

# Phase Two Environmental Site Assessment

3056 Neyagawa Boulevard & 1039 Dundas Street West  
Oakville, Ontario

## Prepared For:

NEATT Sixteen Mile Creek Inc.  
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Burlington, ON  
L7L 6T1

DS Project No: 22-012-101

Date: 2024-05-15



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## Executive Summary

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DS Consultants Ltd. (DS) was retained by NEATT Sixteen Mile Creek Inc. (the “Client”) to conduct a Phase Two Environmental Site Assessment (ESA) of the Property located at 3056 Neyagawa Boulevard & 1039 Dundas Street West & 1039 Dundas Street West, Oakville, Ontario, herein referred to as the “Phase Two Property” or “the Site”. It is DS’ understanding that this Phase Two ESA has been requested for due diligence purposes in association with the proposed redevelopment of the Property for residential purposes. It is further understood that the proposed development consists of eight (8) blocks of twenty-five (25) storey apartment buildings with up to four (4) levels of underground parking (P4).

The Phase Two ESA was completed in general accordance with the requirements, methodology and practices for a Phase Two ESA as described in Ontario Regulation 153/04 (as amended). The objective of this Phase Two ESA is to assess whether contaminants are present, and if present, at what concentration are they present on the Phase Two Property, as related to the Areas of Potential Environmental Concern (APEC) identified in the Phase One ESA.

The Phase Two Property is an irregularly shaped 8.12-hectare (20.0 acres) parcel of land situated within a mixed residential, community and commercial neighbourhood in the Town of Oakville, Ontario. The Phase Two Property is located approximately 110 m northwest of the intersection of Neyagawa Boulevard and Dundas Street West.

The Site is currently developed with seven structures. 3056 Neyagawa Boulevard was occupied by residential tenants, including a 320 m<sup>2</sup> two-storey rectangular-shaped residential dwelling (Site Building A) with one level of basement and attached two-car garage located within the northeastern portion of the Site. A detached 280 m<sup>2</sup> residential double car garage (Site Building B) located along the eastern portion of the Site. One canvas shed (Shed 1) approximately 10 m<sup>2</sup> located along the northern portion of the Site. Multiple (more than 10) shipping containers were present adjacent to the gravel driveway within the northeastern, western and central portions of the Site. The southwestern portion of the Site was comprised of agricultural land.

1039 Dundas Street West was occupied by St. Peter & Paul Serbian Orthodox Church and comprised of a 120 m<sup>2</sup> one-storey rectangular-shaped common area (Site Building C) with an attached 30 m<sup>2</sup> storage shed (Shed 3). To the south of this is a 650 m<sup>2</sup> irregular shaped building (Site Building D) which is used as an event hall and is outfitted with a commercial kitchen. A chapel is present on the central portion of the Site (Site Building E), occupying an

approximate footprint of 100 m<sup>2</sup> and an enclosed 40 m<sup>2</sup> gazebo is present along the northern portion of the Site. Towards the southwestern portion of the Site is an asphalt paved fenced area with an abandoned trailer and several cars. A Telus telecommunication tower is present along the northern Property boundary and a gravel paved driveway winds through the Site in a north-south orientation connecting Site Buildings C, D and E to Dundas Street West. The remaining balance of the Site was landscaped grass, trees and shrubbery. A small paved playground is present on the south-central portion of the Site along the gravel driveway. The Site Buildings were constructed between 1985 and 2005.

A total of twenty (20) Potentially Contaminating Activities (PCAs) were identified in the Phase One ESA, of which fifteen (15) are considered to be contributing to fifteen (15) APECs on the Phase Two Property. A summary of the APECs, associated PCAs, and contaminants of potential concern (COPC) identified is presented in the table below:

Table E-1: Summary of APECs

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC-1A	Northeastern portion of the Site	#30: Importation of Fill Material of Unknown Origin	On-Site PCA-1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-1B	Central portion of the Site	#30: Importation of Fill Material of Unknown Origin	On-Site PCA-2	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-1C	Entire Site	#30: Importation of Fill Material of Unknown Origin	On-Site PCA-5	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-1D	Vicinity of former Site Building F, located in the southwestern portion of the Site	#30: Importation of Fill Material of Unknown Origin	On-Site PCA-11	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-1E	Vicinity of former Site Building G, located in the southern portion of the Site	#30: Importation of Fill Material of Unknown Origin	On-Site PCA-12	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-1F	Vicinity of former Shed 2, located in the southern portion of the Site	#30: Importation of Fill Material of Unknown Origin	On-Site PCA-14	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-2	Northern portion of the Site	#58: Waste Disposal and Waste	Off-Site PCA-6	PHCs, VOCs, BTEX, Metals, As,	Groundwater

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
		Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners.		Sb, Se, CN-, Cr (VI), Hg, PAHs	
APEC-3	Southwestern portion of the Site in the vicinity of former orchard	#40: Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On-Site PCA-8	OCPs	Soil
APEC-4A	Northern portion of the Property in the vicinity of Shed 1.	#N/S: Storage of miscellaneous debris, refuse and boats	On-Site PCA-13	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-4B	Eastern portion of the Site	#N/S: Storage of miscellaneous debris and refuse	On-Site PCA-15	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-4C	Central portion of the Site immediately north of agricultural field	#N/S: Storage of miscellaneous debris and refuse	On-Site PCA-16	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-4D	Southern portion of the Site immediately south of agricultural field	#N/S: Storage of miscellaneous debris and refuse	On-Site PCA-17	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-5A	Eastern portion of the Site	#N/S: Inferred application of de-icing agents	On-Site PCA-18	EC, SAR Sodium, Chloride	Soil Groundwater
APEC-5B	Western portion of the Site	#N/S: Inferred application of de-icing agents	On-Site PCA-19	EC, SAR Sodium, Chloride	Soil Groundwater
APEC-6	Within the Vicinity of Site Building B	#27: Garages and Maintenance and Repair of	On-Site PCA-20	PHCs, VOCs, BTEX, Metals, As,	Soil and Groundwater

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
		Railcars, Marine Vehicles and Aviation Vehicles		Sb, Se, Cr (VI), Hg, PAHs	

Notes:

- N/S - not specified in Table 2, Schedule D, of O.Reg. 153/04
- BTEX = Benzene, Toluene, Ethylbenzene, Xylene
- OCPs = Organochlorine Pesticides
- PAHs = Polycyclic Aromatic Hydrocarbons
- PHCs = Petroleum Hydrocarbons
- VOCs = Volatile Organic Compounds

Based on the findings of the Phase One ESA, a Phase Two ESA was recommended to assess the soil and groundwater conditions on the Phase Two Property.

The Phase Two ESA involved the advancement of eight(8) test pits (TP1 to TP8), which were completed on January 10, 2022. The test pits were advanced to a maximum depth of 3.5 metres below ground surface (mbgs) under the supervision of DS personnel. Additionally, twenty-one (21) boreholes (BH23-1 to BH23-21) were advanced on the Phase Two Property, in conjunction with a preliminary geotechnical and hydrogeological investigation, between June 5, 2023 and June 25, 2023. The boreholes were advanced to depths ranging from 1.4 to 18.8 mbgs. Ten (10) boreholes were instrumented with monitoring wells (BH23-1 to BH23-9 and BH23-17) and screened at depths ranging from 3.1 to 18.4 mbgs. In addition, existing monitoring wells (BH1 to BH5) previously installed as part of a historic geotechnical investigation, were utilized to monitor groundwater levels.

Groundwater monitoring wells installed in two (2) of the boreholes (BH23-9 and BH23-17), and three (3) existing monitoring wells (BH1, BH2 and BH4) were utilized to facilitate the collection of groundwater samples and the assessment of groundwater flow direction. The test pit and borehole locations were determined based on the findings of the Phase One ESA. All APECs were investigated using test pits, boreholes and/or monitoring wells in accordance with the requirements of O.Reg. 153/04 (as amended). Soil and groundwater samples were collected and submitted for analysis of all COPCs as follows:

Soil Samples Submitted for Analysis:

- ◆ Twenty-two (22) soil samples were submitted for analysis of Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR. Three (3) soil samples were also submitted for analysis of pH only;

- ◆ Eleven (11) soil samples were submitted for analysis of Petroleum Hydrocarbons (PHCs) and Benzene, Toluene, Ethylbenzene and Xylenes (BTEX);
- ◆ Eleven (11) soil samples were submitted for analysis of Volatile Organic Compounds (VOCs);
- ◆ Eighteen (18) soil samples were submitted for analysis of Polyaromatic Hydrocarbons (PAHs);
- ◆ Eleven (11) soil samples were submitted for analysis of Organochlorine Pesticides (OCPs).

Groundwater samples were obtained from the five (5) monitoring wells (BH1, BH2, BH4, BH23-9 and BH23-17) and submitted for analysis of metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl, PHCs, VOCs and PAHs.

The soil and groundwater analytical results were compared to the "Table 2: Full Depth Potable – Residential/Parkland – Coarse Grain" provided in the MECP document entitled, "*Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*" dated April 15, 2011 (Table 2 Standards) for residential/ parkland/ institutional property use.

Based on the results of the Phase Two ESA, DS presents the following findings:

- ◆ A surficial layer of topsoil approximately 150 to 250 mm in thickness was encountered in all test-pits (TP1 to TP8) and boreholes BH23-5, BH23-6 and BH23-7 advanced. An asphalt layer, approximately 150 mm in thickness, was encountered at the ground surface in borehole BH23-8 and a 50 mm thick layer of granular fill consisting of sand and gravel was present at the ground surface in borehole BH23-2. Fill materials consisting of clayey silt to silty clay with trace rootlets/organics and/or weathered shale, and cobble fragments were present in all boreholes extending to depths ranging from 0.8 to 1.5 mbgs. Beneath the fill strata, the native soil generally consisted of silty clay till extending to depths of between 1.6 to 3.1 m in all the boreholes. Shale bedrock was encountered at approximate depths ranging from 2.3 to 3.3 mbgs which extended to a maximum termination depth of 18.8 mbgs, and was confirmed by coring.
- ◆ The depth to groundwater was measured in seven (7) monitoring wells installed during the course of this investigation (the remaining wells were utilized solely as part of a hydrogeological investigation conducted concurrently). The monitoring wells were screened to intercept the groundwater table. On July 19, 2023 the groundwater levels were found to range between 2.66 to 4.12 mbgs, with

groundwater elevations ranging between 150.83 and 156.38 masl. Based on the groundwater elevations recorded, the groundwater flow direction was southwest towards the Sixteen Mile Creek. It is possible that the groundwater levels may vary seasonally. The groundwater flow direction can only be confirmed through long term monitoring.

- ◆ The results of the soil chemical analyses conducted indicated that all samples analyzed met the applicable Site Condition Standards.
- ◆ Groundwater samples were collected from the monitoring wells installed on the Phase Two Property and submitted for analysis of Metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl, PHCs, VOCs and PAHs. The results of the chemical analyses conducted indicated the following exceedances of the Table 2 Standards:

Table E-1: Summary of Groundwater Impacts Identified

Sample ID	Well Screen Interval (mbgs)	Parameter	Units	Table 2 SCS	Reported Value
BH1	2.5-5.5	Chloride	µg/L	790,000	900,000*
DUP 2 (BH1)					900,000*
MW23-9	3.1-6.1	Chloride	µg/L	790,000	810,000

Notes

1. 0.0 = Concentration exceeds Table 2 SCS

2. \* - Exemption pertaining to the application of road salt for pedestrian and vehicular safety is applied per Section 49.1 of O. Reg 153/04.

- ◆ The result of the groundwater chemical analysis indicated an elevated concentration of chloride present in groundwater collected from monitoring wells BH1 and BH23-9. Both boreholes are located adjacent to driveways/parking areas on the Property that are subjected to de-icing agents during winter. Per Section 49.1 (1) of O.Reg. 153/04 (as amended) *"If an applicable site condition standard is exceeded at a property solely because of one of the following reasons, the applicable site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act": "...that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both"*. Based on this provision, the site condition standards for chloride in groundwater is deemed not to be exceeded.

Based on the findings of this Phase Two ESA, DS presents the following conclusions and recommendations:

- ◆ All of the soil and groundwater samples analysed were found to satisfy the applicable SCS. As such, it is the opinion of the QP<sub>ESA</sub> that the applicable SCS for soil and

groundwater at the Phase Two Property have been met and No further investigation is recommended at this time;

- ◆ All monitoring wells should be decommissioned in accordance with O.Reg. 903 when no longer required.



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## 1.0 Introduction

---

DS Consultants Ltd. (DS) was retained by NEATT Sixteen Mile Creek Inc. to complete a Phase Two Environmental Site Assessment (ESA) of the property located at 3056 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, Ontario, herein referred to as the “Phase Two Property” or “the Site”. It is DS’ understanding that this Phase Two ESA has been requested for due diligence purposes in association with the proposed redevelopment of the Property for residential purposes. It is further understood that the proposed development consists of eight (8) blocks of twenty-five (25) storey apartment buildings with up to four (4) levels of underground parking (P4).

The intended future property use (residential) does not constitute a more sensitive property use, as defined under O.Reg. 153/04 (as amended) than the current residential and institutional use. Given that the proposed change in property use is not to a more sensitive property use, the filing of a Record of Site Condition (RSC) with the Ontario Ministry of Environment, Conservation and Parks (MECP) will not be mandated under O.Reg. 153/04 (as amended).

The Phase Two ESA was completed in general accordance with the requirements, methodology and practices for a Phase Two ESA as described in Ontario Regulation 153/04 (as amended). The objective of this Phase Two ESA is to assess whether contaminants are present, and at what concentration are they present on the Phase Two Property, as related to the Areas of Potential Environmental Concern (APEC) identified in the Phase One ESA.

### 1.1 Site Description

---

The Phase Two Property is an irregularly shaped 8.12-hectare (20.0 acres) parcel of land situated within a mixed residential, community and commercial neighbourhood in the Town of Oakville, Ontario. The Phase Two Property is located approximately 110 m northwest of the intersection of Neyagawa Boulevard and Dundas Street West. A Site Location Plan depicting the general location of the Phase Two Property is provided in Figure 1.

For the purposes of this report, Dundas Street West is assumed to be aligned in an east-west orientation, and Neyagawa Boulevard in a north-south orientation. A survey of the property was not available at the time of this investigation.

The Site is currently developed with eight structures. 3056 Neyagawa Boulevard was occupied by residential tenants, including a 320 m<sup>2</sup> two-storey rectangular-shaped residential dwelling (Site Building A) with one level of basement and attached two-car

garage located within the northeastern portion of the Site. A detached 280 m<sup>2</sup> residential double car garage (Site Building B) located along the eastern portion of the Site. One canvas shed (Shed 1) approximately 10 m<sup>2</sup> located along the northern portion of the Site. Multiple (more than 10) shipping containers were present adjacent to the gravel driveway within the northeastern, western and central portions of the Site. The southwestern portion of the Site was comprised of agricultural land.

1039 Dundas Street West was occupied by St. Peter & Paul Serbian Orthodox Church and comprised of a 120 m<sup>2</sup> one-storey rectangular-shaped common area (Site Building C) with an attached 30 m<sup>2</sup> storage shed (Shed 3). South of Shed 3 is a 650 m<sup>2</sup> irregularly shaped building (Site Building D) which is used as an event hall and is outfitted with a commercial kitchen. A chapel is present on the central portion of the Site (Site Building E), occupying an approximate footprint of 100 m<sup>2</sup>. An enclosed 40 m<sup>2</sup> gazebo is present within the northern portion of the Site. An asphalt paved fenced area with an abandoned trailer and several cars is present within the southwestern portion of the Site. A Telus telecommunication tower is present on-Site adjacent to the northern Property boundary.

A gravel paved driveway traverses through the Site in a north-south orientation connecting Site Buildings C, D and E to Dundas Street West. The remaining balance of the Site consisted of landscaped grass, trees and shrubbery. A small, paved playground is present on the south-central portion of the Site adjacent to the gravel driveway.

A Site Plan depicting the orientation of the buildings on-Site is provided in Figure 2.

Additional details regarding the Phase Two Property are provided in the table below.

Table 1-1: Phase Two Property Information

Criteria	Information	Source
Legal Description	<u>3056 Neyagawa Boulevard</u> PT LT 21, CON 1 TRAF NDS, PT 2 20R5073, EXCEPT PT 1 HR683869 & PTS 1 & 2 ON EXPROPRIATION PLAN HR1105049; TOWN OF OAKVILLE  <u>1039 Dundas Street West</u> PT LT 21, CON 1 TRAF NDS, PT 1 20R5073; TOWN OF OAKVILLE	Ontario Land Registry
Property Identification Number (PIN)	<u>3056 Neyagawa Boulevard:</u> 24928-0267  <u>1039 Dundas Street West:</u>	Ontario Land Registry

Criteria	Information	Source
	24928-0063	
Municipal Address	3056 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, Ontario	Google Earth
Zoning	Future Development	Oakville Zoning Map Zoning By-Law 2009 – 189
Property Owner	<u>3056 Neyagawa Boulevard:</u> NEATT 16 Mile Creek Inc.  <u>1039 Dundas Street West:</u> St. Peter and Paul Serbian Orthodox Parish of Oakville and Mississauga	Ontario Land Registry
Property Owner Contact Information	Evan Kernaghan Representative of the Property Owner evan.kernaghan@neattcommunities.com	Phase One Questionnaire
Current Site Occupants	Residential Tenants and Church	Site Reconnaissance
Site Area	8.12-hectare (20.0 acres)	Google Earth
Centroid UTM Coordinates	Northing: 4813105.37 m N Easting: 601272.44 m E Zone: 17T	Google Earth

## 1.2 Current and Proposed Future Use

The Phase Two Property is currently occupied by residential tenants on the eastern parcel and a church on the western parcel, these are considered to be residential and institutional Property Use respectively under O.Reg. 153/04 (as amended). It is DS's understanding that the Client intends to redevelop the Site for residential use.

## 1.3 Applicable Site Condition Standards

The applicable Site Condition Standards (SCS) for the Phase Two Property are considered by the Qualified Person (QP) to be the Table 2 SCS: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/Parkland/Institutional Use with coarse-textured soils as contained in the April 15, 2011 Ontario Ministry of Environment, Conservation and Parks (MECP) document entitled "Soil, Ground Water and Sediment



Standards for Use Under Part XV.1 of the Environmental Protection Act”, herein referred to as the “Table 2 SCS”.

The selection of the Table 2 SCS is considered appropriate based on the following rationale:

- ◆ The Town of Oakville obtains its potable water from Lake Ontario, and does not rely on groundwater as a potable water source;
- ◆ The Site is not considered to be environmentally sensitive, as defined under O.Reg. 153/04 (as amended);
- ◆ The proposed future use of the Phase Two Property will be residential;
- ◆ The Site is not located within 30 m of a water body, and;
- ◆ Bedrock was not encountered within 2 metres of the ground surface.

## 2.0 Background Information

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### 2.1 Physical Setting

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#### 2.1.1 Water Bodies and Areas of Natural Significance

During the site visit, standing water was not observed on the Property. The nearest body of water to the Phase Two Property is Sixteen Mile Creek, located approximately 450 m to the southwest. Environmentally Significant Areas are natural areas that have been identified as significant and worthy of protection on three criteria – ecology, hydrology and geology. Municipalities have developed policies to protect natural heritage features. The Region uses Environmentally Significant Areas as a means to protect natural areas like wetlands, fish habitat, woodlands, habitat of rare species, groundwater recharge and discharge areas, and Areas of Natural and Scientific Interest.

The Property includes no Areas of Natural Significance.

#### 2.1.2 Topography and Surface Water Draining Features

The topography on the Phase One Property and within the Phase One Study Area is generally flat with a surficial elevation of 160 metres above sea level (masl) and a slight slope to the southwest. Based on the local topography, the shallow groundwater flow direction is inferred to be southwest towards Sixteen Mile Creek, which is located approximately 450 metres southwest of the Phase One Property. Based on a review of the MECP well records, the depth to groundwater in the vicinity of the Phase One Property is approximately 3.6 to 5.5 mbgs. The shallow groundwater flow direction within the Phase One Study Area is inferred to be southwest towards Sixteen Mile Creek.

The Site is situated within a Till Plains physiographic region. The surficial geology within the Phase One Study area is described as “Till, clay to silt-textured till (derived from glaciolacustrine deposits or shale)”, and the bedrock is described as “shale, limestone, dolostone, siltstone, of the Queenston Formation”. Based on a review of MECP Well Records, the bedrock underlying the Phase One Property is anticipated to be present at a depth of between 2.0 to 4.0 mbgs.

## 2.2 Past Investigations

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DS was provided with the following reports for review by the Client:

- ◆ *“Phase One Environmental Site Assessment, 3056 Neyagawa Boulevard, Oakville, Ontario”* dated September 3, 2021, prepared by AEL Environment, prepared for Diana McGowan (Former Property Owner).
- ◆ *“Preliminary Geotechnical Investigation, 3056 Neyagawa Boulevard, Oakville, Ontario”*, prepared for NEATT Communities, prepared by DS Consultants Ltd., dated August 2023 (DS 2023 Geotechnical Report); and
- ◆ *“Preliminary Hydrogeological Investigation, 3056 Neyagawa Boulevard, Oakville, Ontario”*, prepared for NEATT Communities, prepared by DS Consultants Ltd., dated September 2023 (DS 2023 Hydrogeology Report)

These reports were reviewed to assess the presence of known or suspected PCAs and APECs, and to determine if there are known soil and/or groundwater impacts on the Phase One Property or on Properties within the Phase One Study Area.

### AEL 2021 Phase I ESA

AEL Environment (AEL) completed a Phase I ESA in 2021 which encompassed the eastern portion of the Phase One Property associated with the municipal address 3056 Neyagawa Boulevard, Oakville, Ontario. The Phase I ESA was reportedly completed in accordance with the requirements of the Canadian Standards Association (CSA Standard Z768-01 (R2016)). DS notes the following pertinent details presented by AEL:

- ◆ AEL indicated that the Site was occupied by one residential dwelling, one separate residential garage, and approximately ten (10) storage containers at the time of their assessment. AEL also notes that a gravel driveway was present in the northeastern portion of the site, and that a field used for growing and harvesting agricultural crops was present within the southern portion of the site. Cleared areas with gravel ground cover were present within the central-north and eastern portions of the Site.

- ◆ AEL noted that historic records and aerial photographs indicated that the property was developed in the late 1980s or early 1990s for residential/agricultural use. Aerial photographs obtained from the Town of Oakville show clear evidence of the current site buildings by 1996. Prior to this, the Site use was likely agricultural or vacant until it was developed for residential/agricultural use.
- ◆ AEL reported a gravel material stockpile containing soil of unknown origin located to the north/northeast of the residential garage.
- ◆ According to the Phase One Interview provided by AEL the property owner indicated that fill material of unknown origin may have been placed on the central portion of the property.
- ◆ AEL did not identify any PCAs or APECs on the Site, stating that a Phase Two ESA is not recommended at this time based on only the low potential for Site impacts from historical importation of gravel fill.
- ◆ AEL also stated that off-Site downgradient/transgradient bulk fuel operations and gasoline USTs present a low potential for Site impacts.
- ◆ AEL concluded that there were no environmental liabilities of high likelihood at the Site requiring immediate further investigation as of the report date and that the Site is suitable for the current (residential) property use.
- ◆ Based on photographs provided by AEL it is inferred that light vehicle servicing has likely taken place within the residential garage.

