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Phase Two Environmental Site Assessment
Proposed Development – Hazeldean Heights
5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
Ottawa, Ontario

GEMTEC Project: 104054.001

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Submitted to:

Hazeldean Heights Inc.
5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
Stittsville, Ontario
K2S 1H3

Phase Two Environmental Site Assessment
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September 26, 2025
GEMTEC Project: 104054.001

experience • knowledge • integrity

GEMTEC Consulting Engineers and Scientists Limited
32 Steacie Drive
Ottawa, ON, Canada
K2K 2A9

September 26, 2025 File: 104054.001

Hazeldean Heights Inc.
5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
Stittsville, Ontario
K2S 1H3

Attention: Savage Development Inc.

Re: Phase Two Environmental Site Assessment
Proposed Development – Hazeldean Heights
5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
Ottawa, Ontario

Enclosed is GEMTEC Consulting Engineers and Scientists Limited's Phase Two Environmental Site Assessment (ESA) report for the above-noted project. The Phase Two ESA and reporting are based on the original scope of work presented in our proposal dated February 22, 2025. This report was prepared by Nicole Soucy, M.A.Sc., P.Eng, QP_{ESA} and supervised and reviewed by Daniel Elliot, B.Sc., 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

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

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1.0 EXECUTIVE SUMMARY

GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) was retained by Hazeldean Heights Inc. to carry out a Phase Two Environmental Site Assessment (ESA) for the properties located at for the properties located at 5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive in Ottawa, Ontario (herein referred to as the 'Phase Two Property' or 'Site'). It is understood that this Phase Two ESA is required to support a proposed change of land use from commercial to residential and the filing of a Record of Site Condition (RSC) with Ministry of the Environment, Conservation and Parks (MECP).

GEMTEC previously completed a Phase One ESA for the Site, the results of which were documented in the report titled *"DRAFT- Phase One Environmental Site Assessment Proposed Development, 5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive in Ottawa, Ontario"* dated February 2025. Based on the findings of the Phase One ESA, four Areas of Potential Environmental Concern (APEC) were identified.

The borehole drilling fieldwork for this Phase Two ESA was carried out between April 30, 2025, and May 1, 2025. During this time, four boreholes, BH/MW25-01, BH/MW25-02, MW/BH25-03 and BH25-04, were advanced at the Site. The boreholes were advanced to depths ranging between 0.20 m bgs and 9.83 m bgs. Soil stratigraphy was logged in the field by a qualified GEMTEC representative, and soil samples were obtained at regular depth intervals and soil stratigraphy was logged in the field.

Soil results were compared to MECP Table 7 Site Condition Standards (SCS) - Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition, Residential/Parkland/Institutional (RPI) land use with coarse soil texture. All soil and samples met MECP Table 7 SCS, following inclusion of the supplemental sampling.

Supplemental drilling was completed on June 20, 2025 to address PHC F3 concentrations exceeding the MECP Soil Quality Standards for Table 7 RPI for coarse textures soils. During this time an additional four boreholes were advanced within 2 metres of the previously advanced BH25-04, labelled as BH25-05, BH25-06, BH25-07, and BH25-08. Boreholes BH25-05 through BH25-08 were advanced to depth of approximately 0.5 m bgs.

The Phase Two ESA investigated the APECs identified in Phase One ESA (GEMTEC, 2025). Based on the results of the soil and groundwater samples analysed as part of this Phase Two ESA, no exceedances of the applicable SCS were identified. As such, an RSC can be filed for the Site.

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2.0 INTRODUCTION

GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) was retained by Hazeldean Heights Inc. to carry out a Phase Two Environmental Site Assessment (ESA) for the properties located at for the properties located at 5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive in Ottawa, Ontario (herein referred to as the 'Phase Two Property' or 'Site'). It is understood that this Phase Two ESA is required to support a proposed change of land use from commercial to residential and the filing of a Record of Site Condition (RSC) with Ministry of the Environment, Conservation and Parks (MECP).

GEMTEC previously completed a Phase One ESA for the Site, the results of which were documented in the report titled *"DRAFT- Phase One Environmental Site Assessment Proposed Development, 5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive in Ottawa, Ontario"* dated February 2025. Based on the findings of the Phase One ESA, four Areas of Potential Environmental Concern (APEC) were identified. GEMTEC completed this Phase Two ESA investigation to address environmental concerns associated with the six APECs, that are present on the Phase One Property.

This Phase Two ESA was completed in accordance with the requirements for Phase Two ESAs as defined in Part VII and Schedule E of Ontario Regulation (O.Reg) 153/04 – Records of Site. The Site location, is shown on Figure A.1, Appendix A.

2.1 Site Description

The Site is located at 5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive. The Phase Two Property consists of a land parcel approximately 0.7 hectares in size and currently occupied by a used car lot across 5872, 5880, and 5884 Hazeldean Road. A detached residential dwelling is present at 7 Savage Drive. There are three active structures on the Phase Two Property, an office building, a garage/maintenance building and a residential building.

The legal description and PIN for the Site are:

- 5872 Hazeldean Road: PART OF LOT 26, CONCESSION 11, BEING PART 2 ON 4R18441, OTTAWA. SUBJECT TO AN EASEMENT IN FAVOUR OF THE OWNERS OF PART OF LOT 26, CONCESSION 11, GOULBOURN, AS IN N587800 AS IN OC547267. 04462-0719 (LT).

- 5880 Hazeldean Road: PART OF LOT 26 CONCESSION 11 GOULBOURN, PART 2 PLAN 4R20819; OTTAWA. T/W AN EASEMENT OVER PART 2 PLAN 4R18441 AS IN OC547267. 04462-0733 (LT).

- 5882 Hazeldean Road: PART OF LOT 26, CONCESSION 11, GOULBOURN, AS IN CT248366 SAVE AND EXCEPT PART 1 ON PLAN 4R-27244; CITY OF OTTAWA. 04462-0744 (LT).

- 7 Savage Drive: PT LT 26 CON 11 GOULBOURN AS IN N495055 ; GOULBOURN. 04462-0484 (LT).

The Phase Two Property is bound to the north by community Roadway, Hazeldean Road, along which lies multiple commercial businesses including an ESSO gas station. North of Hazeldean Road multiple residential dwellings are present along Rowan Road and Bradley Green Court. The Phase Two Property is bound to the east by commercial and industrial properties along Sweetnam Drive, a floodplain east of Swetnam Drive, and residential properties along Succession Court, Cloverloft Crescent. The Phase Two Property is bound to the south by residential dwellings along Savage Drive, Denham Way, and Iva Street. The Phase Two Property is bound to the south by residential dwellings along Savage Drive, Denham Way, Rhonda Stweart Private, and Victor Street. The Site location and Site features are shown on Figure A.1 and Figure A.2, Appendix A. A plan is survey is also provided in Appendix A.

2.2 Property Ownership

Details of the Site ownership are provided in Table 2.1.

Table 2.1: Site Information

Site Information	
Site Owner	5872 Hazeldean Road: 1030108 Ontario Inc. 5880 Hazeldean Road: 1030108 Ontario Inc. 5882 Hazeldean Road: 1030108 Ontario Inc. 7 Savage Drive: 12421178 Canada Inc. *Note: the ownership of properties will be updated following finalization of retail transaction by Savage Development Inc. and his business 1727897 Ontario Inc. that is in the process of acquiring all four of the properties.*
Site Contact	Savage Development Inc.
Address	5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
Telephone	(613) 227-7060
Email	rental1727@gmail.com

2.3 Current and Proposed Future Uses

Currently the Phase Two Property is currently used by Westend Automotive and a residential dwelling. It was previously used residentially. The proposed future use is to convert the Site to multi-unit residential.

2.4 Applicable Site Condition 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, as amended. The selection of applicable SCS for comparison to analytical data was based on a review of various Site characteristics which will need to be considered for the current property use.

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

- Land Use: The last known land use of the Site was commercial and residential. The proposed future land use is residential.
- Soil Texture: Based on visual observations made during the field program and the grain size analysis, completed on soils from location BH25-03, the predominant soil type was sand and gravel which is inferred to be coarse textured. 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”. Certificates of analysis for grain size are included in Appendix D.
- 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 results obtained from the environmental investigation, the overburden thickness is less than 2 metres for more than 2/3 of the property and there are no water bodies within 30 metres of the Site. Therefore, the Site is considered a shallow soil property.
- Groundwater Use: Groundwater in the vicinity of the Site is not used for potable purposes – the use on non potable standards has been approved by the City of Ottawa in a letter dated May 29, 2025.
- 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.

The Site is not considered to be environmentally sensitive. Analytical results from soil samples collected were all within the MECP acceptable pH range. Furthermore, the Site is not within, adjacent to or does not include, in part or wholly, an Area of Natural and Scientific Interest (ANSI).

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

- MECP, 2011. Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition, Residential/Parkland/Institutional (RPI) land use with coarse soil texture.

3.0 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.

3.1 Physical Setting

The Phase Two Property has a relatively flat topography and is at an elevation between 105 and 112 metres (m) above sea level (asl). Surrounding local topography generally slopes gradually downwards towards the unnamed creek, which is located approximately 190 metres to the east of the Phase One Property. Groundwater flow often reflects topographic features and typically flows towards nearby lakes, rivers, and wetland areas. Based on the topography and hydrogeological features, it is anticipated that local shallow groundwater would flow eastwards. No provincially significant wetlands (PSWs) or areas of natural and scientific interest (ANSIs) were identified on the Site or within 250 m of the Site.

Surficial and bedrock geology maps of the area indicate that the overburden in the vicinity of the Phase One Property generally consists of till, further defined as stone-poor, sandy silt to silty sand-textured till on Paleozoic terrain, with a thickness ranging from 0 to 3 m. The bedrock under the Phase Two Property is mapped as limestone, dolostone, shale, arkose, and sandstone of the Ottawa Group, Simcoe Group, and Shadow Lake Formation.

Based on the Southern Ontario Karst Maps from the Ontario Geological Survey, the area of the Phae Two Property is considered to be an area of 'potential' and 'inferred' karst, and as such, it is understood that karst formations (i.e. underground caves and/or voids occurring as a result of dissolution of bedrock due to water) within the soil and bedrock are possibly present in the vicinity of the Site.

Potable water for the Site is supplied by the City of Ottawa municipal network.

3.2 Past Investigations

Three historical report was available to GEMTEC for review.

3.2.1 Phase I Environmental Site Assessment, 5872, 5880 and 5884 Hazeldean Road, Ottawa, Ontario

- *Final Phase I Environmental Site Assessment, 5872, 5880 and 5884 Hazeldean Road, Ottawa, Ontario*. Prepared by Pinchin Ltd. Dated May 22, 2024.

The Phase I ESA detailed that two potential issues of environmental concern were identified that could results in subsurface impacts, including one active oil water separator on-site, and an off-site retail fuel outlet located at 5899 Hazeldean Road. The report concluded by recommending that a Phase II ESA be completed at the site to investigate the above-noted potential issues of environmental concern.

3.2.2 Phase II Environmental Site Assessment, 5872, 5880 and 5884 Hazeldean Road, Ottawa, Ontario

- *Phase II Environmental Site Assessment, 5872, 5880 and 5884 Hazeldean Road, Ottawa, Ontario*. Prepared by Pinchin Ltd. Dated June 25, 2024.

Two boreholes both completed as monitoring wells were advanced at the site to support soil and groundwater investigation of the potential environmental concerns identified in the Phase I ESA. Select "worst case" soil samples were collected during drilling for analysis of petroleum hydrocarbons fractions F1 to F4 (PHCs F1-F4), volatile organic compounds (VOCs), and polycyclic aromatic hydrocarbons (PAHs) – groundwater samples were also collected and analyzed for the same set of parameters.

Based on consideration of site-specific information, Ministry of the Environment Conservation and Parks (MECP) Table 7 Site Condition Standards (SCS) Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition was selected for the site. Soil and groundwater analytical results satisfied the MECP Table 7 SCS for all parameters analyzed. The report concluded indicating that it is Pinchin Ltd.'s opinion that no further subsurface investigation was required for the site at this time.

It is noted that both of the aforementioned reports were completed for only 5872, 5880, and 5884 Hazeldean Road (not including 7 Savage Road) to the Canadian Standards Association (CSA) standard.

3.2.3 Phase One Environmental Site Assessment. GEMTEC dated February 2025.

- *Phase One Environmental Site Assessment, Proposed Development, 5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive, Ottawa, Ontario.* Prepared by GEMTEC Consulting Engineering and Scientists Limited, dated February 2025.

GEMTEC conducted a Phase One ESA 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 review, several potentially contaminating activities (PCAs) were identified resulting in six APECs at the Site. Figure A.3, Appendix A indicates the location of the PCAs and Figure A.4, Appendix A indicates the location of the APEC. The APEC identified in the Phase One ESA (GEMTEC, 2025) is summarized in the Table 3.1.

Table 3.1: Summary of Areas of Potential Environmental Concern

APEC #	APEC	Location of APEC on the Phase One Property	PCA	Location of PCA (On-Site and/or Off-Site)	COPCs	Media Potentially Impacted
1	Importation of Fill Material of Unknown Quality	Across the Phase One Property	30	On-Site	PHC, BTEX, PAHs, Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-)	Soil
2	Use of de-icing salts	Across the Phase One Property	Ot#4	On-Site	EC, SAR	Soil
3	Commercial autobody work at	Eastern area of Phase One Property	10	On-Site (5872 Hazeldean Road)	Metals, PHCs, VOCs (including BTEX)	Soil & Groundwater

APEC #	APEC	Location of APEC on the Phase One Property	PCA	Location of PCA (On-Site and/or Off-Site)	COPCs	Media Potentially Impacted
	Westend Automotive					
4	Maintenance Garage for Westend Automotive, with waste oil drums and oil water separator	Eastern area of Phase One Property	Ot#3	On-Site (5872 Hazeldean Road)	Metals, PHCs, VOCs (including BTEX)	Soil & Groundwater
5	Multiple commercial/ industrial businesses east of the Phase One Property	Eastern area of Phase One Property	10, Ot#3	Off-Site (5862 Hazeldean Road)	Metals, PHCs, VOCs (including BTEX)	Soil & Groundwater
6	A Gasoline Service Station with storage tanks and known contamination	Northwestern area of Phase One Property	28	Off-Site (5899 Hazeldean Road)	Metals, PHCs, BTEX	Groundwater

Notes:

PHC – Petroleum Hydrocarbons Fractions F1 to F4
BTEX – Benzene, Toluene, Ethylbenzene, and Xylene
PAH – Polycyclic Aromatic Hydrocarbons
VOC – Volatile Organic Compounds
ORP – Other Regulated Parameters
10. Commercial Autobody Shops
28. Gasoline and Associated Products Storage in Fixed Tanks
30. Importation of Fill Material of Unknown Quality
Ot#3. Automotive Sale and Service (Including Automotive Garage)
Ot#4: Application of De-Icing Salt

This report was prepared by the Qualified Person (QP) and will be relied upon for the Phase Two investigation.

4.0 SCOPE OF THE INVESTIGATION

4.1 Overview of the Site Investigation

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 an RSC 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.

- Conducting field sampling for all COPCs associated with the APECs identified in the Phase One ESA.

The Phase Two ESA investigation activities were carried out April 30, 2025, May 1, 2025, May 16, 2025 with a supplemental program on June 20, 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**: Public utility locates were obtained, and a site meeting with USL Utility Locators and GEMTEC was completed to clear private utilities prior to drilling.
- **Sampling and Analysis Plan (SAP)**: Preparation of a SAP to document the purpose, rationale, number and location of samples to be recovered as part of the Phase Two ESA investigation. A copy of the SAP is provided in Appendix B.
- **Borehole Advancement and Monitoring Well Installation**: The Phase Two ESA investigation activities included the drilling of four boreholes (BH/MW25-1, BH/MW25-2, BH/MW 25-03, and BH25-04). Three of the four boreholes were completed with monitoring wells. The rationale for borehole locations is provided in the SAP within Appendix B. A supplemental soil sampling program was completed following review of initial fieldwork results to confirm the presence of Petroleum Hydrocarbon (PHC) F1-F4 concentrations exceeding the applicable SCS. The locations of the borehole and monitoring well locations are visualized in Figure A.5, Appendix A. The monitoring well construction details are presented in Table A.1, Appendix A and on boreholes logs in Appendix C.
- **Groundwater Monitoring and Sampling**: Groundwater samples were collected from the on-Site groundwater monitoring wells installed as part of the current GEMTEC investigation and the previously completed Pinchin monitoring wells on May 16, 2025. Groundwater samples were submitted for chemical analysis for the following:
    - PHC F1-F4;
    - VOCs; and,
    - BTEX.

  A summary of the monitoring well details is presented in Table A.2, Appendix A.
- **Soil Sampling**: Soil samples were collected on April 30, 2025, May 1, 2025, and June 20, 2025, from the boreholes. Selected soil samples were submitted for chemical analysis for one or more of the following:
    - Metals;
    - Polycyclic Aromatic Hydrocarbons (PAHs);
    - PHC F1-F4;
    - Other Regulated Parameters (OCPs);
    - Volatile Organic Compounds (VOCs);
    - Benzene, Toluene, Ethylbenzene, and Xylene (BTEX).
- **Sediment Sampling**: No sediment samples were completed as part of this investigation.
- **Surveying**: An elevation survey for the test pits was completed.

- **Reporting**: GEMTEC compiled and assessed the field and laboratory results from the above noted activities into this report.

The Phase Two investigation was carried out in general accordance with GEMTEC's standard operating procedures, which conform to the requirements of O. Reg. 153/04. The data from the Phase Two ESA investigation completed by GEMTEC at the Site were incorporated into a Phase Two ESA report following the report format required in Table 1, Schedule E of O. Reg. 153/04.

4.2 Media Investigated

To address the potential environmental issues identified in the Phase One ESA, the Phase Two ESA field program included sampling of surface and subsurface soil and groundwater from boreholes and monitoring wells installed within the overburden at the Site. No sediment was present at the Site and, therefore, no sediment sampling was completed.

The SAP outlines the rationale for the field investigation activities carried out at the Site and the associated methodologies used to meet the objectives of this Phase Two ESA.

4.3 Phase One ESA Conceptual Site Model

The following key features (as required by O.Reg. 153/04) are presented in Figures A.1, A.2, A.3 and A.4, Appendix A:

- Existing buildings and structures;
- Water bodies and areas of natural significance located in the Phase One Study Area;
- Drinking water wells on the Site;
- Roads (including names) within the Phase One Study Area;
- Uses of properties adjacent to the Phase One Property; and,
- Location of identified PCAs in the Phase One Study Area.

The following describes the Phase One ESA CSM based on the information obtained and reviewed as part of the Phase One ESA:

- The Site is currently occupied by a used car lot across 5872, 5880, and 5884 Hazeldean Road. A detached residential dwelling is present at 7 Savage Drive.
- Three structures were present on the Phase One Property at the time of the Site reconnaissance, below is a summary of each structure:
    - One structure with a basement present in the northern area of 5872 Hazeldean Road used as an office for Westend Automotive.
    - One structure in the southeastern area of 5872 Hazeldean Road used as a maintenance garage by Westend Automotive; and,
    - One structure in the western area of 7 Savage Drive currently used as a residential dwelling.

- Two gas furnaces are present on site, one in each of the structures, these were the original source of heating based on the information provided by the Phase One ESA interview candidate – further the historical residential dwellings heating is unknown.
- The ground cover at the Site was generally paved, with some smaller grass areas.
- No water bodies or areas of natural significance were identified on or within 30 m of the Site.
- No underground utility drawings were provided for review.
- Based on the topography and hydrogeological features, it is anticipated that local shallow groundwater would flow to eastwards towards an unnamed creek.
- As summarized above, the Phase One ESA identified one APECs at the Site present within the zones of development are:
    - APEC 1 – Importation of Fill Material of Unknown Quality
        - Through the review of information, the Phase One Property was previously developed and the importation of fill material of unknown quality is likely. The contaminants of potential concern (COPCs) are Petroleum Hydrocarbons (PHC), benzene, toluene, ethylbenzene, xylene (BTEX), polycyclic aromatic hydrocarbons (PAHs), Metals, Hydride-Forming Metals (As, Se, and Sb), other regulated parameters ((ORP) B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-) in soil.
    - APEC 2 – Use of de-icing salts
        - Through the review of historical property use and site interview, de-icing salts have been used on the Phase One Property. The COPCs are electrical conductivity (EC), and sodium adsorption ratio (SAR) in soil.
    - APEC 3 – Commercial autobody work at Westend Automotive
        - Through the review of information, Commercial autobody work occurs at Westend Automotive has occurred. The Site interviewee was not aware of any spills having occurred. The COPCs are Metals, PHCs, volatile organic compounds ((VOCs) including BTEX) in soil & groundwater.
    - APEC 4 – Maintenance Garage for Westend Automotive, with waste oil drums and oil water separator
        - Through the review of information, a current garage that provides automotive maintenance, waste oil drums and oil water separator was identified. The Site interviewee was not aware of any spills having occurred. The COPCs are Metals, PHCs, VOCs (including BTEX) in soil & groundwater.
    - APEC 5 – Multiple commercial/ industrial businesses east of the Phase One Property
        - Through the review of information, multiple commercial/ industrial businesses east of the Site were identified, including one adjacent to the

Site. The Site interviewee was not aware of any spills having occurred. The COPCs are Metals, PHCs, VOCs (including BTEX) in soil & groundwater.

- APEC 6 – A Gasoline Service Station with storage tanks and known contamination
  - Through the review of information, a gasoline service station with known contamination northwest of the site was identified. Through review, it was identified that only contaminated groundwater is known to be leaving the site, whereas contaminated soil is contained on the site. The COPCs are Metals, PHCs, BTEX in groundwater.

4.4 Deviations from Sampling and Analysis Plan

A SAP is provided in Appendix B. This document outlines the rationale for the field investigation activities conducted at the Site, along with the methodologies employed to achieve the objectives of this Phase Two ESA. The SAP details the scope of activities undertaken during the investigation.

While the procedures described in the SAP were generally followed, it should be noted that due to the presence of shallow bedrock across the site, soil recovery was minimal. As a result, in some instances, the only samples available for submission were those that could be successfully collected.

4.5 Impediments

No physical impediments to the Phase Two ESA investigation were encountered. Access to the Site was not denied or restricted.

5.0 INVESTIGATION METHOD

5.1 General

The following sections describe the field investigation methodology employed during the Phase Two ESA.

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, prior to the drilling program, GEMTEC completed public and private utility clearances.

5.2 Borehole Drilling

The borehole drilling fieldwork for this Phase Two ESA was carried out between April 30, 2025, and May 1, 2025. During this time, four boreholes, BH/MW25-01, BH/MW25-02, MW/BH25-03 and BH25-04, were advanced at the Site. The boreholes were advanced to depths ranging between 0.20 m bgs and 9.83 m bgs. Supplemental drilling was completed on June 20, 2025 to address PHC F3 concentrations exceeding the MECP Soil Quality Standards for Table 7 RPI for

coarse textures soils. During this time an additional four boreholes were advanced within 2 metres of the previously advanced BH25-04, labelled as BH25-05, BH25-06, BH25-07, and BH25-08. Boreholes BH25-05 through BH25-08 were advanced to depth of approximately 0.5 m bgs.

The borehole locations are provided in Figure A.5, Appendix A. A description of the quality assurance/quality control measures taken to minimize the potential for cross-contamination between sampling locations is provided in Section 5.12.

All the boreholes were advanced using Geoprobe 7728DT drilling equipment supplied and operated by Strata Drilling Group of Carleton Place, Ontario. The soil samples were recovered using direct push sampling equipment from single use dedicated liners. The soil samples were obtained at regular depth intervals and soil stratigraphy was logged in the field.

5.3 Soil Sampling

Soil samples collected from the boreholes were split in the field into two components. One component was placed into laboratory-prepared container with minimal headspace and stored in a cooler for potential laboratory analysis. The second component was placed inside a sealable plastic bag for headspace vapour field screening, soil description, and noting the presence of any staining, odour and/or debris. A gas detector (RKI Eagle 2) calibrated to 100 parts per million (ppm) isobutylene and hexane was used to measure the total organic vapour and combustible gas concentrations in the headspace in the sealed plastic bag.

As per the SAP, as much as possible given the limited recovery due to shallow bedrock, soil samples at each sampling location were selected for laboratory analysis based on the depth to the water table, 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 standard chain-of-custody procedures. A summary of the soil samples submitted for analysis is provided in Table A.3, Appendix A.

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

5.4 Soil Field Screening

Field measurements of sample headspace concentration were measured using a RKI Eagle 2, details of which are available in Table 5.1.

Table 5.1: Details for RKI Eagle 2

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)

The RKI Eagle 2 was calibrated prior to field use with isobutylene and hexane standards using factory methods. The results of soil headspace screening measurements are provided in the Record of Borehole Logs in Appendix C. One 'worst case' soil sample was selected for analytical submission based on the measurements of headspace vapour – as reasonably possible based on limited recovery due to shallow bedrock at the Site.

5.5 Groundwater Monitoring Well Installation

Groundwater monitoring wells (BH/MW24-1, BH/MW24-2, and BH/MW24-3) were installed at the Site by a MECP licensed well contractor, Strata Drilling Group of Carleton Place, Ontario. Groundwater monitoring wells were installed using threaded 51 mm diameter, schedule 40, polyvinyl chloride (PVC) well screens and riser pipe, which were brought to the Site in sealed plastic bags. The annular space 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 and completed with a flush-mounted protective well casing. The riser pipes were sealed with a J-plug.

All monitoring wells were installed in the bedrock so that the screen straddled the groundwater table, as was practicable based on the proximity of the water table and the bedrock interface to determine if PCAs which potentially generated COPCs including light non-aqueous phase liquids (LNAPL) were present on, in or under the Site.

Following drilling, the monitoring wells were developed on May 9, 2025 by removing up to ten standing well pipe and filter pack volumes using dedicated 15.9 mm low density polyethylene (LDPE) tubing with Waterra® inertia pumps (foot valves), until the well did not produce any more water, or until the calculated volume was reached. During monitoring well development, qualitative observations were made of water colour, clarity, and the presence or absence of any hydrocarbon sheen or odours.

A description of the quality assurance/quality control (QA/QC) measures taken to minimize the potential for cross-contamination between sampling locations is provided in Section 5.12.

5.6 Groundwater Field Measurements for Water Quality Parameters

Groundwater samples were collected from the on-Site groundwater monitoring wells on May 16, 2025. Groundwater indicator parameters including temperature, pH and conductivity were

measured prior to sampling to ensure adequate well development and purging. A Horiba U52 Multiparameter meter installed in a flow-through cell was used to measure groundwater quality during groundwater sampling. This instrument was calibrated by Maxim Environmental using factory supplied standard solutions for electrical conductivity (1413 micro-Siemens per centimetre (µS/cm)) and pH (4.01 pH and 7.01 pH) parameters. Specifications for the Horiba U52 Multiparameter meter are available in Table 5.2.

Table 5.2: Details for Horiba U52 Multiparameter meter

Parameter	Measurement Range	Precision	Accuracy
pH	0.00 to 14.00 pH	0.01 pH	±0.2 pH
Conductivity	0.00 to 200 mS/cm	0.01 mS/cm	± 0.5%
Temperature	-5 to 45 ºC	0.1 ºC	± 0.15 ºC

The outflow of the sampling pump was attached to the flow through cell and groundwater was circulated through to allow the collection of field parameter measurements.

5.7 Groundwater: Sampling

Prior to groundwater sampling, monitoring wells installed during Pinchin's 2024 Phase II ESA were purged using the same method described in Section 5.5. Groundwater samples were collected from the on-Site groundwater monitoring wells on May 16, 2025. Depth to water measurements and non-aqueous phase liquid (NAPL) thickness, if any, were measured using an Solinst Model 122 oil-water interface probe. The interface probe was cleaned with an Alconox™ solution and rinsed thoroughly with distilled water before use in another monitoring well.

The monitoring wells were purged prior to sample collection using a GeoPump peristaltic pump and Horiba U52 multiparameter meter. An oil-water interface probe was used to ensure the pump rate did not reduce the static water level of the monitoring well more than 10%. Samples were collected upon stabilization of field parameters pH, temperature, and conductivity. For field parameters to be considered stable the average of the last three measurements of a given parameter were calculated and compared to the last three measurements. If the last three measurements were within 3% of the average, the parameter was considered stable. The exception being for pH, where readings were required to be within 0.1 of the average. A measurement was recorded every three minutes. During purging and sampling, qualitative observations were made of water colour, clarity, and the presence of hydrocarbon sheen or odour.

Groundwater samples were placed in laboratory-prepared containers and stored on ice in a cooler until delivery to the analytical laboratory under chain-of-custody procedures. A summary of the groundwater samples submitted for analysis is presented in Table A.4, Appendix A.

5.8 Sediment Sampling

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

5.9 Laboratory Analytical Program

The contact information for the analytical laboratory is as follows:

- AGAT Laboratories (AGAT): 1686 Woodward Drive, Ottawa, ON, K2C 3R8.

The analytical laboratory is accredited in accordance with the International Standard ISO/IEC 17025 (General Requirement for the Competence of Testing and Calibration Laboratories, May 5, 2005, as amended) and the standards for proficiency testing developed by the Standards Council of Canada (SCC) in association with the Canadian Association for Laboratory Accreditation (CALA) and accepted by the MECP.

5.10 Residue Management Procedures

All residues produced during the investigation (e.g., soil cuttings from drilling, groundwater from well development purging, wash water from equipment decontamination) were placed in sealed drums and stored at the Site for disposal by a licensed contractor. Veolia Environment removed all residue from Site and disposed of the material as non-hazardous waste.

5.11 Surveying

The locations and ground surface elevations of the boreholes and monitoring wells were determined using a Trimble R10 high precision GPS survey instrumentation.

5.12 Quality Assurance / Quality Control Program

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

- The use of standard operating procedures for all field investigation activities.
- All monitoring wells were developed following installation to remove fine particles from the filter pack and any fluids introduced during drilling.
- Monitoring wells were appropriately purged prior to groundwater sample collection to remove stagnant water, and water introduced during coring from the well bore and improve sample representativeness, minimizing sample agitation and aeration to the extent practicable.
- The collection of field duplicate samples at a minimum frequency of one duplicate for every ten samples.

- The collection of a trip blank and field blank for the groundwater sampling event and the associated analysis for PHC F1 and VOCs.
- Initial calibration of field equipment was performed at the start of each field day, with a daily check of calibration, as needed, using a standard of known concentration.
- Soil and groundwater 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.
- Dedicated sampling equipment (tubing and footvalves) and clean disposable Nitrile™ gloves were used at each sampling location to prevent cross-contamination. All non-dedicated sampling equipment (e.g., water level meters, drilling equipment, etc.) were decontaminated between sampling locations. Sampling equipment in contact with soil, groundwater, or sediment was cleaned by mechanical means; washed with a phosphate-free, laboratory-grade detergent (e.g., Alconox™ powder); and thoroughly rinsed with analyte-free water.
- 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.
- The submission of samples to the analytical laboratory in accordance with standard chain of custody procedures.

The quality assurance assessment of the field duplicate sample results was conducted according to the MECP document "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").

To determine the precision of the analytical methods and field sampling procedures, blind duplicate samples were collected during soil and groundwater sampling. Precision is determined by the relative percent difference ("RPD") between the duplicate and original samples and was calculated as follows:

$$RPD = \frac{|x_1 - x_2|}{x_m}$$

Where
x_1 initial sample results
x_2 duplicate sample results
x_m mean of x_1, x_2

RPD values were calculated for all parameters that were greater than five times the method detection limits.

Table 5.3 contains details for the parent and duplicate samples.

Table 5.3: Details for the parent and duplicate samples

Date	Media	Sample ID	Duplicate ID
April 30, 2025	Soil	BH25-02 GS1	BH25-02 GS101
March 20, 2025	Soil	BH25-07 SA1	BH25-07 SA101

6.0 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.

6.1 Geology

The soil conditions encountered during the borehole drilling program are presented in the Record of Borehole Logs provided in Appendix C, as well as on cross section figures provided in Figure A.10, Figure A.11, Figure A.14, and Figure A.15 Appendix A.

Boreholes BH25-02 and BH25-04 were advanced through the asphaltic concrete parking lot surfacing, which has a thickness of about 100 and 110 millimetres, respectively.

Fill material was encountered at ground surface at BH25-01 and BH25-03 and underlying the asphaltic concrete in boreholes BH25-02 and BH25-04. The fill material consists of sandy gravel, with trace to some non-plastic fines. At BH25-01, BH25-02, and BH25-03, the fill material extends to depths ranging from about 0.9 to 1.1 metres. It is uncertain if the shallow auger refusal in BH25-04 at 0.2 m reflects the base of the fill material at this location.

Grey limestone bedrock was proven below the level of auger refusal in boreholes BH25-01, BH25-02, and BH25-03, at depths ranging from about 0.9 to 1.1 metres. The limestone bedrock was cored to depths ranging from about 5.2 to 9.8 metres below the existing ground surface.

6.2 Groundwater: Elevations and Flow Direction

The groundwater monitoring wells installed as part of the Phase Two ESA field program, were used in the interpretation of shallow groundwater contours and shallow groundwater flow direction. Any temporal fluctuation in water levels at the Site is not anticipated to affect the conclusions of the Phase Two ESA.

The location and depth of the screens for the bedrock monitoring wells were selected based on the APEC being investigated and were installed to straddle the anticipated water table based on conditions observed during drilling – or as much as possible while meeting required separation of overburden and bedrock layers as indicated by O.Reg. 903. The well screens were located within

the bedrock unit. A summary of the monitoring well construction details are presented in Table A.1, Appendix A. Water levels measured in the monitoring wells ranged from 0.72 m bgs to 2.38 m bgs on May 9, 2025 and 0.71 m bgs to 2.36 m bgs on June 4, 2025. The ground surface and top of casing at each well location was surveyed using a high precision GPS survey instrumentation. Water level measured and elevations are summarized in Table A.2, Appendix A.

Groundwater elevations ranged from 107.13 m to 108.74 m above sea level (asl) on May 9, 2025 and 107.15 m bgs to 108.62m bgs on June 4, 2025. Based on the interpreted groundwater elevation contours presented in Figure A.6, Appendix A, the inferred direction of shallow groundwater flow is generally to the northwest.

Seasonal fluctuation in water levels on the Site should be expected. Considering monitoring events were only conducted in spring 2025, 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. At the time of groundwater sample collection in spring 2025, the measured water levels at all the monitoring wells, MW1, MW2, MW25-01 and MW25-03, MW25-04 was above the well screen however, this was intentional to allow for appropriate separation between the overburden and groundwater-bearing units.

The Site is serviced by municipal water, municipal sewer, hydro and natural gas for heating. Services including private gas lines, sewer, and private water lines are present above the water table at the Site. Based on this, buried services do not have a potential to facilitate the migration of contaminants (if any) at the Site.

6.3 Groundwater: Hydraulic Gradients

The inferred groundwater contours are presented in Figure A.6, Appendix A. The average horizontal hydraulic gradient was 0.02265 m/m and was calculated based on water levels measured on May 9, 2025 and June 4, 2025. Hydraulic gradients between monitoring well sets are available in Table 6.1.

Table 6.1: Hydraulic gradients between monitoring well sets

MW ID	MW ID	Distance between MWs (m)	Difference in GW elevation (m) 9-May-25	Difference in GW elevation (m) 4-Jun-25	Horizontal Hydraulic Gradient (m/m) 9-May-25	Horizontal Hydraulic Gradient (m/m) 4-Jun-25
MW25-01	MW25-02	57.44	1.07	1.06	0.01858	0.01840
MW25-01	MW25-03	82.06	1.61	1.47	0.01966	0.01789
MW25-01	MW1	10.71	0.858	0.883	0.08011	0.08245
MW25-01	MW2	56.94	0.703	0.503	0.01235	0.00883
MW25-02	MW25-03	51.13	0.546	0.411	0.01068	0.00804
MW25-02	MW1	65.47	0.209	0.174	0.00319	0.00266
MW25-02	MW2	8.02	0.364	0.554	0.04539	0.06908
MW25-03	MW1	84.05	0.755	0.585	0.00898	0.00696

MW ID	MW ID	Distance between MWs (m)	Difference in GW elevation (m) 9-May-25	Difference in GW elevation (m) 4-Jun-25	Horizontal Hydraulic Gradient (m/m) 9-May-25	Horizontal Hydraulic Gradient (m/m) 4-Jun-25
MW25-03	MW2	59.14	0.91	0.965	0.01539	0.01632
MW1	MW2	65.83	0.155	0.38	0.00235	0.00577

Vertical hydraulic gradient for shallow groundwater conditions were not calculated as nested monitoring wells were not installed at the Site.

6.4 Soil Texture

Based on visual observations made during the field program and the grain size analysis, completed on soils from location BH25-03 GS1, the predominant soil type was sand and gravel which is inferred to be coarse textured. Grain size certificate of analysis are available in Appendix D.

6.5 Soil: Field Screening

Headspace vapour measurements were conducted on the soil samples collected from each of the boreholes advanced at the Site. Soil vapour and combustible gas readings were generally low across the Site. Soil vapour and combustible gas readings were observed to be between 0 and 2 parts per million (ppm) and 0 to 45 ppm respectively. The results of headspace vapour measurements are available on the Record of Borehole Logs in Appendix C.

