



Phase Two Environmental Site Assessment Update

2095 Dilworth Road, Ottawa, Ontario

Prepared For:

Dilworth Development Inc.

By:

TBT Engineering Limited
92 Bentley Avenue
Ottawa, ON K2E 6T9

August 27, 2026

Ref. No.: 26-0520

EXECUTIVE SUMMARY

TBT Engineering Limited (TBTE) was retained by Dilworth Development Inc. (hereinafter, referred to as “the Client”) to complete a Phase Two Environmental Site Assessment (ESA) Update for the property located at 2095 Dilworth Road in Ottawa, Ontario (hereinafter, referred to as “the Site”).

The purpose of this investigation was to delineate the previously identified ethylbenzene impact in groundwater at monitoring well location MW21-01.

The assessment was completed in general accordance with the requirements of Ontario Regulation (O. Reg.) 153/04 (as amended) and was conducted in support of the Zoning By-law Amendment application for the Site (File No.: D02-02-24-0029), in response to City of Ottawa comments to the application, received on January 26, 2026 and July 24, 2026, and our virtual meeting with Mr. Vahid Arasteh, of the City of Ottawa, on February 24, 2026. This report is not intended to serve as supporting documentation for the filing of a Record of Site Condition (RSC) for the Site under Ontario Regulation (O. Reg.) 153/04, as amended.

The field program was completed at the Site between April 13 to 14, 2026, and included the drilling of two boreholes, both of which were instrumented with a monitoring well (MW26-01 and MW26-02). The sampling program included the following:

- The collection and laboratory analysis of two groundwater samples for laboratory analysis of identified contaminants of potential concern (COPCs), petroleum hydrocarbon fractions F1-F4 (PHCs F1-F4), and benzene, toluene, ethylbenzene, and xylenes (BTEX).

Based on Site conditions, the following Site Condition Standards were considered applicable to the Site in relation to this assessment:

- **Groundwater:** Ontario Ministry of the Environment, Conservation and Parks (MECP), *Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act*, April 2011. Table 1: Full Depth Background Site Condition Standards applicable to All Types of Property Use (Table 1 SCS).

Based on the laboratory analytical results, all laboratory-submitted groundwater samples met the applicable MECP Table 1 standards for the Site, for all analyzed parameters. These results indicate that the previously identified ethylbenzene impact in groundwater at monitoring well location MW21-01, which marginally exceeded the MECP Table 1 SCS, is isolated in the vicinity of MW21-01.

Therefore, based on the results of this investigation, no further environmental investigation is recommended at the Site at this time.

Monitoring wells which are not being maintained for future use or testing should be abandoned within 180 days, in accordance with O.Reg. 903, as amended.

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1 INTRODUCTION

TBT Engineering Limited (TBTE) was retained by Dilworth Development Inc. (hereinafter, referred to as “the Client”) to complete a Phase Two Environmental Site Assessment (ESA) Update for the property located at 2095 Dilworth Road in Ottawa, Ontario (hereinafter, referred to as “the Site”). The Site Location Plan is provided as Figure 1, in Appendix A.

The purpose of this investigation was to delineate the previously identified ethylbenzene impact in groundwater at monitoring well location MW21-01.

This assessment was completed in general accordance with the requirements of Ontario Regulation (O. Reg) 153/04 (as amended) and was conducted solely in support of the Zoning By-law Amendment application for the Site (File No.: D02-02-24-0029), in response to City of Ottawa comments to the application, received on January 26, 2026 and July 24, 2026, and our virtual meeting with Mr. Vahid Arasteh, of the City of Ottawa, on February 24, 2026. This report is not intended to serve as supporting documentation for the filing of a Record of Site Condition (RSC) for the Site under Ontario Regulation (O. Reg.) 153/04, as amended.

1.1 Site Description

The Site is identified by the municipal address of 2095 Dilworth Road, Ottawa, Ontario. The Site comprises an irregularly shaped parcel of land with an area of approximately 352,604 square meters (~35 hectares). The property is relatively flat, sloping gently downward from the north to south, towards the Rideau River. The Site currently consists of a mix of commercial and residential structures. These include a one-storey commercial snowmobile storage and service garage, a two-storey residential dwelling, a one-storey residential trailer home, two small storage sheds, and one portable small shed. A portion of the Site property (approximately 1.7 hectares) will be severed into a separate parcel.

1.2 Property Ownership

The Site is currently owned by Dilworth Development Inc. The contact information for the Client representative(s) is as follows:

- Walter Griesseier, Owner
 - Telephone: 613-223-4900
 - Email: walterg@louconmetal.com
 - Business Address: 92 Bentley Avenue, Ottawa, ON, K2E 6T9
- Dennis Colautti, Owner
 - Telephone: 613-229-8555
 - Email: denniscolautti@gmail.com
 - Business Address: 92 Bentley Avenue, Ottawa, ON, K2E 6T9

1.3 Current and Proposed Future Uses

The Site is currently used as mixed commercial and residential, including a commercial snowmobile storage and service garage, owned by Dilworth Development Inc. A portion of the Site property (approximately 1.7 hectares) will be severed into a separate parcel. The future proposed use of the Site if for Rural Commercial zoning - development details to be determined in the future.

1.4 Applicable Site Condition Standards

Based on Site conditions, the following Site Condition Standards were considered applicable to the Site in relation to this assessment:

- **Groundwater:** Ontario Ministry of the Environment, Conservation and Parks (MECP), *Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act*, April 2011. Table 1: Full Depth Background Site Condition Standards applicable to All Types of Property Use (Table 1 SCS).

The rationale for the selection of the above-referenced Site Condition Standards is as follows:

- The eastern portion and pockets in the central area of the Site, as well as the properties immediately adjacent to the north, east and south are considered as wetlands. The creek located in the eastern portion of the Site is considered a Provincially Significant Wetland. (Ministry of Natural Resources and Forestry, 2021).
 - The Site is therefore designated as an environmentally sensitive area per clause 41(1)(a) of O. Reg. 153/04 (as amended).
- As per the Phase One ESA (TBTE, 2026), TBTE understands that the Site is serviced with a domestic supply drinking water well for human consumption and/or agricultural purposes. It is anticipated that surrounding properties within the Study Area may be serviced by drinking water wells used for human consumption or agricultural purposes.
- The Site is currently used for commercial and residential purposes.
- Shallow bedrock conditions (<2 m below grade) were not encountered within the borehole locations advanced during the current and historical investigations.
- Based on the Phase II ESA (DST, 2021) surface soils at the Site do not have a pH below 5 or greater than 9, and subsurface soils at the Site do not have a pH below 5 or greater than 11.

2 BACKGROUND INFORMATION

2.1 Physical Setting

The Site is located at an elevation of between approximately 89 and 90 metres above sea level (m asl), and slopes downward from the north to south, towards the Rideau River. The nearest major surface water body is Rideau River, located approximately 700 m southeast of the Site. One provincially significant wetland (PSW) is located within the Site limits. There are no well-head protection areas or areas of natural significant (ANSIs) located on Site or within the Study Area.

There are four unevaluated wetlands located within the Site. The Site is serviced with a domestic supply drinking water well used for human consumption and/or agricultural purposes.

2.2 Past Investigations

The below environmental reports for the Site were provided to TBTE for review.

2.2.1 DST Consulting Engineers. April 2021. Phase One Environmental Site Assessment. 2095 Dilworth Road, Ottawa, Ontario. File No. 02101208.000.

In April 2021, DST Consulting Engineers (DST) completed a Phase One ESA for the Site. Based on the findings of the Phase One ESA, two Areas of Potential Environmental Concerns (APECs) were identified at the Site, as summarized below.

Table 2-1: Areas of Potential Environmental Concern (DST, April 2021)

APEC No.	Location of APEC Within Phase One Property	PCA No.	Associated Potentially Contaminating Activity	Contaminants of Potential Concern (COPCs)	Potentially Impacted Media
1	Developed portion of the property	1	#30 Importation of Fill Material of Unknown Quality	PAHs, Metals	Soil
2	Within the area of the on-Site garage	2	#52 Storage, maintenance, fueling and repair of equipment, vehicles, and material used to maintain transportation systems	PHCs F1-F4, VOCs	Soil and groundwater
Notes: VOCs – volatile organic compounds PHCs F1-F4 – petroleum hydrocarbons fractions F1 to F4 PAHs – polycyclic aromatic hydrocarbons					

Based on the finding of the Phase One ESA, further investigation, in the form of a Phase Two ESA, was recommended in order to evaluate the above noted APECs and confirm the presence or absence of environmental impacts in the soil and groundwater on Site.

2.2.2 DST Consulting Engineers. April 2021. Phase II Environmental Site Assessment. 2095 Dilworth Road, Ottawa, Ontario. File No. 02101208.000.