### DS 2023 Geotechnical Report

DS Consultants Ltd (DS) completed a preliminary geotechnical investigation for the proposed residential development located on the eastern portion of the Site (at 3056 Neyagawa Boulevard). It is understood that the proposed development will involve the construction of several blocks comprised of 18 to 27-storey high-rise buildings with an eight (8) storey podium and four (4) levels of underground parking (P4).

In 2022, a preliminary geotechnical investigation was conducted by SHAD and Associates Inc. (SHAD). The investigation involved the advancement of five (5) boreholes (BH1 to BH5) on the eastern portion of the Site, pertaining to 3056 Neyagawa Boulevard, extending to depths ranging from 8.1 to 9.4 metres below existing grade. All five (5) boreholes were instrumented with monitoring wells (BH1 to BH5).

DS' supplementary geotechnical investigation involved the advancement of an additional eight (8) boreholes (BH23-1 to BH23-8) between June 5 and June 15, 2023, extending to

depths ranging from 18.6 to 18.8 metres below ground surface (mbgs). All of the boreholes were equipped with monitoring wells upon completion. A surficial layer of topsoil ranging in thickness from 150 to 250 mm was encountered at the ground surface in boreholes BH23-5, BH23-6, and BH23-7. An asphaltic concrete layer, about 150 mm in thickness, was encountered at the ground surface in borehole BH23-8 and a 50 mm thick layer of granular fill consisting of sand and gravel was present at the ground surface in borehole BH23-2. Fill materials consisting of clayey silt to silty clay with trace rootlets/organics, organic staining, weathered shale, and cobble fragments were present in all boreholes extending to depths ranging from 0.8 to 1.5 m. Beneath the fill layer soils generally consisted of silty clay till/shale complex with thicknesses ranging from 0.2 to 0.9 m in all the boreholes. Shale bedrock was encountered at approximate depths ranging from 2.3 to 3.3 m, corresponding to elevations 152.2 to 157.0 metres above sea level (masl).

The static water levels were measured in the newly installed monitoring wells (BH23-1 to BH23-8) on June 26, 2023, and July 19, 2023. On June 26, 2023, the groundwater levels across the Site ranged between 2.5 to 12.9 mbgs; on July 19, 2023, groundwater levels ranged between 2.8 to 13.1 mbgs.

#### DS 2023 Hydrogeology Report

DS Consultants Limited (DS) was retained by NEATT Communities to complete a preliminary hydrogeological investigation for the proposed residential development located on the eastern portion of the Site (at 3056 Neyagawa Boulevard).

Between June 5, 2023, and June 25, 2023, DS conducted a hydrogeological investigation in conjunction with the geotechnical and environmental investigation. Twenty-one (21) boreholes (BH23-1 to BH23-21) were advanced to depths ranging from 1.4 to 18.8 meters below ground surface (mbgs). Ten (10) boreholes were instrumented with monitoring wells (BH23-1 to BH23-9 and BH23-17) and screened at depths ranging from 3.1 to 18.4 mbgs. DS also utilized five (5) existing monitoring wells (BH1 to BH5) installed by SHAD and Associates Inc. as part of the preliminary geotechnical investigation in 2022. Boreholes BH1 to BH5 were drilled to depths ranging from 8.1 to 9.4 mbgs and screened at depths ranging from 1.5 to 7.1 mbgs.

The groundwater levels were measured in all available monitoring wells on June 26, 2023, and July 19, 2023. The interpreted local direction of hydraulic movement across the Site is inferred to be in a southwestern direction, towards East Sixteen Mile Creek.

## 3.0 Scope of the Investigation

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The scope of the Phase Two ESA was designed to investigate the portions of the Site determined in the Phase One ESA to be Areas of Potential Environmental Concern. This Phase Two ESA was conducted in general accordance with O.Reg. 153/04 (as amended). The scope of the investigation including the subsurface investigation, sampling, and laboratory analysis was based on the findings of the Phase One ESA and was limited to the portions of the site which were accessible.

### 3.1 Overview of Site Investigation

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The following tasks were completed as part of the Phase Two ESA:

- ◆ Preparation of a Health and Safety Plan to ensure that all work was executed safely;
- ◆ Clearance of public private underground utility services prior to commencement of subsurface investigative operations;
- ◆ Preparation of a Sampling and Analysis Plan (SAP);
- ◆ In January 2022, a contractor was retained to advance eight (8) test pits (TP1 to TP8) on the eastern portion of the Phase Two Property using a backhoe under the supervision of DS personnel, to depths ranging between 2.3 to 3.5 metres below ground surface (mbgs).
- ◆ Retained a MECP licenced driller to advance twenty-one (21) additional boreholes in June 2023 (BH23-1 to BH23-21), which were advanced to depths ranging from 1.4 to 18.8 mbgs on the western portion of the Phase Two Property. Ten (10) of the boreholes were instrumented with groundwater monitoring wells (BH23-1 to BH23-9 and BH23-17) upon completion.
- ◆ The soil lithology was logged during the excavation, and representative soil samples were collected at regular intervals. The soil samples were screened for organic vapours using (RKI Eagle 2 MultiGas Detector), and examined for visual and olfactory indications of soil impacts;
- ◆ Submitted “worst case” soil samples collected from the boreholes for laboratory analysis of relevant contaminants of potential concern (COPCs) as identified in the Phase One ESA;
- ◆ Conducted groundwater level measurements in the monitoring wells in order to determine the groundwater elevation, and to establish the local groundwater flow direction;
- ◆ Surveyed all monitoring wells to a geodetic benchmark;

- ◆ Developed and purged all monitoring wells prior to sampling.
- ◆ Collection of groundwater samples from monitoring wells;
- ◆ Compared all soil and groundwater analytical data to the applicable MECP SCS; and
- ◆ Prepared a Phase Two ESA Report in general accordance with O.Reg. 153/04 (as amended).

## 3.2 Media Investigated

### 3.2.1 Rationale for Inclusion or Exclusion of Media

Table 3-1: Rationale of Sampling Media

Media	Included or Excluded	Rationale
Soil	Included	Soil was identified as a media of potential impact in the Phase One ESA, based on the historical operations conducted on-Site.
Groundwater	Included	Groundwater was identified as a media of potential impact in the Phase One ESA, based on the historical operations conducted on-Site.
Sediment	Excluded	Sediment was not identified as a media of concern by the Phase One ESA.
Surface Water	Excluded	Surface water was not identified as a media of concern by the Phase One ESA.

### 3.2.2 Overview of Field Investigation of Media

Table 3-2: Field Investigation of Media

Media	Methodology of Investigation
Soil	<p>Eight (8) test pits (TP1 to TP8) were advanced on the Phase Two Property in January 2022 to a maximum depth of 3.5 mbgs. Soil samples were collected and submitted for analysis of COPCs as follows:</p> <ul style="list-style-type: none"> <li>◆ TP1, TP5, TP7: Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs, PHCs, BTEX, VOCs;</li> <li>◆ TP2, TP3, TP4: Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs, pH, and;</li> <li>◆ TP6 and TP8: Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs.</li> </ul> <p>An additional, thirteen (13) additional boreholes were advanced in June 2023 (BH23-9 to BH23-21). Soil samples were collected and submitted for analysis of COPCs, as follows:</p>

Media	Methodology of Investigation
	<ul style="list-style-type: none"> <li>◆ BH23-9, BH23-10, BH23-17, BH23-21: Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, OCPs, PAHs, PHCs, BTEX, VOCs;</li> <li>◆ BH23-11, BH23-12 : Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR;</li> <li>◆ BH23-13, BH23-18: OCPs, Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR;</li> <li>◆ BH23-14: OCPs;</li> <li>◆ BH23-16, BH23-20: Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs, PHCs, BTEX, VOCs, and;</li> <li>◆ BH23-19: OCPs, Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs.</li> </ul>
Groundwater	<p>A total of ten (10) monitoring wells (MW23-1 to MW23-9 and MW23-17)) were installed by DS on the Phase Two Property.</p> <p>Five (5) monitoring wells (BH1 to BH5) were previously installed by SHAD and Associates Inc. (SHAD) in 2022, that were also used to facilitate the collection of representative groundwater samples and water levels. Groundwater sampling was completed within the installed monitoring wells as follows:</p> <p><u>January 22, 2022</u>                      Groundwater samples were collected from BH1, BH2 and BH4 and submitted for analysis of all COPCs (Metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl, PHCs, BTEX, VOCs, PAHs).</p> <p><u>June 30, 2023</u>                      Groundwater samples were collected from BH23-9 and BH23-17 and submitted for analysis of all COPCs (Metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl, PHCs, BTEX, VOCs, PAHs).</p>

### 3.3 Phase One Conceptual Site Model

A Conceptual Site Model was developed for the Phase One Property, located at 3056 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, Ontario. The Phase One Conceptual Site Model is presented in Figures 1 through 5, which visually depict the following:

- ◆ Any existing buildings and structures
- ◆ Water bodies located in whole, or in part, on the Phase One Study Area
- ◆ Areas of natural significance located in whole, or in part, on the Phase One Study Area
- ◆ Water wells at the Phase One Property or within the Phase One Study Area
- ◆ Roads, including names, within the Phase One Study Area
- ◆ Uses of properties adjacent to the Phase One Property
- ◆ Areas where any PCAs have occurred, including location of any tanks

◆ Areas of Potential Environmental Concern

**3.3.1 Potentially Contaminating Activity Affecting the Phase One Property**

All PCAs identified within the Phase One Study Area are presented on Figure 4. The PCAs which are considered to contribute to APECs on, in or under the Phase One Property are summarized in the table below:

Table 3-3: Summary of PCAs Contributing to APECs

PCA Item.	PCA Description (Per. Table 2, Schedule D of O.Reg. 153/04)	Description	Rationale
1	#30: Importation of Fill Material of Unknown Origin	AEL (2021) reported a gravel material stockpile containing soil of unknown origin located to the north/northeast of the residential garage.	PCA is on-Site
2	#30: Importation of Fill Material of Unknown Origin	According to the Phase One Interview provided by AEL the current property owner indicated that fill material of unknown origin may have been placed on the western portion of 3056 Neyagawa Boulevard.	PCA is on-Site
5	#30: Importation of Fill Material of Unknown Origin	DS geotechnical investigation (2023) encountered fill material extending to depths ranging from 0.8 to 1.5 mbgs across the entire Site.	PCA is on-Site
6	#58: Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners.	3070 – 3090 Neyagawa Blvd, the north adjacent property, had one (1) record in the Ontario Regulation 347 Waste Generators database in 2015 and 2021 for alkaline solutions – other metals and non-metals paint/pigment/coating residues, oils & lubricants, inorganic and organic laboratory chemicals, light fuels and organic acids.	PCA is immediately upgradient of the Site.
8	#40: Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	In the 1934 aerial imagery an orchard can be observed on the southwest portion of the Phase One Property.	PCA is on-Site
11	#30: Importation of Fill Material of Unknown Origin	In the 1965 aerial imagery the residential dwelling (Former Site Building F) on the southwestern portion of the Property, along Dundas Street West, appears to have been demolished.	PCA is on-Site
12	#30: Importation of Fill Material of Unknown Origin	The residential dwelling (Former Site Building G) on the southern portion of the Property has been demolished.	PCA is on-Site
13	#N/S: Storage of miscellaneous debris, refuse and boats	Miscellaneous debris, refuse and boats appears to have been stored at the Site for extended periods of time within the western extent of the Property in the vicinity of Shed 1.	PCA is on-Site



PCA Item.	PCA Description (Per. Table 2, Schedule D of O.Reg. 153/04)	Description	Rationale
14	#30: Importation of Fill Material of Unknown Origin	A shed appears to have been formerly located in the southern portion of the Site (Former Shed 2) from at least 2004 to 2007. The structure was subsequently demolished and fill material of unknown origin may have been utilized for grading/infilling at this location.	PCA is on-Site
15	#N/S: Storage of miscellaneous debris and refuse	Based on historic imagery and the Site Reconnaissance, storage of miscellaneous debris and refuse appears to have taken place within the eastern portion of the Site.	PCA is on-Site
16	#N/S: Storage of miscellaneous debris and refuse	Based on historic satellite imagery, areas within the western portion of 3056 Neyagawa Boulevard, immediately north of the current agricultural field appears to have been utilized for the storage of miscellaneous debris and refuse.	PCA is on-Site
17	#N/S: Storage of miscellaneous debris and refuse	Based on historic satellite imagery, an area within the southern portion of the Site immediately south of the current agricultural field appears to have been utilized for the storage of miscellaneous debris and refuse.	PCA is on-Site
18	#N/S: Application of De-Icing Agents	It is inferred that de-icing agents have been utilized upon the driveways present within the eastern portion of the Property for the purpose of pedestrian and vehicular safety.	PCA is on-Site
19	#N/S: Application of De-Icing Agents	It is inferred that de-icing agents have been utilized upon the driveways present within the western portion of the Property for the purpose of pedestrian and vehicular safety.	PCA is on-Site
20	#27: Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	Based on photographs provided by AEL it is inferred that light vehicle servicing has likely taken place within the residential garage.	PCA is on-Site

N/S - not specified in Table 2, Schedule D, of O.Reg. 153/04

### 3.3.2 Contaminants of Potential Concern

A summary of the contaminants of potential concern identified for each respective APEC is presented in Table 3-3 above. The following contaminants of potential concern were identified for the Phase One Property:

- ◆ Soil - PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR, PAHs, OCPs.
- ◆ Groundwater - PHCs, VOCs, BTEX, PAHs, Metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl.

### 3.3.3 Underground Utilities and Contaminant Distribution and Transport

Underground utilities can affect contaminant distribution and transport. Trenches excavated to install utility services, and the associated granular backfill may provide preferential pathways for horizontal contaminant migration in the shallow subsurface.

Plans were not available to confirm the depths of these utilities or whether they are present, however they are estimated to be installed at depths ranging from 2 to 3 metres below ground surface.

The depth to groundwater at the Phase One Property is inferred to be approximately 3.6 to 5.5 mbgs, therefore the utility corridors do have the potential to act as preferential pathways for contaminant distribution and transport in the event that shallow subsurface contaminants exist at the Phase One Property.

### 3.3.4 Geological and Hydrogeological Information

The topography on the Phase One Property and within the Phase One Study Area is generally flat with a surficial elevation of 160 metres above sea level (masl) and a slight slope to the southwest. Based on the local topography, the shallow groundwater flow direction is inferred to be southwest towards Sixteen Mile Creek, which is located approximately 450 metres southwest of the Phase One Property. Based on a review of the MECP well records, the depth to groundwater in the vicinity of the Phase One Property is approximately 3.6 to 5.5 mbgs. The shallow groundwater flow direction within the Phase One Study Area is inferred to be southwest towards Sixteen Mile Creek.

The Site is situated within a Till Plains physiographic region. The surficial geology within the Phase One Study area is described as “Till, clay to silt-textured till (derived from glaciolacustrine deposits or shale)”, and the bedrock is described as “shale, limestone, dolostone, siltstone, of the Queenston Formation”. Based on a review of MECP Well Records, the bedrock underlying the Phase One Property is anticipated to be present at a depth of between 2.0 to 4.0 mbgs.

### 3.3.5 Uncertainty and Absence of Information

DS has relied upon information obtained from federal, provincial, municipal, and private databases, in addition to records and summaries provided by ERIS. All information obtained was reviewed and assessed for consistency, however the conclusions drawn by DS are subject to the nature and accuracy of the records reviewed.

All reasonable inquiries were made to obtain reasonably accessible information, as mandated by O.Reg.153/04 (as amended). All responses to database requests were received prior to completion of this report. This report reflects the best judgement of DS based on the information available at the time of the investigation.

Information used in this report was evaluated based on proximity to the Phase One Property, anticipated direction of local groundwater flow, and the potential environmental impact on the Phase One Property as a result of potentially contaminating activities.

The QP has determined that the uncertainty does not affect the validity of the Phase One ESA Conceptual Site Model or the conclusions of this report.

### 3.4 Deviations from Sampling and Analysis Plan

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The Phase Two ESA was completed in accordance with the SAP.

### 3.5 Impediments

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DS was granted complete access to the Phase Two Property throughout the course of the investigation. No impediments were encountered.

## 4.0 Investigation Method

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### 4.1 General

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The Phase Two ESA followed the methodology outlined in the following documents:

- Ontario Ministry of the Environment “Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario” (December 1996);
- Ontario Ministry of the Environment “Guide for Completing Phase Two Environmental Site Assessments under Ontario regulation 153/04” (June 2011);
- Ontario Ministry of the Environment “Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act” (July 2011) (Analytical Protocol);

The methods used in the Phase Two ESA investigation did not differ from the associated standard operating procedures.

### 4.2 Drilling and Excavating

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A site visit was conducted prior to drilling in order to identify the borehole locations based on the APECs identified in the Phase One ESA. The selected borehole locations are presented on Figure 5. The borehole locations were cleared of underground public and private utility

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services prior to commencement of drilling. A summary of the drilling activities is provided in the table below.

Table 4-1: Summary of Drilling Activities

Parameter	Details	
Drilling Contractor	DK Environmental Equipment	Davis Drilling Ltd.
Drilling Dates	January 10, 2022	June 5-25, 2023
Drilling Equipment Used	336E Excavator	Track-mounted CME 75
Measures taken to minimize the potential for cross contamination	<ul style="list-style-type: none"> <li>◆ Soil samples were collected from the excavator bucket.</li> <li>◆ Soil samples were extracted from the interior of the bucket rather than from areas in contact with the sidewalls.</li> <li>◆ Use of dedicated and disposable nitrile gloves for the handling of soil samples. A new set of gloves was used for each sample.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Soil sampling was conducted using a 50 mm stainless steel split spoon sampler. The split spoon sampler was brushed clean of soil, washed in municipal water containing phosphate free detergent, rinsed in municipal water, and then rinsed with distilled water for each sampling interval in order to reduce the potential for cross contamination;</li> <li>◆ Soil samples were extracted from the interior of the sampler rather than from areas in contact with the sampler sidewalls;</li> <li>◆ Use of dedicated and disposable nitrile gloves for the handling of soil samples. A new set of gloves was used for each sample;</li> </ul>
Sample collection frequency	Samples were recovered continuously from the excavator.	Samples were collected at a frequency of every 0.6 m per 0.8 m from the

Parameter	Details
	ground surface to 3.1 mbgs, followed by one sample per 1.5 m to borehole termination depth.

### 4.3 Soil Sampling

Soil samples were collected from the excavator bucket or using a 50 mm stainless steel split spoon sampler. Discrete soil samples were collected from the excavator bucket and split-spoon samplers by DS personnel using dedicated nitrile gloves.

A portion of each sample was placed in a resealable plastic bag for field screening, and the remaining portion was placed into laboratory supplied glass sampling jars. Samples intended for VOC and the F1 fraction of petroleum hydrocarbons analysis were collected using a laboratory-supplied soil core sampler, placed into the vials containing methanol for preservation purposes and sealed using Teflon lined septa lids. All sample jars were stored in dedicated coolers with ice for storage, pending transport to the analytical laboratory. A formal chain of custody was maintained for all samples submitted to the laboratory.

The subsurface soil conditions were logged by DS personnel at the time of excavation, and recorded on field borehole logs. The borehole logs are presented under Appendix B. Additional detail regarding the lithology encountered in the boreholes is presented under Section 5.1.

### 4.4 Field Screening Measurements

All retrieved soil samples were screened in the field for visual and olfactory observations. No obvious visual or olfactory evidence of potential contamination were noted. No aesthetic impacts (e.g. cinders, slag, hydrocarbon odours) were encountered during this investigation. The soil sample headspace vapour concentrations for all soil samples recovered during the investigation were screened using portable organic vapour testing equipment in accordance with the procedure outlined in the MECP's *'Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario'*.

The soil samples were inspected and examined to assess soil type, ground water conditions, and possible chemical contamination by visual and olfactory observations or by organic vapour screening. Samples submitted for chemical analysis were collected from locations judged by the assessor to be most likely to exhibit the highest concentrations of contaminants based on several factors including (i) visual or olfactory observations, (ii)

sample location, depth, and soil type (iii) ground water conditions and headspace reading. A summary of the equipment used for field screening is provided below:

Table 4-2: Field Screening Equipment

Parameter	Details
Make and Model of Field Screening Instrument	RKI Eagle 2, Model 5101-P2 Serial Number: E2G721
Chemicals the equipment can detect and associated detection limits	VOCs with dynamic range of 0 parts per million (ppm) to 2,000 ppm PHCs with range of 0 to 50,000 ppm
Precision of the measurements	3 significant figures
Accuracy of the measurements	VOCs: $\pm 10\%$ display reading + one digit Hydrocarbons: $\pm 5\%$ display reading + one digit
Calibration reference standards	PID: Isobutylene CGD: Hexane
Procedures for checking calibration of equipment	In-field re-calibration of the RKI Eagle 2 was conducted (using the gas standard in accordance with the operator's manual instructions) if the calibration check indicated that the calibration had drifted by more than $\pm 10\%$ .

A summary of the soil headspace measurements is provided in the borehole logs, provided under Appendix B.

#### 4.5 Groundwater Monitoring Well Installation

Monitoring wells were instrumented within ten (10) of the boreholes (BH23-1 to BH23-9 and BH23-17) advanced on the Phase Two Property. The monitoring wells were constructed of 51-millimetre (2-inch) inner diameter (ID) flush-threaded schedule 40 polyvinyl chloride (PVC) risers, equipped with a 1.5 m or 3.1 m length of No. 10 slot PVC screen. The well screens were sealed at the bottom using a threaded cap and at the top with a lockable J-plug. Silica sand was placed around and up to 0.6m above the well screen to act as a filter pack. Bentonite was placed from the ground surface to the top of the sand pack. The wells were completed with protective flush mount and aboveground monument casings.

Details regarding the monitoring well construction can be found in Table 1 (Enclosed), and on the borehole logs provided in Appendix B.

Disposable nitrile gloves were used to minimize the potential for cross-contamination during well installation. Dedicated equipment was used for well development and sampling for further minimize the risk of cross contamination.

Monitoring wells were developed as follows:

- ◆ Monitoring wells BH1, BH2 and BH4 were developed on January 21, 2022, and;
- ◆ Monitoring wells MW23-9 and MW23-17 were developed on June 26, 2023.

In accordance with DS SOPs for monitoring well development, the wells were developed by removing a minimum of three standing water column volumes using dedicated inertial pumps comprised of Waterra polyethylene tubing and dedicated foot valves.

#### 4.6 Groundwater Field Measurement of Water Quality Parameters

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Field measurements of water quality parameters including temperature, specific conductivity, pH, turbidity, dissolved oxygen, oxidation-reduction potential and turbidity were collected using a flow-through cell and a YSI Water Quality Meter (YSI-556TM). The YSI Water Quality Meter was calibrated by the supplier Maxim Environmental in accordance with the manufacturer's specifications.

