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CAMBIUM

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1.0 Executive Summary

Conseil des écoles publiques de l'Est de l'Ontario (Client) retained Cambium Inc. (Cambium) to complete a Phase Two Environmental Site Assessment (ESA) at 2405 and 2419 Mer Bleue Road in Ottawa, Ontario ('Site' or 'Phase Two Property'). The Phase Two ESA will be used to support a Site Plan Approval (SPA) application with the City of Ottawa and has been completed to meet the requirements of Ontario Regulation (O.Reg.) 153/04.

The roughly 3.61 ha Site is east of Mer Bleue Road and approximately 90 m south of the intersection of Mer Bleue Road and Renaud Road. The Site consists of a vacant residential dwelling and vacant undeveloped/vegetated land. A review of historical documents indicated that the first developed land use at the site was for residential purposes in approximately 1925. The Site is proposed to be redeveloped for institutional use.

The Phase One ESA identified eight potentially contaminating activities (PCAs), eight on-site and none off-site, within the Phase One study area. The on-site PCAs contributed to areas of potential environmental concern (APECs). The related contaminants of potential concern (COPCs) were petroleum hydrocarbons (PHCs), volatile organic compounds (VOCs) including benzene, toluene, ethylbenzene, xylenes (BTEX), polycyclic aromatic hydrocarbons (PAHs), metals, hydride-forming metals, and other regulated parameters (ORPs) including hot water soluble boron (B-HWS), hexavalent chromium [Cr(VI)], mercury (Hg), cyanide, chloride, sodium, pH, electrical conductivity (EC), and sodium adsorption ratio (SAR). Potentially contaminated media was soil and groundwater.

A Phase Two ESA work program was developed to investigate COPCs in soil and groundwater. The Phase Two ESA included five boreholes, three of which were instrumented with groundwater monitoring wells.

Concentrations of COPCs in the analyzed soil samples met the applicable Table 6 Site Condition Standards (SCS) for residential, parkland, and institutional (RPI) land use, with the exception of EC, vanadium and/or cobalt concentrations in soil, as well as sodium and chloride concentrations in groundwater, as follows:



- Vanadium and cobalt in the soil sample collected from borehole BH114-25 (and its duplicate) which marginally exceeded the Table 6 SCS. Given that these soil samples were collected from the native silty clay, which is a marine clay deposit known to contain naturally elevated metals concentrations (Geofirma Engineering, 2023), the vanadium and cobalt exceedances are likely attributed to background soil concentrations. As such, it is Cambium's opinion that the reported vanadium and cobalt concentrations are naturally occurring and do not represent an environmental concern for the Site.
- EC in the soil samples collected from borehole BH114-25 (and its duplicate) and BH117-25, which exceeded the Table 6 SCS. The QP_{ESA} has determined that the abovenoted exceedances are associated with a substance which has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice at the Site. As such, the exemption set out in paragraph 1 of section 49.1 of O.Reg. 153/04 will be relied upon, and the SCS is deemed not to be exceeded for the purpose of Part XV.1 of the Act.
- Soil pH was above the acceptable pH range for surface (≤1.5 mbgs) soil in samples collected from 0 to 0.8 mbgs at boreholes BH116-25 and BH117-25. These exceedances were vertically delineated by deeper soil samples (0.8 to 1.5 mbgs) at each location, which were within the acceptable pH range for surface soil. On-site sub-surface (>1.5 mbgs) soil samples were within the acceptable pH range. It is Cambium's opinion that the elevated pH levels are not representative of the entire Site and are localized to surficial soil in the vicinity of the former landscaping storage yard.

Concentrations of COPCs in the analyzed groundwater samples met the applicable Table 6 SCS, with the exception of the following:

 Chloride in the groundwater samples collected from BH113-25 and BH115-25, and sodium in the groundwater samples collected from BH113-25, BH114-25 and its duplicate sample exceeded the Table 6 SCS. The QP_{ESA} has determined that the above-noted exceedances are associated with a substance which has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice at the Site. As such, the



exemption set out in paragraph 1 of section 49.1 of O.Reg. 153/04 will be relied upon, and the SCS is deemed not to be exceeded for the purpose of Part XV.1 of the Act.

Cambium recommends that the pH of the surficial soil at 2419 Mer Bleue Road should be tested and amended as directed by a landscape architect during Site development. However, no further environmental investigation is necessary at this time and a SPA application can be submitted for the Site.



2.0 Introduction

The Client retained Cambium to complete a Phase Two ESA at 2405 and 2419 Mer Bleue Road, Ottawa, Ontario. The Phase Two ESA was completed to meet the requirements of O.Reg. 153/04 and will be used to support a SPA application for the Site.

2.1 Site Description

The Site is east of Mer Bleue Road and approximately 90 m south of the intersection of Mer Bleue Road and Renaud Road. The municipal address is 2405 and 2419 Mer Bleue Road in Ottawa, Ontario. Site information and property owner information are summarized below.

The Phase Two Property location is shown on Figure 1. The Phase Two Property boundary is shown on Figure 2.

| Municipal Address | 2405 and 2419 Mer Bleue Road, Ottawa, Ontario | | |
|---|---|--|--|
| Historical Land Use | Residential and agricultural | | |
| Current Land Use | Residential | | |
| Future Land Use | Institutional | | |
| PIN | 14563-1816 (LT) and 14563-0541 (LT) | | |
| Universal Transverse Mercator Coordinates* | Zone 18T 461,436 m E, 5,031,623 m N | | |
| Legal Description | Part 1 on 50R-3974 and 50R-29146, Part of Lot 4, Concession (Township of Cumberland), formerly Town of Orleans, now City of Ottawa; Regional Municipality of Ottawa-Carleton. | | |
| Site Area | ≈3.61 ha (8.92 acre) | | |

Site Identification Information

* The Universal Transverse Mercator measurements were obtained from Google Earth Pro.



2.2 Property Ownership

| Property Owner | Contact Information |
|---|---|
| Conseil des écoles publiques de l'Est de l'Ontario 2445 St. Laurent Boulevard, Ottawa, Ontario K1G 6C3 | Omar Ben Hadda Construction Project Manager Email: omar.ben@cepeo.on.ca |

2.3 Current and Proposed Future Uses

The Site is developed with one building that is currently a vacant residential building. The Site is proposed to be redeveloped for institutional use.

2.4 Applicable Site Condition Standards

The *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act* (MOECC, 2011) were used to determine the applicable SCS for the Site. The following site characteristics were considered when choosing which standards should be applied:

- The proposed future use of the Site is institutional use.
- The area being investigated is not within 30 m of a water body as defined in O.Reg. 153/04. As such, Section 43.1 of O.Reg. 153/04 does not apply to the Site.
- For a property to be considered non-potable groundwater, all properties within 250 m of the
 property must be supplied by a municipal drinking water system that does not obtain its
 water from a groundwater source. The Site is in an area that is supplied by a municipal
 water supply, however the Ministry Water Well Information System identified two records
 for on-site water wells and nine water well records within the Phase One study area used or
 intended for use as a source of water for human consumption or agriculture, therefore
 potable standards apply to the Site.



- The property is not located in an area designated in the municipal official plan as a wellhead protection area or other designation identified by the municipality for the protection of groundwater.
- The stratigraphy consisted of a surficial layer of native sand with trace gravel overlying clay at depths of 0.3 to 0.6 m below ground surface (mbgs). Bedrock was not encountered within the maximum drilled depth of 3.1 mbgs. Water well records within the Phase One study area identified bedrock at depths of approximately 25 to 40 mbgs. Based on grain size analysis and field observations, SCS for medium/fine-grained soil were considered appropriate.
- The average depth to groundwater was less than 3 mbgs; therefore, the SCS for shallow soil were considered applicable to account for potential decreased biodegradation and groundwater dilution and increased vapour to indoor air migration.
- No area of natural significance, as defined in Section 1 of O.Reg. 153/04, is in whole or in part within the Phase Two study area. Two on-site shallow soil samples (0 to 0.8 mbgs) were marginally above the acceptable pH range (pH 5 pH 9) for surface soil (≤1.5 mbgs); however, deeper surface soil samples (0.8 to 1.5 mbgs) submitted at each location, were within the acceptable range for surface soil. On-site sub-surface (>1.5 mbgs) soil samples were within the acceptable pH range. It is Cambium's opinion that the elevated pH levels are not representative of the entire Site and were localized to surficial soil in the vicinity of the former landscaping storage yard. As such, the Site is not environmentally sensitive as per Section 41 of O.Reg. 153/04.

Based on the above information, the applicable SCS for the Site were the Table 6 *Generic Site Condition Standards for Shallow Soils in a Potable Ground Water Condition*. Institutional property use and medium/fine soil texture were selected to determine concentration exceedances for the analyzed parameters.



2.5 General Objectives

The general objectives of the Phase Two ESA were to determine the location and concentration of contaminants in the soil or water on, in or under the Phase Two Property; and subsequently determine if the SCS for contaminants on, in or under the Phase Two Property were met. These objectives were achieved by developing an understanding of the geological and hydrogeological conditions at the Phase Two Property and conducting field investigations for the identified COPCs. The Phase Two ESA included a soil and groundwater investigation.



3.0 Background Information

3.1 Physical Setting

Review of a topographic map (MNRF, 2024) indicates that the Site and surrounding area is generally level with a gentle slope down to the northeast toward a stormwater management pond (Summerside West Pond) which flows into a tributary of McKinnon's Creek.

The Site is within a physiographic region characterized by clay plains (Chapman & Putnam, 1984). In the general area, the overburden is silt and clay, minor sand and gravel (OGS, 2010). The soils overlie shale, limestone, dolostone, and/or siltstone of the Ottawa Group; Simcoe Group and Shadow Lake formations (OGS, 2007).

The closest water body to the Site is a tributary of McKinnon's Creek, about 660 m northeast of the Site, which flows southeast, into Bear Brook and the South Nation River. The provincially significant wetland, Mer Bleue Bog, is located 1950 m south of the Site. No provincially significant wetlands are within 250 m of the Site. No areas of natural or scientific interest, adjacent to, or within 30 m of the Site, were identified by the Ministry of Natural Resources (MNR, 2025).

The Phase One study area is primarily municipally serviced for drinking water. No drinking water wells were observed at the Site. However, records identified that a water supply well was installed at the Site in 1972. The Phase One study area is not within a well-head protection area. The City of Ottawa obtains drinking water from the Ottawa River.

A search of the Ministry Water Well Information System by ERIS identified two records for onsite water wells and nine water well records within the Phase One study area, ranging from about 15 m to 25 m from the Site. The stratigraphy, depth to bedrock, and depth to water table indicated on these well records were reviewed and incorporated throughout this report. Nine of the records identified wells used for domestic water supply, the nearest being about 15 m north of the Site.



4.0 Scope of the Investigation

4.1 Overview of the Site Investigation

The proposed scope of work for the Phase Two ESA was based on the requirements of O.Reg. 153/04 and the findings of the Phase One ESA. Soil and groundwater samples were submitted to Paracel Laboratories Ltd. (Paracel), an accredited analytical laboratory located in Ottawa, Ontario. The Phase Two ESA was subject to a Quality Assurance/Quality Control (QA/QC) program, including analysis of blind duplicate soil and groundwater samples and trip blanks.

Cambium coordinated all subcontractors required to complete the work, including utility locators, a licensed well drilling contractor, and the laboratory. Prior to conducting field work, Cambium prepared a Health and Safety Plan (HASP) tailored to the known and possible onsite contaminants, physical site hazards, and the type of work to be conducted. Included in the HASP was a detailed map showing the transportation route to the nearest hospital, emergency contact numbers, and other pertinent information required for work on potentially contaminated sites. All persons entering the Site, as contractors or otherwise, were required to review and sign the HASP prior to their admission.

Cambium arranged for underground services to be located and marked by public and private utility companies prior to starting intrusive investigations. The proposed borehole locations were clear of utilities.

A sampling and analysis plan (SAP) was prepared to address the identified APECs and is included in Appendix A.

4.2 Media Investigated

The Phase Two ESA investigated soil and groundwater. As no water bodies exist on the Site, surface water and sediment sampling were not applicable. Soil quality at the Site was investigated through drilling and soil sampling. Monitoring wells were installed in three of the drilled boreholes for groundwater sampling.



4.3 Phase One Conceptual Site Model

The Phase One Conceptual Site Model (CSM) is required to assist the Qualified Person (QP) in illustrating the results of the Phase One ESA and to provide a basis for further work, if required. The Phase One CSM Study Area is shown on Figure 2. The Phase One CSM Site Plan is shown on Figure 3. The following descriptions and discussion supplement the figures and together comprise the CSM.

4.3.1 Site Description

The roughly 3.61 ha Site is east of Mer Bleue Road and approximately 90 m south of the intersection of Mer Bleue Road and Renaud Road in Ottawa, Ontario. The municipal address is 2405 and 2419 Mer Bleue Road. The PINs for the Site are 14563-1816 (LT) and 14563-0541 (LT); and the legal description is Part 1 on 50R-3974 and 50R-29146, Part of Lot 4, Concession (Township of Cumberland), formerly Town of Orleans, now City of Ottawa; Regional Municipality of Ottawa-Carleton. The Universal Transverse Mercator coordinates for the Site are Zone 18T, 461436 m E, 5031623 m N.

Property use surrounding the Site is as follows.

- North Residential
- South Residential
- East Land under development, residential and parkland
- West Residential, vacant undeveloped land and commercial

4.3.2 Existing Buildings and Structures

There was one vacant residential building on the west-central portion of the Site. The building was reportedly constructed in the early 1970s.



4.3.3 Water Bodies and Areas of Natural Significance

The closest water body to the Site is a tributary of McKinnon's Creek, about 660 m northeast of the Site, which flows southeast into Bear Brook, which flows east into the South Nation River. The provincially significant wetland, Mer Bleue Bog, is located 1950 m south of the Site.

Based on the topography, the drainage flow pattern of the surrounding area, and the distance and direction of these waterbodies, the regional groundwater flow direction is inferred to be southeast.

The following were reviewed to identify if the Site includes, is adjacent to, or is within 30 m of an area of natural significance:

- 1. The study area does not include areas reserved or set apart as a provincial park or conservation reserve (Ontario, 2023).
- 2. No provincially significant wetlands, nor areas of natural or scientific interest, adjacent to, or within 30 m of the Site, were identified by the Ministry of Natural Resources (MNR, 2025).
- 3. The Site does not include areas designated as a wilderness area (MNRF, 2024)
- 4. The Natural Heritage Information Centre (NHIC) identified the potential presence of habitat within the 1 km grid overlapping the Site for the following threatened or endangered species (MNR, 2025).
 - Eastern Meadowlark (Sturnella magna) threatened

The Site is located in an urban area surrounded by residential homes, community and commercial buildings, the majority of greenspaces are landscaped grass or manicured gardens; therefore, there are no potential habitats of the identified species at risk within the Phase One study area.

Based on this review, the Phase One study area is not considered an area of natural significance as defined in Section 1 of O.Reg. 153/04.



4.3.4 Drinking Water Wells

The Phase One study area is municipally serviced for drinking water. No drinking water wells were observed on the Site and no records of drinking water wells at the Site were identified by the records review, with the exception of a historical water supply well installed on-site in 1972. At the time of Cambium's site visit, the Site was serviced by municipal services and the drinking water well was no longer in use. The Phase One study area is not within a well-head protection area. The City of Ottawa obtains drinking water from the Ottawa River.

A search of the Ministry Water Well Information System by ERIS identified nine water well records within the Phase One study area, ranging from about 15 m to 25 m from the Site. The wells were identified as domestic water supply.

Stratigraphy recorded in the well records for the on-site wells was generally clay overlying gravel at about 29 mbgs, with bedrock at about 35 mbgs. Stratigraphy in the off-site wells within 100 m of the Site was generally surficial sand overlying clay with bedrock at 26 to 31 mbgs.

4.3.5 Potentially Contaminating Activities

Cambium reviewed information available for the Phase One study area to identify environmental issues normally assessed in a Phase One ESA. Ten PCAs were identified within the Phase One study area, consisting of ten on-site and no off-site PCAs. Refer to Table 1 for further description of the PCAs, and Figure 2 for PCA locations.

The following PCAs contribute to APECs:

- PCA 1 On-site fill material of unknown quality
- PCA 2 On-site a former 1,360 L gasoline AST
- PCA 3 On-site a former 2,200 L diesel AST
- PCA 4 On-site former automotive repair/servicing operations

PCA 5 – On-site – previous subsurface investigations at the Site identified soil impacts at the Site (i.e., SAR, EC and B-HWS (available))



PCA 6 – On-site – previous subsurface investigations at the Site identified groundwater impacts at the Site (i.e., chloride and sodium)

PCA 7 – On-site – previous subsurface investigations at the Site identified groundwater impacts at the Site (i.e., chloride and sodium)

PCA 8 – On-site – previous subsurface investigations at the Site identified groundwater impacts at the Site (i.e., chloride, sodium, and PAHs [benzo(a)pyrene, chrysene and fluoranthene])

4.3.6 Areas of Potential Environmental Concern

The APECs are summarized below. Refer to Table 2 for further descriptions of the APECs, and Figure 3 for APEC locations.

APEC 1 – South portion of the Site, associated with PCA 1, fill of unknown quality.

APEC 2 - South portion of the Site, associated with PCA 2, a former 1,360 L gasoline AST

APEC 3 – South portion of the Site, associated with PCA 3, a former 2,200 L diesel AST

APEC 4 – South portion of the Site, associated with PCA 4, former automotive repair/servicing operations

APEC 5 – South portion of the Site, associated with PCA 5, previous subsurface investigations at the Site identified soil impacts at the Site (i.e., SAR, EC and B-HWS)

APEC 6 – Central portion of the Site, associated with PCA 6, previous subsurface investigations at the Site identified groundwater impacts at the Site (i.e., chloride and sodium)

APEC 7 – Central portion of the Site, associated with PCA 7, previous subsurface investigations at the Site identified groundwater impacts at the Site (i.e., chloride and sodium)

APEC 8 – South-central portion of the Site, associated with PCA 8, previous subsurface investigations at the Site identified groundwater impacts at the Site (i.e., chloride, sodium and PAHs [benzo(a)pyrene, chrysene and fluoranthene])



4.3.7 Contaminants of Potential Concern

COPCs were identified for each PCA contributing to an APEC. The COPCs specific to each APEC are summarized in Table 2. PHCs, VOCs, BTEX, PAHs, metals, hydride-forming metals, and ORPs including B-HWS, Cr(VI), Hg, cyanide, chloride, sodium, pH, EC, and SAR were identified as COPCs related to the current and historical on-site PCAs.

4.3.8 Contaminant Distribution and Transport

Various underground utilities (i.e., natural gas, electricity, and communications) were identified under the Site. Contaminant distribution and transport may be influenced by the presence of utility trenches that were historically present on the Site.

No specific climatic or meteorological conditions were observed that may influence the distribution or migration of contaminants.

4.3.9 Geological and Hydrogeological Setting

Review of a topographic map (MNRF, 2024) indicates that the Site and surrounding area generally slopes down to the northeast toward a tributary of McKinnon's Creek to the northeast and flows east.

The Site is within a physiographic region characterized by clay plains (Chapman & Putnam, 1984). In the general area, the overburden is silt and clay, minor sand and gravel (OGS, 2010). The soils overlie shale, limestone, dolostone, and/or siltstone of the Ottawa Group; Simcoe Group and Shadow Lake formations (OGS, 2007).

Gemtec identified the following soil profile at the Site during a Phase II ESA (Gemtec, 2018):

 Stratigraphy at the Site consists primarily of silty clay to 10.37 mbgs, with the exception of fill material (silty sand, gravel and asphalt) observed in BH-18-1, BH-18-2, BH-18-3 and BH-18-4 to a depth ranging between approximately 0.61 m and 1.37 mbgs.

Groundwater measurements collected at the Site ranged between 0.31 m (BH-19-6) and 1.99 mbgs (BH-18-3).



4.3.10 Uncertainty or Absence of Information

All aspects of the Phase One ESA were conducted consistent with O.Reg. 153/04, and as such, the Site was investigated thoroughly. As access to the entire Site was possible, and adequate historical information was available through the interviewee's, records review, and FOI requests, uncertainty or absence of information is not expected to result in environmental concerns at the Site.

4.4 Deviations From Sampling and Analysis Plan

No deviations were made from the Sampling and Analysis Plan for the Phase Two ESA, except for limited sample volume for groundwater from BH113-25 and BH114-25 due to slow groundwater recharge at those wells. As a result, the reportable detection limit for one PAH parameter (benzo[a]pyrene) was raised to 0.02 ug/L, which was above the Table 6 standard of 0.01 ug/L. There were no detectable concentrations of PAHs in groundwater at the Site. The raised detection limit does not change the conclusion this analysis.

4.5 Impediments

No physical impediments or denial of access were encountered during the Phase Two ESA.



5.0 Investigation Method

5.1 General

The following sections provide a detailed description of the subsurface investigations. Soil and groundwater samples were analyzed for one or more of PHCs, VOCs, BTEX, PAHs, metals, hydride-forming metals, and ORPs including B-HWS, Cr(VI), Hg, cyanide, chloride, sodium, pH, EC, and SAR.

As indicated in Section 2.4, based on the site characteristics as well as the proposed future use of the Site, the applicable standards for the Site are Table 6 SCS. Institutional property use and medium/fine soil texture were selected to identify analyzed parameters present on the Site at concentrations exceeding the SCS.

5.2 Soil: Drilling

The drilling investigation was completed on January 7, 2025. Strata Drilling Group (Strata) advanced five boreholes into overburden to a maximum depth of 3.1 mbgs. Borehole locations are shown on Figure 4.

5.3 Soil: Sampling

During the drilling program, soil samples were collected continuously. Each sample was handled solely by the Cambium field technician using dedicated nitrile gloves to reduce the potential for cross-contamination.

Soil samples were logged for soil type, moisture content, presence of odour, and signs of impacts such as staining, consistent with standard geotechnical and environmental soil descriptions and nomenclature. The samples were divided on-site, a portion was placed in dedicated sample jars for submission to the laboratory, with the remainder placed in sealed plastic sample bags and used to screen for combustible and/or organic vapours present in the soil headspace. The field screening observations were used to determine which samples to submit for laboratory analysis. Samples to be submitted for analysis of volatile parameters



were collected applying the appropriate techniques, as per O.Reg. 153/04 (i.e., pre-calibrated syringe sampler and methanol preserved vial).

5.4 Field Screening Measurements

Olfactory and visual observations of the soil samples were documented immediately upon extraction for soil characteristics and potential indicators of environmental contamination. Soil samples were screened using an RKI Eagle 2 portable gas detector for concentrations of combustible soil vapour (CSV) and organic vapour (OV), calibrated to hexane and isobutylene, respectively. After agitating the sample, the peak reading was recorded by inserting the meter probe into the sample bag. Refer to the borehole logs in Appendix B for the recorded vapour readings.

5.5 Groundwater: Monitoring Well Installation

Monitoring wells were installed in three of the boreholes (i.e., BH113-25, BH114-25 and BH115-25) and were constructed using 50 mm inner diameter, flush threaded PVC well pipe with a section of screen at the base of the well. The annular space was filled with washed silica sand filter pack to 0.3 m above the top of the screen and the wells were completed with bentonite (seal) and native soil cuttings to at least 0.3 mbgs. The monitoring wells were completed with monument steel protective covers. Borehole logs illustrating the monitoring well installation details are included in Appendix B. Monitoring wells were installed such that the well screen intersected the surface of the shallowest water-bearing unit identified during drilling.

Following installation of each monitoring well, a minimum of three well volumes of groundwater, if present, was purged to remove sediment from the well, stabilize and grade the filter pack, improve connectivity between the well and the formation, and restore groundwater that may have been disturbed during the drilling process. Each groundwater monitoring well was purged using dedicated polyethylene tubing and an inertial lift foot valve. The volume of water to be purged from each well was calculated on-site during the monitoring events using the measured water levels and the well diameter.



5.6 Groundwater: Sampling

Groundwater sampling was conducted on January 24, 2025, consistent with O.Reg. 153/04 under the supervision of a QP.

Prior to sampling, the static water level was recorded at each of the monitoring wells using an interface probe, which can accurately measure the depth to groundwater and the thickness of dense and light non-aqueous phase liquids (DNAPL & LNAPL).

Groundwater samples were collected using a peristaltic pump, with dedicated tubing installed in each of the monitoring wells. The peristaltic pump reduces the amount of sediment entrained in the collected groundwater samples, as agitation of the water column is kept to a minimum by lowering the pumping rate and limiting the movement of the tubing in the water column. Water quality parameters were measured using a flow-through cell and allowed to stabilize prior to sample collection, to ensure samples were representative of the surrounding groundwater aquifer. Groundwater samples submitted for analysis of metals were field-filtered.

Technicians wore nitrile gloves while collecting the groundwater samples and replaced the glove set between each sample location.

5.7 Analytical Testing

All samples potentially requiring laboratory analysis were placed in a cooler and kept at less than 10°C for transport to the laboratory.

Samples were submitted for analysis of one or more of the COPCs. The analytical results are discussed in Section 6.0 and copies of the laboratory Certificates of Analysis as received from the analytical laboratory are included in Appendix C. The following samples were submitted for analysis.

- Based on field observations and screening, the following soil samples were submitted for analysis:
 - Three samples for BTEX and PHCs
 - Three samples for VOCs



- Three samples for PAHs
- Two samples for boron
- Three samples for metals, hydride-forming metals, B-HWS, cyanide-, Cr(VI), mercury, EC, SAR
- Five samples for pH
- Two samples for grain-size analysis
- The following groundwater samples were submitted for analysis:
 - Three samples for BTEX and PHCs
 - Three samples for VOCs
 - Three samples for PAHs
 - Three samples for metals, hydride-forming metals, cyanide-, chloride, Cr(VI), mercury, , sodium, pH
- One water trip blank was submitted for analysis of VOCs.

5.8 Residue Management Procedures

Soil cuttings from the drilling program, and purge water from well development, were placed in drums and left on-site for later disposal.

5.9 Elevation Surveying

Ground surface and top of pipe elevations were surveyed at the boreholes and monitoring wells. Elevations were determined relative to the top nut on the fire hydrant adjacent to the Site, as illustrated and described in the notes on Figure 4.

5.10 Quality Assurance and Quality Control Measures

As part of the QA/QC program, blind duplicate soil and groundwater samples were submitted at a rate of one duplicate sample for every ten samples analyzed. Blind duplicate samples



were collected at the same time as the parent sample and placed into a separate container; split sampling methodology was used to ensure that the sampling was completed using the same method for both parent and duplicate samples. Refer to Section 6.8 for the results of the QA/QC program.

A trip blank was prepared by the laboratory and submitted for analysis of VOCs together with the groundwater samples. A trip blank is a sample of laboratory grade water that has negligible or immeasurable amounts of the substance of interest, and is transported to and from the sampling location, and carried through the entire sampling and analytical process.

Equipment and tools used to obtain soil samples were cleaned with Alconox[©] and rinsed with distilled water before the collection of each sample. Technicians wore dedicated nitrile gloves, which were replaced for each sample.



6.0 Review and Evaluation

6.1 Geology

The physiography and geology of the Site has been discussed previously in Section 3.1 and a detailed description of the subsurface soils can be found on the borehole logs in Appendix B. These logs present detailed descriptions of the soils and their associated characteristics to the maximum depth of investigation. Borehole and monitoring well locations are shown on Figure 4.

The stratigraphy consisted of native sand with trace gravel overlying clay and trace silt. Bedrock was not reached on-site to a maximum depth of investigation of 1.5 mbgs. Based on a review of nearby well records, bedrock is presumed to be at approximately between 25 and 30 mbgs.

6.2 Groundwater: Elevations and Flow Direction

To determine the relative groundwater elevation, the horizontal gradient, and the groundwater flow direction, water level measurements were recorded on January 24, 2025, as summarized in Table 3. Groundwater depth ranged from 0.97 mbgs to 1.42 mbgs. Groundwater flow was to the southeast as shown on Figure 4.

Groundwater flow direction can be influenced by seasonal fluctuation, utility services, and other subsurface features and can only be confirmed with long term monitoring.

6.3 Groundwater: Hydraulic Gradients and Conductivity

The horizontal hydraulic gradient was 0.006 m/m based on groundwater levels measured on January 24, 2025.