In April 2021, DST completed a Phase II ESA for the Site to conduct an intrusive investigation with sample collection and analysis to confirm the presence or absence of potential contaminants

of concern in soils and groundwater, based on the APECs identified within the DST Phase One ESA (DST, 2021).

The Phase II ESA included the advancement of twelve boreholes to depths ranging between 1.2 to 7.2 metres below ground surface (mbgs). Two monitoring wells were installed as part of this investigation. A total of eight (8) soil samples, including 1 field duplicate were submitted for laboratory analysis of contaminants of potential concern (COPCs):

- Five soil samples were analysed for PHCs F1-F4, BTEX, and VOCs;
- Two soil samples were analysed for metals and PAHs; and,
- One duplicate soil sample was analysed for metals.

Two groundwater samples from MW21-01 and MW21-02, as well as one duplicate sample were submitted for laboratory analysis of COPCs:

- Two groundwater samples were analysed for PHCs F1-F4, BTEX, VOCs, Metals, Inorganics, General Chemistry, Anions, and Pesticides (OC); and,
- One duplicate groundwater sample from MW21-01 was analysed for PHCs F1-F4, BTEX, and VOCs.

A summary of the noted exceedances above the applicable limits is presented in Table 2-2 and Table 2-3:

Table 2-2: Summary of Soil Exceedances of MECP Table 1 RPIICC SCS (DST, 2021)

MECP Table 1 SCS						
Borehole ID	Sample ID	Sample Depth (mbgs)	Date (dd/mm/yyyy)	Parameter(s) Exceeding	Result (µg/g)	Limit (µg/g)
BH21-11	BH21-11 SS1	0.0-0.6	19/02/2021	PHC F3	511	240
				PHC F4 / F4 (gravimetric)	377 / 1490	120
	BH21-11 SS2	0.6-1.2	19/02/2021	PHC F4 / F4 (gravimetric)	134 / 348	120

Table 2-3: Summary of Groundwater Exceedances of MECP Table 1 RPIICC SCS (DST, 2021)

MECP Table 1 SCS				
Monitoring Well ID	Date (dd/mm/yyyy)	Parameter(s) Exceeding	Result (µg/L)	Limit (µg/L)
MW21-01 / Duplicate	15/03/2021	Ethylbenzene	0.6 / 0.8	0.5
MW21-06	15/03/2021	Chloroform	8.3	2

Based on the analytical results, the following recommendations were provided:

- PHC-impacted fill materials are excavated and disposed of off-Site (at an MECP-licensed waste disposal facility) during the construction of the proposed development on Site.
- Regarding the observed MECP Table 1 exceedances in the Site groundwater, DST completed a further comparison of the results utilizing the MECP rational document, titled: *"Rationale for the Development of Soil and Groundwater Standards for Use at*

Contaminated Sites in Ontario, April 2011 - Groundwater Components for Non-potable Water Scenario for Coarse Textured Soil, Appendix A3".

- The MECP rationale document is used to assess specific contaminant exposure pathways to develop soil and groundwater site condition standards (SCSs). Components used for the development of groundwater SCSs include: (1) the drinking water component (GW1); the protection of indoor air from vapours originating from groundwater component (GW2); and the protection of the aquatic environment component (GW3). Based on a comparison of the standards for ethylbenzene and chloroform for the GW1, GW2 and GW3 components, the drinking water component (GW1) was considered the groundwater pathway that represents the most stringent standards for ethylbenzene and chloroform applicable to the Site. The GW1 standards for ethylbenzene and chloroform in a potable water scenario, for commercial/industrial land use and coarse textured soil conditions, are 2.4 µg/L and 25 µg/L, respectively. Therefore, the groundwater analytical results for ethylbenzene in groundwater sample MW21-01 (including its field duplicate) and chloroform in groundwater sample MW21-06 were below the aforementioned pathway-based standards and, thus, it was reported by DST that, at the time of the Phase II ESA, there was no risk associated with the groundwater quality on Site, as it pertained to the reported ethylbenzene and chloroform levels.
- Furthermore, DST indicated that since the proposed development at the Site, including both monitoring well locations (MW21-01 and MW21-06), are located more than 30 metres away from the Provincially Significant Wetland on Site, the MECP Table 1 background standards for ethylbenzene and chloroform (0.5 µg/L and 2 µg/L, respectively) are not considered applicable.

2.2.3 Englobe Corp. May 17, 2024. Phase One Environmental Site Assessment Update. 2095 Dilworth Road, Ottawa, Ontario. File No. 02402048.000

In May of 2024, Englobe Corp. (Englobe) was retained to complete a Phase One ESA Update to document additional APECs on-Site since the date of the original assessment (i.e., since April 2021). Based on the findings of this report, no new APECs were identified at the Phase One Property for the study period of April 2021 to May 2024. No further investigation in the form of a Phase Two ESA was recommended at the time of issuing this report.

2.2.4 TBT Engineering Limited. March 20, 2026. Phase One Environmental Site Assessment Update. 2095 Dilworth Road, Ottawa, Ontario. File No. 25-520-1

In March of 2026, TBTE completed a Phase One ESA Update to evaluate actual and potential environmental concerns on Site and to assess the potential for the Site to be impacted by the current and historical uses of the Site and surrounding properties from the time of the previous Phase One ESA Report (Englobe, 2024) to present (i.e., from May 2024 to December 2025). Both PCAs identified were previously identified during the Phase One ESA completed by DST in 2021. No new APECS were identified as present on Site to warrant further environmental assessment.

3 PHASE TWO ESA FIELD INVESTIGATION

The Phase Two ESA field investigation was conducted between April 13 and 14, 2026, to delineate the previously identified ethylbenzene exceedance in groundwater at monitoring well location MW21-01. The borehole advancement activities were completed by licensed drillers under the supervision of TBTE personnel, and groundwater sampling was performed by TBTE personnel.

3.1 Investigation Scope of Work

The field investigation activities included the following:

- Obtaining underground utility clearances and locates.
- The advancement of two boreholes, both of which were instrumented with groundwater monitoring wells, at strategic locations on Site in order to delineate the previously identified groundwater exceedance.
- The collection and laboratory analysis of two groundwater samples for laboratory analysis of identified contaminants of potential concern (COPCs), including petroleum hydrocarbon fractions F1-F4 (PHCs F1-F4), and benzene, toluene, ethylbenzene, and xylenes (BTEX).

3.2 Media Investigated

Groundwater was investigated as part of the Phase Two ESA. Soil screening and sampling was not conducted during this investigation.

3.3 Deviations from Original Scope of Work

No deviations from the scope of work were necessary in the completion of the drilling program.

3.4 Physical Impediments

No physical impediments were encountered during the completion of this Phase Two ESA.

4 BOREHOLE DRILLING

The borehole drilling program took place on April 13, 2026, and consisted of the advancement of two boreholes, both of which were instrumented with monitoring wells at strategic locations on Site. All of the boreholes were advanced by Marathon Underground Constructors Corporation (Marathon), an MECP-licensed drilling contractor, under the supervision of TBTE field personnel.

The boreholes were advanced using a track-mounted CME-850 drill rig equipped with continuous flight hollow stem augers. No soil logging or sampling was completed for the purposes of this investigation.

Boreholes were advanced through overburden, to depths of approximately 4.3 metres below ground surface (mbgs). A Site Plan illustrating the borehole locations is provided in Figure 3, in Appendix A. Borehole logs are presented in Appendix B, and representative Site photographs are included in Appendix C.

4.1 Soil Sampling and Screening

No soil samples were collected as part of this Phase Two ESA investigation. Soil sample analyses completed in the previous investigation (DST, 2021) have been summarized in Section 2.2.2 of this report.

4.2 Monitoring Well Installation

All of the newly advanced boreholes (MW26-01 and MW26-02) were instrumented with groundwater monitoring wells. The wells were constructed of a Schedule 40, 50 mm diameter polyvinyl chloride (PVC) pipe and a #10 slotted PVC well screen placed to intercept the inferred groundwater table. A sand-pack consisting of clean silica sand was placed within the annular space surrounding the screened section of each well, and bentonite chips were added from the top of the sand-pack to within approximately 0.3 m of the surface. A locking J-Plug cap was placed at the top of each well pipe. Both wells (MW26-01 and MW26-02) were completed with a protective steel monument casing (stick-up). The monitoring wells were installed in accordance with Ontario Regulation (O. Reg.) 903 – *Wells* (as amended), made under the *Ontario Water Resources Act*.

Following monitoring well installation activities, the monitoring wells were developed, using dedicated Waterra™ tubing equipped with inertial foot valves, to remove groundwater impacted by drilling activities and to reduce the amount of sediment within the wells.

4.3 Groundwater Sampling: Field Measurement of Water Quality Parameters

As part of the assessment, TBTE did not conduct in-situ measurement of water quality parameters, including pH or temperature.