The measurements were conducted at regular intervals to determine whether stabilized geochemical conditions had been established in the monitoring well, indicating representative groundwater conditions.

The field measurements have been archived and can be provided upon request.

#### 4.7 Groundwater Sampling

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##### January 2022 Sampling Event (January 22, 2022)

Groundwater samples were collected from BH1, BH2 and BH4 a minimum of 24 hours after the development of the monitoring wells.

Monitoring wells BH1, BH2 and BH4 were purged using a peristaltic pump with dedicated 6.4 mm ID polyethylene tubing. A YSI Water Quality Meter equipped with a flow-through cell was used to monitor the geochemical conditions during purging to assess whether steady-state conditions were achieved prior to sampling.

Groundwater samples for metals analysis were field filtered using dedicated 0.45 micro inline filters. The groundwater was transferred directly into laboratory supplied containers and preserved as appropriate using the containers supplied by the analytical laboratory. The samples were placed in coolers upon completion of sampling and stored on ice for storage,

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pending transport to the analytical laboratory. A formal chain of custody was maintained for all samples submitted to the laboratory.

#### June 2023 Sampling Event (June 30, 2023)

Groundwater samples were collected from MW23-9 and MW23-17 a minimum of 24 hours after the development of the monitoring wells.

Monitoring wells MW23-9 and MW23-17 were purged using a peristaltic pump with dedicated 6.4 mm ID polyethylene tubing. A YSI Water Quality Meter equipped with a flow-through cell was used to monitor the geochemical conditions during purging to assess whether steady-state conditions were achieved prior to sampling.

Groundwater samples for metals analysis were field filtered using dedicated 0.45 micro inline filters. The groundwater was transferred directly into laboratory supplied containers and preserved as appropriate using the containers supplied by the analytical laboratory. The samples were placed in coolers upon completion of sampling and stored on ice for storage, pending transport to the analytical laboratory. A formal chain of custody was maintained for all samples submitted to the laboratory.

#### **4.8 Sediment Sampling**

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No sediment as defined under O.Reg. 153/04 (as amended) was present on the Phase Two Property at the time of this investigation. Sediment sampling was not conducted as a result.

#### **4.9 Analytical Testing**

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The soil samples collected in 2022 and 2023 were submitted to SGS Canada Inc. (SGS) under chain of custody protocols. SGS is an independent laboratory accredited by the Canadian Association for Laboratory Accreditation. SGS conducted the analyses in accordance with the MECP document "Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" dated March 9, 2004 (revised on July 1, 2011).

The groundwater samples collected in 2022 and 2023 were submitted to Bureau Veritas (BV) under chain of custody protocols. BV is an independent laboratory accredited by the Canadian Association for Laboratory Accreditation. BV conducted the analyses in accordance with the MECP document "Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" dated March 9, 2004 (revised on July 1, 2011).



## 4.10 Residue Management Procedures

### 4.10.1 Soil Cuttings From Drilling and Excavations

The soil cuttings generated by the 2022 test pitting excavations were backfilled into each applicable test pit for later disposal at the time of Site redevelopment.

The soil cuttings generated by the 2023 borehole drilling program were stored in 205 L drums and left on-Site for disposal by a MECP approved waste-hauler for disposal at a MECP-approved waste management facility.

### 4.10.2 Water from Well Development and Purging

Excess water derived from well purging activities was stored in 20-L sealed plastic pails and temporarily stored on Site for disposal by a MECP approved waste-hauler for disposal at a MECP-approved waste management facility.

### 4.10.3 Fluids from Equipment Cleaning

Excess equipment cleaning fluids were stored in 20-L sealed plastic pails and temporarily stored on-Site for disposal by a MECP approved waste-hauler for disposal at a MECP-approved waste management facility.

## 4.11 Elevation Surveying

The ground surface elevations of the boreholes/monitoring wells were surveyed using a Sokkia GCX-2 GNSS RTK receiver, referenced to geodetic benchmark 04519910054 located near the intersection of Dundas Street West and Neyagawa Boulevard.

The ground surface elevations can be found on the borehole logs presented in Appendix B.

## 4.12 Quality Assurance and Quality Control Measures

### 4.12.1 Sample containers, preservation, labelling, handling and custody for samples submitted for laboratory analysis, including any deviations from the SAP

All soil and groundwater samples were stored in laboratory-supplied sample containers in accordance with the MECP Analytical Protocol. A summary of the preservatives supplied by the laboratory is provided in the table below.

Table 4-3: Summary of Sample Bottle Preservatives

Media	Parameter	Sample Container
Soil	PHCs F1 VOCs	40 mL methanol preserved glass vial with septum lid.

Media	Parameter	Sample Container
	PHCs F2-F4 metals and ORPs PAHs	120 mL or 250 mL unpreserved glass jar with Teflon™-lined lid.
Groundwater	PHCs F1 VOCs	40 mL glass vial with septum lid, containing sodium bisulphate preservative.
	PHCs F2-F4	250 mL amber glass bottle with sodium bisulphate preservative
	PAHs	250 mL amber glass bottle (unpreserved)
	Inorganics	500 mL high density polyethylene bottle (unpreserved)
Groundwater	Metals	125 mL high density polyethylene bottle containing nitric acid preservative
	Hexavalent Chromium	125 mL high density polyethylene bottle containing ammonium sulphate/ammonium hydroxide preservative
	Mercury	125 mL glass bottle containing hydrochloric acid preservative
	Cyanide	125 mL high density polyethylene bottle containing sodium hydroxide preservative

Groundwater samples were collected using dedicated equipment for each well. Groundwater samples collected for analysis of dissolved metals, mercury and hexavalent chromium were filtered in the field using a dedicated 0.45-micron in-line filter. Each sample container was labelled with a unique sample identification, the project number, and the sampling date. All samples were placed in an ice-filled cooler upon completion of sampling, and kept under refrigerated conditions until the time of delivery to the analytical laboratory. A formal chain of custody was maintained for all samples submitted to the laboratory.

#### 4.12.2 Description of equipment cleaning procedures followed during all sampling

Dedicated, disposable nitrile gloves were used for each sampling event to reduce the potential for cross-contamination.

Dedicated equipment was used for well development and sampling for further minimize the risk of cross contamination. Non-dedicated equipment (i.e. interface probe, YSI water quality meter) was cleaned before initial use and between all measurement points with a solution of Alconox™ and distilled water. The Alconox™ solution was rinsed off using distilled water.

#### 4.12.3 Description of how the field quality control measures referred to in subsection 3 (3) were carried out

Field duplicate samples were collected at the time of sampling. In accordance with O.Reg. 153/04, one duplicate sample was analyzed per ten samples submitted for analysis. A laboratory prepared trip blank accompanied the groundwater samples during each sampling event and was submitted for laboratory analysis of VOCs.

All field screening devices (i.e. RKI Eagle 2, YSI Water Quality Meter) were calibrated prior to use by the supplier. Calibration checks were completed, and re-calibrations were conducted as required.

#### 4.12.4 Description of, and rationale for, any deviations from the procedures set out in the quality assurance and quality control program set out in the SAP

There were no deviations from the QA/QC program described in the SAP.

## 5.0 Review and Evaluation

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### 5.1 Geology

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A summary of the subsurface conditions is presented below. Additional details may be found in the borehole logs appended in Appendix B. The boundaries of soil indicated on the borehole logs and described below are intended to reflect transition zones for the purpose of environmental assessment and should not be interpreted as exact planes of geological change.

A surficial layer of topsoil approximately 150 to 250 mm in thickness was encountered in all test-pits (TP1 to TP8) and boreholes BH23-5, BH23-6 and BH23-7 advanced. An asphalt layer, approximately 150 mm in thickness, was encountered at the ground surface in borehole BH23-8 and a 50 mm thick layer of granular fill consisting of sand and gravel was present at the ground surface in borehole BH23-2. Fill materials consisting of clayey silt to silty clay with trace rootlets/organics and/or weathered shale, and cobble fragments were present in all boreholes extending to depths ranging from 0.8 to 1.5 mbgs. Beneath the fill strata, the native soil generally consisted of silty clay till extending to depths of between 1.6 to 3.1 m in all the boreholes. Shale bedrock was encountered at approximate depths ranging from 2.3 to 3.3 mbgs which extended to a maximum termination depth of 18.8 mbgs, and was confirmed by coring.

Table 5-1: Summary of Geologic Units Investigated

Geologic Unit	Inferred Thickness (m)	Top Elevation (masl)	Bottom Elevation (masl)	Properties
Topsoil	0.1 to 0.25	157.00	155.80	-
Fill Material	0.5 to 0.7	156.1	154.60	Moist
Silty Clay Till	0.2 to 0.9	155.10	154.50	Very Moist
Shale Bedrock	Unknown	153.40	Unknown	-

## 5.2 Ground Water Elevations and Flow Direction

### 5.2.1 Rationale for Monitoring Well Location and Well Screen Intervals

Two (2) of the monitoring wells installed by DS on the Phase Two Property (MW23-9 and MW23-17) were utilized to assess the groundwater quality in relation to APEC-2 and APEC-5B. In addition, groundwater monitoring wells (BH1, BH2 and BH4) installed as part of the SHAD Geotechnical Investigation (2022) were also utilized for groundwater sampling purposes in relation to assessing APEC-2, APEC-5A, APEC-5B, and APEC-6. Two additional wells installed by SHAD (2022, namely BH3 and BH5) were utilized solely for groundwater monitoring purposes.

Monitoring wells were screened to intersect the first water bearing formation encountered, generally to allow for the assessment of LNAPL, and to provide information regarding the quality of the groundwater.

The remaining monitoring wells were installed on the Phase Two Property as a part of hydrogeological and geotechnical investigations conducted concurrently with the environmental investigation. These monitoring wells were not used to assess the groundwater conditions on-Site.

### 5.2.2 Results of Interface Probe Measurements

A summary of the groundwater level measurements is provided in Table 1 (Enclosed). The groundwater level measurements were collected using a Solinst interface probe (model 122). On July 19, 2023 the shallow groundwater levels were found to range between 2.66 to 4.12 mbgs.

There was no indication of DNAPL or LNAPL in the monitoring wells at this time.

### 5.2.3 Product Thickness and Free Flowing Product

No evidence of product was observed in the monitoring wells at the time of the investigation.

#### **5.2.4 Groundwater Elevation**

The groundwater elevation was calculated by subtracting the depth to groundwater from the surface elevation determined by the surface elevation survey conducted as part of this investigation. A summary of the groundwater elevations calculated is presented in Table 1 (Enclosed). Generally, the groundwater elevation on July 19, 2023 was found to range from 150.83 and 156.38 masl in the aquifer investigated.

#### **5.2.5 Groundwater Flow Direction**

The groundwater flow direction was interpreted using the groundwater elevations calculated for the monitoring wells installed on the Phase Two Property. Based on the groundwater elevations calculated, the groundwater flow direction is interpreted to be southwest towards the Sixteen Mile Creek. The groundwater elevation contours, and flow direction are presented on Figure 6.

#### **5.2.6 Assessment of Potential for Temporal Variability in Groundwater Flow Direction**

The shallow aquifer investigated is inferred to be an unconfined aquifer, based on the soil stratigraphy observed in the boreholes advanced on the Phase Two Property. It is possible that temporal variations in groundwater elevations may occur on the Phase Two Property in response to seasonal weather patterns.

Temporal variability in groundwater level has the ability to influence the groundwater flow direction. The degree of variation in groundwater levels on the Phase Two Property can only be confirmed with long-term monitoring.

#### **5.2.7 Evaluation of Potential Interaction Between Buried Utilities and the Water Table**

The groundwater table was encountered at depths ranging from 2.66 to 4.12 mbgs on the Phase Two Property. Buried utility services are present on the Phase Two Property and are inferred to be situated at depths ranging between 2 and 3 mbgs. Therefore, there is potential for the utility corridors to act as preferential pathways for contaminant distribution and transport in the event that shallow subsurface contaminants exist at the Phase Two Property.

### **5.3 Ground Water Hydraulic Gradients**

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#### **5.3.1 Horizontal Hydraulic Gradient**

The horizontal hydraulic gradient was calculated based on the groundwater levels recorded on July 19, 2023.

Table 5-2: Summary of Horizontal Hydraulic Gradient Calculations

Hydrogeological Unit	Calculated Horizontal Hydraulic Gradient
Till-Highly Weathered Shale Interface	Minimum: 0.013 m/m Average: 0.014 m/m Maximum: 0.015 m/m

### 5.3.2 Vertical Hydraulic Gradient

The vertical hydraulic gradient was not calculated, as no groundwater impacts were identified on the Phase Two Property.

## 5.4 Fine-Medium Soil Texture

A total of six (6) grain size analyses were conducted as part of this investigation. With respect to soil texture and the applicable SCS, although the grain size analyses indicate that more than two-thirds of the soil are considered as medium-fine textured, the more conservative coarse textured SCS were applied.

### 5.4.1 Results of Grain Size Analysis

A summary of the soil samples analyzed and the corresponding grain size results is presented in the table below:

Table 5-3: Summary of Grain Size Analyses

Sample	% Gravel	% Sand	% Silt	% Clay	Classification
BH23-1 SS2	4	21	49	26	Medium-fine textured
BH23-3 SS3	1	12	58	29	
BH23-5 SS3	4	18	52	26	
BH23-6 SS2	3	14	61	22	
BH23-7 SS4	3	20	53	24	
BH23-8 SS2	9	20	48	23	

### 5.4.2 Rational for the Number of Samples Collected and Analyzed

The grain size analyses were conducted as part of the geotechnical investigation which was conducted concurrently with the Phase Two ESA. At least one sample was analyzed per stratigraphic unit encountered in order to characterize the various strata encountered.

## 5.5 Soil Field Screening

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Soil vapour headspace readings were collected at the time of sample collection, the results of which are presented on the borehole logs (Appendix B). The soil vapour headspace readings were collected using a PID and CGD in methane elimination mode. The PID readings ranged between non-detect (0 ppm) and 1 ppm. The CGD readings ranged between non-detect (0 ppm) and 15 ppm.

The soil samples were also screened for visual and olfactory indicators of impacts (e.g. staining, odours). No visual or olfactory indications of deleterious materials were noted.

## 5.6 Soil Quality

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The results of the chemical analyses conducted are presented in Tables 5 through 9 (Enclosed). A visual summary of the location of the sample locations is provided in Figures 7A through 7F. The laboratory certificates of analysis have been provided under Appendix C.

### 5.6.1 Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR

The results of the analyses are tabulated in Table 5 (enclosed), and presented on Figure 7A and 7B.

#### January 2022

A total of nine (9) samples, including one (1) field duplicate for QA/QC purposes, were submitted for analysis of Metals and As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR. Three (3) soil samples were also submitted for analysis of pH only.

The results of the analyses indicated that all of the samples analysed met the MECP Table 2 SCS.

#### June 2023

A total of thirteen (13) samples, including one (1) field duplicate for QA/QC purposes, were submitted for analysis of Metals and As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR.

The results of the analyses indicated that all of the samples analysed met the MECP Table 2 SCS.

### 5.6.2 Petroleum Hydrocarbons

The results of the analyses are tabulated in Table 6 (enclosed), and presented on Figure 7C.

#### January 2022

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A total of three (3) samples were submitted for analysis of PHCs (including BTEX).

The results of the analyses indicated that all of the samples analysed met the MECP Table 2 SCS.

#### June 2023

A total of eight (8) samples, including one (1) field duplicate for QA/QC purposes, were submitted for analysis of PHCs (including BTEX).

The results of the analyses indicated that all of the samples analysed met the MECP Table 2 SCS.

### **5.6.3 Volatile Organic Compounds**

The results of the analyses are tabulated in Table 7 (enclosed), and presented on Figure 7D.

#### January 2022

A total of three (3) samples were submitted for analysis of VOCs.

The results of the analyses indicated that all of the samples analysed met the MECP Table 2 SCS.

#### June 2023

A total of eight (8) samples, including one (1) field duplicate for QA/QC purposes, were submitted for analysis of VOCs.

The results of the analyses indicated that all of the samples analysed met the MECP Table 2 SCS.

### **5.6.4 Polycyclic Aromatic Hydrocarbons**

The results of the analyses are tabulated in Table 8 (enclosed), and presented on Figure 7E.

#### January 2022

A total of ten (10) samples, including two (2) field duplicates for QA/QC purposes, were submitted for analysis of PAHs.

The results of the analyses indicated that all of the samples analysed met the MECP Table 2 SCS.

#### June 2023

A total of eight (8) samples, including one (1) field duplicate for QA/QC purposes, were submitted for analysis of PAHs.



The results of the analyses indicated that all of the samples analysed met the MECP Table 2 SCS.

### 5.6.5 Organochlorine Pesticides (OCPs)

#### June 2023

A total of eleven (11) samples, including one (1) field duplicate for QA/QC purposes, were submitted for analysis of OCPs. The results of the analyses are tabulated in Table 9 (enclosed), and presented on Figure 7F.

The results of the analyses indicated that all of the samples analysed met the MECP Table 2 SCS.

### 5.6.6 Commentary on Soil Quality

It is the opinion of the QP<sub>ESA</sub> that the applicable SCS for the soil at the Phase Two Property have been met.

## 5.7 Ground Water Quality

The results of the chemical analyses conducted are presented in Tables 10 through 13 (Enclosed). A visual summary of the location of the sample locations is provided in Figures 8A through 8E. The laboratory certificates of analysis have been provided under Appendix C.

### 5.7.1 Metals and As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl

The results of the analyses are tabulated in Table 10 (enclosed), and presented on Figure 8A and 8B.

#### January 2022

A total of five (5) samples, including two (2) field duplicates for QA/QC purposes, were submitted for analysis of Metals and As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl.

The results of the analyses indicated the following exceedances of the MECP Table 2 SCS:

Table 5-4: Summary of ORP Impacts in Groundwater – January 2022

Sample ID	Well Screen Interval (mbgs)	Parameter	Units	Table 2 SCS	Reported Value
BH1	2.5- 5.5	Chloride	µg/L	790,000	900,000*
DUP 2 (BH1)					900,000*

Notes

1. 0.0 = Concentration exceeds Table 2 SCS

2. \* - Exemption pertaining to the application of road salt for pedestrian and vehicular safety is applied per Section 49.1 of O. Reg 153/04.

## June 2023

A total of three (3) samples, including one (1) field duplicate for QA/QC purposes, were submitted for analysis of Metals and As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl.

The results of the analyses indicated the following exceedances of the MECP Table 2 SCS:

Table 5-5: Summary of ORP Impacts in Groundwater – June 2023

Sample ID	Well Screen Interval (mbgs)	Parameter	Units	Table 2 SCS	Reported Value
MW23-9	3.1-6.1	Chloride	µg/L	790,000	810,000*

Notes

1. 0.0 = Concentration exceeds Table 2 SCS

2. \* - Exemption pertaining to the application of road salt for pedestrian and vehicular safety is applied per Section 49.1 of O. Reg 153/04.

### 5.7.2 Petroleum Hydrocarbons

The results of the analyses are tabulated in Table 11 (enclosed), and presented on Figure 8C.

## January 2022

A total of five (5) samples, including two (2) field duplicates for QA/QC purposes, were submitted for analysis of PHCs (including BTEX).

The results of the analyses indicated that all of the samples analysed met the MECP Table 2 SCS.

## June 2023

A total of three (3) samples, including one (1) field duplicate for QA/QC purposes, were submitted for analysis of PHCs (including BTEX).

The results of the chemical analyses conducted indicated that all samples analyzed met the MECP Table 2 SCS.

### 5.7.3 Volatile Organic Compounds

The results of the analyses are tabulated in Table 12 (enclosed), and presented on Figure 8D.

## January 2022

A total of five (5) samples, including two (2) field duplicates and a single trip blank for QA/QC purposes, were submitted for analysis of VOCs.

The results of the chemical analyses conducted indicated that all samples analyzed met the MECP Table 2 SCS.

## June 2023

A total of three (3) samples, including one (1) field duplicate and trip blank for QA/QC purposes, were submitted for analysis of VOCs.

The results of the chemical analyses conducted indicated that all samples analyzed met the MECP Table 2 SCS.

#### 5.7.4 Polycyclic Aromatic Hydrocarbons

The results of the analyses are tabulated in Table 13 (enclosed), and presented on Figure 8E. January 2022

A total of five (5) samples, including two (2) field duplicates for QA/QC purposes, were submitted for analysis of PAHs.

The results of the chemical analyses conducted indicated that all samples analyzed met the MECP Table 2 SCS.

#### June 2023

A total of three (3) samples, including one (1) field duplicate for QA/QC purposes, were submitted for analysis of PAHs.

The results of the chemical analyses conducted indicated that all samples analyzed met the MECP Table 2 SCS.

#### 5.7.5 Commentary on Groundwater Quality

##### ORP

Groundwater containing elevated concentrations of chloride was identified in monitoring wells BH1 and BH23-9, respectively located adjacent to a driveway on the eastern and western portions of the Site.

Per Section 49.1 (1) of O.Reg. 153/04 (as amended), "*If an applicable site condition standard is exceeded at a property solely because of one of the following reasons, the applicable site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act*": "...that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both". Based on this provision, the site condition standards for chloride in groundwater is deemed not to be exceeded.

It is the opinion of the QP<sub>ESA</sub> that the applicable SCS for groundwater at the Phase Two Property have been met for the purposes of filing an RSC.

## 5.8 Sediment Quality

Sediment was not identified as a media of concern by the Phase One ESA. Sediment sampling was not completed as a result.

## 5.9 Quality Assurance and Quality Control Results

Collection of soil and groundwater samples was conducted in general accordance with the MECP *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*. As described in Section 4.12, dedicated equipment was used where possible, and all non-dedicated equipment was decontaminated before and between sampling events. All soil and groundwater samples were transferred directly into laboratory-supplied containers. The laboratory containers were prepared by the laboratory with suitable preservative, as required. All samples were stored and transported under refrigerated conditions. Chain of custody protocols were maintained from the time of sampling to delivery to the analytical laboratory.

The field QA/QC program involved the collection of field duplicate soil and groundwater samples, and the use of a trip blank for each groundwater sampling event (when suitable). In addition to the controls listed above, the analytical laboratory employed method blanks, internal laboratory duplicates, surrogate spike samples, matrix spike samples, and standard reference materials.

A summary of the field duplicate samples analyzed and an interpretation of the efficacy of the QA/QC program is provided in the table below.