Based on the predominant soil type in the saturated zone (clay) observed during the field investigation, subsurface hydraulic conductivity in the shallow water-bearing sand and silt layer likely ranges from 1×10^{-12} to 1×10^{-9} m/s (Cherry & Freeze, 1979).



6.4 Medium/fine Soil Texture

Soil samples were collected from two soil units identified at the Site. The lower and upper unit were medium/fine-textured, based on grain size results. The laboratory certificates of analysis for the grain size analyses are included in Appendix C.

6.5 Soil: Field Screening

Refer to the detailed borehole logs included with this report as Appendix B for the results of field soil screening. Minor measurable CSV was detected in soil samples from BH114-25 from 1.5 to 2.3 mbgs, with a maximum concentration of 30 ppm. No measurable OV was detected in the soil samples.

6.6 Soil Quality

A general discussion of the submission and analysis of soil samples obtained during the subsurface investigation was presented Section 5.7.

Samples were submitted for analysis of one or more of the following: PHCs, VOCs, BTEX, PAHs, metals, hydride-forming metals, and ORPs including B-HWS, Cr(VI), Hg, cyanide, chloride, sodium, pH, EC, and SAR Soil analysis results are presented in Table 4. Laboratory Certificates of Analysis are included in Appendix C. The soil sampling locations are shown on Figure 4 and Figure 6..

6.6.1 BTEX and PHCs

Two soil samples and one duplicate sample were submitted for analysis of BTEX and PHCs. Concentrations were less than the Table 6 SCS in the analyzed soil samples.

6.6.2 VOCs

Two soil samples and one duplicate sample were submitted for analysis of VOCs. Concentrations were less than the Table 6 SCS in the analyzed soil samples.



6.6.3 PAHs

Two soil samples and one duplicate sample were submitted for analysis of PAHs. Concentrations were less than the Table 6 SCS in the analyzed soil samples, as shown on Figure 6.

6.6.4 Metals and ORPs, and pH

Two soil samples and one duplicate sample were submitted for analysis of metals, hydrideforming metals, B-HWS, Cr(VI), Hg, cyanide, pH, EC, and SAR. Concentrations were less than the Table 6 SCS in the analyzed soil samples, with the exception of the following:

BH114-25 (1.5-2.3 mbgs) – EC, vanadium and cobalt.

BH117-25 (0.0-0.8 mbgs) – EC.

QA/QC (1.5-2.3 mbgs) – EC, vanadium and cobalt.

Based on the above-noted EC exceedances, it is likely associated with the application of road salt at the Site. The QP_{ESA} has determined that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice at the Site. As such, the exemption set out in paragraph 1 of section 49.1 of O.Reg. 153/04 will be relied upon.

The vanadium and/or cobalt concentrations in BH114-25 and QA/QC marginally exceeded the Table 6 SCS.

Within the former Champlain Sea basin which includes Ottawa and a large portion of eastern Ontario and Western Quebec, including the Site, fine-grained Champlain Sea sediments are present which have documented naturally occurring metals concentrations exceeding several of the O.Reg. 153/04 SCS. Geofirma Engineering published a report entitled, "Background Metals in Champlain Sea Sediments: Updates from 2019 Drilling and Sampling Program" (Geofirma Engineering, 2023), which detailed work completed in 2017 and 2019 across the Ottawa region on this issue. Champlain Sea Clays from across the region were tested, and it was determined that average concentrations of barium, chromium, cobalt, and vanadium exceeded O.Reg. 153/04 Table 1 SCS. From conducting statistical analysis of the data, this report generated proposed region-specific background values for these four metals in line with



actual analytical data. Cambium noted that all samples with metals exceedances were fine grained clays, assumed to be Champlain Sea Clay, and as such has included Embedded Table 1 below comparing the Table 6 RPI metals exceedances noted at the Site with the proposed geo-regional values in order to illustrate that the concentrations measured generally align with known region-specific background values for these metals.

| Borehole | Metals with Exceedances | Table 6 RPI SCS (ug/g) | Measured Concentration (ug/g) | Updated (2019) Proposed Region- Specific Background Values (ug/g) |
|----------|----------------------------|---------------------------|-------------------------------------|--|
| | Cobalt | 22 | 23.3 | 28 |
| БП114-25 | Vanadium | 86 | 92.2 | 122 |
| | Cobalt | 22 | 25.7 | 28 |
| QA/QC | Vanadium | 86 | 94.2 | 122 |

Embedded Table 1 Exceedances compared to region-specific background values

As shown in the Embedded Table 1 above, all concentrations of vanadium and cobalt which were found to exceed Table 6 RPI SCS, meet the proposed region-specific background values. As such, it is Cambium's opinion that the reported vanadium and cobalt concentrations are naturally occurring and do not represent an environmental concern for the Site.

Furthermore, five samples were analyzed for pH. On-site soil pH was within the acceptable ranges for surface (≤1.5 mbgs) and sub-surface (>1.5 mbgs) soil, with the exception of the following:

- BH116-25 (0.0-0.8 mbgs) 9.61 pH units vs. 9.00 pH units.
- BH117-25 (0.0-0.8 mbgs) 9.01 pH units vs. 9.00 pH units.

Cambium submitted soil samples from BH114-25 and BH117-25 directly below the abovenoted exceedances (i.e., 0.8-1.5 mbgs) and the on-site soil pH was within the acceptable range (i.e., 7.57 pH units and 7.32 pH units, respectively). Based on the above-noted information, it is Cambium's opinion that the former on-site landscaping operations included the storage of crushed limestone which can result in elevated pH concentrations and the pH concentration is localized to surficial soil in this area. As such, the Site is not environmentally



sensitive as per Section 41 of O.Reg. 153/04. Cambium compared the soil and groundwater results to O.Reg. Table 1, which would be applicable if this was an environmentally sensitive site, and found no additional exceedances of the SCS except for barium and chromium at concentrations consistent with Champlain Sea Clays.

6.7 Groundwater Quality

A general discussion of the submission and analysis of groundwater samples obtained during the investigation was presented in Section 5.7.

Groundwater samples were collected from three monitoring wells. Samples were submitted for analysis of one or more of the following: PHCs, VOCs including BTEX, PAHs, metals, hydride-forming metals, and ORPs including Cr(VI), Hg, cyanide, chloride, sodium and pH. Groundwater analysis results are presented in Table 5. Laboratory Certificates of Analysis are included in Appendix C. The groundwater sampling locations are shown on Figure 4.

6.7.1 BTEX and PHCs

Three groundwater samples and two duplicate samples were submitted for analysis of BTEX and PHCs. Concentrations were less than the Table 6 SCS in the analyzed groundwater samples.

6.7.2 VOCs

Three groundwater samples and two duplicate samples were submitted for analysis of VOCs. Concentrations were less than the Table 6 SCS in the analyzed groundwater samples.

6.7.3 PAHs

Three groundwater samples were submitted for analysis of PAHs. There were no detectable concentrations of PAHs in the analyzed groundwater samples. Due to limited sample volume from two of the groundwater wells, the reportable detection limit (RDL) for benzo(a)pyrene (i.e., 0.02 ug/L) is above the Table 6 SCS criteria (i.e., 0.01 ug/L) for BH113-25 and BH114-25. It is Cambium's opinion that the above-noted concentrations are not considered to be groundwater impacts at the Site and no additional work is warranted at this time.



6.7.4 Metals and ORPs

Three groundwater samples and one duplicate sample were submitted for analysis of metals, hydride-forming metals, chloride, Cr(VI), cyanide, mercury, and sodium. Concentrations were less than the Table 6 SCS in the analyzed groundwater samples, with the exception of the following:

- BH113-25 chloride and sodium.
- BH114-25 and QA/QC01-25 sodium.
- BH115-25 chloride.

Based on the above-noted exceedances, it is likely associated with the application of road salt at the Site. The QP_{ESA} has determined that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice at the Site. As such, the exemption set out in paragraph 1 of section 49.1 of O.Reg. 153/04 will be relied upon.

The groundwater analysis results are presented in Table 5 and exceedances are presented on Figure 9.

6.8 Quality Assurance and Quality Control

Duplicate soil and groundwater samples were collected for each parameter group. Where analytical parameters were detected in both the parent and the duplicate samples at more than five times the detection limits, relative percent difference (RPD) was calculated to assess the precision of the analytical data. The calculated RPD results were compared to the performance criteria for each parameter group as outlined in the *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act and Excess Soil Quality* (MECP, 2021). RPD was calculated as follows:

$$RPD(\%) = \frac{|x_1 - x_2|}{x_m} \times 100\%$$

Where: x_1 = parent sample result

 x_2 = duplicate sample result



 x_m = arithmetic mean of initial and duplicate sample results

RPD is more sensitive to low concentrations; as such, RPDs were not calculated where the parameter concentration in the parent and/or duplicate sample was less than five times the laboratory reportable detection limit (RDL).

RPDs met the DQO for soil and groundwater. Overall, the duplicate samples match very closely with the parent samples. Accordingly, the soil and groundwater analysis results were considered acceptable and indicated that the analytical data were suitable for use in evaluating soil and groundwater quality at the Site.

The trip blank sample was submitted for analysis of VOCs with the groundwater sampling event to determine whether VOCs may have been introduced into a sample during transport to and from the laboratory. The analysis results indicated that VOCs were not present at concentrations greater than the laboratory RDLs in the trip blank.

Certificates of Analysis received for each submitted sample are included in Appendix C. All laboratory Certificates of Analysis pursuant to clause 47 (2) (b) of O.Reg. 153/04 comply with subsection 47(3) of the regulation.

Based on the results of the QA/QC program, the analytical results discussed herein can be interpreted with confidence.

6.9 Phase Two Conceptual Site Model

As per Table 1 of Schedule E of O.Reg. 153/04, a CSM is required to assist the QP in illustrating the results of the Phase Two ESA, demonstrating the current condition of the Phase Two Property, or where remedial actions have been undertaken, the condition of the Phase Two Property before the remedial actions were undertaken.

The following sections describe in detail the Phase Two CSM and provide the requisite narrative that assists in describing the attached figures.



6.9.1 Site Description and Ownership

The Site is on the east side of Mer Bleue Road and approximately 90 m south of the intersection of Mer Bleue Road and Renaud Road. The municipal address is 2405 and 2419 Mer Bleue Road. The closest water body to the Site is a tributary of McKinnon's Creek, about 660 m northeast of the Site, which flows in an easterly direction.

Property use surrounding the Site is as follows.

- North Residential
- South Residential
- East Land under development, residential and parkland
- West Residential, vacant undeveloped land and commercial

The Site is currently residential and is owned by the Conseil des écoles publiques de l'Est de l'Ontario. The Site includes PINs 14563-1816 (LT) and 14563-0541 (LT). The proposed future land use is institutional.

6.9.2 Potentially Contaminating Activities

Eight PCAs were identified within the Phase One study area, consisting of eight on-site and no off-site PCAs. Refer to Table 1 for further description of the PCAs, and Figure 2 for PCA locations.

- PCA 1 On-site fill material of unknown quality
- PCA 2 On-site a former 1,360 L gasoline AST
- PCA 3 On-site a former 2,200 L diesel AST
- PCA 4 On-site former automotive repair/servicing operations

 $\label{eq:pcase} \textbf{PCA 5} - \textbf{On-site} - \textbf{previous subsurface investigations at the Site identified soil impacts at the}$

Site (i.e., SAR, EC and boron (available))

PCA 6 – On-site – previous subsurface investigations at the Site identified groundwater impacts at the Site (i.e., chloride and sodium)



PCA 7 – On-site – previous subsurface investigations at the Site identified groundwater impacts at the Site (i.e., chloride and sodium)

PCA 8 – On-site – previous subsurface investigations at the Site identified groundwater impacts at the Site (i.e., chloride, sodium, benzo(a)pyrene, chrysene and fluoranthene)

6.9.3 Areas of Potential Environmental Concern

As required by O.Reg. 153/04, all on-site PCAs result in an APEC. The APECs are summarized below. Refer to Table 2 for further descriptions of the APECs, and Figure 3 for APEC locations.

APEC 1 – South portion of the Site,, associated with PCA 1, fill of unknown quality.

APEC 2 – South portion of the Site, associated with PCA 2, a former 1,360 L gasoline AST.

APEC 3 – South portion of the Site, associated with PCA 3, a former 2,200 L diesel AST.

APEC 4 – South portion of the Site, associated with PCA 4, former automotive repair/servicing operations.

APEC 5 – South portion of the Site, associated with PCA 5, previous subsurface investigations at the Site identified soil impacts at the Site (i.e., SAR, EC and boron (available)).

APEC 6 – Central portion of the Site, associated with PCA 6, previous subsurface investigations at the Site identified groundwater impacts at the Site (i.e., chloride and sodium).

APEC 7 – Central portion of the Site, associated with PCA 7, previous subsurface investigations at the Site identified groundwater impacts at the Site (i.e., chloride and sodium).

APEC 8 – South-central portion of the Site, associated with PCA 8, previous subsurface investigations at the Site identified groundwater impacts at the Site (i.e., chloride, sodium, benzo(a)pyrene, chrysene and fluoranthene).

The SAP was designed to assess the APECs. Samples for analysis of volatile parameters such as PHCs and VOCs were selected based primarily on soil screening results. Samples for analysis of all other parameters were selected based primarily on visual observation and depth.



The QP_{ESA} has determined that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice at the Site. As such, the exemption set out in paragraph 1 of section 49.1 of O.Reg. 153/04 will be relied upon.

6.9.4 Subsurface Structures and Utilities

Various underground utilities (i.e., natural gas, electricity, and communications) were identified under the Site. Contaminant distribution and transport may be influenced by the presence of utility trenches that were historically present on the Site.

The Site Building is equipped with a basement. Various underground utilities (i.e., natural gas, electricity, and communications) run from Mer Bleue along the west portion of the Site. The utilities are not expected to affect contaminant distribution and transport.

6.9.5 Stratigraphy

The stratigraphy consisted of native sand with trace gravel overlying clay and trace silt. Bedrock was not encountered within the maximum drilled depth of 3.1 mbgs. Based on a review of nearby well records, bedrock was encountered at a depth ranging between 25.9 and 30.5 mbgs. Cross-section locations are shown on Figure 4 and the stratigraphy is shown on Figure 7 and Figure 8.

6.9.6 Hydrogeological Characteristics and Groundwater Elevations

The closest water body to the Site is a tributary of McKinnon's Creek, about 660 m northeast of the Site., which flows in a easterly direction.

To determine the relative groundwater elevation, the horizontal gradient, and the groundwater flow direction, water level measurements were recorded on January 24, 2025. The horizontal hydraulic gradient was 0.006 m/m and the depth to groundwater ranged from 0.97 to 1.39 mbgs on January 24, 2025. Groundwater flow was to the west. The groundwater flow direction are presented on Figure 4.



6.9.7 Applicable Site Condition Standards

The Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (MOECC, 2011) were used to determine the applicable SCS for the Site. The following site characteristics were considered when choosing which standards should be applied:

- The proposed future use of the Site is institutional use.
- The area being investigated is not within 30 m of a water body as defined in O.Reg. 153/04. As such, Section 43.1 of O.Reg. 153/04 does not apply to the Site.
- For a property to be considered non-potable groundwater, all properties within 250 m of the property must be supplied by a municipal drinking water system that does not obtain its water from a groundwater source. The Site is in an area that is supplied by a municipal water supply.
- The property is not located in an area designated in the municipal official plan as a wellhead protection area or other designation identified by the municipality for the protection of groundwater.
- No properties in the Phase One study area have a well used or intended for use as a source of water for human consumption or agriculture.
- The stratigraphy consisted of native sand with trace gravel overlying clay and trace silt. Bedrock was not encountered within the maximum drilled depth of 3.1 mbgs. Based on grain size analysis, SCS for medium/fine-grained soil were considered appropriate.
- No area of natural significance, as defined in Section 1 of O.Reg. 153/04, is in whole or in part within the Phase Two study area. Two on-site soil pH samples were not within the acceptable ranges for surface (≤1.5 mbgs) and sub-surface (>1.5 mbgs) soil; however, Cambium submitted soil samples beneath the elevated pH levels which were within the acceptable ranges. In addition, Cambium notes that the soil samples collected for pH analysis were in the vicinity of a former landscaping storage yard which included limestone, a common source for elevated pH levels. Based on the above-noted information, it is


Cambium's opinion that the pH levels that were not within the acceptable ranges are not representative of the entire Site and localized to surficial soil in the vicinity of the former landscaping storage yard. As such, the Site is not environmentally sensitive as per Section 41 of O.Reg. 153/04.

Based on the above information, the applicable SCS for the Site were the Table 6 *Generic Site Condition Standards in a Potable Groundwater Condition* for institutional property use and medium/fine texture were selected to determine concentration exceedances for the analyzed parameters.

6.9.8 Contaminant Identification and Distribution

Site features and sampling locations are shown on Figure 4. Stratigraphy is shown in the borehole logs in Appendix B.

Concentrations of the analysed COPCs were less than the Table 6 SCS in the analyzed soil samples, with the exception of the soil samples collected from BH114-25 (EC, vanadium and cobalt), BH117-25 (EC) and QA/QC (EC, vanadium and cobalt), as well as, groundwater samples collected from BH113-25 (chloride and sodium), BH114-25 (sodium), BH115-25 (chloride) and QA/QC (sodium).

The above-noted EC, chloride and sodium exceedances are likely associated with the application of road salt at the Site. The QP_{ESA} has determined that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice at the Site. As such, the exemption set out in paragraph 1 of section 49.1 of O.Reg. 153/04 will be relied upon.

Given that these soil samples were collected from the native silty clay, and elevated concentrations of these metals are known to occur locally within the Champlain Sea Clay, as detailed in Section 6.4.4, the vanadium and cobalt exceedances are likely attributed to naturally elevated background soil concentrations. As such, it is Cambium's opinion that the reported vanadium and cobalt concentrations are naturally occurring and do not represent an environmental concern for the Site.



6.9.9 Contaminant Migration and Transport

As noted in Sections 6.6.4 and 6.7.4, the soil and groundwater exceedances are attributed to naturally elevated background soil concentrations and/or the application of road salt at the Site. Based on the above-noted information, it is Cambium's opinion that contaminant migration is not applicable.

6.9.10 Exposure Pathways and Receptors

As noted in Sections 6.6.4 and 6.7.4, the soil and groundwater exceedances are attributed to naturally elevated background soil concentrations and/or the application of road salt at the Site. Based on the above-noted information, exposure pathways and receptors are not applicable.

6.9.11 Location of Buildings and Structures

The Site consists of one building located on the west-central portion of the Site and is currently a vacant residential building.

The proposed redevelopment of the property includes an institutional building on the north portion of the Site.

6.9.12 Areas of Contamination on the Property

Concentrations of the analysed COPCs were less than the Table 6 SCS in the analyzed soil and groundwater samples, with the exception of EC, vanadium and/or cobalt concentrations in soil, as well as sodium and chloride concentrations in groundwater.

As noted above, concentrations of vanadium and/or cobalt in boreholes BH113-25, BH114-25, BH115-25, BH116-25, BH117-25 marginally exceeded the Table 6 SCS. Given that these soil samples were collected from the native silty clay, it is inferred that the exceedances are attributed to naturally elevated background soil concentrations. As such, it is Cambium's opinion that the reported concentrations are naturally occurring and do not represent an environmental concern for the Site.



The EC exceedance in soil, and chloride and sodium exceedances in groundwater are likely associated with the application of road salt at the Site. The QP_{ESA} has determined that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice at the Site. As such, the exemption set out in paragraph 1 of section 49.1 of O.Reg. 153/04 will be relied upon

As such, there were no areas of contamination identified on the Site.



7.0 Conclusions

Conclusions regarding the current environmental conditions at the Site are based solely on the results of the Phase One ESA and this Phase Two ESA.

7.1 Environmental Conditions

A Phase Two ESA work program was developed to investigate COPCs (PHCs, VOCs including BTEX, PAHs, metals, hydride-forming metals, and ORPs including B-HWS, Cr(VI), Hg, cyanide, chloride, sodium, pH, EC, and SAR) in soil and groundwater. The Phase Two ESA included five boreholes, three of which were instrumented with groundwater monitoring wells.

Concentrations of the analysed COPCs were less than the Table 6 SCS in the analyzed soil and groundwater samples, with the exception of shallow pH, EC, vanadium and/or cobalt concentrations in soil as well as, sodium and chloride concentrations in groundwater. As noted above, given that these soil samples were collected from the native silty clay which is known to have naturally occurring metals concentrations within these ranges (Geofirma Engineering, 2023), it is inferred that the vanadium and cobalt exceedances are attributed to naturally elevated background soil concentrations. As such, it is Cambium's opinion that the reported vanadium and cobalt concentrations are naturally occurring and do not represent an environmental concern for the Site.

In addition, the above-noted EC exceedances in soil and sodium and chloride exceedances in groundwater, are likely associated with the application of road salt at the Site. The QP_{ESA} has determined that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice at the Site. As such, the exemption set out in paragraph 1 of section 49.1 of O.Reg. 153/04 will be relied upon.

As noted in Section 6.6.4, on-site soil pH was within the acceptable ranges for surface subsurface (>1.5 mbgs) soil; however, shallow soil samples (≤1.5 mbgs) marginally exceeded the acceptable range. Cambium notes that the soil samples collected for pH analysis were in the vicinity of a former landscaping storage yard which included limestone, a common source for



elevated pH levels. Based on the above-noted information, it is Cambium's opinion that the pH levels that were not within the acceptable ranges are not representative of the entire Site and localized to surficial soil in the vicinity of the former landscaping storage yard. As such, the Site is not environmentally sensitive as per Section 41 of O.Reg. 153/04.

Based on the results of the Phase Two ESA investigation, it is Cambium's opinion that the pH of the surficial soil within the former landscaping storage yard should be tested and amended as directed by a landscape architect during Site development. However, no further environmental investigation is necessary at this time and a SPA can be filed for the Site.

7.2 Signatures

This Phase Two ESA was completed by Mr. Dave Labelle, B.A., EP, under the supervision of Ms. Sheila Barter, P.Geo., QP_{ESA}, as per O.Reg. 153/04, as amended. Information presented in this report is true and accurate to the best of the assessors' knowledge.

Respectfully submitted,

Cambium Inc.

DocuSigned by:

Dave Labelle, B.A., EP Coordinator

Signed by:

<u>Sheila Barter, P.Geo., QPesa</u> Senior Project Manager



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9.0 Standard Limitation

Limited Warranty

In performing work on behalf of a client, Cambium relies on its client to provide instructions on the scope of its retainer and, on that basis, Cambium determines the precise nature of the work to be performed. Cambium undertakes all work in accordance with applicable accepted industry practices and standards. Unless required under local laws, other than as expressly stated herein, no other warranties or conditions, either expressed or implied, are made regarding the services, work or reports provided.

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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 wary at other locations and times. To the extent that Cambium's work or report considers any locations or times other than those from which information, sample results and data were 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 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 a report prepared by Cambium, are beyond the scope of the work performed by Cambium and such matters have not been investigated or addressed.

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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















Distance (metres)





Distance (metres)









Appended Tables



Table 1 - Table of Potentially Contaminating Activities

| PCA ID # | Potentially Contaminating Activity ¹ | Location of PCA | PCA Description | APEC ² (Yes/No) |
|----------|---|---|--|-------------------------------|
| 1 | PCA #30: Importation of Fill Material of Unknown Quality | On-site, south portion of the Site. | Based on previous operations at the Site (i.e., landscaping) fill material of unknown quality was imported to the Site | Yes |
| 2 | PCA #28: Gasoline and Associated Products Storage in Fixed Tanks | On-site, south portion of the Site | A former 1,360 L gasoline AST, based on a review of a 2007 Insurance Inspection report | Yes |
| 3 | PCA #28: Gasoline and Associated Products Storage in Fixed Tanks | On-site, south portion of the Site | A former 2,200 L diesel AST, based on a review of a 2007 Insurance Inspection report | Yes |
| 4 | PCA #27: Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles | On-site, former building located on the south-central portion of the Site | Former tenant conducted personal automotive repair/servicing operations based on a review of a 2007 Insurance Inspection report | Yes |
| 5 | Not Applicable: Known soil impacts at the Site | On-site, south portion of the Site | Based on the results of a previous Phase Two ESA completed at the Site in 2018. | Yes |
| 6 | Not Applicable: Known groundwater impacts at the Site | On-site, central portion of the Site | Based on the results of a previous Phase Two ESA completed at the Site in 2018. | Yes |
| 7 | Not Applicable: Known groundwater impacts at the Site | On-site, central portion of the Site | Based on the results of a previous Phase Two ESA completed at the Site in 2018. | Yes |



| PCA ID # | Potentially Contaminating Activity ¹ | Location of PCA | PCA Description | APEC ² (Yes/No) |
|----------|---|--|---|-------------------------------|
| 8 | Not Applicable: Known groundwater impacts at the Site | On-site, south-central portion of the Site | Based on the results of a previous Phase Two ESA completed at the Site in 2018. | Yes |

Notes:

1 - Potentially Contaminating Activity means a use or activity set out in Column A of Table 2 of Schedule D that is occurring or has occurred in a phase one study area

2 - Area of Potential Environmental Concern means the area on, in or under a phase one property where one or more contaminants are potentially present, as determined through the phase one environmental site assessment, including through,

(a) identification of past or present uses on, in or under the phase one property, and (b) identification of potentially contaminating activity.



Table 2 – Table of Areas of Potential Environmental Concern

| APEC ¹ | Location of APEC on the Phase One Property | PCA ² | | Location of PCA (on-site or off-site) | Contaminants of Potential Concern ³ | Media Potentially Impacted (groundwater, soil, and/or sediment) |
|-------------------|---|------------------|---|---|--|--|
| APEC 1 | South portion of the Site | 1 | PCA #30: Importation of Fill Material of Unknown Quality | On-site, south portion of the Site | PHCs, BTEX, PAHs, metals and hydride-forming metals, B-HWS, Cr(VI), Hg, cyanide, pH, EC and SAR | Groundwater and soil |
| APEC 2 | South portion of the Site | 2 | PCA #28: Gasoline and Associated Products Storage in Fixed Tanks | On-site, south portion of the Site | PHCs, BTEX, PAHs and metals | Groundwater and soil |
| APEC 3 | South portion of the Site | 3 | PCA #28: Gasoline and Associated Products Storage in Fixed Tanks | On-site, south portion of the Site | PHCs, BTEX, PAHs and metals | Groundwater and soil |
| APEC 4 | South portion of the Site | 4 | PCA #27: Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles | On-site, former building located on the south- central portion of the Site | PHCs, BTEX, VOCs, PAHs and metals | Groundwater and soil |
| APEC 5 | South portion of the Site | 5 | Not Applicable: Known soil impacts at the Site | On-site, south portion of the Site | SAR, EC and B-HWS | Soil |
| APEC 6 | Central portion of the Site | 6 | Not Applicable: Known groundwater impacts at the Site | On-site, central portion of the Site | chloride and sodium | Groundwater |



| APEC ¹ | Location of APEC on the Phase One Property | P | CA ² | Location of PCA (on-site or off-site) | Contaminants of Potential Concern ³ | Media Potentially Impacted (groundwater, soil, and/or sediment) |
|-------------------|---|---|---|--|---|--|
| APEC 7 | Central portion of the Site | 7 | Not Applicable: Known groundwater impacts at the Site | On-site, central portion of the Site | chloride and sodium | Groundwater |
| APEC 8 | South-central portion of the Site | 8 | Not Applicable: Known groundwater impacts at the Site | On-site, south-central portion of the Site | chloride, sodium and PAHs (benzo(a)pyrene, chrysene and fluoranthene) | Groundwater |

Notes

1 - Area of Potential Environmental Concern means the area on, in or under a phase one property where one or more contaminants are potentially present, as determined through the phase one environmental site assessment, including through,

(a) identification of past or present uses on, in or under the phase one property, and (b) identification of potentially contaminating activity.

2 - Potentially Contaminating Activity means a use or activity set out in Column A of Table 2 of Schedule D that is occurring or has occurred in a phase one study area

3 - when completing this column, identify all contaminants of potential concern using the Method Groups as identified in the "Protocol for in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, March 9, 2004, amended as of July 1, 2011, as specified below:

| ABNs | PCBs | Metals | Electrical Conductivity | SAR |
|-----------------------------|--------|------------|-------------------------|-----|
| CPs | PAHs | As, Sb, Se | Cr (VI) | |
| 1,4-Dioxane | THMs | Na | Hg | |
| Dioxins/Furans, PCDDs/PCDFs | VOCs | B-HWS | Methyl Mercury | |
| OCs | BTEX | CI- | high pH | |
| PHCs | Ca, Mg | CN- | low pH | |



Table 3 - Groundwater Elevations

| Location | UTM Zone | Easting | Northing | Ground Surface Elevation (masl) | Top of Pipe Elevation (masl) | Measured Depth of Well (mbtp) | Measured Depth of Well (mbgs) | Screen Length (m) | Screen Depth - Top (mbgs) | Screen Depth - Bottom (mbas) | Screen elevation (top) (masl) | Screen Elevation (Bottom) | GW Depth (mbtop) | GW Depth (mbgs) | GW Elevation (masl) |
|----------|-------------|------------|------------|---------------------------------------|------------------------------------|-------------------------------------|-------------------------------------|----------------------|------------------------------|------------------------------------|-------------------------------------|---------------------------------|---------------------|--------------------|------------------------|
| | | | | (| (| (| (| | | (| (, | (masl) | | January 22, 202 | 5 |
| BH113-25 | 18T | 461472.705 | 5031626.72 | 87.34 | 88.42 | 4.21 | 3.1 | 2.4 | 0.7 | 3.1 | 86.61 | 84.21 | 2.05 | 0.97 | 86.37 |
| BH114-25 | 18T | 461482.42 | 5031657.99 | 87.59 | 88.66 | 4.17 | 3.1 | 2.4 | 0.7 | 3.1 | 86.89 | 84.49 | 2.49 | 1.42 | 86.17 |
| BH115-25 | 18T | 461479.808 | 5031669.7 | 87.54 | 88.65 | 4.12 | 3.0 | 2.4 | 0.6 | 3.0 | 86.93 | 84.53 | 2.47 | 1.36 | 86.18 |

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Table 4 - Soil Quality

| | | | Location Code | BH114-25 | BH114-25 | BH116-25 | BH116-25 | BH117-25 | BH117-25 |
|--|----------------|------|------------------------------------|-------------|----------------|-------------|-------------|--------------|------------------|
| | | | Depth | 1.5 - 2.3 | 1.5 - 2.3 | 0 - 0.8 | 0.8 - 1.5 | 0 - 0.8 | 0.8 - 1.5 |
| | | , | Date | 07 Jan 2025 | 07 Jan 2025 | 07 Jan 2025 | 07 Jan 2025 | 07 Jan 2025 | 07 Jan 2025 |
| | Unit | FOL | Table 6 - RPI, fine/medium soil | | | | | | |
| BTEX | Onit | | internetitum son | | | | | | |
| Benzene | µg/g | 0.02 | 0.17 | < 0.02 | < 0.02 | - | - | <0.02 | - |
| Ethylbenzene | µg/g µq/q | 0.05 | 0 1.6 | <0.05 | < 0.05 | - | - | <0.05 | - |
| Xylene Total | µg/g | 0.05 | 25 ^{#1} | <0.05 | < 0.05 | - | - | <0.05 | - |
| PH <u>Cs</u> | | | #2 | | | | | | |
| F2 | µg/g | 4 | 150** | <4 | <4 | - | - | <4 | - |
| F3 F4 | µg/g | 8 | 1,300"° 5.600 | <8 <6 | <8 <6 | - | - | 31 | - |
| PAHs | μ <u>9</u> /9 | Ŭ | 0,000 | 2 | | | | | |
| Acenaphthene | µg/g | 0.02 | 29 | < 0.02 | < 0.02 | - | - | < 0.02 | - |
| Acenaphthylene | µg/g | 0.02 | 0.17 | <0.02 | <0.02 | - | - | <0.02 | - |
| Benzo(a)anthracene | µg/g | 0.02 | 0.63 | < 0.02 | < 0.02 | - | - | <0.02 | - |
| Benzo(a)pyrene | µg/g | 0.02 | 0.3 | < 0.02 | < 0.02 | - | - | <0.02 | - |
| Benzo(g,n,i)perviene Benzo(k)fluoranthene | µg/g | 0.02 | 7.8 0.78 | <0.02 | < 0.02 | - | - | <0.02 | - |
| Benzo(b/j)fluoranthene | µg/g | 0.02 | 0.78 ^{#4} | < 0.02 | < 0.02 | - | - | <0.02 | - |
| Chrysene | µg/g | 0.02 | 7.8 | <0.02 | <0.02 | - | - | <0.02 | - |
| Dibenzo(a,h)anthracene | µg/g | 0.02 | 0.1 | < 0.02 | < 0.02 | - | - | < 0.02 | - |
| Fluorene | µg/g µg/g | 0.02 | 69 | <0.02 | <0.02 | - | - | <0.02 | - |
| Indeno(1,2,3-c,d)pyrene | µg/g | 0.02 | 0.48 | <0.02 | <0.02 | - | - | <0.02 | - |
| Methylnaphthalene 1 & 2 | µg/g | 0.04 | 3.4 ^{#5} | < 0.04 | < 0.04 | - | - | <0.04 | - |
| Naphthalene Phenanthrene | µg/g | 0.01 | 0.75 | <0.01 | <0.01 <0.02 | - | - | <0.01 | - |
| Pyrene | µg/g | 0.02 | 78 | <0.02 | < 0.02 | - | - | <0.02 | - |
| Phenols | | | | 4.44 | 4.40 | | | 0.004 | |
| 4-Terphenyl-d14 | mg/kg ma/ka | | | 1.14 | 1.19 | - | - | 0.948 | - |
| VO <u>C</u> s | | | | | | | | | |
| Acetone | µg/g | 0.5 | 28 | <0.50 | < 0.50 | - | - | <0.50 | - |
| Bromoform | µg/g µa/a | 0.05 | 0.05 | <0.05 | <0.05 | - | - | <0.05 | - |
| Bromodichloromethane | µg/g | 0.05 | 1.9 | < 0.05 | < 0.05 | - | - | <0.05 | - |
| Carbon tetrachloride | µg/g | 0.05 | 0.12 | < 0.05 | < 0.05 | - | - | <0.05 | - |
| Chloroform | µg/g µa/a | 0.05 | 0.17 | <0.05 | <0.05 | - | - | <0.05 | - |
| Dibromoethane,1,2- | µg/g | 0.05 | 0.05 | <0.05 | < 0.05 | - | - | <0.05 | - |
| Dichlorobenzene, 1,2- | µg/g | 0.05 | 1.7 | < 0.05 | < 0.05 | - | - | <0.05 | - |
| Dichlorobenzene, 1,3- | µg/g µa/a | 0.05 | 0.097 | <0.05 | <0.05 | - | - | <0.05 | - |
| Dichlorodifluoromethane | µg/g | 0.05 | 25 | <0.05 | < 0.05 | - | - | <0.05 | - |
| Dichloroethane, 1,1- | µg/g | 0.05 | 0.6 | < 0.05 | < 0.05 | - | - | < 0.05 | - |
| Dichloroethylene, 1,2- | µg/g µa/a | 0.05 | 0.05 | <0.05 | <0.05 | - | - | <0.05 | - |
| Dichloroethylene, 1,2-trans- | µg/g | 0.05 | 0.75 | <0.05 | <0.05 | - | - | <0.05 | - |
| Dichloroethylene, 1,2-cis- | µg/g | 0.05 | 2.5 | < 0.05 | < 0.05 | - | - | <0.05 | - |
| Dichloropropane, 1.2- | µg/g µa/a | 0.05 | 0.96 | <0.05 | < 0.05 | - | - | <0.05 | - |
| Dichloropropene, 1,3- cis | µg/g | 0.05 | | <0.05 | < 0.05 | - | - | <0.05 | - |
| Dichloropropene, 1,3- trans | µg/g | 0.05 | o oo 4 ^{#6} | < 0.05 | < 0.05 | - | - | <0.05 | - |
| Dichloropropene, 1,3- cis & trans | µg/g | 0.05 | 0.081** | <0.05 | <0.05 <0.05 | - | - | <0.05 | - |
| Hexane | µg/g | 0.05 | 34 | < 0.05 | < 0.05 | - | - | <0.05 | - |
| Methyl Ethyl Ketone | µg/g | 0.5 | 44 | < 0.50 | < 0.50 | - | - | <0.50 | - |
| Metnyi Iso-Butyi Ketone | µg/g | 0.5 | 4.3 | <0.50 | <0.50 <0.05 | - | - | <0.50 | - |
| Styrene | µg/g | 0.05 | 2.2 | < 0.05 | < 0.05 | - | - | <0.05 | - |
| Tetrachloroethylene | µg/g | 0.05 | 2.3 | < 0.05 | < 0.05 | - | - | <0.05 | - |
| Tetrachloroethane, 1,1,2,2- | μg/g μα/α | 0.05 | 0.05 | <0.05 | < 0.05 | - | - | <0.05 | - |
| Trichloroethane, 1,1,1- | µg/g | 0.05 | 3.4 | < 0.05 | < 0.05 | - | - | <0.05 | - |
| Trichloroethane, 1,1,2- | µg/g | 0.05 | 0.05 | < 0.05 | < 0.05 | - | - | <0.05 | - |
| Trichlorofluoromethane | µg/g µq/q | 0.05 | 5.8 | <0.05 | < 0.05 | - | - | <0.05 | - |
| Vinyl chloride | µg/g | 0.02 | 0.022 | <0.02 | < 0.02 | - | - | <0.02 | - |
| Metals | | 1 | 7.5 | <1.0 | <1.0 | | <10 | <10 | <10 |
| Anumony Arsenic | µg/g µq/q | 1 | 18 | 4.1 | 4.3 | - | 2.8 | 2.0 | 3.1 |
| Barium | µg/g | 1 | 390 | 248 | 266 | - | 92.7 | 85.3 | 106 |
| Beryllium | µg/g | 0.5 | 5 | 1.2 | 1.2 | - | 0.6 | <0.5 | <0.5 |
| Boron | µg/g | 5 | 120"' | 16.2 | 15.5 | 6.3 | 7.3 | <5.0 | 6.5 <0.5 |
| Chromium (III+VI) | μg/g | 5 | 160 | 115 | 118 | - | 49.8 | 28.0 | 35.4 |
| Cobalt | µg/g | 1 | 22 | 23.3 | 25.7 | - | 9.8 | 6.6 | 9.5 |
| Copper | µg/g | 5 | 180 | 55.3 | 55.2 | - | 15.3 | 17.3 | 21.9 |
| Molybdenum | μg/g | 1 | 6.9 | <1.0 | <1.0 | - | <1.0 | <1.0 | 1.1 |
| Nickel | µg/g | 5 | 130 | 67.1 | 71.0 | - | 24.0 | 15.5 | 19.3 |
| Selenium | µg/g | 1 | 2.4 | <1.0 | <1.0 | - | <1.0 | <1.0 | <1.0 |
| Thallium | µg/g | 1 | 1 | <1.0 | <1.0 | - | <1.0 | <1.0 | <1.0 |
| Uranium | µg/g | 1 | 23 | <1.0 | 1.0 | - | 1.3 | <1.0 | 1.2 |
| Vanadium Zinc | µg/g | 10 | 86 | 92.2 | 94.2 | - | 45.3 | 24.1 38.6 | 34.3 |
| ORPs | | 20 | 540 | | 114 | - | U.U | 50.0 | י.ט.י |
| Boron (hot water soluble) | µg/g | 0.5 | 1.5 ^{#8} | <0.5 | <0.5 | - | - | <0.5 | - |
| Chromium (VI) | µg/g | 0.2 | 10 | 0.4 | 0.5 | - | - | <0.2 | - |
| Electrical Conductivity (Lab) | uS/cm | 5 | 700 | 1.230 | 1.030 | - | - | <0.03 886 | - |
| Mercury | µg/g | 0.1 | 1.8 | <0.1 | <0.1 | - | - | <0.1 | - |
| pH (Lab) | рН | 0.05 | 5-9 | 7.44 | 7.72 | 9.61 | 7.57 | 9.01 | 7.32 |
| Source Ausorption Ratio | - 1 | U.U1 | 3 | 1.01 | 1./1 | - | - | 0.30 | - |

Comments

#1 Standard is applicable to total xylenes; m & p-xylenes and o-xylenes should be summed for comparison. #2 Standard is applicable to PHC F2 minus naphthalene. If naphthalene is not analyzed, the standard is applied to F2.

#3 Standard is applicable to PHC F3 minus PAHs (other than naphthalene). If PAHs have not been measured, the standard is applied to F3.

#4 Standard is for benzo(b)fluoranthene; however, the laboratory can not distinguish between benzo(b)fluoranthene and benzo(j)fluoranthene. #5 Standard is applicable to Methylnaphthalene, 1- and Methylnaphthalene, 2-. If both are detected, the sum of the two must not exceed the standard.

#6 Standard is applicable to 1,3-Dichloropropene. Individual isomers (cis + trans) should be added for comparison.

#7 Total Boron standard is for sub-surface soil (>1.5 m).

#8 HWS Boron standard is for surface soil (<1.5 m).

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Table 5 - Groundwater Quality

| - | | | Location Code | 0504450 | BH113-25 | BH114-25 | BH114-25 | BH115-25 | BH115-25 |
|-----------------------------------|--------------|------------|------------------------|-----------------------|---------------------|---|----------------------|---------------------|----------------------|
| | | | Lab Report Number | 2504459 Trin Blank | 2504459 BH113-25 | 2504459 BH114-25 | 2504459 0A0C01-25 | 2504459 BH115-25 | 2504459 0A0C02-25 |
| | | | Date | 04 Jan 2025 | 24 Jan 2025 | 24 Jan 2025 | 24 Jan 2025 | 24 Jan 2025 | 24 Jan 2025 |
| | | | Table 6 - All Types of | | | | | | |
| DTEV | Unit | EQL | Property Use | | 1 | 1 | 1 | | |
| BIEX | ug/l | 0.5 | 0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | |
| Toluene | ua/L | 0.5 | 24 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | |
| Ethylbenzene | µg/L | 0.5 | 2.4 | <0.5 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | - |
| Xvlene Total | ua/L | 0.5 | 72 ^{#1} | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - |
| PHCs | 1-3/- | | | | | | | | |
| F2 | µg/L | 100 | 150 ^{#2} | - | <100 | <100 | - | <100 | <100 |
| F3 | ua/L | 100 | 500 ^{#3} | - | <100 | <100 | - | <100 | <100 |
| F4 | µg/L | 100 | 500 | - | <100 | <100 | - | <100 | <100 |
| PAHs | | | | | | | | | |
| Acenaphthene | µg/L | 0.05 | 4.1 | - | <0.08 | <0.10 | - | <0.05 | - |
| Acenaphthylene | µg/L | 0.05 | 1 | - | < 0.08 | < 0.10 | - | < 0.05 | - |
| Anthracene | µg/L | 0.01 | 1 | - | < 0.02 | < 0.02 | - | < 0.01 | - |
| Benzo(a)pyrene | µg/L | 0.01 | 0.01 | - | <0.02 | <0.02 | - | <0.01 | - |
| Benzo(a,h,i)pervlene | µg/∟ ua/L | 0.05 | 0.2 | - | <0.02 | <0.10 | - | <0.05 | - |
| Benzo(k)fluoranthene | µg/L | 0.05 | 0.1 | - | < 0.08 | < 0.10 | - | < 0.05 | - |
| Benzo(b/i)fluoranthene | ua/L | 0.05 | 0.1 ^{#4} | - | <0.08 | <0.10 | - | <0.05 | - |
| Chrysene | µg/L | 0.05 | 0.1 | - | < 0.08 | < 0.10 | - | < 0.05 | - |
| Dibenzo(a,h)anthracene | µg/L | 0.05 | 0.2 | - | <0.08 | <0.10 | - | <0.05 | - |
| Fluoranthene | µg/L | 0.01 | 0.41 | - | <0.02 | <0.02 | - | <0.01 | - |
| Fluorene | µg/L | 0.05 | 120 | - | <0.08 | <0.10 | - | <0.05 | - |
| Indeno(1,2,3-c,d)pyrene | µg/L | 0.05 | 0.2 | - | <0.08 | <0.10 | - | <0.05 | - |
| Methylnaphthalene 1 & 2 | µg/L | 0.1 | 3.2#5 | - | <0.17 | <0.20 | - | <0.10 | - |
| Naphthalene | µg/L | 0.05 | 7 | - | < 0.08 | <0.10 | - | < 0.05 | - |
| | µg/L | 0.05 | 1 | - | <0.08 | <0.10 | - | <0.05 | - |
| | µg/L | 0.01 | 4.1 | - | <u>~0.02</u> | <u><u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> </u> | - | <u><u> </u></u> | - |
| Acetone | ua/l | 5 | 2 700 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | - |
| Bromomethane | ua/L | 0.5 | 0.89 | <0.5 | <0.5 | < 0.5 | <0.5 | <0.5 | - |
| Bromoform | µg/L | 0.5 | 5 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | - |
| Bromodichloromethane | µg/L | 0.5 | 16 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - |
| Carbon tetrachloride | µg/L | 0.2 | 0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | - |
| Chlorobenzene | µg/L | 0.5 | 30 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - |
| Chloroform | µg/L | 0.5 | 2 | <0.5 | < 0.5 | < 0.5 | <0.5 | <0.5 | - |
| Dibromoethane,1,2- | µg/L | 0.2 | 0.2 | <0.2 | < 0.2 | < 0.2 | <0.2 | <0.2 | - |
| Dichlorobenzene, 1,2- | µg/L | 0.5 | 50 50 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | |
| Dichlorobenzene, 1,3- | ua/l | 0.5 | 0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | |
| Dichlorodifluoromethane | ua/L | 1 | 590 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | - |
| Dichloroethane, 1,1- | µg/L | 0.5 | 5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - |
| Dichloroethane, 1,2- | µg/L | 0.5 | 0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - |
| Dichloroethylene, 1,1- | µg/L | 0.5 | 0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - |
| Dichloroethylene, 1,2-trans- | µg/L | 0.5 | 1.6 | <0.5 | < 0.5 | < 0.5 | < 0.5 | <0.5 | - |
| Dichloroethylene, 1,2-cis- | µg/L | 0.5 | 1.6 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - |
| Dichloromethane | µg/L | 5 | 20 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | - |
| Dichloropropene, 1,2- | µg/L | 0.5 | 0.30 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - |
| Dichloropropene, 1,3- trans | ua/L | 0.5 | | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - |
| Dichloropropene, 1,3- cis & trans | µg/L | 0.5 | 0.5 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | - |
| Dibromochloromethane | µg/L | 0.5 | 25 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - |
| Hexane | µg/L | 1 | 5 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | - |
| Methyl Ethyl Ketone | µg/L | 5 | 1,800 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | - |
| | µg/L | 5 | 640 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | - |
| Styrene | µg/L | 2 0.5 | 10 5.4 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | - |
| Tetrachloroethylene | µg/∟ ua/L | 0.5 | 0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | |
| Tetrachloroethane, 1,1,1,2- | µg/L | 0.5 | 1.1 | < 0.5 | < 0.5 | < 0.5 | <0.5 | <0.5 | - |
| Tetrachloroethane, 1,1,2,2- | μg/L | 0.5 | 0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - |
| Trichloroethane, 1,1,1- | µg/L | 0.5 | 23 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - |
| Irichloroethane, 1,1,2- | µg/L | 0.5 | 0.5 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | - |
| Trichlorofluoromothono | µg/L | 0.5 ₁ | 0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | - |
| Vinvl chloride | µg/L | 0.5 | 0.5 | <1.U <0.5 | <1.U <0.5 | <1.U <0.5 | <1.U <0.5 | <1.U <1.5 | - |
| Metals | µy/∟ | 0.0 | 0.0 | NU.U | NU.U | 50.0 | NU.U | NU.U | - |
| Antimony | µg/L | 0.5 | 6 | - | <0.5 | <0.5 | <0.5 | <0.5 | - |
| Arsenic | μg/L | 1 | 25 | - | <1 | <1 | <1 | <1 | |
| Barium | µg/L | 1 | 1,000 | - | 80 | 72 | 63 | 74 | - |
| Beryllium | µg/L | 0.5 | 4 | - | <0.5 | <0.5 | <0.5 | <0.5 | - |
| Boron | µg/L | 10 | 5,000 | - | 109 | 211 | 182 | 95 | - |
| | µg/L | U.1 1 | 2.1 | - | <0.1 | <0.1 | <0.1 | <0.1 ~1 | - |
| Cobalt | µg/∟ | 0.5 | 30 | - | 0.6 | 0.8 | 0.6 | 0.6 | - |
| Copper | ua/L | 0.5 | 69 | - | 3.1 | 1.9 | 2.3 | 2.6 | - |
| Lead | µg/L | 0.1 | 10 | - | <0.1 | <0.1 | <0.1 | <0.1 | - |
| Molybdenum | μg/L | 0.5 | 70 | - | 2.3 | 1.9 | 1.7 | 1.4 | - |
| Nickel | µg/L | 1 | 100 | - | 3 | 2 | 2 | 2 | - |
| Selenium | µg/L | 1 | 10 | - | <1 | <1 | <1 | <1 | - |
| | µg/L | 0.1 | 1.2 | - | <0.1 | <0.1 | <0.1 | <0.1 | - |
| | µg/L | U.1 | 2 | - | <0.1 5 2 | <u.1 0.1</u.1 | <0.1 2.2 | <0.1 2 1 | - |
| Vanadium | µy/L | 0.1 | 62 | - | 2.0 | 2.1 | 2.2 | 16 | - |
| Zinc | µa/L | 5 | 890 | - | <5 | <5 | <5 | <5 | - |
| ORPs | | | | | | | | | |
| Chromium (VI) | µg/L | 10 | 25 | - | <10 | <10 | - | <10 | <10 |
| Cyanide (Free) | µg/L | 2 | 52 | - | <2 | <2 | - | <2 | <2 |
| Mercury | µg/L | 0.1 | 0.1 | - | < 0.1 | < 0.1 | - | <0.1 | <0.1 |
| | µg/L | 5,000 | 790,000 | - | 1,120,000 | 608,000 | - | 1,260,000 | - |
| Sodium | - ua/l | 0.1 694 | 490 000 | - | 543 000 | 0.2 745 000 | 643 000 | 444.000 | - |
| | - <u>-</u> | | | | | | | , | |

Comments

#1 Standard is applicable to total xylenes; m & p-xylenes and o-xylenes should be summed for comparison.
#2 Standard is applicable to PHC F2 minus naphthalene. If naphthalene is not analyzed, the standard is applied to F2.
#3 Standard is applicable to PHC F3 minus PAHs (other than naphthalene). If PAHs have not been measured, the standard is applied to F3.
#4 Standard is for benzo(b)fluoranthene; however, the laboratory can not distinguish between benzo(b)fluoranthene and benzo(j)fluoranthene.
#5 Standard is applicable to Methylnaphthalene, 1- and Methylnaphthalene, 2-. If both are detected, the sum of the two must not exceed the standard.



Appendix A Sampling and Analysis Plan Sampling and Analysis Plan - 2405 and 2419 Mer Bleue Road, Ottawa, Ontario



April 4, 2025

Prepared for: Conseil des ecoles publiques de l'Est de l'Ontario

Cambium Reference: 20361-003

CAMBIUM INC.

866.217.7900

cambium-inc.com



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1.0 Introduction

This document outlines the Sampling and Analysis Plan (SAP) for the field work proposed for the Phase Two Environmental Site Assessment (ESA) being completed at 2405 and 2419 Mer Bleue Road in Ottawa, Ontario (the Site). The roughly 3.61 ha Site on the east side of Mer Bleue Road and approximately 90 m south of the intersection of Mer Bleue Road and Renaud Road. The Site is developed with one building that is currently a vacant residential building.

The Phase Two ESA includes the advancement of five boreholes to a maximum depth of 3.1 m below ground surface (mbgs). In addition, three boreholes were installed as groundwater monitoring wells.

This SAP establishes a quality assurance and quality control (QA/QC) program, data quality objectives, standard operating procedures, and a description of potential physical impediments that may limit the ability to conduct sampling and analysis.

1.1 Objectives

Cambium Inc. (Cambium) completed a Phase One ESA for the Site (Cambium, 2024) which identified areas of potential environmental concern (APECs) associated with current and former uses of the site and surrounding properties.

The purpose of the soil characterization will be to investigate soil quality in the identified APECs through the advancement of boreholes, and the collection of soil samples.

The contaminants of potential concern (COPCs) associated with the APECs include benzene, toluene, ethylbenzene, xylenes (BTEX), petroleum hydrocarbons (PHCs), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), metals, hydride-forming metals, hot water soluble boron, hexavalent chromium, and mercury.

The overall objective of the Phase Two ESA work program is to identify areas of contamination at the Phase Two property, if any, to support the filing of a Site Plan Approval (SPA) application with the City of Clarence-Rockland in accordance with the requirements of Ontario Regulation (O.Reg.) 153/04.



2.0 Work Proposed

Proposed boreholes and monitoring well locations and rationale are included in the following table:

| Location ID | Rationale | Proposed Sample Depth | COPCs |
|-------------|--|--------------------------------------|--|
| BH113-25 | Investigate groundwater quality on the southwest portion of the Site for a former 1,360 L gasoline AST (APEC2) and previously identified groundwater exceedances (APEC 8) | N/A | BTEX, PHCs, VOCs, PAHs, metals, hydride-forming metals, hot water soluble boron, hexavalent chromium, mercury |
| BH114-25 | Investigate soil and groundwater quality on the central portion of the Site for former automotive repair/servicing (APEC4) | 0.0 to 0.5 mbgs & 0.5 to 1.5 mbgs | BTEX, PHCs, VOCs, PAHs, metals, hydride-forming metals, hot water soluble boron, hexavalent chromium, mercury |
| BH115-25 | Investigate groundwater quality on the central portion of the Site for previously identified groundwater exceedances (APEC 7) | N/A | BTEX, PHCs, VOCs, PAHs, metals, hydride-forming metals, hot water soluble boron, hexavalent chromium, mercury |
| BH116-25 | Investigate soil quality on the central portion of the Site for fill material (APEC1) and previously identified soil exceedances (APEC 6) | 0.0-1.5 mbgs | Boron |
| BH117-25 | Investigate soil quality on the east portion of the Site for fill material (APEC1) | 0.0-1.5 mbgs | BTEX, PHCs, VOCs, PAHs, metals, hydride-forming metals, hot water soluble boron, hexavalent chromium, mercury |

To meet the objectives outlined above, the Phase Two ESA work program will generally consist of the following:

- Advance boreholes at least to the depth of the water table, or test pits at least to native soil;
- Collect soil samples continuously at regular intervals (0.76 metres) using a dual tube sampling system;
- Instrument three boreholes with a monitoring well; and,
- Collect groundwater samples using a low-flow sampling method.

2.1 Quality Assurance

Cambium will maintain the following quality control measures throughout the Phase Two work program:



- Non-dedicated sampling and monitoring equipment will be decontaminated following each use and between each sampling location.
- A minimum of one (1) duplicate sample will be collected for every ten samples collected, for both soil and groundwater.
- Groundwater trip blanks will be submitted for analysis of VOCs with every groundwater VOC sample submission.

Paracel Laboratories Ltd. (Paracel), an analytical laboratory accredited by the Canadian Association of Laboratory Accreditation (CALA) will be utilized, and the laboratory will complete additional quality control measures (i.e. duplicates, method spikes) as required by its accreditation.

All laboratory certificates of analysis will be reviewed by Cambium for data integrity and quality control. If anomalies in the reported data are identified, Cambium will resample or collect additional samples, where possible and as required.

2.2 Sampling Methods

Boreholes will be advanced using a track-mounted drill rig. Retrieved soil samples will be inspected for visible and olfactory evidence of contamination. Soil samples will be divided, with half or more of the sample placed in a dedicated polyethylene sample bag and sealed for field screening, and the remaining sample placed in dedicated sample jars or vials for analytical submission. Samples to be submitted for analysis of PHC F1 and/or VOCs will be collected using a pre-calibrated syringe sampler and methanol preserved vial.

Each sample will be handled by a Cambium field technician using dedicated nitrile gloves to minimize the potential for cross-contamination.

2.2.1 Sample Handling and Custody

Samples will be collected in laboratory-supplied sample containers, with preservative as necessary. All samples requiring laboratory analysis will be placed in a cooler and maintained at less than 10°C prior to and during transport to the laboratory.



Samples will be labelled with a unique sample ID, sampling date, and project number. All samples will be shipped to the laboratory under chain of custody protocols.

2.2.2 Instrumentation

The Phase Two work program will require the use of the following non-dedicated instrumentation and equipment: RKI Eagle 2 portable gas detector, field water quality kit, peristaltic pump, and interface probe. Equipment will be inspected daily for damage or defects, and appropriate measures will be taken if necessary, prior to commencing field work.

An RKI Eagle 2 portable gas detector will be used to screen the soil samples for concentrations of combustible soil vapour (CSV) and organic vapour (OV). The RKI will be calibrated to hexane and isobutylene standards. After agitating the sample, the peak concentration will be recorded by inserting the RKI probe into the sample bag.

The interface probe will be decontaminated between monitoring wells using an Alconox wash, and rinsed with distilled water.

2.3 Quality Control

2.3.1 Verification and Validation Methods

To validate the integrity of the laboratory analytical data as well as sampling methods, Cambium will determine the relative percent difference (RPD) of QA/QC duplicate samples and the corresponding numbered samples. Cambium will also review the analysis of trip blanks and laboratory completed matrix spikes.

RPD is calculated using the following formula:

$$RPD(\%) = \frac{|x_1 - x_2|}{x_m} \times 100\%$$

Where: x_1 = parent sample result

 x_2 = duplicate sample result

 x_m = arithmetic mean of parent and duplicate sample results



Low concentrations are more sensitive to RPD values; as such, RPDs will not be calculated where the parameter concentration in the sample and/or duplicate is less than five (5) times the laboratory RDL.

The calculated RPD results were compared to the performance criteria for each parameter group as outlined in the *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act and Excess Soil Quality* (MECP, 2021).

If an RPD is calculated above the allowable limits, Cambium will attempt to determine the source of the variance, and will assess whether the elevated RPD affects the integrity and usability of the data.

If detectable contaminant concentrations are identified in the trip blank, Cambium will assess the chain of custody protocols and sample transport procedures, and determine if there are impacts to the integrity of the data.



2.4 Quality Control

2.4.1 Verification and Validation Methods

To validate the integrity of the laboratory analytical data as well as sampling methods, Cambium will determine the relative percent difference (RPD) of QA/QC duplicate samples and the corresponding numbered samples. Cambium will also review the analysis of trip blanks and laboratory completed matrix spikes.

RPD is calculated using the following formula:

$$RPD(\%) = \frac{|x_1 - x_2|}{x_m} \times 100\%$$

Where: x_1 = parent sample result

 x_2 = duplicate sample result

 x_m = arithmetic mean of parent and duplicate sample results

Low concentrations are more sensitive to RPD values; as such, RPDs will not be calculated where the parameter concentration in the sample and/or duplicate is less than five (5) times the laboratory RDL.

The calculated RPD results were compared to the performance criteria for each parameter group as outlined in the *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act and Excess Soil Quality* (MECP, 2021).

If an RPD is calculated above the allowable limits, Cambium will attempt to determine the source of the variance, and will assess whether the elevated RPD affects the integrity and usability of the data.

If detectable contaminant concentrations are identified in the trip blank, Cambium will assess the chain of custody protocols and sample transport procedures, and determine if there are impacts to the integrity of the data.


Appendix B Borehole Logs

| CAMBIUM | Conseil des ecoles publiques de l'Est de Client: l'Ontario Contractor: Strata Project No.: 20361-003 Location: 2405 chemin Mer Bleue, Ottawa ON | | | | Nam letho vatio UTN | e: 24 d: Di n: 99 M: 18 | 405 cł irect F 9.11 n 3T I | nemin Push nREL N: { | éans 461472 | Log of Borehole: Page: Date Completed: | BH113-25 1 of 1 January 7th, 2025 | |
|-----------------------------|---|--|--------|------|------------------------------|----------------------------------|--|---------------------------------------|---|--|---|---|
| | SUB | SURFACE PROFILE | | | | | S | AMPI | LE | | | |
| Elevation (m) Depth | Lithology | Description Elevation Depth | Number | Type | CSV (ppm) | OV (ppm) | % Recovery | SPT (N)/DCPT | Atterberg LO Limits (%) PL 25 50 75 % Moisture 25 50 75 | Shear Strength Cu, kPa 20 40 60 80 SPT (N) / DCPT 20 40 60 80 | Well Installation | Log Notes |
| 99.1 0 | | (GW) sandy GRAVEL: sandy gravel 98.81 (CL) CLAY: clay, some silt, no odour, no sheen, dry | 1 | DT | 0 | 0 | 70 | | | | Riser | |
| 98.1 - 1 - 97.6 - 1.5 | | Soil becoming wet at 1.5 m | 2 | DT | 0 | 0 | 70 | | | | Sand | Insufficient soil to collect for lab analysis |
| 97.1-2 | | | 3 | DT | 0 | 0 | 70 | | | | PVC Screen | |
| 96.1 - 3 | | 96.06 Borehole terminated @ 3 mbgs due to target deoth achieved. | 4 | DT | 0 | 0 | 70 | | | | Сар | Borehole Termination at 3.04 mbgs |
| 95.6 - 3.5 - 95.1 - 4 | | | | | | | | | | | | |
| 94.6 - 4.5 | | | | | | | | | | | | |
| 93.6 - 5.5 | | | | | | | | | | | | |
| 92.6 - 6.5 | | | | | | | | | | | | |

GRAINSIZE SAMPLE GRAVEL SAND SILT CLAY

╀ 91.6

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| - |
| |
| E |
| CAMBIUM |

Conseil des ecoles publiques de l'Est de **Client:** l'Ontario

Project Name: 2405 chemin Mer Bleue, Orléans Method: Direct Push Log of Borehole: B Page:

BH114-25 1 of 1

Date Completed: January 7th, 2025

Project No.: 20361-003 Location: 2405 chemin Mer Bleue, Ottawa ON

Contractor: Strata

Elevation: 99.35 mREL

UTM: 18T N: 5031657 E: 461482

| | | | | | S | | | | | | | |
|---------------------------|---------------|--|--------|------|-----------|----------|------------|--------------|--|--|------------------------|--|
| Elevation (m) Depth | Lithology | Description Elevation | Number | Type | CSV (ppm) | OV (ppm) | % Recovery | SPT (N)/DCPT | Atterberg LO Limits (%) PLO 25 50 75 % Moisture 25 50 75 | Shear Strength Cu, kPa 20 40 60 80 SPT (N) / DCPT 20 40 60 80 | Well Installation | Log Notes |
| 00.4 0 | | | | | | | | | · | | -Cap | |
| 99.4 0 | ^ _ /// | (SW) SAND: sand and gravel 98.89 (CL) CLAY: clay, no odour, no | 1 | DT | 0 | 0 | 80 | | | | | |
| + | | sheen | - | | | | | | | | | |
| 98.4 - 1 | | | 2 | DT | 0 | 0 | 80 | | | | | |
| 97.8 - 1.5 | | Soil becoming wet at 1.5 m | | | | | | | | | Sand Pack | BH114-25_1.5-2.3: PHCs, PAHs, VOCs, Metals by ICP_ORPs |
| 97.4-2 | | | 3 | DT | 30 | 0 | 100 | | | | PVC Screen | QAQC1 |
| + 96.8 + 2.5 | | | 4 | рт | 0 | 0 | 100 | | | | | |
| | | 96.30 | | | | Ĵ | | | | | | Rorobolo Tormination |
| 95.8 - 3.5 | | Borehole terminated @ 3 mbgs due to target depth achieved. | | | | | | | | | і ∟́ ⊈⊣ Сар | at 3.04 m |
| | | | | | | | | | | | | |
| 95.4 4 | | | | | | | | | | | | |
| 94.8 - 4.5 | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 94.4-5 | | | | | | | | | | | | |
| 93.8 + 5.5 | | | | | | | | | | | | |
| 93.4 + 6 | | | | | | | | | | | | |
| 92.8 + 6.5 | | | | | | | | | | | | |
| 92.4 7 | | | | | | | | | | | | |

GRAINSIZE SAMPLE GRAVEL SAND SILT CLAY

91.8 -

| * | |
|---------|--|
| | |
| 2.5 | |
| | |
| | |
| \sim | |
| CAMBIUM | |

Conseil des ecoles publiques de l'Est de **Client:** l'Ontario

Project Name: 2405 chemin Mer Bleue, Orléans Method: Direct Push

Log of Borehole: BH115-25

Page: 1 of 1

Date Completed: January 7th, 2025

Location: 2405 chemin Mer Bleue, Ottawa ON

Contractor: Strata

Project No.: 20361-003

Elevation: 99.31 mREL **UTM:** 18T **N:** 5031669

E: 461479

| | SUBSURFACE PROFILE | | | | | | S | AMP | LE | | | |
|---------------------------|-----------------------|--|--------|------|-----------|----------|------------|--------------|---|--|----------------------|---|
| Elevation (m) Depth | Lithology | Description Elevation Depth | Number | Type | CSV (ppm) | OV (ppm) | % Recovery | SPT (N)/DCPT | Atterberg LO Limits (%) PO 25 50 75 % Moisture 25 50 75 | Shear Strength Cu, kPa 20 40 60 80 SPT (N) / DCPT 20 40 60 80 | Well Installation | Log Notes |
| | | | | | | | | | | | Can | |
| 99.3 - 0 98.8 + 0.5 | | (SW) SAND: sand and gravel, no odour 99.16 (SW) SAND: sand, no odour 90.16 (CL) CLAY: clay, no odour 0.30 | 1 | DT | 0 | 0 | 100 | | | | Riser | |
| | $\langle / / \rangle$ | | | | | | | | | | | |
| | V// | | 2 | DT | 0 | 0 | 100 | | | | | |
| 97.8 - 1.5 | | Soil becoming wot at 1.8 m | | | | | | | | | Sand Pack | Insufficient soil to collect for lab analysis |
| 97.3-2 | V// | Son becoming wet at 1.5 m | 3 | DT | 0 | 0 | 100 | | | | PVC | |
| | V// | | | | | | | | | | | |
| 96.8 - 2.5 | | | 4 | DT | 0 | 0 | 100 | | | | | |
| 96.3-3 | | 96.26 | | | | | | | | | Cap | Borehole Termination |
| | | Borehole terminated @ 3 mbgs | | | | | | | | | | at 3.04 mbgs |
| 95.8 + 3.5 | | due to target depth achieved. | | | | | | | | | | |
| 95.3-4 | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 94.8 - 4.5 | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 94.3-5 | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 93.8 + 5.5 | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 93.3-6 | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 92.8 + 6.5 | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 92.3-7 | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 91.8 | | J | | | | | | | | GRAINSIZE | | |
| | | | | | | | | | | DISTRIBUTION | | |
| L | | | | | | | | | | Detenhanser | h Damia Ottawa | 1/1: |

| CAMBIUM |
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Conseil des ecoles publiques de l'Est de Client: l'Ontario

Project Name: 2405 chemin Mer Bleue, Orléans Method: Direct Push

SAMPLE

Log of Borehole: Page:

BH116-25 1 of 1

Date Completed: January 7th, 2025

Location: 2405 chemin Mer Bleue, Ottawa ON

Contractor: Strata

Project No.: 20361-003

SUBSURFACE PROFILE

Elevation: 99.35 mREL UTM: 18T N: 5031661

E: 461491

| | Elevation | (m) Depth | Lithology | Description | Elevation Depth | Number | Type | CSV (ppm) | OV (ppm) | % Recovery | SPT (N)/DCPT | Atterberg LO Limits (%) PL 25 50 75 % Moisture 25 50 75 | Shear Strength Cu, kPa 20 40 60 80 SPT (N) / DCPT 20 40 60 80 | Well Installation | Log Notes |
|---|---------------|--------------|-----------|---|--------------------|--------|------|-----------|----------|------------|--------------|---|--|----------------------|----------------------------------|
| | | | | | | | | | | | | 20 00 10 | 20 40 00 00 | L | |
| g | 9.4- | | | (SW) SAND: sand and gravel, no odour | | 1 | DT | 0 | 0 | 100 | | | | | |
| | | - 0.0 | 177 | (CL) CLAY: clay, no odour | 0.61 | | | | | | | | | | BH115-25_0.0-0.8: |
| g | 98.4- | -1 | | | | 2 | DT | 0 | 0 | 100 | | | | | BOION |
| g | 97.8 | 1.5 | <u> </u> | Borebole terminated @ 1.5 m | 97.83 | | | | | | | | | | Borehole Termination at 1.5 mbgs |
| g |)7.4- | -2 | | due to target depth achieved. | ibys | | | | | | | | | | |
| ç | 96.8 | 2.5 | | | | | | | | | | | | | |
| g | 96.4 <i>-</i> | -3 | | | | | | | | | | | | | |
| g | 95.8 - | 3.5 | | | | | | | | | | | | | |
| g | 95.4- | 4 | | | | | | | | | | | | | |
| g | 94.8 - | 4.5 | | | | | | | | | | | | | |
| | .4.4 - | -5 - | | | | | | | | | | | | | |
| g | 93.8 - | 5.5 | | | | | | | | | | | | | |
| g | 93.4- | -6 | | | | | | | | | | | | | |

92.8

92.4-

91.8

6.5

-7

GRAINSIZE SAMPLE GRAVEL SAND SILT CLAY

| Ż | Client: | Conseil des ecoles publiques de l'Est de l'Ontario | Project Name: | 2405 chemin Mer Bleue, Or | rléans L | og of Borehole: | BH117-25 |
|---------|--------------|--|---------------|---------------------------|----------|----------------------|---------------|
| | Contractor: | Strata | Method: | Direct Push | | Page: | 1 of 1 |
| | Project No.: | 20361-003 | Elevation: | 99.40 mREL | C | ate Completed: Janua | ary 7th, 2025 |
| CAMBIUM | Location: | 2405 chemin Mer Bleue, Ottawa ON | UTM: | 18T N: 5031688 E: | : 461566 | | |

| | SUBSURFACE PROFILE | SAMPLE | | | | | | | | | | |
|---------------------------|--|--------|------|-----------|----------|------------|--------------|---|--|----------------------|---|--|
| Elevation (m) Depth | Description | Number | Type | CSV (ppm) | OV (ppm) | % Recovery | SPT (N)/DCPT | Atterberg LO Limits (%) PO 25 50 75 % Moisture 25 50 75 | Shear Strength Cu, kPa 20 40 60 80 SPT (N) / DCPT 20 40 60 80 | Well Installation | Log Notes | |
| 99.4 0 | (SW) SAND: sand and gravel, no odour | | | | | | | | | | | |
| 98.9-0.5 | 99.10 (CL) CLAY: clay, no odour | 1 | DT | 0 | 0 | 100 | | | | | | |
| | | | | | | | | | | | BH117-25_0.0-0.8: PHCs, PAHs, VOCs, Metals by ICP, ORPs | |
| 98.4 - 1 | | 2 | DT | 0 | 0 | 100 | | | | | | |
| 97.9 1.5 | 97.88 Borehole terminated @ 1.5 mbgs ^{1.52} | | | | | | | | | | Borehole Termination at 1.5 m | |
| + + + | due to target depth achieved. | | | | | | | | | | | |
| 97.4 - 2 | | | | | | | | | | | | |
| 96.9 - 2.5 | | | | | | | | | | | | |
| 96.4-3 | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 95.9-3.5 | | | | | | | | | | | | |
| 95.4 4 | | | | | | | | | GRAINSIZE آج | AMPLE GRAVEL SAN | D I SILT I CLAY I | |
| | GRAINSIZE <u>SAMPLETGRAVELT SAND T SILT T CLAY</u> DISTRIBUTION | | | | | | | | | | | |





Appendix C Laboratory Certificates of Analysis



| Cambium Inc. (Ottawa) | | |
|---|----------------|-------------------------|
| 102-343 Preston Street | | |
| Ottawa, ON K7K 7G3 | | |
| Attn: Dave Labelle | | |
| | | Report Date: 3-Feb-2025 |
| Client PO: | | Order Date: 7-Jan-2025 |
| Project: 20361-003 | | |
| Custody: 77287 | Revised Report | Order #: 2502112 |
| This Certificate of Analysis contains analytical data applicable to the following samples as submitted: | | |

| Paracel ID | Client ID |
|------------|------------------|
| 2502112-03 | BH114-25_1.5-2.3 |
| 2502112-05 | BH116-25_0.0-0.8 |
| 2502112-06 | BH116-25_0.8-1.5 |
| 2502112-07 | BH117-25_0.0-0.8 |
| 2502112-08 | BH117-25_0.8-1.5 |
| 2502112-09 | QA/QC-1 |

....

Approved By:

Mark Froto

Mark Foto, M.Sc.



Client: Cambium Inc. (Ottawa)

Client PO:

Analysis Summary Table

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

| Analysis | Method Reference/Description | Extraction Date | Analysis Date |
|---------------------------------|--|-----------------|---------------|
| Boron, available | MOE (HWE), EPA 200.8 - ICP-MS | 8-Jan-25 | 8-Jan-25 |
| Chromium, hexavalent - soil | MOE E3056 - Extraction, colourimetric | 8-Jan-25 | 9-Jan-25 |
| Conductivity | MOE E3138 - probe @25 °C, water ext | 8-Jan-25 | 8-Jan-25 |
| Cyanide, free | MOE E3015 - Auto Colour, water extraction | 10-Jan-25 | 10-Jan-25 |
| Mercury by CVAA | EPA 7471B - CVAA, digestion | 8-Jan-25 | 8-Jan-25 |
| Metals, ICP-MS | EPA 6020 - Digestion - ICP-MS | 9-Jan-25 | 9-Jan-25 |
| pH, soil | EPA 150.1 - pH probe @ 25 °C, CaCl buffered ext. | 8-Jan-25 | 8-Jan-25 |
| PHC F1 | CWS Tier 1 - P&T GC-FID | 8-Jan-25 | 8-Jan-25 |
| PHCs F2 to F4 | CWS Tier 1 - GC-FID, extraction | 8-Jan-25 | 8-Jan-25 |
| REG 153: Metals by ICP/MS, soil | EPA 6020 - Digestion - ICP-MS | 8-Jan-25 | 8-Jan-25 |
| REG 153: PAHs by GC-MS | EPA 8270 - GC-MS, extraction | 9-Jan-25 | 10-Jan-25 |
| REG 153: VOCs by P&T GC/MS | EPA 8260 - P&T GC-MS | 8-Jan-25 | 8-Jan-25 |
| SAR | Calculated | 8-Jan-25 | 8-Jan-25 |
| Solids, % | CWS Tier 1 - Gravimetric | 7-Jan-25 | 8-Jan-25 |
| Texture - Coarse Med/Fine | Based on ASTM D2487 | 29-Jan-25 | 30-Jan-25 |



Client: Cambium Inc. (Ottawa)

Client PO:

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

Project Description: 20361-003

Summary of Criteria Exceedances

(If this page is blank then there are no exceedances)

Only those criteria that a sample exceeds will be highlighted in red

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 have exceeded the selected regulatory limit. Calculated uncertainty estimations have not been applied for determining regulatory exceedances.

| Sample | Analyte | MDL / Units | Result | Reg 153/04 -T6 | Reg 153/04 -T6 Res/Park, |
|------------------|--------------|---------------|--------|----------------------|--------------------------|
| | | | | Res/Faik, coarse | IIIIe |
| BH114-25_1.5-2.3 | Conductivity | 5 uS/cm | 1230 | 0.7 mS/cm | 0.7 mS/cm |
| BH114-25_1.5-2.3 | Cobalt | 1.0 ug/g | 23.3 | 22 ug/g | 22 ug/g |
| BH114-25_1.5-2.3 | Vanadium | 10.0 ug/g | 92.2 | 86 ug/g | 86 ug/g |
| BH116-25_0.0-0.8 | рН | 0.05 pH Units | 9.61 | 5.00 - 9.00 pH Units | 5.00 - 9.00 pH Units |
| BH117-25_0.0-0.8 | Conductivity | 5 uS/cm | 886 | 0.7 mS/cm | 0.7 mS/cm |
| BH117-25_0.0-0.8 | pH | 0.05 pH Units | 9.01 | 5.00 - 9.00 pH Units | 5.00 - 9.00 pH Units |
| QA/QC-1 | Conductivity | 5 uS/cm | 1030 | 0.7 mS/cm | 0.7 mS/cm |
| QA/QC-1 | Cobalt | 1.0 ug/g | 25.7 | 22 ug/g | 22 ug/g |
| QA/QC-1 | Vanadium | 10.0 ug/g | 94.2 | 86 ug/g | 86 ug/g |



Client: Cambium Inc. (Ottawa)

Client PO:

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

Project Description: 20361-003

| | Client ID: | BH114-25_1.5-2.3 | BH116-25_0.0-0.8 | BH116-25_0.8-1.5 | BH117-25_0.0-0.8 | Crite | eria: |
|--------------------------|---------------|------------------|------------------|------------------|------------------|----------------------|----------------------|
| | Sample Date: | 07-Jan-25 09:00 | 07-Jan-25 09:00 | 07-Jan-25 09:00 | 07-Jan-25 09:00 | Reg 153/04 -T6 | Reg 153/04 -T6 |
| | Sample ID: | 2502112-03 | 2502112-05 | 2502112-06 | 2502112-07 | Res/Park, coarse | Res/Park, fine |
| | Matrix: | Soil | Soil | Soil | Soil | | |
| | MDL/Units | | | | | | |
| Physical Characteristics | | | | | | | |
| % Solids | 0.1 % by Wt. | 72.1 | 82.9 | 75.5 | 87.9 | - | - |
| >75 um | 0.1 % | - | - | 10.2 48.9 | | - | - |
| <75 um | 0.1 % | - | - | 89.8 | 51.1 | - | - |
| Texture | 0.1 % | - | - | Med/Fine | Med/Fine | - | - |
| General Inorganics | | | | - | | | |
| SAR | 0.01 N/A | 1.61 | - | - | 0.38 | 5 N/A | 5 N/A |
| Conductivity | 5 uS/cm | 1230 | - | - | 886 | 0.7 mS/cm | 0.7 mS/cm |
| Cyanide, free | 0.03 ug/g | <0.03 | - | - | <0.03 | 0.051 ug/g | 0.051 ug/g |
| рН | 0.05 pH Units | 7.44 | 9.61 | 7.57 | 9.01 | 5.00 - 9.00 pH Units | 5.00 - 9.00 pH Units |
| Metals | | | | | | | |
| Antimony | 1.0 ug/g | <1.0 | - | <1.0 | <1.0 | 7.5 ug/g | 7.5 ug/g |
| Arsenic | 1.0 ug/g | 4.1 | - | 2.8 | 2.0 | 18 ug/g | 18 ug/g |
| Barium | 1.0 ug/g | 248 | - | 92.7 | 85.3 | 390 ug/g | 390 ug/g |
| Beryllium | 0.5 ug/g | 1.2 | - | 0.6 | <0.5 | 4 ug/g | 5 ug/g |
| Boron | 5.0 ug/g | 16.2 | 6.3 | 7.3 | <5.0 | 120 ug/g | 120 ug/g |
| Boron, available | 0.5 ug/g | <0.5 | - | - | <0.5 | 1.5 ug/g | 1.5 ug/g |
| Cadmium | 0.5 ug/g | <0.5 | - | <0.5 | <0.5 | 1.2 ug/g | 1.2 ug/g |
| Chromium | 5.0 ug/g | 115 | - | 49.8 | 28.0 | 160 ug/g | 160 ug/g |
| Chromium (VI) | 0.2 ug/g | 0.4 | - | - | <0.2 | 8 ug/g | 10 ug/g |
| Cobalt | 1.0 ug/g | 23.3 | - | 9.8 | 6.6 | 22 ug/g | 22 ug/g |
| Copper | 5.0 ug/g | 55.3 | - | 15.3 | 17.3 | 140 ug/g | 180 ug/g |
| Lead | 1.0 ug/g | 11.1 | - | 10.2 | 16.3 | 120 ug/g | 120 ug/g |
| Mercury | 0.1 ug/g | <0.1 | - | - | <0.1 | 0.27 ug/g | 1.8 ug/g |
| Molybdenum | 1.0 ug/g | <1.0 | - | <1.0 | <1.0 | 6.9 ug/g | 6.9 ug/g |
| Nickel | 5.0 ug/g | 67.1 | - | 24.0 | 15.5 | 100 ug/g | 130 ug/g |
| | | | | | | | |



Client: Cambium Inc. (Ottawa)

Client PO:

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

Project Description: 20361-003

| | Client ID: | BH114-25_1.5-2.3 | BH116-25_0.0-0.8 | BH116-25_0.8-1.5 | BH117-25_0.0-0.8 | Crite | eria: |
|----------------------------|--------------|------------------|------------------|---------------------------------------|------------------|------------------|----------------|
| | Sample Date: | 07-Jan-25 09:00 | 07-Jan-25 09:00 | 07-Jan-25 09:00 | 07-Jan-25 09:00 | Reg 153/04 -T6 | Reg 153/04 -T6 |
| | Sample ID: | 2502112-03 | 2502112-05 | 2502112-06 | 2502112-07 | Res/Park, coarse | Res/Park, fine |
| | Matrix: | Soil | Soil | Soil | Soil | | |
| | MDL/Units | | | | | | |
| Metals | | | | - | | | |
| Selenium | 1.0 ug/g | <1.0 | - | <1.0 | <1.0 | 2.4 ug/g | 2.4 ug/g |
| Silver | 0.3 ug/g | <0.3 | - | <0.3 | <0.3 | 20 ug/g | 25 ug/g |
| Thallium | 1.0 ug/g | <1.0 | - | <1.0 | <1.0 | 1 ug/g | 1 ug/g |
| Uranium | 1.0 ug/g | <1.0 | - | 1.3 | <1.0 | 23 ug/g | 23 ug/g |
| Vanadium | 10.0 ug/g | 92.2 | - | 45.3 | 24.1 | 86 ug/g | 86 ug/g |
| Zinc | 20.0 ug/g | 110 | - | 46.0 | 38.6 | 340 ug/g | 340 ug/g |
| Volatiles | | | | | | | |
| Acetone | 0.50 ug/g | <0.50 | - | - | <0.50 | 16 ug/g | 28 ug/g |
| Benzene | 0.02 ug/g | <0.02 | - | - | <0.02 | 0.21 ug/g | 0.17 ug/g |
| Bromodichloromethane | 0.05 ug/g | <0.05 | - | - | <0.05 | 1.5 ug/g | 1.9 ug/g |
| Bromoform | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.27 ug/g | 0.26 ug/g |
| Bromomethane | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.05 ug/g | 0.05 ug/g |
| Carbon Tetrachloride | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.05 ug/g | 0.12 ug/g |
| Chlorobenzene | 0.05 ug/g | <0.05 | - | - | <0.05 | 2.4 ug/g | 2.7 ug/g |
| Chloroform | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.05 ug/g | 0.18 ug/g |
| Dibromochloromethane | 0.05 ug/g | <0.05 | - | - | <0.05 | 2.3 ug/g | 2.9 ug/g |
| Dichlorodifluoromethane | 0.05 ug/g | <0.05 | - | - | <0.05 | 16 ug/g | 25 ug/g |
| 1,2-Dichlorobenzene | 0.05 ug/g | <0.05 | - | - | <0.05 | 1.2 ug/g | 1.7 ug/g |
| 1,3-Dichlorobenzene | 0.05 ug/g | <0.05 | - | - | <0.05 | 4.8 ug/g | 6 ug/g |
| 1,4-Dichlorobenzene | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.083 ug/g | 0.097 ug/g |
| 1,1-Dichloroethane | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.47 ug/g | 0.6 ug/g |
| 1,2-Dichloroethane | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.05 ug/g | 0.05 ug/g |
| 1,1-Dichloroethylene | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.05 ug/g | 0.05 ug/g |
| cis-1,2-Dichloroethylene | 0.05 ug/g | <0.05 | - | - | <0.05 | 1.9 ug/g | 2.5 ug/g |
| trans-1,2-Dichloroethylene | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.084 ug/g | 0.75 ug/g |
| | | | | · · · · · · · · · · · · · · · · · · · | | | |



Client: Cambium Inc. (Ottawa)

Client PO:

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

Project Description: 20361-003

| | Client ID: | BH114-25_1.5-2.3 | BH116-25_0.0-0.8 | BH116-25_0.8-1.5 | BH117-25_0.0-0.8 | Crite | ria: |
|------------------------------------|--------------|------------------|------------------|------------------|------------------|------------------|----------------|
| | Sample Date: | 07-Jan-25 09:00 | 07-Jan-25 09:00 | 07-Jan-25 09:00 | 07-Jan-25 09:00 | Reg 153/04 -T6 | Reg 153/04 -T6 |
| | Sample ID: | 2502112-03 | 2502112-05 | 2502112-06 | 2502112-07 | Res/Park, coarse | Res/Park, fine |
| | Matrix: | Soil | Soil | Soil | Soil | | |
| | MDL/Units | | | | | | |
| Volatiles | | | | | | | |
| 1,2-Dichloropropane | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.05 ug/g | 0.085 ug/g |
| cis-1,3-Dichloropropylene | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| trans-1,3-Dichloropropylene | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| 1,3-Dichloropropene, total | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.05 ug/g | 0.081 ug/g |
| Ethylbenzene | 0.05 ug/g | <0.05 | - | - | <0.05 | 1.1 ug/g | 1.6 ug/g |
| Ethylene dibromide (dibromoethane, | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.05 ug/g | 0.05 ug/g |
| Hexane | 0.05 ug/g | <0.05 | - | - | <0.05 | 2.8 ug/g | 34 ug/g |
| Methyl Ethyl Ketone (2-Butanone) | 0.50 ug/g | <0.50 | - | - | <0.50 | 16 ug/g | 44 ug/g |
| Methyl Isobutyl Ketone | 0.50 ug/g | <0.50 | - | - | <0.50 | 1.7 ug/g | 4.3 ug/g |
| Methyl tert-butyl ether | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.75 ug/g | 1.4 ug/g |
| Methylene Chloride | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.1 ug/g | 0.96 ug/g |
| Styrene | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.7 ug/g | 2.2 ug/g |
| 1,1,1,2-Tetrachloroethane | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.058 ug/g | 0.05 ug/g |
| 1,1,2,2-Tetrachloroethane | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.05 ug/g | 0.05 ug/g |
| Tetrachloroethylene | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.28 ug/g | 2.3 ug/g |
| Toluene | 0.05 ug/g | <0.05 | - | - | <0.05 | 2.3 ug/g | 6 ug/g |
| 1,1,1-Trichloroethane | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.38 ug/g | 3.4 ug/g |
| 1,1,2-Trichloroethane | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.05 ug/g | 0.05 ug/g |
| Trichloroethylene | 0.05 ug/g | <0.05 | - | - | <0.05 | 0.061 ug/g | 0.52 ug/g |
| Trichlorofluoromethane | 0.05 ug/g | <0.05 | - | - | <0.05 | 4 ug/g | 5.8 ug/g |
| Vinyl chloride | 0.02 ug/g | <0.02 | - | - | <0.02 | 0.02 ug/g | 0.022 ug/g |
| m,p-Xylenes | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| o-Xylene | 0.05 ug/g | <0.05 | - | - | <0.05 | - | - |
| Xylenes, total | 0.05 ug/g | <0.05 | - | - | <0.05 | 3.1 ug/g | 25 ug/g |
| Toluene-d8 | Surrogate | 113% | - | - | 99.4% | - | - |



Client: Cambium Inc. (Ottawa)

Client PO:

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

Project Description: 20361-003

| | Client ID: | BH114-25_1.5-2.3 | BH116-25_0.0-0.8 | BH116-25_0.8-1.5 | BH117-25_0.0-0.8 | Crite | eria: |
|--------------------------|--------------|------------------|------------------|------------------|------------------|------------------|----------------|
| | Sample Date: | 07-Jan-25 09:00 | 07-Jan-25 09:00 | 07-Jan-25 09:00 | 07-Jan-25 09:00 | Reg 153/04 -T6 | Reg 153/04 -T6 |
| | Sample ID: | 2502112-03 | 2502112-05 | 2502112-06 | 2502112-07 | Res/Park, coarse | Res/Park, fine |
| | Matrix: | Soil | Soil | Soil | Soil | | |
| | MDL/Units | | | | | | |
| Volatiles | | | | | • | | |
| Dibromofluoromethane | Surrogate | 117% | - | - | 116% | - | - |
| 4-Bromofluorobenzene | Surrogate | 107% | - | - | 99.5% | - | - |
| Hydrocarbons | | | | | | | |
| F1 PHCs (C6-C10) | 7 ug/g | <7 | - | - | <7 | 55 ug/g | 65 ug/g |
| F2 PHCs (C10-C16) | 4 ug/g | <4 | - | - | <4 | 98 ug/g | 150 ug/g |
| F3 PHCs (C16-C34) | 8 ug/g | <8 | - | - | 31 | 300 ug/g | 1300 ug/g |
| F4 PHCs (C34-C50) | 6 ug/g | <6 | - | - | 33 | 2800 ug/g | 5600 ug/g |
| Semi-Volatiles | | | | | | | |
| Acenaphthene | 0.02 ug/g | <0.02 | - | - | <0.02 | 7.9 ug/g | 29 ug/g |
| Acenaphthylene | 0.02 ug/g | <0.02 | - | - | <0.02 | 0.15 ug/g | 0.17 ug/g |
| Anthracene | 0.02 ug/g | <0.02 | - | - | <0.02 | 0.67 ug/g | 0.74 ug/g |
| Benzo [a] anthracene | 0.02 ug/g | <0.02 | - | - | <0.02 | 0.5 ug/g | 0.63 ug/g |
| Benzo [a] pyrene | 0.02 ug/g | <0.02 | - | - | <0.02 | 0.3 ug/g | 0.3 ug/g |
| Benzo [b] fluoranthene | 0.02 ug/g | <0.02 | - | - | <0.02 | 0.78 ug/g | 0.78 ug/g |
| Benzo [g,h,i] perylene | 0.02 ug/g | <0.02 | - | - | <0.02 | 6.6 ug/g | 7.8 ug/g |
| Benzo [k] fluoranthene | 0.02 ug/g | <0.02 | - | - | <0.02 | 0.78 ug/g | 0.78 ug/g |
| Chrysene | 0.02 ug/g | <0.02 | - | - | <0.02 | 7 ug/g | 7.8 ug/g |
| Dibenzo [a,h] anthracene | 0.02 ug/g | <0.02 | - | - | <0.02 | 0.1 ug/g | 0.1 ug/g |
| Fluoranthene | 0.02 ug/g | <0.02 | - | - | <0.02 | 0.69 ug/g | 0.69 ug/g |
| Fluorene | 0.02 ug/g | <0.02 | - | - | <0.02 | 62 ug/g | 69 ug/g |
| Indeno [1,2,3-cd] pyrene | 0.02 ug/g | <0.02 | - | - | <0.02 | 0.38 ug/g | 0.48 ug/g |
| 1-Methylnaphthalene | 0.02 ug/g | <0.02 | - | | <0.02 | 0.99 ug/g | 3.4 ug/g |
| 2-Methylnaphthalene | 0.02 ug/g | <0.02 | - | - | <0.02 | 0.99 ug/g | 3.4 ug/g |
| Methylnaphthalene (1&2) | 0.04 ug/g | <0.04 | - | - | <0.04 | 0.99 ug/g | 3.4 ug/g |
| Naphthalene | 0.01 ug/g | <0.01 | - | - | <0.01 | 0.6 ug/g | 0.75 ug/g |
| | | | | | | | |



Client: Cambium Inc. (Ottawa)

Client PO:

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

| | Client ID: | BH114-25_1.5-2.3 | BH116-25_0.0-0.8 | BH116-25_0.8-1.5 | BH117-25_0.0-0.8 | Crite | eria: |
|------------------|--------------|------------------|------------------|------------------|------------------|------------------|----------------|
| | Sample Date: | 07-Jan-25 09:00 | 07-Jan-25 09:00 | 07-Jan-25 09:00 | 07-Jan-25 09:00 | Reg 153/04 -T6 | Reg 153/04 -T6 |
| | Sample ID: | 2502112-03 | 2502112-05 | 2502112-06 | 2502112-07 | Res/Park, coarse | Res/Park, fine |
| | Matrix: | Soil | Soil | Soil | Soil | | |
| | MDL/Units | | | | | | |
| Semi-Volatiles | | | | | | | |
| Phenanthrene | 0.02 ug/g | <0.02 | - | - | <0.02 | 6.2 ug/g | 7.8 ug/g |
| Pyrene | 0.02 ug/g | <0.02 | - | - | <0.02 | 78 ug/g | 78 ug/g |
| 2-Fluorobiphenyl | Surrogate | 61.4% | - | - | 54.7% | - | - |
| Terphenyl-d14 | Surrogate | 80.6% | - | - | 62.4% | - | - |



Client: Cambium Inc. (Ottawa)

Client PO:

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

Project Description: 20361-003

| | Client ID: | BH117-25_0.8-1.5 | QA/QC-1 | | | Crite | eria: |
|--------------------------|---------------|------------------|-----------------|---|---|----------------------|----------------------|
| | Sample Date: | 07-Jan-25 09:00 | 07-Jan-25 09:00 | | | Reg 153/04 -T6 | Reg 153/04 -T6 |
| | Sample ID: | 2502112-08 | 2502112-09 | | | Res/Park, coarse | Res/Park, fine |
| | Matrix: | Soil | Soil | | | | |
| | MDL/Units | | | | | | |
| Physical Characteristics | | | | | | | |
| % Solids | 0.1 % by Wt. | 74.4 | 72.4 | - | - | - | - |
| >75 um | 0.1 % | 32.1 | - | - | - | - | - |
| <75 um | 0.1 % | 67.9 | - | - | - | - | - |
| Texture | 0.1 % | Med/Fine | - | - | - | - | - |
| General Inorganics | | | | | | | |
| SAR | 0.01 N/A | - | 1.71 | - | - | 5 N/A | 5 N/A |
| Conductivity | 5 uS/cm | - | 1030 | - | - | 0.7 mS/cm | 0.7 mS/cm |
| Cyanide, free | 0.03 ug/g | - | <0.03 | - | - | 0.051 ug/g | 0.051 ug/g |
| рН | 0.05 pH Units | 7.32 | 7.72 | - | - | 5.00 - 9.00 pH Units | 5.00 - 9.00 pH Units |
| Metals | | | | | | | |
| Antimony | 1.0 ug/g | <1.0 | <1.0 | - | - | 7.5 ug/g | 7.5 ug/g |
| Arsenic | 1.0 ug/g | 3.1 | 4.3 | - | - | 18 ug/g | 18 ug/g |
| Barium | 1.0 ug/g | 106 | 266 | - | - | 390 ug/g | 390 ug/g |
| Beryllium | 0.5 ug/g | <0.5 | 1.2 | - | - | 4 ug/g | 5 ug/g |
| Boron | 5.0 ug/g | 6.5 | 15.5 | - | - | 120 ug/g | 120 ug/g |
| Boron, available | 0.5 ug/g | - | <0.5 | - | - | 1.5 ug/g | 1.5 ug/g |
| Cadmium | 0.5 ug/g | <0.5 | <0.5 | - | - | 1.2 ug/g | 1.2 ug/g |
| Chromium (VI) | 0.2 ug/g | - | 0.5 | - | - | 8 ug/g | 10 ug/g |
| Chromium | 5.0 ug/g | 35.4 | 118 | - | - | 160 ug/g | 160 ug/g |
| Cobalt | 1.0 ug/g | 9.5 | 25.7 | - | - | 22 ug/g | 22 ug/g |
| Copper | 5.0 ug/g | 21.9 | 55.2 | - | - | 140 ug/g | 180 ug/g |
| Lead | 1.0 ug/g | 5.9 | 11.9 | - | - | 120 ug/g | 120 ug/g |
| Mercury | 0.1 ug/g | - | <0.1 | - | - | 0.27 ug/g | 1.8 ug/g |
| Molybdenum | 1.0 ug/g | 1.1 | <1.0 | - | - | 6.9 ug/g | 6.9 ug/g |
| Nickel | 5.0 ug/g | 19.3 | 71.0 | - | - | 100 ug/g | 130 ug/g |

Certificate of Analysis

Client: Cambium Inc. (Ottawa)

Client PO:

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

Project Description: 20361-003

| Sample Date: 07-Jan-25 09:00 07-Jan-25 09:00 | | De # 452/04 TC | |
|--|---|------------------|----------------|
| | | Reg 153/04 - 16 | Reg 153/04 -T6 |
| Sample ID: 2502112-08 2502112-09 | | Res/Park, coarse | Res/Park, fine |
| Matrix: Soil Soil | | | |
| MDL/Units | | | |
| Metals | | | |
| Selenium 1.0 ug/g <1.0 <1.0 - | - | 2.4 ug/g | 2.4 ug/g |
| Silver 0.3 ug/g <0.3 <0.3 - | - | 20 ug/g | 25 ug/g |
| Thallium 1.0 ug/g <1.0 <1.0 - | - | 1 ug/g | 1 ug/g |
| Uranium 1.0 ug/g 1.2 1.0 - | - | 23 ug/g | 23 ug/g |
| Vanadium 10.0 ug/g 34.3 94.2 - | - | 86 ug/g | 86 ug/g |
| Zinc 20.0 ug/g 40.4 114 - | - | 340 ug/g | 340 ug/g |
| Volatiles | | - | |
| Acetone 0.50 ug/g - <0.50 - | - | 16 ug/g | 28 ug/g |
| Benzene 0.02 ug/g - <0.02 - | - | 0.21 ug/g | 0.17 ug/g |
| Bromodichloromethane 0.05 ug/g - <0.05 - | - | 1.5 ug/g | 1.9 ug/g |
| Bromoform 0.05 ug/g - <0.05 - | - | 0.27 ug/g | 0.26 ug/g |
| Bromomethane 0.05 ug/g - <0.05 - | - | 0.05 ug/g | 0.05 ug/g |
| Carbon Tetrachloride 0.05 ug/g - <0.05 - | - | 0.05 ug/g | 0.12 ug/g |
| Chlorobenzene 0.05 ug/g - <0.05 - | - | 2.4 ug/g | 2.7 ug/g |
| Chloroform 0.05 ug/g - <0.05 - | - | 0.05 ug/g | 0.18 ug/g |
| Dibromochloromethane 0.05 ug/g - <0.05 - | - | 2.3 ug/g | 2.9 ug/g |
| Dichlorodifluoromethane 0.05 ug/g - <0.05 - | - | 16 ug/g | 25 ug/g |
| 1,2-Dichlorobenzene 0.05 ug/g - <0.05 - | - | 1.2 ug/g | 1.7 ug/g |
| 1,3-Dichlorobenzene 0.05 ug/g - <0.05 - | - | 4.8 ug/g | 6 ug/g |
| 1,4-Dichlorobenzene 0.05 ug/g - <0.05 - | - | 0.083 ug/g | 0.097 ug/g |
| 1,1-Dichloroethane 0.05 ug/g - <0.05 - | - | 0.47 ug/g | 0.6 ug/g |
| 1,2-Dichloroethane 0.05 ug/g - <0.05 - | - | 0.05 ug/g | 0.05 ug/g |
| 1,1-Dichloroethylene 0.05 ug/g - <0.05 - | - | 0.05 ug/g | 0.05 ug/g |
| cis-1,2-Dichloroethylene 0.05 ug/g - <0.05 - | - | 1.9 ug/g | 2.5 ug/g |
| trans-1,2-Dichloroethylene 0.05 ug/g - <0.05 - | - | 0.084 ug/g | 0.75 ug/g |

Certificate of Analysis

Client: Cambium Inc. (Ottawa)

Client PO:

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

Project Description: 20361-003

| | Client ID: | BH117-25_0.8-1.5 | QA/QC-1 | | | Crite | ria: |
|------------------------------------|--------------|------------------|-----------------|---|---|------------------|----------------|
| | Sample Date: | 07-Jan-25 09:00 | 07-Jan-25 09:00 | | | Reg 153/04 -T6 | Reg 153/04 -T6 |
| | Sample ID: | 2502112-08 | 2502112-09 | | | Res/Park, coarse | Res/Park, fine |
| | Matrix: | Soil | Soil | | | | |
| | MDL/Units | | | | | | |
| Volatiles | | | | | - | | |
| 1,2-Dichloropropane | 0.05 ug/g | - | <0.05 | - | - | 0.05 ug/g | 0.085 ug/g |
| cis-1,3-Dichloropropylene | 0.05 ug/g | - | <0.05 | - | - | - | - |
| trans-1,3-Dichloropropylene | 0.05 ug/g | - | <0.05 | - | - | - | - |
| 1,3-Dichloropropene, total | 0.05 ug/g | - | <0.05 | - | - | 0.05 ug/g | 0.081 ug/g |
| Ethylene dibromide (dibromoethane, | 0.05 ug/g | - | <0.05 | - | - | 0.05 ug/g | 0.05 ug/g |
| Ethylbenzene | 0.05 ug/g | - | <0.05 | - | - | 1.1 ug/g | 1.6 ug/g |
| Hexane | 0.05 ug/g | - | <0.05 | - | - | 2.8 ug/g | 34 ug/g |
| Methyl Ethyl Ketone (2-Butanone) | 0.50 ug/g | - | <0.50 | - | - | 16 ug/g | 44 ug/g |
| Methyl Isobutyl Ketone | 0.50 ug/g | - | <0.50 | - | - | 1.7 ug/g | 4.3 ug/g |
| Methyl tert-butyl ether | 0.05 ug/g | - | <0.05 | - | - | 0.75 ug/g | 1.4 ug/g |
| Methylene Chloride | 0.05 ug/g | - | <0.05 | - | - | 0.1 ug/g | 0.96 ug/g |
| Styrene | 0.05 ug/g | - | <0.05 | - | - | 0.7 ug/g | 2.2 ug/g |
| 1,1,1,2-Tetrachloroethane | 0.05 ug/g | - | <0.05 | - | - | 0.058 ug/g | 0.05 ug/g |
| 1,1,2,2-Tetrachloroethane | 0.05 ug/g | - | <0.05 | - | - | 0.05 ug/g | 0.05 ug/g |
| Tetrachloroethylene | 0.05 ug/g | - | <0.05 | - | - | 0.28 ug/g | 2.3 ug/g |
| Toluene | 0.05 ug/g | - | <0.05 | - | - | 2.3 ug/g | 6 ug/g |
| 1,1,1-Trichloroethane | 0.05 ug/g | - | <0.05 | - | - | 0.38 ug/g | 3.4 ug/g |
| 1,1,2-Trichloroethane | 0.05 ug/g | - | <0.05 | - | - | 0.05 ug/g | 0.05 ug/g |
| Trichloroethylene | 0.05 ug/g | - | <0.05 | - | - | 0.061 ug/g | 0.52 ug/g |
| Trichlorofluoromethane | 0.05 ug/g | - | <0.05 | - | - | 4 ug/g | 5.8 ug/g |
| Vinyl chloride | 0.02 ug/g | - | <0.02 | - | - | 0.02 ug/g | 0.022 ug/g |
| m,p-Xylenes | 0.05 ug/g | - | <0.05 | - | - | - | - |
| o-Xylene | 0.05 ug/g | - | <0.05 | - | - | - | - |
| Xylenes, total | 0.05 ug/g | - | <0.05 | - | - | 3.1 ug/g | 25 ug/g |
| Toluene-d8 | Surrogate | - | 111% | - | - | - | - |

Certificate of Analysis

Client: Cambium Inc. (Ottawa)

Client PO:

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

Project Description: 20361-003

| | Client ID: | BH117-25_0.8-1.5 | QA/QC-1 | | | Crite | eria: |
|--------------------------|--------------|------------------|-----------------|---|---|------------------|----------------|
| | Sample Date: | 07-Jan-25 09:00 | 07-Jan-25 09:00 | | | Reg 153/04 -T6 | Reg 153/04 -T6 |
| | Sample ID: | 2502112-08 | 2502112-09 | | | Res/Park, coarse | Res/Park, fine |
| | Matrix: | Soil | Soil | | | | |
| | MDL/Units | | | | | | |
| /olatiles | | | | | | | |
| Dibromofluoromethane | Surrogate | - | 119% | - | - | - | - |
| 4-Bromofluorobenzene | Surrogate | - | 108% | - | - | - | - |
| Hydrocarbons | | | | - | i | i | |
| F1 PHCs (C6-C10) | 7 ug/g | - | <7 | - | - | 55 ug/g | 65 ug/g |
| F2 PHCs (C10-C16) | 4 ug/g | - | <4 | - | - | 98 ug/g | 150 ug/g |
| F3 PHCs (C16-C34) | 8 ug/g | - | <8 | - | - | 300 ug/g | 1300 ug/g |
| F4 PHCs (C34-C50) | 6 ug/g | - | <6 | - | - | 2800 ug/g | 5600 ug/g |
| Semi-Volatiles | | | | | | | |
| Acenaphthene | 0.02 ug/g | - | <0.02 | - | - | 7.9 ug/g | 29 ug/g |
| Acenaphthylene | 0.02 ug/g | - | <0.02 | - | - | 0.15 ug/g | 0.17 ug/g |
| Anthracene | 0.02 ug/g | - | <0.02 | - | - | 0.67 ug/g | 0.74 ug/g |
| Benzo [a] anthracene | 0.02 ug/g | - | <0.02 | - | - | 0.5 ug/g | 0.63 ug/g |
| Benzo [a] pyrene | 0.02 ug/g | - | <0.02 | - | - | 0.3 ug/g | 0.3 ug/g |
| Benzo [b] fluoranthene | 0.02 ug/g | - | <0.02 | - | - | 0.78 ug/g | 0.78 ug/g |
| Benzo [g,h,i] perylene | 0.02 ug/g | - | <0.02 | - | - | 6.6 ug/g | 7.8 ug/g |
| Benzo [k] fluoranthene | 0.02 ug/g | - | <0.02 | - | - | 0.78 ug/g | 0.78 ug/g |
| Chrysene | 0.02 ug/g | - | <0.02 | - | - | 7 ug/g | 7.8 ug/g |
| Dibenzo [a,h] anthracene | 0.02 ug/g | - | <0.02 | - | - | 0.1 ug/g | 0.1 ug/g |
| Fluoranthene | 0.02 ug/g | - | <0.02 | - | - | 0.69 ug/g | 0.69 ug/g |
| Fluorene | 0.02 ug/g | - | <0.02 | - | - | 62 ug/g | 69 ug/g |
| Indeno [1,2,3-cd] pyrene | 0.02 ug/g | - | <0.02 | - | - | 0.38 ug/g | 0.48 ug/g |
| 1-Methylnaphthalene | 0.02 ug/g | - | <0.02 | - | - | 0.99 ug/g | 3.4 ug/g |
| 2-Methylnaphthalene | 0.02 ug/g | - | <0.02 | - | - | 0.99 ug/g | 3.4 ug/g |
| Methylnaphthalene (1&2) | 0.04 ug/g | - | <0.04 | - | - | 0.99 ug/g | 3.4 ug/g |
| Naphthalene | 0.01 ug/g | - | <0.01 | - | - | 0.6 ug/g | 0.75 ug/g |
| | | | | | | | |



Client: Cambium Inc. (Ottawa)

Client PO:

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

Project Description: 20361-003

| | Client ID: Sample Date: Sample ID: Matrix: | BH117-25_0.8-1.5 07-Jan-25 09:00 2502112-08 Soil | QA/QC-1 07-Jan-25 09:00 2502112-09 Soil | | | Crite Reg 153/04 -T6 Res/Park, coarse | eria: Reg 153/04 -T6 Res/Park, fine |
|------------------|---|---|--|---|---|---|---|
| | MDL/Units | | | | | | |
| Semi-Volatiles | | | | | | | |
| Phenanthrene | 0.02 ug/g | - | <0.02 | - | - | 6.2 ug/g | 7.8 ug/g |
| Pyrene | 0.02 ug/g | - | <0.02 | - | - | 78 ug/g | 78 ug/g |
| 2-Fluorobiphenyl | Surrogate | - | 64.5% | - | - | - | - |
| Terphenyl-d14 | Surrogate | - | 80.4% | - | - | - | - |

Certificate of Analysis

Client: Cambium Inc. (Ottawa)

Client PO:

Method Quality Control: Blank

| Analyte | Result | Reporting Limit | Units | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--------------------|--------|--------------------|-------|------|---------------|-----|--------------|-------|
| General Inorganics | | | | | | | | |
| Conductivity | ND | 5 | uS/cm | | | | | |
| Cyanide, free | ND | 0.03 | ug/g | | | | | |
| Hydrocarbons | | | | | | | | |
| F1 PHCs (C6-C10) | ND | 7 | ug/g | | | | | |
| F2 PHCs (C10-C16) | ND | 4 | ug/g | | | | | |
| F3 PHCs (C16-C34) | ND | 8 | ug/g | | | | | |
| F4 PHCs (C34-C50) | ND | 6 | ug/g | | | | | |
| Metals | | | | | | | | |
| Antimony | ND | 1.0 | ug/g | | | | | |
| Arsenic | ND | 1.0 | ug/g | | | | | |
| Barium | ND | 1.0 | ug/g | | | | | |
| Beryllium | ND | 0.5 | ug/g | | | | | |
| Boron, available | ND | 0.5 | ug/g | | | | | |
| Boron | ND | 5.0 | ug/g | | | | | |
| Boron | ND | 5.0 | ug/g | | | | | |
| Cadmium | ND | 0.5 | ug/g | | | | | |
| Chromium (VI) | ND | 0.2 | ug/g | | | | | |
| Chromium | ND | 5.0 | ug/g | | | | | |
| Cobalt | ND | 1.0 | ug/g | | | | | |
| Copper | ND | 5.0 | ug/g | | | | | |
| Lead | ND | 1.0 | ug/g | | | | | |
| Mercury | ND | 0.1 | ug/g | | | | | |
| Molybdenum | ND | 1.0 | ug/g | | | | | |
| Nickel | ND | 5.0 | ug/g | | | | | |
| Selenium | ND | 1.0 | ug/g | | | | | |
| Silver | ND | 0.3 | ug/g | | | | | |
| Thallium | ND | 1.0 | ug/g | | | | | |
| Uranium | ND | 1.0 | ug/g | | | | | |
| Vanadium | ND | 10.0 | ug/g | | | | | |
| Zinc | ND | 20.0 | ug/g | | | | | |
| Semi-Volatiles | | | | | | | | |
| Acenaphthene | ND | 0.02 | ug/g | | | | | |

Order #: 2502112

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025



Client: Cambium Inc. (Ottawa)

Client PO:

Method Quality Control: Blank

|--|

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

Project Description: 20361-003

| Analyte | Result | Reporting Limit | Units | %REC | %REC Limit | RPD | RPD Limit | Notes |
|-----------------------------|--------|--------------------|-------|------|---------------|-----|--------------|-------|
| Acenaphthylene | ND | 0.02 | ug/g | | | | | |
| Anthracene | ND | 0.02 | ug/g | | | | | |
| Benzo [a] anthracene | ND | 0.02 | ug/g | | | | | |
| Benzo [a] pyrene | ND | 0.02 | ug/g | | | | | |
| Benzo [b] fluoranthene | ND | 0.02 | ug/g | | | | | |
| Benzo [g,h,i] perylene | ND | 0.02 | ug/g | | | | | |
| Benzo [k] fluoranthene | ND | 0.02 | ug/g | | | | | |
| Chrysene | ND | 0.02 | ug/g | | | | | |
| Dibenzo [a,h] anthracene | ND | 0.02 | ug/g | | | | | |
| Fluoranthene | ND | 0.02 | ug/g | | | | | |
| Fluorene | ND | 0.02 | ug/g | | | | | |
| Indeno [1,2,3-cd] pyrene | ND | 0.02 | ug/g | | | | | |
| 1-Methylnaphthalene | ND | 0.02 | ug/g | | | | | |
| 2-Methylnaphthalene | ND | 0.02 | ug/g | | | | | |
| Methylnaphthalene (1&2) | ND | 0.04 | ug/g | | | | | |
| Naphthalene | ND | 0.01 | ug/g | | | | | |
| Phenanthrene | ND | 0.02 | ug/g | | | | | |
| Pyrene | ND | 0.02 | ug/g | | | | | |
| Surrogate: 2-Fluorobiphenyl | 0.692 | | % | 51.9 | 50-140 | | | |
| Surrogate: Terphenyl-d14 | 0.852 | | % | 63.9 | 50-140 | | | |
| Volatiles | | | | | | | | |
| Acetone | ND | 0.50 | ug/g | | | | | |
| Benzene | ND | 0.02 | ug/g | | | | | |
| Bromodichloromethane | ND | 0.05 | ug/g | | | | | |
| Bromoform | ND | 0.05 | ug/g | | | | | |
| Bromomethane | ND | 0.05 | ug/g | | | | | |
| Carbon Tetrachloride | ND | 0.05 | ug/g | | | | | |
| Chlorobenzene | ND | 0.05 | ug/g | | | | | |
| Chloroform | ND | 0.05 | ug/g | | | | | |
| Dibromochloromethane | ND | 0.05 | ug/g | | | | | |
| Dichlorodifluoromethane | ND | 0.05 | ug/g | | | | | |
| 1,2-Dichlorobenzene | ND | 0.05 | ug/g | | | | | |



Client: Cambium Inc. (Ottawa)

Client PO:

Method Quality Control: Blank

| $O(UC) \pi$ | Order | #: | 2502 | 2112 |
|-------------|-------|----|------|------|
|-------------|-------|----|------|------|

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

| Analyte | Result | Reporting Limit | Units | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--|--------|--------------------|-------|------|---------------|-----|--------------|-------|
| 1,3-Dichlorobenzene | ND | 0.05 | ug/g | | | | | |
| 1,4-Dichlorobenzene | ND | 0.05 | ug/g | | | | | |
| 1,1-Dichloroethane | ND | 0.05 | ug/g | | | | | |
| 1,2-Dichloroethane | ND | 0.05 | ug/g | | | | | |
| 1,1-Dichloroethylene | ND | 0.05 | ug/g | | | | | |
| cis-1,2-Dichloroethylene | ND | 0.05 | ug/g | | | | | |
| trans-1,2-Dichloroethylene | ND | 0.05 | ug/g | | | | | |
| 1,2-Dichloropropane | ND | 0.05 | ug/g | | | | | |
| cis-1,3-Dichloropropylene | ND | 0.05 | ug/g | | | | | |
| trans-1,3-Dichloropropylene | ND | 0.05 | ug/g | | | | | |
| 1,3-Dichloropropene, total | ND | 0.05 | ug/g | | | | | |
| Ethylbenzene | ND | 0.05 | ug/g | | | | | |
| Ethylene dibromide (dibromoethane, 1,2-) | ND | 0.05 | ug/g | | | | | |
| Hexane | ND | 0.05 | ug/g | | | | | |
| Methyl Ethyl Ketone (2-Butanone) | ND | 0.50 | ug/g | | | | | |
| Methyl Isobutyl Ketone | ND | 0.50 | ug/g | | | | | |
| Methyl tert-butyl ether | ND | 0.05 | ug/g | | | | | |
| Methylene Chloride | ND | 0.05 | ug/g | | | | | |
| Styrene | ND | 0.05 | ug/g | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.05 | ug/g | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 0.05 | ug/g | | | | | |
| Tetrachloroethylene | ND | 0.05 | ug/g | | | | | |
| Toluene | ND | 0.05 | ug/g | | | | | |
| 1,1,1-Trichloroethane | ND | 0.05 | ug/g | | | | | |
| 1,1,2-Trichloroethane | ND | 0.05 | ug/g | | | | | |
| Trichloroethylene | ND | 0.05 | ug/g | | | | | |
| Trichlorofluoromethane | ND | 0.05 | ug/g | | | | | |
| Vinyl chloride | ND | 0.02 | ug/g | | | | | |
| m,p-Xylenes | ND | 0.05 | ug/g | | | | | |
| o-Xylene | ND | 0.05 | ug/g | | | | | |
| Xylenes, total | ND | 0.05 | ug/g | | | | | |
| Surrogate: 4-Bromofluorobenzene | 7.37 | | % | 92.1 | 50-140 | | | |



Client: Cambium Inc. (Ottawa)

Client PO:

Method Quality Control: Blank

| Analyte | Result | Reporting Limit | Units | %REC | %REC Limit | RPD | RPD Limit | Notes |
|---------------------------------|--------|--------------------|-------|------|---------------|-----|--------------|-------|
| Surrogate: Dibromofluoromethane | 7.24 | | % | 90.6 | 50-140 | | | |
| Surrogate: Toluene-d8 | 8.46 | | % | 106 | 50-140 | | | |

OTTAWA • MISSISSAUGA • HAMILTON • KINGSTON • LONDON • NIAGARA • WINDSOR • RICHMOND HILL

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

Certificate of Analysis

Client: Cambium Inc. (Ottawa)

Client PO:

Method Quality Control: Duplicate

| Ordor | # • | 2501 | 2112 |
|-------|------------|------|----------|
| Oldel | Ħ. | 2004 | <u> </u> |

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

Project Description: 20361-003

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|----------------------------------|--------|--------------------|----------|------------------|------|---------------|------|--------------|-------|
| General Inorganics | | | | | | | | | |
| SAR | 4.29 | 0.01 | N/A | 4.08 | | | 5.0 | 30 | |
| Conductivity | 1870 | 5 | uS/cm | 1830 | | | 2.2 | 5 | |
| Cyanide, free | ND | 0.03 | ug/g | ND | | | NC | 35 | |
| рН | 11.42 | 0.05 | pH Units | 11.44 | | | 0.2 | 2.3 | |
| Hydrocarbons F1 PHCs (C6-C10) | ND | 7 | ug/g | ND | | | NC | 40 | |
| F2 PHCs (C10-C16) | ND | 4 | ug/g | ND | | | NC | 30 | |
| F3 PHCs (C16-C34) | 12 | 8 | ug/g | 18 | | | NC | 30 | |
| F4 PHCs (C34-C50) | 9 | 6 | ug/g | ND | | | NC | 30 | |
| Metals Antimony | ND | 1.0 | ug/g | ND | | | NC | 30 | |
| Arsenic | 6.4 | 1.0 | ug/g | 6.6 | | | 3.8 | 30 | |
| Barium | 95.7 | 1.0 | ug/g | 93.0 | | | 2.9 | 30 | |
| Beryllium | ND | 0.5 | ug/g | ND | | | NC | 30 | |
| Boron, available | 0.61 | 0.5 | ug/g | 0.59 | | | 3.5 | 35 | |
| Boron | 14.3 | 5.0 | ug/g | 17.4 | | | 19.3 | 30 | |
| Boron | 10.4 | 5.0 | ug/g | 10.5 | | | 1.4 | 30 | |
| Cadmium | ND | 0.5 | ug/g | ND | | | NC | 30 | |
| Chromium (VI) | ND | 0.2 | ug/g | ND | | | NC | 35 | |
| Chromium | 29.7 | 5.0 | ug/g | 25.3 | | | 16.2 | 30 | |
| Cobalt | 7.8 | 1.0 | ug/g | 7.7 | | | 0.3 | 30 | |
| Copper | 12.6 | 5.0 | ug/g | 12.5 | | | 1.2 | 30 | |
| Lead | 15.6 | 1.0 | ug/g | 14.5 | | | 7.0 | 30 | |
| Mercury | ND | 0.1 | ug/g | ND | | | NC | 30 | |
| Molybdenum | 4.3 | 1.0 | ug/g | 4.2 | | | 2.5 | 30 | |
| Nickel | 15.8 | 5.0 | ug/g | 15.5 | | | 1.9 | 30 | |
| Selenium | ND | 1.0 | ug/g | ND | | | NC | 30 | |
| Silver | ND | 0.3 | ug/g | ND | | | NC | 30 | |
| Thallium | ND | 1.0 | ug/g | ND | | | NC | 30 | |
| Uranium | ND | 1.0 | ug/g | ND | | | NC | 30 | |



Client: Cambium Inc. (Ottawa)

Client PO:

Method Quality Control: Duplicate

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

Project Description: 20361-003

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--------------------------------------|--------|--------------------|----------|------------------|------|---------------|------|--------------|-------|
| Vanadium | 26.5 | 10.0 | ug/g | 29.7 | | | 11.4 | 30 | |
| Zinc | 24.6 | 20.0 | ug/g | 30.4 | | | 21.2 | 30 | |
| Physical Characteristics % Solids | 82.8 | 0.1 | % by Wt. | 84.8 | | | 2.3 | 25 | |
| Semi-Volatiles | | | | | | | | | |
| Acenaphthene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Acenaphthylene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Anthracene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Benzo [a] anthracene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Benzo [a] pyrene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Benzo [b] fluoranthene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Benzo [g,h,i] perylene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Benzo [k] fluoranthene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Chrysene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Dibenzo [a,h] anthracene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Fluoranthene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Fluorene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Indeno [1,2,3-cd] pyrene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| 1-Methylnaphthalene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| 2-Methylnaphthalene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Naphthalene | ND | 0.01 | ug/g | ND | | | NC | 40 | |
| Phenanthrene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Pyrene | ND | 0.02 | ug/g | ND | | | NC | 40 | |
| Surrogate: 2-Fluorobiphenyl | 1.04 | | % | | 56.2 | 50-140 | | | |
| Surrogate: Terphenyl-d14 | 1.40 | | % | | 75.5 | 50-140 | | | |
| Volatiles | | | | | | | | | |
| Acetone | ND | 0.50 | ug/g | ND | | | NC | 50 | |
| Benzene | ND | 0.02 | ug/g | ND | | | NC | 50 | |
| Bromodichloromethane | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| Bromoform | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| Bromomethane | ND | 0.05 | ug/g | ND | | | NC | 50 | |



Client: Cambium Inc. (Ottawa)

Client PO:

Method Quality Control: Duplicate

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

Project Description: 20361-003

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--|--------|--------------------|-------|------------------|------|---------------|-----|--------------|-------|
| Carbon Tetrachloride | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| Chlorobenzene | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| Chloroform | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| Dibromochloromethane | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| Dichlorodifluoromethane | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| 1,2-Dichlorobenzene | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| 1,3-Dichlorobenzene | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| 1,4-Dichlorobenzene | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| 1,1-Dichloroethane | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| 1,2-Dichloroethane | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| 1,1-Dichloroethylene | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| cis-1,2-Dichloroethylene | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| trans-1,2-Dichloroethylene | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| 1,2-Dichloropropane | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| cis-1,3-Dichloropropylene | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| trans-1,3-Dichloropropylene | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| Ethylbenzene | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| Ethylene dibromide (dibromoethane, 1,2-) | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| Hexane | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| Methyl Ethyl Ketone (2-Butanone) | ND | 0.50 | ug/g | ND | | | NC | 50 | |
| Methyl Isobutyl Ketone | ND | 0.50 | ug/g | ND | | | NC | 50 | |
| Methyl tert-butyl ether | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| Methylene Chloride | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| Styrene | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| 1,1,1,2-Tetrachloroethane | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| 1,1,2,2-Tetrachloroethane | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| Tetrachloroethylene | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| Toluene | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| 1,1,1-Trichloroethane | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| 1,1,2-Trichloroethane | ND | 0.05 | ug/g | ND | | | NC | 50 | |
| Trichloroethylene | ND | 0.05 | ug/g | ND | | | NC | 50 | |



Trichlorofluoromethane

Surrogate: Toluene-d8

Surrogate: 4-Bromofluorobenzene

Surrogate: Dibromofluoromethane

Client: Cambium Inc. (Ottawa)

Client PO:

Analyte

Vinyl chloride

m,p-Xylenes

o-Xylene

Method Quality Control: Duplicate

Reporting

Limit

0.05

0.02

0.05

0.05

Result

ND

ND

ND

ND

7.99

9.06

8.28

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

Project Description: 20361-003

Notes

| OTTAWA - MISSISSAUGA - HAMILTON - KINGSTON - LONDON - NIAGARA - WINDSOR - RICHMOND H | HILL |
|--|------|
|--|------|

Source

Result

ND

ND

ND

ND

Units

ug/g

ug/g

ug/g

ug/g

%

%

%

%REC

Limit

50-140

50-140

50-140

%REC

95.6

108

99.1

RPD

Limit

50

50

50

50

RPD

NC

NC

NC

NC



Client: Cambium Inc. (Ottawa)

Client PO:

Method Quality Control: Spike

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--------------------|--------|--------------------|-------|------------------|------|---------------|-----|--------------|-------|
| General Inorganics | | | | | | | | | |
| Cyanide, free | 0.256 | 0.03 | ug/g | ND | 79.4 | 50-150 | | | |
| Hydrocarbons | | | | | | | | | |
| F1 PHCs (C6-C10) | 154 | 7 | ug/g | ND | 89.7 | 85-115 | | | |
| F2 PHCs (C10-C16) | 94 | 4 | ug/g | ND | 109 | 60-140 | | | |
| F3 PHCs (C16-C34) | 276 | 8 | ug/g | 18 | 122 | 60-140 | | | |
| F4 PHCs (C34-C50) | 174 | 6 | ug/g | ND | 130 | 60-140 | | | |
| Metals | | | | | | | | | |
| Antimony | 57.2 | 1.0 | ug/g | ND | 113 | 70-130 | | | |
| Arsenic | 55.3 | 1.0 | ug/g | 2.6 | 105 | 70-130 | | | |
| Barium | 94.4 | 1.0 | ug/g | 37.2 | 114 | 70-130 | | | |
| Beryllium | 51.8 | 0.5 | ug/g | ND | 103 | 70-130 | | | |
| Boron, available | 4.20 | 0.5 | ug/g | 0.59 | 72.1 | 70-122 | | | |
| Boron | 52.8 | 5.0 | ug/g | 6.9 | 91.6 | 70-130 | | | |
| Boron | 52.1 | 5.0 | ug/g | ND | 95.9 | 70-130 | | | |
| Cadmium | 53.3 | 0.5 | ug/g | ND | 107 | 70-130 | | | |
| Chromium (VI) | 0.2 | 0.2 | ug/g | ND | 77.5 | 48-112 | | | |
| Chromium | 66.1 | 5.0 | ug/g | 10.1 | 112 | 70-130 | | | |
| Cobalt | 58.3 | 1.0 | ug/g | 3.1 | 110 | 70-130 | | | |
| Copper | 57.3 | 5.0 | ug/g | 5.0 | 105 | 70-130 | | | |
| Lead | 54.2 | 1.0 | ug/g | 5.8 | 96.8 | 70-130 | | | |
| Mercury | 1.56 | 0.1 | ug/g | ND | 104 | 70-130 | | | |
| Molybdenum | 54.1 | 1.0 | ug/g | 1.7 | 105 | 70-130 | | | |
| Nickel | 60.8 | 5.0 | ug/g | 6.2 | 109 | 70-130 | | | |
| Selenium | 47.7 | 1.0 | ug/g | ND | 95.1 | 70-130 | | | |
| Silver | 47.1 | 0.3 | ug/g | ND | 94.1 | 70-130 | | | |
| Thallium | 47.9 | 1.0 | ug/g | ND | 95.7 | 70-130 | | | |
| Uranium | 49.3 | 1.0 | ug/g | ND | 98.0 | 70-130 | | | |
| Vanadium | 63.9 | 10.0 | ug/g | 11.9 | 104 | 70-130 | | | |
| Zinc | 58.4 | 20.0 | ug/g | ND | 92.4 | 70-130 | | | |
| Semi-Volatiles | | | | | | | | | |

OTTAWA • MISSISSAUGA • HAMILTON • KINGSTON • LONDON • NIAGARA • WINDSOR • RICHMOND HILL

Order #: 2502112

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025



Client: Cambium Inc. (Ottawa)

Client PO:

Method Quality Control: Spike

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|-----------------------------|--------|--------------------|-------|------------------|------|---------------|-----|--------------|-------|
| Acenaphthene | 0.205 | 0.02 | ug/g | ND | 88.7 | 50-140 | | | |
| Acenaphthylene | 0.191 | 0.02 | ug/g | ND | 82.5 | 50-140 | | | |
| Anthracene | 0.175 | 0.02 | ug/g | ND | 75.7 | 50-140 | | | |
| Benzo [a] anthracene | 0.130 | 0.02 | ug/g | ND | 56.4 | 50-140 | | | |
| Benzo [a] pyrene | 0.129 | 0.02 | ug/g | ND | 55.6 | 50-140 | | | |
| Benzo [b] fluoranthene | 0.121 | 0.02 | ug/g | ND | 52.4 | 50-140 | | | |
| Benzo [g,h,i] perylene | 0.136 | 0.02 | ug/g | ND | 58.7 | 50-140 | | | |
| Benzo [k] fluoranthene | 0.119 | 0.02 | ug/g | ND | 51.4 | 50-140 | | | |
| Chrysene | 0.160 | 0.02 | ug/g | ND | 69.0 | 50-140 | | | |
| Dibenzo [a,h] anthracene | 0.125 | 0.02 | ug/g | ND | 54.0 | 50-140 | | | |
| Fluoranthene | 0.202 | 0.02 | ug/g | ND | 87.3 | 50-140 | | | |
| Fluorene | 0.175 | 0.02 | ug/g | ND | 75.5 | 50-140 | | | |
| Indeno [1,2,3-cd] pyrene | 0.129 | 0.02 | ug/g | ND | 55.8 | 50-140 | | | |
| 1-Methylnaphthalene | 0.181 | 0.02 | ug/g | ND | 78.4 | 50-140 | | | |
| 2-Methylnaphthalene | 0.167 | 0.02 | ug/g | ND | 72.2 | 50-140 | | | |
| Naphthalene | 0.210 | 0.01 | ug/g | ND | 90.9 | 50-140 | | | |
| Phenanthrene | 0.212 | 0.02 | ug/g | ND | 91.7 | 50-140 | | | |
| Pyrene | 0.208 | 0.02 | ug/g | ND | 89.8 | 50-140 | | | |
| Surrogate: 2-Fluorobiphenyl | 1.10 | | % | | 59.6 | 50-140 | | | |
| Surrogate: Terphenyl-d14 | 1.57 | | % | | 84.6 | 50-140 | | | |
| Volatiles | | | | | | | | | |
| Acetone | 9.18 | 0.50 | ug/g | ND | 91.8 | 50-140 | | | |
| Benzene | 3.19 | 0.02 | ug/g | ND | 79.6 | 60-130 | | | |
| Bromodichloromethane | 2.88 | 0.05 | ug/g | ND | 72.0 | 60-130 | | | |
| Bromoform | 2.98 | 0.05 | ug/g | ND | 74.5 | 60-130 | | | |
| Bromomethane | 4.53 | 0.05 | ug/g | ND | 113 | 50-140 | | | |
| Carbon Tetrachloride | 2.74 | 0.05 | ug/g | ND | 68.5 | 60-130 | | | |
| Chlorobenzene | 3.30 | 0.05 | ug/g | ND | 82.4 | 60-130 | | | |
| Chloroform | 2.96 | 0.05 | ug/g | ND | 74.1 | 60-130 | | | |
| Dibromochloromethane | 2.86 | 0.05 | ug/g | ND | 71.4 | 60-130 | | | |
| Dichlorodifluoromethane | 4.47 | 0.05 | ug/g | ND | 112 | 50-140 | | | |

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

Project Description: 20361-003



Client: Cambium Inc. (Ottawa)

Client PO:

Method Quality Control: Spike

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--|--------|--------------------|-------|------------------|------|---------------|-----|--------------|-------|
| 1,2-Dichlorobenzene | 3.29 | 0.05 | ug/g | ND | 82.2 | 60-130 | | | |
| 1,3-Dichlorobenzene | 3.54 | 0.05 | ug/g | ND | 88.6 | 60-130 | | | |
| 1,4-Dichlorobenzene | 3.41 | 0.05 | ug/g | ND | 85.4 | 60-130 | | | |
| 1,1-Dichloroethane | 3.68 | 0.05 | ug/g | ND | 92.0 | 60-130 | | | |
| 1,2-Dichloroethane | 2.77 | 0.05 | ug/g | ND | 69.3 | 60-130 | | | |
| 1,1-Dichloroethylene | 4.59 | 0.05 | ug/g | ND | 115 | 60-130 | | | |
| cis-1,2-Dichloroethylene | 3.18 | 0.05 | ug/g | ND | 79.4 | 60-130 | | | |
| trans-1,2-Dichloroethylene | 4.83 | 0.05 | ug/g | ND | 121 | 60-130 | | | |
| 1,2-Dichloropropane | 2.77 | 0.05 | ug/g | ND | 69.3 | 60-130 | | | |
| cis-1,3-Dichloropropylene | 2.78 | 0.05 | ug/g | ND | 69.4 | 60-130 | | | |
| trans-1,3-Dichloropropylene | 3.15 | 0.05 | ug/g | ND | 78.7 | 60-130 | | | |
| Ethylbenzene | 3.79 | 0.05 | ug/g | ND | 94.6 | 60-130 | | | |
| Ethylene dibromide (dibromoethane, 1,2-) | 2.62 | 0.05 | ug/g | ND | 65.5 | 60-130 | | | |
| Hexane | 4.32 | 0.05 | ug/g | ND | 108 | 60-130 | | | |
| Methyl Ethyl Ketone (2-Butanone) | 8.44 | 0.50 | ug/g | ND | 84.4 | 50-140 | | | |
| Methyl Isobutyl Ketone | 6.97 | 0.50 | ug/g | ND | 69.7 | 50-140 | | | |
| Methyl tert-butyl ether | 9.62 | 0.05 | ug/g | ND | 96.2 | 50-140 | | | |
| Methylene Chloride | 4.89 | 0.05 | ug/g | ND | 122 | 60-130 | | | |
| Styrene | 3.14 | 0.05 | ug/g | ND | 78.4 | 60-130 | | | |
| 1,1,1,2-Tetrachloroethane | 2.72 | 0.05 | ug/g | ND | 67.9 | 60-130 | | | |
| 1,1,2,2-Tetrachloroethane | 2.84 | 0.05 | ug/g | ND | 70.9 | 60-130 | | | |
| Tetrachloroethylene | 2.73 | 0.05 | ug/g | ND | 68.3 | 60-130 | | | |
| Toluene | 3.22 | 0.05 | ug/g | ND | 80.5 | 60-130 | | | |
| 1,1,1-Trichloroethane | 3.02 | 0.05 | ug/g | ND | 75.5 | 60-130 | | | |
| 1,1,2-Trichloroethane | 3.36 | 0.05 | ug/g | ND | 84.1 | 60-130 | | | |
| Trichloroethylene | 2.91 | 0.05 | ug/g | ND | 72.8 | 60-130 | | | |
| Trichlorofluoromethane | 4.63 | 0.05 | ug/g | ND | 116 | 50-140 | | | |
| Vinyl chloride | 4.51 | 0.02 | ug/g | ND | 113 | 50-140 | | | |
| m,p-Xylenes | 7.66 | 0.05 | ug/g | ND | 95.7 | 60-130 | | | |
| o-Xylene | 3.58 | 0.05 | ug/g | ND | 89.5 | 60-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 7.50 | | % | | 93.8 | 50-140 | | | |

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

Project Description: 20361-003



Client: Cambium Inc. (Ottawa)

Client PO:

Method Quality Control: Spike

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|---------------------------------|--------|--------------------|-------|------------------|------|---------------|-----|--------------|-------|
| Surrogate: Dibromofluoromethane | 6.66 | | % | | 83.2 | 50-140 | | | |
| Surrogate: Toluene-d8 | 8.12 | | % | | 101 | 50-140 | | | |

Order #: 2502112

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

Certificate of Analysis

Client: Cambium Inc. (Ottawa)

Client PO:

Qualifier Notes:

Sample Qualifiers :

QC Qualifiers:

Sample Data Revisions:

None

Work Order Revisions / Comments: REVISION-1: This report includes additional texture data.

REVISION-2: This report includes additional pH, metals and texture data.

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

Soil results are reported on a dry weight basis unlesss otherwise noted.

Where %Solids is reported, moisture loss includes the loss of volatile hydrocarbons.

CCME PHC additional information:

- The method for the analysis of PHCs complies with the Reference Method for the CWS PHC and is validated for use in the laboratory. All prescribed quality criteria identified in the method has been met.

- F1 range corrected for BTEX.
- F2 to F3 ranges corrected for appropriate PAHs where available.
- The gravimetric heavy hydrocarbons (F4G) are not to be added to C6 to C50 hydrocarbons.
- In the case where F4 and F4G are both reported, the greater of the two results is to be used for comparison to CWS PHC criteria.
- When reported, data for F4G has been processed using a silica gel cleanup.

Any use of these results implies your agreement that our total liability in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

OTTAWA - MISSISSAUGA - HAMILTON - KINGSTON - LONDON - NIAGARA - WINDSOR - RICHMOND HILL

Order #: 2502112

Report Date: 03-Feb-2025

Order Date: 7-Jan-2025

| | Parace PARACE | el ID: | 250 | 211: | 2 | Blvd. 4J8 ps.com | Paracel O (Lab I 502 | Irder N Use On | umbe ly) | r | | Cha NΩ | ain Of (Lab Us 77 | Custo e Only) 287 | dy |
|-----------|---|-----------|---------------------------|----------|--|--------------------------|---|-------------------|--------------|------------|---|---------------|-------------------------|-------------------------|---------|
| | Control Name: Compilian | Proje | ct Ref: | 20 | 361-003 | | | | | | | | Page | ⊥ of ⊥ | |
| | Address: 24. Dave Lobelle Sheila Barter | Quote | e #: | | | | | | | | | Т | urnarou | ind Time | 2 |
| | 593 Preston Street, Ottowa, ontorio | PO #: | | | | | | | | | | 1 day | | | 3 day |
| | Telephone: (12 m | E-mai | 1: Jo | ve. | labelle ci | mbium | ì×.U | im. | | | | 2 day | | 风 | Regular |
| | 615-876-1204 | | sh | eila | barter eu | cm bium-i | A. CUN | 5 | | | Date | Requi | ired: | | |
| | REG 153/04 REG 406/19 Other Regulation Table 1 Agri/Other Med/Fine REG 558 PWQO Table 2 Mage/Park Phone Regination Regination | Mat SW | rix Typ (Surfac | e: S(S | ioil/Sed.) GW (Grou er) SS (Storm/Sanit | und Water) ary Sewer) | | | | I | Requir | red Ar | nalysis | | |
| | Table 2 BD Res/Park DECoarse CCME MISA Table 3 Ind/Comm SU - Sani SU - Storm Mun: For RSC: 29 Yes No Other: | ume . | ontainers | Filtered | t) A (Air) O (Other) Sample |) e Taken | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | 22 | . 5 | als and | 2 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | Ø | | | |
| | Sample ID/Location Name | ir Vo | of Cc | ield I | Date | Time | ⊣≵ | 1 d | Š | きう | 5 | 2 | 2 | | |
| ţ. | 1 BH114-25-0.0-0.8 | 4 | 2 | <u> </u> | 7-7 | Time | - | | - | 2. | - | $\frac{1}{x}$ | | ++ | |
| | 2 BH114-25-0.8-15 | | 2 | | | | + | | | | | V | | +-+ | |
| | 3 Bully-25-1.5-2.3 | +- | Ż | | | | | V | V | r | | \sim | V | +-+ | |
| | 4 Bully-25-23-31 | + | 3 | | | | \uparrow | | ~ | <u> </u> | | x | | +-+ | |
| | 5 BHIL6-25-0.0-0.8 | + | 5 | | | | | | | | X | | X | ++ | |
| | 6 BH116-25-0.8-1.5 | \square | Ĩ | | | | | | | | | × | | ++ | +- |
| - | 7 34117-25-0,0-0.8 | \square | 3 | | | | X | X | \mathbf{v} | Х | | ~ | | + | + |
| | 8 0417-25-0.8-1.5 | \square | 3 | _ | | | | | Ą. | / ` | | X | | + | |
| | 9 OA/GC-1 | | 3 | | | | X | χ | λ | X | | - | X | ++ | |
| | | | | | | | | - | | | | | | ++ | |
| | minents: | | | | | | | | | Metho | d of De | livery: | | | |
| Re | linquished By (Sign): | | | | Receiv | ed at Lab: | | 3/70 | | Verifie | d By: | S | - | | |
| Re | linquished By (Print): There Labelle Date/Time: | | | | Date/1 | rime: | 20 | | | Date/1 | lime: | 50 | 7 7 | ave. | 2.00 |
| Da Cha | te/Time: San 7, 2025 Temperature: | | | c | C Tempe | erature: _/, | 7 . | c c | (.00 | pH Ver | rified: | | By: | 10.3 | 5 top |

of Custody (Blank).xlsx



| Cambium Inc. (Ottawa) | |
|------------------------|--------------------------|
| 102-343 Preston Street | |
| Ottawa, ON K7K 7G3 | |
| Attn: Sheila Barter | |
| | Report Date: 31-Jan-2025 |
| Client PO: | Order Date: 24-Jan-2025 |
| Project: 20361-003 | |
| Custody: 76527 | Order #: 2504459 |
| | |

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

| Paracel ID | Client ID |
|------------|------------|
| 2504459-01 | BH114-25 |
| 2504459-02 | QAQC01-25 |
| 2504459-03 | BH113-25 |
| 2504459-04 | BH115-25 |
| 2504459-05 | QAQC02-25 |
| 2504459-06 | Trip Blank |

Approved By:

Mark Foto

Mark Foto, M.Sc.



Client: Cambium Inc. (Ottawa)

Client PO:

Analysis Anions

pН

PHC F1

Cyanide, free

Mercury by CVAA

Metals, ICP-MS

PHCs F2 to F4

Analysis Summary Table

Chromium, hexavalent - water

REG 153: PAHs by GC-MS

REG 153: VOCs by P&T GC/MS

Report Date: 31-Jan-2025

Order Date: 24-Jan-2025

Analysis Date

27-Jan-25

28-Jan-25

29-Jan-25

28-Jan-25

27-Jan-25

27-Jan-25

27-Jan-25

27-Jan-25

30-Jan-25

27-Jan-25

Project Description: 20361-003

Extraction Date

27-Jan-25

28-Jan-25

29-Jan-25

28-Jan-25

24-Jan-25

27-Jan-25

27-Jan-25

27-Jan-25

29-Jan-25

27-Jan-25

| OTTAWA - MISSISSAUGA - H | AMILTON + KINGSTON | LONDON - NIAGARA | WINDSOR | RICHMOND | HILL |
|--------------------------|--------------------|------------------|---------|----------|------|
|--------------------------|--------------------|------------------|---------|----------|------|

Method Reference/Description

MOE E3056 - colourimetric

MOE E3015 - Auto Colour

CWS Tier 1 - P&T GC-FID

EPA 624 - P&T GC-MS

EPA 200.8 - ICP-MS

EPA 245.2 - Cold Vapour AA

EPA 150.1 - pH probe @25 °C

CWS Tier 1 - GC-FID, extraction

EPA 625 - GC-MS, extraction

EPA 300.1 - IC


Client: Cambium Inc. (Ottawa)

Client PO:

Report Date: 31-Jan-2025

Order Date: 24-Jan-2025

Project Description: 20361-003

Summary of Criteria Exceedances

(If this page is blank then there are no exceedances)

Only those criteria that a sample exceeds will be highlighted in red

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 have exceeded the selected regulatory limit. Calculated uncertainty estimations have not been applied for determining regulatory exceedances.

| Sample | Analyte | MDL / Units | Result | Reg 153/04 -T6 Potable Groundwater | - |
|-----------|------------------|-------------|-----------|---------------------------------------|---|
| BH114-25 | Sodium | 200 ug/L | 745000 | 490000 ug/L | - |
| BH114-25 | Benzo [a] pyrene | 0.01 ug/L | <0.02 [1] | 0.01 ug/L | - |
| QAQC01-25 | Sodium | 200 ug/L | 643000 | 490000 ug/L | - |
| BH113-25 | Chloride | 1 mg/L | 1120 | 790000 ug/L | - |
| BH113-25 | Sodium | 200 ug/L | 543000 | 490000 ug/L | - |
| BH113-25 | Benzo [a] pyrene | 0.01 ug/L | <0.02 [1] | 0.01 ug/L | - |
| BH115-25 | Chloride | 1 mg/L | 1260 | 790000 ug/L | - |



Client: Cambium Inc. (Ottawa)

Client PO:

Report Date: 31-Jan-2025

Order Date: 24-Jan-2025

Project Description: 20361-003

| | Client ID: | BH114-25 | QAQC01-25 | BH113-25 | BH115-25 | Criteria: | |
|--------------------|--------------|-----------------|-----------------|-----------------|-----------------|----------------------|---|
| | Sample Date: | 24-Jan-25 10:15 | 24-Jan-25 10:15 | 24-Jan-25 11:00 | 24-Jan-25 11:50 | Reg 153/04 -T6 | - |
| | Sample ID: | 2504459-01 | 2504459-02 | 2504459-03 | 2504459-04 | Potable | |
| | Matrix: | Ground Water | Ground Water | Ground Water | Ground Water | Groundwater | |
| | MDL/Units | | | | | | |
| General Inorganics | | | - | | | | |
| Cyanide, free | 2 ug/L | <2 | - | <2 | <2 | 52 ug/L | - |
| рН | 0.1 pH Units | 8.2 | - | 7.8 | 7.7 | 5.00 - 9.00 pH Units | - |
| Anions | | | | | | | |
| Chloride | 1 mg/L | 608 | - | 1120 | 1260 | 790000 ug/L | - |
| Metals | | | | - | - | - | |
| Mercury | 0.1 ug/L | <0.1 | - | <0.1 | <0.1 | 0.1 ug/L | - |
| Antimony | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 6 ug/L | - |
| Arsenic | 1 ug/L | <1 | <1 | <1 | <1 | 25 ug/L | - |
| Barium | 1 ug/L | 72 | 63 | 80 | 74 | 1000 ug/L | - |
| Beryllium | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 4 ug/L | - |
| Boron | 10 ug/L | 211 | 182 | 109 | 95 | 5000 ug/L | - |
| Cadmium | 0.1 ug/L | <0.1 | <0.1 | <0.1 | <0.1 | 2.1 ug/L | - |
| Chromium (VI) | 10 ug/L | <10 | - | <10 | <10 | 25 ug/L | - |
| Chromium | 1 ug/L | <1 | <1 | <1 | <1 | 50 ug/L | - |
| Cobalt | 0.5 ug/L | 0.8 | 0.6 | 0.6 | 0.6 | 3.8 ug/L | - |
| Copper | 0.5 ug/L | 1.9 | 2.3 | 3.1 | 2.6 | 69 ug/L | - |
| Lead | 0.1 ug/L | <0.1 | <0.1 | <0.1 | <0.1 | 10 ug/L | - |
| Molybdenum | 0.5 ug/L | 1.9 | 1.7 | 2.3 | 1.4 | 70 ug/L | - |
| Nickel | 1 ug/L | 2 | 2 | 3 | 2 | 100 ug/L | - |
| Selenium | 1 ug/L | <1 | <1 | <1 | <1 | 10 ug/L | - |
| Silver | 0.1 ug/L | <0.1 | <0.1 | <0.1 | <0.1 | 1.2 ug/L | - |
| Sodium | 200 ug/L | 745000 | 643000 | 543000 | 444000 | 490000 ug/L | - |
| Thallium | 0.1 ug/L | <0.1 | <0.1 | <0.1 | <0.1 | 2 ug/L | - |
| Uranium | 0.1 ug/L | 2.1 | 2.2 | 5.3 | 3.1 | 20 ug/L | - |
| Vanadium | 0.5 ug/L | 2.4 | 2.3 | 2.0 | 1.6 | 6.2 ug/L | - |
| - | | | | | | | |

Certificate of Analysis

Client: Cambium Inc. (Ottawa)

Client PO:

Report Date: 31-Jan-2025

Order Date: 24-Jan-2025

Project Description: 20361-003

| | Client ID: | BH114-25 | QAQC01-25 | BH113-25 | BH115-25 | Criteria: | |
|------------------------------------|--------------|-----------------|-----------------|-----------------|-----------------|----------------|---|
| | Sample Date: | 24-Jan-25 10:15 | 24-Jan-25 10:15 | 24-Jan-25 11:00 | 24-Jan-25 11:50 | Reg 153/04 -T6 | - |
| | Sample ID: | 2504459-01 | 2504459-02 | 2504459-03 | 2504459-04 | Potable | |
| | Matrix: | Ground Water | Ground Water | Ground Water | Ground Water | Groundwater | |
| | MDL/Units | | | | | | |
| Metals | | | | | | | |
| Zinc | 5 ug/L | <5 | <5 | <5 | <5 | 890 ug/L | - |
| Volatiles | | | | | | | |
| Acetone | 5.0 ug/L | <5.0 | <5.0 | <5.0 | <5.0 | 2700 ug/L | - |
| Benzene | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 0.5 ug/L | - |
| Bromodichloromethane | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 16 ug/L | - |
| Bromoform | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 5 ug/L | - |
| Bromomethane | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 0.89 ug/L | - |
| Carbon Tetrachloride | 0.2 ug/L | <0.2 | <0.2 | <0.2 | <0.2 | 0.2 ug/L | - |
| Chlorobenzene | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 30 ug/L | - |
| Chloroform | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 2 ug/L | - |
| Dibromochloromethane | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 25 ug/L | - |
| Dichlorodifluoromethane | 1.0 ug/L | <1.0 | <1.0 | <1.0 | <1.0 | 590 ug/L | - |
| 1,2-Dichlorobenzene | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 3 ug/L | - |
| 1,3-Dichlorobenzene | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 59 ug/L | - |
| 1,4-Dichlorobenzene | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 0.5 ug/L | - |
| 1,1-Dichloroethane | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 5 ug/L | - |
| 1,2-Dichloroethane | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 0.5 ug/L | - |
| 1,1-Dichloroethylene | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 0.5 ug/L | - |
| cis-1,2-Dichloroethylene | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 1.6 ug/L | - |
| trans-1,2-Dichloroethylene | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 1.6 ug/L | - |
| 1,2-Dichloropropane | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 0.58 ug/L | - |
| cis-1,3-Dichloropropylene | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | - | - |
| trans-1,3-Dichloropropylene | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | - | - |
| 1,3-Dichloropropene, total | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 0.5 ug/L | _ |
| Ethylene dibromide (dibromoethane, | 0.2 ug/L | <0.2 | <0.2 | <0.2 | <0.2 | 0.2 ug/L | - |

Certificate of Analysis

Client: Cambium Inc. (Ottawa)

Client PO:

Report Date: 31-Jan-2025

Order Date: 24-Jan-2025

Project Description: 20361-003

| | Client ID: | BH114-25 | QAQC01-25 | BH113-25 | BH115-25 | Criteria: | |
|----------------------------------|--------------|-----------------|-----------------|-----------------|-----------------|----------------|---|
| | Sample Date: | 24-Jan-25 10:15 | 24-Jan-25 10:15 | 24-Jan-25 11:00 | 24-Jan-25 11:50 | Reg 153/04 -T6 | - |
| | Sample ID: | 2504459-01 | 2504459-02 | 2504459-03 | 2504459-04 | Potable | |
| | Matrix: | Ground Water | Ground Water | Ground Water | Ground Water | Groundwater | |
| | MDL/Units | | | | | | |
| Volatiles | | | | | | | |
| Ethylbenzene | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 2.4 ug/L | - |
| Hexane | 1.0 ug/L | <1.0 | <1.0 | <1.0 | <1.0 | 5 ug/L | - |
| Methyl Ethyl Ketone (2-Butanone) | 5.0 ug/L | <5.0 | <5.0 | <5.0 | <5.0 | 1800 ug/L | - |
| Methyl Isobutyl Ketone | 5.0 ug/L | <5.0 | <5.0 | <5.0 | <5.0 | 640 ug/L | - |
| Methyl tert-butyl ether | 2.0 ug/L | <2.0 | <2.0 | <2.0 | <2.0 | 15 ug/L | - |
| Methylene Chloride | 5.0 ug/L | <5.0 | <5.0 | <5.0 | <5.0 | 26 ug/L | - |
| Styrene | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 5.4 ug/L | - |
| 1,1,1,2-Tetrachloroethane | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 1.1 ug/L | - |
| 1,1,2,2-Tetrachloroethane | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 0.5 ug/L | - |
| Tetrachloroethylene | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 0.5 ug/L | - |
| Toluene | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 24 ug/L | - |
| 1,1,1-Trichloroethane | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 23 ug/L | - |
| 1,1,2-Trichloroethane | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 0.5 ug/L | - |
| Trichloroethylene | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 0.5 ug/L | - |
| Trichlorofluoromethane | 1.0 ug/L | <1.0 | <1.0 | <1.0 | <1.0 | 150 ug/L | - |
| Vinyl chloride | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 0.5 ug/L | - |
| m,p-Xylenes | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | - | - |
| o-Xylene | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | - | - |
| Xylenes, total | 0.5 ug/L | <0.5 | <0.5 | <0.5 | <0.5 | 72 ug/L | - |
| Dibromofluoromethane | Surrogate | 91.0% | 93.0% | 94.6% | 96.6% | - | - |
| Toluene-d8 | Surrogate | 104% | 106% | 106% | 105% | - | - |
| 4-Bromofluorobenzene | Surrogate | 109% | 106% | 105% | 107% | - | - |
| Hydrocarbons | | | | | | • | |
| F1 PHCs (C6-C10) | 25 ug/L | <25 | <25 | <25 | <25 | 420 ug/L | - |
| F2 PHCs (C10-C16) | 100 ug/L | <100 | - | <100 | <100 | 150 ug/L | - |



Client: Cambium Inc. (Ottawa)

Client PO:

Report Date: 31-Jan-2025

Order Date: 24-Jan-2025

Project Description: 20361-003

| | Client ID: | BH114-25 | QAQC01-25 | BH113-25 | BH115-25 | Criteria: | |
|--------------------------|--------------|-----------------|-----------------|-----------------|-----------------|----------------|---|
| | Sample Date: | 24-Jan-25 10:15 | 24-Jan-25 10:15 | 24-Jan-25 11:00 | 24-Jan-25 11:50 | Reg 153/04 -T6 | - |
| | Sample ID: | 2504459-01 | 2504459-02 | 2504459-03 | 2504459-04 | Potable | |
| | Matrix: | Ground Water | Ground Water | Ground Water | Ground Water | Groundwater | |
| | MDL/Units | | | | | | |
| Hydrocarbons | | | | | | | |
| F3 PHCs (C16-C34) | 100 ug/L | <100 | - | <100 | <100 | 500 ug/L | - |
| F4 PHCs (C34-C50) | 100 ug/L | <100 | - | <100 | <100 | 500 ug/L | - |
| Semi-Volatiles | | | | | | | |
| Acenaphthene | 0.05 ug/L | <0.10 [1] | - | <0.08 [1] | <0.05 | 4.1 ug/L | - |
| Acenaphthylene | 0.05 ug/L | <0.10 [1] | - | <0.08 [1] | <0.05 | 1 ug/L | - |
| Anthracene | 0.01 ug/L | <0.02 [1] | - | <0.02 [1] | <0.01 | 1 ug/L | - |
| Benzo [a] anthracene | 0.01 ug/L | <0.02 [1] | - | <0.02 [1] | <0.01 | 1 ug/L | - |
| Benzo [a] pyrene | 0.01 ug/L | <0.02 [1] | - | <0.02 [1] | <0.01 | 0.01 ug/L | - |
| Benzo [b] fluoranthene | 0.05 ug/L | <0.10 [1] | - | <0.08 [1] | <0.05 | 0.1 ug/L | - |
| Benzo [g,h,i] perylene | 0.05 ug/L | <0.10 [1] | - | <0.08 [1] | <0.05 | 0.2 ug/L | - |
| Benzo [k] fluoranthene | 0.05 ug/L | <0.10 [1] | - | <0.08 [1] | <0.05 | 0.1 ug/L | - |
| Chrysene | 0.05 ug/L | <0.10 [1] | - | <0.08 [1] | <0.05 | 0.1 ug/L | - |
| Dibenzo [a,h] anthracene | 0.05 ug/L | <0.10 [1] | - | <0.08 [1] | <0.05 | 0.2 ug/L | - |
| Fluoranthene | 0.01 ug/L | <0.02 [1] | - | <0.02 [1] | <0.01 | 0.41 ug/L | - |
| Fluorene | 0.05 ug/L | <0.10 [1] | - | <0.08 [1] | <0.05 | 120 ug/L | - |
| Indeno [1,2,3-cd] pyrene | 0.05 ug/L | <0.10 [1] | - | <0.08 [1] | <0.05 | 0.2 ug/L | - |
| 1-Methylnaphthalene | 0.05 ug/L | <0.10 [1] | - | <0.08 [1] | <0.05 | 3.2 ug/L | - |
| 2-Methylnaphthalene | 0.05 ug/L | <0.10 [1] | - | <0.08 [1] | <0.05 | 3.2 ug/L | - |
| Methylnaphthalene (1&2) | 0.10 ug/L | <0.20 [1] | - | <0.17 [1] | <0.10 | 3.2 ug/L | - |
| Naphthalene | 0.05 ug/L | <0.10 [1] | - | <0.08 [1] | <0.05 | 7 ug/L | - |
| Phenanthrene | 0.05 ug/L | <0.10 [1] | - | <0.08 [1] | <0.05 | 1 ug/L | - |
| Pyrene | 0.01 ug/L | <0.02 [1] | - | <0.02 [1] | <0.01 | 4.1 ug/L | - |
| 2-Fluorobiphenyl | Surrogate | 77.1% [1] | - | 72.3% [1] | 69.5% | - | - |
| Terphenyl-d14 | Surrogate | 91.1% [1] | - | 83.4% [1] | 79.5% | - | - |



Client: Cambium Inc. (Ottawa)

Client PO:

Report Date: 31-Jan-2025

Order Date: 24-Jan-2025

Project Description: 20361-003

| | _ | | | | | | |
|----------------------------|--------------|-----------------|-----------------|---|---|----------------|---|
| | Client ID: | QAQC02-25 | Trip Blank | | | Criteria | : |
| | Sample Date: | 24-Jan-25 11:50 | 04-Jan-25 08:00 | | | Reg 153/04 -T6 | - |
| | Sample ID: | 2504459-05 | 2504459-06 | | | Potable | |
| | Matrix: | Ground Water | Ground Water | | | Groundwater | |
| | MDL/Units | | | | | | |
| General Inorganics | | | | | - | | |
| Cyanide, free | 2 ug/L | <2 | - | - | - | 52 ug/L | - |
| Metals | | | - | - | - | - | |
| Mercury | 0.1 ug/L | <0.1 | - | - | - | 0.1 ug/L | - |
| Chromium (VI) | 10 ug/L | <10 | - | - | - | 25 ug/L | - |
| Volatiles | | | | - | | | |
| Acetone | 5.0 ug/L | - | <5.0 | - | - | 2700 ug/L | - |
| Benzene | 0.5 ug/L | - | <0.5 | - | - | 0.5 ug/L | - |
| Bromodichloromethane | 0.5 ug/L | - | <0.5 | - | - | 16 ug/L | - |
| Bromoform | 0.5 ug/L | - | <0.5 | - | - | 5 ug/L | - |
| Bromomethane | 0.5 ug/L | - | <0.5 | - | - | 0.89 ug/L | - |
| Carbon Tetrachloride | 0.2 ug/L | - | <0.2 | - | - | 0.2 ug/L | - |
| Chlorobenzene | 0.5 ug/L | - | <0.5 | - | - | 30 ug/L | - |
| Chloroform | 0.5 ug/L | - | <0.5 | - | - | 2 ug/L | - |
| Dibromochloromethane | 0.5 ug/L | - | <0.5 | - | - | 25 ug/L | - |
| Dichlorodifluoromethane | 1.0 ug/L | - | <1.0 | - | - | 590 ug/L | - |
| 1,2-Dichlorobenzene | 0.5 ug/L | - | <0.5 | - | - | 3 ug/L | - |
| 1,3-Dichlorobenzene | 0.5 ug/L | - | <0.5 | - | - | 59 ug/L | - |
| 1,4-Dichlorobenzene | 0.5 ug/L | - | <0.5 | - | - | 0.5 ug/L | - |
| 1,1-Dichloroethane | 0.5 ug/L | - | <0.5 | - | - | 5 ug/L | - |
| 1,2-Dichloroethane | 0.5 ug/L | - | <0.5 | - | - | 0.5 ug/L | - |
| 1,1-Dichloroethylene | 0.5 ug/L | - | <0.5 | - | - | 0.5 ug/L | - |
| cis-1,2-Dichloroethylene | 0.5 ug/L | - | <0.5 | - | - | 1.6 ug/L | - |
| trans-1,2-Dichloroethylene | 0.5 ug/L | - | <0.5 | - | - | 1.6 ug/L | - |
| 1,2-Dichloropropane | 0.5 ug/L | - | <0.5 | - | - | 0.58 ug/L | - |
| cis-1,3-Dichloropropylene | 0.5 ug/L | - | <0.5 | - | - | - | - |
| | | | | - | | - | |



Client: Cambium Inc. (Ottawa)

Client PO:

Report Date: 31-Jan-2025

Order Date: 24-Jan-2025

Project Description: 20361-003

| | Client ID: | QAQC02-25 | Trip Blank | | | Criteria: |
|------------------------------------|--------------|-----------------|-----------------|---|---|------------------|
| | Sample Date: | 24-Jan-25 11:50 | 04-Jan-25 08:00 | | | Reg 153/04 -T6 - |
| | Sample ID: | 2504459-05 | 2504459-06 | | | Potable |
| | Matrix: | Ground Water | Ground Water | | | Groundwater |
| | MDL/Units | | | | | |
| Volatiles | | | | | • | |
| trans-1,3-Dichloropropylene | 0.5 ug/L | - | <0.5 | - | - | |
| 1,3-Dichloropropene, total | 0.5 ug/L | - | <0.5 | - | - | 0.5 ug/L - |
| Ethylbenzene | 0.5 ug/L | - | <0.5 | - | - | 2.4 ug/L - |
| Ethylene dibromide (dibromoethane, | 0.2 ug/L | - | <0.2 | - | - | 0.2 ug/L - |
| Hexane | 1.0 ug/L | - | <1.0 | - | - | 5 ug/L - |
| Methyl Ethyl Ketone (2-Butanone) | 5.0 ug/L | - | <5.0 | - | - | 1800 ug/L - |
| Methyl Isobutyl Ketone | 5.0 ug/L | - | <5.0 | - | - | 640 ug/L - |
| Methyl tert-butyl ether | 2.0 ug/L | - | <2.0 | - | - | 15 ug/L - |
| Methylene Chloride | 5.0 ug/L | - | <5.0 | - | - | 26 ug/L - |
| Styrene | 0.5 ug/L | - | <0.5 | - | - | 5.4 ug/L - |
| 1,1,1,2-Tetrachloroethane | 0.5 ug/L | - | <0.5 | - | - | 1.1 ug/L - |
| 1,1,2,2-Tetrachloroethane | 0.5 ug/L | - | <0.5 | - | - | 0.5 ug/L - |
| Tetrachloroethylene | 0.5 ug/L | - | <0.5 | - | - | 0.5 ug/L - |
| Toluene | 0.5 ug/L | - | <0.5 | - | - | 24 ug/L - |
| 1,1,1-Trichloroethane | 0.5 ug/L | - | <0.5 | - | - | 23 ug/L - |
| 1,1,2-Trichloroethane | 0.5 ug/L | - | <0.5 | - | - | 0.5 ug/L - |
| Trichloroethylene | 0.5 ug/L | - | <0.5 | - | - | 0.5 ug/L - |
| Trichlorofluoromethane | 1.0 ug/L | - | <1.0 | - | - | 150 ug/L - |
| Vinyl chloride | 0.5 ug/L | - | <0.5 | - | - | 0.5 ug/L - |
| m,p-Xylenes | 0.5 ug/L | - | <0.5 | - | - | |
| o-Xylene | 0.5 ug/L | - | <0.5 | - | - | |
| Xylenes, total | 0.5 ug/L | - | <0.5 | - | - | 72 ug/L - |
| Dibromofluoromethane | Surrogate | - | 94.5% | - | - | |
| 4-Bromofluorobenzene | Surrogate | - | 110% | - | - | |
| Toluene-d8 | Surrogate | - | 104% | - | - | |



Client: Cambium Inc. (Ottawa)

Client PO:

Report Date: 31-Jan-2025

Order Date: 24-Jan-2025

Project Description: 20361-003

| | Client ID: | QAQC02-25 | Trip Blank | | | Criteria: |
|-------------------|--------------|-----------------|-----------------|---|---|------------------|
| | Sample Date: | 24-Jan-25 11:50 | 04-Jan-25 08:00 | | | Reg 153/04 -T6 - |
| | Sample ID: | 2504459-05 | 2504459-06 | | | Potable |
| | Matrix: | Ground Water | Ground Water | | | Groundwater |
| | MDL/Units | | | | | |
| Hydrocarbons | | | | | | |
| F1 PHCs (C6-C10) | 25 ug/L | - | <25 | - | - | 420 ug/L - |
| F2 PHCs (C10-C16) | 100 ug/L | <100 | - | - | - | 150 ug/L - |
| F3 PHCs (C16-C34) | 100 ug/L | <100 | - | - | - | 500 ug/L - |
| F4 PHCs (C34-C50) | 100 ug/L | <100 | - | _ | - | 500 ug/L - |

Certificate of Analysis

Client: Cambium Inc. (Ottawa)

Client PO:

Method Quality Control: Blank

| Analyte | Result | Reporting Limit | Units | %REC | %REC Limit | RPD | RPD Limit | Notes | |
|-------------------|--------|--------------------|-------|------|---------------|-----|--------------|-------|--|
| Anions | | | | | | | | | |
| Chloride | ND | 1 | mg/L | | | | | | |
| Hydrocarbons | | | | | | | | | |
| F1 PHCs (C6-C10) | ND | 25 | ug/L | | | | | | |
| F2 PHCs (C10-C16) | ND | 100 | ug/L | | | | | | |
| F3 PHCs (C16-C34) | ND | 100 | ug/L | | | | | | |
| F4 PHCs (C34-C50) | ND | 100 | ug/L | | | | | | |
| Metals | | | | | | | | | |
| Mercury | ND | 0.1 | ug/L | | | | | | |
| Antimony | ND | 0.5 | ug/L | | | | | | |
| Arsenic | ND | 1 | ug/L | | | | | | |
| Barium | ND | 1 | ug/L | | | | | | |
| Beryllium | ND | 0.5 | ug/L | | | | | | |
| Boron | ND | 10 | ug/L | | | | | | |
| Cadmium | ND | 0.1 | ug/L | | | | | | |
| Chromium (VI) | ND | 10 | ug/L | | | | | | |
| Chromium | ND | 1 | ug/L | | | | | | |
| Cobalt | ND | 0.5 | ug/L | | | | | | |
| Copper | ND | 0.5 | ug/L | | | | | | |
| Lead | ND | 0.1 | ug/L | | | | | | |
| Molybdenum | ND | 0.5 | ug/L | | | | | | |
| Nickel | ND | 1 | ug/L | | | | | | |
| Selenium | ND | 1 | ug/L | | | | | | |
| Silver | ND | 0.1 | ug/L | | | | | | |
| Sodium | ND | 200 | ug/L | | | | | | |
| Thallium | ND | 0.1 | ug/L | | | | | | |
| Uranium | ND | 0.1 | ug/L | | | | | | |
| Vanadium | ND | 0.5 | ug/L | | | | | | |
| Zinc | ND | 5 | ug/L | | | | | | |
| Semi-Volatiles | | | Ū | | | | | | |
| Acenaphthene | ND | 0.05 | ug/L | | | | | | |
| Acenaphthylene | ND | 0.05 | ug/L | | | | | | |
| Anthracene | ND | 0.01 | ug/L | | | | | | |

Report Date: 31-Jan-2025

Order Date: 24-Jan-2025

Project Description: 20361-003

Order #: 2504459



Client: Cambium Inc. (Ottawa)

Client PO:

Method Quality Control: Blank

| Order #: 250445 | Orde | r #: | 250 |)445 | 9 |
|-----------------|------|------|-----|------|---|
|-----------------|------|------|-----|------|---|

Report Date: 31-Jan-2025

Order Date: 24-Jan-2025

Project Description: 20361-003

| Analyte | Result | Reporting Limit | Units | %REC | %REC Limit | RPD | RPD Limit | Notes |
|-----------------------------|--------|--------------------|-------|------|---------------|-----|--------------|-------|
| Benzo [a] anthracene | ND | 0.01 | ug/L | | | | | |
| Benzo [a] pyrene | ND | 0.01 | ug/L | | | | | |
| Benzo [b] fluoranthene | ND | 0.05 | ug/L | | | | | |
| Benzo [g,h,i] perylene | ND | 0.05 | ug/L | | | | | |
| Benzo [k] fluoranthene | ND | 0.05 | ug/L | | | | | |
| Chrysene | ND | 0.05 | ug/L | | | | | |
| Dibenzo [a,h] anthracene | ND | 0.05 | ug/L | | | | | |
| Fluoranthene | ND | 0.01 | ug/L | | | | | |
| Fluorene | ND | 0.05 | ug/L | | | | | |
| Indeno [1,2,3-cd] pyrene | ND | 0.05 | ug/L | | | | | |
| 1-Methylnaphthalene | ND | 0.05 | ug/L | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | ug/L | | | | | |
| Methylnaphthalene (1&2) | ND | 0.10 | ug/L | | | | | |
| Naphthalene | ND | 0.05 | ug/L | | | | | |
| Phenanthrene | ND | 0.05 | ug/L | | | | | |
| Pyrene | ND | 0.01 | ug/L | | | | | |
| Surrogate: 2-Fluorobiphenyl | 14.9 | | % | 74.4 | 50-140 | | | |
| Surrogate: Terphenyl-d14 | 17.4 | | % | 87.0 | 50-140 | | | |
| Volatiles | | | | | | | | |
| Acetone | ND | 5.0 | ug/L | | | | | |
| Benzene | ND | 0.5 | ug/L | | | | | |
| Bromodichloromethane | ND | 0.5 | ug/L | | | | | |
| Bromoform | ND | 0.5 | ug/L | | | | | |
| Bromomethane | ND | 0.5 | ug/L | | | | | |
| Carbon Tetrachloride | ND | 0.2 | ug/L | | | | | |
| Chlorobenzene | ND | 0.5 | ug/L | | | | | |
| Chloroform | ND | 0.5 | ug/L | | | | | |
| Dibromochloromethane | ND | 0.5 | ug/L | | | | | |
| Dichlorodifluoromethane | ND | 1.0 | ug/L | | | | | |
| 1,2-Dichlorobenzene | ND | 0.5 | ug/L | | | | | |
| 1,3-Dichlorobenzene | ND | 0.5 | ug/L | | | | | |
| 1,4-Dichlorobenzene | ND | 0.5 | ug/L | | | | | |



Client: Cambium Inc. (Ottawa)

Client PO:

Method Quality Control: Blank

| - | | . н. | 200 | | |
|---|------|------|-----|-----|-----|
| | rner | - ш | 10 | 144 | 174 |
| | | | | | |

Report Date: 31-Jan-2025

Order Date: 24-Jan-2025

Project Description: 20361-003

| Analyte | Result | Reporting Limit | Units | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--|--------|--------------------|-------|------|---------------|-----|--------------|-------|
| 1,1-Dichloroethane | ND | 0.5 | ug/L | | | | | |
| 1,2-Dichloroethane | ND | 0.5 | ug/L | | | | | |
| 1,1-Dichloroethylene | ND | 0.5 | ug/L | | | | | |
| cis-1,2-Dichloroethylene | ND | 0.5 | ug/L | | | | | |
| trans-1,2-Dichloroethylene | ND | 0.5 | ug/L | | | | | |
| 1,2-Dichloropropane | ND | 0.5 | ug/L | | | | | |
| cis-1,3-Dichloropropylene | ND | 0.5 | ug/L | | | | | |
| trans-1,3-Dichloropropylene | ND | 0.5 | ug/L | | | | | |
| 1,3-Dichloropropene, total | ND | 0.5 | ug/L | | | | | |
| Ethylbenzene | ND | 0.5 | ug/L | | | | | |
| Ethylene dibromide (dibromoethane, 1,2-) | ND | 0.2 | ug/L | | | | | |
| Hexane | ND | 1.0 | ug/L | | | | | |
| Methyl Ethyl Ketone (2-Butanone) | ND | 5.0 | ug/L | | | | | |
| Methyl Isobutyl Ketone | ND | 5.0 | ug/L | | | | | |
| Methyl tert-butyl ether | ND | 2.0 | ug/L | | | | | |
| Methylene Chloride | ND | 5.0 | ug/L | | | | | |
| Styrene | ND | 0.5 | ug/L | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.5 | ug/L | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 0.5 | ug/L | | | | | |
| Tetrachloroethylene | ND | 0.5 | ug/L | | | | | |
| Toluene | ND | 0.5 | ug/L | | | | | |
| 1,1,1-Trichloroethane | ND | 0.5 | ug/L | | | | | |
| 1,1,2-Trichloroethane | ND | 0.5 | ug/L | | | | | |
| Trichloroethylene | ND | 0.5 | ug/L | | | | | |
| Trichlorofluoromethane | ND | 1.0 | ug/L | | | | | |
| Vinyl chloride | ND | 0.5 | ug/L | | | | | |
| m,p-Xylenes | ND | 0.5 | ug/L | | | | | |
| o-Xylene | ND | 0.5 | ug/L | | | | | |
| Xylenes, total | ND | 0.5 | ug/L | | | | | |
| Surrogate: 4-Bromofluorobenzene | 89.6 | | % | 112 | 50-140 | | | |
| Surrogate: Dibromofluoromethane | 75.6 | | % | 94.5 | 50-140 | | | |
| Surrogate: Toluene-d8 | 83.0 | | % | 104 | 50-140 | | | |

Certificate of Analysis

Client: Cambium Inc. (Ottawa)

Client PO:

Method Quality Control: Duplicate

Report Date: 31-Jan-2025

Order Date: 24-Jan-2025

Project Description: 20361-003

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|----------------------------------|--------|--------------------|----------|------------------|------|---------------|------|--------------|-------|
| Anions Chloride | 607 | 5 | mg/L | 608 | | | 0.3 | 20 | |
| General Inorganics | | | | | | | | | |
| Cyanide, free | ND | 2 | ug/L | ND | | | NC | 20 | |
| рН | 7.7 | 0.1 | pH Units | 7.7 | | | 0.0 | 3.3 | |
| Hydrocarbons F1 PHCs (C6-C10) | ND | 25 | ug/L | ND | | | NC | 30 | |
| Metals | | | | | | | | | |
| Mercury | ND | 0.1 | ug/L | ND | | | NC | 20 | |
| Antimony | ND | 0.5 | ug/L | ND | | | NC | 20 | |
| Arsenic | ND | 1 | ug/L | ND | | | NC | 20 | |
| Barium | 24.0 | 1 | ug/L | 23.1 | | | 3.7 | 20 | |
| Beryllium | ND | 0.5 | ug/L | ND | | | NC | 20 | |
| Boron | 20 | 10 | ug/L | 21 | | | 3.2 | 20 | |
| Cadmium | ND | 0.1 | ug/L | ND | | | NC | 20 | |
| Chromium (VI) | ND | 10 | ug/L | ND | | | NC | 20 | |
| Chromium | ND | 1 | ug/L | ND | | | NC | 20 | |
| Cobalt | ND | 0.5 | ug/L | ND | | | NC | 20 | |
| Copper | 1.29 | 0.5 | ug/L | 1.24 | | | 4.2 | 20 | |
| Lead | ND | 0.1 | ug/L | ND | | | NC | 20 | |
| Molybdenum | 1.15 | 0.5 | ug/L | 0.96 | | | 17.8 | 20 | |
| Nickel | ND | 1 | ug/L | ND | | | NC | 20 | |
| Selenium | ND | 1 | ug/L | ND | | | NC | 20 | |
| Silver | ND | 0.1 | ug/L | ND | | | NC | 20 | |
| Sodium | 15200 | 200 | ug/L | 14600 | | | 3.9 | 20 | |
| Thallium | ND | 0.1 | ug/L | ND | | | NC | 20 | |
| Uranium | ND | 0.1 | ug/L | ND | | | NC | 20 | |
| Vanadium | ND | 0.5 | ug/L | ND | | | NC | 20 | |
| Zinc | 6 | 5 | ug/L | 6 | | | 2.9 | 20 | |
| Volatiles | | | | | | | | | |
| Acetone | ND | 5.0 | ug/L | ND | | | NC | 30 | |



Client: Cambium Inc. (Ottawa)

Client PO:

Method Quality Control: Duplicate

Report Date: 31-Jan-2025

Order Date: 24-Jan-2025

Project Description: 20361-003

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--|--------|--------------------|-------|------------------|------|---------------|-----|--------------|-------|
| Benzene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Bromodichloromethane | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Bromoform | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Bromomethane | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Carbon Tetrachloride | ND | 0.2 | ug/L | ND | | | NC | 30 | |
| Chlorobenzene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Chloroform | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Dibromochloromethane | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Dichlorodifluoromethane | ND | 1.0 | ug/L | ND | | | NC | 30 | |
| 1,2-Dichlorobenzene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| 1,3-Dichlorobenzene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| 1,4-Dichlorobenzene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| 1,1-Dichloroethane | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| 1,2-Dichloroethane | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| 1,1-Dichloroethylene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| cis-1,2-Dichloroethylene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| trans-1,2-Dichloroethylene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| 1,2-Dichloropropane | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| cis-1,3-Dichloropropylene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| trans-1,3-Dichloropropylene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Ethylbenzene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Ethylene dibromide (dibromoethane, 1,2-) | ND | 0.2 | ug/L | ND | | | NC | 30 | |
| Hexane | ND | 1.0 | ug/L | ND | | | NC | 30 | |
| Methyl Ethyl Ketone (2-Butanone) | ND | 5.0 | ug/L | ND | | | NC | 30 | |
| Methyl Isobutyl Ketone | ND | 5.0 | ug/L | ND | | | NC | 30 | |
| Methyl tert-butyl ether | ND | 2.0 | ug/L | ND | | | NC | 30 | |
| Methylene Chloride | ND | 5.0 | ug/L | ND | | | NC | 30 | |
| Styrene | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| 1,1,1,2-Tetrachloroethane | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| 1,1,2,2-Tetrachloroethane | ND | 0.5 | ug/L | ND | | | NC | 30 | |
| Tetrachloroethylene | ND | 0.5 | ug/L | ND | | | NC | 30 | |



1,1,1-Trichloroethane

1,1,2-Trichloroethane

Trichlorofluoromethane

Surrogate: Toluene-d8

Surrogate: 4-Bromofluorobenzene

Surrogate: Dibromofluoromethane

Trichloroethylene

Vinyl chloride

m,p-Xylenes

o-Xylene

Client: Cambium Inc. (Ottawa)

Client PO:

Analyte

Toluene

Method Quality Control: Duplicate

Reporting

Limit

0.5

0.5

0.5

0.5

1.0

0.5

0.5

0.5

Result

ND

ND

ND

ND

ND

ND

ND

ND

88.9

76.9

83.1

| Order | #: | 250 | 4459 |
|-------|----|-----|------|
| | | | |

Report Date: 31-Jan-2025

Order Date: 24-Jan-2025

Project Description: 20361-003

Notes

| OTTAWA • MISSISSAUGA • HAMILTON • KINGSTON • LONDON • NIAGARA • WINDSOR • RICHMOND HILL | | OTTAWA - | MISSISSAUGA | HAMILTON | KINGSTON | LONDON | NIAGARA | WINDSOR | RICHMOND I | HILL |
|---|--|----------|-------------|------------------------------|----------|----------------------------|-----------------------------|-----------------------------|------------|------|
|---|--|----------|-------------|------------------------------|----------|----------------------------|-----------------------------|-----------------------------|------------|------|

Source

Result

ND

ND

ND

ND

ND

ND

ND

ND

Units

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

%

%

%

%REC

Limit

50-140

50-140

50-140

%REC

111

96.2

104

RPD

Limit

30

30

30

30

30

30

30

30

RPD

NC

NC

NC

NC

NC

NC

NC

NC

Certificate of Analysis

Client: Cambium Inc. (Ottawa)

Client PO:

Method Quality Control: Spike

Report Date: 31-Jan-2025

Order Date: 24-Jan-2025

Project Description: 20361-003

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Notes | |
|-------------------------------------|--------|--------------------|-------|------------------|------|---------------|-----|-----------|--|
| Anions Chloride | 9.49 | 1 | mg/L | ND | 94.9 | 78-114 | | | |
| General Inorganics Cyanide, free | 43.8 | 2 | ug/L | ND | 87.7 | 61-139 | | | |
| Hydrocarbons F1 PHCs (C6-C10) | 1820 | 25 | ug/L | ND | 90.9 | 85-115 | | | |
| F2 PHCs (C10-C16) | 1530 | 100 | ug/L | ND | 95.9 | 60-140 | | | |
| F3 PHCs (C16-C34) | 4280 | 100 | ug/L | ND | 109 | 60-140 | | | |
| F4 PHCs (C34-C50) | 2800 | 100 | ug/L | ND | 113 | 60-140 | | | |
| Metals | | | | | | | | | |
| Mercury | 2.77 | 0.1 | ug/L | ND | 92.4 | 70-130 | | | |
| Arsenic | 50.2 | 1 | ug/L | ND | 99.7 | 80-120 | | | |
| Barium | 78.2 | 1 | ug/L | 23.1 | 110 | 80-120 | | | |
| Beryllium | 53.2 | 0.5 | ug/L | ND | 106 | 80-120 | | | |
| Boron | 65 | 10 | ug/L | 21 | 87.1 | 80-120 | | | |
| Cadmium | 53.0 | 0.1 | ug/L | ND | 106 | 80-120 | | | |
| Chromium (VI) | 185 | 10 | ug/L | ND | 92.5 | 75-115 | | | |
| Chromium | 54.1 | 1 | ug/L | ND | 108 | 80-120 | | | |
| Cobalt | 51.4 | 0.5 | ug/L | ND | 103 | 80-120 | | | |
| Copper | 50.6 | 0.5 | ug/L | 1.24 | 98.8 | 80-120 | | | |
| Lead | 47.0 | 0.1 | ug/L | ND | 94.0 | 80-120 | | | |
| Molybdenum | 45.0 | 0.5 | ug/L | 0.96 | 88.1 | 80-120 | | | |
| Nickel | 51.5 | 1 | ug/L | ND | 102 | 80-120 | | | |
| Selenium | 47.4 | 1 | ug/L | ND | 94.4 | 80-120 | | | |
| Silver | 47.2 | 0.1 | ug/L | ND | 94.5 | 80-120 | | | |
| Sodium | 23500 | 200 | ug/L | 14600 | 88.4 | 80-120 | | | |
| Thallium | 46.7 | 0.1 | ug/L | ND | 93.5 | 80-120 | | | |
| Uranium | 48.7 | 0.1 | ug/L | ND | 97.4 | 80-120 | | | |
| Vanadium | 53.9 | 0.5 | ug/L | ND | 108 | 80-120 | | | |
| Zinc | 57 | 5 | ug/L | 6 | 102 | 80-120 | | | |
| Semi-Volatiles | | | | | | | | | |



Client: Cambium Inc. (Ottawa)

Client PO:

Method Quality Control: Spike

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|-----------------------------|--------|--------------------|-------|------------------|------|---------------|-----|--------------|-------|
| Acenaphthene | 4.10 | 0.05 | ug/L | ND | 82.0 | 50-140 | | | |
| Acenaphthylene | 4.03 | 0.05 | ug/L | ND | 80.6 | 50-140 | | | |
| Anthracene | 4.03 | 0.01 | ug/L | ND | 80.5 | 50-140 | | | |
| Benzo [a] anthracene | 4.27 | 0.01 | ug/L | ND | 85.4 | 50-140 | | | |
| Benzo [a] pyrene | 4.47 | 0.01 | ug/L | ND | 89.4 | 50-140 | | | |
| Benzo [b] fluoranthene | 4.03 | 0.05 | ug/L | ND | 80.6 | 50-140 | | | |
| Benzo [g,h,i] perylene | 4.24 | 0.05 | ug/L | ND | 84.7 | 50-140 | | | |
| Benzo [k] fluoranthene | 4.80 | 0.05 | ug/L | ND | 96.0 | 50-140 | | | |
| Chrysene | 4.77 | 0.05 | ug/L | ND | 95.3 | 50-140 | | | |
| Dibenzo [a,h] anthracene | 4.60 | 0.05 | ug/L | ND | 92.0 | 50-140 | | | |
| Fluoranthene | 4.83 | 0.01 | ug/L | ND | 96.6 | 50-140 | | | |
| Fluorene | 4.10 | 0.05 | ug/L | ND | 82.0 | 50-140 | | | |
| Indeno [1,2,3-cd] pyrene | 4.36 | 0.05 | ug/L | ND | 87.1 | 50-140 | | | |
| 1-Methylnaphthalene | 3.76 | 0.05 | ug/L | ND | 75.1 | 50-140 | | | |
| 2-Methylnaphthalene | 4.09 | 0.05 | ug/L | ND | 81.9 | 50-140 | | | |
| Naphthalene | 3.94 | 0.05 | ug/L | ND | 78.7 | 50-140 | | | |
| Phenanthrene | 4.27 | 0.05 | ug/L | ND | 85.4 | 50-140 | | | |
| Pyrene | 4.09 | 0.01 | ug/L | ND | 81.9 | 50-140 | | | |
| Surrogate: 2-Fluorobiphenyl | 14.6 | | % | | 72.9 | 50-140 | | | |
| Surrogate: Terphenyl-d14 | 16.1 | | % | | 80.3 | 50-140 | | | |
| Volatiles | | | | | | | | | |
| Acetone | 114 | 5.0 | ug/L | ND | 114 | 50-140 | | | |
| Benzene | 47.3 | 0.5 | ug/L | ND | 118 | 60-130 | | | |
| Bromodichloromethane | 48.0 | 0.5 | ug/L | ND | 120 | 60-130 | | | |
| Bromoform | 46.6 | 0.5 | ug/L | ND | 116 | 60-130 | | | |
| Bromomethane | 50.3 | 0.5 | ug/L | ND | 126 | 50-140 | | | |
| Carbon Tetrachloride | 46.5 | 0.2 | ug/L | ND | 116 | 60-130 | | | |
| Chlorobenzene | 49.4 | 0.5 | ug/L | ND | 124 | 60-130 | | | |
| Chloroform | 48.3 | 0.5 | ug/L | ND | 121 | 60-130 | | | |
| Dibromochloromethane | 48.1 | 0.5 | ug/L | ND | 120 | 60-130 | | | |
| Dichlorodifluoromethane | 36.7 | 1.0 | ug/L | ND | 91.8 | 50-140 | | | |

Order #: 2504459

Report Date: 31-Jan-2025

Order Date: 24-Jan-2025

Project Description: 20361-003



Client: Cambium Inc. (Ottawa)

Client PO:

Method Quality Control: Spike

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|--|--------|--------------------|-------|------------------|------|---------------|-----|--------------|-------|
| 1,2-Dichlorobenzene | 48.9 | 0.5 | ug/L | ND | 122 | 60-130 | | | |
| 1,3-Dichlorobenzene | 49.2 | 0.5 | ug/L | ND | 123 | 60-130 | | | |
| 1,4-Dichlorobenzene | 49.0 | 0.5 | ug/L | ND | 123 | 60-130 | | | |
| 1,1-Dichloroethane | 47.3 | 0.5 | ug/L | ND | 118 | 60-130 | | | |
| 1,2-Dichloroethane | 46.9 | 0.5 | ug/L | ND | 117 | 60-130 | | | |
| 1,1-Dichloroethylene | 44.7 | 0.5 | ug/L | ND | 112 | 60-130 | | | |
| cis-1,2-Dichloroethylene | 45.1 | 0.5 | ug/L | ND | 113 | 60-130 | | | |
| trans-1,2-Dichloroethylene | 46.6 | 0.5 | ug/L | ND | 117 | 60-130 | | | |
| 1,2-Dichloropropane | 45.6 | 0.5 | ug/L | ND | 114 | 60-130 | | | |
| cis-1,3-Dichloropropylene | 44.5 | 0.5 | ug/L | ND | 111 | 60-130 | | | |
| trans-1,3-Dichloropropylene | 44.4 | 0.5 | ug/L | ND | 111 | 60-130 | | | |
| Ethylbenzene | 48.1 | 0.5 | ug/L | ND | 120 | 60-130 | | | |
| Ethylene dibromide (dibromoethane, 1,2-) | 46.0 | 0.2 | ug/L | ND | 115 | 60-130 | | | |
| Hexane | 46.6 | 1.0 | ug/L | ND | 117 | 60-130 | | | |
| Methyl Ethyl Ketone (2-Butanone) | 104 | 5.0 | ug/L | ND | 104 | 50-140 | | | |
| Methyl Isobutyl Ketone | 107 | 5.0 | ug/L | ND | 107 | 50-140 | | | |
| Methyl tert-butyl ether | 110 | 2.0 | ug/L | ND | 110 | 50-140 | | | |
| Methylene Chloride | 45.1 | 5.0 | ug/L | ND | 113 | 60-130 | | | |
| Styrene | 45.8 | 0.5 | ug/L | ND | 114 | 60-130 | | | |
| 1,1,1,2-Tetrachloroethane | 48.5 | 0.5 | ug/L | ND | 121 | 60-130 | | | |
| 1,1,2,2-Tetrachloroethane | 48.2 | 0.5 | ug/L | ND | 121 | 60-130 | | | |
| Tetrachloroethylene | 47.5 | 0.5 | ug/L | ND | 119 | 60-130 | | | |
| Toluene | 48.3 | 0.5 | ug/L | ND | 121 | 60-130 | | | |
| 1,1,1-Trichloroethane | 45.4 | 0.5 | ug/L | ND | 113 | 60-130 | | | |
| 1,1,2-Trichloroethane | 46.4 | 0.5 | ug/L | ND | 116 | 60-130 | | | |
| Trichloroethylene | 44.4 | 0.5 | ug/L | ND | 111 | 60-130 | | | |
| Trichlorofluoromethane | 45.6 | 1.0 | ug/L | ND | 114 | 60-130 | | | |
| Vinyl chloride | 46.1 | 0.5 | ug/L | ND | 115 | 50-140 | | | |
| m,p-Xylenes | 97.0 | 0.5 | ug/L | ND | 121 | 60-130 | | | |
| o-Xylene | 49.3 | 0.5 | ug/L | ND | 123 | 60-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 71.7 | | % | | 89.6 | 50-140 | | | |

Report Date: 31-Jan-2025

Order Date: 24-Jan-2025

Project Description: 20361-003



Client: Cambium Inc. (Ottawa)

Client PO:

Method Quality Control: Spike

| Analyte | Result | Reporting Limit | Units | Source Result | %REC | %REC Limit | RPD | RPD Limit | Notes |
|---------------------------------|--------|--------------------|-------|------------------|------|---------------|-----|--------------|-------|
| Surrogate: Dibromofluoromethane | 78.3 | | % | | 97.9 | 50-140 | | | |
| Surrogate: Toluene-d8 | 73.5 | | % | | 91.9 | 50-140 | | | |

Order #: 2504459

Report Date: 31-Jan-2025

Order Date: 24-Jan-2025

Project Description: 20361-003



Client: Cambium Inc. (Ottawa)

Client PO:

Qualifier Notes:

Sample Qualifiers :

1: Elevated Reporting Limits due to limited sample volume. Applies to Samples: BH114-25, BH113-25

Sample Data Revisions:

None

Work Order Revisions / Comments:

The Sample Date for lab provided Trip QC samples is based on the date of preparation at the lab.

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

CCME PHC additional information:

- The method for the analysis of PHCs complies with the Reference Method for the CWS PHC and is validated for use in the laboratory. All prescribed quality criteria identified in the method has been met.

- F1 range corrected for BTEX.

- F2 to F3 ranges corrected for appropriate PAHs where available.
- The gravimetric heavy hydrocarbons (F4G) are not to be added to C6 to C50 hydrocarbons.
- In the case where F4 and F4G are both reported, the greater of the two results is to be used for comparison to CWS PHC criteria.
- When reported, data for F4G has been processed using a silica gel cleanup.

Any use of these results implies your agreement that our total liability in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Order #: 2504459

Report Date: 31-Jan-2025

Order Date: 24-Jan-2025

Project Description: 20361-003

| Client Name: | | Pa | race | ID: | 250 | 445 | 9 | : Bli 3 4. bs. | vd. J8 com | acel O (Lab U | rder N Jse On | umbe ly) -9 | r | | Cha Nº | ain ((Lab 7 | Of Cus Use On 652 | stody ly) 7 | and | |
|---|---------------|---|---------|--|---------------------------|-----------------------------------|-----------------|----------------------|------------------|------------------|-----------------------|-------------------|--------------|-----------------|--------------|--------------------|-------------------------|-------------------|---|--|
| Contact Name: | | | | Project Ref: 20361-003 | | | | | | | | | | Page 1 of 1 | | | | | | |
| Address: 21/2 DESTANCE | ETER | | | Quote #: | | | | | | | | | | Turnaround Time | | | | | | |
| OTTAWA, IN | , | | | PO #: | | | | | | | | | | 1 day | | | | 🗆 3 d | ay | |
| Telephone: | | | | E-mail: shaily backer any bing - in care | | | | | | | | | | | 2 day | | | ଯ Rej | gular | |
| 105-243-194 | | Date Required: | | | | | | | | | | | | | | | | | | |
| KEG 153/04 REG 406/19 | Other | Regulation | | Mat | rix Typ | e: S (| Soil/Sed.) GW | l IGroup | d Water) | | | 15 | 164 | 100% | 1 | - | R. aller | 12/2 | 1 | |
| Table 1 Agri/Other Med/Fine Table 2 Res/Dath R | | SW | (Surfac | e Wat | er) SS (Storm, | /Sanitar | y Sewer) | | | | Required Analysis | | | | | | | | | |
| Table 3 Ind/Comm | CCME | 🗆 misa | | | | P (Pain | nt) A (Air) O (| Other) | | ~ | | | | | | | | * | Τ | |
| X Table 6 | SU - Sani | 🗆 SU - Storm | | | ers | g | | | | 878 | 3 | | 5 | | | | Чd | | | |
| For RSC: Yes No | Mun: | | a | ntain | litere | Sa | ample T | laken | E. | 1-2 | | le T.A. | | | DE | 12 | | | | |
| Sample ID/Location Name | | | | Volt | ef Col | E P | | | | SC | 11 1 | HU | PM | M | | AN | HLAR | | | |
| 1 BH114-25 | | | Σ | ii a ii Date | | | | Time | 2 | P. | 0 | 2 | C | I | 3 | Û | - | <u> </u> | | |
| 2 QAUCOL-25 | | | GW | | 9 | Y 2025-01-24 | | | 10:15 | V | ~ | \checkmark | \checkmark | < | ~ | \checkmark | ~ | | _ | |
| 3 BH 113-25 | a change of a | A CONTRACTOR OF | 64 | 00. M | 3 | 4 | and the second | | 10.15 | V | | | V | | | | | | \vdash | |
| 4 BH115-25 | | | GW | | 9 | 4 | ~ | | 11:00 | V | \checkmark | \checkmark | \checkmark | \checkmark | V | V | ν | | \vdash | |
| 5 QAQC07-75 | | | GW | | 9 | 9 | 11 | | 11:50 | V | ~ | \checkmark | \checkmark | \checkmark | \checkmark | \checkmark | ν | | | |
| 6 Trip Rinnk | | | GW | | 4 | Ÿ. | 15 | | 11:50 | | \vee | | | V | V | \checkmark | | | | |
| 7 | | | 0 | | 1 | | 2025-01-04 | / | | \checkmark | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | |
| Comments: | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | Metho | od of P | elivery | | 11 | | | |
| Relinquished By (Sign): | | | | | | 1000 | | Desetter | and lake | Sec. | 100000 | 100.00 | | 6 | N | all | 6-1 | 1 | | |
| elinquished By (Print): | | | | | Received tab: Ve | | | | | | Verifie | erified By: | | | | | | | | |
| Date/Time: TATES SULLIVAN Date/Time: | | | | | bate Almer 2. 24 1218 Dat | | | | | Date/ | ate/Time: The 24 1353 | | | | | | | | | |
| hain of Custody (Blank).xlsx | | | | | | °C Temperature C PH Verified: By: | | | | | | A | 5 | | | | | | | |

Revision 6.0