4.4 Groundwater Sampling

Prior to groundwater sampling activities on April 14, 2026, TBTE collected groundwater level measurements from the installed monitoring wells. A Solinst™ Canada Limited Model 122 oil/water interface meter was used to measure the groundwater levels, as well as confirm the presence/absence of any light or dense non-aqueous phase liquids (LNAPL or DNAPL) within the wells.

Two groundwater samples (one sample from each of the monitoring wells noted above) were collected directly into laboratory-supplied sample bottles, all of which were labelled with the Site name, sample identification, and sampling time and date. The groundwater samples were collected using low-flow sampling techniques, with a peristaltic pump. To prevent cross-contamination, new single-use powder-free nitrile gloves and sample tubing was used and replaced between wells. Collected groundwater samples were placed in a cooler, maintained at a temperature of below 10°C, and delivered to a certified laboratory under Chain of Custody protocols for chemical analysis.

Groundwater sample locations and analyses are presented in Table 4-1.

Table 4-1: Summary of Groundwater Samples Submitted for Laboratory Analysis

Sample ID	Sample Date (dd/mm/yyyy)	Screened Interval (mbgs)	Laboratory Analysis
MW26-01	14/04/2026	1.3 - 4.3	PHCs F1-F4, BTEX
MW26-02	14/04/2026	1.3 - 4.3	PHCs F1-F4, BTEX

4.5 Sediment Sampling

Sediment sampling was not conducted as part of the field investigation program.

4.6 Analytical Testing

Groundwater samples were submitted to Paracel Laboratories Ltd. (Paracel), a Canadian Association for Laboratory Accreditation Inc. (CALA) accredited laboratory, for chemical analysis.

4.7 Residual Soil and Groundwater Management

All purge water from well development and decontamination fluids from equipment cleaning were properly contained and secured in a drum on Site. All soil cuttings from drilling were properly contained and secured in a drum on Site.

4.8 Elevation Surveying

The geodetic ground surface elevation of the monitoring wells was surveyed by TBTE personnel using a Trimble R8 Integrated GNSS System connected to the Cansel East Network UTM Zone 18T (NAD83). The system connects to a network of satellites to determine the coordinates and elevation of each monitoring well location, measured in meters above sea level (masl).

The ground surface elevations of the monitoring well locations are included in the borehole logs, in Appendix B.

4.9 Quality Assurance & Control Measures

TBTE's investigation was completed in accordance with industry-standard quality assurance and control measures. The potential for cross-contamination between sample locations was prevented by using single-use dedicated field sample containers, decontaminating all sampling equipment between samples using phosphorus-free soap and distilled water, and changing gloves between the handling of each sample by the TBTE field technician.

All borehole drilling, monitoring well installation, and well development and sampling activities were completed in accordance with applicable regulations and guidelines, as well as in-line with industry standards and practices. All field equipment was calibrated prior to use, to ensure accuracy.

5 REVIEW AND EVALUATION

5.1 Site Stratigraphy

Based on the boreholes advanced during the Phase II ESA completed by DST in 2021, the Site stratigraphy generally consists of a surface layer of silty sand with organics, underlain by a silt to silty clay layer. The silt to silty clay layer is followed by a till deposit consisting of silty sand with varying amounts of clay and gravel throughout the Site. Limestone bedrock was encountered and confirmed within borehole BH21-05. At the surface of MW21-01, BH21-11, and BH21-12, a fill material consisting of sand and gravel to silty sand was encountered.

5.2 Groundwater – Elevations and Flow Direction

TBTE field personnel collected groundwater levels and geographic coordinates for each monitoring well location. Groundwater level measurements were obtained prior to groundwater sampling activities. A summary of the groundwater measurement data is provided in Table 5-1.

Table 5-1: Groundwater Field Measurements

Monitoring Well ID	Easting (m)	Northing (m)	Measurement Date (dd/mm/yyyy)	Surface Elevation (masl)	Depth to Groundwater (mbgs)	Groundwater Elevation (m asl)
MW26-01	449218.3	4993878.9	14/04/2026	87.61	0.41	87.20
MW26-02	449165.0	4993968.5	14/04/2026	87.13	0.09	87.04
MW21-01	449213.4	4993933.62	14/04/2026	87.81	0.73	87.08
MW21-06	448745.14	4993761.75	14/04/2026	88.65	1.51	87.14

Monitoring wells were installed with the screened interval intercepting the interpreted ground water table.

Groundwater elevation was calculated from elevation surveying and groundwater level measurements.

Based on the measured groundwater elevations within the on-Site monitoring wells presented above, the inferred local groundwater flow direction at the Site is to the north/northeast.

5.3 Field Screening and Observations

TBTE collected groundwater level measurements from the installed monitoring wells. A Solinst™ Canada Limited Model 122 oil/water interface meter was used to measure the groundwater levels, as well as confirm the presence/absence of any light or dense non-aqueous phase liquids (LNAPL or DNAPL) within the wells.

No visual or olfactory evidence of petroleum hydrocarbons or other contaminants was observed in groundwater samples collected. No sheen, free-phase liquid petroleum hydrocarbons, or odours were observed during the drilling, well development, or sampling activities.

5.4 Soil Quality

No soil sampling was completed for the purposes of this investigation.

5.5 Groundwater Quality

Analytical results of the groundwater samples submitted for laboratory analyses were compared against the applicable MECP Table 1: Full Depth Background Site Condition Standards applicable to All Types of Property Use (Table 1 SCS). Based on laboratory analytical results, all laboratory-submitted groundwater samples met the applicable MECP Table 1 SCSs.

Refer to Table 1 in Appendix D for the groundwater analytical results. The laboratory certificates of analyses are provided in Appendix E.

5.6 Quality Assurance and Quality Control Results

As part of the laboratory analysis, Paracel conducted method quality control analyses. The laboratory conducted a method control duplicate, in which a duplicate analysis was conducted on a sample to evaluate the precision of laboratory equipment. All relative percent differences (RPDs) for the duplicate were within acceptable RPD ranges.

The laboratory also conducted a method quality control spike analysis, in which a known concentration of analyte was analyzed to evaluate laboratory equipment accuracy. All analytes were within acceptable limits.

All certificates of analysis received comply with subsection 47(3) of the regulation. The certificates of analysis include all samples submitted by TBTE for analysis, and are included in Appendix E.

Based on the results of field screening, field sampling, and laboratory analysis, the quality of field data meets all objectives and did not affect decision-making with respect to the conclusions made in this report. The overall objectives of the investigation and assessment were met.

6 PHASE TWO CONCEPTUAL SITE MODEL

The Site consists of an irregular-shaped parcel of land that has a total area of approximately 352,604 square meters (~35 hectares), located at 2095 Dilworth Road, in Ottawa, Ontario. A Site Location Map is provided in Figure 1, Appendix A.

The Site is currently developed with the following structures:

- One-storey commercial snowmobile storage and service garage (approximately 625 square meters (m²) building footprint);
- Two-storey residential dwelling (approximately 160 m² building footprint);
- One-storey residential trailer home (approximately 85 m² building footprint);
- Two small storage sheds (approximately 30 m² building footprint); and,
- One portable small shed (approximately 18 m² building footprint).

The Site is currently active and used for commercial and residential purposes. A portion of the Site property (approximately 1.7 hectares) will be severed into a separate parcel.

The legal description of the Site is:

- Lot 35, Concession 3 (Ottawa Front), Rideau-Goulbourn Ward, City of Ottawa, Civic Addresses of 2095, 2097, and 2099 Dilworth Road.

6.1 Potentially Contaminating Activities

Based on the findings of the Phase One ESA Update (TBTE, March 2026), two (2) PCAs were identified within the Phase One Study Area, which resulted in two (2) APECs at the Site.

The PCAs identified are provided in Table 6-1 below:

Table 6-1: Potentially Contaminating Activities (PCAs)

PCA No.	Potentially Contaminating Activity	Approximate Distance from Site	COPCs	Potentially Impacted Media
PCA 1	PCA #30 – Importation of Fill Material of Unknown Quality	On-Site	Metals and PAHs	Soil
PCA 2	PCA #52 – Storage, maintenance, fueling and repair of equipment, vehicles, and materials used to maintain transportation systems	On-Site	PHCs and VOCs	Soil and Groundwater

6.2 Areas of Potential Environmental Concern

The APECs associated with the above-mentioned PCAs are provided in the Table 6-2 below:

Table 6-2: Areas of Potential Environmental Concerns (APECs)

APEC	Location of APEC on Site	PCA	COPCs	Potentially Impacted Media
APEC 1 Fill material of unknown quality likely present on Site	Developed portion of the property	PCA #30 – Importation of Fill Material of Unknown Quality	Metals and PAHs	Soil
APEC 2 Existing commercial garage	Within the area of the on-Site garage	PCA #52 – Storage, maintenance, fueling and repair of equipment, vehicles, and materials used to maintain transportation systems	PHCs and VOCs	Soil and Groundwater

6.3 Subsurface Structures and Utilities

Based on the public and private utilities locates completed in March 2026 for the Site, no public utilities (Gas, Hydro, Water and Sewer) were present on the Site.

