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Phase Two Environmental Site Assessment
5384 Boundary Road
Ottawa, Ontario

GEMTEC Project: 100011.122

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Submitted to:

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Phase Two Environmental Site Assessment
5384 Boundary Road
Ottawa, Ontario

October 29, 2025
GEMTEC Project: 100011.121

experience • knowledge • integrity

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October 29, 2025 File: 100011.121

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Suite 200 240 Michael Cowpland Drive
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Attention: Ryan Poulton, MCIP, RPP, Project Manager

Re: Phase Two Environmental Site Assessment
5384 Boundary Road
Ottawa, Ontario

Enclosed is our Phase Two Environmental Site Assessment report for the above noted project. The report presented herein is based on the scope of work summarized in the proposal dated March 24, 2025 with the change order dated June 16, 2025. This report was prepared by Nicole Soucy, M.A.Sc., P.Eng, QP_{ESA}, with senior review by Daniel Elliot, P.Geo., QP_{ESA}.

We trust this information is sufficient for your current needs. If you have any questions or require further information, please contact the undersigned.

Nicole Soucy, M.A.Sc., P.Eng, QP_{ESA}
Environmental Engineer

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Senior Environmental Geoscientist

NS/DE

EXECUTIVE SUMMARY

GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) was retained by NOVATECH Engineers, Planners & Landscape Architects (Novatech) to carry out a Phase Two Environmental Site Assessment (ESA) of the property located at 5384 Boundary Road, in Ottawa, Ontario (hereafter referred to as the Site and Phase Two Property). It is understood that the Phase Two ESA is required to support the proposed rezoning for the property located at 5384 Boundary Road.

The proposed area (herein referred to as the 'Site') to be rezoned through a minor zoning by-law amendment application, fronts along Boundary. The Site is considered an enhanced investigation property as defined under Ontario Regulation (O.Reg.) 153/04, as amended. The land use of the Site will not be changing to a more sensitive land use, and, therefore, it is anticipated the filing of a Record of Site Condition (RSC) under O.Reg. 153/04 will not be required. The Phase Two ESA was carried out in general accordance with O.Reg. 153/04, as amended.

On August 18, 2025, five boreholes (labelled BH25-01 through BH25-05) were advanced to depths ranging between 3.05 m below ground surface (bgs) and 4.75 m bgs. Supplemental hand-auger sampling was completed on October 3, 2025 to address PAHs concentrations exceeding the MECP Site Condition Standards (SCS) for Table 1 RPI/ICC and coarse textures soils. During this time an additional five boreholes were advanced within 2 metres of the previously advanced BH25-05 and samples were labelled as A, B, C & D, respectively. Supplemental hand-auger holes were advanced to a depth approximately 0.76 m bgs.

The subsurface soil conditions encountered in the boreholes advanced as part of this Phase Two ESA generally consisted of brown silty sand with varying amounts of gravel underlain by grey clay for BH25-01 through BH25-05.

Soil samples were collected and analyzed for one or more of the following contaminants of potential concern (COPCs): Petroleum Hydrocarbon (PHC) Four Fractions (F1-F4), Volatile Organic Compounds (VOCs), Electrical conductivity (EC), Sodium adsorption ratio (SAR), pH, Polycyclic Aromatic Hydrocarbons (PAHs), Benzene, Toluene, Ethylbenzene, and Xylene (BTEX), Metals – Metals parameters as per O. Reg. 153/04 including Hydride Forming Metals (Antimony, Arsenic, Selenium), Organochlorine Pesticides (OCPs), Hot Water-Soluble Boron (B-HWS), Hexavalent Chromium (CrVI), Cyanide (CN-), and Mercury (Hg).

A total of 8 groundwater samples were collected and analyzed for one or more of the following contaminants of potential concern (COPCs): Metals, PHCs, VOCs, PAHs, Sodium, and/or Chloride. One field blank sample and one trip blank samples were also submitted for PHC F1/VOCs.

The analytical results were compared to Table 1: Full Depth Background Site Condition Standards. Residential/ Parkland/ Institutional (RPI), Industrial/ Commercial/Community (ICC) Property Use, with coarse textured soil.

Soil exceedances to the applied Table 1 SCS were reported for the following soil samples:

- SAR exceeded Table 1 SCS for BH25-01 SA2 and BH25-05 SA1,
- Conductivity exceeded Table 1 SCS for BH25-01 SA2, BH25-02 SA2, BH25-03 SA2, BH25-03 SA102, BH25-04 SA2, and BH25-05 SA1,
- Chromium exceeded Table 1 SCS for BH25-02 SA4; and,
- Anthracene exceeded Table 1 SCS at BH25-05 SA1.

No exceedances of O.Reg. 347/558 Schedule 4 were identified in the leachate (Toxicity Characteristic Leaching Procedure (TCLP)) sample.

Groundwater exceedances to the applied Table 1 SCS were reported for the following groundwater samples:

- Chromium and Thallium exceeded Table 1 SCS for MW25-02.

The Phase Two ESA investigated the APECs identified in the Phase One ESA (GEMTEC, 2025). Based on the results of the soil and groundwater samples collected as part of this assessment, exceedances remain on the property in both soil and groundwater. The exceedances of EC and SAR are attributable to historical and ongoing salt storage operations at the Site, while chromium in soil is associated with naturally occurring clay layers. The minor exceedance of anthracene in soil is likely due to matrix interference during extraction. Concentrations of cobalt and thallium in groundwater meet the applicable criteria when evaluated using the GW3 (discharge to freshwater environments pathway) component values which are considered to provide sufficient protection for plants, soil organisms, mammals, and birds.

Overall, all soil and groundwater results are considered to comply with applicable standards with the exception of anthracene in soil, which is not anticipated to pose a human health or environmental concern provided the current site use remains unchanged.

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1.0 INTRODUCTION

GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) was retained by NOVATECH Engineers, Planners & Landscape Architects (Novatech) to carry out a Phase Two Environmental Site Assessment (ESA) of the property located at 5384 Boundary Road, in Ottawa, Ontario (hereafter referred to as the Site and Phase Two Property). It is understood that the Phase Two ESA is required to support the proposed rezoning for the property located at 5384 Boundary Road (herein referred to as the 'Site').

The Site is considered an enhanced investigation property as defined under Ontario Regulation (O.Reg) 153/04, as amended. The land use of the Site will not be changing to a more sensitive land use, therefore, it is anticipated the filing of a Record of Site Condition (RSC) under O.Reg. 153/04 will not be required. The Phase Two ESA was carried out in general accordance with O.Reg. 153/04, as amended.

GEMTEC previously completed a Phase One ESA for the Site titled 'Phase One Environmental Site Assessment, 5384 Boundary Road, Ottawa, Ontario' dated April 29, 2025. The findings for the Phase One ESA are provided under a separate cover. As summarized in the Phase One ESA, GEMTEC recommended completion of a Phase Two ESA at the Site.

A Site Plan is provided on Figure A.1, Appendix A.

1.1 Site Description

The Site covers an approximate area of 4.91 acres (1.99 hectares) and is occupied by one residential dwelling, one shop, one domed structure, and nine sea cans used for residential and commercial/industrial purposes. Based on the available aerial photographs, the 1945 aerial photograph (the earliest year for which an aerial was available), the Site was an agricultural field with associated structures, therefore, the first developed use of the Site is by 1945.

Historical land use in the Phase One Study Area (or Study Area) was predominately agricultural and rural residential with community right of ways (i.e., roadways). The Site features (including structures) are shown in Figure A.2, Appendix A.

1.2 Site Ownership

The details for the Site are summarized in Table 1.1.

Table 1.1: Legal Description and Site Information

Site Information	
Legal Description[1]	PT LT 1 CON 9 (O.F.) GLOUCESTER PT 1 5R4318; S/T NS60057; OTTAWA
PIN	04324-0165 (LT)

Site Information	
Site Owner	Missac Dokmajian
Site Contact	Missac Dokmajian Telephone: (613) 863-2258 Email: ugc.services@hotmail.ca

1.3 Current and Proposed Future Uses

Currently the Site is occupied by multiple structures which are owned by Missac Dokmajian. The Site was used for agricultural, residential, and commercial/industrial purposes. One structure was present as of the 1965 aerial photograph. Five structures and material storage were present on-Site at the time of the Site investigation. The future land use is not anticipated to change.

1.4 Applicable Site Condition Standards

1.4.1 Soil and Groundwater Standards

Site Condition Standards (SCS) were selected for the Site in accordance with the requirements of O.Reg. 153/04, Record of Site Condition – Part XV.1 of the Environmental Protection Act (O.Reg. 153/04, Ministry of Environment and Climate Change (MECP), October 31, 2011), as amended.

The relevant Site characteristics were considered in the selection of the applicable regulatory criteria are as follows:

- Land Use: The Site is currently used for a combination of industrial activities as well as a detached dwelling that has been partially converted to an administrative office. The future land use is expected to remain the same. However, given the residential occupation of the dwelling on-Site, the land use for the Site is considered Residential/Parkland/Institutional Property Use.
- Soil Texture: Based on visual observations made during the Environmental Field Investigation (field program/environmental investigation), coarse grained soils are present on-Site. Coarse textured soil is defined by Section 42(1) of O. Reg.153/04 as ‘soil that contains 50 percent or more by mass of particles that are greater than 75 micrometres in mean diameter’. Accordingly, coarse textured soils have been considered applicable for the Site.
- Soil Thickness and Proximity to Water Body: For the purposes of selection of the appropriate provincial standard, Section 43.1 of O. Reg.153/04 identifies specific SCS be applied if any of the following circumstances exist:
  - (a) The property is a shallow soil property (i.e., at least 1/3 or more of the property area contains less than 2 metres depth of overburden); or
  - (b) The property includes all or part of a water body or is adjacent to a water body or includes land that is within 30 metres of a water body.

Based on a review of the surficial and bedrock geology maps of the area, and results obtained from the intrusive investigation, the Site is not considered a shallow soil property as the overburden thickness is greater than 2 m for more than two-thirds of the Site. The property does not include a water body nor is it located within 30 metres of a water body.

- Groundwater Use: One well record was registered in the Phase Two Property with multiple other wells within 250 m of the Site. Accordingly, the Site has been considered to be situated within a potable water well zone.
- Environmentally Sensitive Site: Environmental sensitivity is considered in the selection of appropriate provincial standards for comparison. Section 41 of O.Reg.153/04 states that a property is to be considered environmentally sensitive if any of the following are applicable:
    - (1) the property is,
        - (i) within an area of natural significance;
        - (ii) includes or is adjacent to an area of natural significance or part of such an area; or
        - (iii) includes land that is within 30 metres of an area of natural significance or part of such an area;
    - (2) the soil at the property has a pH value as follows:
        - (i) for surface soil, less than 5 or greater than 9;
        - (ii) for sub surface soil, less than 5 or greater than 11; or
    - (3) a qualified person is of the opinion that, given the characteristics of the property and the certifications the qualified person would be required to make in a record of site condition in relation to the property as specified in Schedule A, it is appropriate to apply this section to the property.

  Through a review of samples submitted for analysis during the field program, the pH values were within range for surface soil and subsurface soil. Therefore, the Site is not considered to be an environmentally sensitive site. Additionally, no water bodies or Areas of Natural and Scientific Interest (ANSIs) were identified on or within 30 m of the Site, but a provincially significant wetland (PSW) was identified on the Site.

Based on the review of Site characteristics, the following provincial standards were considered to be applicable to the analytical results obtained during the field investigation:

- MECP, 2011. Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. Table 1: Full Depth Background Site Condition Standards. Residential/ Parkland/ Institutional (RPI), Industrial/ Commercial/ Community (ICC) Property Use. With coarse textured soil.

2.0 BACKGROUND INFORMATION

This section presents the background conditions of the Site including a description of the physical setting and a summary of past investigations conducted.

The objectives of the Phase Two ESA were to obtain information about environmental conditions in the soil and groundwater on, in or under the Site, and to develop the information necessary to complete the Phase Two ESA for the Site. The objectives of this Phase Two ESA were achieved by:

- Developing an understanding of the geological and hydrogeological conditions at the Site; and,
- Conducting field sampling for all contaminants of potential concern (COPCs) associated with the areas of potential environmental concern (APECs) identified in the Phase One ESA (GEMTEC, April 2025).

2.1 Physical Setting

The Site has a relatively flat topography and is at an elevation of between approximately 77 and 81 metres (m) above sea level (asl). The Site generally appears to be at grade with the surrounding properties.

Overburden is primarily characterized by coarse-textured glacimarine deposits consisting of sand, gravel, minor silt and clay. Bedrock geology consists of shale, limestone, dolostone, and siltstone. Based on the well records, bedrock is reported at approximately 23.46 m below ground surface (bgs).

No ANSIs were identified on the Site or within the Study Area. The South Bear Brook Wetland PSW is present on Site and continues west and south from the Site

The physical setting for the Site is consistent based on GEMTEC's observation during the Phase Two ESA field program.

2.2 Past Investigations

A Phase One ESA was completed by GEMTEC for the Site and is summarized below.

2.2.1 Phase One Environmental Site Assessment

GEMTEC conducted a Phase One ESA titled 'Phase One Environmental Site Assessment, 5384 Boundary Road, Ottawa, Ontario' dated June 2025 to assess the likelihood of soil and/or groundwater contamination resulting from historical or present activities at the Site and surrounding area. This included a review of available historical information on the Site and surrounding area, interviews with persons familiar with the Site and a Site reconnaissance. Based

on this report, several potentially contaminating activities (PCAs) were identified resulting in four APECs at the Site.

Figure A.3, Appendix A illustrates the location of the PCAs and the APECs. The APECs identified in the Phase One ESA (GEMTEC, April 2025) are summarized in Table 2.1.

Table 2.1: APECs as per Phase One ESA (GEMTEC, June 2025)

APEC	Location of Area of Potential Environmental Concern on Phase One Property	PCA	Location of PCA (on-Site or off-Site)	COPC	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
APEC 1 – Historic development of property, likely with fill of unknown quality	Central to southern portion of Site	#30. Importation of Fill Material of Unknown Quality	On-Site	Metals, ORPs, PHCs, BTEX, PAHs	Soil
APEC 2 – Presence of shop where landscaping equipment is maintained	Building 2	OT.3. Maintenance of machinery/equipment	On-Site	Metals, PHCs, VOCs, PAHs, BTEX	Soil and groundwater
APEC 3 – Presence of vehicle maintenance	Building 3	#27. Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	On-Site	Metals, PHCs, VOCs, PAHs, BTEX	Soil and groundwater
APEC 4 – Presence of off-site gasoline USTs at 5425 Boundary Road	Southeastern portion of the Site	#28. Gasoline and Associated Products Storage in Fixed Tanks	Off-Site	PHCs, BTEX	Soil and groundwater

Notes:

PCA – Potentially Contaminating Activities
COPCs – Contaminants of Potential Environmental Concern
APEC – Area of Potential Environmental Concern
Metals – Metals parameters as per O. Reg. 153/04 including Hydride Forming Metals (Antimony, Arsenic, Selenium).
ORP – Other Regulated Parameters including some of all or (electrical conductivity (EC), sodium adsorption ratio (SAR), pH, hot water-soluble boron (B-HWS), cyanide (CN-), hexavalent chromium (CrVI) and mercury (Hg)Soluble Boron (B-HWS), Cyanide (CN-), Hexavalent Chromium (CrVI), and Mercury (Hg)
PHCs F1-F4 – Petroleum Hydrocarbons F1-F4

BTEX – Benzene, Toluene, Ethylbenzene, and Xylene
PAHs – Polycyclic Aromatic Hydrocarbons

3.0 SCOPE OF THE INVESTIGATION

3.1 Overview of the Phase Two ESA Investigation

The Phase Two ESA investigation activities were completed between August 18, 2025 and October 2, 2025. The Phase Two ESA included the following tasks:

- **Health and Safety Plan:** Preparation of a Health and Safety Plan for internal and subcontractor use prior to initiating any field work at the Site;
- **Utility Clearances:** Coordination of utility clearances with local utility companies along with retaining the services of a private locator to assess for possible services in the areas of the proposed borehole locations;
- **Sampling and Analysis Plan (SAP):** Preparation of an informal SAP to document the purpose, rationale, number and location of samples to be recovered as part of the Phase Two ESA investigation. More details are available in Section 4.2;
- **Borehole Advancement and Monitoring Well Installation:** The Phase Two ESA investigation activities included the drilling of five boreholes and completion of three of the boreholes as monitoring wells. A supplemental groundwater and soil sampling program was completed following review of initial fieldwork results to confirm metal exceedances in groundwater and PAH exceedances in soil. The locations of the boreholes and monitoring well are provided in Figure A.4, Appendix A;
- **Soil Sampling:** Soil samples were collected on August 18, 2025 from the boreholes, with supplemental sampling on October 2, 2025.

  Nine soil samples were submitted from the August 18, 2025 sampling event for chemical analysis of one or more of the following COPCs:
  - Petroleum Hydrocarbon (PHC) Four Fractions (F1-F4);
  - Volatile Organic Compounds (VOCs);
  - Electrical conductivity (EC);
  - Sodium adsorption ratio (SAR);
  - pH;
  - Polycyclic Aromatic Hydrocarbons (PAHs);
  - Benzene, Toluene, Ethylbenzene, and Xylene (BTEX);
  - Metals – Metals parameters as per O. Reg. 153/04 including Hydride Forming Metals (Antimony, Arsenic, Selenium);
  - Hot Water-Soluble Boron (B-HWS);
  - Hexavalent Chromium (CrVI);
  - Cyanide (CN-); and
  - Mercury (Hg).

  Five soil samples were submitted from the October 3, 2025 sampling event for chemical analysis of one or more of the following COPCs:

    - Polycyclic Aromatic Hydrocarbons (PAHs);

  Details of COPCs with respect to the sampling locations is available in Section 4.2.
- **Groundwater Monitoring and Sampling:** 10 groundwater samples were collected on August 22, 2025 from the monitoring wells. The groundwater samples were submitted for chemical analysis of one or more of the following COPCs:
    - PAHs;
    - PHC F1-F4;
    - VOCs;
    - Metals;
    - Sodium and Chloride; and,
    - Field Blank and Trip Blank for PHC F1/VOCs.

  Supplemental groundwater sampling to confirm water quality due to a metal exceedance was completed September 16, 18, & 30, 2025:
    - Metals.

  Details of COPCs with respect to the sampling locations is available in Section 4.2.
- **Surveying:** An elevation survey for boreholes and monitoring wells was completed using a high precision digital GPS (Trimble R10); and,
- **Reporting:** GEMTEC compiled and assessed the field and laboratory results from the above-noted activities into this report.

The Phase Two ESA was carried out in general accordance with GEMTEC's standard operating procedures, which conform to the requirements of O. Reg. 153/04.

3.2 Media Investigated

The Phase Two ESA field program included sampling of subsurface soil from boreholes and groundwater from the monitoring wells to address the potential environmental issues identified in the Phase One ESA.

No sediment was present at the Site and, therefore, no sediment sampling was completed.

3.3 Phase One ESA Conceptual Site Model

The following describes the Phase One ESA Conceptual Site Model (CSM) based on the information obtained and reviewed as part of the Phase One ESA (GEMTEC, June 2025).

- The Phase One Property consists of 4.91 acres (1.99 hectares) of land at 5384 Boundary Road.
- At the time of the Site reconnaissance, the Site was developed with one residential dwelling, one shop, one domed structure, and nine sea cans used for residential and commercial/industrial purposes;

- Historically, the Phase One Property was used for agricultural, residential, and commercial/industrial purposes. One structure was present as of the 1965 aerial photograph. Five structures and material storage are present on-Site at the time of the Site reconnaissance;
- Current surrounding land uses include undeveloped land, commercial, and industrial;
- The Site representative stated that the Phase One Property was serviced with potable water from a water well located on Site;
- The Site is at an elevation of between approximately 77 and 81 masl. Based on topographic mapping, the Site is relatively flat. The Site generally appears to be at grade with the surrounding properties;
- Surficial soil conditions are primarily characterized by coarse-textured glacimarine deposits consisting of sand, gravel, minor silt and clay;
- Bedrock geology consists of shale, limestone, dolostone, siltstone. Based on the well records, bedrock is reported at approximately 23.46 m bgs;
- Based on the well records, the wells located outside of the Study Area reported static groundwater was encountered at depths from 28.95 m bgs;
- Regional groundwater flow is inferred to be westwards towards a provincially significant wetland, located on Site and extending west. An unnamed waterbody is located approximately 285 m south of the Site and the Simpson Municipal Drain is located approximately 556 m south of the Site. Shallow groundwater flow often reflects topographic features and typically flows toward nearby lakes, rivers, and wetland areas. Based on this, the wetland located west of the Site and the waterbody to the south may influence local groundwater flow direction to the west/southwest.
- No ANSIs were identified on the Site or within the Study Area. The South Bear Brook Wetland PSW is present on Site and continues west and south from the Site;
- The South Bear Brook Wetland is located on Site and continues west of the Site. An unnamed waterbody is located approximately 285 m south of the Site and the Simpson Municipal Drain is located approximately 556 m south of the Site;
- Based on available information, buried services are likely associated with the on-Site water well and septic system. Given their location, these buried services are not anticipated to influence the distribution of contamination, if any, at the Site.
- Based on the Phase One ESA findings, PCAs were identified resulting in the following APECs:

    - **APEC 1** – Historic development of the property, likely with fill of unknown quality. COPCs include Metals, ORP, EC, SAR, pH, B-HWS, CN-, CrVI, and Hg, PHC, BTEX, of PAHs;
    - **APEC 2** – Presence of shop where landscaping equipment is maintained. COPCs include VOCs, PAHs, Metals, PHCs, and BTEX with potential for impacts in soil and groundwater;

- **APEC 3** – Presence of vehicle maintenance. COPCs include VOCs, PAHs, Metals, PHCs, and BTEX with potential for impacts in soil and groundwater; and,
- **APEC 4** – Presence of gasoline Underground Storage Tanks (USTs) located at 5425 Boundary Road. COPCs include PAHs, PHCs, and BTEX with potential for impacts in soil and groundwater.

3.4 Deviations from Sampling and Analysis Plan

No deviations to the sampling and analysis plan occurred during the Phase Two ESA investigation.

3.5 Impediments

No physical impediments to the Phase Two ESA investigation were encountered.

4.0 INVESTIGATION METHOD

The following sections describe the field investigation methodology employed during the Phase Two ESA. The field work was conducted August 18 & 22, 2025 with supplemental sampling September 16, 18 & 30, 2025, and October 3, 2025.

4.1 General

Prior to initiating the field work, GEMTEC developed and implemented Site-specific protocols to protect the health and safety of its employees and subcontractors through the preparation of a Site-specific Health and Safety Plan. Additionally, GEMTEC completed public and private utility clearances.

4.2 Borehole Drilling

On August 18, 2025, five boreholes (labelled BH25-01 through BH25-05) were advanced to depths ranging between 3.05 m below ground surface (bgs) and 4.75 m bgs. Supplemental hand-auger sampling was completed on October 3, 2025 to address PAHs concentrations exceeding the MECP Site Condition Standards (SCS) for Table 1 RPI/ICC and coarse textures soils. During this time an additional five boreholes were advanced within 2 metres of the previously advanced BH25-05 and samples were labelled as A, B, C & D, respectively. Supplemental hand-auger holes were advanced to a depth approximately 0.76 m bgs.

Borehole locations (with respect to APECs) are provided in Figure A.4, Appendix A.

Boreholes BH25-01 to BH25-05 were advanced a drill supplied and operated by Strata Drilling Group (Strata). Direct push technology was used for soil recovery during drilling. Table 4.1 summarizes the location of boreholes advanced as part of the Phase Two ESA.

Table 4.1: Borehole locations with investigated APECs

Borehole ID	MW Installation Required	APEC Investigated	COPCs - Soil	COPCs – Groundwater
BH/MW25-01	x	APEC 1	Metals, ORPs, PHCs, BTEX, PAHs	-
BH/MW25-02	✓	APEC 1 APEC 2	Metals, ORPs, PHCs, VOCs, PAHs	Metals, PHCs, VOCs, PAHs, BTEX
BH/MW24-03	✓	APEC 1 APEC 4	Metals, ORPs, PHCs, BTEX, PAHs	PHCs, BTEX
BH/MW24-04	x	APEC 1 APEC 3	Metals, ORPs, PHCs, BTEX, PAHs	-
BH/MW24-05,A,B,C,D	✓	APEC 1 APEC 3	Metals, ORPs, PHCs, VOCs, PAHs	Metals, PHCs, VOCs, PAHs, BTEX

Notes:

APEC 1 – Historic development of the property, likely with fill of unknown quality. Contaminants of Potential Concern (COPCs) include Metals, ORP, PHC, BTEX, and PAHs; ;
APEC 2 – Presence of shop where landscaping equipment is maintained. COPCs include Volatile Organic Compounds (VOCs), PAHs, Metals, PHCs, and BTEX with potential for impacts in soil and groundwater;
APEC 3 – Presence of vehicle maintenance. COPCs include VOCs, PAHs, Metals, PHCs, and BTEX with potential for impacts in soil and groundwater; and,
APEC 4 – Presence of gasoline Underground Storage Tanks (USTs) located at 5425 Boundary Road. COPCs include PAHs, PHCs, and BTEX with potential for impacts in soil and groundwater.
ORPs – Other Regulated Parameters including Electrical Conductivity (EC), Sodium Adsorption Ratio (SAR), pH, Hot Water-Soluble Boron (B-HWS), Cyanide (CN-), Hexavalent Chromium (CrVI), and Mercury (Hg)
PHC F1-F4 – Petroleum Hydrocarbon F1-F4
BTEX – Benzene, Toluene, Ethylbenzene, and Xylene
VOCs – Volatile Organic Compounds
PAHs – Polycyclic Aromatic Hydrocarbons

4.3 Soil Sampling

Soil samples were collected from the five boreholes following the Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario (MOE, 1996). Soil samples were recovered at regular intervals during drilling and hand-augering and were split in the field into two components. One component was placed into laboratory prepared containers, one preserved with methanol and the other packed with soil for minimal headspace, then stored in a cooler for potential laboratory analysis. The second component was placed inside a plastic bag for field screening, consisting of the soil description, and noting the presence of any staining, odour and/or debris. A gas detector (RKI Eagle 2) was used to measure the total organic vapour and combustible gas concentrations in the headspace in the sealed plastic bag. Clean gloves were worn and changed between each sample to prevent cross contamination.

Geologic descriptions, visual and olfactory observations, and results of field headspace measurements are presented on the Record of Borehole Logs in Appendix B.

4.4 Field Screening Measurements

Field measurements of sample headspace concentration were made using the equipment detailed in Table 4.2.

Table 4.2: RKI Eagle 2 details for field screening

Equipment	Parameters Detected	Detection Limit	Precision	Accuracy	Calibration Standard
RKI Eagle 2	Combustible gas	0-50,000 ppm	NA	±5%	Hexane (1650 ppm)
	Total organic vapour	0-2,000 ppm	NA	±5%	Isobutylene (100 ppm)

Soil samples at each sampling location were selected for laboratory analysis based on the field headspace screening measurements, visual observations (e.g., staining, discoloration and/or free product, if any), and olfactory observations (if any). Soil samples were submitted to the analytical laboratory under chain-of-custody procedures. No staining, discoloration or free product was noted during the investigation.

4.5 Groundwater - Monitoring Well Installation

Three groundwater monitoring wells (labelled BH/MW25-02, BH/MW25-03, and BH/MW24-05) were installed by Strata using threaded 51 mm diameter, schedule 40, PVC well screens and riser pipe, which were brought to the Site in sealed plastic bags. Well screens were installed to straddle the inferred water table based on observations made during the drilling program. The annular space of the screened interval was filled with silica filter sand to at least 0.30 m above the well screen. The monitoring wells were sealed with bentonite from the top of the sand pack to surface and completed with a flushmount protective cap for all monitoring wells. The riser pipes were sealed with a J-plug.

4.6 Groundwater - Field Measurements for Water Quality Parameters

The field measurements for the groundwater monitoring wells were taken on August 22, 2025, September 16, 18, and 30 2025. The measurements included measurement of the water level and the bottom of the monitoring well from the top of the riser pipe using an electronic water level tape.

Physical parameters including pH, temperature, conductivity (EC), dissolved oxygen (DO), and oxidation redox potential (REDOX) were monitored during groundwater collection using a Horiba Water Quality Meter.

4.7 Groundwater - Development, Purging and Sampling

Monitoring well development was conducted on August 21, 2025, which included removal of a minimum of three well volumes or to dry three times from each monitoring well. Well development activities were performed using dedicated Waterra® tubing and foot valves.