6.6 Soil: Quality

Table A.3, Appendix A provides a summary of the soil samples submitted for analysis and the associated test parameters. The analytical results of soil samples are presented in Table A.5 through A.7 with maximum concentrations presented on Table A.8, Appendix A. The laboratory Certificates of Analysis for the soil samples are included in Appendix D.

Soil sampling at the Site was completed during borehole advancement on April 30, 2025 and May 1, 2025. The soil samples were submitted to AGAT for some or all of the following analysis: metals, pH, PAHs, PHC F1-F4, VOCs and BTEX. A summary of the soil samples analyzed and parameters exceeding the Table 7 RPI/ICC SCS is provided in Table 6.2.

Table 6.2: Soil exceedances compared to Table 7 RPI SCS

Sample ID	Stratigraphy	Analysis Completed	Table 7 SCS Exceedances
BH25-01 GS1	Brown sand and gravel, some organics	Metals, PHCs, BTEX, pH	No exceedances
BH25-02 GS1	Brown sand and gravel	PHC, VOCs, PAHs, Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-), EC, SAR, pH	No exceedances

Sample ID	Stratigraphy	Analysis Completed	Table 7 SCS Exceedances
BH25-02 GS101	Brown sand and gravel	PHC, VOCs, PAHs, Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-), EC, SAR, pH	No exceedances
BH25-02 SA1	Brown sand and gravel	Metals, PHCs, BTEX, pH	No exceedances
BH25-03 SA1	Brown silty sand and gravel, trace clay	PHC, BTEX, PAHs, Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-), EC, SAR, pH	No exceedances
BH25-04 GS1	Brown sand and gravel	PHC, BTEX, PAHs, Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-), EC, SAR, pH	No exceedances (PHC F3 averaged down with BH25-05 through BH25-08)
BH25-05 SA1	Brown sand and gravel	PHC, BTEX	No exceedances
BH25-06 SA1	Brown sand and gravel	PHC, BTEX	No exceedances
BH25-07 SA1	Brown sand and gravel	PHC, BTEX	No exceedances
BH25-08 SA1	Brown sand and gravel	PHC, BTEX	No exceedances
BH25-07 SA101	Brown sand and gravel	PHC, BTEX	No exceedances
TCLP	Composite Sample	Flashpoint, Benzo[a]pyrene, Metals & Inorganics, VOCs	No exceedances

Notes:

1. The pH of surface soil at the Site is between 5 and 9 and the pH of subsurface soil at the Site is between 5 and 11.
   Hydride-Forming Metals: Arsenic, Selenium, Antimony
   ORP: Oxidation-Reduction Potential
   B: Boron
   B-HWS: Boron – Hot Water Soluble
   CN^-: Cyanide
   Cr(VI): Hexavalent Chromium
   Hg: Mercury
   NA: Sodium
   Cl^-: Chloride
   PHC: Petroleum Hydrocarbons
   BTEX: Benzene, Toluene, Ethylbenzene, Xylenes
   VOCs: Volatile Organic Compounds

6.6.2 Petroleum Hydrocarbon F1-F4

No soil samples exceeded the applicable SCS for PHCs after supplemental soil sampling and concentration averaging was completed over the same depth interval and within 2 m of BH25-04 GS1 as allowed by Section 48 of O.Reg. 153/04.

No parameters analyzed in soil exceeded the applicable SCS for the Site.

6.7 Groundwater: Quality

Monitoring well construction details are summarized in Table A.1, Appendix A and a summary of groundwater samples submitted for laboratory analysis is provided in Table A.4, Appendix A. The analytical results for groundwater samples are summarized in Table A.9 and Table A.10, Appendix A. Figure A.9, Appendix A, illustrates the groundwater sample results by location. Laboratory certificates of analysis for groundwater are provided in Appendix D.

Groundwater sampling at the Site was completed on May 16, 2025. The groundwater samples were submitted to AGAT for the following analysis: Metals, PHC F1-F4, VOC and/or BTEX. A summary of groundwater samples analyzed and parameters exceeding the Table 2 RPI SCS is provided in Table 6.3.

Table 6.3: Groundwater exceedances compared to Table 7 SCS

Sample ID	Screen Interval (m bgs)	Analysis Completed	Table 7 SCS Exceedances
MW25-01	1.37 - 4.42	Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-), PHC, BTEX	No exceedances
MW25-02	1.37 - 4.42	Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-), VOC, PHC	No exceedances
MW25-03	6.10 - 9.10	Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-), PHC, BTEX	No exceedances
MW1	4.01 - 7.01	Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-), VOC, BTEX	No exceedances
MW2	1.37 - 4.42	Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-)	No exceedances

Notes:

m bgs – metres below ground surface

No parameters analyzed in groundwater exceeded the applicable SCS for the Site.

6.8 Sediment: Quality

No sediment samples were collected as part of this investigation.

6.9 Quality Assurance and Quality Control Results

6.9.1 Field QA/QC Program

The QA/QC program consisted of the use of industry standard 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 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.

Three parent duplicate sample were collected as part of the environmental investigation.

- BH25-02 GS101 as a duplicate of BH25-02 GS1
    - RPDs were within the expected ranges.
- BH25-07 SA101 as a duplicate of BH25-07 SA1
    - RPDs could not be calculated as all analyzed parameters were non-detect.
- MW25-102 as a duplicate of MW25-02
    - RPDs were within the expected ranges.

6.9.2 Analytical Laboratory QA/QC

Soil samples were submitted to AGAT during the environmental soil quality field investigation. AGAT completed a variety of internal QA/QC measures on the submitted soil samples. AGAT 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 approved by the SCC and registered with CALA. AGAT is accredited to the ISO/IEC 17025 standard and employ 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 following QC qualifiers were identified in the AGAT laboratory reports:

- Low recovery of boron leachate in laboratory report 25Z285273, the report summarized that more than 90% of the elements met the acceptance limits and therefore the overall data quality is acceptable for use.
- Low recovery of boron leachate in laboratory report 25Z285271, the report summarized that more than 90% of the elements met the acceptance limits and therefore the overall data quality is acceptable for use.

6.9.3 QA/QC Summary

Based on the measures discussed above, sample collection and handling protocols are considered acceptable and associated analytical results are considered reliable. The sample collection methods do not suggest inconsistencies in the field collection or in the laboratory analysis methods.

7.0 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 and Phase Two Study Area
Figure A.2 Site Features
Figure A.3 Potentially Contaminating Activities
Figure A.4 Areas of Potential Environmental Concern
Figure A.5 Borehole and Monitoring Well Locations
Figure A.6 Groundwater Elevations
Figure A.7 Soil Analytical Results – Metals & ORP
Figure A.8 Soil Analytical Results – PHC, BTEX & VOCs
Figure A.9 Soil Analytical Results – PAHs
Figure A.10 Cross Section A-A' – Soil Exceedances
Figure A.11 Cross Section B-B' – Soil Exceedances
Figure A.12 Groundwater Analytical Results – Metals
Figure A.13 Groundwater Analytical Results – PHC, BTEX & VOCs
Figure A.14 Cross Section A-A' – Groundwater Exceedances
Figure A.15 Cross Section B-B' – Groundwater Exceedances

7.1 Property Description and History

The Site consists of a land parcel approximately 0.7 hectares in size and currently occupied by a used car lot across 5872, 5880, and 5884 Hazeldean Road. A detached residential dwelling is present at 7 Savage Drive. The Phase Two Property is bound to the north by community Roadway, Hazeldean Road, along which lies multiple commercial businesses including an ESSO gas station. North of Hazeldean Road multiple residential dwellings are present along Rowan Road and Bradley Green Court. The Phase Two Property is bound to the east by commercial and industrial properties along Sweetnam Drive, a floodplain east of Swetnam Drive, and residential properties along Succession Court, Cloverloft Crescent. The Phase Two Property is bound to the south by residential dwellings along Savage Drive, Denham Way, and Iva Street. The Phase Two Property is bound to the south by residential dwellings along Savage Drive, Denham Way,

Rhonda Stweart Private, and Victor Street. The northern part of the Site structure was designated as a commercial use, while the southern part was residential.

The Site was first developed with four residential structures between 1945 and 1959 with further development through 1976 – the Hazeldean Road portion site was redeveloped for the current commercial uses between 2002 and 2011, while 7 Savage Avenue remained residential. Three buildings are present on Site, one is an office building, one is a maintenance garage for Westend Automotive, and the last is a residential building. Currently, the structures are serviced by overhead hydro, municipal water, municipal sewer, and natural gas for heating.

The Site and the associated Study Area are shown on Figure A.1, Appendix A with Site features shown on Figure A.2, Appendix A. Pertinent identification information for the Site is provided in Table 7.1.

Table 7.1: Site Information

Site Information	
Site Owner	5872 Hazeldean Road: 1030108 Ontario Inc. 5880 Hazeldean Road: 1030108 Ontario Inc. 5882 Hazeldean Road: 1030108 Ontario Inc. 7 Savage Drive: 12421178 Canada Inc.
Site Contact	Savage Development Inc.
Address	5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
Telephone	(613) 227-7060
Email	rental1727@gmail.com

A summary of the current and past uses, based on the information reviewed as part of the Phase One ESA (GEMTEC, 2024), is provided in Tables 7.2 through 7.5.

Table 7.2: Current and Past Uses – 5872 Hazeldean Road

Year	Name of Owner	Description of Property Use	Property Use	Other observations from aerial photographs, fire insurance plans, etc.
1824-1840	James Roe	Unknown	Agricultural/Other	No records found prior to 1945.
1840-1875	Robert Roe and	Unknown	Agricultural/Other	No records found prior to 1945.

Year	Name of Owner	Description of Property Use	Property Use	Other observations from aerial photographs, fire insurance plans, etc.
	William Roe			
1875-1894	David Martin	Unknown	Agricultural/Other	No records found prior to 1945.
1894-1903	Charles Martin	Unknown	Agricultural/Other	No records found prior to 1945.
1903-1913	William Savage	Unknown	Agricultural/Other	No records found prior to 1945.
1913-1921	William J Savage	Unknown	Agricultural/Other	No records found prior to 1945.
1921-1943	Albert J. Savage	Unknown	Agricultural/Other	No records found prior to 1945.
1943-1955	William A. Savage	Unknown	Agricultural/Other	1945 aerial photo shows the Phase Two Property appears to be undeveloped or used as an agricultural field.
1955-1962	Lynden Milligan & Iris Milligan	Unknown	Agricultural/Other	1959 aerial photo shows no further development at 5872 Hazeldean Road.
1962-1969	Derrick Woodward	Unknown	Agricultural/Other	No records between 1962 - 1969.
1969-1988	Derrick Woodward & Edith Woodward	Residential	Residential	1976 aerial photograph shows what appears to be residential home developed at 5872 Hazeldean Road.
1988-1992	Irene Merilyn Herbert	Residential	Residential	1991 aerial photograph shows no changes to 5872 Hazeldean Road.
1992-1996	John Sidney Bradley	Residential	Residential	No records between 1992-1996.
1996-2002	Franco Cantusci & Margaret Cantusci	Residential	Residential	2002 aerial photograph shows a new building in the southeastern area of the site, no anticipated changes to site use at 5872 Hazeldean road.

Year	Name of Owner	Description of Property Use	Property Use	Other observations from aerial photographs, fire insurance plans, etc.
2002-2005 (Present Owner)	1030108 Ontario Inc	Residential Westend Automotive	Residential Commercial	Through the site interview the current owner indicated they have been running Westend Automotive (commercial) since approximately 2005.
2005 (Easement)	Patrick Joseph Baril & Claire Ruth Baril	Westend Automotive	Commercial	2008, 2011, and 2024 aerial supported by the site interview and site reconnaissance indicated Westend Automotive (commercial) has been run since 2005. City directory lists site as Westend Automotive in 2012, 2017, 2021, and 2023.

Table 7.3: Current and Past Uses – 5880 Hazeldean Road

Year	Name of Owner	Description of Property Use	Property Use	Other observations from aerial photographs, fire insurance plans, etc.
1824-1840	James Roe	Unknown	Agricultural/Other	No records found prior to 1945.
1840-1875	Robert Roe & William Roe	Unknown	Agricultural/Other	No records found prior to 1945.
1875-1894	David Martin	Unknown	Agricultural/Other	No records found prior to 1945.
1894-1903	Charles Martin	Unknown	Agricultural/Other	No records found prior to 1945.
1903-1913	William Savage	Unknown	Agricultural/Other	No records found prior to 1945.
1913-1921	William J. Savage	Unknown	Agricultural/Other	No records found prior to 1945.
1921-1943	Albert J. Savage	Unknown	Agricultural/Other	No records found prior to 1945.
1943-1954	William A. Savage	Unknown	Agricultural/Other	1945 aerial photo shows the Phase Two Property appears to be undeveloped or used as an agricultural field.
1954-1956	Edwin Hagerty	Unknown	Agricultural/Other	No records between 1954 – 1956.

Year	Name of Owner	Description of Property Use	Property Use	Other observations from aerial photographs, fire insurance plans, etc.
1956-1981	Clifford A. Graham & Velma Graham	Residential	Residential	1959 aerial photo shows the development of two structures at 5880 Hazeldean Road, assumed to be used residentially.
1981	Ian A. Macdonald & Rita Macdonald	Residential	Residential	No records in 1981.
1981-1991	Linda Kuhnle	Residential	Residential	1991 aerial photograph shows no changes to 5880 Hazeldean road.
1991-2005	August Brekalo & Mara Brekalo	Residential	Residential	1991 aerial photograph shows no changes to 5880 Hazeldean road.
2008-2008	Patrick Joseph Baril & Claire Ruth Baril	Westend Automotive	Commercial	Site interview indicated the site was obtained and begun to be used by Westend Automotive between 2005 and 2007, as is supported by aerial photographs.
2008-Present	1030108 Ontario Inc	Westend Automotive	Commercial	2008, 2011, and 2024 aerial photograph supported by the site interview. Site reconnaissance indicated Westend Automotive (commercial) has been run since 2005.

Table 7.4: Current and Past Uses – 5884 Hazeldean Road

Year	Name of Owner	Description of Property Use	Property Use	Other observations from aerial photographs, fire insurance plans, etc.
1824-1840	James Roe	Unknown	Agricultural/Other	No records found prior to 1945.
1840-1875	Robert Roe & William Roe	Unknown	Agricultural/Other	No records found prior to 1945.
1875-1894	David Martin	Unknown	Agricultural/Other	No records found prior to 1945.
1894-1903	Charles Martin	Unknown	Agricultural/Other	No records found prior to 1945.

Year	Name of Owner	Description of Property Use	Property Use	Other observations from aerial photographs, fire insurance plans, etc.
1903-1913	William Savage	Unknown	Agricultural/Other	No records found prior to 1945.
1913-1921	William J. Savage	Unknown	Agricultural/Other	No records found prior to 1945.
1921-1943	Albert J. Savage	Unknown	Agricultural/Other	No records found prior to 1945.
1943-1956	William A. Savage	Unknown	Agricultural/Other	1945 aerial photo shows the Phase Two Property appears to be undeveloped or used as an agricultural field.
1956-1960	McGill A. Abard	Unknown	Agricultural/Other	1959 aerial photo shows no further development at 5884 Hazeldean Road.
1960-1967	Alfred Auger & Delina Auger	Unknown	Agricultural/Other	No records between 1960 - 1967.
1967-1977	Robert D. Townson	Residential	Residential	1976 aerial photograph shows what appears to be residential home developed at 5884 Hazeldean Road.
1977-2007	Robert Douglas Townson & Deltrye Lynn Townson	Residential	Residential	1991, 2002, and 2005 aerial photographs no changes to the residential structure at 5884 Hazeldean Road.
2007-2008	1030108 Ontario Inc. & Patrick Joseph Baril	Residential	Residential	2008 aerial photo shows the site used as residential.
2008-Present	1030108 Ontario Inc.	Westend Automotive	Commercial	2008, 2011, and 2024 aerial photographs supported by the site interview and site reconnaissance indicated Westend Automotive (commercial) has been run since 2005.

Table 7.5: Current and Past Uses – 7 Savage Drive

Year	Name of Owner	Description of Property Use	Property Use	Other observations from aerial photographs, fire insurance plans, etc.
1824-1840	James Roe	Unknown	Agricultural/Other	No records found prior to 1945.

Year	Name of Owner	Description of Property Use	Property Use	Other observations from aerial photographs, fire insurance plans, etc.
1840-1875	Robert Roe & Willaim Roe	Unknown	Agricultural/Other	No records found prior to 1945.
1875-1894	David Martin	Unknown	Agricultural/Other	No records found prior to 1945.
1894-1903	Charles Martin	Unknown	Agricultural/Other	No records found prior to 1945.
1903-1913	William Savage	Unknown	Agricultural/Other	No records found prior to 1945.
1913-1921	Willaim J. Savage	Unknown	Agricultural/Other	No records found prior to 1945.
1921-1943	Albert J. Savage	Unknown	Agricultural/Other	No records found prior to 1945.
1943-1957	William A. Savage	Unknown	Agricultural/Other	1945 aerial photo shows the Phase Two Property appears to be undeveloped or used as an agricultural field.
1957-1964	Brian H. King	Residential	Residential	1959 aerial photo shows the development of one structure at 7 Savage Drive, assumed to be used residentially.
1964-1984	Alberta D. King	Residential	Residential	1976 aerial photo shows the site used as residential.
1984-1989	Thomas John Moffatt & Linda Jean Moffatt	Residential	Residential	No records between 1984 - 1989.
1989-1996	Linda Jean Moffatt	Residential	Residential	1991 aerial photo shows the site used as residential.
1996-2014	Terrence Lionel Corcoran & Hila Lionel Corcoran	Residential	Residential	2002, 2008, and 2011 aerial photo shows the site used as residential.
2014-2021	Terrence Lionel Corcoran	Residential	Residential	No records between 2014 - 2021.

Year	Name of Owner	Description of Property Use	Property Use	Other observations from aerial photographs, fire insurance plans, etc.
2021-Present	12421178 Canada Inc	Residential	Residential	2024 aerial photo shows the site used as residential.

As noted above, the Site is currently owned by 1030108 Ontario Inc. – the residential property at 7 Savage Drive is currently in the waiting period for closure on the purchase, which is expected to be finalized August 2025.

7.2 Previous Investigation

Three historical report was available to GEMTEC for review.

- *Final Phase I Environmental Site Assessment, 5872, 5880 and 5884 Hazeldean Road, Ottawa, Ontario*. Prepared by Pinchin Ltd. Dated May 22, 2024.
- *Phase II Environmental Site Assessment, 5872, 5880 and 5884 Hazeldean Road, Ottawa, Ontario*. Prepared by Pinchin Ltd. Dated June 25, 2024.
- *Phase One Environmental Site Assessment, Proposed Development, 5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive, Ottawa, Ontario*. Prepared by GEMTEC Consulting Engineering and Scientists Limited, dated February 2025.

7.3 Potentially Contaminating Activities

Several potentially contaminating activities (PCAs) were identified as part of Phase One ESA (GEMTEC, 2025) are summarized in Table 7.6. Figure A.3, Appendix A indicates the location of the PCAs.

Table 7.6: Summary of Potentially Contaminating Activities

PCA ID	Address / Location	Distance from Site	Information source	PCA Description	Rationale for APEC
30	Across the Phase One Property	On-site	Aerial Photograph Review, Site Reconnaissance	Site was historically developed, importation of fill material would have been likely backfill former building footprints and potentially raise the grade of the Site.	Yes APEC 1 Based on PCA present on the Phase One Property.
Ot#4	Across the Phase One Property	On-site	Aerial Photograph Review, Site Reconnaissance	Salt is used for deicing purposes across the property.	Yes APEC 2 Based on PCA present on the Phase One Property.
10	5872 Hazeldean Road	On-Site	Previous Reports, City Directory, Site Reconnaissance	Listed as Westend Automotive operating as an automobile service garage since 2005.	Yes APEC 3 Based on PCA present on the Phase One Property.
Ot#3	5872 Hazeldean Road	On-Site	Previous Reports, City Directory, Site Reconnaissance	Listed as Westend Automotive. An oil water separator, and waste oil drums are present on the site.	Yes APEC 4 Based on PCA present on the Phase One Property.
10, Ot#3	5862 Hazeldean Road	Adjacent east	ERIS, City Directory, Site Reconnaissance, Site Interview	Registered as an automotive refinishing facility. With registered wastes including oils/sludges (petroleum based) and inorganic sludges, slurries, or solids. Listed as Kanata Collision, Stittsville Auto Glass Ltd, and Lindron Equipment Inc.	Yes APEC 5 Based on type of activity and proximity to Phase One Property.
55	Savage Drive	5 metres south	Site Reconnaissance	A pole mounted transformer was identified along the ditch line of the property intersection of the 7 and 9 Savage Drive	No Based on the PCA being off-site, and no records or visual identification of staining was observed.
Ot#3	2 Savage Drive	10 metres west	City Directory	Listed as MacDougall Sales & Service.	No Based on the PCA being offsite, and no records or visual identification of environmental impacts.
28	5899 Hazeldean Road	50 metres west	ERIS, City Directory, TSSA, Aerial Photograph Review, Site Reconnaissance	Location was listed as a Mr.Gas, a gasoline, soil and natural gas service station. With eleven tanks ranging between 13,500 and 35,000 L underground storage tanks (USTs) installed in 1990/91, all of which have since been recorded as expired. The contents of the USTs were gasoline, diesel, and other.	Yes APEC 6 Based on the type of activity, confirmed environmental impacts at 5899 Hazeldean Road and within the Hazeldean Road Roadway. Groundwater flow direction is expected to be toward the Phase One Property.

PCA ID	Address / Location	Distance from Site	Information source	PCA Description	Rationale for APEC
				In 2019 two additional 65,000 L and 35,000 L double walled USTs were installed. The contents of the USTs were gasoline and diesel.	
28, Ot#1	2 Bradley Green Court	65 metres north	ERIS	An unknown volume of fuel was released from a tank in 2002 – nature of impact was identified as possible soil contamination. Light fuel wastes were registered in 2002, 2003, and 2004.	No Based on no confirmation of environmental impacts and anticipated groundwater flow direction
10, 40, 59, Ot#3	7 Sweetnam Drive	70 metres southeast	ERIS, City Directory	Kodiak holds a legacy pesticide license #08808 & #07761, with organic laboratory chemicals wastes. Listed as Denis's Auto Centre, Centurm glass & Doors, Miniman used car lot, Canadian Express Repair, and Ottawa Cove Crown Moulding.	No Based on anticipated groundwater flow direction
28, Ot#1	5 Bradley Green Court	80 metres north	ERIS	Approximately 125 litres of fuel was released from a furnace oil tank in 1994 – nature of impact was identified as possible soil contamination.	No Based on no confirmation of environmental impacts and anticipated groundwater flow direction
28, Ot#1	13 Rowan Road	80 metres southeast	ERIS	Approximately 700 litres of fuel was released from a furnace oil tank in 1994 – nature of impact was confirmed soil contamination.	No Based on no confirmation of environmental impacts and anticipated groundwater flow direction
28, Ot#1	12 Rowan Road	115 metres north	ERIS	Approximately 4 litres of fuel was released from a furnace oil tank in 1993 – nature of impact was confirmed soil contamination.	No Based on no confirmation of environmental impacts and anticipated groundwater flow direction
28, Ot#1	20 Savage Drive	135 metres south	ERIS	Approximately 300 litres of fuel was released from a furnace oil tank in 1995 – nature of impact was confirmed soil contamination.	No Based on distance to the subject site and anticipated groundwater flow direction
Ot#1	Hazeldean Road at Johnwood Street	135 metres west	ERIS	An unknown volume of oil was released to a catch basin due to a motor vehicle accident.	No Based on distance to the subject site and likely minimal volume based on automotive accident
Ot#1	62 Bradley Green Crescent	150 metres north	ERIS	Approximately 300 litres of fuel released from a vandalized gas pump at Campbells Landing Marina.	No Based on distance to the subject site and anticipated groundwater flow direction

PCA ID	Address / Location	Distance from Site	Information source	PCA Description	Rationale for APEC
28, Ot#1	18 Bradley Green Crescent	155 metres north	ERIS	Two spills were reported in 2003, and 2009. In 2003 an unknown volume of furnace oil from a tank was noted as not anticipated soil contamination. In 2009 an unknown volume of furnace oil from a tank was noted as watercourse spills.	No Based on distance to the subject site and anticipated groundwater flow direction
28	5924 Hazeldean Road/ 5938 Hazeldean Road	160 metres southwest	Aerial Photograph Review, Site Interview, ERIS, City Directory	Location was listed as a gasoline, soil and natural gas service station. Multiple underground storage tanks were registered on the site through 1990 and subsequently expired. A record of site condition was filed in 2021. Listed as ESSO (Imperial Oil), Genuine Automotive Service, Saab Gas Centre, and Penske Truck Rentals. A gasoline service station was historically present at 5924 Hazeldean Road.	No Based on distance to the subject site and anticipated groundwater flow direction
Ot#1	52 Bradley Green Crescent	170 metres north	ERIS	An unknown quantity of stove oil was released in 1996 – nature of impact was possible soil contamination.	No Based on distance to the subject site and anticipated groundwater flow direction
10, Ot#2, Ot#3	11 Sweetnam Drive	195 metres southeast	ERIS, City Directory	Registered as an automotive refinishing facility. With registered wastes including oils/sludges (petroleum based). Listed as Abbotsford Truck Repairs, Jim's /hi tech Auto Repairs Inc., Autovatoin Inc., Coney Small engine Repair, Rust Block, and Erchon Welding Inc.	No Based on distance to the subject site and anticipated groundwater flow direction
28, Ot#1	27 Bradley Green Crescent	215 metres north	ERIS	Approximately 75 litres of fuel oil was released from a furnace oil tank in 2007 – receiving medium was land.	No Based on distance to the subject site and anticipated groundwater flow direction
55	Bradley Green Crescent	220 metres north	Site Reconnaissance	A pad mounted transformer was identified along Bradley Green Crescent.	No Based on distance to the subject site, no staining observed, and anticipated groundwater flow direction
10, 33, Ot#3	15 Sweetnam Drive	240 metres southeast	City Directory	Listed as Hazeldean Auto Service Inc., Dependable Bodyworks, #607 Cromack Meals, Tim Benger Painting, and Pearl Auto Care.	No Based on distance to the subject site and anticipated groundwater flow direction

Notes:

10. Commercial Autobody Shops

28. Gasoline and Associated Products Storage in Fixed Tanks
33. Metal Treatment, Coating, Plating and Finishing
40. Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications
59. Wood Treating and Preservative Facility and Bulk Storage of Treated and Preserved Wood Products
Ot#1. Spill
Ot#2. Small Engine Repair
Ot#3. Automotive Sale and Service (Including Automotive Garage)
Ot#4: Application of De-Icing Salt

7.4 Areas of Potential Environmental Concern

The area of potential environmental concern (APEC) identified based on the PCAs and as set out in the Phase One ESA (GEMTEC, 2024) are summarized in Table 7.7. Figure A.4, Appendix A indicates the location of the APECs.

Table 7.7: Summary of Areas of Potential Environmental Concern

APEC #	APEC	Location of APEC on the Phase One Property	PCA	Location of PCA (On-Site and/or Off-Site)	COPCs	Media Potentially Impacted
1	Importation of Fill Material of Unknown Quality	Across the Phase One Property	30	On-Site	PHC, BTEX, PAHs, Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-)	Soil
2	Use of de-icing salts	Across the Phase One Property	Ot#4	On-Site	EC, SAR	Soil
3	Commercial autobody work at Westend Automotive	Eastern area of Phase One Property	10	On-Site (5872 Hazeldean Road)	Metals, PHCs, VOCs (including BTEX)	Soil & Groundwater
4	Maintenance Garage for Westend Automotive, with waste oil drums and oil water separator	Eastern area of Phase One Property	Ot#3	On-Site (5872 Hazeldean Road)	Metals, PHCs, VOCs (including BTEX)	Soil & Groundwater
5	Multiple commercial/ industrial businesses east of the Phase One Property	Eastern area of Phase One Property	10, Ot#3	Off-Site (5862 Hazeldean Road)	Metals, PHCs, VOCs (including BTEX)	Soil & Groundwater
6	A Gasoline Service Station with storage tanks and known contamination	Northwestern area of Phase One Property	28	Off-Site (5899 Hazeldean Road)	Metals, PHCs, BTEX	Groundwater

Notes:

PHC – Petroleum Hydrocarbons Fractions F1 to F4
BTEX – Benzene, Toluene, Ethylbenzene, and Xylene
PAH – Polycyclic Aromatic Hydrocarbons
VOC – Volatile Organic Compounds
ORP – Other Regulated Parameters
10. Commercial Autobody Shops
28. Gasoline and Associated Products Storage in Fixed Tanks
30. Importation of Fill Material of Unknown Quality
Ot#3. Automotive Sale and Service (Including Automotive Garage)
Ot#4: Application of De-Icing Salt

importation of fill material of unknown quality is likely. The COPCs are PHC, BTEX, PAHs, Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-) in soil.

APEC 2 – Use of de-icing salts

Through the review of historical property use and site interview, de-icing salts have been used on the Phase One Property. The COPCs are EC, and SAR in soil.

APEC 3 – Commercial autobody work at Westend Automotive

Through the review of information, Commercial autobody work occurs at Westend Automotive has occurred. The Site interviewee was not aware of any spills having occurred. The COPCs are Metals, PHCs, VOCs (including BTEX) in soil & groundwater.

APEC 4 – Maintenance Garage for Westend Automotive, with waste oil drums and oil water separator

Through the review of information, a current garage that provides automotive maintenance, waste oil drums and oil water separator was identified. The Site interviewee was not aware of any spills having occurred. The COPCs are Metals, PHCs, VOCs (including BTEX) in soil & groundwater.

APEC 5 – Multiple commercial/ industrial businesses east of the Phase One Property

Through the review of information, multiple commercial/ industrial businesses east of the Phase One Property were identified, including one adjacent to the Phase One Property. The Site interviewee was not aware of any spills having occurred. The COPCs are Metals, PHCs, VOCs (including BTEX) in soil & groundwater.

APEC 6 – A Gasoline Service Station with storage tanks and known contamination

Through the review of information, a gasoline service station with known contamination northwest of the site was identified. Through review, it was identified that only contaminated groundwater is known to be leaving the site, whereas contaminated soil is contained on the site. The COPCs are Metals, PHCs, BTEX in groundwater.

7.5 Subsurface Structures and Utilities

Utility locates completed prior to the drilling program to locate services. The Site is serviced by municipal water, municipal sewer, hydro and natural gas for heating. No underground utility drawings were provided for review. Private gas lines, sewer, and private water lines are present above the water table at the Site. Based on this, buried services do not have a potential to facilitate the migration of contaminants (if any) at the Site.

7.6 Physical Setting

Topography

The Site has a relatively flat topography and is at an elevation between 105 and 112 metres (m) above sea level (asl). Surrounding local topography generally slopes gradually downwards towards the unnamed creek, located approximately 190 metres to the east of the Phase Two Property. Groundwater flow often reflects topographic features and typically flows towards nearby lakes, rivers, and wetland areas. Based on the topography and hydrogeological features, it is anticipated that local shallow groundwater would flow eastwards. No provincially significant wetlands (PSWs) or areas of natural and scientific interest (ANSIs) were identified on the Site or within 250 m of the Site.

Stratigraphy - Boreholes

In general, the subsurface conditions encountered in boreholes BH25-01 through BH25-04 consisted of fill material underlain by grey limestone bedrock. BH25-02 and BH25-04 were advanced through asphaltic concrete surfacing, with measured asphalt thicknesses of approximately 100 mm and 110 mm, respectively. Fill material comprising of sandy gravel with trace to some non-plastic fines was encountered at ground surface in BH25-01 and BH25-03, and underlying the asphalt in BH25-02 and BH25-04. The fill extended to depths ranging from approximately 0.9 to 1.1 metres in BH25-01, BH25-02, and BH25-03. At BH25-04, shallow auger refusal was encountered at 0.2 m, though it is unclear whether this corresponds to the base of the fill. Further detail is provided on Figure A.10, A.11, A.14, and A.15, Appendix A and the borehole logs in Appendix B.

Depth to Bedrock

Grey limestone bedrock was proven beneath the fill in BH25-01, BH25-02, and BH25-03 at depths between 0.9 and 1.1 metres below ground surface. Rock coring was completed in these boreholes to depths ranging from approximately 5.2 to 9.8 metres.

Based on the Southern Ontario Karst Maps from the Ontario Geological Survey, the area of the Phae One Property is considered to be an area of ‘potential’ and ‘inferred’ karst, and as such, it is understood that karst formations (i.e. underground caves and/or voids occurring as a result of

dissolution of bedrock due to water) within the soil and bedrock are possibly present in the vicinity of the Site.

Hydrogeological Characteristics

Based on the topography and hydrogeological features, it is anticipated that local shallow groundwater would flow eastwards. However, the interpreted groundwater elevation contours for water levels measured on May 9, 2025 and June 4, 2025, the inferred direction of shallow groundwater flow is generally to the northwest. Shallow groundwater flow direction is expected to vary seasonally.

The average horizontal hydraulic gradient was 0.02265 m/m and was calculated based on water levels measured on May 9, 2025 and June 4, 2025. The vertical hydraulic gradient for shallow groundwater conditions were not calculated as nested monitoring wells were not installed at the Site.

Depth to Groundwater

Water levels measured in the monitoring wells ranged from 0.72 m bgs to 2.38 m bgs on May 9, 2025 and 0.71 m bgs to 2.36 m bgs on June 4, 2025. Groundwater elevations ranged from 107.13 m to 108.74 m above sea level (asl) on May 9, 2025 and 107.15 m bgs to 108.62m bgs on June 4, 2025.

Environmentally Sensitive Areas

No areas of natural significance were identified on the Site or within 250 m of the Site.

Shallow Soil Property or Water Body

Overburden soil at the Site did not extended deeper than 2 m bgs at any boreholes locations. The closest surface water body is an unnamed watercourse, which is located approximately 180 m to the east of the Site. Therefore, Section 43.1(a) of the Regulation does apply to the Site, while Section 43.1(b) of the Regulation does not apply to the Site.

Area On, In or Under the Phase Two ESA Where Excess Soil is Finally Placed

No excess soil was brought to the Site as part of this investigation.

7.7 Site Condition 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, as amended. The selection of applicable SCS for comparison to analytical data was based on a

review of various Site characteristics which will need to be considered for the current property use.

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

- Land Use: The last known land use of the Site was commercial and residential. The proposed future land use is residential.
- Soil Texture: Based on visual observations made during the field program and the grain size analysis, completed on soils from location BH25-03, the predominant soil type was sand and gravel which is inferred to be coarse textured. 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”. Certificates of analysis for grain size are included in Appendix D.
- 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 results obtained from the environmental investigation, the overburden thickness is less than 2 metres for more than 2/3 of the property and there are no water bodies within 30 metres of the Site. Therefore, the Site is considered a shallow soil property.
- Groundwater Use: Groundwater in the vicinity of the Site is not used for potable purposes – the use on non potable standards has been approved by the City of Ottawa in a letter dated May 29, 2025.
- 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.

The Site is not considered to be environmentally sensitive. Analytical results from soil samples collected were all within the MECP acceptable pH range. Furthermore, the Site is not within, adjacent to or does not include, in part or wholly, an Area of Natural and Scientific Interest (ANSI).

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

- MECP, 2011. Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition, Residential/Parkland/Institutional (RPI) land use with coarse soil texture.

7.8 Contaminated Media

The Phase Two ESA identified no exceedances of the applicable SCS for all COPCs.

7.9 Contaminants Exceeding Applicable Standards at the Site

PHC F3 at BH25-04 GS1 initially exceeded the applicable SCS under a simple point-by-point compliance approach. However, during a supplementary field program, four additional samples were collected within 2 metres of the original location. In accordance with O. Reg. 153/04, Section 48(2), the average concentration of these samples was applied to the site and was found to meet the applicable SCS.

Based on this approach, no COPCs were found to exceed the applicable SCS at the Site.

7.10 Description of Areas of Contamination on the Site

No areas of contamination are present at the Site.

7.11 Potential Influence of Utilities on Contaminant Migration

Underground utilities are inferred to be present in the general vicinity of the on-Site building associated with the private water line, sewer and natural gas for heating. Subsurface utilities are installed above the saturated zone and are unlikely to be facilitate contaminant migration.

7.12 Contaminant Migration

Based on the findings of this Phase Two ESA, no contaminated media were identified.

7.13 Meteorological and Climatic Considerations

Seasonal fluctuation in water levels on the Site should be expected. Considering only one groundwater monitoring event was completed, 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.

7.14 Cross Sections – Lateral and Vertical Distribution of Contaminants

Representative cross-sections are presented in Figure A.10, Figure A.11, Figure A.14, and Figure A.15, Appendix A. No exceedances were identified based on the soil and the groundwater analytical results.

7.15 Potential Exposure Pathways and Receptors

Based on the Site characterization data collected, no exposure pathways were deemed relevant for the Site.