Underground private utilities at the Site consist of a potable water line supplied to the residential dwelling from the on-Site potable well through an underground line. A buried water and electric line travel to a wood-fired boiler and furthermore to the on-Site garage from the north side of the residential dwelling. To the west of the dwelling is the septic tank for the two-storey residence. The exact location of the septic bed is unknown. No other underground utilities or corridors were indicated at the Site. It is not anticipated that underground utilities will affect contaminant distribution and transport.

6.4 Physical Setting

6.4.1 Subsurface Structures and Utilities

The Site stratigraphy generally consists of a surface layer of silty sand with organics, underlain by a silt to silty clay layer. The silt to silty clay layer is followed by a till deposit consisting of silty sand with varying amounts of clay and gravel throughout the Site. Limestone bedrock was encountered and confirmed within borehole BH21-05 (DST, 2021). At the surface of MW21-01, BH21-11, and BH21-12 a fill material consisting of sand and gravel to silty sand was encountered. The boreholes advanced during this current 2026 investigation were augured to the desired depth, and no soil cores were recorded for stratigraphy.

6.4.2 Hydrogeological Characteristics

The groundwater monitoring wells were screened within the shallow groundwater table. Monitoring well locations were strategically placed in order to assess potential contaminant sources and delineate the previously identified contamination. Groundwater elevations were measured at approximately 87.20 masl in MW26-01, 87.04 masl in MW26-02, 87.08 masl in MW21-01, and 87.14 masl in MW21-06 respectively, on April 14th, 2026. The inferred local

groundwater flow direction at the Site is to the north/northeast. The nearest major surface water body is Rideau River, located approximately 700 m southeast of the Site.

6.4.3 Approximate Depth to Bedrock

During the DST 2021 field investigation, limestone bedrock was confirmed in 1 borehole location at a depth of 5.6 mbgs (BH21-05).

6.4.4 Approximate Depth to Water Table

On April 14, 2026, groundwater elevations were measured at the two new and two historical monitoring wells, ranging from approximately 0.09 to 1.51 mbgs.

6.4.5 Environmentally Sensitive Sites

The eastern portion and pockets in the central area of the Site, as well as the properties immediately adjacent to the north, east and south are considered as wetlands. The creek located in the eastern portion of the Site is considered a Provincially Significant Wetland (Ministry of Natural Resources and Forestry, 2021).

The Site is therefore designated as an environmentally sensitive area per clause 41(1)(a) of O. Reg. 153/04 (as amended).

6.4.6 Historical Fill Placement

It is anticipated that fill materials were imported to the Site during development. Additionally, fill materials have been imported to the Site and placed in stockpiles sporadically across the central portion of the Site (west of the existing dwellings).

6.4.7 Proposed Buildings and Structures

The future proposed use of the Site is for Rural Commercial zoning – development details to be determined in the future.

6.4.8 Migration of Contaminants

Based on the soil analytical data from the previous Phase II ESA completed by DST, exceedances of the applicable MECP Table 1 criteria were only detected in one borehole. It is suspected that the soil contamination is isolated to the area underneath and immediately adjacent to the existing commercial garage, and thus are not considered a risk for migration.

As noted in Section 2.2.2, the groundwater analytical results for ethylbenzene in groundwater sample MW21-01 and chloroform in groundwater sample MW21-06 were below the applicable pathway-based standards and, thus, there is no risk associated with the groundwater quality on Site, as it pertains to the reported ethylbenzene and chloroform levels. Note that the current investigation did not identify any exceedances in groundwater from the newly installed monitoring wells.

Additionally, the previously identified ethylbenzene impact in groundwater at monitoring well location MW21-01, as well as the chloroform impact at MW 21-06, which marginally exceeded the MECP Table 1 SCS, are considered isolated impacts and are not a risk for migration.

6.4.9 Influence of Climatic or Meteorological Conditions on Contaminants

It is not currently anticipated that climatic or meteorological conditions will have substantial impact on the fate or transport of the on-Site contaminants of concern.

6.4.10 Soil Vapour Intrusion into Buildings

It is anticipated that any PHC-impacted soils will be removed from the proposed building footprints at the time of construction – in accordance with excess soil standards O.Reg. 406/19 (as amended). Furthermore, based on the nature of the contaminants (i.e. non-volatile contaminants – PHCs F3 and F4) there are no concerns with soil vapour intrusion into buildings.

6.4.11 Contaminant Transport Pathway

As no other soil exceedances of the applicable MECP Table 1 criteria were detected in any of the other submitted samples, it is suspected that PHC impacts are isolated to the area immediately underneath and adjacent to the existing commercial garage, and thus the potential for transport of contaminants in soil is considered negligible.

Additionally, there is no evidence of contaminant transport in groundwater on-Site, as all reported impacts in groundwater were found to be isolated in the vicinity of the sampled monitoring wells.

6.4.12 Human and Ecological Receptors

Human receptors that could come into contact with the on-Site contaminants could include any construction workers or other personnel at Site during construction.

Exposure pathways could include; dermal contact with the soil, soil ingestion, potable water for human consumption and particulate inhalation.

Terrestrial ecological receptors for the Site could include; mammals, birds and soil invertebrates (earthworms).

7 CONCLUSIONS

TBTE was retained to complete a Phase Two ESA Update for the property located at 2095 Dilworth Road in Ottawa. The purpose of this investigation was to delineate the previously identified ethylbenzene impact in groundwater at monitoring well location MW21-01.

The assessment was completed in general accordance with the requirements of O. Reg. 153/04 (as amended) and was conducted in support of the Zoning By-law Amendment application for the Site (File No.: D02-02-24-0029), in response to City of Ottawa comments to the application, received on January 26, 2026 and July 24, 2026, and our virtual meeting with Mr. Vahid Arasteh, of the City of Ottawa, on February 24, 2026.

The field program consisted of the advancement of two boreholes, all of which were instrumented with groundwater monitoring wells, at strategic locations on Site, in order to delineate the previously identified ethylbenzene impact in groundwater at monitoring well location MW21-01. A total of two groundwater samples collected during the investigation were submitted for laboratory analysis of COPCs, including PHCs F1-F4, and BTEX. No soil logging or sampling was completed for the purposes of this investigation.

Based on the laboratory analytical results, all laboratory-submitted groundwater samples met the applicable MECP Table 1 standards for the Site, for all analyzed parameters. These results indicate that the previously identified ethylbenzene impact in groundwater at monitoring well location MW21-01, which marginally exceeded the MECP Table 1 SCS, is isolated in the vicinity of MW21-01.

Therefore, based on the results of this investigation, no further environmental investigation is recommended at the Site at this time.

8 QUALIFICATIONS OF THE ASSESSORS

The field program of the Phase Two ESA was completed by **Ashton Richard, B. Sc.** Ashton is a Field Technician with TBTE and holds a Bachelor of Science in Physical Geography. He has over 2 years of experience in the environmental industry. He is experienced in environmental investigations, leading soil and groundwater field programs, and overseeing groundwater monitoring well installation and decommissioning. He also has extensive experience assisting with technical report writing, including drafting reports related to ESAs, excess soil management, and groundwater management planning documents.

The Phase Two ESA reporting duties were completed by **Taylor Akimov, C.Tech.** Taylor is a Project Manager and Environmental Technician with TBTE and holds a diploma in environmental technology. She has 5 years of experience in conducting environmental field studies and preparing technical reports for several disciplines including Environmental Site Assessments (ESAs), Environmental and Groundwater Monitoring, Excess Soil Management, and Hydrogeological Investigations.

The Plan was overseen by **Andrew Naoum, P. Eng.** Andrew Naoum is a Branch Manager and Senior Engineer with TBTE with 18 years of experience in environmental field studies including all Phases for ESAs, risk assessment field work, site remediation, specifications and tender documents, site supervision, audit management/remediation environmental compliance audits. He has managed teams of engineers and professionals in environmental, geotechnical, civil and structural engineering. In addition, Mr. Naoum has been involved in providing independent peer review services to major site remediation projects, expert witness on numerous litigation cases related to environmental forensic investigations and building construction. He is a designated "Qualified Person" as defined under O. Reg 153/04, as amended.

9 LIMITATIONS

This report was prepared for the exclusive use of Dilworth Development Inc. and is intended to provide an assessment of the current environmental conditions present at the subject site. No other party is entitled to rely upon this report without the knowledge and consent of TBT Engineering Limited (TBTE). Any such consensual reliance upon this report would be subject to the same contractual, technological and other limitations that governed the assessment and report.