Monitoring well purging and sampling was conducted on August 22, 2025, which included monitoring well sampling using low flow techniques using a EZYflow peristaltic pump. Physical parameters pH, temperature, EC, DO, and REDOX were monitored and stabilized before groundwater sample collection. During purging and sampling, qualitative observations were made of water colour, clarity, and the presence of hydrocarbon sheen or odour. Groundwater samples were collected from the monitoring wells directly into laboratory supplied bottles using a peristaltic pump with disposable tubing.

Supplemental groundwater sampling was completed at location BH/MW25-02 based on review of initial analytical results of cobalt impacts above MECP Table 1 RPI/ICC SCS. Three supplemental groundwater samples were obtained for analysis on September 16, 18, and 30, 2025.

4.8 Sediment Sampling

No sediment samples were collected as part of this investigation as no surface water bodies were identified at the Site.

4.9 Laboratory Analytical Program

All samples were stored and transported in laboratory supplied coolers with ice. Soil and groundwater samples were submitted to Paracel Laboratories Ltd. (Paracel) of Ottawa, Ontario, for analysis of the COPCs. Paracel is accredited by the Standards Council of Canada (SCC) in cooperation with the Canadian Association of Laboratory Accreditation (CALA) for specific environmental tests listed in the scope of accreditation. The laboratory meets the ISO/IEC 17025 (2017) standards and employs in-house quality assurance and quality control programs to govern sample analysis including the analysis of method blanks, spiked blanks, and the analysis of duplicates (10%) for each sample batch. The details of COPCs with respect to the sampling locations is available in Section 4.2.

4.10 Residue Management

All soil from drilling operations were collected for screening and sampling. Any additional cuttings were stored in soil drums on-Site. Water generated during monitoring well development and sampling was stored in water barrels on-Site. The groundwater drums were disposed of at the Site following receipt and review of soil and groundwater results. All equipment used for sampling was single use and/or disposable, therefore, no wash water was generated during the investigation.

4.11 Surveying

The ground surface elevations at the location of the boreholes (ground surface) and monitoring wells (with elevations from the PVC risers) were determined using a Trimble R10 global positioning system. The coordinates of the boreholes are referenced to NAD83 (CSRS) Epoch 2010, vertical network CGVD28 and are considered to be accurate within the tolerance of the instrument. The locations of the boreholes and monitoring wells advanced on-Site are shown on Figure A.4, Appendix A.

4.12 Quality Assurance / Quality Control Program

GEMTEC's quality assurance program for environmental investigations was implemented to ensure that analytical data obtained by the investigation were valid and representative. The quality assurance program included the following measures:

- The use of standard operating procedures for all field investigation activities;
- Soil samples were handled and stored in accordance with the sample collection and preservation requirement of the MECP "Protocol for Analytical Methods Used in the Assessment of Properties Under Part XV.I of the Environmental Protection Act", July 1, 2011. Samples were collected directly into pre-cleaned, laboratory-supplied sample containers with the appropriate preservative for the analyte group. Upon collection, samples were placed in insulated coolers with ice for storage and transport to the analytical laboratory under chain-of-custody;
- The collection of field duplicate samples at a minimum frequency of one duplicate for every ten samples;
- The monitoring wells were to be developed following installation to remove fine particles from the filter pack and any fluids introduced during drilling;
- Monitoring wells were to be appropriately purged prior to groundwater sample collection to remove stagnant water from the well bore and improve sample representativeness, minimizing sample agitation and aeration to the extent practicable;
- A field blank and a trip blank were collected for PHC F1 and VOCs during the groundwater sampling event;
- Clean disposable Nitrile™ gloves were used at each sampling location to prevent cross-contamination;
- Detailed field records documenting the methods and circumstances of collection for each field sample were prepared at the time of sample collection. Each sample was assigned a unique sample identification number recorded in the field notes, along with the date and time of sample collection, the sample matrix, and the requested analyses; and,
- The submission of samples to the analytical laboratory in accordance with standard chain of custody procedures.

5.0 REVIEW AND EVALUATION

This section of the report presents a review and evaluation of the results of the drilling, monitoring, and sampling activities conducted as part of the Phase Two ESA.

5.1 Geology

The soil conditions encountered during the borehole drilling program are presented in the Record of Borehole Logs provided in Appendix B.

The soil stratigraphy was visually observed and logged during the field investigation. The Record of Borehole Logs indicate the subsurface conditions encountered at the specific locations only. Boundaries between zones on the logs are often not distinct but rather are transitional and have been interpreted based on observations by trained GEMTEC field personnel. The precision with which subsurface conditions are indicated depends on the method of drilling, the frequency and recovery of samples, the method of sampling, and the uniformity of the subsurface conditions. Subsurface conditions at other than the test locations may vary from the conditions encountered in the boreholes. The following presents an overview of the subsurface conditions encountered in the boreholes advanced as part of this investigation.

The subsurface soil conditions encountered in the boreholes advanced as part of this Phase Two ESA generally consisted of black/brown to brown sand with varying amounts of clay overlaying grey/red to grey clay with some sand and trace silt. An approximately 0.76 m thick layer of sand and gravel was observed at surface in BH25-03 and BH25-04.

Bedrock was not encountered during the investigation but it is mapped as shale, limestone, dolostone, and siltstone of the Georgian Bay, Blue Mountain, and Billings formations as well as the Collingwood and Eastview Members of the Lindsay Formation. Overburden mapping indicates that the bedrock is anticipated to be at approximately 23.46 m.

5.2 Groundwater - Elevations and Flow Direction

Groundwater elevations were calculated based on depth to groundwater measurements completed on August 22, 2025, further groundwater levels were measured September 16, 18, and 30, 2025. Groundwater depths were measured directly from the top of each monitoring well riser using an electronic water level tape. Depth measurements were converted to groundwater elevations by subtracting the measured depth from the elevation of the top of each monitoring well riser.

All the monitoring wells were installed to straddle the anticipated water table based on conditions observed during drilling. The well screens were located within the overburden for all the monitoring wells. No free product was identified in and of the monitoring wells.

The location of these monitoring wells is shown in Figure A.4, Appendix A. The details of these monitoring wells are provided in Table 5.1.

Table 5.1: Monitoring Well details

MW ID	Soil stratigraphy at Screen	Water Level (m b PVC)	Ground Elevation (m)	GW Elevation (m)
MW25-02	Overburden	1.64	77.72	76.08
MW25-03	Overburden	1.49	77.61	76.00
MW25-05	Overburden	1.72	77.93	76.10

Groundwater elevations ranged from 76.00 and 76.10 m asl on August 22, 2025. The inferred direction of shallow groundwater flow is generally to the southwest based on the interpreted groundwater elevation contours presented in Figure A.5, Appendix A.

Seasonal fluctuation in water levels at the Site should be expected. Considering monitoring only took place during once season, seasonal trends could not be identified; however, shallow groundwater water levels are typically highest following the spring recharge and decline throughout the summer and fall months into the winter.

5.3 Groundwater: Hydraulic Gradients

The horizontal hydraulic gradient between well sets is presented in Table 5.2. The horizontal hydraulic gradient was estimated for shallow groundwater conditions based on water levels measured on August 22, 2025. The inferred groundwater contours are presented in Figure A.5, Appendix A.

Table 5.2: Hydraulic gradients between monitoring well sets

MW ID	MW ID	Distance between MWs (m)	Difference in GW elevation (m)	Horizontal Hydraulic Gradient (m/m)
MW25-02	MW25-03	85.87	0.100	0.001165
MW25-02	MW25-05	92.14	0.025	0.000271
MW25-03	MW25-05	52.40	0.125	0.002385

The average horizontal hydraulic gradient for shallow groundwater conditions was 0.001274 m/m.

5.4 Soil Texture

The predominant soil grain size at the Site was assumed to be coarse textured based on the observations made during the field investigation.

5.5 Soil - Field Screening

Headspace vapour measurements were conducted on the soil samples collected from each of the boreholes advanced at the Site. Hexane readings varied between 0 ppm and 105 ppm whereas isobutylene readings varied between 4 ppm and >2000 ppm. The results of soil headspace screening measurements are provided in the Record of Borehole Logs in Appendix B.

5.6 Soil - Quality

Soil sampling at the Site was completed during borehole advancement on August 18, 2025 and October 2, 2025. The analytical results of soil samples are presented in Table C.1, Appendix C. The soil samples were submitted to Paracel for analysis of one or more of the following parameters: Metals, PHCs, VOCs, PAHs, BTEX, CN-, Hg, EC, SAR, pH, B-HWS, and/or CrVI.

It is noted that all samples met the applicable standards, with the exception of the following soil samples, which reported exceedances of the applied Table 1 SCS values:

- SAR exceeded Table 1 SCS for BH25-01 SA2 and BH25-05 SA1,
- Conductivity exceeded Table 1 SCS for BH25-01 SA2, BH25-02 SA2, BH25-03 SA2, BH25-03 SA102, BH25-04 SA2, and BH25-05 SA1,
- Chromium exceeded Table 1 SCS for BH25-02 SA4; and,
- Anthracene exceeded Table 1 SCS at BH25-05 SA1.

The minor exceedances for anthracene in soil are likely due to matrix interference during extraction. The concentrations are not considered significant, though they cannot be averaged down due to elevated detection limits.

Table C.3, Appendix C contains soil analytical data for leachate analysis (Toxicity Characteristic Leaching Procedure (TCLP).

Exceedances are shown in Figure A.6, and Laboratory Certificates of Analysis for the soil samples are included in Appendix D.

5.6.1 Electrical Conductivity and Sodium Adsorption Ratio

With respect to the observed exceedances of EC and SAR, these parameters are attributable to historical and ongoing salt storage and handling activities at the site. Given that the property has been used for salt storage and distribution and is anticipated to continue in the same capacity in the future, the exceedances of EC and SAR are considered consistent with the site's intended land use and are not expected to pose an additional risk to human health or the environment beyond what is typical for this type of facility. In accordance with Section 49.7 of O.Reg. 153/04, the EC and SAR are not anticipated to present an environmental concern within the regulatory framework.

5.6.2 Naturally Occurring Metals

In addition to MECP SCS specified above, concentrations of chromium measured in samples containing clay taken from within the project area, (i.e., Champlain Sea deposit containing samples), were also compared to the 2023 document '*Background metals in Champlain Sea Sediments: Update from the 2019 Drilling and Sampling Program'* (Geofirma, 2023).

Reliance on the Ottawa proposed geo-regional background clay concentration for chromium, of 152 µg/g, as presented in the 2023 study is justified as the MECP has recommended that future updates to the Site Condition Standards (MOE, 2011) should consider geo-regional approaches. As such, GEMTEC has consulted the above referenced document in our assessment when concentrations of naturally occurring metals were determined to exceed the generic MECP Table 1 SCS. Based on this geo-regional approach, chromium in sample BH25-02 SA4 should not considered and exceedance as it is identified as being below the proposed geo-regional value.

5.7 Groundwater – Quality

Groundwater sampling at the Site was completed on August 22, 2025 with supplemental sampling September 16, 18, and 30, 2025. The analytical results of groundwater samples are presented in Table C.2, Appendix C. The groundwater samples were submitted to Paracel for analysis of one or more of the following parameters: Metals, PHCs, VOCs, PAHs, Sodium, and/or Chloride. One field blank sample and one trip blank samples were also submitted for PHC F1/VOCs.

Exceedances to the applied Table 1 SCS were reported for the following groundwater samples:

- Copper exceeded Table 1 SCS for MW25-02 on August 22, 2025, three subsequent samples in September 2025 met the standards and therefore the first sample is considered not representative of the overall groundwater quality, however, through the collection of these additional groundwater samples for metals, two additional exceedances were identified: chromium and thallium and these could not be considered anomalous.

5.7.1 Component Values

Component values can be used to evaluate potential exposure pathways for specific contaminants in groundwater. For groundwater component values in potable water scenarios, the presented concentrations for Cobalt, Copper, and Thallium include background concentrations (Table 1), ingestion of potable groundwater (GW1), and exposure of aquatic biota via groundwater discharge to surface water (GW3). Applying specific component values allows for a site-specific assessment of potential environmental risk relative to the relevant receptor pathways.

Given the nature of site use, the groundwater sampled at this site represents the uppermost groundwater unit, which is an unconfined aquifer with its upper boundary defined by the water table. Since potable water in the area is anticipated to be obtained from a deep confined an/or

bedrock aquifer, the GW3 component, representing exposure to aquatic biota via groundwater discharge to surface water (i.e., the PSW), is the most relevant receptor pathway at the Site.

The GW3 component values for the assessment of Cobalt, and Thallium are 66 µg/L, and 510 µg/L, respectively. Applying these component values to the dataset does not result in any exceedances. Based on this assessment and review, it is not anticipated that site activities create any major environmental concern so long as the site continues to be used for the same purposes.

Exceedances are shown in Figure A.7, and Laboratory Certificates of Analysis for the soil samples are included in Appendix D.

5.8 Sediment - Quality

No sediment samples were collected as part of this investigation.

5.9 Quality Assurance and Quality Control Results

The QA/QC program consisted of the use of industry standard “Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act”, March 9, 2004 (amended in July 2009 and effective as of July 1, 2011) (Analytical Protocol) for field protocols and the collection of blind field duplicates. To measure procedural reproducibility, blind duplicates are submitted for laboratory analysis to evaluate laboratory precision, the implemented field sampling and handling procedures, and sample homogeneity. The Relative Percent Difference (RPD) of analytical results from each parent – duplicate pair is then calculated. The RPD is defined as the absolute value of the variation between a sample and its duplicate, when compared to the average concentration of the original and the duplicate.

Seven sets of parent and duplicate samples were collected as per Table 5.3.

Table 5.3: Parent and duplicate sample

Date	Media	Sample ID	Duplicate ID
August 18, 2025	Soil	BH25-03 SA2	BH25-03 SA102

The analytical results of the parent and duplicate soil samples indicated a satisfactory correlation between the parent and duplicate samples as per the Analytical Protocol for all parameters in soil samples with the exception of the following soil samples: SAR and conductivity. The inconsistencies identified in the duplicate RPD samples are presumably related to the natural heterogeneous nature of soil. The calculated RPDs for all of the soil samples and their duplicates do not suggest inconsistencies in the field collection or the laboratory analysis methods.

A certificate of analysis or analytical report has been received for each sample submitted for analysis and is provided in Appendix D. Laboratory QA/QC protocols were within acceptable limits with exception of the following:

- Order #: 2534509 The spike recovery for cadmium, silver, and zinc was outside acceptance limits for the MS and/or MSD. The batch was accepted based on other acceptable QC.
- Order #: 2534152 Elevated reporting limit for some PAHs, because of dilution required due to the presence of high levels of non-target analytes.
- Order #: 2534152 The spike recovery for cyanide was outside acceptance limits for the matrix spike due to matrix interference.
- Order #: 2538518 The spike recovery for boron, sodium was outside acceptance limits for the MS and/or MSD. The batch was accepted based on other acceptable QC.

Accordingly, the analytical data generated during the investigation are valid and representative and may be used in this Phase Two ESA without further qualification.

5.10 Phase Two Conceptual Site Model

The Phase Two ESA conceptual site model (CSM) is presented in the following sections. The Phase Two CSM was prepared in accordance with Schedule E, Part V, Table 1, Section 6, Sub-heading (x) of Ontario Regulation 153/04 (O. Reg. 153/04) and is described in the text below and in the following figures:

- Figure A.1 Site Plan
- Figure A.2 Site Features
- Figure A.3 Potentially Contaminating Activities and Areas of Potential Environmental Concern
- Figure A.4 Location of Boreholes with respect to APECs
- Figure A.5 Groundwater Contours and Flow Direction
- Figure A.6 Soil Exceedances
- Figure A.7 Groundwater Exceedances

5.10.1 Property Description and History

The Site covers an approximate area of 4.91 acres (1.99 hectares) and is occupied by one residential dwelling, one shop, one domed structure, and nine sea cans used for residential and commercial/industrial purposes. Based on the available aerial photographs, the 1945 aerial photograph (the earliest year for which an aerial was available), the Site was an agricultural field with associated structures, therefore the first developed use of the Site is by 1945.

The land use of the Site at the time of development was industrial. The current use encompasses a combination of industrial activities (including the storage of landscape materials and construction equipment, a detached maintenance garage, and several other accessory structures for storage) as well as a detached dwelling that is residential. Historical land use in the Phase

One Study Area (or Study Area) was predominately commercial/industrial with community right of ways (i.e., roadways). The future land use is not anticipated to change.

The Site and associated Study Area Features are shown on Figure A.1 and Figure A.2, Appendix A. Pertinent identification information for the Site is provided in Table 5.4.

Table 5.4: Legal Description and Site Information

Site Information	
Legal Description[1]	PT LT 1 CON 9 (O.F.) GLOUCESTER PT 1 5R4318; S/T NS60057; OTTAWA
PIN	04324-0165 (LT)
Site Owner	Missac Dokmajian
Site Contact	Missac Dokmajian Telephone: (613) 863-2258 Email: ugc.services@hotmail.ca

5.10.2 Previous Investigation

The following lists the previous reports available for the Site. The Phase One ESA formed the basis for completing this Phase Two ESA.

- Phase One Environmental Site Assessment, 5384 Boundary Road, Ottawa, Ontario' dated June 2025

5.10.3 Potentially Contaminating Activities

The potentially contaminating activities (PCAs) identified in the Phase One ESA (GEMTEC, April 2025) are summarized in Table 5.5.

Table 5.5: Summary of Potentially Contaminating Activities

PCA Reference	Address/ Location	PCA ID	Distance from Site	Description	APEC Rationale
27-1 30-1 OT.3-1	5384 Boundary Road	#27. Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles #30. Importation of Fill Material of Unknown Quality	On-Site	A small shop and dome used for the maintenance of vehicles and equipment. Historic construction of structures likely required the importation of fill of unknown quality.	Yes. PCA is located on the Phase One Property and must be identified as an APEC, as per O. Reg 153/04.

PCA Reference	Address/ Location	PCA ID	Distance from Site	Description	APEC Rationale
OT.2-1	Across from 5384 Boundary Road	OT.2 – Listed as a spill	Adjacent to Site	The property was registered with a 30 L hydraulic oil spill to road with soil contamination in 2010. The property was registered with a 40 L gasoline spill to ditch with soil contamination in 2018.	No. Based on FOI, spills were remediated.
28-1	5425 Boundary Road	#28. Gasoline and Associated Products Storage in Fixed Tanks OT.1 – Listed as a waste generator	27 m east of the Site	The property was listed as operating as a private fuel outlet with an UST of 22,700 L containing diesel installed in 1992, and two 13,600 L USTs containing diesel installed in 1985. FS Private Fuel Outlet – Self Serve - Active Three records FS Liquid Fuel Tank – Active Listed as a waste generator between 1995 and 2024 for the generation of one or more of the following: waste oils & lubricants and oil skimmings & sludges. These waste support the presence of tanks on the property.	Yes. Based on distance and inferred groundwater flow direction.
OT.1-1 OT.2-2	5455 Boundary Road	OT.1 – Listed as a waste generator	75 m east of the Site	The property was registered with an	No.

PCA Reference	Address/ Location	PCA ID	Distance from Site	Description	APEC Rationale
		OT.2 – Listed for a spill		unknown hydrocarbon migrating from Aqua Drain to property in 2023; The property was registered in the Ontario Regulation 347 Waste Generator Database with a waste generator number ON001063520 in 2024 for the generation of oil skimmings & sludges.	Based on distance.
28-2	5329 Boundary Road	#28. Gasoline and Associated Products Storage in Fixed Tanks	129 m north of the Site	The property was listed with a UST of 50,000 L installed in 2022, a 50,000 L split UST containing diesel and premium gasoline installed in 2022, and a 150,000 L tank. FS Gasoline Station – Self Serve - Active FS Cylinder Exchange - Draft Three records FS Liquid Fuel Tank - Active	No. Based on distance.
28-3	5336 Boundary Road	#28. Gasoline and Associated Products Storage in Fixed Tanks	180 m north of the Site	The property was listed as a service station for gasoline, oil, and natural gas. The property was listed as having four 25,000 L gasoline USTs and one 25,000	No. Based on distance.

PCA Reference	Address/ Location	PCA ID	Distance from Site	Description	APEC Rationale
				L diesel UST, all removed in 1990. The property was listed as operating as a retail fuel outlet with three 50,000 L gasoline USTs and one 50,000 L diesel UST, all installed in 2003. Listed as having a 200,000 L tank. Petro-Canada (2017, 2021, 2023) Highway 417 Boundary Road Sunoco (2012, 2017) FS Gasoline Station – Self Serve - Active FS Cylinder Exchange - Active Five records FS Liquid Fuel Tank – Expired Four records FS Liquid Fuel Tank - Active	

5.10.4 Area of Potential Environmental Concern

The areas of potential environmental concern (APECs) identified based on the PCAs are summarized in Table 5.6. Figure A.3, Appendix A indicates the location of the APECs.

Table 5.6: Areas of Potential Environmental Concern

APEC	Location of Area of Potential Environmental Concern on Phase One Property	PCA	Location of PCA (on-Site or off-Site)	COPC	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
APEC 1 – Historic development of property, likely with fill of unknown quality	Central to southern portion of Site	#30. Importation of Fill Material of Unknown Quality	On-Site	Metals, ORPs, PHCs, BTEX, PAHs	Soil
APEC 2 – Presence of shop where landscaping equipment is maintained	Building 2	OT.3. Maintenance of machinery/equipment	On-Site	Metals, PHCs, VOCs, PAHs, BTEX	Soil and groundwater
APEC 3 – Presence of vehicle maintenance	Building 3	#27. Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	On-Site	Metals, PHCs, VOCs, PAHs, BTEX	Soil and groundwater
APEC 4 – Presence of off-site gasoline USTs at 5425 Boundary Road	Southeastern portion of the Site	#28. Gasoline and Associated Products Storage in Fixed Tanks	Off-Site	PHCs, BTEX	Soil and groundwater

Notes:

PCA – Potentially Contaminating Activities
COPCs – Contaminants of Potential Environmental Concern
APEC – Area of Potential Environmental Concern
Metals – Metals parameters as per O. Reg. 153/04 including Hydride Forming Metals (Antimony, Arsenic, Selenium).
ORP – Other Regulated Parameters including some of all or (electrical conductivity (EC), sodium adsorption ratio (SAR), pH, hot water-soluble boron (B-HWS), cyanide (CN-), hexavalent chromium (CrVI) and mercury (Hg)Soluble Boron (B-HWS), Cyanide (CN-), Hexavalent Chromium (CrVI), and Mercury (Hg)
PHCs F1-F4 – Petroleum Hydrocarbons F1-F4
BTEX – Benzene, Toluene, Ethylbenzene, and Xylene
PAHs – Polycyclic Aromatic Hydrocarbons

5.10.5 Physical Setting

The Site has a relatively flat topography and is at an elevation of between approximately 77 and 81 metres (m) above sea level (asl). The Site generally appears to be at grade with the surrounding properties.

Based on the topography and hydrogeological features, it is anticipated that local shallow groundwater would flow westwards towards a provincially significant wetland, located on Site and extending west. Based on the findings of this Phase Two ESA, shallow groundwater was interpreted to flow eastwards based on the interpreted groundwater elevation contours presented in Figure A.5, Appendix A.

The physical setting for the Site is consistent based on GEMTEC's observation during the Phase Two ESA field program, with the exception of the anticipated groundwater flow direction.

5.10.5.1 Stratigraphy – Boreholes

The subsurface soil conditions encountered in the boreholes advanced as part of this Phase Two ESA generally consisted of brown to black sand over grey clay. The Record of Borehole Logs are provided in Appendix B.

5.10.5.2 Depth to Bedrock

The presence of bedrock could not be confirmed. Refusal was not encountered at any of the borehole locations. Overburden mapping indicates that the bedrock is anticipated to be at the depth of approximately 23.46 m.

5.10.5.3 Hydrogeological Characteristics

The average horizontal hydraulic gradient for shallow groundwater conditions was 0.001274 m/m.

5.10.5.4 Depth to Groundwater

Water levels were measured in the monitoring wells which were advanced at the Site. The location of these monitoring wells is shown on Figure A.4, Appendix A. Groundwater elevations ranged from 76.00 and 76.10 m asl on August 22, 2025. The inferred direction of shallow groundwater flow is generally to the west based on the interpreted groundwater elevation contours presented in Figure A.5, Appendix A.

5.10.5.5 Environmentally Sensitive Areas

No water bodies or Areas of Natural and Scientific Interest (ANSIs) were identified on or within 30 m of the Site, but a provincially significant wetland (PSW) was identified on the Site.

5.10.5.6 Shallow Soil Property or Water Body

The overburden thickness is greater than 2 m for more than two-thirds of the Site, the measured depth to water at the Site ranged from 1.49 to 1.72 m below casing, and there are no water bodies on or within 30 m of the Site. Therefore, Section 43.1(a) and 43.1(b) of O. Reg. 153/04 do not apply to the Site.

5.10.6 Applicable Site Condition Standards

The analytical results were compared to the MECP, 2011. Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. Table 1: Full Depth Background Site Condition Standards. Residential/ Parkland/ Institutional (RPI), Industrial/ Commercial/Community (ICC) Property Use, with coarse textured soil, as presented in the Ministry of the Environment, Conservation and Parks (MECP) document “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act” dated April 15, 2011.

5.10.7 Contaminated Media

Soil and groundwater analytical results were evaluated against the Table 1 SCS using both the MECP single-point compliance approach and averaging techniques, as applicable. With the exception of EC, SAR, Chromium, and Anthracene in soil and Cobalt and Thallium in groundwater, all parameters met the applicable standards. The exceedances of EC and SAR are attributable to the historical and ongoing salt storage operations at the Site and are considered consistent with the Site’s intended use, therefore, not presenting an environmental concern. Chromium in soil on site was present within naturally occurring clay layers and is not considered an exceedance to the applicable SCS should it remain in place on-site. The minor exceedance of anthracene in soil is likely due to matrix interference during laboratory extraction. The concentrations are not considered significant, though they cannot be averaged down due to elevated detection limits.

Considering Cobalt and Thallium in groundwater, while the governing component value under the Table 1 SCS is based on Ontario background values as well as the protection of mammals and birds, these receptors are anticipated to be key component at the site present at the Site, therefore, the GW3 component values were applied, under which the Site meets the applicable criteria.

On this basis, all soil and groundwater results are considered to comply with the applicable standards with the exception of anthracene in soil. However, the concentration of anthracene is not anticipated to pose an environmental concern providing the site use does not change.

5.10.8 Description of Areas of Contamination on the Site

Anthracene impacts are present onsite in the vicinity of BH25-05.

5.10.9 Potential Influence of Utilities on Contaminant Migration

Several underground utilities are present at the Site. Although utility trenches can provide preferential pathways for groundwater or contaminant migration due to permeable backfill materials, no conclusive evidence of utility-related transport has been identified. Additionally, the nature of the parameters exceeding the applicable SCS indicate low mobility and tight bonding to

soil particles. As such, while migration along utilities remains possible, it is not expected to represent a significant mechanism at this Site.

5.10.10 Contaminant Migration

Contaminant migration at the Site is primarily expected to occur through natural groundwater flow and soil permeability rather than through utility corridors. Based on current site conditions and monitoring results, migration is anticipated to remain localized, with limited potential for off-site transport.

5.10.11 Meteorological and Climatic Considerations

Seasonal fluctuation in water levels on the Site should be expected. Considering only one monitoring event was conducted, seasonal trends could not be identified; however, shallow groundwater water levels are typically highest following the spring recharge and decline throughout the summer and fall months into the winter.

5.10.12 Cross Sections – Lateral and Vertical Distribution of Contaminants

No cross sections were completed for the site.

6.0 CONCLUSIONS

The Phase Two ESA investigated the APECs identified in the Phase One ESA (GEMTEC, 2025). Based on the results of the soil and groundwater samples collected as part of this assessment, exceedances remain on the property in both soil and groundwater. The exceedances of EC and SAR are attributable to historical and ongoing salt storage operations at the Site, while chromium in soil is associated with naturally occurring clay layers. The minor exceedance of anthracene in soil is likely due to matrix interference during laboratory extraction. Concentrations of cobalt and thallium in groundwater meet the applicable criteria when evaluated using the GW3 component values.

Overall, all soil and groundwater results are considered to comply with applicable standards with the exception of anthracene in soil, which is not anticipated to pose an environmental concern provided the current site use remains unchanged.

6.1 Signatures

We trust this report provides sufficient information for your present purposes. If you have any questions concerning this report, please do not hesitate to contact our office.

Regards,

Nicole Soucy, M.A.Sc., P.Eng, QP_{ESA}
Environmental Engineer
NS/DE

Daniel Elliot, P.Geo., QP_{ESA}
Senior Environmental Geoscientist

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8.0 LIMITATION OF LIABILITY

This report was prepared for the exclusive use of the Owners of 5384 Boundary Road. This report may not be relied upon by any other person or entity without the express written consent of GEMTEC Consulting Engineers and Scientists Limited and the Owners of 5384 Boundary Road. Nothing in this report is intended to provide a legal opinion. Any use which a third party makes of this report, or any reliance on, or decisions to be made based on it, are the responsibilities of such third parties. GEMTEC accepts no responsibility for damages, if any, suffered by any third party (other than as noted above) as a result of decisions made or actions based on this report.

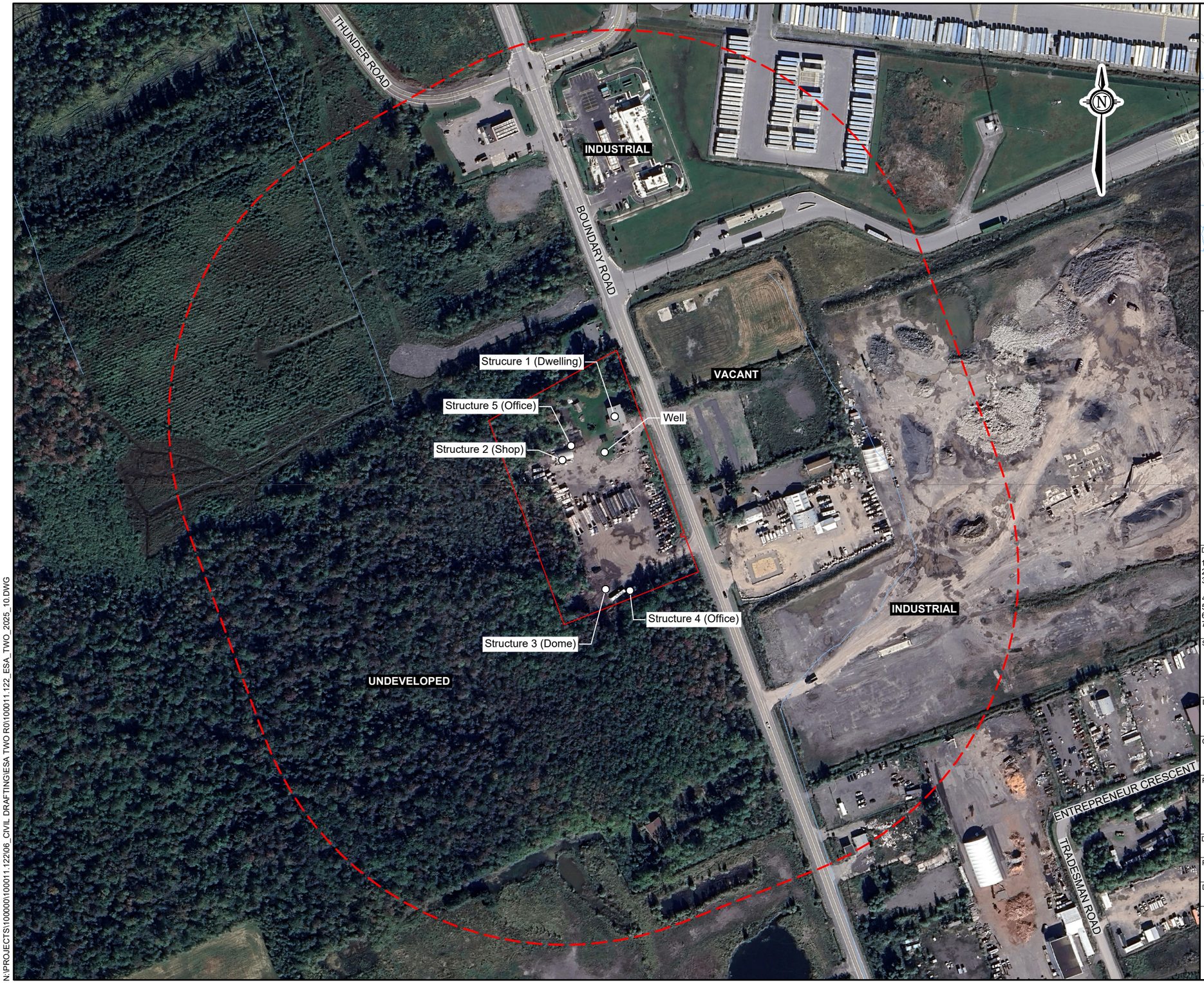
The investigation undertaken by GEMTEC with respect to this report and any conclusions or recommendations made in this report reflect the best judgements of GEMTEC based on the Site conditions observed during the investigations undertaken at the date(s) identified in the report and on the information available at the time the report was prepared. This report has been prepared for the application noted and it is based, in part, on visual observations made at the Site, subsurface investigations at discrete locations and depths and laboratory analyses of specific chemical parameters and material during a specific time interval, all as described in the report. Unless otherwise stated, the findings contained in this report cannot be extrapolated or extended to previous or future Site conditions, portions of the Site that were unavailable for direct investigation, subsurface locations on the Site that were not investigated directly, or chemical parameters, materials or analysis which were not addressed. Chemical parameters other than those addressed by the investigation described in this report may exist in soil and groundwater elsewhere on the Site.

This report provides a professional opinion and therefore no warranty is expressed, implied, or made as to the conclusions, advice and recommendations offered in this report. This report does not provide a legal opinion regarding compliance with applicable laws. With respect to regulatory compliance issues, it should be noted that regulatory statutes and the interpretation of regulatory statutes are subject to change.

Should new information become available during future work, including excavations, borings or other studies, GEMTEC should be requested to review the information and, if necessary, re-assess the conclusions presented herein.

APPENDIX A

Figures



KEY PLAN
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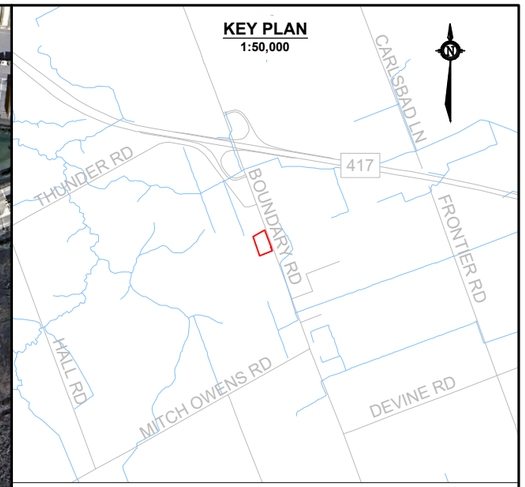

LEGEND

- PHASE TWO PROPERTY BOUNDARY
- PHASE TWO STUDY AREA (250 m RADIUS AROUND PHASE TWO PROPERTY BOUNDARY)
- WATERBODY

DATA SOURCES AND REFERENCES

1. Coordinate system: NAD83 (CSRS), UTM ZONE 18N
2. Distances, elevations, and coordinates are shown in metres unless denoted otherwise
3. This drawing is a schematic representation and should not be taken as a substitute for a legal survey.
4. Image @2025 Google Maps, CNES / Airbus, First Base Solutions, Maxar Technologies
5. Contains information licensed under the Open Government Licence – Ontario
6. Geographic dataset source: Ontario GeoHub
7. Ground surface contour elevation derived from Provincial Digital Elevation Model, CGVD28

SCALE 1:3,000

0 100 200m

DRAWING
SITE PLAN

CLIENT
NOVATECH ENGINEERS, PLANNERS & LANDSCAPE ARCHITECTS

PROJECT
PHASE TWO
ENVIRONMENTAL SITE ASSESSMENT
5384 BOUNDARY ROAD
OTTAWA, ONTARIO

DRAWN BY	CHECKED BY
SL	NS
PROJECT NO. 100011.122	REVISION NO. 0
DATE OCTOBER 2025	FIGURE NO. **FIGURE A.1**

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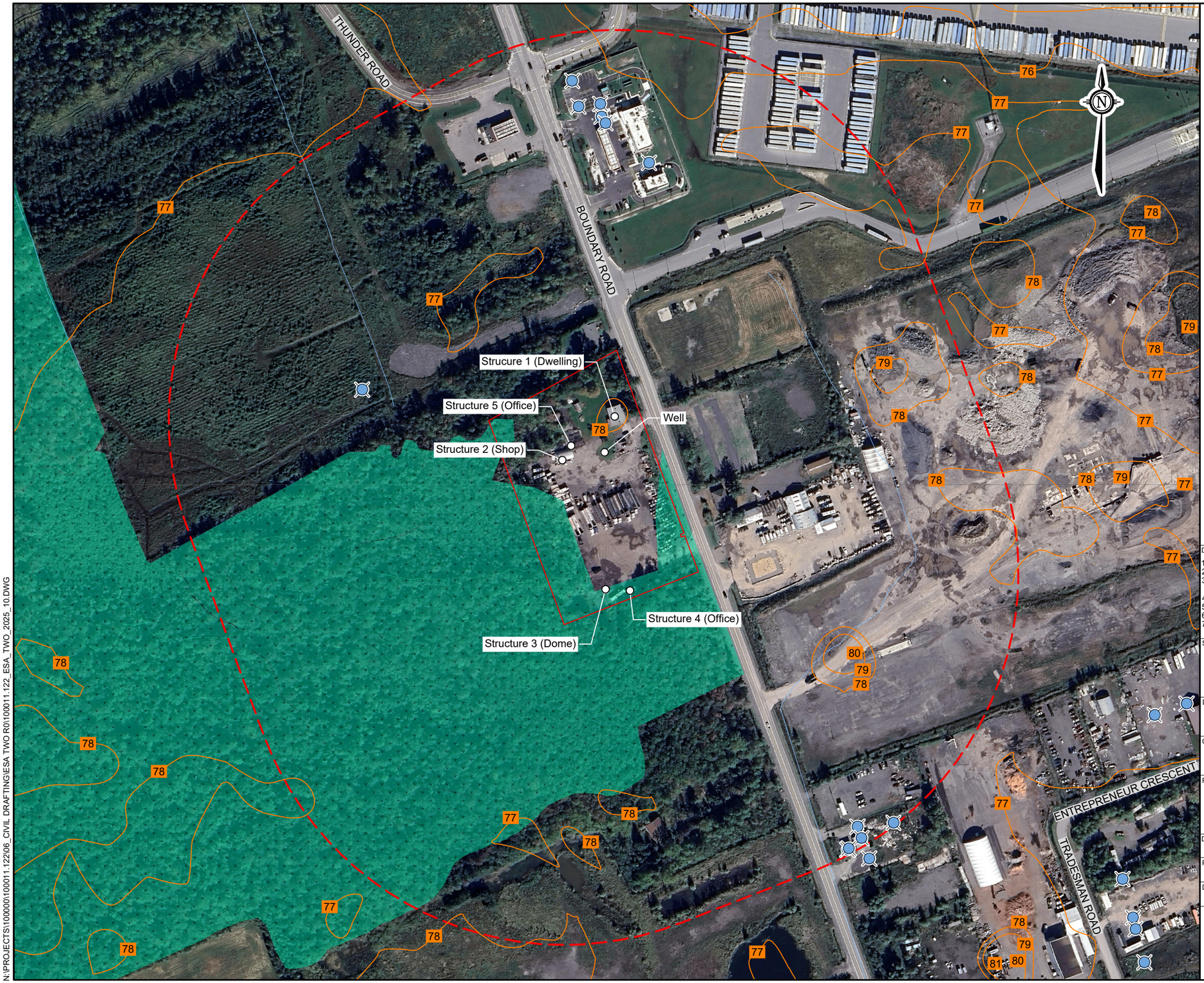

LEGEND

- MECP PUBLIC WELL RECORD
- PHASE TWO PROPERTY BOUNDARY
- PHASE TWO STUDY AREA (250 m RADIUS AROUND PHASE TWO PROPERTY BOUNDARY)
- GROUND SURFACE CONTOUR
- WATERBODY
- PROVINCIALLY SIGNIFICANT WETLAND

DATA SOURCES AND REFERENCES

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6. Geographic dataset source: Ontario GeoHub
7. Ground surface contour elevation derived from Provincial Digital Elevation Model, CGVD28

SCALE 1:3,000

0 100 200m

DRAWING
SITE FEATURES AND TOPOGRAPHY

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NOVATECH ENGINEERS, PLANNERS & LANDSCAPE ARCHITECTS

PROJECT
PHASE TWO
ENVIRONMENTAL SITE ASSESSMENT
5384 BOUNDARY ROAD
OTTAWA, ONTARIO

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PROJECT NO. 100011.122	REVISION NO. 0
DATE OCTOBER 2025	FIGURE NO. **FIGURE A.2**

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LEGEND

PCA# — PCA LOCATION CONTRIBUTING TO AN APEC

PCA# — PCA LOCATION NOT CONTRIBUTING TO AN APEC

PHASE TWO PROPERTY BOUNDARY

POTENTIALLY CONTAMINATING ACTIVITIES

PCA #	DESCRIPTION
27	Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles
28	Gasoline and Associated Products Storage in Fixed Tanks
30	Importation of Fill Material of Unknown Quality
OT.2	Listed as a spill
OT.3	????

AREA OF POTENTIAL ENVIRONMENTAL CONCERN

APEC #	DESCRIPTION
1	Historic development of property, likely with fill of unknown quality
2	Presence of shop where landscaping equipment is maintained
3	Presence of vehicle maintenance
4	Presence of off-site gasoline USTs at 5425 Boundary Road

DATA SOURCES AND REFERENCES

1. Coordinate system: NAD83 (CSRS), UTM ZONE 18N
2. Distances, elevations, and coordinates are shown in metres unless denoted otherwise
3. This drawing is a schematic representation and should not be taken as a substitute for a legal survey.
4. Image @2025 Google Maps, CNES / Airbus, First Base Solutions, Maxar Technologies
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6. Geographic dataset source: Ontario GeoHub

SCALE 1:3,000

0 100 200m

DRAWING
POTENTIALLY CONTAMINATING ACTIVITIES AND AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

CLIENT
NOVATECH ENGINEERS, PLANNERS & LANDSCAPE ARCHITECTS

PROJECT
PHASE TWO
ENVIRONMENTAL SITE ASSESSMENT
5384 BOUNDARY ROAD
OTTAWA, ONTARIO

DRAWN BY	CHECKED BY
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PROJECT NO. 100011.122	REVISION NO. 0
DATE OCTOBER 2025	FIGURE NO. **FIGURE A.3**

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LEGEND

- **BH #** — BOREHOLE ID
- **XX.XX** — GROUND SURFACE ELEVATION, IN METRES GEODETIC DATUM
- BOREHOLE LOCATION
- PHASE TWO PROPERTY BOUNDARY

AREA OF POTENTIAL ENVIRONMENTAL CONCERN

APEC #	DESCRIPTION
1	Historic development of property, likely with fill of unknown quality
2	Presence of shop where landscaping equipment is maintained
3	Presence of vehicle maintenance
4	Presence of off-site gasoline USTs at 5425 Boundary Road

DATA SOURCES AND REFERENCES

1. Coordinate system: NAD83 (CSRS), UTM ZONE 18N
2. Distances, elevations, and coordinates are shown in metres unless denoted otherwise
3. This drawing is a schematic representation and should not be taken as a substitute for a legal survey.
4. Image @2025 Google Maps, CNES / Airbus, First Base Solutions, Maxar Technologies
5. Contains information licensed under the Open Government Licence – Ontario
6. Geographic dataset source: Ontario GeoHub

SCALE 1:1,000

0 20 40 60m

DRAWING: BOREHOLE LOCATION PLAN

CLIENT: NOVATECH ENGINEERS, PLANNERS & LANDSCAPE ARCHITECTS

PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 5384 BOUNDARY ROAD OTTAWA, ONTARIO

DRAWN BY	CHECKED BY
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PROJECT NO. 100011.122	REVISION NO. 0
DATE OCTOBER 2025	FIGURE NO. **FIGURE A.4**

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LEGEND

- **BH #** — BOREHOLE ID
- **XX.XX** — GROUND SURFACE ELEVATION, IN METRES
- **XX.XX** — GROUNDWATER ELEVATION, IN METRES
- BOREHOLE LOCATION
- PHASE TWO PROPERTY BOUNDARY
- GROUNDWATER CONTOUR, 0.01 METRE INTERVAL
- GROUNDWATER CONTOURS FLOW DIRECTION

DATA SOURCES AND REFERENCES

1. Coordinate system: NAD83 (CSRS), UTM ZONE 18N
2. Distances, elevations, and coordinates are shown in metres unless denoted otherwise
3. This drawing is a schematic representation and should not be taken as a substitute for a legal survey.
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6. Geographic dataset source: Ontario GeoHub

SCALE 1:1,000

0 20 40 60m

DRAWING
GROUNDWATER CONTOURS FLOW DIRECTION

CLIENT
NOVATECH ENGINEERS, PLANNERS & LANDSCAPE ARCHITECTS

PROJECT
PHASE TWO
ENVIRONMENTAL SITE ASSESSMENT
5384 BOUNDARY ROAD
OTTAWA, ONTARIO

DRAWN BY	CHECKED BY
SL	NS
PROJECT NO. 100011.122	REVISION NO. 0
DATE OCTOBER 2025	FIGURE NO. **FIGURE A.5**

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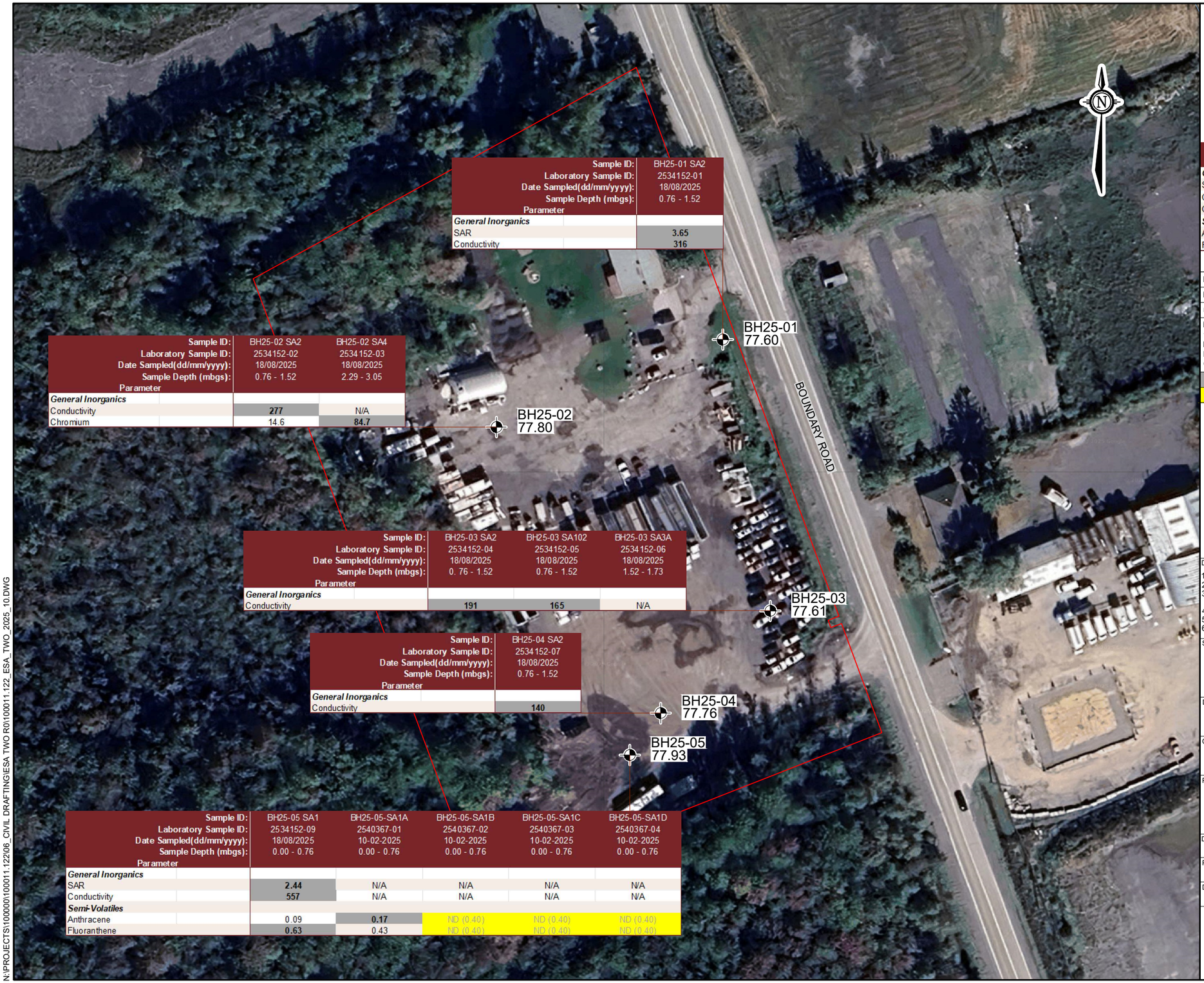

Sample ID:	BH25-01 SA2
Laboratory Sample ID:	2534152-01
Date Sampled(dd/mm/yyyy):	18/08/2025
Sample Depth (mbgs):	0.76 - 1.52
Parameter	
General Inorganics	
SAR	**3.65**
Conductivity	**316**

Sample ID:	BH25-02 SA2	BH25-02 SA4
Laboratory Sample ID:	2534152-02	2534152-03
Date Sampled(dd/mm/yyyy):	18/08/2025	18/08/2025
Sample Depth (mbgs):	0.76 - 1.52	2.29 - 3.05
Parameter		
General Inorganics		
Conductivity	**277**	N/A
Chromium	14.6	**84.7**

Sample ID:	BH25-03 SA2	BH25-03 SA102	BH25-03 SA3A
Laboratory Sample ID:	2534152-04	2534152-05	2534152-06
Date Sampled(dd/mm/yyyy):	18/08/2025	18/08/2025	18/08/2025
Sample Depth (mbgs):	0. 76 - 1.52	0.76 - 1.52	1.52 - 1.73
Parameter			
General Inorganics			
Conductivity	**191**	**165**	N/A

Sample ID:	BH25-04 SA2
Laboratory Sample ID:	2534152-07
Date Sampled(dd/mm/yyyy):	18/08/2025
Sample Depth (mbgs):	0.76 - 1.52
Parameter	
General Inorganics	
Conductivity	**140**

Sample ID:	BH25-05 SA1	BH25-05-SA1A	BH25-05-SA1B	BH25-05-SA1C	BH25-05-SA1D
Laboratory Sample ID:	2534152-09	2540367-01	2540367-02	2540367-03	2540367-04
Date Sampled(dd/mm/yyyy):	18/08/2025	10-02-2025	10-02-2025	10-02-2025	10-02-2025
Sample Depth (mbgs):	0.00 - 0.76	0.00 - 0.76	0.00 - 0.76	0.00 - 0.76	0.00 - 0.76
Parameter					
General Inorganics					
SAR	**2.44**	N/A	N/A	N/A	N/A
Conductivity	**557**	N/A	N/A	N/A	N/A
Semi-Volatiles					
Anthracene	0.09	**0.17**	ND (0.40)	ND (0.40)	ND (0.40)
Fluoranthene	**0.63**	0.43	ND (0.40)	ND (0.40)	ND (0.40)

LEGEND

BH # — BOREHOLE ID

XX.XX — GROUND SURFACE ELEVATION, IN METRES GEODETIC DATUM

BOREHOLE LOCATION

PHASE TWO PROPERTY BOUNDARY

Parameter	Units	MDL	MECP Table 1 SCS RPI/ICC
General Inorganics			
SAR	N/A	0.01	2.4
Conductivity	uS/cm	5	0.57
Chromium	ug/g dry	5	70
Semi-Volatiles			
Anthracene	ug/g dry	0.02	0.16
Fluoranthene	ug/g dry	0.02	0.56

Notes:

MDL - Method Detection Limit

mbgs - Metres Below Ground Surface

MECP Table 1 SCS RPI/ICC: 'MECP, 2011. Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. Table 1: Full Depth Background Site Condition Standards. Residential/ Parkland/ Institutional (RPI), Industrial/ Commercial/
Community (ICC) Property Use. With coarse textured soil."

Grey	- Exceeds MECP Table 1 SCS RPI/ICC
Yellow	- Elevated Detection Limits

DATA SOURCES AND REFERENCES

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SCALE 1:1,000

0 20 40 60m

DRAWING

SOIL EXCEEDANCES

CLIENT

NOVATECH ENGINEERS, PLANNERS & LANDSCAPE ARCHITECTS

PROJECT

PHASE TWO
ENVIRONMENTAL SITE ASSESSMENT
5384 BOUNDARY ROAD
OTTAWA, ONTARIO

DRAWN BY	CHECKED BY
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DATE OCTOBER 2025	FIGURE NO. **FIGURE A.6**

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LEGEND

- **BH #** — BOREHOLE ID
- **XX.XX** — GROUND SURFACE ELEVATION, IN METRES
- **XX.XX** — GROUNDWATER ELEVATION, IN METRES
- BOREHOLE LOCATION
- PHASE TWO PROPERTY BOUNDARY

Parameter		Units	MDL	MECP Table 1 SCS
Metals				
Cobalt		ug/L	0.5	3.8
Copper		ug/L	0.5	5
Thallium		ug/L	0.1	0.5

Notes:

MDL - Method Detection Limit

MECP Table 1 SCS: MECP, 2011. Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. Table 1: Full Depth Background Site Condition Standards. All Types of Property Use with coarse textured soil.