8.0 CONCLUSIONS

The Phase Two ESA investigated the APECs identified in Phase One ESA (GEMTEC, 2025). Based on the results of the soil and groundwater samples analysed as part of this Phase Two ESA, no exceedances of the applicable SCS were identified. As such, an RSC can be filed for the Site.

9.0 REFERENCES

GEMTEC. Phase One Environmental Site Assessment, Proposed Development, 5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive, Ottawa, Ontario. February 2025.

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Ontario Ministry of the Environment and Climate Change (MOE). Guidance on sampling and analytical methods for use at contaminated sites in Ontario. Revised December 1996.

Ontario Ministry of the Environment (MOE). Soil, Groundwater and Sediment Standards for use under Part XV.1 of the Environmental Protection Act. April 15, 2011.

Ontario Ministry of the Environment. January 1, 2014. Ontario Regulation 153/04, Made under the Environmental Protection Act, Part XV.1 – Records of Site Condition.

Pinchin Ltd. Final Phase I Environmental Site Assessment, 5872, 5880 and 5884 Hazeldean Road, Ottawa, Ontario. May 22, 2024.

Pinchin Ltd. Phase II Environmental Site Assessment, 5872, 5880 and 5884 Hazeldean Road, Ottawa, Ontario. June 25, 2024.

10.0 LIMITATION OF LIABILITY

This report was prepared for the exclusive use of the Hazeldean Heights Inc. This report may not be relied upon by any other person or entity without the express written consent of GEMTEC and the Hazeldean Heights Inc. 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.

The monitoring wells installed as part of this project have been constructed using licensed drilling/well contractors employing licensed well technicians. It is owner's responsibility to have a licensed well technician properly abandon all monitoring wells, if required.

11.0 CLOSURE

The undersigned Qualified Person confirms that he/she was responsible for conducting and/or supervising this Phase Two ESA and the associated findings and conclusions.

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

Daniel Elliot, B.Sc., P.Geo., QP_{ESA}
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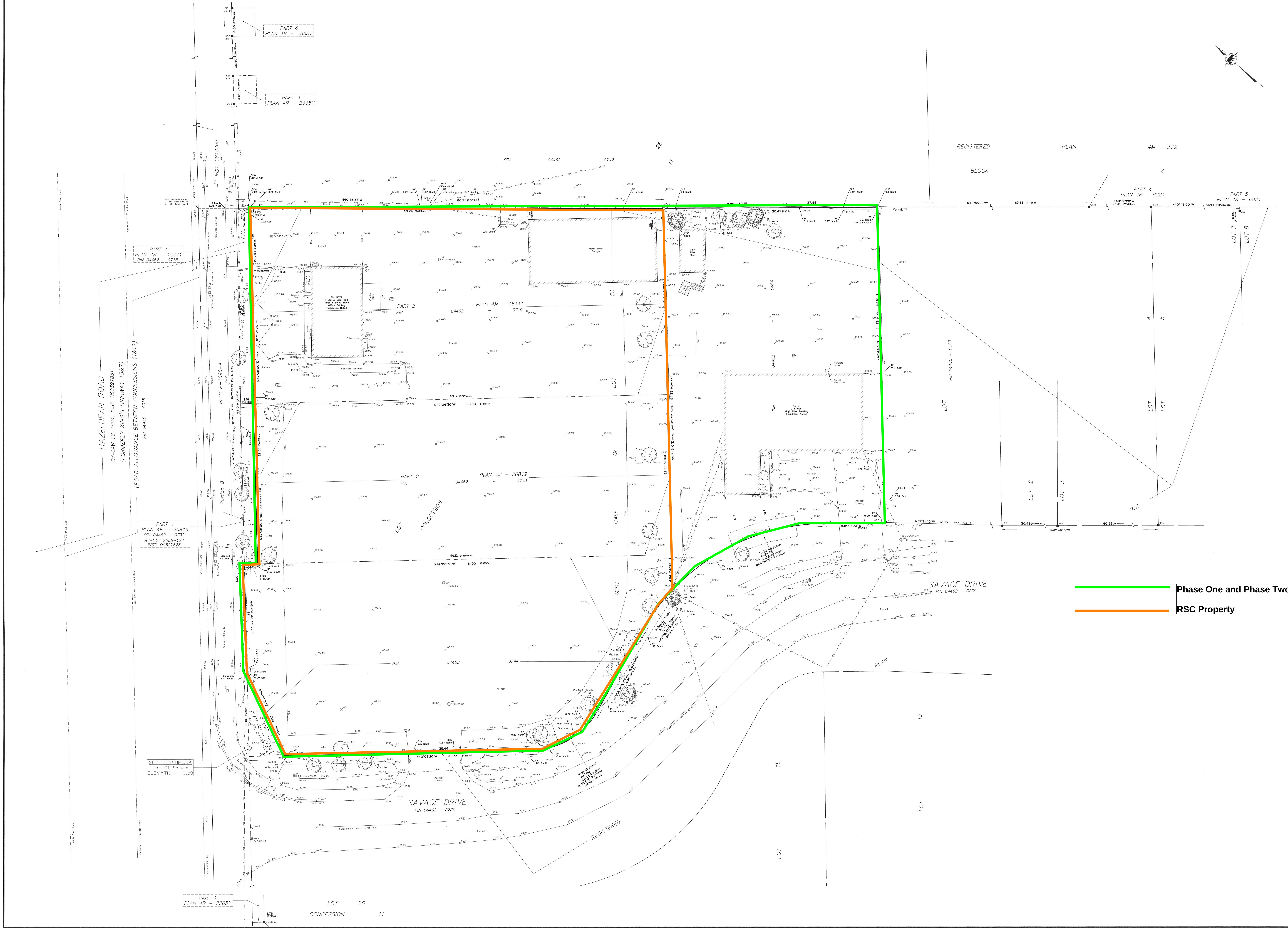
NS/DE

APPENDIX A

Figures, Plan of Survey and Tables



TOPOGRAPHIC PLAN OF SURVEY OF
PART OF LOT 26
CONCESSION 11
GEOGRAPHIC TOWNSHIP OF GOULBOURN
CITY OF OTTAWA
MONUMENT-URSO SURVEYING LTD.

SCALE 1 : 150

6 4.5 3 1.5 0 3 6

METRIC

DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

SURVEYOR'S CERTIFICATE

I CERTIFY THAT :

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT, AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE 18TH DAY OF NOVEMBER, 2024.

NOV.26,2024
DATE

J.E. ANDERSON
ONTARIO LAND SURVEYOR

LEGEND

■	DENOTES	FOUND SURVEY MONUMENT
□	"	PLANTED SURVEY MONUMENT
IB	"	IRON BAR
SIB	"	STANDARD IRON BAR
SSIB	"	SHORT STANDARD IRON BAR
PB	"	PLASTIC BAR
IBØ	"	ROUND IRON BAR
(WIT)	"	WITNESS
ACC.	"	ACCEPTED
MEAS.	"	MEASURED
(1476)	"	MONUMENT-URSO SURVEYING LTD.
(P1)	"	REGISTERED PLAN 701
(P2)	"	PLAN 4R - 27244
(P3)	"	(1236) PLAN DATED OCTOBER 27, 2007
(P4)	"	PLAN 4R - 20819
(P5)	"	PLAN 4R - 18441
(P6)	"	PLAN 4R - 26657
(P7)	"	(857) SURVEY DATED FEBRUARY 18, 2005
BF	"	BOARD FENCE
MF	"	METAL FENCE
CLF	"	CHAIN LINK FENCE
EOI	"	EDGE OF INTERLOCK
EOC	"	EDGE OF CONCRETE
EOA	"	EDGE OF ASPHALT
T/P	"	TOP OF PIPE
T/G	"	TOP OF GRATE
DC	"	DITCH CENTRELINE
TOS	"	TOP OF SLOPE
WRW	"	WOODEN RETAINING WALL
TRANS	"	TRANSFORMER
CSP	"	CORRUGATED STEEL PIPE
AC	"	AIR CONDITIONER
CB	"	CATCH BASIN
	"	GATE
GM	"	GAS METER
S	"	SIGN
WV	"	WATER VALVE
UP	"	UTILITY POLE
AN	"	ANCHOR
Ø	"	DIAMETER
B	"	BOLLARD
CB	"	CATCH BASIN
DI	"	DITCH INLET
FH	"	FIRE HYDRANT
HH	"	HAND HOLE
LS	"	LIGHT STANDARD
MH	"	MAINTENANCE HOLE - UNIDENTIFIED
MH-S	"	MAINTENANCE HOLE - SANITARY
MH-ST	"	MAINTENANCE HOLE - STORMWATER
U-PED	"	UNKNOWN UTILITY PEDESTAL
W	"	WELL
—OH—	"	OVERHEAD WIRES
	"	DECIDUOUS TREE
	"	CONIFEROUS TREE
× 88.00	"	EXISTING ELEVATIONS
× 88.00	"	TOP OF WALL ELEVATIONS

BEARING NOTES

BEARINGS ARE MTM GRID, DERIVED FROM CAN-NET OBSERVATIONS AND ARE REFERRED TO THE CENTRAL MERIDIAN 73°30' WEST LONGITUDE OF MTM ZONE 9 NAD83 (CSRS)(2010.0).

FOR BEARING COMPARISONS A ROTATION OF 00°27'10" COUNTER-CLOCKWISE WAS APPLIED TO P1, AND A ROTATION OF 00°1'20" COUNTER-CLOCKWISE WAS APPLIED TO P7 TO CONVERT TO GRID BEARINGS.

UTILITY NOTE

THIS DRAWING DOES NOT SERVE AS A COMPREHENSIVE CONFIRMATION OF ALL UTILITIES PRESENT. IT IS THE USERS RESPONSIBILITY TO CONTACT THE RELEVANT UTILITY AUTHORITIES FOR VERIFICATION.

ONLY UTILITIES VISIBLE ON THE SURFACE HAVE BEEN IDENTIFIED PRIOR TO ANY ACTIVITIES SUCH AS DIGGING, IT IS MANDATORY TO OBTAIN A FIELD LOCATION OF UNDERGROUND UTILITIES FROM THE APPROPRIATE AUTHORITY.

ELEVATION NOTE

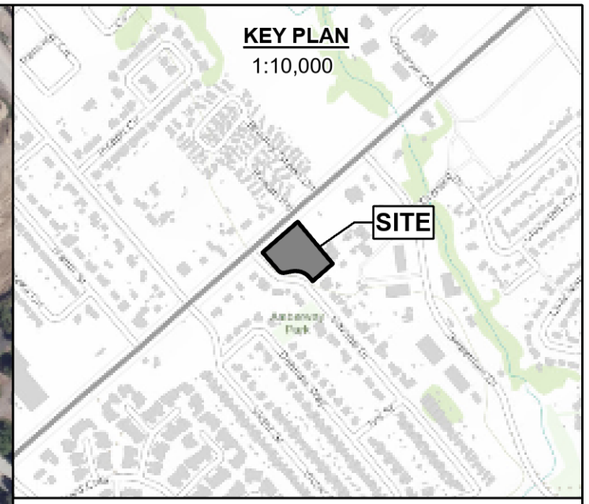
ELEVATIONS ARE GEODETIC AND REFERRED TO THE CANADIAN GEODETIC VERTICAL DATUM (CGVD28:78) BY DIRECT MEASUREMENT TO A REAL TIME NETWORK.

THE USER OF THIS INFORMATION BEARS THE RESPONSIBILITY TO CONFIRM THAT THE JOB BENCHMARK REMAINS UNALTERED AND UNDISTURBED, AND THAT ITS RELATIVE HEIGHT AND DESCRIPTION ALIGN WITH THE DETAILS PRESENTED IN THIS PLAN.

ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
V-93081

THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY ISSUED BY THE SURVEYOR

Monument-Urso Surveying Ltd.
Ontario Land Surveyors | Canada Land Surveyors



LEGEND

- SITE BOUNDARY
- STUDY AREA (250m RADIUS AROUND SITE)

GENERAL NOTES:

1. Coordinate system: NAD83 UTM zone 18N.
2. Geographic dataset source: Ontario GeoHub.
3. Contains information licensed under the Open Government Licence – Ontario.
4. Service Layer Credits: Ottawa 2022 Imagery , World Topographic Map City of Ottawa, Province of Ontario, Esri Canada, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA, AAFC, NRCan

Scale:

1:3,000 Meters

0 40 80 160 240

Drawing: SITE AND PHASE ONE STUDY AREA

Client: HAZELDEAN HEIGHTS INC.

Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT
5872, 5880, AND 5884 HAZELDEAN ROAD AND 7 SAVAGE DRIVE
OTTAWA, ONTARIO

Drwn By:	SL	Chkd By:	NS
Project No.	104054.001	Revision No.	0
Date	AUGUST 2025		**FIGURE A.1**

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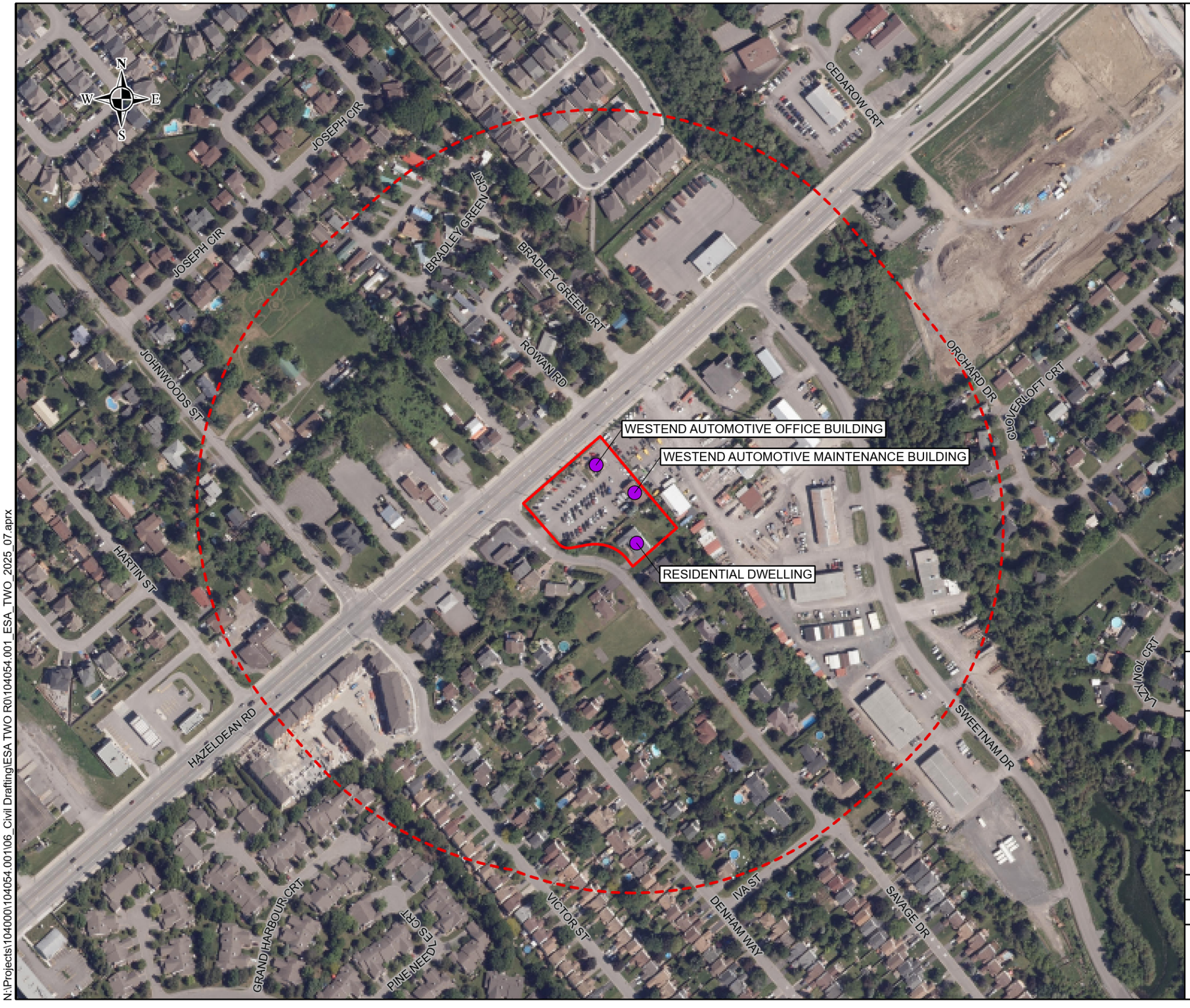

LEGEND

- SITE BOUNDARY
- STUDY AREA (250m RADIUS AROUND SITE)

GENERAL NOTES:

1. Coordinate system: NAD83 UTM zone 18N.
2. Geographic dataset source: Ontario GeoHub.
3. Contains information licensed under the Open Government Licence – Ontario.
4. Service Layer Credits: Ottawa 2022 Imagery

Scale: 1:3,000

Meters: 0 40 80 160 240

Drawing: SITE FEATURES

Client: HAZELDEAN HEIGHTS INC.

Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT
5872, 5880, AND 5884 HAZELDEAN ROAD AND 7 SAVAGE DRIVE
OTTAWA, ONTARIO

Drwn By:	SL	Chkd By:	NS
Project No.	104054.001	Revision No.	0
Date	AUGUST 2025		**FIGURE A.2**

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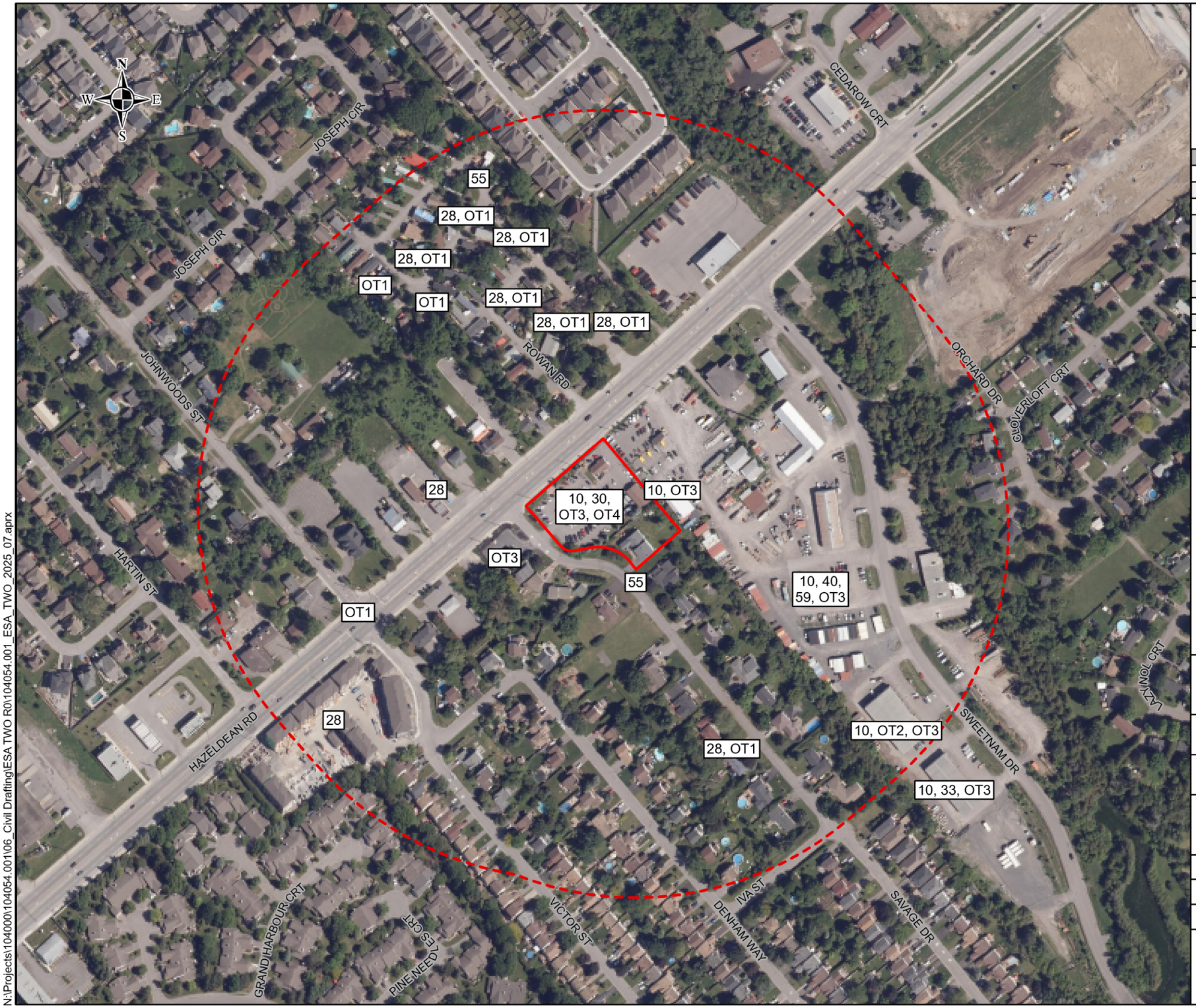

LEGEND

SITE BOUNDARY

STUDY AREA
(250m RADIUS AROUND SITE)

PCA	DESC
10	Commercial Autobody Shops
28	Gasoline and Associated Products Storage in Fixed Tanks
33	Metal Treatment, Coating, Plating and Finishing
40	Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications
59	Wood Treating and Preservative Facility and Bulk Storage of Treated and Preserved Wood Products
OT1	Spill
OT2	Small Engine Repair
OT3	Automotive Sale and Service (Including Automotive Garage)
OT4	Application of De-Icing Salt

GENERAL NOTES:

1. Coordinate system: NAD83 UTM zone 18N.
2. Geographic dataset source: Ontario GeoHub.
3. Contains information licensed under the Open Government Licence – Ontario.
4. Service Layer Credits: Ottawa 2022 Imagery

Scale:
1:3,000
Meters
0 40 80 160 240

Drawing
POTENTIALLY CONTAMINATING ACTIVITIES

Client:
HAZELDEAN HEIGHTS INC.

Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT
5872, 5880, AND 5884 HAZELDEAN ROAD AND 7 SAVAGE DRIVE
OTTAWA, ONTARIO

Drwn By:	SL	Chkd By:	NS
Project No.	104054.001	Revision No.	0
Date	AUGUST 2025		**FIGURE A.3**

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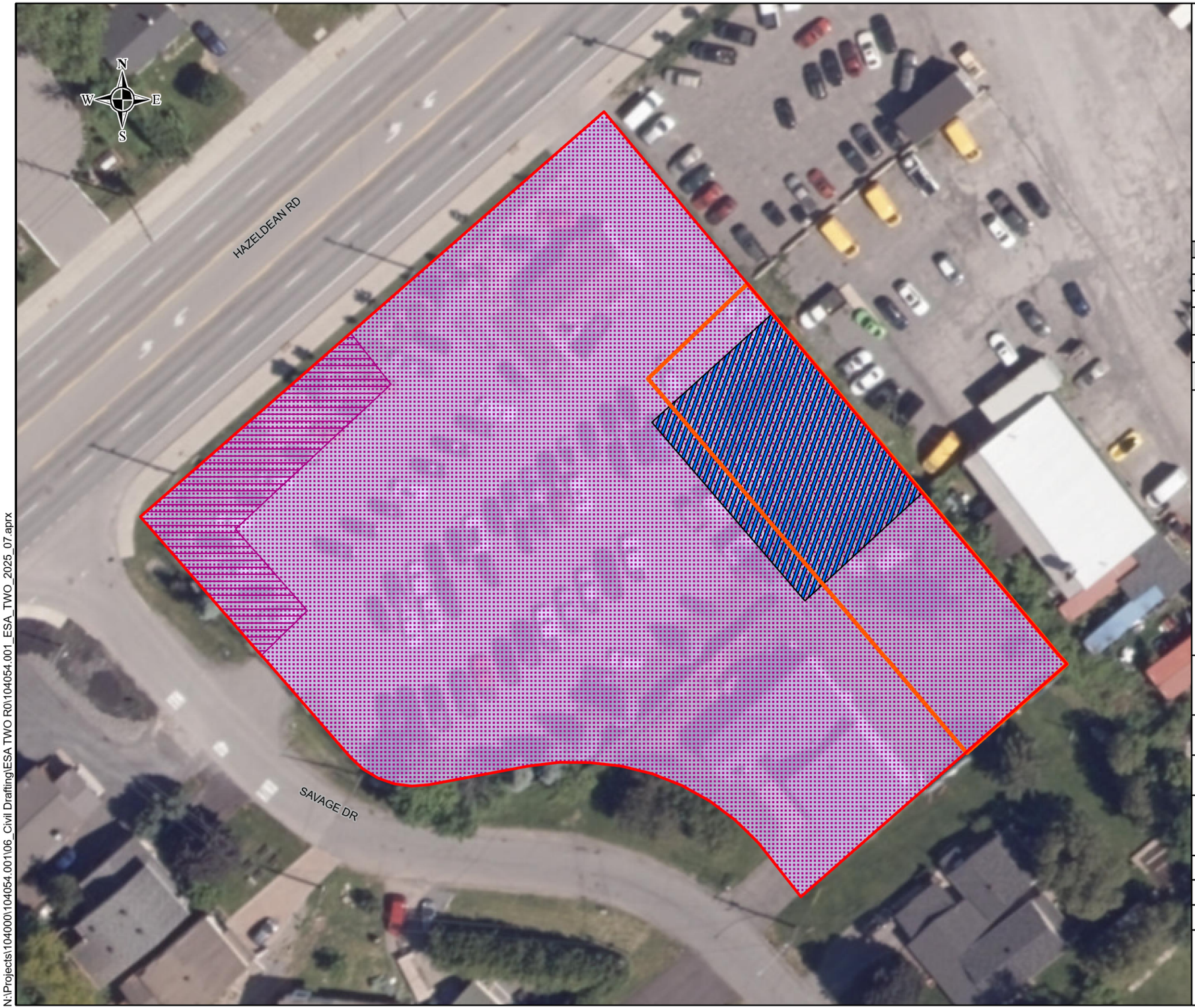

LEGEND

SITE BOUNDARY

STUDY AREA
(250m RADIUS AROUND SITE)

AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

APEC 1
APEC 2
APEC 3
APEC 4
APEC 5
APEC 6

APEC #	AREAS OF POTENTIAL ENVIRONMENTAL CONCERN
APEC 1	Importation of Fill Material of Unknown Quality
APEC 2	Use of de-icing salts
APEC 3	Commercial autobody work at Westend Automotive
APEC 4	Maintenance Garage for Westend Automotive, with waste oil drums and oil water separator
APEC 5	Multiple commercial/ industrial businesses east of the Phase One Property
APEC 6	A Gasoline Service Station with storage tanks and known contamination

GENERAL NOTES:

1. Coordinate system: NAD83 UTM zone 18N.
2. Geographic dataset source: Ontario GeoHub.
3. Contains information licensed under the Open Government Licence – Ontario.
4. Service Layer Credits: Ottawa 2022 Imagery

Scale:
1:500
Meters
0 6 12 24 36

Drawing
AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

Client:
HAZELDEAN HEIGHTS INC.

Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT
5872, 5880, AND 5884 HAZELDEAN ROAD AND 7 SAVAGE DRIVE
OTTAWA, ONTARIO

Drwn By:	SL	Chkd By:	NS
Project No.	104054.001	Revision No.	0
Date	AUGUST 2025		**FIGURE A.4**

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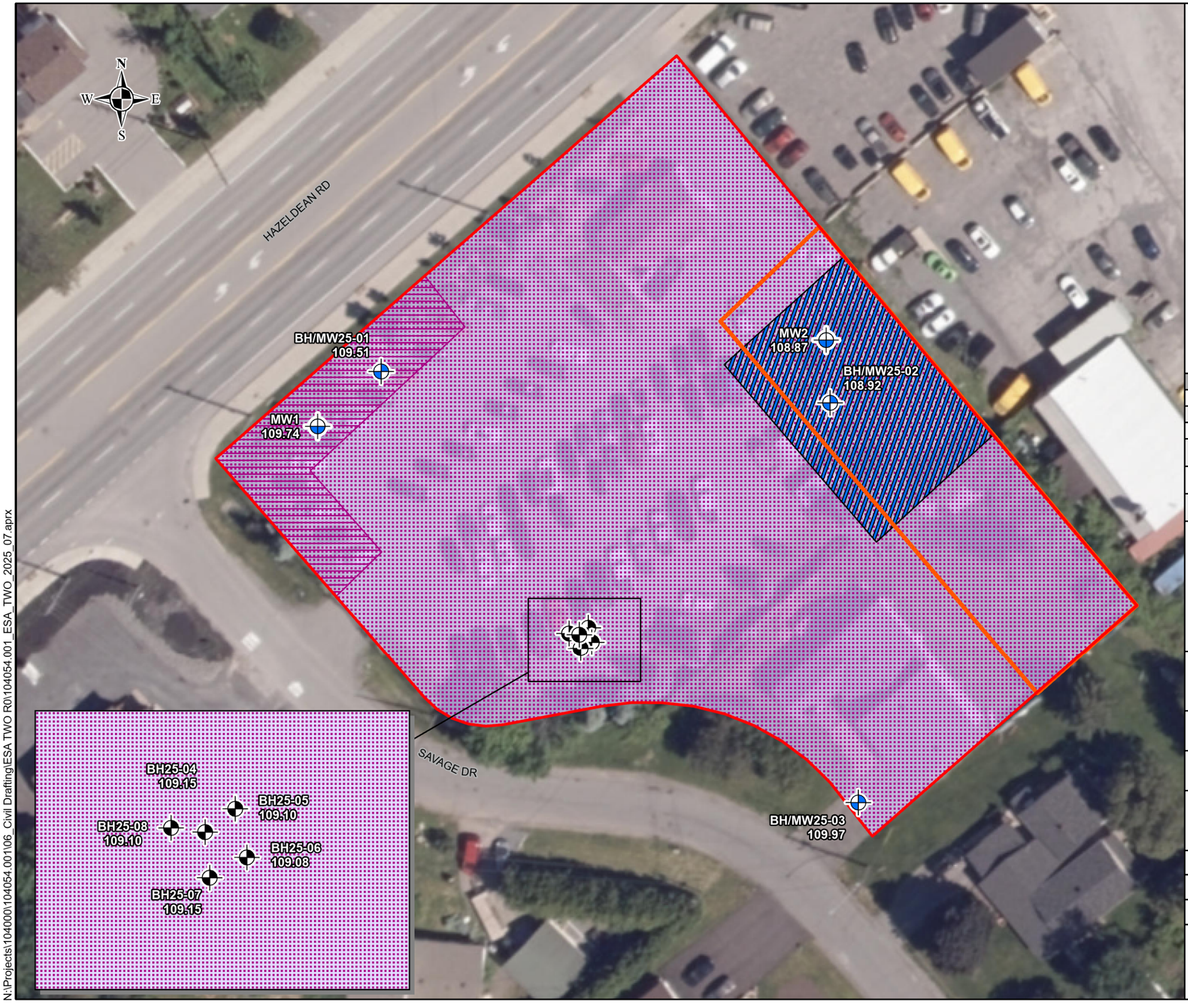

LEGEND

BH# — BOREHOLE ID
MW# — MONITORING WELL ID
XX.XX — GROUND SURFACE ELEVATIONS, IN METRES

BOREHOLE LOCATION (GEMTEC 2025)

BOREHOLE LOCATION (GEMTEC 2025)

MONITORING WELL LOCATION (ELEVATIONS RECORDED BY GEMTEC, PINCHIN 2024)

SITE BOUNDARY

STUDY AREA (250m RADIUS AROUND SITE)

AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

APEC 1
APEC 2
APEC 3
APEC 4
APEC 5
APEC 6

APEC #	AREAS OF POTENTIAL ENVIRONMENTAL CONCERN
APEC 1	Importation of Fill Material of Unknown Quality
APEC 2	Use of de-icing salts
APEC 3	Commercial autobody work at Westend Automotive
APEC 4	Maintenance Garage for Westend Automotive, with waste oil drums and oil water separator
APEC 5	Multiple commercial/ industrial businesses east of the Phase One Property
APEC 6	A Gasoline Service Station with storage tanks and known contamination

GENERAL NOTES:

1. Coordinate system: NAD83 UTM zone 18N.
2. Geographic dataset source: Ontario GeoHub.
3. Contains information licensed under the Open Government Licence – Ontario.
4. Service Layer Credits: Ottawa 2022 Imagery

Scale:

1:500

0 6 12 24 36 Meters

Drawing
BOREHOLE AND MONITORING WELL LOCATION PLAN

Client:
HAZELDEAN HEIGHTS INC.

Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT
5872, 5880, AND 5884 HAZELDEAN ROAD AND 7 SAVAGE DRIVE
OTTAWA, ONTARIO

Drwn By:	SL	Chkd By:	NS
Project No.	104054.001	Revision No.	0
Date	AUGUST 2025	**FIGURE A.5**	

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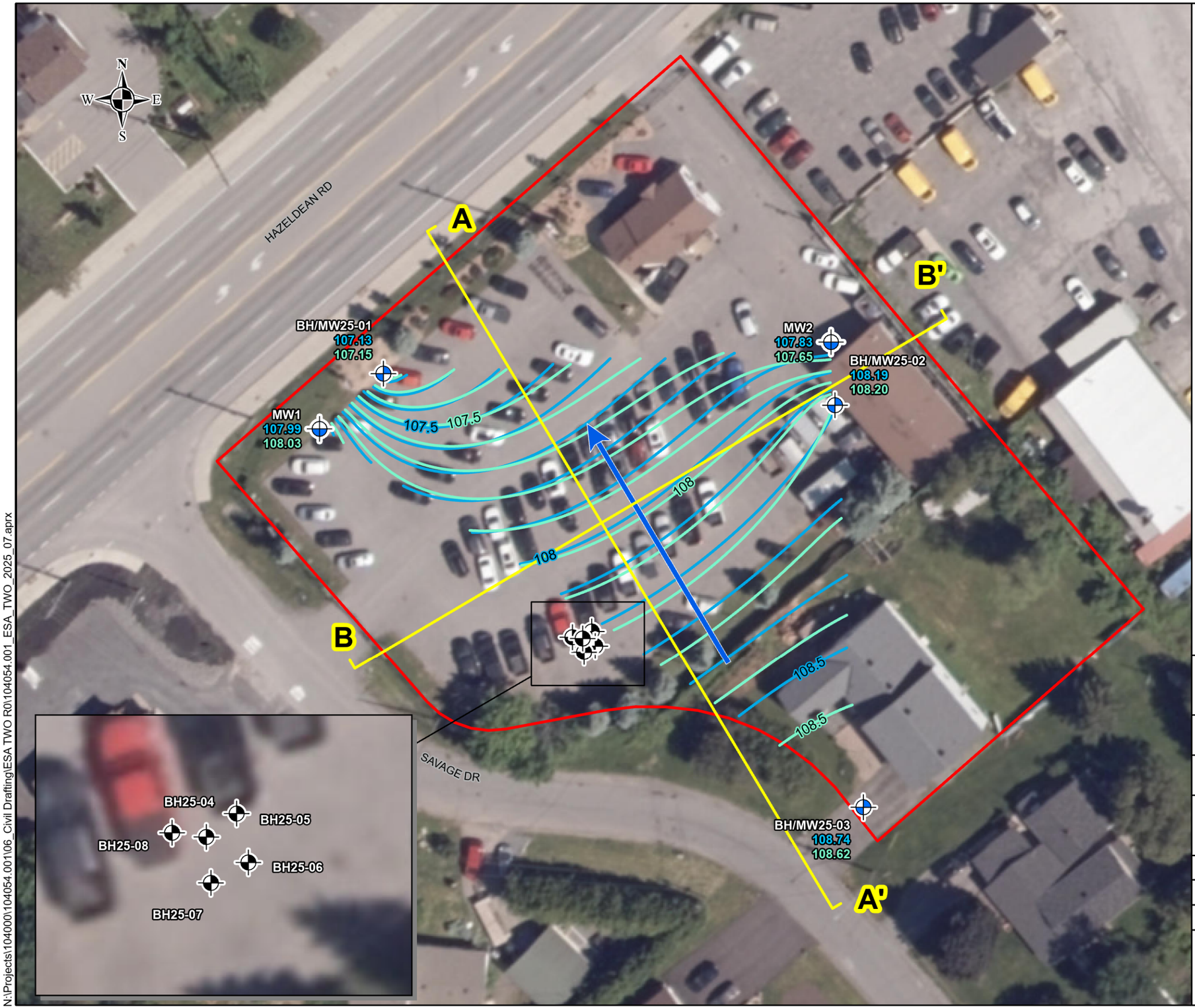

LEGEND

- BH# — BOREHOLE ID
- MW# — MONITORING WELL ID
- XX.XX — GROUNDWATER ELEVATIONS, IN METRES (MAY 8, 2025)
- XX.XX — GROUNDWATER ELEVATIONS, IN METRES (JUNE 6, 2025)
- BOREHOLE LOCATION (GEMTEC 2025)
- BOREHOLE LOCATION (GEMTEC 2025)
- MONITORING WELL LOCATION (ELEVATIONS RECORDED BY GEMTEC, PINCHIN 2024)
- SITE BOUNDARY
- STUDY AREA (250m RADIUS AROUND SITE)
- GROUND WATER, masl (MAY 9, 2025)
- GROUND WATER, masl (JUNE 6, 2025)
- INFERRED GROUNDWATER FLOW DIRECTION
- CROSS SECTION LOCATION

GENERAL NOTES:

1. Coordinate system: NAD83 UTM zone 18N.
2. Geographic dataset source: Ontario GeoHub.
3. Contains information licensed under the Open Government Licence – Ontario.
4. Service Layer Credits: Ottawa 2022 Imagery

Scale: 1:500

Meters: 0 6 12 24 36

Drawing: GROUNDWATER ELEVATIONS

Client: HAZELDEAN HEIGHTS INC.

Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT
5872, 5880, AND 5884 HAZELDEAN ROAD AND 7 SAVAGE DRIVE
OTTAWA, ONTARIO

Drwn By:	SL	Chkd By:	NS
Project No.	104054.001	Revision No.	0
Date	AUGUST 2025		**FIGURE A.6**

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LEGEND

- BH# — BOREHOLE ID
- MW# — MONITORING WELL ID
- XX.XX — GROUND SURFACE ELEVATIONS, IN METRES

BOREHOLE LOCATION (GEMTEC 2025)

BOREHOLE LOCATION (GEMTEC 2025)

MONITORING WELL LOCATION (ELEVATIONS RECORDED BY GEMTEC, PINCHIN 2024)

SITE BOUNDARY

ABBREVIATIONS:
PHC – Petroleum Hydrocarbons Fractions F1 to F4
BTEX – Benzene, Toluene, Ethylbenzene, and Xylene
PAH – Polycyclic Aromatic Hydrocarbons
VOC – Volatile Organic Compounds
ORP – Other Regulated Parameters

GENERAL NOTES:
1. Coordinate system: NAD83 UTM zone 18N.
2. Geographic dataset source: Ontario GeoHub.
3. Contains information licensed under the Open Government Licence – Ontario.
4. Service Layer Credits: Ottawa 2022 Imagery

Scale: 1:500

Meters: 0 6 12 24 36

Drawing: SOIL ANALYTICAL RESULTS METALS & ORP

Client: HAZELDEAN HEIGHTS INC.

Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT
5872, 5880, AND 5884 HAZELDEAN ROAD AND 7 SAVAGE DRIVE
OTTAWA, ONTARIO

Drwn By:	SL	Chkd By:	NS
Project No.	104054.001	Revision No.	0
Date	AUGUST 2025		**FIGURE A.7**

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LEGEND

- BH# — BOREHOLE ID
- MW# — MONITORING WELL ID
- XX.XX — GROUND SURFACE ELEVATIONS, IN METRES

BOREHOLE LOCATION (GEMTEC 2025)

BOREHOLE LOCATION (GEMTEC 2025)

MONITORING WELL LOCATION (ELEVATIONS RECORDED BY GEMTEC, PINCHIN 2024)

SITE BOUNDARY

ABBREVIATIONS:

PHC – Petroleum Hydrocarbons Fractions F1 to F4
BTEX – Benzene, Toluene, Ethylbenzene, and Xylene
PAH – Polycyclic Aromatic Hydrocarbons
VOC – Volatile Organic Compounds
ORP – Other Regulated Parameters

GENERAL NOTES:

1. Coordinate system: NAD83 UTM zone 18N.
2. Geographic dataset source: Ontario GeoHub.
3. Contains information licensed under the Open Government Licence – Ontario.
4. Service Layer Credits: Ottawa 2022 Imagery

Scale: 1:500

0 6 12 24 36 Meters

Drawing: SOIL ANALYTICAL RESULTS PHC, BTEX & VOCs

Client: HAZELDEAN HEIGHTS INC.

Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT
5872, 5880, AND 5884 HAZELDEAN ROAD AND 7 SAVAGE DRIVE
OTTAWA, ONTARIO

Drwn By:	SL	Chkd By:	NS
Project No.	104054.001	Revision No.	0
Date	AUGUST 2025		**FIGURE A.8**

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LEGEND

- BH# — BOREHOLE ID
- MW# — MONITORING WELL ID
- XX.XX — GROUND SURFACE ELEVATIONS, IN METRES

BOREHOLE LOCATION (GEMTEC 2025)

BOREHOLE LOCATION (GEMTEC 2025)

MONITORING WELL LOCATION (ELEVATIONS RECORDED BY GEMTEC, PINCHIN 2024)

SITE BOUNDARY

ABBREVIATIONS:
PHC – Petroleum Hydrocarbons Fractions F1 to F4
BTEX – Benzene, Toluene, Ethylbenzene, and Xylene
PAH – Polycyclic Aromatic Hydrocarbons
VOC – Volatile Organic Compounds
ORP – Other Regulated Parameters

GENERAL NOTES:
1. Coordinate system: NAD83 UTM zone 18N.
2. Geographic dataset source: Ontario GeoHub.
3. Contains information licensed under the Open Government Licence – Ontario.
4. Service Layer Credits: Ottawa 2022 Imagery

Scale: 1:500

0 6 12 24 36 Meters

Drawing: SOIL ANALYTICAL RESULTS PAHs

Client: HAZELDEAN HEIGHTS INC.

Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT
5872, 5880, AND 5884 HAZELDEAN ROAD AND 7 SAVAGE DRIVE
OTTAWA, ONTARIO

Drwn By:	SL	Chkd By:	NS
Project No.	104054.001	Revision No.	0
Date	AUGUST 2025		**FIGURE A.9**

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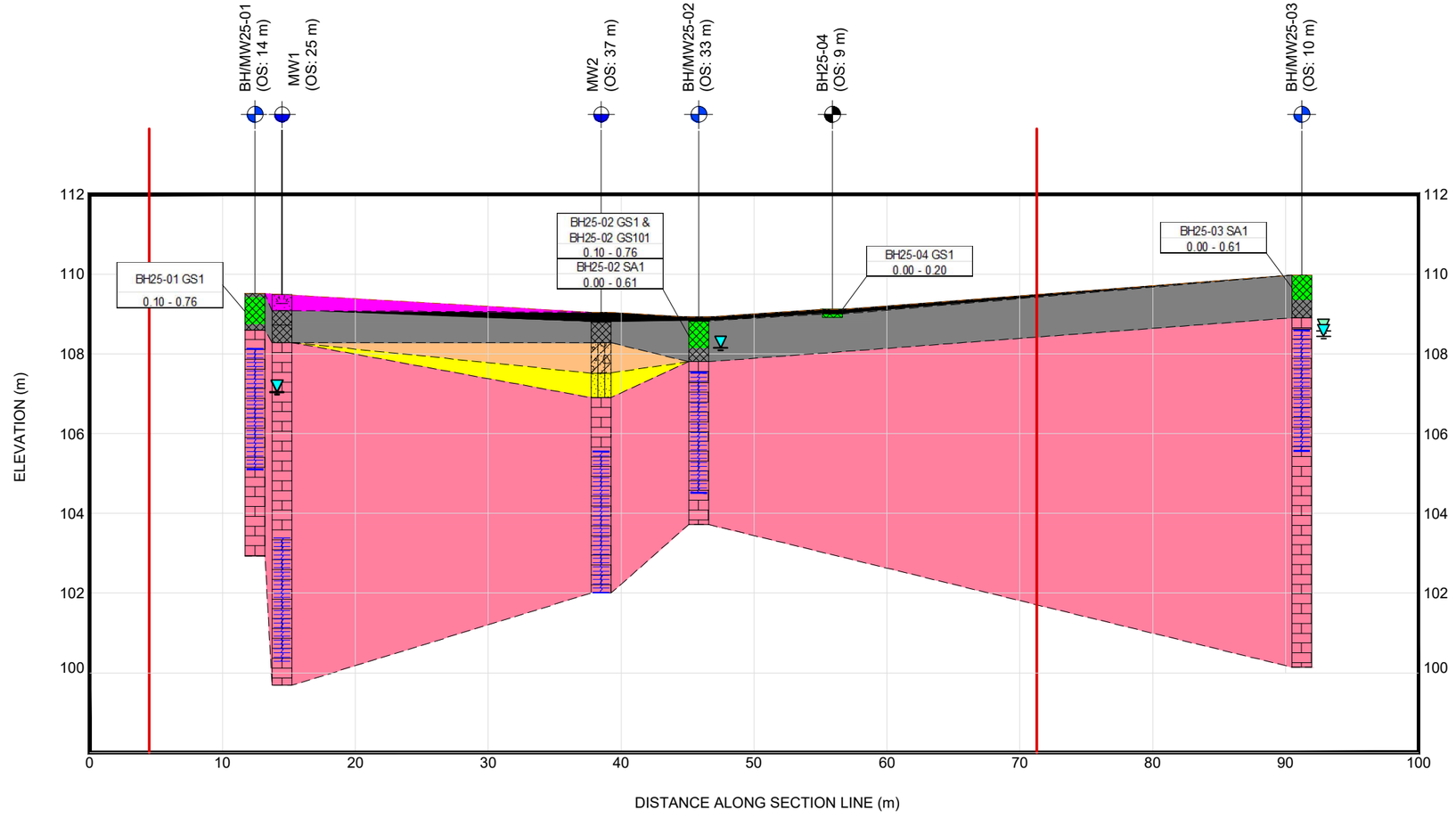

LEGEND

- OS — OFFSET FROM SECTION LINE
- BH # — BOREHOLE ID
- MW # — MONITORING WELL ID
- XX.XX — GROUND SURFACE ELEVATION, IN METRES

- BOREHOLE LOCATION (GEMTEC 2025)
- BOREHOLE/MONITORING WELL LOCATION (GEMTEC 2025)
- MONITORING WELL LOCATION (ELEVATION RECORDED BY GEMTEC, PINCHIN 2024)
- GROUNDWATER LEVEL (JUNE 6, 2025)
- GROUNDWATER LEVEL (MAY 9, 2025)
- INFERRED GROUND SURFACE
- INFERRED GEOLOGIC CONTACT
- INFERRED PIEZOMETER SURFACE
- PROPERTY BOUNDARY
- MONITORING WELL SCREEN

STRATIGRAPHY

- TOPSOIL
- ASPHALTIC CONCRETE
- FILL MATERIAL
- GLACIAL TILL
- SILTY SAND
- LIMESTONE

NOTES

1. Distances, elevations, and coordinates are shown in metres unless denoted otherwise
2. This drawing is a schematic representation and should not be taken as a substitute for a legal survey.

HORIZONTAL SCALE

1:400

0 8 16 24m

VERTICAL SCALE

3X HORIZONTAL SCALE

DRAWING

CROSS SECTION A-A'
SOIL EXCEEDANCES

CLIENT

HAZELDEAN HEIGHTS INC.

PROJECT

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT
5872, 5880, AND 5884 HAZELDEAN ROAD AND 7 SAVAGE DRIVE
OTTAWA, ONTARIO

DRAWN BY	CHECKED BY
SL	NS
PROJECT NO. 104054.001	REVISION NO. 0
DATE AUGUST 2025	FIGURE NO. **FIGURE A.10**

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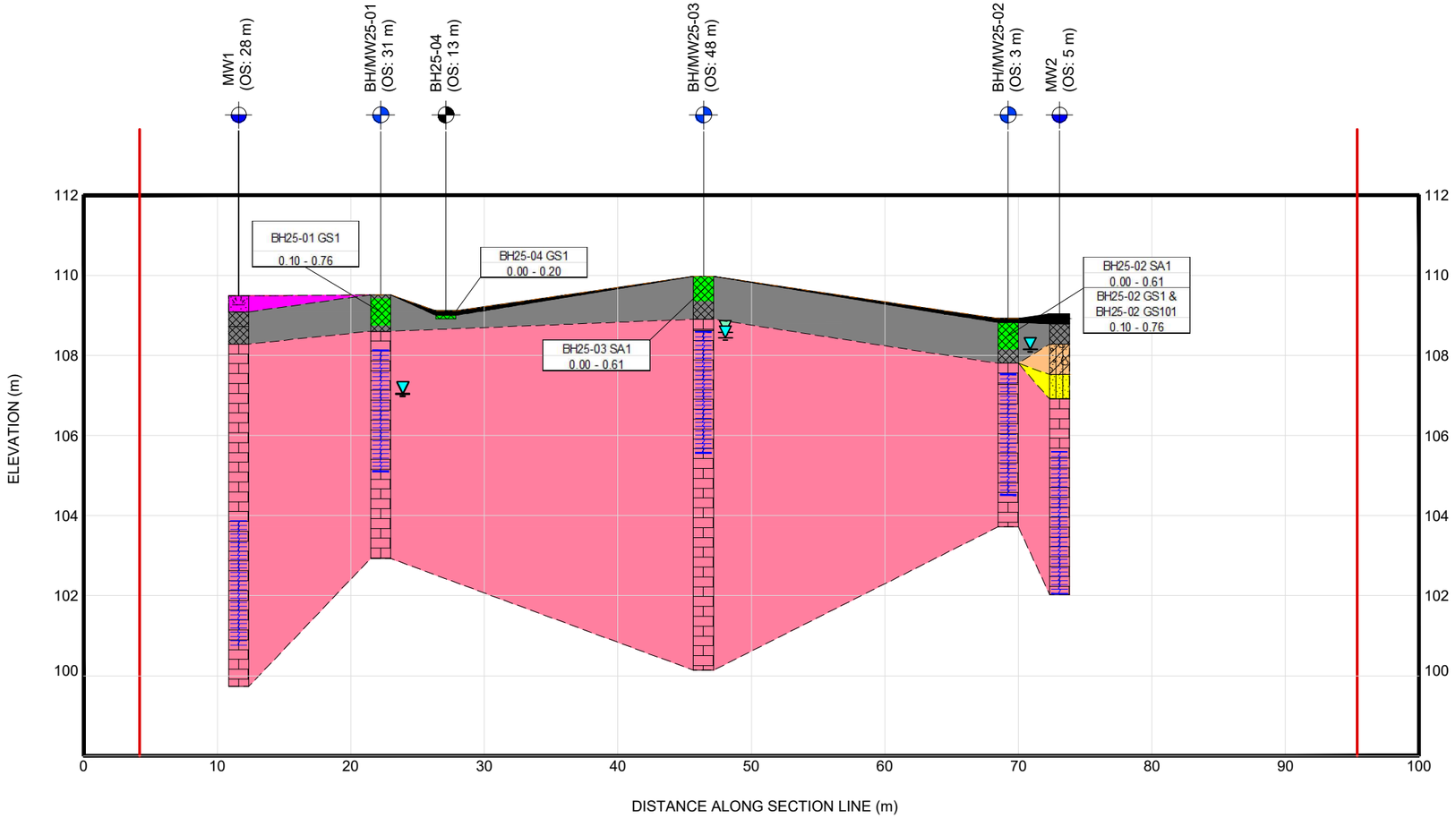

LEGEND

- **OS** — OFFSET FROM SECTION LINE
- **BH #** — BOREHOLE ID
- **MW #** — MONITORING WELL ID
- **XX.XX** — GROUND SURFACE ELEVATION, IN METRES

- BOREHOLE LOCATION (GEMTEC 2025)
- BOREHOLE/MONITORING WELL LOCATION (GEMTEC 2025)
- MONITORING WELL LOCATION (ELEVATION RECORDED BY GEMTEC, PINCHIN 2024)
- GROUNDWATER LEVEL (JUNE 6, 2025)
- GROUNDWATER LEVEL (MAY 9, 2025)
- INFERRED GROUND SURFACE
- INFERRED GEOLOGIC CONTACT
- INFERRED PIEZOMETER SURFACE
- PROPERTY BOUNDARY
- MONITORING WELL SCREEN

STRATIGRAPHY

- TOPSOIL
- ASPHALTIC CONCRETE
- FILL MATERIAL
- GLACIAL TILL
- SILTY SAND
- LIMESTONE

NOTES

1. Distances, elevations, and coordinates are shown in metres unless denoted otherwise
2. This drawing is a schematic representation and should not be taken as a substitute for a legal survey.

HORIZONTAL SCALE

1:400

0 8 16 24m

VERTICAL SCALE

3X HORIZONTAL SCALE

DRAWING

CROSS SECTION B-B'
SOIL EXCEEDANCES

CLIENT

HAZELDEAN HEIGHTS INC.

PROJECT

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT
5872, 5880, AND 5884 HAZELDEAN ROAD AND 7 SAVAGE DRIVE
OTTAWA, ONTARIO

DRAWN BY	CHECKED BY
SL	NS
PROJECT NO. 104054.001	REVISION NO. 0
DATE AUGUST 2025	FIGURE NO. **FIGURE A.11**

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LEGEND

- BH# — BOREHOLE ID
- MW# — MONITORING WELL ID
- XX.XX — GROUND SURFACE ELEVATIONS, IN METRES

BOREHOLE LOCATION (GEMTEC 2025)

BOREHOLE LOCATION (GEMTEC 2025)

MONITORING WELL LOCATION (ELEVATIONS RECORDED BY GEMTEC, PINCHIN 2024)

SITE BOUNDARY

ABBREVIATIONS:
PHC – Petroleum Hydrocarbons Fractions F1 to F4
BTEX – Benzene, Toluene, Ethylbenzene, and Xylene
PAH – Polycyclic Aromatic Hydrocarbons
VOC – Volatile Organic Compounds
ORP – Other Regulated Parameters

GENERAL NOTES:
1. Coordinate system: NAD83 UTM zone 18N.
2. Geographic dataset source: Ontario GeoHub.
3. Contains information licensed under the Open Government Licence – Ontario.
4. Service Layer Credits: Ottawa 2022 Imagery

Scale:
1:500
Meters
0 6 12 24 36

Drawing: GROUNDWATER ANALYTICAL RESULTS METALS

Client: HAZELDEAN HEIGHTS INC.

Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT
5872, 5880, AND 5884 HAZELDEAN ROAD AND 7 SAVAGE DRIVE
OTTAWA, ONTARIO

Drwn By:	SL	Chkd By:	NS
Project No.	104054.001	Revision No.	0
Date	AUGUST 2025		**FIGURE A.12**

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LEGEND

BH# — BOREHOLE ID
MW# — MONITORING WELL ID
XX.XX — GROUND SURFACE ELEVATIONS, IN METRES

BOREHOLE LOCATION (GEMTEC 2025)

BOREHOLE LOCATION (GEMTEC 2025)

MONITORING WELL LOCATION (ELEVATIONS RECORDED BY GEMTEC, PINCHIN 2024)

SITE BOUNDARY

ABBREVIATIONS:
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BTEX – Benzene, Toluene, Ethylbenzene, and Xylene
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ORP – Other Regulated Parameters

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4. Service Layer Credits: Ottawa 2022 Imagery

Scale:
1:500
Meters
0 6 12 24 36

Drawing: GROUNDWATER ANALYTICAL RESULT PHC, BTEX & VOCs

Client: HAZELDEAN HEIGHTS INC.

Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT
5872, 5880, AND 5884 HAZELDEAN ROAD AND 7 SAVAGE DRIVE
OTTAWA, ONTARIO

Drwn By:	SL	Chkd By:	NS
Project No.	104054.001	Revision No.	0
Date	AUGUST 2025		**FIGURE A.13**

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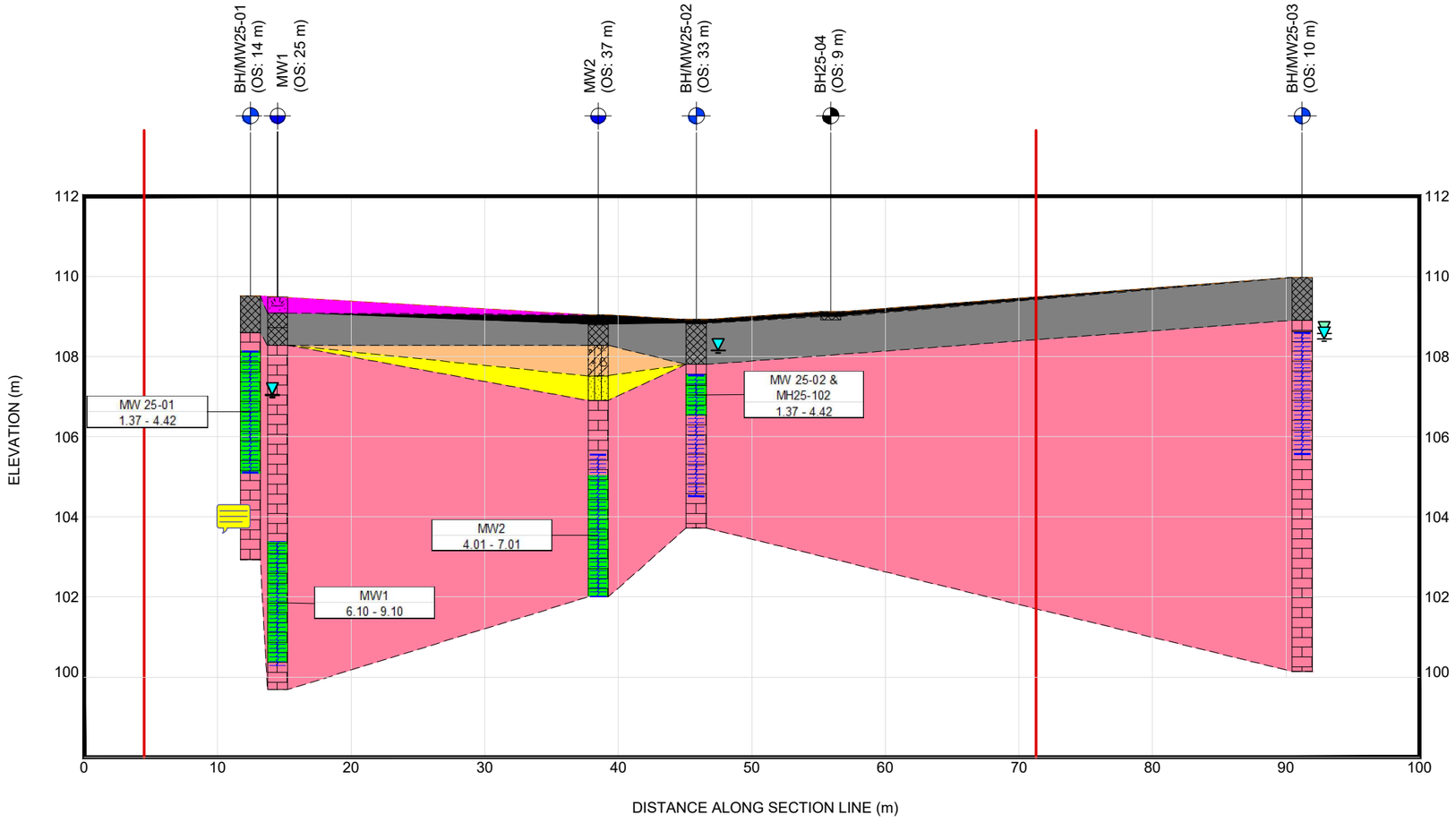

LEGEND

- OS — OFFSET FROM SECTION LINE
- BH # — BOREHOLE ID
- MW # — MONITORING WELL ID
- XX.XX — GROUND SURFACE ELEVATION, IN METRES
- BOREHOLE LOCATION (GEMTEC 2025)
- BOREHOLE/MONITORING WELL LOCATION (GEMTEC 2025)
- MONITORING WELL LOCATION (ELEVATION RECORDED BY GEMTEC, PINCHIN 2024)
- GROUNDWATER LEVEL (JUNE 6, 2025)
- GROUNDWATER LEVEL (MAY 9, 2025)
- INFERRED GROUND SURFACE
- INFERRED GEOLOGIC CONTACT
- INFERRED PIEZOMETER SURFACE
- PROPERTY BOUNDARY
- MONITORING WELL SCREEN

STRATIGRAPHY

- TOPSOIL
- ASPHALTIC CONCRETE
- FILL MATERIAL
- GLACIAL TILL
- SILTY SAND
- LIMESTONE

NOTES

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HORIZONTAL SCALE

1:400

0 8 16 24m

VERTICAL SCALE

3X HORIZONTAL SCALE

DRAWING

CROSS SECTION A-A'
GROUNDWATER EXCEEDANCES

CLIENT

HAZELDEAN HEIGHTS INC.

PROJECT

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT
5872, 5880, AND 5884 HAZELDEAN ROAD AND 7 SAVAGE DRIVE
OTTAWA, ONTARIO

DRAWN BY	CHECKED BY
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PROJECT NO. 104054.001	REVISION NO. 0
DATE AUGUST 2025	FIGURE NO. **FIGURE A.14**

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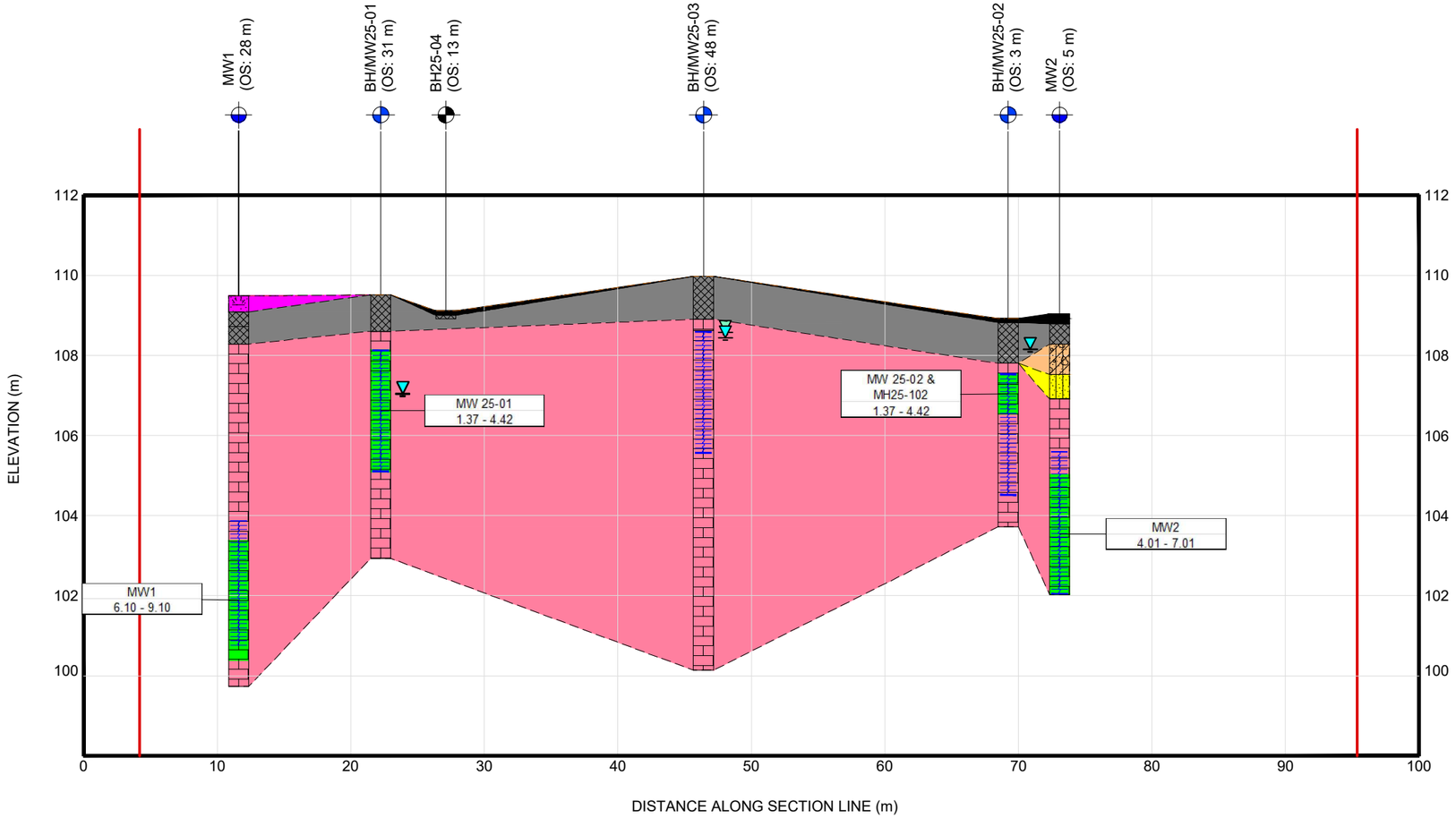

LEGEND

- **OS** — OFFSET FROM SECTION LINE
- **BH #** — BOREHOLE ID
- **MW #** — MONITORING WELL ID
- **XX.XX** — GROUND SURFACE ELEVATION, IN METRES

BOREHOLE LOCATION (GEMTEC 2025)

BOREHOLE/MONITORING WELL LOCATION (GEMTEC 2025)

MONITORING WELL LOCATION (ELEVATION RECORDED BY GEMTEC, PINCHIN 2024)

GROUNDWATER LEVEL (JUNE 6, 2025)

GROUNDWATER LEVEL (MAY 9, 2025)

INFERRED GROUND SURFACE

INFERRED GEOLOGIC CONTACT

INFERRED PIEZOMETER SURFACE

PROPERTY BOUNDARY

MONITORING WELL SCREEN

STRATIGRAPHY

- TOPSOIL
- ASPHALTIC CONCRETE
- FILL MATERIAL
- GLACIAL TILL
- SILTY SAND
- LIMESTONE

NOTES

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HORIZONTAL SCALE

1:400

0 8 16 24m

VERTICAL SCALE

3X HORIZONTAL SCALE

DRAWING

CROSS SECTION B-B'
GROUNDWATER EXCEEDANCES

CLIENT

HAZELDEAN HEIGHTS INC.

PROJECT

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED DEVELOPMENT
5872, 5880, AND 5884 HAZELDEAN ROAD AND 7 SAVAGE DRIVE
OTTAWA, ONTARIO

DRAWN BY	CHECKED BY
SL	NS
PROJECT NO. 104054.001	REVISION NO. 0
DATE AUGUST 2025	FIGURE NO. **FIGURE A.15**

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TABLE A.1
SUMMARY OF MONITORING WELL CONSTRUCTION DETAILS
5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
Ottawa, Ontario

Location ID	Installation Date	Installed by	Borehole Depth (m bgs)	Monitoring Well Depth (m bgs)	Well Diameter (mm)	Screen Length (m)
MW25-01	30-Apr-25	Strata Drilling Group	4.42	4.42	51	3.05
MW25-02	30-Apr-25	Strata Drilling Group	5.21	4.42	51	3.05
MW25-03	30-Apr-25	Strata Drilling Group	9.83	4.42	51	3.05

Notes
mm = millimetres
m - metres
m bgs = metres below ground surface

TABLE A.2
WATER LEVEL MEASUREMENT AND ELEVATIONS
5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
Ottawa, Ontario

Location ID	Construction	Groundsurface Elevation (m asl)	Top of Casing Elevation (m asl)	Depth to Groundwater (m bgs) 9-May-25	Depth to Groundwater (m bgs) 4-Jun-25
MW25-01	Flushmount	109.51	109.41	2.38	2.36
MW25-02	Flushmount	108.92	108.85	0.72	0.71
MW25-03	Flushmount	109.97	109.79	1.23	1.35
MW1	Flushmount	109.74	109.62	1.76	1.71
MW2	Flushmount	108.87	108.71	1.04	1.22

Notes:
m asl = metre above sea level
m bgs = metres below ground surface

TABLE A.3
SUMMARY OF SOIL SAMPLES SUBMITTED FOR ANALYSIS
5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
Ottawa, Ontario

Location ID	Sample ID	Date (m/dd/yyyy)	Sample Depth (m bgs)	Headspace Screening Result (HEX / IBL, ppm)	Soil Description	Analyses Completed
BH25-01	BH25-01 GS1	4/30/2025	0.10 - 0.76	25/0	Brown sand and gravel, some organics	Metals, PHCs, BTEX, pH
BH25-02	BH25-02 GS1	4/30/2025	0.10 - 0.76	15/1	Brown sand and gravel	PHC, VOCs, PAHs, Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-), EC, SAR, pH
	BH25-02 GS101	4/30/2025	0.10 - 0.76	15/1	Brown sand and gravel	PHC, VOCs, PAHs, Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-), EC, SAR, pH
	BH25-02 SA1	4/30/2025	0.00 - 0.61	10/0	Brown sand and gravel	Metals, PHCs, BTEX, pH
BH25-03	BH25-03 SA1	5/1/2025	0.00 - 0.61	0/0	Brown silty sand and gravel, trace clay	PHC, BTEX, PAHs, Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-), EC, SAR, pH
BH25-04	BH25-04 GS1	5/1/2025	0.00 - 0.20	0/0	Brown sand and gravel	PHC, BTEX, PAHs, Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-), EC, SAR, pH
BH25-05	BH25-05 SA 1	6/20/2025	0.08 - 0.20	45/0	Brown sand and gravel	PHC, BTEX
BH25-06	BH25-06 SA1	6/20/2025	0.08 - 0.20	40/0	Brown sand and gravel	PHC, BTEX
BH25-07	BH25-07 SA1	6/20/2025	0.08 - 0.31	30/2	Brown sand and gravel	PHC, BTEX
	BH25-07 SA101	6/20/2025	0.08 - 0.31	30/2	Brown sand and gravel	PHC, BTEX
BH25-08	BH25-08 SA1	6/20/2025	0.08 - 0.36	35/1	Brown sand and gravel	PHC, BTEX

Notes:
PHC: Petroleum Hydrocarbons
BTEX: Benzene, Toluene, Ethybenzene, Xylene
VOCs: Volatile Organic Compounds
PAHs: Polycyclic Aromatic Hydrocarbons
Hydride-Forming Metals: Arsenic (As), Selenium (Se), and Antimony (Sb)
ORP: Oxidation-Reduction Potential
B: Boron
B-HWS: Boron-Hot Water Soluble
CN-: Cyanide
Cr(VI): Chromium (VI)
Hg: Mercury
pH: Potential of Hydrogen (acidity/alkalinity)
Na: Sodium
Cl-: Chloride
EC: Electrical Conductivity
SAR: Sodium Adsorption Ratio

TABLE A.4
SUMMARY OF GROUNDWATER SAMPLES SUBMITTED FOR ANALYSIS
5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
Ottawa, Ontario

Location ID	Sample ID	Sampling Date	Well Depth (mbgs)	Screen Interval (m bgs)	Groundwater Sampling Field Measurements				Analyses Completed
					Temperature (deg cel.)	pH	Conductivity (mS/cm)	Dissolved Oxygen (%)	
BH/MW25-01	MW25-01	16-May-25	4.42	1.37 - 4.42	13.28	7.71	1.82	12.18	Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-), PHC, BTEX
BH/MW25-02	MW25-02	16-May-25	4.42	1.37 - 4.42	13.40	7.70	1.95	0.98	Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-), VOC, PHC
MW1	MW1	16-May-25	9.1	6.10 - 9.10	11.57	7.61	2.16	0.00	Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-), PHC, BTEX
MW2	MW2	16-May-25	7.01	4.01 - 7.01	12.10	7.73	1.88	1.05	Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-), VOC, BTEX
DUPLICATE	MW25-102	16-May-25	4.42	1.37 - 4.42	13.40	7.70	1.95	0.98	Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-)
Field Blank	Field Blank	16-May-25	-	-	-	-	-	-	PHC F1, VOC
Trip Blank	Trip Blank	16-May-25	-	-	-	-	-	-	PHC F1, VOC

Notes:

m bgs: metres below ground surface
Hydride-Forming Metals: Arsenic, Selenium, Antimony
ORP: Oxidation-Reduction Potential
B: Boron
B-HWS: Boron – Hot Water Soluble
CN^-: Cyanide
Cr(VI): Hexavalent Chromium
Hg: Mercury
pH: pH
NA: Sodium
Cl^-: Chloride
PHC: Petroleum Hydrocarbons
BTEX: Benzene, Toluene, Ethylbenzene, Xylenes
VOCs: Volatile Organic Compounds

Table A.5
Bulk Soil Analytical Results - Metals and ORP
5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
Ottawa, Ontario

Parameter	Units	MDL	MECP Table 7 RPI SCS	BH25-01 GS1	BH25-02 GS1	BH25-02 GS101	BH25-02 SA1	BH25-03 SA1	BH25-04 GS1
Sample ID:				BH25-01 GS1	BH25-02 GS1	BH25-02 GS101	BH25-02 SA1	BH25-03 SA1	BH25-04 GS1
Laboratory Sample ID:				25Z285273	25Z285273	25Z285273	25Z285273	25Z285273	25Z285273
Date Sampled(dd/mm/yyyy):				30/04/2025	30/04/2025	30/04/2025	30/04/2025	01/05/2025	01/05/2025
Sample Depth (mbgs):				0.10 - 0.76	0.10 - 0.76	0.10 - 0.76	0.00 - 0.61	0.00 - 0.61	0.00 - 0.20
Metals - Soil									
Antimony	µg/g	0.8	7.5	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	1	18	2	4	4	6	2	2
Barium	µg/g	2	390	328	345	388	303	66.6	195
Beryllium	µg/g	0.5	4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Boron	µg/g	5	120	10	9	12	10	8	8
Boron (Hot Water Soluble)	µg/g	0.1	1.5	NA	0.56	0.63	NA	0.12	0.37
Cadmium	µg/g	0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	5	160	16	14	14	13	13	12
Cobalt	µg/g	0.8	22	5.4	6.6	6.1	7.6	4.5	4.1
Copper	µg/g	1	140	12.2	6.8	6.9	7.2	8.8	7.8
Lead	µg/g	1	120	16	14	13	16	7	10
Molybdenum	µg/g	0.5	6.9	0.5	2.4	2.3	3.1	<0.5	0.9
Nickel	µg/g	1	100	11	13	12	14	9	11
Selenium	µg/g	0.8	2.4	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Silver	µg/g	0.5	20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Thallium	µg/g	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Uranium	µg/g	0.5	23	0.56	0.5	<0.50	0.57	<0.50	<0.50
Vanadium	µg/g	2	86	20.7	11.5	11	11.6	20.4	13.7
Zinc	µg/g	5	340	38	15	15	16	25	16
ORP - Soil									
Chromium, Hexavalent	µg/g	0.2	8	NA	<0.2	<0.2	NA	<0.2	<0.2
Cyanide, WAD	µg/g	0.04	0.051	NA	<0.040	<0.040	NA	<0.040	<0.040
Mercury	µg/g	0.1	3.9	NA	<0.10	<0.10	NA	<0.10	<0.10
Electrical Conductivity (2:1)	mS/cm	0.005	1.4	NA	1.31	1.36	NA	0.174	0.193
Sodium Adsorption Ratio (2:1) (Calc.)	N/A	N/A	12	NA	0.54	0.46	NA	1.1	0.1
pH	pH Units	NA	5.0-9.0	6.72	6.82	6.86	6.9	6.99	6.76

Notes:
MDL - Method Detection Limit
m bgs - Metres Below Ground Surface
NA - Not Analyzed
NS - No Standard
< - Less than Detection Limit
MECP Table 7 RPI SCS: MECP, 2011. Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition Residential land use with coarse soil texture.

