



SUNCOR ENERGY PRODUCTS PARTNERSHIP

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

**623 YONGE STREET AND 515 BIG BAY POINT ROAD
BARRIE, ONTARIO**

OUTLET 33659

FINAL REPORT

February 20, 2024

CH321.00

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1.0 EXECUTIVE SUMMARY

Terrapex was retained by Suncor Energy Products Partnership to conduct a Phase Two Environmental Site Assessment (ESA) of the property located at 623 Yonge Street and 515 Big Bay Point Road in the City of Barrie, Ontario (the “Site” or “Phase Two Property”).

The Site has been operating as an outlet service station. There is no proposed change from commercial land use to a more sensitive land use, therefore a Record of Site Condition (RSC) is not required. However, it is understood that the Phase Two ESA documented herein was undertaken as part of the City of Barrie development application process that requires environmental investigations to be completed in general accordance with Ontario Regulation (O. Reg.) 153/04 under the Environmental Protection Act, (*Records of Site Condition – Part XV.1 of the Act*).

A Phase One ESA was completed by Terrapex in October 2023 in accordance with the requirements of O. Reg. 153/04. The Phase One ESA identified several areas of potential environmental concern (APECs) at the Site, resulting from past commercial uses of the Site and off-Site properties. As a result, a Phase Two ESA was required to investigate soil and groundwater quality at the Site.

On the basis of the findings of the Phase One ESA, a Phase Two ESA was subsequently conducted by Terrapex to investigate the environmental quality of soil and groundwater at and in the vicinity of the APECs identified at the Site. The Phase Two ESA consisted of the completion of 11 boreholes to the depths ranging from 6.1 metres below ground surface (m bgs) to 9.5 m bgs, installation of seven groundwater monitoring wells, and the collection of soil and groundwater samples for laboratory analysis of contaminants of potential concern (COPCs) at the Site.

Due to the re-development of the Site for commercial property use, the generic full-depth Ministry of the Environment, Conservation and Parks (MECP) Site Condition Standards (SCS) applicable to commercial property use in a potable groundwater condition with coarse-textured soil (the “Table 2 SCS”) was selected to evaluate soil and groundwater quality at the Site.

Based on field observations and an evaluation of soil and groundwater quality data, the following conclusions are provided:

- Based on the findings of the Phase Two ESA work program, the Site is generally surfaced with a layer of topsoil or asphalt surface cover and granular sub-base underlain by fill material up to a depth of 2.9 m bg. The fill materials were underlain by sand and silt till, up to a depth of 9.5 m bg, which represents the maximum depth of investigation.

- Three groundwater monitoring events were conducted at the Site on November 17 and 23, and December 1, 2023. The depth to groundwater in the monitoring wells on November 23, 2023 ranged from 4.39 m bg to 5.78 m bg.
- The findings of the monitoring event indicated that the regional groundwater flow is towards the northwest, with local groundwater flow generally towards the centre of the Site, likely affected by proximity to the tank nest. This finding is consistent with the results of the hydrogeological investigation completed concurrently with the Phase Two ESA.
- No evidence of non-aqueous phase liquids (i.e., NAPL) or free-product was encountered during monitoring, purging, or sampling of the monitoring wells.
- Comparison of the laboratory results to the Table 2 SCS did not identify any soil contaminants at the Site.
- One or more metal parameters were found to be present in groundwater at levels in excess of the Table 2 SCS and, as such, were identified to be groundwater contaminants at the Site.

Based on the findings of the Phase Two ESA, the environmental quality of groundwater at the Site does not meet the Table 2 SCS. Should an RSC be required in the future, a full-depth soil remediation and/or a risk assessment would be required in accordance with the requirements of O. Reg. 153/04.

2.0 INTRODUCTION

Terrapex was retained by Suncor Energy Products Partnership (Suncor) to complete a Phase Two Environmental Site Assessment (ESA) of 623 Yonge Street and 515 Big Bay Point Road in Barrie, Ontario (the “Site” or “Phase Two Property”).

The objective of the Phase Two ESA was to assess the areas of potential environmental concern (APECs) identified by a Phase One ESA (Terrapex, 2024). It is understood that the study documented herein is being undertaken for the purposes of submitting a development application for re-development of the Site, and will not be used for filing a Record of Site Condition per Ontario Regulation (O. Reg.) 153/04 under the Environmental Protection Act, *Records of Site Condition - Part XV.1 of the Act*.

2.1 SITE DESCRIPTION

The Site is located southwest of the intersection of Yonge Street and Big Bay Point Road in Barrie, Ontario, and is irregular in shape with an area of approximately 6,409 m². The Site is an operating retail fuel outlet with an underground storage tank nest, fuel distribution lines, pump islands with canopy, a convenience store, and a carwash facility. The Site also includes a storage shed, waste enclosure, propane tank storage enclosures, and a commercial ice freezer.

Based on the Vumap website, the property identification number (PIN) and legal property description for the Site are listed below.

PHASE ONE PROPERTY INFORMATION

Address:	623 Yonge Street and 515 Big Bay Point Road, Barrie, Ontario, L4N 4E7
Property Identification Number:	623 Yonge Street: 587380005 and 587380106 515 Big Bay Point Road: 587380078
Legal Description:	623 Yonge Street: <i>Pt N1/2 Lt 13 Con 12 Innisfil Pt 1 To 4, 6 & 7 51r20147 Except Pt 1, 2 & 4 To 6 51r26058; S/t An Easement Over Part 10 51r31123 In Favor Of Parts 1 To 8 On 51r31123 As In Sc28554; PT N 1/2 LT 13 CON 12 INN PTS 2, 3 & 4 PL 51R-39240; SUBJECT TO AN EASEMENT OVER PT N 1/2 LT 13 CON 12 INN PT 3 51R39240 IN FAVOUR OF PT N 1/2 LT 13 CON 12 INN, PT LTS 4 & 45 PL 1213 & LTS 1,2,& 3 PL 1213 PT 1 51R39240 AS IN SC1102021 TOGETHER WITH AN EASEMENT AS IN SC28554 TOGETHER WITH AN EASEMENT AS IN SC36157 CITY OF BARRIE</i> 515 Big Bay Point Road: <i>PT N1/2 LOT 13 CON 12 (INN) BEING PT 6 PL 51R2694 EXCEPT PT 1 ON PL 51R33419; BARRIE</i>
UTM Coordinates (centre of site, NAD83):	17T East: 607852.03 m North: 4912402.96 m
Site Area:	6,409 m ²

Structures:	Convenience store, tank nest, pump island with canopy, car wash, storage shed, waste enclosure.
Occupants (current):	Petro-Canada retail fuel outlet
Other facilities of note:	Propane tank enclosures, commercial ice freezer.

The surrounding properties are primarily residential to the north and east, and commercial to the south, west and northwest. An institutional property is also located northwest of the Site, as shown on Figure 1 (Site Location Plan) and Figure 2 (General Site Layout).

2.2 PROPERTY OWNERSHIP

Contact information for the registered owner of the Site and the party authorizing this Phase Two ESA is provided in the table below.

Name and Address of Registered Owner:	Suncor Energy Products Partnership 3275 Rebecca Street Oakville, Ontario L6L 6N5
Name and Address of Authorizing Party:	Kelly Klassen, B.Sc., CRM Specialist, Asset Management Advisor Suncor Energy Products Partnership 3275 Rebecca Street Oakville, Ontario L6L 6N5

2.3 CURRENT AND PROPOSED FUTURE USES

The Site is currently being used as a Petro-Canada retail fuel outlet, which is a “commercial property” use per O. Reg. 153/04. (Records of Site Condition – Part XV.1 of the Act).

Following re-development of the Site, the Site will continue to operate as a retail fuel outlet, which is a “commercial” property use” per O. Reg. 153/04.

A copy of the proposed development plan is included in Appendix I.

2.4 APPLICABLE SITE CONDITION STANDARDS

Generic Site Condition Standards (SCS) for evaluating laboratory analytical results for soil and groundwater were determined on the basis of Site-specific criteria specified in O. Reg. 153/04, and are summarized below:

- the Site is not within or adjacent to an area of natural significance as defined within Section 1 (1) of O. Reg. 153/04, does not include any land within 30 m of an area of natural significance, and is not otherwise considered “potentially sensitive”;

- the pH determined for “surface” soil samples (representative of depths not exceeding 1.5 m below ground surface, excluding any surface treatment) analysed as part of this Phase Two ESA ranged from 7.36 to 7.83, which is between the prescribed values of 5 to 9 for the application of generic SCS;
- the pH determined for “subsurface” soil samples (representative of depths greater than 1.5 m below ground surface, excluding any surface treatment) analysed as part of this Phase Two ESA ranged from 8.36 to 8.88, which is between the prescribed values of 5 to 11 for the application of generic SCS;
- more than 2 m of overburden was observed over at least two-thirds of the area of the Site;
- the Site does not include a waterbody and is not located within 30 m of a waterbody;
- stratified site conditions will not be used when evaluating laboratory analytical results;
- current use of the Site is considered to be commercial;
- proposed future re-development of the Site will be commercial and the proposed grading is anticipated not to vary from the existing grade;
- potable water at the Site, and all other properties located (in whole or in part) within 250 m of the Site, is supplied by a municipal drinking water system (as defined in the *Safe Drinking Water Act, 2002*);
- neither the Site nor any property located (in whole or in part) within 250 m of the Site has a well that is used or intended for use as a source of water for human consumption or for agriculture;
- the Site is located in an area designated in the municipal Official Plan as being within Intake Protection Zone 2; and,
- soil texture at the Site has been classified as “fine and medium textured” based on grain size analysis conducted on three soil samples (grain size results are included in Appendix II).

Based on the above, Full Depth Generic SCS applicable to industrial/commercial/community property use that are listed in Table 2 of the April 15, 2011 MECP *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act* document (hereafter referenced as the MECP Table 2 SCS) are considered appropriate for evaluating laboratory analytical results.

3.0 BACKGROUND INFORMATION

3.1 PHYSICAL SETTING

3.1.1 Water Bodies & Areas Of Natural Significance

Based on the review of the aerial photographs, satellite images, and topographic maps completed as part of the previous Phase One ESA, the Site does not include, and is not adjacent to, or within 30 m of a water body, as defined in O. Reg. 153/04. There are no major water bodies within the Phase One Study Area. The nearest water body is Lovers Creek, situated 400 m to the west of the Site. This water body ultimately discharges into Lake Simcoe, a known regional groundwater discharge zone.

3.1.2 Topography & Surface Water Drainage

Based on a topographic map obtained from Atlas of Canada – Toporama, the Site is generally flat. The elevation of the Site is approximately 251 m above mean sea level (amsl).

The general topography of the area is sloped to the west towards Lovers Creek, which flows northerly towards Lake Simcoe.

Storm water from the Site (other than what infiltrates into the ground) is directed towards the municipal storm water sewer system through catch basins located on-Site and on adjacent roadways.

3.2 PAST INVESTIGATIONS

A summary of past environmental reports available for review is presented below.

Summary of Phase One ESA

A final Phase One ESA report, dated February 12, 2024 was completed by Terrapex for the Site in general accordance with the requirements of O. Reg. 153/04, as amended, to support the future re-development of the Site.

The Site is located east of the intersection at Yonge Street and Big Bay Point Road in Barrie, Ontario. The Site is irregular in shape with an area of approximately 6,409 m². The Site is comprised of two properties, 623 Yonge Street and 515 Big Bay Point Road.

The 623 Yonge Street property is an operating retail fuel outlet with associated underground storage tank nest, fuel distribution lines, pump island with canopy, convenience store, and

carwash. The property also includes a waste enclosure, propane tank storage enclosures, and commercial ice freezers.

The 515 Big Bay Point Road property is a vacant residential lot. The property is grass covered, with trees in the eastern portion.

It is understood that the study documented herein is being undertaken for the purposes of submitting a development application for re-development of the Site, and will not be used for filing a Record of Site Condition per Ontario Regulation (O. Reg.) 153/04 under the Environmental Protection Act, *Records of Site Condition - Part XV.1 of the Act*.

The objective of the investigation was to identify actual and potential sources of contamination associated with the Site arising from current and/or historical activities on the Site and on properties within the Phase One Study Area (refer to Section 4.1.1. below), in order to satisfy the Phase One ESA general objectives listed in the Ontario Records of Site Condition - Part XV.1 of the Act regulation (O. Reg. 153/04):

- to develop a preliminary determination of the likelihood that one or more contaminants have affected any land or water on, in or under the Phase One Property;
- to determine the need for a Phase Two ESA; and,
- to provide a basis for carrying out any Phase Two ESA required.

Through an evaluation of the information gathered from the records review, interviews, and the site reconnaissance, four APECs were identified at the Site associated with potentially contaminating activities (PCAs) at the Site and on surrounding properties, including:

- APEC 1, PCA 1: #28 - Gasoline Station with Underground Fuel Storage Tanks (on-site)
- APEC 2, PCA 2: #10 - Commercial Autobody Shops (on-site)
- APEC 3, PCA 3: #30 - Importation of Fill Material of Unknown Quality (on-site)
- APEC 4, PCA 4: #28 - Gasoline Station with Underground Fuel Storage Tanks (off-site).

In conclusion, the Phase One ESA identified several APECs at the Site, resulting from past and current commercial uses of the Site and off-site properties. As a result, the completion of a Phase Two ESA was required for the Site in accordance with the requirements of O. Reg. 153/04.

In addition to the Phase One ESA, the following environmental reports were reviewed:

- Full site Monitoring Report, 623 Yonge Street, Barrie, ON, prepared for Client by PGL Environmental Consultants, dated September 7, 2018.

- Semi Annual Site Monitoring Report, 623 Yonge Street, Barrie, ON, prepared for Client by Terrapex Environmental Ltd, dated various dates of 2019 to 2023.

PGL Environmental Consultants, September 2018, Full Site Monitoring Report

Work Program	• A total of 19 on-site and off-site monitoring wells were initially installed for monitoring. • 12 wells were monitored in November, 2017, 17 wells in March 2018, 13 wells on April 2018, 12 wells in May 2018, and 16 wells in June 2018.
Site Condition Standards Applied	• MECP Table 2 I/C/C SCS for coarse grained soils
Analytical Program	• BTEX and PHC F1 to F4 analyses were completed on groundwater samples in March 2018. Exceedances of the O.Reg 153/04 Table 2 SCS in five monitoring wells were reported.
Comments / Limitations / Other	• The Site has been monitored routinely since November 2005. A total of 997 L of petroleum product and water was removed from five monitoring wells between November 2017 and June 2018.

Terrapex Environmental Consultants, 2019 to 2023, Semi Annual Monitoring Report

Work Program	• A total 17 on-site and off-site wells were monitored • Monitoring activities occurred quarterly, with semi-annual sampling
Site Condition Standards Applied	• MECP Table 2 I/C/C SCS for coarse grained soils
Analytical Program	• BTEX and PHC F1 to F4 analyses were completed on groundwater samples in April 2019. Exceedances above O. Reg 153/04 MECP Table 2 SCS were identified in two on-site and six off-site monitoring wells.
Comments / Limitations / Other	• Terrapex has been conducting CMP work on the Site since 2019. There are 5 on-site monitoring wells and 12 off-site monitoring wells. Initial monitoring and sampling in 2019 identified BTEX and PHCs impacts in two on-site and six off-site monitoring wells. • A semi annual vacuum truck purging program was initiated in 2020. Approximately 400 L of petroleum product and water was removed between 2020 and 2023. In general, on-going monitoring indicates impacts have not significantly changed during this time, with the exception of an additional monitoring well being identified to have PHC impacts in September 2022.

4.0 SCOPE OF INVESTIGATION

4.1 OVERVIEW OF SITE INVESTIGATION

The scope of Terrapex's assessment comprised the following:

- preparing a Sampling and Analysis Plan that identified target sampling locations and associated rationale, a proposed laboratory analytical program, and the number and type of Quality Control (QC) samples;
- drilling eleven boreholes between November 7 and 14, 2023 to depths ranging between 6.1 and 9.5 m bgs, and installing seven groundwater monitoring wells;
- collecting soil samples and logging of visual, olfactory and tactile soil characteristics;
- measuring total organic vapour (TOV) and combustible soil vapour (CSV) concentrations in soil;
- submitting selected soil and groundwater samples for laboratory analyses;
- surveying the elevation of each borehole and the top of pipe elevation at each monitoring well using a Global Navigation Satellite System (GNSS) survey;
- monitoring groundwater conditions within each monitoring well;
- evaluating laboratory analytical results with respect to the selected SCS; and,
- refining the existing Conceptual Site Model (developed during the previous Terrapex Phase One ESA) to reflect the information collected during the Phase Two ESA activities.

The activities described above were completed as part of concurrent geotechnical and hydrogeological investigations, provided under separate cover.

The Sampling and Analysis Plan is provided in Appendix III. The sampling procedures are documented in detail in Section 5.0.

4.2 MEDIA INVESTIGATED

Based on the Phase One ESA findings, the Phase Two ESA work program documented herein included investigation of the environmental quality of both soil and groundwater at the Site. The environmental quality of sediment was not investigated as sediment is not present at the Site.

Soil and groundwater were investigated by drilling boreholes, installing monitoring wells, and sampling groundwater, as described above, and in Section 5.0.

4.3 PHASE ONE CONCEPTUAL SITE MODEL

The Phase One Conceptual Site Model (CSM) presented in the Phase One ESA report (Terrapex, 2024) includes figures and narrative that provided the logical basis for the interpretation of PCAs and APECs on the Phase Two Property. A summary of the CSM is provided in the sections below.

4.3.1 Conceptual Site Model Figures

The Phase One Conceptual Site Model (CSM) was developed based on the findings of the records review, site reconnaissance, and interviews completed as part of the Phase One ESA. The Phase One CSM consists of the following narrative and referenced figures:

PHASE ONE CSM FIGURES

Requisite Feature	Figure
i. Show any existing buildings and structures,	Figure 2: General Site Layout
ii. Identify and locate water bodies located in whole or in part in the Phase One Study Area,	Figure 3: Conceptual Site Model – Phase One Study Area and Surrounding Land Uses
iii. Identify and locate any areas of natural significance located in whole or in part on the Phase One Study Area,	Figure 3: Conceptual Site Model – Phase One Study Area and Surrounding Land Uses
iv. Locate any drinking water wells at the Phase One Property	Figure 3: Conceptual Site Model – Phase One Study Area and Surrounding Land Uses
v. Show roads, including names, within the Phase One Study Area,	Figure 3: Conceptual Site Model – Phase One Study Area and Surrounding Land Uses
vi. Show uses of properties adjacent to the Phase One Property,	Figure 3: Conceptual Site Model – Phase One Study Area and Surrounding Land Uses
vii. Identify and locate areas where any potentially contaminating activity has occurred, and show tanks in such areas,	Figure 4: Conceptual Site Model – Potentially Contaminating Activities
viii. Identify and locate any areas of potential environmental concern.	Figure 5: Conceptual Site Model – Areas of Potential Environmental Concern

4.3.2 Conceptual Site Model Narrative

The Phase One CSM comprises the following narrative provided in the table below:

PHASE ONE CSM NARRATIVE

Requisite Component	Description & Assessment																		
i. Areas where potentially contaminating activity on, or potentially affecting the Phase One Property has occurred,	APEC # 1, PCA 1: 28 – Gasoline Station with Underground Fuel Storage Tanks (on-site) APEC # 2, PCA 2: 10 – Commercial Autobody Shops (on-site) APEC # 3, PCA 3: 30 – Importation of Fill Material of Unknown Quality (on-site) APEC # 4, PCA 4: 28 – Gasoline Station with Underground Fuel Storage Tanks (off-site) Please refer to Table 3 “Areas of Potential Environmental Concern” appended.																		
ii. Any contaminants of potential concern,	BTEX, PHCs, PAHs, Metals (soil and groundwater) Please refer to Table 3 “Areas of Potential Environmental Concern” appended.																		
iii. The potential for underground utilities, if present, to affect contaminant distribution and transport,	In general, potential migration pathways for subsurface contaminants at the Site would consist of buried services or remnants of former buried services or in-filled basements of former buildings.																		
iv. Available regional or site specific geological and hydrogeological information, and	<table border="0"> <tr> <td data-bbox="537 877 711 940">Site & Regional Topography:</td><td data-bbox="727 877 1425 972">The Site is generally flat. No major topographic features are mapped on the Site. The Phase One Study Area generally slopes to the west towards Lovers Creek, which flows north towards Lake Simcoe.</td></tr> <tr> <td data-bbox="537 982 711 1045">Approximate Elevation:</td><td data-bbox="727 982 1425 1014">251 m asl</td></tr> <tr> <td data-bbox="537 1056 711 1150">Physiography and Soil Stratigraphy:</td><td data-bbox="727 1056 1425 1150">Newmarket Till, which is characterized as sandy silt to sand till to silt matrix, moderate to high matrix carbonate content, clast content and low-medium permeability.</td></tr> <tr> <td data-bbox="537 1161 711 1255">Bedrock and Approximate Depth:</td><td data-bbox="727 1161 1425 1224">Limestone, dolostone, shale, arkose and sandstone of Shadow Lake Formation.</td></tr> <tr> <td data-bbox="537 1266 711 1360">Surface Water:</td><td data-bbox="727 1266 1425 1360">None within, or within 30 m of, the Phase One Property. The nearest water body to the Site is Lovers Creek, located approximately 390 m west of the Site and which flows to the north into Lake Simcoe.</td></tr> <tr> <td data-bbox="537 1371 711 1434">Area of Natural Significance:</td><td data-bbox="727 1371 1425 1434">None within, or within 30 m of, the Phase One Property, or within the Phase One Study Area.</td></tr> <tr> <td data-bbox="537 1444 711 1539">Wellhead Protection Area:</td><td data-bbox="727 1444 1425 1539">None located within the Phase One Property, or within the Phase One Study Area. However, the Site is located in an area designated in the municipal Official Plan as being within Intake Protection Zone 2.</td></tr> <tr> <td data-bbox="537 1549 711 1644">Municipal Drinking Water System</td><td data-bbox="727 1549 1425 1644">All properties within the Phase One Study Area are deemed to be connected to the municipal drinking water system supplied by the City of Barrie.</td></tr> <tr> <td data-bbox="537 1654 711 1841">Well For Consumption/ Agricultural Use:</td><td data-bbox="727 1654 1425 1841">Based on the ERIS report, 57 records for water supply wells were identified within the Phase One Study Area. Approximate locations of the water supply well records are provided in the ERIS report and on Figure 3. One record provided, but not specifically addressed as “on-site” (910459855), appears to have been previously installed within the Site boundaries, based on a review of the record</td></tr> </table>	Site & Regional Topography:	The Site is generally flat. No major topographic features are mapped on the Site. The Phase One Study Area generally slopes to the west towards Lovers Creek, which flows north towards Lake Simcoe.	Approximate Elevation:	251 m asl	Physiography and Soil Stratigraphy:	Newmarket Till, which is characterized as sandy silt to sand till to silt matrix, moderate to high matrix carbonate content, clast content and low-medium permeability.	Bedrock and Approximate Depth:	Limestone, dolostone, shale, arkose and sandstone of Shadow Lake Formation.	Surface Water:	None within, or within 30 m of, the Phase One Property. The nearest water body to the Site is Lovers Creek, located approximately 390 m west of the Site and which flows to the north into Lake Simcoe.	Area of Natural Significance:	None within, or within 30 m of, the Phase One Property, or within the Phase One Study Area.	Wellhead Protection Area:	None located within the Phase One Property, or within the Phase One Study Area. However, the Site is located in an area designated in the municipal Official Plan as being within Intake Protection Zone 2.	Municipal Drinking Water System	All properties within the Phase One Study Area are deemed to be connected to the municipal drinking water system supplied by the City of Barrie.	Well For Consumption/ Agricultural Use:	Based on the ERIS report, 57 records for water supply wells were identified within the Phase One Study Area. Approximate locations of the water supply well records are provided in the ERIS report and on Figure 3. One record provided, but not specifically addressed as “on-site” (910459855), appears to have been previously installed within the Site boundaries, based on a review of the record
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Well For Consumption/ Agricultural Use:	Based on the ERIS report, 57 records for water supply wells were identified within the Phase One Study Area. Approximate locations of the water supply well records are provided in the ERIS report and on Figure 3. One record provided, but not specifically addressed as “on-site” (910459855), appears to have been previously installed within the Site boundaries, based on a review of the record																		

Requisite Component	Description & Assessment
v. How uncertainty or absence of information obtained in each of the components of the Phase One ESA could affect the validity of the model.	The main uncertainty associated with the CSM developed for the Site relates to the limited information regarding the former use of the Site as well as the limited information regarding activities on neighbouring properties. Operation of some off-site PCAs leading to APECs on-site are unknown. However, intrusive investigations will be carried out to determine if they effect the Site. Notwithstanding the above, it should be noted that Phase One ESAs have inherent limitations, and therefore findings cannot be considered definitive (i.e., the findings of a Phase One ESA are inherently associated with some uncertainty)

4.3.3 Exemptions for De-Icing Agents, Excess Soil, and Drinking Water

The following table describes the rationale pertaining to any applicable reliance on exemptions provided by Paragraphs 1, 1.1 and 2 of Section 49.1 of O. Reg. 153/04.

RELIANCE ON EXEMPTIONS

Exemption(s) Circumstances	Rationale
(1.) Substance(s) applied to surfaces for safety of vehicular or pedestrian traffic under conditions of snow or ice or both.	Relied upon using salt for de-icing purposes on paved areas.
(1.1) Excess soil deposited at the property for final placement meets the soil quality standards that apply to the property as determined in accordance with the Excess Soil Standards.	Not relied upon.
(2.) There has been a discharge of drinking water within the meaning of the Safe Drinking Water Act, 2002.	Not relied upon.

Given that SAR and EC in soil, and chloride and sodium in groundwater were identified on-site in areas of surface parking, the elevated levels of these parameters are attributed to the use of salt for winter maintenance. With the absence of any other documented potential source of such impacts at or in the vicinity of the Site during the Phase One ESA, the SAR and EC impacts in soil and the chloride and sodium impacts in groundwater have been determined to arise from the application of a substance (specifically, salt) to ground surfaces for the safety of pedestrian and vehicle traffic under conditions of snow or ice. As per Section 49.1 of O. Reg. 153/04, such impacts are not deemed to represent an exceedance of a Site Condition Standard for the purposes of Part XV.1 of the Environmental Protection Act.

4.4 DEVIATIONS FROM THE SAMPLING AND ANALYSIS PLAN

No deviations from the Sampling and Analysis Plan were encountered during the Phase Two ESA investigation, with the exception of an additional groundwater sampling event. The sampling event on December 15, 2023 was conducted to verify initial groundwater results from the prior sampling event in select wells (MW402, MW403, MW406, and MW409). A copy of the Sampling and Analysis Plan is provided in Appendix III.

4.5 IMPEDIMENTS

Access to the Site was not impeded at any time during the Phase Two ESA work program, with the exception of underground services, such as water lines, gas service, and private hydro which are present in some areas of the Site. Proposed borehole locations were placed to avoid high traffic areas where possible, overhead utilities and tree branches, and to avoid intersecting the tank nest or car wash interceptor, and to maintain unrestricted access to the car wash entrance and exit.

5.0 INVESTIGATION METHOD

5.1 GENERAL

The soil and groundwater quality at the Site were investigated at the locations shown on Figures 2 and 5B, through the advancement of boreholes and the installation of groundwater monitoring wells to characterize environmental conditions at the APECs identified in the Phase One ESA. Investigation methods followed Standard Operating Procedures prepared by Terrapex for the conduct of environmental investigations.

5.2 DRILLING AND EXCAVATING

Borehole drilling and monitoring well installation services for this work program were provided by Pontil Drilling Services Inc. (Pontil) of Mount Albert Ontario using a conventional rotary drilling rig, equipped with split spoon samplers and hollow stem augers. Pontil is a MECP-licensed well drilling contractor.

Prior to drilling, hydro-excavation at all borehole locations was completed by daylighting contractor, Badger Daylighting Ltd.

Measures to minimize potential cross-contamination or other potential bias are described in Terrapex's Standard Operating Procedures (Appendix IV). There were no deviations from the Standard Operating Procedures regarding borehole drilling during this investigation.

5.3 SOIL

5.3.1 Soil Sampling

Borehole advancement conducted as part of the Phase Two ESA work program was completed under the full-time supervision of Terrapex staff. Soil samples were collected at each borehole location at regular depth intervals using a split spoon sampler..

Each recovered sample was divided into two portions. One portion was placed in a clear sampling bag for field screening/logging. The second portion was collected using laboratory supplied sampling containers for analysis of selected COPCs. Samples considered to be "worst-case" based on field screening were submitted for analysis and extracted at the laboratory within the required holding time. Soil descriptions were recorded based on the Unified Soil Classification System (USCS).

Samples for analysis were placed in a cooler with ice and delivered with signed chain of custody to the project laboratory for analysis.

Borehole locations are shown on Figure 5. Tabular borehole logs illustrating the stratigraphy encountered, chemical analysis samples and measured soil vapour (SV) concentrations are included in Appendix V.

Measures to minimize potential cross-contamination or other potential bias are described in Terrapex's SOPs (Appendix IV).

5.3.2 Field Screening Measurements

Total Organic Vapour (TOV) and Combustible Soil Vapour (CSV) concentrations were measured in each soil sample using a RKI GX-6000 photoionization detector (PID) calibrated to isobutylene and/or a RKI Eagle 2 Hydrocarbon Surveyor and photoionization detector (Eagle) calibrated to isobutylene, and *n*-hexane and operated in "methane elimination" mode. The PID can measure organic compounds to a nominal detection level of 0.1 part per million by volume (ppm). The Eagle can measure organic compounds to a nominal detection level of 1 part per million by volume (ppm), and combustible organic compounds to a nominal detection level of 5 ppm.

The PID and Eagle were calibrated according to the manufacturer's instructions and Terrapex Standard Operating Procedures before the field investigation.

"Worst-case" soil samples from each borehole were identified on the basis of vapour screening, visual and olfactory evidence of contamination, and sample location in relation to potential point sources of impact.

5.4 GROUNDWATER

5.4.1 Monitoring Well Installation

Monitoring well installation services for this work program were provided by Pontil, under contract with Terrapex. In order to facilitate monitoring well installation, the drill rigs were equipped with hollow stem augers.

A monitoring well was installed in select boreholes, as shown on Figures 2 and 5B. The monitoring wells were constructed using 50 mm inside diameter schedule 40 PVC well pipe and #10 slot screen interval. The annulus of each monitoring well was backfilled with washed silica sand to a depth of approximately 0.3 m above the screened interval. A bentonite seal was placed above the sand pack to prevent infiltration of surface water into the monitoring well. A flush-mount or monument-style well casing was cemented in place over each monitoring well for protection. Well installation details are provided within the borehole logs in Appendix IV.

The depth to the bottom of the screened intervals of the monitoring wells was between 6.1 and 9.5 m bg. The screened interval depths were established to assess the surface of the groundwater table for the potential on-Site and off-Site sources of contamination.

Measures to minimize potential cross-contamination or other potential bias are described in Terrapex's Standard Operating Procedures. There were no deviations from the Sampling and Analysis Plan regarding the installation of the monitoring wells.

Prior to developing and sampling, the monitoring wells were monitored for combustible and organic vapours in the well headspace, and depths to water and to the bottom were measured in each well. The estimated volume of water in each well and its annulus were calculated based on the depth measurements, diameter of the well standpipe and annulus, and an assumed annulus porosity of 30%.

The monitoring wells were subsequently developed in accordance with Terrapex's SOPs in order to remove entrained particulate in the well standpipe, well screen and filter pack as well as surrounding formation materials. Development of each monitoring well was conducted with a dedicated inertial sampler comprising low density polyethylene (LDPE) tubing and a LDPE foot valve.

5.4.2 Field Measurements of Water Quality Parameters

Prior to conducting groundwater sampling activities, vapour levels were measured within the headspace of each monitoring using a PID and Eagle. The depth to groundwater and apparent thickness, if any, of any light non-aqueous phase liquids (LNAPL) were then measured using a Solinst interface probe.

To mitigate cross-contamination, the interface probe was washed with a liquid solution of Alconox detergent and rinsed with potable water between each monitoring well. A fresh pair of nitrile gloves was worn at each well location.

Water quality parameters (i.e., temperature, pH, specific conductivity, dissolved oxygen, and oxidation reduction potential) were measured in monitoring wells prior to sampling activities using a flow-through cell and a YSI 556 water quality sensor, as detailed in Terrapex's SOPs.

5.4.3 Groundwater Sampling

Low flow sampling was conducted in order to minimize drawdown of the water table. After water quality parameters stabilized, groundwater samples from the monitoring wells were collected. Sampling was conducted using "low-flow" methodology using a peristaltic pump and dedicated sample tubing, as per Terrapex SOPs.

Groundwater samples were collected directly into pre-cleaned, laboratory-supplied sampling bottles, packed in a cooler with ice, and shipped under signed chain of custody to AGAT Laboratories (AGAT) for laboratory analysis.

5.5 SEDIMENT

Sediment sampling was not completed as sediment is not present at the Site.

5.6 ANALYTICAL TESTING

Laboratory analytical services for this work program involving soil and groundwater media were provided by AGAT's laboratory in Mississauga, Ontario under contract with Terrapex. AGAT is accredited by Standards Council of Canada (SCC) to International Standard ISO/IEC 17025:2005, *General Requirements for the Competence of Testing and Calibration Laboratories*.

Soil and groundwater samples were analysed as per the sampling and analysis plan to address the identified APECs from the Phase One ESA.

5.7 RESIDUE MANAGEMENT

Soil cuttings and purged water generated during the work program were contained on-Site and disposed of at a licenced waste disposal facility following completion of field work.

5.8 ELEVATION SURVEYING

Terrapex completed an elevation survey of the top of the pipe and ground surface for each monitoring well using a Trimble TDC 600 data collector and DA2 GNSS Receiver in metres above mean sea level (m amsl).

5.9 QUALITY ASSURANCE AND QUALITY CONTROL MEASURES

Quality Assurance and Quality Control (QA/QC) measures were implemented during the Phase Two ESA in accordance with Terrapex Standard Operating Procedures. A summary of these measures follows.

During drilling, to mitigate cross-contamination, split spoons were cleaned using potable water and Alconox solution after the collection of each sample. Fresh nitrile gloves were worn for the handling of each sample, and a dedicated, lab provided soil sampler was used for the collection of each sample for volatile parameters.

During groundwater sampling, dedicated sampling equipment was used at each monitoring well location. To mitigate cross-contamination, the interface probe was washed with a liquid solution of Alconox detergent and rinsed with potable water between each monitoring well. A fresh pair of nitrile gloves was donned at each well location.

Pre-cleaned groundwater sample containers for the specific parameters of interest were provided by the laboratory and used at each borehole and monitoring well location for the collection of soil and groundwater samples. Samples for analyses were placed in an enclosed cooler with ice and shipped under signed chain of custody and custody seals to the AGAT lab in Mississauga for chemical analysis.

QA/QC samples collected as part of the Phase Two investigation program included the following:

- One blind field duplicate soil sample for analysis of BTEX and PHCs.
- One blind field duplicate soil sample for analysis of PAHs.
- One blind field duplicate soil sample for analysis of metal and inorganic parameters.
- One blind field duplicate groundwater sample for analysis of BTEX and PHCs, and PAHs.
- Two blind field duplicate groundwater samples for analysis of metal and inorganic parameters.
- One trip blank sample was submitted with the soil samples for analysis of BTEX and PHC fraction F1.
- One trip blank was submitted with the groundwater samples for analysis of VOCs (including BTEX) and PHC F1.

With the exception of samples prepared by the laboratory, the laboratory was not informed of the nature or number of the field QA/QC samples outlined above.

6.0 REVIEW AND EVALUATION

6.1 GEOLOGY

The Site is located in a physiographic region known as the Peterborough Drumlin Field, which is considered a drumlinized till plain. Quaternary geology mapping confirms that the Site is located in an area of Newmarket Till, which consists of a predominantly sandy silt to silt matrix, moderate to high matrix carbonate content, clast content and low-medium permeability.

Bedrock geology consists of Limestone, dolostone, shale, arkose, sandstone of the Shadow Lake Formation. Bedrock was not encountered during field investigations completed by Terrapex. A review of Ontario's Department of Geology's bedrock geology map for the Site indicates the bedrock elevation in the vicinity of the Site at approximately 40 m below grade (bg) (211 m amsl).

A review of the Site Topographic Map obtained from Atlas of Canada – Toporama shows the elevation of the Site is approximately 251 m above mean sea level (amsl). The topography at the Site is generally flat, with the general slope of the surrounding area being towards the west towards Lovers Creek.

Based on the findings of the Phase Two ESA work program, the Site is generally surfaced with a layer of topsoil or asphalt surface cover and granular sub-base underlain by fill material up to a depth of 2.9 m bg. The fill materials were underlain by sand and silt till, up to a depth of 9.5 m bg, which represents the maximum depth of investigation.

The general soil stratigraphy at the Site is shown on the borehole logs in Appendix V and on cross sections in Figures 7A and B.

6.2 GROUNDWATER ELEVATIONS AND FLOW DIRECTION

Seven groundwater monitoring wells were installed at seven locations at the Site in November 2023.

Three groundwater monitoring events were conducted at the Site on November 17 and 23, and December 1, 2023. The depth to groundwater in the monitoring wells on November 23, 2023 ranged from 4.39 m bg in MW410 to 5.78 m bg in MW408.

The findings of the monitoring event indicated that the regional groundwater flow is towards the northwest, with local groundwater flow generally towards the centre of the Site, likely affected by proximity to the tank nest. This finding is consistent with the results of the hydrogeological investigation completed concurrently with the Phase Two ESA. The groundwater monitoring data is summarised in Table 1 and the interpreted groundwater elevation contours are shown on Figure 6.

Free-product or non-aqueous phase liquid (NAPL) was not encountered during monitoring, purging, or sampling of the monitoring wells during the Phase Two ESA work programs.

6.3 GROUNDWATER HYDRAULIC GRADIENTS AND CONDUCTIVITY

Based on the relative groundwater elevations on December 15, 2023, the interpreted horizontal gradient ranged between 245.76 m/m (MW411) and 247.90 m/m (MW409), with an average of approximately 0.0356 m/m.

As described within Terrapex's 2024 Hydrogeological report, *in situ* single well response tests (commonly referred to as "slug tests") were performed on monitoring wells MW408, MW409, MW410, and MW411 to assess the hydraulic conductivity of adjacent formations. In addition to considering the diameter of grains in the soil (i.e., Hazen Testing), *in situ* testing also considers compaction, effective porosity (as opposed to simple porosity), and existing sedimentary feature factors.

Test data were analysed with the Aqtesolv software package using the Bouwer and Rice (1976) unconfined solution method. A summary of the single well response tests and infiltration tests are presented below:

HYDRAULIC CONDUCTIVITY AND INFILTRATION RATE ESTIMATES

Location Identification	Description of Soil Moisture Conditions	Soils at Screened Interval	Screened Interval	SPT N-Value at Screened Interval	Estimated Hydraulic Conductivity
			mbg (masl)		K (m/s)
MW408	Saturated	Sandy silt to silty sand	3.0 to 6.1 (248.9 to 245.8)	17 to 41	2.93×10^{-9}
MW409	Saturated	Sandy silt to silty sand	3.0 to 6.1 (247.4 to 244.3)	14 to 24	3.66×10^{-8}
MW410	Saturated	Sandy silt to silty sand	3.0 to 6.1 (248.2 to 245.1)	16 to 66	3.71×10^{-8}
MW411	Saturated	Sandy silt to silty sand	3.0 to 6.1 (248.2 to 245.2)	20 to 30	8.87×10^{-9}

mbg– indicates 'metres below ground.

masl– indicates 'metres above sea level.

As summarized in the above table, hydraulic conductivities ranged from approximately 2.93×10^{-9} m/s to 3.71×10^{-8} m/s in the locations tested.

6.4 SOIL TEXTURE

As part of Terrapex's concurrent geotechnical investigation, Grain size analysis was conducted on three soil samples for particle size distribution. As a result, soil texture was determined to be coarse-textured per the definitions of O. Reg. 153/04.

6.5 SOIL FIELD SCREENING

The conceptual site model developed during the Phase One ESA suggests that potential soil impacts associated with fill materials could be associated with the presence of fill materials themselves. Given that such impacts are associated with the inherent environmental quality of the fill materials, soil field screening for assessment of the environmental quality of fills was generally geared to identifying the presence/absence of fill materials, and identifying samples of fill containing debris (asphalt) that would be particularly suggestive of poor quality fill materials.

In addition, potential impacts associated with spills, leaks, or other releases were screened by measuring TOV and CSV concentrations in the headspace of the portion of recovered soil samples. The soil samples were placed in sealable sample bags for further site characterization (i.e., the portion not placed directly into sampling containers for possible laboratory analyses).

During the Phase Two ESA, CSV concentrations were measured for each soil sample recovered from the boreholes using a PID and Eagle. TOV concentrations measured on recovered samples from each borehole ranged from 0 ppm to 2 ppm. CSV concentrations ranged from less than 5 ppm to 40 ppm. These results are not indicative of environmental concerns.

The TOV and CSV concentrations measured for each soil sample are included on the borehole logs (Appendix V).

6.6 SOIL QUALITY

Laboratory results for the soil samples submitted for analyses of metals and inorganics, PAHs, BTEX and PHCs, and are summarized in Tables 2 through 4, respectively, with the laboratory Certificates of Analysis enclosed in Appendix VI.

As indicated in the tables, concentrations of all parameters in the soil samples were below the applicable SCSs, except for BH404-2 for Sodium Adsorption Ratio (SAR), and MW403-1 for Electrical Conductivity (EC) and SAR.

Given that SAR and EC in soil, was identified on-site in areas of surface parking, the elevated levels of these parameters are attributed to the use of salt for winter maintenance. With the absence of any other documented potential source of such impacts at or in the vicinity of the Site during the Phase One ESA, the SAR and EC impacts in soil have been determined to arise from

the application of a substance (specifically, salt) to ground surfaces for the safety of pedestrian and vehicle traffic under conditions of snow or ice. As per Section 49.1 of O. Reg. 153/04, such impacts are not deemed to represent an exceedance of a Site Condition Standard for the purposes of Part XV.1 of the Environmental Protection Act.

Lateral and vertical delineation of parameter impacts to soil are depicted as plan and cross-sectional views presented in Figures 8 through 10.

Copies of the Laboratory Certificates of Analyses are attached in Appendix V.

6.7 GROUNDWATER QUALITY

Laboratory results for the groundwater samples submitted for analyses of metals and inorganics, PAHs, BTEX and PHCs are summarized in Tables 5 through 7, respectively, with the laboratory Certificates of Analysis enclosed in Appendix VI.

As indicated in the tables, concentrations of PAHs, BTEX and PHCs in the groundwater samples were below the applicable SCS. Exceedances of the following metal and inorganic parameters were identified in groundwater:

- MW402 for Cobalt, Chloride and Sodium
- MW403 for Barium, Chloride, Cobalt, Molybdenum and Uranium
- MW406 for Cobalt, Chloride and Sodium
- MW409 for Cobalt, Chloride and Sodium

Given that chloride and sodium in groundwater were identified on-site in areas of surface parking, the elevated levels of these parameters are attributed to the use of salt for winter maintenance. With the absence of any other documented potential source of such impacts at or in the vicinity of the Site during the Phase One ESA, the chloride and sodium impacts in groundwater have been determined to arise from the application of a substance (specifically, salt) to ground surfaces for the safety of pedestrian and vehicle traffic under conditions of snow or ice. As per Section 49.1 of O. Reg. 153/04, such impacts are not deemed to represent an exceedance of a Site Condition Standard for the purposes of Part XV.1 of the Environmental Protection Act.

Lateral and vertical delineation of parameter impacts to groundwater are depicted as plan and cross-sectional views presented in Figures 11 through 13.

Copies of the Laboratory Certificates of Analyses are attached in Appendix VI.

6.8 SEDIMENT QUALITY

The environmental quality of sediment was not investigated as sediment is not present at the Site.

6.9 QUALITY ASSURANCE AND QUALITY CONTROL RESULTS

AGAT's QA/QC program consisted of the analysis of laboratory duplicates, method and spiked blanks, process percent recoveries, matrix spikes, and surrogate percent recoveries, as appropriate for the particular analysis protocol.

QA/QC Control Limits: A review of the quality assurance reports attached to the laboratory certificates of analyses indicate that the laboratory QA/QC samples were within the quality control limits.

Lab Duplicate Samples: Acceptable correlation was generally observed between the laboratory duplicate and its corresponding sampling pair for each of the tested parameters, with the exception of the following:

Lab report # 23T093390

- the relative percent difference (RPD) for F3 (C16 to C34) in soil in batch 5461314 was outside the acceptable limit.

The RPD exceedance in this sample was attributed to sample heterogeneity. The overall quality control associated with these results still met the acceptability criteria. Details of the above are in the Laboratory certificates of analyses.

Matrix Spike Recoveries: No issues regarding matrix spike recoveries were outlined in any of the laboratory certificates of analysis.

Detection Limits: Detection limits generally did not require adjustment, with the exception of:

- the detection limits of soil sample MW107-1 was adjusted for analysis of PAHs due to the level of analytes. However, all detection limits were below the applicable SCS.

General Comments: Laboratory analyses generally did not deviate from standard protocol.

Field Duplicate Samples: Acceptable correlation for field duplicate sample results was observed between the duplicate sample and its corresponding sampling pair for each of the tested parameters, with the exception of:

- GW sample MW409 and corresponding sampling field duplicate (MW1000) RPD for Molybdenum has an RPD of 59%.

However, this is not considered to be of concern, due to the heterogeneous nature of fill materials, and other parameters having acceptable correlation.

Trip Blank Samples: Trip blank samples were submitted for analysis of BTEX/F1 as part of the soil and groundwater sampling events. Analytical results from the trip blank samples were all less than the detection limit.

Based on the above analysis of the QA/QC program, no concerns regarding the adequacy or representativeness of the sampling and analytical program were identified and, as a result, the decision-making was not affected, and the overall objectives of the investigation and the assessment were met.

6.10 PHASE TWO CONCEPTUAL SITE MODEL

A preliminary Conceptual Site Model (CSM) was developed as part of the Phase One ESA. Following the completion of the Phase Two ESA field program, the conceptual site model was updated to present the current Site characteristics and identify actual or potential sources of contamination, pathways, release mechanisms, receptors, and exposure routes.

Additional inputs to the conceptual site model include:

- Stratigraphy observed during the previous and recent Phase Two ESA work programs;
- Results of chemical testing for the current soil and groundwater conditions at the Site; and,
- Groundwater levels and interpreted groundwater flow direction.

The Phase Two CSM is comprised of the narrative in Appendix VIII and the Figures contained in this report.

7.0 CONCLUSIONS

Based on the findings of the Phase Two ESA, the environmental quality of groundwater does not meet the Table 2 SCS. However, as the Site will continue operating as a retail fuel outlet under the same ownership, and an RSC is not to be filed for the Site, a full-depth soil remediation and/or a risk assessment is not required to be completed at this time.

7.1 SIGNATURES

The environmental assessment described herein was conducted in accordance with the terms of reference for this project, agreed upon by Suncor Energy Products Partnership and Terrapex Environmental Ltd.

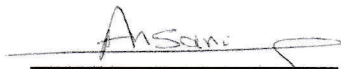
The Phase Two ESA of the property located at the northern and western portion of the property at 623 Yonge Street and 515 Big Bay Point Road in Barrie, Ontario was conducted in accordance with O. Reg. 153/04 by, or under the supervision of, a Qualified Person as required by the regulation.

Terrapex Environmental Ltd. has exercised due care, diligence, and judgement in the performance of this Phase Two ESA; however, studies of this nature have inherent limitations. The reported information is believed to provide a reasonable representation of the general environmental conditions at the site at the time the assessment was conducted. However, the data were collected at discrete locations and conditions may vary at other locations or with the passage of time. The assessment was also limited to a study of those chemical parameters specifically addressed in this report.

In addition, our comments, conclusions, and recommendations are based in part on the observations and data documented by third parties. By necessity, except where explicitly noted, we have relied upon the accuracy and completeness of information presented by said third parties, regardless of any disclaimers regarding reliance provided in the documentation subjected to peer review. Terrapex Environmental Ltd. does not assume any responsibility for errors, omissions, or other limitations pertaining to third party work programs.

This report has been prepared for the sole use of Suncor. Terrapex Environmental Ltd. accepts no liability for claims arising from the use of this report, or from actions taken or decisions made as a result of this report, by parties other than Suncor.

Respectfully submitted,
TERRAPEX ENVIRONMENTAL LTD.



Laila Torabansari, M.Sc.
Project Manager
Report Author



Sara Sutherland, LET, CET, EP QP_{ESA}
Senior Project Manager
Senior Reviewer



Professional Engineers
Ontario

Licensed Engineering Technologist

Name: S. SUTHERLAND
Number: 100540591
Limitations: Phase I and Phase II of
Environmental Site Assessment including
filing of Record of Site Condition.