The report is based on information collected and reviewed during the 2026 Phase II ESA of the subject property conducted by TBTE. The conclusions of this report are based solely on the site conditions observed at the time of the site investigation supplemented by historical information and data from the sources described in this report. No assurance is made regarding changes in conditions subsequent to the time of the investigation.

In evaluating the property, TBTE has relied in good faith upon information provided by others. TBTE accepts no responsibility for any deficiency, misstatement or inaccuracy contained in this report as a result of omission, misinterpretation or fraudulent act of the persons interviewed.

The result of an investigation of this kind should in no way be construed as a warranty that the site is free from any and all contamination from past or current practices, other than as noted in the report. TBTE accepts no responsibility for the consequential effects of this factual report, the real or perceived property value of this site, on its saleability, or on the ability to gain financing or insurance. Where references have been made to regulatory statutes, codes, guidelines and the like, note that these regulations are subject to interpretation and the regulations and their interpretations can change over time.

If new information is discovered during future work, including excavations, borings or other studies, TBTE should be retained to re-evaluate the conclusions presented in this report and to provide amendments as required.

This assessment is not intended to serve as supporting documentation for filing a Record of Site Condition under Ontario Regulation (O. Reg.) 153/04: Record of Site Condition, as amended.

10 REFERENCES

Ontario Ministry of the Environment. Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario. 1996.

Ontario Ministry of the Environment, Conservation and Parks. Protocol for Analytical Methods used in the Assessment of Properties under Part XV.1 of the *Environmental Protection Act* and Excess Soil Quality. (2011) Laboratory Services Branch Ministry of the Environment, Conservation and Parks, (PIBS 4696) February 2021. Version 3.1.

DST Consulting Engineers. April 2021. Phase One Environmental Site Assessment. 2095 Dilworth Road, Ottawa, Ontario. File No. 02101208.000.

DST Consulting Engineers. April 2021. Phase II Environmental Site Assessment. 2095 Dilworth Road, Ottawa, Ontario. File No. 02101208.000.

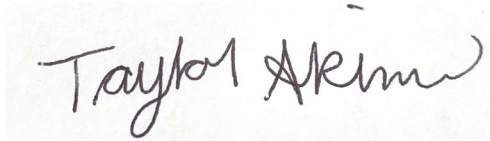
Englobe Corp. May 17, 2024. Phase One Environmental Site Assessment Update. 2095 Dilworth Road, Ottawa, Ontario. File No. 02402048.000

TBT Engineering Limited. March 20, 2026. Phase One Environmental Site Assessment Update. 2095 Dilworth Road, Ottawa, Ontario. File No. 25-520-1

11 CLOSURE

We trust that the information presented within this report meets your present requirements. Should there be any questions or concerns regarding the information presented in this report, please do not hesitate to contact us at your convenience.

For TBT Engineering Limited,

A handwritten signature in black ink that reads "Taylor Akimov".

Taylor Akimov, C.Tech.

Project Manager / Environmental Technician



Andrew Naoum, P.Eng., QP_{ESA}

Branch Manager - Ottawa

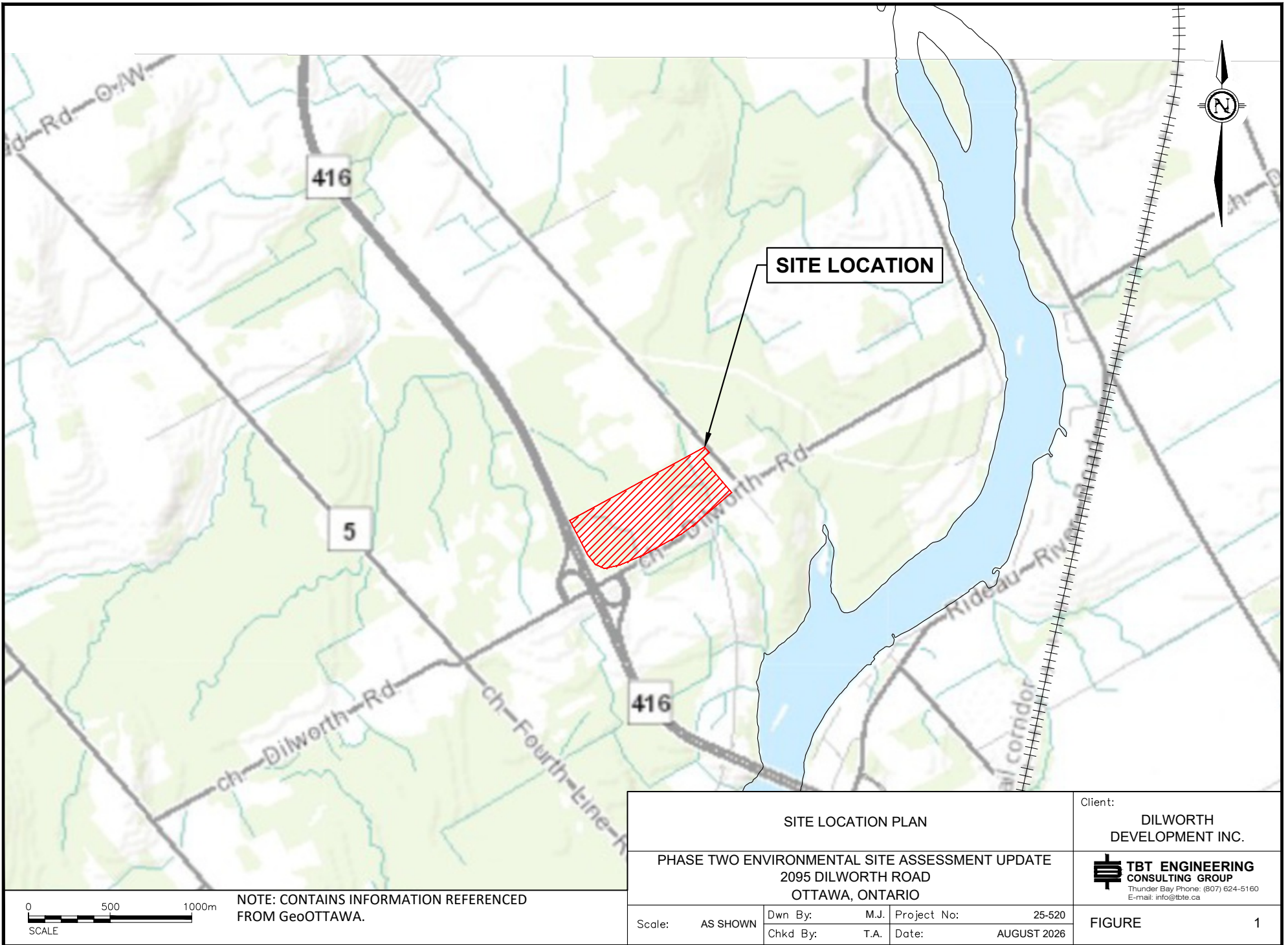


TBT ENGINEERING
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TBTE REF No.: 25-520

Appendix A

Figures



NOTE: CONTAINS INFORMATION REFERENCED
FROM GeoOTTAWA.

SITE LOCATION PLAN

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT UPDATE
2095 DILWORTH ROAD
OTTAWA, ONTARIO

Client:

DILWORTH
DEVELOPMENT INC.