Highlighted - Exceeds MECP Table 7 RPI SCS

Table A.6
Bulk Soil Analytical Results - BTEX, VOCs PHC F1-F4
5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
Ottawa, Ontario

Parameter	Units	MDL	MECP Table 7 RPI SCS	Sample ID:	BH25-01 GS1	BH25-02 GS1	BH25-02 GS101	BH25-02 SA1	BH25-03 SA1	BH25-04 GS1	BH25-05 SA1	BH25-06 SA1	BH25-07 SA1	BH25-08 SA1	BH25-07 SA101
				Laboratory Sample ID:	25Z285273	25Z285273	25Z285273	25Z285273	25Z285273	25Z285273	25Z312767	25Z312767	25Z312767	25Z312767	25Z312767
				Date Sampled(dd/mm/yyyy):	30/04/2025	30/04/2025	30/04/2025	30/04/2025	01/05/2025	01/05/2025	20/06/2025	20/06/2025	20/06/2025	20/06/2025	20/06/2025
				Sample Depth (mbgs):	0.10 - 0.76	0.10 - 0.76	0.10 - 0.76	0.00 - 0.61	0.00 - 0.61	0.00 - 0.20	0.08 - 0.20	0.08 - 0.20	0.08 - 0.31	0.08 - 0.36	0.08 - 0.31
Petroleum Hydrocarbons - Soil															
F1 (C6 to C10)	µg/g	5	55		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	5	55		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
F2 (C10 to C16)	µg/g	10	98		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g	10	98		<10	<10	<10	<10	<10	<10	NA	NA	NA	NA	NA
F3 (C16 to C34)	µg/g	50	300		<10	164	137	<10	<50	467	<50	102	<50	<50	<50
F3 (C16 to C34) minus PAHs	µg/g	50	300		<50	164	137	103	<50	467	NA	NA	NA	NA	NA
F4 (C34 to C50)	µg/g	50	2800		<50	171	131	77	<50	407	<50	<50	<50	<50	<50
Volatile Organic Compounds - Soil															
Dichlorodifluoromethane	µg/g	0.05	16		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ug/g	0.02	0.02		NA	<0.02	<0.02	NA	NA	NA	NA	NA	NA	NA	NA
Bromomethane	ug/g	0.05	0.05		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	ug/g	0.05	4		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	ug/g	0.5	16		NA	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethylene	ug/g	0.05	0.05		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	ug/g	0.05	0.1		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.084		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl Ether	ug/g	0.05	0.75		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ug/g	0.02	3.5		NA	<0.02	<0.02	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Ethyl Ketone	ug/g	0.5	16		NA	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	NA
Cis- 1,2-Dichloroethylene	ug/g	0.02	3.4		NA	<0.02	<0.02	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	ug/g	0.04	0.05		NA	<0.04	<0.04	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ug/g	0.03	0.05		NA	<0.03	<0.03	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	ug/g	0.05	0.38		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	ug/g	0.05	0.05		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	ug/g	0.02	0.21		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.03	<0.04	<0.05	<0.06	<0.07
1,2-Dichloropropane	ug/g	0.03	0.05		NA	<0.03	<0.03	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	ug/g	0.03	0.061		NA	<0.03	<0.03	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ug/g	0.05	13		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Isobutyl Ketone	ug/g	0.5	1.7		NA	<0.50	<0.50	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ug/g	0.04	0.05		NA	<0.04	<0.04	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	ug/g	0.05	2.3		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.06	<0.07	<0.08	<0.09	<0.10
Dibromochloromethane	ug/g	0.05	9.4		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
Ethylene Dibromide	ug/g	0.04	0.05		NA	<0.04	<0.04	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	ug/g	0.05	0.28		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1,2-Tetrachloroethane	ug/g	0.04	0.058		NA	<0.04	<0.04	NA	NA	NA	NA	NA	NA	NA	NA
Chlorobenzene	ug/g	0.05	2.4		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	ug/g	0.05	2		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
m & p-Xylene	ug/g	0.05	NS		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Bromoform	ug/g	0.05	0.27		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
Styrene	ug/g	0.05	0.7		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	ug/g	0.05	NS		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.06	<0.07	<0.08	<0.09	<0.10
1,3-Dichlorobenzene	ug/g	0.05	4.8		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/g	0.05	0.083		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/g	0.05	3.4		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (Total)	ug/g	0.05	3.1		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.06	<0.07	<0.08	<0.09	<0.10
1,3-Dichloropropene (Cis + Trans)	µg/g	0.05	0.05		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA
n-Hexane	µg/g	0.05	2.8		NA	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
MDL - Method Detection Limit
m bgs - Metres Below Ground Surface
NA - Not Analyzed
NS - No Standard
< - Less than Detection Limit
MECP Table 7 RPI SCS: MECP, 2011. Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition Residential land use with coarse soil texture.

Highlighted - Exceeds MECP Table 7 RPI SCS

Table A.7
Bulk Soil Analytical Results - PAH
5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
Ottawa, Ontario

Parameter	Units	MDL	MECP Table 7 RPI SCS	Sample ID: BH25-01 GS1 Laboratory Sample ID: 25Z285273 Date Sampled(dd/mm/yyyy): 30/04/2025 Sample Depth (mbgs): 0.10 - 0.76	BH25-02 GS1 25Z285273 30/04/2025 0.10 - 0.76	BH25-02 GS101 25Z285273 30/04/2025 0.10 - 0.76	BH25-02 SA1 25Z285273 30/04/2025 0.00 - 0.61	BH25-03 SA1 25Z285273 01/05/2025 0.00 - 0.61	BH25-04 GS1 25Z285273 01/05/2025 0.00 - 0.20
Polycyclic Aromatic Hydrocarbons - Soil									
Naphthalene	µg/g	0.05	0.6	NA	<0.05	<0.05	NA	<0.05	<0.05
Acenaphthylene	µg/g	0.05	0.15	NA	<0.05	<0.05	NA	<0.05	<0.05
Acenaphthene	µg/g	0.05	7.9	NA	<0.05	<0.05	NA	<0.05	<0.05
Fluorene	µg/g	0.05	62	NA	<0.05	<0.05	NA	<0.05	<0.05
Phenanthrene	µg/g	0.05	6.2	NA	<0.05	<0.05	NA	<0.05	<0.05
Anthracene	µg/g	0.05	0.67	NA	<0.05	<0.05	NA	<0.05	<0.05
Fluoranthene	µg/g	0.05	0.69	NA	<0.05	<0.05	NA	<0.05	<0.05
Pyrene	µg/g	0.05	78	NA	<0.05	<0.05	NA	<0.05	<0.05
Benzo(a)anthracene	µg/g	0.05	0.5	NA	<0.05	<0.05	NA	<0.05	<0.05
Chrysene	µg/g	0.05	7	NA	<0.05	<0.05	NA	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.05	0.78	NA	<0.05	<0.05	NA	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.05	0.78	NA	<0.05	<0.05	NA	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.05	0.3	NA	<0.05	<0.05	NA	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.05	0.38	NA	<0.05	<0.05	NA	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.05	0.1	NA	<0.05	<0.05	NA	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	0.05	6.6	NA	<0.05	<0.05	NA	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.05	0.99	NA	<0.05	<0.05	NA	<0.05	<0.05

Notes:
MDL - Method Detection Limit
m bgs - Metres Below Ground Surface
NA - Not Analyzed
NS - No Standard
< - Less than Detection Limit
MECP Table 7 RPI SCS: MECP, 2011. Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. Table 7: Generic Site Condition Standards for Shallow Soils in a Non-Potable Ground Water Condition Residential land use with coarse soil texture.
Highlighted - Exceeds MECP Table 7 RPI SCS

Table A.7
Bulk Soil Analytical Results - Maximum
5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
Ottawa, Ontario

Parameter	Units	Maximum Concentration	Sample ID of Maximum Concentration	Depth of Sample (m bgs)
Metals - Soil				
Antimony	µg/g	<0.8	N/A	N/A
Arsenic	µg/g	6	BH25-02 SA1	0.00 - 0.61
Barium	µg/g	388	BH25-02 GS101	0.10 - 0.76
Beryllium	µg/g	<0.5	N/A	N/A
Boron	µg/g	12	BH25-02 GS101	0.10 - 0.76
Boron (Hot Water Soluble)	µg/g	0.63	BH25-02 GS101	0.10 - 0.76
Cadmium	µg/g	<0.5	N/A	N/A
Chromium	µg/g	16	BH25-01 GS1	0.10 - 0.76
Cobalt	µg/g	7.6	BH25-02 SA1	0.00 - 0.61
Copper	µg/g	12.2	BH25-01 GS1	0.10 - 0.76
Lead	µg/g	16	BH25-01 GS1	0.10 - 0.76
Molybdenum	µg/g	3.1	BH25-02 SA1	0.00 - 0.61
Nickel	µg/g	14	BH25-02 SA1	0.00 - 0.61
Selenium	µg/g	<0.8	N/A	N/A
Silver	µg/g	<0.5	N/A	N/A
Thallium	µg/g	<0.5	N/A	N/A
Uranium	µg/g	0.57	BH25-02 SA1	0.00 - 0.61
Vanadium	µg/g	20.7	BH25-01 GS1	0.10 - 0.76
Zinc	µg/g	38	BH25-01 GS1	0.10 - 0.76
ORP - Soil			N/A	N/A
Chromium, Hexavalent	µg/g	<0.2	N/A	N/A
Cyanide, WAD	µg/g	<0.040	N/A	N/A
Mercury	µg/g	<0.10	N/A	N/A
Electrical Conductivity (2:1)	mS/cm	1.36	BH25-02 GS1	0.10 - 0.76
Sodium Adsorption Ratio (2:1) (Calc.)	N/A	1.1	BH25-03 SA1	0.00 - 0.61
pH	pH Units	6.99	BH25-03 SA1	0.00 - 0.61
Petroleum Hydrocarbons - Soil				
F1 (C6 to C10)	µg/g	<5	N/A	N/A
F1 (C6 to C10) minus BTEX	µg/g	<5	N/A	N/A
F2 (C10 to C16)	µg/g	<10	N/A	N/A
F2 (C10 to C16) minus Naphthalene	µg/g	<10	N/A	N/A
F3 (C16 to C34)	µg/g	467	BH25-04 GS1	0.00 - 0.20
F3 (C16 to C34) minus PAHs	µg/g	467	BH25-04 GS1	0.00 - 0.20
F4 (C34 to C50)	µg/g	407	BH25-04 GS1	0.00 - 0.20
Volatile Organic Compounds - Soil				
Dichlorodifluoromethane	µg/g	<0.05	N/A	N/A
Vinyl Chloride	ug/g	<0.02	N/A	N/A
Bromomethane	ug/g	<0.05	N/A	N/A
Trichlorofluoromethane	ug/g	<0.05	N/A	N/A
Acetone	ug/g	<0.50	N/A	N/A
1,1-Dichloroethylene	ug/g	<0.05	N/A	N/A
Methylene Chloride	ug/g	<0.05	N/A	N/A
Trans- 1,2-Dichloroethylene	ug/g	<0.05	N/A	N/A
Methyl tert-butyl Ether	ug/g	<0.05	N/A	N/A
1,1-Dichloroethane	ug/g	<0.02	N/A	N/A
Methyl Ethyl Ketone	ug/g	<0.50	N/A	N/A
Cis- 1,2-Dichloroethylene	ug/g	<0.02	N/A	N/A
Chloroform	ug/g	<0.04	N/A	N/A
1,2-Dichloroethane	ug/g	<0.03	N/A	N/A
1,1,1-Trichloroethane	ug/g	<0.05	N/A	N/A
Carbon Tetrachloride	ug/g	<0.05	N/A	N/A
Benzene	ug/g	<0.02	N/A	N/A
1,2-Dichloropropane	ug/g	<0.03	N/A	N/A
Trichloroethylene	ug/g	<0.03	N/A	N/A
Bromodichloromethane	ug/g	<0.05	N/A	N/A
Methyl Isobutyl Ketone	ug/g	<0.50	N/A	N/A
1,1,2-Trichloroethane	ug/g	<0.04	N/A	N/A
Toluene	ug/g	<0.05	N/A	N/A
Dibromochloromethane	ug/g	<0.05	N/A	N/A
Ethylene Dibromide	ug/g	<0.04	N/A	N/A
Tetrachloroethylene	ug/g	<0.05	N/A	N/A
1,1,1,2-Tetrachloroethane	ug/g	<0.04	N/A	N/A
Chlorobenzene	ug/g	<0.05	N/A	N/A
Ethylbenzene	ug/g	<0.05	N/A	N/A
m & p-Xylene	ug/g	<0.05	N/A	N/A
Bromoform	ug/g	<0.05	N/A	N/A
Styrene	ug/g	<0.05	N/A	N/A
1,1,2,2-Tetrachloroethane	ug/g	<0.05	N/A	N/A
o-Xylene	ug/g	<0.05	N/A	N/A
1,3-Dichlorobenzene	ug/g	<0.05	N/A	N/A
1,4-Dichlorobenzene	ug/g	<0.05	N/A	N/A
1,2-Dichlorobenzene	ug/g	<0.05	N/A	N/A
Xylenes (Total)	ug/g	<0.05	N/A	N/A
1,3-Dichloropropene (Cis + Trans)	µg/g	<0.05	N/A	N/A
n-Hexane	µg/g	<0.05	N/A	N/A
Polycyclic Aromatic Hydrocarbons - Soil				
Naphthalene	µg/g	<0.05	N/A	N/A
Acenaphthylene	µg/g	<0.05	N/A	N/A
Acenaphthene	µg/g	<0.05	N/A	N/A
Fluorene	µg/g	<0.05	N/A	N/A
Phenanthrene	µg/g	<0.05	N/A	N/A
Anthracene	µg/g	<0.05	N/A	N/A
Fluoranthene	µg/g	<0.05	N/A	N/A
Pyrene	µg/g	<0.05	N/A	N/A
Benzo(a)anthracene	µg/g	<0.05	N/A	N/A
Chrysene	µg/g	<0.05	N/A	N/A
Benzo(b)fluoranthene	µg/g	<0.05	N/A	N/A
Benzo(k)fluoranthene	µg/g	<0.05	N/A	N/A
Benzo(a)pyrene	µg/g	<0.05	N/A	N/A
Indeno(1,2,3-cd)pyrene	µg/g	<0.05	N/A	N/A
Dibenz(a,h)anthracene	µg/g	<0.05	N/A	N/A
Benzo(g,h,i)perylene	µg/g	<0.05	N/A	N/A
2-and 1-methyl Naphthalene	µg/g	<0.05	N/A	N/A

Notes:
m bgs - Metres Below Ground Surface
< - All samples where parameter was analyzed were non detect
N/A - Not Applicable, all were non detect

Table A.9
Groundwater Analytical Results - Metals
5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
Ottawa, Ontario

Parameter	Units	MDL	MECP Table 7 RPI SCS	Sample ID: MW 25-01 Laboratory Sample ID: 45793 Date Sampled(dd/mm/yyyy): 16/05/2025 Screen Depth (mbgs): 1.37 - 4.42	MW 25-02 45793 16/05/2025 1.37 - 4.42	MW 25-102 45793 16/05/2025 1.37 - 4.42	MW1 45793 16/05/2025 6.10 - 9.10	MW2 45793 16/05/2025 4.01 - 7.01
Metals - Groundwater								
Dissolved Antimony	µg/L	1	16000	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Arsenic	µg/L	1	1500	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Barium	µg/L	2	23000	126	134	128	266	247
Dissolved Beryllium	µg/L	0.5	53	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Boron	µg/L	10	36000	37.7	31.5	29.3	149	28.2
Dissolved Cadmium	µg/L	0.2	2.1	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Chromium	µg/L	2	640	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Cobalt	µg/L	0.5	52	<0.50	0.7	<0.50	1.12	<0.50
Dissolved Copper	µg/L	1	69	1.8	1.9	1.6	<1.0	<1.0
Dissolved Lead	µg/L	0.5	20	0.65	1.09	1	1.64	0.77
Dissolved Molybdenum	µg/L	0.5	7300	<0.50	<0.50	0.86	1.86	<0.50
Dissolved Nickel	µg/L	1	390	<1.0	2.4	1.1	<1.0	1.4
Dissolved Selenium	µg/L	1	50	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Silver	µg/L	0.2	1.2	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Thallium	µg/L	0.3	400	<0.30	<0.30	<0.30	<0.30	<0.30
Dissolved Uranium	µg/L	0.5	330	0.74	0.76	0.74	0.72	0.94
Dissolved Vanadium	µg/L	0.4	200	0.8	<0.40	<0.40	<0.40	<0.40
Dissolved Zinc	µg/L	5	890	<5.0	<5.0	<5.0	<5.0	<5.0

Notes:
MDL - Method Detection Limit
m bgs - Metres Below Ground Surface
NA - Not Analyzed
NS - No Standard
< - Less than Detection Limit
MECP Table 7 GW SCS: MECP, 2011. Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. Table 7: Generic Site Condition Standards for Ground Water in a Non-Potable Ground Water Condition, all property uses with coarse soil texture
Highlighted - Exceeds MECP Table 7 SCS

Table A.10
Groundwater Analytical Results - BTEX, VOCs PHC F1-F4
5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
Ottawa, Ontario

Parameter	Units	MDL	MECP Table 7 RPI SCS	Sample ID:	MW 25-01	MW 25-02	MW 25-102	MW1	MW2	Trip Blank	Field Blank
				Laboratory Sample ID:	25Z295707	25Z295707	25Z295707	25Z295707	25Z295707	25Z295707	25Z295707
				Date Sampled(dd/mm/yyyy):	16/05/2025	16/05/2025	16/05/2025	16/05/2025	16/05/2025	17/05/2025	18/05/2025
				Sample Depth (mbgs):	1.37 - 4.42	1.37 - 4.42	1.37 - 4.42	6.10 - 9.10	4.01 - 7.01	-	-
Petroleum Hydrocarbons - Groundwater											
F1 (C6 to C10)	µg/L	25	420		<25	<25	<25	<25	<25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L	25	420		<25	<25	<25	<25	<25	<25	<25
F2 (C10 to C16)	µg/L	100	150		<100	<100	<100	<100	<100	NA	NA
F3 (C16 to C34)	µg/L	100	500		<100	<100	<100	<100	<100	NA	NA
F4 (C34 to C50)	µg/L	100	500		<100	<100	<100	<100	<100	NA	NA
Volatile Organic Compounds - Groundwater											
Dichlorodifluoromethane	µg/L	0.4	3500		NA	<0.40	<0.40	NA	<0.40	<0.40	<0.40
Vinyl Chloride	µg/L	0.17	0.5		NA	<0.17	<0.17	NA	<0.17	<0.17	<0.17
Bromomethane	µg/L	0.2	0.89		NA	<0.20	<0.20	NA	<0.20	<0.20	<0.20
Trichlorofluoromethane	µg/L	0.4	2000		NA	<0.40	<0.40	NA	<0.40	<0.40	<0.40
Acetone	µg/L	1	100000		NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0
1,1-Dichloroethylene	µg/L	0.3	0.5		NA	<0.30	<0.30	NA	<0.30	<0.30	<0.30
Methylene Chloride	µg/L	0.3	26		NA	<0.30	<0.30	NA	<0.30	<0.30	<0.30
trans- 1,2-Dichloroethylene	µg/L	0.2	1.6		NA	<0.20	<0.20	NA	<0.20	<0.20	<0.20
Methyl tert-butyl ether	µg/L	0.2	15		NA	<0.20	<0.20	NA	<0.20	<0.20	<0.20
1,1-Dichloroethane	µg/L	0.3	11		NA	<0.30	<0.30	NA	<0.30	<0.30	<0.30
Methyl Ethyl Ketone	µg/L	1	21000		NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0
cis- 1,2-Dichloroethylene	µg/L	0.2	1.6		NA	<0.20	<0.20	NA	<0.20	<0.20	<0.20
Chloroform	µg/L	0.2	2		NA	<0.20	0.46	NA	<0.20	<0.20	<0.20
1,2-Dichloroethane	µg/L	0.2	0.5		NA	<0.20	<0.20	NA	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	µg/L	0.3	23		NA	<0.30	<0.30	NA	<0.30	<0.30	<0.30
Carbon Tetrachloride	µg/L	0.2	0.2		NA	<0.20	<0.20	NA	<0.20	<0.20	<0.20
Benzene	µg/L	0.2	0.5		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloropropane	µg/L	0.2	0.58		NA	<0.20	<0.20	NA	<0.20	<0.20	<0.20
Trichloroethylene	µg/L	0.2	0.5		NA	0.48	<0.20	NA	0.39	<0.20	<0.20
Bromodichloromethane	µg/L	0.2	67000		NA	<0.20	<0.20	NA	<0.20	<0.20	<0.20
Methyl Isobutyl Ketone	µg/L	1	5200		NA	<1.0	<1.0	NA	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	µg/L	0.2	0.5		NA	<0.20	<0.20	NA	<0.20	<0.20	<0.20
Toluene	µg/L	0.2	320		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dibromochloromethane	µg/L	0.1	65000		NA	<0.10	<0.10	NA	<0.10	<0.10	<0.10
Ethylene Dibromide	µg/L	0.1	0.2		NA	<0.10	<0.10	NA	<0.10	<0.10	<0.10
Tetrachloroethylene	µg/L	0.2	0.5		NA	<0.20	<0.20	NA	<0.20	<0.20	<0.20
1,1,1,2-Tetrachloroethane	µg/L	0.1	1.1		NA	<0.10	<0.10	NA	<0.10	<0.10	<0.10
Chlorobenzene	µg/L	0.1	140		NA	<0.10	<0.10	NA	<0.10	<0.10	<0.10
Ethylbenzene	µg/L	0.1	54		<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
m & p-Xylene	µg/L	0.2			<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Bromoform	µg/L	0.1	5		NA	<0.10	<0.10	NA	<0.10	<0.10	<0.10
Styrene	µg/L	0.1	43		NA	<0.10	<0.10	NA	<0.10	<0.10	<0.10
1,1,2,2-Tetrachloroethane	µg/L	0.1	0.5		NA	<0.10	<0.10	NA	<0.10	<0.10	<0.10
o-Xylene	µg/L	0.1			<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,3-Dichlorobenzene	µg/L	0.1	7600		NA	<0.10	<0.10	NA	<0.10	<0.10	<0.10
1,4-Dichlorobenzene	µg/L	0.1	0.5		NA	<0.10	<0.10	NA	<0.10	<0.10	<0.10
1,2-Dichlorobenzene	µg/L	0.1	150		NA	<0.10	<0.10	NA	<0.10	<0.10	<0.10
1,3-Dichloropropene	µg/L	0.3	0.5		NA	<0.30	<0.30	NA	<0.30	<0.30	<0.30
Xylenes (Total)	µg/L	0.2	72		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
n-Hexane	µg/L	0.2	5		NA	<0.20	<0.20	NA	<0.20	<0.20	<0.20

Notes:
MDL - Method Detection Limit
m bgs - Metres Below Ground Surface
NA - Not Analyzed
NS - No Standard
< - Less than Detection Limit
MECP Table 7 GW SCS: MECP, 2011. Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. Table 7: Generic Site Condition Standards for Ground Water in a Non-Potable Ground Water Condition, all property uses with coarse soil texture.

Highlighted - Exceeds MECP Table 7 SCS

Table A.11
Groundwater Analytical Results - Maximum
5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
Ottawa, Ontario

Parameter	Units	Maximum Concentration	Sample ID of Maximum Concentration	Screened Interval (m bgs)
Metals - Groundwater				
Dissolved Antimony	µg/L	<1.0	N/A	N/A
Dissolved Arsenic	µg/L	<1.0	N/A	N/A
Dissolved Barium	µg/L	266	MW1	6.10 - 9.10
Dissolved Beryllium	µg/L	<0.50	N/A	N/A
Dissolved Boron	µg/L	149	MW1	6.10 - 9.10
Dissolved Cadmium	µg/L	<0.20	N/A	N/A
Dissolved Chromium	µg/L	<2.0	N/A	N/A
Dissolved Cobalt	µg/L	1.12	MW1	6.10 - 9.10
Dissolved Copper	µg/L	1.9	MW 25-02	1.37 - 4.42
Dissolved Lead	µg/L	1.64	MW1	6.10 - 9.10
Dissolved Molybdenum	µg/L	1.86	MW1	6.10 - 9.10
Dissolved Nickel	µg/L	2.4	MW 25-02	1.37 - 4.42
Dissolved Selenium	µg/L	<1.0	N/A	N/A
Dissolved Silver	µg/L	<0.20	N/A	N/A
Dissolved Thallium	µg/L	<0.30	N/A	N/A
Dissolved Uranium	µg/L	0.94	MW2	4.01 - 7.01
Dissolved Vanadium	µg/L	0.8	MW 25-01	1.37 - 4.42
Dissolved Zinc	µg/L	<5.0	N/A	N/A
Petroleum Hydrocarbons - Groundwater				
F1 (C6 to C10)	µg/L	<25	N/A	N/A
F1 (C6 to C10) minus BTEX	µg/L	<25	N/A	N/A
F2 (C10 to C16)	µg/L	<100	N/A	N/A
F3 (C16 to C34)	µg/L	<100	N/A	N/A
F4 (C34 to C50)	µg/L	<100	N/A	N/A
Volatile Organic Compounds - Groundwater				
Dichlorodifluoromethane	µg/L	<0.40	N/A	N/A
Vinyl Chloride	µg/L	<0.17	N/A	N/A
Bromomethane	µg/L	<0.20	N/A	N/A
Trichlorofluoromethane	µg/L	<0.40	N/A	N/A
Acetone	µg/L	<1.0	N/A	N/A
1,1-Dichloroethylene	µg/L	<0.30	N/A	N/A
Methylene Chloride	µg/L	<0.30	N/A	N/A
trans- 1,2-Dichloroethylene	µg/L	<0.20	N/A	N/A
Methyl tert-butyl ether	µg/L	<0.20	N/A	N/A
1,1-Dichloroethane	µg/L	<0.30	N/A	N/A
Methyl Ethyl Ketone	µg/L	<1.0	N/A	N/A
cis- 1,2-Dichloroethylene	µg/L	<0.20	N/A	N/A
Chloroform	µg/L	0.46	MW 25-102	1.37 - 4.42
1,2-Dichloroethane	µg/L	<0.20	N/A	N/A
1,1,1-Trichloroethane	µg/L	<0.30	N/A	N/A
Carbon Tetrachloride	µg/L	<0.20	N/A	N/A
Benzene	µg/L	<0.20	N/A	N/A
1,2-Dichloropropane	µg/L	<0.20	N/A	N/A
Trichloroethylene	µg/L	0.48	MW 25-02	1.37 - 4.42
Bromodichloromethane	µg/L	<0.20	N/A	N/A
Methyl Isobutyl Ketone	µg/L	<1.0	N/A	N/A
1,1,2-Trichloroethane	µg/L	<0.20	N/A	N/A
Toluene	µg/L	<0.20	N/A	N/A
Dibromochloromethane	µg/L	<0.10	N/A	N/A
Ethylene Dibromide	µg/L	<0.10	N/A	N/A
Tetrachloroethylene	µg/L	<0.20	N/A	N/A
1,1,1,2-Tetrachloroethane	µg/L	<0.10	N/A	N/A
Chlorobenzene	µg/L	<0.10	N/A	N/A
Ethylbenzene	µg/L	<0.10	N/A	N/A
m & p-Xylene	µg/L	<0.20	N/A	N/A
Bromoform	µg/L	<0.10	N/A	N/A
Styrene	µg/L	<0.10	N/A	N/A
1,1,2,2-Tetrachloroethane	µg/L	<0.10	N/A	N/A
o-Xylene	µg/L	<0.10	N/A	N/A
1,3-Dichlorobenzene	µg/L	<0.10	N/A	N/A
1,4-Dichlorobenzene	µg/L	<0.10	N/A	N/A
1,2-Dichlorobenzene	µg/L	<0.10	N/A	N/A
1,3-Dichloropropene	µg/L	<0.30	N/A	N/A
Xylenes (Total)	µg/L	<0.20	N/A	N/A
n-Hexane	µg/L	<0.20	N/A	N/A

Notes:
m bgs - Metres Below Ground Surface
< - All samples where parameter was analyzed were non detect
N/A - Not Applicable, all were non detect

APPENDIX B

Sampling and Analysis Plan

GEMTEC Consulting Engineers and Scientists Limited
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Ottawa, ON, Canada
K2K 2A9
613.836.1422
ottawa@gemtec.ca
www.gemtec.ca

August 27, 2025 File: 104054.001

Re: Sampling and Analysis Plan - Phase Two Environmental Site Assessment
Proposed Development – Hazeldean Heights
5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
Ottawa, Ontario

OBJECTIVE

GEMTEC Consulting Engineers and Scientists Limited (GEMTEC) was retained by Hazeldean Heights Inc. to carry out a Phase Two Environmental Site Assessment (ESA) for the properties located at 5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive in Ottawa, Ontario (herein referred to as 'Site' and/or 'Phase One Property'). It is understood that this Phase Two ESA is required to support a proposed change of land use and the filing of a Record of Site Condition (RSC).

The intent of the current investigation is to complete a subsurface investigation for the Site as part of a Phase Two ESA – and updated to include supplemental Phase Two ESA work. The general objectives of the scope of work are to determine the location and concentration of contaminants in the soil and groundwater at the Site, to obtain information about environmental conditions, and to determine if the applicable site condition standards are met at the time of the subsurface assessment.

BACKGROUND

GEMTEC previously completed a Phase One ESA for the Site, the results of which were documented in the report titled "*Phase One Environmental Site Assessment, Proposed Development, 5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive, Ottawa, Ontario. D*ated February 2025. Based on the findings of the Phase One ESA, GEMTEC completed this Phase Two ESA investigation.

The Phase Two ESA will focus on the following area of potential environmental concern (APEC).

APEC #	APEC	Location of APEC on the Phase One Property	PCA	Location of PCA (On-Site and/or Off-Site)	COPCs	Media Potentially Impacted
1	Importation of Fill Material of Unknown Quality	Across the Phase One Property	30	On-Site	PHC, BTEX, PAHs, Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-,	Soil

APEC #	APEC	Location of APEC on the Phase One Property	PCA	Location of PCA (On-Site and/or Off-Site)	COPCs	Media Potentially Impacted
					Cr(VI), Hg, pH, NA, Cl-)	
2	Use of de-icing salts	Across the Phase One Property	Ot#4	On-Site	EC, SAR	Soil
3	Commercial autobody work at Westend Automotive	Eastern area of Phase One Property	10	On-Site (5872 Hazeldean Road)	Metals, PHCs, VOCs (including BTEX)	Soil & Groundwater
4	Maintenance Garage for Westend Automotive, with waste oil drums and oil water separator	Eastern area of Phase One Property	Ot#3	On-Site (5872 Hazeldean Road)	Metals, PHCs, VOCs (including BTEX)	Soil & Groundwater
5	Multiple commercial/ industrial businesses east of the Phase One Property	Eastern area of Phase One Property	10, Ot#3	Off-Site (5862 Hazeldean Road)	Metals, PHCs, VOCs (including BTEX)	Soil & Groundwater
6	A Gasoline Service Station with storage tanks and known contamination	Northwestern area of Phase One Property	28	Off-Site (5899 Hazeldean Road)	Metals, PHCs, BTEX	Groundwater

Notes:

PHC – Petroleum Hydrocarbons Fractions F1 to F4
BTEX – Benzene, Toluene, Ethylbenzene, and Xylene
PAH – Polycyclic Aromatic Hydrocarbons
VOC – Volatile Organic Compounds
ORP – Other Regulated Parameters
10. Commercial Autobody Shops
28. Gasoline and Associated Products Storage in Fixed Tanks
30. Importation of Fill Material of Unknown Quality
Ot#3. Automotive Sale and Service (Including Automotive Garage)
Ot#4: Application of De-Icing Salt

Two previous environmental reports were completed on the subject site by others:

- *Final Phase I Environmental Site Assessment, 5872, 5880, and 5884 Hazeldean Road, Ottawa, Ontario.* Prepared by Pinchin Ltd., dated May 22, 2024.
- *Phase II Environmental Site Assessment, 5872, 5880, and 5884 Hazeldean Road, Ottawa, Ontario.* Prepared by Pinchin Ltd., dated June 25, 2024.

It is noted that both reports were completed solely for 5872, 5880, and 5884 Hazeldean Road, and did not include 7 Savage Road. The assessments were conducted in accordance with the Canadian Standards Association (CSA) standard. While the findings of these reports were not relied upon in the development of this sampling program, it should be noted that Monitoring Wells MW1 and MW2, installed as part of the above Phase II ESA, are included in the groundwater sampling program outlined herein.

GENERAL REQUIREMENTS

- Follow standard operating procedures. All work is to be completed assuming a Record of Site Condition will be required;
- Complete a Log for every day of field work;
- Specifically ask the Site contact(s) for any drawings that may show underground utilities and record their response;
- Initial calibration of field equipment should be performed at the start of each field day, with a daily check of calibration using a standard of known concentration (i.e., RKI Eagle 2);
- Clean disposable Nitrile™ gloves will be used at each sampling location to prevent cross-contamination;
- All non-dedicated sampling equipment (e.g., water level meters, split spoons) will be decontaminated between sampling locations. Sampling equipment in contact with soil, groundwater, or sediment will be cleaned with a brush; washed with a laboratory-grade detergent solution (e.g., phosphate-free Alconox) and thoroughly rinsed with analyte-free water.
- Please let the Project manager know if the schedule is going off-track.

BOREHOLE DRILLING

- Drilling scheduled for April 30, 2025 to advance 4 boreholes (BH/MW25-01, BH/MW25-02, BH/MW25-03, and BH25-04) to between 0.20 and 9.83 metres (m) below ground surface (bgs).
    - A supplemental field program scheduled for June 20, 2025 advanced an additional 4 boreholes (BH25-05, BH25-06,BH25-07, and BH25-08) to between 0.20 and 0.36 m bgs within 2 m of BH25-04.
- Confirm that every borehole location has been cleared by the private locator.

- At each drilling location, soil samples will be collected in the following frequency: every 2-2.5 ft down to targeted depth and/or until the water table is encountered. Once the water table is identified, call PM to confirm well installation.
- Screen soil samples for field evidence of potential impact, including odour, visible staining, debris and headspace organic vapour (organics) and combustible gas (hexane) concentrations at the same frequency of jarring (i.e. every 2-2.5 ft) using an RKI Eagle 2 gas detector, calibrated for both hexane (hydrocarbons) and isobutylene (organics).
- Record soil stratigraphy and observations on soil type, presence/absence of debris and passive odour on “Record of Borehole Logs”.
- The table below provides a summary of the sampling and analytical program. Submit samples to AGAT Laboratories (AGAT) following the chain of custody procedures provided below.

APEC #	APEC	Media Potentially Impacted	Investigate With	Samples
1	Importation of Fill Material of Unknown Quality	Soil	BH25-02, BH25-03, BH25-04, BH25-05, BH25-06, BH25-07, and BH25-08	Soil: PHC, BTEX, PAHs, Metals, Hydride-Forming Metals (As, Se, and Sb), ORP (B, B-HWS, CN-, Cr(VI), Hg, pH, NA, Cl-)
2	Use of de-icing salts	Soil	BH25-02, BH25-03, BH25-04	Soil: EC, SAR
3	Commercial autobody work at Westend Automotive	Soil & Groundwater	MW/BH25-02, MW2	Soil: Metals, PHCs, VOCs GW: Metals, PHCs, VOCs
4	Maintenance Garage for Westend Automotive, with waste oil drums and oil water separator	Soil & Groundwater	MW/BH25-02, MW2	Soil: Metals, PHCs, VOCs GW: Metals, PHCs, VOCs
5	Multiple commercial/ industrial businesses east of the Phase One Property	Soil & Groundwater	MW/BH25-02, MW2	Soil: Metals, PHCs, VOCs GW: Metals, PHCs, VOCs
6	A Gasoline Service Station with storage tanks and known contamination	Groundwater	MW25-01, MW1	GW: Metals, PHCs, BTEX

Notes:

PHC – Petroleum Hydrocarbons Fractions F1 to F4
BTEX – Benzene, Toluene, Ethylbenzene, and Xylene
PAH – Polycyclic Aromatic Hydrocarbons
VOC – Volatile Organic Compounds

For well installation: 2 inch inside diameter (ID) Schedule 40 polyvinyl chloride (PVC) casing and 2 inch ID Schedule 40 PVC well screens (3.05 metres in length, #10 slot size); sand pack surrounding each screen will be #00N; each monitoring well will be completed at ground surface with a flush mount and sealed with a PVC J-plug. Other details available in table below.