Association of Professional Engineers of Ontario

8.0 REFERENCES

Regulations and Guidelines:

Ontario Regulation 153/04, Records of Site Condition – Part XV.1 of the Environmental Protection Act

Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, April 15, 2011

Physical Setting Sources:

Aerial photographs for the years 1930, 1939, 1947, 1953, 1962, 1971, 1983, and 1992 available from the Metropolitan Toronto Archives, and for the years 2002 and 2013 available from the Google Earth website (<http://earth.google.com/>), and from Vumap website, provided by First Base Solutions: (<http://vumap.firstbasesolutions.com/index.php>).

Topographic Map: National Topographic Systems (NTS), Energy, Mines and Resources Canada, (1:50,000), Atlas of Canada Toporama mapping, available from the Natural Resources Canada website: <http://atlas.nrcan.gc.ca/site/english/index.html>, updated 2010.

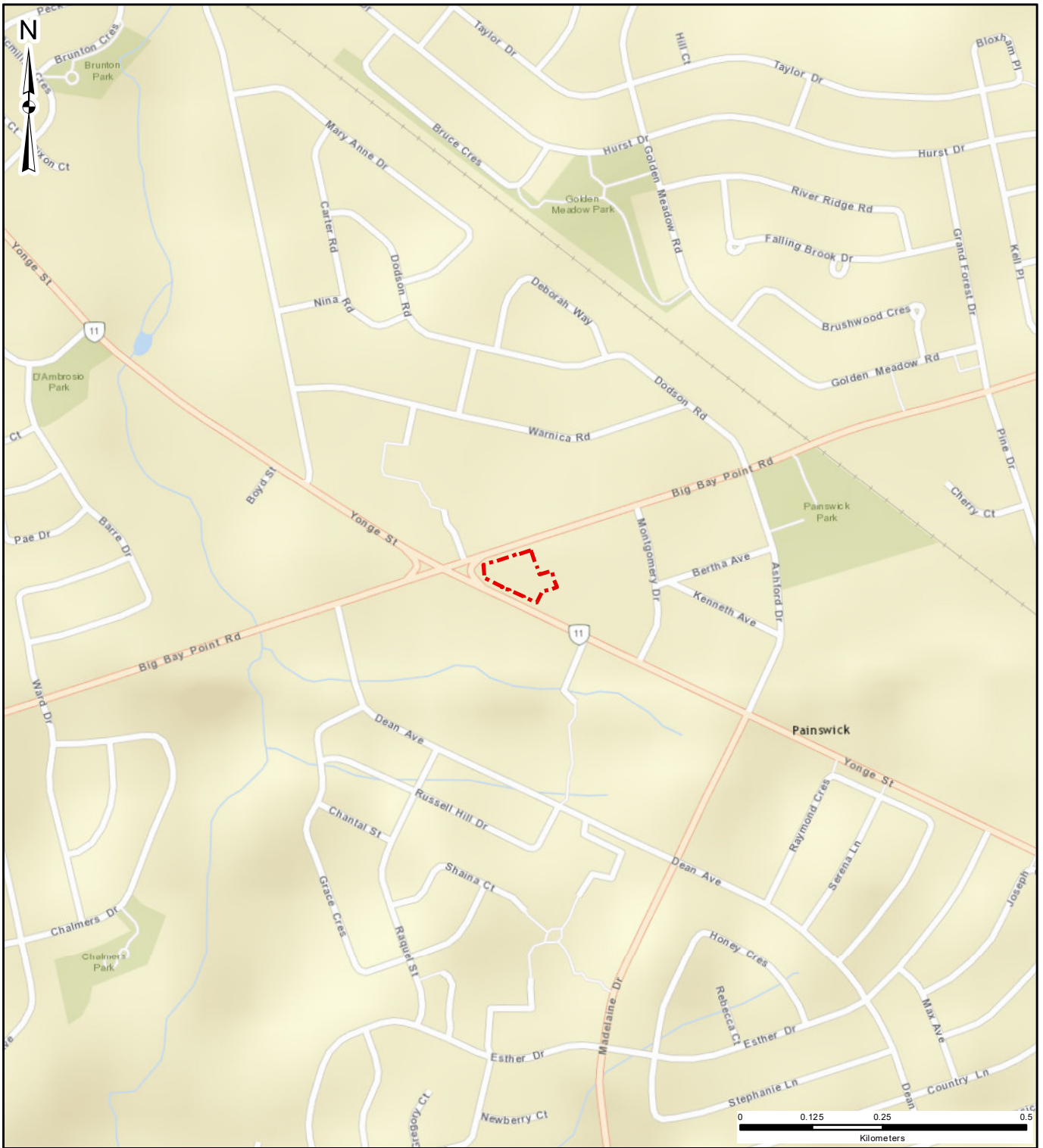
MNR 1:10,000 scale Ontario Base Map (OBM) of Toronto, Ontario, based on 1979 aerial photography.

The Physiography of Southern Ontario, Third Edition, Ontario Geological Survey Special Volume 2 (1984), Chapman and Putnam, map provided by ERIS.

Ontario Geological Survey map entitled Surficial Geology of southern Ontario, map provided by ERIS.

Ontario Geological Survey map entitled Bedrock Geology of Ontario, map provided by ERIS

FIGURES



LEGEND  SITE BOUNDARY	CLIENT: 		
	SITE LOCATION: 623 YONGE STREET AND 515 BIG BAY ROAD BARRIE, ONTARIO		
			
	TITLE: SITE LOCATION		
	DRAWN BY: SW/JS	PROJECT NO.: CH321.01	CHECKED BY: SS
DATA SOURCE: ESRI MAP PROJECTION: NAD 1983 UTM Zone 17N			REVISION: 00 DATE: FEBRUARY 2024 FIGURE: 1

J:\erroul C:\Users\USerrout\OneDrive - TerraPex Environmental Ltd\PROJECTS\Hamilton\CH300\CH321.00 623 Yonge Street, Barrie\MXD\PHASE TWO ESACH321.01 FIG 1 SITE LOCATION.mxd

C:\Users\JSerroul\OneDrive - Terrapex Environmental Ltd\PROJECTS\Hamilton\CH300\CH321.00 623 Yonge Street, Barrie\MXD\PHASE TWO\ESACH321.01 FIG 2 GENERAL SITE LAYOUT.mxd



LEGEND

- SITE BOUNDARY
- BOREHOLE
- MONITORING WELL
- DESTROYED MONITORING WELL

DATA SOURCE: CITY OF BARRIE
MAP PROJECTION: NAD 1983 UTM ZONE 17N

CLIENT:

SITE LOCATION:

623 YONGE STREET AND 515 BIG BAY ROAD
BARRIE, ONTARIO

TITLE:

GENERAL SITE LAYOUT

DRAWN BY: SW/JS	PROJECT NO.: CH321.01	CHECKED BY: SS
REVISION: 00	DATE: FEBRUARY 2024	FIGURE: 2



LEGEND

- SITE BOUNDARY
- STUDY AREA
- ⊕ MECP WATER WELL RECORD
- WATERCOURSE
- +— GO TRANSIT RAILWAY

050100150

Metres

DATA SOURCE: CITY OF BARRIE
MAP PROJECTION: NAD 1983 UTM ZONE 17N

CLIENT:



SITE LOCATION:

623 YONGE STREET AND 515 BIG BAY ROAD
BARRIE, ONTARIO



TITLE:

CONCEPTUAL SITE MODEL –
PHASE ONE STUDY AREA

DRAWN BY: SW/JS	PROJECT NO.: CH321.01	CHECKED BY: SS
REVISION: 00	DATE: FEBRUARY 2024	FIGURE: 3

C:\Users\JSerroul\OneDrive - TerraPex Environmental Ltd\PROJECTS\Hamilton\CH300\CH321.00 623 Yonge Street, Barrie\MXD\PHASE TWO ESACH321.00 FIG 3 CSM - STUDY AREA.mxd



LEGEND

- SITE BOUNDARY
- STUDY AREA
- WATERCOURSE
- GO TRANSIT RAILWAY
- TANK LOCATIONS

POTENTIALLY CONTAMINATING ACTIVITIES

- ON-SITE PCA LEADING TO APEC
- OFF-SITE PCA LEADING TO APEC
- OFF-SITE PCA NOT LEADING TO APEC

POTENTIALLY CONTAMINATING ACTIVITY TYPES

- 10. COMMERCIAL AUTOBODY SHOPS
- 28. GASOLINE AND ASSOCIATED PRODUCTS STORAGE IN FIXED TANKS
- 30. IMPORTATION OF FILL MATERIAL OF UNKNOWN QUALITY
- OT1. OTHER - WASTE GENERATION

NOTE:

- PCA ID (PCATYPE)

REFER TO THE REPORT FOR ADDITIONAL DETAILS.



DATA SOURCE: CITY OF BARRIE
MAP PROJECTION: NAD 1983 UTM ZONE 17N

CLIENT:

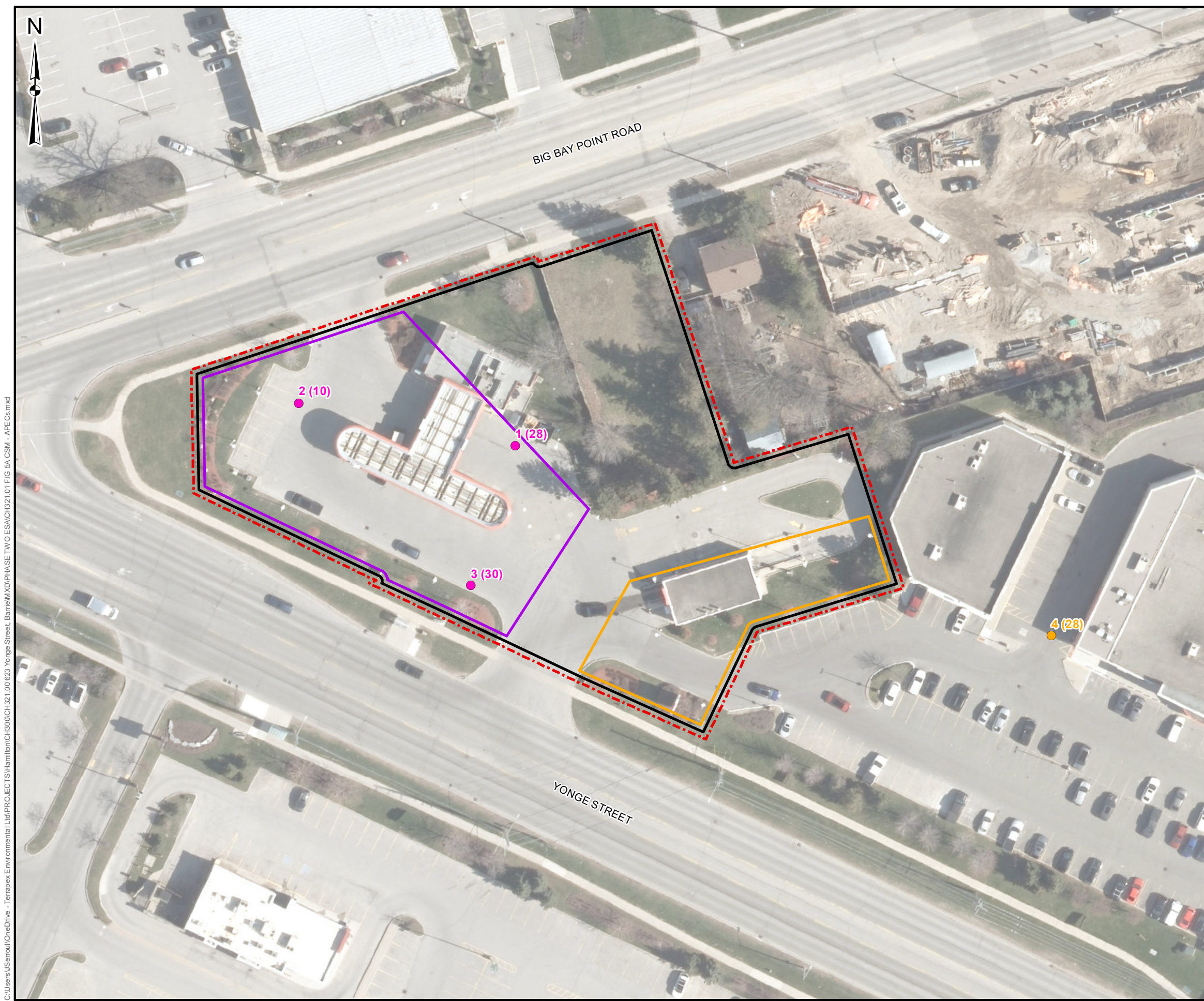


SITE LOCATION:
623 YONGE STREET AND 515 BIG BAY ROAD
BARRIE, ONTARIO



TITLE: **CONCEPTUAL SITE MODEL -
POTENTIALLY CONTAMINATING ACTIVITIES**

DRAWN BY: JS	PROJECT NO.: CH321.01	CHECKED BY: SS
REVISION: 00	DATE: FEBRUARY 2024	FIGURE: 4



LEGEND

SITE BOUNDARY

POTENTIALLY CONTAMINATING ACTIVITIES

ON-SITE PCA LEADING TO APEC

OFF-SITE PCA LEADING TO APEC

AREA OF POTENTIAL ENVIRONMENTAL CONCERN

APEC - 1,3 (ENTIRE PROPERTY)

APEC - 2

APEC - 4

APEC	PCA ID	PCA TYPE	DESCRIPTION
1	1	28	GASOLINE AND ASSOCIATED PRODUCTS STORAGE IN FIXED TANKS
2	2	10	COMMERCIAL AUTOBODY SHOPS
3	3	30	IMPORTATION OF FILL MATERIAL OF UNKNOWN QUALITY
4	4	28	GASOLINE AND ASSOCIATED PRODUCTS STORAGE IN FIXED TANKS

0102030

Metres

DATA SOURCE: CITY OF BARRIE
MAP PROJECTION: NAD 1983 UTM ZONE 17N

CLIENT:

SITE LOCATION:

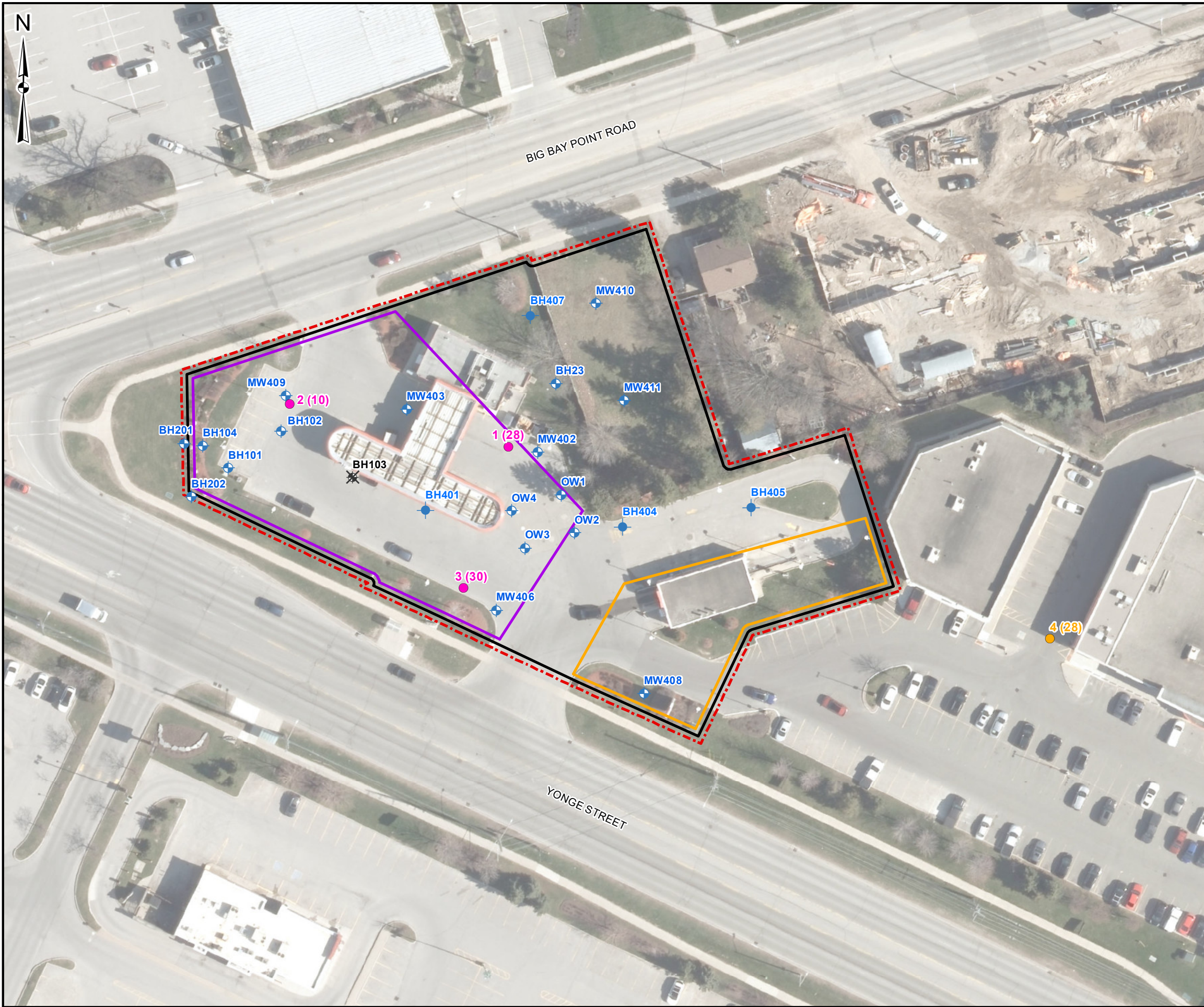
623 YONGE STREET AND 515 BIG BAY ROAD
BARRIE, ONTARIO

TITLE:

CONCEPTUAL SITE MODEL - AREAS OF
POTENTIAL ENVIRONMENTAL CONCERN

DRAWN BY: JS	PROJECT NO.: CH321.01	CHECKED BY: SS
REVISION: 00	DATE: FEBRUARY 2024	FIGURE: 5A

C:\Users\JSerrouil\OneDrive - Terrapex Environmental Ltd\PROJECTS\Hamilton\CH300\CH321.00 623 Yonge Street, Barrie\MXD\PHASE TWO\ESACH321.01 FIG 5B CSM - APECs_SAMPLE_LOCATIONS.mxd



LEGEND

- SITE BOUNDARY
- BOREHOLE
- + MONITORING WELL
- ✕ DESTROYED MONITORING WELL

POTENTIALLY CONTAMINATING ACTIVITIES

- ON-SITE PCA LEADING TO APEC
- OFF-SITE PCA LEADING TO APEC

AREA OF POTENTIAL ENVIRONMENTAL CONCERN

- APEC - 1,3 (ENTIRE PROPERTY)
- APEC - 2
- APEC - 4

APEC	PCA ID	PCA TYPE	DESCRIPTION
1	1	28	GASOLINE AND ASSOCIATED PRODUCTS STORAGE IN FIXED TANKS
2	2	10	COMMERCIAL AUTOBODY SHOPS
3	3	30	IMPORTATION OF FILL MATERIAL OF UNKNOWN QUALITY
4	4	28	GASOLINE AND ASSOCIATED PRODUCTS STORAGE IN FIXED TANKS

0102030

Metres

DATA SOURCE: CITY OF BARRIE
MAP PROJECTION: NAD 1983 UTM ZONE 17N

CLIENT:

SITE LOCATION:
623 YONGE STREET AND 515 BIG BAY ROAD
BARRIE, ONTARIO

TITLE:
CONCEPTUAL SITE MODEL - AREAS OF POTENTIAL ENVIRONMENTAL CONCERN & SAMPLING LOCATIONS

DRAWN BY: JS	PROJECT NO.: CH321.01	CHECKED BY: SS
REVISION: 00	DATE: FEBRUARY 2024	FIGURE: 5B

C:\Users\JSerrouil\OneDrive - Terrapex Environmental Ltd\PROJECTS\Hamilton\CH30\0\CH321.00 623 Yonge Street, Barrie\MXD\PHA SE TWO ESACH321.01 FIG 6 GWPIEZOMETRIC HEAD.mxd



LEGEND

- SITE BOUNDARY
- MONITORING WELL
- INTERPRETED GROUNDWATER CONTOURS
- INTERPRETED GROUNDWATER FLOW DIRECTION

NOTE:

REGIONAL GROUNDWATER FLOW IS TO THE NORTH TOWARDS LAKE SIMCOE.

DATA SOURCE: CITY OF BARRIE
MAP PROJECTION: NAD 1983 UTM ZONE 17N

CLIENT:

SITE LOCATION:
623 YONGE STREET AND 515 BIG BAY ROAD
BARRIE, ONTARIO

TITLE: **GROUNDWATER PIEZOMETRIC HEAD CONTOURS (AS OF NOVEMBER 23, 2023)**

DRAWN BY: JS	PROJECT NO.: CH321.01	CHECKED BY: SS
REVISION: 00	DATE: FEBRUARY 2024	FIGURE: 6

C:\Users\JSerroul\OneDrive - Terrapex Environmental Ltd\PROJECTS\Hamilton\CH300\CH321.00 623 Yonge Street, Barrie\MXD\PHA SE TWO ESACH321.01 FIG 7A CROSS SECTION PLAN.mxd



LEGEND

- SITE BOUNDARY
- CROSS SECTIONS
- BOREHOLE
- MONITORING WELL
- DESTROYED MONITORING WELL

DATA SOURCE: CITY OF BARRIE
MAP PROJECTION: NAD 1983 UTM ZONE 17N

CLIENT:

SITE LOCATION:

623 YONGE STREET AND 515 BIG BAY ROAD
BARRIE, ONTARIO

TITLE:

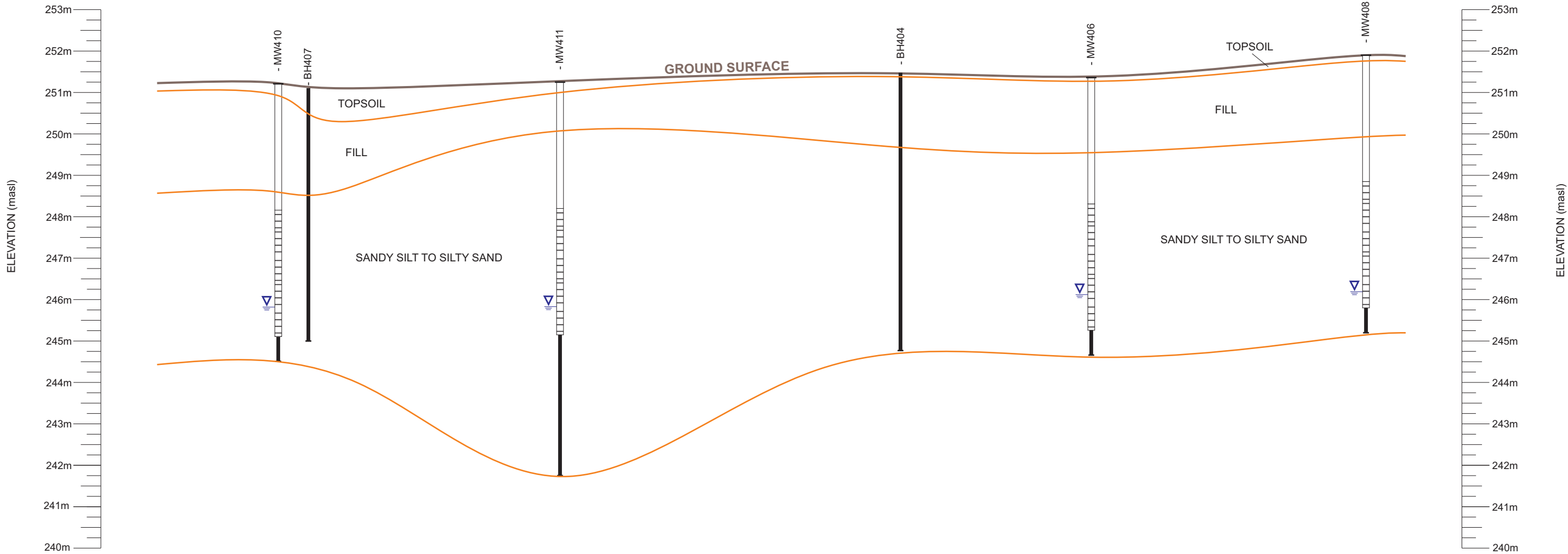
CROSS SECTION PLAN

DRAWN BY: SW/JS	PROJECT NO.: CH321.01	CHECKED BY: SS
REVISION: 00	DATE: FEBRUARY 2024	FIGURE: 7A

LOOKING EAST

A

A'



NOTES:
1. SOIL STRATIGRAPHY BETWEEN LOCATIONS IS INTERPRETED.

LEGEND

- PROPERTY BOUNDARY
- STRATIGRAPHIC UNIT
- ▽ GROUNDWATER LEVEL (AS OF NOVEMBER 23, 2023)
- - MONITORING WELL
- - SCREENED LEVEL
- BOREHOLE

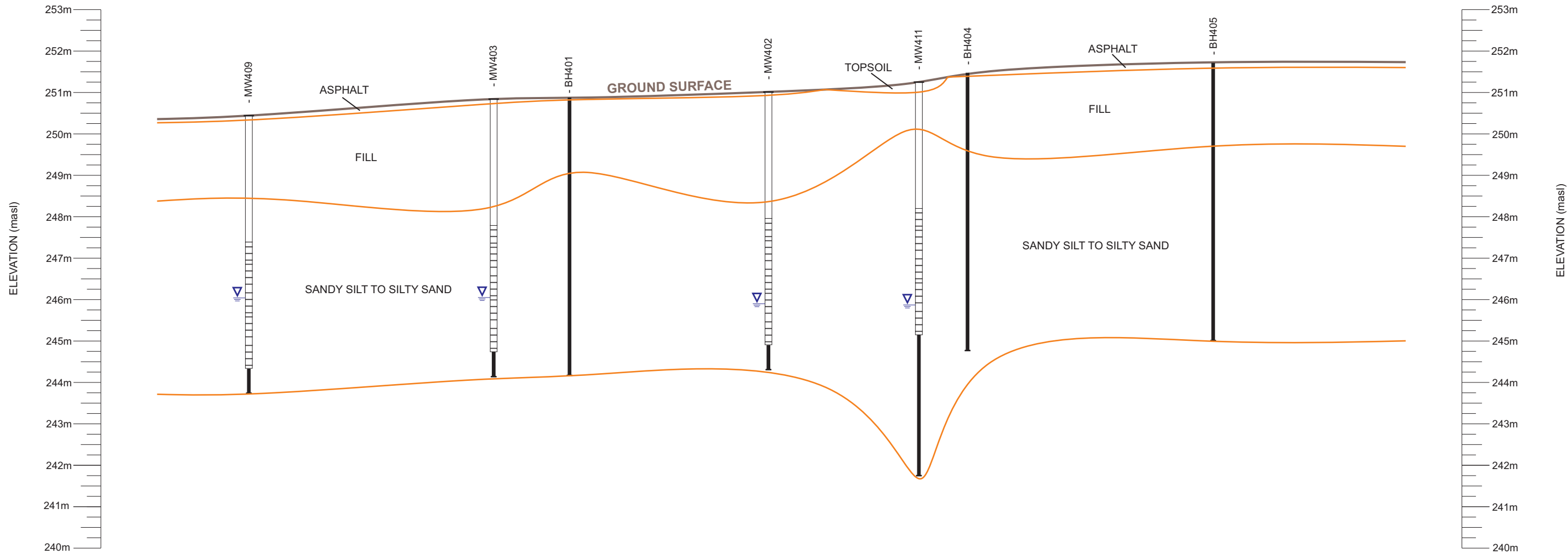


CLIENT: 		
SITE LOCATION: 623 YONGE STREET AND 515 BIG BAY ROAD BARRIE, ONTARIO		
TITLE: CROSS SECTION A-A'		
DRAWN BY: JS	PROJECT NO.: CH321.01	CHECKED BY: SS
REVISION: 00	DATE: FEBRUARY 2024	FIGURE: 7B

LOOKING NORTHEAST

B

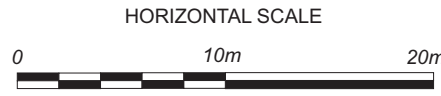
B'



NOTES:
1. SOIL STRATIGRAPHY BETWEEN LOCATIONS IS INTERPRETED.

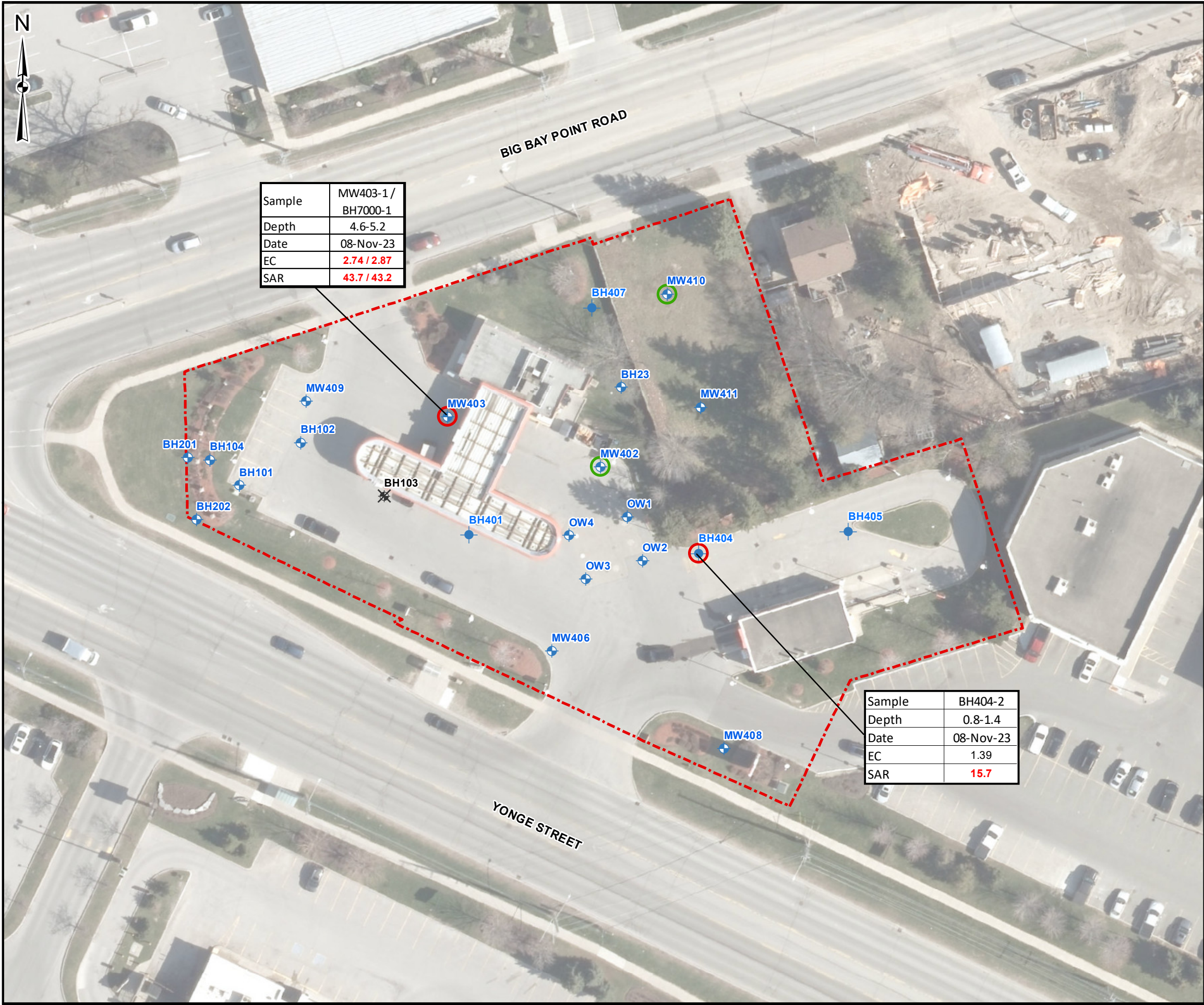
LEGEND

- PROPERTY BOUNDARY
- STRATIGRAPHIC UNIT
- ▽ GROUNDWATER LEVEL (AS OF NOVEMBER 23, 2023)
- - MONITORING WELL
- - SCREENED LEVEL
- - BOREHOLE



CLIENT:		
SITE LOCATION: 623 YONGE STREET AND 515 BIG BAY ROAD BARRIE, ONTARIO		
TITLE: CROSS SECTION B-B'		
DRAWN BY: JS	PROJECT NO.: CH321.01	CHECKED BY: SS
REVISION: 00	DATE: FEBRUARY 2024	FIGURE: 7C

C:\Users\Userroul\OneDrive - Terrapex Environmental Ltd\PROJECTS\Hamilton\CH321.00 623 Yonge Street, Barrie\MXD\PHASE TWO ESA\CH321.01 FIG 8 SOIL ANALYTICAL RESULTS. M&I.mxd



LEGEND

- SITE BOUNDARY
- BOREHOLE
- ⊕ MONITORING WELL
- ✕ DESTROYED MONITORING WELL
- ANALYTICAL INFORMATION**
- LESS THAN OR EQUAL TO TABLE 2 SCS
- GREATER THAN TABLE 2 SCS

STANDARD INFORMATION

SAMPLE		MECP TABLE 2 SCS
DEPTH		
DATE		
PARAMETER	RESULT	
Electrical Conductivity (EC)	mS/cm	1.4
Sodium Adsorption Ratio (SAR)	Unitless	12

VALUE GREATER THAN SCS
VALUE LESS THAN OR EQUAL TO SCS

MECP TABLE 2: FULL DEPTH GENERIC SCS IN A POTABLE GROUND WATER CONDITION FOR INDUSTRIAL/COMMERCIAL/COMMUNITY PROPERTY USE WITH COARSE TEXTURED SOIL.

NOTES

1. ALL UNITS ARE IN µg/g UNLESS OTHERWISE SPECIFIED
2. DEPTHS ARE IN METRES BELOW GROUND SURFACE (mbgs)
3. RESULTS PRESENTED AS # / # REPRESENTS PARENT SAMPLE / FIELD DUPLICATE.



DATA SOURCE: CITY OF BARRIE
MAP PROJECTION: NAD 1983 UTM ZONE 17N

CLIENT:



SITE LOCATION:
623 YONGE STREET AND 515 BIG BAY ROAD
BARRIE, ONTARIO



TITLE: **SOIL CONTAMINANT DELINEATION – METALS AND INORGANICS**

DRAWN BY: JS	PROJECT NO.: CH321.00	CHECKED BY: SS
REVISION: 00	DATE: FEBRUARY 2024	FIGURE: 8

C:\Users\USerrou\OneDrive - Terrapex Environmental Ltd\PROJECTS\Hamilton\CH321.00 623 Yonge Street, Barrie\MXD\PHA SET TWO ESA\CH321.01 FIG 9 SOIL ANALYTICAL RESULTS_PAHs.mxd



LEGEND

- SITE BOUNDARY
- BOREHOLE
- MONITORING WELL
- DESTROYED MONITORING WELL

ANALYSIS INFORMATION

- LESS THAN OR EQUAL TO TABLE 2 SCS

STANDARD INFORMATION

MECP TABLE 2: FULL DEPTH GENERIC SCS IN A POTABLE GROUND WATER CONDITION FOR INDUSTRIAL/COMMERCIAL/COMMUNITY PROPERTY USE WITH COARSE TEXTURED SOIL.

NOTES

- ALL UNITS ARE IN $\mu\text{g/g}$ UNLESS OTHERWISE SPECIFIED
- DEPTHS ARE IN METRES BELOW GROUND SURFACE (mbgs)
- RESULTS PRESENTED AS # / # REPRESENTS PARENT SAMPLE / FIELD DUPLICATE.



DATA SOURCE: CITY OF BARRIE
MAP PROJECTION: NAD 1983 UTM ZONE 17N

CLIENT:



SITE LOCATION:
623 YONGE STREET AND 515 BIG BAY ROAD
BARRIE, ONTARIO



TITLE: **SOIL CONTAMINANT DELINEATION – PAHS**

DRAWN BY: JS	PROJECT NO.: CH321.00	CHECKED BY: SS
REVISION: 00	DATE: FEBRUARY 2024	FIGURE: 9

C:\Users\JSerrou\OneDrive - Terrapex Environmental Ltd\PROJECTS\Hamilton\CH321.00 623 Yonge Street, Barrie\MXD\PHA SET TWO ESA\CH321.01 FIG 10 SOIL ANALYTICAL RESULTS BTEX_PHCS.mxd



LEGEND

- SITE BOUNDARY
 - BOREHOLE
 - MONITORING WELL
 - DESTROYED MONITORING WELL
- ANALYSIS INFORMATION**
- LESS THAN OR EQUAL TO TABLE 2 SCS

STANDARD INFORMATION

MECP TABLE 2: FULL DEPTH GENERIC SCS IN A POTABLE GROUND WATER CONDITION FOR INDUSTRIAL/COMMERCIAL/COMMUNITY PROPERTY USE WITH COARSE TEXTURED SOIL.

NOTES

- ALL UNITS ARE IN $\mu\text{g/g}$ UNLESS OTHERWISE SPECIFIED
- DEPTHS ARE IN METRES BELOW GROUND SURFACE (mbgs)
- RESULTS PRESENTED AS # / # REPRESENTS PARENT SAMPLE / FIELD DUPLICATE.



DATA SOURCE: CITY OF BARRIE
MAP PROJECTION: NAD 1983 UTM ZONE 17N

CLIENT:



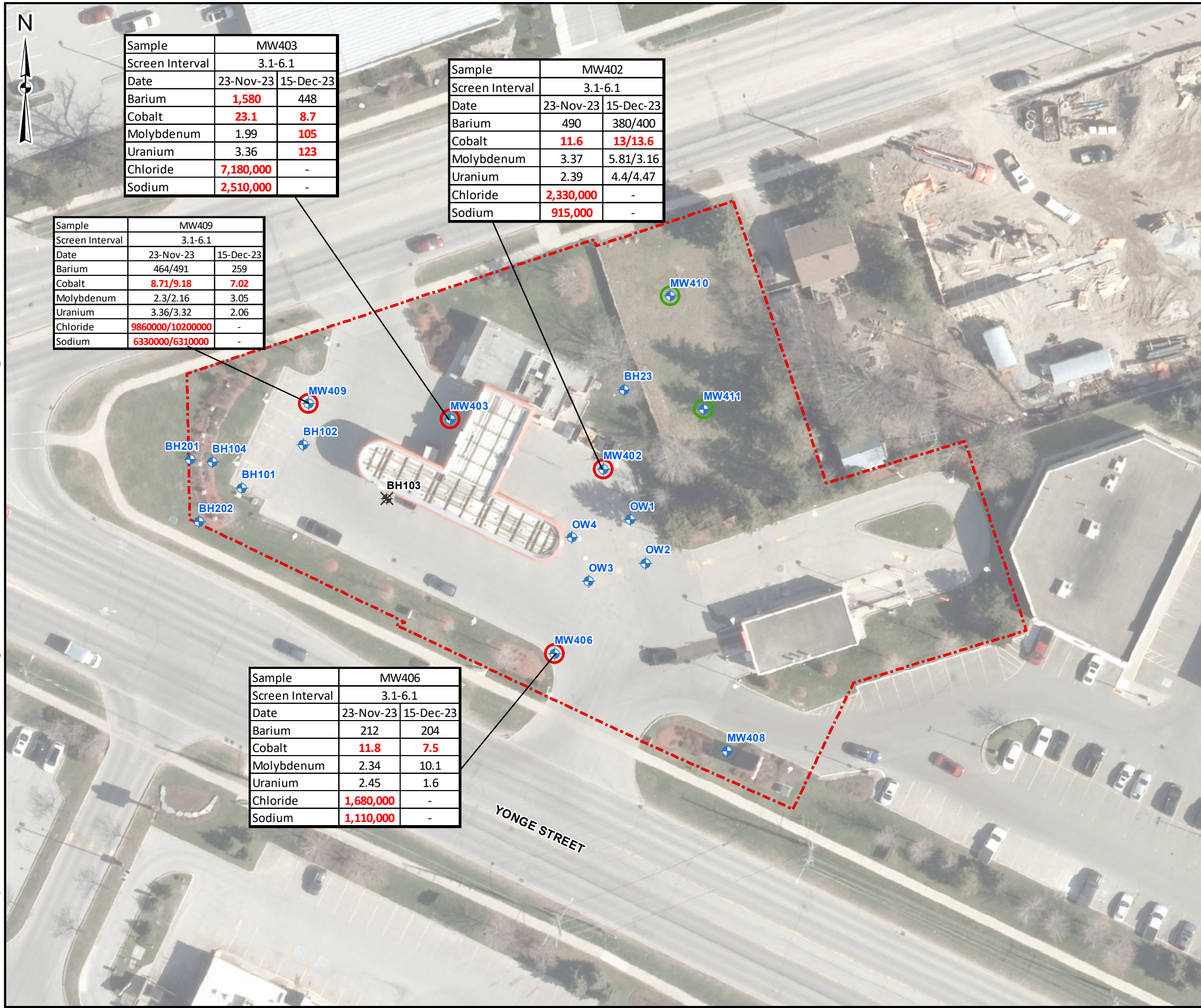
SITE LOCATION:
623 YONGE STREET AND 515 BIG BAY ROAD
BARRIE, ONTARIO



TITLE: **SOIL CONTAMINANT DELINEATION –
BTEX & PHCS**

DRAWN BY: JS	PROJECT NO.: CH321.00	CHECKED BY: SS
REVISION: 00	DATE: FEBRUARY 2024	FIGURE: 10

C:\Users\USerrou\OneDrive - Terrapex Environmental Ltd\PROJECTS\Hamilton\CH321.00 623 Yonge Street, Barrie\MXD\PHA SET TWO ESA\CH321.01 FIG 11 GW ANALYTICAL RESULTS M&I.mxd



LEGEND

SITE BOUNDARY

MONITORING WELL

DESTROYED MONITORING WELL

ANALYSIS INFORMATION

LESS THAN OR EQUAL TO TABLE 2 SCS

GREATER THAN TABLE 2 SCS

STANDARD INFORMATION

SAMPLE		
SCREEN INTERVAL		
DATE		
PARAMETER	RESULT	MECP TABLE 2 SCS
Barium		1000
Cobalt		3.8
Molybdenum		70
Uranium		20
Chloride		790,000
Sodium		490,000

VALUE GREATER THAN SCS

VALUE LESS THAN OR EQUAL TO SCS

MECP TABLE 2: FULL DEPTH GENERIC SCS IN A POTABLE GROUND WATER CONDITION FOR ALL TYPES OF PROPERTY USE WITH COARSE TEXTURED SOIL.

NOTES

1. ALL UNITS ARE IN µg/L UNLESS OTHERWISE SPECIFIED

2. SCREEN INTERVAL IS IN METRES BELOW GROUND SURFACE (mbgs)

3. RESULTS PRESENTED AS # / # REPRESENTS PARENT SAMPLE / FIELD DUPLICATE

0102030

Metres

DATA SOURCE: CITY OF BARRIE

MAP PROJECTION: NAD 1983 UTM ZONE 17N

CLIENT:

SITE LOCATION:

623 YONGE STREET AND 515 BIG BAY ROAD
BARRIE, ONTARIO

TITLE:

GROUNDWATER CONTAMINANT DELINEATION –
METALS AND INORGANICS

DRAWN BY:	PROJECT NO.:	CHECKED BY:
JS	CH321.00	SS
REVISION:	DATE:	FIGURE:
00	FEBRUARY 2024	11

C:\Users\JSerrou\OneDrive - Terrapex Environmental Ltd\PROJECTS\Hamilton\CH321.00 623 Yonge Street, Barrie\MXD\PHA SET TWO ESA\CH321.01 FIG 12 GW ANALYTICAL RESULTS_PAHs.mxd



LEGEND

SITE BOUNDARY

MONITORING WELL

DESTROYED MONITORING WELL

ANALYSIS INFORMATION

LESS THAN OR EQUAL TO TABLE 2 SCS

STANDARD INFORMATION

MECP TABLE 2: FULL DEPTH GENERIC SCS IN A POTABLE GROUND WATER CONDITION FOR ALL TYPES OF PROPERTY USE WITH COARSE TEXTURED SOIL.

NOTES

1. ALL UNITS ARE IN µg/L UNLESS OTHERWISE SPECIFIED
2. SCREEN INTERVAL IS IN METRES BELOW GROUND SURFACE (mbgs)
3. RESULTS PRESENTED AS # / # REPRESENTS PARENT SAMPLE / FIELD DUPLICATE

0102030

Metres

DATA SOURCE: CITY OF BARRIE
MAP PROJECTION: NAD 1983 UTM ZONE 17N

CLIENT:

SUNCOR

ENERGY

SITE LOCATION:

623 YONGE STREET AND 515 BIG BAY ROAD
BARRIE, ONTARIO

TERRAPEX

TITLE:

GROUNDWATER CONTAMINANT DELINEATION –
PAHS

DRAWN BY: JS	PROJECT NO.: CH321.00	CHECKED BY: SS
REVISION: 00	DATE: FEBRUARY 2024	FIGURE: 12

C:\Users\Userroul\OneDrive - Terrapex Environmental Ltd\PROJECTS\Hamilton\CH321.00 623 Yonge Street, Barrie\MXD\PHA SET TWO ESA\CH321.01 FIG 13 GW ANALYTICAL RESULTS_BTEXPHCs.mxd



LEGEND

SITE BOUNDARY

MONITORING WELL

DESTROYED MONITORING WELL

ANALYSIS INFORMATION

LESS THAN OR EQUAL TO TABLE 2 SCS

STANDARD INFORMATION

MECP TABLE 2: FULL DEPTH GENERIC SCS IN A POTABLE GROUND WATER CONDITION FOR ALL TYPES OF PROPERTY USE WITH COARSE TEXTURED SOIL.