Table 5-6: Summary of QA/QC Results

Sample ID	QA/QC duplicate	Medium	Parameter Analyzed	QA/QC Result
January 2022 Soil Sampling Event				
TP1-1	DUP 1	Soil	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR	All results were within the analytical protocol criteria for RPD
TP3-1	DUP 2	Soil	PAHs	All results were within the analytical protocol criteria for RPD
TP4-1	DUP 3	Soil	PAHs	All results were within the analytical protocol criteria for RPD
January 2022 Groundwater Sampling Event				

Sample ID	QA/QC duplicate	Medium	Parameter Analyzed	QA/QC Result
BH1	DUP 2	Groundwater	Metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl, PHCs, VOCs, PAHs	All results were within the analytical protocol criteria for RPD
BH2	DUP 1	Groundwater	Metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl, PHCs, VOCs, PAHs	All results were within the analytical protocol criteria for RPD
June 2023 Soil Sampling Event				
BH23-17 SS3	DUP-1	Soil	PHCs, BTEX, VOCs	All results were within the analytical protocol criteria for RPD
BH23-18 SS1	DUP-2	Soil	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR	All results were within the analytical protocol criteria for RPD
BH23-9 SS2	DUP-3	Soil	PAHs	All results were within the analytical protocol criteria for RPD
BH23-10 SS1	DUP-4	Soil	OCPs	All results were within the analytical protocol criteria for RPD
June 2023 Groundwater Sampling Event				
MW23-17	DUP1	Groundwater	Metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl, PHCs, VOCs, PAHs	All results were within the analytical protocol criteria for RPD

Based on the interpretation of the laboratory results and the QA/QC program, it is the opinion of the QP that the laboratory analytical data can be relied upon.

All samples were handled in accordance with the MECP Analytical Protocol regarding sample holding time, preservation methods, storage requirements, and type of container.

BV and SGS routinely conduct internal QA/QC analyses in order to satisfy regulatory QA/QC requirements. The results of the SGS QA/QC analyses for the submitted soil samples are summarized in the laboratory Certificates of Analyses provided in Appendix C.

With respect to subsection 47(3) of O.Reg 153/04 (as amended), all certificates of analysis or analytical reports pursuant to clause 47(2) (b) of the regulation comply with subsection 47(3). A certificate of analysis has been received for each sample submitted for analysis and have been provided (in full) in Appendix C.

A review of the QA/QC sample results indicated that no issues were identified with respect to both the field collection methodology and the laboratory reporting. It is the opinion of the

QP that the analytical data obtained are representative of the soil and groundwater conditions at the Phase Two Property for the purpose of assessing whether the soil and groundwater at the Phase Property meets the applicable MECPS SCS.

### 5.10 Phase Two Conceptual Site Model

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A Phase Two Conceptual Site Model (CSM) was developed through a synthesis of the information obtained through the completion of the Phase One ESA, and the data collected as part of the Phase Two ESA. The Phase Two CSM is presented as Appendix D.

## 6.0 Conclusions

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This Phase Two ESA involved the advancement of eight (8) test pits, and twenty-one (21) boreholes, ten (10) of which were instrumented with monitoring wells as well as the collection of soil and groundwater samples for analysis of the potential contaminants of concern, including:

- ◆ Metals, As, Sb, Se, B-HWS, CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR, PHCs, VOCs, PAHs and OCPs in soil, and;
- ◆ Metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl, PHCs, VOCs and PAHs in groundwater.

Based on the results of the information gathered through the course of the investigation, DS presents the following conclusions:

- ◆ A surficial layer of topsoil approximately 150 to 250 mm in thickness was encountered in all test-pits (TP1 to TP8) and boreholes BH23-5, BH23-6 and BH23-7 advanced. An asphalt layer, approximately 150 mm in thickness, was encountered at the ground surface in borehole BH23-8 and a 50 mm thick layer of granular fill consisting of sand and gravel was present at the ground surface in borehole BH23-2. Fill materials consisting of clayey silt to silty clay with trace rootlets/organics and/or weathered shale, and cobble fragments were present in all boreholes extending to depths ranging from 0.8 to 1.5 mbgs. Beneath the fill strata, the native soil generally consisted of silty clay till extending to depths of between 1.6 to 3.1 m in all the boreholes. Shale bedrock was encountered at approximate depths ranging from 2.3 to 3.3 mbgs which extended to a maximum termination depth of 18.8 mbgs, and was confirmed by coring.
- ◆ The depth to groundwater was measured in seven (7) monitoring wells installed during the course of this investigation (the remaining wells were utilized solely as part of a hydrogeological investigation conducted concurrently). The monitoring

wells were screened to intercept the groundwater table. On July 19, 2023 the groundwater levels were found to range between 2.66 to 4.12 mbgs, with groundwater elevations ranging between 150.83 and 156.38 masl. Based on the groundwater elevations recorded, the groundwater flow direction was southwest towards the Sixteen Mile Creek. It is possible that the groundwater levels may vary seasonally. The groundwater flow direction can only be confirmed through long term monitoring.

- ◆ The results of the soil chemical analyses conducted indicated that all samples analyzed met the applicable Site Condition Standards.
- ◆ Groundwater samples were collected from selected monitoring wells installed on the Phase Two Property and submitted for analysis of Metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl, PHCs, VOCs and PAHs. The results of the chemical analyses indicated that all of the groundwater samples analyzed met the MECP Table 2 RPI SCS, with the exception of an elevated concentration of chloride present in groundwater associated with monitoring wells BH1 and MW23-9. Both boreholes are located adjacent to driveways/parking areas on the Property which are subject to de-icing agents during winter. Per Section 49.1 (1) of O.Reg. 406/19, published December 4, 2019 *"If an applicable site condition standard is exceeded at a property solely because of one of the following reasons, the applicable site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act": "...that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both"*. Based on this provision, the site condition standards for chloride in groundwater is deemed not to be exceeded.
- ◆ Based on the findings of this Phase Two ESA, it is the opinion of the QP<sub>ESA</sub> that the applicable SCS for soil and groundwater at the Phase Two Property have been met. A Record of Site Condition may be filed for the Phase Two Property;
- ◆ All monitoring wells should be decommissioned in accordance with O.Reg. 903 when no longer required.

## 6.1 Qualifications of the Assessors

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### Fahmida Anwar, B.Sc.

Ms. Anwar is a Project Coordinator with DS Consultants Ltd. Fahmida holds a Bachelor of Science in Chemical Engineering from the American University of Sharjah (United Arab Emirates), as well as a Post Graduate Certificate in Environmental Control from Sheridan College. Ms. Anwar has been working in the environmental sector since 2018 and has experience conducting Phase One and Phase Two Environmental Site Assessments.

### Ms. Kirstin Olsen, MSc.

Ms. Olsen is a Senior Project Manager in the Environmental Services Department at DS Consultants Ltd. Ms. Olsen has a bachelor's degree in Animal, Plant and Environmental Science, as well as a Master of Science Degree in Environmental Science, Ecology and Conservation from the University of the Witwatersrand (Johannesburg, South Africa). Ms. Olsen has personally completed over three hundred detailed environmental assessments across a wide array of scientific disciplines including: Phase One & Two Environmental Site Assessments, Remedial Excavation & Injection Oversight, Hydrogeological Investigations, EASR Registration/PTTW Application, Aquatic Ecological Delineation, Assessment & Planning, Toxicological, Soil & Water Impact and Risk Assessment, as well as Environmental Construction Monitoring & Performance Auditing.

### Mr. Patrick (Rick) Fioravanti, B.Sc., P.Geo., OP<sub>ESA</sub>

Mr. Fioravanti is the Vice President, Environmental Services with DS Consultants Ltd. Patrick holds an Honours Bachelor of Science with distinction in Toxicology from the University of Guelph, and is a practicing member of the Association of Professional Geoscientists of Ontario (APGO). Patrick has over a decade of environmental consulting experience and has conducted and/or managed hundreds of projects in his professional experience. Patrick has extensive experience conducting Phase One and Phase Two Environmental Site Assessments in support of brownfields redevelopment in urban settings, and been involved in numerous remediation projects, supported many risk assessments, and successfully filed Records of Site Condition with the Ministry of Environment and Climate Change. He has conducted work across southern and eastern Ontario, and Quebec in his professional experience. Patrick is considered a Qualified Person to conduct Environmental Site Assessments as defined by Ontario Regulation 153/04 (as amended).



## 6.2 Signatures

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This Phase Two ESA was conducted under the supervision of Mr. Patrick (Rick) Fioravanti in accordance with the requirements of O.Reg. 153/04 (as amended). The findings and conclusions presented have been determined based on the information obtained at the time of the investigation, and on an assessment of the conditions of the Site at this time.

We trust this report meets with your requirements. Should you have any questions regarding the information presented, please do not hesitate to contact our office.

Yours truly,

**DS Consultants Ltd**

Prepared by



Fahmida Anwar, B.Sc.  
Project Coordinator

Reviewed by:



Kirstin Olsen M.Sc.  
Senior Project Manager – Environmental



Patrick M. Fioravanti, B.Sc., P.Geo. QP<sub>ESA</sub>  
Vice President – Environmental Services

### 6.3 Limitations

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This report was prepared for the sole use of NEATT Sixteen Mile Creek Inc. and is intended to provide an assessment of the environmental condition on the property located at 3056 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, Ontario. The information presented in this report is based on information collected during the completion of the Phase Two Environmental Site Assessment by DS Consultants Ltd. The material in this report reflects DS' judgment in light of the information available at the time of report preparation. This report may not be relied upon by any other person or entity without the written authorization of DS Consultants Ltd. The scope of services performed in the execution of this investigation may not be appropriate to satisfy the needs of other users, and any use or reuse of this documents or findings, conclusions and recommendations represented herein, is at the sole risk of said users.

The conclusions drawn from the Phase Two ESA were based on information at selected observation and sampling locations. Conditions between and beyond these locations may become apparent during future investigations or on-site work, which could not be detected or anticipated at the time of this investigation. The sampling locations were chosen based upon a cursory historical search, visual observations and limited information provided by persons knowledgeable about past and current activities on this site during the Phase Two ESA activities. As such, DS Consultants Ltd. cannot be held responsible for environmental conditions at the site that was not apparent from the available information.

## 7.0 References

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- ◆ DS Consultants Ltd., August 2023. *Preliminary Geotechnical Investigation, 3056 Neyagawa Boulevard, Oakville, Ontario*
- ◆ DS Consultants Ltd., September 2023. *Preliminary Hydrogeological Investigation, 3056 Neyagawa Boulevard, Oakville, Ontario*



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# Tables



**Table 1: Summary of Monitoring Well Installation and Groundwater Data**

Well ID		BH1	BH2	BH3	BH4	BH5	MW23-9	MW23-17	
Installed By:		SHAD	SHAD	SHAD	SHAD	SHAD	DS	DS	
Installation Date:		18-Jan-22	18-Jan-22	20-Jan-22	20-Jan-22	21-Jan-22	Jun 19, 2023	Jun 16, 2023	
Well Status:		Active	Active	Active	Active	Active	Active	Active	
Inner Diameter	mm	50	50	50	50	50	50	50	
Surface Elevation	masl	158.34	159.66	157.50	158.35	156.10	158.20	154.50	
Bottom of Concrete Seal/Top of Bentonite Seal	mbgs	0.30	0.30	0.30	0.30	0.30	0.30	0.30	
	masl	158.04	159.36	157.20	158.05	155.80	157.90	154.20	
Bottom of Bentonite Seal/Top of Sand Pack	mbgs	1.80	3.40	0.90	2.50	1.70	2.40	2.40	
	masl	156.54	156.26	156.60	155.85	154.40	155.80	152.10	
Top of Well Screen	mbgs	2.40	4.00	1.50	3.10	2.30	3.10	3.10	
	masl	155.94	155.66	156.00	155.25	153.80	155.10	151.40	
Well Screen Length	m	3.00	3.00	1.50	3.00	3.00	3.00	3.00	
Bottom of Well Screen	mbgs	5.40	7.00	3.00	6.10	5.30	6.10	6.10	
	masl	152.94	152.66	154.50	152.25	150.80	152.10	148.40	
<b>Groundwater (GW) Monitoring</b>									
28-Jan-22	Depth to GW	mbgs	3.6	3.6	2.9	3.8	3.4	NI	NI
	GW Elevation	masl	154.74	156.06	154.60	154.55	152.70	NI	NI
4-Feb-22	Depth to GW	mbgs	3.6	3.6	2.9	3.8	3.5	NI	NI
	GW Elevation	masl	154.74	156.06	154.60	154.55	152.60	NI	NI
26-Jun-23	Depth to GW	mbgs	3.24	NM	2.71	3.53	4.07	4.07	3.68
	GW Elevation	masl	155.10	NM	154.79	154.82	152.03	154.13	150.82
27-Jun-23	Depth to GW	mbgs	3.25	3.1	2.74	3.51	3.21	5.2	4.77
	GW Elevation	masl	155.09	156.56	154.76	154.84	152.89	153.00	149.73
19-Jul-23	Depth to GW	mbgs	3.02	3.28	2.66	3.49	3.21	4.12	3.67
	GW Elevation	masl	155.32	156.38	154.84	154.86	152.89	154.08	150.83

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section.



**Table 2: Summary of Soil Samples Submitted for Chemical Analysis**

Borehole ID	Sample No.	Sample Depth (mbgs)	Soil Description	Parameter Analyzed	APEC Investigated
TP1	TP1-1	0.0-0.6	Sandy silt	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs, PHCs, BTEX, VOCs	APEC-1C, APEC-1F
	Dup 1 (TP1-1)			Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR	
TP2	TP2-1	0.0-0.6	Sandy silt	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs	APEC-1C, APEC-4D
	TP2-3	1.5-2.5	Sand	pH	
TP3	TP3-1	0.0-0.6	Sandy silt	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs	APEC-1C, APEC-4C, APEC-5A
	Dup 2 (TP3-1)			PAHs	
	TP3-4	2.2-2.7	Silty sand	pH	
TP4	TP4-1	0.0-0.6	Sandy silt	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs	APEC-1B, APEC-1C, APEC-2
	Dup 3 (TP4-1)			PAHs	
	TP4-3	1.5-2.2	Silty sand	pH	
TP5	TP5-1	0.0-0.7	Sandy silt	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs	APEC-1C, APEC-2, APEC-4A
	TP5-4	2.2-2.5	Silty sand	PHCs, BTEX, VOCs	
TP6	TP6-1	0.0-0.7	Sandy silt	PAHs	APEC-1C, APEC-4B, APEC-5A
	TP6-2	0.7-1.5	Sandy silt	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR	
	TP6-3	1.5-2.2	Silty sand	pH	
TP7	TP7-1	0.0-0.7	Silty sand	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR	APEC-1C, APEC-5A, APEC-6
	TP7-2	0.7-1.5	Silty sand	PAHs	
	TP7-4	2.3-3.1	Silty sand	PHCs, BTEX, VOCs	
TP8	TP8-1	0.0-0.6	Sandy silt	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs	APEC-1A, APEC-1C, APEC-5A
BH23-9	SS1	0.1-0.7	Fill - Sand	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, OCPs	APEC-1C, APEC-2
	SS2	0.8-1.4	Silty clay till	PAHs	
	DUP-3				
BH23-10	SS3	1.5-2.1	Silty clay till	PHCs, BTEX, VOCs	APEC-1C, APEC-3
	SS1	0.3-0.6	Fill - Clayey silt	OCPs	
	DUP-4				
	SS2	0.8-1.4	Silty clay till	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs	
BH23-11	SS2	0.8-1.4	Silty clay till	PHCs, BTEX, VOCs	APEC-1C
BH23-12	SS2	0.8-1.4	Silty clay till	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR	APEC-1C, APEC-1E
BH23-13	SS1	0.2-0.6	Fill - Silty clay	OCPs	APEC-1C, APEC-3
	SS2	0.8-1.4	Silty clay till	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR	
BH23-14	SS1	0.2-0.6	Fill - Silty clay	OCPs	APEC-1C, APEC-3
BH23-15	SS1	0.2-0.6	Fill - Silty clay	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, OCPs	APEC-1C, APEC-3
	SS2	0.8-1.4	Silty clay till	PAHs, PHCs, BTEX, VOCs	
BH23-16	SS1	0.2-0.6	Fill - Silty clay	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs	APEC-1C, APEC-5B
	SS2	0.8-1.4	Fill - Silty clay	PHCs, BTEX, VOCs	



**Table 2: Summary of Soil Samples Submitted for Chemical Analysis**

Borehole ID	Sample No.	Sample Depth (mbgs)	Soil Description	Parameter Analyzed	APEC Investigated
BH23-17	SS1	0.3-0.6	Fill - Silty clay	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, OCPs	APEC-1C, APEC-5B
	SS2	0.8-1.4	Silty clay till	PAHs	
	SS3	1.5-2.1	Silty clay till	PHCs, BTEX, VOCs	
	DUP-1				
BH23-18	SS1	0-0.6	Fill - Silty clay	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, OCPs	APEC-1C, APEC-5B
	DUP-2			Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR	
BH23-19	SS1	0.2-0.6	Fill - Silty clay	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, OCPs	APEC-1C, APEC-1D
	SS2	0.8-1.4	Silty clay till	PAHs	
BH23-20	SS1	0.2-0.6	Fill - Silty clay	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, OCPs	APEC-1C, APEC-5B
	SS3	1.5-2.1	Silty clay till	PHCs, BTEX, VOCs	
BH23-21	SS1	0.2-0.6	Fill - Silty clay	PAHs, OCPs	APEC-1C, APEC-5B
	SS2	0.8-1.4	Silty clay till	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR	
	SS4	2.3-2.8	Silty clay till	PHCs, BTEX, VOCs	

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section.



**Table 3: Summary of Groundwater Samples Submitted for Chemical Analysis**

Well ID	Well Screen Interval masl		Sample Date	Parameter Analyzed	APEC Investigated	
BH1	152.94	-	155.94	22-Jan-22	Metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl, PHCs, BTEX, VOCs, PAHs	APEC-2, APEC-5A
DUP2						
BH2	152.66	-	155.66	22-Jan-22	Metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl, PHCs, BTEX, VOCs, PAHs	APEC-5A, APEC-6
BH4						
DUP1	152.25	-	155.25	22-Jan-22	Metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl, PHCs, BTEX, VOCs, PAHs	APEC-5A
DUP1						
MW23-9	152.10	-	155.10	30-Jun-23	Metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl, PHCs, BTEX, VOCs, PAHs	APEC-2
MW23-17						
DUP1	148.40	-	151.40	30-Jun-23	Metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl, PHCs, BTEX, VOCs, PAHs	APEC-5B
DUP1						

For Table Notes see Notes for Soil and Groundwater Summary Tables, included at the end of this Section





**Table 4: Summary of APECs Investigated**

APEC	Description	COPCs	Media	Boreholes Within APEC	Samples Analysed	Parameter Analyzed
APEC-1A	Northeastern portion of the Site #30: Importation of Fill Material of Unknown Origin	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil	TP8	TP8-1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH, PAHs
APEC-1B	Central portion of the Site #30: Importation of Fill Material of Unknown Origin	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil	TP4	TP4-1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH, PAHs
					Dup 3 (TP4-1)	PAHs
					TP4-3	pH
APEC-1C	Entire Site #30: Importation of Fill Material of Unknown Origin	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil	TP1	TP1-1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH, PAHs, PHCs, BTEX, VOCs
					Dup 1 (TP1-1)	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH
				TP2	TP2-1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH, PAHs
					TP2-3	pH
				TP3	TP3-1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH, PAHs
					Dup 2 (TP3-1)	PAHs
					TP3-4	pH
				TP4	TP4-1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH, PAHs
					Dup 3 (TP4-1)	PAHs
					TP4-3	pH
				TP5	TP5-1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH, PAHs
					TP5-4	PHCs, BTEX, VOCs
				TP6	TP6-1	PAHs
					TP6-2	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH
					TP6-3	pH



**Table 4: Summary of APECs Investigated**

APEC	Description	COPCs	Media	Boreholes Within APEC	Samples Analysed	Parameter Analyzed
APEC-1C	Entire Site #30: Importation of Fill Material of Unknown Origin	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil	TP7	TP7-1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH
					TP7-2	PAHs
					TP7-4	PHCs, BTEX, VOCs
				TP8	TP8-1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH, PAHs
					BH23-9	SS1
				SS2		PAHs
				DUP-3		
				SS3		PHCs, BTEX, VOCs
				BH23-10	SS1	OCPs
					DUP-4	
					SS2	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH, PAHs
					SS3	PHCs, BTEX, VOCs
				BH23-11	SS2	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH
				BH23-12	SS2	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH
				BH23-13	SS1	OCPs
					SS2	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH
				BH23-14	SS1	OCPs
				BH23-15	SS1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH, OCPs
					SS2	PAHs, PHCs, BTEX, VOCs
				BH23-16	SS1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH, PAHs
SS2	PHCs, BTEX, VOCs					



**Table 4: Summary of APECs Investigated**

APEC	Description	COPCs	Media	Boreholes Within APEC	Samples Analysed	Parameter Analyzed
APEC-1C	Entire Site	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil	BH23-17	SS1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH, OCPs
					SS2	PAHs
					SS3	PHCs, BTEX, VOCs
					DUP-1	
				BH23-18	SS1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH, OCPs
					DUP-2	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH
				BH23-19	SS1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH, OCPs
					SS2	PAHs
				BH23-20	SS1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH, OCPs
					SS3	PHCs, BTEX, VOCs
				BH23-21	SS1	PAHs, OCPs
					SS2	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH
SS4	PHCs, BTEX, VOCs					
APEC-1D	Vicinity of former Site Building F, located in the southwestern portion of the Site #30: Importation of Fill Material of Unknown Origin	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil	BH23-19	SS1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH, OCPs
					SS2	PAHs
APEC-1E	Vicinity of former Site Building G, located in the southern portion of the Site #30: Importation of Fill Material of Unknown Origin	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil	BH23-12	SS2	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH



**Table 4: Summary of APECs Investigated**

APEC	Description	COPCs	Media	Boreholes Within APEC	Samples Analysed	Parameter Analyzed	
APEC-1F	Vicinity of former Shed 2, located in the southern portion of the Site #30: Importation of Fill Material of Unknown Origin	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil	TP1	TP1-1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH, PAHs, PHCs, BTEX, VOCs	
					Dup 1 (TP1-1)	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH	
APEC-2	Northern portion of the Site #58: Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Groundwater	BH1	BH1	Metals, As, Sb, Se, CN-, Cr (VI), Hg, PHCs, BTEX, VOCs, PAHs	
					DUP2		
APEC-2				MW23-9	MW23-9	Metals, As, Sb, Se, CN-, Cr (VI), Hg, PHCs, BTEX, VOCs, PAHs	
APEC-3	Southwestern portion of the Site in the vicinity of former orchard #40: Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	OCPs	Soil	BH23-10	SS1	OCPs	
					DUP-4		
					BH23-13	SS1	OCPs
					BH23-14	SS1	OCPs
				BH23-15	SS1	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, OCPs	
APEC-4A	Northern portion of the Property in the vicinity of Shed 1 #N/S: Storage of miscellaneous debris, refuse and boats	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil	TP5	TP5-1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH, PAHs	
APEC-4B	Eastern portion of the Site #N/S: Storage of miscellaneous debris and refuse	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil	TP6	TP6-1	PAHs	
					TP6-2	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH	
					TP6-3	pH	
APEC-4C	Central portion of the Site immediately north of agricultural field #N/S: Storage of miscellaneous debris and refuse	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil	TP3	TP3-1	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs	
					Dup 2 (TP3-1)	PAHs	
					TP3-4	pH	



**Table 4: Summary of APECs Investigated**

APEC	Description	COPCs	Media	Boreholes Within APEC	Samples Analysed	Parameter Analyzed
APEC-4D	Southern portion of the Site immediately south of agricultural field #N/S: Storage of miscellaneous debris and refuse	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil	TP2	TP2-1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, pH, PAHs
					TP2-3	pH
APEC-5A	Eastern portion of the Site #N/S: Inferred application of de-icing agents	EC, SAR (Soil) Na, Cl- (Groundwater)	Soil	TP3	TP3-1	EC, SAR
				TP6	TP6-2	EC, SAR
				TP7	TP7-1	EC, SAR
				TP8	TP8-1	EC, SAR
			Groundwater	BH1	BH1	Na, Cl
					DUP2	
				BH2	BH2	Na, Cl
				BH4	BH4	Na, Cl
DUP1						
APEC-5B	Western portion of the Site #N/S: Inferred application of de-icing agents	EC, SAR (Soil) Na, Cl- (Groundwater)	Soil	BH23-16	SS1	EC, SAR
				BH23-17	SS1	EC, SAR
				BH23-18	SS1	EC, SAR
					DUP-2	EC, SAR
				BH23-20	SS1	EC, SAR
					SS2	EC, SAR



**Table 4: Summary of APECs Investigated**

APEC	Description	COPCs	Media	Boreholes Within APEC	Samples Analysed	Parameter Analyzed
APEC-5B	Western portion of the Site #N/S: Inferred application of de-icing agents	EC, SAR (Soil) Na, Cl- (Groundwater)	Groundwater	MW23-17	MW23-17	Na, Cl
					DUP1	
APEC-6	Within the Vicinity of Site Building B #27: Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	PHCs, VOCs, BTEX, Metals, As, Sb, Se, Cr (VI), Hg, low or high pH, PAHs	Soil	TP7	TP7-1	Metals, As, Sb, Se, Cr (VI), Hg, pH
					TP7-2	PAHs
					TP7-4	PHCs, BTEX, VOCs
			Groundwater	BH2	BH2	Metals, As, Sb, Se, Cr (VI), Hg, PHCs, BTEX, VOCs, PAHs

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section



**Table 5: Summary of Metals and ORPs in Soil**

Parameter	MECP Table 2 SCS	TP1-1	TP2-1	TP2-3	TP3-1	TP3-4	TP4-1	TP4-3	TP5-1
Date of Collection		10-Jan-22	10-Jan-22	10-Jan-22	10-Jan-22	10-Jan-22	10-Jan-22	10-Jan-22	10-Jan-22
Date Reported		19-Jan-22	19-Jan-22	19-Jan-22	19-Jan-22	19-Jan-22	19-Jan-22	19-Jan-22	19-Jan-22
Sampling Depth (mbgs)		0-0.7	0-0.8	1.5-2.5	0-0.7	2.2-2.7	0-0.7	1.5-2.2	0-0.7
Analytical Report Reference No.		CA40064-JAN22 9	CA40064-JAN22 10	CA40064-JAN22 11	CA40064-JAN22 12	CA40064-JAN22 13	CA40064-JAN22 14	CA40064-JAN22 15	CA40064-JAN22 16
Antimony	7.5	< 0.8	< 0.8	-	< 0.8	-	< 0.8	-	< 0.8
Arsenic	18	4.4	4.2	-	6.1	-	4.6	-	5.9
Barium	390	95	130	-	120	-	130	-	94
Beryllium	4	0.88	0.77	-	0.87	-	0.76	-	0.8
Boron (total)	120	12	9	-	7	-	8	-	6
Boron (Hot Water Soluble)	1.5	< 0.5	< 0.5	-	< 0.5	-	< 0.5	-	< 0.5
Cadmium	1.2	0.1	0.1	-	0.15	-	0.28	-	0.15
Chromium Total	160	24	23	-	26	-	22	-	23
Chromium VI	8	< 0.2	< 0.2	-	< 0.2	-	< 0.2	-	< 0.2
Cobalt	22	14	13	-	15	-	13	-	13
Copper	140	14	10	-	34	-	16	-	35
Cyanide (CN-)	0.051	< 0.05	< 0.05	-	< 0.05	-	< 0.05	-	< 0.05
Electrical Conductivity (mS/cm)	0.7	0.27	0.21	-	0.25	-	0.19	-	0.17
Lead	120	15	13	-	19	-	18	-	18
Mercury	0.27	< 0.05	< 0.05	-	< 0.05	-	< 0.05	-	< 0.05
Molybdenum	6.9	0.6	0.4	-	0.4	-	0.7	-	0.3
Nickel	100	32	29	-	36	-	26	-	32
Selenium	2.4	< 0.7	< 0.7	-	< 0.7	-	< 0.7	-	< 0.7
Silver	20	< 0.05	< 0.05	-	< 0.05	-	0.09	-	< 0.05
Sodium Adsorption Ratio	5	0.4	0.3	-	0.4	-	0.4	-	0.2
Thallium	1	0.11	0.1	-	0.16	-	0.13	-	0.17
Uranium	23	0.59	0.53	-	0.56	-	0.75	-	0.55
Vanadium	86	30	27	-	32	-	27	-	29
Zinc	340	67	65	-	77	-	75	-	78
pH	NV	7.63	7.65	7.8	7.61	7.76	7.52	7.59	7.71

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section



**Table 5: Summary of Metals and ORPs in Soil**

Parameter	MECP Table 2 SCS	TP6-2	TP7-1	TP8-1	DUP 1 (TP1-1)	BH23-9 SS1	BH23-10 SS2	BH23-11 SS2
Date of Collection		10-Jan-22	10-Jan-22	10-Jan-22	10-Jan-22	19-Jun-23	20-Jun-23	20-Jun-23
Date Reported		19-Jan-22	19-Jan-22	19-Jan-22	3-Feb-22	29-Jun-23	29-Jun-23	29-Jun-23
Sampling Depth (mbgs)		0.7-1.5	0-0.7	0-0.5	0-0.7	0.1-0.7	0.8-1.4	0.8-1.4
Analytical Report Reference No.		CA40064-JAN22 19	CA40064- JAN22 21	CA40064- JAN22 24	CA40062-FEB22 9	CA40240-JUN23 9	CA40240-JUN23 13	CA40240-JUN23 15
Antimony	7.5	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Arsenic	18	4.9	4.9	6.8	4.1	7.5	4.7	4.9
Barium	390	110	94	140	76	8.2	68	61
Beryllium	4	0.6	0.65	1.1	0.76	0.08	0.7	0.73
Boron (total)	120	8	7	6	9	10	13	14
Boron (Hot Water Soluble)	1.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Cadmium	1.2	0.11	0.12	0.2	0.12	0.21	0.11	0.1
Chromium Total	160	19	20	28	25	2.4	18	20
Chromium VI	8	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Cobalt	22	12	12	17	15	1.4	11	12
Copper	140	27	26	35	12	4.2	16	18
Cyanide (CN-)	0.051	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Electrical Conductivity (mS/cm)	0.7	0.14	0.14	0.2	0.24	0.24	0.13	0.13
Lead	120	11	11	17	14	9.9	10	12
Mercury	0.27	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Molybdenum	6.9	0.4	0.3	0.5	0.7	0.8	0.6	0.8
Nickel	100	27	26	37	33	3.4	24	27
Selenium	2.4	< 0.7	< 0.7	< 0.7	< 0.7	< 0.1	< 0.1	< 0.1
Silver	20	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Sodium Adsorption Ratio	5	0.3	0.4	0.5	0.2	0.3	0.2	0.2
Thallium	1	0.15	0.15	0.17	0.09	0.04	0.1	0.1
Uranium	23	0.62	0.54	0.67	0.5	0.24	0.5	0.51
Vanadium	86	25	25	35	30	< 3	25	26
Zinc	340	63	68	82	66	63	49	54
pH	NV	7.79	7.77	7.27	7.68	8.38	7.82	7.79

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section





**Table 5: Summary of Metals and ORPs in Soil**

Parameter	MECP Table 2 SCS	BH23-12 SS2	BH23-13 SS2	BH23-15 SS1	BH23-16 SS1	BH23-17 SS1	BH23-18 SS1
Date of Collection		20-Jun-23	20-Jun-23	16-Jun-23	16-Jun-23	16-Jun-23	16-Jun-23
Date Reported		29-Jun-23	29-Jun-23	29-Jun-23	29-Jun-23	29-Jun-23	29-Jun-23
Sampling Depth (mbgs)		0.8-1.4	0.8-1.4	0.2-0.6	0.2-0.6	0.3-0.6	0-0.6
Analytical Report Reference No.		CA40240-JUN23 16	CA40240-JUN23 18	CA40197-JUN23 9	CA40197-JUN23 11	CA40197-JUN23 13	CA40197-JUN23 16
Antimony	7.5	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Arsenic	18	5.6	5.3	5.9	7	4.4	5.8
Barium	390	82	87	120	89	94	100
Beryllium	4	0.67	0.74	0.95	0.77	0.76	0.89
Boron (total)	120	10	10	8	11	4	8
Boron (Hot Water Soluble)	1.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Cadmium	1.2	0.1	0.11	0.19	0.24	0.17	0.13
Chromium Total	160	18	20	23	19	21	23
Chromium VI	8	< 0.2	< 0.2	0.3	< 0.2	0.9	< 0.2
Cobalt	22	11	12	13	10	12	13
Copper	140	21	22	27	96	19	29
Cyanide (CN-)	0.051	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Electrical Conductivity (mS/cm)	0.7	0.23	0.19	0.11	0.22	0.19	0.21
Lead	120	9.8	11	19	51	18	15
Mercury	0.27	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Molybdenum	6.9	0.5	0.4	0.6	1.1	0.7	0.6
Nickel	100	25	27	31	23	20	29
Selenium	2.4	< 0.1	0.1	0.2	0.3	0.4	0.2
Silver	20	< 0.05	< 0.05	< 0.05	0.07	< 0.05	< 0.05
Sodium Adsorption Ratio	5	2.3	1.2	0.3	< 0.2	< 0.2	< 0.2
Thallium	1	0.13	0.13	0.18	0.13	0.16	0.19
Uranium	23	0.51	0.5	0.56	0.77	0.59	0.58
Vanadium	86	24	26	31	29	32	30
Zinc	340	52	51	62	79	55	61
pH	NV	7.82	7.52	7.26	7.48	6.87	7.12

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section



**Table 5: Summary of Metals and ORPs in Soil**

Parameter	MECP Table 2 SCS	DUP-2 (BH23-18 SS1)	BH23-19 SS1	BH23-20 SS1	BH23-21 SS1
Date of Collection		16-Jun-23	16-Jun-23	16-Jun-23	16-Jun-23
Date Reported		29-Jun-23	29-Jun-23	29-Jun-23	29-Jun-23
Sampling Depth (mbgs)		0-0.6	0.2-0.6	0.2-0.6	0.2-0.6
Analytical Report Reference No.		CA40197-JUN23	CA40197-JUN23	CA40197-JUN23	CA40197-JUN23
		25	17	19	22
Antimony	7.5	< 0.8	< 0.8	< 0.8	< 0.8
Arsenic	18	8.7	7.4	3.5	5.2
Barium	390	80	49	88	66
Beryllium	4	0.68	0.39	0.58	0.63
Boron (total)	120	9	10	6	10
Boron (Hot Water Soluble)	1.5	< 0.5	< 0.5	< 0.5	< 0.5
Cadmium	1.2	0.23	0.33	0.14	0.1
Chromium Total	160	19	14	18	19
Chromium VI	8	0.3	< 0.2	< 0.2	< 0.2
Cobalt	22	10	6.9	11	12
Copper	140	39	38	18	25
Cyanide (CN-)	0.051	< 0.05	< 0.05	< 0.05	< 0.05
Electrical Conductivity (mS/cm)	0.7	0.24	0.29	0.31	0.18
Lead	120	43	46	18	11
Mercury	0.27	< 0.05	< 0.05	< 0.05	< 0.05
Molybdenum	6.9	1.1	1.4	0.6	0.5
Nickel	100	22	18	20	25
Selenium	2.4	0.2	0.2	0.2	< 0.1
Silver	20	0.07	0.07	< 0.05	< 0.05
Sodium Adsorption Ratio	5	< 0.2	0.3	< 0.2	0.3
Thallium	1	0.17	0.13	0.13	0.14
Uranium	23	0.53	0.48	0.46	0.55
Vanadium	86	27	25	26	23
Zinc	340	86	100	58	50
pH	NV	7.31	7.72	7.3	7.48

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section



**Table 6: Summary of PHCs in Soil**

Parameter	MECP Table 2 SCS	TP1-1	TP5-4	TP7-4	BH23-9 SS3
Date of Collection		10-Jan-22	10-Jan-22	10-Jan-22	19-Jun-23
Date Reported		19-Jan-22	19-Jan-22	19-Jan-22	29-Jun-23
Sampling Depth (mbs)		0-0.7	2.2-2.5	2.3-3.1	1.5-2.1
Analytical Report Reference No.		CA40064-JAN22 9	CA40064-JAN22 17	CA40064-JAN22 23	CA40240-JUN23 11
F1 (C6-C10) -BTEX	55	< 10	< 10	< 10	< 10
F2 (C10-C16)	98	< 10	< 10	< 10	< 10
F3 (C16-C34)	300	< 50	< 50	< 50	< 50
F4 (C34-C50)	2800	< 50	< 50	< 50	< 50

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section



**Table 6: Summary of PHCs in Soil**

Parameter	MECP Table 2 SCS	TP1-1	BH23-10 SS3	BH23-15 SS2	BH23-16 SS2	
		Date of Collection	10-Jan-22	20-Jun-23	16-Jun-23	16-Jun-23
		Date Reported	19-Jan-22	29-Jun-23	29-Jun-23	29-Jun-23
		Sampling Depth (mbgs)	0-0.7	1.5-1.8	0.8-1.4	0.8-1.4
Analytical Report Reference No.		CA40064-JAN22 9	CA40240-JUN23 14	CA40197-JUN23 10	CA40197-JUN23 12	
F1 (C6-C10) -BTEX	55	< 10	< 10	< 10	< 10	
F2 (C10-C16)	98	< 10	< 10	< 10	< 10	
F3 (C16-C34)	300	< 50	< 50	< 50	< 50	
F4 (C34-C50)	2800	< 50	< 50	< 50	< 50	

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section



**Table 6: Summary of PHCs in Soil**

Parameter	MECP Table 2 SCS	TP1-1	BH23-17 SS3	
		Date of Collection	10-Jan-22	16-Jun-23
		Date Reported	19-Jan-22	29-Jun-23
		Sampling Depth (mbgs)	0-0.7	1.5-2.1
Analytical Report Reference No.		CA40064-JAN22 9	CA40197-JUN23 15	
F1 (C6-C10) -BTEX	55	< 10	< 10	
F2 (C10-C16)	98	< 10	< 10	
F3 (C16-C34)	300	< 50	54	
F4 (C34-C50)	2800	< 50	128	

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section



**Table 6: Summary of PHCs in Soil**

Parameter	MECP Table 2 SCS	TP1-1	DUP-1	BH23-20 SS3	BH23-21 SS4
Date of Collection		10-Jan-22	16-Jun-23	16-Jun-23	16-Jun-23
Date Reported		19-Jan-22	29-Jun-23	29-Jun-23	29-Jun-23
Sampling Depth (mbgs)		0-0.7	1.5-2.1	1.5-2.1	2.3-2.8
Analytical Report Reference No.		CA40064-JAN22 9	CA40197-JUN23 24	CA40197-JUN23 20	CA40197-JUN23 23
F1 (C6-C10) -BTEX	55	< 10	< 10	< 10	< 10
F2 (C10-C16)	98	< 10	< 10	< 10	< 10
F3 (C16-C34)	300	< 50	< 50	< 50	< 50
F4 (C34-C50)	2800	< 50	124	133	< 50

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section



**Table 7: Summary of VOCs in Soil**

Parameter	MECP Table 2 SCS	TP1-1	TP5-4	TP7-4	BH23-9 SS3
		10-Jan-22	10-Jan-22	10-Jan-22	19-Jun-23
Date of Collection		19-Jan-22	19-Jan-22	19-Jan-22	29-Jun-23
Date Reported		0-0.7	2.2-2.5	2.3-3.1	1.5-2.1
Sampling Depth (mbgs)		CA40064-JAN22 9	CA40064-JAN22 17	CA40064-JAN22 23	CA40240-JUN23 11
Analytical Report Reference No.					
Tetrachloroethane, 1,1,1,2-	0.058	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethane, 1,1,1-	0.38	< 0.05	< 0.05	< 0.05	< 0.05
Tetrachloroethane, 1,1,2,2-	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethane, 1,1,2-	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichloroethane, 1,1-	0.47	< 0.05	< 0.05	< 0.05	< 0.05
Dichloroethylene, 1,1-	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichlorobenzene, 1,2-	1.2	< 0.05	< 0.05	< 0.05	< 0.05
Dichloroethane, 1,2-	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichloropropane, 1,2-	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichlorobenzene, 1,3-	4.8	< 0.05	< 0.05	< 0.05	< 0.05
Dichloropropene, 1,3-	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichlorobenzene, 1,4-	0.083	< 0.05	< 0.05	< 0.05	< 0.05
Acetone	16	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Carbon Tetrachloride	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlorobenzene	2.4	< 0.05	< 0.05	< 0.05	< 0.05
Chloroform	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichloroethylene, 1,2-cis-	1.9	< 0.05	< 0.05	< 0.05	< 0.05
Dichloroethylene, 1,2-trans-	0.084	< 0.05	< 0.05	< 0.05	< 0.05
Dichlorodifluoromethane	16	< 0.05	< 0.05	< 0.05	< 0.05
Ethylene dibromide	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Methyl Ethyl Ketone	16	< 0.5	< 0.5	< 0.5	< 0.5
Methyl Isobutyl Ketone	1.7	< 0.5	< 0.5	< 0.5	< 0.5
Methyl tert-Butyl Ether (MTBE)	0.75	< 0.05	< 0.05	< 0.05	< 0.05
Methylene Chloride	0.1	< 0.05	< 0.05	< 0.05	< 0.05
Hexane (n)	2.8	< 0.05	< 0.05	< 0.05	< 0.05
Styrene	0.7	< 0.05	< 0.05	< 0.05	< 0.05
Tetrachloroethylene	0.28	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethylene	0.061	< 0.05	< 0.05	< 0.05	< 0.05
Trichlorofluoromethane	4	< 0.05	< 0.05	< 0.05	< 0.05
Vinyl Chloride	0.02	< 0.02	< 0.02	< 0.02	< 0.02
Benzene	0.21	< 0.02	< 0.02	< 0.02	< 0.02
Ethylbenzene	1.1	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	2.3	< 0.05	< 0.05	< 0.05	< 0.05
Total Xylene	3.1	< 0.05	< 0.05	< 0.05	< 0.05
Bromodichloromethane	1.5	< 0.05	< 0.05	< 0.05	< 0.05
Bromoform	0.27	< 0.05	< 0.05	< 0.05	< 0.05
Dibromochloromethane	2.3	< 0.05	< 0.05	< 0.05	< 0.05

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section



**Table 7: Summary of VOCs in Soil**

Parameter	MECP Table 2 SCS	BH23-10 SS3	BH23-15 SS2	BH23-16 SS2	BH23-17 SS3
		20-Jun-23	16-Jun-23	16-Jun-23	16-Jun-23
Date of Collection		29-Jun-23	29-Jun-23	29-Jun-23	29-Jun-23
Date Reported		1.5-1.8	0.8-1.4	0.8-1.4	1.5-2.1
Sampling Depth (mbgs)		CA40240-JUN23	CA40197-JUN23	CA40197-JUN23	CA40197-JUN23
Analytical Report Reference No.		14	10	12	15
Tetrachloroethane, 1,1,1,2-	0.058	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethane, 1,1,1-	0.38	< 0.05	< 0.05	< 0.05	< 0.05
Tetrachloroethane, 1,1,2,2-	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethane, 1,1,2-	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichloroethane, 1,1-	0.47	< 0.05	< 0.05	< 0.05	< 0.05
Dichloroethylene, 1,1-	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichlorobenzene, 1,2-	1.2	< 0.05	< 0.05	< 0.05	< 0.05
Dichloroethane, 1,2-	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichloropropane, 1,2-	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichlorobenzene, 1,3-	4.8	< 0.05	< 0.05	< 0.05	< 0.05
Dichloropropene, 1,3-	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichlorobenzene, 1,4-	0.083	< 0.05	< 0.05	< 0.05	< 0.05
Acetone	16	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Carbon Tetrachloride	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlorobenzene	2.4	< 0.05	< 0.05	< 0.05	< 0.05
Chloroform	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichloroethylene, 1,2-cis-	1.9	< 0.05	< 0.05	< 0.05	< 0.05
Dichloroethylene, 1,2-trans-	0.084	< 0.05	< 0.05	< 0.05	< 0.05
Dichlorodifluoromethane	16	< 0.05	< 0.05	< 0.05	< 0.05
Ethylene dibromide	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Methyl Ethyl Ketone	16	< 0.5	< 0.5	< 0.5	< 0.5
Methyl Isobutyl Ketone	1.7	< 0.5	< 0.5	< 0.5	< 0.5
Methyl tert-Butyl Ether (MTBE)	0.75	< 0.05	< 0.05	< 0.05	< 0.05
Methylene Chloride	0.1	< 0.05	< 0.05	< 0.05	< 0.05
Hexane (n)	2.8	< 0.05	< 0.05	< 0.05	< 0.05
Styrene	0.7	< 0.05	< 0.05	< 0.05	< 0.05
Tetrachloroethylene	0.28	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethylene	0.061	< 0.05	< 0.05	< 0.05	< 0.05
Trichlorofluoromethane	4	< 0.05	< 0.05	< 0.05	< 0.05
Vinyl Chloride	0.02	< 0.02	< 0.02	< 0.02	< 0.02
Benzene	0.21	< 0.02	< 0.02	< 0.02	< 0.02
Ethylbenzene	1.1	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	2.3	< 0.05	< 0.05	< 0.05	< 0.05
Total Xylene	3.1	< 0.05	< 0.05	< 0.05	< 0.05
Bromodichloromethane	1.5	< 0.05	< 0.05	< 0.05	< 0.05
Bromoform	0.27	< 0.05	< 0.05	< 0.05	< 0.05
Dibromochloromethane	2.3	< 0.05	< 0.05	< 0.05	< 0.05

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section





**Table 7: Summary of VOCs in Soil**

Parameter	MECEP Table 2 SCS	DUP-1	BH23-20 SS3	BH23-21 SS4
		16-Jun-23	16-Jun-23	16-Jun-23
Date of Collection		29-Jun-23	29-Jun-23	29-Jun-23
Date Reported		1.5-2.1	1.5-2.1	2.3-2.8
Sampling Depth (mbgs)		CA40197-JUN23 24	CA40197-JUN23 20	CA40197-JUN23 23
Analytical Report Reference No.				
Tetrachloroethane, 1,1,1,2-	0.058	< 0.05	< 0.05	< 0.05
Trichloroethane, 1,1,1-	0.38	< 0.05	< 0.05	< 0.05
Tetrachloroethane, 1,1,2,2-	0.05	< 0.05	< 0.05	< 0.05
Trichloroethane, 1,1,2-	0.05	< 0.05	< 0.05	< 0.05
Dichloroethane, 1,1-	0.47	< 0.05	< 0.05	< 0.05
Dichloroethylene, 1,1-	0.05	< 0.05	< 0.05	< 0.05
Dichlorobenzene, 1,2-	1.2	< 0.05	< 0.05	< 0.05
Dichloroethane, 1,2-	0.05	< 0.05	< 0.05	< 0.05
Dichloropropane, 1,2-	0.05	< 0.05	< 0.05	< 0.05
Dichlorobenzene, 1,3-	4.8	< 0.05	< 0.05	< 0.05
Dichloropropene, 1,3-	0.05	< 0.05	< 0.05	< 0.05
Dichlorobenzene, 1,4-	0.083	< 0.05	< 0.05	< 0.05
Acetone	16	< 0.5	< 0.5	< 0.5
Bromomethane	0.05	< 0.05	< 0.05	< 0.05
Carbon Tetrachloride	0.05	< 0.05	< 0.05	< 0.05
Chlorobenzene	2.4	< 0.05	< 0.05	< 0.05
Chloroform	0.05	< 0.05	< 0.05	< 0.05
Dichloroethylene, 1,2-cis-	1.9	< 0.05	< 0.05	< 0.05
Dichloroethylene, 1,2-trans-	0.084	< 0.05	< 0.05	< 0.05
Dichlorodifluoromethane	16	< 0.05	< 0.05	< 0.05
Ethylene dibromide	0.05	< 0.05	< 0.05	< 0.05
Methyl Ethyl Ketone	16	< 0.5	< 0.5	< 0.5
Methyl Isobutyl Ketone	1.7	< 0.5	< 0.5	< 0.5
Methyl tert-Butyl Ether (MTBE)	0.75	< 0.05	< 0.05	< 0.05
Methylene Chloride	0.1	< 0.05	< 0.05	< 0.05
Hexane (n)	2.8	< 0.05	< 0.05	< 0.05
Styrene	0.7	< 0.05	< 0.05	< 0.05
Tetrachloroethylene	0.28	< 0.05	< 0.05	< 0.05
Trichloroethylene	0.061	< 0.05	< 0.05	< 0.05
Trichlorofluoromethane	4	< 0.05	< 0.05	< 0.05
Vinyl Chloride	0.02	< 0.02	< 0.02	< 0.02
Benzene	0.21	< 0.02	< 0.02	< 0.02
Ethylbenzene	1.1	< 0.05	< 0.05	< 0.05
Toluene	2.3	< 0.05	< 0.05	< 0.05
Total Xylene	3.1	< 0.05	< 0.05	< 0.05
Bromodichloromethane	1.5	< 0.05	< 0.05	< 0.05
Bromoform	0.27	< 0.05	< 0.05	< 0.05
Dibromochloromethane	2.3	< 0.05	< 0.05	< 0.05

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section



**Table 8: Summary of PAHs in Soil**

Parameter	MECP Table 2 SCS	TP1-1	TP2-1	TP3-1	TP4-1	TP5-1	TP6-1	TP7-2	TP8-1	DUP 2 (TP3-1)	DUP 3 (TP4-1)	
		Date of Collection	10-Jan-22	10-Jan-22	10-Jan-22	10-Jan-22	10-Jan-22	10-Jan-22	10-Jan-22	10-Jan-22	10-Jan-22	10-Jan-22
Date Reported		19-Jan-22	19-Jan-22	19-Jan-22	19-Jan-22	19-Jan-22	19-Jan-22	19-Jan-22	19-Jan-22	19-Jan-22	3-Feb-22	3-Feb-22
Sampling Depth (mbgs)		0-0.7	0-0.8	0-0.7	0-0.7	0-0.7	0-0.7	0.7-1.5	0-0.5	0-0.7	0-0.7	
Analytical Report Reference No.		CA40064- JAN22 9	CA40064- JAN22 10	CA40064- JAN22 12	CA40064- JAN22 14	CA40064- JAN22 16	CA40064- JAN22 18	CA40064- JAN22 22	CA40064- JAN22 24	CA40062- FEB22 10	CA40062- FEB22 11	
Methylnaphthalene, 2-(1-)	0.99	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Acenaphthene	7.9	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Acenaphthylene	0.15	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Anthracene	0.67	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Benz(a)anthracene	0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Benzo(a)pyrene	0.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Benzo(b+j)fluoranthene	0.78	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Benzo(g,h,i)perylene	6.6	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Benzo(k)fluoranthene	0.78	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Chrysene	7	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Dibenz(a,h)anthracene	0.1	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	
Fluoranthene	0.69	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Fluorene	62	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Indeno(1,2,3-cd)pyrene	0.38	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Naphthalene	0.6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Phenanthrene	6.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Pyrene	78	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section



**Table 8: Summary of PAHs in Soil**

Parameter	MECP Table 2 SCS	BH23-9 SS2	DUP3	BH23-10 SS2	BH23-15 SS2	BH23-16 SS1	BH23-17 SS2	BH23-19 SS2	BH23-21 SS1
		19-Jun-23	19-Jun-23	20-Jun-23	16-Jun-23	16-Jun-23	16-Jun-23	16-Jun-23	16-Jun-23
Date of Collection		19-Jun-23	19-Jun-23	20-Jun-23	16-Jun-23	16-Jun-23	16-Jun-23	16-Jun-23	16-Jun-23
Date Reported		29-Jun-23	29-Jun-23	29-Jun-23	29-Jun-23	29-Jun-23	29-Jun-23	29-Jun-23	29-Jun-23
Sampling Depth (mbgs)		0.8-1.4	0.8-1.4	0.8-1.4	0.8-1.4	0.2-0.6	0.8-1.4	0.8-1.4	0.2-0.6
Analytical Report Reference No.		CA40240-JUN23 10	CA40240- JUN23 20	CA40240- JUN23 13	CA40197-JUN23 10	CA40197-JUN23 11	CA40197-JUN23 14	CA40197-JUN23 18	CA40197-JUN23 21
Methylnaphthalene, 2-(1-)	0.99	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	7.9	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	0.15	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	0.67	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benz(a)anthracene	0.5	< 0.05	< 0.05	< 0.05	< 0.05	0.12	< 0.05	< 0.05	0.14
Benzo(a)pyrene	0.3	< 0.05	< 0.05	< 0.05	< 0.05	0.14	< 0.05	< 0.05	0.15
Benzo(b+j)fluoranthene	0.78	< 0.05	< 0.05	< 0.05	< 0.05	0.16	< 0.05	< 0.05	0.18
Benzo(g,h,i)perylene	6.6	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1
Benzo(k)fluoranthene	0.78	< 0.05	< 0.05	< 0.05	< 0.05	0.06	< 0.05	< 0.05	0.08
Chrysene	7	< 0.05	< 0.05	< 0.05	< 0.05	0.12	< 0.05	< 0.05	0.14
Dibenz(a,h)anthracene	0.1	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Fluoranthene	0.69	< 0.05	< 0.05	< 0.05	< 0.05	0.25	< 0.05	< 0.05	0.32
Fluorene	62	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	0.38	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Naphthalene	0.6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	6.2	< 0.05	< 0.05	< 0.05	< 0.05	0.12	< 0.05	< 0.05	0.19
Pyrene	78	< 0.05	< 0.05	< 0.05	< 0.05	0.22	< 0.05	< 0.05	0.27

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section



**Table 9: Summary of OCPs in Soil**

Parameter		BH23-9 SS1	BH23-10 SS1	BH23-13 SS1	BH23-14 SS1	DUP-4 (BH23-10 SS1)	BH23-15 SS1	BH23-17 SS1	BH23-18 SS1	BH23-19 SS1
<b>Date of Collection</b>	<b>MECP Table 2 SCS</b>	19-Jun-23	20-Jun-23	20-Jun-23	20-Jun-23	20-Jun-23	16-Jun-23	16-Jun-23	16-Jun-23	16-Jun-23
<b>Date Reported</b>		29-Jun-23	29-Jun-23	29-Jun-23	29-Jun-23	29-Jun-23	29-Jun-23	29-Jun-23	29-Jun-23	29-Jun-23
<b>Sampling Depth (mbgs)</b>		0.1-0.7	0.3-0.6	0.2-0.6	0.2-0.6	0.2-0.6	0.2-0.6	0.3-0.6	0-0.6	0.2-0.6
<b>Analytical Report Reference No.</b>		CA40240- JUN23	CA40240- JUN23	CA40240- JUN23	CA40240- JUN23	CA40240-JUN23 21	CA40197- JUN23	CA40197- JUN23	CA40197- JUN23	CA40197- JUN23
Aldrin	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordane	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
DDD	3.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
DDE	0.26	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
DDT	1.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan	0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Endrin	0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Hexachlorocyclohexane Gamma-	0.056	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Heptachlor	0.15	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Heptachlor Epoxide	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobenzene	0.52	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	0.012	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachloroethane	0.089	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methoxychlor	0.13	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section



**Table 9: Summary of OCPs in Soil**

Parameter		BH23-20 SS1	BH23-21 SS1
Date of Collection	MECP Table 2 SCS	16-Jun-23	16-Jun-23
Date Reported		29-Jun-23	29-Jun-23
Sampling Depth (mbgs)		0.2-0.6	0.2-0.6
Analytical Report Reference No.		CA40197-JUN23	CA40197-JUN23
Aldrin	0.05	< 0.05	< 0.05
Chlordane	0.05	< 0.05	< 0.05
DDD	3.3	< 0.05	< 0.05
DDE	0.26	< 0.05	< 0.05
DDT	1.4	< 0.05	< 0.05
Dieldrin	0.05	< 0.05	< 0.05
Endosulfan	0.04	< 0.04	< 0.04
Endrin	0.04	< 0.04	< 0.04
Hexachlorocyclohexane Gamma-	0.056	< 0.01	< 0.01
Heptachlor	0.15	< 0.01	< 0.01
Heptachlor Epoxide	0.05	< 0.01	< 0.01
Hexachlorobenzene	0.52	< 0.01	< 0.01
Hexachlorobutadiene	0.012	< 0.01	< 0.01
Hexachloroethane	0.089	< 0.01	< 0.01
Methoxychlor	0.13	< 0.05	< 0.05

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**Table 10: Summary of Metals and ORPs in Groundwater**

Parameter	MECP Table 2 SCS	BH1	BH2	BH4	DUP1 (BH4)	DUP2 (BH1)	MW23-9	MW23-17	DUP1	
		Date of Collection	22-Jan-22	22-Jan-22	22-Jan-22	22-Jan-22	22-Jan-22	30-Jun-23	30-Jun-23	30-Jun-23
		Date Reported	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22	12-Jul-23	12-Jul-23	12-Jul-23
		Screen Interval (mbgs)	2.5-5.5	4.1-7.1	3.1-6.1	3.1-6.1	2.5-5.5	3.1-6.1	3.1-6.1	3.1-6.1
Analytical Report Reference No.		RRD592	RRD593	RRD594	RRD595	RRD596	C3J3318	C3J3318	C3J3318	
Antimony	6	0.57	0.55	<0.50	<0.50	<0.50	1	<0.50	<0.50	
Arsenic	25	<1.0	1.3	1.1	1.1	<1.0	2.3	<1.0	<1.0	
Barium	1 000	180	230	140	140	190	150	180	190	
Beryllium	4	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	
Boron	5 000	150	150	120	120	140	350	140	130	
Cadmium	2.7	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	
Chromium	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
Chromium VI	25	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
Cobalt	3.8	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
Copper	87	0.92	<0.90	<0.90	<0.90	<0.90	0.97	1.1	1.4	
Lead	10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
Mercury	0.29	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Molybdenum	70	6.9	5	3	3	6.4	12	1.9	1.8	
Nickel	100	<1.0	1.1	<1.0	<1.0	<1.0	1.3	1.7	1.9	
Sodium	490 000	420 000	190 000	23 000	23 000	430 000	440 000	310 000	300 000	
Selenium	10	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
Silver	1.5	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	
Thallium	2	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
Vanadium	6.2	0.57	0.71	0.6	0.51	0.57	0.54	0.58	0.65	
Zinc	1 100	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	9	7.8	
Cyanide, Free	66	<1	<1	<1	<1	<1	<1	<1	<1	
Chloride	790 000	<b>900 000</b>	520 000	30 000	29 000	<b>900 000</b>	<b>810 000</b>	620 000	650 000	
Uranium	20	4.7	5.6	3.7	3.7	4.7	4.1	3.8	3.8	

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section



**Table 11: Summary of PHCs in Groundwater**

Parameter	MECP Table 2 SCS	BH1	BH2	BH4	DUP1 (BH4)	DUP2 (BH1)	MW23-9	MW23-17	DUP1
Date of Collection		22-Jan-22	22-Jan-22	22-Jan-22	22-Jan-22	22-Jan-22	30-Jun-23	30-Jun-23	30-Jun-23
Date Reported		28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22	12-Jul-23	12-Jul-23	12-Jul-23
Screen Interval (mbgs)		2.5-5.5	4.1-7.1	3.1-6.1	3.1-6.1	2.5-5.5	3.1-6.1	3.1-6.1	3.1-6.1
Analytical Report Reference No.		RRD592	RRD593	RRD594	RRD595	RRD596	C3J3318	C3J3318	C3J3318
F1 (C6-C10)	750	<25	<25	<25	<25	<25	<25	<25	<25
F2 (C10-C16)	150	<100	<100	<100	<100	<100	<100	<100	<100
F3 (C16-C34)	500	<200	<200	<200	<200	<200	<200	<200	<200
F4 (C34-C50)	500	<200	<200	<200	<200	<200	<200	<200	<200

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section

**Table 12: Summary of VOCs in Groundwater**

Parameter	MECP Table 2 SCS	BH1	BH2	BH4	DUP1 (BH4)	DUP2 (BH1)	TRIP BLANK	MW23-9	MW23-17	DUP1	TRIP BLANK
		Date of Collection Date Reported Screen Interval (mbgs)	22-Jan-22 28-Jan-22 2.5-5.5	22-Jan-22 28-Jan-22 4.1-7.1	22-Jan-22 28-Jan-22 3.1-6.1	22-Jan-22 28-Jan-22 3.1-6.1	22-Jan-22 28-Jan-22 2.5-5.5	22-Jan-22 28-Jan-22 -	30-Jun-23 30-Jun-23 3.1-6.1	30-Jun-23 30-Jun-23 3.1-6.1	30-Jun-23 30-Jun-23 3.1-6.1
Analytical Report Reference No.		RRD592	RRD593	RRD594	RRD595	RRD596	RRD596	C3J3318	C3J3318	C3J3318	C3J3318
Acetone	2700	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Benzene	5	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Bromodichloromethane	16	<0.50	0.56	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Bromoform	25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	0.89	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	0.79	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chlorobenzene	30	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chloroform	2.4	0.42	0.52	0.34	0.3	0.45	0.62	1.3	0.66	0.62	0.62
Dibromochloromethane	25	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	59	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethane	5	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloroethane	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	1.6	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cis-1,2-Dichloroethylene	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trans-1,2-Dichloroethylene	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloropropane	5	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cis-1,3-Dichloropropylene	NV	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Trans-1,3-Dichloropropylene	NV	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Ethylbenzene	2.4	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylene Dibromide	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Methyl Ethyl Ketone	1800	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Methylene Chloride	50	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Methyl Isobutyl Ketone	640	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl-t-Butyl Ether	15	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Styrene	5.4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	24	<0.20	0.22	0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Tetrachloroethylene	1.6	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	200	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,2-Trichloroethane	4.7	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethylene	1.6	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl Chloride	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
m-Xylene & p-Xylene	NV	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
o-Xylene	NV	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Total Xylenes	300	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dichlorodifluoromethane	590	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Hexane(n)	51	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	150	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-Dichloropropene (cis + trans)	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section





**Table 13: Summary of PAHs in Groundwater**

Parameter	MECP Table 2 SCS	BH1	BH2	BH4	DUP1 (BH4)	DUP2 (BH1)	MW23-9	MW23-17	DUP1
Date of Collection		22-Jan-22	22-Jan-22	22-Jan-22	22-Jan-22	22-Jan-22	30-Jun-23	30-Jun-23	30-Jun-23
Date Reported		28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22	12-Jul-23	12-Jul-23	12-Jul-23
Screen Interval (mbgs)		2.5-5.5	4.1-7.1	3.1-6.1	3.1-6.1	2.5-5.5	3.1-6.1	3.1-6.1	3.1-6.1
Analytical Report Reference No.		RRD592	RRD593	RRD594	RRD595	RRD596	C3J3318	C3J3318	C3J3318
Acenaphthene	4.1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Anthracene	2.4	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(a)anthracene	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(a)pyrene	0.01	<0.0090	<0.0090	<0.0090	<0.0090	<0.0090	<0.0090	<0.0090	<0.0090
Benzo(b/j)fluoranthene	0.1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(ghi)perylene	0.2	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(k)fluoranthene	0.1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Chrysene	0.1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Dibenzo(a,h)anthracene	0.2	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoranthene	0.41	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluorene	120	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Indeno(1,2,3-cd)pyrene	0.2	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1-Methylnaphthalene	3.2	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
2-Methylnaphthalene	3.2	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Naphthalene	11	<0.050	<0.050	0.07	0.069	<0.050	<0.050	<0.050	<0.050
Phenanthrene	1	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Pyrene	4.1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Methylnaphthalene, 2-(1-)	3.2	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section



**Table 14: Summary of Maximum Concentrations in Soil**

	Parameter	Table 2 Standard	Maximum Concentration	Location
Metals and ORPs	Antimony	7.5	< 0.8	All Samples
	Arsenic	18	6.8	TP8-1
	Barium	390	140	TP8-1
	Beryllium	4	1.1	TP8-1
	Boron (total)	120	12	TP1-1
	Boron (Hot Water Soluble)	1.5	< 0.5	All Samples
	Cadmium	1.2	0.28	TP4-1
	Chromium Total	160	28	TP8-1
	Chromium VI	8	< 0.2	All Samples
	Cobalt	22	17	TP8-1
	Copper	140	35	TP5-1
	Cyanide (CN-)	0.051	< 0.05	All Samples
	Electrical Conductivity (mS/cm)	0.7	0.27	TP1-1
	Lead	120	19	TP3-1
	Mercury	0.27	< 0.05	All Samples
	Molybdenum	6.9	0.7	TP4-1
	Nickel	100	37	TP8-1
	Selenium	2.4	< 0.7	All Samples
	Silver	20	0.09	TP4-1
	Sodium Adsorption Ratio	5	0.5	TP8-1
	Thallium	1	0.17	TP5-1
Uranium	23	0.75	TP4-1	
Vanadium	86	35	TP8-1	
Zinc	340	82	TP8-1	
pH	NV	7.8	TP2-3	
PHCs	Petroleum Hydrocarbons F1	55	< 10	All Samples
	Petroleum Hydrocarbons F2	98	< 10	All Samples
	Petroleum Hydrocarbons F3	300	< 50	All Samples
	Petroleum Hydrocarbons F4	2800	< 50	All Samples
	Benzene	0.21	< 0.02	All Samples
	Ethylbenzene	1.1	< 0.05	All Samples
	Toluene	2.3	< 0.05	All Samples
	Xylene Mixture	3.1	< 0.05	All Samples
VOCs	Tetrachloroethane, 1,1,1,2-	0.058	< 0.05	All Samples
	Trichloroethane, 1,1,1-	0.38	< 0.05	All Samples
	Tetrachloroethane, 1,1,2,2-	0.05	< 0.05	All Samples
	Trichloroethane, 1,1,2-	0.05	< 0.05	All Samples
	Dichloroethane, 1,1-	0.47	< 0.05	All Samples
	Dichloroethylene, 1,1-	0.05	< 0.05	All Samples
	Dichlorobenzene, 1,2-	1.2	< 0.05	All Samples
	Dichloroethane, 1,2-	0.05	< 0.05	All Samples
	Dichloropropane, 1,2-	0.05	< 0.05	All Samples
	Dichlorobenzene, 1,3-	4.8	< 0.05	All Samples
	Dichloropropene, 1,3-	0.05	< 0.05	All Samples
	Dichlorobenzene, 1,4-	0.083	< 0.05	All Samples
	Acetone	16	< 0.5	All Samples
	Bromomethane	0.05	< 0.05	All Samples
	Carbon Tetrachloride	0.05	< 0.05	All Samples
	Chlorobenzene	2.4	< 0.05	All Samples
	Chloroform	0.05	< 0.05	All Samples
	Dichloroethylene, 1,2-cis-	1.9	< 0.05	All Samples
	Dichloroethylene, 1,2-trans-	0.084	< 0.05	All Samples
	Dichlorodifluoromethane	16	< 0.05	All Samples
	Ethylene dibromide	0.05	< 0.05	All Samples
	Methyl Ethyl Ketone	16	< 0.5	All Samples
	Methyl Isobutyl Ketone	1.7	< 0.5	All Samples
	Methyl tert-Butyl Ether (MTBE)	0.75	< 0.05	All Samples
	Methylene Chloride	0.1	< 0.05	All Samples
	Hexane (n)	2.8	< 0.05	All Samples
	Styrene	0.7	< 0.05	All Samples
Tetrachloroethylene	0.28	< 0.05	All Samples	
Trichloroethylene	0.061	< 0.05	All Samples	
Trichlorofluoromethane	4	< 0.05	All Samples	
Vinyl Chloride	0.02	< 0.02	All Samples	
Bromodichloromethane	1.5	< 0.05	All Samples	
Bromoform	0.27	< 0.05	All Samples	
Dibromochloromethane	2.3	< 0.05	All Samples	



**Table 14: Summary of Maximum Concentrations in Soil**

	Parameter	Table 2 Standard	Maximum Concentration	Location
PAHs	Methylnaphthalene, 2-(1-)	0.99	< 0.05	All Samples
	Acenaphthene	7.9	< 0.05	All Samples
	Acenaphthylene	0.15	< 0.05	All Samples
	Anthracene	0.67	< 0.05	All Samples
	Benz(a)anthracene	0.5	< 0.05	All Samples
	Benzo(a)pyrene	0.3	< 0.05	All Samples
	Benzo(b+j)fluoranthene	0.78	< 0.05	All Samples
	Benzo(g,h,i)perylene	6.6	< 0.1	All Samples
	Benzo(k)fluoranthene	0.78	< 0.05	All Samples
	Chrysene	7	< 0.05	All Samples
	Dibenz(a,h)anthracene	0.1	< 0.06	All Samples
	Fluoranthene	0.69	< 0.05	All Samples
	Fluorene	62	< 0.05	All Samples
	Indeno(1,2,3-cd)pyrene	0.38	< 0.1	All Samples
	Naphthalene	0.6	< 0.05	All Samples
	Phenanthrene	6.2	< 0.05	All Samples
Pyrene	78	< 0.05	All Samples	