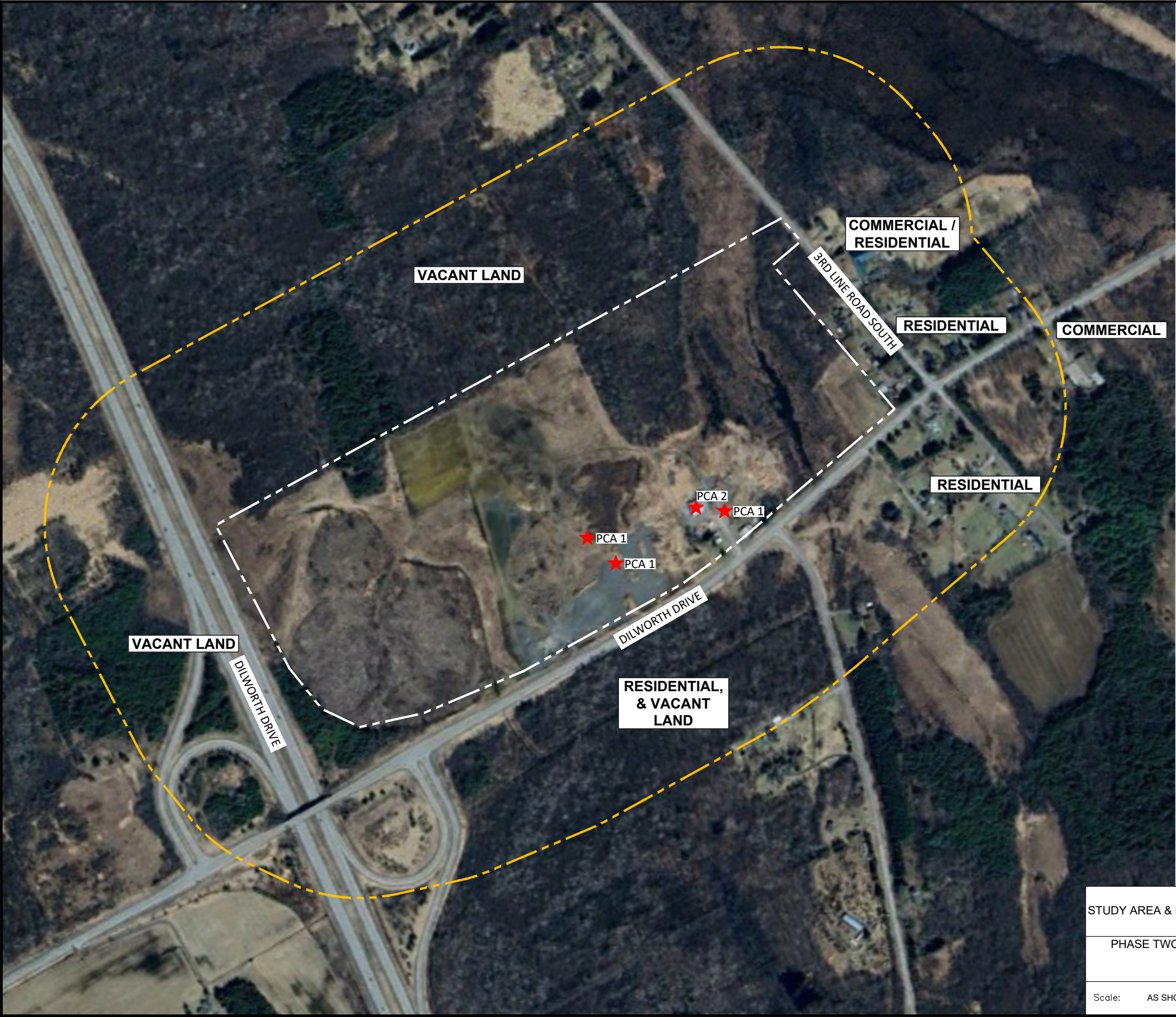
**TBT ENGINEERING
CONSULTING GROUP**
Thunder Bay Phone: (807) 624-5160
E-mail: info@tbte.ca

Scale: AS SHOWN

Dwn By:	M.J.	Project No:	25-520
Chkd By:	T.A.	Date:	AUGUST 2026

FIGURE

1



LEGEND

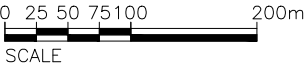
- PHASE TWO PROPERTY BOUNDARY
- APPROXIMATE STUDY AREA (250 m BUFFER)
- POTENTIALLY CONTAMINATING ACTIVITY (PCAs)

PCA No.	Potentially Contaminating Activity (PCA)	Approximate Distance from Site	Contaminants of Potential Concern (COPCs)	Potential Impacted Media
PCA 1	PCA #30 - Importation of Fill Material of Unknown Quality	On-Site	Metals and polycyclic aromatic hydrocarbons (PAHs)	Soil
PCA 2	PCA #52 - Storage, maintenance, fueling and repair of equipment, vehicles, and materials used to maintain transportation systems	On-Site	Petroleum hydrocarbons (PHCs) and volatile organic compounds (VOCs)	Soil and Groundwater

Notes:
PAHs - Polycyclic aromatic hydrocarbons
PHC F1 - F4 - Petroleum Hydrocarbon Fractions F1 - F4
VOCs - Volatile Organic Compounds

NOTES:

- TO BE READ IN CONJUNCTION WITH TECHNICAL REPORT.
- SATELLITE IMAGE REFERENCED FROM GOOGLE EARTH.
- PROJECT AREA REFERENCED FROM GeoOTTAWA.



STUDY AREA & POTENTIALLY CONTAMINATING ACTIVITIES (PCAs)

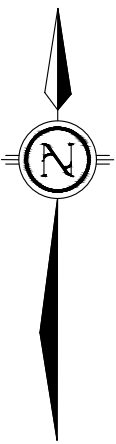
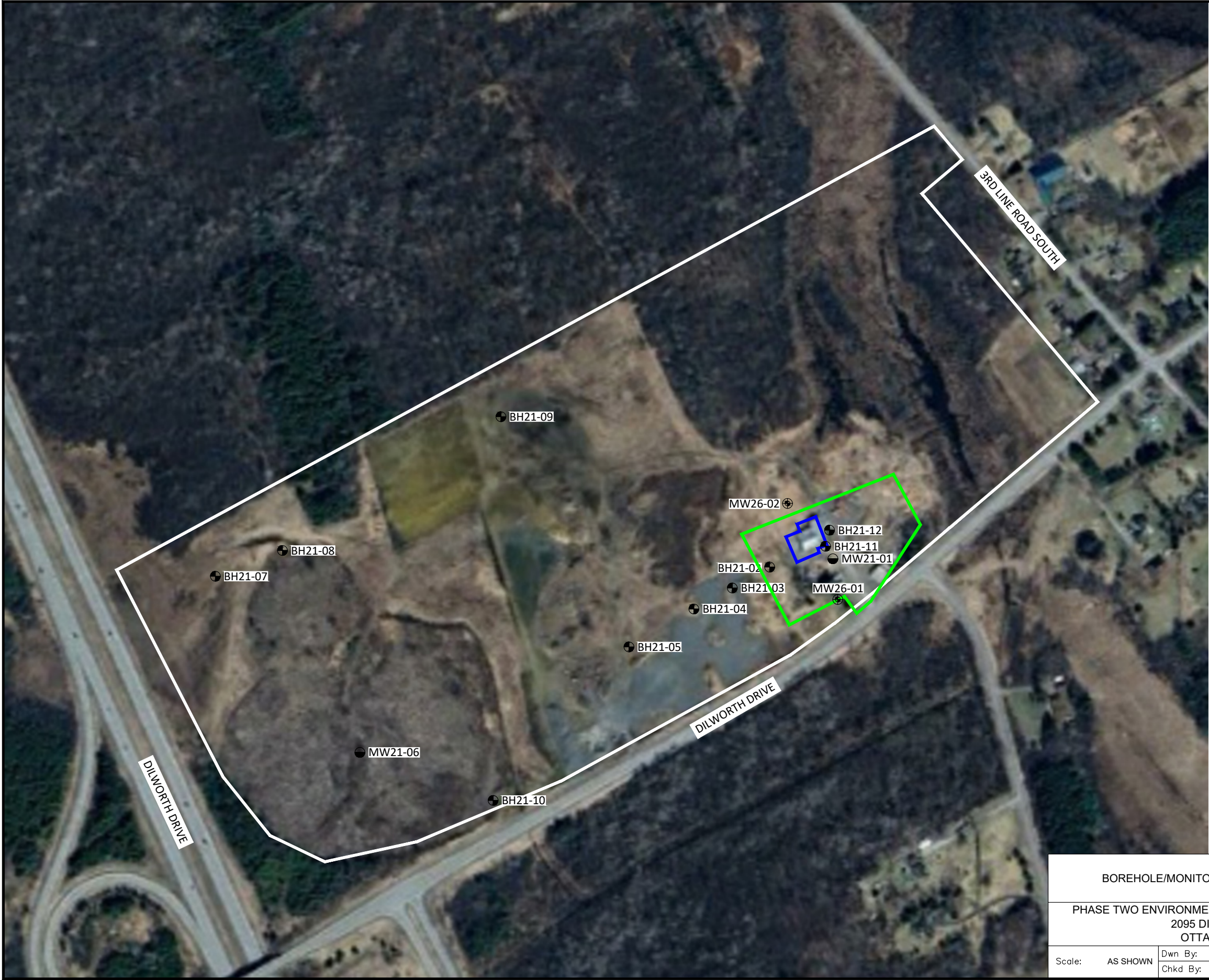
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT UPDATE
2095 DILWORTH ROAD
OTTAWA, ONTARIO

Scale: AS SHOWN
Dwn By: M.J.
Chkd By: T.A.
Project No: 25-520
Date: AUGUST 2026

Client:
DILWORTH
DEVELOPMENT INC.