NOTES

1. ALL UNITS ARE IN µg/L UNLESS OTHERWISE SPECIFIED
2. SCREEN INTERVAL IS IN METRES BELOW GROUND SURFACE (mbgs)
3. RESULTS PRESENTED AS # / # REPRESENTS PARENT SAMPLE / FIELD DUPLICATE

0102030

Metres

DATA SOURCE: CITY OF BARRIE
MAP PROJECTION: NAD 1983 UTM ZONE 17N

CLIENT:

SUNCOR

ENERGY

SITE LOCATION:

623 YONGE STREET AND 515 BIG BAY ROAD
BARRIE, ONTARIO

TERRAPEX

TITLE:

GROUNDWATER CONTAMINANT DELINEATION –
BTEX & PHCS

DRAWN BY: JS	PROJECT NO.: CH321.00	CHECKED BY: SS
REVISION: 00	DATE: FEBRUARY 2024	FIGURE: 13

TABLES

TABLE 1: GROUNDWATER MONITORING DATA
623 YONGE STREET AND 515 BIG BAY POINT ROAD, BARRIE, ONTARIO

WELL ID	WELL CONSTRUCTION				WELL MONITORING					
	GROUND ELEVATION ¹	T.O.P. ELEVATION ²	SCREEN LENGTH	BOTTOM OF SCREEN ³	DATE	CV ⁴	DEPTH TO WATER FROM T.O.P.	DEPTH TO WATER FROM GROUND	GROUNDWATER ELEVATION ⁵	LNAPL THICKNESS ⁶
	(m)	(m)	(m)	(m)			(m)	(m)	(m)	(m)
MW402	251.01	250.90	3.05	244.91	17-Nov-23	<5/1 ppm	4.92	5.03	245.98	None
					23-Nov-23	<5/0.6 ppm	5.00	5.11	245.90	None
					01-Dec-23	-	5.07	5.18	245.83	None
MW403	250.84	250.79	3.05	244.74	17-Nov-23	90/3 ppm	4.72	4.78	246.07	None
					23-Nov-23	<5/2.2 ppm	4.74	4.80	246.05	None
					1-Dec-23	-	4.69	4.75	246.10	None
MW406	251.36	251.30	3.05	245.26	17-Nov-23	55/7 ppm	5.05	5.11	246.25	None
					23-Nov-23	<5/3.1 ppm	5.18	5.24	246.12	None
					1-Dec-23	-	5.24	5.30	246.06	None
MW408	251.85	251.89	3.05	245.75	17-Nov-23	<5/2 ppm	5.64	5.60	246.25	None
					23-Nov-23	<5/18.1 ppm	5.71	5.67	246.18	None
					1-Dec-23	-	5.79	5.75	246.10	None
MW409	250.44	250.37	3.05	244.34	17-Nov-23	75/2 ppm	4.25	4.32	246.12	None
					23-Nov-23	80/2.5 ppm	4.33	4.40	246.04	None
					1-Dec-23	-	4.42	4.41	246.03	None
MW410	251.21	252.24	3.05	245.11	17-Nov-23	15/1 ppm	5.90	4.87	246.34	None
					23-Nov-23	<5/5.6 ppm	5.41	4.38	246.83	None
					1-Dec-23	-	6.03	5.00	246.21	None
MW411	251.25	252.24	3.05	245.15	17-Nov-23	260/1 ppm	6.32	5.33	245.92	None
					23-Nov-23	<5/1.2 ppm	6.37	5.38	245.87	None
					1-Dec-23	-	6.44	5.45	245.80	None

NOTES

¹ Elevation of ground surface at well location, relative to site benchmark

² Elevation of highest point of well pipe ("top of pipe"), relative to site benchmark

³ Elevation of bottom of well screened interval, relative to site benchmark

⁴ Combustible vapour concentration in well headspace in parts per million by volume (ppm) or percent of lower explosive limit (%LEL)

⁵ Static water level elevation, relative to site benchmark

⁶ Measured thickness of light, non-aqueous phase liquid, if any

TABLE 2: SOIL ANALYTICAL RESULTS - METALS AND INORGANICS
623 YONGE STREET AND 515 BIG BAY POINT ROAD, BARRIE, ONTARIO

Sample Name	Units	STANDARDS Table 2 I/C/C coarse	MW402-1	MW403-1	BH7000-1 Duplicate of MW403-1	RPD	BH404-2	MW410-2
Vapour Reading	see note	-	<5 ppm / 0 ppm	<5 ppm / 0 ppm	-	-	<5 ppm / 0 ppm	<5 ppm / 0 ppm
Sample Depth	m bg	-	0.0 - 0.6	0.0 - 0.6	0.0 - 0.6	-	0.8 - 1.4	0.8 - 1.4
Sampling Date	dd-mm-yy	-	8-Nov-23	8-Nov-23	8-Nov-23	-	8-Nov-23	14-Nov-23
Analysis Date (on or before)	dd-mm-yy	-	16-Nov-23	16-Nov-23	16-Nov-23	-	16-Nov-23	18-Nov-23
Certificate of Analysis No.	-	-	23T091921	23T091921	23T091921	-	23T091921	23T093390
METALS								
Barium	ug/g	670	354	82.5	97.4	17%	51.1	26.9
Beryllium	ug/g	8.0	<0.5	<0.5	<0.5	-	<0.5	<0.5
Boron (Total)	ug/g	120	19	7	9	-	8	<5
Cadmium	ug/g	1.9	<0.5	<0.5	<0.5	-	<0.5	<0.5
Chromium Total	ug/g	160	14	11	11	-	14	11
Cobalt	ug/g	80	9.7	3.9	4.3	-	5.4	3.7
Copper	ug/g	230	16	7.2	8.4	15%	9.3	5.6
Lead	ug/g	120	7	3	4	-	6	3
Mercury	ug/g	3.9	<0.10	<0.10	<0.10	-	<0.10	<0.10
Molybdenum	ug/g	40	0.6	<0.5	<0.5	-	<0.5	<0.5
Nickel	ug/g	270	9	7	8	13%	10	6
Silver	ug/g	40	<0.5	<0.5	<0.5	-	<0.5	<0.5
Thallium	ug/g	3.3	<0.5	<0.5	<0.5	-	<0.5	<0.5
Uranium	ug/g	33	<0.50	<0.50	<0.50	-	<0.50	<0.50
Vanadium	ug/g	86	22.5	25.9	25.1	3%	26.2	23.8
Zinc	ug/g	340	22	22	24	-	25	19
HYDRIDE-FORMING METALS								
Antimony	ug/g	40	<0.8	<0.8	<0.8	-	<0.8	<0.8
Arsenic	ug/g	18	2	<1	<1	-	1	1
Selenium	ug/g	5.5	<0.8	<0.8	<0.8	-	<0.8	<0.8
OTHER REGULATED PARAMETERS (ORPs)								
Boron (Hot Water Soluble) ¹	ug/g	2.0	0.42	0.15	0.14	-	<0.10	<0.10
Cyanide (CN-)	ug/g	0.051	<0.040	<0.040	<0.040	-	<0.040	<0.040
Chromium VI	ug/g	8.0	<0.2	<0.2	<0.2	-	<0.2	<0.2
pH	pH Units	NV	7.77	7.83	7.36	-	7.55	7.27
Electrical Conductivity	mS/cm	1.4	0.606	2.74	2.87	5%	1.39	0.125
Sodium Adsorption Ratio	-	12	2.98	43.7	43.2	-	15.7	0.753

Standards from *Soil, Ground Water* and Sediment Standards for Use Under Part XV.1

of the Environmental Protection Act (April 15, 2011 and as amended)

Table 2: Full Depth Generic SCS in a Potable Ground Water Condition

Industrial/Commercial/Community Property-Use, Coarse-Textured Soil

- Parameter not analyzed

m bg meters below grade

ppm parts per million by volume

% LEL percent of the lower explosive limit

RPD Relative percent difference

NV No Value; no standard established

NA Not Applicable; no standard established because a standard is not required

Value Exceeds standard

Value Detection limit exceeds standard

¹ Hot water soluble boron applies to surface soils (<1.5 m bg).

TABLE 3: SOIL ANALYTICAL RESULTS - PAHs
623 YONGE STREET AND 515 BIG BAY POINT ROAD, BARRIE, ONTARIO

Sample Name	Units	STANDARDS Table 2 I/C/C coarse	MW402-1	MW403-1	BH404-2	MW410-2	MW41000-2 Duplicate of MW410-2	RPD
Vapour Reading	see note	-	<5 ppm / 0 ppm	<5 ppm / 0 ppm	<5 ppm / 0 ppm	<5 ppm / 0 ppm	-	-
Sample Depth	m bg	-	0.0 - 0.6	0.0 - 0.6	0.8 - 1.4	0.8 - 1.4	0.8 - 1.4	-
Sampling Date	dd-mmm-yy	-	8-Nov-23	8-Nov-23	8-Nov-23	14-Nov-23	14-Nov-23	-
Analysis Date (on or before)	dd-mmm-yy	-	16-Nov-23	16-Nov-23	16-Nov-23	18-Nov-23	21-Nov-23	-
Certificate of Analysis No.	-	-	23T091921	23T091921	23T091921	23T093390	23T093390	-
POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)								
Acenaphthene	ug/g	21	<0.05	<0.05	<0.05	<0.05	<0.05	-
Acenaphthylene	ug/g	0.15	<0.05	<0.05	<0.05	<0.05	<0.05	-
Anthracene	ug/g	0.67	<0.05	<0.05	<0.05	<0.05	<0.05	-
Benz[a]anthracene	ug/g	0.96	<0.05	<0.05	<0.05	<0.05	<0.05	-
Benzo[a]pyrene	ug/g	0.30	<0.05	<0.05	<0.05	<0.05	<0.05	-
Benzo[b]fluoranthene	ug/g	0.96	<0.05	<0.05	<0.05	<0.05	<0.05	-
Benzo[ghi]perylene	ug/g	9.6	<0.05	<0.05	<0.05	<0.05	<0.05	-
Benzo[k]fluoranthene	ug/g	0.96	<0.05	<0.05	<0.05	<0.05	<0.05	-
Chrysene	ug/g	9.6	<0.05	<0.05	<0.05	<0.05	<0.05	-
Dibenz[a,h]anthracene	ug/g	0.10	<0.05	<0.05	<0.05	<0.05	<0.05	-
Fluoranthene	ug/g	9.6	<0.05	<0.05	<0.05	<0.05	<0.05	-
Fluorene	ug/g	62	<0.05	<0.05	<0.05	<0.05	<0.05	-
Indeno[1,2,3-cd]pyrene	ug/g	0.76	<0.05	<0.05	<0.05	<0.05	<0.05	-
Methylnaphthalene, 2-(1-) ¹	ug/g	30	<0.05	<0.05	<0.05	<0.05	<0.05	-
Naphthalene	ug/g	9.6	<0.05	<0.05	<0.05	<0.05	<0.05	-
Phenanthrene	ug/g	12	<0.05	<0.05	<0.05	<0.05	<0.05	-
Pyrene	ug/g	96	<0.05	<0.05	<0.05	<0.05	<0.05	-

Standards from Soil, Ground Water and Sediment Standards for Use Under Part XV.1
of the Environmental Protection Act (April 15, 2011 and as amended)

Table 2: Full Depth Generic SCS in a Potable Ground Water Condition
Industrial/Commercial/Community Property-Use, Coarse-Textured Soil

-	Parameter not analyzed
m bg	meters below grade
ppm	parts per million by volume
% LEL	percent of the lower explosive limit
NV	No Value; no standard established
NA	Not Applicable; no standard established because a standard is not required
RPD	Relative percent difference
Value	Exceeds standard
<u>Value</u>	Detection limit exceeds standard
¹	the sum of 1-methylnaphthalene and 2-methylnaphthalene

TABLE 4: SOIL ANALYTICAL RESULTS - BTEX AND PHCs
623 YONGE STREET AND 515 BIG BAY POINT ROAD, BARRIE, ONTARIO

Sample Name	Units	STANDARDS Table 2 I/C/C coarse	BH401-6	BH2000-6 Duplicate of BH401-6	RPD	MW402-6	MW403-1	MW403-5	BH404-3	MW405-6	MW406-7	BH407-6	MW408-7
Vapour Reading	see note	-	<5 ppm / -	-	-	<5 ppm / 0 ppm	<5 ppm / 0 ppm	<5 ppm / 0 ppm	<5 ppm / 0 ppm	30 ppm / -	<5 ppm / -	<5 ppm / 0 ppm	<5 ppm / 0 ppm
Sample Depth	m bg	-	3.8 - 4.4	3.8 - 4.4	-	3.8 - 4.4	0.0 - 0.6	3.0 - 3.6	1.5 - 2.1	3.8 - 4.4	4.6 - 5.2	3.8 - 4.4	4.6 - 5.2
Sampling Date	dd-mmm-yy	-	7-Nov-23	7-Nov-23	-	8-Nov-23	8-Nov-23	8-Nov-23	8-Nov-23	7-Nov-23	7-Nov-23	14-Nov-23	9-Nov-23
Analysis Date (on or before)	dd-mmm-yy	-	16-Nov-23	16-Nov-23	-	16-Nov-23	16-Nov-23	16-Nov-23	16-Nov-23	16-Nov-23	16-Nov-23	16-Nov-23	16-Nov-23
Certificate of Analysis No.	-	-	23T091921	23T091921	-	23T091921	23T091921	23T091921	23T091921	23T091921	23T091921	23T093390	23T091921
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES (BTEX)													
Benzene	ug/g	0.32	<0.02	<0.02	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Toluene	ug/g	6.4	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	ug/g	1.1	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylenes (Total)	ug/g	26	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PETROLEUM HYDROCARBONS (PHCs)													
Petroleum Hydrocarbons F1 ¹	ug/g	55	<5	<5	-	<5	<5	<5	<5	<5	<5	<5	<5
Petroleum Hydrocarbons F2	ug/g	230	<10	<10	-	<10	<10	<10	<10	<10	<10	<10	<10
Petroleum Hydrocarbons F3	ug/g	1,700	<50	<50	-	<50	<50	<50	<50	<50	<50	<50	<50
Petroleum Hydrocarbons F4	ug/g	3,300	<50	<50	-	<50	<50	<50	<50	<50	<50	<50	<50

Standards from *Soil, Ground Water* and Sediment Standards for Use Under Part XV.1

of the Environmental Protection Act (April 15, 2011 and as amended)

Table 2: Full Depth Generic SCS in a Potable Ground Water Condition

Industrial/Commercial/Community Property-Use, Coarse-Textured Soil

- Not analyzed
- m bgmeters below grade
- ppmparts per million by volume
- % LELpercent of the lower explosive limit
- NVNo Value; no standard established
- NANot Applicable; no standard established because a standard is not required
- RPDRelative percent difference
- Value**Exceeds standard
- ValueDetection limit exceeds standard
- ¹F1 fraction does not include BTEX

TABLE 4: SOIL ANALYTICAL RESULTS - BTEX AND PHCs
623 YONGE STREET AND 515 BIG BAY POINT ROAD, BARRIE, ONTARIO

Sample Name	Units	STANDARDS Table 2 I/C/C coarse	BH409-5	BH409-8	MW410-2	MW410-5	MW411-6	MW411-8	Trip Blank	BH9000 (Trip Blank)
Vapour Reading	see note	-	35 ppm/ 0 ppm	10 ppm / 0 ppm	<5 ppm/ 0 ppm	25 ppm / 0 ppm	5 ppm/ 0 ppm	10 ppm / 0 ppm	-	-
Sample Depth	m bg	-	3.0 - 3.6	5.3 - 5.9	0.8 - 1.4	3.0 - 3.6	3.8 - 4.4	5.3 - 5.9	-	-
Sampling Date	dd-mmm-yy	-	9-Nov-23	9-Nov-23	14-Nov-23	14-Nov-23	14-Nov-23	14-Nov-23	7-Nov-23	14-Nov-23
Analysis Date (on or before)	dd-mmm-yy	-	16-Nov-23	16-Nov-23	18-Nov-23	21-Nov-23	21-Nov-23	22-Nov-23	16-Nov-23	24-Nov-23
Certificate of Analysis No.	-	-	23T091921	23T091921	23T093390	23T093390	23T093390	23T093390	23T091921	23T093390
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES (BTEX)										
Benzene	ug/g	0.32	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Toluene	ug/g	6.4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	ug/g	1.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylenes (Total)	ug/g	26	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
PETROLEUM HYDROCARBONS (PHCs)										
Petroleum Hydrocarbons F1 ¹	ug/g	55	<5	<5	<5	<5	<5	<5	<5	<5
Petroleum Hydrocarbons F2	ug/g	230	<10	<10	<10	<10	<10	<10	-	-
Petroleum Hydrocarbons F3	ug/g	1,700	<50	<50	<50	<50	<50	<50	-	-
Petroleum Hydrocarbons F4	ug/g	3,300	<50	<50	<50	<50	<50	<50	-	-

Standards from *Soil, Ground Water* and Sediment Standards for Use Under Part XV.1

of the Environmental Protection Act (April 15, 2011 and as amended)

Table 2: Full Depth Generic SCS in a Potable Ground Water Condition

Industrial/Commercial/Community Property-Use, Coarse-Textured Soil

-
- Not analyzed
- m bg
- meters below grade
- ppm
- parts per million by volume
- % LEL
- percent of the lower explosive limit
- NV
- No Value; no standard established
- NA
- Not Applicable; no standard established because a standard is not required
- RPD
- Relative percent difference
- Value
- Exceeds standard
- Value
- Detection limit exceeds standard
- ¹
- F1 fraction does not include BTEX

TABLE 5: GROUNDWATER ANALYTICAL RESULTS - METALS AND INORGANICS
625 YONGE STREET AND 515 BIG BAY ROAD, BARRIE, ONTARIO

Sample Name	Units	STANDARDS Table 2 coarse	MW402	MW402	MW1000 Duplicate of MW402	RPD	MW403	MW403	MW406	MW406	MW409	MW1000 Duplicate of MW409	RPD	MW409	MW410	MW411
Vapour Reading	see note	-	<5/1 ppm	-	-	-	<5/2.2 ppm	-	<5/3.1 ppm	-	80/2.5 ppm	-	-	-	<5/5.6 ppm	<5/1.2 ppm
Screen Interval	m bg	-	3.1 - 6.1	3.1 - 6.1	3.1 - 6.1	-	3.1 - 6.1	3.1 - 6.1	3.1 - 6.1	3.1 - 6.1	3.1 - 6.1	3.1 - 6.1	-	3.1 - 6.1	3.1 - 6.1	3.1 - 6.1
Sampling Date	dd-mmm-yy	-	23-Nov-23	15-Dec-23	15-Dec-23	-	23-Nov-23	15-Dec-23	23-Nov-23	15-Dec-23	23-Nov-23	23-Nov-23	-	15-Dec-23	23-Nov-23	23-Nov-23
Analysis Date (on or before)	dd-mmm-yy	-	28-Nov-23	20-Dec-23	20-Dec-23	-	28-Nov-23	20-Dec-23	28-Nov-23	20-Dec-23	28-Nov-23	28-Nov-23	-	20-Dec-23	28-Nov-23	28-Nov-23
Certificate of Analysis No.	-	-	23T097112	23T105379	23T105379	-	23T097112	23T105379	23T097112	23T105379	23T097112	23T097112	-	23T105379	23T097112	23T097112
METALS																
Barium	ug/L	1,000	490	380	400	5%	1,580	448	212	204	464	491	6%	359	77.4	87.3
Beryllium	ug/L	4.0	<0.50	<0.50	<0.50	-	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	-	<0.50	<0.50	<0.50
Boron (Total)	ug/L	5,000	123	120	108	11%	456	237	45.9	51.6	86	81.2	6%	69.8	84.7	42.6
Cadmium	ug/L	2.7	<0.20	<0.20	<0.20	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	-	<0.20	<0.20	<0.20
Chromium Total	ug/L	50	<2.0	<2.0	<2.0	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	<2.0	<2.0	<2.0
Cobalt	ug/L	3.8	11.6	13	13.6	5%	23.1	8.7	11.8	7.5	8.71	9.18	5%	7.02	<0.50	<0.50
Copper	ug/L	87	2.9	3	3	-	5.1	7.1	3.1	4	7.8	8	3%	11.3	<1.0	9.2
Lead	ug/L	10	<0.50	1.15	<0.50	-	<0.50	1.46	<0.50	<0.50	<0.50	<0.50	-	0.51	<0.50	<0.50
Mercury	ug/L	0.29	<0.02	-	-	-	<0.02	-	<0.02	-	<0.02	<0.02	-	-	<0.02	<0.02
Molybdenum	ug/L	70	3.37	5.81	3.16	59%	1.99	105	2.34	10.1	2.3	2.16	-	3.05	5.36	2.73
Nickel	ug/L	100	15.1	17.5	17.6	1%	29.4	11.6	10	8.4	7.1	8.1	13%	5.3	<1.0	<1.0
Silver	ug/L	1.5	<0.20	<0.20	<0.20	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	-	<0.20	<0.20	<0.20
Thallium	ug/L	2.0	<0.30	<0.30	<0.30	-	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	-	<0.30	<0.30	<0.30
Uranium	ug/L	20	2.39	4.4	4.47	2%	3.36	123	2.45	1.6	3.36	3.32	1%	2.06	<0.50	<0.50
Vanadium	ug/L	6.2	0.68	0.98	1	-	1.23	1.49	1.11	1.55	1.78	1.72	-	1.72	0.56	0.61
Zinc	ug/L	1,100	12.2	17.1	16.3	-	20.8	12.3	16.8	11.8	6	<5.0	-	6.4	<5.0	5.3
HYDRIDE-FORMING METALS																
Antimony	ug/L	6.0	<1.0	<1.0	<1.0	-	<1.0	2.5	<1.0	<1.0	<1.0	<1.0	-	<1.0	<1.0	<1.0
Arsenic	ug/L	25	<1.0	<1.0	<1.0	-	<1.0	6.3	<1.0	<1.0	1.1	1.4	-	<1.0	<1.0	<1.0
Selenium	ug/L	10	2.3	1.2	4.2	-	5.2	2.1	3.5	3.1	4.8	7.5	-	3.5	<1.0	<1.0
OTHER REGULATED PARAMETERS (ORPs)																
Cyanide (CN-)	ug/L	66	<2	-	-	-	<2	-	<2	-	<2	<2	-	-	<2	<2
Chromium VI	ug/L	25	<2.000	-	-	-	<2.000	-	<2.000	-	<2.000	<2.000	-	-	<2.000	<2.000
pH	pH Units	NV	7.41	-	-	-	6.9	-	7.59	-	7.27	7.39	-	-	7.65	7.84
Chloride	ug/L	790,000	2,330,000	-	-	-	7,180,000	-	1,680,000	-	9,860,000	10,200,000	3%	-	17,500	12,900
Sodium	ug/L	490,000	915,000	-	-	-	2,510,000	-	1,110,000	-	6,330,000	6,310,000	0%	-	12,300	14,200

Standards from Soil, Ground Water and Sediment Standards for Use Under Part XV.1

of the Environmental Protection Act (April 15, 2011 and as amended)

Table 2: Full Depth Generic SCS in a Potable Ground Water Condition

All Types of Property-Use, Coarse-Textured Soil

- Parameter not analyzed

m bg meters below grade

ppm parts per million by volume

% LEL percent of the lower explosive limit

RPD Relative percent difference

NV No Value; no standard established

NA Not Applicable; no standard established because a standard is not required

Value Exceeds standard

Value Detection limit exceeds standard

TABLE 6: GROUNDWATER ANALYTICAL RESULTS - PAHs
625 YONGE STREET AND 515 BIG BAY ROAD, BARRIE, ONTARIO

Sample Name	Units	STANDARDS Table 2 coarse	MW402	MW403	MW406	MW409	MW1000 Duplicate of MW409	RPD	MW410	MW411
Vapour Reading	see note	-	<5/1 ppm	<5/2.2 ppm	<5/3.1 ppm	80/2.5 ppm	-	-	<5/5.6 ppm	<5/1.2 ppm
Screen Interval	m bg	-	3.1 - 6.1	3.1 - 6.1	3.1 - 6.1	3.1 - 6.1	3.1 - 6.1	-	3.1 - 6.1	3.1 - 6.1
Sampling Date	dd-mmm-yy	-	23-Nov-23	23-Nov-23	23-Nov-23	23-Nov-23	23-Nov-23	-	23-Nov-23	23-Nov-23
Analysis Date (on or before)	dd-mmm-yy	-	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	-	28-Nov-23	28-Nov-23
Certificate of Analysis No.	-	-	23T097112	23T097112	23T097112	23T097112	23T097112	-	23T097112	23T097112
POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)										
Acenaphthene	ug/L	4.1	<0.20	<0.20	<0.20	<0.20	<0.20	-	<0.20	<0.20
Acenaphthylene	ug/L	1.0	<0.20	<0.20	<0.20	<0.20	<0.20	-	<0.20	<0.20
Anthracene	ug/L	2.4	<0.10	<0.10	<0.10	<0.10	<0.10	-	<0.10	<0.10
Benz[a]anthracene	ug/L	1.0	<0.20	<0.20	<0.20	<0.20	<0.20	-	<0.20	<0.20
Benzo[a]pyrene	ug/L	0.010	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01
Benzo[b]fluoranthene	ug/L	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-	<0.10	<0.10
Benzo[ghi]perylene	ug/L	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	-	<0.20	<0.20
Benzo[k]fluoranthene	ug/L	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-	<0.10	<0.10
Chrysene	ug/L	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-	<0.10	<0.10
Dibenz[a h]anthracene	ug/L	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	-	<0.20	<0.20
Fluoranthene	ug/L	0.41	<0.20	<0.20	<0.20	<0.20	<0.20	-	<0.20	<0.20
Fluorene	ug/L	120	<0.20	<0.20	<0.20	<0.20	<0.20	-	<0.20	<0.20
Indeno[1 2 3-cd]pyrene	ug/L	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	-	<0.20	<0.20
Methylnaphthalene, 2-(1-) ¹	ug/L	3.2	<0.20	<0.20	<0.20	<0.20	<0.20	-	<0.20	<0.20
Naphthalene	ug/L	11	<0.20	<0.20	<0.20	<0.20	<0.20	-	<0.20	<0.20
Phenanthrene	ug/L	1.0	<0.10	<0.10	<0.10	<0.10	<0.10	-	<0.10	<0.10
Pyrene	ug/L	4.1	<0.20	<0.20	<0.20	<0.20	<0.20	-	<0.20	<0.20

Standards from *Soil, Ground Water* and Sediment Standards for Use Under Part XV.1
of the Environmental Protection Act (April 15, 2011 and as amended)

Table 2: Full Depth Generic SCS in a Potable Ground Water Condition

All Types of Property-Use, Coarse-Textured Soil

- Parameter not analyzed
- m bgmeters below grade
- ppmparts per million by volume
- % LELpercent of the lower explosive limit
- NVNo Value; no standard established
- NANot Applicable; no standard established because a standard is not required
- RPDRelative percent difference
- ValueExceeds standard
- ValueDetection limit exceeds standard
- ¹the sum of 1-methylnaphthalene and 2- methylnaphthalene

TABLE 7: GROUNDWATER ANALYTICAL RESULTS - BTEX AND PHCs
625 YONGE STREET AND 515 BIG BAY ROAD, BARRIE, ONTARIO

Sample Name	Units	STANDARDS Table 2 coarse	MW402	MW403	MW406	MW408	MW409	MW1000 Duplicate of MW409	RPD	MW410	MW411	Trip Blank
Vapour Reading	see note	-	<5/1 ppm	<5/2.2 ppm	<5/3.1 ppm	<5/18.1 ppm	80/2.5 ppm	-	-	<5/5.6 ppm	<5/1.2 ppm	-
Screen Interval	m bg	-	3.1 - 6.1	3.1 - 6.1	3.1 - 6.1	3.1 - 6.1	3.1 - 6.1	3.1 - 6.1	-	3.1 - 6.1	3.1 - 6.1	-
Sampling Date	dd-mmm-yy	-	23-Nov-23	23-Nov-23	23-Nov-23	23-Nov-23	23-Nov-23	23-Nov-23	-	23-Nov-23	23-Nov-23	21-Nov-23
Analysis Date (on or before)	dd-mmm-yy	-	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	28-Nov-23	-	28-Nov-23	28-Nov-23	28-Nov-23
Certificate of Analysis No.	-	-	23T097112	23T097112	23T097112	23T097112	23T097112	23T097112	-	23T097112	23T097112	23T097112
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES (BTEX)												
Benzene	ug/L	5.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	-	1.06	<0.20	<0.20
Toluene	ug/L	24	<0.20	<0.20	<0.20	0.70	<0.20	<0.20	-	0.98	0.56	<0.20
Ethylbenzene	ug/L	2.4	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-	<0.10	<0.10	<0.10
Xylenes (Total)	ug/L	300	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	-	<0.20	<0.20	<0.20
PETROLEUM HYDROCARBONS (PHCs)												
Petroleum Hydrocarbons F1 ¹	ug/L	750	<25	<25	<25	<25	<25	<25	-	<25	<25	-
Petroleum Hydrocarbons F2	ug/L	150	<100	<100	<100	<100	<100	<100	-	<100	<100	-
Petroleum Hydrocarbons F3	ug/L	500	<100	<100	<100	<100	<100	<100	-	<100	<100	-
Petroleum Hydrocarbons F4	ug/L	500	<100	<100	<100	<100	<100	<100	-	<100	<100	-

Standards from *Soil, Ground Water* and Sediment Standards for Use Under Part XV.1

of the Environmental Protection Act (April 15, 2011 and as amended)

Table 2: Full Depth Generic SCS in a Potable Ground Water Condition

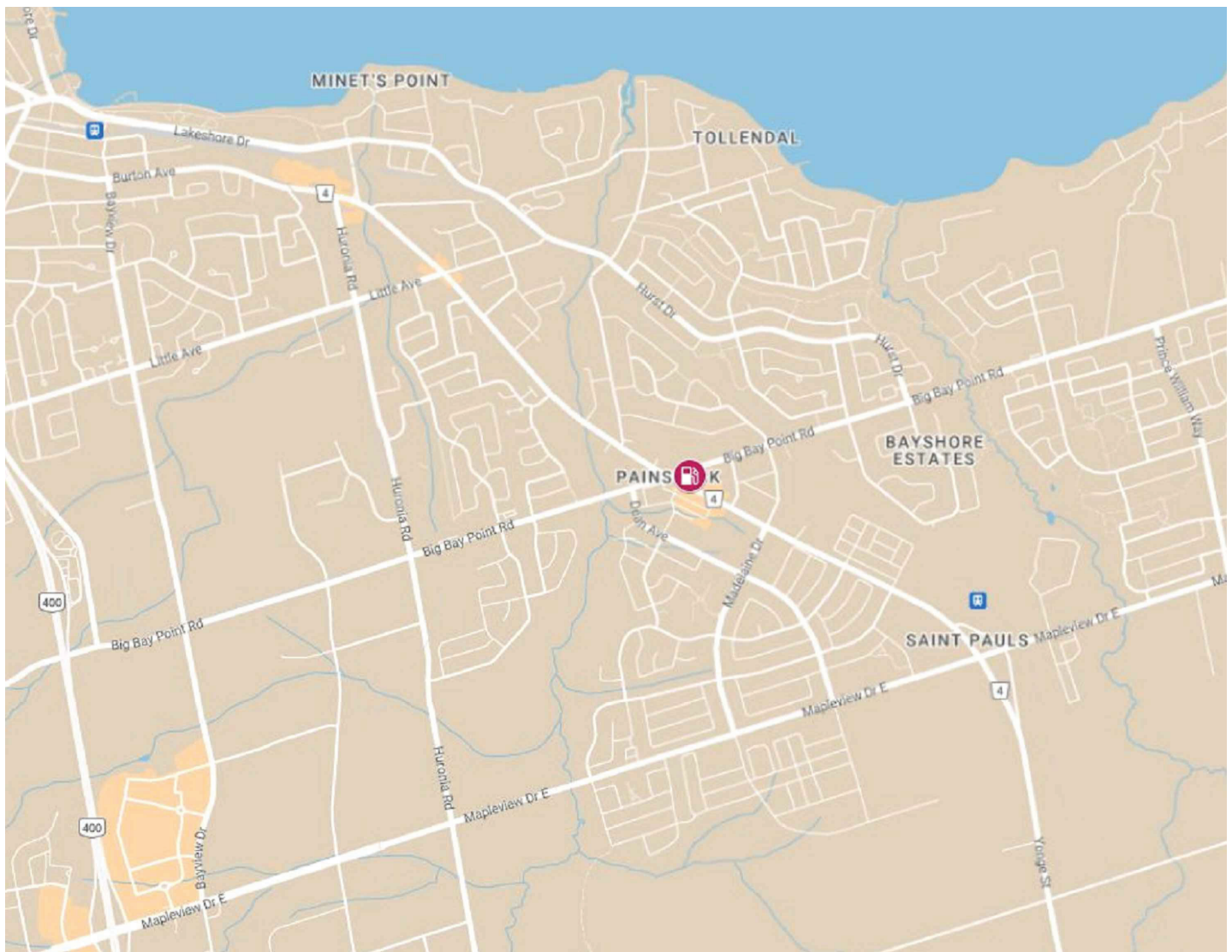
All Types of Property-Use, Coarse-Textured Soil

- Not analyzed
- m bgmeters below grade
- ppmparts per million by volume
- % LELpercent of the lower explosive limit
- NVNo Value; no standard established
- NANot Applicable; no standard established because a standard is not required
- RPDRelative percent difference
- ValueExceeds standard
- ValueDetection limit exceeds standard
- ¹F1 fraction does not include BTEX

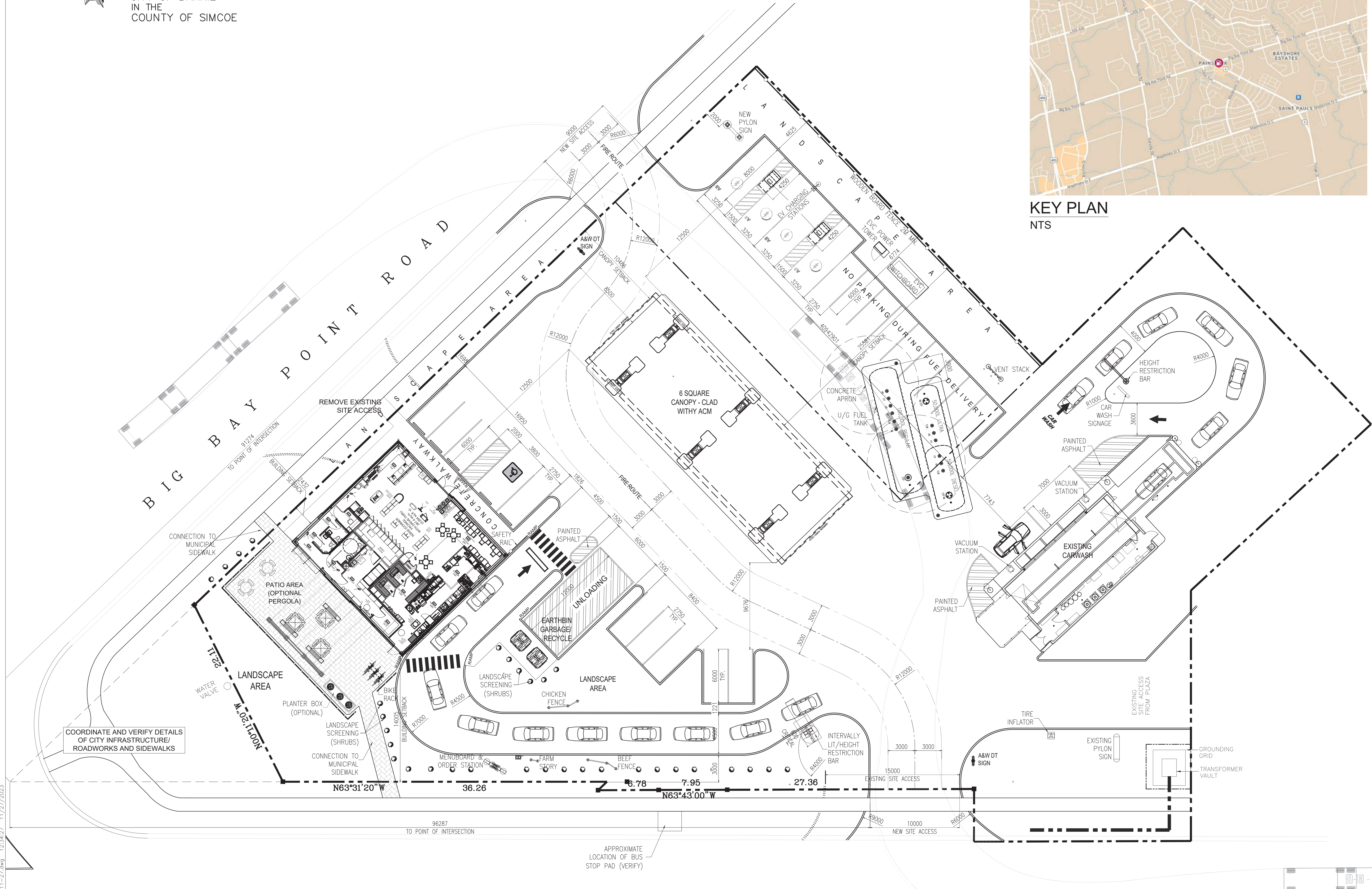
APPENDIX I
PROPOSED SITE DEVELOPMENT PLAN



TOPOGRAPHIC SURVEY OF PART OF THE
NORTH HALF OF LOT 13
CONCESSION 12
IN THE GEOGRAPHIC TOWNSHIP OF INNISFIL
IN THE
CITY OF BARRIE
IN THE
COUNTY OF SIMCOE



KEY PLAN
NTS



THE KING'S HIGHWAY No. 11
YONGE STREET

ISSUED		
NO.	DATE	DESCRIPTION
01	MMM DD/YY	ISSUE DESCRIPTION

REVISION		
Δ	MMM DD/YY	REVISION DESCRIPTION

SEAL

The contractor will check and verify dimensions and report errors and omissions to the designer and the design professional whose seal is affixed to this drawing. Do not scale the drawings.

This drawing will not be used for construction purposes until issued for construction by the design professional whose seal is affixed to this drawing and whose signature is below.

ISSUED FOR CONSTRUCTION DATE

DIMENSIONS AND CONDITIONS TO BE VERIFIED ON THE PREMISES

K. PAUL ARCHITECT INC.
TORONTO • VANCOUVER • ORLANDO

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(905)337-9800 fax (905)337-1986



DRAWING TITLE

PROPOSED
SITE
LAYOUT

PROJECT

623 YONGE STREET
@ BIG BAY POINT

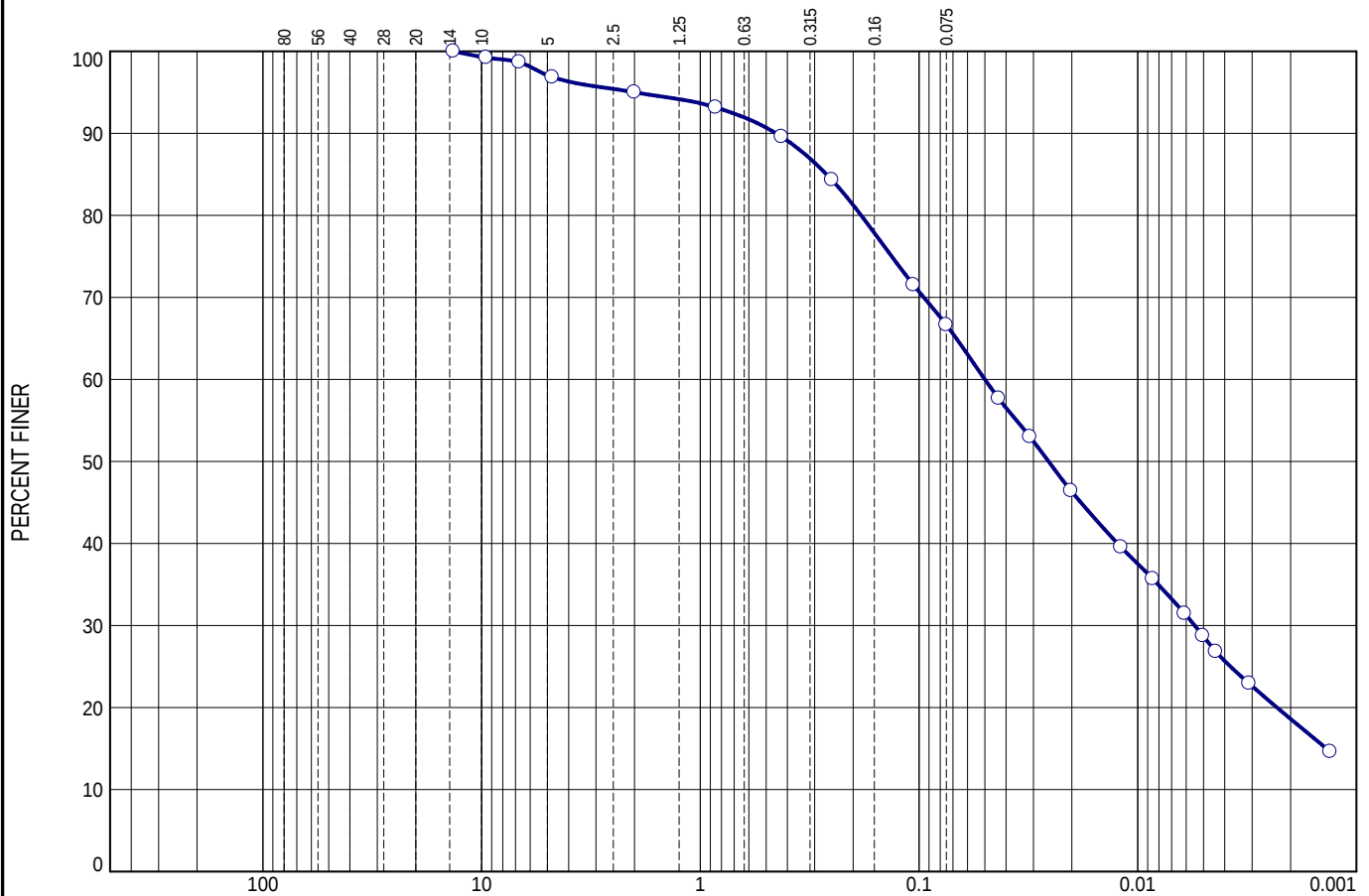
BARRIE, ON

DRAWN	CHECKED
J.NORTON	
SCALE	DATE
1:200	2023-11-27
PROJECT NO.	DRAWING NO.
33659	SP1

APPENDIX II
GRAIN SIZE ANALYSIS

Particle Size Distribution Report

ASTM D422



GRAIN SIZE - mm.

	% +3"	% Gravel	% Sand		% Fines	
			Coarse	Fine	Silt	Clay
○	0.0	5.0	5.4	22.9	48.1	18.6

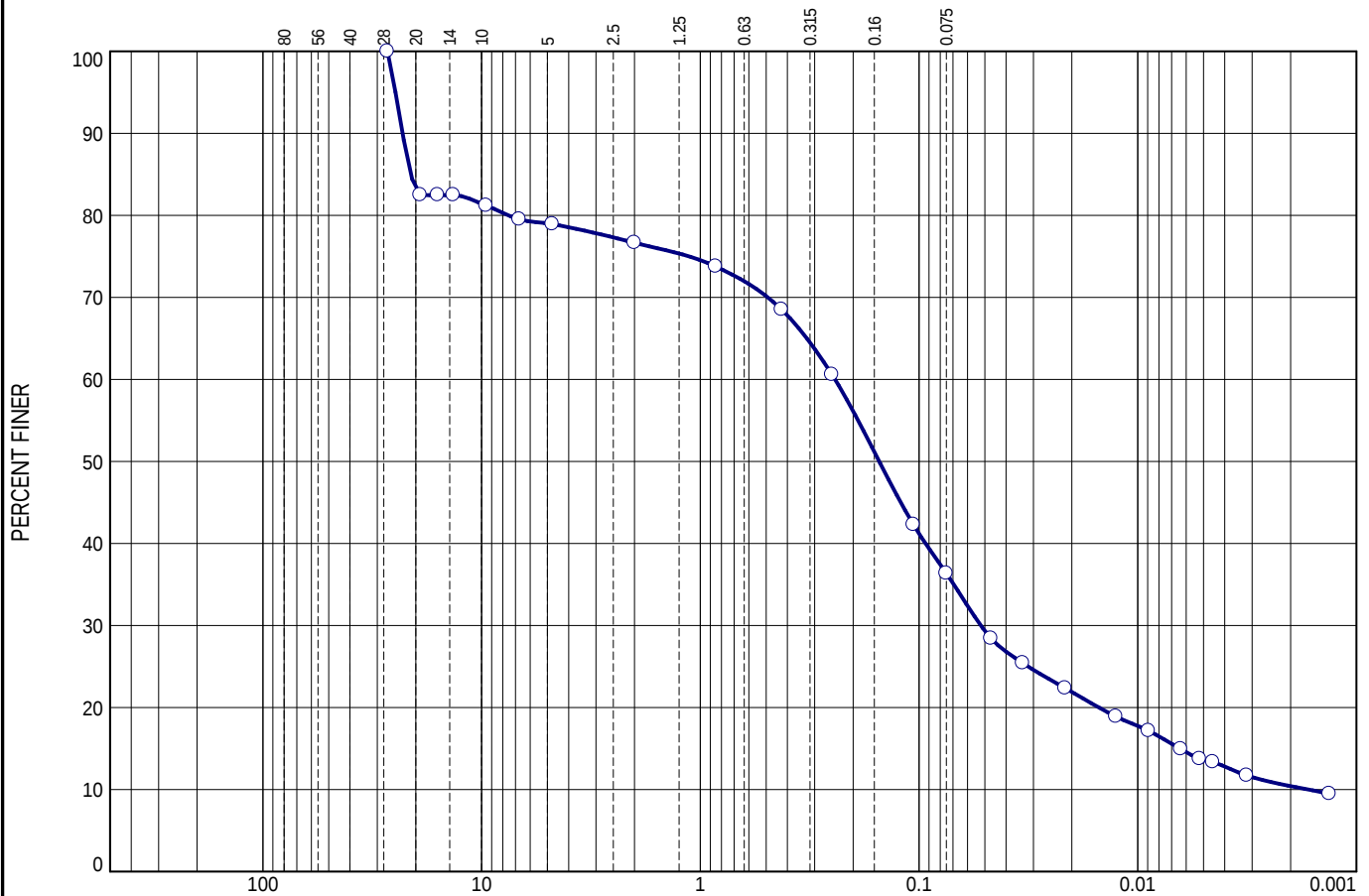
×	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
○	20.2	12.7	0.2645	0.0500	0.0256	0.0055	0.0014			

Material Description								Test Date	USCS	NM
○ SANDY SILT some clay trace gravel								Nov 21/23	CL-ML	

Project No. CH321.00 Client: Suncor Project: 623 Yonge Street, Barrie, ON ○ Sample Number: MW406, SS4								Remarks: ○ HYDROMETER DETAILS: Spec. Grav. 2.75(assumed); Vb= 53cm ³ ; L2=13.8cm; L1= 10.7cm; hs=0.16cm/Div; A= 30.2cm ² ; Mass of Disp. Agent=40g/1		
Terrapex Toronto, Ontario								Figure	1	

Particle Size Distribution Report

ASTM D422



GRAIN SIZE - mm.