Grey - Exceeds MECP Table 1 SCS

DATA SOURCES AND REFERENCES

1. Coordinate system: NAD83 (CSRS), UTM ZONE 18N
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6. Geographic dataset source: Ontario GeoHub

SCALE 1:1,000

0 20 40 60m

DRAWING: GROUNDWATER EXCEEDANCES

CLIENT: NOVATECH ENGINEERS, PLANNERS & LANDSCAPE ARCHITECTS

PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 5384 BOUNDARY ROAD OTTAWA, ONTARIO

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PROJECT NO. 100011.122	REVISION NO. 0
DATE OCTOBER 2025	FIGURE NO. **FIGURE A.7**

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APPENDIX B

Borehole Logs

RECORD OF BOREHOLE 25-01

CLIENT: NOVATECH Engineers, Planners & Landscape Architects
PROJECT: 5384 Boundary Road
JOB#: 100011.122
LOCATION: See Borehole Location Plan, Figure A.2

SHEET: 1 OF 1
DATUM: CGVD28
BORING DATE: Aug 18 2025

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	SOIL PROFILE: STRATA PLOT	SOIL PROFILE: ELEV. / DEPTH (m)	SAMPLE DATA: NUMBER	SAMPLE DATA: TYPE	SAMPLE DATA: RECOVERY (mm)	SAMPLE DATA: BLOWS/0.3m	SAMPLE DATA: LABORATORY ANALYSES	COMBUSTIBLE VAPOUR CONCENTRATION (ppm)	ODOUR	TPH (mg/kg)	MONITORING WELL INSTALLATION AND NOTES
		Ground Surface		77.60									
0		Black/brown sand, some gravel		76.84	1		455		Metals, ORPs, PHCs, BTEX, PAHs	HEX: 0; IBL: 42			
1		Brown sand		0.76 / 76.08	2		405			HEX: 20; IBL: 551			
		Brown sand, some clay		1.52 / 75.90	3A		180			HEX: 30; IBL: 139			Native backfill
2		Grey CLAY		1.70	3B		585			HEX: 25; IBL: 96			
					4		760			HEX: 25; IBL: 62			
3		End of Borehole		74.55 / 3.05									

GEMTEC
Consulting Engineers and Scientists

LOGGED: JG
CHECKED: NS

ENV - BOREHOLE LOG 100011.122_ESA_TWO_2025_08.GPJ GEMTEC 2018.GDT 29/10/25

RECORD OF BOREHOLE 25-02

CLIENT: NOVATECH Engineers, Planners & Landscape Architects
PROJECT: 5384 Boundary Road
JOB#: 100011.122
LOCATION: See Borehole Location Plan, Figure A.2

SHEET: 1 OF 1
DATUM: CGVD28
BORING DATE: Aug 18 2025

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLE DATA: NUMBER	TYPE	RECOVERY (mm)	BLOWS/0.3m	LABORATORY ANALYSES	COMBUSTIBLE VAPOUR CONCENTRATION (ppm)	ODOUR	TPH (mg/kg)	MONITORING WELL INSTALLATION AND NOTES
		Ground Surface		77.80									
0		Asphalt		77.75 / 0.05									
		Brown/grey sand, some gravel, trace bricks			1		510			HEX: 35; IBL: 416			Bentonite Seal
				77.04									
1		Brown sand		0.76	2		355		Metals, ORPs, PHCs, BTEX, PAHs	HEX: 35; IBL: >2000			
				76.28									
		Brown sand, some grey clay, trace gravel		1.52	3A		255			HEX: 25; IBL: 763			▽
				76.02									
2		Grey clay		1.78	3B		510			HEX: 20; IBL: 1639			
					4		760		Metals, PHCs, VOCs, PAHs	HEX: 15; IBL: >2000			Filter Sand
3					5		760			HEX: 20; IBL: 437			
				73.99									
		Grey clay, some sand, trace silt		3.81	6		760			HEX: 10; IBL: 143			Filter Sand
4				73.23									
		End of Borehole		4.57									

GROUNDWATER OBSERVATIONS

DATE	DEPTH (m)	ELEVATION (m)
Aug. 21/25	1.72 ▽	76.08

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LOGGED: JG
CHECKED: NS

ENV - BOREHOLE LOG 100011.122_ESA_TWO_2025_08.GPJ GEMTEC 2018.GDT 29/10/25

RECORD OF BOREHOLE 25-03

CLIENT: NOVATECH Engineers, Planners & Landscape Architects
PROJECT: 5384 Boundary Road
JOB#: 100011.122
LOCATION: See Borehole Location Plan, Figure A.2

SHEET: 1 OF 1
DATUM: CGVD28
BORING DATE: Aug 18 2025

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLE DATA: NUMBER	TYPE	RECOVERY (mm)	BLOWS/0.3m	LABORATORY ANALYSES	COMBUSTIBLE VAPOUR CONCENTRATION (ppm)	ODOUR	TPH (mg/kg)	MONITORING WELL INSTALLATION AND NOTES
		Ground Surface		77.61									
0		Brown sand and gravel		76.85	1		100			HEX: 105; IBL: 4			Flush Mount; Bentonite Seal
1		Brown sand		0.76 / 76.09	2		760		Metals, ORPs, PHCs, BTEX, PAHs + duplicate	HEX: 55; IBL: 90			
		Brown sand and grey/red clay		1.52 / 75.88	3A		205		Metals, PHCs, VOCs, PAHs	HEX: 35; IBL: 167			
2		Grey/red clay, trace sand		1.73 / 75.32	3B		560			HEX: 25; IBL: 62			
		Grey clay		2.29	4		760			HEX: 25; IBL: 48			Filter Sand
3					5		760			HEX: 20; IBL: 193			
4					6		760			HEX: 20; IBL: 63			Filter Sand
		Bottom of Borehole		73.04 / 4.57									

GROUNDWATER OBSERVATIONS

DATE	DEPTH (m)	ELEVATION (m)
Aug. 21/25	1.61 ▽	76.00

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LOGGED: JG
CHECKED: NS

ENV - BOREHOLE LOG 100011.122_ESA_TWO_2025_08.GPJ GEMTEC 2018.GDT 29/10/25

RECORD OF BOREHOLE 25-04

CLIENT: NOVATECH Engineers, Planners & Landscape Architects
PROJECT: 5384 Boundary Road
JOB#: 100011.122
LOCATION: See Borehole Location Plan, Figure A.2

SHEET: 1 OF 1
DATUM: CGVD28
BORING DATE: Aug 18 2025

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLE DATA: NUMBER	TYPE	RECOVERY (mm)	BLOWS/0.3m	LABORATORY ANALYSES	COMBUSTIBLE VAPOUR CONCENTRATION (ppm)	ODOUR	TPH (mg/kg)	MONITORING WELL INSTALLATION AND NOTES
		Ground Surface		77.76									
0		Grey gravel, some sand, trace clay		77.28	1A		205			HEX: 25; IBL: 2			
		Grey gravel, trace sand, trace clay, trace asphalt		0.48 / 77.00	1B		230			HEX: 25; IBL: 98			
1		Brown sand		0.76	2		760		Metals, ORPs, PHCs, BTEX, PAHs	HEX: 10; IBL: 123			
		Brown sand, trace clay		76.24 / 1.52 / 75.98	3A		255			HEX: 15; IBL: 18			
2		Grey clay		1.78	3B		510		PHCs, BTEX	HEX: 20; IBL: 260			Native backfill
					4		760			HEX: 10; IBL: 230			
3					5		760			HEX: 25; IBL: 40			
				73.95									
4		Grey clay, trace sand, trace silt		3.81	6		760			HEX: 15; IBL: 23			
				73.19									
		End of Borehole		4.57									

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Consulting Engineers and Scientists

LOGGED: JG
CHECKED: NS

ENV - BOREHOLE LOG 100011.122_ESA_TWO_2025_08.GPJ GEMTEC 2018.GDT 29/10/25

RECORD OF BOREHOLE 25-05

CLIENT: NOVATECH Engineers, Planners & Landscape Architects
PROJECT: 5384 Boundary Road
JOB#: 100011.122
LOCATION: See Borehole Location Plan, Figure A.2

SHEET: 1 OF 1
DATUM: CGVD28
BORING DATE: Aug 18 2025

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLE DATA: NUMBER	TYPE	RECOVERY (mm)	BLOWS/0.3m	LABORATORY ANALYSES	COMBUSTIBLE VAPOUR CONCENTRATION (ppm)	ODOUR	TPH (mg/kg)	MONITORING WELL INSTALLATION AND NOTES
		Ground Surface		77.93									
0		Grey gravel and brown/grey sand		77.17	1		510		Metals, ORPs, PHCs, BTEX, PAHs	HEX: 20; IBL: 155			Flush Mount; Bentonite Seal
1		Brown sand		0.76 76.41	2		255			HEX: 30; IBL: 67			
		Brown sand, some grey/red clay		1.52 76.20	3A		230			HEX: 65; IBL: 50			
2		Grey clay		1.73	3B		535			HEX: 55; IBL: 10			
					4		760			HEX: 60; IBL: 23			Filter Sand
3					5		760			HEX: 55; IBL: 90			
				74.12									
4		Grey clay, trace, silt, trace sand		3.81	6		760		PHCs, BTEX	HEX: 20; IBL: 132			Filter Sand
				73.36									
		End of Borehole		4.57									

GROUNDWATER OBSERVATIONS

DATE	DEPTH (m)	ELEVATION (m)
Aug. 21/25	1.83 ▽	76.10

GEMTEC
Consulting Engineers and Scientists

LOGGED: JG
CHECKED: NS

ENV - BOREHOLE LOG 100011.122_ESA_TWO_2025_08.GPJ GEMTEC 2018.GDT 29/10/25

APPENDIX C

Soil and Groundwater Analytical Data

Table C1
Soil Analytical Results - Bulk
Phase Two Environmental Site Assessment
5384 Boundary Road
Ottawa, Ontario

Parameter	Units	MDL	MECP Table 1 SCS RPI/ICC	Sample ID:	BH25-01 SA2	BH25-02 SA2	BH25-02 SA4	BH25-03 SA2	BH25-03 SA102	BH25-03 SA3A	BH25-04 SA2
				Laboratory Sample ID:	2534152-01	2534152-02	2534152-03	2534152-04	2534152-05	2534152-06	2534152-07
				Date Sampled(dd/mm/yyyy):	18/08/2025	18/08/2025	18/08/2025	18/08/2025	18/08/2025	18/08/2025	18/08/2025
				Sample Depth (mbgs):	0.76 - 1.52	0.76 - 1.52	2.29 - 3.05	0. 76 - 1.52	0.76 - 1.52	1.52 - 1.73	0.76 - 1.52
Physical Characteristics											
% Solids	% by Wt.	0.1	NS		84.5	82.6	54	78.6	81.5	77.6	83.4
General Inorganics											
SAR	N/A	0.01	2.4		**3.65**	1.92	N/A	1.01	0.73	N/A	0.41
Conductivity	uS/cm	5	0.57		**316**	**277**	N/A	**191**	**165**	N/A	**140**
Cyanide, free	ug/g dry	0.03	0.051		ND (0.03)	ND (0.03)	N/A	ND (0.03)	ND (0.03)	N/A	ND (0.03)
pH	pH Units	0.05	5 to 9		7.05	7.34	N/A	7.4	7.28	N/A	7.14
Metals											
Antimony	ug/g dry	1	1.3		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Arsenic	ug/g dry	1	18		1.4	1.2	3.6	1.7	1.5	1.9	1.5
Barium	ug/g dry	1	220		15.5	16.9	147	21.1	20.4	22.5	13.7
Beryllium	ug/g dry	0.5	2.5		ND (0.5)	ND (0.5)	1	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Boron, available	ug/g dry	0.5	NS		ND (0.5)	ND (0.5)	N/A	ND (0.5)	ND (0.5)	N/A	ND (0.5)
Boron	ug/g dry	5	36		ND (5.0)	ND (5.0)	13.6	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
Cadmium	ug/g dry	0.5	1.2		ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Chromium (VI)	ug/g dry	0.2	0.66		0.2	ND (0.2)	N/A	ND (0.2)	ND (0.2)	N/A	ND (0.2)
Chromium	ug/g dry	5	70		16.5	14.6	**84.7**	16.9	17.2	16.6	16.8
Cobalt	ug/g dry	1	21		3.5	4.1	17.1	3.9	3.6	3.4	4
Copper	ug/g dry	5	92		5.4	6.8	39	6.9	6.2	5.7	5.9
Lead	ug/g dry	1	120		1.7	2.1	8.2	2.7	2.1	2.9	2.7
Mercury	ug/g dry	0.1	0.27		ND (0.1)	ND (0.1)	N/A	ND (0.1)	ND (0.1)	N/A	ND (0.1)
Molybdenum	ug/g dry	1	2		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Nickel	ug/g dry	5	82		7.4	8.2	49.3	8.7	8	8	7.9
Selenium	ug/g dry	1	1.5		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Silver	ug/g dry	0.3	0.5		ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)	ND (0.3)
Thallium	ug/g dry	1	1		ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Uranium	ug/g dry	1	2.5		ND (1.0)	ND (1.0)	1.9	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
Vanadium	ug/g dry	10	86		27.3	19.4	70.9	23.1	22.7	23.6	24.1
Zinc	ug/g dry	20	290		ND (20.0)	ND (20.0)	80.9	ND (20.0)	ND (20.0)	ND (20.0)	ND (20.0)
Volatiles											
Acetone	ug/g dry	0.5	0.5		N/A	N/A	ND (0.50)	N/A	N/A	ND (0.50)	N/A
Benzene	ug/g dry	0.02	0.02		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Bromodichloromethane	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
Bromoform	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
Bromomethane	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
Carbon Tetrachloride	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
Chlorobenzene	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
Chloroform	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
Dibromochloromethane	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
Dichlorodifluoromethane	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
1,2-Dichlorobenzene	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
1,3-Dichlorobenzene	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
1,4-Dichlorobenzene	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
1,1-Dichloroethane	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
1,2-Dichloroethane	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
1,1-Dichloroethylene	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
cis-1,2-Dichloroethylene	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
trans-1,2-Dichloroethylene	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
1,2-Dichloropropane	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
cis-1,3-Dichloropropylene	ug/g dry	0.05	NS		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
trans-1,3-Dichloropropylene	ug/g dry	0.05	NS		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
1,3-Dichloropropene, total	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
Ethylbenzene	ug/g dry	0.05	0.05		ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)
Ethylene dibromide (dibromoetha	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
Hexane	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
Methyl Ethyl Ketone (2-Butanone)	ug/g dry	0.5	0.5		N/A	N/A	ND (0.50)	N/A	N/A	ND (0.50)	N/A
Methyl Isobutyl Ketone	ug/g dry	0.5	0.5		N/A	N/A	ND (0.50)	N/A	N/A	ND (0.50)	N/A
Methyl tert-butyl ether	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
Methylene Chloride	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
Styrene	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
1,1,1,2-Tetrachloroethane	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
1,1,2,2-Tetrachloroethane	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
Tetrachloroethylene	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
Toluene	ug/g dry	0.05	0.2		ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)
1,1,1-Trichloroethane	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
1,1,2-Trichloroethane	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
Trichloroethylene	ug/g dry	0.05	0.05		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
Trichlorofluoromethane	ug/g dry	0.05	0.25		N/A	N/A	ND (0.05)	N/A	N/A	ND (0.05)	N/A
Vinyl Chloride	ug/g dry	0.02	0.02		N/A	N/A	ND (0.02)	N/A	N/A	ND (0.02)	N/A
m/p-Xylene	ug/g dry	0.05	NS		ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)
o-Xylene	ug/g dry	0.05	NS		ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)
Xylenes, total	ug/g dry	0.05	0.05		ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.05)
Hydrocarbons											
F1 PHCs (C6-C10)	ug/g dry	7	25		ND (7)	ND (7)	ND (7)	ND (7)	ND (7)	ND (7)	ND (7)
F2 PHCs (C10-C16)	ug/g dry	4	10		ND (4)	ND (4)	ND (4)	ND (4)	ND (4)	ND (4)	ND (4)
F3 PHCs (C16-C34)	ug/g dry	8	240		ND (8)	ND (8)	ND (8)	ND (8)	ND (8)	ND (8)	ND (8)
F4 PHCs (C34-C50)	ug/g dry	6	120		ND (6)	ND (6)	ND (6)	ND (6)	ND (6)	ND (6)	ND (6)
Semi-Volatiles											
Acenaphthene	ug/g dry	0.02	0.072		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Acenaphthylene	ug/g dry	0.02	0.093		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Anthracene	ug/g dry	0.02	0.16		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Benzo[a]anthracene	ug/g dry	0.02	0.36		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Benzo[a]pyrene	ug/g dry	0.02	0.3		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Benzo[b]fluoranthene	ug/g dry	0.02	0.47		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Benzo[g,h,i]perylene	ug/g dry	0.02	0.68		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Benzo[k]fluoranthene	ug/g dry	0.02	0.48		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Chrysene	ug/g dry	0.02	2.8		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Dibenzo[a,h]anthracene	ug/g dry	0.02	0.1		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Fluoranthene	ug/g dry	0.02	0.56		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Fluorene	ug/g dry	0.02	0.12		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Indeno [1,2,3-cd] pyrene	ug/g dry	0.02	0.23		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
1-Methylnaphthalene	ug/g dry	0.02	0.59		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
2-Methylnaphthalene	ug/g dry	0.02	0.59		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Methylnaphthalene (1&2)	ug/g dry	0.04	0.59		ND (0.04)	ND (0.04)	ND (0.04)	ND (0.04)	ND (0.04)	ND (0.04)	ND (0.04)
Naphthalene	ug/g dry	0.01	0.09		ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Phenanthrene	ug/g dry	0.02	0.69		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)
Pyrene	ug/g dry	0.02	1		ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.02)

Notes:
MDL - Method Detection Limit
ND - Non-detect
mbgs - Metres Below Ground Surface
NS - No Standard
< - Less than Detection Limit
MECP Table 1 SCS RPI/ICC: 'MECP, 2011. Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. Table 1: Full Depth Background Site Condition Standards. Residential/ Parkland/ Institutional (RPI), Industrial/ Commercial/ Community (ICC) Property Use. With coarse textured soil.
Grey - Exceeds MECP Table 1 SCS RPI/ICC
Yellow - Elevated Detection Limits

Parameter	Units	MDL	MECP Table 1 SCS RPI/ICC	Sample ID:	BH25-04 SA3B	BH25-05 SA1	BH25-05-SA1A	BH25-05-SA1B	BH25-05-SA1C	BH25-05-SA1D	BH25-05 SA6
				Laboratory Sample ID:	2534152-08	2534152-09	2540367-01	2540367-02	2540367-03	2540367-04	2534152-10
				Date Sampled(dd/mm/yyyy):	18/08/2025	18/08/2025	10/02/2025	10/02/2025	10/02/2025	10/02/2025	18/08/2025
				Sample Depth (mbgs):	1.78 - 2.29	0.00 - 0.76	0.00 - 0.76	0.00 - 0.76	0.00 - 0.76	0.00 - 0.76	3.81 - 4.57
Physical Characteristics											
% Solids	% by Wt.	0.1	NS		56.5	87.2	N/A	N/A	N/A	N/A	61
General Inorganics											
SAR	N/A	0.01	2.4		N/A	**2.44**	N/A	N/A	N/A	N/A	N/A
Conductivity	uS/cm	5	0.57		N/A	**557**	N/A	N/A	N/A	N/A	N/A
Cyanide, free	ug/g dry	0.03	0.051		N/A	ND (0.03)	N/A	N/A	N/A	N/A	N/A
pH	pH Units	0.05	5 to 9		N/A	7.78	N/A	N/A	N/A	N/A	N/A
Metals							N/A	N/A	N/A	N/A	
Antimony	ug/g dry	1	1.3		N/A	ND (1.0)	N/A	N/A	N/A	N/A	N/A
Arsenic	ug/g dry	1	18		N/A	2.6	N/A	N/A	N/A	N/A	N/A
Barium	ug/g dry	1	220		N/A	62.5	N/A	N/A	N/A	N/A	N/A
Beryllium	ug/g dry	0.5	2.5		N/A	ND (0.5)	N/A	N/A	N/A	N/A	N/A
Boron, available	ug/g dry	0.5	NS		N/A	ND (0.5)	N/A	N/A	N/A	N/A	N/A
Boron	ug/g dry	5	36		N/A	ND (5.0)	N/A	N/A	N/A	N/A	N/A
Cadmium	ug/g dry	0.5	1.2		N/A	ND (0.5)	N/A	N/A	N/A	N/A	N/A
Chromium (VI)	ug/g dry	0.2	0.66		N/A	ND (0.2)	N/A	N/A	N/A	N/A	N/A
Chromium	ug/g dry	5	70		N/A	18.1	N/A	N/A	N/A	N/A	N/A
Cobalt	ug/g dry	1	21		N/A	5.1	N/A	N/A	N/A	N/A	N/A
Copper	ug/g dry	5	92		N/A	12.9	N/A	N/A	N/A	N/A	N/A
Lead	ug/g dry	1	120		N/A	21.6	N/A	N/A	N/A	N/A	N/A
Mercury	ug/g dry	0.1	0.27		N/A	ND (0.1)	N/A	N/A	N/A	N/A	N/A
Molybdenum	ug/g dry	1	2		N/A	ND (1.0)	N/A	N/A	N/A	N/A	N/A
Nickel	ug/g dry	5	82		N/A	12.9	N/A	N/A	N/A	N/A	N/A
Selenium	ug/g dry	1	1.5		N/A	ND (1.0)	N/A	N/A	N/A	N/A	N/A
Silver	ug/g dry	0.3	0.5		N/A	ND (0.3)	N/A	N/A	N/A	N/A	N/A
Thallium	ug/g dry	1	1		N/A	ND (1.0)	N/A	N/A	N/A	N/A	N/A
Uranium	ug/g dry	1	2.5		N/A	ND (1.0)	N/A	N/A	N/A	N/A	N/A
Vanadium	ug/g dry	10	86		N/A	25.4	N/A	N/A	N/A	N/A	N/A
Zinc	ug/g dry	20	290		N/A	50.6	N/A	N/A	N/A	N/A	N/A
Volatiles											
Acetone	ug/g dry	0.5	0.5		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	ug/g dry	0.02	0.02		ND (0.02)	ND (0.02)	N/A	N/A	N/A	N/A	ND (0.02)
Bromodichloromethane	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bromoform	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bromomethane	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobenzene	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chloroform	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dibromochloromethane	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dichlorodifluoromethane	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,3-Dichlorobenzene	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,4-Dichlorobenzene	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1-Dichloroethane	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichloroethane	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1-Dichloroethylene	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethylene	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
trans-1,2-Dichloroethylene	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichloropropane	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
cis-1,3-Dichloropropylene	ug/g dry	0.05	NS		N/A	N/A	N/A	N/A	N/A	N/A	N/A
trans-1,3-Dichloropropylene	ug/g dry	0.05	NS		N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,3-Dichloropropene, total	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ethylbenzene	ug/g dry	0.05	0.05		ND (0.05)	ND (0.05)	N/A	N/A	N/A	N/A	ND (0.05)
Ethylene dibromide (dibromoetha	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hexane	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Methyl Ethyl Ketone (2-Butanone)	ug/g dry	0.5	0.5		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Methyl Isobutyl Ketone	ug/g dry	0.5	0.5		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Methyl tert-butyl ether	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Methylene Chloride	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Styrene	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1,1,2-Tetrachloroethane	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tetrachloroethylene	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toluene	ug/g dry	0.05	0.2		ND (0.05)	ND (0.05)	N/A	N/A	N/A	N/A	ND (0.05)
1,1,1-Trichloroethane	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Trichloroethylene	ug/g dry	0.05	0.05		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Trichlorofluoromethane	ug/g dry	0.05	0.25		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	ug/g dry	0.02	0.02		N/A	N/A	N/A	N/A	N/A	N/A	N/A
m/p-Xylene	ug/g dry	0.05	NS		ND (0.05)	ND (0.05)	N/A	N/A	N/A	N/A	ND (0.05)
o-Xylene	ug/g dry	0.05	NS		ND (0.05)	ND (0.05)	N/A	N/A	N/A	N/A	ND (0.05)
Xylenes, total	ug/g dry	0.05	0.05		ND (0.05)	ND (0.05)	N/A	N/A	N/A	N/A	ND (0.05)
Hydrocarbons											
F1 PHCs (C6-C10)	ug/g dry	7	25		ND (7)	ND (7)	N/A	N/A	N/A	N/A	ND (7)
F2 PHCs (C10-C16)	ug/g dry	4	10		ND (4)	ND (4)	N/A	N/A	N/A	N/A	ND (4)
F3 PHCs (C16-C34)	ug/g dry	8	240		ND (8)	79	N/A	N/A	N/A	N/A	ND (8)
F4 PHCs (C34-C50)	ug/g dry	6	120		ND (6)	80	N/A	N/A	N/A	N/A	ND (6)
Semi-Volatiles											
Acenaphthene	ug/g dry	0.02	0.072		N/A	0.03	0.04	ND (0.40)	ND (0.40)	ND (0.40)	N/A
Acenaphthylene	ug/g dry	0.02	0.093		N/A	0.03	ND (0.02)	ND (0.40)	ND (0.40)	ND (0.40)	N/A
Anthracene	ug/g dry	0.02	0.16		N/A	0.09	**0.17**	ND (0.40)	ND (0.40)	ND (0.40)	N/A
Benzo[a]anthracene	ug/g dry	0.02	0.36		N/A	0.24	0.18	ND (0.40)	ND (0.40)	ND (0.40)	N/A
Benzo[a]pyrene	ug/g dry	0.02	0.3		N/A	0.29	0.15	ND (0.40)	ND (0.40)	ND (0.40)	N/A
Benzo[b]fluoranthene	ug/g dry	0.02	0.47		N/A	0.36	0.15	ND (0.40)	ND (0.40)	ND (0.40)	N/A
Benzo[g,h,i]perylene	ug/g dry	0.02	0.68		N/A	0.26	0.09	ND (0.40)	ND (0.40)	ND (0.40)	N/A
Benzo[k]fluoranthene	ug/g dry	0.02	0.48		N/A	0.17	0.09	ND (0.40)	ND (0.40)	ND (0.40)	N/A
Chrysene	ug/g dry	0.02	2.8		N/A	0.28	0.16	ND (0.40)	ND (0.40)	ND (0.40)	N/A
Dibenzo[a,h]anthracene	ug/g dry	0.02	0.1		N/A	0.06	0.03	ND (0.40)	ND (0.40)	ND (0.40)	N/A
Fluoranthene	ug/g dry	0.02	0.56		N/A	**0.63**	0.43	ND (0.40)	ND (0.40)	ND (0.40)	N/A
Fluorene	ug/g dry	0.02	0.12		N/A	0.03	0.07	ND (0.40)	ND (0.40)	ND (0.40)	N/A
Indeno [1,2,3-cd] pyrene	ug/g dry	0.02	0.23		N/A	0.22	0.07	ND (0.40)	ND (0.40)	ND (0.40)	N/A
1-Methylnaphthalene	ug/g dry	0.02	0.59		N/A	ND (0.02)	ND (0.02)	ND (0.40)	ND (0.40)	ND (0.40)	N/A
2-Methylnaphthalene	ug/g dry	0.02	0.59		N/A	ND (0.02)	ND (0.02)	ND (0.40)	ND (0.40)	ND (0.40)	N/A
Methylnaphthalene (1&2)	ug/g dry	0.04	0.59		N/A	ND (0.04)	ND (0.04)	ND (0.80)	ND (0.80)	ND (0.80)	N/A
Naphthalene	ug/g dry	0.01	0.09		N/A	0.02	0.02	ND (0.20)	ND (0.20)	ND (0.20)	N/A
Phenanthrene	ug/g dry	0.02	0.69		N/A	0.32	0.47	ND (0.40)	ND (0.40)	ND (0.40)	N/A
Pyrene	ug/g dry	0.02	1		N/A	0.53	0.32	ND (0.40)	ND (0.40)	ND (0.40)	N/A

Notes:
MDL - Method Detection Limit
ND - Non-detect
mbgs - Metres Below Ground Surface
NS - No Standard
< - Less than Detection Limit
MECP Table 1 SCS RPI/ICC: 'MECP, 2011. Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. Table 1: Full Depth Background Site Condition Standards. Residential/ Parkland/ Institutional (RPI), Industrial/ Commercial/ Community (ICC) Property Use. With coarse textured soil.
Grey - Exceeds MECP Table 1 SCS RPI/ICC
Yellow - Elevated Detection Limits

Table C2
Groundwater Analytical Results
Phase Two Environmental Site Assessment
5384 Boundary Road
Ottawa, Ontario