TBT ENGINEERING
CONSULTING GROUP
Thunder Bay Phone: (807) 624-5160
E-mail: info@tbt.ca

FIGURE 2A



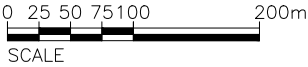
LEGEND

- PHASE TWO PROPERTY BOUNDARY
- MONITORING WELL LOCATION (TBTE, 2026)
- PREVIOUS MONITORING WELL LOCATION (DST, 2021)
- PREVIOUS BOREHOLE LOCATION (DST, 2021)
- APEC 1
- APEC 2

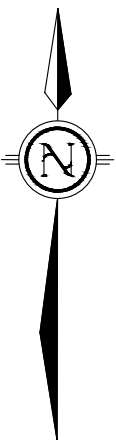
Areas of Potential Environmental Concern (APECs)	
APEC 1	Importation of fill material of unknown quality
APEC 2	Storage, maintenance, fueling, and repair of equipment, vehicles, and material used to maintain transportation systems

NOTES:

1. TO BE READ IN CONJUNCTION WITH TECHNICAL REPORT.
2. SATELLITE IMAGE REFERENCED FROM GOOGLE EARTH.
3. PROJECT AREA REFERENCED FROM GeoOTTAWA.



BOREHOLE/MONITORING WELL LOCATION PLAN				Client: DILWORTH DEVELOPMENT INC.	
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT UPDATE 2095 DILWORTH ROAD OTTAWA, ONTARIO				 TBT ENGINEERING CONSULTING GROUP Thunder Bay Phone: (807) 624-5160 E-mail: info@tbt.ca	
Scale:	AS SHOWN	Dwn By:	M.J.	Project No:	25-520
		Chkd By:	T.A.	Date:	AUGUST 2026
FIGURE					2B

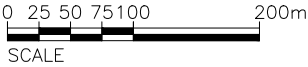


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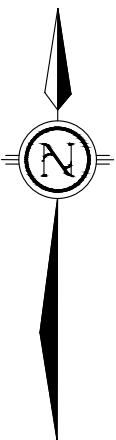
- PHASE TWO PROPERTY BOUNDARY
- SOIL SAMPLING LOCATION **MEETS** TABLE 1 RPICC SCS
- SOIL SAMPLING LOCATION **EXCEEDS** TABLE 1 RPICC SCS

NOTES:

- TO BE READ IN CONJUNCTION WITH TECHNICAL REPORT.
- SATELLITE IMAGE REFERENCED FROM GOOGLE EARTH.
- PROJECT AREA REFERENCED FROM GeoOTTAWA.
- TABLE 1: FULL DEPTH BACKGROUND SITE CONDITION STANDARDS FOR RESIDENTIAL / PARKLAND / INSTITUTIONAL / INDUSTRIAL / COMMERCIAL/ COMMUNITY PROPERTY USE (TABLE 1 RPICC SCS).



SOIL EXCEEDANCE MAP TABLE 1 RPICC SCS				Client: DILWORTH DEVELOPMENT INC.	
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT UPDATE 2095 DILWORTH ROAD OTTAWA, ONTARIO				 TBT ENGINEERING CONSULTING GROUP Thunder Bay Phone: (807) 624-5160 E-mail: info@tbt.ca	
Scale:	AS SHOWN	Dwn By:	M.J.	Project No:	25-520
		Chkd By:	T.A.	Date:	AUGUST 2026
FIGURE					3

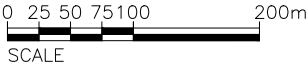


LEGEND

- PHASE TWO PROPERTY BOUNDARY
- GROUNDWATER SAMPLING LOCATION
MEETS TABLE 1 RPIICC SCS
- GROUNDWATER SAMPLING LOCATION
EXCEEDS TABLE 1 RPIICC SCS

NOTES:

- TO BE READ IN CONJUNCTION WITH TECHNICAL REPORT.
- SATELLITE IMAGE REFERENCED FROM GOOGLE EARTH.
- PROJECT AREA REFERENCED FROM GeoOTTAWA.
- TABLE 1: FULL DEPTH BACKGROUND SITE CONDITION STANDARDS FOR RESIDENTIAL / PARKLAND / INSTITUTIONAL / INDUSTRIAL / COMMERCIAL / COMMUNITY PROPERTY USE (TABLE 1 RPIICC SCS).



MW21-06 GROUNDWATER SAMPLE			
Parameter	Analytical (µg/g)	MECP Table 1 Standard (µg/g)	Sample Date
Chloroform	8.3	2	March 15, 2021

MW21-01 GROUNDWATER SAMPLE			
Parameter	Analytical (µg/g)	MECP Table 1 Standard (µg/g)	Sample Date
Ethylbenzene	0.6	0.5	March 15, 2021
Ethylbenzene (Duplicate Sample)	0.6		

GROUNDWATER EXCEEDANCE MAP TABLE 1 RPIICC SCS			Client: DILWORTH DEVELOPMENT INC.	
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT UPDATE 2095 DILWORTH ROAD OTTAWA, ONTARIO			 TBT ENGINEERING CONSULTING GROUP Thunder Bay Phone: (807) 624-5160 E-mail: info@tbt.ca	
Scale: AS SHOWN	Dwn By: M.J.	Project No: 25-520	FIGURE 4	
	Chkd By: T.A.	Date: AUGUST 2026		

Appendix B

Borehole Logs

MW26-01

Project: Phase Two ESA Update

Project No.: 25-520

Site Address: 2095 Dilworth Rd, Ottawa, Ontario

Client: Dilworth Development Inc.

Easting (m): 449218.3

Northing: 4993878.9

Weather: Rainy

Logged By: AR

Reviewed By: SE

Investigation Date: 2026-04-13

PIEZOMETER	DEPTH	ELEVATION	SOIL DESCRIPTION	SYMBOL	BORING METHOD	SAMPLES		BLOWS / 150MM	COMBUSTIBLE VAPOUR CONCENTRATION				COMMENTS	
						NO.	RECOVERY (%)		TYPE	Hex (ppm)				
										30	60	90		120
										Iso (ppm)				
										30	60	90		120

2.8ft 87.61 Grass surface EL 87.61 m														
	0	Augered down to 4.3 m												Groundwater level measured at 0.41 mbgs on April 14, 2026
	87													
	1													
	86													
	2													
	85													
	3													
	84													
	4													
	83	4.3 m EL 83.31 m	End of borehole at 4.3 m											
5														
82														
6														
81														



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Notes:

MW26-02

Project: Phase Two ESA Update

Project No.: 25-520

Site Address: 2095 Dilworth Rd, Ottawa, Ontario

Client: Dilworth Development Inc.

Easting (m): 449165.0

Northing: 4993968.5

Weather: Rainy

Logged By: AR

Reviewed By: SE

Investigation Date: 2026-04-13

PIEZOMETER	DEPTH	ELEVATION	SOIL DESCRIPTION	SYMBOL	BORING METHOD	SAMPLES		BLOWS / 150MM	COMBUSTIBLE VAPOUR CONCENTRATION				COMMENTS	
						NO.	RECOVERY (%)		TYPE	Hex (ppm)				
										30	60	90		120
									30	60	90	120		

2.8ft 87.13 Grass surface EL 87.13 m													
	0	87	Augered down to 4.3 m										Groundwater level measured at 0.09 mbgs on April 14, 2026
	1	86											
	2	85											
	3	84											
	4	83											
	5	82											
	6	81											
</													



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Notes:



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CONSULTING GROUP

TBTE REF No.: 25-520

Appendix C

Representative Photographs



Photograph 1: Photograph of installed MW26-01.



Photograph 2: Photograph of installed MW26-02.



TBT ENGINEERING CONSULTING GROUP

TBTE REF No.: 25-520



Photograph 3: Representative photograph of the drill rig.



Photograph 4: Photograph of previously installed MW21-01.



Photograph 5: Photograph of previously installed MW21-06.