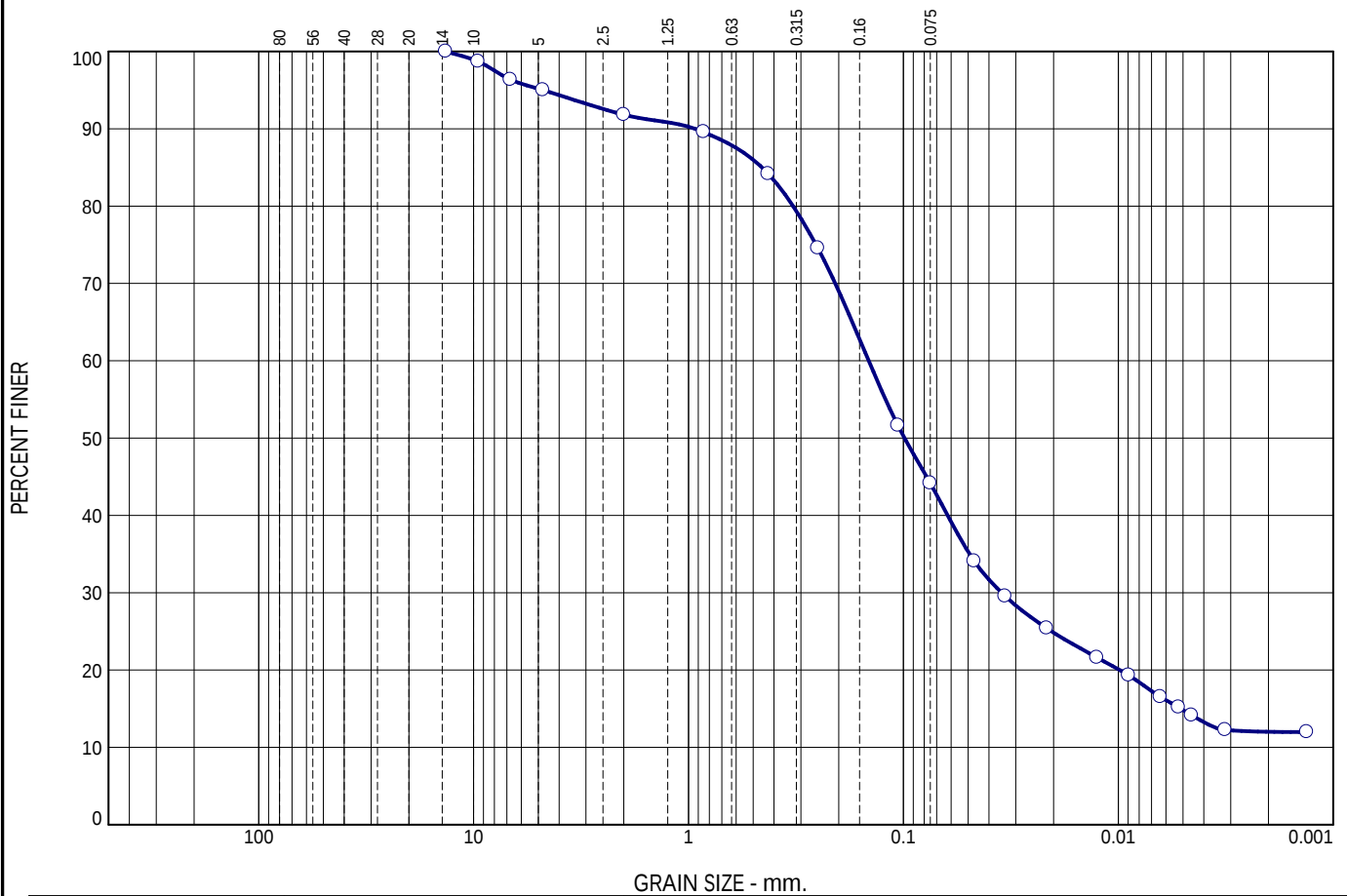
GRAVEL SIZE - mm										
	% +3"		% Gravel			% Sand			% Fines	
						Coarse	Fine	Silt		Clay
○	0.0		23.3			8.2	32.1	26.0		10.4
×	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
○	12.8	NP	21.0617	0.2420	0.1520	0.0521	0.0064	0.0017	6.79	146.38

Material Description	Test Date	USCS	NM
○ GRAVELLY SILTY SAND trace to some clay	Nov 21/23	SM	

Project No. CH321.00 Client: Suncor	Remarks: ○HYDROMETER DETAILS: Spec. Grav. 2.75(assumed); Vb= 53cm ³ ; L2=13.8cm; L1= 10.7cm; hs=0.16cm/Div; A= 30.2cm ² ; Mass of Disp. Agent=40g/1
Project: 623 Yonge Street, Barrie, ON	
○ Sample Number: MW407, SS6	
Terrapex	Figure 2
Toronto, Ontario	

Particle Size Distribution Report

ASTM D422



APPENDIX III
SAMPLING AND ANALYSIS PLAN

SAMPLING AND ANALYSIS PLAN
623 Yonge Street and 515 Big Bay Point Road, Barrie, Ontario

Borehole No.	Location	Rationale	Depth (m)								
				Soil				Groundwater			
				PHCs F1-F4	BTEX	Inorg.	PAHs	PHCs F1-F4	BTEX	Inorg.	PAHs
BH401	Centre of Site, south of pump island	APEC 1, 2, 3	6	1	1						
MW402	Centre of Site, north of tank nest	APEC 1, 3, HydroG, Geotech	6	1	1	1	1	1	1	1	1
MW403	Central west, between pump island and kiosk	APEC 1, 2, 3, HydroG, Geotech	6	2	2	1	1	1	1	1	1
BH404	Central portion of Site, east of tank nest, west of car wash	APEC 1, 3, Geotech	6	1	1	1	1				
BH405	Northeast portion of Site, north of carwash and interceptor	APEC 1, 3	6	1	1						
MW406	South central portion of the Site, near Yonge Street entrance	APEC 1, 2, 3, HydroG	6	1	1			1	1	1	1
BH407	North portion of Site, north of kiosk	APEC 1, 3, Geotech	6	1	1						
MW408	Southeast portion of Site, south of car wash	APEC 1, 3, 4, HydroG	6	1	1			1	1	1	1
MW409	Western portion of Site, west of pump island	APEC 1, 2, 3, HydroG, Geotech	6	2	2			1	1	1	1
MW410	Northern portion of Site, former dwelling footprint	APEC 1, 3, HydroG, Geotech	6	2	2	1	1	1	1	1	1
MW411	North-central portion of Site	APEC 1, 3, HydroG, Geotech	BH: 9.5 MW: 6	2	2			1	1	1	1
Total Before QA/QC Samples				15	15	4	4	7	7	7	7
QA/QC field duplicate				2	2	1	1	1	1	1	1
QA/QC trip blank				1	1			1	1		
Total Laboratory Analyses				18	18	5	5	9	9	8	8

Notes: APEC = Area of Potential Concern, refer to phase one ESA
BTEX = benzene, toluene, ethylbenzene, and xylenes
PHCs F1-F4 = petroleum hydrocarbons in the F1 to F4 fractions
Inorg. = metals and general inorganic parameters (O. Reg. 153/04)
PAHs = polycyclic aromatic hydrocarbons (O. Reg. 153/04)

APPENDIX IV
BOREHOLE LOGS

CLIENT: SUNCOR ENERGY PARTNERSHIPS				PROJECT NO.: CH321.00				RECORD OF: BH401											
ADDRESS: 623 YONGE STREET AND 515 BIG BAY ROAD																			
CITY/PROVINCE: BARRIE, ONTARIO				NORTHING (m): 4912397.772		EASTING (m): 607854.263		ELEV. (m) 250.872											
CONTRACTOR: PONTIL DRILLING				METHOD: HOLLOW STEM AUGER															
BOREHOLE DIAMETER (cm): 20		WELL DIAMETER (cm): -		SCREEN SLOT #: -		SAND TYPE: #2		SEALANT TYPE: BENTONITE											
SAMPLE TYPE		☐ AUGER ☒ DRIVEN ☒ CORING ☐ DYNAMIC CONE ☐ SHELBY ☐ SPLIT SPOON																	
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	CV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)				PL W.C. LL										
					40	80	120	160	20	40	60	80							
		ASPHALT (50mm)	0																
		FILL compact, moist, brown sand and gravel some asphalt chunks	0.5	250.5	24								1	80	<5				
		FILL loose, moist, black sand trace asphalt chunks	1	250	9								2	30	<5				
		FILL firm, moist, brown clayey silt some sand	1.5	249.5									3A	80	<5				
			2	249	4								3B						
		compact to dense, moist, brownish grey SANDY SILT to SILTY SAND trace clay, trace gravel (TILL)	2.5	248.5	18								4	100	<5				
			3	248															
			3.5	247.5	43								5	10	<5				
			4	247															
			4.5	246.5	28								6	70	<5	BTEX, PHCS, DUP		DUP BH2000-6	
			5	246	13								7	95	<5				
			5.5	245.5	19								8	95	40				
			6	245															
			6.5	244.5	30								9		<5				
		END OF BOREHOLE																	
										LOGGED BY: DF/AC		DRILLING DATE: 7-NOV-23							
										INPUT BY: SW		MONITORING DATE:							
										REVIEWED BY:		PAGE 1 OF 1							

CLIENT: SUNCOR ENERGY PARTNERSHIPS				PROJECT NO.: CH321.00				RECORD OF: MW402												
ADDRESS: 623 YONGE STREET AND 515 BIG BAY ROAD																				
CITY/PROVINCE: BARRIE, ONTARIO				NORTHING (m): 4912408.108		EASTING (m): 607874.237		ELEV. (m) 251.006												
CONTRACTOR: PONTIL DRILLING				METHOD: HOLLOW STEM AUGER																
BOREHOLE DIAMETER (cm): 20		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: #2		SEALANT TYPE: HOLE PLUG												
SAMPLE TYPE		AUGER		DRIVEN		CORING		DYNAMIC CONE		SHELBY		SPLIT SPOON								
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	CV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS	
					N-VALUE (Blows/300mm)				PL W.C. LL											
					40 80 120 160				20 40 60 80											
		ASPHALT (80mm)	0	251																
		FILL compact, moist, brown to light brown sand and gravel	0.5	250.5										1	50	<5/0				
		FILL firm, moist, brown sandy clayey silt	1	250										2A	80	<5/0				
														2B		<5/0				
		FILL compact, moist, brown sandy silt some clay, trace gravel	1.5	249.5																
			2	249										3	87	<5/0				
		FILL moist, brown silty sand	2.5	248.5																
														4A	89	<5/0				
														4B		<5/0				
		moist, brownish grey SANDY SILT to SILTY SAND trace clay, trace gravel (TILL)	3	248																
			3.5	247.5										5	44	<5/0				
		very dense compact	4	247																
			4.5	246.5										6	100	<5/0				
			5	246																
			5.5	245.5																
			6	245																
		very moist	6.5	244.5																
														9	100	<5/0				
		END OF BOREHOLE																		
										LOGGED BY: BW/AC		DRILLING DATE: 8-NOV-23								
										INPUT BY: SW		MONITORING DATE: 23-NOV-2023								
										REVIEWED BY:		PAGE 1 OF 1								

CLIENT: SUNCOR ENERGY PARTNERSHIPS				PROJECT NO.: CH321.00				RECORD OF: MW403											
ADDRESS: 623 YONGE STREET AND 515 BIG BAY ROAD																			
CITY/PROVINCE: BARRIE, ONTARIO				NORTHING (m): 4912415.702		EASTING (m): 607850.952		ELEV. (m) 250.835											
CONTRACTOR: PONTIL DRILLING				METHOD: HOLLOW STEM AUGER															
BOREHOLE DIAMETER (cm): 20		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: #2		SEALANT TYPE: HOLE PLUG											
SAMPLE TYPE		AUGER		DRIVEN		CORING		DYNAMIC CONE		SHELBY									
SPLIT SPOON																			
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)			SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	CV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS	
					N-VALUE (Blows/300mm)				PL W.C. LL										
					40	80	120	160	20	40	60	80							
		ASPHALT (100mm)	0																
		FILL dense, moist, light brown sand and gravel	0.5	250.5				46					1	64	<5/0				
		FILL firm, slightly moist, dark brown silty clay to clayey silt trace coarse sand, trace gravel	1	250									2	100	<5/0				
		moist to wet	1.5	249.5									3	84	<5/0				
		FILL dense, moist to wet, greyish brown silt trace clay, trace gravel	2.5	248.5				39					4	51	<5/0				
		moist, brownish grey SANDY SILT to SILTY SAND trace clay, trace gravel (TILL)	3	248									5	100	<5/0				
		dense compact	3.5	247.5				40					6	100	<5/0				
		grey	4	247									7	64	<5/0				
		very moist	4.5	246.5				18					8	100	<5/0				
			5	246				24					9	100	<5/0				
			5.5	245.5				18					10						
			6	245									11						
			6.5	244.5				22					12						
		END OF BOREHOLE																	

50 mm monitoring well was installed.
Waterlevel measured:
on Nov 17th, 2023 at 4.80mbgs
on Nov 23rd, 2023 at 4.81mbgs



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DRILLING DATE: 8-NOV-23
MONITORING DATE: 23-NOV-2023
PAGE 1 OF 1

CLIENT: SUNCOR ENERGY PARTNERSHIPS				PROJECT NO.: CH321.00				RECORD OF: BH404											
ADDRESS: 623 YONGE STREET AND 515 BIG BAY ROAD																			
CITY/PROVINCE: BARRIE, ONTARIO				NORTHING (m): 4912394.853		EASTING (m): 607889.251		ELEV. (m) 251.472											
CONTRACTOR: PONTIL DRILLING				METHOD: HOLLOW STEM AUGER															
BOREHOLE DIAMETER (cm): 20		WELL DIAMETER (cm): -		SCREEN SLOT #: -		SAND TYPE: -		SEALANT TYPE: -											
SAMPLE TYPE		☒ AUGER		☒ DRIVEN		☒ CORING		☐ DYNAMIC CONE		☐ SHELBY		☐ SPLIT SPOON							
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	CV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)				PL W.C. LL										
					40	80	120	160	20	40	60	80							
		ASPHALT (80mm)	0		5									1	41	<5/0			
		FILL loose, moist, brown sand and gravel	0.5	251										2	67	<5/0	M&I, PAHs		
		FILL firm, moist, brown silty clay trace gravel, oxidation	1	250.5	7									3	100	<5/0	BTEX, PHCs		
		FILL very stiff, wet, brown silty clay trace to some gravel	2	249.5	18									4	93	<5/0			
		moist, brownish grey SANDY SILT to SILTY SAND trace clay, trace gravel (TILL)	2.5	249	28									5	57	<5/0			
		compact dense gravelly sand seam	3.5	248	55									6	100	<5/0			
			4	247.5	20									7	90				
		trace small to medium sized rocks	4.5	247										8	100				
			5	246.5	21														
			5.5	246															
			6	245.5															
			6.5	245	27														
END OF BOREHOLE																			
										LOGGED BY: BW/AC		DRILLING DATE: 8-NOV-23							
										INPUT BY: SW		MONITORING DATE:							
										REVIEWED BY:		PAGE 1 OF 1							

CLIENT: SUNCOR ENERGY PARTNERSHIPS				PROJECT NO.: CH321.00				RECORD OF: BH405										
ADDRESS: 623 YONGE STREET AND 515 BIG BAY ROAD																		
CITY/PROVINCE: BARRIE, ONTARIO				NORTHING (m): 4912398.282		EASTING (m): 607912.001		ELEV. (m) 251.707										
CONTRACTOR: PONTIL DRILLING				METHOD: HOLLOW STEM AUGER														
BOREHOLE DIAMETER (cm): 20		WELL DIAMETER (cm): -		SCREEN SLOT #: -		SAND TYPE: #2		SEALANT TYPE: BENTONITE										
SAMPLE TYPE		☐ AUGER ☒ DRIVEN		☒ CORING		☐ DYNAMIC CONE		☐ SHELBY		☐ SPLIT SPOON								
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)			SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	CV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)				PL W.C. LL									
					40	80	120	160	20	40	60							
		ASPHALT (120m)	0	251.5	9								1	10	<5			
		FILL loose, moist, brown sand and gravel	0.5	251									2	70	<5			
		FILL firm to stiff, moist, brown silty clay some sand, trace gravel	1	250.5	4								3	100	<5			
			1.5	250	12								4	100	<5			
		moist, brownish grey SANDY SILT to SILTY SAND trace clay, trace gravel (TILL)	2	249.5									5	60	<5			
			2.5	249	46								6	90	<5	BTEX, PHCs		
		dense ----- very dense	3	248.5									7A	<5				
			3.5	248									7B	100				
			4	247.5	31								8	10	<5			
			4.5	247	31								9	100	<5			
			5	246.5														
			5.5	246	45													
			6	245.5														
		compact -----	6.5	245	25													
		END OF BOREHOLE																
										LOGGED BY: SB/AC		DRILLING DATE: 7-NOV-23						
										INPUT BY: SW		MONITORING DATE:						
										REVIEWED BY:		PAGE 1 OF 1						

CLIENT: SUNCOR ENERGY PARTNERSHIPS				PROJECT NO.: CH321.00				RECORD OF: MW406											
ADDRESS: 623 YONGE STREET AND 515 BIG BAY ROAD																			
CITY/PROVINCE: BARRIE, ONTARIO				NORTHING (m): 4912380.044		EASTING (m): 607866.855		ELEV. (m) 251.356											
CONTRACTOR: PONTIL DRILLING				METHOD: HOLLOW STEM AUGER															
BOREHOLE DIAMETER (cm): 20		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: #2		SEALANT TYPE: BENTONITE											
SAMPLE TYPE		AUGER		DRIVEN		CORING		DYNAMIC CONE		SHELBY		SPLIT SPOON							
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	CV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)				PL W.C. LL										
					40	80	120	160	20	40	60	80							
		ASPHALT (120mm)	0																Bentonite
		FILL compact, moist, brown sand and gravel	0.5	251	15				6					1	40	<5			
		FILL loose, silty sand trace clay	1	250.5	5				21					2	70	<5			
			1.5	250															
		moist, brownish grey SANDY SILT to SILTY SAND trace clay, trace gravel (TILL)	2	249.5	5				15					3	100	<5			50 mm monitoring well was installed. Waterlevel measured: on Nov 17th, 2023 at 5.11mbgs on Nov 23rd, 2023 at 5.25mbgs
			2.5	249					8					4	80	<5			
		dense to compact	3	248.5					8					5	100	<5			Sand
		loose	3.5	248	17									6	20	25			Screen + Sand
		compact to very dense	4	247.5	9				9					7	100	<5	BTEX, PHCs		
			4.5	247					9					8	5	<5			
		very moist	5.5	246.5	22				10					9	100	<5			Sand
			6	246															
			6.5	245.5	31				9										
		END OF BOREHOLE																	



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INPUT BY: SW

REVIEWED BY:

DRILLING DATE: 7-NOV-23

MONITORING DATE: 23-NOV-2023

PAGE 1 OF 1

CLIENT: SUNCOR ENERGY PARTNERSHIPS				PROJECT NO.: CH321.00				RECORD OF: BH407											
ADDRESS: 623 YONGE STREET AND 515 BIG BAY ROAD																			
CITY/PROVINCE: BARRIE, ONTARIO				NORTHING (m): 4912432.271		EASTING (m): 607872.923		ELEV. (m) 251.104											
CONTRACTOR: PONTIL DRILLING				METHOD: HOLLOW STEM AUGER															
BOREHOLE DIAMETER (cm): 20		WELL DIAMETER (cm): -		SCREEN SLOT #: -		SAND TYPE: #2		SEALANT TYPE: HOLE PLUG											
SAMPLE TYPE		☐ AUGER ☒ DRIVEN ☒ CORING ☐ DYNAMIC CONE ☐ SHELBY ☐ SPLIT SPOON																	
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)			SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	CV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS	
					N-VALUE (Blows/300mm)				PL	W.C.	LL								
					40	80	120	160											
					20	40	60	80	20	40	60	80							
		TOPSOIL (600mm)	0	251															
		FILL brown, very moist silty sand trace organics	0.5	250.5															
		FILL very moist, brown sand trace silt, trace gravel	1	250															
			1.5	249.5															
			2	249															
			2.5	248.5															
		moist, brownish grey SANDY SILT to SILTY SAND trace clay, trace gravel (TILL)	3	248															
			3.5	247.5															
		compact	4	247															
			4.5	246.5															
			5	246															
		very moist	5.5	245.5															
			6																
		END OF BOREHOLE																	
										LOGGED BY: AC/JF		DRILLING DATE: 7-NOV-23							
										INPUT BY: SW		MONITORING DATE: -							
										REVIEWED BY:		PAGE 1 OF 1							

CLIENT: SUNCOR ENERGY PARTNERSHIPS				PROJECT NO.: CH321.00				RECORD OF: MW408												
ADDRESS: 623 YONGE STREET AND 515 BIG BAY ROAD																				
CITY/PROVINCE: BARRIE, ONTARIO				NORTHING (m): 4912365.247		EASTING (m): 607893.059		ELEV. (m) 251.903												
CONTRACTOR: PONTIL DRILLING				METHOD: HOLLOW STEM AUGER																
BOREHOLE DIAMETER (cm): 20		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: #2		SEALANT TYPE: BENTONITE												
SAMPLE TYPE		☒ AUGER		☒ DRIVEN		☒ CORING		☐ DYNAMIC CONE		☐ SHELBY		☐ SPLIT SPOON								
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	CV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS	
					N-VALUE (Blows/300mm)				PL W.C. LL											
					40	80	120	160	20	40	60	80								
		TOPSOIL (150mm) FILL loose, moist, brown sandy silt, some clay	0	251.5	18									1	80	<5/0				Bentonite
			0.5	251	5									2	80	<5/0				
			1	250.5																
			1.5	250	8									3	100	<5/0				
		moist, brownish grey SANDY SILT to SILTY SAND trace clay, trace gravel (TILL)	2	249.5																
			2.5	249	51									4	80	<5/0				
		dense to very dense	3	248.5	23									5	100	<5/0				
			3.5	248																
			4	247.5	36									6	30	<5/0				
		compact to dense	4.5	247	17									7	100	<5/0	BTEX, PHCs			
			5	246.5	41									8	100	<5/0				
			5.5	246																
		very moist	6	245.5	17									9	100	<5/0				
			6.5																	
		END OF BOREHOLE																		
										LOGGED BY: DF/AC		DRILLING DATE: 9-NOV-23								
										INPUT BY: SW		MONITORING DATE: 23-NOV-2023								
										REVIEWED BY:		PAGE 1 OF 1								

50 mm monitoring well
was installed.
Waterlevel measured:
on Nov 17th, 2023 at
5.74mbgs
on Nov 23rd, 2023 at
5.81mbgs

CLIENT: SUNCOR ENERGY PARTNERSHIPS				PROJECT NO.: CH321.00				RECORD OF: MW409											
ADDRESS: 623 YONGE STREET AND 515 BIG BAY ROAD																			
CITY/PROVINCE: BARRIE, ONTARIO				NORTHING (m): 4912418.044		EASTING (m): 607829.459		ELEV. (m) 250.444											
CONTRACTOR: PONTIL DRILLING				METHOD: HOLLOW STEM AUGER															
BOREHOLE DIAMETER (cm): 20		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: #2		SEALANT TYPE: BENTONITE											
SAMPLE TYPE		☒ AUGER		☒ DRIVEN		☒ CORING		☐ DYNAMIC CONE		☐ SHELBY		☐ SPLIT SPOON							
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	CV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					N-VALUE (Blows/300mm)				PL W.C. LL										
					40	80	120	160	20	40	60	80							
		ASPHALT (90mm)	0																Bentonite
		FILL compact, wet, brown sand and gravel	0.5	250	16								1		50	<5/0			
		FILL loose to compact, moist, brown sandy silt some clay, trace organics	1	249.5	5								2		60	<5/0			
			1.5	249															
			2	248.5	11								3		50	5/0			
		compact, moist, brownish grey SANDY SILT to SILTY SAND trace clay, trace gravel (TILL)	2.5	248	19								4		80	<5/0			
			3	247.5															
			3.5	247	21								5		90	35/0	BTEX, PHCs		
		very moist	4	246.5	14								6		60	<5/0			
			4.5	246															
			5	245.5	20								7		20	5/0			
			5.5	245															
			6	244.5	22								8		80	10/0	BTEX, PHCs		
			6.5	244	24								9		100	5/0			
		END OF BOREHOLE																	
										LOGGED BY: JF/AC				DRILLING DATE: 9-NOV-23					
										INPUT BY: SW				MONITORING DATE: 23-NOV-2023					
										REVIEWED BY:				PAGE 1 OF 1					

50 mm monitoring well was installed.
Waterlevel measured:
on Nov 17th, 2023 at 4.33mbgs
on Nov 23rd, 2023 at 4.41mbgs

CLIENT: SUNCOR ENERGY PARTNERSHIPS				PROJECT NO.: CH321.00				RECORD OF: MW410												
ADDRESS: 623 YONGE STREET AND 515 BIG BAY ROAD																				
CITY/PROVINCE: BARRIE, ONTARIO				NORTHING (m): 4912434.383		EASTING (m): 607884.469		ELEV. (m) 251.21												
CONTRACTOR: PONTIL DRILLING				METHOD: HOLLOW STEM AUGER																
BOREHOLE DIAMETER (cm): 20		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: WELL GRAVEL		SEALANT TYPE: BENTONITE												
SAMPLE TYPE		AUGER		DRIVEN		CORING		DYNAMIC CONE		SHELBY		SPLIT SPOON								
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	CV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS	
					N-VALUE (Blows/300mm)				PL W.C. LL											
					40 80 120 160															
		TOPSOIL (350mm)	0	251	4									1		70	<5/0			Bentonite
		FILL very loose, moist, brown sand	0.5	250.5										2		50	<5/0	M&I, PAHs, BTEX, PHCs		
		FILL compact, wet, brown sandy silt trace clay	1.5	250	2									3		60	<5/0			
		moist, brownish grey SANDY SILT to SILTY SAND trace clay, trace gravel (TILL)	2	249.5	16									4		70	10/0			50 mm monitoring well was installed. Waterlevel measured: on Nov 17th, 2023 at 4.89mbgs on Nov 23rd, 2023 at 4.90mbgs
			2.5	249										5		80	35/0	BTEX, PHCs		
			3	248.5	21									6		100	10/0			Sand
			3.5	248	21									7		40	<5/0			Screen + Sand
			4	247.5										8		40	10/0			
		compact	4.5	247	16									9		100	<5/0			
		----- dense to very dense	5	246.5	66															
			5.5	246																
			6	245.5	33															
		very moist	6.5	245	64/280															
		END OF BOREHOLE																		



LOGGED BY: DF/AC
 INPUT BY: SW
 REVIEWED BY:

DRILLING DATE: 10-NOV-23
 MONITORING DATE: 23-NOV-2023
 PAGE 1 OF 1

CLIENT: SUNCOR ENERGY PARTNERSHIPS				PROJECT NO.: CH321.00				RECORD OF: MW411											
ADDRESS: 623 YONGE STREET AND 515 BIG BAY ROAD																			
CITY/PROVINCE: BARRIE, ONTARIO				NORTHING (m): 4912417.208		EASTING (m): 607889.523		ELEV. (m) 251.252											
CONTRACTOR: PONTIL DRILLING				METHOD: HOLLOW STEM AUGER															
BOREHOLE DIAMETER (cm): 20		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: WELL GRAVEL		SEALANT TYPE: BENTONITE											
SAMPLE TYPE		AUGER		DRIVEN		CORING		DYNAMIC CONE		SHELBY		SPLIT SPOON							
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)			SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	CV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS	
					40	80	120	160	N-VALUE (Blows/300mm)										PL
					20	40	60	80	20	40	60	80							
		TOPSOIL (250mm)	0	251	5				24				1	40	<5/0			Bentonite	
		FILL loose, moist, brown silty sand	0.5	250.5					10				2	100	<5/0				
		compact, moist, brownish grey SANDY SILT to SILTY SAND trace clay, trace gravel (TILL)	1	250	12				8				3	80	25/0				
		----	1.5	249.5	21				8				4	100	5/0				
		----	2	249									5	100	35/0				
		----- sand seam (some gravel) -----	2.5	248.5	29				7				6	80	5/0				
			3	248	30				10				7	90	25/0				
			3.5	247.5									8	100	10/0				
			4	247	26				10				9	80	35/0				
			4.5	246.5	20								10	100	10/0				
			5	246															
			5.5	245.5															
		very moist	6	245	12				10				8	100	10/0				
			6.5	244.5															
			7	244															
			7.5	243.5															
		----- dense to very dense -----	8	243	35				10				9	80	35/0				
			8.5	242.5															
			9	242															
										LOGGED BY: DF/AC		DRILLING DATE: 14-NOV-23							
										INPUT BY: SW		MONITORING DATE: 23-NOV-2023							
										REVIEWED BY:		PAGE 1 OF 2							

CLIENT: SUNCOR ENERGY PARTNERSHIPS				PROJECT NO.: CH321.00				RECORD OF: MW411											
ADDRESS: 623 YONGE STREET AND 515 BIG BAY ROAD																			
CITY/PROVINCE: BARRIE, ONTARIO				NORTHING (m): 4912417.208		EASTING (m): 607889.523		ELEV. (m) 251.252											
CONTRACTOR: PONTIL DRILLING				METHOD: HOLLOW STEM AUGER															
BOREHOLE DIAMETER (cm): 20		WELL DIAMETER (cm): 5		SCREEN SLOT #: 10		SAND TYPE: WELL GRAVEL		SEALANT TYPE: BENTONITE											
SAMPLE TYPE		☐ AUGER ☒ DRIVEN		☒ CORING		☐ DYNAMIC CONE		☐ SHELBY		☐ SPLIT SPOON									
GWL (m)	SOIL SYMBOL	SOIL DESCRIPTION	DEPTH (m)	ELEVATION (m)	SHEAR STRENGTH (kPa)				WATER CONTENT (%)				SAMPLE NO.	SAMPLE TYPE	RECOVERY (%)	CV/TOV (ppm or %LEL)	LABORATORY TESTING	WELL INSTALLATION	REMARKS
					40	80	120	160	N-VALUE (Blows/300mm)										
					20	40	60	80	20	40	60	80							
		END OF BOREHOLE	9.5					94/250	7					10		100	5/0		

	LOGGED BY: DF/AC	DRILLING DATE: 14-NOV-23
	INPUT BY: SW	MONITORING DATE: 23-NOV-2023
	REVIEWED BY:	PAGE 2 OF 2

APPENDIX V
LABORATORY CERTIFICATES OF ANALYSIS

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED
90 SCARSDALE RD
TORONTO, ON M3B2R7
(905) 474-5265

ATTENTION TO: Sara Sutherland

PROJECT: CH321.00

AGAT WORK ORDER: 23T091921

SOIL ANALYSIS REVIEWED BY: Sukhwinder Randhawa, Inorganic Team Lead

TRACE ORGANICS REVIEWED BY: Oksana Gushyla, Trace Organics Lab Supervisor

DATE REPORTED: Nov 17, 2023

PAGES (INCLUDING COVER): 34

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 as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.
- 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

Certificate of Analysis

AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
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FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie ON

ATTENTION TO: Sara Sutherland

SAMPLED BY:

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

DATE RECEIVED: 2023-11-10

DATE REPORTED: 2023-11-17

		SAMPLE DESCRIPTION:		BH404-2	MW403-1	MW402-1	BH7000-1
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-11-08 08:40	2023-11-08 13:45	2023-11-08 10:25	2023-11-08 13:45
Parameter	Unit	G / S	RDL	5449612	5449615	5449623	5449624
Antimony	µg/g		0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g		1	1	<1	2	<1
Barium	µg/g		2.0	51.1	82.5	354	97.4
Beryllium	µg/g		0.5	<0.5	<0.5	<0.5	<0.5
Boron	µg/g		5	8	7	19	9
Boron (Hot Water Soluble)	µg/g		0.10	<0.10	0.15	0.42	0.14
Cadmium	µg/g		0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g		5	14	11	14	11
Cobalt	µg/g		0.8	5.4	3.9	9.7	4.3
Copper	µg/g		1.0	9.3	7.2	16.0	8.4
Lead	µg/g		1	6	3	7	4
Molybdenum	µg/g		0.5	<0.5	<0.5	0.6	<0.5
Nickel	µg/g		1	10	7	9	8
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	26.2	25.9	22.5	25.1
Zinc	µg/g		5	25	22	22	24
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	1.39	2.74	0.606	2.87
Sodium Adsorption Ratio (2:1) (Calc.)	N/A		N/A	15.7	43.7	2.98	43.2
pH, 2:1 CaCl2 Extraction	pH Units		NA	7.55	7.83	7.77	7.36

Certified By:



S. Sutherland



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PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie ON

ATTENTION TO: Sara Sutherland

SAMPLED BY:

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

DATE RECEIVED: 2023-11-10

DATE REPORTED: 2023-11-17

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

5449612-5449624 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:



S. Sutherland



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PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie ON

ATTENTION TO: Sara Sutherland

SAMPLED BY:

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

DATE RECEIVED: 2023-11-10

DATE REPORTED: 2023-11-17

		SAMPLE DESCRIPTION:		BH404-2	MW403-1	MW402-1
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2023-11-08 08:40	2023-11-08 13:45	2023-11-08 10:25
Parameter	Unit	G / S	RDL	5449612	5449615	5449623
Naphthalene	µg/g		0.05	<0.05	<0.05	<0.05
Acenaphthylene	µg/g		0.05	<0.05	<0.05	<0.05
Acenaphthene	µg/g		0.05	<0.05	<0.05	<0.05
Fluorene	µg/g		0.05	<0.05	<0.05	<0.05
Phenanthrene	µg/g		0.05	<0.05	<0.05	<0.05
Anthracene	µg/g		0.05	<0.05	<0.05	<0.05
Fluoranthene	µg/g		0.05	<0.05	<0.05	<0.05
Pyrene	µg/g		0.05	<0.05	<0.05	<0.05
Benz(a)anthracene	µg/g		0.05	<0.05	<0.05	<0.05
Chrysene	µg/g		0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g		0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g		0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g		0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g		0.05	<0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g		0.05	<0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g		0.05	<0.05	<0.05	<0.05
1 and 2 Methyl naphthalene	µg/g		0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	12.8	3.0	7.0
Surrogate	Unit	Acceptable Limits				
Naphthalene-d8	%	50-140	75	80	70	
Acridine-d9	%	50-140	80	90	75	
Terphenyl-d14	%	50-140	90	75	75	

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

5449612-5449623 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 *)

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PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie ON

ATTENTION TO: Sara Sutherland

SAMPLED BY:

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

DATE RECEIVED: 2023-11-10

DATE REPORTED: 2023-11-17

SAMPLE DESCRIPTION:				MW406-7	BH2000-6	BH404-3	MW402-6	BH409-5	BH409-8	MW405-6	MW408-7
SAMPLE TYPE:				Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
DATE SAMPLED:				2023-11-07 11:30	2023-11-07 12:50	2023-11-08 08:45	2023-11-08 11:00	2023-11-09 08:45	2023-11-09 09:00	2023-11-07 14:30	2023-11-09 11:45
Parameter	Unit	G / S	RDL	5449594	5449595	5449596	5449597	5449598	5449599	5449602	5449603
Benzene	µg/g		0.02	<0.02	<0.02	<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	<0.05	<0.05	<0.05
Ethylbenzene	µg/g		0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05
o-Xylene	µg/g		0.05	<0.05	<0.05	<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	<0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g		5	<5	<5	<5	<5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g		5	<5	<5	<5	<5	<5	<5	<5	<5
F2 (C10 to C16)	µg/g		10	<10	<10	<10	<10	<10	<10	<10	<10
F3 (C16 to C34)	µg/g		50	<50	<50	<50	<50	<50	<50	<50	<50
F4 (C34 to C50)	µg/g		50	<50	<50	<50	<50	<50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g		50	NA	NA	NA	NA	NA	NA	NA	NA
Moisture Content	%		0.1	9.3	8.5	10.1	9.1	9.3	9.1	8.2	9.3
Surrogate	Unit	Acceptable Limits									
Toluene-d8	% Recovery	60-140		106	94	97	116	110	116	114	114
Terphenyl	%	60-140		91	70	73	72	71	76	78	98

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AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie ON

ATTENTION TO: Sara Sutherland

SAMPLED BY:

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

DATE RECEIVED: 2023-11-10

DATE REPORTED: 2023-11-17

		SAMPLE DESCRIPTION:		BH401-6	MW403-5
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2023-11-07 12:45	2023-11-08 14:05
Parameter	Unit	G / S	RDL	5449618	5449619
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	<50
F4 (C34 to C50)	µg/g		50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g		50	NA	NA
Moisture Content	%		0.1	9.0	7.6
Surrogate	Unit	Acceptable Limits			
Toluene-d8	% Recovery	60-140	104	106	
Terphenyl	%	60-140	100	99	

Certified By:



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AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

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<http://www.agatlabs.com>

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie ON

ATTENTION TO: Sara Sutherland

SAMPLED BY:

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

DATE RECEIVED: 2023-11-10

DATE REPORTED: 2023-11-17

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

5449594-5449619 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:



Certificate of Analysis

AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

5835 COOPERS AVENUE
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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie ON

ATTENTION TO: Sara Sutherland

SAMPLED BY:

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

DATE RECEIVED: 2023-11-10

DATE REPORTED: 2023-11-17

SAMPLE DESCRIPTION: MW403-1

SAMPLE TYPE: Soil

DATE SAMPLED: 2023-11-08
13:45

Parameter	Unit	G / S	RDL	5449615
Benzene	µg/g		0.02	<0.02
Toluene	µg/g		0.05	<0.05
Ethylbenzene	µg/g		0.05	<0.05
m & p-Xylene	µg/g		0.05	<0.05
o-Xylene	µg/g		0.05	<0.05
Xylenes (Total)	µg/g		0.05	<0.05
F1 (C6 to C10)	µg/g		5	<5
F1 (C6 to C10) minus BTEX	µg/g		5	<5
F2 (C10 to C16)	µg/g		10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10
F3 (C16 to C34)	µg/g		50	<50
F3 (C16 to C34) minus PAHs	µg/g		50	<50
F4 (C34 to C50)	µg/g		50	<50
Gravimetric Heavy Hydrocarbons	µg/g		50	NA
Moisture Content	%		0.1	3.0
Surrogate	Unit	Acceptable Limits		
Toluene-d8	% Recovery	60-140	106	
Terphenyl	%	60-140	88	

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Certificate of Analysis

AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie ON

ATTENTION TO: Sara Sutherland

SAMPLED BY:

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

DATE RECEIVED: 2023-11-10

DATE REPORTED: 2023-11-17

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

5449615

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:



Certificate of Analysis

AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie ON

ATTENTION TO: Sara Sutherland

SAMPLED BY:

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

DATE RECEIVED: 2023-11-10

DATE REPORTED: 2023-11-17

		SAMPLE DESCRIPTION:		Trip Blank
		SAMPLE TYPE:		MeOH
		DATE SAMPLED:		2023-11-07
Parameter	Unit	G / S	RDL	5449593
Benzene	µg/g		0.02	<0.02
Toluene	µg/g		0.05	<0.05
Ethylbenzene	µg/g		0.05	<0.05
m & p-Xylene	µg/g		0.05	<0.05
o-Xylene	µg/g		0.05	<0.05
Xylenes (Total)	µg/g		0.05	<0.05
F1 (C6 - C10)	µg/g		5	<5
F1 (C6 to C10) minus BTEX	µg/g		5	<5
Surrogate	Unit	Acceptable Limits		
Toluene-d8	% Recovery	60-140	84	

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

5449593

A small amount of the methanol extract was diluted in water and the purge & trap GC/MS/FID analysis was performed.

Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + 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.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:



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AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie ON

ATTENTION TO: Sara Sutherland

SAMPLED BY:

O. Reg. 153(511) - VOCs (MeOH)

DATE RECEIVED: 2023-11-10

DATE REPORTED: 2023-11-17

		SAMPLE DESCRIPTION:		Trip Blank
		SAMPLE TYPE:		MeOH
		DATE SAMPLED:		2023-11-07
Parameter	Unit	G / S	RDL	5449593
Dichlorodifluoromethane	µg/g		0.05	<0.05
Vinyl Chloride	ug/g		0.02	<0.02
Bromomethane	ug/g		0.05	<0.05
Trichlorofluoromethane	ug/g		0.05	<0.05
Acetone	ug/g		0.50	<0.50
1,1-Dichloroethylene	ug/g		0.05	<0.05
Methylene Chloride	ug/g		0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g		0.05	<0.05
Methyl tert-butyl Ether	ug/g		0.05	<0.05
1,1-Dichloroethane	ug/g		0.02	<0.02
Methyl Ethyl Ketone	ug/g		0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g		0.02	<0.02
Chloroform	ug/g		0.04	<0.04
1,2-Dichloroethane	ug/g		0.03	<0.03
1,1,1-Trichloroethane	ug/g		0.05	<0.05
Carbon Tetrachloride	ug/g		0.05	<0.05
Benzene	ug/g		0.02	<0.02
1,2-Dichloropropane	ug/g		0.03	<0.03
Trichloroethylene	ug/g		0.03	<0.03
Bromodichloromethane	ug/g		0.05	<0.05
Methyl Isobutyl Ketone	ug/g		0.50	<0.50
1,1,2-Trichloroethane	ug/g		0.04	<0.04
Toluene	ug/g		0.05	<0.05
Dibromochloromethane	ug/g		0.05	<0.05
Ethylene Dibromide	ug/g		0.04	<0.04
Tetrachloroethylene	ug/g		0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g		0.04	<0.04
Chlorobenzene	ug/g		0.05	<0.05
Ethylbenzene	ug/g		0.05	<0.05
m & p-Xylene	ug/g		0.05	<0.05

Certified By:



Certificate of Analysis

AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie ON

ATTENTION TO: Sara Sutherland

SAMPLED BY:

O. Reg. 153(511) - VOCs (MeOH)

DATE RECEIVED: 2023-11-10

DATE REPORTED: 2023-11-17

		SAMPLE DESCRIPTION:		Trip Blank
		SAMPLE TYPE:		MeOH
		DATE SAMPLED:		2023-11-07
Parameter	Unit	G / S	RDL	5449593
Bromoform	ug/g		0.05	<0.05
Styrene	ug/g		0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g		0.05	<0.05
o-Xylene	ug/g		0.05	<0.05
1,3-Dichlorobenzene	ug/g		0.05	<0.05
1,4-Dichlorobenzene	ug/g		0.05	<0.05
1,2-Dichlorobenzene	ug/g		0.05	<0.05
Xylenes (Total)	ug/g		0.05	<0.05
1,3-Dichloropropene (Cis + Trans)	µg/g		0.04	<0.04
n-Hexane	µg/g		0.05	<0.05
Surrogate	Unit	Acceptable Limits		
Toluene-d8	% Recovery	50-140		99
4-Bromofluorobenzene	% Recovery	50-140		110

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

5449593

A small amount of methanol extract was diluted in water and analyzed by purge & trap GC/MS.

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 *)

Certified By:

Quality Assurance

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie ON

SAMPLED BY:

Soil Analysis															
RPT Date: Nov 17, 2023			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

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

Antimony	5445773		<0.8	<0.8	NA	< 0.8	109%	70%	130%	81%	80%	120%	79%	70%	130%
Arsenic	5445773		3	3	NA	< 1	125%	70%	130%	101%	80%	120%	114%	70%	130%
Barium	5445773		71.7	70.5	1.7%	< 2.0	110%	70%	130%	97%	80%	120%	91%	70%	130%
Beryllium	5445773		<0.5	<0.5	NA	< 0.5	118%	70%	130%	101%	80%	120%	115%	70%	130%
Boron	5445773		9	9	NA	< 5	101%	70%	130%	103%	80%	120%	109%	70%	130%
Boron (Hot Water Soluble)	5445773		<0.10	<0.10	NA	< 0.10	99%	60%	140%	103%	70%	130%	98%	60%	140%
Cadmium	5445773		<0.5	<0.5	NA	< 0.5	115%	70%	130%	100%	80%	120%	102%	70%	130%
Chromium	5445773		19	19	NA	< 5	118%	70%	130%	98%	80%	120%	108%	70%	130%
Cobalt	5445773		8.2	8.1	1.2%	< 0.8	110%	70%	130%	105%	80%	120%	115%	70%	130%
Copper	5445773		14.7	14.6	0.7%	< 1.0	106%	70%	130%	96%	80%	120%	92%	70%	130%
Lead	5445773		10	9	10.5%	< 1	107%	70%	130%	91%	80%	120%	85%	70%	130%
Molybdenum	5445773		0.6	0.6	NA	< 0.5	114%	70%	130%	111%	80%	120%	115%	70%	130%
Nickel	5445773		21	21	0.0%	< 1	109%	70%	130%	98%	80%	120%	101%	70%	130%
Selenium	5445773		<0.8	<0.8	NA	< 0.8	98%	70%	130%	105%	80%	120%	117%	70%	130%
Silver	5445773		<0.5	<0.5	NA	< 0.5	104%	70%	130%	99%	80%	120%	95%	70%	130%
Thallium	5445773		<0.5	<0.5	NA	< 0.5	109%	70%	130%	100%	80%	120%	99%	70%	130%
Uranium	5445773		0.70	0.69	NA	< 0.50	106%	70%	130%	93%	80%	120%	98%	70%	130%
Vanadium	5445773		27.7	27.2	1.8%	< 2.0	114%	70%	130%	101%	80%	120%	121%	70%	130%
Zinc	5445773		37	36	2.7%	< 5	117%	70%	130%	98%	80%	120%	98%	70%	130%
Chromium, Hexavalent	5445761		<0.2	<0.2	NA	< 0.2	103%	70%	130%	101%	80%	120%	92%	70%	130%
Cyanide, WAD	5449569		<0.040	<0.040	NA	< 0.040	93%	70%	130%	101%	80%	120%	98%	70%	130%
Mercury	5445773		<0.10	<0.10	NA	< 0.10	125%	70%	130%	103%	80%	120%	104%	70%	130%
Electrical Conductivity (2:1)	5445773		0.184	0.175	5.0%	< 0.005	100%	80%	120%						
Sodium Adsorption Ratio (2:1) (Calc.)	5445773		0.538	0.538	0.0%	NA									
pH, 2:1 CaCl2 Extraction	5444430		7.66	7.91	3.2%	NA	101%	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.

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

pH, 2:1 CaCl2 Extraction	5449624	5449624	7.36	7.59	3.1%	NA	101%	80%	120%
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Comments: NA signifies Not Applicable.

pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.

Certified By:


[Signature]



Quality Assurance

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie ON

SAMPLED BY:

Trace Organics Analysis

RPT Date: Nov 17, 2023			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
O. Reg. 153(511) - VOCs (MeOH)															
Dichlorodifluoromethane	5449705		<0.05	<0.05	NA	< 0.05	97%	50%	140%	104%	50%	140%	88%	50%	140%
Vinyl Chloride	5449705		<0.02	<0.02	NA	< 0.02	109%	50%	140%	105%	50%	140%	105%	50%	140%
Bromomethane	5449705		<0.05	<0.05	NA	< 0.05	119%	50%	140%	107%	50%	140%	110%	50%	140%
Trichlorofluoromethane	5449705		<0.05	<0.05	NA	< 0.05	95%	50%	140%	120%	50%	140%	111%	50%	140%
Acetone	5449705		<0.50	<0.50	NA	< 0.50	103%	50%	140%	103%	50%	140%	107%	50%	140%
1,1-Dichloroethylene	5449705		<0.05	<0.05	NA	< 0.05	80%	50%	140%	90%	60%	130%	100%	50%	140%
Methylene Chloride	5449705		<0.05	<0.05	NA	< 0.05	80%	50%	140%	99%	60%	130%	91%	50%	140%
Trans- 1,2-Dichloroethylene	5449705		<0.05	<0.05	NA	< 0.05	93%	50%	140%	96%	60%	130%	92%	50%	140%
Methyl tert-butyl Ether	5449705		<0.05	<0.05	NA	< 0.05	89%	50%	140%	83%	60%	130%	73%	50%	140%
1,1-Dichloroethane	5449705		<0.02	<0.02	NA	< 0.02	82%	50%	140%	84%	60%	130%	77%	50%	140%
Methyl Ethyl Ketone	5449705		<0.50	<0.50	NA	< 0.50	88%	50%	140%	106%	50%	140%	110%	50%	140%
Cis- 1,2-Dichloroethylene	5449705		<0.02	<0.02	NA	< 0.02	89%	50%	140%	90%	60%	130%	87%	50%	140%
Chloroform	5449705		<0.04	<0.04	NA	< 0.04	75%	50%	140%	81%	60%	130%	76%	50%	140%
1,2-Dichloroethane	5449705		<0.03	<0.03	NA	< 0.03	72%	50%	140%	74%	60%	130%	82%	50%	140%
1,1,1-Trichloroethane	5449705		<0.05	<0.05	NA	< 0.05	87%	50%	140%	81%	60%	130%	72%	50%	140%
Carbon Tetrachloride	5449705		<0.05	<0.05	NA	< 0.05	73%	50%	140%	83%	60%	130%	78%	50%	140%
Benzene	5449705		<0.02	<0.02	NA	< 0.02	75%	50%	140%	84%	60%	130%	82%	50%	140%
1,2-Dichloropropane	5449705		<0.03	<0.03	NA	< 0.03	83%	50%	140%	82%	60%	130%	78%	50%	140%
Trichloroethylene	5449705		6.41	7.76	19.1%	< 0.03	82%	50%	140%	97%	60%	130%	87%	50%	140%
Bromodichloromethane	5449705		<0.05	<0.05	NA	< 0.05	78%	50%	140%	81%	60%	130%	97%	50%	140%
Methyl Isobutyl Ketone	5449705		<0.50	<0.50	NA	< 0.50	103%	50%	140%	102%	50%	140%	99%	50%	140%
1,1,2-Trichloroethane	5449705		<0.04	<0.04	NA	< 0.04	87%	50%	140%	88%	60%	130%	85%	50%	140%
Toluene	5449705		<0.05	<0.05	NA	< 0.05	95%	50%	140%	88%	60%	130%	105%	50%	140%
Dibromochloromethane	5449705		<0.05	<0.05	NA	< 0.05	95%	50%	140%	85%	60%	130%	82%	50%	140%
Ethylene Dibromide	5449705		<0.04	<0.04	NA	< 0.04	96%	50%	140%	96%	60%	130%	85%	50%	140%
Tetrachloroethylene	5449705		<0.05	<0.05	NA	< 0.05	80%	50%	140%	99%	60%	130%	99%	50%	140%
1,1,1,2-Tetrachloroethane	5449705		<0.04	<0.04	NA	< 0.04	99%	50%	140%	96%	60%	130%	94%	50%	140%
Chlorobenzene	5449705		<0.05	<0.05	NA	< 0.05	88%	50%	140%	91%	60%	130%	89%	50%	140%
Ethylbenzene	5449705		<0.05	<0.05	NA	< 0.05	97%	50%	140%	99%	60%	130%	89%	50%	140%
m & p-Xylene	5449705		0.57	0.56	1.3%	< 0.05	106%	50%	140%	118%	60%	130%	98%	50%	140%
Bromoform	5449705		<0.05	<0.05	NA	< 0.05	97%	50%	140%	91%	60%	130%	75%	50%	140%
Styrene	5449705		<0.05	<0.05	NA	< 0.05	87%	50%	140%	99%	60%	130%	89%	50%	140%
1,1,2,2-Tetrachloroethane	5449705		<0.05	<0.05	NA	< 0.05	96%	50%	140%	99%	60%	130%	91%	50%	140%
o-Xylene	5449705		<0.05	<0.05	NA	< 0.05	86%	50%	140%	83%	60%	130%	97%	50%	140%
1,3-Dichlorobenzene	5449705		<0.05	<0.05	NA	< 0.05	95%	50%	140%	92%	60%	130%	98%	50%	140%
1,4-Dichlorobenzene	5449705		<0.05	<0.05	NA	< 0.05	90%	50%	140%	86%	60%	130%	96%	50%	140%
1,2-Dichlorobenzene	5449705		<0.05	<0.05	NA	< 0.05	94%	50%	140%	92%	60%	130%	100%	50%	140%
n-Hexane	5449705		<0.05	<0.05	NA	< 0.05	86%	50%	140%	97%	60%	130%	83%	50%	140%



Quality Assurance

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie ON

SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: Nov 17, 2023			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	
								Lower	Upper		Lower	Upper

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

Benzene	5449619	5449619	<0.02	<0.02	NA	< 0.02	105%	60%	140%	105%	60%	140%	108%	60%	140%
Toluene	5449619	5449619	<0.05	<0.05	NA	< 0.05	101%	60%	140%	105%	60%	140%	112%	60%	140%
Ethylbenzene	5449619	5449619	<0.05	<0.05	NA	< 0.05	100%	60%	140%	102%	60%	140%	96%	60%	140%
m & p-Xylene	5449619	5449619	<0.05	<0.05	NA	< 0.05	99%	60%	140%	100%	60%	140%	104%	60%	140%
o-Xylene	5449619	5449619	<0.05	<0.05	NA	< 0.05	87%	60%	140%	96%	60%	140%	103%	60%	140%

F1 (C6 - C10)	5449619	5449619	<5	<5	NA	< 5	95%	60%	140%	91%	60%	140%	75%	60%	140%
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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).

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

Benzene	5449619	5449619	<0.02	<0.02	NA	< 0.02	105%	60%	140%	105%	60%	140%	108%	60%	140%
Toluene	5449619	5449619	<0.05	<0.05	NA	< 0.05	101%	60%	140%	105%	60%	140%	112%	60%	140%
Ethylbenzene	5449619	5449619	<0.05	<0.05	NA	< 0.05	100%	60%	140%	102%	60%	140%	96%	60%	140%
m & p-Xylene	5449619	5449619	<0.05	<0.05	NA	< 0.05	99%	60%	140%	100%	60%	140%	104%	60%	140%
o-Xylene	5449619	5449619	<0.05	<0.05	NA	< 0.05	87%	60%	140%	96%	60%	140%	103%	60%	140%

F1 (C6 to C10)	5449619	5449619	<5	<5	NA	< 5	95%	60%	140%	91%	60%	140%	75%	60%	140%
F2 (C10 to C16)	5449619	5449619	< 10	< 10	NA	< 10	101%	60%	140%	100%	60%	140%	76%	60%	140%
F3 (C16 to C34)	5449619	5449619	< 50	< 50	NA	< 50	102%	60%	140%	92%	60%	140%	108%	60%	140%
F4 (C34 to C50)	5449619	5449619	< 50	< 50	NA	< 50	69%	60%	140%	75%	60%	140%	98%	60%	140%

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

Benzene	5449619	5449619	<0.02	<0.02	NA	< 0.02	105%	60%	140%	105%	60%	140%	108%	60%	140%
Toluene	5449619	5449619	<0.05	<0.05	NA	< 0.05	101%	60%	140%	105%	60%	140%	112%	60%	140%
Ethylbenzene	5449619	5449619	<0.05	<0.05	NA	< 0.05	100%	60%	140%	102%	60%	140%	96%	60%	140%
m & p-Xylene	5449619	5449619	<0.05	<0.05	NA	< 0.05	99%	60%	140%	100%	60%	140%	104%	60%	140%
o-Xylene	5449619	5449619	<0.05	<0.05	NA	< 0.05	87%	60%	140%	96%	60%	140%	103%	60%	140%

F1 (C6 to C10)	5449619	5449619	<5	<5	NA	< 5	95%	60%	140%	91%	60%	140%	75%	60%	140%
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O. Reg. 153(511) - PAHs (Soil)

Naphthalene	5449612	5449612	<0.05	<0.05	NA	< 0.05	106%	50%	140%	78%	50%	140%	100%	50%	140%
Acenaphthylene	5449612	5449612	<0.05	<0.05	NA	< 0.05	91%	50%	140%	75%	50%	140%	78%	50%	140%
Acenaphthene	5449612	5449612	<0.05	<0.05	NA	< 0.05	90%	50%	140%	83%	50%	140%	73%	50%	140%
Fluorene	5449612	5449612	<0.05	<0.05	NA	< 0.05	73%	50%	140%	83%	50%	140%	73%	50%	140%
Phenanthrene	5449612	5449612	<0.05	<0.05	NA	< 0.05	82%	50%	140%	100%	50%	140%	93%	50%	140%

Anthracene	5449612	5449612	<0.05	<0.05	NA	< 0.05	89%	50%	140%	73%	50%	140%	90%	50%	140%
Fluoranthene	5449612	5449612	<0.05	<0.05	NA	< 0.05	82%	50%	140%	85%	50%	140%	83%	50%	140%
Pyrene	5449612	5449612	<0.05	<0.05	NA	< 0.05	80%	50%	140%	73%	50%	140%	95%	50%	140%
Benz(a)anthracene	5449612	5449612	<0.05	<0.05	NA	< 0.05	87%	50%	140%	80%	50%	140%	85%	50%	140%
Chrysene	5449612	5449612	<0.05	<0.05	NA	< 0.05	79%	50%	140%	95%	50%	140%	73%	50%	140%

Benzo(b)fluoranthene	5449612	5449612	<0.05	<0.05	NA	< 0.05	108%	50%	140%	73%	50%	140%	73%	50%	140%
Benzo(k)fluoranthene	5449612	5449612	<0.05	<0.05	NA	< 0.05	78%	50%	140%	85%	50%	140%	73%	50%	140%

Quality Assurance

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie ON

SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: Nov 17, 2023			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
Benzo(a)pyrene	5449612	5449612	<0.05	<0.05	NA	< 0.05	78%	50%	140%	80%	50%	140%	80%	50%	140%
Indeno(1,2,3-cd)pyrene	5449612	5449612	<0.05	<0.05	NA	< 0.05	70%	50%	140%	73%	50%	140%	75%	50%	140%
Dibenz(a,h)anthracene	5449612	5449612	<0.05	<0.05	NA	< 0.05	79%	50%	140%	113%	50%	140%	75%	50%	140%
Benzo(g,h,i)perylene	5449612	5449612	<0.05	<0.05	NA	< 0.05	74%	50%	140%	83%	50%	140%	93%	50%	140%

Certified By:





Time Markers

AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

5835 COOPERS AVENUE
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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5449593	Trip Blank	MeOH	07-NOV-2023	10-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	14-NOV-2023	14-NOV-2023	AG
Toluene	14-NOV-2023	14-NOV-2023	AG
Ethylbenzene	14-NOV-2023	14-NOV-2023	AG
m & p-Xylene	14-NOV-2023	14-NOV-2023	AG
o-Xylene	14-NOV-2023	14-NOV-2023	AG
Xylenes (Total)	14-NOV-2023	14-NOV-2023	SYS
F1 (C6 - C10)	14-NOV-2023	14-NOV-2023	AG
F1 (C6 to C10) minus BTEX	14-NOV-2023	14-NOV-2023	SYS
Toluene-d8	14-NOV-2023	14-NOV-2023	AG

O. Reg. 153(511) - VOCs (MeOH)

Parameter	Date Prepared	Date Analyzed	Initials
Dichlorodifluoromethane	16-NOV-2023	16-NOV-2023	CK
Vinyl Chloride	16-NOV-2023	16-NOV-2023	CK
Bromomethane	16-NOV-2023	16-NOV-2023	CK
Trichlorofluoromethane	16-NOV-2023	16-NOV-2023	CK
Acetone	16-NOV-2023	16-NOV-2023	CK
1,1-Dichloroethylene	16-NOV-2023	16-NOV-2023	CK
Methylene Chloride	16-NOV-2023	16-NOV-2023	CK
Trans- 1,2-Dichloroethylene	16-NOV-2023	16-NOV-2023	CK
Methyl tert-butyl Ether	16-NOV-2023	16-NOV-2023	CK
1,1-Dichloroethane	16-NOV-2023	16-NOV-2023	CK
Methyl Ethyl Ketone	16-NOV-2023	16-NOV-2023	CK
Cis- 1,2-Dichloroethylene	16-NOV-2023	16-NOV-2023	CK
Chloroform	16-NOV-2023	16-NOV-2023	CK
1,2-Dichloroethane	16-NOV-2023	16-NOV-2023	CK
1,1,1-Trichloroethane	16-NOV-2023	16-NOV-2023	CK
Carbon Tetrachloride	16-NOV-2023	16-NOV-2023	CK
Benzene	16-NOV-2023	16-NOV-2023	CK
1,2-Dichloropropane	16-NOV-2023	16-NOV-2023	CK
Trichloroethylene	16-NOV-2023	16-NOV-2023	CK
Bromodichloromethane	16-NOV-2023	16-NOV-2023	CK
Methyl Isobutyl Ketone	16-NOV-2023	16-NOV-2023	CK
1,1,2-Trichloroethane	16-NOV-2023	16-NOV-2023	CK
Toluene	16-NOV-2023	16-NOV-2023	CK
Dibromochloromethane	16-NOV-2023	16-NOV-2023	CK
Ethylene Dibromide	16-NOV-2023	16-NOV-2023	CK
Tetrachloroethylene	16-NOV-2023	16-NOV-2023	CK
1,1,1,2-Tetrachloroethane	16-NOV-2023	16-NOV-2023	CK



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AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5449593	Trip Blank	MeOH	07-NOV-2023	10-NOV-2023

O. Reg. 153(511) - VOCs (MeOH)

Parameter	Date Prepared	Date Analyzed	Initials
Chlorobenzene	16-NOV-2023	16-NOV-2023	CK
Ethylbenzene	16-NOV-2023	16-NOV-2023	CK
m & p-Xylene	16-NOV-2023	16-NOV-2023	CK
Bromoform	16-NOV-2023	16-NOV-2023	CK
Styrene	16-NOV-2023	16-NOV-2023	CK
1,1,2,2-Tetrachloroethane	16-NOV-2023	16-NOV-2023	CK
o-Xylene	16-NOV-2023	16-NOV-2023	CK
1,3-Dichlorobenzene	16-NOV-2023	16-NOV-2023	CK
1,4-Dichlorobenzene	16-NOV-2023	16-NOV-2023	CK
1,2-Dichlorobenzene	16-NOV-2023	16-NOV-2023	CK
Xylenes (Total)	16-NOV-2023	16-NOV-2023	SYS
1,3-Dichloropropene (Cis + Trans)	16-NOV-2023	16-NOV-2023	SYS
n-Hexane	16-NOV-2023	16-NOV-2023	CK
Toluene-d8	16-NOV-2023	16-NOV-2023	CK
4-Bromofluorobenzene	16-NOV-2023	16-NOV-2023	CK

5449594	MW406-7	Soil	07-NOV-2023	10-NOV-2023
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O. Reg. 153(511) - PHCs F1 - F4 (Soil)

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	14-NOV-2023	14-NOV-2023	AG
Toluene	14-NOV-2023	14-NOV-2023	AG
Ethylbenzene	14-NOV-2023	14-NOV-2023	AG
m & p-Xylene	14-NOV-2023	14-NOV-2023	AG
o-Xylene	14-NOV-2023	14-NOV-2023	AG
Xylenes (Total)	14-NOV-2023	14-NOV-2023	SYS
F1 (C6 to C10)	14-NOV-2023	14-NOV-2023	AG
F1 (C6 to C10) minus BTEX	14-NOV-2023	14-NOV-2023	SYS
Toluene-d8	14-NOV-2023	14-NOV-2023	AG
F2 (C10 to C16)	16-NOV-2023	16-NOV-2023	SS
F3 (C16 to C34)	16-NOV-2023	16-NOV-2023	SS
F4 (C34 to C50)	16-NOV-2023	16-NOV-2023	SS
Gravimetric Heavy Hydrocarbons			
Moisture Content	15-NOV-2023	15-NOV-2023	AT
Terphenyl	16-NOV-2023	16-NOV-2023	SS

5449595	BH2000-6	Soil	07-NOV-2023	10-NOV-2023
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AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5449595	BH2000-6	Soil	07-NOV-2023	10-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	14-NOV-2023	14-NOV-2023	AG
Toluene	14-NOV-2023	14-NOV-2023	AG
Ethylbenzene	14-NOV-2023	14-NOV-2023	AG
m & p-Xylene	14-NOV-2023	14-NOV-2023	AG
o-Xylene	14-NOV-2023	14-NOV-2023	AG
Xylenes (Total)	14-NOV-2023	14-NOV-2023	SYS
F1 (C6 to C10)	14-NOV-2023	14-NOV-2023	AG
F1 (C6 to C10) minus BTEX	14-NOV-2023	14-NOV-2023	SYS
Toluene-d8	14-NOV-2023	14-NOV-2023	AG
F2 (C10 to C16)	16-NOV-2023	16-NOV-2023	SS
F3 (C16 to C34)	16-NOV-2023	16-NOV-2023	SS
F4 (C34 to C50)	16-NOV-2023	16-NOV-2023	SS
Gravimetric Heavy Hydrocarbons			
Moisture Content	15-NOV-2023	15-NOV-2023	AT
Terphenyl	16-NOV-2023	16-NOV-2023	SS

5449596	BH404-3	Soil	08-NOV-2023	10-NOV-2023
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O. Reg. 153(511) - PHCs F1 - F4 (Soil)

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	14-NOV-2023	14-NOV-2023	AG
Toluene	14-NOV-2023	14-NOV-2023	AG
Ethylbenzene	14-NOV-2023	14-NOV-2023	AG
m & p-Xylene	14-NOV-2023	14-NOV-2023	AG
o-Xylene	14-NOV-2023	14-NOV-2023	AG
Xylenes (Total)	14-NOV-2023	14-NOV-2023	SYS
F1 (C6 to C10)	14-NOV-2023	14-NOV-2023	AG
F1 (C6 to C10) minus BTEX	14-NOV-2023	14-NOV-2023	SYS
Toluene-d8	14-NOV-2023	14-NOV-2023	AG
F2 (C10 to C16)	16-NOV-2023	16-NOV-2023	SS
F3 (C16 to C34)	16-NOV-2023	16-NOV-2023	SS
F4 (C34 to C50)	16-NOV-2023	16-NOV-2023	SS
Gravimetric Heavy Hydrocarbons			
Moisture Content	15-NOV-2023	15-NOV-2023	AT
Terphenyl	16-NOV-2023	16-NOV-2023	SS

5449597	MW402-6	Soil	08-NOV-2023	10-NOV-2023
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AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5449597	MW402-6	Soil	08-NOV-2023	10-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	14-NOV-2023	14-NOV-2023	AG
Toluene	14-NOV-2023	14-NOV-2023	AG
Ethylbenzene	14-NOV-2023	14-NOV-2023	AG
m & p-Xylene	14-NOV-2023	14-NOV-2023	AG
o-Xylene	14-NOV-2023	14-NOV-2023	AG
Xylenes (Total)	14-NOV-2023	14-NOV-2023	SYS
F1 (C6 to C10)	14-NOV-2023	14-NOV-2023	AG
F1 (C6 to C10) minus BTEX	14-NOV-2023	14-NOV-2023	SYS
Toluene-d8	14-NOV-2023	14-NOV-2023	AG
F2 (C10 to C16)	16-NOV-2023	16-NOV-2023	SS
F3 (C16 to C34)	16-NOV-2023	16-NOV-2023	SS
F4 (C34 to C50)	16-NOV-2023	16-NOV-2023	SS
Gravimetric Heavy Hydrocarbons			
Moisture Content	15-NOV-2023	15-NOV-2023	AT
Terphenyl	16-NOV-2023	16-NOV-2023	SS

5449598	BH409-5	Soil	09-NOV-2023	10-NOV-2023
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O. Reg. 153(511) - PHCs F1 - F4 (Soil)

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	14-NOV-2023	14-NOV-2023	AG
Toluene	14-NOV-2023	14-NOV-2023	AG
Ethylbenzene	14-NOV-2023	14-NOV-2023	AG
m & p-Xylene	14-NOV-2023	14-NOV-2023	AG
o-Xylene	14-NOV-2023	14-NOV-2023	AG
Xylenes (Total)	14-NOV-2023	14-NOV-2023	SYS
F1 (C6 to C10)	14-NOV-2023	14-NOV-2023	AG
F1 (C6 to C10) minus BTEX	14-NOV-2023	14-NOV-2023	SYS
Toluene-d8	14-NOV-2023	14-NOV-2023	AG
F2 (C10 to C16)	16-NOV-2023	16-NOV-2023	SS
F3 (C16 to C34)	16-NOV-2023	16-NOV-2023	SS
F4 (C34 to C50)	16-NOV-2023	16-NOV-2023	SS
Gravimetric Heavy Hydrocarbons			
Moisture Content	15-NOV-2023	15-NOV-2023	AT
Terphenyl	16-NOV-2023	16-NOV-2023	SS

5449599	BH409-8	Soil	09-NOV-2023	10-NOV-2023
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AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5449599	BH409-8	Soil	09-NOV-2023	10-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	14-NOV-2023	14-NOV-2023	AG
Toluene	14-NOV-2023	14-NOV-2023	AG
Ethylbenzene	14-NOV-2023	14-NOV-2023	AG
m & p-Xylene	14-NOV-2023	14-NOV-2023	AG
o-Xylene	14-NOV-2023	14-NOV-2023	AG
Xylenes (Total)	14-NOV-2023	14-NOV-2023	SYS
F1 (C6 to C10)	14-NOV-2023	14-NOV-2023	AG
F1 (C6 to C10) minus BTEX	14-NOV-2023	14-NOV-2023	SYS
Toluene-d8	14-NOV-2023	14-NOV-2023	AG
F2 (C10 to C16)	16-NOV-2023	16-NOV-2023	SS
F3 (C16 to C34)	16-NOV-2023	16-NOV-2023	SS
F4 (C34 to C50)	16-NOV-2023	16-NOV-2023	SS
Gravimetric Heavy Hydrocarbons			
Moisture Content	15-NOV-2023	15-NOV-2023	AT
Terphenyl	16-NOV-2023	16-NOV-2023	SS

5449602	MW405-6	Soil	07-NOV-2023	10-NOV-2023
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O. Reg. 153(511) - PHCs F1 - F4 (Soil)

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	14-NOV-2023	14-NOV-2023	AG
Toluene	14-NOV-2023	14-NOV-2023	AG
Ethylbenzene	14-NOV-2023	14-NOV-2023	AG
m & p-Xylene	14-NOV-2023	14-NOV-2023	AG
o-Xylene	14-NOV-2023	14-NOV-2023	AG
Xylenes (Total)	14-NOV-2023	14-NOV-2023	SYS
F1 (C6 to C10)	14-NOV-2023	14-NOV-2023	AG
F1 (C6 to C10) minus BTEX	14-NOV-2023	14-NOV-2023	SYS
Toluene-d8	14-NOV-2023	14-NOV-2023	AG
F2 (C10 to C16)	16-NOV-2023	16-NOV-2023	SS
F3 (C16 to C34)	16-NOV-2023	16-NOV-2023	SS
F4 (C34 to C50)	16-NOV-2023	16-NOV-2023	SS
Gravimetric Heavy Hydrocarbons			
Moisture Content	15-NOV-2023	15-NOV-2023	AT
Terphenyl	16-NOV-2023	16-NOV-2023	SS

5449603	MW408-7	Soil	09-NOV-2023	10-NOV-2023
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Time Markers

AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5449603	MW408-7	Soil	09-NOV-2023	10-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	14-NOV-2023	14-NOV-2023	AG
Toluene	14-NOV-2023	14-NOV-2023	AG
Ethylbenzene	14-NOV-2023	14-NOV-2023	AG
m & p-Xylene	14-NOV-2023	14-NOV-2023	AG
o-Xylene	14-NOV-2023	14-NOV-2023	AG
Xylenes (Total)	14-NOV-2023	14-NOV-2023	SYS
F1 (C6 to C10)	14-NOV-2023	14-NOV-2023	AG
F1 (C6 to C10) minus BTEX	14-NOV-2023	14-NOV-2023	SYS
Toluene-d8	14-NOV-2023	14-NOV-2023	AG
F2 (C10 to C16)	16-NOV-2023	16-NOV-2023	SS
F3 (C16 to C34)	16-NOV-2023	16-NOV-2023	SS
F4 (C34 to C50)	16-NOV-2023	16-NOV-2023	SS
Gravimetric Heavy Hydrocarbons			
Moisture Content	15-NOV-2023	15-NOV-2023	AT
Terphenyl	16-NOV-2023	16-NOV-2023	SS

5449612	BH404-2	Soil	08-NOV-2023	10-NOV-2023
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O. Reg. 153(511) - Metals & Inorganics (Soil)

Parameter	Date Prepared	Date Analyzed	Initials
Antimony	15-NOV-2023	15-NOV-2023	SE
Arsenic	15-NOV-2023	15-NOV-2023	SE
Barium	15-NOV-2023	15-NOV-2023	SE
Beryllium	15-NOV-2023	15-NOV-2023	SE
Boron	15-NOV-2023	15-NOV-2023	SE
Boron (Hot Water Soluble)	15-NOV-2023	15-NOV-2023	AA
Cadmium	15-NOV-2023	15-NOV-2023	SE
Chromium	15-NOV-2023	15-NOV-2023	SE
Cobalt	15-NOV-2023	15-NOV-2023	SE
Copper	15-NOV-2023	15-NOV-2023	SE
Lead	15-NOV-2023	15-NOV-2023	SE
Molybdenum	15-NOV-2023	15-NOV-2023	SE
Nickel	15-NOV-2023	15-NOV-2023	SE
Selenium	15-NOV-2023	15-NOV-2023	SE
Silver	15-NOV-2023	15-NOV-2023	SE
Thallium	15-NOV-2023	15-NOV-2023	SE
Uranium	15-NOV-2023	15-NOV-2023	SE
Vanadium	15-NOV-2023	15-NOV-2023	SE
Zinc	15-NOV-2023	15-NOV-2023	SE



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AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5449612	BH404-2	Soil	08-NOV-2023	10-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Chromium, Hexavalent	15-NOV-2023	15-NOV-2023	DG
Cyanide, WAD			BG
Mercury	15-NOV-2023	15-NOV-2023	SE
Electrical Conductivity (2:1)	15-NOV-2023	15-NOV-2023	XL
Sodium Adsorption Ratio (2:1) (Calc.)	15-NOV-2023	15-NOV-2023	XH
pH, 2:1 CaCl2 Extraction	16-NOV-2023	16-NOV-2023	XL

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

Parameter	Date Prepared	Date Analyzed	Initials
Naphthalene	16-NOV-2023	16-NOV-2023	SB
Acenaphthylene	16-NOV-2023	16-NOV-2023	SB
Acenaphthene	16-NOV-2023	16-NOV-2023	SB
Fluorene	16-NOV-2023	16-NOV-2023	SB
Phenanthrene	16-NOV-2023	16-NOV-2023	SB
Anthracene	16-NOV-2023	16-NOV-2023	SB
Fluoranthene	16-NOV-2023	16-NOV-2023	SB
Pyrene	16-NOV-2023	16-NOV-2023	SB
Benz(a)anthracene	16-NOV-2023	16-NOV-2023	SB
Chrysene	16-NOV-2023	16-NOV-2023	SB
Benzo(b)fluoranthene	16-NOV-2023	16-NOV-2023	SB
Benzo(k)fluoranthene	16-NOV-2023	16-NOV-2023	SB
Benzo(a)pyrene	16-NOV-2023	16-NOV-2023	SB
Indeno(1,2,3-cd)pyrene	16-NOV-2023	16-NOV-2023	SB
Dibenz(a,h)anthracene	16-NOV-2023	16-NOV-2023	SB
Benzo(g,h,i)perylene	16-NOV-2023	16-NOV-2023	SB
1 and 2 Methlynaphthalene	16-NOV-2023	16-NOV-2023	SYS
Naphthalene-d8	16-NOV-2023	16-NOV-2023	SB
Acridine-d9	16-NOV-2023	16-NOV-2023	SB
Terphenyl-d14	16-NOV-2023	16-NOV-2023	SB
Moisture Content	15-NOV-2023	15-NOV-2023	AT

5449615	MW403-1	Soil	08-NOV-2023	10-NOV-2023
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O. Reg. 153(511) - Metals & Inorganics (Soil)

Parameter	Date Prepared	Date Analyzed	Initials
Antimony	15-NOV-2023	15-NOV-2023	SE
Arsenic	15-NOV-2023	15-NOV-2023	SE
Barium	15-NOV-2023	15-NOV-2023	SE
Beryllium	15-NOV-2023	15-NOV-2023	SE



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AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5449615	MW403-1	Soil	08-NOV-2023	10-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Boron	15-NOV-2023	15-NOV-2023	SE
Boron (Hot Water Soluble)	15-NOV-2023	15-NOV-2023	AA
Cadmium	15-NOV-2023	15-NOV-2023	SE
Chromium	15-NOV-2023	15-NOV-2023	SE
Cobalt	15-NOV-2023	15-NOV-2023	SE
Copper	15-NOV-2023	15-NOV-2023	SE
Lead	15-NOV-2023	15-NOV-2023	SE
Molybdenum	15-NOV-2023	15-NOV-2023	SE
Nickel	15-NOV-2023	15-NOV-2023	SE
Selenium	15-NOV-2023	15-NOV-2023	SE
Silver	15-NOV-2023	15-NOV-2023	SE
Thallium	15-NOV-2023	15-NOV-2023	SE
Uranium	15-NOV-2023	15-NOV-2023	SE
Vanadium	15-NOV-2023	15-NOV-2023	SE
Zinc	15-NOV-2023	15-NOV-2023	SE
Chromium, Hexavalent	15-NOV-2023	15-NOV-2023	DG
Cyanide, WAD			BG
Mercury	15-NOV-2023	15-NOV-2023	SE
Electrical Conductivity (2:1)	15-NOV-2023	15-NOV-2023	XL
Sodium Adsorption Ratio (2:1) (Calc.)	15-NOV-2023	15-NOV-2023	XH
pH, 2:1 CaCl ₂ Extraction	16-NOV-2023	16-NOV-2023	XL

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

Parameter	Date Prepared	Date Analyzed	Initials
Naphthalene	16-NOV-2023	16-NOV-2023	SB
Acenaphthylene	16-NOV-2023	16-NOV-2023	SB
Acenaphthene	16-NOV-2023	16-NOV-2023	SB
Fluorene	16-NOV-2023	16-NOV-2023	SB
Phenanthrene	16-NOV-2023	16-NOV-2023	SB
Anthracene	16-NOV-2023	16-NOV-2023	SB
Fluoranthene	16-NOV-2023	16-NOV-2023	SB
Pyrene	16-NOV-2023	16-NOV-2023	SB
Benz(a)anthracene	16-NOV-2023	16-NOV-2023	SB
Chrysene	16-NOV-2023	16-NOV-2023	SB
Benzo(b)fluoranthene	16-NOV-2023	16-NOV-2023	SB
Benzo(k)fluoranthene	16-NOV-2023	16-NOV-2023	SB
Benzo(a)pyrene	16-NOV-2023	16-NOV-2023	SB
Indeno(1,2,3-cd)pyrene	16-NOV-2023	16-NOV-2023	SB
Dibenz(a,h)anthracene	16-NOV-2023	16-NOV-2023	SB



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AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5449615	MW403-1	Soil	08-NOV-2023	10-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Benzo(g,h,i)perylene	16-NOV-2023	16-NOV-2023	SB
1 and 2 Methlynaphthalene	16-NOV-2023	16-NOV-2023	SYS
Naphthalene-d8	16-NOV-2023	16-NOV-2023	SB
Acridine-d9	16-NOV-2023	16-NOV-2023	SB
Terphenyl-d14	16-NOV-2023	16-NOV-2023	SB
Moisture Content	15-NOV-2023	15-NOV-2023	AT

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

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	14-NOV-2023	14-NOV-2023	AG
Toluene	14-NOV-2023	14-NOV-2023	AG
Ethylbenzene	14-NOV-2023	14-NOV-2023	AG
m & p-Xylene	14-NOV-2023	14-NOV-2023	AG
o-Xylene	14-NOV-2023	14-NOV-2023	AG
Xylenes (Total)	14-NOV-2023	14-NOV-2023	SYS
F1 (C6 to C10)	14-NOV-2023	14-NOV-2023	AG
F1 (C6 to C10) minus BTEX	14-NOV-2023	14-NOV-2023	SYS
Toluene-d8	14-NOV-2023	14-NOV-2023	AG
F2 (C10 to C16)	16-NOV-2023	16-NOV-2023	SS
F2 (C10 to C16) minus Naphthalene	16-NOV-2023	16-NOV-2023	SYS
F3 (C16 to C34)	16-NOV-2023	16-NOV-2023	SS
F3 (C16 to C34) minus PAHs	16-NOV-2023	16-NOV-2023	SYS
F4 (C34 to C50)	16-NOV-2023	16-NOV-2023	SS
Gravimetric Heavy Hydrocarbons			
Moisture Content	15-NOV-2023	15-NOV-2023	AT
Terphenyl	16-NOV-2023	16-NOV-2023	SS

5449618	BH401-6	Soil	07-NOV-2023	10-NOV-2023
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O. Reg. 153(511) - PHCs F1 - F4 (Soil)

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	14-NOV-2023	14-NOV-2023	AG
Toluene	14-NOV-2023	14-NOV-2023	AG
Ethylbenzene	14-NOV-2023	14-NOV-2023	AG
m & p-Xylene	14-NOV-2023	14-NOV-2023	AG
o-Xylene	14-NOV-2023	14-NOV-2023	AG
Xylenes (Total)	14-NOV-2023	14-NOV-2023	SYS
F1 (C6 to C10)	14-NOV-2023	14-NOV-2023	AG
F1 (C6 to C10) minus BTEX	14-NOV-2023	14-NOV-2023	SYS



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AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5449618	BH401-6	Soil	07-NOV-2023	10-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Toluene-d8	14-NOV-2023	14-NOV-2023	AG
F2 (C10 to C16)	16-NOV-2023	16-NOV-2023	SS
F3 (C16 to C34)	16-NOV-2023	16-NOV-2023	SS
F4 (C34 to C50)	16-NOV-2023	16-NOV-2023	SS
Gravimetric Heavy Hydrocarbons			
Moisture Content	15-NOV-2023	15-NOV-2023	AT
Terphenyl	16-NOV-2023	16-NOV-2023	SS

5449619	MW403-5	Soil	08-NOV-2023	10-NOV-2023
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O. Reg. 153(511) - PHCs F1 - F4 (Soil)

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	14-NOV-2023	14-NOV-2023	AG
Toluene	14-NOV-2023	14-NOV-2023	AG
Ethylbenzene	14-NOV-2023	14-NOV-2023	AG
m & p-Xylene	14-NOV-2023	14-NOV-2023	AG
o-Xylene	14-NOV-2023	14-NOV-2023	AG
Xylenes (Total)	14-NOV-2023	14-NOV-2023	SYS
F1 (C6 to C10)	14-NOV-2023	14-NOV-2023	AG
F1 (C6 to C10) minus BTEX	14-NOV-2023	14-NOV-2023	SYS
Toluene-d8	14-NOV-2023	14-NOV-2023	AG
F2 (C10 to C16)	16-NOV-2023	16-NOV-2023	SS
F3 (C16 to C34)	16-NOV-2023	16-NOV-2023	SS
F4 (C34 to C50)	16-NOV-2023	16-NOV-2023	SS
Gravimetric Heavy Hydrocarbons			
Moisture Content	15-NOV-2023	15-NOV-2023	AT
Terphenyl	16-NOV-2023	16-NOV-2023	SS

5449623	MW402-1	Soil	08-NOV-2023	10-NOV-2023
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O. Reg. 153(511) - Metals & Inorganics (Soil)

Parameter	Date Prepared	Date Analyzed	Initials
Antimony	15-NOV-2023	15-NOV-2023	SE
Arsenic	15-NOV-2023	15-NOV-2023	SE
Barium	15-NOV-2023	15-NOV-2023	SE
Beryllium	15-NOV-2023	15-NOV-2023	SE
Boron	15-NOV-2023	15-NOV-2023	SE
Boron (Hot Water Soluble)	15-NOV-2023	15-NOV-2023	AA



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AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5449623	MW402-1	Soil	08-NOV-2023	10-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Cadmium	15-NOV-2023	15-NOV-2023	SE
Chromium	15-NOV-2023	15-NOV-2023	SE
Cobalt	15-NOV-2023	15-NOV-2023	SE
Copper	15-NOV-2023	15-NOV-2023	SE
Lead	15-NOV-2023	15-NOV-2023	SE
Molybdenum	15-NOV-2023	15-NOV-2023	SE
Nickel	15-NOV-2023	15-NOV-2023	SE
Selenium	15-NOV-2023	15-NOV-2023	SE
Silver	15-NOV-2023	15-NOV-2023	SE
Thallium	15-NOV-2023	15-NOV-2023	SE
Uranium	15-NOV-2023	15-NOV-2023	SE
Vanadium	15-NOV-2023	15-NOV-2023	SE
Zinc	15-NOV-2023	15-NOV-2023	SE
Chromium, Hexavalent	15-NOV-2023	15-NOV-2023	DG
Cyanide, WAD	17-NOV-2023	17-NOV-2023	BG
Mercury	15-NOV-2023	15-NOV-2023	SE
Electrical Conductivity (2:1)	15-NOV-2023	15-NOV-2023	XL
Sodium Adsorption Ratio (2:1) (Calc.)	15-NOV-2023	15-NOV-2023	XH
pH, 2:1 CaCl2 Extraction	16-NOV-2023	16-NOV-2023	XL

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

Parameter	Date Prepared	Date Analyzed	Initials
Naphthalene	16-NOV-2023	16-NOV-2023	SB
Acenaphthylene	16-NOV-2023	16-NOV-2023	SB
Acenaphthene	16-NOV-2023	16-NOV-2023	SB
Fluorene	16-NOV-2023	16-NOV-2023	SB
Phenanthrene	16-NOV-2023	16-NOV-2023	SB
Anthracene	16-NOV-2023	16-NOV-2023	SB
Fluoranthene	16-NOV-2023	16-NOV-2023	SB
Pyrene	16-NOV-2023	16-NOV-2023	SB
Benz(a)anthracene	16-NOV-2023	16-NOV-2023	SB
Chrysene	16-NOV-2023	16-NOV-2023	SB
Benzo(b)fluoranthene	16-NOV-2023	16-NOV-2023	SB
Benzo(k)fluoranthene	16-NOV-2023	16-NOV-2023	SB
Benzo(a)pyrene	16-NOV-2023	16-NOV-2023	SB
Indeno(1,2,3-cd)pyrene	16-NOV-2023	16-NOV-2023	SB
Dibenz(a,h)anthracene	16-NOV-2023	16-NOV-2023	SB
Benzo(g,h,i)perylene	16-NOV-2023	16-NOV-2023	SB
1 and 2 Methylnaphthalene	16-NOV-2023	16-NOV-2023	SYS



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AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5449623	MW402-1	Soil	08-NOV-2023	10-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Naphthalene-d8	16-NOV-2023	16-NOV-2023	SB
Acridine-d9	16-NOV-2023	16-NOV-2023	SB
Terphenyl-d14	16-NOV-2023	16-NOV-2023	SB
Moisture Content	15-NOV-2023	15-NOV-2023	AT

5449624	BH7000-1	Soil	08-NOV-2023	10-NOV-2023
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O. Reg. 153(511) - Metals & Inorganics (Soil)

Parameter	Date Prepared	Date Analyzed	Initials
Antimony	15-NOV-2023	15-NOV-2023	SE
Arsenic	15-NOV-2023	15-NOV-2023	SE
Barium	15-NOV-2023	15-NOV-2023	SE
Beryllium	15-NOV-2023	15-NOV-2023	SE
Boron	15-NOV-2023	15-NOV-2023	SE
Boron (Hot Water Soluble)	15-NOV-2023	15-NOV-2023	AA
Cadmium	15-NOV-2023	15-NOV-2023	SE
Chromium	15-NOV-2023	15-NOV-2023	SE
Cobalt	15-NOV-2023	15-NOV-2023	SE
Copper	15-NOV-2023	15-NOV-2023	SE
Lead	15-NOV-2023	15-NOV-2023	SE
Molybdenum	15-NOV-2023	15-NOV-2023	SE
Nickel	15-NOV-2023	15-NOV-2023	SE
Selenium	15-NOV-2023	15-NOV-2023	SE
Silver	15-NOV-2023	15-NOV-2023	SE
Thallium	15-NOV-2023	15-NOV-2023	SE
Uranium	15-NOV-2023	15-NOV-2023	SE
Vanadium	15-NOV-2023	15-NOV-2023	SE
Zinc	15-NOV-2023	15-NOV-2023	SE
Chromium, Hexavalent	15-NOV-2023	15-NOV-2023	DG
Cyanide, WAD	17-NOV-2023	17-NOV-2023	BG
Mercury	15-NOV-2023	15-NOV-2023	SE
Electrical Conductivity (2:1)	15-NOV-2023	15-NOV-2023	XL
Sodium Adsorption Ratio (2:1) (Calc.)	15-NOV-2023	15-NOV-2023	XH
pH, 2:1 CaCl2 Extraction	16-NOV-2023	16-NOV-2023	XL

Method Summary

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie ON

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
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 CaCl ₂ Extraction	INOR-93-6075	modified from EPA 9045D, MCKEAGUE 3.11 E3137	PC TITRATE

Method Summary

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie ON

SAMPLED BY:

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
Benz(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
1 and 2 Methylnaphthalene	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

Method Summary

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie ON

SAMPLED BY:

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
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
Benzene	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	(P&T)GC/MS
Toluene	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	(P&T)GC/MS
Xylenes (Total)	VOL-91-5009	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
F1 (C6 - C10)	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method	P&T GC/FID
Dichlorodifluoromethane	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Acetone	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Chloroform	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Benzene	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS

Method Summary

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T091921

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie ON

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trichloroethylene	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Toluene	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Bromoform	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Styrene	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Xylenes (Total)	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
1,3-Dichloropropene (Cis + Trans)	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	modified from EPA SW-846 5035 & 8260D	(P&T)GC/MS



Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water intended for human consumption)

Report Information:

Company: Terrapex Environmental Ltd.
Contact: Sara Sutherland
Address: 90 Scarsdale Road
Toronto, ON M3B 2R7
Phone: 416-245-0011 Fax: _____
Reports to be sent to: s.sutherland@terrapex.com
1. Email: edd@terrapex.com
2. Email: _____

Project Information:

Project: CH321.00
Site Location: 623 Yonge Street, Barrie, Ontario
Outlet #: 33659
Sampled By: _____
AGAT Quote #: SUNCOR Downstream PO: _____
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Company: _____
Contact: _____
Address: _____
Email: _____
Bill To Same: Yes ☒ No ☐

Regulatory Requirements:

(Please check all applicable boxes)

☒ Regulation 153/04

Table 2
Indicate One
☒ Ind/Com
☐ Res/Park
☐ Agriculture

Soil Texture (Check One)

☒ Coarse
☐ Fine

☐ Sewer Use

☐ Sanitary

☐ Storm

Region _____

Indicate One

☐ Regulation 558

☐ CCME

☐ 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

Activity

Assessment (circle one)
☐ A1 ☒ A2 ☐ AR ☐ AV

Remediation (circle one)
☐ RE ☐ RX ☐ RI ☐ RA

Contaminant Management (circle one)
☐ M ☐ MW ☐ MV

Field Filtered - Metals, Hg, CrVI

0, Reg 153

Metals and Inorganics

☐ All Metals ☐ 153 Metals (excl. Hydrides)
☐ Hydride Metals ☐ 153 Metals (incl. Hydrides)

ORPs: ☐ B-HWS ☐ Cl ☐ CN
☐ Cu²⁺ ☐ EC ☐ FOC ☐ Hg

pH ☐ SAR

Full Metals Scan

Regulation/Custom Metals

Nutrients: ☐ TP ☐ NH₄ ☐ TKN
☐ NO₃ ☐ NO₂ ☐ NO₂+NO₃

Volatiles: ☐ VOC ☒ BTEX ☐ THM

PHCs F1 - F4 ☒ BTEX

ABNs

PAHs

PCBs: ☐ Total ☐ Aroclors

Organochlorine Pesticides

TCDF: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs

Sewer Use

☒ F1/VOC/BTEX

☐ HOLD

Potentially Hazardous or High Concentration (Y/N)

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N	Metals and Inorganics	Regulation/Custom Metals	Nutrients	Volatiles	PHCs F1 - F4	ABNs	PAHs	PCBs	Organochlorine Pesticides	TCDF: M&I	Sewer Use	Potentially Hazardous or High Concentration (Y/N)	
Trip Blank	—	—	1			N													
MW 406-7	Nov 7/23	11:30	2	Soil		N				X	X								
BH 2000-6	Nov 7/23	12:30	2	Soil		N				X	X								
BH 404-3	Nov 8/23	8:45	2			N				X	X								
MW 402-6	Nov 8/23	11:00	2			N				X	X								
BH 409-5	Nov 9/23	8:45	2			N				X	X								
BH 409-8		9:00	2			N				X	X								
BH 409-9		9:10	2			N				X	X								
MW 403-6	Nov 8/23	14:15	2			N												X	
MW 405-6	Nov 7/23	14:30	2			N				X	X							X	
MW 408-7	Nov 9/23	11:45	2			N				X	X								
Samples Relinquished By (Print Name and Sign)						Date	Samples Received By (Print Name and Sign)						Date	# Jars used and not returned:					
Alex Cutibon						Nov 10/23 10:10	Aniga Tahir						10/11/2023 3:48pm	Page 1 of 2					
Samples Relinquished By (Print Name and Sign)						Date	Samples Received By (Print Name and Sign)						Date	Nº:					
Samples Relinquished By (Print Name and Sign)						Date	Samples Received By (Print Name and Sign)						Date						

Laboratory Use Only

Work Order #: 23T091921

Cooler Quantity: 1 can

Arrival Temperatures: 3.3 | 4.0 | 4.2

Custody Seal Intact: ☒ Yes ☐ No ☐ N/A

Notes: 2/5 Loose ice

Turnaround Time (TAT) Required:

Regular TAT ☒ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ 1 Business Day

OR Date Required (Rush Surcharges May Apply):

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

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water intended for human consumption)

Report Information:

Report Information

Company: Terrapex Environmental Ltd.

Contact: Sara Sutherland

Address: 90 Scarsdale Road

Toronto, ON M3B 2R7

416-245-0011 Phone: Fax:

Reports to be sent to: s.sutherland@terrapex.com

1. Email:

edd@terrapex.com

2. Email:

Regulatory Requirements: ☐ No Regulatory Requirement
(Please check all applicable boxes)

☒ Regulation 153/04	☐ Sewer Use	☐ Regulation 558
Table <u>2</u>		
<i>Indicate One</i>	☐ Sanitary	☐ CCME
☒ Ind/Com		
☐ Res/Park	☐ Storm	☐ Prov. Water Quality Objectives (PWQO)
☐ Agriculture		☐ Other
Soil Texture (<i>Check One</i>)	Region _____	
☒ Coarse	<i>Indicate One</i>	
☐ Fine		
		<i>Indicate One</i>

Is this submission for a
Record of Site Condition?

☐ Yes ☒ No

Report Guideline on Certificate of Analysis

☐ Yes ☒ No

Activity

Assesment (circle one)
☐ A1 ☒ A2 ☐ AR ☐ AV

Remediation (circle one)
☐ RE ☐ RX ☐ RI ☐ RA

Contaminant Management (circle one)
☐ M ☐ MW ☐ MV

Invoice Information:

Bill To Same: Yes ☒ No ☐

Company: _____
Contact: _____
Address: _____
Email: _____

[illegible]

Samples Relinquished By (Print Name and Sign)

Alex Calhoun all

Date

10/20/23	13:40
Date	Time

time

13:00
Time

Samples Received By (Print Name and Sign)

Samples Received By (Print Name and Sign) Anissa Tahir

De

10/11/23	3 324
Date	Time

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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2	3	3.4
Time		

```
# jars used and not returned:
```

Page 2 of 2

No

Laboratory Use Only

Work Order #: 23T091921

Cooler Quantity: 10

Arrival Temperatures: 3.3 | 4.0 | 4.2

Custody Seal Intact: ☒ Yes ☐ No ☐ N/A

Notes: LIT 1004 Ice

Turnaround Time (TAT) Required:

Regular TAT ☒ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☒ 1 Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT

*TAT is exclusive of weekends and statutory holidays

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED
90 SCARSDALE RD
TORONTO, ON M3B2R7
(905) 474-5265

ATTENTION TO: Sara Sutherland

PROJECT: CH321.00

AGAT WORK ORDER: 23T093390

SOIL ANALYSIS REVIEWED BY: Sukhwinder Randhawa, Inorganic Team Lead

TRACE ORGANICS REVIEWED BY: Oksana Gushyla, Trace Organics Lab Supervisor

DATE REPORTED: Nov 22, 2023

PAGES (INCLUDING COVER): 23

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 as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.
- 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.



Certificate of Analysis

AGAT WORK ORDER: 23T093390

PROJECT: CH321.00

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

ATTENTION TO: Sara Sutherland

SAMPLED BY: AC / JF

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

DATE RECEIVED: 2023-11-15

DATE REPORTED: 2023-11-22

SAMPLE DESCRIPTION: MW410-2
SAMPLE TYPE: Soil
DATE SAMPLED: 2023-11-14
12:00
5461510

Parameter	Unit	G / S	RDL	5461510
Antimony	µg/g		0.8	<0.8
Arsenic	µg/g		1	1
Barium	µg/g		2.0	26.9
Beryllium	µg/g		0.5	<0.5
Boron	µg/g		5	<5
Boron (Hot Water Soluble)	µg/g		0.10	<0.10
Cadmium	µg/g		0.5	<0.5
Chromium	µg/g		5	11
Cobalt	µg/g		0.8	3.7
Copper	µg/g		1.0	5.6
Lead	µg/g		1	3
Molybdenum	µg/g		0.5	<0.5
Nickel	µg/g		1	6
Selenium	µg/g		0.8	<0.8
Silver	µg/g		0.5	<0.5
Thallium	µg/g		0.5	<0.5
Uranium	µg/g		0.50	<0.50
Vanadium	µg/g		2.0	23.8
Zinc	µg/g		5	19
Chromium, Hexavalent	µg/g		0.2	<0.2
Cyanide, WAD	µg/g		0.040	<0.040
Mercury	µg/g		0.10	<0.10
Electrical Conductivity (2:1)	mS/cm		0.005	0.125
Sodium Adsorption Ratio (2:1) (Calc.)	N/A		N/A	0.753
pH, 2:1 CaCl ₂ Extraction	pH Units		NA	7.27

Certified By:





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AGAT WORK ORDER: 23T093390

PROJECT: CH321.00

5835 COOPERS AVENUE
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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

ATTENTION TO: Sara Sutherland

SAMPLED BY: AC / JF

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

DATE RECEIVED: 2023-11-15

DATE REPORTED: 2023-11-22

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

5461510 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:



K. Rasmussen



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SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

ATTENTION TO: Sara Sutherland

SAMPLED BY: AC / JF

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

DATE RECEIVED: 2023-11-15

DATE REPORTED: 2023-11-22

SAMPLE DESCRIPTION: MW410-5
SAMPLE TYPE: Soil
DATE SAMPLED: 2023-11-14
12:30

Parameter	Unit	G / S	RDL	5461539
pH, 2:1 CaCl ₂ Extraction	pH Units		NA	7.51

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

5461539 pH was determined on the 0.01M CaCl₂ extract obtained from 2:1 leaching procedure (2 parts extraction fluid:1 part wet soil).

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S. Sutherland



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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

ATTENTION TO: Sara Sutherland

SAMPLED BY: AC / JF

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

DATE RECEIVED: 2023-11-15

DATE REPORTED: 2023-11-22

		SAMPLE DESCRIPTION:		MW410-2	MW41000-2
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2023-11-14 12:00	2023-11-14 12:00
Parameter	Unit	G / S	RDL	5461510	5461616
Naphthalene	µg/g		0.05	<0.05	<0.05
Acenaphthylene	µg/g		0.05	<0.05	<0.05
Acenaphthene	µg/g		0.05	<0.05	<0.05
Fluorene	µg/g		0.05	<0.05	<0.05
Phenanthrene	µg/g		0.05	<0.05	<0.05
Anthracene	µg/g		0.05	<0.05	<0.05
Fluoranthene	µg/g		0.05	<0.05	<0.05
Pyrene	µg/g		0.05	<0.05	<0.05
Benz(a)anthracene	µg/g		0.05	<0.05	<0.05
Chrysene	µg/g		0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g		0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g		0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g		0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g		0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g		0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g		0.05	<0.05	<0.05
1 and 2 Methyl naphthalene	µg/g		0.05	<0.05	<0.05
Moisture Content	%		0.1	4.2	7.2
Surrogate	Unit	Acceptable Limits			
Naphthalene-d8	%	50-140		80	90
Acridine-d9	%	50-140		75	90
Terphenyl-d14	%	50-140		100	70

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

5461510-5461616 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 *)

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AGAT WORK ORDER: 23T093390

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

ATTENTION TO: Sara Sutherland

SAMPLED BY: AC / JF

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

DATE RECEIVED: 2023-11-15

DATE REPORTED: 2023-11-22

		SAMPLE DESCRIPTION:		BH407-6	MW411-6	MW411-8	MW410-5
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-11-14 08:53	2023-11-14 10:15	2023-11-14 10:30	2023-11-14 12:30
Parameter	Unit	G / S	RDL	5461279	5461288	5461289	5461539
Benzene	µg/g		0.02	<0.02	<0.02	<0.02	<0.02
Toluene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	µg/g		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
o-Xylene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
Xylenes (Total)	µg/g		0.05	<0.05	<0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g		5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g		5	<5	<5	<5	<5
F2 (C10 to C16)	µg/g		10	<10	<10	<10	<10
F3 (C16 to C34)	µg/g		50	<50	<50	<50	<50
F4 (C34 to C50)	µg/g		50	<50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g		50	NA	NA	NA	NA
Moisture Content	%		0.1	8.9	9.0	10.3	9.0
Surrogate	Unit	Acceptable Limits					
Toluene-d8	% Recovery	60-140		118	100	100	85
Terphenyl	%	60-140		76	71	81	74

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PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

ATTENTION TO: Sara Sutherland

SAMPLED BY: AC / JF

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

DATE RECEIVED: 2023-11-15

DATE REPORTED: 2023-11-22

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

5461279-5461539 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 *)

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AGAT WORK ORDER: 23T093390

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

ATTENTION TO: Sara Sutherland

SAMPLED BY: AC / JF

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

DATE RECEIVED: 2023-11-15

DATE REPORTED: 2023-11-22

SAMPLE DESCRIPTION: MW410-2
SAMPLE TYPE: Soil
DATE SAMPLED: 2023-11-14
12:00
5461510

Parameter	Unit	G / S	RDL	5461510
Benzene	µg/g		0.02	<0.02
Toluene	µg/g		0.05	<0.05
Ethylbenzene	µg/g		0.05	<0.05
m & p-Xylene	µg/g		0.05	<0.05
o-Xylene	µg/g		0.05	<0.05
Xylenes (Total)	µg/g		0.05	<0.05
F1 (C6 to C10)	µg/g		5	<5
F1 (C6 to C10) minus BTEX	µg/g		5	<5
F2 (C10 to C16)	µg/g		10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10
F3 (C16 to C34)	µg/g		50	<50
F3 (C16 to C34) minus PAHs	µg/g		50	<50
F4 (C34 to C50)	µg/g		50	<50
Gravimetric Heavy Hydrocarbons	µg/g		50	NA
Moisture Content	%		0.1	4.2

Surrogate	Unit	Acceptable Limits	
Toluene-d8	% Recovery	60-140	120
Terphenyl	%	60-140	71

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AGAT WORK ORDER: 23T093390

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

ATTENTION TO: Sara Sutherland

SAMPLED BY: AC / JF

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

DATE RECEIVED: 2023-11-15

DATE REPORTED: 2023-11-22

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

5461510

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 *)

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Certificate of Analysis

AGAT WORK ORDER: 23T093390

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

ATTENTION TO: Sara Sutherland

SAMPLED BY: AC / JF

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

DATE RECEIVED: 2023-11-15

DATE REPORTED: 2023-11-22

		(Trip Blank)		
		SAMPLE DESCRIPTION: BH9000		
		SAMPLE TYPE: MeOH		
		DATE SAMPLED: 2023-11-14		
Parameter	Unit	G / S	RDL	5461276
Benzene	µg/g		0.02	<0.02
Toluene	µg/g		0.05	<0.05
Ethylbenzene	µg/g		0.05	<0.05
m & p-Xylene	µg/g		0.05	<0.05
o-Xylene	µg/g		0.05	<0.05
Xylenes (Total)	µg/g		0.05	<0.05
F1 (C6 - C10)	µg/g		5	<5
F1 (C6 to C10) minus BTEX	µg/g		5	<5
Surrogate	Unit	Acceptable Limits		
Toluene-d8	% Recovery	60-140		103

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

5461276

A small amount of the methanol extract was diluted in water and the purge & trap GC/MS/FID analysis was performed.

Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + 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.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

Quality Assurance

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T093390

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

SAMPLED BY: AC / JF

Soil Analysis															
RPT Date: Nov 22, 2023			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

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

Antimony	5470286	<0.8	<0.8	NA	< 0.8	116%	70%	130%	92%	80%	120%	99%	70%	130%
Arsenic	5470286	1	2	NA	< 1	130%	70%	130%	100%	80%	120%	100%	70%	130%
Barium	5470286	23.3	24.8	6.2%	< 2.0	116%	70%	130%	103%	80%	120%	100%	70%	130%
Beryllium	5470286	<0.5	<0.5	NA	< 0.5	126%	70%	130%	104%	80%	120%	110%	70%	130%
Boron	5470286	5	5	NA	< 5	105%	70%	130%	103%	80%	120%	111%	70%	130%
Boron (Hot Water Soluble)	5467029	0.27	0.27	NA	< 0.10	100%	60%	140%	97%	70%	130%	97%	60%	140%
Cadmium	5470286	<0.5	<0.5	NA	< 0.5	83%	70%	130%	95%	80%	120%	109%	70%	130%
Chromium	5470286	8	9	NA	< 5	125%	70%	130%	102%	80%	120%	109%	70%	130%
Cobalt	5470286	2.9	2.9	NA	< 0.8	121%	70%	130%	105%	80%	120%	103%	70%	130%
Copper	5470286	3.8	3.7	NA	< 1.0	110%	70%	130%	102%	80%	120%	104%	70%	130%
Lead	5470286	2	2	NA	< 1	119%	70%	130%	93%	80%	120%	86%	70%	130%
Molybdenum	5470286	<0.5	<0.5	NA	< 0.5	117%	70%	130%	102%	80%	120%	111%	70%	130%
Nickel	5470286	5	4	NA	< 1	121%	70%	130%	106%	80%	120%	104%	70%	130%
Selenium	5470286	<0.8	<0.8	NA	< 0.8	104%	70%	130%	99%	80%	120%	115%	70%	130%
Silver	5470286	<0.5	<0.5	NA	< 0.5	121%	70%	130%	100%	80%	120%	100%	70%	130%
Thallium	5470286	<0.5	<0.5	NA	< 0.5	130%	70%	130%	104%	80%	120%	98%	70%	130%
Uranium	5470286	<0.50	<0.50	NA	< 0.50	119%	70%	130%	108%	80%	120%	105%	70%	130%
Vanadium	5470286	13.2	13.9	5.2%	< 2.0	130%	70%	130%	104%	80%	120%	107%	70%	130%
Zinc	5470286	17	18	NA	< 5	121%	70%	130%	97%	80%	120%	114%	70%	130%
Chromium, Hexavalent	5462547	<0.2	<0.2	NA	< 0.2	98%	70%	130%	94%	80%	120%	86%	70%	130%
Cyanide, WAD	5459661	<0.040	<0.040	NA	< 0.040	105%	70%	130%	105%	80%	120%	90%	70%	130%
Mercury	5470286	<0.10	<0.10	NA	< 0.10	119%	70%	130%	96%	80%	120%	107%	70%	130%
Electrical Conductivity (2:1)	5467029	0.290	0.294	1.4%	< 0.005	101%	80%	120%						
Sodium Adsorption Ratio (2:1) (Calc.)	5467029	2.65	2.64	0.4%	NA									
pH, 2:1 CaCl ₂ Extraction	5468607	6.94	7.16	3.1%	NA	101%	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.

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

pH, 2:1 CaCl ₂ Extraction	5468607	6.94	7.16	3.1%	NA	101%	80%	120%
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Comments: NA signifies Not Applicable.

pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.

Certified By:


Subhinder Kaur Randhawa

Quality Assurance

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T093390

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

SAMPLED BY: AC / JF

Trace Organics Analysis

RPT Date: Nov 22, 2023			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

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

Benzene	5459843		<0.02	<0.02	NA	< 0.02	83%	60%	140%	104%	60%	140%	100%	60%	140%
Toluene	5459843		<0.05	<0.05	NA	< 0.05	72%	60%	140%	109%	60%	140%	103%	60%	140%
Ethylbenzene	5459843		<0.05	<0.05	NA	< 0.05	90%	60%	140%	100%	60%	140%	92%	60%	140%
m & p-Xylene	5459843		<0.05	<0.05	NA	< 0.05	90%	60%	140%	100%	60%	140%	92%	60%	140%
o-Xylene	5459843		<0.05	<0.05	NA	< 0.05	75%	60%	140%	103%	60%	140%	97%	60%	140%
F1 (C6 to C10)	5459843		<5	<5	NA	< 5	86%	60%	140%	107%	60%	140%	78%	60%	140%
F2 (C10 to C16)	5461314		174	162	7.1%	< 10	117%	60%	140%	95%	60%	140%	65%	60%	140%
F3 (C16 to C34)	5461314		364	264	31.8%	< 50	114%	60%	140%	100%	60%	140%	126%	60%	140%
F4 (C34 to C50)	5461314		< 50	< 50	NA	< 50	83%	60%	140%	76%	60%	140%	103%	60%	140%

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

Benzene	5459843		<0.02	<0.02	NA	< 0.02	83%	60%	140%	104%	60%	140%	100%	60%	140%
Toluene	5459843		<0.05	<0.05	NA	< 0.05	72%	60%	140%	109%	60%	140%	103%	60%	140%
Ethylbenzene	5459843		<0.05	<0.05	NA	< 0.05	90%	60%	140%	100%	60%	140%	92%	60%	140%
m & p-Xylene	5459843		<0.05	<0.05	NA	< 0.05	90%	60%	140%	100%	60%	140%	92%	60%	140%
o-Xylene	5459843		<0.05	<0.05	NA	< 0.05	75%	60%	140%	103%	60%	140%	97%	60%	140%
F1 (C6 to C10)	5459843		<5	<5	NA	< 5	86%	60%	140%	107%	60%	140%	78%	60%	140%

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

Naphthalene	5460608		<0.05	<0.05	NA	< 0.05	106%	50%	140%	78%	50%	140%	75%	50%	140%
Acenaphthylene	5460608		<0.05	<0.05	NA	< 0.05	91%	50%	140%	75%	50%	140%	73%	50%	140%
Acenaphthene	5460608		<0.05	<0.05	NA	< 0.05	90%	50%	140%	83%	50%	140%	80%	50%	140%
Fluorene	5460608		<0.05	<0.05	NA	< 0.05	73%	50%	140%	83%	50%	140%	78%	50%	140%
Phenanthrene	5460608		<0.05	<0.05	NA	< 0.05	82%	50%	140%	100%	50%	140%	95%	50%	140%
Anthracene	5460608		<0.05	<0.05	NA	< 0.05	89%	50%	140%	73%	50%	140%	73%	50%	140%
Fluoranthene	5460608		<0.05	<0.05	NA	< 0.05	82%	50%	140%	85%	50%	140%	75%	50%	140%
Pyrene	5460608		<0.05	<0.05	NA	< 0.05	80%	50%	140%	73%	50%	140%	75%	50%	140%
Benz(a)anthracene	5460608		<0.05	<0.05	NA	< 0.05	87%	50%	140%	80%	50%	140%	113%	50%	140%
Chrysene	5460608		<0.05	<0.05	NA	< 0.05	79%	50%	140%	95%	50%	140%	100%	50%	140%
Benzo(b)fluoranthene	5460608		<0.05	<0.05	NA	< 0.05	108%	50%	140%	73%	50%	140%	90%	50%	140%
Benzo(k)fluoranthene	5460608		<0.05	<0.05	NA	< 0.05	78%	50%	140%	85%	50%	140%	75%	50%	140%
Benzo(a)pyrene	5460608		<0.05	<0.05	NA	< 0.05	78%	50%	140%	80%	50%	140%	90%	50%	140%
Indeno(1,2,3-cd)pyrene	5460608		<0.05	<0.05	NA	< 0.05	70%	50%	140%	73%	50%	140%	83%	50%	140%
Dibenz(a,h)anthracene	5460608		<0.05	<0.05	NA	< 0.05	79%	50%	140%	113%	50%	140%	95%	50%	140%
Benzo(g,h,i)perylene	5460608		<0.05	<0.05	NA	< 0.05	74%	50%	140%	83%	50%	140%	100%	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).



Quality Assurance

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T093390

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

SAMPLED BY: AC / JF

Trace Organics Analysis (Continued)

RPT Date: Nov 22, 2023			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	
								Lower	Upper		Lower	Upper

Certified By: _____



Time Markers

AGAT WORK ORDER: 23T093390

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5461276	(Trip Blank) BH9000	MeOH	14-NOV-2023	15-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	18-NOV-2023	18-NOV-2023	AG
Toluene	18-NOV-2023	18-NOV-2023	AG
Ethylbenzene	18-NOV-2023	18-NOV-2023	AG
m & p-Xylene	18-NOV-2023	18-NOV-2023	AG
o-Xylene	18-NOV-2023	18-NOV-2023	AG
Xylenes (Total)	18-NOV-2023	18-NOV-2023	SYS
F1 (C6 - C10)	18-NOV-2023	18-NOV-2023	AG
F1 (C6 to C10) minus BTEX	18-NOV-2023	18-NOV-2023	SYS
Toluene-d8	18-NOV-2023	18-NOV-2023	AG

5461279	BH407-6	Soil	14-NOV-2023	15-NOV-2023
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O. Reg. 153(511) - PHCs F1 - F4 (Soil)

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	18-NOV-2023	18-NOV-2023	AG
Toluene	18-NOV-2023	18-NOV-2023	AG
Ethylbenzene	18-NOV-2023	18-NOV-2023	AG
m & p-Xylene	18-NOV-2023	18-NOV-2023	AG
o-Xylene	18-NOV-2023	18-NOV-2023	AG
Xylenes (Total)	18-NOV-2023	18-NOV-2023	SYS
F1 (C6 to C10)	18-NOV-2023	18-NOV-2023	AG
F1 (C6 to C10) minus BTEX	18-NOV-2023	18-NOV-2023	SYS
Toluene-d8	18-NOV-2023	18-NOV-2023	AG
F2 (C10 to C16)	21-NOV-2023	21-NOV-2023	SS
F3 (C16 to C34)	21-NOV-2023	21-NOV-2023	SS
F4 (C34 to C50)	21-NOV-2023	21-NOV-2023	SS
Gravimetric Heavy Hydrocarbons			
Moisture Content	21-NOV-2023	21-NOV-2023	AT
Terphenyl	21-NOV-2023	21-NOV-2023	SS

5461288	MW411-6	Soil	14-NOV-2023	15-NOV-2023
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O. Reg. 153(511) - PHCs F1 - F4 (Soil)

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	18-NOV-2023	18-NOV-2023	AG
Toluene	18-NOV-2023	18-NOV-2023	AG
Ethylbenzene	18-NOV-2023	18-NOV-2023	AG
m & p-Xylene	18-NOV-2023	18-NOV-2023	AG



Time Markers

AGAT WORK ORDER: 23T093390

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5461288	MW411-6	Soil	14-NOV-2023	15-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
o-Xylene	18-NOV-2023	18-NOV-2023	AG
Xylenes (Total)	18-NOV-2023	18-NOV-2023	SYS
F1 (C6 to C10)	18-NOV-2023	18-NOV-2023	AG
F1 (C6 to C10) minus BTEX	18-NOV-2023	18-NOV-2023	SYS
Toluene-d8	18-NOV-2023	18-NOV-2023	AG
F2 (C10 to C16)	21-NOV-2023	21-NOV-2023	SS
F3 (C16 to C34)	21-NOV-2023	21-NOV-2023	SS
F4 (C34 to C50)	21-NOV-2023	21-NOV-2023	SS
Gravimetric Heavy Hydrocarbons			
Moisture Content	21-NOV-2023	21-NOV-2023	AT
Terphenyl	21-NOV-2023	21-NOV-2023	SS

5461289	MW411-8	Soil	14-NOV-2023	15-NOV-2023
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O. Reg. 153(511) - PHCs F1 - F4 (Soil)

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	18-NOV-2023	18-NOV-2023	AG
Toluene	18-NOV-2023	18-NOV-2023	AG
Ethylbenzene	18-NOV-2023	18-NOV-2023	AG
m & p-Xylene	18-NOV-2023	18-NOV-2023	AG
o-Xylene	18-NOV-2023	18-NOV-2023	AG
Xylenes (Total)	18-NOV-2023	18-NOV-2023	SYS
F1 (C6 to C10)	18-NOV-2023	18-NOV-2023	AG
F1 (C6 to C10) minus BTEX	18-NOV-2023	18-NOV-2023	SYS
Toluene-d8	18-NOV-2023	18-NOV-2023	AG
F2 (C10 to C16)	21-NOV-2023	21-NOV-2023	SS
F3 (C16 to C34)	21-NOV-2023	21-NOV-2023	SS
F4 (C34 to C50)	21-NOV-2023	21-NOV-2023	SS
Gravimetric Heavy Hydrocarbons			
Moisture Content	21-NOV-2023	21-NOV-2023	AT
Terphenyl	21-NOV-2023	21-NOV-2023	SS

5461510	MW410-2	Soil	14-NOV-2023	15-NOV-2023
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O. Reg. 153(511) - Metals & Inorganics (Soil)

Parameter	Date Prepared	Date Analyzed	Initials
Antimony	22-NOV-2023	22-NOV-2023	DW
Arsenic	22-NOV-2023	22-NOV-2023	DW



Time Markers

AGAT WORK ORDER: 23T093390

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5461510	MW410-2	Soil	14-NOV-2023	15-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Barium	22-NOV-2023	22-NOV-2023	DW
Beryllium	22-NOV-2023	22-NOV-2023	DW
Boron	22-NOV-2023	22-NOV-2023	DW
Boron (Hot Water Soluble)	21-NOV-2023	21-NOV-2023	AA
Cadmium	22-NOV-2023	22-NOV-2023	DW
Chromium	22-NOV-2023	22-NOV-2023	DW
Cobalt	22-NOV-2023	22-NOV-2023	DW
Copper	22-NOV-2023	22-NOV-2023	DW
Lead	22-NOV-2023	22-NOV-2023	DW
Molybdenum	22-NOV-2023	22-NOV-2023	DW
Nickel	22-NOV-2023	22-NOV-2023	DW
Selenium	22-NOV-2023	22-NOV-2023	DW
Silver	22-NOV-2023	22-NOV-2023	DW
Thallium	22-NOV-2023	22-NOV-2023	DW
Uranium	22-NOV-2023	22-NOV-2023	DW
Vanadium	22-NOV-2023	22-NOV-2023	DW
Zinc	22-NOV-2023	22-NOV-2023	DW
Chromium, Hexavalent	17-NOV-2023	17-NOV-2023	DG
Cyanide, WAD	21-NOV-2023	21-NOV-2023	BG
Mercury	22-NOV-2023	22-NOV-2023	DW
Electrical Conductivity (2:1)	21-NOV-2023	21-NOV-2023	XL
Sodium Adsorption Ratio (2:1) (Calc.)	21-NOV-2023	21-NOV-2023	XH
pH, 2:1 CaCl2 Extraction	21-NOV-2023	21-NOV-2023	XL

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

Parameter	Date Prepared	Date Analyzed	Initials
Naphthalene	21-NOV-2023	21-NOV-2023	SB
Acenaphthylene	21-NOV-2023	21-NOV-2023	SB
Acenaphthene	21-NOV-2023	21-NOV-2023	SB
Fluorene	21-NOV-2023	21-NOV-2023	SB
Phenanthrene	21-NOV-2023	21-NOV-2023	SB
Anthracene	21-NOV-2023	21-NOV-2023	SB
Fluoranthene	21-NOV-2023	21-NOV-2023	SB
Pyrene	21-NOV-2023	21-NOV-2023	SB
Benz(a)anthracene	21-NOV-2023	21-NOV-2023	SB
Chrysene	21-NOV-2023	21-NOV-2023	SB
Benzo(b)fluoranthene	21-NOV-2023	21-NOV-2023	SB
Benzo(k)fluoranthene	21-NOV-2023	21-NOV-2023	SB
Benzo(a)pyrene	21-NOV-2023	21-NOV-2023	SB



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AGAT WORK ORDER: 23T093390

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5461510	MW410-2	Soil	14-NOV-2023	15-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Indeno(1,2,3-cd)pyrene	21-NOV-2023	21-NOV-2023	SB
Dibenz(a,h)anthracene	21-NOV-2023	21-NOV-2023	SB
Benzo(g,h,i)perylene	21-NOV-2023	21-NOV-2023	SB
1 and 2 Methylnaphthalene	21-NOV-2023	21-NOV-2023	SYS
Naphthalene-d8	21-NOV-2023	21-NOV-2023	SB
Acridine-d9	21-NOV-2023	21-NOV-2023	SB
Terphenyl-d14	21-NOV-2023	21-NOV-2023	SB
Moisture Content	21-NOV-2023	21-NOV-2023	AT

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

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	18-NOV-2023	18-NOV-2023	AG
Toluene	18-NOV-2023	18-NOV-2023	AG
Ethylbenzene	18-NOV-2023	18-NOV-2023	AG
m & p-Xylene	18-NOV-2023	18-NOV-2023	AG
o-Xylene	18-NOV-2023	18-NOV-2023	AG
Xylenes (Total)	18-NOV-2023	18-NOV-2023	SYS
F1 (C6 to C10)	18-NOV-2023	18-NOV-2023	AG
F1 (C6 to C10) minus BTEX	18-NOV-2023	18-NOV-2023	SYS
Toluene-d8	18-NOV-2023	18-NOV-2023	AG
F2 (C10 to C16)	21-NOV-2023	21-NOV-2023	SS
F2 (C10 to C16) minus Naphthalene	21-NOV-2023	21-NOV-2023	SYS
F3 (C16 to C34)	21-NOV-2023	21-NOV-2023	SS
F3 (C16 to C34) minus PAHs	21-NOV-2023	21-NOV-2023	SYS
F4 (C34 to C50)	21-NOV-2023	21-NOV-2023	SS
Gravimetric Heavy Hydrocarbons			
Moisture Content	21-NOV-2023	21-NOV-2023	AT
Terphenyl	21-NOV-2023	21-NOV-2023	SS

5461539	MW410-5	Soil	14-NOV-2023	15-NOV-2023
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O. Reg. 153(511) - ORPs (Soil)

Parameter	Date Prepared	Date Analyzed	Initials
pH, 2:1 CaCl2 Extraction	21-NOV-2023	21-NOV-2023	XL

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

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	18-NOV-2023	18-NOV-2023	AG
Toluene	18-NOV-2023	18-NOV-2023	AG



Time Markers

AGAT WORK ORDER: 23T093390

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5461539	MW410-5	Soil	14-NOV-2023	15-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Ethylbenzene	18-NOV-2023	18-NOV-2023	AG
m & p-Xylene	18-NOV-2023	18-NOV-2023	AG
o-Xylene	18-NOV-2023	18-NOV-2023	AG
Xylenes (Total)	18-NOV-2023	18-NOV-2023	SYS
F1 (C6 to C10)	18-NOV-2023	18-NOV-2023	AG
F1 (C6 to C10) minus BTEX	18-NOV-2023	18-NOV-2023	SYS
Toluene-d8	18-NOV-2023	18-NOV-2023	AG
F2 (C10 to C16)	21-NOV-2023	21-NOV-2023	SS
F3 (C16 to C34)	21-NOV-2023	21-NOV-2023	SS
F4 (C34 to C50)	21-NOV-2023	21-NOV-2023	SS
Gravimetric Heavy Hydrocarbons			
Moisture Content	21-NOV-2023	21-NOV-2023	AT
Terphenyl	21-NOV-2023	21-NOV-2023	SS

5461616	MW41000-2	Soil	14-NOV-2023	15-NOV-2023
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O. Reg. 153(511) - PAHs (Soil)

Parameter	Date Prepared	Date Analyzed	Initials
Naphthalene	22-NOV-2023	22-NOV-2023	SB
Acenaphthylene	22-NOV-2023	22-NOV-2023	SB
Acenaphthene	22-NOV-2023	22-NOV-2023	SB
Fluorene	22-NOV-2023	22-NOV-2023	SB
Phenanthrene	22-NOV-2023	22-NOV-2023	SB
Anthracene	22-NOV-2023	22-NOV-2023	SB
Fluoranthene	22-NOV-2023	22-NOV-2023	SB
Pyrene	22-NOV-2023	22-NOV-2023	SB
Benz(a)anthracene	22-NOV-2023	22-NOV-2023	SB
Chrysene	22-NOV-2023	22-NOV-2023	SB
Benzo(b)fluoranthene	22-NOV-2023	22-NOV-2023	SB
Benzo(k)fluoranthene	22-NOV-2023	22-NOV-2023	SB
Benzo(a)pyrene	22-NOV-2023	22-NOV-2023	SB
Indeno(1,2,3-cd)pyrene	22-NOV-2023	22-NOV-2023	SB
Dibenz(a,h)anthracene	22-NOV-2023	22-NOV-2023	SB
Benzo(g,h,i)perylene	22-NOV-2023	22-NOV-2023	SB
1 and 2 Methylnaphthalene	22-NOV-2023	22-NOV-2023	SYS
Naphthalene-d8	22-NOV-2023	22-NOV-2023	SB
Acridine-d9	22-NOV-2023	22-NOV-2023	SB
Terphenyl-d14	22-NOV-2023	22-NOV-2023	SB
Moisture Content	21-NOV-2023	21-NOV-2023	AT



AGAT Laboratories

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AGAT WORK ORDER: 23T093390

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
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Method Summary

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T093390

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

SAMPLED BY: AC / JF

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
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 CaCl ₂ Extraction	INOR-93-6075	modified from EPA 9045D, MCKEAGUE 3.11 E3137	PC TITRATE

Method Summary

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T093390

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

SAMPLED BY: AC / JF

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
Benz(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
1 and 2 Methylnaphthalene	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



Method Summary

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T093390

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

SAMPLED BY: AC / JF

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
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
Benzene	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	(P&T)GC/MS
Toluene	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	(P&T)GC/MS
Xylenes (Total)	VOL-91-5009	modified from EPA 5035C and EPA 8260D	(P&T)GC/MS
F1 (C6 - C10)	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method	P&T GC/FID



Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water intended for human consumption)

Report Information:

Company: Terrapex Environmental Ltd.
Contact: Sara Sutherland
Address: 90 Scarsdale Road
Toronto, ON M3B 2R7
Phone: 416-245-0011 Fax: _____
Reports to be sent to:
1. Email: s.sutherland@terrapex.com
2. Email: edd@terrapex.com

Project Information:

Project: CH321.00
Site Location: 623 Yonge Street, Barrie, Ontario
Outlet #: 33659
Sampled By: AC/SE
AGAT Quote #: SUNCOR Downstream PO: _____
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Company: _____
Contact: _____
Address: _____
Email: _____
Bill To Same: Yes ☒ No ☐

Regulatory Requirements:

(Please check all applicable boxes)

☒ Regulation 153/04

Table 2 Indicate One

☒ Ind/Com

☐ Res/Park

☐ Agriculture

Soil Texture (Check One)

☒ Coarse

☐ Fine

☐ Sewer Use

☐ Sanitary

☐ Storm

Region _____ Indicate One

☐ Regulation 558

☐ CCME

☐ 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

Activity

Assessment (circle one)

☐ A1 ☒ A2 ☐ AR ☐ AV

Remediation (circle one)

☐ RE ☐ RX ☐ RI ☐ RA

Contaminant Management (circle one)

☐ M ☐ MW ☐ MV

Field Filtered - Metals, Hg, CrVI

O. Reg 153

Metals and Inorganics
☐ All Metals ☐ 153 Metals (excl. Hydrides)
☐ Hydride Metals ☐ 153 Metals (incl. Hydrides)

ORPs: ☐ B-HWS ☐ Cl ☐ CN
☐ Cu²⁺ ☐ EC ☐ FOC ☐ Hg
☒ pH ☐ SAR

Full Metals Scan

Regulation/Custom Metals

Nutrients: ☐ TP ☐ NH₄ ☐ TKN
☐ NO₃ ☐ NO₂ ☐ NO₃+NO₂

Volatiles: ☐ VOC ☒ BTEX ☐ THM

PHCs F1 - F4

ABNs

PAHs

PCBs: ☐ Total ☐ Aroclors

Organochlorine Pesticides

TOLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ CBs

Sewer Use

all BTEX/FI

HOLD

Potentially Hazardous or High Concentration (Y/N)

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y/N	Field Filtered - Metals, Hg, CrVI	Metals and Inorganics	ORPs	Full Metals Scan	Regulation/Custom Metals	Nutrients	Volatiles	PHCs F1 - F4	ABNs	PAHs	PCBs	Organochlorine Pesticides	TOLP	Sewer Use	Potentially Hazardous or High Concentration (Y/N)
(Trip Blank) BH9000	Nov 14/23		1																		
BH407-6	Nov 14/23	8:53	2	Soil									X	X							
MW411-6		10:15	2										X	X							
MW411-8		10:30	2										X	X							
MW411-10		10:48	2																		
MW410-2		12:00	4					X					X	X		X					
MW410-5		12:30	3						X				X	X							
MW410-9		12:40	2																		
MW41000-2		12:00	1													X					

Samples Relinquished By (Print Name and Sign): <u>Alexandra Catibog</u> <u>all</u>	Date: <u>Nov 15/23</u>	Time: <u>9:50</u>	Samples Received By (Print Name and Sign): <u>TH</u>	Date: <u>Nov 15</u>	Time: <u>2:50</u>	Signs used and not returned:
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:	Page <u>1</u> of <u>1</u>
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:	N ^o :

Laboratory Use Only

Work Order #: 23T093390

Cooler Quantity: 1 large

Arrival Temperatures: 5-9, 6-7, 6-8

Custody Seal Intact: ☐ Yes ☐ No ☒ N/A

Notes: loose seal

Turnaround Time (TAT) Required:

Regular TAT

☒ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ 1 Business Day

OR Date Required (Rush Surcharges May Apply):

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

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED
90 SCARSDALE RD
TORONTO, ON M3B2R7
(905) 474-5265

ATTENTION TO: Arash Heidari

PROJECT: CH321.00; Outlet# 00830

AGAT WORK ORDER: 23T095638

SOIL ANALYSIS REVIEWED BY: Nivine Basily, Inorganic Team Lead

DATE REPORTED: Nov 27, 2023

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.
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- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.
- 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

Certificate of Analysis

AGAT WORK ORDER: 23T095638

PROJECT: CH321.00; Outlet# 00830

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge St. Barrie, ON

ATTENTION TO: Arash Heidari

SAMPLED BY: JF

pH, Sulphate

DATE RECEIVED: 2023-11-21

DATE REPORTED: 2023-11-27

		SAMPLE DESCRIPTION:		BH402-SS4B	MW411-SS3
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2023-11-08 10:45	2023-11-14 11:00
Parameter	Unit	G / S	RDL	5478398	5478543
Sulphate (2:1)	µg/g		2	341	56
pH (2:1)	pH Units		NA	8.88	8.36

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

5478398-5478543 pH and Sulphate 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:



Nivine Basly



Quality Assurance

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T095638

PROJECT: CH321.00; Outlet# 00830

ATTENTION TO: Arash Heidari

SAMPLING SITE: 623 Yonge St. Barrie, ON

SAMPLED BY: JF

Soil Analysis

RPT Date: Nov 27, 2023			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
pH, Sulphate															
Sulphate (2:1)	5469752		95	96	1.0%	< 2	98%	70%	130%	105%	80%	120%	98%	70%	130%
pH (2:1)	5476166		8.19	8.22	0.4%	NA	95%	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.

Certified By:



Nivine Basily



Time Markers

AGAT WORK ORDER: 23T095638

PROJECT: CH321.00; Outlet# 00830

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<http://www.agatlabs.com>

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Arash Heidari

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5478398	BH402-SS4B	Soil	08-NOV-2023	21-NOV-2023

pH, Sulphate

Parameter	Date Prepared	Date Analyzed	Initials
Sulphate (2:1)	24-NOV-2023	24-NOV-2023	LC
pH (2:1)	24-NOV-2023	24-NOV-2023	XL

5478543	MW411-SS3	Soil	14-NOV-2023	21-NOV-2023
---------	-----------	------	-------------	-------------

pH, Sulphate

Parameter	Date Prepared	Date Analyzed	Initials
Sulphate (2:1)	24-NOV-2023	24-NOV-2023	LC
pH (2:1)	24-NOV-2023	24-NOV-2023	XL

Method Summary

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T095638

PROJECT: CH321.00; Outlet# 00830

ATTENTION TO: Arash Heidari

SAMPLING SITE: 623 Yonge St. Barrie, ON

SAMPLED BY: JF

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Sulphate (2:1)	INOR-93-6004	modified from SM 4110 B	ION CHROMATOGRAPH
pH (2:1)	INOR 93-6031	modified from EPA 9045D and MCKEAGUE 3.11	PH METER

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED
90 SCARSDALE RD
TORONTO, ON M3B2R7
(905) 474-5265

ATTENTION TO: Sara Sutherland

PROJECT: CH321.00

AGAT WORK ORDER: 23T097112

TRACE ORGANICS REVIEWED BY: Radhika Chakraborty, Trace Organics Lab Manager

WATER ANALYSIS REVIEWED BY: Nivine Basily, Inorganic Team Lead

DATE REPORTED: Dec 01, 2023

PAGES (INCLUDING COVER): 33

VERSION*: 1

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

*Notes

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- 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.
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- 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.
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- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.
- 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.



Certificate of Analysis

AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

5835 COOPERS AVENUE
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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

ATTENTION TO: Sara Sutherland

SAMPLED BY: AC / RD

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

DATE RECEIVED: 2023-11-24

DATE REPORTED: 2023-12-01

SAMPLE DESCRIPTION:				MW409	MW1000	MW406	MW402	MW403	MW411	MW410
SAMPLE TYPE:				Water	Water	Water	Water	Water	Water	Water
DATE SAMPLED:				2023-11-23 10:36	2023-11-23 10:36	2023-11-23 11:36	2023-11-23 13:40	2023-11-23 14:45	2023-11-23 15:35	2023-11-23 16:29
Parameter	Unit	G / S	RDL	5491318	5491333	5491334	5491338	5491339	5491340	5491341
Naphthalene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Acenaphthylene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Acenaphthene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Fluorene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Phenanthrene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Anthracene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Fluoranthene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Pyrene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzo(a)anthracene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chrysene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo(b)fluoranthene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo(k)fluoranthene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Benzo(a)pyrene	µg/L		0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Indeno(1,2,3-cd)pyrene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dibenz(a,h)anthracene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzo(g,h,i)perylene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
2-and 1-methyl Naphthalene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Sediment				1	1	1	3	3	3	3
Surrogate	Unit	Acceptable Limits								
Naphthalene-d8	%	50-140	93	92	69	71	94	95	93	
Acridine-d9	%	50-140	101	101	93	83	92	116	84	
Terphenyl-d14	%	50-140	90	89	70	79	93	107	74	

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

5491318-5491341 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 amount

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. 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:

R. Chakraborty



AGAT Laboratories

Certificate of Analysis

AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
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<http://www.agatlabs.com>

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

ATTENTION TO: Sara Sutherland

SAMPLED BY: AC / RD

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

DATE RECEIVED: 2023-11-24

DATE REPORTED: 2023-12-01

SAMPLE DESCRIPTION: MW408
SAMPLE TYPE: Water
DATE SAMPLED: 2023-11-23
12:22
5491336

Parameter	Unit	G / S	RDL
Benzene	µg/L	0.20	<0.20
Toluene	µg/L	0.20	0.70
Ethylbenzene	µg/L	0.10	<0.10
m & p-Xylene	µg/L	0.20	<0.20
o-Xylene	µg/L	0.10	<0.10
Xylenes (Total)	µg/L	0.20	<0.20
F1 (C6 to C10)	µg/L	25	<25
F1 (C6 to C10) minus BTEX	µg/L	25	<25
F2 (C10 to C16)	µg/L	100	<100
F3 (C16 to C34)	µg/L	100	<100
F4 (C34 to C50)	µg/L	100	<100
Gravimetric Heavy Hydrocarbons	µg/L	500	NA
Sediment			3

Surrogate	Unit	Acceptable Limits
Toluene-d8	% Recovery	60-140 84.8
Terphenyl	% Recovery	60-140 73

Certified By:

R. Chakraborty



AGAT Laboratories

Certificate of Analysis

AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

ATTENTION TO: Sara Sutherland

SAMPLED BY: AC / RD

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

DATE RECEIVED: 2023-11-24

DATE REPORTED: 2023-12-01

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

5491336 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:

R. Chakraborty



Certificate of Analysis

AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

5835 COOPERS AVENUE
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TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

ATTENTION TO: Sara Sutherland

SAMPLED BY: AC / RD

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

DATE RECEIVED: 2023-11-24

DATE REPORTED: 2023-12-01

SAMPLE DESCRIPTION:				MW409	MW1000	MW406	MW402	MW403	MW411	MW410
SAMPLE TYPE:				Water	Water	Water	Water	Water	Water	Water
DATE SAMPLED:				2023-11-23 10:36	2023-11-23 10:36	2023-11-23 11:36	2023-11-23 13:40	2023-11-23 14:45	2023-11-23 15:35	2023-11-23 16:29
Parameter	Unit	G / S	RDL	5491318	5491333	5491334	5491338	5491339	5491340	5491341
Benzene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	1.06
Toluene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.56	0.98
Ethylbenzene	µg/L		0.10	<0.10	<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	<0.20	<0.20
o-Xylene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Xylenes (Total)	µg/L		0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
F1 (C6 to C10)	µg/L		25	<25	<25	<25	<25	<25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L		25	<25	<25	<25	<25	<25	<25	<25
F2 (C10 to C16)	µg/L		100	<100	<100	<100	<100	<100	<100	<100
F2 (C10 to C16) minus Naphthalene	µg/L		100	<100	<100	<100	<100	<100	<100	<100
F3 (C16 to C34)	µg/L		100	<100	<100	<100	<100	<100	<100	<100
F3 (C16 to C34) minus PAHs	µg/L		100	<100	<100	<100	<100	<100	<100	<100
F4 (C34 to C50)	µg/L		100	<100	<100	<100	<100	<100	<100	<100
Gravimetric Heavy Hydrocarbons	µg/L		500	NA	NA	NA	NA	NA	NA	NA
Sediment				1	1	1	3	3	3	3
Surrogate	Unit	Acceptable Limits								
Toluene-d8	% Recovery	60-140	80.0	84.8	79.8	76.0	75.8	88.5	98.0	
Terphenyl	% Recovery	60-140	78	65	69	70	78	72	66	

Certified By:

R. Chakraborty



AGAT Laboratories

Certificate of Analysis

AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

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<http://www.agatlabs.com>

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

SAMPLED BY: AC / RD

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

DATE RECEIVED: 2023-11-24

DATE REPORTED: 2023-12-01

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

5491318-5491341 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 amount

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:

R. Chakraborty



AGAT Laboratories

Certificate of Analysis

AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

ATTENTION TO: Sara Sutherland

SAMPLED BY: AC / RD

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

DATE RECEIVED: 2023-11-24

DATE REPORTED: 2023-12-01

		SAMPLE DESCRIPTION:		Trip Blank
		SAMPLE TYPE:		Water
		DATE SAMPLED:		2023-11-21
Parameter	Unit	G / S	RDL	5491337
Benzene	µg/L		0.20	<0.20
Toluene	µg/L		0.20	<0.20
Ethylbenzene	µg/L		0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20
o-Xylene	µg/L		0.10	<0.10
Xylenes (Total)	µg/L		0.20	<0.20
F1 (C6-C10)	µg/L		25	<25
F1 (C6 to C10) minus BTEX	µg/L		25	<25
Surrogate	Unit	Acceptable Limits		
Toluene-d8	% Recovery	60-140	71.0	

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

5491337

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:

R. Chakraborty



Certificate of Analysis

AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

ATTENTION TO: Sara Sutherland

SAMPLED BY: AC / RD

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

DATE RECEIVED: 2023-11-24

DATE REPORTED: 2023-12-01

		SAMPLE DESCRIPTION:		MW409	MW1000		MW406	MW402		MW403
		SAMPLE TYPE:		Water	Water		Water	Water		Water
		DATE SAMPLED:		2023-11-23 10:36	2023-11-23 10:36		2023-11-23 11:36	2023-11-23 13:40		2023-11-23 14:45
Parameter	Unit	G / S	RDL	5491318	5491333	RDL	5491334	5491338	RDL	5491339
Dissolved Antimony	µg/L		1.0	<1.0	<1.0	1.0	<1.0	<1.0	1.0	<1.0
Dissolved Arsenic	µg/L		1.0	1.1	1.4	1.0	<1.0	<1.0	1.0	<1.0
Dissolved Barium	µg/L		2.0	464	491	2.0	212	490	2.0	1580
Dissolved Beryllium	µg/L		0.50	<0.50	<0.50	0.50	<0.50	<0.50	0.50	<0.50
Dissolved Boron	µg/L		10.0	86.0	81.2	10.0	45.9	123	10.0	456
Dissolved Cadmium	µg/L		0.20	<0.20	<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	2.0	<2.0
Dissolved Cobalt	µg/L		0.50	8.71	9.18	0.50	11.8	11.6	0.50	23.1
Dissolved Copper	µg/L		1.0	7.8	8.0	1.0	3.1	2.9	1.0	5.1
Dissolved Lead	µg/L		0.50	<0.50	<0.50	0.50	<0.50	<0.50	0.50	<0.50
Dissolved Molybdenum	µg/L		0.50	2.30	2.16	0.50	2.34	3.37	0.50	1.99
Dissolved Nickel	µg/L		1.0	7.1	8.1	1.0	10.0	15.1	1.0	29.4
Dissolved Selenium	µg/L		1.0	4.8	7.5	1.0	3.5	2.3	1.0	5.2
Dissolved Silver	µg/L		0.20	<0.20	<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	0.30	<0.30
Dissolved Uranium	µg/L		0.50	3.36	3.32	0.50	2.45	2.39	0.50	3.36
Dissolved Vanadium	µg/L		0.40	1.78	1.72	0.40	1.11	0.68	0.40	1.23
Dissolved Zinc	µg/L		5.0	6.0	<5.0	5.0	16.8	12.2	5.0	20.8
Mercury	µg/L		0.02	<0.02	<0.02	0.02	<0.02	<0.02	0.02	<0.02
Chromium VI	µg/L		2.000	<2.000	<2.000	2.000	<2.000	<2.000	2.000	<2.000
Cyanide, WAD	µg/L		2	<2	<2	2	<2	<2	2	<2
Dissolved Sodium	µg/L		1000	6330000	6310000	250	1110000	915000	500	2510000
Chloride	µg/L		488	9860000	10200000	122	1680000	2330000	488	7180000
Electrical Conductivity	µS/cm		2	27000	27100	2	6450	7710	2	19700
pH	pH Units		NA	7.27	7.39	NA	7.59	7.41	NA	6.90

Certified By:





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Certificate of Analysis

AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

ATTENTION TO: Sara Sutherland

SAMPLED BY: AC / RD

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

DATE RECEIVED: 2023-11-24

DATE REPORTED: 2023-12-01

		SAMPLE DESCRIPTION:		MW411	MW410
		SAMPLE TYPE:		Water	Water
		DATE SAMPLED:		2023-11-23 15:35	2023-11-23 16:29
Parameter	Unit	G / S	RDL	5491340	5491341
Dissolved Antimony	µg/L		1.0	<1.0	<1.0
Dissolved Arsenic	µg/L		1.0	<1.0	<1.0
Dissolved Barium	µg/L		2.0	87.3	77.4
Dissolved Beryllium	µg/L		0.50	<0.50	<0.50
Dissolved Boron	µg/L		10.0	42.6	84.7
Dissolved Cadmium	µg/L		0.20	<0.20	<0.20
Dissolved Chromium	µg/L		2.0	<2.0	<2.0
Dissolved Cobalt	µg/L		0.50	<0.50	<0.50
Dissolved Copper	µg/L		1.0	9.2	<1.0
Dissolved Lead	µg/L		0.50	<0.50	<0.50
Dissolved Molybdenum	µg/L		0.50	2.73	5.36
Dissolved Nickel	µg/L		1.0	<1.0	<1.0
Dissolved Selenium	µg/L		1.0	<1.0	<1.0
Dissolved Silver	µg/L		0.20	<0.20	<0.20
Dissolved Thallium	µg/L		0.30	<0.30	<0.30
Dissolved Uranium	µg/L		0.50	<0.50	<0.50
Dissolved Vanadium	µg/L		0.40	0.61	0.56
Dissolved Zinc	µg/L		5.0	5.3	<5.0
Mercury	µg/L		0.02	<0.02	<0.02
Chromium VI	µg/L		2.000	<2.000	<2.000
Cyanide, WAD	µg/L		2	<2	<2
Dissolved Sodium	µg/L		50	14200	12300
Chloride	µg/L		100	12900	17500
Electrical Conductivity	uS/cm		2	637	467
pH	pH Units		NA	7.84	7.65

Certified By:



Nivine Basly



AGAT Laboratories

Certificate of Analysis

AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

ATTENTION TO: Sara Sutherland

SAMPLED BY: AC / RD

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

DATE RECEIVED: 2023-11-24

DATE REPORTED: 2023-12-01

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

5491318-5491341 Metals analysis completed on a filtered sample.

pH is a recommended field analysis taken within 15 minutes of sample collection. Due to the potential for rapid change in sample equilibrium chemistry laboratory results may differ from field measured results

Dilution required, RDL has been increased accordingly.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:



Nivine Basly

Quality Assurance

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

SAMPLED BY: AC / RD

Trace Organics Analysis

RPT Date: Dec 01, 2023			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	
								Lower	Upper		Lower	Upper

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

Benzene	5486798		<0.20	<0.20	NA	< 0.20	107%	60%	140%	91%	60%	140%	84%	60%	140%
Toluene	5486798		<0.20	<0.20	NA	< 0.20	113%	60%	140%	109%	60%	140%	78%	60%	140%
Ethylbenzene	5486798		<0.10	<0.10	NA	< 0.10	100%	60%	140%	102%	60%	140%	85%	60%	140%
m & p-Xylene	5486798		<0.20	<0.20	NA	< 0.20	100%	60%	140%	101%	60%	140%	89%	60%	140%
o-Xylene	5486798		<0.10	<0.10	NA	< 0.10	100%	60%	140%	100%	60%	140%	79%	60%	140%
F1 (C6 to C10)	5486798		<25	<25	NA	< 25	112%	60%	140%	103%	60%	140%	102%	60%	140%
F2 (C10 to C16)	5491340	5491340	<100	<100	NA	< 100	104%	60%	140%	93%	60%	140%	82%	60%	140%
F3 (C16 to C34)	5491340	5491340	<100	<100	NA	< 100	113%	60%	140%	124%	60%	140%	103%	60%	140%
F4 (C34 to C50)	5491340	5491340	<100	<100	NA	< 100	99%	60%	140%	105%	60%	140%	106%	60%	140%

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

Naphthalene	5491340	5491340	<0.20	<0.20	NA	< 0.20	105%	50%	140%	92%	50%	140%	86%	50%	140%
Acenaphthylene	5491340	5491340	<0.20	<0.20	NA	< 0.20	101%	50%	140%	81%	50%	140%	81%	50%	140%
Acenaphthene	5491340	5491340	<0.20	<0.20	NA	< 0.20	101%	50%	140%	109%	50%	140%	112%	50%	140%
Fluorene	5491340	5491340	<0.20	<0.20	NA	< 0.20	95%	50%	140%	104%	50%	140%	109%	50%	140%
Phenanthrene	5491340	5491340	<0.10	<0.10	NA	< 0.10	104%	50%	140%	113%	50%	140%	118%	50%	140%
Anthracene	5491340	5491340	<0.10	<0.10	NA	< 0.10	106%	50%	140%	111%	50%	140%	112%	50%	140%
Fluoranthene	5491340	5491340	<0.20	<0.20	NA	< 0.20	95%	50%	140%	101%	50%	140%	110%	50%	140%
Pyrene	5491340	5491340	<0.20	<0.20	NA	< 0.20	94%	50%	140%	103%	50%	140%	111%	50%	140%
Benzo(a)anthracene	5491340	5491340	<0.20	<0.20	NA	< 0.20	85%	50%	140%	87%	50%	140%	71%	50%	140%
Chrysene	5491340	5491340	<0.10	<0.10	NA	< 0.10	116%	50%	140%	101%	50%	140%	102%	50%	140%
Benzo(b)fluoranthene	5491340	5491340	<0.10	<0.10	NA	< 0.10	79%	50%	140%	82%	50%	140%	70%	50%	140%
Benzo(k)fluoranthene	5491340	5491340	<0.10	<0.10	NA	< 0.10	124%	50%	140%	114%	50%	140%	104%	50%	140%
Benzo(a)pyrene	5491340	5491340	<0.01	<0.01	NA	< 0.01	71%	50%	140%	68%	50%	140%	79%	50%	140%
Indeno(1,2,3-cd)pyrene	5491340	5491340	<0.20	<0.20	NA	< 0.20	70%	50%	140%	80%	50%	140%	89%	50%	140%
Dibenz(a,h)anthracene	5491340	5491340	<0.20	<0.20	NA	< 0.20	79%	50%	140%	70%	50%	140%	70%	50%	140%
Benzo(g,h,i)perylene	5491340	5491340	<0.20	<0.20	NA	< 0.20	92%	50%	140%	74%	50%	140%	70%	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).

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

Benzene	5486798		<0.20	<0.20	NA	< 0.20	107%	60%	140%	91%	60%	140%	84%	60%	140%
Toluene	5486798		<0.20	<0.20	NA	< 0.20	113%	60%	140%	109%	60%	140%	78%	60%	140%
Ethylbenzene	5486798		<0.10	<0.10	NA	< 0.10	100%	60%	140%	102%	60%	140%	85%	60%	140%
m & p-Xylene	5486798		<0.20	<0.20	NA	< 0.20	100%	60%	140%	101%	60%	140%	89%	60%	140%
o-Xylene	5486798		<0.10	<0.10	NA	< 0.10	100%	60%	140%	100%	60%	140%	79%	60%	140%
F1 (C6 to C10)	5486798		<25	<25	NA	< 25	112%	60%	140%	103%	60%	140%	102%	60%	140%
F2 (C10 to C16)	5491340	5491340	<100	<100	NA	< 100	104%	60%	140%	93%	60%	140%	82%	60%	140%
F3 (C16 to C34)	5491340	5491340	<100	<100	NA	< 100	113%	60%	140%	124%	60%	140%	103%	60%	140%
F4 (C34 to C50)	5491340	5491340	<100	<100	NA	< 100	99%	60%	140%	105%	60%	140%	106%	60%	140%



Quality Assurance

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

SAMPLED BY: AC / RD

Trace Organics Analysis (Continued)

RPT Date: Dec 01, 2023			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

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

Benzene	5486798		<0.20	<0.20	NA	< 0.20	107%	60%	140%	91%	60%	140%	84%	60%	140%
Toluene	5486798		<0.20	<0.20	NA	< 0.20	113%	60%	140%	109%	60%	140%	78%	60%	140%
Ethylbenzene	5486798		<0.10	<0.10	NA	< 0.10	100%	60%	140%	102%	60%	140%	85%	60%	140%
m & p-Xylene	5486798		<0.20	<0.20	NA	< 0.20	100%	60%	140%	101%	60%	140%	89%	60%	140%
o-Xylene	5486798		<0.10	<0.10	NA	< 0.10	100%	60%	140%	100%	60%	140%	79%	60%	140%
F1 (C6-C10)	5486798		<25	<25	NA	< 25	112%	60%	140%	103%	60%	140%	102%	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. Chakraborty

Quality Assurance

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

SAMPLED BY: AC / RD

Water Analysis															
RPT Date: Dec 01, 2023			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
O. Reg. 153(511) - Metals & Inorganics (Water)															
Dissolved Antimony	5492213		<1.0	<1.0	NA	< 1.0	99%	70%	130%	101%	80%	120%	95%	70%	130%
Dissolved Arsenic	5492213		<1.0	<1.0	NA	< 1.0	106%	70%	130%	105%	80%	120%	103%	70%	130%
Dissolved Barium	5492213		344	359	4.3%	< 2.0	91%	70%	130%	90%	80%	120%	101%	70%	130%
Dissolved Beryllium	5492213		<0.50	<0.50	NA	< 0.50	102%	70%	130%	106%	80%	120%	108%	70%	130%
Dissolved Boron	5492213		39.8	38.9	NA	< 10.0	106%	70%	130%	108%	80%	120%	111%	70%	130%
Dissolved Cadmium	5492213		<0.20	<0.20	NA	< 0.20	100%	70%	130%	101%	80%	120%	103%	70%	130%
Dissolved Chromium	5492213		<2.0	<2.0	NA	< 2.0	99%	70%	130%	100%	80%	120%	104%	70%	130%
Dissolved Cobalt	5492213		<0.50	<0.50	NA	< 0.50	102%	70%	130%	99%	80%	120%	101%	70%	130%
Dissolved Copper	5492213		<1.0	1.2	NA	< 1.0	100%	70%	130%	99%	80%	120%	99%	70%	130%
Dissolved Lead	5492213		1.11	0.94	NA	< 0.50	103%	70%	130%	101%	80%	120%	95%	70%	130%
Dissolved Molybdenum	5492213		<0.50	<0.50	NA	< 0.50	100%	70%	130%	101%	80%	120%	106%	70%	130%
Dissolved Nickel	5492213		<1.0	<1.0	NA	< 1.0	101%	70%	130%	99%	80%	120%	100%	70%	130%
Dissolved Selenium	5492213		<1.0	1.5	NA	< 1.0	104%	70%	130%	98%	80%	120%	107%	70%	130%
Dissolved Silver	5492213		<0.20	<0.20	NA	< 0.20	102%	70%	130%	99%	80%	120%	95%	70%	130%
Dissolved Thallium	5492213		<0.30	<0.30	NA	< 0.30	101%	70%	130%	100%	80%	120%	95%	70%	130%
Dissolved Uranium	5492213		<0.50	<0.50	NA	< 0.50	95%	70%	130%	102%	80%	120%	96%	70%	130%
Dissolved Vanadium	5492213		<0.40	<0.40	NA	< 0.40	103%	70%	130%	104%	80%	120%	110%	70%	130%
Dissolved Zinc	5492213		<5.0	<5.0	NA	< 5.0	100%	70%	130%	102%	80%	120%	100%	70%	130%
Mercury	5488766		<0.02	<0.02	NA	< 0.02	103%	70%	130%	100%	80%	120%	96%	70%	130%
Chromium VI	5492213		<2.000	<2.000	NA	< 2	102%	70%	130%	99%	80%	120%	101%	70%	130%
Cyanide, WAD	5486779		<2	<2	NA	< 2	94%	70%	130%	93%	80%	120%	107%	70%	130%
Dissolved Sodium	5492213		18100	17100	6.0%	< 50	107%	70%	130%	105%	80%	120%	103%	70%	130%
Chloride	5491334	5491334	1680000	1670000	1.1%	< 100	100%	70%	130%	103%	80%	120%	NA	70%	130%
Electrical Conductivity	5489399		977	963	1.5%	< 2	107%	90%	110%						
pH	5489399		7.09	7.26	2.4%	NA	101%	90%	110%						

Comments: NA signifies Not Applicable.

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

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

Certified By:


Nivine Basily



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AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5491318	MW409	Water	23-NOV-2023	24-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Dissolved Antimony	27-NOV-2023	27-NOV-2023	DW
Dissolved Arsenic	27-NOV-2023	27-NOV-2023	DW
Dissolved Barium	27-NOV-2023	27-NOV-2023	DW
Dissolved Beryllium	27-NOV-2023	27-NOV-2023	DW
Dissolved Boron	27-NOV-2023	27-NOV-2023	DW
Dissolved Cadmium	27-NOV-2023	27-NOV-2023	DW
Dissolved Chromium	27-NOV-2023	27-NOV-2023	DW
Dissolved Cobalt	27-NOV-2023	27-NOV-2023	DW
Dissolved Copper	27-NOV-2023	27-NOV-2023	DW
Dissolved Lead	27-NOV-2023	27-NOV-2023	DW
Dissolved Molybdenum	27-NOV-2023	27-NOV-2023	DW
Dissolved Nickel	27-NOV-2023	27-NOV-2023	DW
Dissolved Selenium	27-NOV-2023	27-NOV-2023	DW
Dissolved Silver	27-NOV-2023	27-NOV-2023	DW
Dissolved Thallium	27-NOV-2023	27-NOV-2023	DW
Dissolved Uranium	27-NOV-2023	27-NOV-2023	DW
Dissolved Vanadium	27-NOV-2023	27-NOV-2023	DW
Dissolved Zinc	27-NOV-2023	27-NOV-2023	DW
Mercury	28-NOV-2023	28-NOV-2023	DL
Chromium VI	28-NOV-2023	28-NOV-2023	WZ
Cyanide, WAD	28-NOV-2023	28-NOV-2023	BG
Dissolved Sodium	28-NOV-2023	28-NOV-2023	DW
Chloride	27-NOV-2023	27-NOV-2023	LC
Electrical Conductivity	27-NOV-2023	27-NOV-2023	RC
pH	27-NOV-2023	27-NOV-2023	RC

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

Parameter	Date Prepared	Date Analyzed	Initials
Naphthalene	28-NOV-2023	28-NOV-2023	SB
Acenaphthylene	28-NOV-2023	28-NOV-2023	SB
Acenaphthene	28-NOV-2023	28-NOV-2023	SB
Fluorene	28-NOV-2023	28-NOV-2023	SB
Phenanthrene	28-NOV-2023	28-NOV-2023	SB
Anthracene	28-NOV-2023	28-NOV-2023	SB
Fluoranthene	28-NOV-2023	28-NOV-2023	SB
Pyrene	28-NOV-2023	28-NOV-2023	SB
Benzo(a)anthracene	28-NOV-2023	28-NOV-2023	SB
Chrysene	28-NOV-2023	28-NOV-2023	SB
Benzo(b)fluoranthene	28-NOV-2023	28-NOV-2023	SB



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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5491318	MW409	Water	23-NOV-2023	24-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Benzo(k)fluoranthene	28-NOV-2023	28-NOV-2023	SB
Benzo(a)pyrene	28-NOV-2023	28-NOV-2023	SB
Indeno(1,2,3-cd)pyrene	28-NOV-2023	28-NOV-2023	SB
Dibenz(a,h)anthracene	28-NOV-2023	28-NOV-2023	SB
Benzo(g,h,i)perylene	28-NOV-2023	28-NOV-2023	SB
2-and 1-methyl Naphthalene	28-NOV-2023	28-NOV-2023	SYS
Naphthalene-d8	28-NOV-2023	28-NOV-2023	SB
Acridine-d9	28-NOV-2023	28-NOV-2023	SB
Terphenyl-d14	28-NOV-2023	28-NOV-2023	SB
Sediment	28-NOV-2023	28-NOV-2023	MK

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

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	25-NOV-2023	25-NOV-2023	AG
Toluene	25-NOV-2023	25-NOV-2023	AG
Ethylbenzene	25-NOV-2023	25-NOV-2023	AG
m & p-Xylene	25-NOV-2023	25-NOV-2023	AG
o-Xylene	25-NOV-2023	25-NOV-2023	AG
Xylenes (Total)	25-NOV-2023	25-NOV-2023	SYS
F1 (C6 to C10)	25-NOV-2023	25-NOV-2023	AG
F1 (C6 to C10) minus BTEX	25-NOV-2023	25-NOV-2023	SYS
Toluene-d8	25-NOV-2023	25-NOV-2023	AG
F2 (C10 to C16)	30-NOV-2023	30-NOV-2023	CA
F2 (C10 to C16) minus Naphthalene	30-NOV-2023	30-NOV-2023	SYS
F3 (C16 to C34)	30-NOV-2023	30-NOV-2023	CA
F3 (C16 to C34) minus PAHs	30-NOV-2023	30-NOV-2023	SYS
F4 (C34 to C50)	30-NOV-2023	30-NOV-2023	CA
Gravimetric Heavy Hydrocarbons			
Terphenyl	30-NOV-2023	30-NOV-2023	CA
Sediment	28-NOV-2023	28-NOV-2023	MK

5491333	MW1000	Water	23-NOV-2023	24-NOV-2023
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O. Reg. 153(511) - Metals & Inorganics (Water)

Parameter	Date Prepared	Date Analyzed	Initials
Dissolved Antimony	27-NOV-2023	27-NOV-2023	DW
Dissolved Arsenic	27-NOV-2023	27-NOV-2023	DW
Dissolved Barium	27-NOV-2023	27-NOV-2023	DW
Dissolved Beryllium	27-NOV-2023	27-NOV-2023	DW



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AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5491333	MW1000	Water	23-NOV-2023	24-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Dissolved Boron	27-NOV-2023	27-NOV-2023	DW
Dissolved Cadmium	27-NOV-2023	27-NOV-2023	DW
Dissolved Chromium	27-NOV-2023	27-NOV-2023	DW
Dissolved Cobalt	27-NOV-2023	27-NOV-2023	DW
Dissolved Copper	27-NOV-2023	27-NOV-2023	DW
Dissolved Lead	27-NOV-2023	27-NOV-2023	DW
Dissolved Molybdenum	27-NOV-2023	27-NOV-2023	DW
Dissolved Nickel	27-NOV-2023	27-NOV-2023	DW
Dissolved Selenium	27-NOV-2023	27-NOV-2023	DW
Dissolved Silver	27-NOV-2023	27-NOV-2023	DW
Dissolved Thallium	27-NOV-2023	27-NOV-2023	DW
Dissolved Uranium	27-NOV-2023	27-NOV-2023	DW
Dissolved Vanadium	27-NOV-2023	27-NOV-2023	DW
Dissolved Zinc	27-NOV-2023	27-NOV-2023	DW
Mercury	28-NOV-2023	28-NOV-2023	DL
Chromium VI	28-NOV-2023	28-NOV-2023	WZ
Cyanide, WAD	28-NOV-2023	28-NOV-2023	BG
Dissolved Sodium	28-NOV-2023	28-NOV-2023	DW
Chloride	27-NOV-2023	27-NOV-2023	LC
Electrical Conductivity	27-NOV-2023	27-NOV-2023	RC
pH	27-NOV-2023	27-NOV-2023	RC

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

Parameter	Date Prepared	Date Analyzed	Initials
Naphthalene	28-NOV-2023	28-NOV-2023	SB
Acenaphthylene	28-NOV-2023	28-NOV-2023	SB
Acenaphthene	28-NOV-2023	28-NOV-2023	SB
Fluorene	28-NOV-2023	28-NOV-2023	SB
Phenanthrene	28-NOV-2023	28-NOV-2023	SB
Anthracene	28-NOV-2023	28-NOV-2023	SB
Fluoranthene	28-NOV-2023	28-NOV-2023	SB
Pyrene	28-NOV-2023	28-NOV-2023	SB
Benzo(a)anthracene	28-NOV-2023	28-NOV-2023	SB
Chrysene	28-NOV-2023	28-NOV-2023	SB
Benzo(b)fluoranthene	28-NOV-2023	28-NOV-2023	SB
Benzo(k)fluoranthene	28-NOV-2023	28-NOV-2023	SB
Benzo(a)pyrene	28-NOV-2023	28-NOV-2023	SB
Indeno(1,2,3-cd)pyrene	28-NOV-2023	28-NOV-2023	SB
Dibenz(a,h)anthracene	28-NOV-2023	28-NOV-2023	SB



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AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5491333	MW1000	Water	23-NOV-2023	24-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Benzo(g,h,i)perylene	28-NOV-2023	28-NOV-2023	SB
2-and 1-methyl Naphthalene	28-NOV-2023	28-NOV-2023	SYS
Naphthalene-d8	28-NOV-2023	28-NOV-2023	SB
Acridine-d9	28-NOV-2023	28-NOV-2023	SB
Terphenyl-d14	28-NOV-2023	28-NOV-2023	SB
Sediment	28-NOV-2023	28-NOV-2023	MK

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

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	25-NOV-2023	25-NOV-2023	AG
Toluene	25-NOV-2023	25-NOV-2023	AG
Ethylbenzene	25-NOV-2023	25-NOV-2023	AG
m & p-Xylene	25-NOV-2023	25-NOV-2023	AG
o-Xylene	25-NOV-2023	25-NOV-2023	AG
Xylenes (Total)	25-NOV-2023	25-NOV-2023	SYS
F1 (C6 to C10)	25-NOV-2023	25-NOV-2023	AG
F1 (C6 to C10) minus BTEX	25-NOV-2023	25-NOV-2023	SYS
Toluene-d8	25-NOV-2023	25-NOV-2023	AG
F2 (C10 to C16)	30-NOV-2023	30-NOV-2023	CA
F2 (C10 to C16) minus Naphthalene	30-NOV-2023	30-NOV-2023	SYS
F3 (C16 to C34)	30-NOV-2023	30-NOV-2023	CA
F3 (C16 to C34) minus PAHs	30-NOV-2023	30-NOV-2023	SYS
F4 (C34 to C50)	30-NOV-2023	30-NOV-2023	CA
Gravimetric Heavy Hydrocarbons			
Terphenyl	30-NOV-2023	30-NOV-2023	CA
Sediment	28-NOV-2023	28-NOV-2023	MK

5491334	MW406	Water	23-NOV-2023	24-NOV-2023
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O. Reg. 153(511) - Metals & Inorganics (Water)

Parameter	Date Prepared	Date Analyzed	Initials
Dissolved Antimony	27-NOV-2023	27-NOV-2023	DW
Dissolved Arsenic	27-NOV-2023	27-NOV-2023	DW
Dissolved Barium	27-NOV-2023	27-NOV-2023	DW
Dissolved Beryllium	27-NOV-2023	27-NOV-2023	DW
Dissolved Boron	27-NOV-2023	27-NOV-2023	DW
Dissolved Cadmium	27-NOV-2023	27-NOV-2023	DW
Dissolved Chromium	27-NOV-2023	27-NOV-2023	DW
Dissolved Cobalt	27-NOV-2023	27-NOV-2023	DW



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AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5491334	MW406	Water	23-NOV-2023	24-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Dissolved Copper	27-NOV-2023	27-NOV-2023	DW
Dissolved Lead	27-NOV-2023	27-NOV-2023	DW
Dissolved Molybdenum	27-NOV-2023	27-NOV-2023	DW
Dissolved Nickel	27-NOV-2023	27-NOV-2023	DW
Dissolved Selenium	27-NOV-2023	27-NOV-2023	DW
Dissolved Silver	27-NOV-2023	27-NOV-2023	DW
Dissolved Thallium	27-NOV-2023	27-NOV-2023	DW
Dissolved Uranium	27-NOV-2023	27-NOV-2023	DW
Dissolved Vanadium	27-NOV-2023	27-NOV-2023	DW
Dissolved Zinc	27-NOV-2023	27-NOV-2023	DW
Mercury	28-NOV-2023	28-NOV-2023	DL
Chromium VI	28-NOV-2023	28-NOV-2023	WZ
Cyanide, WAD	28-NOV-2023	28-NOV-2023	BG
Dissolved Sodium	28-NOV-2023	28-NOV-2023	DW
Chloride	27-NOV-2023	27-NOV-2023	LC
Electrical Conductivity	27-NOV-2023	27-NOV-2023	RC
pH	27-NOV-2023	27-NOV-2023	RC

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

Parameter	Date Prepared	Date Analyzed	Initials
Naphthalene	28-NOV-2023	28-NOV-2023	SB
Acenaphthylene	28-NOV-2023	28-NOV-2023	SB
Acenaphthene	28-NOV-2023	28-NOV-2023	SB
Fluorene	28-NOV-2023	28-NOV-2023	SB
Phenanthrene	28-NOV-2023	28-NOV-2023	SB
Anthracene	28-NOV-2023	28-NOV-2023	SB
Fluoranthene	28-NOV-2023	28-NOV-2023	SB
Pyrene	28-NOV-2023	28-NOV-2023	SB
Benzo(a)anthracene	28-NOV-2023	28-NOV-2023	SB
Chrysene	28-NOV-2023	28-NOV-2023	SB
Benzo(b)fluoranthene	28-NOV-2023	28-NOV-2023	SB
Benzo(k)fluoranthene	28-NOV-2023	28-NOV-2023	SB
Benzo(a)pyrene	28-NOV-2023	28-NOV-2023	SB
Indeno(1,2,3-cd)pyrene	28-NOV-2023	28-NOV-2023	SB
Dibenz(a,h)anthracene	28-NOV-2023	28-NOV-2023	SB
Benzo(g,h,i)perylene	28-NOV-2023	28-NOV-2023	SB
2-and 1-methyl Naphthalene	28-NOV-2023	28-NOV-2023	SYS
Naphthalene-d8	28-NOV-2023	28-NOV-2023	SB
Acridine-d9	28-NOV-2023	28-NOV-2023	SB



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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5491334	MW406	Water	23-NOV-2023	24-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Terphenyl-d14	28-NOV-2023	28-NOV-2023	SB
Sediment	28-NOV-2023	28-NOV-2023	MK

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

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	25-NOV-2023	25-NOV-2023	AG
Toluene	25-NOV-2023	25-NOV-2023	AG
Ethylbenzene	25-NOV-2023	25-NOV-2023	AG
m & p-Xylene	25-NOV-2023	25-NOV-2023	AG
o-Xylene	25-NOV-2023	25-NOV-2023	AG
Xylenes (Total)	25-NOV-2023	25-NOV-2023	SYS
F1 (C6 to C10)	25-NOV-2023	25-NOV-2023	AG
F1 (C6 to C10) minus BTEX	25-NOV-2023	25-NOV-2023	SYS
Toluene-d8	25-NOV-2023	25-NOV-2023	AG
F2 (C10 to C16)	30-NOV-2023	30-NOV-2023	CA
F2 (C10 to C16) minus Naphthalene	30-NOV-2023	30-NOV-2023	SYS
F3 (C16 to C34)	30-NOV-2023	30-NOV-2023	CA
F3 (C16 to C34) minus PAHs	30-NOV-2023	30-NOV-2023	SYS
F4 (C34 to C50)	30-NOV-2023	30-NOV-2023	CA
Gravimetric Heavy Hydrocarbons			
Terphenyl	30-NOV-2023	30-NOV-2023	CA
Sediment	28-NOV-2023	28-NOV-2023	MK

5491336	MW408	Water	23-NOV-2023	24-NOV-2023
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O. Reg. 153(511) - PHCs F1 - F4 (Water)

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	25-NOV-2023	25-NOV-2023	AG
Toluene	25-NOV-2023	25-NOV-2023	AG
Ethylbenzene	25-NOV-2023	25-NOV-2023	AG
m & p-Xylene	25-NOV-2023	25-NOV-2023	AG
o-Xylene	25-NOV-2023	25-NOV-2023	AG
Xylenes (Total)	25-NOV-2023	25-NOV-2023	SYS
F1 (C6 to C10)	25-NOV-2023	25-NOV-2023	AG
F1 (C6 to C10) minus BTEX	25-NOV-2023	25-NOV-2023	SYS
Toluene-d8	25-NOV-2023	25-NOV-2023	AG
F2 (C10 to C16)	30-NOV-2023	30-NOV-2023	CA
F3 (C16 to C34)	30-NOV-2023	30-NOV-2023	CA
F4 (C34 to C50)	30-NOV-2023	30-NOV-2023	CA



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AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5491336	MW408	Water	23-NOV-2023	24-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Gravimetric Heavy Hydrocarbons			
Terphenyl	30-NOV-2023	30-NOV-2023	CA
Sediment	29-NOV-2023	29-NOV-2023	MK

5491337	Trip Blank	Water	21-NOV-2023	24-NOV-2023
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O. Reg. 153(511) - PHCs F1/BTEX (Water)

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	25-NOV-2023	25-NOV-2023	AG
Toluene	25-NOV-2023	25-NOV-2023	AG
Ethylbenzene	25-NOV-2023	25-NOV-2023	AG
m & p-Xylene	25-NOV-2023	25-NOV-2023	AG
o-Xylene	25-NOV-2023	25-NOV-2023	AG
Xylenes (Total)	25-NOV-2023	25-NOV-2023	SYS
F1 (C6-C10)	25-NOV-2023	25-NOV-2023	AG
F1 (C6 to C10) minus BTEX	25-NOV-2023	25-NOV-2023	SYS
Toluene-d8	25-NOV-2023	25-NOV-2023	AG

5491338	MW402	Water	23-NOV-2023	24-NOV-2023
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O. Reg. 153(511) - Metals & Inorganics (Water)

Parameter	Date Prepared	Date Analyzed	Initials
Dissolved Antimony	27-NOV-2023	27-NOV-2023	DW
Dissolved Arsenic	27-NOV-2023	27-NOV-2023	DW
Dissolved Barium	27-NOV-2023	27-NOV-2023	DW
Dissolved Beryllium	27-NOV-2023	27-NOV-2023	DW
Dissolved Boron	27-NOV-2023	27-NOV-2023	DW
Dissolved Cadmium	27-NOV-2023	27-NOV-2023	DW
Dissolved Chromium	27-NOV-2023	27-NOV-2023	DW
Dissolved Cobalt	27-NOV-2023	27-NOV-2023	DW
Dissolved Copper	27-NOV-2023	27-NOV-2023	DW
Dissolved Lead	27-NOV-2023	27-NOV-2023	DW
Dissolved Molybdenum	27-NOV-2023	27-NOV-2023	DW
Dissolved Nickel	27-NOV-2023	27-NOV-2023	DW
Dissolved Selenium	27-NOV-2023	27-NOV-2023	DW
Dissolved Silver	27-NOV-2023	27-NOV-2023	DW
Dissolved Thallium	27-NOV-2023	27-NOV-2023	DW
Dissolved Uranium	27-NOV-2023	27-NOV-2023	DW



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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5491338	MW402	Water	23-NOV-2023	24-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Dissolved Vanadium	27-NOV-2023	27-NOV-2023	DW
Dissolved Zinc	27-NOV-2023	27-NOV-2023	DW
Mercury	28-NOV-2023	28-NOV-2023	DL
Chromium VI	28-NOV-2023	28-NOV-2023	WZ
Cyanide, WAD	28-NOV-2023	28-NOV-2023	BG
Dissolved Sodium	28-NOV-2023	28-NOV-2023	DW
Chloride	27-NOV-2023	27-NOV-2023	LC
Electrical Conductivity	27-NOV-2023	27-NOV-2023	RC
pH	27-NOV-2023	27-NOV-2023	RC

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

Parameter	Date Prepared	Date Analyzed	Initials
Naphthalene	28-NOV-2023	28-NOV-2023	SB
Acenaphthylene	28-NOV-2023	28-NOV-2023	SB
Acenaphthene	28-NOV-2023	28-NOV-2023	SB
Fluorene	28-NOV-2023	28-NOV-2023	SB
Phenanthrene	28-NOV-2023	28-NOV-2023	SB
Anthracene	28-NOV-2023	28-NOV-2023	SB
Fluoranthene	28-NOV-2023	28-NOV-2023	SB
Pyrene	28-NOV-2023	28-NOV-2023	SB
Benzo(a)anthracene	28-NOV-2023	28-NOV-2023	SB
Chrysene	28-NOV-2023	28-NOV-2023	SB
Benzo(b)fluoranthene	28-NOV-2023	28-NOV-2023	SB
Benzo(k)fluoranthene	28-NOV-2023	28-NOV-2023	SB
Benzo(a)pyrene	28-NOV-2023	28-NOV-2023	SB
Indeno(1,2,3-cd)pyrene	28-NOV-2023	28-NOV-2023	SB
Dibenz(a,h)anthracene	28-NOV-2023	28-NOV-2023	SB
Benzo(g,h,i)perylene	28-NOV-2023	28-NOV-2023	SB
2-and 1-methyl Naphthalene	28-NOV-2023	28-NOV-2023	SYS
Naphthalene-d8	28-NOV-2023	28-NOV-2023	SB
Acridine-d9	28-NOV-2023	28-NOV-2023	SB
Terphenyl-d14	28-NOV-2023	28-NOV-2023	SB
Sediment	28-NOV-2023	28-NOV-2023	MK

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

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	25-NOV-2023	25-NOV-2023	AG
Toluene	25-NOV-2023	25-NOV-2023	AG
Ethylbenzene	25-NOV-2023	25-NOV-2023	AG



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AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5491338	MW402	Water	23-NOV-2023	24-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
m & p-Xylene	25-NOV-2023	25-NOV-2023	AG
o-Xylene	25-NOV-2023	25-NOV-2023	AG
Xylenes (Total)	25-NOV-2023	25-NOV-2023	SYS
F1 (C6 to C10)	25-NOV-2023	25-NOV-2023	AG
F1 (C6 to C10) minus BTEX	25-NOV-2023	25-NOV-2023	SYS
Toluene-d8	25-NOV-2023	25-NOV-2023	AG
F2 (C10 to C16)	01-DEC-2023	01-DEC-2023	CA
F2 (C10 to C16) minus Naphthalene	01-DEC-2023	01-DEC-2023	SYS
F3 (C16 to C34)	01-DEC-2023	01-DEC-2023	CA
F3 (C16 to C34) minus PAHs	01-DEC-2023	01-DEC-2023	SYS
F4 (C34 to C50)	01-DEC-2023	01-DEC-2023	CA
Gravimetric Heavy Hydrocarbons			
Terphenyl	01-DEC-2023	01-DEC-2023	CA
Sediment	28-NOV-2023	28-NOV-2023	MK

5491339	MW403	Water	23-NOV-2023	24-NOV-2023
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O. Reg. 153(511) - Metals & Inorganics (Water)

Parameter	Date Prepared	Date Analyzed	Initials
Dissolved Antimony	27-NOV-2023	27-NOV-2023	DW
Dissolved Arsenic	27-NOV-2023	27-NOV-2023	DW
Dissolved Barium	27-NOV-2023	27-NOV-2023	DW
Dissolved Beryllium	27-NOV-2023	27-NOV-2023	DW
Dissolved Boron	27-NOV-2023	27-NOV-2023	DW
Dissolved Cadmium	27-NOV-2023	27-NOV-2023	DW
Dissolved Chromium	27-NOV-2023	27-NOV-2023	DW
Dissolved Cobalt	27-NOV-2023	27-NOV-2023	DW
Dissolved Copper	27-NOV-2023	27-NOV-2023	DW
Dissolved Lead	27-NOV-2023	27-NOV-2023	DW
Dissolved Molybdenum	27-NOV-2023	27-NOV-2023	DW
Dissolved Nickel	27-NOV-2023	27-NOV-2023	DW
Dissolved Selenium	27-NOV-2023	27-NOV-2023	DW
Dissolved Silver	27-NOV-2023	27-NOV-2023	DW
Dissolved Thallium	27-NOV-2023	27-NOV-2023	DW
Dissolved Uranium	27-NOV-2023	27-NOV-2023	DW
Dissolved Vanadium	27-NOV-2023	27-NOV-2023	DW
Dissolved Zinc	27-NOV-2023	27-NOV-2023	DW
Mercury	28-NOV-2023	28-NOV-2023	DL
Chromium VI	28-NOV-2023	28-NOV-2023	WZ



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AGAT WORK ORDER: 23T097112

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5491339	MW403	Water	23-NOV-2023	24-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Cyanide, WAD	28-NOV-2023	28-NOV-2023	BG
Dissolved Sodium	28-NOV-2023	28-NOV-2023	DW
Chloride	27-NOV-2023	27-NOV-2023	LC
Electrical Conductivity	27-NOV-2023	27-NOV-2023	RC
pH	27-NOV-2023	27-NOV-2023	RC

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

Parameter	Date Prepared	Date Analyzed	Initials
Naphthalene	28-NOV-2023	28-NOV-2023	SB
Acenaphthylene	28-NOV-2023	28-NOV-2023	SB
Acenaphthene	28-NOV-2023	28-NOV-2023	SB
Fluorene	28-NOV-2023	28-NOV-2023	SB
Phenanthrene	28-NOV-2023	28-NOV-2023	SB
Anthracene	28-NOV-2023	28-NOV-2023	SB
Fluoranthene	28-NOV-2023	28-NOV-2023	SB
Pyrene	28-NOV-2023	28-NOV-2023	SB
Benzo(a)anthracene	28-NOV-2023	28-NOV-2023	SB
Chrysene	28-NOV-2023	28-NOV-2023	SB
Benzo(b)fluoranthene	28-NOV-2023	28-NOV-2023	SB
Benzo(k)fluoranthene	28-NOV-2023	28-NOV-2023	SB
Benzo(a)pyrene	28-NOV-2023	28-NOV-2023	SB
Indeno(1,2,3-cd)pyrene	28-NOV-2023	28-NOV-2023	SB
Dibenz(a,h)anthracene	28-NOV-2023	28-NOV-2023	SB
Benzo(g,h,i)perylene	28-NOV-2023	28-NOV-2023	SB
2-and 1-methyl Naphthalene	28-NOV-2023	28-NOV-2023	SYS
Naphthalene-d8	28-NOV-2023	28-NOV-2023	SB
Acridine-d9	28-NOV-2023	28-NOV-2023	SB
Terphenyl-d14	28-NOV-2023	28-NOV-2023	SB
Sediment	28-NOV-2023	28-NOV-2023	MK

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

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	25-NOV-2023	25-NOV-2023	AG
Toluene	25-NOV-2023	25-NOV-2023	AG
Ethylbenzene	25-NOV-2023	25-NOV-2023	AG
m & p-Xylene	25-NOV-2023	25-NOV-2023	AG
o-Xylene	25-NOV-2023	25-NOV-2023	AG
Xylenes (Total)	25-NOV-2023	25-NOV-2023	SYS
F1 (C6 to C10)	25-NOV-2023	25-NOV-2023	AG



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AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5491339	MW403	Water	23-NOV-2023	24-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
F1 (C6 to C10) minus BTEX	25-NOV-2023	25-NOV-2023	SYS
Toluene-d8	25-NOV-2023	25-NOV-2023	AG
F2 (C10 to C16)	01-DEC-2023	01-DEC-2023	CA
F2 (C10 to C16) minus Naphthalene	01-DEC-2023	01-DEC-2023	SYS
F3 (C16 to C34)	01-DEC-2023	01-DEC-2023	CA
F3 (C16 to C34) minus PAHs	01-DEC-2023	01-DEC-2023	SYS
F4 (C34 to C50)	01-DEC-2023	01-DEC-2023	CA
Gravimetric Heavy Hydrocarbons			
Terphenyl	01-DEC-2023	01-DEC-2023	CA
Sediment	28-NOV-2023	28-NOV-2023	MK

5491340	MW411	Water	23-NOV-2023	24-NOV-2023
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O. Reg. 153(511) - Metals & Inorganics (Water)

Parameter	Date Prepared	Date Analyzed	Initials
Dissolved Antimony	27-NOV-2023	27-NOV-2023	DW
Dissolved Arsenic	27-NOV-2023	27-NOV-2023	DW
Dissolved Barium	27-NOV-2023	27-NOV-2023	DW
Dissolved Beryllium	27-NOV-2023	27-NOV-2023	DW
Dissolved Boron	27-NOV-2023	27-NOV-2023	DW
Dissolved Cadmium	27-NOV-2023	27-NOV-2023	DW
Dissolved Chromium	27-NOV-2023	27-NOV-2023	DW
Dissolved Cobalt	27-NOV-2023	27-NOV-2023	DW
Dissolved Copper	27-NOV-2023	27-NOV-2023	DW
Dissolved Lead	27-NOV-2023	27-NOV-2023	DW
Dissolved Molybdenum	27-NOV-2023	27-NOV-2023	DW
Dissolved Nickel	27-NOV-2023	27-NOV-2023	DW
Dissolved Selenium	27-NOV-2023	27-NOV-2023	DW
Dissolved Silver	27-NOV-2023	27-NOV-2023	DW
Dissolved Thallium	27-NOV-2023	27-NOV-2023	DW
Dissolved Uranium	27-NOV-2023	27-NOV-2023	DW
Dissolved Vanadium	27-NOV-2023	27-NOV-2023	DW
Dissolved Zinc	27-NOV-2023	27-NOV-2023	DW
Mercury	28-NOV-2023	28-NOV-2023	DL
Chromium VI	28-NOV-2023	28-NOV-2023	WZ
Cyanide, WAD	28-NOV-2023	28-NOV-2023	BG
Dissolved Sodium	27-NOV-2023	27-NOV-2023	DW
Chloride	27-NOV-2023	27-NOV-2023	LC
Electrical Conductivity	27-NOV-2023	27-NOV-2023	RC



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AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5491340	MW411	Water	23-NOV-2023	24-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
pH	27-NOV-2023	27-NOV-2023	RC

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

Parameter	Date Prepared	Date Analyzed	Initials
Naphthalene	28-NOV-2023	28-NOV-2023	SB
Acenaphthylene	28-NOV-2023	28-NOV-2023	SB
Acenaphthene	28-NOV-2023	28-NOV-2023	SB
Fluorene	28-NOV-2023	28-NOV-2023	SB
Phenanthrene	28-NOV-2023	28-NOV-2023	SB
Anthracene	28-NOV-2023	28-NOV-2023	SB
Fluoranthene	28-NOV-2023	28-NOV-2023	SB
Pyrene	28-NOV-2023	28-NOV-2023	SB
Benzo(a)anthracene	28-NOV-2023	28-NOV-2023	SB
Chrysene	28-NOV-2023	28-NOV-2023	SB
Benzo(b)fluoranthene	28-NOV-2023	28-NOV-2023	SB
Benzo(k)fluoranthene	28-NOV-2023	28-NOV-2023	SB
Benzo(a)pyrene	28-NOV-2023	28-NOV-2023	SB
Indeno(1,2,3-cd)pyrene	28-NOV-2023	28-NOV-2023	SB
Dibenz(a,h)anthracene	28-NOV-2023	28-NOV-2023	SB
Benzo(g,h,i)perylene	28-NOV-2023	28-NOV-2023	SB
2-and 1-methyl Naphthalene	28-NOV-2023	28-NOV-2023	SYS
Naphthalene-d8	28-NOV-2023	28-NOV-2023	SB
Acridine-d9	28-NOV-2023	28-NOV-2023	SB
Terphenyl-d14	28-NOV-2023	28-NOV-2023	SB
Sediment	28-NOV-2023	28-NOV-2023	MK

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

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	25-NOV-2023	25-NOV-2023	AG
Toluene	25-NOV-2023	25-NOV-2023	AG
Ethylbenzene	25-NOV-2023	25-NOV-2023	AG
m & p-Xylene	25-NOV-2023	25-NOV-2023	AG
o-Xylene	25-NOV-2023	25-NOV-2023	AG
Xylenes (Total)	25-NOV-2023	25-NOV-2023	SYS
F1 (C6 to C10)	25-NOV-2023	25-NOV-2023	AG
F1 (C6 to C10) minus BTEX	25-NOV-2023	25-NOV-2023	SYS
Toluene-d8	25-NOV-2023	25-NOV-2023	AG
F2 (C10 to C16)	30-NOV-2023	30-NOV-2023	CA
F2 (C10 to C16) minus Naphthalene	30-NOV-2023	30-NOV-2023	SYS



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AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5491340	MW411	Water	23-NOV-2023	24-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
F3 (C16 to C34)	30-NOV-2023	30-NOV-2023	CA
F3 (C16 to C34) minus PAHs	30-NOV-2023	30-NOV-2023	SYS
F4 (C34 to C50)	30-NOV-2023	30-NOV-2023	CA
Gravimetric Heavy Hydrocarbons			
Terphenyl	30-NOV-2023	30-NOV-2023	CA
Sediment	28-NOV-2023	28-NOV-2023	MK

5491341	MW410	Water	23-NOV-2023	24-NOV-2023
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O. Reg. 153(511) - Metals & Inorganics (Water)

Parameter	Date Prepared	Date Analyzed	Initials
Dissolved Antimony	27-NOV-2023	27-NOV-2023	DW
Dissolved Arsenic	27-NOV-2023	27-NOV-2023	DW
Dissolved Barium	27-NOV-2023	27-NOV-2023	DW
Dissolved Beryllium	27-NOV-2023	27-NOV-2023	DW
Dissolved Boron	27-NOV-2023	27-NOV-2023	DW
Dissolved Cadmium	27-NOV-2023	27-NOV-2023	DW
Dissolved Chromium	27-NOV-2023	27-NOV-2023	DW
Dissolved Cobalt	27-NOV-2023	27-NOV-2023	DW
Dissolved Copper	27-NOV-2023	27-NOV-2023	DW
Dissolved Lead	27-NOV-2023	27-NOV-2023	DW
Dissolved Molybdenum	27-NOV-2023	27-NOV-2023	DW
Dissolved Nickel	27-NOV-2023	27-NOV-2023	DW
Dissolved Selenium	27-NOV-2023	27-NOV-2023	DW
Dissolved Silver	27-NOV-2023	27-NOV-2023	DW
Dissolved Thallium	27-NOV-2023	27-NOV-2023	DW
Dissolved Uranium	27-NOV-2023	27-NOV-2023	DW
Dissolved Vanadium	27-NOV-2023	27-NOV-2023	DW
Dissolved Zinc	27-NOV-2023	27-NOV-2023	DW
Mercury	28-NOV-2023	28-NOV-2023	DL
Chromium VI	28-NOV-2023	28-NOV-2023	WZ
Cyanide, WAD	28-NOV-2023	28-NOV-2023	BG
Dissolved Sodium	27-NOV-2023	27-NOV-2023	DW
Chloride	27-NOV-2023	27-NOV-2023	LC
Electrical Conductivity	27-NOV-2023	27-NOV-2023	RC
pH	27-NOV-2023	27-NOV-2023	RC

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

Parameter	Date Prepared	Date Analyzed	Initials
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PROJECT: CH321.00

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CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5491341	MW410	Water	23-NOV-2023	24-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Naphthalene	28-NOV-2023	28-NOV-2023	SB
Acenaphthylene	28-NOV-2023	28-NOV-2023	SB
Acenaphthene	28-NOV-2023	28-NOV-2023	SB
Fluorene	28-NOV-2023	28-NOV-2023	SB
Phenanthrene	28-NOV-2023	28-NOV-2023	SB
Anthracene	28-NOV-2023	28-NOV-2023	SB
Fluoranthene	28-NOV-2023	28-NOV-2023	SB
Pyrene	28-NOV-2023	28-NOV-2023	SB
Benzo(a)anthracene	28-NOV-2023	28-NOV-2023	SB
Chrysene	28-NOV-2023	28-NOV-2023	SB
Benzo(b)fluoranthene	28-NOV-2023	28-NOV-2023	SB
Benzo(k)fluoranthene	28-NOV-2023	28-NOV-2023	SB
Benzo(a)pyrene	28-NOV-2023	28-NOV-2023	SB
Indeno(1,2,3-cd)pyrene	28-NOV-2023	28-NOV-2023	SB
Dibenz(a,h)anthracene	28-NOV-2023	28-NOV-2023	SB
Benzo(g,h,i)perylene	28-NOV-2023	28-NOV-2023	SB
2-and 1-methyl Naphthalene	28-NOV-2023	28-NOV-2023	SYS
Naphthalene-d8	28-NOV-2023	28-NOV-2023	SB
Acridine-d9	28-NOV-2023	28-NOV-2023	SB
Terphenyl-d14	28-NOV-2023	28-NOV-2023	SB
Sediment	28-NOV-2023	28-NOV-2023	MK

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

Parameter	Date Prepared	Date Analyzed	Initials
Benzene	25-NOV-2023	25-NOV-2023	AG
Toluene	25-NOV-2023	25-NOV-2023	AG
Ethylbenzene	25-NOV-2023	25-NOV-2023	AG
m & p-Xylene	25-NOV-2023	25-NOV-2023	AG
o-Xylene	25-NOV-2023	25-NOV-2023	AG
Xylenes (Total)	25-NOV-2023	25-NOV-2023	SYS
F1 (C6 to C10)	25-NOV-2023	25-NOV-2023	AG
F1 (C6 to C10) minus BTEX	25-NOV-2023	25-NOV-2023	SYS
Toluene-d8	25-NOV-2023	25-NOV-2023	AG
F2 (C10 to C16)	30-NOV-2023	30-NOV-2023	CA
F2 (C10 to C16) minus Naphthalene	30-NOV-2023	30-NOV-2023	SYS
F3 (C16 to C34)	30-NOV-2023	30-NOV-2023	CA
F3 (C16 to C34) minus PAHs	30-NOV-2023	30-NOV-2023	SYS
F4 (C34 to C50)	30-NOV-2023	30-NOV-2023	CA
Gravimetric Heavy Hydrocarbons			



Time Markers

AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5491341	MW410	Water	23-NOV-2023	24-NOV-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Terphenyl	30-NOV-2023	30-NOV-2023	CA
Sediment	28-NOV-2023	28-NOV-2023	MK

Method Summary

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

SAMPLED BY: AC / RD

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Acenaphthylene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Acenaphthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Fluorene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Phenanthrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Anthracene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Fluoranthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Pyrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(a)anthracene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Chrysene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Dibenz(a,h)anthracene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(g,h,i)perylene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
2-and 1-methyl Naphthalene	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
Acridine-d9	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
Sediment			N/A
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



Method Summary

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

SAMPLED BY: AC / RD

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Gravimetric Heavy Hydrocarbons	VOL-91-5010	modified from MOE PHC-E3421	BALANCE
Terphenyl	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
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-91-5010	modified from MOE PHC-E3421	P&T GC/FID
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
F2 (C10 to C16) minus Naphthalene	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F3 (C16 to C34)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F3 (C16 to C34) minus PAHs	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
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-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

Method Summary

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T097112

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge Street, Barrie, Ontario

SAMPLED BY: AC / RD

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
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
Mercury	MET-93-6100	modified from EPA 245.2 and SM 3112 B	CVAAS
Chromium VI	INOR-93-6073	modified from SM 3500-CR B	LACHAT FIA
Cyanide, WAD	INOR-93-6052	modified from ON MOECC E3015, SM 4500-CN- I, G-387	SEGMENTED FLOW ANALYSIS
Dissolved Sodium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP/MS
Chloride	INOR-93-6004	modified from SM 4110 B	ION CHROMATOGRAPH
Electrical Conductivity	INOR-93-6000	SM 2510 B	PC TITRATE
pH	INOR-93-6000	modified from SM 4500-H+ B	PC TITRATE



Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water intended for human consumption)

Report Information:

Company: Terrapex Environmental Ltd.
Contact: Sara Sutherland
Address: 90 Scarsdale Road
Toronto, ON M3B 2R7
Phone: 416-245-0011 Fax: _____
Reports to be sent to: s.sutherland@terrapex.com
1. Email: _____
2. Email: edd@terrapex.com

Project Information:

Project: CH321.00
Site Location: 623 Yonge Street, Barrie, Ontario
Outlet #: 33659
Sampled By: AC/RD
AGAT Quote #: SUNCOR Downstream PO: _____
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Company: _____
Contact: _____
Address: _____
Email: _____
Bill To Same: Yes ☒ No ☐

Regulatory Requirements: ☐ No Regulatory Requirement

(Please check all applicable boxes)
☒ Regulation 153/04 ☐ Sewer Use ☐ Regulation 558
Table 2 ☐ Sanitary ☐ CCME
☒ Ind/Com ☐ Storm ☐ Prov. Water Quality Objectives (PWQO)
☐ Res/Park ☐ Other
☐ Agriculture
Soil Texture (Check One) Region _____
☒ Coarse ☐ Fine ☐ Indicate One

Is this submission for a Record of Site Condition?

☐ Yes ☒ No

Report Guideline on Certificate of Analysis

☐ Yes ☒ No

Activity

Assessment (circle one)
☐ A1 ☒ A2 ☐ AR ☐ AV

Remediation (circle one)
☐ RE ☐ RX ☐ RI ☐ RA

Contaminant Management (circle one)
☐ M ☐ MW ☐ MV

Laboratory Use Only

Work Order #: 23T097112
Cooler Quantity: 2 low
Arrival Temperatures: 8.0 | 8.2 | 8.6
5.9 | 6.0 | 6.2
Custody Seal Intact: ☒ Yes ☐ No ☐ N/A
Notes: 2/5

Turnaround Time (TAT) Required:

Regular TAT ☒ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ 1 Business Day

OR Date Required (Rush Surcharges May Apply):

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

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N	Metals as All Metals Hydride	ORPs: ☐ ☐ Cr ⁶⁺ ☐ pH	Full Metals	Regulation	Nutrients: ☐ NO ₃ ☐	Volatiles: ☐	PHCs F1	ABNs	PAHs	PCBs: ☐	Organoc	TCLP: ☐ M	Sewer Us	F1/B	Potential
MW409	Nov 23/23	10:30	13	GW		Y	☒					☒	☒		☒						
MW1000	Nov 23/23	10:30	13	↓		Y	X					X	X		X						
MW406	↓	11:30	13	↓		Y	X					X	X		X						
MW408		12:22	5		Some sediment	N						X	X								
Trip Blank	Nov 21/23	-	3	↓		N														X	
													</								

Samples Relinquished By (Print Name and Sign):

Alexandra Oniboye

Date

Nov 24/23

Time

10:12

Samples Received By (Print Name and Sign):

Anigah Tahir

Date

24/11/23

Time

12:05 pm

jars used and not returned:

Page 1 of 2

Samples Relinquished By (Print Name and Sign):

Date

Time

Samples Received By (Print Name and Sign):

Date

Time

N:



Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water intended for human consumption)

Report Information:

Company: Terrapex Environmental Ltd.
Contact: Sara Sutherland
Address: 90 Scarsdale Road
Toronto, ON M3B 2R7
Phone: 416-245-0011 Fax: _____
Reports to be sent to: s.sutherland@terrapex.com
1. Email: edd@terrapex.com
2. Email: _____

Project Information:

Project: CH321.00
Site Location: 623 Yonge Street, Barrie, Ontario
Outlet #: 33659
Sampled By: AL/RD
AGAT Quote #: SUNCOR Downstream PO: _____
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information:

Company: _____
Contact: _____
Address: _____
Email: _____
Bill To Same: Yes ☒ No ☐

Regulatory Requirements: ☐ No Regulatory Requirement

(Please check all applicable boxes)

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

Is this submission for a Record of Site Condition?

☐ Yes ☒ No

Report Guideline on Certificate of Analysis

☐ Yes ☒ No

Activity

Assessment (circle one)
☐ A1 ☒ A2 ☐ AR ☐ AV

Remediation (circle one)
☐ RE ☐ RX ☐ RI ☐ RA

Contaminant Management (circle one)
☐ M ☐ MW ☐ MV

Laboratory Use Only

Work Order #: 23T097112
Cooler Quantity: 2
Arrival Temperatures: 8.0 | 8.2 | 8.6
5.9 | 6.0 | 6.2
Custody Seal Intact: ☒ Yes ☐ No ☐ N/A
Notes: N/A

Turnaround Time (TAT) Required:

Regular TAT ☒ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ 1 Business Day

OR Date Required (Rush Surcharges May Apply):

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

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/Special Instructions	Y/N	Field Filtered - Metals, Hg, CrVI	Metals and Inorganics	0. Reg 153	Regulation/Custom Metals	Nutrients: TP NH ₄ NO ₃ NO ₂	Volatiles: VOC BTEX THM	PHCs F1 - F4	ABNS	PAHs	PCBs: Total Aroclors	Organochlorine Pesticides	TCP: M&I VOCs ABNS B(a)P PCBs	Sewer Use	F/BTEX	Potentially Hazardous or High Concentration (Y/N)
MW402	Nov 23/23	13:40	13	GW		Y		☒	☐ All Metals ☐ 153 Metals (excl. Hydrides) ☐ Hydride Metals ☐ 153 Metals (incl. Hydrides)			☒	☒		☒						
MW403	↓	14:15	↓	↓	True sediment	Y		X				X	X		X						
MW411	↓	15:35	↓	↓	True sediment	Y		X				X	X		X						
MW410	↓	16:29	↓	↓		Y		X				X	X		X						

Samples Relinquished By (Print Name and Sign): Alexandra Catling	Date: Nov 24/23	Time: 10:12	Samples Received By (Print Name and Sign): Anissa Tahir	Date: 24/11/23	Time: 1205pm	# Jars used and not returned:
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:	Page 2 of 2
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:	N/A

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED
90 SCARSDALE RD
TORONTO, ON M3B2R7
(905) 474-5265

ATTENTION TO: Sara Sutherland

PROJECT: CH321.00

AGAT WORK ORDER: 23T105379

WATER ANALYSIS REVIEWED BY: Nivine Basily, Inorganic Team Lead

DATE REPORTED: Dec 27, 2023

PAGES (INCLUDING COVER): 9

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 as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.
- 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.



Certificate of Analysis

AGAT WORK ORDER: 23T105379

PROJECT: CH321.00

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

SAMPLING SITE: 623 Yonge St, Barrie, ON

ATTENTION TO: Sara Sutherland

SAMPLED BY: CK / EM

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

DATE RECEIVED: 2023-12-18

DATE REPORTED: 2023-12-27

				SAMPLE DESCRIPTION:				
				MW402	MW403	MW406	MW409	MW1000
				Water	Water	Water	Water	Water
				DATE SAMPLED:	DATE SAMPLED:	DATE SAMPLED:	DATE SAMPLED:	DATE SAMPLED:
				2023-12-15 11:55	2023-12-15 11:40	2023-12-15 12:15	2023-12-15 11:15	2023-12-15 11:55
Parameter	Unit	G / S	RDL	5552973	5552974	5552975	5552976	5552977
Dissolved Antimony	µg/L	6	1.0	<1.0	2.5	<1.0	<1.0	<1.0
Dissolved Arsenic	µg/L	25	1.0	<1.0	6.3	<1.0	<1.0	<1.0
Dissolved Barium	µg/L	1000	2.0	380	448	204	359	400
Dissolved Beryllium	µg/L	4	0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Boron	µg/L	5000	10.0	120	237	51.6	69.8	108
Dissolved Cadmium	µg/L	2.7	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Chromium	µg/L	50	2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Cobalt	µg/L	3.8	0.80	13.0	8.70	7.50	7.02	13.6
Dissolved Copper	µg/L	87	1.0	3.0	7.1	4.0	11.3	3.0
Dissolved Lead	µg/L	10	0.50	1.15	1.46	<0.50	0.51	<0.50
Dissolved Molybdenum	µg/L	70	0.50	5.81	105	10.1	3.05	3.16
Dissolved Nickel	µg/L	100	1.0	17.5	11.6	8.4	5.3	17.6
Dissolved Selenium	µg/L	10	1.0	1.2	2.1	3.1	3.5	4.2
Dissolved Silver	µg/L	1.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Thallium	µg/L	2	0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Dissolved Uranium	µg/L	20	0.50	4.40	123	1.60	2.06	4.47
Dissolved Vanadium	µg/L	6.2	0.40	0.98	1.49	1.55	1.72	1.00
Dissolved Zinc	µg/L	1100	5.0	17.1	12.3	11.8	6.4	16.3

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Potable Ground Water - All Types of Property Uses - Coarse Textured Soils
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.

5552973-5552977 Metals analysis completed on a filtered sample.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:



Nivine Basly



Exceedance Summary

AGAT WORK ORDER: 23T105379

PROJECT: CH321.00

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	UNIT	GUIDEVALUE	RESULT
5552973	MW402	ON T2 PGW CT	O. Reg. 153(511) - Metals (Including Hydrides) (Water)	Dissolved Cobalt	µg/L	3.8	13.0
5552974	MW403	ON T2 PGW CT	O. Reg. 153(511) - Metals (Including Hydrides) (Water)	Dissolved Cobalt	µg/L	3.8	8.70
5552974	MW403	ON T2 PGW CT	O. Reg. 153(511) - Metals (Including Hydrides) (Water)	Dissolved Molybdenum	µg/L	70	105
5552974	MW403	ON T2 PGW CT	O. Reg. 153(511) - Metals (Including Hydrides) (Water)	Dissolved Uranium	µg/L	20	123
5552975	MW406	ON T2 PGW CT	O. Reg. 153(511) - Metals (Including Hydrides) (Water)	Dissolved Cobalt	µg/L	3.8	7.50
5552976	MW409	ON T2 PGW CT	O. Reg. 153(511) - Metals (Including Hydrides) (Water)	Dissolved Cobalt	µg/L	3.8	7.02
5552977	MW1000	ON T2 PGW CT	O. Reg. 153(511) - Metals (Including Hydrides) (Water)	Dissolved Cobalt	µg/L	3.8	13.6

Quality Assurance

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T105379

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge St, Barrie, ON

SAMPLED BY: CK / EM

Water Analysis															
RPT Date: Dec 27, 2023			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
O. Reg. 153(511) - Metals (Including Hydrides) (Water)															
Dissolved Antimony	5556962		<1.0	<1.0	NA	< 1.0	97%	70%	130%	98%	80%	120%	118%	70%	130%
Dissolved Arsenic	5556962		<1.0	<1.0	NA	< 1.0	98%	70%	130%	99%	80%	120%	110%	70%	130%
Dissolved Barium	5556962		20.2	19.6	2.6%	< 2.0	98%	70%	130%	94%	80%	120%	114%	70%	130%
Dissolved Beryllium	5556962		<0.50	<0.50	NA	< 0.50	101%	70%	130%	105%	80%	120%	88%	70%	130%
Dissolved Boron	5556962		4610	4320	6.6%	< 10.0	101%	70%	130%	117%	80%	120%	NA	70%	130%
Dissolved Cadmium	5556962		<0.20	<0.20	NA	< 0.20	100%	70%	130%	103%	80%	120%	99%	70%	130%
Dissolved Chromium	5556962		<2.0	<2.0	NA	< 2.0	98%	70%	130%	100%	80%	120%	101%	70%	130%
Dissolved Cobalt	5556962		2.79	1.78	NA	< 0.50	107%	70%	130%	103%	80%	120%	101%	70%	130%
Dissolved Copper	5556962		3.6	2.9	NA	< 1.0	101%	70%	130%	101%	80%	120%	93%	70%	130%
Dissolved Lead	5556962		<0.50	<0.50	NA	< 0.50	102%	70%	130%	99%	80%	120%	94%	70%	130%
Dissolved Molybdenum	5556962		3.76	3.77	0.4%	< 0.50	101%	70%	130%	106%	80%	120%	115%	70%	130%
Dissolved Nickel	5556962		4.3	4.4	NA	< 1.0	106%	70%	130%	100%	80%	120%	98%	70%	130%
Dissolved Selenium	5556962		<1.0	2.6	NA	< 1.0	101%	70%	130%	97%	80%	120%	111%	70%	130%
Dissolved Silver	5556962		<0.20	<0.20	NA	< 0.20	107%	70%	130%	100%	80%	120%	101%	70%	130%
Dissolved Thallium	5556962		<0.30	<0.30	NA	< 0.30	99%	70%	130%	100%	80%	120%	97%	70%	130%
Dissolved Uranium	5556962		<0.50	<0.50	NA	< 0.50	100%	70%	130%	101%	80%	120%	121%	70%	130%
Dissolved Vanadium	5556962		<0.40	<0.40	NA	< 0.40	106%	70%	130%	104%	80%	120%	108%	70%	130%
Dissolved Zinc	5556962		<5.0	<5.0	NA	< 5.0	100%	70%	130%	102%	80%	120%	93%	70%	130%

Comments: NA signifies Not Applicable.

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

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

Certified By:


Nivine Basily



Time Markers

AGAT WORK ORDER: 23T105379

PROJECT: CH321.00

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MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
<http://www.agatlabs.com>

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5552973	MW402	Water	15-DEC-2023	18-DEC-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Dissolved Antimony	20-DEC-2023	20-DEC-2023	DW
Dissolved Arsenic	20-DEC-2023	20-DEC-2023	DW
Dissolved Barium	20-DEC-2023	20-DEC-2023	DW
Dissolved Beryllium	20-DEC-2023	20-DEC-2023	DW
Dissolved Boron	20-DEC-2023	20-DEC-2023	DW
Dissolved Cadmium	20-DEC-2023	20-DEC-2023	DW
Dissolved Chromium	20-DEC-2023	20-DEC-2023	DW
Dissolved Cobalt	20-DEC-2023	20-DEC-2023	DW
Dissolved Copper	20-DEC-2023	20-DEC-2023	DW
Dissolved Lead	20-DEC-2023	20-DEC-2023	DW
Dissolved Molybdenum	20-DEC-2023	20-DEC-2023	DW
Dissolved Nickel	20-DEC-2023	20-DEC-2023	DW
Dissolved Selenium	20-DEC-2023	20-DEC-2023	DW
Dissolved Silver	20-DEC-2023	20-DEC-2023	DW
Dissolved Thallium	20-DEC-2023	20-DEC-2023	DW
Dissolved Uranium	20-DEC-2023	20-DEC-2023	DW
Dissolved Vanadium	20-DEC-2023	20-DEC-2023	DW
Dissolved Zinc	20-DEC-2023	20-DEC-2023	DW

5552974	MW403	Water	15-DEC-2023	18-DEC-2023
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O. Reg. 153(511) - Metals (Including Hydrides) (Water)

Parameter	Date Prepared	Date Analyzed	Initials
Dissolved Antimony	20-DEC-2023	20-DEC-2023	DW
Dissolved Arsenic	20-DEC-2023	20-DEC-2023	DW
Dissolved Barium	20-DEC-2023	20-DEC-2023	DW
Dissolved Beryllium	20-DEC-2023	20-DEC-2023	DW
Dissolved Boron	20-DEC-2023	20-DEC-2023	DW
Dissolved Cadmium	20-DEC-2023	20-DEC-2023	DW
Dissolved Chromium	20-DEC-2023	20-DEC-2023	DW
Dissolved Cobalt	20-DEC-2023	20-DEC-2023	DW
Dissolved Copper	20-DEC-2023	20-DEC-2023	DW
Dissolved Lead	20-DEC-2023	20-DEC-2023	DW
Dissolved Molybdenum	20-DEC-2023	20-DEC-2023	DW
Dissolved Nickel	20-DEC-2023	20-DEC-2023	DW
Dissolved Selenium	20-DEC-2023	20-DEC-2023	DW
Dissolved Silver	20-DEC-2023	20-DEC-2023	DW
Dissolved Thallium	20-DEC-2023	20-DEC-2023	DW
Dissolved Uranium	20-DEC-2023	20-DEC-2023	DW



Time Markers

AGAT WORK ORDER: 23T105379

PROJECT: CH321.00

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<http://www.agatlabs.com>

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5552974	MW403	Water	15-DEC-2023	18-DEC-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Dissolved Vanadium	20-DEC-2023	20-DEC-2023	DW
Dissolved Zinc	20-DEC-2023	20-DEC-2023	DW

5552975	MW406	Water	15-DEC-2023	18-DEC-2023
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O. Reg. 153(511) - Metals (Including Hydrides) (Water)

Parameter	Date Prepared	Date Analyzed	Initials
Dissolved Antimony	20-DEC-2023	20-DEC-2023	DW
Dissolved Arsenic	20-DEC-2023	20-DEC-2023	DW
Dissolved Barium	20-DEC-2023	20-DEC-2023	DW
Dissolved Beryllium	20-DEC-2023	20-DEC-2023	DW
Dissolved Boron	20-DEC-2023	20-DEC-2023	DW
Dissolved Cadmium	20-DEC-2023	20-DEC-2023	DW
Dissolved Chromium	20-DEC-2023	20-DEC-2023	DW
Dissolved Cobalt	20-DEC-2023	20-DEC-2023	DW
Dissolved Copper	20-DEC-2023	20-DEC-2023	DW
Dissolved Lead	20-DEC-2023	20-DEC-2023	DW
Dissolved Molybdenum	20-DEC-2023	20-DEC-2023	DW
Dissolved Nickel	20-DEC-2023	20-DEC-2023	DW
Dissolved Selenium	20-DEC-2023	20-DEC-2023	DW
Dissolved Silver	20-DEC-2023	20-DEC-2023	DW
Dissolved Thallium	20-DEC-2023	20-DEC-2023	DW
Dissolved Uranium	20-DEC-2023	20-DEC-2023	DW
Dissolved Vanadium	20-DEC-2023	20-DEC-2023	DW
Dissolved Zinc	20-DEC-2023	20-DEC-2023	DW

5552976	MW409	Water	15-DEC-2023	18-DEC-2023
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O. Reg. 153(511) - Metals (Including Hydrides) (Water)

Parameter	Date Prepared	Date Analyzed	Initials
Dissolved Antimony	20-DEC-2023	20-DEC-2023	DW
Dissolved Arsenic	20-DEC-2023	20-DEC-2023	DW
Dissolved Barium	20-DEC-2023	20-DEC-2023	DW
Dissolved Beryllium	20-DEC-2023	20-DEC-2023	DW
Dissolved Boron	20-DEC-2023	20-DEC-2023	DW
Dissolved Cadmium	20-DEC-2023	20-DEC-2023	DW
Dissolved Chromium	20-DEC-2023	20-DEC-2023	DW
Dissolved Cobalt	20-DEC-2023	20-DEC-2023	DW



Time Markers

AGAT WORK ORDER: 23T105379

PROJECT: CH321.00

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<http://www.agatlabs.com>

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

ATTENTION TO: Sara Sutherland

Sample ID	Sample Description	Sample Type	Date Sampled	Date Received
5552976	MW409	Water	15-DEC-2023	18-DEC-2023

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

Parameter	Date Prepared	Date Analyzed	Initials
Dissolved Copper	20-DEC-2023	20-DEC-2023	DW
Dissolved Lead	20-DEC-2023	20-DEC-2023	DW
Dissolved Molybdenum	20-DEC-2023	20-DEC-2023	DW
Dissolved Nickel	20-DEC-2023	20-DEC-2023	DW
Dissolved Selenium	20-DEC-2023	20-DEC-2023	DW
Dissolved Silver	20-DEC-2023	20-DEC-2023	DW
Dissolved Thallium	20-DEC-2023	20-DEC-2023	DW
Dissolved Uranium	20-DEC-2023	20-DEC-2023	DW
Dissolved Vanadium	20-DEC-2023	20-DEC-2023	DW
Dissolved Zinc	20-DEC-2023	20-DEC-2023	DW

5552977	MW1000	Water	15-DEC-2023	18-DEC-2023
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O. Reg. 153(511) - Metals (Including Hydrides) (Water)

Parameter	Date Prepared	Date Analyzed	Initials
Dissolved Antimony	20-DEC-2023	20-DEC-2023	DW
Dissolved Arsenic	20-DEC-2023	20-DEC-2023	DW
Dissolved Barium	20-DEC-2023	20-DEC-2023	DW
Dissolved Beryllium	20-DEC-2023	20-DEC-2023	DW
Dissolved Boron	20-DEC-2023	20-DEC-2023	DW
Dissolved Cadmium	20-DEC-2023	20-DEC-2023	DW
Dissolved Chromium	20-DEC-2023	20-DEC-2023	DW
Dissolved Cobalt	20-DEC-2023	20-DEC-2023	DW
Dissolved Copper	20-DEC-2023	20-DEC-2023	DW
Dissolved Lead	20-DEC-2023	20-DEC-2023	DW
Dissolved Molybdenum	20-DEC-2023	20-DEC-2023	DW
Dissolved Nickel	20-DEC-2023	20-DEC-2023	DW
Dissolved Selenium	20-DEC-2023	20-DEC-2023	DW
Dissolved Silver	20-DEC-2023	20-DEC-2023	DW
Dissolved Thallium	20-DEC-2023	20-DEC-2023	DW
Dissolved Uranium	20-DEC-2023	20-DEC-2023	DW
Dissolved Vanadium	20-DEC-2023	20-DEC-2023	DW
Dissolved Zinc	20-DEC-2023	20-DEC-2023	DW

Method Summary

CLIENT NAME: TERRAPEX ENVIRONMENTAL LIMITED

AGAT WORK ORDER: 23T105379

PROJECT: CH321.00

ATTENTION TO: Sara Sutherland

SAMPLING SITE: 623 Yonge St, Barrie, ON

SAMPLED BY: CK / EM

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
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



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: Terrapex
Contact: Sara Sutherland
Address: 90 Scarbdate Rd
Toronto, ON M3B 2K7
Phone: 416 529 9215 Fax: _____
Reports to be sent to:
1. Email: s.sutherland@terrapex.com
2. Email: edd@terrapex.com

Regulatory Requirements:

(Please check all applicable boxes)

☒ Regulation 153/04

☐ Regulation 406

☐ Sewer Use

☐ Sanitary ☐ Storm

Table 2 Indicate One

☒ Ind/Com

☐ Res/Park

☐ Agriculture

Table _____ Indicate One

☐ Regulation 558

☐ CCME

Soil Texture (Check One)

☒ Coarse

☐ Fine

☐ Prov. Water Quality Objectives (PWQO)

☐ Other

Indicate One

Project Information:

Outlet # 53 659
Project: CH 321.00
Site Location: 623 Yonge St, Barrie, ON
Sampled By: Chan Kim / Eric Monteforte
AGAT Quote #: SUNCOB Darnstream PO: _____
Please note: if quotation number is not provided, client will be billed full price for analysis.

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

Field Filtered - Metals, Hg, CrVI, DOC

O. Reg 153

Metals - ☐ CrVI, ☐ Hg, ☐ HWSB
BTEX, FL-F4 PHCs

VOC

PHs

PCBs

PCBs: Aroclors ☐

Landfill Disposal Characterization TQLP:

TQLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs

Regulation 406 SPLP Rainwater Leach

SPLP: ☐ Metals ☐ VOCs ☐ SVOCs

Regulation 406 Characterization Package

pH, ICMS Metals, BTEX, FL-F4

Corrosivity: ☐ Moisture ☐ Sulphide

Potentially Hazardous or High Concentration (Y/N)

Invoice Information:

Bill To Same: Yes ☒ No ☐

Company: _____
Contact: _____
Address: _____
Email: accounts.payable@terrapex.com

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N	Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	BTEX, FL-F4 PHCs	VOC	PHs	PCBs	PCBs: Aroclors ☐	Landfill Disposal Characterization TQLP:	Regulation 406 SPLP Rainwater Leach	Regulation 406 Characterization Package	pH, ICMS Metals, BTEX, FL-F4	Corrosivity: ☐ Moisture ☐ Sulphide	Potentially Hazardous or High Concentration (Y/N)
1. MW402	Dec 15, 2023	11:55 AM	1	GW		Y	X											N
2. MW403		11:40 AM	1			Y	X											N
3. MW406		12:15 AM	1			Y	X											N
4. MW409		11:15 AM	1			Y	X											N
5. MW1000		11:55 AM	1			Y	X											N
6.		AM																
7.		PM																
8.		PM																
9.		PM																
10.		PM																
11.		PM																

Samples Relinquished By (Print Name and Sign): <u>Chan Kim</u>	Date: <u>Dec 15, 2023</u>	Time: <u>1:30 PM</u>	Samples Received By (Print Name and Sign): <u>JK</u>	Date: <u>Dec 18</u>	Time: <u>8:50</u>
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:
Samples Relinquished By (Print Name and Sign):	Date:	Time:	Samples Received By (Print Name and Sign):	Date:	Time:

Page 1 of 1

Nº: T-151715

APPENDIX VI
QUALIFICATIONS OF ASSESSORS

Position: Project Manager, Toronto Office

Qualifications: Licenced Engineering Technologist (L.E.T.), registered with Professional Engineers of Ontario
Certified Engineering Technologist (C.E.T.), registered with O.A.C.E.T.
Environmental Professional (E.P.), registered with the Canadian Environmental Certification Approvals Board (CECAB)
Environmental Technologist Advanced Diploma
Environmental Technician Diploma

Experience:	Terrapex Environmental Ltd.	2008 to present
	The Wye Marsh Wildlife Centre	2007 to 2008
	Windfall Ecology Centre, Green Communities Ontario	2007 to 2008
	Central Lake Ontario Conservation Authority	2006

Ms. Sutherland is a Project Manager, coordinating and supervising site assessment projects for commercial, government, and developer clients. Ms. Sutherland has experience managing and conducting Phase I/One Environmental Site Assessments including; historical research, site inspection, report preparation, and Phase II/Two ESAs and monitoring programs. She has expertise with field combustible vapour surveys, waste audits, borehole drilling, well installation, topographical surveys, materials and supplies sourcing, test pit excavation, contaminated soil remedial excavation, removal of storage tanks, and the collecting of various media samples (soil, soil vapour, air, groundwater, surface water) in accordance with Provincial protocols. As a QP_{ESA} under O.Reg. 153/04, Ms. Sutherland is also responsible for the filing of Records of Site Condition (RSC).

Representative projects include the following:

Various Clients: Managed and supervised large work programs including Phase One and Two ESAs, remedial work, coordinating environmental, geotechnical, hydrogeological, and ecological aspects utilizing various employees from different departments and offices within the company, and assisting in the preparation of documents for the purposes of risk assessment and filing a RSC at various sites in Ontario, including industrial, commercial, residential, historical, and vacant properties.

Various Clients: Conducted Designated Substances Surveys for industrial, commercial and residential sites, for the purpose of identifying suspected locations of "designated substances" per Ontario Occupational Health and Safety Act.

Suncor Energy Products Partnership: Post-remedial excavation; supervised the installation of a reactive wall to provide an immediate and long-term source of biostimulants to promote biodegradation of any errant petroleum compounds potentially migrating downgradient.

Industrial Clients: Supervised soil vapour probe installation and conducted monitoring and sampling of soil vapours, utilizing various sampling media including: Tedlar bags using lung box, SUMMA canisters, hopcalite/charcoal/TD tubes, and passive air samplers.

Insurance Company: Reviewed multiple reports for multiple sites and summarizing site conditions, impacts, information deficiencies and regulatory actions required.

Safety Kleen Inc.: Coordinated and supervised the semi-annual Contaminant Management Plan. Conducted the Phase One ESA and supervised the Phase Two ESA, remedial excavations, application of oxidants to soil, and prepared the reports required in support of a Risk Assessment. Assisted in setting up and operating an on-site mobile water treatment system to collect and treat water discharged from the remedial excavations during the work program.

Developer: Managed a long-term hydrogeological assessment incorporating the installation and monitoring of on-site monitoring wells and mini-piezometers, and recording surface flow parameters and/or water levels of on-site streams and waterbodies. Completion of excess soils management services providing chemical analysis and assessment of soil for the exporting of impacted soil to a beneficial re-use site, and importing soil to the same site for grading purposes through the preparation of Assessment of Past Use report, sampling and analysis plan, and soil characterization report, in accordance with O.Reg. 406/19.

Cloud Data Centres: Conducted an Environmental Compliance Review and Audit to assess compliance with Ontario provincial regulations for areas that included: air emissions; waste management; discharges; spill prevention; and chemical storage and handling.

Position:	Project Manager, Toronto Office	
Education:	B.Sc. Microbiology	Karaj Azad University
	M.Sc. Environmental Science	Ijselland Saxion University
	Post-Graduate Certificate	Ryerson University
Training Completed:	Petroleum Oriented Safety Training (POST) Workplace Hazardous Materials Information System (WHMIS)	
Experience:	Terrapex Environmental Ltd.	2023 - Present
	Soil Engineers Ltd.	2006 - 2023

Ms. Torabansari is a Project Manager with over 15 years of experience in the environmental industry. Her experience includes coordinating and supervising site assessment projects for clients including managing and conducting Phase I/One Environmental Site Assessments (ESAs) and Phase II/Two ESAs, as well as long-term monitoring programs. She has expertise with proposal preparation, project management, historical research, borehole drilling, well installation, surveying, materials and supplies sourcing, test pit excavation, remedial excavations, storage tank decommissioning, and the collecting of various media samples (soil, air, and groundwater) in accordance with Provincial protocols. Ms. Torabansari is familiar with the requirements of both Ontario Regulation (O. Reg.) 153/04 and Canadian Standards Association (CSA) and has assisted with filing several Records of Site Condition (RSCs) with the Ontario Ministry of the Environment, Conservation, and Parks (MECP). She has also managed excess soil management projects under the requirements of O. Reg. 406/19.

Representative projects include the following

Land Developers: Completion of Phase I/One and Phase II/Two ESAs in support of filing of RSCs for the redevelopment of at various residential, commercial, and industrial properties in Ontario.

Land Developers: Management of intrusive delineation investigations of impacted sites in support of Risk Assessment prior to filing of RSC.

Various Clients, including active retail fuel outlets and historical sites: Managed field activities regarding the completion of utility locates, preparation of health and safety plans, subcontractor supervision of soil borings and well installations (interior and exterior), soil and groundwater sampling, analyses of laboratory results, and report preparation.

Suncor Energy Products Partnership: Management of the Suncor CMP (contaminated management plan) portfolio of current and former retail fuel outlets across Ontario, including coordination, reporting and liasing with the client.

Various Clients: Supervision and management of the decommissioning and removal of underground storage tanks (USTs) and associated infrastructure, and the removal of impacted soil at private re-fueling outlets.

APPENDIX VII
PHASE TWO CONCEPTUAL SITE MODEL

PHASE TWO CONCEPTUAL SITE MODEL

623 Yonge Street in the City of Barrie

A preliminary Conceptual Site Model was developed as part of the Phase One ESA, which is discussed in Section 4.3. Following the completion of the Phase Two ESA field program, the CSM has been updated to present the current Site characteristics and identify actual or potential sources of contamination, pathways, release mechanisms, receptors, and exposure routes. Based on the results of the Phase Two ESA, Based on the findings of the Phase Two ESA, the environmental quality of groundwater at the Site does not meet the Table 2 SCS.

Additional inputs to the CSM include:

- stratigraphy observed during this Phase Two ESA work program;
- results of chemical testing for the current soil and groundwater conditions; and,
- groundwater levels and interpreted groundwater flow direction.

A narrative summary of the Phase Two CSM is provided below and Figures 1 through 13 illustrating the Phase Two CSM are attached, and referenced in the appropriate sections below.

OVERVIEW

Site Description: The Site is located east of the intersection at Yonge Street and Big Bay Point Road in Barrie, Ontario. The Site is irregular in shape with an area of approximately 6,409 m². The Site is comprised of two properties, 623 Yonge Street and 515 Big Bay Point Road.

The 623 Yonge Street property is an operating retail fuel outlet with associated underground storage tank nest, fuel distribution lines, pump island with canopy, convenience store, and a carwash. The property also includes propane tank storage enclosures and commercial ice freezers.

The 515 Big Bay Point Road property is a vacant residential lot. The property is grass covered, with trees in the eastern portion.

The surrounding properties are primarily residential to the north and east, and commercial to the south, west and northwest. An institutional property is also located northwest of the Site. The Site location and nearby waterbodies are shown on Figure 1. The general Site layout is shown on Figure 2. The Phase One Study Area, illustrating the Site and surrounding land use is shown on Figure 3.

Assessment Criteria: The generic full-depth Ministry of the Environment, Conservation and Parks (MECP) Site Condition Standards (SCS) determined to be applicable to the intended use of the Site are those for industrial/commercial/community property use, coarse-textured soils, in

a potable groundwater condition (the “Table 2 SCS”). The Site is not environmentally sensitive per the definition of Ontario Regulation (O. Reg.) 153/04.

PCAs And APECs

Potential Contaminating Activity: During the Phase One ESA conducted by Terrapex, 3 potentially contaminating activities (PCAs), as listed in Table 2 of Schedule D of O. Reg. 153/04, or as determined by the QP, were identified within the Site. A further 9 PCAs were identified within the Phase One Study Area. The approximate locations of the PCAs are shown on Figure 4 and 5 and summarized be

PCA	ADDRESS AND PROXIMITY TO THE SITE	COMPANY AND DESCRIPTION	POTENTIAL ENVIRONMENTAL CONCERN	DATA SOURCE	POTENTIALLY CONTAMINATING ACTIVITY (AS SET OUT IN COLUMN A OF TABLE 2 IN SCHEDULE D OF O. REG. 153/04)	UNCERTAINTY	LIKELIHOOD TO AFFECT THE SITE
PCA 1	Site	A retail gasoline service station, Petro-Canada is currently operating at the Site. The Site was formerly used a gas station as well.	APEC 1	ERIS report Aerial photographs Site Inspection	28 - Gasoline and Associated Products Storage in Fixed Tanks	None	Yes
PCA 2	Site	Former autobody shop.	APEC 2	City directories	10 - Commercial Autobody Shops	Low - locations for storage of waste oils or other automotive fluids is not known.	Yes
PCA 3	Site	Previous residential and commercial structures were demolished and 623 Yonge street was re-developed.	APEC 3	Aerial Photographs Site Inspection	30 - Importation of Fill Material of Unknown Quality	None	Yes
PCA 4	647 Yonge Street, adjacent east of the Site	Former use of the property as a retail fuel outlet in the mid-1990s to late 2010s.	APEC 4	ERIS report	28 - Gasoline and Associated Products Storage in Fixed Tanks	Possible	Moderate. No details on any secondary containment, leak testing or maintenance
PCA 5	601 Yonge Street, 120 m northwest of the Site	Current and former use of the property as a retail gas station.	No	ERIS report City directories Site inspection	28 - Gasoline and Associated Products Storage in Fixed Tanks	Unlikely based on intervening distance and assumed cross-gradient location	Low
PCA 6	494 Big Bay Point Road, 50 m north of the Site	20 L - 30 L operating fluids/engine oil leak due to car accident in 2017.	No	ERIS report	Other - Spill	Unlikely based on the low volume spilled and cross-gradient location.	Moderate. No details on clean up activities during and after the spill.

PCA	ADDRESS AND PROXIMITY TO THE SITE	COMPANY AND DESCRIPTION	POTENTIAL ENVIRONMENTAL CONCERN	DATA SOURCE	POTENTIALLY CONTAMINATING ACTIVITY (AS SET OUT IN COLUMN A OF TABLE 2 IN SCHEDULE D OF O. REG. 153/04)	UNCERTAINTY	LIKELIHOOD TO AFFECT THE SITE
PCA 7	211 Warnica Road, 215 m north of the Site	School board was registered as a generator of laboratory chemicals, paint/pigments/coating residues and solvents from late 1990s to early 2020s.	No	ERIS report	8 - Chemical Manufacturing, Processing and Bulk Storage	Unlikely based on intervening distance	Low
PCA 8	620 Yonge Street, 80 m west of the Site	Loblaw Companies Limited was registered as a generator of pharmaceuticals, non-halogenated pesticides, waste oil and lubricants, paint/pigments/coating residues, aliphatic solvents, laboratory chemicals, acid and alkaline wastes, detergent/soaps, halogenated pesticides from mid 2010s to early 2020s.	No	ERIS report	58 - Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners	Unlikely based on intervening distance and assumed cross-gradient location	Low
PCA 9	211 Warnica Road, 80 m west of the Site	Public school	No	- ERIS report - Site inspection - Aerial photographs	8 - Chemical Manufacturing, Processing and Bulk Storage	Unlikely, due to the nature of the producing facility, down-gradient location, and distance from the Site.	Low
PCA 10	620 Yonge Street, 80 m southwest of the Site.	Commercial plaza	No	- ERIS report - Site inspection - Aerial photographs	58 - Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners	Unlikely, due to business types currently present, recent construction and occupation of commercial plaza, and cross-gradient location relative to the Site.	Low

PCA	ADDRESS AND PROXIMITY TO THE SITE	COMPANY AND DESCRIPTION	POTENTIAL ENVIRONMENTAL CONCERN	DATA SOURCE	POTENTIALLY CONTAMINATING ACTIVITY (AS SET OUT IN COLUMN A OF TABLE 2 IN SCHEDULE D OF O. REG. 153/04)	UNCERTAINTY	LIKELIHOOD TO AFFECT THE SITE
PCA 11	585 Yonge Street, 230 m northwest of the Site	oil change and lubrication service.	No	ERIS report	10 - Commercial Autobody Shops	Unlikely based on intervening distance and assumed cross-gradient location.	Low
PCA 12	585 Yonge Street, 230 m northwest of the Site	Fuel storage tank for oil changes and lubrication service.	No	- ERIS report - Site inspection - Aerial Photographs	28 - Gasoline and Associated Products Storage in Fixed Tanks	Unlikely based on intervening distance and assumed cross-gradient location	Low

¹ As shown on Figure 4 and 5.1² As set out in Table 2 in Schedule D of O. Reg. 153/04.

It should be noted that de-icing activities (salt application) for the safety of vehicular or pedestrian traffic under conditions of snow or ice, or both, are known to have occurred, as the majority of the Site is used as a parking lot.

Areas of Potential Environmental Concern: Four Areas of Potential Environmental Concern (APECs) associated with the PCAs were identified on the Phase Two Property as per below:

APEC ¹	LOCATION OF APEC ON PHASE ONE PROPERTY	POTENTIALLY CONTAMINATING ACTIVITY (as set out in Column A of Table 2 in Schedule D of O. Reg. 153/04)	LOCATION OF PCA (ON-SITE or OFF-SITE)	CONTAMINANTS OF POTENTIAL CONCERN	MEDIA POTENTIALLY IMPACTED (Ground water, Soil, and/or Sediment)
APEC 1	Entire Site	PCA 1: 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-site	BTEX PHCs PAHs	Soil Groundwater
APEC 2	Southwestern portion of the Site	PCA 2: 10 - Commercial Autobody Shops	On-site	BTEX PHCs PAHs Metals	Soil Groundwater
APEC 3	Entire Site	PCA 3: 30 – Importation of Fill Material of Unknown Quality	On-site	Metals PAHs PHCs	Soil
APEC 4	Along the eastern Site boundary	PCA 4: 28 - Gasoline and Associated Products Storage in Fixed Tanks	Off-site	BTEX PHCs PAHs	Soil Groundwater

BTEX: Benzene, toluene, ethylbenzene, xylene

PHCs: Petroleum hydrocarbons (fractions F1 to F4)

PAHs: Polycyclic aromatic hydrocarbons

VOCs: Volatile Organic Compounds

As, Sb, Se: Hydride forming metals

EC: Electrical conductivity

SAR: Sodium absorption ratio

ORPs Other regulated parameters, including hot water soluble boron (soil only), hexavalent chromium, cyanide, and mercury

Subsurface Structures and Utilities That May Affect Contaminant Distribution and Transport: During the Phase Two ESA work program, local utility companies were contacted in order to obtain stake outs and clearance with respect to buried services under the Phase Two Property. Prior to drilling, hydro-excavation at all borehole locations was completed by daylighting contractor, Badger Daylighting Ltd.

Underground utilities at the Phase Two Property include storm and sanitary sewer lines, natural gas, electrical and telephone. These utilities are typically at depths ranging from 0.3 to 3 m below ground surface, it is not anticipated that shallow utilities at the Site will act as potential migration pathways.

Subsurface structures and underground utilities were identified at the Site, the Phase Two ESA findings suggests that these features may influence the distribution/ migration of contaminants at the Site.

PHYSICAL SETTING OF THE PHASE TWO ESA PROPERTY

Stratigraphy

Based on findings from the environmental drilling investigation, which included eleven boreholes (BH401, MW402, MW403, BH404, BH405, MW406, BH407, MW408, MW409, MW410 and MW411) to depths ranging between 6.7 m and 9.5 m bg. Stratigraphy generally comprises of a 90 to 600 mm layer of topsoil or a 50 to 120 mm layer of asphalt and granular sub-base underlain by fill material consisting of sand containing varying gravel fractions ranging from some gravel to gravelly, clayey silt, some sand, asphalt chunks and sandy silt. The fill materials were underlain by a deposit of native brownish grey, greyish brown and grey fine sand soil with some silt. The colour of the native grey sandy silt to silty sand trace of clay and gravel (till) at depths between 1.1 and 3 mbgs, and the boreholes were terminated at depths between 6.7 to 9.5 mbgs, which represents the maximum depth of investigation. Saturated conditions (i.e., the apparent water table) were observed at the depths ranging from 4.30 mbgs to 6.37 mbgs in the sandy silt/silty sand till. As indicated on the cross section Figures 5.2 and 5.3, bedrock was not encountered during the drilling program. The existing on-Site buildings are shown, where applicable.

Refer to Figures 2 and 5.1 for the borehole locations, Figures 5.2 and 5.3 for the cross sections showing the soil stratigraphy of the Phase Two Property, and Borehole Logs for soil stratigraphy encountered in the boreholes.

Hydrogeological Characteristics

The nearest identified/mapped waterbody is Lovers Creek situated 400 m to the west of the Site. This water body ultimately discharges into Lake Simcoe, a known regional groundwater discharge zone.

Based on the relative groundwater elevations on December 15, 2023, the interpreted horizontal gradient ranged between 245.76 m/m (MW411) and 247.90 m/m (MW409), with an average of approximately 0.0356 m/m, as shown on Figure 6.

Depth to Bedrock

Bedrock was not encountered in the boreholes advanced to a maximum depth of 9.5 m in this Phase Two ESA. Based on a review of Geological plans for the Site indicate the bedrock elevation in the vicinity of the Site being approximately 40 m below grade.

Depth to Water Table

Depths to groundwater in the monitoring wells, measured on November 23, 2023, were 5.00 m (MW402), 4.74 m (MW403), 5.18 m (MW406), 5.70 m (MW408), 4.30 m (MW409), 5.40 m (MW410), and 6.37 m (MW411) from ground surface. No evidence of either light, non aqueous phase liquid (LNAPL) or dense, non aqueous phase liquid (DNAPL) was observed during monitoring, purging, or sampling of the monitoring wells during the Phase Two ESA work program.

Refer to Figures 2 and 5.1 for the monitoring well locations, Figures 5.2 and 5.3 for the cross sections showing the water table of the Phase Two Property, and Borehole Logs for water table encountered in the boreholes.

Applicability of Section 35, 41 or 43.1 of O. Reg. 153/04

The Site and all other properties located, in whole or in part, within 250 metres of the boundaries of the property, are supplied by a municipal drinking water system. The Site is a commercial property use and potable Standards were deemed applicable for the Site.

Per Section 35(2) of O. Reg. 153/04 (as amended on July 1, 2020), non-potable SCS are determined to be appropriate for use at the Site as the following conditions apply:

- The use of the Site will not constitute “agricultural or other use” per the definitions of O. Reg. 153.04;
- the Site and all properties located, in whole or in part, within 250 m of the Site boundaries are supplied by a municipal drinking water system;
- the Site is not located in an area designated in the official plan as a well-head protection area, or any other area identified by the municipality for the protection of groundwater;
- neither the Site nor any property within the Phase One Study Area was identified as having a well used or intended for use as a source of water for human consumption or agriculture; and,

Section 35 of O. Reg. 153/04 describes conditions, which when present, can require the use of certain Site Condition Standards. Specifically, if the groundwater condition of a property may be considered non-potable or potable. Based on the information available for the Site, potable groundwater Site Condition Standards may be applied.

Section 41 of O. Reg. 153/04 describes conditions, which when present, can constitute an “environmentally sensitive site”. They include the presence of areas of natural significance (such as wetlands, provincial parks, nature reserves and valuable animal habitats) within 30 m of the Site, and sites where soil pH lies outside the range of 5 to 9 for surface soil and 5 to 11 for subsurface soil.

The Site does not contain any areas of natural significance, nor are there any within 30 m of Site. The Site does not display any conditions, which would classify the Site as environmentally sensitive. Soil pH values are within the required ranges.

Section 43.1 of O. Reg. 153/04 describes conditions, which when present, can require the use of certain Site Condition Standards. Section 43.1 specifies Site Condition Standards for properties that have more than one-third of the area with less than 2 m of soil. However, overburden depths at the Site were greater than 2 m for the entire Site. Section 43.1 also specifies Site Condition Standards for properties where there is a water body within 30 m of the site. However, there is no water body within 30 m of the Site.

As a result of the above, Sections 41 and 43.1 of O. Reg. 153/04 are not considered to apply to this Site and the applicable full-depth generic Site Condition Standards may be used in the submission of a Record of Site Condition for the Site.

Areas on, in or under the Phase Two Property where excess soil is finally placed

No soil was excavated for reuse on the Phase Two Property or excess soils were brought from another property during or following completion of the Phase Two ESA. As such, confirmation sampling of imported soil was not conducted. However, historic excess soils brought from another property to the Site (i.e., fill materials) have been encountered over the entirety of the Site during the intrusive investigation at the Site, with depths extending from 1.1 to 3.0 m bg . Fill materials are believed to have been imported to the Site for general site grading, construction, and landscaping purposes. As such, the importation of fill material of unknown quality was considered a potentially contaminating activity (and subsequently, an area of potential environmental concern) at the Site.

Locations of Proposed Buildings and Structures

At the time of the investigation, there were a retail fuel outlet with associated underground storage tank nest, fuel distribution lines, pump island with canopy, convenience store, and carwash on the Phase Two Property. Based on the proposed development plan for the property, the Site will be re-developed as the same commercial use.

CONTAMINATION

Investigation of Potential Areas of Contamination

The Phase Two ESA investigative scope was designed to provide full site coverage and to investigate each of the identified APECs using boreholes and groundwater monitoring wells. Phase Two ESA sampling locations are shown on Figure 5.

As summarized in the table below, the sampling programs described above have adequately investigated all contaminants of potential concern within each APEC at the Site.

SUMMARY OF SAMPLING LOCATIONS

APEC	MEDIA POTENTIALLY IMPACTED	CONTAMINANTS OF POTENTIAL CONCERN	SOIL SAMPLING LOCATIONS	GROUNDWATER SAMPLING LOCATIONS
APEC 1 and 3	Soil & Groundwater	Metals	BH402, BH403, BH404, MW410	MW402, MW403, MW406, MW409, MW410 and MW411
		Hydride-Forming Metals	BH402, BH403, BH404, MW410	MW402, MW403, MW406, MW409, MW410 and MW411
		PAHs	BH402, BH403, BH404, MW410	MW402, MW403, MW406, MW409, MW410 and MW411
		PHCs F1-F4	BH401, MW402, MW403, BH404, MW405, MW406, MW407, MW408, BH409, MW410 and MW411	MW402, MW403, MW406, MW408, MW409, MW410 and MW411
		BTEX	BH401, MW402, MW403, BH404, MW405, MW406, MW407, MW408, BH409, MW410 and MW411	MW402, MW403, MW406, MW408, MW409, MW410 and MW411
APEC 2		Metals	MW402, MW403	MW402, MW403, MW406
		PAHs	MW402, MW403	MW402, MW403, MW406
		PHCs F1-F4	MW402, MW403, MW406	MW402, MW403, MW406
		BTEX	MW402, MW403, MW406	MW402, MW403, MW406
APEC 4	Metals	-	-	
	PAHs	-	MW408	
	PHCs F1-F4	MW408	MW408	
	BTEX	MW408	MW408	

BTEX: Benzene, toluene, ethylbenzene, xylene

PHCs: Petroleum hydrocarbons (fractions F1 to F4)

PAHs: Polycyclic aromatic hydrocarbons

VOCs: Volatile Organic Compounds

As, Sb, Se: Hydride forming metals

EC: Electrical conductivity

SAR: Sodium adsorption ratio

ORPs: Other regulated parameters, including hot water soluble boron (soil only), hexavalent chromium, cyanide, and mercury

Identification of Contaminants of Concern:

Soil

All of the soil analytical results were less than the applicable MECF Table 2 SCS.

Levels of sodium adsorption ratio (SAR) in soil were found to be in excess of MECF Table 2 SCS; however, given the majority of the property is used as a surface parking lot, evidence of the use

of salt at the Site for the purposes of snow and ice control in winter conditions gathered during the Phase One ESA, and the absence of any other documented potential source of such impacts at or in the vicinity of the Site during the Phase One ESA, the SAR impacts identified at the Site have been determined to arise from the application of a substance (specifically, salt) to ground surfaces for the safety of pedestrian and vehicle traffic under conditions of snow or ice.

On this basis, the QP_{ESA} has determined that the levels of SAR in soil exceeded the applicable Site Condition Standards solely due to the application of road salt for the purposes of ensuring the safety of vehicular or pedestrian traffic under snow or ice or both. As a result, per Paragraph 1 of Section 49.1 of O. Reg. 153/04, the applicable Site Condition Standards for SAR in soil have not been deemed to be exceeded for the purpose of the *Environmental Protection Act*, and as a result, EC and SAR have not been considered contaminants of concern (CoCs) within the current Phase Two CSM. Subsequently, assessment of sodium and chloride in groundwater was not conducted as exceedance of MECP Table 2 SCS, if identified, would have been attributed to de-icing activities.

The sampling locations investigated for potential contaminants of concern in soil have been illustrated in plan view and in cross sections on Figures 7A, 7B, 7C to 10.

Groundwater

As indicated in the tables, concentrations of all parameters in the groundwater samples were below the applicable SCSs, except the following:

- MW402 for Chloride and Cobalt
- MW403 for Arsenic, Chloride and Cobalt
- MW406 for Chloride and Cobalt
- MW409 for Chloride and Cobalt.

As indicated above, assessment of chloride in groundwater was not conducted as exceedance of MECP Table 2 SCS, if identified, would have been attributed to de-icing activities.

The sampling locations investigated for potential contaminants of concern in groundwater have been illustrated in plan view and in cross sections on Figures 7A, 7B, 7C, 11, 12 and 13.

Environmental Media of Concern

Based on the findings of the Phase One ESA by Terrapex, the Phase Two ESA work program included investigation of the environmental quality of soil and groundwater at the Site. The environmental quality of sediment was not investigated due to the absence of sediment at the Site.

Based on this investigation, no environmental impacts were found in soil, however some metal parameters are detected in four groundwater samples at the Site.

Details of Contaminated Areas: As soil impacts were not identified at the Site, an estimated amount of impacted soil was not calculated for the Site.

Origin, Extent, Distribution and Delineation of Contaminants: Impacted soil was not identified on the Site.

Migration of Contaminants: Impacted soil was not identified on the Site.

Details of Contaminated Areas: Groundwater impacts were identified at the Site. However, the Site is not intended to be developed, therefore, remediation and/or a risk assessment is not required to be completed at this time.

Origin, Extent, Distribution and Delineation of Contaminants: Groundwater impacts were identified at the Site. However, the Site is not intended to be developed, therefore, remediation and/or a risk assessment is not required to be completed at this time.

Migration of Contaminants: Groundwater impacts were identified at the Site. However, the Site is not intended to be developed, therefore, remediation and/or a risk assessment is not required to be completed at this time.

Soil Vapour Intrusion of Contaminants into Buildings: No volatile contaminants have been identified at the Site; as a result, there are no concerns related to the intrusion of vapours into the existing or future buildings at the Phase Two Property.

CROSS-SECTIONS

Lateral and Vertical Distribution of Contaminants: Impacted soil was not identified on the Site.

Depth to Water in Contaminated Areas: Impacted soil was not identified on the Site.

Stratigraphy in Contaminated Areas: Impacted soil was not identified on the Site.

Subsurface Structures and Utilities in Contaminated Areas: Impacted soil was not identified on the Site.

Lateral and Vertical Distribution of Contaminants: Impacted groundwater was identified on the Site. However, the Site is not intended to be developed, therefore, remediation and/or a risk assessment is not required to be completed at this time.

Depth to Water in Contaminated Areas: Impacted groundwater was identified on the Site. However, the Site is not intended to be developed, therefore, remediation and/or a risk assessment is not required to be completed at this time.

Stratigraphy in Contaminated Areas: Impacted groundwater was identified on the Site. However, the Site is not intended to be developed, therefore, remediation and/or a risk assessment is not required to be completed at this time.

Subsurface Structures and Utilities in Contaminated Areas: Impacted groundwater was identified on the Site. However, the Site is not intended to be developed, therefore, remediation and/or a risk assessment is not required to be completed at this time.

RISK ANALYSIS

Risk assessment, in the context of properties potentially impacted by contaminants, is the process of estimating the likelihood of undesirable effects on human and ecological health resulting from exposure to chemical contaminants. Three components must be present for risks to human or ecological health to exist at sites impacted by contaminants:

- the contaminant must be present at concentrations sufficient to cause a possible adverse effect;
- a receptor (human or ecological) must be present; and,
- there must be a complete exposure pathway by which the receptor can come into contact with the contaminant.

However, the Site is not intended to be developed, therefore, remediation and/or a risk assessment is not required to be completed at this time.

Subsequent Remedial Activities and Current Site Conditions

Since the Site is not intended to be developed, therefore, remediation and/or a risk assessment is not required to be completed at this time.