- Mark the reference point at the top of well pipe. Install Waterra tubing and foot valve in each new monitoring well.
- Develop monitoring wells in accordance with standard operating procedure. Use Waterra for well development. Record development information on standard field form.
- Well construction details required for the Phase Two ESA are provided in the table below.

Monitoring Well ID	Depth of screen base (m bgs)	Screen length (ft)	Well diameter (inch)	Protective Casing Type
BH/MW25-01 BH/MW25-02 BH/MW25-03	Set screen to straddle water table	10	2	Flushmount

GROUNDWATER MONITORING

- This work to be scheduled following drilling activity.
- Before measuring the water levels, open the J-plugs to allow air in the casing to vent and the water level to stabilize.
- Collect a round of water level measurements from the newly installed monitoring wells and previously installed monitoring wells (MW1 and MW2) using the water level meter.
- Develop well by purging 3x volume of the well utilizing the waterra tubing and check valve.
- Purge the wells using a peristaltic pump prior to sampling following the GEMTEC SOP. Use the multi-parameter meter to assess stability. Record the purging on the standard field form. The multi-parameter meter should be initially calibrated by the equipment supplier. Check calibration to known pH, Conductivity, Oxidation-Reduction Potential (ORP) and Dissolved Oxygen (DO) concentration prior to use. Collect groundwater samples from monitoring wells using low flow sampling following the GEMTEC SOP.

Samples are to be collected as outlined below.

- Samples do not need to be submitted on the day of sampling provided you keep them on ice during the day and/or refrigerate them overnight (i.e., keep them cold from collection to submission). If the samples cannot be submitted on the day of sampling, they need to be submitted by the following day.

- Collect quality assurance samples as indicated below. The duplicated groundwater samples should be labelled in a manner in which the laboratory cannot readily identify the sample as a duplicate, especially if there are a small number of primary groundwater samples to be collected.
- Ensure the trip blank is brought to Site with you and stored on ice in the lab-supplied cooler. Keep the trip blank vials with the groundwater samples collected.
- Collect a field blank during the sampling program, as per below.
- Please call Nicole or Dan if you see or suspect that there is odour, sheen or product in any monitoring well.
- Use the "GEMTEC Water Sampling form" form to collect all data during groundwater sampling.

Well ID	Field Parameter Measurements	Groundwater Analyses to be Requested	QA/QC samples
MW1	pH; EC; Temperature; DO; ORP, Conductivity, Turbidity	Metals, PHC/VOCs	1 field trip and trip blank for PHC F1 and BTEX for the whole program
MW2	pH; EC; Temperature; DO; ORP, Conductivity, Turbidity	Metals, PHC/VOCs	
BH/MW25-01	pH; EC; Temperature; DO; ORP, Conductivity, Turbidity	Metals, PHC/VOCs	
BH/MW25-02	pH; EC; Temperature; DO; ORP, Conductivity, Turbidity	Metals, PHC/VOCs	
BH/MW25-03	pH; EC; Temperature; DO; ORP, Conductivity, Turbidity	-	

CHAIN OF CUSTODY

- Prior to any sample submission to the laboratory, please send a copy/ picture of the chain-of-custody to Nicole for review.
- Relevant project and invoice details for the chain-of-custody are noted in Table below.

Chain of Custody Item	Information
Analytical Laboratory	AGAT
Generic Site Condition Standards	MECP Table 7 RPI coarse textured soil
Use Record of Site Condition analytical procedures?	Yes
Turn-around Time	Regular (5-7 days)
Reporting Contact	Nicole.soucy@gemtec.ca

MANAGEMENT OF INVESTIGATION DERIVED WASTE

- Waste soil and water are to be contained in metal/plastic drums or buckets (with lids).

- Drums are to be labelled for waste management purposes, project number, date and drum contents (soil, purge water).
- Store drums at an on-Site location that is as secure as possible from public access.
- Record inventory of waste containers on Daily Log.

SPECIAL INSTRUCTIONS

- Please prepare a field log for all the boreholes.
- At the end of the field programs, scan all project related notes and place in job folder as soon as possible. Scan field notes at resolution and contrast settings that ensure the scanned documents are easily legible.
- Save field notes (including daily logs, field forms, field logs, calibration records, and chain of custody documents)
- Sort pages in the PDF document by form type and in chronological order with daily logs at the front to simplify review.
- Send the field note package to Nicole and/or Dan for review and comment.

NS/DE

APPENDIX C

Borehole Logs

RECORD OF BOREHOLE 25-01

CLIENT: Hazeldean Heights Inc.
PROJECT: Phase Two Environmental Site Assessment, Hazeldean Heights, 5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
JOB#: 104054.001
LOCATION: See Figure A.5, Borehole and Monitoring Well Location Plan

SHEET: 1 OF 1
DATUM: CGVD28
BORING DATE: Apr 30 2025

DEPTH SCALE METRES	BORING METHOD	DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	NUMBER	TYPE	RECOVERY (mm)	BLOWS/0.3m	LABORATORY ANALYSES	COMBUSTIBLE VAPOUR CONCENTRATION (ppm)	ODOUR	TPH (mg/kg)	MONITORING WELL INSTALLATION AND NOTES
0	Power Auger (210mm OD) Hollow Stem Auger (210mm OD)	Ground Surface		109.51									Flush mount protective casing
		FILL - (GP-GM) sandy gravel, some non-plastic fines; grey brown; non-cohesive, moist, compact			1	SS	100	13	Metals, ORP, PHC/BTEX	HEX: 25; IBL: 0	None		Bentonite Seal
				108.60	2	SS	0	>50			None		
1		Moderately weathered to fresh, thinly bedded, very strong LIMESTONE BEDROCK		0.91	3	RC		TCR= 100%, SCR= 100%, RQD= 100%			None		
					4	RC					None		
	Diamond Rotary Core HQ (89mm OD)				5	RC		TCR= 100%, SCR= 52%, RQD= 33%			None		Filter Sand
2													
3					6	RC		TCR= 100%, SCR= 93%, RQD= 73%			None		50mm diameter PVC screen
											None		
4					7	RC		TCR= 100%, SCR= 96%, RQD= 94%			None		
5											None		Bentonite Seal
6					8	RC		TCR= 100%, SCR= 100%, RQD= 100%			None		
				102.93									
		End of Borehole		6.58									

GROUNDWATER OBSERVATIONS

DATE	DEPTH (m)	ELEVATION (m)
May. 09/25	2.48 ▽	107.03
Jun. 04/25	2.46 ▼	107.05

GEMTEC
Consulting Engineers and Scientists

LOGGED: CD
CHECKED: WAM/NS

ENV - BOREHOLE LOG 104054.001_BH LOGS_2025-05-14_REVA_ENVIRO.GPJ GEMTEC 2018.GDT 27/8/25

RECORD OF BOREHOLE 25-02

CLIENT: Hazeldean Heights Inc.
PROJECT: Phase Two Environmental Site Assessment, Hazeldean Heights, 5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
JOB#: 104054.001
LOCATION: See Figure A.5, Borehole and Monitoring Well Location Plan

SHEET: 1 OF 1
DATUM: CGVD28
BORING DATE: Apr 30 2025

DEPTH SCALE METRES	BORING METHOD	DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	NUMBER	TYPE	RECOVERY (mm)	BLOWS/0.3m	LABORATORY ANALYSES	COMBUSTIBLE VAPOUR CONCENTRATION (ppm)	ODOUR	TPH (mg/kg)	MONITORING WELL INSTALLATION AND NOTES
0	Power Auger Hollow Stem Auger (210mm OD)	Ground Surface		108.92									Flush mount protective casing
		ASPHALTIC CONCRETE		108.82									
		FILL - (GM-GM) sandy gravel, some non-plastic fines; grey; non-cohesive, moist, compact		0.10	1	SS	205	25	Metals, ORP, PHC/VOCs, PAHs + Duplicate	HEX: 10; IBL: 0	None		Bentonite Seal
1					2	SS	0	>50			None		
					3	RC					None		
		Highly fractured, grey, LIMESTONE BEDROCK		107.80 1.12	4	RC		TCR= 100%, SCR= 0%, RQD= 0%			None		Filter Sand
	Diamond Rotary Core HQ (89mm OD)			107.28									
		Slightly weathered to fresh, grey, thinly bedded to medium, strong, LIMESTONE BEDROCK		1.64	5	RC					None		
2					6	RC		TCR= 90%, SCR= 45%, RQD= 18%			None		
					7	RC		TCR= 100%, SCR= 100%, RQD= 62%			None		50mm diameter PVC screen
3													
4					8	RC		TCR= 96%, SCR= 25%, RQD= 25%			None		
								TCR= 96%, SCR= 96%, RQD= 91%					Bentonite Seal
5		End of Borehole		103.72 5.20									

GROUNDWATER OBSERVATIONS

DATE	DEPTH (m)	ELEVATION (m)
May. 09/25	0.78 ▽	108.14
Apr. 06/25	0.77 ▼	108.15

GEMTEC
Consulting Engineers and Scientists

LOGGED: CD
CHECKED: WAM/NS

ENV - BOREHOLE LOG 104054.001_BH LOGS_2025-05-14_REVA_ENVIRO.GPJ GEMTEC 2018.GDT 27/8/25

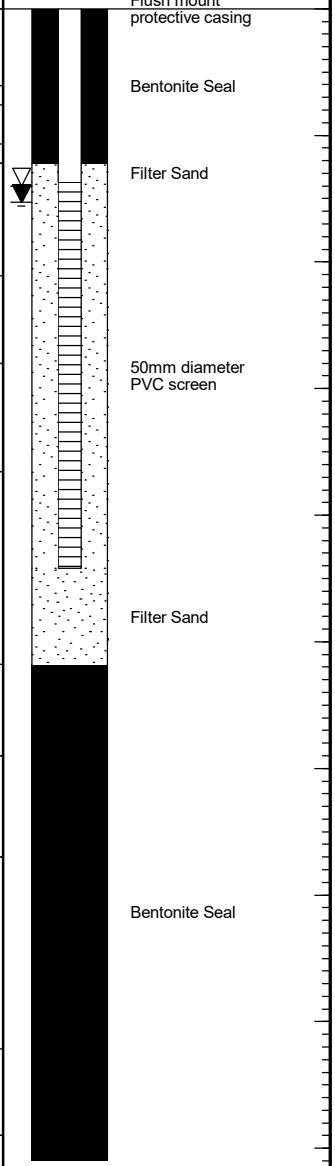
RECORD OF BOREHOLE 25-03

CLIENT: Hazeldean Heights Inc.
PROJECT: Phase Two Environmental Site Assessment, Hazeldean Heights, 5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
JOB#: 104054.001
LOCATION: See Figure A.5, Borehole and Monitoring Well Location Plan

SHEET: 1 OF 1
DATUM: CGVD28
BORING DATE: May 1 2025

DEPTH SCALE METRES	BORING METHOD	DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	NUMBER	TYPE	RECOVERY (mm)	BLOWS/0.3m	LABORATORY ANALYSES	COMBUSTIBLE VAPOUR CONCENTRATION (ppm)	ODOUR	TPH (mg/kg)
		Ground Surface		109.97								
0	Power Auger / Hollow Stem Auger (210mm OD)	FILL - (SP/GM) sandy gravel, some non-plastic fines; grey brown; non-cohesive, moist, compact			1	SS	150	19	Metals, ORP, PHC/BTEX	HEX: 0; IBL: 0	None	
					2	RC					None	
1				108.90	3	RC					None	
	Diamond Rotary Core HQ (89mm OD)	Moderately fractured, grey LIMESTONE BEDROCK		1.07 / 108.62	4	RC		TCR= 83%, SCR= 50%, RQD= 0%			None	
2		Moderately weathered to fresh, grey, thinly bedded to medium, very strong, LIMESTONE BEDROCK		1.35				TCR= 100%, SCR= 60%, RQD= 82%				
					5	RC		TCR= 100%, SCR= 47%, RQD= 47%			None / None	
3												
4					6	RC		TCR= 100%, SCR= 100%, RQD= 100%			None	
5												
6					7	RC		TCR= 100%, SCR= 100%, RQD= 100%			None / None	
7					8	RC		TCR= 100%, SCR= 100%, RQD= 100%			None	
8												
9					9	RC		TCR= 100%, SCR= 93%, RQD= 87%			None / None	
		End of Borehole		100.14 / 9.83								

MONITORING WELL INSTALLATION AND NOTES



GROUNDWATER OBSERVATIONS

DATE	DEPTH (m)	ELEVATION (m)
May. 09/25	1.40 ▽	108.57
Apr. 06/25	1.53 ▼	108.44

GEMTEC
Consulting Engineers and Scientists

LOGGED: CD
CHECKED: WAM/NS

ENV - BOREHOLE LOG 104054.001 BH LOGS 2025-05-14 REVA_ENVIRO.GPJ GEMTEC 2018.GDT 27/8/25

RECORD OF BOREHOLE 25-04

CLIENT: Hazeldean Heights Inc.
PROJECT: Phase Two Environmental Site Assessment, Hazeldean Heights, 5872, 5880, and 5884 Hazeldean Road and 7 Savage Drive
JOB#: 104054.001
LOCATION: See Figure A.5, Borehole and Monitoring Well Location Plan

SHEET: 1 OF 1
DATUM: CGVD28
BORING DATE: Apr 30 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
	Power Auger / Hollow Stem Auger (210mm OD)	Ground Surface		109.11									
0		ASPHALTIC CONCRETE		109.00									
		FILL- (GP-GM) sandy gravel, trace non-plastic fines; grey; non-cohesive, moist, very dense		0.11	1	SS	0	>50	Metals, ORP, PHC/BTEX		None		Auger Cuttings
		End of Borehole Auger Refusal		108.91 0.20									

GEMTEC
Consulting Engineers and Scientists

LOGGED: CD
CHECKED: WAM/NS

ENV - BOREHOLE LOG 104054.001_BH LOGS_2025-05-14_REVA_ENVIRO.GPJ GEMTEC 2018.GDT 27/8/25

APPENDIX D

Laboratory Certificates of Analysis

AGAT Laboratories

5835 COOPERS AVENUE
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http://www.agatlabs.com

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS
32 STEACIE DRIVE
OTTAWA, ON K2K 2A9
(613) 836-1422
ATTENTION TO: Nicole Soucy
PROJECT: 104054.001 - Bulk Soil Submission
AGAT WORK ORDER: 25Z285273
SOIL ANALYSIS REVIEWED BY: Nivine Basily, Inorganic Team Lead
TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist
DATE REPORTED: May 13, 2025
PAGES (INCLUDING COVER): 25
VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

Notes

Disclaimer:

- *All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.*
- *All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.*
- *AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.*
- *This Certificate shall not be reproduced except in full, without the written approval of the laboratory.*
- *The test results reported herewith relate only to the samples as received by the laboratory.*
- *Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.*
- *All reportable information is available on request from AGAT Laboratories, in accordance with ISO/IEC 17025:2017, ISO/IEC 17025:2005 (Quebec), DR-12-PALA and/or NELAP Standards.*
- *This document is signed by an authorized signatory who meets the requirements of the MELCCFP, CALA, CCN and NELAP.*
- *For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.*

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Certificate of Analysis

AGAT WORK ORDER: 25Z285273

PROJECT: 104054.001 - Bulk Soil Submission

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

(Soil) Chloride, Sodium

DATE RECEIVED: 2025-05-02

DATE REPORTED: 2025-05-13

			SAMPLE DESCRIPTION:	BH25-02 GS1	BH25-03 SA1	BH25-04 GS1	BH25-02 GS101
			SAMPLE TYPE:	Soil	Soil	Soil	Soil
			DATE SAMPLED:	2025-04-30	2025-05-01 12:00	2025-05-01 12:00	2025-04-30
Parameter	Unit	G / S	RDL	6714830	6714837	6714838	6714839
Chloride (2:1)	µg/g		2	35	10	13	34
Sodium	µg/g		10	234	263	77	185

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6714830-6714839 Chloride and Sodium were determined on the extract obtained from the 2:1 leaching procedure (2 parts DI water: 1 part soil).

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 25Z285273

PROJECT: 104054.001 - Bulk Soil Submission

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

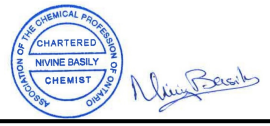
O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2025-05-02

DATE REPORTED: 2025-05-13

SAMPLE DESCRIPTION:				BH25-02 GS1	BH25-03 SA1	BH25-04 GS1	BH25-02 GS101
SAMPLE TYPE:				Soil	Soil	Soil	Soil
DATE SAMPLED:				2025-04-30	2025-05-01 12:00	2025-05-01 12:00	2025-04-30
Parameter	Unit	G / S	RDL	6714830	6714837	6714838	6714839
Antimony	µg/g		0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g		1	4	2	2	4
Barium	µg/g		2.0	345	66.6	195	388
Beryllium	µg/g		0.5	<0.5	<0.5	<0.5	<0.5
Boron	µg/g		5	9	8	8	12
Boron (Hot Water Soluble)	µg/g		0.10	0.56	0.12	0.37	0.63
Cadmium	µg/g		0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g		5	14	13	12	14
Cobalt	µg/g		0.8	6.6	4.5	4.1	6.1
Copper	µg/g		1.0	6.8	8.8	7.8	6.9
Lead	µg/g		1	14	7	10	13
Molybdenum	µg/g		0.5	2.4	<0.5	0.9	2.3
Nickel	µg/g		1	13	9	11	12
Selenium	µg/g		0.8	<0.8	<0.8	<0.8	<0.8
Silver	µg/g		0.5	<0.5	<0.5	<0.5	<0.5
Thallium	µg/g		0.5	<0.5	<0.5	<0.5	<0.5
Uranium	µg/g		0.50	0.50	<0.50	<0.50	<0.50
Vanadium	µg/g		2.0	11.5	20.4	13.7	11.0
Zinc	µg/g		5	15	25	16	15
Chromium, Hexavalent	µg/g		0.2	<0.2	<0.2	<0.2	<0.2
Cyanide, WAD	µg/g		0.040	<0.040	<0.040	<0.040	<0.040
Mercury	µg/g		0.10	<0.10	<0.10	<0.10	<0.10
Electrical Conductivity (2:1)	mS/cm		0.005	1.31	0.174	0.193	1.36
Sodium Adsorption Ratio (2:1) (Calc.)	N/A		N/A	0.54	1.1	0.10	0.46
pH, 2:1 CaCl2 Extraction	pH Units		NA	6.82	6.99	6.76	6.86

Certified By:



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http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 25Z285273

PROJECT: 104054.001 - Bulk Soil Submission

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2025-05-02 **DATE REPORTED: 2025-05-13**

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6714830-6714839 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio. SAR is a calculated parameter.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 25Z285273

PROJECT: 104054.001 - Bulk Soil Submission

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - Metals (Including Hydrides) (Soil)

DATE RECEIVED: 2025-05-02

DATE REPORTED: 2025-05-13

		SAMPLE DESCRIPTION:		BH25-01 GS1	BH25-02 SA1
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2025-04-30	2025-04-30
Parameter	Unit	G / S	RDL	6714816	6714836
Antimony	µg/g		0.8	<0.8	<0.8
Arsenic	µg/g		1	2	6
Barium	µg/g		2.0	328	303
Beryllium	µg/g		0.5	<0.5	<0.5
Boron	µg/g		5	10	10
Cadmium	µg/g		0.5	<0.5	<0.5
Chromium	µg/g		5	16	13
Cobalt	µg/g		0.8	5.4	7.6
Copper	µg/g		1.0	12.2	7.2
Lead	µg/g		1	16	16
Molybdenum	µg/g		0.5	0.5	3.1
Nickel	µg/g		1	11	14
Selenium	µg/g		0.8	<0.8	<0.8
Silver	µg/g		0.5	<0.5	<0.5
Thallium	µg/g		0.5	<0.5	<0.5
Uranium	µg/g		0.50	0.56	0.57
Vanadium	µg/g		2.0	20.7	11.6
Zinc	µg/g		5	38	16

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 25Z285273

PROJECT: 104054.001 - Bulk Soil Submission

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - ORPs (Soil)

DATE RECEIVED: 2025-05-02 **DATE REPORTED: 2025-05-13**

				SAMPLE DESCRIPTION:	BH25-01 GS1	BH25-02 GS1	BH25-02 SA1	BH25-03 SA1	BH25-04 GS1	BH25-02 GS101
				SAMPLE TYPE:	Soil	Soil	Soil	Soil	Soil	Soil
				DATE SAMPLED:	2025-04-30	2025-04-30	2025-04-30	2025-05-01 12:00	2025-05-01 12:00	2025-04-30
Parameter	**Unit**	**G / S**	**RDL**		**6714816**	**6714830**	**6714836**	**6714837**	**6714838**	**6714839**
pH, 2:1 CaCl2 Extraction	pH Units		NA		6.72	6.82	6.90	6.99	6.76	6.86

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6714816-6714839 pH was determined on the 0.01M CaCl2 extract obtained from 2:1 leaching procedure (2 parts extraction fluid:1 part wet soil).

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 25Z285273

PROJECT: 104054.001 - Bulk Soil Submission

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2025-05-02

DATE REPORTED: 2025-05-13

		SAMPLE DESCRIPTION:		BH25-02 GS1	BH25-03 SA1	BH25-04 GS1	BH25-02 GS101
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		DATE SAMPLED:		2025-04-30	2025-05-01 12:00	2025-05-01 12:00	2025-04-30
Parameter	**Unit**	**G / S**	**RDL**	**6714830**	**6714837**	**6714838**	**6714839**
Naphthalene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthylene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Fluorene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Phenanthrene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Anthracene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Fluoranthene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Pyrene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)anthracene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Chrysene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	2.4	8.2	2.9	2.6
Surrogate	**Unit**	**Acceptable Limits**					
Naphthalene-d8	%	50-140		80	85	80	70
Acridine-d9	%	50-140		75	79	85	85
Terphenyl-d14	%	50-140		120	96	90	115

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6714830-6714839 Results are based on the dry weight of the soil.
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowich

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Certificate of Analysis

AGAT WORK ORDER: 25Z285273

PROJECT: 104054.001 - Bulk Soil Submission

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PHCs F1 - F4 (Soil)

DATE RECEIVED: 2025-05-02

DATE REPORTED: 2025-05-13

		SAMPLE DESCRIPTION:		BH25-01 GS1	BH25-02 SA1
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2025-04-30	2025-04-30
Parameter	**Unit**	**G / S**	**RDL**	**6714816**	**6714836**
Benzene	µg/g		0.02	<0.02	<0.02
Toluene	µg/g		0.05	<0.05	<0.05
Ethylbenzene	µg/g		0.05	<0.05	<0.05
m & p-Xylene	µg/g		0.05	<0.05	<0.05
o-Xylene	µg/g		0.05	<0.05	<0.05
Xylenes (Total)	µg/g		0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g		5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g		5	<5	<5
F2 (C10 to C16)	µg/g		10	<10	<10
F3 (C16 to C34)	µg/g		50	<50	103
F4 (C34 to C50)	µg/g		50	<50	77
Gravimetric Heavy Hydrocarbons	µg/g		50	NA	NA
Moisture Content	%		0.1	2.5	2.7
Surrogate	**Unit**	**Acceptable Limits**			
Toluene-d8	% Recovery	60-140		95	97
Terphenyl	%	60-140		91	110

Certified By: N Popnikolof

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Certificate of Analysis

AGAT WORK ORDER: 25Z285273

PROJECT: 104054.001 - Bulk Soil Submission

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PHCs F1 - F4 (Soil)

DATE RECEIVED: 2025-05-02 **DATE REPORTED: 2025-05-13**

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6714816-6714836 Results are based on sample dry weight.
The C6-C10 fraction is calculated using Toluene response factor.
Xylenes is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.
Quality Control Data is available upon request.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popowkolof

AGAT Laboratories

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http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 25Z285273

PROJECT: 104054.001 - Bulk Soil Submission

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Soil)

DATE RECEIVED: 2025-05-02

DATE REPORTED: 2025-05-13

		SAMPLE DESCRIPTION:		BH25-02 GS1	BH25-02 GS101
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2025-04-30	2025-04-30
Parameter	**Unit**	**G / S**	**RDL**	**6714830**	**6714839**
F1 (C6 to C10)	µg/g		5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g		5	<5	<5
F2 (C10 to C16)	µg/g		10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10	<10
F3 (C16 to C34)	µg/g		50	164	137
F3 (C16 to C34) minus PAHs	µg/g		50	164	137
F4 (C34 to C50)	µg/g		50	171	131
Gravimetric Heavy Hydrocarbons	µg/g		50	NA	NA
Moisture Content	%		0.1	2.4	2.6
Surrogate	**Unit**	**Acceptable Limits**			
Toluene-d8	%	50-140		86	83
Terphenyl	%	60-140		73	110

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6714830-6714839 Results are based on sample dry weight.
The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX and PAH contributions.
C>10 – C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popnikolof

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Certificate of Analysis

AGAT WORK ORDER: 25Z285273

PROJECT: 104054.001 - Bulk Soil Submission

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)

DATE RECEIVED: 2025-05-02

DATE REPORTED: 2025-05-13

		SAMPLE DESCRIPTION:		BH25-03 SA1	BH25-04 GS1
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2025-05-01 12:00	2025-05-01 12:00
Parameter	**Unit**	**G / S**	**RDL**	**6714837**	**6714838**
Benzene	µg/g		0.02	<0.02	<0.02
Toluene	µg/g		0.05	<0.05	<0.05
Ethylbenzene	µg/g		0.05	<0.05	<0.05
m & p-Xylene	µg/g		0.05	<0.05	<0.05
o-Xylene	µg/g		0.05	<0.05	<0.05
Xylenes (Total)	µg/g		0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g		5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g		5	<5	<5
F2 (C10 to C16)	µg/g		10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10	<10
F3 (C16 to C34)	µg/g		50	<50	467
F3 (C16 to C34) minus PAHs	µg/g		50	<50	467
F4 (C34 to C50)	µg/g		50	<50	407
Gravimetric Heavy Hydrocarbons	µg/g		50	NA	NA
Moisture Content	%		0.1	8.2	2.9
Surrogate	**Unit**	**Acceptable Limits**			
Toluene-d8	% Recovery	60-140		89	94
Terphenyl	%	60-140		65	68

Certified By: NPopowich

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AGAT WORK ORDER: 25Z285273

PROJECT: 104054.001 - Bulk Soil Submission

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Soil)

DATE RECEIVED: 2025-05-02 **DATE REPORTED: 2025-05-13**

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6714837-6714838 Results are based on sample dry weight.
The C6-C10 fraction is calculated using toluene response factor.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX and PAH contributions.
C>10 – C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popowich

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AGAT WORK ORDER: 25Z285273

PROJECT: 104054.001 - Bulk Soil Submission

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - VOCs (with PHC) (Soil)

DATE RECEIVED: 2025-05-02

DATE REPORTED: 2025-05-13

		SAMPLE DESCRIPTION:		BH25-02 GS1	BH25-02 GS101
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2025-04-30	2025-04-30
Parameter	Unit	G / S	RDL	6714830	6714839
Dichlorodifluoromethane	µg/g		0.05	<0.05	<0.05
Vinyl Chloride	ug/g		0.02	<0.02	<0.02
Bromomethane	ug/g		0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g		0.05	<0.05	<0.05
Acetone	ug/g		0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g		0.05	<0.05	<0.05
Methylene Chloride	ug/g		0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g		0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g		0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g		0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g		0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g		0.02	<0.02	<0.02
Chloroform	ug/g		0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g		0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g		0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g		0.05	<0.05	<0.05
Benzene	ug/g		0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g		0.03	<0.03	<0.03
Trichloroethylene	ug/g		0.03	<0.03	<0.03
Bromodichloromethane	ug/g		0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g		0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g		0.04	<0.04	<0.04
Toluene	ug/g		0.05	<0.05	<0.05
Dibromochloromethane	ug/g		0.05	<0.05	<0.05
Ethylene Dibromide	ug/g		0.04	<0.04	<0.04
Tetrachloroethylene	ug/g		0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g		0.04	<0.04	<0.04
Chlorobenzene	ug/g		0.05	<0.05	<0.05
Ethylbenzene	ug/g		0.05	<0.05	<0.05
m & p-Xylene	ug/g		0.05	<0.05	<0.05

Certified By: N Popowkolof

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AGAT WORK ORDER: 25Z285273

PROJECT: 104054.001 - Bulk Soil Submission

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - VOCs (with PHC) (Soil)

DATE RECEIVED: 2025-05-02

DATE REPORTED: 2025-05-13

		SAMPLE DESCRIPTION:		BH25-02 GS1	BH25-02 GS101
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2025-04-30	2025-04-30
Parameter	**Unit**	**G / S**	**RDL**	**6714830**	**6714839**
Bromoform	ug/g		0.05	<0.05	<0.05
Styrene	ug/g		0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g		0.05	<0.05	<0.05
o-Xylene	ug/g		0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g		0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g		0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g		0.05	<0.05	<0.05
Xylenes (Total)	ug/g		0.05	<0.05	<0.05
1,3-Dichloropropene (Cis + Trans)	µg/g		0.05	<0.05	<0.05
n-Hexane	µg/g		0.05	<0.05	<0.05
Moisture Content	%		0.1	2.4	2.6
Surrogate	**Unit**	**Acceptable Limits**			
Toluene-d8	% Recovery	50-140		86	83
4-Bromofluorobenzene	% Recovery	50-140		82	82

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6714830-6714839 The sample was analyzed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

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Quality Assurance

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

AGAT WORK ORDER: 25Z285273

PROJECT: 104054.001 - Bulk Soil Submission

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

Soil Analysis

RPT Date: May 13, 2025			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals (Including Hydrides) (Soil)															
Antimony	6718387		<0.8	<0.8	NA	< 0.8	111%	70%	130%	96%	80%	120%	124%	70%	130%
Arsenic	6718387		3	3	NA	< 1	107%	70%	130%	94%	80%	120%	92%	70%	130%
Barium	6718387		142	149	4.8%	< 2.0	110%	70%	130%	100%	80%	120%	105%	70%	130%
Beryllium	6718387		0.7	0.7	NA	< 0.5	82%	70%	130%	84%	80%	120%	90%	70%	130%
Boron	6718387		10	9	NA	< 5	64%	70%	130%	85%	80%	120%	83%	70%	130%
Cadmium	6718387		<0.5	<0.5	NA	< 0.5	105%	70%	130%	100%	80%	120%	106%	70%	130%
Chromium	6718387		26	27	3.8%	< 5	98%	70%	130%	100%	80%	120%	NA	70%	130%
Cobalt	6718387		8.8	9.5	7.7%	< 0.8	95%	70%	130%	104%	80%	120%	100%	70%	130%
Copper	6718387		15.6	16.3	4.4%	< 1.0	92%	70%	130%	104%	80%	120%	96%	70%	130%
Lead	6718387		14	14	0.0%	< 1	106%	70%	130%	110%	80%	120%	110%	70%	130%
Molybdenum	6718387		<0.5	<0.5	NA	< 0.5	103%	70%	130%	99%	80%	120%	101%	70%	130%
Nickel	6718387		19	19	0.0%	< 1	98%	70%	130%	101%	80%	120%	94%	70%	130%
Selenium	6718387		<0.8	<0.8	NA	< 0.8	101%	70%	130%	102%	80%	120%	105%	70%	130%
Silver	6718387		<0.5	<0.5	NA	< 0.5	105%	70%	130%	100%	80%	120%	100%	70%	130%
Thallium	6718387		<0.5	<0.5	NA	< 0.5	105%	70%	130%	112%	80%	120%	101%	70%	130%
Uranium	6718387		0.66	0.70	NA	< 0.50	111%	70%	130%	112%	80%	120%	107%	70%	130%
Vanadium	6718387		37.3	37.6	0.8%	< 2.0	101%	70%	130%	100%	80%	120%	101%	70%	130%
Zinc	6718387		57	59	3.4%	< 5	103%	70%	130%	102%	80%	120%	NA	70%	130%

Comments: NA Signifies Not Applicable.
Duplicate NA: results are under 5X the RDL and will not be calculated.

More than 90% of the elements met acceptance limits and overall data quality is acceptable for use. For a multi-element scan up to 10% of analytes may exceed the quoted limits by up to 10% absolute.

Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.

O. Reg. 153(511) - ORPs (Soil)															
pH, 2:1 CaCl2 Extraction	6712982		6.78	6.89	1.6%	NA	102%	80%	120%						

Comments: NA signifies Not Applicable.
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.

O. Reg. 153(511) - Metals & Inorganics (Soil)															
Antimony	6718387		<0.8	<0.8	NA	< 0.8	111%	70%	130%	96%	80%	120%	124%	70%	130%
Arsenic	6718387		3	3	NA	< 1	107%	70%	130%	94%	80%	120%	92%	70%	130%
Barium	6718387		142	149	4.8%	< 2.0	110%	70%	130%	100%	80%	120%	105%	70%	130%
Beryllium	6718387		0.7	0.7	NA	< 0.5	82%	70%	130%	84%	80%	120%	90%	70%	130%
Boron	6718387		10	9	NA	< 5	64%	70%	130%	85%	80%	120%	83%	70%	130%
Boron (Hot Water Soluble)	6718387		0.26	0.26	NA	< 0.10	88%	60%	140%	100%	70%	130%	100%	60%	140%
Cadmium	6718387		<0.5	<0.5	NA	< 0.5	105%	70%	130%	100%	80%	120%	106%	70%	130%
Chromium	6718387		26	27	3.8%	< 5	98%	70%	130%	100%	80%	120%	NA	70%	130%
Cobalt	6718387		8.8	9.5	7.7%	< 0.8	95%	70%	130%	104%	80%	120%	100%	70%	130%

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Quality Assurance

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS
AGAT WORK ORDER: 25Z285273
PROJECT: 104054.001 - Bulk Soil Submission
ATTENTION TO: Nicole Soucy
SAMPLING SITE:
SAMPLED BY:

Soil Analysis (Continued)

RPT Date: May 13, 2025			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Copper	6718387		15.6	16.3	4.4%	< 1.0	92%	70%	130%	104%	80%	120%	96%	70%	130%
Lead	6718387		14	14	0.0%	< 1	106%	70%	130%	110%	80%	120%	110%	70%	130%
Molybdenum	6718387		<0.5	<0.5	NA	< 0.5	103%	70%	130%	99%	80%	120%	101%	70%	130%
Nickel	6718387		19	19	0.0%	< 1	98%	70%	130%	101%	80%	120%	94%	70%	130%
Selenium	6718387		<0.8	<0.8	NA	< 0.8	101%	70%	130%	102%	80%	120%	105%	70%	130%
Silver	6718387		<0.5	<0.5	NA	< 0.5	105%	70%	130%	100%	80%	120%	100%	70%	130%
Thallium	6718387		<0.5	<0.5	NA	< 0.5	105%	70%	130%	112%	80%	120%	101%	70%	130%
Uranium	6718387		0.66	0.70	NA	< 0.50	111%	70%	130%	112%	80%	120%	107%	70%	130%
Vanadium	6718387		37.3	37.6	0.8%	< 2.0	101%	70%	130%	100%	80%	120%	101%	70%	130%
Zinc	6718387		57	59	3.4%	< 5	103%	70%	130%	102%	80%	120%	NA	70%	130%
Chromium, Hexavalent	6714625		<0.2	<0.2	NA	< 0.2	99%	70%	130%	90%	80%	120%	73%	70%	130%
Cyanide, WAD	6716066		<0.040	<0.040	NA	< 0.040	95%	70%	130%	106%	80%	120%	86%	70%	130%
Mercury	6718387		<0.10	<0.10	NA	< 0.10	105%	70%	130%	102%	80%	120%	104%	70%	130%
Electrical Conductivity (2:1)	6718680		0.954	0.937	1.8%	< 0.005	97%	80%	120%						
Sodium Adsorption Ratio (2:1) (Calc.)	6717755		0.18	0.18	0.0%	NA	NA								
pH, 2:1 CaCl2 Extraction	6712982		6.78	6.89	1.6%	NA	102%	80%	120%						

Comments: NA signifies Not Applicable.
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.
Duplicate NA: results are under 5X the RDL and will not be calculated.

More than 90% of the elements met acceptance limits and overall data quality is acceptable for use. For a multi-element scan up to 10% of analytes may exceed the quoted limits by up to 10% absolute.

Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.

O. Reg. 153(511) - Metals & Inorganics (Soil)

pH, 2:1 CaCl2 Extraction	6714838	6714838	6.76	6.83	1.0%	NA	102%	80%	120%						

Comments: NA signifies Not Applicable.
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.

O. Reg. 153(511) - ORPs (Soil)

pH, 2:1 CaCl2 Extraction	6714838	6714838	6.76	6.83	1.0%	NA	102%	80%	120%						

Comments: NA signifies Not Applicable.
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.

(Soil) Chloride, Sodium

Chloride (2:1)	6714830	6714830	35	36	2.8%	< 2	97%	70%	130%	99%	80%	120%	95%	70%	130%
Sodium	6718387		159	166	4.3%	< 10	114%	70%	130%	105%	80%	120%	106%	70%	130%

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Quality Assurance

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

AGAT WORK ORDER: 25Z285273

PROJECT: 104054.001 - Bulk Soil Submission

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

Soil Analysis (Continued)

RPT Date: May 13, 2025			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

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PROJECT: 104054.001 - Bulk Soil Submission

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

Trace Organics Analysis

RPT Date: May 13, 2025

PARAMETER	Batch	Sample Id	DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PHCs F1 - F4 (Soil)															
Benzene	6712423		<0.02	<0.02	NA	< 0.02	98%	60%	140%	110%	60%	140%	112%	60%	140%
Toluene	6712423		<0.05	<0.05	NA	< 0.05	108%	60%	140%	108%	60%	140%	108%	60%	140%
Ethylbenzene	6712423		<0.05	<0.05	NA	< 0.05	92%	60%	140%	93%	60%	140%	106%	60%	140%
m & p-Xylene	6712423		<0.05	<0.05	NA	< 0.05	109%	60%	140%	109%	60%	140%	106%	60%	140%
o-Xylene	6712423		<0.05	<0.05	NA	< 0.05	93%	60%	140%	115%	60%	140%	103%	60%	140%
F1 (C6 to C10)	6712423		<5	<5	NA	< 5	118%	60%	140%	114%	60%	140%	111%	60%	140%
F2 (C10 to C16)	6712993		< 10	< 10	NA	< 10	108%	60%	140%	107%	60%	140%	127%	60%	140%
F3 (C16 to C34)	6712993		< 50	< 50	NA	< 50	109%	60%	140%	106%	60%	140%	129%	60%	140%
F4 (C34 to C50)	6712993		< 50	< 50	NA	< 50	81%	60%	140%	96%	60%	140%	118%	60%	140%
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	6713608		<0.05	<0.05	NA	< 0.05	102%	50%	140%	83%	50%	140%	73%	50%	140%
Acenaphthylene	6713608		<0.05	<0.05	NA	< 0.05	105%	50%	140%	83%	50%	140%	85%	50%	140%
Acenaphthene	6713608		<0.05	<0.05	NA	< 0.05	105%	50%	140%	110%	50%	140%	90%	50%	140%
Fluorene	6713608		<0.05	<0.05	NA	< 0.05	107%	50%	140%	90%	50%	140%	78%	50%	140%
Phenanthrene	6713608		<0.05	<0.05	NA	< 0.05	111%	50%	140%	78%	50%	140%	88%	50%	140%
Anthracene	6713608		<0.05	<0.05	NA	< 0.05	110%	50%	140%	78%	50%	140%	78%	50%	140%
Fluoranthene	6713608		<0.05	<0.05	NA	< 0.05	117%	50%	140%	78%	50%	140%	83%	50%	140%
Pyrene	6713608		<0.05	<0.05	NA	< 0.05	113%	50%	140%	88%	50%	140%	70%	50%	140%
Benzo(a)anthracene	6713608		<0.05	<0.05	NA	< 0.05	112%	50%	140%	78%	50%	140%	75%	50%	140%
Chrysene	6713608		<0.05	<0.05	NA	< 0.05	101%	50%	140%	78%	50%	140%	73%	50%	140%
Benzo(b)fluoranthene	6713608		<0.05	<0.05	NA	< 0.05	100%	50%	140%	108%	50%	140%	80%	50%	140%
Benzo(k)fluoranthene	6713608		<0.05	<0.05	NA	< 0.05	118%	50%	140%	78%	50%	140%	83%	50%	140%
Benzo(a)pyrene	6713608		<0.05	<0.05	NA	< 0.05	107%	50%	140%	88%	50%	140%	93%	50%	140%
Indeno(1,2,3-cd)pyrene	6713608		<0.05	<0.05	NA	< 0.05	100%	50%	140%	90%	50%	140%	90%	50%	140%
Dibenz(a,h)anthracene	6713608		<0.05	<0.05	NA	< 0.05	101%	50%	140%	75%	50%	140%	75%	50%	140%
Benzo(g,h,i)perylene	6713608		<0.05	<0.05	NA	< 0.05	102%	50%	140%	73%	50%	140%	90%	50%	140%
O. Reg. 153(511) - VOCs (with PHC) (Soil)															
Dichlorodifluoromethane	6707725		<0.05	<0.05	NA	< 0.05	108%	50%	140%	73%	50%	140%	116%	50%	140%
Vinyl Chloride	6707725		<0.02	<0.02	NA	< 0.02	71%	50%	140%	96%	50%	140%	66%	50%	140%
Bromomethane	6707725		<0.05	<0.05	NA	< 0.05	88%	50%	140%	94%	50%	140%	77%	50%	140%
Trichlorofluoromethane	6707725		<0.05	<0.05	NA	< 0.05	96%	50%	140%	101%	50%	140%	107%	50%	140%
Acetone	6707725		<0.50	<0.50	NA	< 0.50	89%	50%	140%	88%	50%	140%	80%	50%	140%
1,1-Dichloroethylene	6707725		<0.05	<0.05	NA	< 0.05	90%	50%	140%	80%	60%	130%	88%	50%	140%
Methylene Chloride	6707725		<0.05	<0.05	NA	< 0.05	67%	50%	140%	107%	60%	130%	101%	50%	140%
Trans- 1,2-Dichloroethylene	6707725		<0.05	<0.05	NA	< 0.05	88%	50%	140%	101%	60%	130%	116%	50%	140%
Methyl tert-butyl Ether	6707725		<0.05	<0.05	NA	< 0.05	79%	50%	140%	112%	60%	130%	109%	50%	140%
1,1-Dichloroethane	6707725		<0.02	<0.02	NA	< 0.02	84%	50%	140%	91%	60%	130%	109%	50%	140%
Methyl Ethyl Ketone	6707725		<0.50	<0.50	NA	< 0.50	111%	50%	140%	80%	50%	140%	70%	50%	140%

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Quality Assurance

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

AGAT WORK ORDER: 25Z285273

PROJECT: 104054.001 - Bulk Soil Submission

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: May 13, 2025			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Cis- 1,2-Dichloroethylene	6707725		<0.02	<0.02	NA	< 0.02	89%	50%	140%	114%	60%	130%	115%	50%	140%
Chloroform	6707725		<0.04	<0.04	NA	< 0.04	82%	50%	140%	61%	60%	130%	61%	50%	140%
1,2-Dichloroethane	6707725		<0.03	<0.03	NA	< 0.03	90%	50%	140%	105%	60%	130%	115%	50%	140%
1,1,1-Trichloroethane	6707725		<0.05	<0.05	NA	< 0.05	70%	50%	140%	113%	60%	130%	107%	50%	140%
Carbon Tetrachloride	6707725		<0.05	<0.05	NA	< 0.05	103%	50%	140%	119%	60%	130%	109%	50%	140%
Benzene	6707725		<0.02	<0.02	NA	< 0.02	74%	50%	140%	111%	60%	130%	101%	50%	140%
1,2-Dichloropropane	6707725		<0.03	<0.03	NA	< 0.03	66%	50%	140%	91%	60%	130%	97%	50%	140%
Trichloroethylene	6707725		<0.03	<0.03	NA	< 0.03	88%	50%	140%	108%	60%	130%	114%	50%	140%
Bromodichloromethane	6707725		<0.05	<0.05	NA	< 0.05	79%	50%	140%	105%	60%	130%	105%	50%	140%
Methyl Isobutyl Ketone	6707725		<0.50	<0.50	NA	< 0.50	90%	50%	140%	69%	50%	140%	81%	50%	140%
1,1,2-Trichloroethane	6707725		<0.04	<0.04	NA	< 0.04	71%	50%	140%	86%	60%	130%	97%	50%	140%
Toluene	6707725		<0.05	<0.05	NA	< 0.05	66%	50%	140%	86%	60%	130%	102%	50%	140%
Dibromochloromethane	6707725		<0.05	<0.05	NA	< 0.05	70%	50%	140%	84%	60%	130%	83%	50%	140%
Ethylene Dibromide	6707725		<0.04	<0.04	NA	< 0.04	77%	50%	140%	94%	60%	130%	95%	50%	140%
Tetrachloroethylene	6707725		<0.05	<0.05	NA	< 0.05	84%	50%	140%	95%	60%	130%	80%	50%	140%
1,1,1,2-Tetrachloroethane	6707725		<0.04	<0.04	NA	< 0.04	60%	50%	140%	73%	60%	130%	76%	50%	140%
Chlorobenzene	6707725		<0.05	<0.05	NA	< 0.05	75%	50%	140%	96%	60%	130%	104%	50%	140%
Ethylbenzene	6707725		<0.05	<0.05	NA	< 0.05	66%	50%	140%	90%	60%	130%	96%	50%	140%
m & p-Xylene	6707725		<0.05	<0.05	NA	< 0.05	108%	50%	140%	97%	60%	130%	101%	50%	140%
Bromoform	6707725		<0.05	<0.05	NA	< 0.05	87%	50%	140%	99%	60%	130%	88%	50%	140%
Styrene	6707725		<0.05	<0.05	NA	< 0.05	61%	50%	140%	73%	60%	130%	82%	50%	140%
1,1,2,2-Tetrachloroethane	6707725		<0.05	<0.05	NA	< 0.05	76%	50%	140%	84%	60%	130%	102%	50%	140%
o-Xylene	6707725		<0.05	<0.05	NA	< 0.05	74%	50%	140%	95%	60%	130%	101%	50%	140%
1,3-Dichlorobenzene	6707725		<0.05	<0.05	NA	< 0.05	87%	50%	140%	104%	60%	130%	105%	50%	140%
1,4-Dichlorobenzene	6707725		<0.05	<0.05	NA	< 0.05	85%	50%	140%	100%	60%	130%	100%	50%	140%
1,2-Dichlorobenzene	6707725		<0.05	<0.05	NA	< 0.05	83%	50%	140%	95%	60%	130%	94%	50%	140%
n-Hexane	6707725		<0.05	<0.05	NA	< 0.05	112%	50%	140%	71%	60%	130%	72%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: N Popnikolof

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QC Exceedance

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

AGAT WORK ORDER: 25Z285273

PROJECT: 104054.001 - Bulk Soil Submission

ATTENTION TO: Nicole Soucy

RPT Date: May 13, 2025

PARAMETER	Sample Id	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
			Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals (Including Hydrides) (Soil)										
Boron		64%	70%	130%	85%	80%	120%	83%	70%	130%

Comments: NA Signifies Not Applicable.
Duplicate NA: results are under 5X the RDL and will not be calculated.

More than 90% of the elements met acceptance limits and overall data quality is acceptable for use. For a multi-element scan up to 10% of analytes may exceed the quoted limits by up to 10% absolute.

Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.

O. Reg. 153(511) - Metals & Inorganics (Soil)										
Boron		64%	70%	130%	85%	80%	120%	83%	70%	130%

Comments: NA signifies Not Applicable.
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.
Duplicate NA: results are under 5X the RDL and will not be calculated.

More than 90% of the elements met acceptance limits and overall data quality is acceptable for use. For a multi-element scan up to 10% of analytes may exceed the quoted limits by up to 10% absolute.

Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.

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Method Summary

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

AGAT WORK ORDER: 25Z285273

PROJECT: 104054.001 - Bulk Soil Submission

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SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Chloride (2:1)	INOR-93-6004	modified from SM 4110 B	ION CHROMATOGRAPH
Sodium	MET-93-6105	modified from EPA 6010D	ICP/OES
Antimony	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Arsenic	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Barium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Beryllium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	modified from EPA 6010D and MSA PART 3, CH 21	ICP/OES
Cadmium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Cobalt	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Copper	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Lead	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Molybdenum	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Nickel	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Selenium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Silver	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Thallium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Uranium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Vanadium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Zinc	MET 93 -6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium, Hexavalent	INOR-93-6068	modified from EPA 3060 and EPA 7196	SPECTROPHOTOMETER
Cyanide, WAD	INOR-93-6052	modified from ON MOECC E3015, SM 4500-CN- I, G-387	SEGMENTED FLOW ANALYSIS
Mercury	MET-93-6103	modified from EPA 7471B and SM 3112 B	ICP-MS
Electrical Conductivity (2:1)	INOR-93-6075	modified from MSA PART 3, CH 14 and SM 2510 B	PC TITRATE
Sodium Adsorption Ratio (2:1) (Calc.)	INOR-93-6007	modified from EPA 6010D & Analytical Protocol	ICP/OES
pH, 2:1 CaCl2 Extraction	INOR-93-6075	modified from EPA 9045D, MCKEAGUE 3.11 E3137	PC TITRATE

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Method Summary

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

AGAT WORK ORDER: 25Z285273

PROJECT: 104054.001 - Bulk Soil Submission

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PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluorene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Phenanthrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(a)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Chrysene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Naphthalene-d8	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acridine-d9	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Terphenyl-d14	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Moisture Content	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Benzene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
Toluene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
Ethylbenzene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
m & p-Xylene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
o-Xylene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
Xylenes (Total)	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
F1 (C6 to C10)	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	modified from CCME Tier 1 Method	P&T GC/FID
Toluene-d8	VOL-91-5009	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
F2 (C10 to C16)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID

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PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Gravimetric Heavy Hydrocarbons	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
Toluene-d8	VOL-91- 5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
F2 (C10 to C16) minus Naphthalene	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
Dichlorodifluoromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Acetone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Chloroform	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Benzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Toluene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS

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Method Summary

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AGAT WORK ORDER: 25Z285273

PROJECT: 104054.001 - Bulk Soil Submission

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

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PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Ethylene Dibromide	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Bromoform	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Styrene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Xylenes (Total)	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,3-Dichloropropene (Cis + Trans)	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5002	modified from EPA 5035A & EPA 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	modified from EPA 5035A & EPA 8260D	(P&T)GC/MS

AGAT Laboratories

Have feedback? Scan here for a quick survey!

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Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Report Information:

Company: GEMTEC Consulting Engineers and Scientists Limited
Contact: Nicole Soucey
Address: 32 Staecie Drive
Kanata, ON
Phone: K2K 2A9 Fax:
Reports to be sent to:
1. Email: nicole.soucy@gemtec.ca
2. Email: Chris.dionne@gemtec.ca

Project Information:

Project: 104054.001 - Bulk Soil Submission
Site Location:
Sampled By: CD
AGAT Quote #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☑ No ☐
Company:
Contact:
Address:
Email:

Regulatory Requirements:

(Please check all applicable boxes)

☑ Regulation 153/04
Table — Indicate One: ☐ Ind/Com ☐ Res/Park ☐ Agriculture
Soil Texture (Check One): ☐ Coarse ☐ Fine

☐ Regulation 406
Table — Indicate One

☐ Regulation 558

☐ CCME

☐ Sewer Use ☐ Sanitary ☐ Storm
Region

☐ Prov. Water Quality Objectives (PWQO)

☐ Other
Indicate One

Is this submission for a **Record of Site Condition?** ☑ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☑ No

Sample Matrix Legend

GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Laboratory Use Only

Work Order #: 25285273
Cooler Quantity: One - Ice packs
Arrival Temperatures: 10.6 | 11.4 | 11.0
MISS: 6.3 | 6.5 | 6.9
Custody Seal Intact: ☐ Yes ☐ No ☐ N/A
Notes:

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI, DOC (Y/N)	O. Reg 153: Metals & Inorganics	O. Reg 153: Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	O. Reg 153: BTEX, F1-F4 PHCs	VOC	PAHs	PCBs	PCBs: Arocolors ☐	O. Reg 558: Landfill Disposal Characterization TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 406: Regulation 406 SPLP Rainwater Leach SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	O. Reg 406: Regulation 406 Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Corrosivity: ☐ Moisture ☐ Sulphide	Flashpoint	pH	Chloride	Sodium			Potentially Hazardous or High Concentration (Y/N)
1. BH25-01 GS1	April 30/25	AM PM	4	S				☑	☑										☑					
2. BH25-02 GS1	April 30/25	AM PM	4	S			☑		☑	☑	☑								☑	☑	☑			
3. BH25-02 SA1	April 30/25	AM PM	4	S				☑	☑										☑					
4. BH25-03 SA1	May 1/25	AM PM	4	S			☑		☑		☑								☑	☑	☑			
5. BH25-04 GS1	May 1/25	AM PM	4	S			☑		☑		☑								☑	☑	☑			
6. BH25-02 GS101	April 30/25	AM PM	4	S			☑		☑	☑	☑								☑	☑	☑			
7.		AM PM																						
8.		AM PM																						
9.		AM PM																						
10.		AM PM																						
11.		AM PM																						

	Date	Time		Date	Time
Samples Relinquished By (Print Name and Sign): Chris Dionne	May 2/25	1150	Samples Received By (Print Name and Sign):	05/02/25	15h50
Samples Relinquished By (Print Name and Sign): CD to Pud	2025/05/05	15h30	Samples Received By (Print Name and Sign):	May 6	9:35
Samples Relinquished By (Print Name and Sign):			Samples Received By (Print Name and Sign):		

Page 1 of 1
No:

Pink Copy - Client | Yellow Copy - AGAT | White Copy - AGAT

AGAT Laboratories

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CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS
32 STEACIE DRIVE
OTTAWA, ON K2K 2A9
(613) 836-1422
ATTENTION TO: Nicole Soucy
PROJECT: 104054.001 - TCLP Submission
AGAT WORK ORDER: 25Z285271
SOIL ANALYSIS REVIEWED BY: Sukhwinder Randhawa, Inorganic Team Lead
TRACE ORGANICS REVIEWED BY: Elena Gorobets, Report Writer
DATE REPORTED: May 13, 2025
PAGES (INCLUDING COVER): 11
VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

Notes

Disclaimer:

- *All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.*
- *All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.*
- *AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.*
- *This Certificate shall not be reproduced except in full, without the written approval of the laboratory.*
- *The test results reported herewith relate only to the samples as received by the laboratory.*
- *Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.*
- *All reportable information is available on request from AGAT Laboratories, in accordance with ISO/IEC 17025:2017, ISO/IEC 17025:2005 (Quebec), DR-12-PALA and/or NELAP Standards.*
- *This document is signed by an authorized signatory who meets the requirements of the MELCCFP, CALA, CCN and NELAP.*
- *For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.*

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Certificate of Analysis

AGAT WORK ORDER: 25Z285271

PROJECT: 104054.001 - TCLP Submission

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

O. Reg. 558 - Metals & Inorganics

DATE RECEIVED: 2025-05-02

DATE REPORTED: 2025-05-13

		SAMPLE DESCRIPTION:		TCLP
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2025-05-01
Parameter	Unit	G / S	RDL	6714738
Arsenic Leachate	mg/L	2.5	0.010	0.012
Barium Leachate	mg/L	100	0.020	1.19
Boron Leachate	mg/L	500	0.050	<0.050
Cadmium Leachate	mg/L	0.5	0.010	<0.010
Chromium Leachate	mg/L	5	0.050	<0.050
Lead Leachate	mg/L	5	0.010	<0.010
Mercury Leachate	mg/L	0.1	0.01	<0.01
Selenium Leachate	mg/L	1	0.020	<0.020
Silver Leachate	mg/L	5	0.010	<0.010
Uranium Leachate	mg/L	10	0.050	<0.050
Fluoride Leachate	mg/L	150	0.10	0.21
Cyanide Leachate	mg/L	20	0.05	<0.05
(Nitrate + Nitrite) as N Leachate	mg/L	1000	0.70	<0.70

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to O. Reg. 558 - Schedule IV Leachate Quality Criteria
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 25Z285271

PROJECT: 104054.001 - TCLP Submission

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

Flash Point Analysis

DATE RECEIVED: 2025-05-02

DATE REPORTED: 2025-05-13

		SAMPLE DESCRIPTION:		TCLP
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2025-05-01
Parameter	**Unit**	**G / S**	**RDL**	**6714738**
Flash point (Pensky Martin Closed Cup)	Deg C		NA	>100

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

Analysis performed at AGAT Calgary (unless marked by *)

Certified By: Elena Gorobets

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Certificate of Analysis

AGAT WORK ORDER: 25Z285271

PROJECT: 104054.001 - TCLP Submission

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

O. Reg. 558 - Benzo(a)pyrene

DATE RECEIVED: 2025-05-02 **DATE REPORTED: 2025-05-13**

		SAMPLE DESCRIPTION:		TCLP
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2025-05-01
Parameter	**Unit**	**G / S**	**RDL**	**6714738**
Benzo(a)pyrene Leachate	mg/L	0.001	0.001	<0.001
Surrogate	**Unit**	**Acceptable Limits**		
Acridine-d9	%	50-140		117
Naphthalene-d8	%	50-140		113
Terphenyl-d14	%	50-140		74

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to O. Reg. 558 - Schedule IV Leachate Quality Criteria
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

6714738 The sample was leached according to Regulation 558 protocol. Analysis was performed on the leachate. This is a validated, unaccredited procedure.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Elena Gorobets

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Certificate of Analysis

AGAT WORK ORDER: 25Z285271

PROJECT: 104054.001 - TCLP Submission

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

O. Reg. 558 - VOCs

DATE RECEIVED: 2025-05-02

DATE REPORTED: 2025-05-13

		SAMPLE DESCRIPTION:		TCLP
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2025-05-01
Parameter	Unit	G / S	RDL	6714738
Vinyl Chloride Leachate	mg/L	0.2	0.030	<0.030
1,1 Dichloroethene Leachate	mg/L	1.4	0.020	<0.020
Dichloromethane Leachate	mg/L	5.0	0.030	<0.030
Methyl Ethyl Ketone Leachate	mg/L	200	0.090	<0.090
Chloroform Leachate	mg/L	10.0	0.020	<0.020
1,2-Dichloroethane Leachate	mg/L	0.5	0.020	<0.020
Carbon Tetrachloride Leachate	mg/L	0.5	0.020	<0.020
Benzene Leachate	mg/L	0.5	0.020	<0.020
Trichloroethene Leachate	mg/L	5.0	0.020	<0.020
Tetrachloroethene Leachate	mg/L	3.0	0.050	<0.050
Chlorobenzene Leachate	mg/L	8.0	0.010	<0.010
1,2-Dichlorobenzene Leachate	mg/L	20.0	0.010	<0.010
1,4-Dichlorobenzene Leachate	mg/L	0.5	0.010	<0.010
Surrogate	**Unit**	**Acceptable Limits**		
Toluene-d8	% Recovery	50-140		78
4-Bromofluorobenzene	% Recovery	50-140		90

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to O. Reg. 558 - Schedule IV Leachate Quality Criteria
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

6714738 Sample was prepared using Regulation 558 protocol and a zero headspace extractor.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Elena Gorobets

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Quality Assurance

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

AGAT WORK ORDER: 25Z285271

PROJECT: 104054.001 - TCLP Submission

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

Soil Analysis

RPT Date: May 13, 2025			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 558 - Metals & Inorganics															
Arsenic Leachate	6714738	6714738	0.012	0.011	NA	< 0.010	97%	70%	130%	108%	80%	120%	110%	70%	130%
Barium Leachate	6714738	6714738	1.19	1.19	0.0%	< 0.020	100%	70%	130%	97%	80%	120%	106%	70%	130%
Boron Leachate	6714738	6714738	<0.050	<0.050	NA	< 0.050	105%	70%	130%	70%	80%	120%	85%	70%	130%
Cadmium Leachate	6714738	6714738	<0.010	<0.010	NA	< 0.010	100%	70%	130%	111%	80%	120%	121%	70%	130%
Chromium Leachate	6714738	6714738	<0.050	<0.050	NA	< 0.050	100%	70%	130%	105%	80%	120%	110%	70%	130%
Lead Leachate	6714738	6714738	<0.010	<0.010	NA	< 0.010	101%	70%	130%	97%	80%	120%	95%	70%	130%
Mercury Leachate	6714738	6714738	<0.01	<0.01	NA	< 0.01	103%	70%	130%	103%	80%	120%	83%	70%	130%
Selenium Leachate	6714738	6714738	<0.020	<0.020	NA	< 0.020	99%	70%	130%	111%	80%	120%	114%	70%	130%
Silver Leachate	6714738	6714738	<0.010	<0.010	NA	< 0.010	102%	70%	130%	100%	80%	120%	95%	70%	130%
Uranium Leachate	6714738	6714738	<0.050	<0.050	NA	< 0.050	100%	70%	130%	98%	80%	120%	97%	70%	130%
Fluoride Leachate	6714738	6714738	0.21	0.19	NA	< 0.10	99%	90%	110%	95%	90%	110%	92%	70%	130%
Cyanide Leachate	6714738	6714738	<0.05	<0.05	NA	< 0.05	102%	70%	130%	98%	80%	120%	89%	70%	130%
(Nitrate + Nitrite) as N Leachate	6712475		<0.70	<0.70	NA	< 0.70	106%	80%	120%	91%	80%	120%	96%	70%	130%

Comments: NA signifies Not Applicable.
Duplicate NA: results are under 5X the RDL and will not be calculated.

More than 90% of the elements met acceptance limits and overall data quality is acceptable for use. For a multi-element scan up to 10% of analytes may exceed the quoted limits by up to 10% absolute.

Certified By:

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Quality Assurance

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

AGAT WORK ORDER: 25Z285271

PROJECT: 104054.001 - TCLP Submission

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

Trace Organics Analysis

RPT Date: May 13, 2025

PARAMETER	Batch	Sample Id	DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 558 - VOCs															
Vinyl Chloride Leachate	6705580		< 0.030	< 0.030	NA	< 0.030	78%	50%	140%	80%	50%	140%	105%	50%	140%
1,1 Dichloroethene Leachate	6705580		< 0.020	< 0.020	NA	< 0.020	80%	50%	140%	98%	60%	130%	98%	50%	140%
Dichloromethane Leachate	6705580		< 0.030	< 0.030	NA	< 0.030	98%	50%	140%	85%	60%	130%	89%	50%	140%
Methyl Ethyl Ketone Leachate	6705580		< 0.090	< 0.090	NA	< 0.090	105%	50%	140%	90%	50%	140%	85%	50%	140%
Chloroform Leachate	6705580		< 0.020	< 0.020	NA	< 0.020	98%	50%	140%	98%	60%	130%	90%	50%	140%
1,2-Dichloroethane Leachate	6705580		< 0.020	< 0.020	NA	< 0.020	85%	50%	140%	85%	60%	130%	98%	50%	140%
Carbon Tetrachloride Leachate	6705580		< 0.020	< 0.020	NA	< 0.020	90%	50%	140%	105%	60%	130%	105%	50%	140%
Benzene Leachate	6705580		< 0.020	< 0.020	NA	< 0.020	98%	50%	140%	98%	60%	130%	98%	50%	140%
Trichloroethene Leachate	6705580		< 0.020	< 0.020	NA	< 0.020	80%	50%	140%	89%	60%	130%	89%	50%	140%
Tetrachloroethene Leachate	6705580		< 0.050	< 0.050	NA	< 0.050	90%	50%	140%	85%	60%	130%	85%	50%	140%
Chlorobenzene Leachate	6705580		< 0.010	< 0.010	NA	< 0.010	105%	50%	140%	80%	60%	130%	90%	50%	140%
1,2-Dichlorobenzene Leachate	6705580		< 0.010	< 0.010	NA	< 0.010	98%	50%	140%	98%	60%	130%	98%	50%	140%
1,4-Dichlorobenzene Leachate	6705580		< 0.010	< 0.010	NA	< 0.010	89%	50%	140%	80%	60%	130%	85%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Flash Point Analysis

Flash Point (Deg C) (Cgy)	4368	Butanol	36	35	2.8%		104%	80%	120%

Comments: Duplicate NA: results are less than 5X the RDL and RPD will not be calculated.
The sample spikes and dups are not from the same sample ID.

Certified By: Elena Gorobets

AGAT Laboratories

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QC Exceedance

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

AGAT WORK ORDER: 25Z285271

PROJECT: 104054.001 - TCLP Submission

ATTENTION TO: Nicole Soucy

RPT Date: May 13, 2025

PARAMETER	Sample Id	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
			Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 558 - Metals & Inorganics										
Boron Leachate	6714738	105%	70%	130%	70%	80%	120%	85%	70%	130%

Comments: NA signifies Not Applicable.
Duplicate NA: results are under 5X the RDL and will not be calculated.

More than 90% of the elements met acceptance limits and overall data quality is acceptable for use. For a multi-element scan up to 10% of analytes may exceed the quoted limits by up to 10% absolute.

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Method Summary

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

AGAT WORK ORDER: 25Z285271

PROJECT: 104054.001 - TCLP Submission

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Arsenic Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B	ICP-MS
Barium Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B	ICP-MS
Boron Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B	ICP-MS
Cadmium Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B	ICP-MS
Chromium Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B	ICP-MS
Lead Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B	ICP-MS
Mercury Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B	ICP-MS
Selenium Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B	ICP-MS
Silver Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B	ICP-MS
Uranium Leachate	MET-93-6103	EPA 1311 & modified from EPA 6020B	ICP-MS
Fluoride Leachate	INOR-93-6000	EPA SW 846-1311; SM 4500F-C	ION SELECTIVE ELECTRODE
Cyanide Leachate	INOR-93-6052	EPA 1311 modified from MOE 3015 SM 4500 CN-I,G387	SEGMENTED FLOW ANALYSIS
(Nitrate + Nitrite) as N Leachate	INOR-93-6053	EPA SW 846-1311 & modified from SM 4500 - NO3- I	LACHAT FIA

AGAT Laboratories

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Method Summary

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

AGAT WORK ORDER: 25Z285271

PROJECT: 104054.001 - TCLP Submission

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Flash point (Pensky Martin Closed Cup)	TO 2210	ASTM D93	Pensky Martin Closed Cup
Benzo(a)pyrene Leachate	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Acridine-d9	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Naphthalene-d8	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Terphenyl-d14	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Vinyl Chloride Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
1,1 Dichloroethene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Dichloromethane Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Methyl Ethyl Ketone Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Chloroform Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
1,2-Dichloroethane Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Carbon Tetrachloride Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Benzene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Trichloroethene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Tetrachloroethene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Chlorobenzene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
1,2-Dichlorobenzene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
1,4-Dichlorobenzene Leachate	VOL-91-5001	EPA 1311, modified from EPA 5030C & EPA 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91- 5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS

AGAT Laboratories

Have feedback? Scan here for a quick survey!

5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
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webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Report Information:

Company: GEMTEC Consulting Engineers and Scientists Limited
Contact: Nicole Soucey
Address: 32 Staecie Drive
Kanata, ON
Phone: K2K 2A9 Fax:
Reports to be sent to:
1. Email: nicole.soucy@gemtec.ca
2. Email: Chris.dionne@gemtec.ca

Project Information:

Project: 104054.001 - TCLP Submission
Site Location:
Sampled By: CD
AGAT Quote #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☑ No ☐
Company:
Contact:
Address:
Email:

Regulatory Requirements:

(Please check all applicable boxes)

☐ Regulation 153/04
Table ___ *Indicate One*
☐ Ind/Com
☐ Res/Park
☐ Agriculture
Soil Texture *(Check One)*
☐ Coarse
☐ Fine

☐ Regulation 406
Table ___ *Indicate One*
☑ Regulation 558
☐ CCME

☐ Sewer Use ☐ Sanitary ☐ Storm
___ *Region*
☐ Prov. Water Quality Objectives (PWQO)
☐ Other
___ *Indicate One*

Is this submission for a **Record of Site Condition?** ☐ Yes ☑ No

Report Guideline on *Certificate of Analysis* ☑ Yes ☐ No

Sample Matrix Legend

GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Laboratory Use Only

Work Order #: 25228527 1

Cooler Quantity: one - gel packs
Arrival Temperatures: 10.6 | 11.4 | 11.0
BLISS 6.3 | 6.5 | 6.9
Custody Seal Intact: ☐ Yes ☐ No ☐ N/A
Notes:

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI, DOC Y/N	O. Reg 153: Metals & Inorganics	O. Reg 153: Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	O. Reg 153: BTEX, F1-F4 PHCs	VOC	PAHs	PCBs	PCBs: Aroclors ☐	O. Reg 558: Landfill Disposal Characterization TCLP: ☑ M&I ☑ VOCs ☐ ABNs ☑ B(a)P ☐ PCBs	O. Reg 406: Regulation 406 SPLP Rainwater Leach SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	O. Reg 406: Regulation 406 Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Corrosivity: ☐ Moisture ☐ Sulphide	Flashpoint						Potentially Hazardous or High Concentration (Y/N)
1. TCLP	May 1/25	AM/PM	4	S										☑				☑						
2.		AM/PM																						
3.		AM/PM																						
4.		AM/PM																						
5.		AM/PM																						
6.		AM/PM																						
7.		AM/PM																						
8.		AM/PM																						
9.		AM/PM																						
10.		AM/PM																						
11.		AM/PM																						

Samples Relinquished By (Print Name and Sign)	Date	Time	Samples Received By (Print Name and Sign)	Date	Time
Chris Dionne	May 2/25	1150		2025/05/02	15h50
LB to PUD 2025/05/05		15h00		May 6	9:35

Page 1 of 1

N°:

Pink Copy - Client 1 Yellow Copy - AGAT 1 White Copy - AGAT

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CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS
32 STEACIE DRIVE
OTTAWA, ON K2K 2A9
(613) 836-1422
ATTENTION TO: Nicole Soucy
PROJECT: 104054.001
AGAT WORK ORDER: 25Z295707
TRACE ORGANICS REVIEWED BY: Pinkal Patel, Report Reviewer
WATER ANALYSIS REVIEWED BY: Yris Verastegui, Inorganic Team Lead
DATE REPORTED: May 27, 2025
PAGES (INCLUDING COVER): 15
VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

Notes

Disclaimer:

- *All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.*
- *All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.*
- *AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.*
- *This Certificate shall not be reproduced except in full, without the written approval of the laboratory.*
- *The test results reported herewith relate only to the samples as received by the laboratory.*
- *Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.*
- *All reportable information is available on request from AGAT Laboratories, in accordance with ISO/IEC 17025:2017, ISO/IEC 17025:2005 (Quebec), DR-12-PALA and/or NELAP Standards.*
- *This document is signed by an authorized signatory who meets the requirements of the MELCCFP, CALA, CCN and NELAP.*
- *For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.*

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 25Z295707

PROJECT: 104054.001

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:CD

O. Reg. 153(511) - PHCs F1 - F4 (Water)

DATE RECEIVED: 2025-05-20

DATE REPORTED: 2025-05-27

		SAMPLE DESCRIPTION:		MW 25-01	MW1
		SAMPLE TYPE:		Water	Water
		DATE SAMPLED:		2025-05-16	2025-05-16
Parameter	Unit	G / S	RDL	6751929	6751958
Benzene	µg/L		0.20	<0.20	<0.20
Toluene	µg/L		0.20	<0.20	<0.20
Ethylbenzene	µg/L		0.10	<0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20	<0.20
o-Xylene	µg/L		0.10	<0.10	<0.10
Xylenes (Total)	µg/L		0.20	<0.20	<0.20
F1 (C6 to C10)	µg/L		25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L		25	<25	<25
F2 (C10 to C16)	µg/L		100	<100	<100
F3 (C16 to C34)	µg/L		100	<100	<100
F4 (C34 to C50)	µg/L		100	<100	<100
Gravimetric Heavy Hydrocarbons	µg/L		500	NA	NA
Sediment				1	1
Surrogate	**Unit**	**Acceptable Limits**			
Toluene-d8	% Recovery	60-140		89	75
Terphenyl	% Recovery	60-140		93	68

Certified By:

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 25Z295707

PROJECT: 104054.001

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:CD

O. Reg. 153(511) - PHCs F1 - F4 (Water)

DATE RECEIVED: 2025-05-20

DATE REPORTED: 2025-05-27

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6751929-6751958
The C6-C10 fraction is calculated using Toluene response factor.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and nC34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16 - C50 and are only determined if the chromatogram of the C34 - C50 Hydrocarbons indicated that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6-C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153/04, results are considered valid without determining the PAH contribution if not requested by the client.
NA = Not Applicable

Sediment parameter is comment only based on visual inspection of the sample prior to extraction and is not an accredited test.
Legend: 1 = no sediment present; 2 = sediment present; 3 = sediment present in trace amounts

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 25Z295707

PROJECT: 104054.001

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:CD

O. Reg. 153(511) - PHCs F1 - F4 (with VOC) (Water)

DATE RECEIVED: 2025-05-20

DATE REPORTED: 2025-05-27

		SAMPLE DESCRIPTION:		MW 25-02	MW2	MW 25-102
		SAMPLE TYPE:		Water	Water	Water
		DATE SAMPLED:		2025-05-16	2025-05-16	2025-05-16
Parameter	Unit	G / S	RDL	6751956	6751960	6751962
F1 (C6 to C10)	µg/L		25	<25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L		25	<25	<25	<25
F2 (C10 to C16)	µg/L		100	<100	<100	<100
F3 (C16 to C34)	µg/L		100	<100	<100	<100
F4 (C34 to C50)	µg/L		100	<100	<100	<100
Gravimetric Heavy Hydrocarbons	µg/L		500	NA	NA	NA
Sediment				1	1	1
Surrogate	**Unit**	**Acceptable Limits**				
Toluene-d8	%	50-140		89	88	88
Terphenyl	% Recovery	60-140		92	75	95

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6751956-6751962 The C6-C10 fraction is calculated using Toluene response factor.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and nC34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16 - C50 and are only determined if the chromatogram of the C34 - C50 Hydrocarbons indicated that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6-C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153/04, results are considered valid without determining the PAH contribution if not requested by the client.
NA = Not Applicable

Sediment parameter is comment only based on visual inspection of the sample prior to extraction and is not an accredited test.
Legend: 1 = no sediment present; 2 = sediment present; 3 = sediment present in trace amounts

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 25Z295707

PROJECT: 104054.001

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:CD

O. Reg. 153(511) - PHCs F1/BTEX (Water)

DATE RECEIVED: 2025-05-20

DATE REPORTED: 2025-05-27

		SAMPLE DESCRIPTION:		Trip Blank	Field Blank
		SAMPLE TYPE:		Water	Water
		DATE SAMPLED:		2025-05-16	2025-05-16
Parameter	Unit	G / S	RDL	6751966	6751967
Benzene	µg/L		0.20	<0.20	<0.20
Toluene	µg/L		0.20	<0.20	<0.20
Ethylbenzene	µg/L		0.10	<0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20	<0.20
o-Xylene	µg/L		0.10	<0.10	<0.10
Xylenes (Total)	µg/L		0.20	<0.20	<0.20
F1 (C6 to C10)	µg/L		25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L		25	<25	<25
Surrogate	**Unit**	**Acceptable Limits**			
Toluene-d8	% Recovery	60-140		88	90

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6751966-6751967 The C6-C10 fraction is calculated using Toluene response factor.
Total C6-C10 results are corrected for BTEX contributions.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
Extraction and holding times were met for this sample.
NA = Not Applicable

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 25Z295707

PROJECT: 104054.001

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:CD

O. Reg. 153(511) - VOCs (with PHC) (Water)

DATE RECEIVED: 2025-05-20

DATE REPORTED: 2025-05-27

		SAMPLE DESCRIPTION:		MW 25-02	MW2	MW 25-102	Trip Blank	Field Blank
		SAMPLE TYPE:		Water	Water	Water	Water	Water
		DATE SAMPLED:		2025-05-16	2025-05-16	2025-05-16	2025-05-16	2025-05-16
Parameter	Unit	G / S	RDL	6751956	6751960	6751962	6751966	6751967
Dichlorodifluoromethane	µg/L		0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Vinyl Chloride	µg/L		0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Bromomethane	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichlorofluoromethane	µg/L		0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Acetone	µg/L		1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethylene	µg/L		0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Methylene Chloride	µg/L		0.30	<0.30	<0.30	<0.30	<0.30	<0.30
trans- 1,2-Dichloroethylene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Methyl tert-butyl ether	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1-Dichloroethane	µg/L		0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Methyl Ethyl Ketone	µg/L		1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis- 1,2-Dichloroethylene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chloroform	µg/L		0.20	<0.20	<0.20	0.46	<0.20	<0.20
1,2-Dichloroethane	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	µg/L		0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Carbon Tetrachloride	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloropropane	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethylene	µg/L		0.20	0.48	0.39	<0.20	<0.20	<0.20
Bromodichloromethane	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Methyl Isobutyl Ketone	µg/L		1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dibromochloromethane	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Ethylene Dibromide	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Tetrachloroethylene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,1,2-Tetrachloroethane	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Chlorobenzene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Ethylbenzene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20

Certified By: Pinkal Patel

AGAT Laboratories

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CANADA L4Z 1Y2
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FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 25Z295707

PROJECT: 104054.001

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:CD

O. Reg. 153(511) - VOCs (with PHC) (Water)

DATE RECEIVED: 2025-05-20 **DATE REPORTED: 2025-05-27**

		SAMPLE DESCRIPTION:		MW 25-02	MW2	MW 25-102	Trip Blank	Field Blank
		SAMPLE TYPE:		Water	Water	Water	Water	Water
		DATE SAMPLED:		2025-05-16	2025-05-16	2025-05-16	2025-05-16	2025-05-16
Parameter	**Unit**	**G / S**	**RDL**	**6751956**	**6751960**	**6751962**	**6751966**	**6751967**
Bromoform	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Styrene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,1,2,2-Tetrachloroethane	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10
o-Xylene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,3-Dichlorobenzene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,4-Dichlorobenzene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,2-Dichlorobenzene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10
1,3-Dichloropropene	µg/L		0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Xylenes (Total)	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20
n-Hexane	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Surrogate	**Unit**	**Acceptable Limits**						
Toluene-d8	% Recovery	50-140		89	88	88	88	90
4-Bromofluorobenzene	% Recovery	50-140		82	83	79	79	86

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6751956-6751967 Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.
The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Jinkal Patel

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Certificate of Analysis

AGAT WORK ORDER: 25Z295707

PROJECT: 104054.001

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:CD

O. Reg. 153(511) - Metals (Including Hydrides) (Water)

DATE RECEIVED: 2025-05-20

DATE REPORTED: 2025-05-27

		SAMPLE DESCRIPTION:		MW 25-01	MW 25-02	MW1	MW2	MW 25-102
		SAMPLE TYPE:		Water	Water	Water	Water	Water
		DATE SAMPLED:		2025-05-16	2025-05-16	2025-05-16	2025-05-16	2025-05-16
Parameter	Unit	G / S	RDL	6751929	6751956	6751958	6751960	6751962
Dissolved Antimony	µg/L		1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Arsenic	µg/L		1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Barium	µg/L		2.0	126	134	266	247	128
Dissolved Beryllium	µg/L		0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Boron	µg/L		10.0	37.7	31.5	149	28.2	29.3
Dissolved Cadmium	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Chromium	µg/L		2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Cobalt	µg/L		0.50	<0.50	0.70	1.12	<0.50	<0.50
Dissolved Copper	µg/L		1.0	1.8	1.9	<1.0	<1.0	1.6
Dissolved Lead	µg/L		0.50	0.65	1.09	1.64	0.77	1.00
Dissolved Molybdenum	µg/L		0.50	<0.50	<0.50	1.86	<0.50	0.86
Dissolved Nickel	µg/L		1.0	<1.0	2.4	<1.0	1.4	1.1
Dissolved Selenium	µg/L		1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Silver	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Thallium	µg/L		0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Dissolved Uranium	µg/L		0.50	0.74	0.76	0.72	0.94	0.74
Dissolved Vanadium	µg/L		0.40	0.80	<0.40	<0.40	<0.40	<0.40
Dissolved Zinc	µg/L		5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6751929-6751962 Metals analysis completed on a filtered sample.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Iris Verástegui

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Quality Assurance

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

AGAT WORK ORDER: 25Z295707

PROJECT: 104054.001

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:CD

Trace Organics Analysis

RPT Date: May 27, 2025

PARAMETER	Batch	Sample Id	DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PHCs F1/BTEX (Water)															
Benzene	6745747		<0.20	<0.20	NA	< 0.20	92%	60%	140%	95%	60%	140%	121%	60%	140%
Toluene	6745747		<0.20	<0.20	NA	< 0.20	76%	60%	140%	94%	60%	140%	97%	60%	140%
Ethylbenzene	6745747		<0.10	<0.10	NA	< 0.10	76%	60%	140%	90%	60%	140%	94%	60%	140%
m & p-Xylene	6745747		<0.20	<0.20	NA	< 0.20	127%	60%	140%	92%	60%	140%	97%	60%	140%
o-Xylene	6745747		<0.10	<0.10	NA	< 0.10	79%	60%	140%	93%	60%	140%	99%	60%	140%
F1 (C6 to C10)	6745747		<25	<25	NA	< 25	75%	60%	140%	76%	60%	140%	72%	60%	140%
O. Reg. 153(511) - PHCs F1 - F4 (Water)															
Benzene	6756986		<0.20	<0.20	NA	< 0.20	110%	60%	140%	107%	60%	140%	102%	60%	140%
Toluene	6756986		<0.20	<0.20	NA	< 0.20	98%	60%	140%	111%	60%	140%	104%	60%	140%
Ethylbenzene	6756986		<0.10	<0.10	NA	< 0.10	98%	60%	140%	104%	60%	140%	114%	60%	140%
m & p-Xylene	6756986		<0.20	<0.20	NA	< 0.20	106%	60%	140%	113%	60%	140%	112%	60%	140%
o-Xylene	6756986		<0.10	<0.10	NA	< 0.10	104%	60%	140%	110%	60%	140%	112%	60%	140%
F1 (C6 to C10)	6756986		<25	<25	NA	< 25	97%	60%	140%	81%	60%	140%	97%	60%	140%
F2 (C10 to C16)	6744752		< 100	< 100	NA	< 100	87%	60%	140%	70%	60%	140%	89%	60%	140%
F3 (C16 to C34)	6744752		< 100	< 100	NA	< 100	104%	60%	140%	76%	60%	140%	90%	60%	140%
F4 (C34 to C50)	6744752		< 100	< 100	NA	< 100	74%	60%	140%	74%	60%	140%	74%	60%	140%
O. Reg. 153(511) - PHCs F1 - F4 (with VOC) (Water)															
F1 (C6 to C10)	6745747		<25	<25	NA	< 25	75%	60%	140%	76%	60%	140%	72%	60%	140%
O. Reg. 153(511) - VOCs (with PHC) (Water)															
Dichlorodifluoromethane	6745747		<0.40	<0.40	NA	< 0.40	105%	50%	140%	109%	50%	140%	113%	50%	140%
Vinyl Chloride	6745747		<0.17	<0.17	NA	< 0.17	125%	50%	140%	122%	50%	140%	99%	50%	140%
Bromomethane	6745747		<0.20	<0.20	NA	< 0.20	80%	50%	140%	97%	50%	140%	122%	50%	140%
Trichlorofluoromethane	6745747		<0.40	<0.40	NA	< 0.40	80%	50%	140%	80%	50%	140%	133%	50%	140%
Acetone	6745747		<1.0	<1.0	NA	< 1.0	94%	50%	140%	95%	50%	140%	80%	50%	140%
1,1-Dichloroethylene	6745747		6.39	<0.30	200.0%	< 0.30	97%	50%	140%	101%	60%	130%	NA	50%	140%
Methylene Chloride	6745747		<0.30	<0.30	NA	< 0.30	101%	50%	140%	95%	60%	130%	80%	50%	140%
trans- 1,2-Dichloroethylene	6745747		<0.20	<0.20	NA	< 0.20	88%	50%	140%	95%	60%	130%	80%	50%	140%
Methyl tert-butyl ether	6745747		<0.20	<0.20	NA	< 0.20	125%	50%	140%	66%	60%	130%	113%	50%	140%
1,1-Dichloroethane	6745747		2.69	<0.30	NA	< 0.30	88%	50%	140%	94%	60%	130%	139%	50%	140%
Methyl Ethyl Ketone	6745747		<1.0	<1.0	NA	< 1.0	132%	50%	140%	119%	50%	140%	80%	50%	140%
cis- 1,2-Dichloroethylene	6745747		<0.20	<0.20	NA	< 0.20	84%	50%	140%	94%	60%	130%	80%	50%	140%
Chloroform	6745747		<0.20	<0.20	NA	< 0.20	102%	50%	140%	103%	60%	130%	80%	50%	140%
1,2-Dichloroethane	6745747		<0.20	<0.20	NA	< 0.20	92%	50%	140%	102%	60%	130%	130%	50%	140%
1,1,1-Trichloroethane	6745747		12.7	<0.30	200.0%	< 0.30	82%	50%	140%	94%	60%	130%	NA	50%	140%
Carbon Tetrachloride	6745747		16.3	13.7	17.1%	< 0.20	105%	50%	140%	127%	60%	130%	NA	50%	140%
Benzene	6745747		<0.20	<0.20	NA	< 0.20	92%	50%	140%	95%	60%	130%	121%	50%	140%
1,2-Dichloropropane	6745747		<0.20	<0.20	NA	< 0.20	89%	50%	140%	90%	60%	130%	121%	50%	140%
Trichloroethylene	6745747		<0.20	<0.20	NA	< 0.20	92%	50%	140%	92%	60%	130%	133%	50%	140%

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Quality Assurance

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

AGAT WORK ORDER: 25Z295707

PROJECT: 104054.001

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:CD

Trace Organics Analysis (Continued)

RPT Date: May 27, 2025			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Bromodichloromethane	6745747		<0.20	<0.20	NA	< 0.20	83%	50%	140%	102%	60%	130%	111%	50%	140%
Methyl Isobutyl Ketone	6745747		<1.0	<1.0	NA	< 1.0	80%	50%	140%	100%	50%	140%	72%	50%	140%
1,1,2-Trichloroethane	6745747		<0.20	<0.20	NA	< 0.20	78%	50%	140%	96%	60%	130%	99%	50%	140%
Toluene	6745747		<0.20	<0.20	NA	< 0.20	76%	50%	140%	94%	60%	130%	97%	50%	140%
Dibromochloromethane	6745747		<0.10	<0.10	NA	< 0.10	80%	50%	140%	130%	60%	130%	106%	50%	140%
Ethylene Dibromide	6745747		<0.10	<0.10	NA	< 0.10	81%	50%	140%	111%	60%	130%	121%	50%	140%
Tetrachloroethylene	6745747		<0.20	<0.20	NA	< 0.20	77%	50%	140%	100%	60%	130%	99%	50%	140%
1,1,1,2-Tetrachloroethane	6745747		<0.10	<0.10	NA	< 0.10	92%	50%	140%	117%	60%	130%	127%	50%	140%
Chlorobenzene	6745747		<0.10	<0.10	NA	< 0.10	81%	50%	140%	94%	60%	130%	95%	50%	140%
Ethylbenzene	6745747		<0.10	<0.10	NA	< 0.10	76%	50%	140%	90%	60%	130%	94%	50%	140%
m & p-Xylene	6745747		<0.20	<0.20	NA	< 0.20	127%	50%	140%	92%	60%	130%	97%	50%	140%
Bromoform	6745747		<0.10	<0.10	NA	< 0.10	65%	50%	140%	128%	60%	130%	129%	50%	140%
Styrene	6745747		<0.10	<0.10	NA	< 0.10	70%	50%	140%	66%	60%	130%	78%	50%	140%
1,1,2,2-Tetrachloroethane	6745747		<0.10	<0.10	NA	< 0.10	87%	50%	140%	117%	60%	130%	119%	50%	140%
o-Xylene	6745747		<0.10	<0.10	NA	< 0.10	79%	50%	140%	93%	60%	130%	99%	50%	140%
1,3-Dichlorobenzene	6745747		<0.10	<0.10	NA	< 0.10	80%	50%	140%	88%	60%	130%	109%	50%	140%
1,4-Dichlorobenzene	6745747		<0.10	<0.10	NA	< 0.10	75%	50%	140%	82%	60%	130%	105%	50%	140%
1,2-Dichlorobenzene	6745747		<0.10	<0.10	NA	< 0.10	77%	50%	140%	81%	60%	130%	102%	50%	140%
n-Hexane	6745747		<0.20	<0.20	NA	< 0.20	118%	50%	140%	85%	60%	130%	84%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: Jinkal Patel

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Quality Assurance

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

AGAT WORK ORDER: 25Z295707

PROJECT: 104054.001

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:CD

Water Analysis

RPT Date: May 27, 2025			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals (Including Hydrides) (Water)															
Dissolved Antimony	6757137		<1.0	<1.0	NA	< 1.0	102%	70%	130%	101%	80%	120%	109%	70%	130%
Dissolved Arsenic	6757137		<1.0	<1.0	NA	< 1.0	101%	70%	130%	99%	80%	120%	106%	70%	130%
Dissolved Barium	6757137		67.3	69.9	3.8%	< 2.0	101%	70%	130%	101%	80%	120%	103%	70%	130%
Dissolved Beryllium	6757137		<0.50	<0.50	NA	< 0.50	100%	70%	130%	96%	80%	120%	101%	70%	130%
Dissolved Boron	6757137		61.8	60.1	2.8%	< 10.0	91%	70%	130%	85%	80%	120%	87%	70%	130%
Dissolved Cadmium	6757137		<0.20	<0.20	NA	< 0.20	NA	70%	130%	100%	80%	120%	103%	70%	130%
Dissolved Chromium	6757137		<2.0	<2.0	NA	< 2.0	100%	70%	130%	101%	80%	120%	100%	70%	130%
Dissolved Cobalt	6757137		3.43	3.74	8.6%	< 0.50	94%	70%	130%	95%	80%	120%	103%	70%	130%
Dissolved Copper	6757137		2.8	1.9	NA	< 1.0	101%	70%	130%	100%	80%	120%	98%	70%	130%
Dissolved Lead	6757137		<0.50	<0.50	NA	< 0.50	100%	70%	130%	94%	80%	120%	98%	70%	130%
Dissolved Molybdenum	6757137		7.56	6.76	11.2%	< 0.50	106%	70%	130%	101%	80%	120%	120%	70%	130%
Dissolved Nickel	6757137		5.8	3.5	NA	< 1.0	96%	70%	130%	90%	80%	120%	103%	70%	130%
Dissolved Selenium	6757137		<1.0	<1.0	NA	< 1.0	99%	70%	130%	100%	80%	120%	104%	70%	130%
Dissolved Silver	6757137		<0.20	<0.20	NA	< 0.20	108%	70%	130%	97%	80%	120%	109%	70%	130%
Dissolved Thallium	6757137		<0.30	<0.30	NA	< 0.30	101%	70%	130%	95%	80%	120%	106%	70%	130%
Dissolved Uranium	6757137		16.7	17.2	2.9%	< 0.50	101%	70%	130%	97%	80%	120%	104%	70%	130%
Dissolved Vanadium	6757137		0.46	<0.40	NA	< 0.40	96%	70%	130%	96%	80%	120%	104%	70%	130%
Dissolved Zinc	6757137		8.0	8.4	NA	< 5.0	97%	70%	130%	97%	80%	120%	110%	70%	130%

Comments: NA signifies Not Applicable.
Duplicate NA: results are under 5X the RDL and will not be calculated.

Certified By: Iris Verástegui

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Method Summary

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS | **AGAT WORK ORDER: 25Z295707**

PROJECT: 104054.001 | **ATTENTION TO: Nicole Soucy**

SAMPLING SITE: | **SAMPLED BY:CD**

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Benzene	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
Toluene	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
Ethylbenzene	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
m & p-Xylene	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
o-Xylene	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
Xylenes (Total)	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
F1 (C6 to C10)	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL - 5010	MOE E3421	(P&T)GC/MS
Toluene-d8	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
F2 (C10 to C16)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F3 (C16 to C34)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F4 (C34 to C50)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5010	modified from MOE PHC-E3421	BALANCE
Terphenyl	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
Sediment			N/A
F1 (C6 to C10) minus BTEX	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/FID
Toluene-d8	VOL-91- 5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Benzene	VOL-91-5010	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Toluene	VOL-91-5010	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5010	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5010	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5010	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Xylenes (Total)	VOL-91-5010	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
F1 (C6 to C10)	VOL-91-5010	modified from MOE E3421	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	modified from MOE E3421	(P&T)GC/FID
Toluene-d8	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
Dichlorodifluoromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Acetone	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
trans- 1,2-Dichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methyl tert-butyl ether	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS

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FAX (905)712-5122
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Method Summary

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

AGAT WORK ORDER: 25Z295707

PROJECT: 104054.001

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:CD

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Methyl Ethyl Ketone	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
cis- 1,2-Dichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Chloroform	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Benzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Toluene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Bromoform	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Styrene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS

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Method Summary

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

AGAT WORK ORDER: 25Z295707

PROJECT: 104054.001

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:CD

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Xylenes (Total)	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
Water Analysis			
Dissolved Antimony	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Arsenic	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Barium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Beryllium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Boron	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Cadmium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Chromium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Cobalt	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Copper	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Lead	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Molybdenum	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Nickel	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Selenium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Silver	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Thallium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Uranium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Vanadium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Zinc	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS

AGAT Laboratories

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webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Report Information:

Company: GEMTEC Consulting Engineers and Scientists Limited
Contact: Nicole Soucey
Address: 32 Steacie Drive
Kanata, ON
Phone: K2K 2A9 Fax:
Reports to be sent to:
1. Email: nicole.soucy@gemtec.ca
2. Email: Chris.dionne@gemtec.ca

Project Information:

Project: 104054.001
Site Location:
Sampled By: CD
AGAT Quote #: PO:
Please note: if quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☑ No ☐
Company:
Contact:
Address:
Email:

Regulatory Requirements:

(Please check all applicable boxes)

☑ Regulation 153/04 — Table 7 (Indicate One) — ☐ Ind/Com ☐ Res/Park ☐ Agriculture — Soil Texture (Check One) ☐ Coarse ☐ Fine
☐ Regulation 406 — Table (Indicate One)
☐ Regulation 558
☐ CCME
☐ Sewer Use ☐ Sanitary ☐ Storm — Region
☐ Prov. Water Quality Objectives (PWQO)
☐ Other (Indicate One)

Is this submission for a **Record of Site Condition?** ☑ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☑ No

Sample Matrix Legend

GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Laboratory Use Only

Work Order #: 2572957O7
Cooler Quantity: CM - ice packs
Arrival Temperatures: 9.6 | 9.8 | 9.5
MISS: 8.2 | 8.5 | 8.8
Custody Seal Intact: ☐ Yes ☐ No ☐ N/A
Notes: B I

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days
Rush TAT (Rush Surcharges Apply)
☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day
OR Date Required (Rush Surcharges May Apply):
Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*
For 'Same Day' analysis, please contact your AGAT CPM

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI, DOC Y/N	O. Reg 153: Metals & Inorganics	O. Reg 153: Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	O. Reg 153: BTEX, F1-F4 PHCs	VOC	PAHs	PCBs	PCBs: Arochlors ☐	O. Reg 558: Landfill Disposal Characterization TCLP: ☑ M&I ☑ VOCs ☐ ABNs ☑ B(a)P ☐ PCBs TCLP:	O. Reg 406: Regulation 406 SPLP Rainwater Leach SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	O. Reg 406: Regulation 406 Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Corrosivity: ☐ Moisture ☐ Sulphide	PHC F1/VOC	PHCs	BTEX				Potentially Hazardous or High Concentration (Y/N)
1. MW25-01	May 16/25	AM	6	GW		Y	☑			☑									☑	☑				
2. MW25-02	May 16/25		6	GW		Y	☑			☑									☑					
3. MW1	May 16/25		6	GW		Y	☑												☑	☑				
4. MW2	May 16/25		6	GW		Y	☑			☑									☑					
5. MW25-102	May 16/25		6	GW		Y	☑			☑									☑					
6. Trip Blank	May 16/25		3	W														☑						
7. Field Blank	May 16/25		3	W														☑						
8.																								
9.																								
10.																								
11.																								

Samples Relinquished By (Print Name and Sign): Chris Dionne	Date: 05/20/25	Time: 1000	Samples Received By (Print Name and Sign): C Crighton
Samples Relinquished By (Print Name and Sign): CC to Purolator	Date: 05/20/25	Time: 1500	Samples Received By (Print Name and Sign): Tiffan
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):

Date: 05/20/25	Time: 13h48	
Date: May 21	Time: 9 AM	Page 1 of 1
Date:	Time:	N°:

Pink Copy - Client | Yellow Copy - AGAT | White Copy - AGAT

AGAT Laboratories

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CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS
32 STEACIE DRIVE
OTTAWA, ON K2K 2A9
(613) 836-1422
ATTENTION TO: Nicole Soucy
PROJECT: 104054.001 - Soil
AGAT WORK ORDER: 25Z312767
TRACE ORGANICS REVIEWED BY: Radhika Chakraberty, Trace Organics Lab Manager
DATE REPORTED: Jun 27, 2025
PAGES (INCLUDING COVER): 6
VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

Notes

Disclaimer:

- *All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.*
- *All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.*
- *AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.*
- *This Certificate shall not be reproduced except in full, without the written approval of the laboratory.*
- *The test results reported herewith relate only to the samples as received by the laboratory.*
- *Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.*
- *All reportable information is available on request from AGAT Laboratories, in accordance with ISO/IEC 17025:2017, ISO/IEC 17025:2005 (Quebec), DR-12-PALA and/or NELAP Standards.*
- *This document is signed by an authorized signatory who meets the requirements of the MELCCFP, CALA, CCN and NELAP.*
- *For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.*

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Certificate of Analysis

AGAT WORK ORDER: 25Z312767

PROJECT: 104054.001 - Soil

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:CD

O. Reg. 153(511) - PHCs F1 - F4 (Soil)

DATE RECEIVED: 2025-06-20 **DATE REPORTED: 2025-06-27**

		SAMPLE DESCRIPTION:		BH25-05 SA1	BH25-06 SA1	BH25-07 SA1	BH25-08 SA1	BH25-07 SA101
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2025-06-20	2025-06-20	2025-06-20	2025-06-20	2025-06-20
Parameter	**Unit**	**G / S**	**RDL**	**6835561**	**6835562**	**6835563**	**6835564**	**6835565**
Benzene	µg/g		0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Toluene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05
m & p-Xylene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05
o-Xylene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylenes (Total)	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g		5	<5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g		5	<5	<5	<5	<5	<5
F2 (C10 to C16)	µg/g		10	<10	<10	<10	<10	<10
F3 (C16 to C34)	µg/g		50	<50	102	<50	<50	<50
F4 (C34 to C50)	µg/g		50	<50	<50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g		50	NA	NA	NA	NA	NA
Moisture Content	%		0.1	8.3	8.4	14.6	18.6	16.2
Surrogate	**Unit**	**Acceptable Limits**						
Toluene-d8	% Recovery	60-140		108	112	109	102	100
Terphenyl	%	60-140		92	73	88	102	93

Certified By: R. Chakraberty

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 25Z312767

PROJECT: 104054.001 - Soil

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:CD

O. Reg. 153(511) - PHCs F1 - F4 (Soil)

DATE RECEIVED: 2025-06-20 **DATE REPORTED: 2025-06-27**

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6835561-6835565 Results are based on sample dry weight.
The C6-C10 fraction is calculated using Toluene response factor.
Xylenes is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.
Quality Control Data is available upon request.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: R. Chakraberty

AGAT Laboratories
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Quality Assurance

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

AGAT WORK ORDER: 25Z312767

PROJECT: 104054.001 - Soil

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:CD

Trace Organics Analysis

RPT Date: Jun 27, 2025			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PHCs F1 - F4 (Soil)															
Benzene	6832400		<0.02	<0.02	NA	< 0.02	89%	60%	140%	95%	60%	140%	96%	60%	140%
Toluene	6832400		<0.05	<0.05	NA	< 0.05	89%	60%	140%	92%	60%	140%	97%	60%	140%
Ethylbenzene	6832400		<0.05	<0.05	NA	< 0.05	83%	60%	140%	87%	60%	140%	93%	60%	140%
m & p-Xylene	6832400		<0.05	<0.05	NA	< 0.05	81%	60%	140%	85%	60%	140%	92%	60%	140%
o-Xylene	6832400		<0.05	<0.05	NA	< 0.05	73%	60%	140%	88%	60%	140%	96%	60%	140%
F1 (C6 to C10)	6832400		<5	<5	NA	< 5	95%	80%	120%	86%	60%	140%	87%	60%	140%
F2 (C10 to C16)	6836929		< 10	< 10	NA	< 10	119%	80%	120%	79%	60%	140%	88%	60%	140%
F3 (C16 to C34)	6836929		< 50	< 50	NA	< 50	108%	80%	120%	94%	60%	140%	96%	60%	140%
F4 (C34 to C50)	6836929		< 50	< 50	NA	< 50	91%	80%	120%	82%	60%	140%	78%	60%	140%
O. Reg. 153(511) - PHCs F1 - F4 (Soil)															
F2 (C10 to C16)	6835564	6835564	< 10	< 10	NA	< 10	119%	80%	120%	79%	60%	140%	92%	60%	140%
F3 (C16 to C34)	6835564	6835564	< 50	< 50	NA	< 50	108%	80%	120%	94%	60%	140%	96%	60%	140%
F4 (C34 to C50)	6835564	6835564	< 50	< 50	NA	< 50	91%	80%	120%	82%	60%	140%	111%	60%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: R. Chakraberty

AGAT Laboratories

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Method Summary

CLIENT NAME: GEMTEC CONSULTING ENGINEERS AND SCIENTISTS

AGAT WORK ORDER: 25Z312767

PROJECT: 104054.001 - Soil

ATTENTION TO: Nicole Soucy

SAMPLING SITE:

SAMPLED BY:CD

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Benzene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
Toluene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
Ethylbenzene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
m & p-Xylene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
o-Xylene	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
Xylenes (Total)	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/MS
F1 (C6 to C10)	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	modified from CCME Tier 1 Method	P&T GC/FID
Toluene-d8	VOL-91-5009	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
F2 (C10 to C16)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Moisture Content	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID

AGAT Laboratories

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webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Report Information:

Company: GEMTEC Consulting Engineers and Scientists Limited
Contact: Nicole Soucey
Address: 32 Staecie Drive
Kanata, ON
Phone: K2K 2A9 Fax:
Reports to be sent to:
1. Email: nicole.soucy@gemtec.ca
2. Email: Chris.dionne@gemtec.ca

Project Information:

Project: 104054.001 - Soil
Site Location:
Sampled By: CD
AGAT Quote #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Bill To Same: Yes ☑ No ☐
Company:
Contact:
Address:
Email:

Regulatory Requirements:

(Please check all applicable boxes)

☑ Regulation 153/04
Table (Indicate One) ☐ Ind/Com ☐ Res/Park ☐ Agriculture
Soil Texture (Check One) ☐ Coarse ☐ Fine

☐ Regulation 406
Table (Indicate One)

☐ Regulation 558

☐ CCME

☐ Sewer Use ☐ Sanitary ☐ Storm
(Region)

☐ Prov. Water Quality Objectives (PWQO)

☐ Other
(Indicate One)

Is this submission for a Record of Site Condition? ☑ Yes ☐ No

Report Guideline on Certificate of Analysis ☑ Yes ☐ No

Laboratory Use Only

Work Order #: 25231276 7

Cooler Quantity: one - ice packs
Arrival Temperatures: 8.7 | 8.4 | 8.3
MSS: 7.0 | 6.5 | 6.7
Custody Seal Intact: ☐ Yes ☐ No ☑ N/A
Notes: B, I

Turnaround Time (TAT) Required:

Regular TAT ☑ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Sample Matrix Legend

GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI, DOC (Y/N)	O. Reg 153: Metals & Inorganics	O. Reg 153: Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	O. Reg 153: BTEX, F1-F4 PHCs	VOC	PAHs	PCBs	PCBs: Arochlors ☐	O. Reg 558: Landfill Disposal Characterization TCLP: ☑ M&I ☑ VOCs ☐ ABNs ☑ B(a)P ☐ PCBs	O. Reg 406: Regulation 406 SPLP Rainwater Leach SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	O. Reg 406: Regulation 406 Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Corrosivity: ☐ Moisture ☐ Sulphide	PHCs F1 - F4	Potentially Hazardous or High Concentration (Y/N)
1. BH25-05 SA1	June 20/25	AM PM	2	S														☑	
2. BH25-06 SA1	June 20/25	AM PM	2	S														☑	
3. BH25-07 SA1	June 20/25	AM PM	2	S														☑	
4. BH25-08 SA1	June 20/25	AM PM	2	S														☑	
5. BH25-07 SA101	June 20/25	AM PM	2	S														☑	
6.		AM PM																	
7.		AM PM																	
8.		AM PM																	
9.		AM PM																	
10.		AM PM																	
11.		AM PM																	

Samples Relinquished By (Print Name and Sign)	Date	Time	Samples Received By (Print Name and Sign)	Date	Time
Chris Dionne	06/20/25	1340	C. Griffiths	06/20/25	14h33
CC to Drive	06/20/25	15h00		Jun 21	10:50

Page 1 of 1

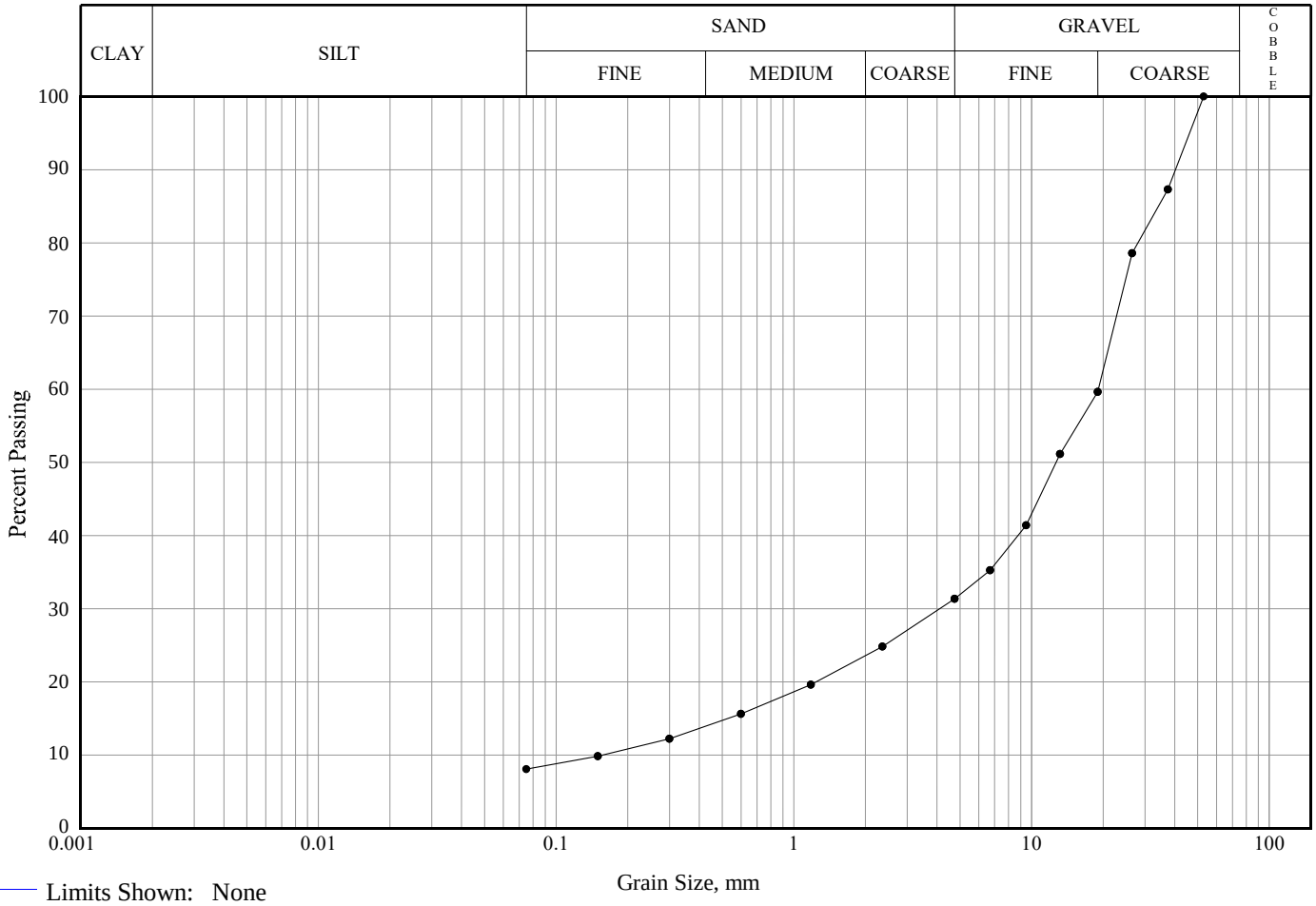
N°:

Pink Copy - Client | Yellow Copy - AGAT | White Copy - AGAT

GEMTEC
Consulting Engineers and Scientists

Client:	E-Landscaping
Project:	Hazeldean Heights Inc
Project #:	104054001

Soils Grading Chart



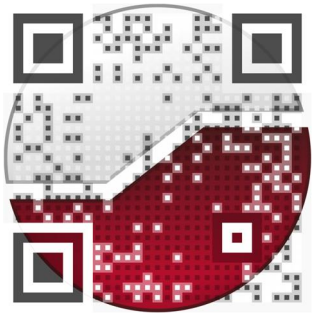
Limits Shown: None

Line Symbol	Sample	Borehole/ Test Pit	Sample Number	Depth	% Cob.+ Gravel	% Sand	% Silt	% Clay
—●—	FILL MATERIAL	25-03	GS1	0.0-0.61	68.7	23.3	8.1	

Line Symbol	CanFEM Classification	USCS Symbol	D_{10}	D_{15}	D_{30}	D_{50}	D_{60}	D_{85}	% 5-75µm
—●—		N/A	0.158	0.531	4.11	12.71	19.13	34.22	---

Note: More information available upon request

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