Appendix D

Analytical Summary Tables



Table 1: Groundwater Analytical Summary

Table 1: Groundwater Analytical Summary			
Sample ID	Table 1 SCS	MW26-01	MW26-02
Sample Collection Date (dd-mm-yyyy)		14-04-2026	14-04-2026
Sample Depth (mbgs)		1.3 - 4.3	1.3 - 4.3
Petroleum Hydrocarbons (PHCs)			
F1 (C6 to C10)	420	<25	<25
F2 (C10 to C16)	150	<100	<100
F3 (C16 to C34)	500	<100	<100
F4 (C34 to C50)	500	<100	<100
Volatile Organic Compounds (VOCs)			
Benzene	0.5	<0.5	<0.5
Ethylbenzene	0.5	<0.5	<0.5
Toluene	0.8	<0.5	<0.5
Xylene, m+p-	NG	<0.5	<0.5
Xylene, o-	NG	<0.5	<0.5
Xylenes, total	72	<0.5	<0.5

Notes:

Tables	MECP Tables Full Depth SCS
Value	Exceeds MECP Full Depth Table 1 SCS
Units	All units in micrograms per liter (µg/L), unless otherwise specified
mbgs	Meters Below Ground Surface



TBT ENGINEERING
CONSULTING GROUP

TBTE REF No.: 25-520

Appendix E

Laboratory Certificates of Analysis

Certificate of Analysis

TBT Engineering Ltd (Ottawa)

92 Bentley Ave.
Ottawa, ON K2E 6T9
Attn: Salim Eid

Client PO:
Project: 25-520-1
Custody: 150615

Report Date: 15-Apr-2026
Order Date: 14-Apr-2026

Order #: 2616169

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

Paracel ID	Client ID
2616169-01	MW26-01
2616169-02	MW26-02

Approved By:

A. Tirca

Adriana Tirca, B.Eng (Chem)

Supervisor

Certificate of Analysis

Report Date: 15-Apr-2026

Client: TBT Engineering Ltd (Ottawa)

Order Date: 14-Apr-2026

Client PO:

Project Description: 25-520-1

Analysis Summary Table

Analysis	Method Reference/Description	Lab Location	Extraction Date	Analysis Date
BTEX by P&T GC-MS	EPA 624 - P&T GC-MS	Ottawa	14-Apr-26	14-Apr-26
PHC F1	CWS Tier 1 - P&T GC-FID	Ottawa	14-Apr-26	14-Apr-26
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	Ottawa	14-Apr-26	14-Apr-26

Certificate of Analysis

Report Date: 15-Apr-2026

Client: TBT Engineering Ltd (Ottawa)

Order Date: 14-Apr-2026

Client PO:

Project Description: 25-520-1

Summary of Criteria Exceedances

If this page is blank, then there are no exceedances

Regulatory Comparison:

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

Sample	Analyte	MDL / Units	Result	Reg 153/04 -T1 Groundwater	-
--------	---------	-------------	--------	-------------------------------	---

Certificate of Analysis

Report Date: 15-Apr-2026

Client: TBT Engineering Ltd (Ottawa)

Order Date: 14-Apr-2026

Client PO:

Project Description: 25-520-1

Client ID:	MW26-01	MW26-02	-	-	Criteria:
Sample Date:	14-Apr-26 11:15	14-Apr-26 10:45	-	-	Reg 153/04 -T1
Sample ID:	2616169-01	2616169-02	-	-	Groundwater
Matrix:	Ground Water	Ground Water	-	-	-
MDL/Units					

Volatiles

Benzene	0.5 ug/L	<0.5	<0.5	-	-	0.5 ug/L	-
Ethylbenzene	0.5 ug/L	<0.5	<0.5	-	-	0.5 ug/L	-
Toluene	0.5 ug/L	<0.5	<0.5	-	-	0.8 ug/L	-
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	-	-	-	-
o-Xylene	0.5 ug/L	<0.5	<0.5	-	-	-	-
Xylenes, total	0.5 ug/L	<0.5	<0.5	-	-	72 ug/L	-
Toluene-d8	Surrogate	96.1%	97.4%	-	-	-	-

Hydrocarbons

F1 PHCs (C6-C10)	25 ug/L	<25	<25	-	-	420 ug/L	-
F2 PHCs (C10-C16)	100 ug/L	<100	<100	-	-	150 ug/L	-
F3 PHCs (C16-C34)	100 ug/L	<100	<100	-	-	500 ug/L	-
F4 PHCs (C34-C50)	100 ug/L	<100	<100	-	-	500 ug/L	-

Certificate of Analysis

Report Date: 15-Apr-2026

Client: TBT Engineering Ltd (Ottawa)

Order Date: 14-Apr-2026

Client PO:

Project Description: 25-520-1

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons								
F1 PHCs (C6-C10)	ND	25	ug/L					
F2 PHCs (C10-C16)	ND	100	ug/L					
F3 PHCs (C16-C34)	ND	100	ug/L					
F4 PHCs (C34-C50)	ND	100	ug/L					
Volatiles								
Benzene	ND	0.5	ug/L					
Ethylbenzene	ND	0.5	ug/L					
Toluene	ND	0.5	ug/L					
m,p-Xylenes	ND	0.5	ug/L					
o-Xylene	ND	0.5	ug/L					
Xylenes, total	ND	0.5	ug/L					
Surrogate: Toluene-d8	79.1		%	98.9	50-140			

Certificate of Analysis

Report Date: 15-Apr-2026

Client: TBT Engineering Ltd (Ottawa)

Order Date: 14-Apr-2026

Client PO:

Project Description: 25-520-1

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	ND	25	ug/L	ND			NC	30	
F2 PHCs (C10-C16)	ND	100	ug/L	ND			NC	30	
F3 PHCs (C16-C34)	ND	100	ug/L	ND			NC	30	
F4 PHCs (C34-C50)	ND	100	ug/L	ND			NC	30	
Volatiles									
Benzene	ND	0.5	ug/L	ND			NC	30	
Ethylbenzene	ND	0.5	ug/L	ND			NC	30	
Toluene	ND	0.5	ug/L	ND			NC	30	
m,p-Xylenes	ND	0.5	ug/L	ND			NC	30	
o-Xylene	ND	0.5	ug/L	ND			NC	30	
Surrogate: Toluene-d8	80.1		%		100	50-140			

Certificate of Analysis

Report Date: 15-Apr-2026

Client: TBT Engineering Ltd (Ottawa)

Order Date: 14-Apr-2026

Client PO:

Project Description: 25-520-1

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	1890	25	ug/L	ND	94.4	85-115			
F2 PHCs (C10-C16)	1410	100	ug/L	ND	94.4	60-140			
F3 PHCs (C16-C34)	4010	100	ug/L	181	104	60-140			
F4 PHCs (C34-C50)	2340	100	ug/L	ND	101	60-140			
Volatiles									
Benzene	45.0	0.5	ug/L	ND	112	60-130			
Ethylbenzene	42.8	0.5	ug/L	ND	107	60-130			
Toluene	41.2	0.5	ug/L	ND	103	60-130			
m,p-Xylenes	86.9	0.5	ug/L	ND	109	60-130			
o-Xylene	45.0	0.5	ug/L	ND	112	60-130			
Surrogate: Toluene-d8	72.2		%		90.3	50-140			

Certificate of Analysis

Report Date: 15-Apr-2026

Client: TBT Engineering Ltd (Ottawa)

Order Date: 14-Apr-2026

Client PO:

Project Description: 25-520-1

Qualifier Notes:**Sample Data Revisions:**

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

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

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

CCME PHC additional information:

- The method for the analysis of PHCs complies with the Reference Method for the CWS PHC and is validated for use in the laboratory. All prescribed quality criteria identified in the method has been met.
- F1 range corrected for BTEX.
- F2 to F3 ranges corrected for appropriate PAHs where available.
- The gravimetric heavy hydrocarbons (F4G) are not to be added to C6 to C50 hydrocarbons.
- In the case where F4 and F4G are both reported, the greater of the two results is to be used for comparison to CWS PHC criteria.
- When reported, data for F4G has been processed using a silica gel cleanup.

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



Client Name: TBT Engineering Ltd.

Contact Name: Salim Eid

Address: 92 Bentley Ave., Ottawa, ON

Telephone:

Project Ref: 25-520-1

Quote #:

PO #:

E-mail: seid@tbt.ca

richard@tbt.ca

Page 1 of 1

Turnaround Time

☒ 1 day ☐ 3 day

☐ 2 day ☐ Regular

Date Required: Apr 15, 2026

☒ REG 153/04 ☐ REG 406/19

Other Regulation

☒ Table 1 ☐ Agri/Other ☐ Med/Fine

☐ Table 2 ☐ Res/Park ☐ Coarse

☐ Table 3 ☐ Ind/Comm

☐ Table

For RSC: ☐ Yes ☐ No

☐ REG 558

☐ PWQO

☐ CCME

☐ MISA

☐ SU - Sani

☐ SU - Storm

Mun:

☐ Other:

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

Required Analysis

Sample ID/Location Name	Matrix	Air Volume	# of Containers	Field Filtered	Sample Taken		PHCs F1-F4+BTEX	VOCs	PAHs	Metals by ICP	As	Cd	Cr	Cu	Fe	Mn	Ni	Pb	Se	Zn
					Date	Time														
1 MW26-01	GW	-	4	No	Apr 14, 2026	11:15	X													
2 MW26-02	GW	-	4	No	↓	10:45	X													
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Comments:

Method of Delivery:

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

Relinquished By (Sign): [Signature]

Relinquished By (Print): Ashton Richard

Date/Time: Apr 14, 2026 @ 12:05

Received at Depot:

Date/Time: April 14, 2026

Temperature: 17.6 °C

Received at Lab:

Date/Time: 14/04/2026 13:40

Temperature: 11.3 °C

Verified By:

Date/Time: Apr 14, 2026 14:36

pH Verified: ☐ By: