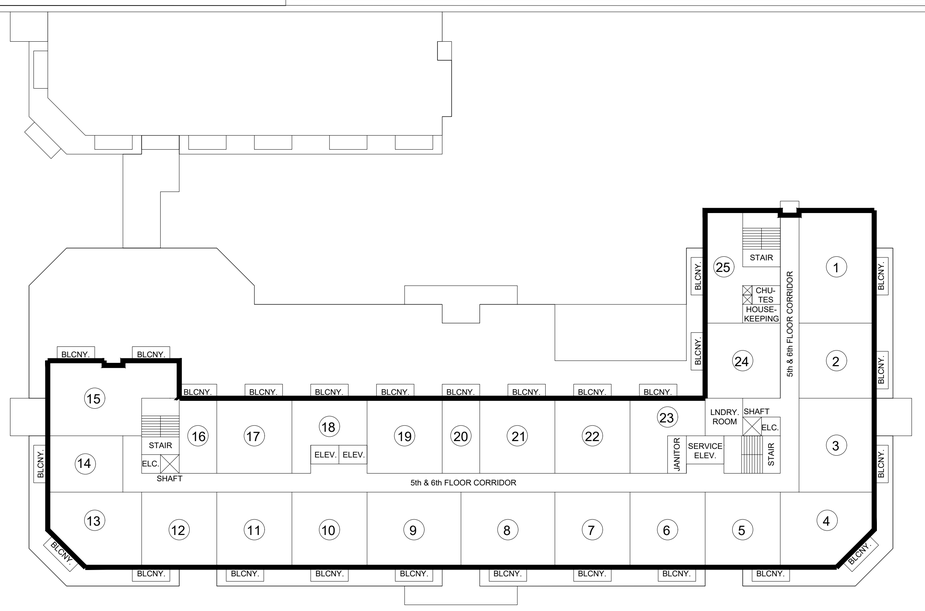

1 A2.1 Phase 1 - 5th & 6th Floor Plans
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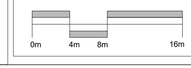

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Key Plan:

Project North Arrow:

Actual North Arrow:

ONTARIO ASSOCIATION OF ARCHITECTS
PETER MANSFIELD
LICENCE
5450

Architect:

Peter Mansfield, Architect
B. Tech., M. Arch., O.A.A.
122 Bridge Street, Almonte, ON
613-715-0431

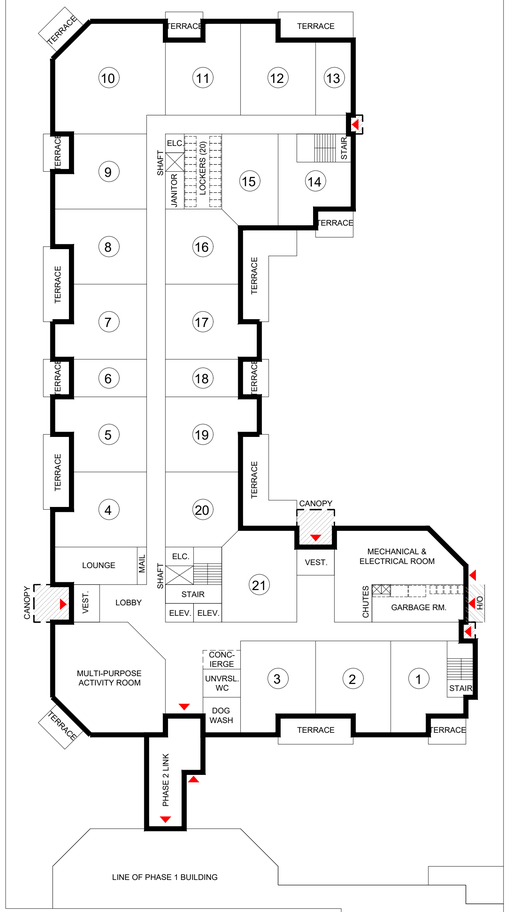
Project Title:

Retirement Residence & Apartment Buildings
Block 21 - Wateridge Village
Ottawa ON

Drawing List:

Concept Floor Plans - Phase 1

Job No.:	2506	Drawing No.:
Scale:	As Noted	A2.1
Drawn By:	Reviewed By:	
TB	PM	



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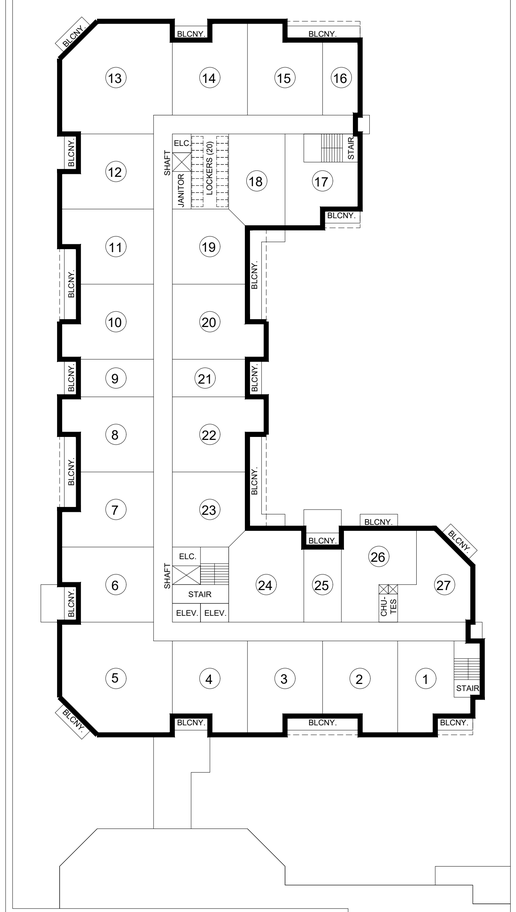

2 A2.2 Phase 2 - 2nd & 3rd Floor Plans
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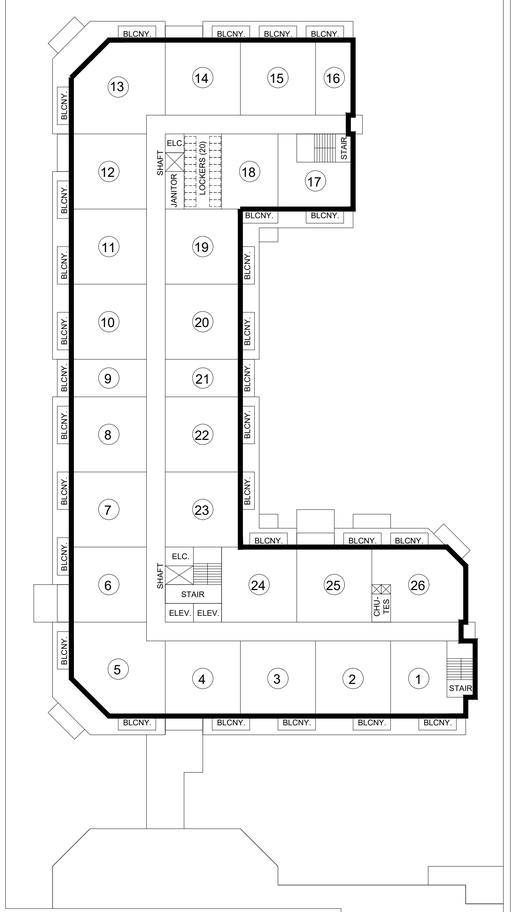

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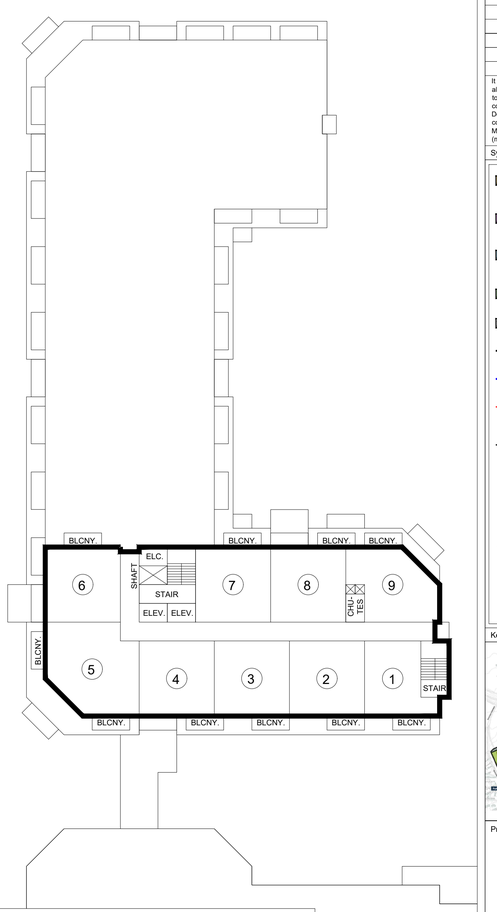

4 A2.2 Phase 2 - 7th, 8th & 9th Floor Plans
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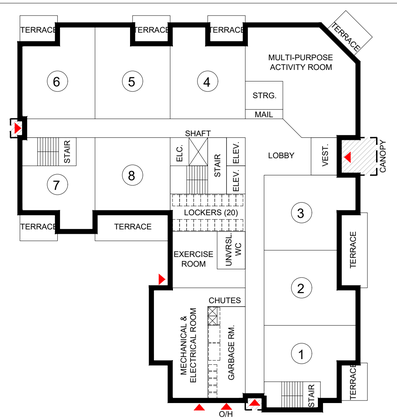

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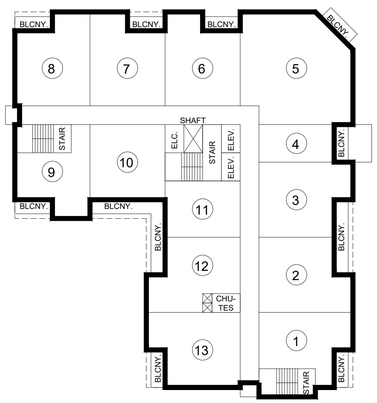

6 A2.2 Phase 3 - 2nd & 3rd Floor Plans
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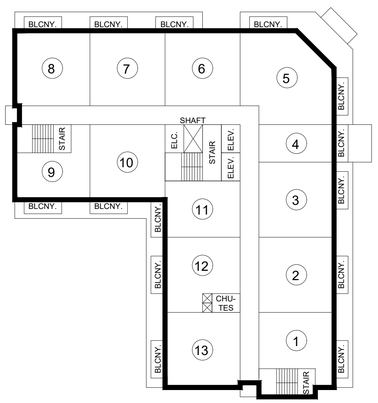

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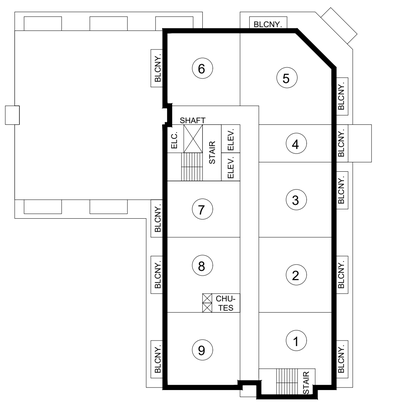

8 A2.2 Phase 3 - 7th, 8th & 9th Floor Plans
1:300

0m 4m 8m 12m

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02	For Review	10-06-2025

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Project Title:

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Block 21 - Wateridge Village
Ottawa ON

Drawing List:

Concept Floor Plans - Phase 2 & Phase 3

Job No.:	2506	Drawing No.:
Scale:	As Noted	A2.2
Drawn By:	Reviewed By:	
TB	PM	

Appendix B
Borehole Logs

CAMBIUM

Client: Wateridge Lifestyles Ltd. and Canada Lands Corporation
Contractor: Marathon Underground
Project No.: 24896-001
Location: 100 Bareille-Snow St, Ottawa ON

Project Name: Wateridge Lifestyles Block 21
Method: Track Mounted Hollow Stem Auger
Ground Elevation: 88.80 mASL
UTM: 18 T **N:** 5033762.49 **E:** 450486.51

Log of Borehole: BH101-25
Page: 1 of 1
Date Completed: Dec. 9, 2025

SUBSURFACE PROFILE

Elevation (m)	Depth	Lithology	Description	Elevation / Depth	Core Run	UCS (MPa) 10 50 100 250	Natural Fractures	Lab Notes	Log Notes
87	1.8								
			Limestone: grey, moderate to strong, thinly to medium bedded slightly decomposed, moderately fractured [Gull River Formation]		Run 1 TCR = **96%** SCR = **83%** RQD = **88%**		3		
86.5	2.3						5		
							2		
86	2.8						1		
					Run 2 TCR = **98%** SCR = **59%** RQD = **60%**		3		
85.5	3.3						5		
							3		
85	3.8						30		
							3		
84.5	4.3						17		
							3		
84	4.8				Run 3 TCR = **98%** SCR = **87%** RQD = **77%**		0		
							0		
83.5	5.3						1		
				82.65					
83	5.8		Rock core terminated @ 6.1m due to due to target depth achieved.	6.15					
82.5	6.3								
82	6.8								
81.5	7.3								
81	7.8								
80.5	8.3								
80									

Logged By: RR **Input By:** RR

CAMBIUM

Client: Wateridge Lifestyles Ltd. and Canada Lands Corporation
Contractor: Marathon Underground
Project No.: 24896-001
Location: 100 Bareille-Snow St, Ottawa ON

Project Name: Wateridge Lifestyles Block 21
Method: Track Mounted Hollow Stem Auger
Ground Elevation: 88.71 mASL
UTM: 18 T **N:** 5033746.77 **E:** 450542.85

Log of Borehole: BH102-25
Page: 1 of 1
Date Completed: Dec. 9, 2025

SUBSURFACE PROFILE

Elevation (m)	Depth	Lithology	Description	Elevation / Depth	Core Run	UCS (MPa) 10 50 100 250	Natural Fractures	Lab Notes	Log Notes
86.3	2.4		**Limestone:** grey, moderate to strong, thinly to medium bedded, slightly decomposed, moderately fractured [Gull River Formation]		Run 1 TCR = **100%** SCR = **32%** RQD = **63%**		2 3 4		
85.8	2.9								
85.3	3.4				Run 2 TCR = **100%** SCR = **88%** RQD = **80%**		0 1 1 3		
84.8	3.9								
84.3	4.4								
83.8	4.9				Run 3 TCR = **96%** SCR = **75%** RQD = **70%**		2 3 4 4 4		
83.3	5.4								
82.8	5.9			82.56					
82.3	6.4		Rock core terminated @ 6.1m due to due to target depth achieved.	6.15			0		
81.8	6.9								
81.3	7.4								
80.8	7.9								
80.3	8.4								
79.8	8.9								
79.3									

Logged By: RR **Input By:** RR

CAMBIUM

Client: Wateridge Lifestyles Ltd. and Canada Lands Corporation
Contractor: Marathon Underground
Project No.: 24896-001
Location: 100 Bareille-Snow St, Ottawa ON

Project Name: Wateridge Lifestyles Block 21
Method: Track Mounted Hollow Stem Auger
Ground Elevation: 88.64 mASL
UTM: 18 T **N:** 5033718.24 **E:** 450472.47

Log of Borehole: BH103-25
Page: 1 of 1
Date Completed: Dec. 9, 2025

SUBSURFACE PROFILE

Elevation (m)	Depth	Lithology	Description	Elevation / Depth	Core Run	UCS (MPa) 10 50 100 250	Natural Fractures	Lab Notes	Log Notes
85.9	2.7		**Limestone:** grey, moderate to strong, thinly to medium bedded, slightly decomposed, moderately fractured [Gull River Formation]		Run 1 TCR = **100%** SCR = **75%** RQD = **67%**		2		
85.4	3.2						3		
							6		
84.9	3.7				Run 2 TCR = **96%** SCR = **75%** RQD = **72%**		2		
84.4	4.2						1		
							2		
83.9	4.7						4		
							1		
83.4	5.2				Run 3 TCR = **98%** SCR = **83%** RQD = **76%**		1		
							1		
82.9	5.7			82.49			1		
82.4	6.2		Rock core terminated @ 6.1m due to due to target depth achieved.	6.15					
81.9	6.7								
81.4	7.2								
80.9	7.7								
80.4	8.2								
79.9	8.7								
79.4	9.2								
78.9									

Logged By: RR
Input By: RR

CAMBIUM

Client: Wateridge Lifestyles Ltd. and Canada Lands Corporation
Contractor: Marathon Underground
Project No.: 24896-001
Location: 100 Bareille-Snow St,, Ottawa ON

Project Name: Wateridge Lifestyles Block 21
Method: Track Mounted Hollow Stem Auger
Ground Elevation: 89.91 mASL
UTM: 18 T **N:** 5033670.21 **E:** 450542.03

Log of Borehole: BH104-25
Page: 1 of 1
Date Completed: Dec. 9, 2025

SUBSURFACE PROFILE

Elevation (m)	Depth	Lithology	Description	Elevation / Depth	Core Run	UCS (MPa) 10 50 100 250	Natural Fractures	Lab Notes	Log Notes
88.7	1.2		**Limestone:** grey, moderate to strong, thinly to medium bedded, slightly decomposed, moderately fractured [Gull River Formation]		Run 1 TCR = **100%** SCR = **58%** RQD = **58%**		10 1 4		
88.2	1.7								
87.7	2.2				Run 2 TCR = **92%** SCR = **59%** RQD = **30%**		5 12 23		
87.2	2.7								
86.7	3.2						5 16		
86.2	3.7		no water return, brown staining on fractures and joints		Run 3 TCR = **78%** SCR = **29%** RQD = **17%**		6 22		
85.7	4.2						30		
85.2	4.7		125 mm clay seem at 4.8 mbgs				10 7		
84.7	5.2				Run 4 TCR = **98%** SCR = **64%** RQD = **59%**		3 3		
84.2	5.7						2		
				83.76					
83.7	6.2		Rock core terminated @ 6.1m due to due to target depth achieved.	6.15			0		
83.2	6.7								
82.7	7.2								
82.2	7.7								
81.7									

Logged By: RR
Input By: RR

CAMBIUM

Client: Wateridge Lifestyles Ltd. and Canada Lands Corporation
Contractor: Forage Downing Drilling
Project No.: 24896-001
Location: Block 21, 200 Codd's Road, Ottawa ON

Project Name: Wateridge Lifestyles Block 21
Method: Track Mounted Hollow Stem Auger
Elevation: 96.56 mASL
UTM: 18T **N:** 5033652.00 **E:** 450468.00

Log of Borehole: MW101-26
Page: 1 of 1
Date Completed: March 20, 2026

Elevation (m)	Depth	Description	Number	Type	% Recovery	SPT (N)	Atterberg Limits (%) / % Moisture	Shear Strength Cu, kPa / SPT (N)	Well Installation	Log Notes
96.6	0	**(SW) SAND and SILT:** trace gravel; dark brown, with organics.	1	SS	58	19		19	Cap	
96.1	0.5	95.80							Bentonite Plug	
		0.76 **(SM) SILTY SAND:** some clay, trace gravel; light brown to grey.							Riser	
95.6	1		2	SS	66	11		11		
95.1	1.5		3	SS	58	14		14	Sand Pack	
									PVC Screen	
94.6	2									Water level on April 2, 2026 - Dry
			4	SS	42	>50		0		
94.1	2.5	94.07 2.49 Borehole terminated @ 2.5 mbgs due to target depth achieved.							Cap	
93.6	3									
93.1	3.5									
92.6	4									

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: BR
Input By: MC

CAMBIUM

Client: Wateridge Lifestyles Ltd. and Canada Lands Corporation
Contractor: Forage Downing Drilling
Project No.: 24896-001
Location: Block 21, 200 Codd's Road, Ottawa ON

Project Name: Wateridge Lifestyles Block 21
Method: Track Mounted Hollow Stem Auger
Elevation: 95.77 mASL
UTM: 18T **N:** 5033647.00 **E:** 450544.00

Log of Borehole: MW102-26
Page: 1 of 1
Date Completed: March 20, 2026

Elevation (m)	Depth	Description	Number	Type	% Recovery	SPT (N)	Well Installation	Log Notes
95.8	0	**(SW) SAND and SILT:** cobbles and rubble; dark brown.	1	SS	66	37	Cap	
95.3	0.5						Bentonite Plug	
							Riser	
94.8	1		2	SS	25	>50		
94.3	1.5	94.25					Sand Pack	
		(SM) SILTY SAND: some clay, cobbles and boulders; light brown. 1.52	3	SS	63	>50	PVC Screen	Water level on April 2, 2026 - Dry
93.8	2							
			4	SS	14	>50		
93.3	2.5	93.28					Cap	
		Borehole terminated @ 2.5 mbgs due to target depth achieved. 2.49						
92.8	3							
92.3	3.5							
91.8	4							

Atterberg Limits (%) LL PL PI — 25 50 75
% Moisture — 25 50 75
Shear Strength Cu, kPa (nat V. rem V.) — 20 40 60 80
SPT (N) — 20 40 60 80

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: BR **Input By:** MC

CAMBIUM

Client: Wateridge Lifestyles Ltd. and Canada Lands Corporation
Contractor: Forage Downing Drilling
Project No.: 24896-001
Location: Block 21, 200 Codd's Road, Ottawa ON

Project Name: Wateridge Lifestyles Block 21
Method: Track Mounted Hollow Stem Auger
Elevation: 94.42 mASL
UTM: 18T **N:** 5033729.00 **E:** 450533.00

Log of Borehole: MW103-26
Page: 1 of 1
Date Completed: March 20, 2026

Elevation (m)	Depth	Description	Number	Type	% Recovery	SPT (N)	Atterberg Limits (%) 25 50 75 / % Moisture 25 50 75	Shear Strength Cu, kPa (nat V., rem V.) 20 40 60 80 / SPT (N) 20 40 60 80	Well Installation	Log Notes
94.4	0	**(SW) SAND and SILT:** trace clay and gravel, asphalt and base material; dark brown.	1	SS	79	32		32	Cap	
93.9	0.5	93.76							Bentonite Plug	
		0.66 **(SM) SILTY SAND:** some clay, gravel and cobbles; light brown.							Riser	Water level on April 2, 2026 - 0.97 mbgs
93.4	1		2	SS	49	24		24		
92.9	1.5		3	SS	42	>50		0		
92.4	2								Sand Pack	
91.9	2.5		4	ST	42	>50		0	PVC Screen	
91.4	3									
		91.22	5	SS	46	>50		0		
		3.20 Borehole terminated @ 3.2 mbgs due to target depth achieved.							Cap	
90.9	3.5									
90.4	4									

GRAINSIZE DISTRIBUTION: SAMPLE | GRAVEL | SAND | SILT | CLAY

Logged By: BR **Input By:** MC

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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Wateridge Village Phases 6, 7 & 8
Ottawa, Ontario

DATUM Geodetic

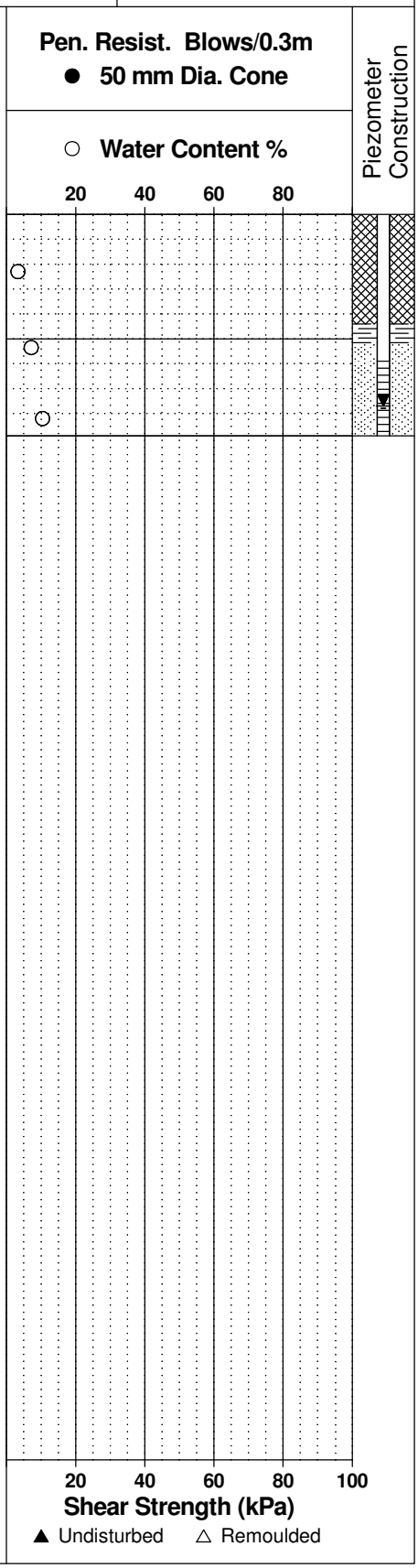
REMARKS

BORINGS BY Track-Mount Power Auger **DATE** October 26, 2022

FILE NO. PG6331

HOLE NO. BH 1-22

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	87.85
FILL: Crushed stone, some sand		AU	1				
0.91							
FILL: Brown silty sand with crushed stone		SS	2	50	20	1	86.85
1.22							
GLACIAL TILL: Compact to dense, brown silty sand to sandy silt with gravel, cobbles and boulders		SS	3	89	50+		
1.78							
End of Borehole							
Practical refusal to augering at 1.78m depth.							
(GWL @ 1.54m - Nov. 18, 2022)							



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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Wateridge Village Phases 6, 7 & 8
Ottawa, Ontario

DATUM Geodetic

REMARKS

BORINGS BY Track-Mount Power Auger **DATE** October 26, 2022

FILE NO. PG6331

HOLE NO. BH 2-22

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	89.20
Asphaltic concrete 0.03							
FILL: Light brown silty sand with gravel and crushed stone		AU	1				
		AU	2			1	88.20
1.32							
End of Borehole							
Practical refusal to augering at 1.32m depth.							
(BH dry - November 18, 2022)							

Pen. Resist. Blows/0.3m
● 50 mm Dia. Cone
○ Water Content %

20 40 60 80

Piezometer Construction

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
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DATUM Geodetic

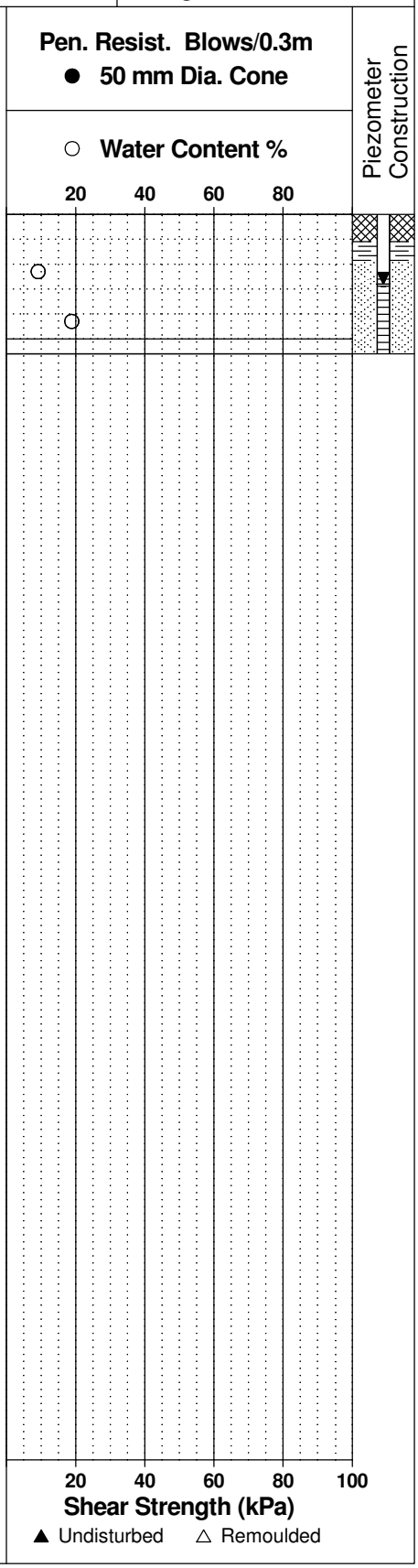
REMARKS

BORINGS BY Track-Mount Power Auger **DATE** October 26, 2022

FILE NO. PG6331

HOLE NO. BH 3-22

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	88.44
Asphaltic concrete 0.03							
FILL: Brown silty sand, some gravel and crushed stone		AU	1				
- trace clay by 0.7m depth		SS	2	63	50+	1	87.44
1.12							
End of Borehole							
Practical refusal to augering at 1.12m depth.							
(GWL @ 0.56m - Nov. 18, 2022)							



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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Wateridge Village Phases 6, 7 & 8
Ottawa, Ontario

DATUM Geodetic

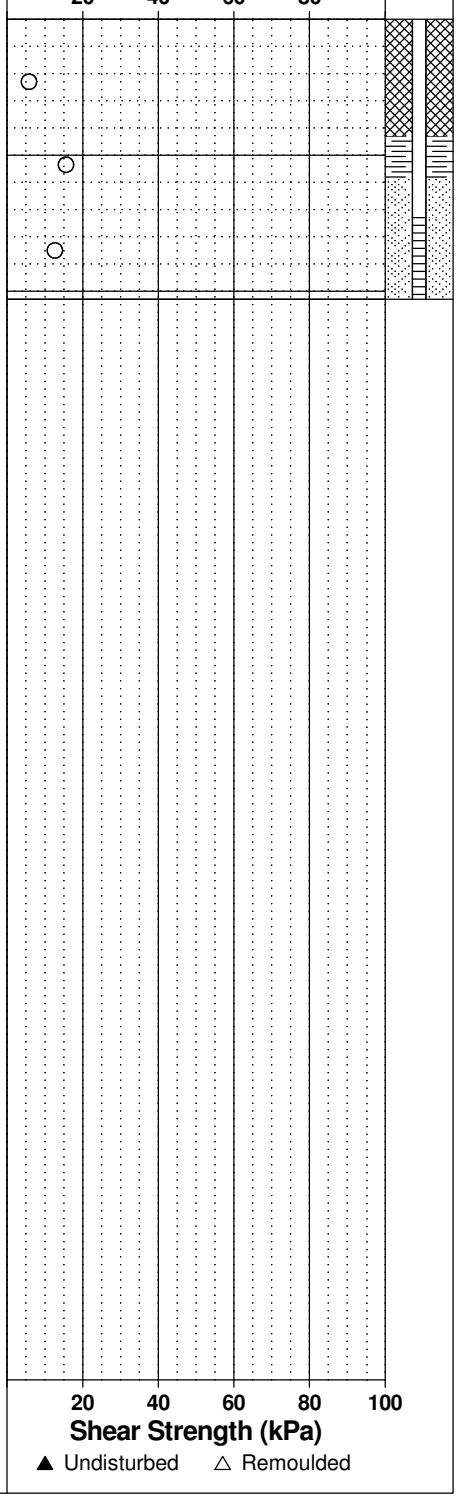
REMARKS

BORINGS BY Track-Mount Power Auger **DATE** October 26, 2022

FILE NO. PG6331

HOLE NO. BH 4-22

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	89.20
Asphaltic concrete 0.03		AU	1				
FILL: Brown silty sand with gravel and crushed stone		SS	2	63	5	1	88.20
		SS	3	57	50+		
2.06						2	87.20
End of Borehole							
Practical refusal to augering at 2.06m depth.							
(BH dry - November 18, 2022)							



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SOIL PROFILE AND TEST DATA

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DATUM Geodetic

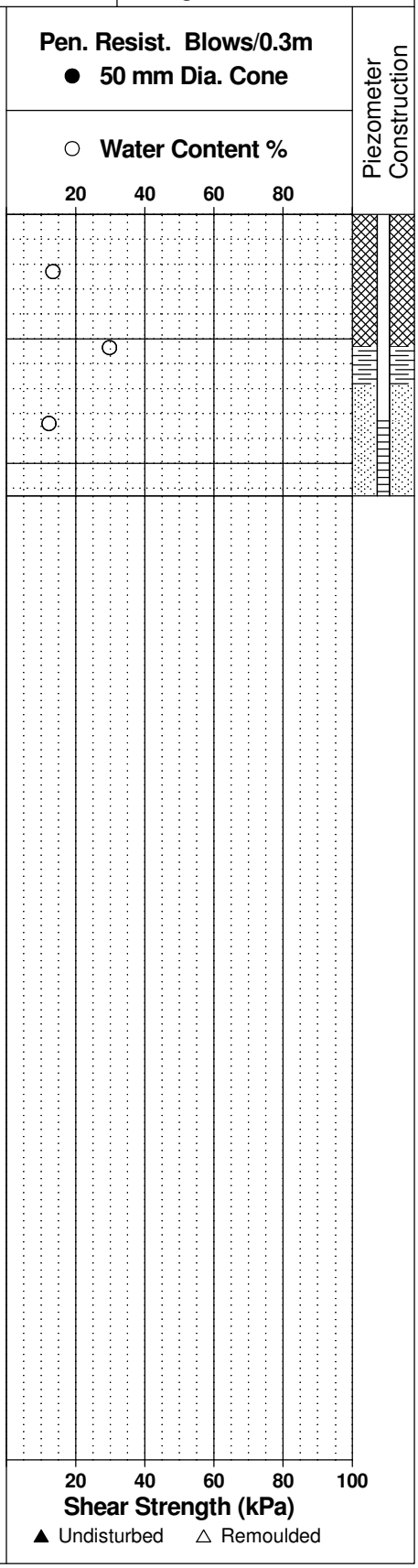
REMARKS

BORINGS BY Track-Mount Power Auger **DATE** October 27, 2022

FILE NO. PG6331

HOLE NO. BH 8-22

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	88.82
FILL: Brown silty sand with gravel, crushed stone and organics 0.15							
FILL: Brown silty sand with gravel and crushed stone 0.60		AU	1				
Compact, light brown **SILTY SAND,** some gravel		SS	2	67	10	1	87.82
1.45							
Compact, light brown **SILTY SAND to SANDY SILT,** some gravel		SS	3	77	50+	2	86.82
2.26							
End of Borehole							
Practical refusal to augering at 2.26m depth.							
(BH dry - November 18, 2022)							



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SOIL PROFILE AND TEST DATA

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Wateridge Village Phases 6, 7 & 8
Ottawa, Ontario

DATUM Geodetic

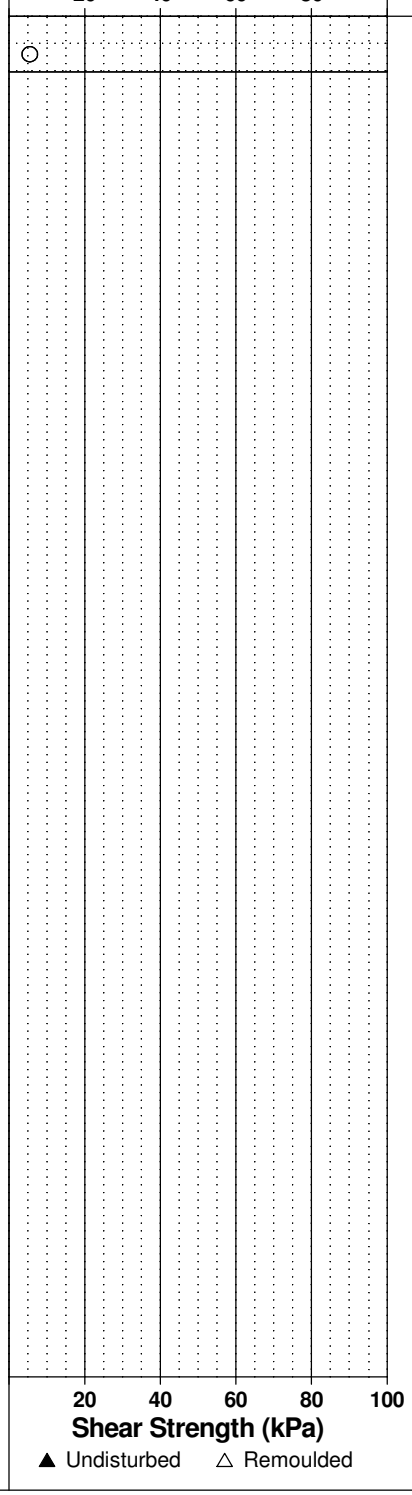
REMARKS

BORINGS BY Track-Mount Power Auger **DATE** October 31, 2022

FILE NO. PG6331

HOLE NO. BH27-22

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)	Pen. Resist. Blows/0.3m ● 50 mm Dia. Cone ○ Water Content %	Piezometer Construction
GROUND SURFACE						0	89.73		
Asphaltic concrete 0.15									
FILL: Brown silty sand, trace gravel 0.41		AU	1						
End of Borehole									
Practical refusal to augering at 0.41m depth.									
(BH dry upon completion)									



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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Wateridge Village Phases 6, 7 & 8
Ottawa, Ontario

DATUM Geodetic

REMARKS

BORINGS BY Track-Mount Power Auger **DATE** November 8, 2022

FILE NO. PG6331

HOLE NO. BH59-22

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	88.03
FILL: Brown silty sand with crushed stone, gravel and rock fragments		AU	1				
		SS	2	50	17	1	87.03
		SS	3	60	17		
2.03						2	86.03
End of Borehole Practical refusal to augering at 2.03m depth.							

Pen. Resist. Blows/0.3m
● 50 mm Dia. Cone
○ Water Content %

20 40 60 80

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

Piezometer Construction

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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Wateridge Village Phases 6, 7 & 8
Ottawa, Ontario

DATUM Geodetic

REMARKS

BORINGS BY Track-Mount Power Auger **DATE** November 8, 2022

FILE NO. PG6331

HOLE NO. BH61-22

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	89.78
		AU	1				
FILL: Brown silty sand with crushed stone, gravel, cobbles and boulders		SS	2	67	15	1	88.78
- trace organics by 1.5m depth		SS	3	42	36	2	87.78
2.54		SS	4	43	50+		
End of Borehole							
Practical refusal to augering at 2.54m depth.							
(BH dry - November 18, 2022)							

Pen. Resist. Blows/0.3m
● 50 mm Dia. Cone
○ Water Content %
20 40 60 80

Piezometer Construction

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Development - Wateridge Village Phases 6, 7 & 8
Ottawa, Ontario

DATUM Geodetic

REMARKS

BORINGS BY Track-Mount Power Auger **DATE** April 12, 2023

FILE NO. PG6331

HOLE NO. BH 1-23

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	89.02
FILL: Brown silty sand with crushed stone, trace organics		AU	1				
0.69							
Loose, brown **SILTY SAND,** some gravel		SS	2	33	5	1	88.02
1.45							
GLACIAL TILL: Dense, dark brown silty sand with gravel, cobbles and boulders		SS	3	75	50+	2	87.02
2.23							
End of Borehole							
Practical refusal to augering at 2.23m depth.							
(GWL @ 1.57m - April 20, 2023)							

Pen. Resist. Blows/0.3m
● 50 mm Dia. Cone
○ Water Content %

20 40 60 80

Monitoring Well Construction

20 40 60 80 100
Shear Strength (kPa)
▲ Undisturbed △ Remoulded

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SOIL PROFILE AND TEST DATA

Geotechnical Investigation
Prop. Development - Wateridge Village Phases 6, 7 & 8
Ottawa, Ontario

DATUM Geodetic

REMARKS

BORINGS BY Track-Mount Power Auger **DATE** April 12, 2023

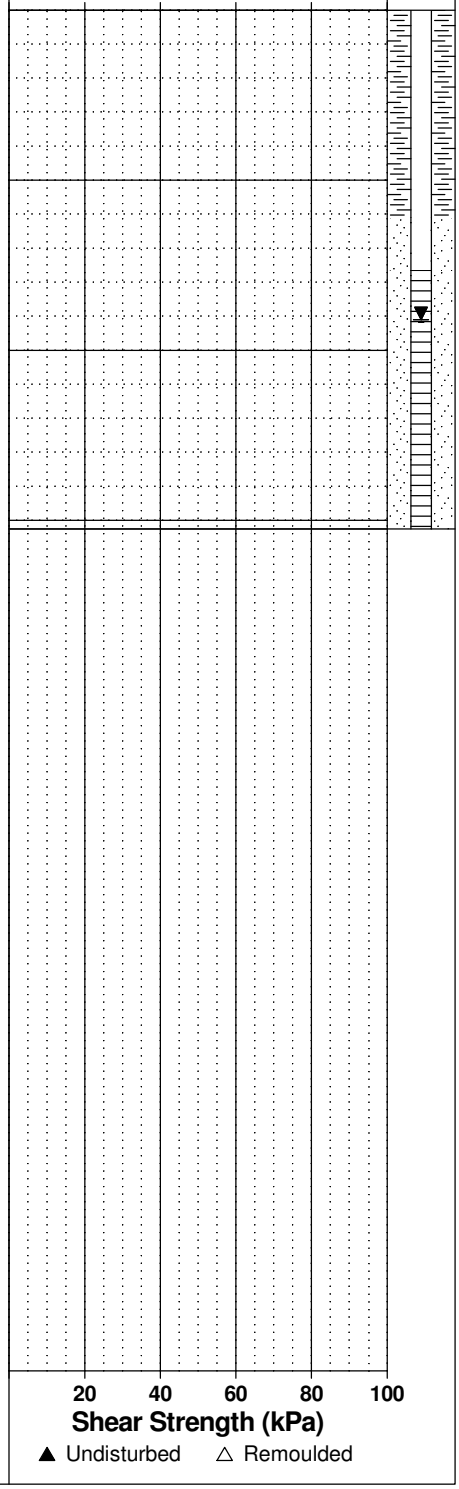
FILE NO. PG6331

HOLE NO. BH 2-23

SOIL DESCRIPTION	STRATA PLOT	SAMPLE TYPE	SAMPLE NUMBER	SAMPLE % RECOVERY	SAMPLE N VALUE or RQD	DEPTH (m)	ELEV. (m)
GROUND SURFACE						0	84.89
FILL: Brown silty sand with gravel and crushed stone, trace organics		AU	1				
0.69							
		SS	2	58	18	1	83.89
FILL: Brown silty sand with gravel and crushed stone, cobbles, trace clay		SS	3	58	41	2	82.89
- some rock fragments by 2.0m depth		SS	4	75	31		
3.05						3	81.89
End of Borehole							
Practical refusal to augering at 3.05m depth.							
(GWL @ 1.82m - April 20, 2023)							

Pen. Resist. Blows/0.3m
● 50 mm Dia. Cone
○ Water Content %
20 40 60 80

Monitoring Well Construction



LOG OF BOREHOLE BH14-27

DST REF. No.: **OE-OT-015358**
CLIENT: **Canada Lands Company**
PROJECT: **Former CFB Rockcliffe**
LOCATION: **Ottawa, Ontario**
SURFACE ELEV.: **90.47 metres**

Drilling Data
METHOD: **Hollow Stem Auger**
DIAMETER: **80 mm ID**
DATE: **March 3, 2014**
COORDINATES: **5033695.61** m N, **450515.28** m E

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE (W_p W W_l) 20 40 60 80	Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE	VANE (kPa) ✖ 20 40 60 80 / SPT (N) □ Blows/0.3m / DCPT ◆ 20 40 60 80	REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
0.0	90				TOPSOIL - with grass and roots	AS1				
1.0	89				SAND - Gravelly, some silt, occasional cobbles and boulders, loose	SS2		8	□	21 66 (12)
2.0	88				End of Borehole at 1.8 m Auger Refusal					
3.0	87									
4.0	86									
5.0	85									
6.0	84									
7.0	83									
8.0	82									
9.0	81									
10.0	80									
11.0	79									
12.0	78									
13.0	77									
14.0	76									
15.0	75									
16.0	74									
17.0	73									
18.0	72									
19.0	71									

BOREHOLE (STANDARD) - OTTAWA GS-OT-015358 ROCKCLIFFE PHASE I.GPJ DST_MIN.GDT 4/11/14

DST consulting engineers
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SAMPLE TYPE LEGEND

- Auger Sample
- Split Spoon Sample
- Bulk Sample
- Rock Core
- Hiller Peat Sampler
- 70mm Thin Wall Tube
- Bentonite
- Sand

ENCLOSURE 2

Appendix C

MECP Well Records

Water Well Records Summary Report

Produced by Cambium Inc. using MOECP Water Well Information System (WWIS)

All units in meters unless otherwise specified

Well ID: 1501107 **Easting:** 451206 **UTM Zone:** 18
Construction Date: 6/17/1963 **Northing:** 5034458 **Positional Accuracy:** margin of error : 100 m - 300 m

Well Depth:	46.3	**Water Kind:**	FRESH	**Pump Rate (LPM):**	136
Well Diameter (cm):	12.70	**Final Status:**	Water Supply	**Recommended Pump Rate:**	23
Water First Found:	46.3	**Primary Water Use:**	Industrial	**Pumping Duration (h:m):**	1 : 0
Static Level:	15.24				

Layer:	Driller's Description:	Top:	Bottom:
1	CLAY	0.00	42.67
2	SHALE	42.67	43.28
3	LIMESTONE	43.28	46.33

Well ID: 1508180 **Easting:** 450376 **UTM Zone:** 18
Construction Date: 8/12/1955 **Northing:** 5032983 **Positional Accuracy:** unknown UTM

Well Depth:	72.5	**Water Kind:**	FRESH	**Pump Rate (LPM):**	32
Well Diameter (cm):	12.70	**Final Status:**	Water Supply	**Recommended Pump Rate:**	
Water First Found:	72.5	**Primary Water Use:**	Domestic	**Pumping Duration (h:m):**	1 : 0
Static Level:	13.72				

Layer:	Driller's Description:	Top:	Bottom:
1	LIMESTONE	0.00	72.54

Well ID: 1535672 **Easting:** 450732 **UTM Zone:** 18
Construction Date: 7/25/2005 **Northing:** 5033501 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth:	3.7	**Water Kind:**	FRESH	**Pump Rate (LPM):**	
Well Diameter (cm):	4.70	**Final Status:**	Test Hole	**Recommended Pump Rate:**	
Water First Found:	3.2	**Primary Water Use:**	Not Used	**Pumping Duration (h:m):**	:
Static Level:					

Layer:	Driller's Description:	Top:	Bottom:
1	FILL	0.00	1.10
2	CLAY	1.10	2.50
3	SAND	2.50	3.70

Well ID: 1536560 **Easting:** 450212 **UTM Zone:** 18
Construction Date: 8/14/2006 **Northing:** 5033862 **Positional Accuracy:** margin of error : 10 - 30 m

Well Depth:	3.4	**Water Kind:**	FRESH	**Pump Rate (LPM):**	
Well Diameter (cm):	2.00	**Final Status:**	Test Hole	**Recommended Pump Rate:**	
Water First Found:	3.0	**Primary Water Use:**	Not Used	**Pumping Duration (h:m):**	
Static Level:					

Layer:	Driller's Description:	Top:	Bottom:
1	CLAY	0.00	2.41
2	CLAY	2.41	2.71
3	LIMESTONE	2.71	3.42

Well ID: 7169959 **Easting:** 450612 **UTM Zone:** 18
Construction Date: 10/12/2011 **Northing:** 5033452 **Positional Accuracy:** margin of error : 10 - 30 m

Well Depth: 9.1 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 5.20 **Final Status:** Test Hole **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	FILL	0.00	4.57
2	LIMESTONE	4.57	9.14

Well ID: 7174554 **Easting:** 450586 **UTM Zone:** 18
Construction Date: 1/6/2012 **Northing:** 5033427 **Positional Accuracy:** margin of error : 10 - 30 m

Well Depth: 4.6 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 5.20 **Final Status:** Abandoned Mo **Recommended Pump Rate:**
Water First Found: 1.6 **Primary Water Use:** Test Hole **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1		0.00	0.02
2	FILL	0.02	0.76
3	CLAY	0.76	4.11
4	SAND	4.11	4.57

Well ID: 7225394 **Easting:** 451232 **UTM Zone:** 18
Construction Date: 8/13/2014 **Northing:** 5033990 **Positional Accuracy:** margin of error : 100 m - 300 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 4.03 **Final Status:** Abandoned-Oth **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	TOPSOIL	0.00	

Well ID: 7227808 **Easting:** 450333 **UTM Zone:** 18
Construction Date: 9/22/2014 **Northing:** 5033300 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: 4.6 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 4.03 **Final Status:** Monitoring and **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	GRAVEL	0.00	0.61
2	CLAY	0.61	1.50
3	CLAY	1.50	4.57

Well ID: 7227809 **Easting:** 450318 **UTM Zone:** 18
Construction Date: 9/22/2014 **Northing:** 5033307 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: 4.6 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 4.03 **Final Status:** Monitoring and **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	GRAVEL	0.00	0.61

2	CLAY	0.61	1.50
3	CLAY	1.50	4.57

Well ID: 7227810 **Easting:** 450337 **UTM Zone:** 18
Construction Date: 9/22/2014 **Northing:** 5033304 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: 4.6 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 4.03 **Final Status:** Monitoring and **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	GRAVEL	0.00	0.61
2	CLAY	0.61	1.50
3	CLAY	1.50	4.57

Well ID: 7227811 **Easting:** 450319 **UTM Zone:** 18
Construction Date: 9/22/2014 **Northing:** 5033304 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: 4.6 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 4.03 **Final Status:** Monitoring and **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	GRAVEL	0.00	0.61
2	FILL	0.61	3.22
3	CLAY	3.22	4.57

Well ID: 7227812 **Easting:** 450322 **UTM Zone:** 18
Construction Date: 9/22/2014 **Northing:** 5033300 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: 4.6 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 4.03 **Final Status:** Monitoring and **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	GRAVEL	0.00	0.61
2	FILL	0.61	3.66
3	CLAY	3.66	4.57

Well ID: 7227813 **Easting:** 450336 **UTM Zone:** 18
Construction Date: 9/22/2014 **Northing:** 5033300 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: 4.6 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 4.03 **Final Status:** Monitoring and **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	GRAVEL	0.00	0.61
2	FILL	0.61	3.22
3	CLAY	3.22	4.57

Well ID: 7227814 **Easting:** 450340 **UTM Zone:** 18
Construction Date: 9/22/2014 **Northing:** 5033300 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: 4.6 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 4.03 **Final Status:** Monitoring and **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	GRAVEL	0.00	0.61
2	FILL	0.61	3.22
3	SAND	3.22	4.57
4	CLAY	4.57	

Well ID: 7277332 **Easting:** 450201 **UTM Zone:** 18
Construction Date: 12/19/2016 **Northing:** 5033617 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: 12.2 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 27.31 **Final Status:** Observation We **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Other **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	FILL	0.00	0.61
	FILL		
	FILL		
2	CLAY	0.61	1.83
	CLAY		
	CLAY		
3	LIMESTONE	1.83	2.44
	LIMESTONE		
	LIMESTONE		
4	LIMESTONE	2.44	4.57
	LIMESTONE		
	LIMESTONE		
5	LIMESTONE	4.57	12.19
	LIMESTONE		
	LIMESTONE		

Well ID: 7277333 **Easting:** 450254 **UTM Zone:** 18
Construction Date: 12/19/2016 **Northing:** 5033571 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: 12.2 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 25.40 **Final Status:** Observation We **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	GRAVEL	0.00	0.15
	GRAVEL		
	GRAVEL		
2	CLAY	0.15	0.76

	2	CLAY	0.15	0.76
		CLAY		
	3	LIMESTONE	0.76	12.19
		LIMESTONE		
		LIMESTONE		

Well ID: 7277334 **Easting:** 450446 **UTM Zone:** 18
Construction Date: 12/19/2016 **Northing:** 5033702 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: 12.2 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 25.40 **Final Status:** Observation We **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Other **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	GRAVEL	0.00	1.52
	GRAVEL		
	GRAVEL		
2	CLAY	1.52	2.13
	CLAY		
	CLAY		
3	LIMESTONE	2.13	11.58
	LIMESTONE		
	LIMESTONE		
4	LIMESTONE	11.58	12.19
	LIMESTONE		
	LIMESTONE		

Well ID: 7289481 **Easting:** 450324 **UTM Zone:** 18
Construction Date: 7/5/2017 **Northing:** 5033283 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:

Well ID: 7292671 **Easting:** 450630 **UTM Zone:** 18
Construction Date: 8/17/2017 **Northing:** 5033426 **Positional Accuracy:** margin of error : 300 m - 1 km

Well Depth: 5.0 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 5.08 **Final Status:** Replacement W **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	CLAY	0.00	0.91
2	GRAVEL	0.91	4.97

Well ID: 7334282 **Easting:** 450217 **UTM Zone:** 18
Construction Date: 6/4/2019 **Northing:** 5033607 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:

Well ID: 7348316 **Easting:** 450630 **UTM Zone:** 18
Construction Date: 11/27/2019 **Northing:** 5033437 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: 13.0 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 2.00 **Final Status:** Monitoring and **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):** :
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	FILL	0.00	2.00
2	CLAY	2.00	5.00
3	CLAY	5.00	13.00

Well ID: 7348317 **Easting:** 450620 **UTM Zone:** 18
Construction Date: 11/27/2019 **Northing:** 5033431 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: 14.0 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 2.00 **Final Status:** Monitoring and **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):** :
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	FILL	0.00	5.00
2	CLAY	5.00	8.00
3	CLAY	8.00	14.00

Well ID: 7350774 **Easting:** 450844 **UTM Zone:** 18
Construction Date: 1/6/2020 **Northing:** 5033288 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: 4.0 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 5.20 **Final Status:** Monitoring and **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):** :
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	GRAVEL	0.00	0.61
2	SAND	0.61	3.10
3	SAND	3.10	3.96

Well ID: 7350775 **Easting:** 450849 **UTM Zone:** 18
Construction Date: 1/6/2020 **Northing:** 5033300 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: 12.0 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 2.00 **Final Status:** Observation We **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring **Pumping Duration (h:m):** :
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	GRAVEL	0.00	2.00

2	SAND	2.00	12.00

Well ID: 7350776 **Easting:** 450863 **UTM Zone:** 18
Construction Date: 1/6/2020 **Northing:** 5033301 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: 2.7 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 5.20 **Final Status:** Monitoring and **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):** :
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	SAND	0.00	2.73
2	SAND	2.73	2.74

Well ID: 7350811 **Easting:** 450527 **UTM Zone:** 18
Construction Date: 1/6/2020 **Northing:** 5033195 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 5.08 **Final Status:** Abandoned-Oth **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Test Hole **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:

Well ID: 7353633 **Easting:** 450454 **UTM Zone:** 18
Construction Date: 2/18/2020 **Northing:** 5033631 **Positional Accuracy:** margin of error : 100 m - 300 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** Abandoned-Oth **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):** :
Static Level:

Layer:	Driller's Description:	Top:	Bottom:

Well ID: 7365245 **Easting:** 450606 **UTM Zone:** 18
Construction Date: 8/14/2020 **Northing:** 5033378 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 5.20 **Final Status:** Abandoned-Oth **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):** :
Static Level:

Layer:	Driller's Description:	Top:	Bottom:

Well ID: 7365246 **Easting:** 450638 **UTM Zone:** 18
Construction Date: 8/14/2020 **Northing:** 5033377 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 5.20 **Final Status:** Abandoned-Oth **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):** :
Static Level:

Layer:	Driller's Description:	Top:	Bottom:

Well ID: 7365247 **Easting:** 450638 **UTM Zone:** 18
Construction Date: 8/14/2020 **Northing:** 5033377 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 5.20 **Final Status:** Abandoned-Oth **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):** :
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7365248 **Easting:** 450613 **UTM Zone:** 18
Construction Date: 8/14/2020 **Northing:** 5033349 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 5.20 **Final Status:** Abandoned-Oth **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):** :
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7365249 **Easting:** 450608 **UTM Zone:** 18
Construction Date: 8/14/2020 **Northing:** 5033349 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 5.20 **Final Status:** Abandoned-Oth **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):** :
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7365250 **Easting:** 450604 **UTM Zone:** 18
Construction Date: 8/14/2020 **Northing:** 5033352 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** Abandoned-Oth **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):** :
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7365251 **Easting:** 450614 **UTM Zone:** 18
Construction Date: 8/14/2020 **Northing:** 5033353 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 5.20 **Final Status:** Abandoned-Oth **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):** :
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7365252 **Easting:** 450614 **UTM Zone:** 18
Construction Date: 8/14/2020 **Northing:** 5033358 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 5.20 **Final Status:** Abandoned-Oth **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):** :
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7365253 **Easting:** 450619 **UTM Zone:** 18
Construction Date: 8/14/2020 **Northing:** 5033357 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 5.20 **Final Status:** Abandoned-Oth **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):** :
Static Level:

Layer:	Driller's Description:	Top:	Bottom:

Well ID: 7374310 **Easting:** 450733 **UTM Zone:** 18
Construction Date: 12/4/2020 **Northing:** 5033777 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:

Well ID: 7374886 **Easting:** 450136 **UTM Zone:** 18
Construction Date: 12/11/2020 **Northing:** 5033223 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: 7.6 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 4.09 **Final Status:** Monitoring and **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):** :
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	GRAVEL	0.00	5.18
2	CLAY	5.18	7.62

Well ID: 7374887 **Easting:** 450134 **UTM Zone:** 18
Construction Date: 12/11/2020 **Northing:** 5033235 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: 7.6 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 2.82 **Final Status:** Monitoring and **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):** :
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	OTHER	0.00	0.15
2	GRAVEL	0.15	0.61
3	CLAY	0.61	4.57
4	CLAY	4.57	7.62

Well ID: 7389949 **Easting:** 450733 **UTM Zone:** 18
Construction Date: 6/17/2021 **Northing:** 5033777 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:

Well ID: 7409729 **Easting:** 450845 **UTM Zone:** 18
Construction Date: 2/4/2022 **Northing:** 5033718 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: 5.1 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 3.81 **Final Status:** Observation We **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring and **Pumping Duration (h:m):** :
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	SAND	0.00	2.01
2	LIMESTONE	2.01	5.06

Well ID: 7409730 **Easting:** 450208 **UTM Zone:** 18
Construction Date: 2/4/2022 **Northing:** 5033614 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: 5.2 **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): 3.81 **Final Status:** Observation We **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** Monitoring **Pumping Duration (h:m):** :
Static Level:

Layer:	Driller's Description:	Top:	Bottom:
1	GRAVEL	0.00	0.61
2	GRAVEL	0.61	3.05
3	LIMESTONE	3.05	5.18

Well ID: 7418461 **Easting:** 450540 **UTM Zone:** 18
Construction Date: 5/19/2022 **Northing:** 5033133 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:

Well ID: 7425937 **Easting:** 450197 **UTM Zone:** 18
Construction Date: 8/17/2022 **Northing:** 5033621 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:

Well ID: 7425989 **Easting:** 450253 **UTM Zone:** 18
Construction Date: 8/17/2022 **Northing:** 5033572 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer:	Driller's Description:	Top:	Bottom:

Well ID: 7432411 **Easting:** 450254 **UTM Zone:** 18
Construction Date: 10/24/2022 **Northing:** 5033578 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7432412 **Easting:** 450254 **UTM Zone:** 18
Construction Date: 10/24/2022 **Northing:** 5033572 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7432413 **Easting:** 450164 **UTM Zone:** 18
Construction Date: 10/24/2022 **Northing:** 5033606 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7432547 **Easting:** 450185 **UTM Zone:** 18
Construction Date: 10/24/2022 **Northing:** 5033612 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7435111 **Easting:** 450261 **UTM Zone:** 18
Construction Date: 11/25/2022 **Northing:** 5033580 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7448298 **Easting:** 450249 **UTM Zone:** 18
Construction Date: 5/12/2023 **Northing:** 5033401 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7448877 **Easting:** 450509 **UTM Zone:** 18
Construction Date: 5/31/2023 **Northing:** 5033769 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7451837 **Easting:** 450259 **UTM Zone:** 18
Construction Date: 6/19/2023 **Northing:** 5033414 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** Abandoned-Oth **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7460820 **Easting:** 451034 **UTM Zone:** 18
Construction Date: 9/27/2023 **Northing:** 5033453 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7460821 **Easting:** 450926 **UTM Zone:** 18
Construction Date: 9/27/2023 **Northing:** 5033438 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7460822 **Easting:** 451095 **UTM Zone:** 18
Construction Date: 9/27/2023 **Northing:** 5033364 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7467582 **Easting:** 450262 **UTM Zone:** 18
Construction Date: 12/29/2023 **Northing:** 5033515 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7479614 **Easting:** 450584 **UTM Zone:** 18
Construction Date: 6/17/2024 **Northing:** 5033576 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7481993 **Easting:** 450251 **UTM Zone:** 18
Construction Date: 7/9/2024 **Northing:** 5033630 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7485465 **Easting:** 450186 **UTM Zone:** 18
Construction Date: 9/3/2024 **Northing:** 5033673 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7485466 **Easting:** 450207 **UTM Zone:** 18
Construction Date: 9/3/2024 **Northing:** 5033707 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7485467 **Easting:** 450182 **UTM Zone:** 18
Construction Date: 9/3/2024 **Northing:** 5033759 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7485468 **Easting:** 450230 **UTM Zone:** 18
Construction Date: 9/3/2024 **Northing:** 5033778 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7485469 **Easting:** 450265 **UTM Zone:** 18
Construction Date: 9/3/2024 **Northing:** 5033738 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7485470 **Easting:** 450267 **UTM Zone:** 18
Construction Date: 9/3/2024 **Northing:** 5033700 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7485471 **Easting:** 450283 **UTM Zone:** 18
Construction Date: 9/3/2024 **Northing:** 5033788 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7485472 **Easting:** 450303 **UTM Zone:** 18
Construction Date: 9/3/2024 **Northing:** 5033721 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7485481 **Easting:** 450224 **UTM Zone:** 18
Construction Date: 9/3/2024 **Northing:** 5033694 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

Layer: **Driller's Description:** **Top:** **Bottom:**

Well ID: 7485482 **Easting:** 450345 **UTM Zone:** 18
Construction Date: 9/3/2024 **Northing:** 5033785 **Positional Accuracy:** margin of error : 30 m - 100 m

Well Depth: **Water Kind:** **Pump Rate (LPM):**
Well Diameter (cm): **Final Status:** **Recommended Pump Rate:**
Water First Found: **Primary Water Use:** **Pumping Duration (h:m):**
Static Level:

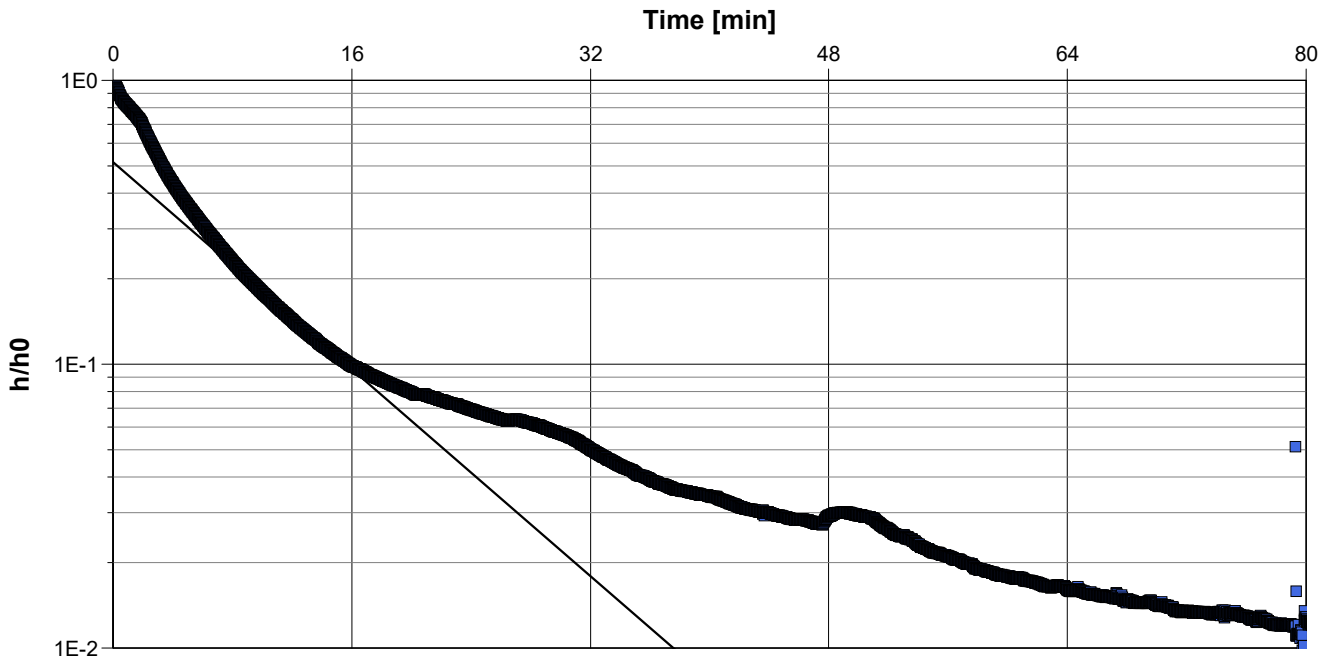
Layer: **Driller's Description:** **Top:** **Bottom:**

Appendix D

Single Well Hydraulic Test Analysis

	Slug Test Analysis Report
	Project: Hydrogeological Assessment
	Number: 24896.001
	Client: Wateridge Lifestyles

Location: Block 21 Hemlock Rd	Slug Test: BH102-25: Slug Test 1	Test Well: BH102-25
Test Conducted by: M. Catt		Test Date: 2026-04-02
Analysis Performed by: M. Catt	Bouwer and Rice	Analysis Date: 2026-04-20
Aquifer Thickness: 3.16 m		

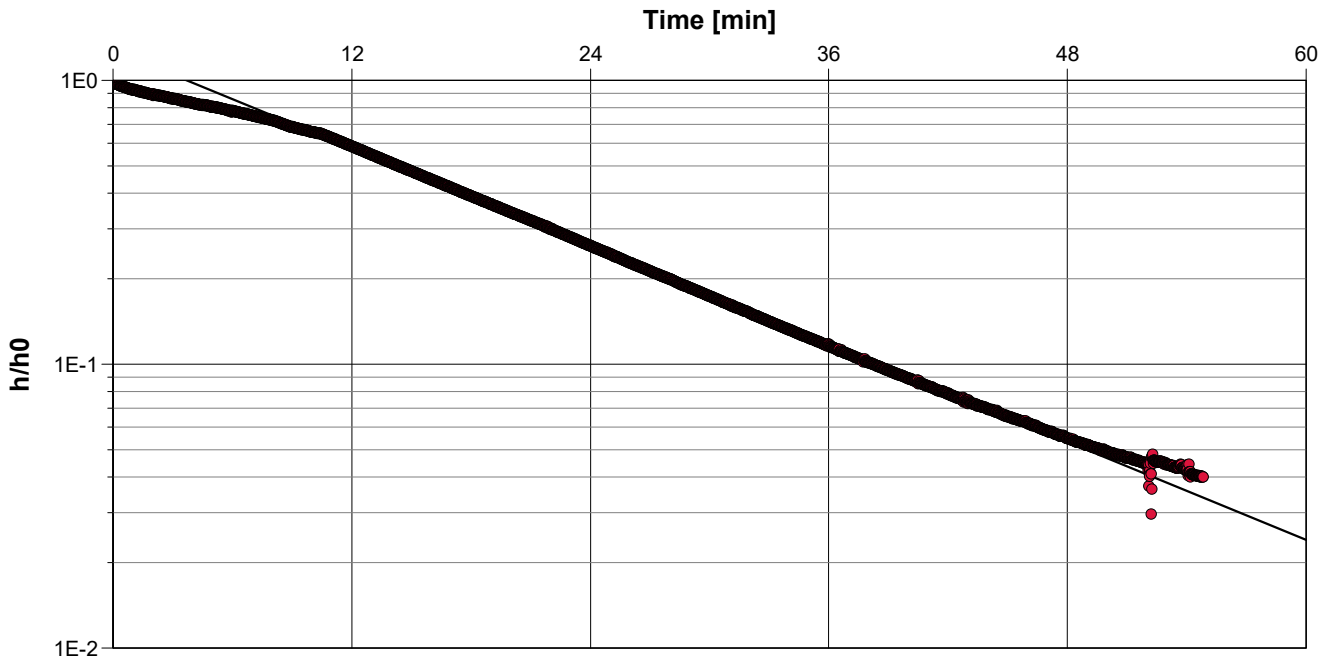


Calculation using Bouwer & Rice

Observation Well	Hydraulic Conductivity [m/s]	
BH102-25	4.63×10^{-7}	

	Slug Test Analysis Report
	Project: Hydrogeological Assessment
	Number: 24896.001
	Client: Wateridge Lifestyles

Location: Block 21 Hemlock Rd	Slug Test: BH103-25: Slug Test 1	Test Well: BH103-25
Test Conducted by: M. Catt		Test Date: 2026-04-02
Analysis Performed by: M. Catt	Bouwer and Rice	Analysis Date: 2026-04-20
Aquifer Thickness: 2.76 m		

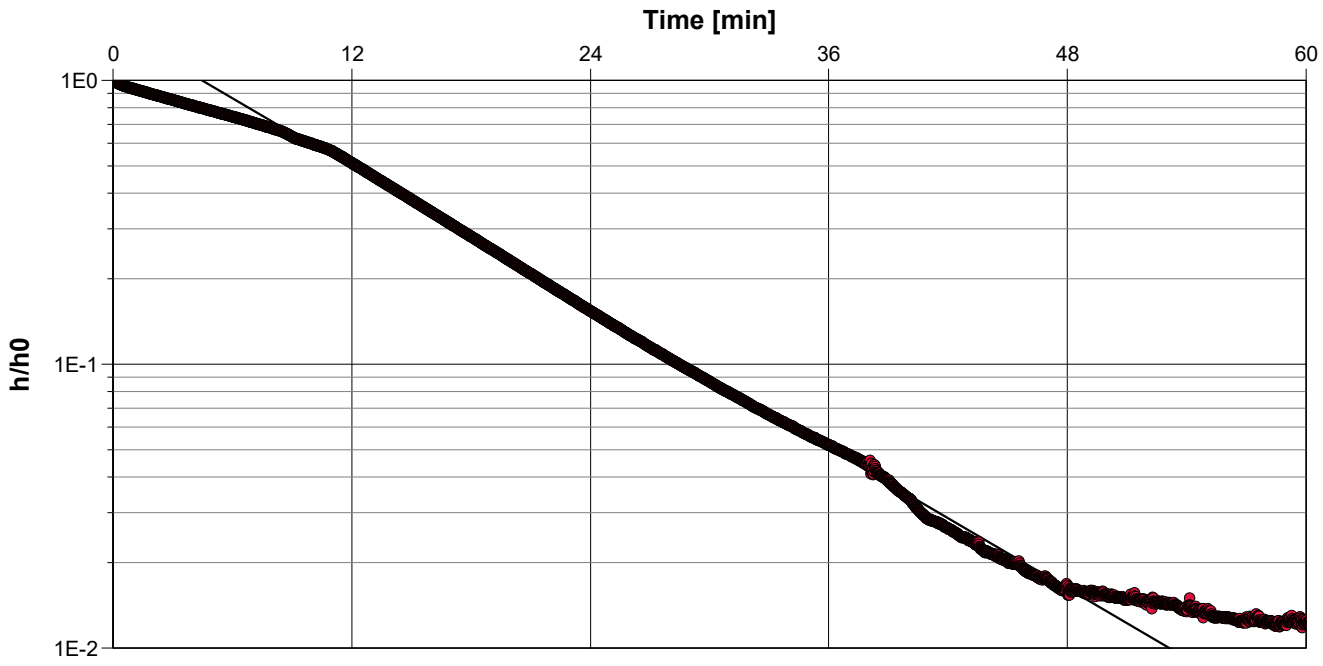


Calculation using Bouwer & Rice

Observation Well	Hydraulic Conductivity [m/s]	
BH103-25	2.92×10^{-7}	

	Slug Test Analysis Report
	Project: Hydrogeological Assessment
	Number: 24896.001
	Client: Wateridge Lifestyles

Location: Block 21 Hemlock Rd	Slug Test: BH103-25: Slug Test 2	Test Well: BH103-25
Test Conducted by: M. Catt		Test Date: 2026-04-02
Analysis Performed by: M. Catt	Bouwer and Rice	Analysis Date: 2026-04-20
Aquifer Thickness: 2.76 m		

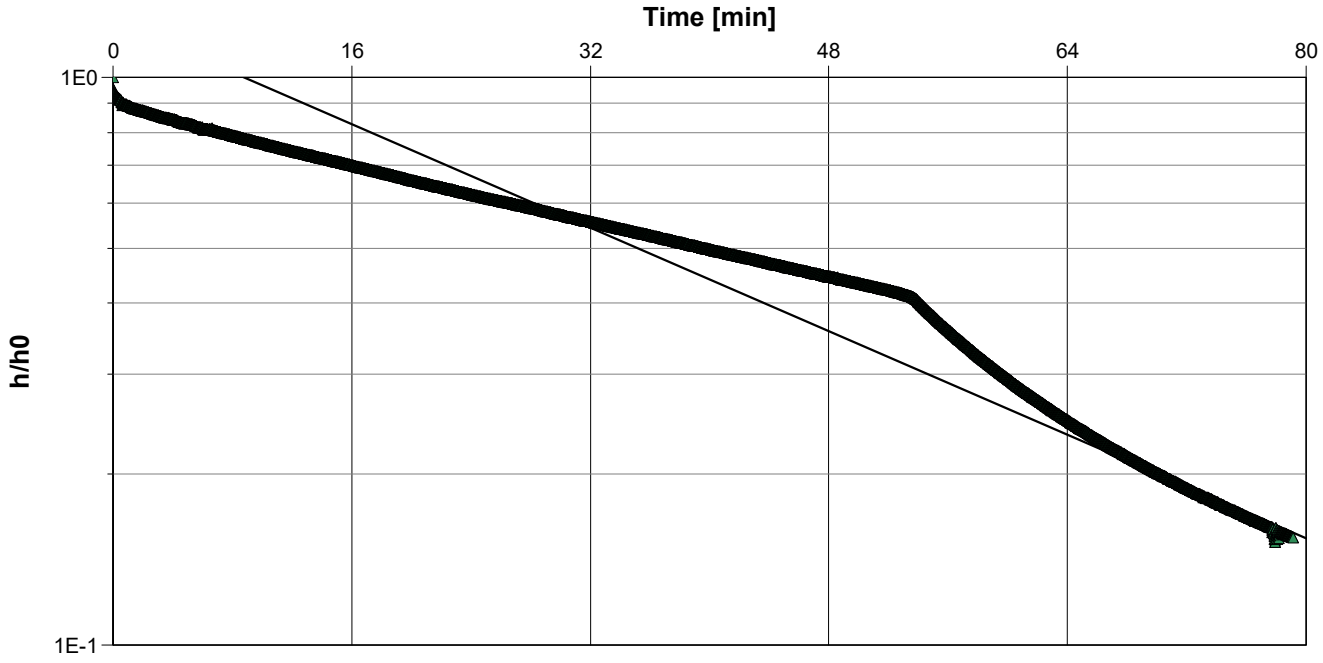


Calculation using Bouwer & Rice

Observation Well	Hydraulic Conductivity [m/s]	
BH103-25	4.18×10^{-7}	

	Slug Test Analysis Report
	Project: Hydrogeological Assessment
	Number: 24896.001
	Client: Wateridge Lifestyles

Location: Block 21 Hemlock Rd	Slug Test: MW3: Slug Test 1	Test Well: MW3
Test Conducted by: M. Catt		Test Date: 2026-04-02
Analysis Performed by: M. Catt	Bouwer and Rice	Analysis Date: 2026-04-20
Aquifer Thickness: 2.20 m		

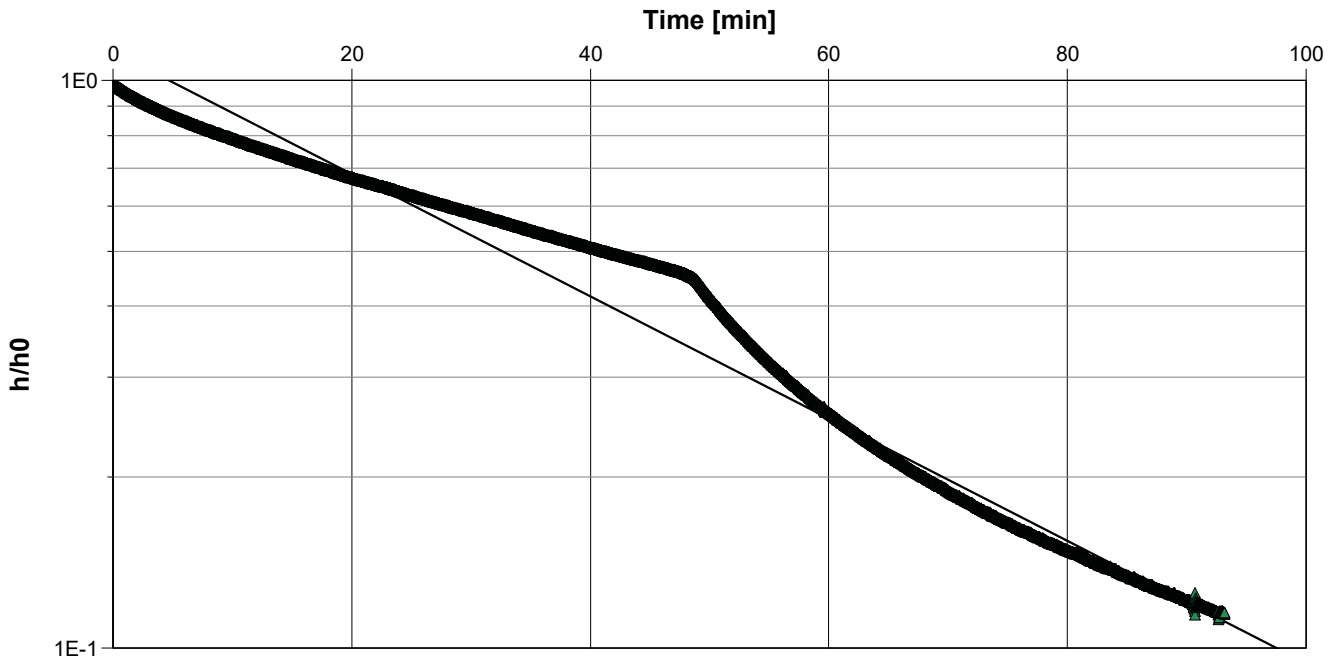


Calculation using Bouwer & Rice

Observation Well	Hydraulic Conductivity [m/s]	
MW3	2.85×10^{-7}	

	Slug Test Analysis Report
	Project: Hydrogeological Assessment
	Number: 24896.001
	Client: Wateridge Lifestyles

Location: Block 21 Hemlock Rd	Slug Test: MW3: Slug Test 2	Test Well: MW3
Test Conducted by: M. Catt		Test Date: 2026-04-02
Analysis Performed by: M. Catt	Bouwer and Rice	Analysis Date: 2026-04-20
Aquifer Thickness: 2.20 m		



Calculation using Bouwer & Rice

Observation Well	Hydraulic Conductivity [m/s]	
MW3	2.69×10^{-7}	

Appendix E

Water Quality Lab Report

PARACEL LABORATORIES LTD.

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Certificate of Analysis

Cambium Inc. (Ottawa)
301 Moodie Drive, Suite 100
Ottawa, ON K2H9C4
Attn: Brent Redmond

Client PO:
Project: 24896.001
Custody: 82761

Report Date: 12-May-2026
Order Date: 5-May-2026

Order #: 2619289

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
2619289-01	MW103-25
2619289-02	MW103
2619289-03	MW103-25 (Filtered)
2619289-04	MW103 (Filtered)

Approved By:

Mark Foto

Mark Foto, M.Sc.
Laboratory Director

PARACEL LABORATORIES LTD.

Order #: 2619289

Certificate of Analysis

Report Date: 12-May-2026

Client: **Cambium Inc. (Ottawa)**

Order Date: 5-May-2026

Client PO:

Project Description: 24896.001

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	Extraction Date	Analysis Date
Anions	EPA 300.1 - IC	Ottawa	7-May-26	7-May-26
CBOD	SM 5210B - DO Probe	Ottawa	7-May-26	7-May-26
Cyanide, total	MOE E3015 - Auto Colour	Ottawa	8-May-26	8-May-26
E. coli	MOE E3407	Ottawa	7-May-26	7-May-26
Hexachlorobenzene	EPA 8081B - GC-ECD	Ottawa	12-May-26	12-May-26
Mercury by CVAA	EPA 245.2 - Cold Vapour AA	Ottawa	8-May-26	11-May-26
Metals, ICP-MS	EPA 200.8 - ICP-MS	Ottawa	7-May-26	8-May-26
Oil & Grease, mineral/synthetic	SM5520F - Gravimetric	Ottawa	11-May-26	12-May-26
Oil & Grease, total	SM5520B - Gravimetric, hexane soluble	Ottawa	11-May-26	12-May-26
Oil & Grease, Animal/Vegetable	SM5520 - Gravimetric	Ottawa	11-May-26	12-May-26
Ottawa - San/Comb: SVOC Toxic List scan	EPA 625 - GC-MS, extraction	Ottawa	11-May-26	11-May-26
Total Toxic Organic - VOCs	EPA	Ottawa	8-May-26	8-May-26
PCBs, total	EPA 608 - GC-ECD	Ottawa	12-May-26	12-May-26
pH	SM 4500-H+	Ottawa	7-May-26	7-May-26
Phenolics	EPA 420.2 - Auto Colour, 4AAP	Ottawa	8-May-26	8-May-26
Phosphorus, total, water	EPA 365.4 - Auto Colour, digestion	Ottawa	8-May-26	8-May-26
Sulphide	SM 4500SE - Colourimetric	Ottawa	8-May-26	8-May-26
Total Kjeldahl Nitrogen	EPA 351.2 - Auto Colour, digestion	Ottawa	8-May-26	8-May-26
Total Suspended Solids	SM 2540D - Gravimetric	Ottawa	7-May-26	8-May-26
VOCs by P&T GC-MS	EPA 624 - P&T GC-MS	Ottawa	8-May-26	8-May-26

PARACEL LABORATORIES LTD.

Order #: 2619289

Certificate of Analysis

Report Date: 12-May-2026

Client: **Cambium Inc. (Ottawa)**

Order Date: 5-May-2026

Client PO:

Project Description: 24896.001

Summary of Criteria Exceedances

If this page is blank, then there are no exceedances

Regulatory Comparison:

Paracel Laboratories has provided regulatory guidelines on this report for informational purposes only and makes no representations or warranties that the data is accurate or reflects the current regulatory values. The user is advised to consult with the appropriate official regulations to evaluate compliance. Sample results that are highlighted in red have exceeded the selected regulatory limit. A blue highlight represents a non-detect result with a reporting limit that exceeds the selected regulatory limit. Calculated uncertainty estimations have not been applied for determining regulatory exceedances.

Sample	Analyte	MDL / Units	Result	Sewer Use - Ottawa: San/Comb 2025-94	Sewer Use - Ottawa: Storm 2025-94
MW103-25	Total Suspended Solids	2 mg/L	339	350 mg/L	15 mg/L
MW103-25	Manganese	0.05 mg/L	0.17	5 mg/L	0.05 mg/L
MW103-25	Zinc	0.02 mg/L	0.05	3 mg/L	0.04 mg/L
MW103	Phosphorus, total	0.01 mg/L	1.01	10 mg/L	0.4 mg/L
MW103	Total Suspended Solids	2 mg/L	1050	350 mg/L	15 mg/L
MW103	Manganese	0.05 mg/L	0.40	5 mg/L	0.05 mg/L
MW103 (Filtered)	Manganese	0.050 mg/L	0.091	5 mg/L	0.05 mg/L

PARACEL LABORATORIES LTD.

Order #: 2619289

Certificate of Analysis

Report Date: 12-May-2026

Client: **Cambium Inc. (Ottawa)**

Order Date: 5-May-2026

Client PO:

Project Description: 24896.001

	Client ID:	MW103-25	MW103	MW103-25 (Filtered)	MW103 (Filtered)	**Criteria:**	
	Sample Date:	05-May-26 08:55	05-May-26 10:30	05-May-26 08:55	05-May-26 10:30	**Sewer Use - Ottawa: San/Comb 2025-94**	**Sewer Use - Ottawa: Storm 2025-94**
	Sample ID:	2619289-01	2619289-02	2619289-03	2619289-04		
	Matrix:	Ground Water	Ground Water	Ground Water	Ground Water		
	MDL/Units						
Microbiological Parameters							
E. coli	1 CFU/100mL	<10 [1] [2] [3]	<10 [1] [2]	-	-	-	-
General Inorganics							
CBOD	2 mg/L	<2	<2	-	-	300 mg/L	25 mg/L
Cyanide, total	0.01 mg/L	<0.01	<0.01	-	-	2 mg/L	0.02 mg/L
pH	0.1 pH Units	7.7	7.8	-	-	-	-
Phenolics	0.001 mg/L	<0.001	<0.001	-	-	1 mg/L	0.008 mg/L
Phosphorus, total	0.01 mg/L	0.24	1.01	-	-	10 mg/L	0.4 mg/L
Total Suspended Solids	2 mg/L	339	1050	-	-	350 mg/L	15 mg/L
Sulphide	0.02 mg/L	<0.02	<0.02	-	-	2 mg/L	-
Total Kjeldahl Nitrogen	0.1 mg/L	0.4	0.1	-	-	100 mg/L	-
Anions							
Fluoride	0.1 mg/L	<0.1	<0.1	-	-	10 mg/L	-
Sulphate	1 mg/L	67	25	-	-	1500 mg/L	-
Metals							
Aluminum	0.010 mg/L	-	-	<0.010	<0.010	50 mg/L	-
Antimony	0.001 mg/L	-	-	<0.001	<0.001	5 mg/L	-
Arsenic	0.010 mg/L	-	-	<0.010	<0.010	1 mg/L	0.02 mg/L
Barium	0.010 mg/L	-	-	0.079	0.145	-	-
Boron	0.050 mg/L	-	-	<0.050	<0.050	25 mg/L	-
Cadmium	0.001 mg/L	-	-	<0.001	<0.001	0.02 mg/L	0.008 mg/L
Chromium	0.050 mg/L	-	-	<0.050	<0.050	5 mg/L	0.07 mg/L
Cobalt	0.001 mg/L	-	-	<0.001	0.001	5 mg/L	-
Copper	0.005 mg/L	-	-	<0.005	<0.005	3 mg/L	0.04 mg/L
Lead	0.001 mg/L	-	-	<0.001	<0.001	5 mg/L	0.12 mg/L
Manganese	0.050 mg/L	-	-	<0.050	0.091	5 mg/L	0.05 mg/L
Mercury	0.0001 mg/L	-	-	<0.0001	<0.0001	0.001 mg/L	0.0004 mg/L

PARACEL LABORATORIES LTD.

Order #: 2619289

Certificate of Analysis

Report Date: 12-May-2026

Client: **Cambium Inc. (Ottawa)**

Order Date: 5-May-2026

Client PO:

Project Description: 24896.001

	Client ID:	MW103-25	MW103	MW103-25 (Filtered)	MW103 (Filtered)	Criteria:	
	Sample Date:	05-May-26 08:55	05-May-26 10:30	05-May-26 08:55	05-May-26 10:30	Sewer Use - Ottawa: San/Comb 2025-94	Sewer Use - Ottawa: Storm 2025-94
	Sample ID:	2619289-01	2619289-02	2619289-03	2619289-04		
	Matrix:	Ground Water	Ground Water	Ground Water	Ground Water		
	MDL/Units						
Metals							
Molybdenum	0.005 mg/L	-	-	<0.005	<0.005	5 mg/L	-
Nickel	0.005 mg/L	-	-	<0.005	<0.005	3 mg/L	0.08 mg/L
Selenium	0.005 mg/L	-	-	<0.005	<0.005	5 mg/L	0.02 mg/L
Silver	0.001 mg/L	-	-	<0.001	<0.001	5 mg/L	0.12 mg/L
Tin	0.010 mg/L	-	-	<0.010	<0.010	5 mg/L	-
Titanium	0.010 mg/L	-	-	<0.010	<0.010	5 mg/L	-
Vanadium	0.001 mg/L	-	-	<0.001	<0.001	5 mg/L	-
Zinc	0.020 mg/L	-	-	<0.020	<0.020	3 mg/L	0.04 mg/L
Metals - Total							
Aluminum	0.01 mg/L	3.73	4.93	-	-	50 mg/L	-
Antimony	0.001 mg/L	0.001	<0.001	-	-	5 mg/L	-
Arsenic	0.01 mg/L	<0.01	<0.01	-	-	1 mg/L	0.02 mg/L
Bismuth	0.005 mg/L	<0.005	<0.005	-	-	5 mg/L	-
Boron	0.05 mg/L	<0.05	<0.05	-	-	25 mg/L	-
Cadmium	0.001 mg/L	<0.001	<0.001	-	-	0.02 mg/L	0.008 mg/L
Chromium	0.05 mg/L	<0.05	<0.05	-	-	5 mg/L	0.07 mg/L
Cobalt	0.001 mg/L	0.006	0.012	-	-	5 mg/L	-
Copper	0.005 mg/L	0.018	0.015	-	-	3 mg/L	0.04 mg/L
Lead	0.001 mg/L	0.017	0.006	-	-	5 mg/L	0.12 mg/L
Manganese	0.05 mg/L	0.17	0.40	-	-	5 mg/L	0.05 mg/L
Mercury	0.0001 mg/L	<0.0001	<0.0001	-	-	0.001 mg/L	0.0004 mg/L
Molybdenum	0.005 mg/L	<0.005	<0.005	-	-	5 mg/L	-
Nickel	0.005 mg/L	0.014	0.014	-	-	3 mg/L	0.08 mg/L
Selenium	0.005 mg/L	<0.005	<0.005	-	-	5 mg/L	0.02 mg/L
Silver	0.001 mg/L	<0.001	<0.001	-	-	5 mg/L	0.12 mg/L
Tin	0.01 mg/L	<0.01	<0.01	-	-	5 mg/L	-

PARACEL LABORATORIES LTD.

Order #: 2619289

Certificate of Analysis

Report Date: 12-May-2026

Client: **Cambium Inc. (Ottawa)**

Order Date: 5-May-2026

Client PO:

Project Description: 24896.001

	Client ID:	MW103-25	MW103	MW103-25 (Filtered)	MW103 (Filtered)	**Criteria:**	
	Sample Date:	05-May-26 08:55	05-May-26 10:30	05-May-26 08:55	05-May-26 10:30	**Sewer Use - Ottawa: San/Comb 2025-94**	**Sewer Use - Ottawa: Storm 2025-94**
	Sample ID:	2619289-01	2619289-02	2619289-03	2619289-04		
	Matrix:	Ground Water	Ground Water	Ground Water	Ground Water		
	MDL/Units						
Metals - Total							
Titanium	0.01 mg/L	0.20	0.33	-	-	5 mg/L	-
Vanadium	0.001 mg/L	0.013	0.012	-	-	5 mg/L	-
Zinc	0.02 mg/L	0.05	0.03	-	-	3 mg/L	0.04 mg/L
Volatiles							
Acetone	0.0050 mg/L	<0.0050	<0.0050	-	-	5 mg/L	-
Benzene	0.0005 mg/L	<0.0005	<0.0005	-	-	0.01 mg/L	0.002 mg/L
Bromodichloromethane	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	-
Bromoform	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	-
Bromomethane	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	-
Carbon Tetrachloride	0.0002 mg/L	<0.0002	<0.0002	-	-	0.1 mg/L	-
Chlorobenzene	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	-
Chloroethane	0.0010 mg/L	<0.0010	<0.0010	-	-	0.1 mg/L	-
Chloroform	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	0.002 mg/L
Chloromethane	0.0030 mg/L	<0.0030	<0.0030	-	-	0.1 mg/L	-
Dibromochloromethane	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	-
Dichlorodifluoromethane	0.0010 mg/L	<0.0010	<0.0010	-	-	0.1 mg/L	-
1,2-Dibromoethane	0.0002 mg/L	<0.0002	<0.0002	-	-	0.1 mg/L	-
1,2-Dichlorobenzene	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	0.0056 mg/L
1,3-Dichlorobenzene	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	-
1,4-Dichlorobenzene	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	0.0068 mg/L
1,1-Dichloroethane	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	-
1,2-Dichloroethane	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	-
1,1-Dichloroethylene	0.0005 mg/L	<0.0005	<0.0005	-	-	0.01 mg/L	-
cis-1,2-Dichloroethylene	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	0.0056 mg/L
trans-1,2-Dichloroethylene	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	-
1,2-Dichloropropane	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	-

PARACEL LABORATORIES LTD.

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Project Description: 24896.001

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	Sample ID:	2619289-01	2619289-02	2619289-03	2619289-04		
	Matrix:	Ground Water	Ground Water	Ground Water	Ground Water		
	MDL/Units						
Volatiles							
cis-1,3-Dichloropropylene	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	-
trans-1,3-Dichloropropylene	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	0.0056 mg/L
Ethylbenzene	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	0.002 mg/L
Methyl Ethyl Ketone (2-Butanone)	0.0050 mg/L	<0.0050	<0.0050	-	-	0.1 mg/L	-
Methyl Butyl Ketone (2-Hexanone)	0.0100 mg/L	<0.0100	<0.0100	-	-	0.1 mg/L	-
Methyl Isobutyl Ketone	0.0050 mg/L	<0.0050	<0.0050	-	-	0.1 mg/L	-
Methyl tert-butyl ether	0.0020 mg/L	<0.0020	<0.0020	-	-	0.1 mg/L	-
Methylene Chloride	0.0050 mg/L	<0.0050	<0.0050	-	-	0.1 mg/L	0.0052 mg/L
Styrene	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	-
1,1,1,2-Tetrachloroethane	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	-
1,1,2,2-Tetrachloroethane	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	0.0044 mg/L
Tetrachloroethylene	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	0.0044 mg/L
Toluene	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	0.002 mg/L
1,1,1-Trichloroethane	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	-
1,1,2-Trichloroethane	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	-
Trichloroethylene	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	0.0076 mg/L
Trichlorofluoromethane	0.0010 mg/L	<0.0010	<0.0010	-	-	0.1 mg/L	-
1,3,5-Trimethylbenzene	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	-
Vinyl chloride	0.0005 mg/L	<0.0005	<0.0005	-	-	0.01 mg/L	-
m,p-Xylenes	0.0005 mg/L	<0.0005	<0.0005	-	-	-	-
o-Xylene	0.0005 mg/L	<0.0005	<0.0005	-	-	-	-
Xylenes, total	0.0005 mg/L	<0.0005	<0.0005	-	-	0.1 mg/L	0.0044 mg/L
Total Toxic Organic - VOCs	0.05 mg/L	<0.05	<0.05	-	-	1 mg/L	-
Hydrocarbons							
Oil & Grease, Animal/Vegetable	0.5 mg/L	<0.5	<0.5	-	-	150 mg/L	-
Oil & Grease, mineral/synthetic	0.5 mg/L	<0.5	<0.5	-	-	15 mg/L	-

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Project Description: 24896.001

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	Sample ID:	2619289-01	2619289-02	2619289-03	2619289-04		
	Matrix:	Ground Water	Ground Water	Ground Water	Ground Water		
	MDL/Units						
Hydrocarbons							
Oil & Grease, total	0.5 mg/L	<0.5	<0.5	-	-	-	-
Semi-Volatiles							
1,2,4-Trichlorobenzene	0.00050 mg/L	<0.00050	<0.00050	-	-	0.1 mg/L	-
1-Chloronaphthalene	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
1-Methylnaphthalene	0.00005 mg/L	<0.00005	<0.00005	-	-	0.1 mg/L	-
2,4-Dinitrotoluene	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
2,6-Dinitrotoluene	0.00050 mg/L	<0.00050	<0.00050	-	-	0.1 mg/L	-
Dinitrotoluene (2,4 & 2,6)	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
2-Chloronaphthalene	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
2-Methylnaphthalene	0.00005 mg/L	<0.00005	<0.00005	-	-	0.1 mg/L	-
Methylnaphthalene (1&2)	0.00010 mg/L	<0.00010	<0.00010	-	-	0.1 mg/L	-
3,3'-Dichlorobenzidine	0.00050 mg/L	<0.00050	<0.00050	-	-	0.1 mg/L	-
4-Bromophenylphenylether	0.00030 mg/L	<0.00030	<0.00030	-	-	-	-
4-Chloroaniline	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
4-Chlorophenylphenylether	0.00200 mg/L	<0.00200	<0.00200	-	-	0.1 mg/L	-
5-Nitroacenaphthene	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
7H-Dibenzo[c,g]carbazole	0.00050 mg/L	<0.00050	<0.00050	-	-	-	-
Acenaphthene	0.00005 mg/L	<0.00005	<0.00005	-	-	0.1 mg/L	-
Acenaphthylene	0.00005 mg/L	<0.00005	<0.00005	-	-	0.1 mg/L	-
Acridine	0.00005 mg/L	<0.00005	<0.00005	-	-	0.1 mg/L	-
Anthracene	0.00001 mg/L	<0.00001	<0.00001	-	-	-	-
Azobenzene	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
Benzo [a] anthracene	0.00001 mg/L	<0.00001	<0.00001	-	-	-	-
Benzo [a] pyrene	0.00001 mg/L	<0.00001	<0.00001	-	-	-	-
Benzo [b&j] fluoranthene	0.00005 mg/L	<0.00005	<0.00005	-	-	-	-
Benzo [e] pyrene	0.00005 mg/L	<0.00005	<0.00005	-	-	-	-

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	Sample ID:	2619289-01	2619289-02	2619289-03	2619289-04		
	Matrix:	Ground Water	Ground Water	Ground Water	Ground Water		
	MDL/Units						
Semi-Volatiles							
Benzo [g,h,i] perylene	0.00005 mg/L	<0.00005	<0.00005	-	-	-	-
Benzo [k] fluoranthene	0.00005 mg/L	<0.00005	<0.00005	-	-	-	-
Benzylbutylphthalate	0.00050 mg/L	<0.00050	<0.00050	-	-	-	-
Biphenyl	0.00005 mg/L	<0.00005	<0.00005	-	-	-	-
Bis(2-chloroethoxy)methane	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
Bis(2-chloroethyl)ether	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
Bis(2-chloroisopropyl)ether	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
Bis(2-ethylhexyl)phthalate	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
Camphene	0.00200 mg/L	<0.00200	<0.00200	-	-	0.1 mg/L	-
Chrysene	0.00005 mg/L	<0.00005	<0.00005	-	-	-	-
Dibenzo [a,h] anthracene	0.00005 mg/L	<0.00005	<0.00005	-	-	-	-
Dibenzo [a,i] pyrene	0.00050 mg/L	<0.00050	<0.00050	-	-	-	-
Dibenzo [a,j] acridine	0.00050 mg/L	<0.00050	<0.00050	-	-	-	-
Diethylphthalate	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
Diphenylamine	0.00500 mg/L	<0.00500	<0.00500	-	-	-	-
Dimethylphthalate	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
Di-n-butylphthalate	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
Di-n-octylphthalate	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
Diphenylether	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
Fluoranthene	0.00001 mg/L	<0.00001	<0.00001	-	-	-	-
Fluorene	0.00005 mg/L	<0.00005	<0.00005	-	-	0.1 mg/L	-
Hexachlorobenzene	0.00001 mg/L	<0.00001	<0.00001	-	-	0.0001 mg/L	-
Hexachlorobutadiene	0.00001 mg/L	<0.00001	<0.00001	-	-	0.1 mg/L	-
Hexachlorocyclopentadiene	0.00001 mg/L	<0.00001	<0.00001	-	-	-	-
Hexachloroethane	0.00001 mg/L	<0.00001	<0.00001	-	-	0.1 mg/L	-
Indeno [1,2,3-cd] pyrene	0.00005 mg/L	<0.00005	<0.00005	-	-	-	-

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	Sample ID:	2619289-01	2619289-02	2619289-03	2619289-04		
	Matrix:	Ground Water	Ground Water	Ground Water	Ground Water		
	MDL/Units						
Semi-Volatiles							
Indole	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
Isophorone	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
Naphthalene	0.00005 mg/L	<0.00005	<0.00005	-	-	0.1 mg/L	-
Nitrobenzene	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
N-Nitroso-di-n-propylamine	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
Phenanthrene	0.00005 mg/L	<0.00005	<0.00005	-	-	-	-
Perylene	0.00050 mg/L	<0.00050	<0.00050	-	-	-	-
Pyrene	0.00001 mg/L	<0.00001	<0.00001	-	-	-	-
Quinoline	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
2,3,4,6-Tetrachlorophenol	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
2,3,5,6-Tetrachlorophenol	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
2,4,5-Trichlorophenol	0.00010 mg/L	<0.00010	<0.00010	-	-	0.1 mg/L	-
2,4,6-Trichlorophenol	0.00020 mg/L	<0.00020	<0.00020	-	-	0.1 mg/L	-
2,4-Dichlorophenol	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
2,4-Dimethylphenol	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
2,4-Dinitrophenol	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
2-Chlorophenol	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
2-Methylphenol	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
2-Nitrophenol	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
3/4-Methylphenol	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
4-Chloro-3-methylphenol	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
4-Nitrophenol	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-
PAHs, total	0.0034 mg/L	<0.0025	<0.0025	-	-	0.015 mg/L	-
Total Toxic Organic - SVOCs	0.05 mg/L	<0.04	<0.04	-	-	1 mg/L	-
Pentachlorophenol	0.00050 mg/L	<0.00050	<0.00050	-	-	0.1 mg/L	-
Phenol	0.00100 mg/L	<0.00100	<0.00100	-	-	0.1 mg/L	-

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	Sample ID:	2619289-01	2619289-02	2619289-03	2619289-04		
	Matrix:	Ground Water	Ground Water	Ground Water	Ground Water		
	MDL/Units						
Semi-Volatiles							
2-Fluorobiphenyl	Surrogate	81.0%	78.4%	-	-	-	-
Nitrobenzene-d5	Surrogate	144% [6]	170% [6]	-	-	-	-
Terphenyl-d14	Surrogate	87.8%	83.2%	-	-	-	-
2,4,6-Tribromophenol	Surrogate	133%	129%	-	-	-	-
2-Fluorophenol	Surrogate	79.8%	71.6%	-	-	-	-
Phenol-d6	Surrogate	101%	95.3%	-	-	-	-
Pesticides, OC							
Hexachlorobenzene	0.00001 mg/L	<0.00001	<0.00001	-	-	0.0001 mg/L	-
Decachlorobiphenyl	Surrogate	73.8%	75.4%	-	-	-	-
PCBs							
PCBs, total	0.05 ug/L	<0.05	<0.05	-	-	0.001 mg/L	0.001 mg/L
Decachlorobiphenyl	Surrogate	65.9%	67.1%	-	-	-	-

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Project Description: 24896.001

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Anions								
Fluoride	ND	0.1	mg/L					
Sulphate	ND	1	mg/L					
General Inorganics								
CBOD	ND	2	mg/L					
Cyanide, total	ND	0.01	mg/L					
Phenolics	ND	0.001	mg/L					
Phosphorus, total	ND	0.01	mg/L					
Total Suspended Solids	ND	2	mg/L					
Sulphide	ND	0.02	mg/L					
Total Kjeldahl Nitrogen	ND	0.1	mg/L					
Hydrocarbons								
Oil & Grease, mineral/synthetic	ND	0.5	mg/L					
Oil & Grease, total	ND	0.5	mg/L					
Metals								
Aluminum	ND	0.010	mg/L					
Antimony	ND	0.001	mg/L					
Arsenic	ND	0.010	mg/L					
Barium	ND	0.010	mg/L					
Boron	ND	0.050	mg/L					
Cadmium	ND	0.001	mg/L					
Chromium	ND	0.050	mg/L					
Cobalt	ND	0.001	mg/L					
Copper	ND	0.005	mg/L					
Lead	ND	0.001	mg/L					
Manganese	ND	0.050	mg/L					
Mercury	ND	0.0001	mg/L					
Molybdenum	ND	0.005	mg/L					
Nickel	ND	0.005	mg/L					
Selenium	ND	0.005	mg/L					
Silver	ND	0.001	mg/L					
Tin	ND	0.010	mg/L					
Titanium	ND	0.010	mg/L					

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Client PO:

Project Description: 24896.001

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Vanadium	ND	0.001	mg/L					
Zinc	ND	0.020	mg/L					
Metals - Total								
Aluminum	ND	0.01	mg/L					
Antimony	ND	0.001	mg/L					
Arsenic	ND	0.01	mg/L					
Bismuth	ND	0.005	mg/L					
Boron	ND	0.05	mg/L					
Cadmium	ND	0.001	mg/L					
Chromium	ND	0.05	mg/L					
Cobalt	ND	0.001	mg/L					
Copper	ND	0.005	mg/L					
Lead	ND	0.001	mg/L					
Manganese	ND	0.05	mg/L					
Mercury	ND	0.0001	mg/L					
Molybdenum	ND	0.005	mg/L					
Nickel	ND	0.005	mg/L					
Selenium	ND	0.005	mg/L					
Silver	ND	0.001	mg/L					
Tin	ND	0.01	mg/L					
Titanium	ND	0.01	mg/L					
Vanadium	ND	0.001	mg/L					
Zinc	ND	0.02	mg/L					
Microbiological Parameters								
E. coli	ND	1	CFU/100mL					
PCBs								
PCBs, total	ND	0.05	ug/L					
Surrogate: Decachlorobiphenyl	*0.219*		*%*	*87.6*	*60-140*			
Pesticides, OC								
Hexachlorobenzene	ND	0.00001	mg/L					
Surrogate: Decachlorobiphenyl	*.00028*		*%*	*114*	*50-140*			
Semi-Volatiles								
1,2,4-Trichlorobenzene	ND	0.00050	mg/L					

PARACEL LABORATORIES LTD.

Order #: 2619289

Certificate of Analysis

Report Date: 12-May-2026

Client: **Cambium Inc. (Ottawa)**

Order Date: 5-May-2026

Client PO:

Project Description: 24896.001

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
1-Chloronaphthalene	ND	0.00100	mg/L					
1-Methylnaphthalene	ND	0.00005	mg/L					
2,4-Dinitrotoluene	ND	0.00100	mg/L					
2,6-Dinitrotoluene	ND	0.00050	mg/L					
Dinitrotoluene (2,4 & 2,6)	ND	0.00100	mg/L					
2-Chloronaphthalene	ND	0.00100	mg/L					
2-Methylnaphthalene	ND	0.00005	mg/L					
Methylnaphthalene (1&2)	ND	0.00010	mg/L					
3,3'-Dichlorobenzidine	ND	0.00050	mg/L					
4-Bromophenylphenylether	ND	0.00030	mg/L					
4-Chloroaniline	ND	0.00100	mg/L					
4-Chlorophenylphenylether	ND	0.00200	mg/L					
5-Nitroacenaphthene	ND	0.00100	mg/L					
7H-Dibenzo[c,g]carbazole	ND	0.00050	mg/L					
Acenaphthene	ND	0.00005	mg/L					
Acenaphthylene	ND	0.00005	mg/L					
Acridine	ND	0.00005	mg/L					
Anthracene	ND	0.00001	mg/L					
Azobenzene	ND	0.00100	mg/L					
Benzo [a] anthracene	ND	0.00001	mg/L					
Benzo [a] pyrene	ND	0.00001	mg/L					
Benzo [b&j] fluoranthene	ND	0.00005	mg/L					
Benzo [e] pyrene	ND	0.00005	mg/L					
Benzo [g,h,i] perylene	ND	0.00005	mg/L					
Benzo [k] fluoranthene	ND	0.00005	mg/L					
Benzylbutylphthalate	ND	0.00050	mg/L					
Biphenyl	ND	0.00005	mg/L					
Bis(2-chloroethoxy)methane	ND	0.00100	mg/L					
Bis(2-chloroethyl)ether	ND	0.00100	mg/L					
Bis(2-chloroisopropyl)ether	ND	0.00100	mg/L					
Bis(2-ethylhexyl)phthalate	ND	0.00100	mg/L					
Camphene	ND	0.00200	mg/L					
Chrysene	ND	0.00005	mg/L					

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Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Dibenzo [a,h] anthracene	ND	0.00005	mg/L					
Dibenzo [a,i] pyrene	ND	0.00050	mg/L					
Dibenzo [a,j] acridine	ND	0.00050	mg/L					
Diethylphthalate	ND	0.00100	mg/L					
Diphenylamine	ND	0.00500	mg/L					
Dimethylphthalate	ND	0.00100	mg/L					
Di-n-butylphthalate	ND	0.00100	mg/L					
Di-n-octylphthalate	ND	0.00100	mg/L					
Diphenylether	ND	0.00100	mg/L					
Fluoranthene	ND	0.00001	mg/L					
Fluorene	ND	0.00005	mg/L					
Hexachlorobenzene	ND	0.00001	mg/L					
Hexachlorobutadiene	ND	0.00001	mg/L					
Hexachlorocyclopentadiene	ND	0.00001	mg/L					
Hexachloroethane	ND	0.00001	mg/L					
Indeno [1,2,3-cd] pyrene	ND	0.00005	mg/L					
Indole	ND	0.00100	mg/L					
Isophorone	ND	0.00100	mg/L					
Naphthalene	ND	0.00005	mg/L					
Nitrobenzene	ND	0.00100	mg/L					
N-Nitroso-di-n-propylamine	ND	0.00100	mg/L					
Phenanthrene	ND	0.00005	mg/L					
Perylene	ND	0.00050	mg/L					
Pyrene	ND	0.00001	mg/L					
Quinoline	ND	0.00100	mg/L					
2,3,4,6-Tetrachlorophenol	ND	0.00100	mg/L					
2,3,5,6-Tetrachlorophenol	ND	0.00100	mg/L					
2,4,5-Trichlorophenol	ND	0.00010	mg/L					
2,4,6-Trichlorophenol	ND	0.00020	mg/L					
2,4-Dichlorophenol	ND	0.00100	mg/L					
2,4-Dimethylphenol	ND	0.00100	mg/L					
2,4-Dinitrophenol	ND	0.00100	mg/L					
2-Chlorophenol	ND	0.00100	mg/L					

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Project Description: 24896.001

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
2-Methylphenol	ND	0.00100	mg/L					
2-Nitrophenol	ND	0.00100	mg/L					
3/4-Methylphenol	ND	0.00100	mg/L					
4-Chloro-3-methylphenol	ND	0.00100	mg/L					
4-Nitrophenol	ND	0.00100	mg/L					
Pentachlorophenol	ND	0.00050	mg/L					
Phenol	ND	0.00100	mg/L					
Surrogate: 2-Fluorobiphenyl	*0.00820*		*%*	*82.0*	*50-140*			
Surrogate: Nitrobenzene-d5	*0.0169*		*%*	*169*	*50-140*			S-GC
Surrogate: Terphenyl-d14	*0.00875*		*%*	*87.5*	*50-140*			
Surrogate: 2,4,6-Tribromophenol	*0.0275*		*%*	*137*	*50-140*			
Surrogate: 2-Fluorophenol	*0.0105*		*%*	*52.5*	*50-140*			
Surrogate: Phenol-d6	*0.0160*		*%*	*79.9*	*50-140*			
Volatiles								
Acetone	ND	0.0050	mg/L					
Benzene	ND	0.0005	mg/L					
Bromodichloromethane	ND	0.0005	mg/L					
Bromoform	ND	0.0005	mg/L					
Bromomethane	ND	0.0005	mg/L					
Carbon Tetrachloride	ND	0.0002	mg/L					
Chlorobenzene	ND	0.0005	mg/L					
Chloroethane	ND	0.0010	mg/L					
Chloroform	ND	0.0005	mg/L					
Chloromethane	ND	0.0030	mg/L					
Dibromochloromethane	ND	0.0005	mg/L					
Dichlorodifluoromethane	ND	0.0010	mg/L					
1,2-Dibromoethane	ND	0.0002	mg/L					
1,2-Dichlorobenzene	ND	0.0005	mg/L					
1,3-Dichlorobenzene	ND	0.0005	mg/L					
1,4-Dichlorobenzene	ND	0.0005	mg/L					
1,1-Dichloroethane	ND	0.0005	mg/L					
1,2-Dichloroethane	ND	0.0005	mg/L					

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Project Description: 24896.001

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
1,1-Dichloroethylene	ND	0.0005	mg/L					
cis-1,2-Dichloroethylene	ND	0.0005	mg/L					
trans-1,2-Dichloroethylene	ND	0.0005	mg/L					
1,2-Dichloropropane	ND	0.0005	mg/L					
cis-1,3-Dichloropropylene	ND	0.0005	mg/L					
trans-1,3-Dichloropropylene	ND	0.0005	mg/L					
Ethylbenzene	ND	0.0005	mg/L					
Methyl Ethyl Ketone (2-Butanone)	ND	0.0050	mg/L					
Methyl Butyl Ketone (2-Hexanone)	ND	0.0100	mg/L					
Methyl Isobutyl Ketone	ND	0.0050	mg/L					
Methyl tert-butyl ether	ND	0.0020	mg/L					
Methylene Chloride	ND	0.0050	mg/L					
Styrene	ND	0.0005	mg/L					
1,1,1,2-Tetrachloroethane	ND	0.0005	mg/L					
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L					
Tetrachloroethylene	ND	0.0005	mg/L					
Toluene	ND	0.0005	mg/L					
1,1,1-Trichloroethane	ND	0.0005	mg/L					
1,1,2-Trichloroethane	ND	0.0005	mg/L					
Trichloroethylene	ND	0.0005	mg/L					
Trichlorofluoromethane	ND	0.0010	mg/L					
1,3,5-Trimethylbenzene	ND	0.0005	mg/L					
Vinyl chloride	ND	0.0005	mg/L					
m,p-Xylenes	ND	0.0005	mg/L					
o-Xylene	ND	0.0005	mg/L					
Xylenes, total	ND	0.0005	mg/L					
Surrogate: 4-Bromofluorobenzene	*0.0807*		*%*	*101*	*50-140*			
Surrogate: Dibromofluoromethane	*0.0728*		*%*	*91.0*	*50-140*			
Surrogate: Toluene-d8	*0.0838*		*%*	*105*	*50-140*			

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Project Description: 24896.001

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Anions									
Fluoride	0.26	0.1	mg/L	0.27			3.4	20	
Sulphate	145	1	mg/L	144			0.6	10	
General Inorganics									
Cyanide, total	0.039	0.01	mg/L	0.038			0.3	20	
pH	7.2	0.1	pH Units	7.2			0.0	3.3	
Phenolics	ND	0.001	mg/L	ND			NC	10	
Phosphorus, total	0.217	0.01	mg/L	0.243			11.1	15	
Total Suspended Solids	ND	2	mg/L	ND			NC	10	
Sulphide	ND	0.02	mg/L	ND			NC	10	
Total Kjeldahl Nitrogen	0.37	0.1	mg/L	0.35			4.1	20	
Metals									
Aluminum	ND	0.010	mg/L	ND			NC	20	
Antimony	ND	0.001	mg/L	ND			NC	20	
Arsenic	ND	0.010	mg/L	ND			NC	20	
Barium	0.0807	0.010	mg/L	0.0791			2.0	20	
Boron	ND	0.050	mg/L	ND			NC	20	
Cadmium	ND	0.001	mg/L	ND			NC	20	
Chromium	ND	0.050	mg/L	ND			NC	20	
Cobalt	ND	0.001	mg/L	ND			NC	20	
Copper	ND	0.005	mg/L	ND			NC	20	
Lead	ND	0.001	mg/L	ND			NC	20	
Mercury	ND	0.0001	mg/L	ND			NC	20	
Manganese	ND	0.050	mg/L	ND			NC	20	
Molybdenum	ND	0.005	mg/L	ND			NC	20	
Nickel	ND	0.005	mg/L	ND			NC	20	
Selenium	ND	0.005	mg/L	ND			NC	20	
Silver	ND	0.001	mg/L	ND			NC	20	
Tin	ND	0.010	mg/L	ND			NC	20	
Titanium	ND	0.010	mg/L	ND			NC	20	
Vanadium	ND	0.001	mg/L	ND			NC	20	

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Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Zinc	ND	0.020	mg/L	ND			NC	20	
Metals - Total									
Aluminum	1.18	0.01	mg/L	1.27			7.1	20	
Antimony	0.008	0.001	mg/L	0.008			2.8	20	
Arsenic	ND	0.01	mg/L	ND			NC	20	
Bismuth	ND	0.005	mg/L	ND			NC	20	
Boron	ND	0.05	mg/L	ND			NC	20	
Cadmium	ND	0.001	mg/L	ND			NC	20	
Chromium	0.100	0.05	mg/L	0.106			5.8	20	
Cobalt	0.005	0.001	mg/L	0.005			6.8	20	
Copper	0.161	0.005	mg/L	0.171			5.9	20	
Lead	0.012	0.001	mg/L	0.012			0.3	20	
Mercury	ND	0.0001	mg/L	ND			NC	20	
Manganese	0.144	0.05	mg/L	0.149			2.8	20	
Molybdenum	0.022	0.005	mg/L	0.022			2.8	20	
Nickel	0.025	0.005	mg/L	0.027			5.0	20	
Selenium	ND	0.005	mg/L	ND			NC	20	
Silver	ND	0.001	mg/L	ND			NC	20	
Tin	ND	0.01	mg/L	ND			NC	20	
Titanium	0.016	0.01	mg/L	0.017			10.2	20	
Vanadium	0.006	0.001	mg/L	0.006			6.0	20	
Zinc	0.244	0.02	mg/L	0.252			3.6	20	
Microbiological Parameters									
E. coli	ND	10	CFU/100mL	ND			NC	30	BAC06, BAC12
Semi-Volatiles									
1,2,4-Trichlorobenzene	ND	0.00050	mg/L	ND			NC	30	
1-Chloronaphthalene	ND	0.00100	mg/L	ND			NC	30	
1-Methylnaphthalene	ND	0.00005	mg/L	ND			NC	30	
2,4-Dinitrotoluene	ND	0.00100	mg/L	ND			NC	30	
2,6-Dinitrotoluene	ND	0.00050	mg/L	ND			NC	30	
2-Chloronaphthalene	ND	0.00100	mg/L	ND			NC	30	

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Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
2-Methylnaphthalene	ND	0.00005	mg/L	ND			NC	30	
3,3'-Dichlorobenzidine	ND	0.00050	mg/L	ND			NC	30	
4-Bromophenylphenylether	ND	0.00030	mg/L	ND			NC	30	
4-Chloroaniline	ND	0.00100	mg/L	ND			NC	30	
4-Chlorophenylphenylether	ND	0.00200	mg/L	ND			NC	30	
5-Nitroacenaphthene	ND	0.00100	mg/L	ND			NC	30	
7H-Dibenzo[c,g]carbazole	ND	0.00050	mg/L	ND			NC	30	
Acenaphthene	ND	0.00005	mg/L	ND			NC	30	
Acenaphthylene	ND	0.00005	mg/L	ND			NC	30	
Acridine	ND	0.00005	mg/L	ND			NC	30	
Anthracene	ND	0.00001	mg/L	ND			NC	30	
Azobenzene	ND	0.00100	mg/L	ND			NC	30	
Benzo [a] anthracene	ND	0.00001	mg/L	ND			NC	30	
Benzo [a] pyrene	ND	0.00001	mg/L	ND			NC	30	
Benzo [b&j] fluoranthene	ND	0.00005	mg/L	ND			NC	30	
Benzo [e] pyrene	ND	0.00005	mg/L	ND			NC	30	
Benzo [g,h,i] perylene	ND	0.00005	mg/L	ND			NC	30	
Benzo [k] fluoranthene	ND	0.00005	mg/L	ND			NC	30	
Benzylbutylphthalate	ND	0.00050	mg/L	ND			NC	30	
Biphenyl	ND	0.00005	mg/L	ND			NC	30	
Bis(2-chloroethoxy)methane	ND	0.00100	mg/L	ND			NC	30	
Bis(2-chloroethyl)ether	ND	0.00100	mg/L	ND			NC	30	
Bis(2-chloroisopropyl)ether	ND	0.00100	mg/L	ND			NC	30	
Bis(2-ethylhexyl)phthalate	ND	0.00100	mg/L	ND			NC	30	
Camphene	ND	0.00200	mg/L	ND			NC	30	
Chrysene	ND	0.00005	mg/L	ND			NC	30	
Dibenzo [a,h] anthracene	ND	0.00005	mg/L	ND			NC	30	
Dibenzo [a,i] pyrene	ND	0.00050	mg/L	ND			NC	30	
Dibenzo [a,j] acridine	ND	0.00050	mg/L	ND			NC	30	
Diethylphthalate	ND	0.00100	mg/L	ND			NC	30	
Diphenylamine	ND	0.00500	mg/L	ND			NC	30	

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Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Dimethylphthalate	ND	0.00100	mg/L	ND			NC	30	
Di-n-butylphthalate	ND	0.00100	mg/L	ND			NC	30	
Di-n-octylphthalate	ND	0.00100	mg/L	ND			NC	30	
Diphenylether	ND	0.00100	mg/L	ND			NC	30	
Fluoranthene	ND	0.00001	mg/L	ND			NC	30	
Fluorene	ND	0.00005	mg/L	ND			NC	30	
Hexachlorobenzene	ND	0.00001	mg/L	ND			NC	30	
Hexachlorobutadiene	ND	0.00001	mg/L	ND			NC	30	
Hexachlorocyclopentadiene	ND	0.00001	mg/L	ND			NC	30	
Hexachloroethane	ND	0.00001	mg/L	ND			NC	30	
Indeno [1,2,3-cd] pyrene	ND	0.00005	mg/L	ND			NC	30	
Indole	ND	0.00100	mg/L	ND			NC	30	
Isophorone	ND	0.00100	mg/L	ND			NC	30	
Naphthalene	ND	0.00005	mg/L	ND			NC	30	
Nitrobenzene	ND	0.00100	mg/L	ND			NC	30	
N-Nitroso-di-n-propylamine	ND	0.00100	mg/L	ND			NC	30	
Phenanthrene	ND	0.00005	mg/L	ND			NC	30	
Perylene	ND	0.00050	mg/L	ND			NC	30	
Pyrene	ND	0.00001	mg/L	ND			NC	30	
Quinoline	ND	0.00100	mg/L	ND			NC	30	
2,3,4,6-Tetrachlorophenol	ND	0.00100	mg/L	ND			NC	30	
2,3,5,6-Tetrachlorophenol	ND	0.00100	mg/L	ND			NC	30	
2,4,5-Trichlorophenol	ND	0.00010	mg/L	ND			NC	30	
2,4,6-Trichlorophenol	ND	0.00020	mg/L	ND			NC	30	
2,4-Dichlorophenol	ND	0.00100	mg/L	ND			NC	30	
2,4-Dimethylphenol	ND	0.00100	mg/L	ND			NC	30	
2,4-Dinitrophenol	ND	0.00100	mg/L	ND			NC	30	
2-Chlorophenol	ND	0.00100	mg/L	ND			NC	30	
2-Methylphenol	ND	0.00100	mg/L	ND			NC	30	
2-Nitrophenol	ND	0.00100	mg/L	ND			NC	30	
3/4-Methylphenol	ND	0.00100	mg/L	ND			NC	30	

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Order Date: 5-May-2026

Client PO:

Project Description: 24896.001

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
4-Chloro-3-methylphenol	ND	0.00100	mg/L	ND			NC	30	
4-Nitrophenol	ND	0.00100	mg/L	ND			NC	30	
Pentachlorophenol	ND	0.00050	mg/L	ND			NC	30	
Phenol	ND	0.00100	mg/L	ND			NC	30	
Surrogate: 2-Fluorobiphenyl	*0.00680*		*%*		*73.5*	*50-140*			
Surrogate: Nitrobenzene-d5	*0.0125*		*%*		*135*	*50-140*			
Surrogate: Terphenyl-d14	*0.00729*		*%*		*78.7*	*50-140*			
Surrogate: 2,4,6-Tribromophenol	*0.0225*		*%*		*121*	*50-140*			
Surrogate: 2-Fluorophenol	*0.0100*		*%*		*54.0*	*50-140*			
Surrogate: Phenol-d6	*0.0142*		*%*		*76.9*	*50-140*			
Volatiles									
Acetone	ND	0.0050	mg/L	ND			NC	30	
Benzene	ND	0.0005	mg/L	ND			NC	30	
Bromodichloromethane	ND	0.0005	mg/L	ND			NC	30	
Bromoform	ND	0.0005	mg/L	ND			NC	30	
Bromomethane	ND	0.0005	mg/L	ND			NC	30	
Carbon Tetrachloride	ND	0.0002	mg/L	ND			NC	30	
Chlorobenzene	ND	0.0005	mg/L	ND			NC	30	
Chloroethane	ND	0.0010	mg/L	ND			NC	30	
Chloroform	ND	0.0005	mg/L	ND			NC	30	
Chloromethane	ND	0.0030	mg/L	ND			NC	30	
Dibromochloromethane	ND	0.0005	mg/L	ND			NC	30	
Dichlorodifluoromethane	ND	0.0010	mg/L	ND			NC	30	
1,2-Dibromoethane	ND	0.0002	mg/L	ND			NC	30	
1,2-Dichlorobenzene	ND	0.0005	mg/L	ND			NC	30	
1,3-Dichlorobenzene	ND	0.0005	mg/L	ND			NC	30	
1,4-Dichlorobenzene	ND	0.0005	mg/L	ND			NC	30	
1,1-Dichloroethane	ND	0.0005	mg/L	ND			NC	30	
1,2-Dichloroethane	ND	0.0005	mg/L	ND			NC	30	
1,1-Dichloroethylene	ND	0.0005	mg/L	ND			NC	30	
cis-1,2-Dichloroethylene	ND	0.0005	mg/L	ND			NC	30	

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Client: **Cambium Inc. (Ottawa)**

Order Date: 5-May-2026

Client PO:

Project Description: 24896.001

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
trans-1,2-Dichloroethylene	ND	0.0005	mg/L	ND			NC	30	
1,2-Dichloropropane	ND	0.0005	mg/L	ND			NC	30	
cis-1,3-Dichloropropylene	ND	0.0005	mg/L	ND			NC	30	
trans-1,3-Dichloropropylene	ND	0.0005	mg/L	ND			NC	30	
Ethylbenzene	0.211	0.0005	mg/L	0.239			12.3	30	
Methyl Ethyl Ketone (2-Butanone)	ND	0.0050	mg/L	ND			NC	30	
Methyl Butyl Ketone (2-Hexanone)	ND	0.0100	mg/L	ND			NC	30	
Methyl Isobutyl Ketone	ND	0.0050	mg/L	ND			NC	30	
Methyl tert-butyl ether	ND	0.0020	mg/L	ND			NC	30	
Methylene Chloride	ND	0.0050	mg/L	ND			NC	30	
Styrene	ND	0.0005	mg/L	ND			NC	30	
1,1,1,2-Tetrachloroethane	ND	0.0005	mg/L	ND			NC	30	
1,1,2,2-Tetrachloroethane	ND	0.0005	mg/L	ND			NC	30	
Tetrachloroethylene	ND	0.0005	mg/L	ND			NC	30	
Toluene	0.0006	0.0005	mg/L	0.0006			15.1	30	
1,1,1-Trichloroethane	ND	0.0005	mg/L	ND			NC	30	
1,1,2-Trichloroethane	ND	0.0005	mg/L	ND			NC	30	
Trichloroethylene	ND	0.0005	mg/L	ND			NC	30	
Trichlorofluoromethane	ND	0.0010	mg/L	ND			NC	30	
1,3,5-Trimethylbenzene	0.294	0.0005	mg/L	0.301			2.4	30	
Vinyl chloride	ND	0.0005	mg/L	ND			NC	30	
m,p-Xylenes	0.653	0.0005	mg/L	0.684			4.6	30	
o-Xylene	0.0638	0.0005	mg/L	0.0630			1.3	30	
Surrogate: 4-Bromofluorobenzene	*0.0894*		*%*		*112*	*50-140*			
Surrogate: Dibromofluoromethane	*0.0682*		*%*		*85.3*	*50-140*			
Surrogate: Toluene-d8	*0.0788*		*%*		*98.4*	*50-140*			

PARACEL LABORATORIES LTD.

Order #: 2619289

Certificate of Analysis

Report Date: 12-May-2026

Client: **Cambium Inc. (Ottawa)**

Order Date: 5-May-2026

Client PO:

Project Description: 24896.001

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Anions									
Fluoride	1.13	0.1	mg/L	0.27	85.5	70-130			
Sulphate	155	1	mg/L	144	104	74-126			
General Inorganics									
CBOD	227	2	mg/L	ND	114	62-129			
Cyanide, total	0.092	0.01	mg/L	0.038	107	64-136			
Phenolics	0.025	0.001	mg/L	ND	101	80-120			
Phosphorus, total	1.17	0.01	mg/L	0.243	92.8	80-120			
Total Suspended Solids	20.0	2	mg/L	ND	90.1	84-124			
Sulphide	0.49	0.02	mg/L	ND	98.8	82-118			
Total Kjeldahl Nitrogen	1.28	0.1	mg/L	0.35	92.2	75-125			
Hydrocarbons									
Oil & Grease, mineral/synthetic	6.60	0.5	mg/L	ND	66.0	65-110			
Oil & Grease, total	19.7	0.5	mg/L	ND	98.5	85-110			
Metals									
Aluminum	47.2	0.010	mg/L	0.2	94.0	80-120			
Arsenic	47.0	0.010	mg/L	0.07	93.8	80-120			
Barium	52.6	0.010	mg/L	7.9	89.4	80-120			
Boron	49.3	0.050	mg/L	4.7	89.1	80-120			
Cadmium	43.9	0.001	mg/L	ND	87.8	80-120			
Chromium	48.1	0.050	mg/L	ND	96.2	80-120			
Cobalt	46.0	0.001	mg/L	0.05	91.9	80-120			
Copper	45.0	0.005	mg/L	0.06	90.0	80-120			
Lead	44.6	0.001	mg/L	0.03	89.1	80-120			
Mercury	0.00277	0.0001	mg/L	ND	92.2	70-130			
Manganese	52.1	0.050	mg/L	4.5	95.2	80-120			
Molybdenum	44.4	0.005	mg/L	0.08	88.7	80-120			
Nickel	45.3	0.005	mg/L	0.1	90.3	80-120			
Selenium	46.2	0.005	mg/L	0.02	92.5	80-120			
Silver	42.5	0.001	mg/L	0.003	85.1	80-120			
Tin	42.6	0.010	mg/L	0.03	85.2	80-120			

PARACEL LABORATORIES LTD.

Order #: 2619289

Certificate of Analysis

Report Date: 12-May-2026

Client: **Cambium Inc. (Ottawa)**

Order Date: 5-May-2026

Client PO:

Project Description: 24896.001

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Titanium	49.2	0.010	mg/L	0.02	98.3	80-120			
Vanadium	48.5	0.001	mg/L	0.008	96.9	80-120			
Zinc	45.3	0.020	mg/L	0.4	89.9	80-120			
Metals - Total									
Aluminum	169	0.01	mg/L	127	84.3	80-120			
Arsenic	46.7	0.01	mg/L	0.439	92.5	80-120			
Bismuth	43.7	0.005	mg/L	0.077	87.2	80-120			
Boron	48.6	0.05	mg/L	3.01	91.3	80-120			
Cadmium	39.7	0.001	mg/L	0.040	79.3	80-120			QM-07
Chromium	58.6	0.05	mg/L	10.6	95.9	80-120			
Cobalt	46.8	0.001	mg/L	0.498	92.6	80-120			
Copper	62.3	0.005	mg/L	17.1	90.3	80-120			
Lead	43.0	0.001	mg/L	1.21	83.7	80-120			
Mercury	0.0027	0.0001	mg/L	ND	88.9	70-130			
Manganese	61.9	0.05	mg/L	14.9	94.0	80-120			
Molybdenum	47.0	0.005	mg/L	2.21	89.5	80-120			
Nickel	48.8	0.005	mg/L	2.65	92.2	80-120			
Selenium	43.6	0.005	mg/L	0.037	87.0	80-120			
Silver	39.8	0.001	mg/L	0.065	79.4	80-120			QM-07
Tin	40.6	0.01	mg/L	0.265	80.6	80-120			
Titanium	50.5	0.01	mg/L	1.74	97.5	80-120			
Vanadium	49.1	0.001	mg/L	0.604	97.1	80-120			
Zinc	67.6	0.02	mg/L	25.2	84.6	80-120			
PCBs									
PCBs, total	0.899	0.05	ug/L	ND	89.9	65-135			
Surrogate: Decachlorobiphenyl	*0.241*		*%*		*96.3*	*60-140*			
Pesticides, OC									
Hexachlorobenzene	0.00038	0.00001	mg/L	ND	76.0	50-140			
Surrogate: Decachlorobiphenyl	*0.000200*		*%*		*80.2*	*50-140*			
Semi-Volatiles									
1,2,4-Trichlorobenzene	0.00733	0.00050	mg/L	ND	79.2	50-140			

PARACEL LABORATORIES LTD.

Order #: 2619289

Certificate of Analysis

Report Date: 12-May-2026

Client: **Cambium Inc. (Ottawa)**

Order Date: 5-May-2026

Client PO:

Project Description: 24896.001

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
1-Chloronaphthalene	0.00723	0.00100	mg/L	ND	78.1	50-140			
1-Methylnaphthalene	0.00742	0.00005	mg/L	ND	80.1	50-140			
2,4-Dinitrotoluene	0.0114	0.00100	mg/L	ND	123	50-140			
2,6-Dinitrotoluene	0.0127	0.00050	mg/L	ND	137	50-140			
2-Chloronaphthalene	0.00772	0.00100	mg/L	ND	83.3	50-140			
2-Methylnaphthalene	0.00743	0.00005	mg/L	ND	80.2	50-140			
3,3'-Dichlorobenzidine	0.00762	0.00050	mg/L	ND	82.3	30-130			
4-Bromophenylphenylether	0.00953	0.00030	mg/L	ND	103	50-140			
4-Chloroaniline	0.00765	0.00100	mg/L	ND	82.7	30-130			
4-Chlorophenylphenylether	0.00770	0.00200	mg/L	ND	83.1	50-140			
7H-Dibenzo[c,g]carbazole	0.00670	0.00050	mg/L	ND	72.3	50-140			
Acenaphthene	0.00730	0.00005	mg/L	ND	78.8	50-140			
Acenaphthylene	0.00803	0.00005	mg/L	ND	86.7	50-140			
Anthracene	0.00802	0.00001	mg/L	ND	86.6	50-140			
Azobenzene	0.0109	0.00100	mg/L	ND	118	50-140			
Benzo [a] anthracene	0.00853	0.00001	mg/L	ND	92.1	50-140			
Benzo [a] pyrene	0.00660	0.00001	mg/L	ND	71.3	50-140			
Benzo [b&j] fluoranthene	0.0140	0.00005	mg/L	ND	75.5	50-140			
Benzo [e] pyrene	0.00629	0.00005	mg/L	ND	67.9	50-140			
Benzo [g,h,i] perylene	0.00518	0.00005	mg/L	ND	55.9	50-140			
Benzo [k] fluoranthene	0.00604	0.00005	mg/L	ND	65.2	50-140			
Benzylbutylphthalate	0.0104	0.00050	mg/L	ND	112	50-140			
Bis(2-chloroethoxy)methane	0.0129	0.00100	mg/L	ND	139	50-140			
Bis(2-chloroethyl)ether	0.00784	0.00100	mg/L	ND	84.7	50-140			
Bis(2-chloroisopropyl)ether	0.00878	0.00100	mg/L	ND	94.8	50-140			
Bis(2-ethylhexyl)phthalate	0.00997	0.00100	mg/L	ND	108	50-140			
Chrysene	0.00714	0.00005	mg/L	ND	77.1	50-140			
Dibenzo [a,i] pyrene	0.00579	0.00050	mg/L	ND	62.5	50-140			
Dibenzo [a,j] acridine	0.00476	0.00050	mg/L	ND	51.4	50-140			
Diethylphthalate	0.0115	0.00100	mg/L	ND	124	50-140			
Diphenylamine	0.00804	0.00500	mg/L	ND	86.8	30-140			

PARACEL LABORATORIES LTD.

Order #: 2619289

Certificate of Analysis

Report Date: 12-May-2026

Client: **Cambium Inc. (Ottawa)**

Order Date: 5-May-2026

Client PO:

Project Description: 24896.001

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Dimethylphthalate	0.0127	0.00100	mg/L	ND	137	50-140			
Di-n-butylphthalate	0.0112	0.00100	mg/L	ND	121	50-140			
Di-n-octylphthalate	0.00834	0.00100	mg/L	ND	90.0	50-140			
Diphenylether	0.00624	0.00100	mg/L	ND	67.4	50-140			
Fluoranthene	0.00843	0.00001	mg/L	ND	91.0	50-140			
Fluorene	0.00725	0.00005	mg/L	ND	78.3	50-140			
Hexachlorobenzene	0.00804	0.00001	mg/L	ND	86.8	50-140			
Hexachlorobutadiene	0.00770	0.00001	mg/L	ND	83.1	50-140			
Hexachlorocyclopentadiene	0.00838	0.00001	mg/L	ND	90.6	50-140			
Hexachloroethane	0.00885	0.00001	mg/L	ND	95.5	50-140			
Indeno [1,2,3-cd] pyrene	0.00750	0.00005	mg/L	ND	81.0	50-140			
Isophorone	0.0126	0.00100	mg/L	ND	136	50-140			
Naphthalene	0.00753	0.00005	mg/L	ND	81.3	50-140			
Nitrobenzene	0.0126	0.00100	mg/L	ND	136	50-140			
N-Nitroso-di-n-propylamine	0.0123	0.00100	mg/L	ND	133	50-140			
Phenanthrene	0.00746	0.00005	mg/L	ND	80.6	50-140			
Pyrene	0.00777	0.00001	mg/L	ND	83.9	50-140			
2,3,4,6-Tetrachlorophenol	0.0120	0.00100	mg/L	ND	129	50-140			
2,3,5,6-Tetrachlorophenol	0.0121	0.00100	mg/L	ND	130	50-140			
2,4,5-Trichlorophenol	0.0126	0.00010	mg/L	ND	136	50-140			
2,4,6-Trichlorophenol	0.0122	0.00020	mg/L	ND	131	50-140			
2,4-Dichlorophenol	0.0123	0.00100	mg/L	ND	132	50-140			
2,4-Dimethylphenol	0.0110	0.00100	mg/L	ND	119	30-130			
2,4-Dinitrophenol	0.0118	0.00100	mg/L	ND	127	30-130			
2-Chlorophenol	0.00978	0.00100	mg/L	ND	106	50-140			
2-Methylphenol	0.00884	0.00100	mg/L	ND	95.5	50-140			
2-Nitrophenol	0.0105	0.00100	mg/L	ND	114	50-140			
3/4-Methylphenol	0.00981	0.00100	mg/L	ND	106	50-140			
4-Chloro-3-methylphenol	0.0125	0.00100	mg/L	ND	135	50-140			
4-Nitrophenol	0.0108	0.00100	mg/L	ND	117	50-140			
Pentachlorophenol	0.0108	0.00050	mg/L	ND	116	50-140			

PARACEL LABORATORIES LTD.

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Certificate of Analysis

Report Date: 12-May-2026

Client: **Cambium Inc. (Ottawa)**

Order Date: 5-May-2026

Client PO:

Project Description: 24896.001

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Phenol	0.00680	0.00100	mg/L	ND	73.5	30-130			
Surrogate: 2-Fluorobiphenyl	*0.00664*		*%*		*71.7*	*50-140*			
Surrogate: Nitrobenzene-d5	*0.0121*		*%*		*131*	*50-140*			
Surrogate: Terphenyl-d14	*0.00726*		*%*		*78.4*	*50-140*			
Surrogate: 2,4,6-Tribromophenol	*0.0223*		*%*		*120*	*50-140*			
Surrogate: 2-Fluorophenol	*0.00977*		*%*		*52.8*	*50-140*			
Surrogate: Phenol-d6	*0.0145*		*%*		*78.5*	*50-140*			
Volatiles									
Acetone	0.107	0.0050	mg/L	ND	107	50-140			
Benzene	0.0446	0.0005	mg/L	ND	111	60-130			
Bromodichloromethane	0.0494	0.0005	mg/L	ND	124	60-130			
Bromoform	0.0299	0.0005	mg/L	ND	74.8	60-130			
Bromomethane	0.0453	0.0005	mg/L	ND	113	50-140			
Carbon Tetrachloride	0.0453	0.0002	mg/L	ND	113	60-130			
Chlorobenzene	0.0373	0.0005	mg/L	ND	93.2	60-130			
Chloroethane	0.0448	0.0010	mg/L	ND	112	50-140			
Chloroform	0.0492	0.0005	mg/L	ND	123	60-130			
Chloromethane	0.0386	0.0030	mg/L	ND	96.4	50-140			
Dibromochloromethane	0.0374	0.0005	mg/L	ND	93.6	60-130			
Dichlorodifluoromethane	0.0413	0.0010	mg/L	ND	103	50-140			
1,2-Dibromoethane	0.0396	0.0002	mg/L	ND	99.0	60-130			
1,2-Dichlorobenzene	0.0384	0.0005	mg/L	ND	96.0	60-130			
1,3-Dichlorobenzene	0.0374	0.0005	mg/L	ND	93.5	60-130			
1,4-Dichlorobenzene	0.0379	0.0005	mg/L	ND	94.8	60-130			
1,1-Dichloroethane	0.0468	0.0005	mg/L	ND	117	60-130			
1,2-Dichloroethane	0.0508	0.0005	mg/L	ND	127	60-130			
1,1-Dichloroethylene	0.0448	0.0005	mg/L	ND	112	60-130			
cis-1,2-Dichloroethylene	0.0446	0.0005	mg/L	ND	112	60-130			
trans-1,2-Dichloroethylene	0.0451	0.0005	mg/L	ND	113	60-130			
1,2-Dichloropropane	0.0476	0.0005	mg/L	ND	119	60-130			
cis-1,3-Dichloropropylene	0.0452	0.0005	mg/L	ND	113	60-130			

PARACEL LABORATORIES LTD.

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Project Description: 24896.001

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
trans-1,3-Dichloropropylene	0.0452	0.0005	mg/L	ND	113	60-130			
Ethylbenzene	0.0368	0.0005	mg/L	ND	91.9	60-130			
Methyl Ethyl Ketone (2-Butanone)	0.106	0.0050	mg/L	ND	106	50-140			
Methyl Butyl Ketone (2-Hexanone)	0.102	0.0100	mg/L	ND	102	50-140			
Methyl Isobutyl Ketone	0.121	0.0050	mg/L	ND	121	50-140			
Methyl tert-butyl ether	0.0828	0.0020	mg/L	ND	82.8	50-140			
Methylene Chloride	0.0457	0.0050	mg/L	ND	114	60-130			
Styrene	0.0360	0.0005	mg/L	ND	90.0	60-130			
1,1,1,2-Tetrachloroethane	0.0394	0.0005	mg/L	ND	98.4	60-130			
1,1,2,2-Tetrachloroethane	0.0438	0.0005	mg/L	ND	110	60-130			
Tetrachloroethylene	0.0350	0.0005	mg/L	ND	87.5	60-130			
Toluene	0.0365	0.0005	mg/L	ND	91.2	60-130			
1,1,1-Trichloroethane	0.0495	0.0005	mg/L	ND	124	60-130			
1,1,2-Trichloroethane	0.0483	0.0005	mg/L	ND	121	60-130			
Trichloroethylene	0.0463	0.0005	mg/L	ND	116	60-130			
Trichlorofluoromethane	0.0418	0.0010	mg/L	ND	104	60-130			
1,3,5-Trimethylbenzene	0.0336	0.0005	mg/L	ND	84.0	60-130			
Vinyl chloride	0.0451	0.0005	mg/L	ND	113	50-140			
m,p-Xylenes	0.0742	0.0005	mg/L	ND	92.7	60-130			
o-Xylene	0.0387	0.0005	mg/L	ND	96.8	60-130			
Surrogate: 4-Bromofluorobenzene	*0.0653*		*%*		*81.6*	*50-140*			
Surrogate: Dibromofluoromethane	*0.0921*		*%*		*115*	*50-140*			
Surrogate: Toluene-d8	*0.0737*		*%*		*92.2*	*50-140*			

PARACEL LABORATORIES LTD.

Order #: 2619289

Certificate of Analysis

Report Date: 12-May-2026

Client: **Cambium Inc. (Ottawa)**

Order Date: 5-May-2026

Client PO:

Project Description: 24896.001

Qualifier Notes:

Login Qualifiers :

Sample - One or more parameter received or added past hold time. Directed by client to proceed with analysis - E.coli

Applies to Samples: MW103-25, MW103-25 (Filtered), MW103 (Filtered)

Sample Qualifiers :

1: Increased detection limit was a consequence of dilution/reduced analysis volume due to high background bacteria levels / sample matrix limitations.

Applies to Samples: MW103-25, MW103

2: Confluent background/interfering flora: May interfere with target colony growth and the analysts' ability to count discrete colonies. The target colonies may be under-represented.

Applies to Samples: MW103-25, MW103

3: This analysis was conducted after the accepted holding time had been exceeded.

Applies to Samples: MW103-25

6: Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

Applies to Samples: MW103-25, MW103

QC Qualifiers:

BAC06	Increased detection limit was a consequence of dilution/reduced analysis volume due to high background bacteria levels / sample matrix limitations.
BAC12	Confluent background/interfering flora: May interfere with target colony growth and the analysts' ability to count discrete colonies. The target colonies may be under-represented.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on other acceptable QC.
S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

Sample Data Revisions:

None

PARACEL LABORATORIES LTD.

Order #: 2619289

Certificate of Analysis

Report Date: 12-May-2026

Client: **Cambium Inc. (Ottawa)**

Order Date: 5-May-2026

Client PO:

Project Description: 24896.001

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

Source Result: Data used as source for matrix and duplicate samples

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

PARACEL LABORATORIES LTD.

Paracel ID: 2619289

Paracel Order Number (Lab Use Only)	Chain of Custody (Lab Use Only)
2619289	№ 82761

Client Name: Cambium
Contact Name: Brent Redmond
Address: 31 Hyperion Crt, unit 102, Kingston, ON
Telephone:

Project Ref: 24896.001
Quote #: 25-579
PO #:
E-mail: brent.redmond@cambium-inc.com
maren.catt

Page 1 of 1

Turnaround Time
☐ 1 day ☐ 3 day
☐ 2 day ☒ Regular
Date Required:

☐ REG 153/04 ☐ REG 406/19

☐ Table 1 ☐ Agri/Other ☐ Med/Fine
☐ Table 2 ☐ Res/Park ☐ Coarse
☐ Table 3 ☐ Ind/Comm
☐ Table ___
For RSC: ☐ Yes ☐ No

Other Regulation
☐ REG 558 ☐ PWQO
☐ CCME ☐ MISA
☒ SU - Sani ☒ SU - Storm
Mun: Ottawa
☐ Other:

Matrix Type: S (Soil/Sed.) GW (Ground Water) SW (Surface Water) SS (Storm/Sanitary Sewer) P (Paint) A (Air) O (Other)

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Field Filtered	Sample Taken Date	Sample Taken Time	Required Analysis: Sequote
1	MW103-25	GW	X			26-05-05	8:55	X
2	MW103	GW	X			"	10:30	X
3								
4								
5								
6								
7								
8								
9								
10								

Comments:

Method of Delivery: walk-in

Unless otherwise negotiated by the parties, by signing Paracel's Chain of Custody form, you are agreeing to Paracel Laboratories Terms and Conditions and are subject to the terms and conditions thereof. Available at www.paracellabs.com

Relinquished By (Sign): Maren Catt	Received at Depot: Alverley	Received at Lab:	Verified By:
Relinquished By (Print): Maren Catt	Date/Time: May 05 15:18	Date/Time: May 7/26 9:55	Date/Time: May 7/26 10:09
Date/Time: 26-05-05	Temperature: 12.6 °C	Temperature: 7.7	pH Verified: ☒ By:

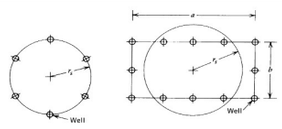
Appendix F
Dewatering Calculations

DEWATERING CALCULATIONS - PHASE 1 BUILDING

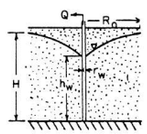
Modified Dupuit-Forchheimer Equation: unconfined flow into a rectangular excavation.
Calculations assume no flow boundary at aquifer base

Excavation Area		Initial Depth to Groundwater	Target Depth to Groundwater	Base of Aquifer	Excavation Length (a)	Excavation Width (b)	Hydraulic Conductivity (K)	s	R	$r_s = \sqrt{(ab/\pi)}$	R_o	$\ln(R_o/r_s)$	H	$h_w = H-s$	r_s	Q_{total}		
		masl	masl	masl	m	m	m/s	m	m	m	m	-	m	m	m	m^3/s	L/s	L/d
Rectangular excavation with dimensions axb	Maximum K	88.93	85.8	84.16	100	30	4.60E-07	3.18	6.47	30.90	37.37	0.19	4.77	1.59	30.90	**0.000154**	**0.15**	**13,283**
	Geomean K	88.93	85.8	84.16	100	30	3.37E-07	3.18	5.54	30.90	36.44	0.16	4.77	1.59	30.90	**0.000130**	**0.13**	**11,222**
	Minimum K	88.93	85.8	84.16	100	30	2.69E-07	3.18	4.95	30.90	35.85	0.15	4.77	1.59	30.90	**0.000115**	**0.12**	**9,943**

s = target drawdown (initial - target depth to groundwater) (m)
R_o = radius of influence of construction dewatering/pumping (m)
r_s = equivalent single well radius (m)
H = Initial hydraulic head in aquifer (m)
h = hydraulic head at radius of well (m)
Q = construction dewatering rate (m^3/s)
*For base of aquifer, calculated using target depth to groundwater plus 50% of target drawdown (s).



$$r_s = \sqrt{\frac{ab}{\pi}}$$



Radial flow, water table aquifer

$$Q_w = \frac{\pi K(H^2 - h_w^2)}{\ln R_0 / r_w}$$

(from Table 6.1, pg 67)

*Use $r_w = r_s$ for rectangular excavations

R = 3000*s*sqrt(K)
R_o = R, if R > r_s
R_o = R + r_s, if R <= r_s

Source: Cashman and Preene. "Groundwater Lowering in Construction." (2013)

Source: Powers, J. Patrick, et al. "Construction dewatering and groundwater control." (2007)

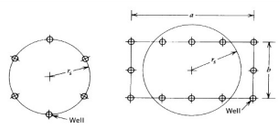
DEWATERING CALCULATIONS - PHASE 2 BUILDING

Modified Dupuit-Forchheimer Equation: unconfined flow into a rectangular excavation.
Calculations assume no flow boundary at aquifer base

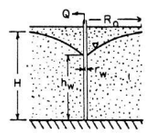
82.38

Excavation Area		Initial Depth to Groundwater	Target Depth to Groundwater	Base of Aquifer	Excavation Length (a)	Excavation Width (b)	Hydraulic Conductivity (K)	s	R	$r_s = \sqrt{(ab/\pi)}$	R_o	$\ln(R_o/r_s)$	H	$h_w = H-s$	r_s	Q_{total}		
		masl	masl	masl	m	m	m/s	m	m	m	m	-	m	m	m	m^3/s	L/s	L/d
Rectangular excavation with dimensions axb	Maximum K	88.93	84.6	82.38	100	22	4.60E-07	4.37	8.89	26.46	35.35	0.29	6.56	2.19	26.46	**0.000191**	**0.19**	**16,462**
	Geomean K	88.93	84.6	82.38	100	22	3.37E-07	4.37	7.61	26.46	34.07	0.25	6.56	2.19	26.46	**0.000160**	**0.16**	**13,821**
	Minimum K	88.93	84.6	82.38	100	22	2.69E-07	4.37	6.80	26.46	33.26	0.23	6.56	2.19	26.46	**0.000141**	**0.14**	**12,195**

s = target drawdown (initial - target depth to groundwater) (m)
R_o = radius of influence of construction dewatering/pumping (m)
r_s = equivalent single well radius (m)
H = Initial hydraulic head in aquifer (m)
h = hydraulic head at radius of well (m)
Q = construction dewatering rate (m^3/s)
*For base of aquifer, calculated using target depth to groundwater plus 50% of target drawdown (s).



$$r_s = \sqrt{\frac{ab}{\pi}}$$



Radial flow, water table aquifer

$$Q_w = \frac{\pi K(H^2 - h_w^2)}{\ln R_0 / r_w}$$

(from Table 6.1, pg 67)

*Use $r_w = r_s$ for rectangular excavations

R = 3000*s*sqrt(K)
R_o = R, if R > r_s
R_o = R + r_s, if R <= r_s

Source: Cashman and Preene. "Groundwater Lowering in Construction." (2013)

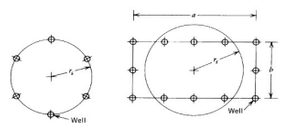
Source: Powers, J. Patrick, et al. "Construction dewatering and groundwater control." (2007)

DEWATERING CALCULATIONS - PHASE 3 BUILDING

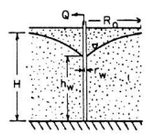
Modified Dupuit-Forchheimer Equation: unconfined flow into a rectangular excavation.
Calculations assume no flow boundary at aquifer base

Excavation Area		Initial Depth to Groundwater	Target Depth to Groundwater	Base of Aquifer	Excavation Length (a)	Excavation Width (b)	Hydraulic Conductivity (K)	s	R	$r_s = \sqrt{(ab/\pi)}$	R_o	$\ln(R_o/r_s)$	H	$h_w = H-s$	r_s	Q_{total}		
		masl	masl	masl	m	m	m/s	m	m	m	m	-	m	m	m	m^3/s	L/s	L/d
Rectangular excavation with dimensions axb	Maximum K	88.93	84.6	82.38	33	33	4.60E-07	4.37	8.89	18.62	27.51	0.39	6.56	2.19	18.62	**0.000141**	**0.14**	**12,215**
	Geomean K	88.93	84.6	82.38	33	33	3.37E-07	4.37	7.61	18.62	26.23	0.34	6.56	2.19	18.62	**0.000118**	**0.12**	**10,194**
	Minimum K	88.93	84.6	82.38	33	33	2.69E-07	4.37	6.80	18.62	25.42	0.31	6.56	2.19	18.62	**0.000104**	**0.10**	**8,958**

s = target drawdown (initial - target depth to groundwater) (m)
R_o = radius of influence of construction dewatering/pumping (m)
r_s = equivalent single well radius (m)
H = Initial hydraulic head in aquifer (m)
h = hydraulic head at radius of well (m)
Q = construction dewatering rate (m^3/s)
*For base of aquifer, calculated using target depth to groundwater plus 50% of target drawdown (s).



$$r_s = \sqrt{\frac{ab}{\pi}}$$



Radial flow, water table aquifer

$$Q_w = \frac{\pi K(H^2 - h_w^2)}{\ln R_0 / r_w}$$

(from Table 6.1, pg 67)

*Use $r_w = r_s$ for rectangular excavations

R = 3000*s*sqrt(K)
R_o = R, if R > r_s
R_o = R + r_s, if R <= r_s

Source: Cashman and Preene. "Groundwater Lowering in Construction." (2013)

Source: Powers, J. Patrick, et al. "Construction dewatering and groundwater control." (2007)