Parameter	Units	MDL	MECP Table 1 SCS	Sample ID:	MW25-03	MW25-02	MW25-02A	MW25-02B	MW25-02C	MW25-05	Field Blank	Trip Blank
				Laboratory Sample ID:	2534509-01	2534509-02	2538518-01	2538518-02	2540262-01	2534509-03	2534509-04	2534509-05
				Date Sampled(dd/mm/yyyy):	22/08/2025	22/08/2025	16/09/2025	18/09/2025	30/09/2025	22/08/2025	22/08/2025	22/08/2025
Metals												
Antimony	ug/L	0.5	1.5		ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
Arsenic	ug/L	1	13		1	ND (1)	2	2	2	N/A	N/A	N/A
Barium	ug/L	1	610		58	114	127	155	151	N/A	N/A	N/A
Beryllium	ug/L	0.5	0.5		ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	N/A	N/A	N/A
Boron	ug/L	10	1700		60	64	75	65	61	N/A	N/A	N/A
Cadmium	ug/L	0.1	0.5		ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	N/A	N/A	N/A
Chromium	ug/L	1	11		ND (1)	ND (1)	ND (1)	ND (1)	3	N/A	N/A	N/A
Cobalt	ug/L	0.5	3.8		0.7	3.7	2.6	**5**	**5.5**	N/A	N/A	N/A
Copper	ug/L	0.5	5		0.7	**6.5**	0.7	1.6	2.9	N/A	N/A	N/A
Lead	ug/L	0.1	1.9		0.2	ND (0.1)	ND (0.1)	ND (0.1)	0.9	N/A	N/A	N/A
Molybdenum	ug/L	0.5	23		4.7	3.2	1.4	0.9	0.6	N/A	N/A	N/A
Nickel	ug/L	1	14		2	6	4	5	7	N/A	N/A	N/A
Selenium	ug/L	1	5		ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	N/A	N/A	N/A
Silver	ug/L	0.1	0.3		ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	N/A	N/A	N/A
Sodium	ug/L	200	490000		54200	144000	130000	154000	ND (0.1)	N/A	N/A	N/A
Thallium	ug/L	0.1	0.5		ND (0.1)	ND (0.1)	ND (0.1)	ND (0.1)	**1.7**	N/A	N/A	N/A
Uranium	ug/L	0.1	8.9		1.8	1.6	0.8	1.5	4.3	N/A	N/A	N/A
Vanadium	ug/L	0.5	3.9		1.4	1.0	1.9	2.3	ND (5)	N/A	N/A	N/A
Zinc	ug/L	5	160		5	ND (5)	ND (5)	ND (5)	ND (5)	N/A	N/A	N/A
Volatiles												
Acetone	ug/L	5.0	2700		ND (5.0)	ND (5.0)	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	ug/L	0.5	0.5		ND (0.5)	ND (0.5)	N/A	N/A	N/A	ND (0.5)	ND (0.5)	ND (0.5)
Bromodichloromethane	ug/L	0.5	2		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
Bromoform	ug/L	0.5	5		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
Bromomethane	ug/L	0.5	0.89		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	ug/L	0.2	0.2		ND (0.2)	ND (0.2)	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobenzene	ug/L	0.5	0.5		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
Chloroform	ug/L	0.5	2		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
Dibromochloromethane	ug/L	0.5	2		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
Dichlorodifluoromethane	ug/L	1.0	590		ND (1.0)	ND (1.0)	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene	ug/L	0.5	0.5		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
1,3-Dichlorobenzene	ug/L	0.5	0.5		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
1,4-Dichlorobenzene	ug/L	0.5	0.5		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
1,1-Dichloroethane	ug/L	0.5	0.5		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichloroethane	ug/L	0.5	0.5		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
1,1-Dichloroethylene	ug/L	0.5	0.5		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethylene	ug/L	0.5	1.6		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
trans-1,2-Dichloroethylene	ug/L	0.5	1.6		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichloropropane	ug/L	0.5	0.5		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
cis-1,3-Dichloropropylene	ug/L	0.5	NS		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
trans-1,3-Dichloropropylene	ug/L	0.5	NS		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
1,3-Dichloropropene, total	ug/L	0.5	0.5		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
Ethylbenzene	ug/L	0.5	0.5		ND (0.5)	ND (0.5)	N/A	N/A	N/A	ND (0.5)	ND (0.5)	ND (0.5)
Ethylene dibromide (dibromoethar	ug/L	0.2	0.2		ND (0.2)	ND (0.2)	N/A	N/A	N/A	N/A	N/A	N/A
Hexane	ug/L	1.0	5		ND (1.0)	ND (1.0)	N/A	N/A	N/A	N/A	N/A	N/A
Methyl Ethyl Ketone (2-Butanone)	ug/L	5.0	400		ND (5.0)	ND (5.0)	N/A	N/A	N/A	N/A	N/A	N/A
Methyl Isobutyl Ketone	ug/L	5.0	640		ND (5.0)	ND (5.0)	N/A	N/A	N/A	N/A	N/A	N/A
Methyl tert-butyl ether	ug/L	2.0	15		ND (2.0)	ND (2.0)	N/A	N/A	N/A	N/A	N/A	N/A
Methylene Chloride	ug/L	5.0	5		ND (5.0)	ND (5.0)	N/A	N/A	N/A	N/A	N/A	N/A
Styrene	ug/L	0.5	0.5		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
1,1,1,2-Tetrachloroethane	ug/L	0.5	1.1		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane	ug/L	0.5	0.5		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
Tetrachloroethylene	ug/L	0.5	0.5		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
Toluene	ug/L	0.5	0.8		ND (0.5)	ND (0.5)	N/A	N/A	N/A	ND (0.5)	ND (0.5)	ND (0.5)
1,1,1-Trichloroethane	ug/L	0.5	0.5		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	ug/L	0.5	0.5		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
Trichloroethylene	ug/L	0.5	0.5		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
Trichlorofluoromethane	ug/L	1.0	150		ND (1.0)	ND (1.0)	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	ug/L	0.5	0.5		ND (0.5)	ND (0.5)	N/A	N/A	N/A	N/A	N/A	N/A
m/p-Xylene	ug/L	0.5			ND (0.5)	ND (0.5)	N/A	N/A	N/A	ND (0.5)	ND (0.5)	ND (0.5)
o-Xylene	ug/L	0.5			ND (0.5)	ND (0.5)	N/A	N/A	N/A	ND (0.5)	ND (0.5)	ND (0.5)
Xylenes, total	ug/L	0.5	72		ND (0.5)	ND (0.5)	N/A	N/A	N/A	ND (0.5)	ND (0.5)	ND (0.5)
Hydrocarbons												
F1 PHCs (C6-C10)	ug/L	25	420		ND (25)	ND (25)	N/A	N/A	N/A	ND (25)	ND (25)	ND (25)
F2 PHCs (C10-C16)	ug/L	100	150		ND (100)	ND (100)	N/A	N/A	N/A	ND (100)	N/A	N/A
F3 PHCs (C16-C34)	ug/L	100	500		ND (100)	ND (100)	N/A	N/A	N/A	ND (100)	N/A	N/A
F4 PHCs (C34-C50)	ug/L	100	500		ND (100)	ND (100)	N/A	N/A	N/A	ND (100)	N/A	N/A
Semi-Volatiles												
Acenaphthene	ug/L	0.05	4.1		ND (0.05)	ND (0.05)	N/A	N/A	N/A	N/A	N/A	N/A
Acenaphthylene	ug/L	0.05	1		ND (0.05)	ND (0.05)	N/A	N/A	N/A	N/A	N/A	N/A
Anthracene	ug/L	0.01	0.1		ND (0.01)	ND (0.01)	N/A	N/A	N/A	N/A	N/A	N/A
Benzo[a]anthracene	ug/L	0.01	0.2		ND (0.01)	ND (0.01)	N/A	N/A	N/A	N/A	N/A	N/A
Benzo[a]pyrene	ug/L	0.01	0.01		ND (0.01)	ND (0.01)	N/A	N/A	N/A	N/A	N/A	N/A
Benzo[b]fluoranthene	ug/L	0.05	0.1		ND (0.05)	ND (0.05)	N/A	N/A	N/A	N/A	N/A	N/A
Benzo[g,h,i]perylene	ug/L	0.05	0.2		ND (0.05)	ND (0.05)	N/A	N/A	N/A	N/A	N/A	N/A
Benzo[k]fluoranthene	ug/L	0.05	0.1		ND (0.05)	ND (0.05)	N/A	N/A	N/A	N/A	N/A	N/A
Chrysene	ug/L	0.05	0.1		ND (0.05)	ND (0.05)	N/A	N/A	N/A	N/A	N/A	N/A
Dibenzo[a,h]anthracene	ug/L	0.05	0.2		ND (0.05)	ND (0.05)	N/A	N/A	N/A	N/A	N/A	N/A
Fluoranthene	ug/L	0.01	0.4		ND (0.01)	ND (0.01)	N/A	N/A	N/A	N/A	N/A	N/A
Fluorene	ug/L	0.05	120		ND (0.05)	ND (0.05)	N/A	N/A	N/A	N/A	N/A	N/A
Indeno [1,2,3-cd] pyrene	ug/L	0.05	0.2		ND (0.05)	ND (0.05)	N/A	N/A	N/A	N/A	N/A	N/A
1-Methylnaphthalene	ug/L	0.05	2		ND (0.05)	ND (0.05)	N/A	N/A	N/A	N/A	N/A	N/A
2-Methylnaphthalene	ug/L	0.05	2		ND (0.05)	ND (0.05)	N/A	N/A	N/A	N/A	N/A	N/A
Methylnaphthalene (1&2)	ug/L	0.10	2		ND (0.10)	ND (0.10)	N/A	N/A	N/A	N/A	N/A	N/A
Naphthalene	ug/L	0.05	7		ND (0.05)	ND (0.05)	N/A	N/A	N/A	N/A	N/A	N/A
Phenanthrene	ug/L	0.05	0.1		ND (0.05)	ND (0.05)	N/A	N/A	N/A	N/A	N/A	N/A
Pyrene	ug/L	0.01	0.2		ND (0.01)	ND (0.01)	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
MDL - Method Detection Limit
ND - Non-detect
mbgs - Metres Below Ground Surface
NS - No Standard
< - Less than Detection Limit
MECP Table 1 SCS: MECP, 2011. Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. Table 1: Full Depth Background Site Condition Standards. All Types of Property Use with coarse textured soil.
Grey - Exceeds MECP Table 1 SCS

Table C3
Soil Analytical Results - Toxicity Characteristic Leaching Procedure
Phase Two Environmental Site Assessment
5384 Boundary Road
Ottawa, Ontario

Parameter	Units	MDL	Sample ID: Laboratory ID: Date Sampled (dd/mm/yyyy): O.Reg. 558 Schedule 4[1]	TCLP-COMP 2534165-01 18/08/2025
Physical Characteristics				
Flashpoint	°C	-	NA	>70
EPA 1311 - TCLP Leachate Inorganics				
Fluoride	mg/L	0.05	150	0.10
Nitrate as N	mg/L	1	1000	ND (1)
Nitrite as N	mg/L	1	1000	ND (1)
Nitrate + Nitrite as N	mg/L	2	1000	ND (2)
Cyanide, free	mg/L	0.02	20	ND (0.02)
EPA 1311 - TCLP Leachate Metals				
Arsenic	mg/L	0.05	2.5	ND (0.05)
Barium	mg/L	0.05	100	0.52
Boron	mg/L	0.1	500	ND (0.10)
Cadmium	mg/L	0.01	0.5	ND (0.01)
Chromium	mg/L	0.05	5	ND (0.05)
Lead	mg/L	0.05	5	ND (0.05)
Mercury	mg/L	0.005	0.1	ND (0.005)
Selenium	mg/L	0.05	1	ND (0.05)
Silver	mg/L	0.05	5	ND (0.05)
Uranium	mg/L	0.05	10	ND (0.05)
EPA 1311 - TCLP Leachate Volatiles				
Benzene	mg/L	0.005	0.5	ND (0.005)
Carbon Tetrachloride	mg/L	0.005	0.5	ND (0.005)
Chlorobenzene	mg/L	0.004	8	ND (0.004)
Chloroform	mg/L	0.006	10	ND (0.006)
1,2-Dichlorobenzene	mg/L	0.004	20	ND (0.004)
1,4-Dichlorobenzene	mg/L	0.004	0.5	ND (0.004)
1,2-Dichloroethane	mg/L	0.005	0.5	ND (0.005)
1,1-Dichloroethylene	mg/L	0.006	1.4	ND (0.006)
Methyl Ethyl Ketone (2-Butanone)	mg/L	0.3	200	ND (0.30)
Methylene Chloride	mg/L	0.04	5	ND (0.04)
Tetrachloroethylene	mg/L	0.005	3	ND (0.005)
Trichloroethylene	mg/L	0.004	5	ND (0.004)
Vinyl Chloride	mg/L	0.005	0.2	ND (0.005)
EPA 1311 - TCLP Leachate Organics				
Benzo[a]pyrene	mg/L	0.0001	0.001	ND (0.0001)

Notes:
<: Less than Detection Limit
NA: Not Applicable
MDL: Method Detection Limit
1 - MECP O.Reg. 558 and O.Reg 347 Schedule 4, Leachate Quality Criteria, to evaluate waste classification (hazardous or non-hazardous waste) for on-site soils. (MECP, 2000).
Grey - Exceeds O.Reg. 558/347

APPENDIX D

Certificate of Analysis

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Certificate of Analysis

GEMTEC Consulting Engineers and Scientists Limited
32 Steacie Drive
Kanata, ON K2K 2A9
Attn: Nicole Soucy

Client PO:
Project: 100011.122
Custody: 149868

Report Date: 25-Aug-2025
Order Date: 19-Aug-2025

Order #: 2534152

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

Paracel ID	Client ID
2534152-01	BH25-01 SA2
2534152-02	BH25-02 SA2
2534152-03	BH25-02 SA4
2534152-04	BH25-03 SA2
2534152-05	BH25-03 SA102
2534152-06	BH25-03 SA3A
2534152-07	BH25-04 SA2
2534152-08	BH25-04 SA3B
2534152-09	BH25-05 SA1
2534152-10	BH25-05 SA6

Approved By:

Dale Robertson, BSc
Senior Technical Advisor

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Boron, available	MOE (HWE), EPA 200.8 - ICP-MS	22-Aug-25	22-Aug-25
BTEX by P&T GC-MS	EPA 8260 - P&T GC-MS	20-Aug-25	20-Aug-25
Chromium, hexavalent - soil	MOE E3056 - Extraction, colourimetric	20-Aug-25	21-Aug-25
Conductivity	MOE E3138 - probe @25 °C, water ext	21-Aug-25	22-Aug-25
Cyanide, free	MOE E3015 - Auto Colour, water extraction	21-Aug-25	21-Aug-25
Mercury by CVAA	EPA 7471B - CVAA, digestion	25-Aug-25	25-Aug-25
pH, soil	MOE E3137 - probe @25 °C, CaCl2 ext	21-Aug-25	21-Aug-25
PHC F1	CWS Tier 1 - P&T GC-FID	20-Aug-25	20-Aug-25
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	20-Aug-25	21-Aug-25
REG 153: Metals by ICP/MS, soil	EPA 6020 - Digestion - ICP-MS	22-Aug-25	22-Aug-25
REG 153: PAHs by GC-MS	EPA 8270 - GC-MS, extraction	21-Aug-25	25-Aug-25
REG 153: VOCs by P&T GC/MS	EPA 8260 - P&T GC-MS	20-Aug-25	20-Aug-25
SAR	Calculated	21-Aug-25	21-Aug-25
Solids, %	CWS Tier 1 - Gravimetric	20-Aug-25	21-Aug-25

Certificate of Analysis

Report Date: 25-Aug-2025

Client: **GEMTEC Consulting Engineers and Scientists Limited**

Order Date: 19-Aug-2025

Client PO:

Project Description: 100011.122

	Client ID:	BH25-01 SA2	BH25-02 SA2	BH25-02 SA4	BH25-03 SA2	-	-
	Sample Date:	18-Aug-25 09:00	18-Aug-25 09:00	18-Aug-25 09:00	18-Aug-25 09:00		
	Sample ID:	2534152-01	2534152-02	2534152-03	2534152-04		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	84.5	82.6	54.0	78.6	-	-
General Inorganics							
SAR	0.01 N/A	3.65	1.92	-	1.01	-	-
Conductivity	5 uS/cm	316	277	-	191	-	-
Cyanide, free	0.03 ug/g	<0.03	<0.03	-	<0.03	-	-
pH	0.05 pH Units	7.05	7.34	-	7.40	-	-
Metals							
Antimony	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	-	-
Arsenic	1.0 ug/g	1.4	1.2	3.6	1.7	-	-
Barium	1.0 ug/g	15.5	16.9	147	21.1	-	-
Beryllium	0.5 ug/g	<0.5	<0.5	1.0	<0.5	-	-
Boron	5.0 ug/g	<5.0	<5.0	13.6	<5.0	-	-
Boron, available	0.5 ug/g	<0.5	<0.5	-	<0.5	-	-
Cadmium	0.5 ug/g	<0.5	<0.5	<0.5	<0.5	-	-
Chromium (VI)	0.2 ug/g	0.2	<0.2	-	<0.2	-	-
Chromium	5.0 ug/g	16.5	14.6	84.7	16.9	-	-
Cobalt	1.0 ug/g	3.5	4.1	17.1	3.9	-	-
Copper	5.0 ug/g	5.4	6.8	39.0	6.9	-	-
Lead	1.0 ug/g	1.7	2.1	8.2	2.7	-	-
Mercury	0.1 ug/g	<0.1	<0.1	-	<0.1	-	-
Molybdenum	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	-	-
Nickel	5.0 ug/g	7.4	8.2	49.3	8.7	-	-
Selenium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	-	-
Silver	0.3 ug/g	<0.3	<0.3	<0.3	<0.3	-	-
Thallium	1.0 ug/g	<1.0	<1.0	<1.0	<1.0	-	-

	Client ID:	BH25-01 SA2	BH25-02 SA2	BH25-02 SA4	BH25-03 SA2	-	-
	Sample Date:	18-Aug-25 09:00	18-Aug-25 09:00	18-Aug-25 09:00	18-Aug-25 09:00		
	Sample ID:	2534152-01	2534152-02	2534152-03	2534152-04		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Metals							
Uranium	1.0 ug/g	<1.0	<1.0	1.9	<1.0	-	-
Vanadium	10.0 ug/g	27.3	19.4	70.9	23.1	-	-
Zinc	20.0 ug/g	<20.0	<20.0	80.9	<20.0	-	-
Volatiles							
Acetone	0.50 ug/g	-	-	<0.50	-	-	-
Benzene	0.02 ug/g	-	-	<0.02	-	-	-
Bromodichloromethane	0.05 ug/g	-	-	<0.05	-	-	-
Bromoform	0.05 ug/g	-	-	<0.05	-	-	-
Bromomethane	0.05 ug/g	-	-	<0.05	-	-	-
Carbon Tetrachloride	0.05 ug/g	-	-	<0.05	-	-	-
Chlorobenzene	0.05 ug/g	-	-	<0.05	-	-	-
Chloroform	0.05 ug/g	-	-	<0.05	-	-	-
Dibromochloromethane	0.05 ug/g	-	-	<0.05	-	-	-
Dichlorodifluoromethane	0.05 ug/g	-	-	<0.05	-	-	-
1,2-Dichlorobenzene	0.05 ug/g	-	-	<0.05	-	-	-
1,3-Dichlorobenzene	0.05 ug/g	-	-	<0.05	-	-	-
1,4-Dichlorobenzene	0.05 ug/g	-	-	<0.05	-	-	-
1,1-Dichloroethane	0.05 ug/g	-	-	<0.05	-	-	-
1,2-Dichloroethane	0.05 ug/g	-	-	<0.05	-	-	-
1,1-Dichloroethylene	0.05 ug/g	-	-	<0.05	-	-	-
cis-1,2-Dichloroethylene	0.05 ug/g	-	-	<0.05	-	-	-
trans-1,2-Dichloroethylene	0.05 ug/g	-	-	<0.05	-	-	-
1,2-Dichloropropane	0.05 ug/g	-	-	<0.05	-	-	-
cis-1,3-Dichloropropylene	0.05 ug/g	-	-	<0.05	-	-	-
trans-1,3-Dichloropropylene	0.05 ug/g	-	-	<0.05	-	-	-

	Client ID:	BH25-01 SA2	BH25-02 SA2	BH25-02 SA4	BH25-03 SA2	-	-
	Sample Date:	18-Aug-25 09:00	18-Aug-25 09:00	18-Aug-25 09:00	18-Aug-25 09:00		
	Sample ID:	2534152-01	2534152-02	2534152-03	2534152-04		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Volatiles							
1,3-Dichloropropene, total	0.05 ug/g	-	-	<0.05	-	-	-
Ethylbenzene	0.05 ug/g	-	-	<0.05	-	-	-
Ethylene dibromide (dibromoethane,	0.05 ug/g	-	-	<0.05	-	-	-
Hexane	0.05 ug/g	-	-	<0.05	-	-	-
Methyl Ethyl Ketone (2-Butanone)	0.50 ug/g	-	-	<0.50	-	-	-
Methyl Isobutyl Ketone	0.50 ug/g	-	-	<0.50	-	-	-
Methyl tert-butyl ether	0.05 ug/g	-	-	<0.05	-	-	-
Methylene Chloride	0.05 ug/g	-	-	<0.05	-	-	-
Styrene	0.05 ug/g	-	-	<0.05	-	-	-
1,1,1,2-Tetrachloroethane	0.05 ug/g	-	-	<0.05	-	-	-
1,1,2,2-Tetrachloroethane	0.05 ug/g	-	-	<0.05	-	-	-
Tetrachloroethylene	0.05 ug/g	-	-	<0.05	-	-	-
Toluene	0.05 ug/g	-	-	<0.05	-	-	-
1,1,1-Trichloroethane	0.05 ug/g	-	-	<0.05	-	-	-
1,1,2-Trichloroethane	0.05 ug/g	-	-	<0.05	-	-	-
Trichloroethylene	0.05 ug/g	-	-	<0.05	-	-	-
Trichlorofluoromethane	0.05 ug/g	-	-	<0.05	-	-	-
Vinyl chloride	0.02 ug/g	-	-	<0.02	-	-	-
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	-	-	-
Dibromofluoromethane	Surrogate	-	-	89.2%	-	-	-
4-Bromofluorobenzene	Surrogate	-	-	116%	-	-	-
Toluene-d8	Surrogate	-	-	131%	-	-	-
Benzene	0.02 ug/g	<0.02	<0.02	-	<0.02	-	-

Certificate of Analysis

Report Date: 25-Aug-2025

Client: **GEMTEC Consulting Engineers and Scientists Limited**

Order Date: 19-Aug-2025

Client PO:

Project Description: 100011.122

	Client ID:	BH25-01 SA2	BH25-02 SA2	BH25-02 SA4	BH25-03 SA2	-	-
	Sample Date:	18-Aug-25 09:00	18-Aug-25 09:00	18-Aug-25 09:00	18-Aug-25 09:00		
	Sample ID:	2534152-01	2534152-02	2534152-03	2534152-04		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Volatiles							
Ethylbenzene	0.05 ug/g	<0.05	<0.05	-	<0.05	-	-
Toluene	0.05 ug/g	<0.05	<0.05	-	<0.05	-	-
m,p-Xylenes	0.05 ug/g	<0.05	<0.05	-	<0.05	-	-
o-Xylene	0.05 ug/g	<0.05	<0.05	-	<0.05	-	-
Xylenes, total	0.05 ug/g	<0.05	<0.05	-	<0.05	-	-
Toluene-d8	Surrogate	117%	118%	-	115%	-	-
Hydrocarbons							
F1 PHCs (C6-C10)	7 ug/g	<7	<7	<7	<7	-	-
F2 PHCs (C10-C16)	4 ug/g	<4	<4	<4	<4	-	-
F3 PHCs (C16-C34)	8 ug/g	<8	<8	<8	<8	-	-
F4 PHCs (C34-C50)	6 ug/g	<6	<6	<6	<6	-	-
Semi-Volatiles							
Acenaphthene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
Acenaphthylene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
Anthracene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
Benzo [a] anthracene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
Benzo [a] pyrene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
Benzo [b] fluoranthene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
Benzo [g,h,i] perylene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
Benzo [k] fluoranthene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
Chrysene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
Dibenzo [a,h] anthracene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
Fluoranthene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
Fluorene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
Indeno [1,2,3-cd] pyrene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-

	Client ID:	BH25-01 SA2	BH25-02 SA2	BH25-02 SA4	BH25-03 SA2	-	-
	Sample Date:	18-Aug-25 09:00	18-Aug-25 09:00	18-Aug-25 09:00	18-Aug-25 09:00		
	Sample ID:	2534152-01	2534152-02	2534152-03	2534152-04		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Semi-Volatiles							
1-Methylnaphthalene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
2-Methylnaphthalene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
Methylnaphthalene (1&2)	0.04 ug/g	<0.04	<0.04	<0.04	<0.04	-	-
Naphthalene	0.01 ug/g	<0.01	<0.01	<0.01	<0.01	-	-
Phenanthrene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
Pyrene	0.02 ug/g	<0.02	<0.02	<0.02	<0.02	-	-
2-Fluorobiphenyl	Surrogate	58.2%	77.7%	62.8%	63.0%	-	-
Terphenyl-d14	Surrogate	85.9%	121%	97.5%	77.1%	-	-

	Client ID:	BH25-03 SA102	BH25-03 SA3A	BH25-04 SA2	BH25-04 SA3B	-	-
	Sample Date:	18-Aug-25 09:00	18-Aug-25 09:00	18-Aug-25 09:00	18-Aug-25 09:00		
	Sample ID:	2534152-05	2534152-06	2534152-07	2534152-08		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	81.5	77.6	83.4	56.5	-	-
General Inorganics							
SAR	0.01 N/A	0.73	-	0.41	-	-	-
Conductivity	5 uS/cm	165	-	140	-	-	-
Cyanide, free	0.03 ug/g	<0.03	-	<0.03	-	-	-
pH	0.05 pH Units	7.28	-	7.14	-	-	-
Metals							
Antimony	1.0 ug/g	<1.0	<1.0	<1.0	-	-	-
Arsenic	1.0 ug/g	1.5	1.9	1.5	-	-	-
Barium	1.0 ug/g	20.4	22.5	13.7	-	-	-
Beryllium	0.5 ug/g	<0.5	<0.5	<0.5	-	-	-
Boron, available	0.5 ug/g	<0.5	-	<0.5	-	-	-
Boron	5.0 ug/g	<5.0	<5.0	<5.0	-	-	-
Cadmium	0.5 ug/g	<0.5	<0.5	<0.5	-	-	-
Chromium	5.0 ug/g	17.2	16.6	16.8	-	-	-
Chromium (VI)	0.2 ug/g	<0.2	-	<0.2	-	-	-
Cobalt	1.0 ug/g	3.6	3.4	4.0	-	-	-
Copper	5.0 ug/g	6.2	5.7	5.9	-	-	-
Lead	1.0 ug/g	2.1	2.9	2.7	-	-	-
Mercury	0.1 ug/g	<0.1	-	<0.1	-	-	-
Molybdenum	1.0 ug/g	<1.0	<1.0	<1.0	-	-	-
Nickel	5.0 ug/g	8.0	8.0	7.9	-	-	-
Selenium	1.0 ug/g	<1.0	<1.0	<1.0	-	-	-
Silver	0.3 ug/g	<0.3	<0.3	<0.3	-	-	-
Thallium	1.0 ug/g	<1.0	<1.0	<1.0	-	-	-

	Client ID:	BH25-03 SA102	BH25-03 SA3A	BH25-04 SA2	BH25-04 SA3B	-	-
	Sample Date:	18-Aug-25 09:00	18-Aug-25 09:00	18-Aug-25 09:00	18-Aug-25 09:00		
	Sample ID:	2534152-05	2534152-06	2534152-07	2534152-08		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Metals							
Uranium	1.0 ug/g	<1.0	<1.0	<1.0	-	-	-
Vanadium	10.0 ug/g	22.7	23.6	24.1	-	-	-
Zinc	20.0 ug/g	<20.0	<20.0	<20.0	-	-	-
Volatiles							
Acetone	0.50 ug/g	-	<0.50	-	-	-	-
Benzene	0.02 ug/g	-	<0.02	-	-	-	-
Bromodichloromethane	0.05 ug/g	-	<0.05	-	-	-	-
Bromoform	0.05 ug/g	-	<0.05	-	-	-	-
Bromomethane	0.05 ug/g	-	<0.05	-	-	-	-
Carbon Tetrachloride	0.05 ug/g	-	<0.05	-	-	-	-
Chlorobenzene	0.05 ug/g	-	<0.05	-	-	-	-
Chloroform	0.05 ug/g	-	<0.05	-	-	-	-
Dibromochloromethane	0.05 ug/g	-	<0.05	-	-	-	-
Dichlorodifluoromethane	0.05 ug/g	-	<0.05	-	-	-	-
1,2-Dichlorobenzene	0.05 ug/g	-	<0.05	-	-	-	-
1,3-Dichlorobenzene	0.05 ug/g	-	<0.05	-	-	-	-
1,4-Dichlorobenzene	0.05 ug/g	-	<0.05	-	-	-	-
1,1-Dichloroethane	0.05 ug/g	-	<0.05	-	-	-	-
1,2-Dichloroethane	0.05 ug/g	-	<0.05	-	-	-	-
1,1-Dichloroethylene	0.05 ug/g	-	<0.05	-	-	-	-
cis-1,2-Dichloroethylene	0.05 ug/g	-	<0.05	-	-	-	-
trans-1,2-Dichloroethylene	0.05 ug/g	-	<0.05	-	-	-	-
1,2-Dichloropropane	0.05 ug/g	-	<0.05	-	-	-	-
cis-1,3-Dichloropropylene	0.05 ug/g	-	<0.05	-	-	-	-
trans-1,3-Dichloropropylene	0.05 ug/g	-	<0.05	-	-	-	-

	Client ID:	BH25-03 SA102	BH25-03 SA3A	BH25-04 SA2	BH25-04 SA3B	-	-
	Sample Date:	18-Aug-25 09:00	18-Aug-25 09:00	18-Aug-25 09:00	18-Aug-25 09:00		
	Sample ID:	2534152-05	2534152-06	2534152-07	2534152-08		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Volatiles							
1,3-Dichloropropene, total	0.05 ug/g	-	<0.05	-	-	-	-
Ethylbenzene	0.05 ug/g	-	<0.05	-	-	-	-
Ethylene dibromide (dibromoethane,	0.05 ug/g	-	<0.05	-	-	-	-
Hexane	0.05 ug/g	-	<0.05	-	-	-	-
Methyl Ethyl Ketone (2-Butanone)	0.50 ug/g	-	<0.50	-	-	-	-
Methyl Isobutyl Ketone	0.50 ug/g	-	<0.50	-	-	-	-
Methyl tert-butyl ether	0.05 ug/g	-	<0.05	-	-	-	-
Methylene Chloride	0.05 ug/g	-	<0.05	-	-	-	-
Styrene	0.05 ug/g	-	<0.05	-	-	-	-
1,1,1,2-Tetrachloroethane	0.05 ug/g	-	<0.05	-	-	-	-
1,1,2,2-Tetrachloroethane	0.05 ug/g	-	<0.05	-	-	-	-
Tetrachloroethylene	0.05 ug/g	-	<0.05	-	-	-	-
Toluene	0.05 ug/g	-	<0.05	-	-	-	-
1,1,1-Trichloroethane	0.05 ug/g	-	<0.05	-	-	-	-
1,1,2-Trichloroethane	0.05 ug/g	-	<0.05	-	-	-	-
Trichloroethylene	0.05 ug/g	-	<0.05	-	-	-	-
Trichlorofluoromethane	0.05 ug/g	-	<0.05	-	-	-	-
Vinyl chloride	0.02 ug/g	-	<0.02	-	-	-	-
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	-	-	-	-
Toluene-d8	Surrogate	-	116%	-	-	-	-
4-Bromofluorobenzene	Surrogate	-	111%	-	-	-	-
Dibromofluoromethane	Surrogate	-	91.7%	-	-	-	-
Benzene	0.02 ug/g	<0.02	-	<0.02	<0.02	-	-

	Client ID:	BH25-03 SA102	BH25-03 SA3A	BH25-04 SA2	BH25-04 SA3B	-	-
	Sample Date:	18-Aug-25 09:00	18-Aug-25 09:00	18-Aug-25 09:00	18-Aug-25 09:00		
	Sample ID:	2534152-05	2534152-06	2534152-07	2534152-08		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Volatiles							
Ethylbenzene	0.05 ug/g	<0.05	-	<0.05	<0.05	-	-
Toluene	0.05 ug/g	<0.05	-	<0.05	<0.05	-	-
m,p-Xylenes	0.05 ug/g	<0.05	-	<0.05	<0.05	-	-
o-Xylene	0.05 ug/g	<0.05	-	<0.05	<0.05	-	-
Xylenes, total	0.05 ug/g	<0.05	-	<0.05	<0.05	-	-
Toluene-d8	Surrogate	113%	-	113%	123%	-	-
Hydrocarbons							
F1 PHCs (C6-C10)	7 ug/g	<7	<7	<7	<7	-	-
F2 PHCs (C10-C16)	4 ug/g	<4	<4	<4	<4	-	-
F3 PHCs (C16-C34)	8 ug/g	<8	<8	<8	<8	-	-
F4 PHCs (C34-C50)	6 ug/g	<6	<6	<6	<6	-	-
Semi-Volatiles							
Acenaphthene	0.02 ug/g	<0.02	<0.02	<0.02	-	-	-
Acenaphthylene	0.02 ug/g	<0.02	<0.02	<0.02	-	-	-
Anthracene	0.02 ug/g	<0.02	<0.02	<0.02	-	-	-
Benzo [a] anthracene	0.02 ug/g	<0.02	<0.02	<0.02	-	-	-
Benzo [a] pyrene	0.02 ug/g	<0.02	<0.02	<0.02	-	-	-
Benzo [b] fluoranthene	0.02 ug/g	<0.02	<0.02	<0.02	-	-	-
Benzo [g,h,i] perylene	0.02 ug/g	<0.02	<0.02	<0.02	-	-	-
Benzo [k] fluoranthene	0.02 ug/g	<0.02	<0.02	<0.02	-	-	-
Chrysene	0.02 ug/g	<0.02	<0.02	<0.02	-	-	-
Dibenzo [a,h] anthracene	0.02 ug/g	<0.02	<0.02	<0.02	-	-	-
Fluoranthene	0.02 ug/g	<0.02	<0.02	<0.02	-	-	-
Fluorene	0.02 ug/g	<0.02	<0.02	<0.02	-	-	-
Indeno [1,2,3-cd] pyrene	0.02 ug/g	<0.02	<0.02	<0.02	-	-	-

	Client ID:	BH25-03 SA102	BH25-03 SA3A	BH25-04 SA2	BH25-04 SA3B	-	-
	Sample Date:	18-Aug-25 09:00	18-Aug-25 09:00	18-Aug-25 09:00	18-Aug-25 09:00		
	Sample ID:	2534152-05	2534152-06	2534152-07	2534152-08		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Semi-Volatiles							
1-Methylnaphthalene	0.02 ug/g	<0.02	<0.02	<0.02	-	-	-
2-Methylnaphthalene	0.02 ug/g	<0.02	<0.02	<0.02	-	-	-
Methylnaphthalene (1&2)	0.04 ug/g	<0.04	<0.04	<0.04	-	-	-
Naphthalene	0.01 ug/g	<0.01	<0.01	<0.01	-	-	-
Phenanthrene	0.02 ug/g	<0.02	<0.02	<0.02	-	-	-
Pyrene	0.02 ug/g	<0.02	<0.02	<0.02	-	-	-
2-Fluorobiphenyl	Surrogate	71.1%	83.5%	82.7%	-	-	-
Terphenyl-d14	Surrogate	79.8%	109%	98.4%	-	-	-

	Client ID:	BH25-05 SA1	BH25-05 SA6			-	-
	Sample Date:	18-Aug-25 09:00	18-Aug-25 09:00				
	Sample ID:	2534152-09	2534152-10				
	Matrix:	Soil	Soil				
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	87.2	61.0	-	-	-	-
General Inorganics							
SAR	0.01 N/A	2.44	-	-	-	-	-
Conductivity	5 uS/cm	557	-	-	-	-	-
Cyanide, free	0.03 ug/g	<0.03	-	-	-	-	-
pH	0.05 pH Units	7.78	-	-	-	-	-
Metals							
Antimony	1.0 ug/g	<1.0	-	-	-	-	-
Arsenic	1.0 ug/g	2.6	-	-	-	-	-
Barium	1.0 ug/g	62.5	-	-	-	-	-
Beryllium	0.5 ug/g	<0.5	-	-	-	-	-
Boron, available	0.5 ug/g	<0.5	-	-	-	-	-
Boron	5.0 ug/g	<5.0	-	-	-	-	-
Cadmium	0.5 ug/g	<0.5	-	-	-	-	-
Chromium (VI)	0.2 ug/g	<0.2	-	-	-	-	-
Chromium	5.0 ug/g	18.1	-	-	-	-	-
Cobalt	1.0 ug/g	5.1	-	-	-	-	-
Copper	5.0 ug/g	12.9	-	-	-	-	-
Lead	1.0 ug/g	21.6	-	-	-	-	-
Mercury	0.1 ug/g	<0.1	-	-	-	-	-
Molybdenum	1.0 ug/g	<1.0	-	-	-	-	-
Nickel	5.0 ug/g	12.9	-	-	-	-	-
Selenium	1.0 ug/g	<1.0	-	-	-	-	-
Silver	0.3 ug/g	<0.3	-	-	-	-	-
Thallium	1.0 ug/g	<1.0	-	-	-	-	-

	Client ID:	BH25-05 SA1	BH25-05 SA6			-	-
	Sample Date:	18-Aug-25 09:00	18-Aug-25 09:00				
	Sample ID:	2534152-09	2534152-10				
	Matrix:	Soil	Soil				
	MDL/Units						
Metals							
Uranium	1.0 ug/g	<1.0	-	-	-	-	-
Vanadium	10.0 ug/g	25.4	-	-	-	-	-
Zinc	20.0 ug/g	50.6	-	-	-	-	-
Volatiles							
Benzene	0.02 ug/g	<0.02	<0.02	-	-	-	-
Ethylbenzene	0.05 ug/g	<0.05	<0.05	-	-	-	-
Toluene	0.05 ug/g	<0.05	<0.05	-	-	-	-
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	-	-	-	-
Toluene-d8	Surrogate	110%	123%	-	-	-	-
Hydrocarbons							
F1 PHCs (C6-C10)	7 ug/g	<7	<7	-	-	-	-
F2 PHCs (C10-C16)	4 ug/g	<4	<4	-	-	-	-
F3 PHCs (C16-C34)	8 ug/g	79	<8	-	-	-	-
F4 PHCs (C34-C50)	6 ug/g	80	<6	-	-	-	-
Semi-Volatiles							
Acenaphthene	0.02 ug/g	0.03	-	-	-	-	-
Acenaphthylene	0.02 ug/g	0.03	-	-	-	-	-
Anthracene	0.02 ug/g	0.09	-	-	-	-	-
Benzo [a] anthracene	0.02 ug/g	0.24	-	-	-	-	-
Benzo [a] pyrene	0.02 ug/g	0.29	-	-	-	-	-
Benzo [b] fluoranthene	0.02 ug/g	0.36	-	-	-	-	-
Benzo [g,h,i] perylene	0.02 ug/g	0.26	-	-	-	-	-
Benzo [k] fluoranthene	0.02 ug/g	0.17	-	-	-	-	-

	Client ID:	BH25-05 SA1	BH25-05 SA6			-	-
	Sample Date:	18-Aug-25 09:00	18-Aug-25 09:00				
	Sample ID:	2534152-09	2534152-10				
	Matrix:	Soil	Soil				
	MDL/Units						
Semi-Volatiles							
Chrysene	0.02 ug/g	0.28	-	-	-	-	-
Dibenzo [a,h] anthracene	0.02 ug/g	0.06	-	-	-	-	-
Fluoranthene	0.02 ug/g	0.63	-	-	-	-	-
Fluorene	0.02 ug/g	0.03	-	-	-	-	-
Indeno [1,2,3-cd] pyrene	0.02 ug/g	0.22	-	-	-	-	-
1-Methylnaphthalene	0.02 ug/g	<0.02	-	-	-	-	-
2-Methylnaphthalene	0.02 ug/g	<0.02	-	-	-	-	-
Methylnaphthalene (1&2)	0.04 ug/g	<0.04	-	-	-	-	-
Naphthalene	0.01 ug/g	0.02	-	-	-	-	-
Phenanthrene	0.02 ug/g	0.32	-	-	-	-	-
Pyrene	0.02 ug/g	0.53	-	-	-	-	-
2-Fluorobiphenyl	Surrogate	84.8%	-	-	-	-	-
Terphenyl-d14	Surrogate	94.6%	-	-	-	-	-

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					
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					
Acenaphthylene	ND	0.02	ug/g					

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
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	*0.920*		*%*	*69.0*	*50-140*			
Surrogate: Terphenyl-d14	*1.19*		*%*	*89.5*	*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					
1,3-Dichlorobenzene	ND	0.05	ug/g					

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
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	*7.71*		*%*	*96.3*	*50-140*			
Surrogate: Dibromofluoromethane	*5.76*		*%*	*72.0*	*50-140*			

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Surrogate: Toluene-d8	*8.50*		*%*	*106*	*50-140*			
Benzene	ND	0.02	ug/g					
Ethylbenzene	ND	0.05	ug/g					
Toluene	ND	0.05	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: Toluene-d8	*8.50*		*%*	*106*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
General Inorganics									
SAR	0.09	0.01	N/A	0.09			0.0	30	
Conductivity	170	5	uS/cm	165			3.2	5	
Cyanide, free	ND	0.03	ug/g	ND			NC	35	
pH	7.95	0.05	pH Units	7.91			0.5	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)	ND	8	ug/g	ND			NC	30	
F4 PHCs (C34-C50)	ND	6	ug/g	ND			NC	30	
Metals									
Antimony	ND	1.0	ug/g	ND			NC	30	
Arsenic	3.6	1.0	ug/g	3.1			14.6	30	
Barium	85.2	1.0	ug/g	72.3			16.4	30	
Beryllium	ND	0.5	ug/g	0.5			NC	30	
Boron, available	ND	0.5	ug/g	ND			NC	35	
Boron	6.0	5.0	ug/g	ND			NC	30	
Cadmium	ND	0.5	ug/g	ND			NC	30	
Chromium (VI)	ND	0.2	ug/g	ND			NC	35	
Chromium	26.6	5.0	ug/g	22.4			17.2	30	
Cobalt	6.4	1.0	ug/g	5.5			16.1	30	
Copper	18.9	5.0	ug/g	15.8			17.7	30	
Lead	47.2	1.0	ug/g	45.0			4.6	30	
Mercury	ND	0.1	ug/g	ND			NC	30	
Molybdenum	ND	1.0	ug/g	ND			NC	30	
Nickel	16.1	5.0	ug/g	13.7			16.4	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	
Vanadium	33.9	10.0	ug/g	27.9			19.4	30	

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Zinc	98.6	20.0	ug/g	86.8			12.7	30	
Physical Characteristics									
% Solids	73.4	0.1	% by Wt.	73.2			0.3	25	
Semi-Volatiles									
Acenaphthene	ND	0.40	ug/g	ND			NC	40	GEN04
Acenaphthylene	ND	0.40	ug/g	ND			NC	40	GEN04
Anthracene	ND	0.40	ug/g	ND			NC	40	GEN04
Benzo [a] anthracene	ND	0.40	ug/g	ND			NC	40	GEN04
Benzo [a] pyrene	ND	0.40	ug/g	ND			NC	40	GEN04
Benzo [b] fluoranthene	ND	0.40	ug/g	ND			NC	40	GEN04
Benzo [g,h,i] perylene	ND	0.40	ug/g	ND			NC	40	GEN04
Benzo [k] fluoranthene	ND	0.40	ug/g	ND			NC	40	GEN04
Chrysene	ND	0.40	ug/g	ND			NC	40	GEN04
Dibenzo [a,h] anthracene	ND	0.40	ug/g	ND			NC	40	GEN04
Fluoranthene	ND	0.40	ug/g	ND			NC	40	GEN04
Fluorene	ND	0.40	ug/g	ND			NC	40	GEN04
Indeno [1,2,3-cd] pyrene	ND	0.40	ug/g	ND			NC	40	GEN04
1-Methylnaphthalene	ND	0.40	ug/g	ND			NC	40	GEN04
2-Methylnaphthalene	ND	0.40	ug/g	ND			NC	40	GEN04
Naphthalene	ND	0.20	ug/g	ND			NC	40	GEN04
Phenanthrene	ND	0.40	ug/g	ND			NC	40	GEN04
Pyrene	ND	0.40	ug/g	ND			NC	40	GEN04
Surrogate: 2-Fluorobiphenyl	*1.07*		*%*		*71.9*	*50-140*			*GEN04*
Surrogate: Terphenyl-d14	*1.44*		*%*		*96.6*	*50-140*			*GEN04*
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	
Carbon Tetrachloride	ND	0.05	ug/g	ND			NC	50	

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
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	ND	0.05	ug/g	ND			NC	50	

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Vinyl chloride	ND	0.02	ug/g	ND			NC	50	
m,p-Xylenes	ND	0.05	ug/g	ND			NC	50	
o-Xylene	ND	0.05	ug/g	ND			NC	50	
Surrogate: 4-Bromofluorobenzene	*8.09*		*%*		*96.3*	*50-140*			
Surrogate: Dibromofluoromethane	*6.56*		*%*		*78.0*	*50-140*			
Surrogate: Toluene-d8	*9.38*		*%*		*112*	*50-140*			
Benzene	ND	0.02	ug/g	ND			NC	50	
Ethylbenzene	ND	0.05	ug/g	ND			NC	50	
Toluene	ND	0.05	ug/g	ND			NC	50	
m,p-Xylenes	ND	0.05	ug/g	ND			NC	50	
o-Xylene	ND	0.05	ug/g	ND			NC	50	
Surrogate: Toluene-d8	*9.38*		*%*		*112*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
General Inorganics									
Cyanide, free	0.149	0.03	ug/g	ND	47.1	50-150			QM-05
Hydrocarbons									
F1 PHCs (C6-C10)	171	7	ug/g	ND	99.1	85-115			
F2 PHCs (C10-C16)	106	4	ug/g	ND	112	60-140			
F3 PHCs (C16-C34)	262	8	ug/g	ND	113	60-140			
F4 PHCs (C34-C50)	171	6	ug/g	ND	116	60-140			
Metals									
Antimony	44.5	1.0	ug/g	ND	88.4	70-130			
Arsenic	47.2	1.0	ug/g	1.2	91.9	70-130			
Barium	71.0	1.0	ug/g	28.9	84.2	70-130			
Beryllium	47.6	0.5	ug/g	ND	94.8	70-130			
Boron, available	4.19	0.5	ug/g	ND	83.7	60-140			
Boron	48.8	5.0	ug/g	ND	93.9	70-130			
Cadmium	45.2	0.5	ug/g	ND	90.2	70-130			
Chromium (VI)	4.7	0.2	ug/g	ND	90.0	48-112			
Chromium	56.8	5.0	ug/g	9.0	95.7	70-130			
Cobalt	50.4	1.0	ug/g	2.2	96.3	70-130			
Copper	53.9	5.0	ug/g	6.3	95.1	70-130			
Lead	58.3	1.0	ug/g	18.0	80.6	70-130			
Mercury	1.42	0.1	ug/g	ND	94.4	70-130			
Molybdenum	46.5	1.0	ug/g	ND	92.5	70-130			
Nickel	53.1	5.0	ug/g	5.5	95.3	70-130			
Selenium	43.6	1.0	ug/g	ND	86.7	70-130			
Silver	42.7	0.3	ug/g	ND	85.3	70-130			
Thallium	45.3	1.0	ug/g	ND	90.5	70-130			
Uranium	47.2	1.0	ug/g	ND	93.8	70-130			
Vanadium	59.4	10.0	ug/g	11.2	96.4	70-130			
Zinc	76.5	20.0	ug/g	34.7	83.6	70-130			
Semi-Volatiles									
Acenaphthene	0.151	0.02	ug/g	ND	90.9	50-140			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Acenaphthylene	0.121	0.02	ug/g	ND	72.8	50-140			
Anthracene	0.139	0.02	ug/g	ND	83.5	50-140			
Benzo [a] anthracene	0.158	0.02	ug/g	ND	94.6	50-140			
Benzo [a] pyrene	0.178	0.02	ug/g	ND	107	50-140			
Benzo [b] fluoranthene	0.137	0.02	ug/g	ND	82.2	50-140			
Benzo [g,h,i] perylene	0.135	0.02	ug/g	ND	81.2	50-140			
Benzo [k] fluoranthene	0.188	0.02	ug/g	ND	113	50-140			
Chrysene	0.181	0.02	ug/g	ND	108	50-140			
Dibenzo [a,h] anthracene	0.145	0.02	ug/g	ND	87.1	50-140			
Fluoranthene	0.167	0.02	ug/g	ND	100	50-140			
Fluorene	0.128	0.02	ug/g	ND	76.5	50-140			
Indeno [1,2,3-cd] pyrene	0.198	0.02	ug/g	ND	119	50-140			
1-Methylnaphthalene	0.151	0.02	ug/g	ND	90.5	50-140			
2-Methylnaphthalene	0.120	0.02	ug/g	ND	72.2	50-140			
Naphthalene	0.126	0.01	ug/g	ND	75.7	50-140			
Phenanthrene	0.139	0.02	ug/g	ND	83.5	50-140			
Pyrene	0.164	0.02	ug/g	ND	98.3	50-140			
Surrogate: 2-Fluorobiphenyl	*1.06*		*%*		*79.2*	*50-140*			
Surrogate: Terphenyl-d14	*1.32*		*%*		*99.0*	*50-140*			
Volatiles									
Acetone	11.9	0.50	ug/g	ND	119	50-140			
Benzene	4.29	0.02	ug/g	ND	107	60-130			
Bromodichloromethane	3.79	0.05	ug/g	ND	94.9	60-130			
Bromoform	4.24	0.05	ug/g	ND	106	60-130			
Bromomethane	4.21	0.05	ug/g	ND	105	50-140			
Carbon Tetrachloride	3.79	0.05	ug/g	ND	94.7	60-130			
Chlorobenzene	4.64	0.05	ug/g	ND	116	60-130			
Chloroform	3.96	0.05	ug/g	ND	99.0	60-130			
Dibromochloromethane	4.31	0.05	ug/g	ND	108	60-130			
Dichlorodifluoromethane	4.75	0.05	ug/g	ND	119	50-140			
1,2-Dichlorobenzene	4.58	0.05	ug/g	ND	114	60-130			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
1,3-Dichlorobenzene	4.58	0.05	ug/g	ND	114	60-130			
1,4-Dichlorobenzene	4.52	0.05	ug/g	ND	113	60-130			
1,1-Dichloroethane	4.06	0.05	ug/g	ND	102	60-130			
1,2-Dichloroethane	4.10	0.05	ug/g	ND	103	60-130			
1,1-Dichloroethylene	4.52	0.05	ug/g	ND	113	60-130			
cis-1,2-Dichloroethylene	4.01	0.05	ug/g	ND	100	60-130			
trans-1,2-Dichloroethylene	4.35	0.05	ug/g	ND	109	60-130			
1,2-Dichloropropane	4.17	0.05	ug/g	ND	104	60-130			
cis-1,3-Dichloropropylene	3.85	0.05	ug/g	ND	96.3	60-130			
trans-1,3-Dichloropropylene	3.80	0.05	ug/g	ND	94.9	60-130			
Ethylbenzene	4.57	0.05	ug/g	ND	114	60-130			
Ethylene dibromide (dibromoethane, 1,2-)	3.94	0.05	ug/g	ND	98.6	60-130			
Hexane	4.17	0.05	ug/g	ND	104	60-130			
Methyl Ethyl Ketone (2-Butanone)	9.65	0.50	ug/g	ND	96.5	50-140			
Methyl Isobutyl Ketone	10.6	0.50	ug/g	ND	106	50-140			
Methyl tert-butyl ether	11.0	0.05	ug/g	ND	110	50-140			
Methylene Chloride	4.92	0.05	ug/g	ND	123	60-130			
Styrene	4.36	0.05	ug/g	ND	109	60-130			
1,1,1,2-Tetrachloroethane	3.92	0.05	ug/g	ND	97.9	60-130			
1,1,2,2-Tetrachloroethane	4.20	0.05	ug/g	ND	105	60-130			
Tetrachloroethylene	4.55	0.05	ug/g	ND	114	60-130			
Toluene	4.22	0.05	ug/g	ND	106	60-130			
1,1,1-Trichloroethane	3.71	0.05	ug/g	ND	92.6	60-130			
1,1,2-Trichloroethane	4.12	0.05	ug/g	ND	103	60-130			
Trichloroethylene	4.30	0.05	ug/g	ND	107	60-130			
Trichlorofluoromethane	4.49	0.05	ug/g	ND	112	50-140			
Vinyl chloride	4.27	0.02	ug/g	ND	107	50-140			
m,p-Xylenes	9.25	0.05	ug/g	ND	116	60-130			
o-Xylene	4.65	0.05	ug/g	ND	116	60-130			
Surrogate: 4-Bromofluorobenzene	*7.67*		*%*		*95.9*	*50-140*			
Surrogate: Dibromofluoromethane	*7.84*		*%*		*98.0*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Surrogate: Toluene-d8	*8.45*		*%*		*106*	*50-140*			
Benzene	4.29	0.02	ug/g	ND	107	60-130			
Ethylbenzene	4.57	0.05	ug/g	ND	114	60-130			
Toluene	4.22	0.05	ug/g	ND	106	60-130			
m,p-Xylenes	9.25	0.05	ug/g	ND	116	60-130			
o-Xylene	4.65	0.05	ug/g	ND	116	60-130			
Surrogate: Toluene-d8	*8.45*		*%*		*106*	*50-140*			

Qualifier Notes:

QC Qualifiers:

GEN04	Elevated reporting limit because of dilution required due to the presence of high levels of non-target analytes.
QM-05	The spike recovery was outside acceptance limits for the matrix spike due to matrix interference.

Sample Data Revisions:

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

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

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

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.

Paracel ID: 2534152

PARACEL LABORATORIES LTD.

Paracel Order Number (Lab Use Only)	Chain Of Custody (Lab Use Only)
2534152	№ 149868

Client Name: GEMTEC	Project Ref: 100011.122
Contact Name: Nicole Soucy	Quote #:
Address: 32 Steacie Drive	PO #:
	E-mail: nicole.soucy@gemtec.ca jeffrey.gauthier@gemtec.ca
Telephone:	

Page 1 of 1

Turnaround Time

☐ 1 day ☐ 3 day
☐ 2 day ☑ Regular

Date Required:

☑ REG 153/04 ☐ REG 406/19

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

Other Regulation

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

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

Required Analysis

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Field Filtered	Sample Taken Date	Sample Taken Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWE)	ORPs *			
1	BH25-01 SA2	S	/	3	N	Aug 18/25	Am	\		\	\				\			
2	BH25-02 SA2							\		\	\				\			
3	BH25-02 SA4							\	\	\	\							
4	BH25-03 SA2							\		\	\				\			
5	BH25-03 SA102							\		\	\				\			
6	BH25-03 SA3A							\	\	\	\							
7	BH25-04 SA2							\		\	\				\			
8	BH25-04 SA3B							\										
9	BH25-05 SA1							\		\	\				\			
10	BH25-05 SA6							\										

Comments: * EC, SAR, pH, B-HWS, CN-, CrVI, Hg

Method of Delivery: Paracel courier

Relinquished By (Sign):	Received at Depot:	Received at Lab: LTJ	Verified By: LTJ
Relinquished By (Print):	Date/Time:	Date/Time: 19/08/25 13:23	Date/Time: 19/08/25, 15:13
Date/Time:	Temperature: °C	Temperature: 10.3 °C	pH Verified: ☐ By:

Chain of Custody (Env) xlsx - Revision 7.0

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Certificate of Analysis

GEMTEC Consulting Engineers and Scientists Limited
32 Steacie Drive
Kanata, ON K2K 2A9
Attn: Nicole Soucy

Client PO: TCLP
Project: 100011.122
Custody:

Report Date: 25-Aug-2025
Order Date: 19-Aug-2025

Order #: 2534165

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

Paracel ID	Client ID
2534165-01	TCLP-COMP

Approved By:

Dale Robertson, BSc
Senior Technical Advisor

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Flashpoint	ASTM D93 - Pensky-Martens Closed Cup	20-Aug-25	21-Aug-25
Metals, ICP-MS	TCLP EPA 6020 - Digestion - ICP-MS	21-Aug-25	21-Aug-25
REG 558 - Cyanide	TCLP MOE E3015- Auto Colour	21-Aug-25	21-Aug-25
REG 558 - Fluoride	TCLP EPA 340.2 - ISE	25-Aug-25	25-Aug-25
REG 558 - Mercury by CVAA	TCLP EPA 7470A, CVAA	22-Aug-25	22-Aug-25
REG 558 - NO3/NO2	TCLP EPA 300.1 - IC	21-Aug-25	21-Aug-25
REG 558 - PAHs	TCLP EPA 625 - GC-MS	22-Aug-25	22-Aug-25
REG 558 - VOCs	TCLP ZHE EPA 624 - P&T GC-MS	21-Aug-25	22-Aug-25
Solids, %	CWS Tier 1 - Gravimetric	20-Aug-25	21-Aug-25

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 558 Schedule 4	-

	Client ID:	TCLP-COMP	-	-	-	**Criteria:**	
	Sample Date:	18-Aug-25 09:00	-	-	-	**Reg 558 Schedule 4**	-
	Sample ID:	2534165-01	-	-	-		
	Matrix:	Soil	-	-	-		
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	62.6	-	-	-	-	-
Flashpoint	°C	>70	-	-	-	-	-
EPA 1311 - TCLP Leachate Inorganics							
Fluoride	0.05 mg/L	0.10	-	-	-	150 mg/L	-
Nitrate as N	1 mg/L	<1	-	-	-	1000 mg/L	-
Nitrite as N	1 mg/L	<1	-	-	-	1000 mg/L	-
Nitrate + Nitrite as N	2 mg/L	<2	-	-	-	1000 mg/L	-
Cyanide, free	0.02 mg/L	<0.02	-	-	-	20 mg/L	-
EPA 1311 - TCLP Leachate Metals							
Arsenic	0.05 mg/L	<0.05	-	-	-	2.5 mg/L	-
Barium	0.05 mg/L	0.52	-	-	-	100 mg/L	-
Boron	0.10 mg/L	<0.10	-	-	-	500 mg/L	-
Cadmium	0.01 mg/L	<0.01	-	-	-	0.5 mg/L	-
Chromium	0.05 mg/L	<0.05	-	-	-	5 mg/L	-
Lead	0.05 mg/L	<0.05	-	-	-	5 mg/L	-
Mercury	0.005 mg/L	<0.005	-	-	-	0.1 mg/L	-
Selenium	0.05 mg/L	<0.05	-	-	-	1 mg/L	-
Silver	0.05 mg/L	<0.05	-	-	-	5 mg/L	-
Uranium	0.05 mg/L	<0.05	-	-	-	10 mg/L	-
EPA 1311 - TCLP Leachate Volatiles							
Benzene	0.005 mg/L	<0.005	-	-	-	0.5 mg/L	-
Carbon Tetrachloride	0.005 mg/L	<0.005	-	-	-	0.5 mg/L	-
Chlorobenzene	0.004 mg/L	<0.004	-	-	-	8 mg/L	-
Chloroform	0.006 mg/L	<0.006	-	-	-	10 mg/L	-
1,2-Dichlorobenzene	0.004 mg/L	<0.004	-	-	-	20 mg/L	-

	Client ID:	TCLP-COMP	-	-	-	**Criteria:**	
	Sample Date:	18-Aug-25 09:00	-	-	-	**Reg 558 Schedule 4**	-
	Sample ID:	2534165-01	-	-	-		
	Matrix:	Soil	-	-	-		
	MDL/Units						
EPA 1311 - TCLP Leachate Volatiles							
1,4-Dichlorobenzene	0.004 mg/L	<0.004	-	-	-	0.5 mg/L	-
1,2-Dichloroethane	0.005 mg/L	<0.005	-	-	-	0.5 mg/L	-
1,1-Dichloroethylene	0.006 mg/L	<0.006	-	-	-	1.4 mg/L	-
Methyl Ethyl Ketone (2-Butanone)	0.30 mg/L	<0.30	-	-	-	200 mg/L	-
Methylene Chloride	0.04 mg/L	<0.04	-	-	-	5 mg/L	-
Tetrachloroethylene	0.005 mg/L	<0.005	-	-	-	3 mg/L	-
Trichloroethylene	0.004 mg/L	<0.004	-	-	-	5 mg/L	-
Vinyl chloride	0.005 mg/L	<0.005	-	-	-	0.2 mg/L	-
Toluene-d8	Surrogate	105%	-	-	-	-	-
Dibromofluoromethane	Surrogate	100%	-	-	-	-	-
4-Bromofluorobenzene	Surrogate	97.2%	-	-	-	-	-
EPA 1311 - TCLP Leachate Organics							
Benzo [a] pyrene	0.0001 mg/L	<0.0001	-	-	-	0.001 mg/L	-
Terphenyl-d14	Surrogate	118%	-	-	-	-	-

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
EPA 1311 - TCLP Leachate Inorganics								
Fluoride	ND	0.05	mg/L					
Nitrate as N	ND	1	mg/L					
Nitrite as N	ND	1	mg/L					
Nitrate + Nitrite as N	ND	2	mg/L					
Cyanide, free	ND	0.02	mg/L					
EPA 1311 - TCLP Leachate Metals								
Arsenic	ND	0.05	mg/L					
Barium	ND	0.05	mg/L					
Boron	ND	0.10	mg/L					
Cadmium	ND	0.01	mg/L					
Chromium	ND	0.05	mg/L					
Lead	ND	0.05	mg/L					
Mercury	ND	0.005	mg/L					
Selenium	ND	0.05	mg/L					
Silver	ND	0.05	mg/L					
Uranium	ND	0.05	mg/L					
EPA 1311 - TCLP Leachate Organics								
Benzo [a] pyrene	ND	0.0001	mg/L					
Surrogate: Terphenyl-d14	*0.23*		*%*	*115*	*37-156*			
EPA 1311 - TCLP Leachate Volatiles								
Benzene	ND	0.005	mg/L					
Carbon Tetrachloride	ND	0.005	mg/L					
Chlorobenzene	ND	0.004	mg/L					
Chloroform	ND	0.006	mg/L					
1,2-Dichlorobenzene	ND	0.004	mg/L					
1,4-Dichlorobenzene	ND	0.004	mg/L					
1,2-Dichloroethane	ND	0.005	mg/L					
1,1-Dichloroethylene	ND	0.006	mg/L					
Methyl Ethyl Ketone (2-Butanone)	ND	0.30	mg/L					
Methylene Chloride	ND	0.04	mg/L					
Tetrachloroethylene	ND	0.005	mg/L					
Trichloroethylene	ND	0.004	mg/L					

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Vinyl chloride	ND	0.005	mg/L					
Surrogate: 4-Bromofluorobenzene	*0.0781*		*%*	*97.6*	*83-134*			
Surrogate: Dibromofluoromethane	*0.0803*		*%*	*100*	*78-124*			
Surrogate: Toluene-d8	*0.0844*		*%*	*105*	*76-118*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
EPA 1311 - TCLP Leachate Inorganics									
Fluoride	0.09	0.05	mg/L	0.10			2.1	20	
Nitrate as N	ND	1	mg/L	ND			NC	20	
Nitrite as N	ND	1	mg/L	ND			NC	20	
Cyanide, free	ND	0.02	mg/L	ND			NC	20	
EPA 1311 - TCLP Leachate Metals									
Arsenic	ND	0.05	mg/L	ND			NC	29	
Barium	0.463	0.05	mg/L	0.518			11.2	34	
Boron	ND	0.10	mg/L	ND			NC	33	
Cadmium	ND	0.01	mg/L	ND			NC	33	
Chromium	ND	0.05	mg/L	ND			NC	32	
Lead	ND	0.05	mg/L	ND			NC	32	
Mercury	ND	0.005	mg/L	ND			NC	30	
Selenium	ND	0.05	mg/L	ND			NC	28	
Silver	ND	0.05	mg/L	ND			NC	28	
Uranium	ND	0.05	mg/L	ND			NC	27	
EPA 1311 - TCLP Leachate Volatiles									
Benzene	ND	0.005	mg/L	ND			NC	25	
Carbon Tetrachloride	ND	0.005	mg/L	ND			NC	25	
Chlorobenzene	ND	0.004	mg/L	ND			NC	25	
Chloroform	ND	0.006	mg/L	ND			NC	25	
1,2-Dichlorobenzene	ND	0.004	mg/L	ND			NC	25	
1,4-Dichlorobenzene	ND	0.004	mg/L	ND			NC	25	
1,2-Dichloroethane	ND	0.005	mg/L	ND			NC	25	
1,1-Dichloroethylene	ND	0.006	mg/L	ND			NC	25	
Methyl Ethyl Ketone (2-Butanone)	ND	0.30	mg/L	ND			NC	25	
Methylene Chloride	ND	0.04	mg/L	ND			NC	25	
Tetrachloroethylene	ND	0.005	mg/L	ND			NC	25	
Trichloroethylene	ND	0.004	mg/L	ND			NC	25	
Vinyl chloride	ND	0.005	mg/L	ND			NC	25	
Surrogate: 4-Bromofluorobenzene	*0.0781*		*%*		*97.7*	*83-134*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Surrogate: Dibromofluoromethane	*0.0802*		*%*		*100*	*78-124*			
Surrogate: Toluene-d8	*0.0844*		*%*		*105*	*76-118*			
Physical Characteristics									
% Solids	73.4	0.1	% by Wt.	73.2			0.3	25	

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
EPA 1311 - TCLP Leachate Inorganics									
Fluoride	0.61	0.05	mg/L	0.10	103	70-130			
Nitrate as N	10	1	mg/L	ND	97.7	81-112			
Nitrite as N	10	1	mg/L	ND	97.6	76-107			
Cyanide, free	0.066	0.02	mg/L	ND	65.7	40-115			
EPA 1311 - TCLP Leachate Metals									
Arsenic	46.3	0.05	mg/L	0.173	92.2	83-119			
Barium	92.1	0.05	mg/L	51.8	80.7	80-120			
Boron	47.8	0.10	mg/L	6.92	81.8	71-128			
Cadmium	41.2	0.01	mg/L	0.051	82.3	78-119			
Chromium	55.3	0.05	mg/L	0.152	110	80-124			
Lead	40.9	0.05	mg/L	0.070	81.6	77-126			
Mercury	0.0284	0.005	mg/L	ND	94.5	70-130			
Selenium	39.5	0.05	mg/L	0.135	78.8	75-125			
Silver	43.0	0.05	mg/L	ND	85.9	70-128			
Uranium	46.2	0.05	mg/L	0.205	92.0	70-131			
EPA 1311 - TCLP Leachate Organics									
Benzo [a] pyrene	0.0522	0.0001	mg/L	ND	104	39-123			
Surrogate: Terphenyl-d14	*0.21*		*%*		*106*	*37-156*			
EPA 1311 - TCLP Leachate Volatiles									
Benzene	0.048	0.005	mg/L	ND	121	55-141			
Carbon Tetrachloride	0.036	0.005	mg/L	ND	89.0	49-149			
Chlorobenzene	0.035	0.004	mg/L	ND	87.1	64-137			
Chloroform	0.032	0.006	mg/L	ND	80.3	58-138			
1,2-Dichlorobenzene	0.040	0.004	mg/L	ND	99.3	60-150			
1,4-Dichlorobenzene	0.039	0.004	mg/L	ND	96.8	63-132			
1,2-Dichloroethane	0.031	0.005	mg/L	ND	77.3	50-140			
1,1-Dichloroethylene	0.038	0.006	mg/L	ND	96.0	43-153			
Methyl Ethyl Ketone (2-Butanone)	0.108	0.30	mg/L	ND	108	26-153			
Methylene Chloride	0.039	0.04	mg/L	ND	98.4	58-149			
Tetrachloroethylene	0.044	0.005	mg/L	ND	109	51-145			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Trichloroethylene	0.046	0.004	mg/L	ND	116	52-135			
Vinyl chloride	0.040	0.005	mg/L	ND	98.9	31-159			
Surrogate: 4-Bromofluorobenzene	*0.0766*		*%*		*95.7*	*83-134*			
Surrogate: Dibromofluoromethane	*0.0686*		*%*		*85.7*	*78-124*			
Surrogate: Toluene-d8	*0.0854*		*%*		*107*	*76-118*			

Qualifier Notes:

Sample Qualifiers :

Sample Data Revisions:

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

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

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

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

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

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Paracel Order Number (Lab Use Only)	Chain Of Custody (Lab Use Only)
2534165	

Client Name: GEMTEC	Project Ref: 100011.122 - TCLP	Page 1 of 1
Contact Name: Nicole Soucy	Quote #:	Turnaround Time
Address: 32 Steacie Drive	PO #:	☐ 1 day ☐ 3 day
	E-mail: nicole.soucy@gemtec.ca jeffrey.gauthier@gemtec.ca	☐ 2 day ☒ Regular
Telephone:		Date Required:

☐ REG 153/04 ☐ REG 406/19

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

Other Regulation

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

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

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Field Filtered	Sample Taken Date	Sample Taken Time	Required Analysis: TCLP (VOCs, MAH, B(a)P, Fp)
1	TCLP-COMP	S	-	2		Aug 18/2025		X
2								
3								
4								
5								
6								
7								
8								
9								
10								

Comments:

Method of Delivery: Paracel courier

Relinquished By (Sign):	Received at Depot:	Received at Lab: LTJ	Verified By: LTJ
Relinquished By (Print):	Date/Time:	Date/Time: 19/08/25; 13:23	Date/Time: 19/08/25; 16:06
Date/Time:	Temperature: °C	Temperature: 10.3	pH Verified: ☐ By:

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Certificate of Analysis

GEMTEC Consulting Engineers and Scientists Limited
32 Steacie Drive
Kanata, ON K2K 2A9
Attn: Nicole Soucy

Client PO:
Project: 100011.122
Custody: 149882

Report Date: 26-Aug-2025
Order Date: 22-Aug-2025

Order #: 2534509

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

Paracel ID	Client ID
2534509-01	MW25-03
2534509-02	MW25-02
2534509-03	MW25-05
2534509-04	Field Blank
2534509-05	Trip Blank

Approved By:

Dale Robertson, BSc
Senior Technical Advisor

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Anions	EPA 300.1 - IC	25-Aug-25	25-Aug-25
BTEX by P&T GC-MS	EPA 624 - P&T GC-MS	25-Aug-25	25-Aug-25
Metals, ICP-MS	EPA 200.8 - ICP-MS	25-Aug-25	25-Aug-25
PHC F1	CWS Tier 1 - P&T GC-FID	25-Aug-25	25-Aug-25
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	23-Aug-25	25-Aug-25
REG 153: PAHs by GC-MS	EPA 625 - GC-MS, extraction	25-Aug-25	26-Aug-25
REG 153: VOCs by P&T GC/MS	EPA 624 - P&T GC-MS	25-Aug-25	25-Aug-25

	Client ID:	MW25-03	MW25-02	MW25-05	Field Blank	-	-
	Sample Date:	22-Aug-25 12:40	22-Aug-25 02:00	22-Aug-25 01:20	22-Aug-25 12:40		
	Sample ID:	2534509-01	2534509-02	2534509-03	2534509-04		
	Matrix:	Ground Water	Ground Water	Ground Water	Ground Water		
	MDL/Units						
Anions							
Nitrate as N	0.1 mg/L	<0.1	<0.1	<0.1	-	-	-
Metals							
Antimony	0.5 ug/L	<0.5	<0.5	-	-	-	-
Arsenic	1 ug/L	1	<1	-	-	-	-
Barium	1 ug/L	58	114	-	-	-	-
Beryllium	0.5 ug/L	<0.5	<0.5	-	-	-	-
Boron	10 ug/L	60	64	-	-	-	-
Cadmium	0.1 ug/L	<0.1	<0.1	-	-	-	-
Chromium	1 ug/L	<1	<1	-	-	-	-
Cobalt	0.5 ug/L	0.7	3.7	-	-	-	-
Copper	0.5 ug/L	0.7	6.5	-	-	-	-
Lead	0.1 ug/L	0.2	<0.1	-	-	-	-
Molybdenum	0.5 ug/L	4.7	3.2	-	-	-	-
Nickel	1 ug/L	2	6	-	-	-	-
Selenium	1 ug/L	<1	<1	-	-	-	-
Silver	0.1 ug/L	<0.1	<0.1	-	-	-	-
Sodium	200 ug/L	54200	144000	-	-	-	-
Thallium	0.1 ug/L	<0.1	<0.1	-	-	-	-
Uranium	0.1 ug/L	1.8	1.6	-	-	-	-
Vanadium	0.5 ug/L	1.4	1.0	-	-	-	-
Zinc	5 ug/L	5	<5	-	-	-	-
Volatiles							
Acetone	5.0 ug/L	<5.0	<5.0	-	-	-	-
Benzene	0.5 ug/L	<0.5	<0.5	-	-	-	-
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	-	-	-	-

	Client ID:	MW25-03	MW25-02	MW25-05	Field Blank	-	-
	Sample Date:	22-Aug-25 12:40	22-Aug-25 02:00	22-Aug-25 01:20	22-Aug-25 12:40		
	Sample ID:	2534509-01	2534509-02	2534509-03	2534509-04		
	Matrix:	Ground Water	Ground Water	Ground Water	Ground Water		
	MDL/Units						
Volatiles							
Bromoform	0.5 ug/L	<0.5	<0.5	-	-	-	-
Bromomethane	0.5 ug/L	<0.5	<0.5	-	-	-	-
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	-	-	-	-
Chlorobenzene	0.5 ug/L	<0.5	<0.5	-	-	-	-
Chloroform	0.5 ug/L	<0.5	<0.5	-	-	-	-
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	-	-	-	-
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	-	-	-	-
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	-	-	-	-
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	-	-	-	-
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	-	-	-	-
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	-	-	-	-
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	-	-	-	-
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	-	-	-	-
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	-	-	-	-
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	-	-	-	-
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	-	-	-	-
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	-	-	-	-
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	-	-	-	-
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	-	-	-	-
Ethylbenzene	0.5 ug/L	<0.5	<0.5	-	-	-	-
Ethylene dibromide (dibromoethane,	0.2 ug/L	<0.2	<0.2	-	-	-	-
Hexane	1.0 ug/L	<1.0	<1.0	-	-	-	-
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	-	-	-	-
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	-	-	-	-
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	-	-	-	-

	Client ID:	MW25-03	MW25-02	MW25-05	Field Blank	-	-
	Sample Date:	22-Aug-25 12:40	22-Aug-25 02:00	22-Aug-25 01:20	22-Aug-25 12:40		
	Sample ID:	2534509-01	2534509-02	2534509-03	2534509-04		
	Matrix:	Ground Water	Ground Water	Ground Water	Ground Water		
	MDL/Units						
Volatiles							
Methylene Chloride	5.0 ug/L	<5.0	<5.0	-	-	-	-
Styrene	0.5 ug/L	<0.5	<0.5	-	-	-	-
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	-	-	-	-
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	-	-	-	-
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	-	-	-	-
Toluene	0.5 ug/L	<0.5	<0.5	-	-	-	-
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	-	-	-	-
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	-	-	-	-
Trichloroethylene	0.5 ug/L	<0.5	<0.5	-	-	-	-
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	-	-	-	-
Vinyl chloride	0.5 ug/L	<0.5	<0.5	-	-	-	-
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	-	-	-	-
o-Xylene	0.5 ug/L	<0.5	<0.5	-	-	-	-
Xylenes, total	0.5 ug/L	<0.5	<0.5	-	-	-	-
4-Bromofluorobenzene	Surrogate	98.4%	99.5%	-	-	-	-
Dibromofluoromethane	Surrogate	98.6%	102%	-	-	-	-
Toluene-d8	Surrogate	104%	105%	-	-	-	-
Benzene	0.5 ug/L	-	-	<0.5	<0.5	-	-
Ethylbenzene	0.5 ug/L	-	-	<0.5	<0.5	-	-
Toluene	0.5 ug/L	-	-	<0.5	<0.5	-	-
m,p-Xylenes	0.5 ug/L	-	-	<0.5	<0.5	-	-
o-Xylene	0.5 ug/L	-	-	<0.5	<0.5	-	-
Xylenes, total	0.5 ug/L	-	-	<0.5	<0.5	-	-
Toluene-d8	Surrogate	-	-	104%	103%	-	-
Hydrocarbons							

	Client ID:	MW25-03	MW25-02	MW25-05	Field Blank	-	-
	Sample Date:	22-Aug-25 12:40	22-Aug-25 02:00	22-Aug-25 01:20	22-Aug-25 12:40		
	Sample ID:	2534509-01	2534509-02	2534509-03	2534509-04		
	Matrix:	Ground Water	Ground Water	Ground Water	Ground Water		
	MDL/Units						
Hydrocarbons							
F1 PHCs (C6-C10)	25 ug/L	<25	<25	<25	<25	-	-
F2 PHCs (C10-C16)	100 ug/L	<100	<100	<100	-	-	-
F3 PHCs (C16-C34)	100 ug/L	<100	<100	<100	-	-	-
F4 PHCs (C34-C50)	100 ug/L	<100	<100	<100	-	-	-
Semi-Volatiles							
Acenaphthene	0.05 ug/L	<0.05	<0.05	-	-	-	-
Acenaphthylene	0.05 ug/L	<0.05	<0.05	-	-	-	-
Anthracene	0.01 ug/L	<0.01	<0.01	-	-	-	-
Benzo [a] anthracene	0.01 ug/L	<0.01	<0.01	-	-	-	-
Benzo [a] pyrene	0.01 ug/L	<0.01	<0.01	-	-	-	-
Benzo [b] fluoranthene	0.05 ug/L	<0.05	<0.05	-	-	-	-
Benzo [g,h,i] perylene	0.05 ug/L	<0.05	<0.05	-	-	-	-
Benzo [k] fluoranthene	0.05 ug/L	<0.05	<0.05	-	-	-	-
Chrysene	0.05 ug/L	<0.05	<0.05	-	-	-	-
Dibenzo [a,h] anthracene	0.05 ug/L	<0.05	<0.05	-	-	-	-
Fluoranthene	0.01 ug/L	<0.01	<0.01	-	-	-	-
Fluorene	0.05 ug/L	<0.05	<0.05	-	-	-	-
Indeno [1,2,3-cd] pyrene	0.05 ug/L	<0.05	<0.05	-	-	-	-
1-Methylnaphthalene	0.05 ug/L	<0.05	<0.05	-	-	-	-
2-Methylnaphthalene	0.05 ug/L	<0.05	<0.05	-	-	-	-
Methylnaphthalene (1&2)	0.10 ug/L	<0.10	<0.10	-	-	-	-
Naphthalene	0.05 ug/L	<0.05	<0.05	-	-	-	-
Phenanthrene	0.05 ug/L	<0.05	<0.05	-	-	-	-
Pyrene	0.01 ug/L	<0.01	<0.01	-	-	-	-
2-Fluorobiphenyl	Surrogate	60.2%	57.0%	-	-	-	-

	Client ID:	MW25-03	MW25-02	MW25-05	Field Blank	-	-
	Sample Date:	22-Aug-25 12:40	22-Aug-25 02:00	22-Aug-25 01:20	22-Aug-25 12:40		
	Sample ID:	2534509-01	2534509-02	2534509-03	2534509-04		
	Matrix:	Ground Water	Ground Water	Ground Water	Ground Water		
	MDL/Units						
Semi-Volatiles							
Terphenyl-d14	Surrogate	77.9%	79.8%	-	-	-	-

	Client ID:	Trip Blank				-	-
	Sample Date:	20-Aug-25 00:00					
	Sample ID:	2534509-05					
	Matrix:	Ground Water					
	MDL/Units						
Volatiles							
Benzene	0.5 ug/L	<0.5	-	-	-	-	-
Ethylbenzene	0.5 ug/L	<0.5	-	-	-	-	-
Toluene	0.5 ug/L	<0.5	-	-	-	-	-
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	-	-	-	-	-
Toluene-d8	Surrogate	104%	-	-	-	-	-
Hydrocarbons							
F1 PHCs (C6-C10)	25 ug/L	<25	-	-	-	-	-

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Anions								
Nitrate as N	ND	0.1	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								
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	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								
Acenaphthene	ND	0.05	ug/L					
Acenaphthylene	ND	0.05	ug/L					
Anthracene	ND	0.01	ug/L					
Benzo [a] anthracene	ND	0.01	ug/L					
Benzo [a] pyrene	ND	0.01	ug/L					

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
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	*13.1*		*%*	*65.6*	*50-140*			
Surrogate: Terphenyl-d14	*16.8*		*%*	*84.2*	*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					
1,1-Dichloroethane	ND	0.5	ug/L					
1,2-Dichloroethane	ND	0.5	ug/L					

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
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	*76.0*		*%*	*95.0*	*50-140*			
Surrogate: Dibromofluoromethane	*72.6*		*%*	*90.7*	*50-140*			
Surrogate: Toluene-d8	*83.8*		*%*	*105*	*50-140*			
Benzene	ND	0.5	ug/L					
Ethylbenzene	ND	0.5	ug/L					

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Toluene	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: Toluene-d8	*83.8*		*%*	*105*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Anions									
Nitrate as N	8.46	0.1	mg/L	8.51			0.6	20	
Hydrocarbons									
F1 PHCs (C6-C10)	ND	25	ug/L	ND			NC	30	
Metals									
Antimony	ND	0.5	ug/L	ND			NC	20	
Arsenic	5.5	1	ug/L	5.6			1.9	20	
Barium	263	1	ug/L	266			1.1	20	
Beryllium	ND	0.5	ug/L	ND			NC	20	
Boron	54	10	ug/L	55			0.8	20	
Cadmium	ND	0.1	ug/L	ND			NC	20	
Chromium	ND	1	ug/L	ND			NC	20	
Cobalt	2.07	0.5	ug/L	2.08			0.5	20	
Copper	0.62	0.5	ug/L	0.64			3.5	20	
Lead	ND	0.1	ug/L	ND			NC	20	
Molybdenum	10.8	0.5	ug/L	10.7			0.2	20	
Nickel	5.1	1	ug/L	5.1			1.4	20	
Selenium	ND	1	ug/L	ND			NC	20	
Silver	ND	0.1	ug/L	ND			NC	20	
Sodium	252000	372	ug/L	216000			15.5	20	
Thallium	ND	0.1	ug/L	ND			NC	20	
Uranium	1.4	0.1	ug/L	1.4			0.7	20	
Vanadium	ND	0.5	ug/L	ND			NC	20	
Zinc	ND	5	ug/L	ND			NC	20	
Volatiles									
Acetone	ND	5.0	ug/L	ND			NC	30	
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	

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
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	
Toluene	ND	0.5	ug/L	ND			NC	30	
1,1,1-Trichloroethane	ND	0.5	ug/L	ND			NC	30	
1,1,2-Trichloroethane	ND	0.5	ug/L	ND			NC	30	
Trichloroethylene	ND	0.5	ug/L	ND			NC	30	
Trichlorofluoromethane	ND	1.0	ug/L	ND			NC	30	

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Vinyl chloride	ND	0.5	ug/L	ND			NC	30	
m,p-Xylenes	ND	0.5	ug/L	ND			NC	30	
o-Xylene	ND	0.5	ug/L	ND			NC	30	
Surrogate: 4-Bromofluorobenzene	*78.3*		*%*		*97.9*	*50-140*			
Surrogate: Dibromofluoromethane	*77.7*		*%*		*97.2*	*50-140*			
Surrogate: Toluene-d8	*82.2*		*%*		*103*	*50-140*			
Benzene	ND	0.5	ug/L	ND			NC	30	
Ethylbenzene	ND	0.5	ug/L	ND			NC	30	
Toluene	ND	0.5	ug/L	ND			NC	30	
m,p-Xylenes	ND	0.5	ug/L	ND			NC	30	
o-Xylene	ND	0.5	ug/L	ND			NC	30	
Surrogate: Toluene-d8	*82.2*		*%*		*103*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Anions									
Nitrate as N	9.51	0.1	mg/L	8.51	100	77-126			
Hydrocarbons									
F1 PHCs (C6-C10)	39	25	ug/L	ND	97.7	85-115			
F2 PHCs (C10-C16)	1530	100	ug/L	ND	95.8	60-140			
F3 PHCs (C16-C34)	3850	100	ug/L	ND	98.1	60-140			
F4 PHCs (C34-C50)	2110	100	ug/L	ND	85.0	60-140			
Metals									
Antimony	40.7	0.5	ug/L	ND	80.5	80-120			
Arsenic	53.5	1	ug/L	5.6	95.7	80-120			
Barium	46.1	1	ug/L	ND	92.3	80-120			
Beryllium	49.8	0.5	ug/L	ND	99.5	80-120			
Boron	99	10	ug/L	55	87.6	80-120			
Cadmium	39.7	0.1	ug/L	ND	79.4	80-120			QM-07
Chromium	55.3	1	ug/L	ND	111	80-120			
Cobalt	52.8	0.5	ug/L	2.08	101	80-120			
Copper	47.4	0.5	ug/L	0.64	93.5	80-120			
Lead	42.2	0.1	ug/L	ND	84.3	80-120			
Molybdenum	56.0	0.5	ug/L	10.7	90.6	80-120			
Nickel	53.8	1	ug/L	5.1	97.5	80-120			
Selenium	42.4	1	ug/L	ND	84.4	80-120			
Silver	34.0	0.1	ug/L	ND	67.9	80-120			QM-07
Sodium	9430	200	ug/L	ND	94.3	80-120			
Thallium	43.7	0.1	ug/L	ND	87.4	80-120			
Uranium	49.6	0.1	ug/L	1.4	96.4	80-120			
Vanadium	56.3	0.5	ug/L	ND	112	80-120			
Zinc	42	5	ug/L	ND	77.9	80-120			QM-07
Semi-Volatiles									
Acenaphthene	3.65	0.05	ug/L	ND	72.9	50-140			
Acenaphthylene	3.82	0.05	ug/L	ND	76.5	50-140			
Anthracene	3.89	0.01	ug/L	ND	77.8	50-140			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Benzo [a] anthracene	4.17	0.01	ug/L	ND	83.5	50-140			
Benzo [a] pyrene	4.08	0.01	ug/L	ND	81.6	50-140			
Benzo [b] fluoranthene	4.51	0.05	ug/L	ND	90.2	50-140			
Benzo [g,h,i] perylene	4.76	0.05	ug/L	ND	95.1	50-140			
Benzo [k] fluoranthene	4.35	0.05	ug/L	ND	87.0	50-140			
Chrysene	4.41	0.05	ug/L	ND	88.2	50-140			
Dibenzo [a,h] anthracene	5.10	0.05	ug/L	ND	102	50-140			
Fluoranthene	4.23	0.01	ug/L	ND	84.7	50-140			
Fluorene	3.55	0.05	ug/L	ND	71.0	50-140			
Indeno [1,2,3-cd] pyrene	4.83	0.05	ug/L	ND	96.6	50-140			
1-Methylnaphthalene	4.15	0.05	ug/L	ND	83.0	50-140			
2-Methylnaphthalene	4.52	0.05	ug/L	ND	90.5	50-140			
Naphthalene	4.00	0.05	ug/L	ND	80.1	50-140			
Phenanthrene	4.15	0.05	ug/L	ND	83.1	50-140			
Pyrene	4.22	0.01	ug/L	ND	84.5	50-140			
Surrogate: 2-Fluorobiphenyl	*13.4*		*%*		*67.2*	*50-140*			
Surrogate: Terphenyl-d14	*17.3*		*%*		*86.3*	*50-140*			
Volatiles									
Acetone	131	5.0	ug/L	ND	131	50-140			
Benzene	43.6	0.5	ug/L	ND	109	60-130			
Bromodichloromethane	49.3	0.5	ug/L	ND	123	60-130			
Bromoform	42.0	0.5	ug/L	ND	105	60-130			
Bromomethane	36.6	0.5	ug/L	ND	91.4	50-140			
Carbon Tetrachloride	50.7	0.2	ug/L	ND	127	60-130			
Chlorobenzene	46.4	0.5	ug/L	ND	116	60-130			
Chloroform	47.1	0.5	ug/L	ND	118	60-130			
Dibromochloromethane	42.4	0.5	ug/L	ND	106	60-130			
Dichlorodifluoromethane	37.6	1.0	ug/L	ND	93.9	50-140			
1,2-Dichlorobenzene	36.8	0.5	ug/L	ND	91.9	60-130			
1,3-Dichlorobenzene	37.2	0.5	ug/L	ND	93.1	60-130			
1,4-Dichlorobenzene	37.4	0.5	ug/L	ND	93.5	60-130			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
1,1-Dichloroethane	48.7	0.5	ug/L	ND	122	60-130			
1,2-Dichloroethane	43.8	0.5	ug/L	ND	109	60-130			
1,1-Dichloroethylene	39.5	0.5	ug/L	ND	98.8	60-130			
cis-1,2-Dichloroethylene	45.0	0.5	ug/L	ND	113	60-130			
trans-1,2-Dichloroethylene	42.0	0.5	ug/L	ND	105	60-130			
1,2-Dichloropropane	45.4	0.5	ug/L	ND	113	60-130			
cis-1,3-Dichloropropylene	47.4	0.5	ug/L	ND	119	60-130			
trans-1,3-Dichloropropylene	46.1	0.5	ug/L	ND	115	60-130			
Ethylbenzene	44.2	0.5	ug/L	ND	110	60-130			
Ethylene dibromide (dibromoethane, 1,2-)	37.1	0.2	ug/L	ND	92.7	60-130			
Hexane	43.9	1.0	ug/L	ND	110	60-130			
Methyl Ethyl Ketone (2-Butanone)	119	5.0	ug/L	ND	119	50-140			
Methyl Isobutyl Ketone	115	5.0	ug/L	ND	115	50-140			
Methyl tert-butyl ether	108	2.0	ug/L	ND	108	50-140			
Methylene Chloride	38.0	5.0	ug/L	ND	95.1	60-130			
Styrene	43.6	0.5	ug/L	ND	109	60-130			
1,1,1,2-Tetrachloroethane	38.8	0.5	ug/L	ND	97.1	60-130			
1,1,2,2-Tetrachloroethane	39.3	0.5	ug/L	ND	98.3	60-130			
Tetrachloroethylene	35.8	0.5	ug/L	ND	89.4	60-130			
Toluene	41.2	0.5	ug/L	ND	103	60-130			
1,1,1-Trichloroethane	47.6	0.5	ug/L	ND	119	60-130			
1,1,2-Trichloroethane	48.7	0.5	ug/L	ND	122	60-130			
Trichloroethylene	49.1	0.5	ug/L	ND	123	60-130			
Trichlorofluoromethane	46.2	1.0	ug/L	ND	116	60-130			
Vinyl chloride	30.3	0.5	ug/L	ND	75.7	50-140			
m,p-Xylenes	96.0	0.5	ug/L	ND	120	60-130			
o-Xylene	42.8	0.5	ug/L	ND	107	60-130			
Surrogate: 4-Bromofluorobenzene	*77.5*		*%*		*96.9*	*50-140*			
Surrogate: Dibromofluoromethane	*95.1*		*%*		*119*	*50-140*			
Surrogate: Toluene-d8	*82.1*		*%*		*103*	*50-140*			
Benzene	43.6	0.5	ug/L	ND	109	60-130			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Ethylbenzene	44.2	0.5	ug/L	ND	110	60-130			
Toluene	41.2	0.5	ug/L	ND	103	60-130			
m,p-Xylenes	96.0	0.5	ug/L	ND	120	60-130			
o-Xylene	42.8	0.5	ug/L	ND	107	60-130			
Surrogate: Toluene-d8	*82.1*		*%*		*103*	*50-140*			

Qualifier Notes:

Login Qualifiers :

Sample - Filtered and preserved by Paracel upon receipt at the laboratory - Metals by ICP-MS, sample submitted unpreserved and not field filtered.

Applies to Samples: MW25-02

QC Qualifiers:

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on other acceptable QC.

Sample Data Revisions:

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

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

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

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.

PARACEL LABORATORIES LTD.

Paracel ID: 2534509

Paracel Order Number (Lab Use Only): 2534509

Chain Of Custody (Lab Use Only) № 149882

Client Name: GEMTEC	Project Ref: 100011.122
Contact Name: Nicole Soucy	Quote #:
Address: 32 Stacie Drive	PO #:
Telephone:	E-mail: Nicole.Soucy@gemtec.ca, Jeffrey.Gauthier@gemtec.ca

Page 1 of 1

Turnaround Time

☐ 1 day ☐ 3 day ☐ 2 day ☑ Regular

Date Required:

☑ REG 153/04 ☐ REG 406/19

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

Other Regulation

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

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

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Field Filtered	Sample Taken: Date	Sample Taken: Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWE)	Nitrates			
1	MW25-03	GW		6	Y	Aug 22/23	12:40	✓	✓	✓	✓				✓			
2	MW25-02				N		2:00	✓	✓	✓	✓				✓			
3	MW25-05				N		1:20	✓							✓			
4	Field Blank			2	N		12:40	✓										
5	Trip Blank Aug 20			2	N		12:40	✓										
6																		
7																		
8																		
9																		
10																		

Comments: Metals for MW25-02 rinsed out and not field filtered. Please filter metals.

Method of Delivery: Walk in

Relinquished By (Sign):	Received at Depot:	Received at Lab:	Verified By:
Relinquished By (Print): Jeffrey Gauthier	Date/Time:	Date/Time: Aug 22/23 15:34	Date/Time: Aug 22/23
Date/Time: Aug 22/23 2:30	Temperature: °C	Temperature: 21.4 °C	pH Verified: ☐ By:

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Certificate of Analysis

GEMTEC Consulting Engineers and Scientists Limited
32 Steacie Drive
Kanata, ON K2K 2A9
Attn: Nicole Soucy

Client PO:
Project: 100011.122
Custody: 149851

Report Date: 22-Sep-2025
Order Date: 19-Sep-2025

Order #: 2538518

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

Paracel ID	Client ID
2538518-01	MW25-02A
2538518-02	MW25-02B

Approved By:

Mark Foto, M.Sc.
Laboratory Director

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Metals, ICP-MS	EPA 200.8 - ICP-MS	22-Sep-25	22-Sep-25

Certificate of Analysis

Report Date: 22-Sep-2025

Client: **GEMTEC Consulting Engineers and Scientists Limited**

Order Date: 19-Sep-2025

Client PO:

Project Description: 100011.122

	Client ID:	MW25-02A	MW25-02B	-	-	-	-
	Sample Date:	16-Sep-25 09:00	18-Sep-25 09:00	-	-		
	Sample ID:	2538518-01	2538518-02	-	-		
	Matrix:	Ground Water	Ground Water	-	-		
	MDL/Units						
Metals							
Antimony	0.5 ug/L	<0.5	<0.5	-	-	-	-
Arsenic	1 ug/L	2	2	-	-	-	-
Barium	1 ug/L	127	155	-	-	-	-
Beryllium	0.5 ug/L	<0.5	<0.5	-	-	-	-
Boron	10 ug/L	75	65	-	-	-	-
Cadmium	0.1 ug/L	<0.1	<0.1	-	-	-	-
Chromium	1 ug/L	<1	<1	-	-	-	-
Cobalt	0.5 ug/L	2.6	5.0	-	-	-	-
Copper	0.5 ug/L	0.7	1.6	-	-	-	-
Lead	0.1 ug/L	<0.1	<0.1	-	-	-	-
Molybdenum	0.5 ug/L	1.4	0.9	-	-	-	-
Nickel	1 ug/L	4	5	-	-	-	-
Selenium	1 ug/L	<1	<1	-	-	-	-
Silver	0.1 ug/L	<0.1	<0.1	-	-	-	-
Sodium	200 ug/L	130000	154000	-	-	-	-
Thallium	0.1 ug/L	<0.1	<0.1	-	-	-	-
Uranium	0.1 ug/L	0.8	1.5	-	-	-	-
Vanadium	0.5 ug/L	1.9	2.3	-	-	-	-
Zinc	5 ug/L	<5	<5	-	-	-	-

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Metals								
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	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					

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Metals									
Antimony	1.36	0.5	ug/L	1.69			NC	20	
Arsenic	ND	1	ug/L	ND			NC	20	
Barium	63.6	1	ug/L	62.5			1.8	20	
Beryllium	ND	0.5	ug/L	ND			NC	20	
Boron	239	10	ug/L	234			2.0	20	
Cadmium	ND	0.1	ug/L	ND			NC	20	
Chromium	ND	1	ug/L	ND			NC	20	
Cobalt	ND	0.5	ug/L	ND			NC	20	
Copper	0.69	0.5	ug/L	0.70			1.5	20	
Lead	ND	0.1	ug/L	ND			NC	20	
Molybdenum	2.53	0.5	ug/L	2.52			0.2	20	
Nickel	3.2	1	ug/L	3.3			2.7	20	
Selenium	ND	1	ug/L	ND			NC	20	
Silver	ND	0.1	ug/L	ND			NC	20	
Sodium	41800	200	ug/L	41000			1.9	20	
Thallium	ND	0.1	ug/L	ND			NC	20	
Uranium	0.8	0.1	ug/L	0.8			4.4	20	
Vanadium	0.60	0.5	ug/L	0.61			0.3	20	
Zinc	ND	5	ug/L	ND			NC	20	

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Metals									
Antimony	47.8	0.5	ug/L	1.69	92.3	80-120			
Arsenic	50.6	1	ug/L	ND	100	80-120			
Barium	109	1	ug/L	62.5	93.1	80-120			
Beryllium	53.2	0.5	ug/L	ND	106	80-120			
Boron	266	10	ug/L	234	63.9	80-120			QM-07
Cadmium	47.9	0.1	ug/L	ND	95.8	80-120			
Chromium	53.9	1	ug/L	ND	108	80-120			
Cobalt	50.1	0.5	ug/L	ND	99.5	80-120			
Copper	47.0	0.5	ug/L	0.70	92.7	80-120			
Lead	41.3	0.1	ug/L	ND	82.6	80-120			
Molybdenum	49.5	0.5	ug/L	2.52	94.0	80-120			
Nickel	50.6	1	ug/L	3.3	94.5	80-120			
Selenium	47.1	1	ug/L	ND	93.8	80-120			
Silver	45.9	0.1	ug/L	ND	91.8	80-120			
Sodium	48400	200	ug/L	41000	73.8	80-120			QM-07
Thallium	47.1	0.1	ug/L	ND	94.1	80-120			
Uranium	45.0	0.1	ug/L	0.8	88.4	80-120			
Vanadium	55.0	0.5	ug/L	0.61	109	80-120			
Zinc	45	5	ug/L	ND	88.6	80-120			

Qualifier Notes:

QC Qualifiers:

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on other acceptable QC.

Sample Data Revisions:

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

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

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

PARACEL LABORATORIES LTD.

Paracel ID: 2538518

Paracel Order Number (Lab Use Only)	Chain Of Custody (Lab Use Only)
2538518	№ 149851

Client Name: Gemtec
Contact Name: Nicole Soucy
Address: 32 Steacie Dr, Kanata, ON
Telephone: 613-836-1422

Project Ref: 100011.122
Quote #:
PO #:
E-mail: nicole.soucy@gemtec.ca
chris.dionne@gemtec.ca

Page 1 of 1

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

☒ REG 153/04 ☐ REG 406/19

Other Regulation

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

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

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

Required Analysis

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Field Filtered	Sample Taken: Date	Sample Taken: Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWE)				
1	MW25-02A	GW		1	Y	Sept 16/25	AM				X							
2	MW25-02B	GW		1	Y	Sept 18/25	AM				X							
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Comments:

Method of Delivery: Paracel courier

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Relinquished By (Sign):	Received at Depot:	Received at Lab: SD	Verified By: LTJ
Relinquished By (Print): Chris Dionne	Date/Time:	Date/Time: Sept 19, 2025 3:15pm	Date/Time: 19/09/25; 16:11
Date/Time: Sept 19/25 0930	Temperature: °C	Temperature: 4.1 °C	pH Verified: ☑ By: SD

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Certificate of Analysis

GEMTEC Consulting Engineers and Scientists Limited
32 Steacie Drive
Kanata, ON K2K 2A9
Attn: Nicole Soucy

Client PO:
Project: 100011.122
Custody: 149852

Report Date: 6-Oct-2025
Order Date: 2-Oct-2025

Order #: 2540367

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

Paracel ID	Client ID
2540367-01	BH25-05-SA1A
2540367-02	BH25-05-SA1B
2540367-03	BH25-05-SA1C
2540367-04	BH25-05-SA1D

Approved By:

Mark Foto, M.Sc.
Laboratory Director

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
REG 153: PAHs by GC-MS	EPA 8270 - GC-MS, extraction	3-Oct-25	5-Oct-25
Solids, %	CWS Tier 1 - Gravimetric	3-Oct-25	6-Oct-25

Certificate of Analysis

Report Date: 06-Oct-2025

Client: **GEMTEC Consulting Engineers and Scientists Limited**

Order Date: 2-Oct-2025

Client PO:

Project Description: 100011.122

	Client ID:	BH25-05-SA1A	BH25-05-SA1B	BH25-05-SA1C	BH25-05-SA1D	-	-
	Sample Date:	02-Oct-25 09:00	02-Oct-25 09:00	02-Oct-25 09:00	02-Oct-25 09:00		
	Sample ID:	2540367-01	2540367-02	2540367-03	2540367-04		
	Matrix:	Soil	Soil	Soil	Soil		
	MDL/Units						
Physical Characteristics							
% Solids	0.1 % by Wt.	90.4	90.6	92.6	92.5	-	-
Semi-Volatiles							
Acenaphthene	0.02 ug/g	0.04	<0.40 [1]	<0.40 [1]	<0.40 [1]	-	-
Acenaphthylene	0.02 ug/g	<0.02	<0.40 [1]	<0.40 [1]	<0.40 [1]	-	-
Anthracene	0.02 ug/g	0.17	<0.40 [1]	<0.40 [1]	<0.40 [1]	-	-
Benzo [a] anthracene	0.02 ug/g	0.18	<0.40 [1]	<0.40 [1]	<0.40 [1]	-	-
Benzo [a] pyrene	0.02 ug/g	0.15	<0.40 [1]	<0.40 [1]	<0.40 [1]	-	-
Benzo [b] fluoranthene	0.02 ug/g	0.15	<0.40 [1]	<0.40 [1]	<0.40 [1]	-	-
Benzo [g,h,i] perylene	0.02 ug/g	0.09	<0.40 [1]	<0.40 [1]	<0.40 [1]	-	-
Benzo [k] fluoranthene	0.02 ug/g	0.09	<0.40 [1]	<0.40 [1]	<0.40 [1]	-	-
Chrysene	0.02 ug/g	0.16	<0.40 [1]	<0.40 [1]	<0.40 [1]	-	-
Dibenzo [a,h] anthracene	0.02 ug/g	0.03	<0.40 [1]	<0.40 [1]	<0.40 [1]	-	-
Fluoranthene	0.02 ug/g	0.43	<0.40 [1]	<0.40 [1]	<0.40 [1]	-	-
Fluorene	0.02 ug/g	0.07	<0.40 [1]	<0.40 [1]	<0.40 [1]	-	-
Indeno [1,2,3-cd] pyrene	0.02 ug/g	0.07	<0.40 [1]	<0.40 [1]	<0.40 [1]	-	-
1-Methylnaphthalene	0.02 ug/g	<0.02	<0.40 [1]	<0.40 [1]	<0.40 [1]	-	-
2-Methylnaphthalene	0.02 ug/g	<0.02	<0.40 [1]	<0.40 [1]	<0.40 [1]	-	-
Methylnaphthalene (1&2)	0.04 ug/g	<0.04	<0.80 [1]	<0.80 [1]	<0.80 [1]	-	-
Naphthalene	0.01 ug/g	0.02	<0.20 [1]	<0.20 [1]	<0.20 [1]	-	-
Phenanthrene	0.02 ug/g	0.47	<0.40 [1]	<0.40 [1]	<0.40 [1]	-	-
Pyrene	0.02 ug/g	0.32	<0.40 [1]	<0.40 [1]	<0.40 [1]	-	-
2-Fluorobiphenyl	Surrogate	77.5%	61.8%	57.0%	62.5%	-	-
Terphenyl-d14	Surrogate	69.4%	89.2%	83.8%	72.7%	-	-

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Semi-Volatiles								
Acenaphthene	ND	0.02	ug/g					
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	*0.915*		*%*	*68.6*	*50-140*			
Surrogate: Terphenyl-d14	*0.954*		*%*	*71.5*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Physical Characteristics									
% Solids	91.4	0.1	% by Wt.	90.9			0.5	25	
Semi-Volatiles									
Acenaphthene	0.122	0.02	ug/g	0.124			1.7	40	
Acenaphthylene	ND	0.02	ug/g	0.030			NC	40	
Anthracene	0.464	0.02	ug/g	0.513			10.0	40	
Benzo [a] anthracene	0.892	0.02	ug/g	0.952			6.5	40	
Benzo [a] pyrene	0.702	0.02	ug/g	0.769			9.1	40	
Benzo [b] fluoranthene	0.641	0.02	ug/g	0.730			13.0	40	
Benzo [g,h,i] perylene	0.411	0.02	ug/g	0.453			9.9	40	
Benzo [k] fluoranthene	0.376	0.02	ug/g	0.440			15.6	40	
Chrysene	0.772	0.02	ug/g	0.760			1.7	40	
Dibenzo [a,h] anthracene	0.120	0.02	ug/g	0.133			9.9	40	
Fluoranthene	2.13	0.02	ug/g	2.21			3.6	40	
Fluorene	0.162	0.02	ug/g	0.180			10.5	40	
Indeno [1,2,3-cd] pyrene	0.376	0.02	ug/g	0.418			10.8	40	
1-Methylnaphthalene	ND	0.02	ug/g	ND			NC	40	
2-Methylnaphthalene	ND	0.02	ug/g	ND			NC	40	
Naphthalene	0.023	0.01	ug/g	0.017			30.2	40	
Phenanthrene	1.58	0.02	ug/g	1.66			4.7	40	
Pyrene	1.71	0.02	ug/g	1.79			4.3	40	
Surrogate: 2-Fluorobiphenyl	*0.905*		*%*		*58.7*	*50-140*			
Surrogate: Terphenyl-d14	*1.08*		*%*		*70.3*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Semi-Volatiles									
Acenaphthene	0.133	0.02	ug/g	ND	79.7	50-140			
Acenaphthylene	0.128	0.02	ug/g	ND	77.0	50-140			
Anthracene	0.152	0.02	ug/g	ND	91.3	50-140			
Benzo [a] anthracene	0.125	0.02	ug/g	ND	75.0	50-140			
Benzo [a] pyrene	0.137	0.02	ug/g	ND	82.2	50-140			
Benzo [b] fluoranthene	0.132	0.02	ug/g	ND	79.0	50-140			
Benzo [g,h,i] perylene	0.146	0.02	ug/g	ND	87.4	50-140			
Benzo [k] fluoranthene	0.146	0.02	ug/g	ND	87.5	50-140			
Chrysene	0.139	0.02	ug/g	ND	83.7	50-140			
Dibenzo [a,h] anthracene	0.139	0.02	ug/g	ND	83.2	50-140			
Fluoranthene	0.150	0.02	ug/g	ND	89.9	50-140			
Fluorene	0.125	0.02	ug/g	ND	74.8	50-140			
Indeno [1,2,3-cd] pyrene	0.137	0.02	ug/g	ND	82.1	50-140			
1-Methylnaphthalene	0.112	0.02	ug/g	ND	67.2	50-140			
2-Methylnaphthalene	0.108	0.02	ug/g	ND	65.0	50-140			
Naphthalene	0.110	0.01	ug/g	ND	65.9	50-140			
Phenanthrene	0.144	0.02	ug/g	ND	86.5	50-140			
Pyrene	0.149	0.02	ug/g	ND	89.5	50-140			
Surrogate: 2-Fluorobiphenyl	*0.863*		*%*		*64.8*	*50-140*			
Surrogate: Terphenyl-d14	*1.11*		*%*		*83.4*	*50-140*			

Qualifier Notes:

Sample Qualifiers :

1: Elevated reporting limits due to the nature of the sample matrix.

Sample Data Revisions:

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

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

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

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

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

PARACEL | LABORATORIES LTD.

Paracel ID: 2540367

Paracel Order Number (Lab Use Only)	Chain Of Custody (Lab Use Only)
2540367	№ 149852

Client Name: Gemtec	Project Ref: 100011.122
Contact Name: Nicole Savoy	Quote #:
Address: 32 Steacie Dr	PO #:
Telephone:	E-mail: nicole.savoy@gemtec.ca chris.dionne@gemtec.ca

Page 1 of 1

Turnaround Time

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

☒ REG 153/04 ☐ REG 406/19

Other Regulation

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

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

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

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Field Filtered	Sample Taken: Date	Sample Taken: Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWE)				
1	BH25-05 SA1A	S		1		Oct 2/25	AM			X								
2	BH25-05 SA1B	S		1		↓	↓			X								
3	BH25-05 SA1C	S		1						X								
4	BH25-05 SA1D	S		1		↓	↓			X								
5																		
6																		
7																		
8																		
9																		
10																		

Required Analysis

Comments:

Method of Delivery: Walk in

Relinquished By (Sign):	Received at Depot:	Received at Lab: JM	Verified By: JM
Relinquished By (Print): Chris Dionne	Date/Time:	Date/Time: Oct 2 1232	Date/Time: Oct 2 1710
Date/Time: Oct 2/25	Temperature: °C	Temperature: 11.8 °C	pH Verified: ☐ By:

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Certificate of Analysis

GEMTEC Consulting Engineers and Scientists Limited
32 Steacie Drive
Kanata, ON K2K 2A9
Attn: Nicole Soucy

Client PO:
Project: 100011.122
Custody: 149858

Report Date: 6-Oct-2025
Order Date: 1-Oct-2025

Order #: 2540262

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

Paracel ID	Client ID
2540262-01	MW25-02C

Approved By:

Mark Foto, M.Sc.
Laboratory Director

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
Metals, ICP-MS	EPA 200.8 - ICP-MS	2-Oct-25	3-Oct-25

Certificate of Analysis

Report Date: 06-Oct-2025

Client: **GEMTEC Consulting Engineers and Scientists Limited**

Order Date: 1-Oct-2025

Client PO:

Project Description: 100011.122

	Client ID:	MW25-02C	-	-	-		
	Sample Date:	30-Sep-25 09:00	-	-	-	-	-
	Sample ID:	2540262-01	-	-	-		
	Matrix:	Ground Water	-	-	-		
	MDL/Units						
Metals							
Antimony	0.5 ug/L	<0.5	-	-	-	-	-
Arsenic	1 ug/L	2	-	-	-	-	-
Barium	1 ug/L	151	-	-	-	-	-
Beryllium	0.5 ug/L	<0.5	-	-	-	-	-
Boron	10 ug/L	61	-	-	-	-	-
Cadmium	0.1 ug/L	<0.1	-	-	-	-	-
Chromium	1 ug/L	3	-	-	-	-	-
Cobalt	0.5 ug/L	5.5	-	-	-	-	-
Copper	0.5 ug/L	2.9	-	-	-	-	-
Lead	0.1 ug/L	0.9	-	-	-	-	-
Molybdenum	0.5 ug/L	0.6	-	-	-	-	-
Nickel	1 ug/L	7	-	-	-	-	-
Selenium	1 ug/L	<1	-	-	-	-	-
Silver	0.1 ug/L	<0.1	-	-	-	-	-
Thallium	0.1 ug/L	<0.1	-	-	-	-	-
Uranium	0.1 ug/L	1.7	-	-	-	-	-
Vanadium	0.5 ug/L	4.3	-	-	-	-	-
Zinc	5 ug/L	<5	-	-	-	-	-

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Metals								
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	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					
Thallium	ND	0.1	ug/L					
Uranium	ND	0.1	ug/L					
Vanadium	ND	0.5	ug/L					
Zinc	ND	5	ug/L					

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Metals									
Antimony	ND	0.5	ug/L	ND			NC	20	
Arsenic	ND	1	ug/L	ND			NC	20	
Barium	304	1	ug/L	311			2.3	20	
Beryllium	ND	0.5	ug/L	ND			NC	20	
Boron	436	10	ug/L	438			0.5	20	
Cadmium	ND	0.1	ug/L	ND			NC	20	
Chromium	ND	1	ug/L	ND			NC	20	
Cobalt	0.69	0.5	ug/L	0.70			1.8	20	
Copper	0.99	0.5	ug/L	1.01			1.9	20	
Lead	0.33	0.1	ug/L	0.35			4.1	20	
Molybdenum	0.92	0.5	ug/L	0.91			1.3	20	
Nickel	2.5	1	ug/L	2.6			3.5	20	
Selenium	ND	1	ug/L	ND			NC	20	
Silver	ND	0.1	ug/L	ND			NC	20	
Sodium	202000	2540	ug/L	199000			1.7	20	
Thallium	ND	0.1	ug/L	ND			NC	20	
Uranium	0.3	0.1	ug/L	0.3			1.6	20	
Vanadium	0.72	0.5	ug/L	0.79			8.7	20	
Zinc	ND	5	ug/L	ND			NC	20	

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Metals									
Antimony	38.2	0.5	ug/L	ND	76.2	80-120			QM-07
Arsenic	50.4	1	ug/L	ND	99.6	80-120			
Barium	47.7	1	ug/L	ND	95.3	80-120			
Beryllium	43.7	0.5	ug/L	ND	87.3	80-120			
Boron	45	10	ug/L	ND	90.8	80-120			
Cadmium	39.6	0.1	ug/L	ND	79.2	80-120			QM-07
Chromium	56.8	1	ug/L	ND	112	80-120			
Cobalt	51.7	0.5	ug/L	0.70	102	80-120			
Copper	47.2	0.5	ug/L	1.01	92.3	80-120			
Lead	38.4	0.1	ug/L	0.35	76.1	80-120			QM-07
Molybdenum	48.6	0.5	ug/L	0.91	95.5	80-120			
Nickel	49.8	1	ug/L	2.6	94.4	80-120			
Selenium	41.7	1	ug/L	ND	83.1	80-120			
Silver	30.7	0.1	ug/L	ND	61.3	80-120			QM-07
Sodium	8400	200	ug/L	ND	84.0	80-120			
Thallium	40.5	0.1	ug/L	ND	80.9	80-120			
Uranium	44.1	0.1	ug/L	0.3	87.5	80-120			
Vanadium	60.1	0.5	ug/L	0.79	119	80-120			
Zinc	41	5	ug/L	ND	73.1	80-120			QM-07

Qualifier Notes:

QC Qualifiers:

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on other acceptable QC.

Sample Data Revisions:

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

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

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

PARACEL LABORATORIES LTD.

Paracel ID: 2540262

Paracel Order Number (Lab Use Only)	Chain Of Custody (Lab Use Only)
2540262	№ 149858

Client Name: Gemtec	Project Ref: 100011.122	Page 1 of 1
Contact Name: Nicole Saucy	Quote #:	Turnaround Time
Address: 32 Steacie Dr, Kanata, ON	PO #:	☐ 1 day ☐ 3 day
	E-mail: nicole.saucy@gemtec.ca; chris.dionne@gemtec.ca	☐ 2 day ☒ Regular
Telephone: 613-836-1422		Date Required:

☒ REG 153/04 ☐ REG 406/19	Other Regulation
☒ Table 1 ☐ Agri/Other ☐ Med/Fine	☐ REG 558 ☐ PWQO
☐ Table 2 ☐ Res/Park ☐ Coarse	☐ CCME ☐ MISA
☐ Table 3 ☐ Ind/Comm	☐ SU - Sani ☐ SU - Storm
☐ Table ___	Mun:
For RSC: ☐ Yes ☐ No	☐ Other:

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

	Sample ID/Location Name	Matrix	Air Volume	# of Containers	Field Filtered	Sample Taken: Date	Sample Taken: Time	PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	Hg	CrVI	B (HWE)				
								Required Analysis										
1	MW25-02C	GW		1	Y	Sept 30/25	AM				X							
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Comments:

Method of Delivery: Swift

Relinquished By (Sign):	Received at Depot:	Received at Lab: JM	Verified By:
Relinquished By (Print): Chris Dionne	Date/Time:	Date/Time: Oct 1 1705	Date/Time: Oct 02 8:49
Date/Time: Oct 1/25 1310	Temperature: °C	Temperature: 6.7 °C	pH Verified: ☑ By:

experience • knowledge • integrity

civil	civil
geotechnical	géotechnique
environmental	environnement
structural	structures
field services	surveillance de chantier
materials testing	service de laboratoire des matériaux

expérience • connaissance • intégrité