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section

**Table 15: Summary of Maximum Concentrations in Groundwater**

	Parameter	Table 2 Standard	Maximum Concentration	Location
Metals and ORPs	Antimony	1.5	0.57	BH1
	Arsenic	13	1.3	BH2
	Barium	610	230	BH2
	Beryllium	0.5	0	All Samples
	Boron	1700	150	BH1
	Cadmium	0.5	0	All Samples
	Chromium	11	0	All Samples
	Chromium VI	25	0	All Samples
	Cobalt	3.8	0	All Samples
	Copper	5	0.92	BH1
	Lead	1.9	0	All Samples
	Mercury	0.1	0	All Samples
	Molybdenum	23	6.9	BH1
	Nickel	14	1.1	BH2
	Sodium	490000	430000	All Samples
	Selenium	5	0	All Samples
	Silver	0.3	0	All Samples
	Thallium	0.5	0	All Samples
	Vanadium	3.9	0.71	BH2
	Zinc	160	0	All Samples
Cyanide, Free	5	0	All Samples	
Chloride	790 000	<b>900 000</b>	BH1	
Uranium	8.9	5.6	BH2	
PHCs	F1 (C6-C10)	750	<25	All Samples
	F2 (C10-C16)	150	<100	All Samples
	F3 (C16-C34)	500	<200	All Samples
	F4 (C34-C50)	500	<200	All Samples
VOCs	Acetone	2700	<10	All Samples
	Benzene	5	<0.17	All Samples
	Bromodichloromethane	16	0.56	BH2
	Bromoform	25	<1.0	All Samples
	Bromomethane	0.89	<0.50	All Samples
	Carbon Tetrachloride	0.79	<0.20	All Samples
	Chlorobenzene	30	<0.20	All Samples
	Chloroform	2.4	0.52	BH2
	Dibromochloromethane	25	<0.50	All Samples
	1,2-Dichlorobenzene	3	<0.50	All Samples
	1,3-Dichlorobenzene	59	<0.50	All Samples
	1,4-Dichlorobenzene	1	<0.50	All Samples
	1,1-Dichloroethane	5	<0.20	All Samples
	1,2-Dichloroethane	1.6	<0.50	All Samples
	1,1-Dichloroethylene	1.6	<0.20	All Samples
	Cis-1,2-Dichloroethylene	1.6	<0.50	All Samples
	Trans-1,2-Dichloroethylene	1.6	<0.50	All Samples
	1,2-Dichloropropane	5	<0.20	All Samples
	Cis-1,3-Dichloropropylene	NV	<0.30	All Samples
	Trans-1,3-Dichloropropylene	NV	<0.40	All Samples
	Ethylbenzene	2.4	<0.20	All Samples
	Ethylene Dibromide	0.2	<0.20	All Samples
	Methyl Ethyl Ketone	1800	<10	All Samples
	Methylene Chloride	50	<2.0	All Samples
	Methyl Isobutyl Ketone	640	<5.0	All Samples
	Methyl-t-Butyl Ether	15	<0.50	All Samples
	Styrene	5.4	<0.50	All Samples
	1,1,1,2-Tetrachloroethane	1.1	<0.50	All Samples
	1,1,1,2,2-Tetrachloroethane	1	<0.50	All Samples
	Toluene	24	0.22	BH2
	Tetrachloroethylene	1.6	<0.20	All Samples
	1,1,1-Trichloroethane	200	<0.20	All Samples
	1,1,2-Trichloroethane	4.7	<0.50	All Samples
Trichloroethylene	1.6	<0.20	All Samples	
Vinyl Chloride	0.5	<0.20	All Samples	
m-Xylene & p-Xylene	NV	<0.20	All Samples	
o-Xylene	NV	<0.20	All Samples	
Total Xylenes	300	<0.20	All Samples	
Dichlorodifluoromethane	590	<1.0	All Samples	
Hexane(n)	51	<1.0	All Samples	
Trichlorofluoromethane	150	<0.50	All Samples	
1,3-Dichloropropene (cis + trans)	0.5	<0.50	All Samples	

	Parameter	Table 2 Standard	Maximum Concentration	Location
PAHs	Acenaphthene	4.1	<0.050	All Samples
	Acenaphthylene	1	<0.050	All Samples
	Anthracene	0.1	<0.050	All Samples
	Benzo(a)anthracene	0.2	<0.050	All Samples
	Benzo(a)pyrene	0.01	<0.0090	All Samples
	Benzo(b/j)fluoranthene	0.1	<0.050	All Samples
	Benzo(ghi)perylene	0.2	<0.050	All Samples
	Benzo(k)fluoranthene	0.1	<0.050	All Samples
	Chrysene	0.1	<0.050	All Samples
	Dibenzo(a,h)anthracene	0.2	<0.050	All Samples
	Fluoranthene	0.4	<0.050	All Samples
	Fluorene	120	<0.050	All Samples
	Indeno(1,2,3-cd)pyrene	0.2	<0.050	All Samples
	1-Methylnaphthalene	2	<0.050	All Samples
	2-Methylnaphthalene	2	<0.050	All Samples
	Naphthalene	7	<0.050	All Samples
	Phenanthrene	0.1	<0.030	All Samples
	Pyrene	0.2	<0.050	All Samples
	Methylnaphthalene, 2-(1-)	2	<0.071	All Samples
	Dichlorodifluoromethane	590	<1.0	All Samples
Hexane(n)	51	<1.0	All Samples	
Trichlorofluoromethane	150	<0.50	All Samples	
1,3-Dichloropropene (cis + trans)	0.5	<0.50	All Samples	

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section



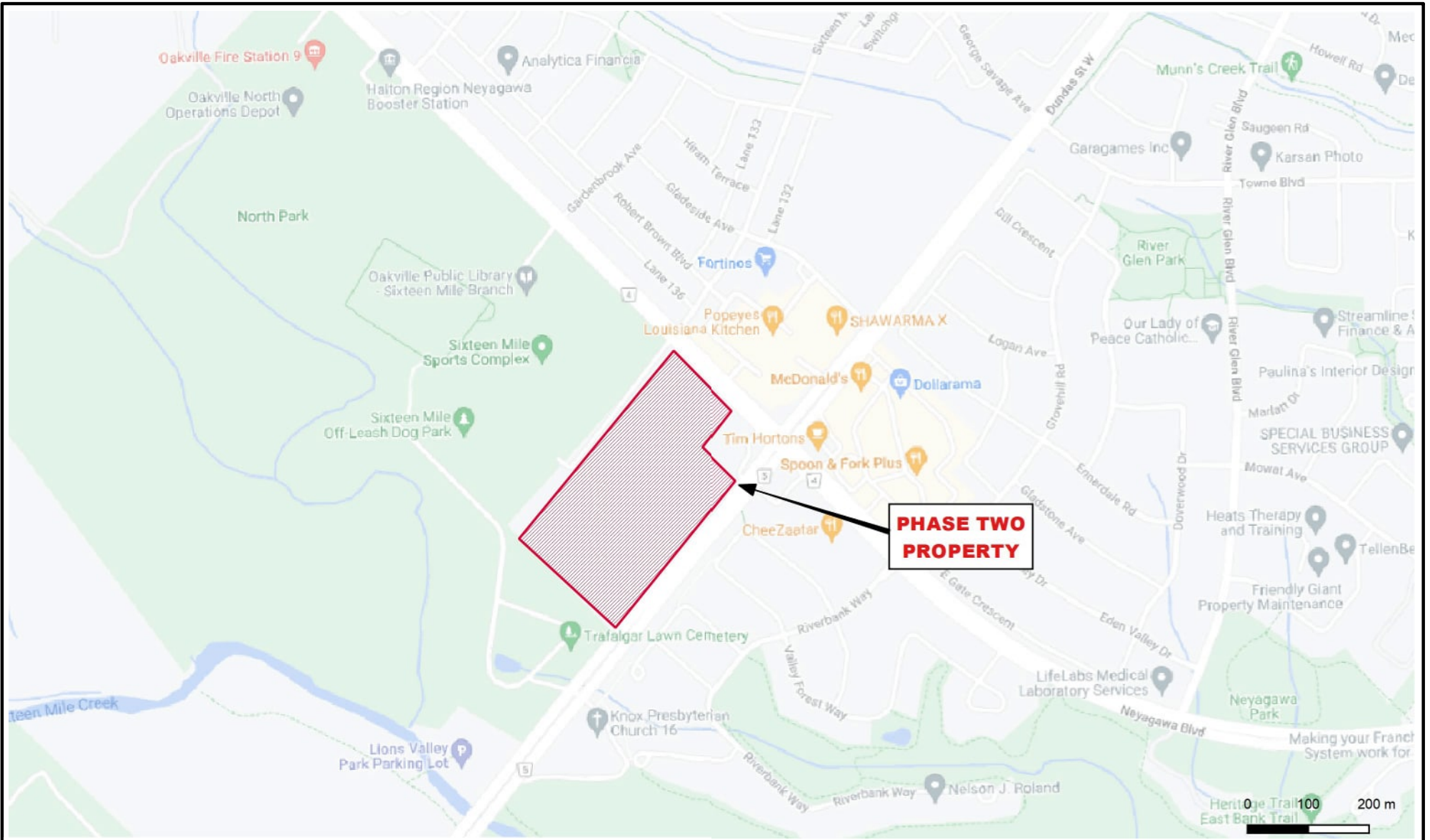
**Notes for Soil and Groundwater Summary Tables**


	For soil and groundwater analytical results, concentration exceeds the applicable Standards.
	For soil and groundwater analytical results, laboratory detection limits exceed the applicable Standards.
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
masl	Meters above sea level
<b>MECP Table 2 SCS</b>	Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/Parkland/Institutional Use with Coarse Grain soils as contained in Table 2 of the “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act”, published by the MECP on April 15, 2011.
mbgs	Meters below ground surface
NM	Not Monitored
NA	Not Available
Metals and ORPs	Metals and ORPs in Soil: Metals, As, Sb, Se, SAR, pH, EC, Hg, B-HWS, CN-, Cr(VI) Metals and ORPs in Groundwater: Metals, As, Sb, Se, CN-, Cr(VI), Hg, Cl, Na
PAH	Polycyclic Aromatic Hydrocarbons
VOCs	Volatile Organic Compounds
ORPs	Other Regulated Parameters
PHC	Petroleum Hydrocarbons
<b>Units</b>	Units for all soil analyses are in µg/g (ppm) unless otherwise indicated
<b>Units</b>	Units for all groundwater analyses are in µg/L (ppb) unless otherwise indicated



---

## Figures



**Legend**  
 Property Boundary

 <b>DS CONSULTANTS LTD.</b> 6221 Highway 7, UNIT 10 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca	Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 3056 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, ON.			
	Title: <b>SITE LOCATION PLAN</b>			
Client: NEATT SIXTEEN MILE CREEK INC.	Size: 8.5 x 11	Approved By: R.F	Drawn By: P.P	Date: December 2023
	Rev: 0	Scale: As Shown	Project No.: 22-012-101	Figure No.: <b>1</b>
Image/Map Source: Google Street Map				





Legend

 Property Boundary



**DS CONSULTANTS LTD.**

6221 Highway 7, UNIT 16  
Vaughan, Ontario L4H 0K8  
Telephone: (905) 264-9393  
www.dsconsultants.ca

Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT  
3056 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, ON.

Title: **PHASE ONE PROPERTY SITE PLAN**



Client:  
NEATT SIXTEEN MILE CREEK INC.

Size:  
8.5 x 11

Rev:  
0

Approved By: R.F

Scale: As Shown

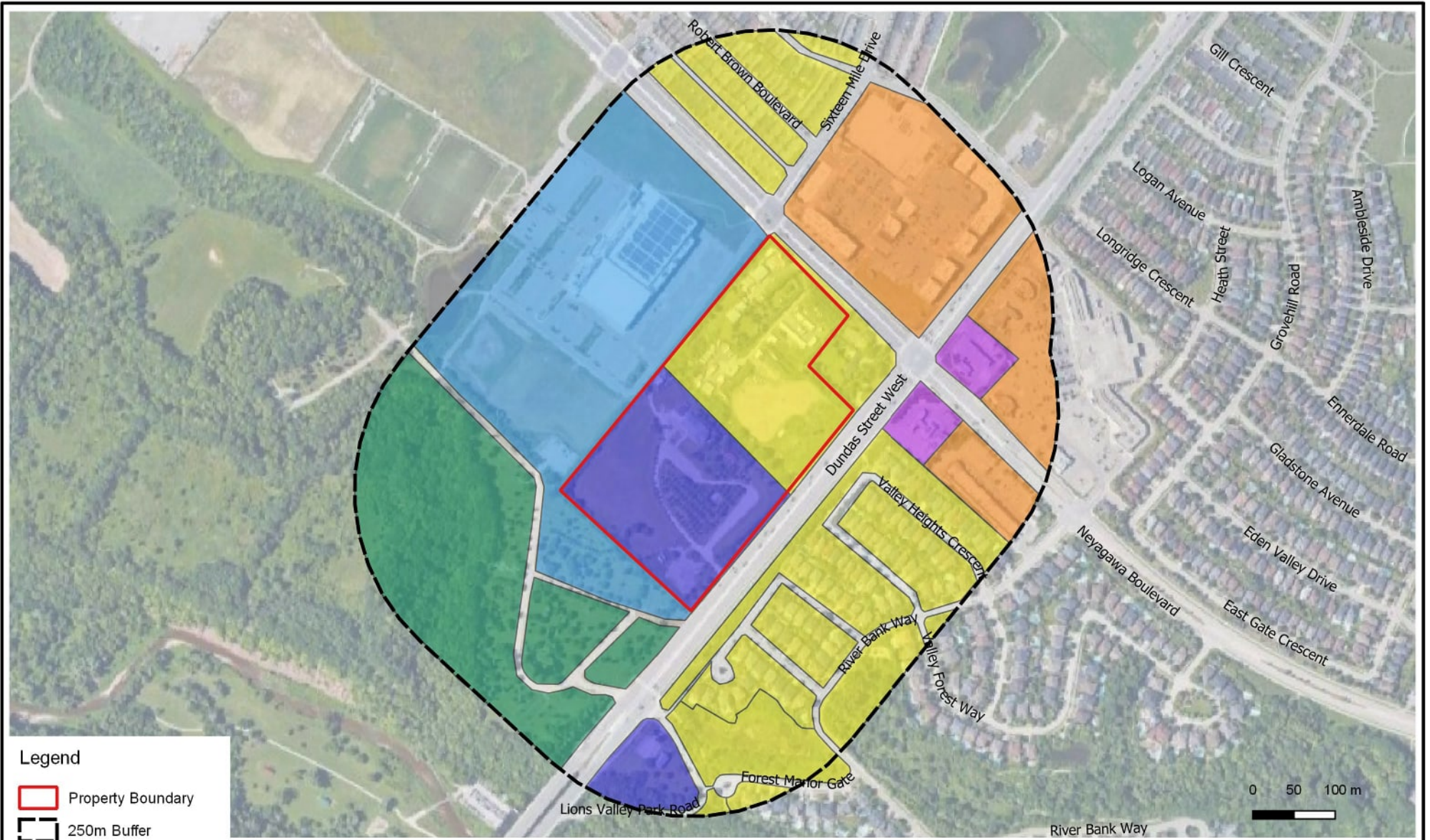
Drawn By: P.P

Project No.: 22-012-101

Date: December 2023



Figure No.: **2**

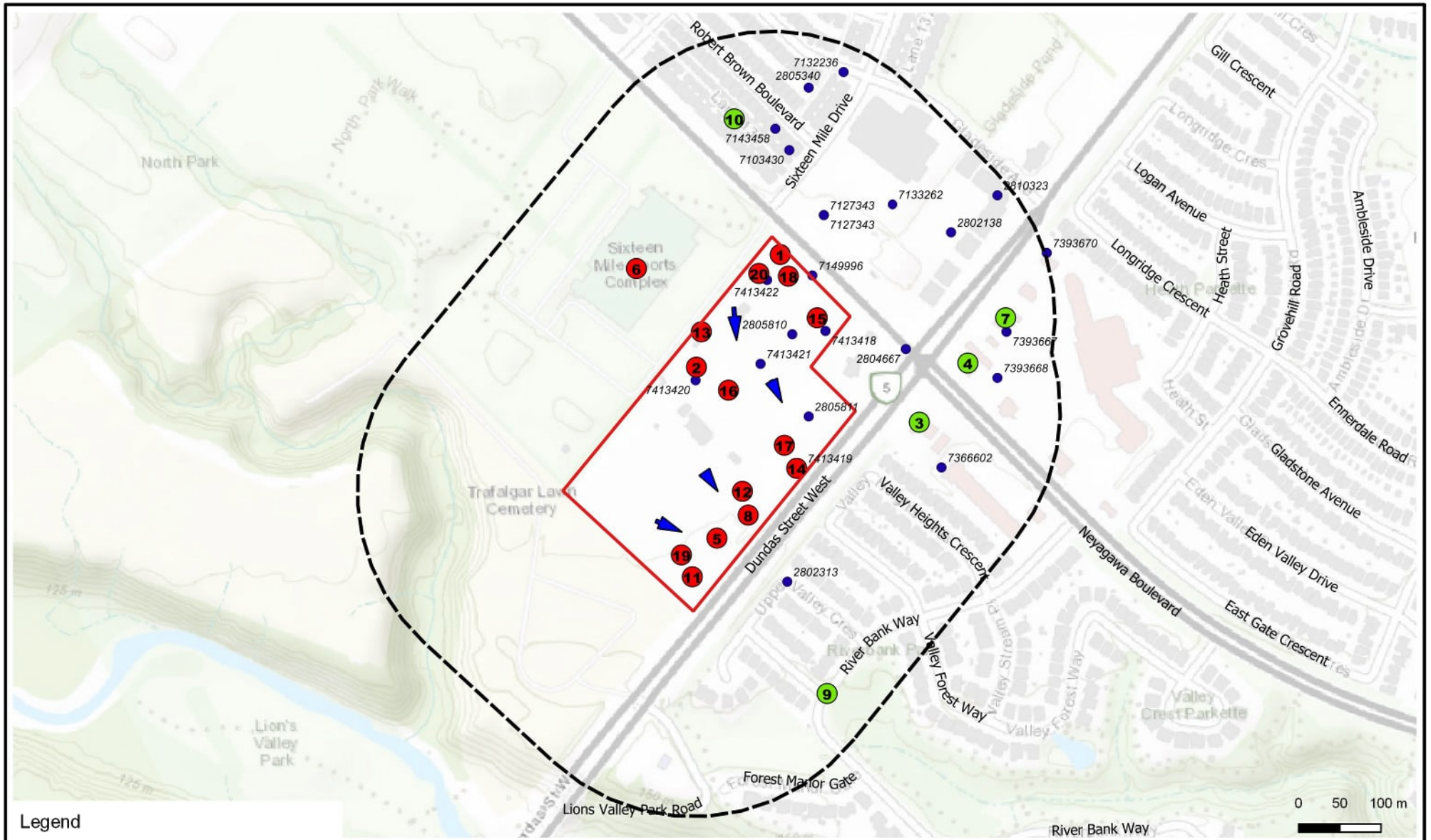
Image/Map Source: Google Satellite Image



**Legend**



-  Property Boundary
-  250m Buffer
-  Commercial Use
-  Community Use
-  Industrial Use
-  Institutional Use
-  Parkland or Other Use
-  Residential Use

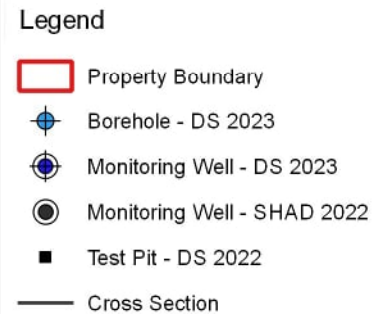
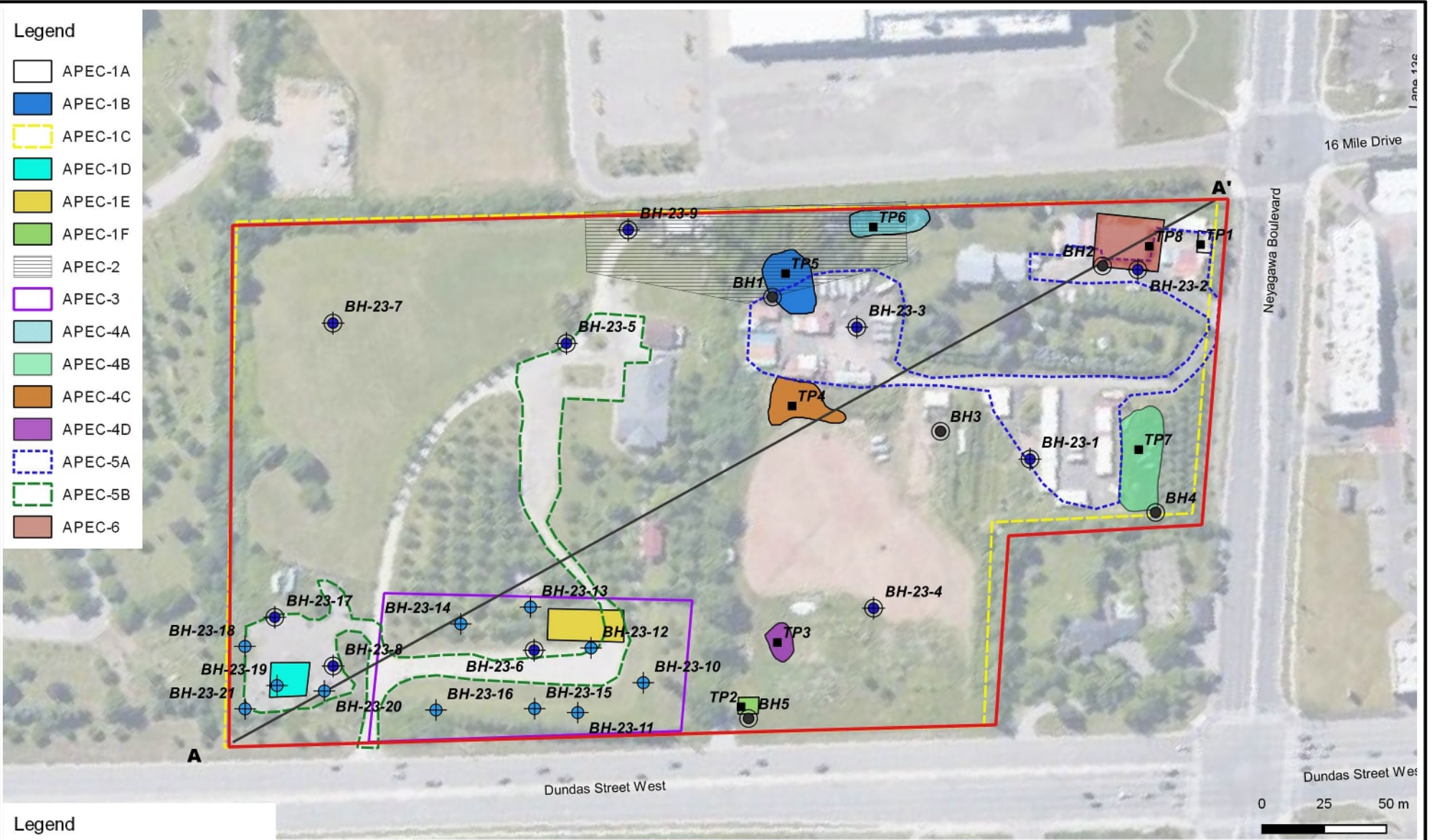
 <p><b>DS CONSULTANTS LTD.</b>                  6221 Highway 7, UNIT 16                  Vaughan, Ontario L4H 0K8                  Telephone: (905) 264-9393                  www.dsconsultants.ca</p>	Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 3056 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, ON.			
	Title: <b>PHASE ONE STUDY AREA</b>			
Client: NEATT SIXTEEN MILE CREEK INC.	Size: 8.5 x 11	Approved By: R.F	Drawn By: P.P	Date: May 2024
	Rev: 0	Scale: As Shown	Project No.: 22-012-101	Figure No.: <b>3</b>
Image/Map Source: Google Satellite Image				



**Legend**

- Property Boundary
- 250m Buffer
- PCA not contributing to APEC
- PCA contributing to APEC
- Registered Water Well (MECP WWR)
- ➔ Interpreted Groundwater Flow Direction

 <p><b>DS CONSULTANTS LTD.</b> 6221 Highway 7, UNIT 16 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca</p>	Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 3056 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, ON.			
	Title: <b>PCAs WITHIN PHASE ONE STUDY AREA</b>			
Client: NEATT SIXTEEN MILE CREEK INC.	Size: 8.5 x 11	Approved By: R.F	Drawn By: P.P	Date: January 2024
	Rev: 0	Scale: As Shown	Project No.: 22-012-101	Figure No.: <b>4</b>
Image/Map Source: Esri Topo Image				



**DS CONSULTANTS LTD.**  
 6221 Highway 7, UNIT 16  
 Vaughan, Ontario L4H 0K8  
 Telephone: (905) 264-9393  
 www.dsconsultants.ca

Client: **NEATT COMMUNITIES**

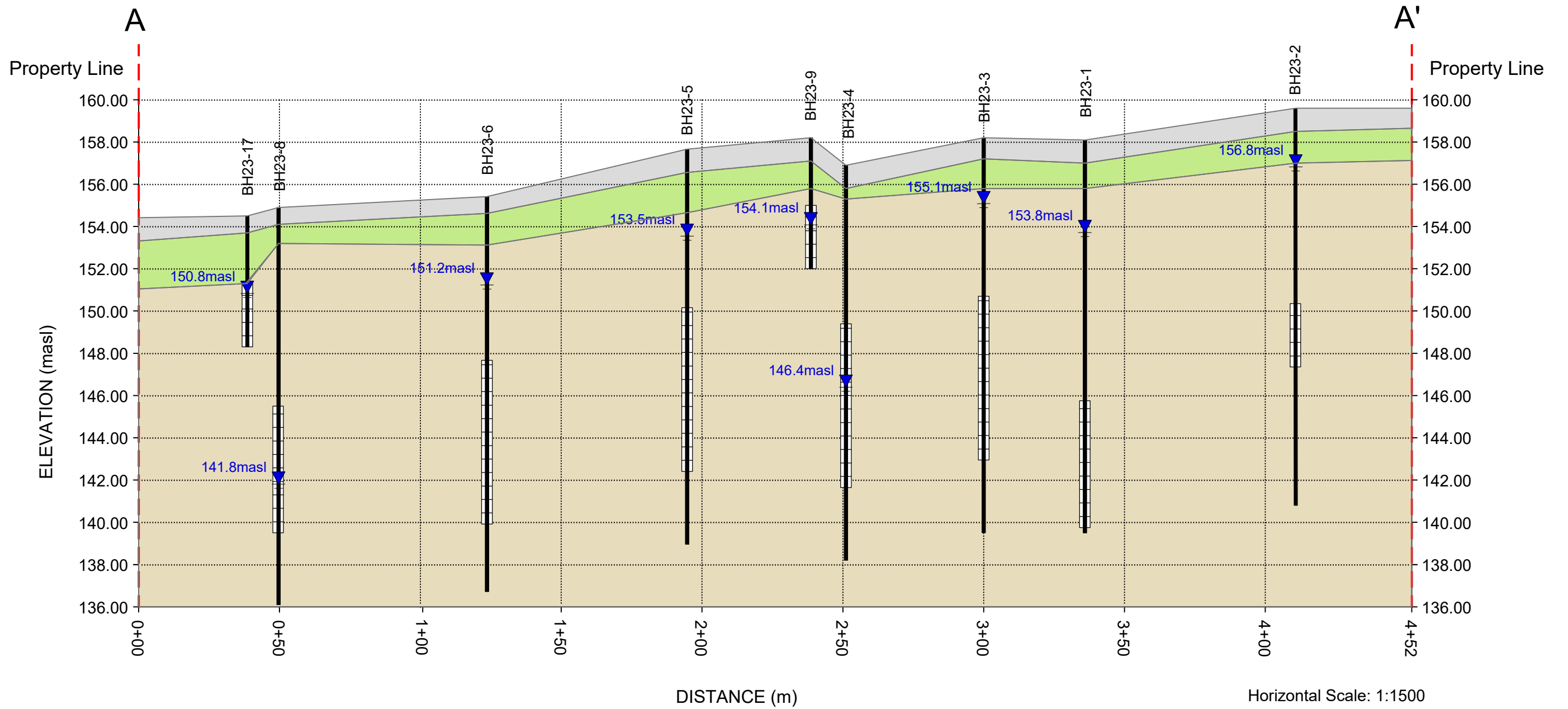
Project: **PHASE TWO ENVIRONMENTAL SITE ASSESSMENT**  
 3056 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, ON.

Title: **BOREHOLE/MONITORING WELL LOCATION PLAN WITH APECs**

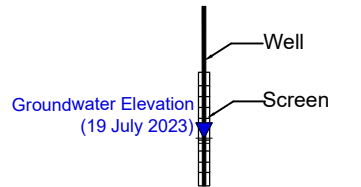
Size: 8.5 x 11	Approved By: R.F	Drawn By: S.Y / P.P	Date: April 2024
Rev: 0	Scale: As Shown	Project No.: 22-012-101	Figure No.: <b>5</b>
Image/Map Source: Google Satellite Image			



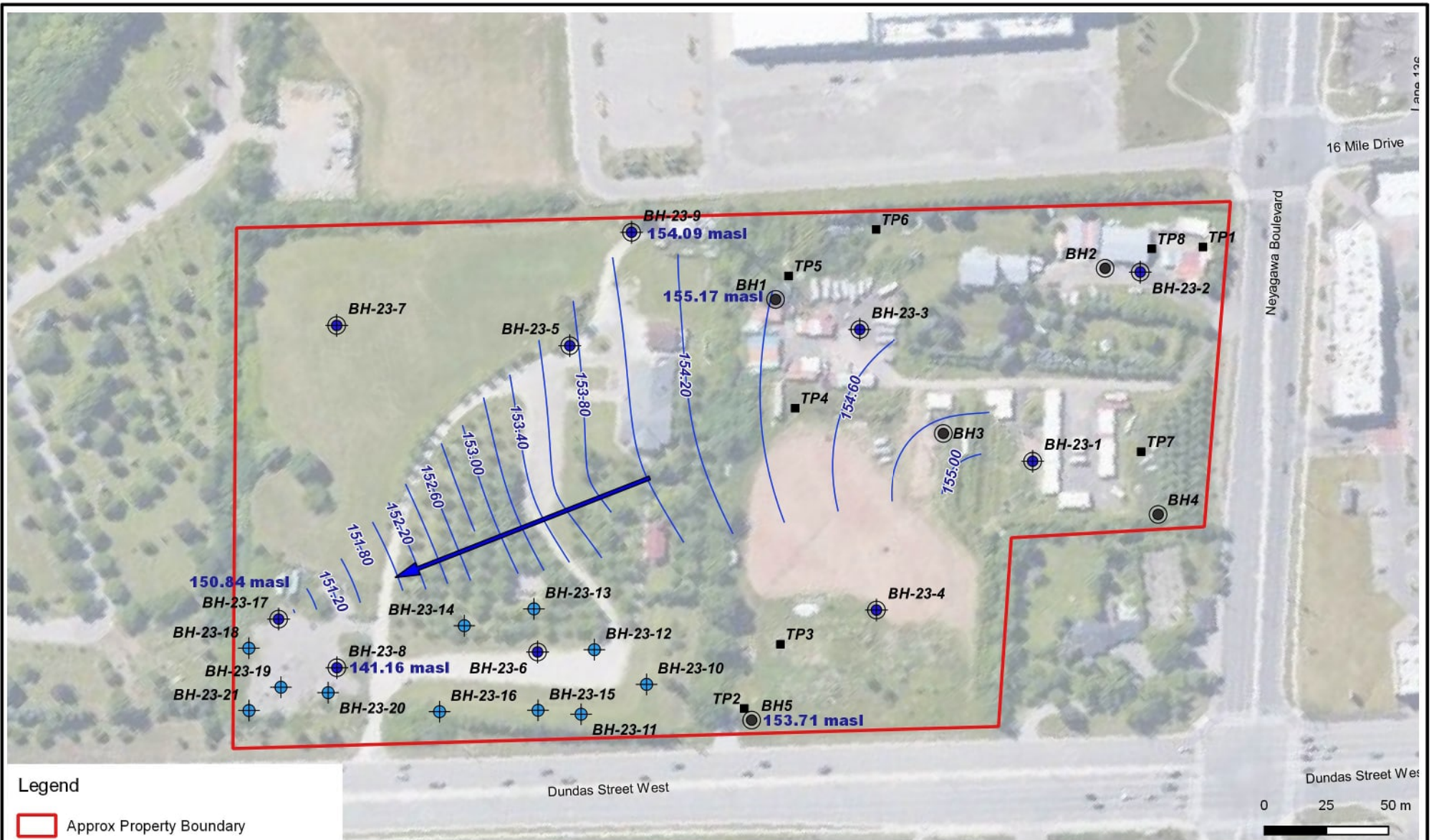
Path:j:\gis\2022 projects\22-012-100 3056 neyagawa blvd., oakville\7-misc\cad\geological cross section 22-012.dwg



Fill
  Silty Clay Till
  Bedrock Shale/  
Silty Clay Till/Shale Complex



<p><b>DS CONSULTANTS LTD.</b> 6221 Highway 7, UNIT 16 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca</p>	Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 3056 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, ON		
	<b>GEOLOGICAL CROSS SECTION A-A'</b>		
Client:	Size:	Approved By:	Date:
NEATT COMMUNITIES	11 X 17	R.F	S.Y December 2023
	Rev.	Scale:	Figure No.
		As Shown	5A
		Project No:	
		22-012-101	



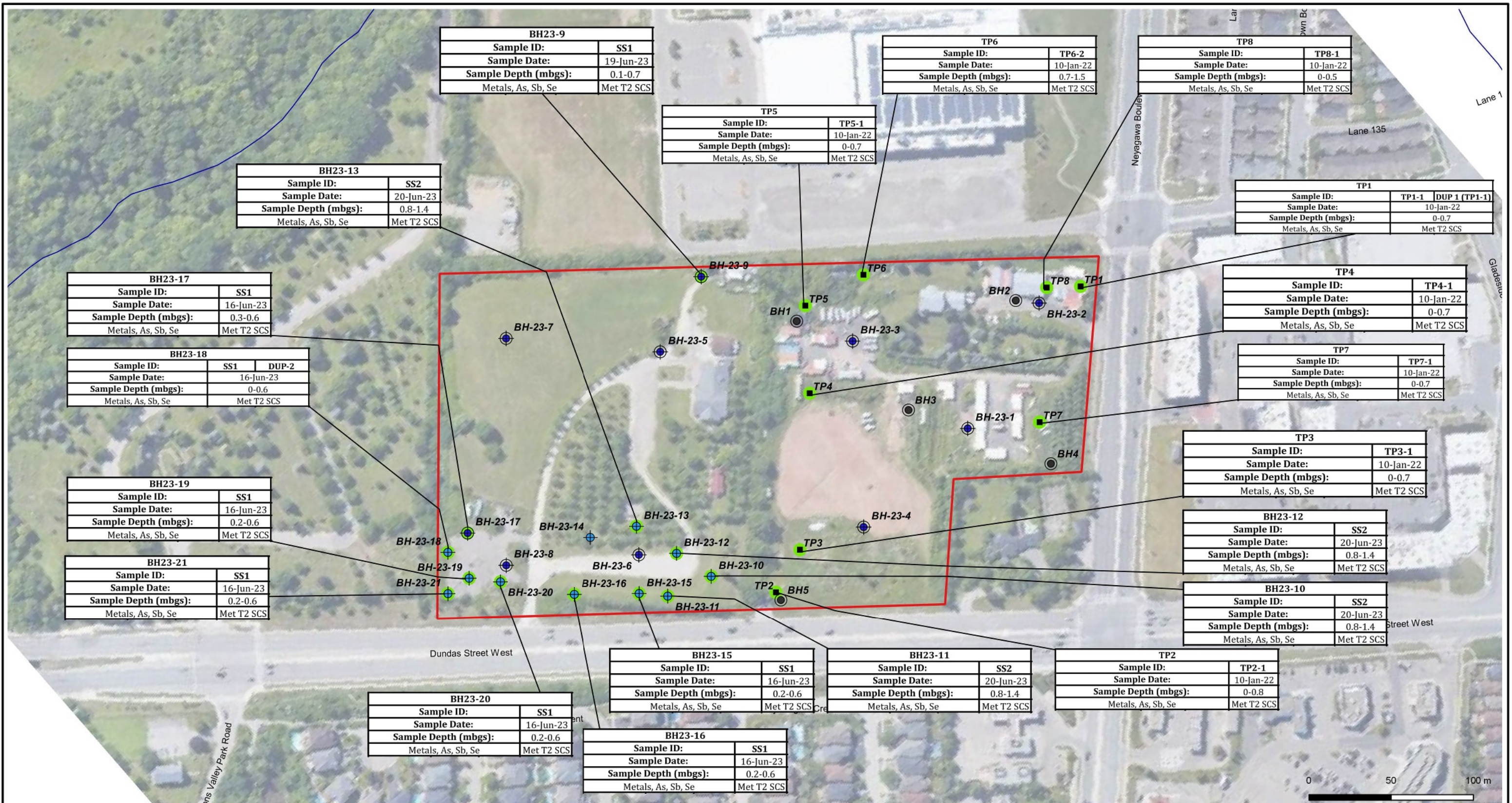
**Legend**

- Approx Property Boundary
- ⊕ Borehole - DS 2023
- ⊗ Monitoring Well - DS 2023
- Monitoring Well - SHAD 2022
- Test Pit - DS 2022
- Groundwater Elevation Contours (July 19, 2023)
- ➔ Interpreted Groundwater Flow Direction

 <p><b>DS CONSULTANTS LTD.</b> 6221 Highway 7, UNIT 16 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca</p>	Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 3056 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, ON.			
	Title: <b>GROUNDWATER ELEVATION CONTOURS AND FLOW DIRECTION</b>			
Client:  NEATT COMMUNITIES	Size: 8.5 x 11	Approved By: R.F	Drawn By: S.Y / P.P	Date: April 2024
	Rev: 0	Scale: As Shown	Project No.: 22-012-101	Figure No.: <b>6</b>
	Image/Map Source: Google Satellite Image			



J:\GIS\2022 PROJECTS\22-012-100 3056 Neyagawa Blvd., Oakville\1-QGIS\101\Phase Two\Figure 7A - Soil Characterization - Metals & Hydride Forming Metals.qgs Apr-22 14:49



BH23-9	
Sample ID:	SS1
Sample Date:	19-Jun-23
Sample Depth (mbgs):	0.1-0.7
Metals, As, Sb, Se	Met T2 SCS

TP6	
Sample ID:	TP6-2
Sample Date:	10-Jan-22
Sample Depth (mbgs):	0.7-1.5
Metals, As, Sb, Se	Met T2 SCS

TP8	
Sample ID:	TP8-1
Sample Date:	10-Jan-22
Sample Depth (mbgs):	0-0.5
Metals, As, Sb, Se	Met T2 SCS

TP5	
Sample ID:	TP5-1
Sample Date:	10-Jan-22
Sample Depth (mbgs):	0-0.7
Metals, As, Sb, Se	Met T2 SCS

BH23-13	
Sample ID:	SS2
Sample Date:	20-Jun-23
Sample Depth (mbgs):	0.8-1.4
Metals, As, Sb, Se	Met T2 SCS

TP1		
Sample ID:	TP1-1	DUP 1 (TP1-1)
Sample Date:	10-Jan-22	
Sample Depth (mbgs):	0-0.7	
Metals, As, Sb, Se	Met T2 SCS	

BH23-17	
Sample ID:	SS1
Sample Date:	16-Jun-23
Sample Depth (mbgs):	0.3-0.6
Metals, As, Sb, Se	Met T2 SCS

TP4	
Sample ID:	TP4-1
Sample Date:	10-Jan-22
Sample Depth (mbgs):	0-0.7
Metals, As, Sb, Se	Met T2 SCS

BH23-18		
Sample ID:	SS1	DUP-2
Sample Date:	16-Jun-23	
Sample Depth (mbgs):	0-0.6	
Metals, As, Sb, Se	Met T2 SCS	

TP7	
Sample ID:	TP7-1
Sample Date:	10-Jan-22
Sample Depth (mbgs):	0-0.7
Metals, As, Sb, Se	Met T2 SCS

BH23-19	
Sample ID:	SS1
Sample Date:	16-Jun-23
Sample Depth (mbgs):	0.2-0.6
Metals, As, Sb, Se	Met T2 SCS

TP3	
Sample ID:	TP3-1
Sample Date:	10-Jan-22
Sample Depth (mbgs):	0-0.7
Metals, As, Sb, Se	Met T2 SCS

BH23-21	
Sample ID:	SS1
Sample Date:	16-Jun-23
Sample Depth (mbgs):	0.2-0.6
Metals, As, Sb, Se	Met T2 SCS

BH23-12	
Sample ID:	SS2
Sample Date:	20-Jun-23
Sample Depth (mbgs):	0.8-1.4
Metals, As, Sb, Se	Met T2 SCS

BH23-10	
Sample ID:	SS2
Sample Date:	20-Jun-23
Sample Depth (mbgs):	0.8-1.4
Metals, As, Sb, Se	Met T2 SCS

BH23-20	
Sample ID:	SS1
Sample Date:	16-Jun-23
Sample Depth (mbgs):	0.2-0.6
Metals, As, Sb, Se	Met T2 SCS

BH23-15	
Sample ID:	SS1
Sample Date:	16-Jun-23
Sample Depth (mbgs):	0.2-0.6
Metals, As, Sb, Se	Met T2 SCS

BH23-11	
Sample ID:	SS2
Sample Date:	20-Jun-23
Sample Depth (mbgs):	0.8-1.4
Metals, As, Sb, Se	Met T2 SCS

TP2	
Sample ID:	TP2-1
Sample Date:	10-Jan-22
Sample Depth (mbgs):	0-0.8
Metals, As, Sb, Se	Met T2 SCS

BH23-16	
Sample ID:	SS1
Sample Date:	16-Jun-23
Sample Depth (mbgs):	0.2-0.6
Metals, As, Sb, Se	Met T2 SCS

- Legend**
- Property Boundary
  - + Borehole - DS 2023
  - Monitoring Well - DS 2023
  - Monitoring Well - SHAD 2022
  - Test Pit - DS 2022
  - Sample met applicable standards

**DS CONSULTANTS LTD.**  
 6221 Highway 7, UNIT 16  
 Vaughan, Ontario L4H 0K8  
 Telephone: (905) 264-9393  
 www.dsconsultants.ca

Client: NEATT SIXTEEN MILE CREEK INC.

Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 3065 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, ON			
Title: <b>SOIL CHARACTERIZATION - METALS &amp; HYDRIDE FORMING METALS</b>			
Size: 11x17	Approved By: R.F	Drawn By: P.P	Date: April 2024
Rev: 0	Scale: As Shown	Project No.: 22-012-101	Figure No.: <b>7A</b>
Image/Map Source: Google Satellite Image			



BH23-9		
Sample ID:	SS1	
Sample Date:	19-Jun-23	
Sample Depth (mbgs):	0.1-0.7	
SAR	NV	0.3
EC	mS/cm	0.24
pH	NV	8.83
B-HWS, CN-, Cr(VI), Hg	-	Met T2 SCS

TP5		
Sample ID:	TP5-1	
Sample Date:	10-Jan-22	
Sample Depth (mbgs):	0-0.7	
SAR	NV	0.2
EC	mS/cm	0.17
pH	NV	7.71
B-HWS, CN-, Cr(VI), Hg	-	Met T2 SCS

TP6		
Sample ID:	TP6-2	
Sample Date:	10-Jan-22	
Sample Depth (mbgs):	0.7-1.5	
SAR	NV	0.3
EC	mS/cm	0.14
pH	NV	7.79
B-HWS, CN-, Cr(VI), Hg	-	Met T2 SCS

TP8		
Sample ID:	TP8-1	
Sample Date:	10-Jan-22	
Sample Depth (mbgs):	0-0.5	
SAR	NV	0.5
EC	mS/cm	0.2
pH	NV	7.27
B-HWS, CN-, Cr(VI), Hg	-	Met T2 SCS

BH23-13		
Sample ID:	SS2	
Sample Date:	20-Jun-23	
Sample Depth (mbgs):	0.8-1.4	
SAR	NV	1.2
EC	mS/cm	0.19
pH	NV	7.52
B-HWS, CN-, Cr(VI), Hg	-	Met T2 SCS

TP1			
Sample ID:	TP1-1	DUP 1 (TP1-1)	
Sample Date:	10-Jan-22	10-Jan-22	
Sample Depth (mbgs):	0-0.7	0-0.7	
SAR	NV	0.4	0.2
EC	mS/cm	0.27	0.24
pH	NV	7.63	7.68
B-HWS, CN-, Cr(VI), Hg	-	Met T2 SCS	

BH23-17		
Sample ID:	SS1	
Sample Date:	16-Jun-23	
Sample Depth (mbgs):	0.3-0.6	
SAR	NV	<0.2
EC	mS/cm	0.19
pH	NV	6.87
B-HWS, CN-, Cr(VI), Hg	-	Met T2 SCS

TP4			
Sample ID:	TP4-1	TP4-3	
Sample Date:	10-Jan-22		
Sample Depth (mbgs):	0-0.7	1.5-2.2	
SAR	NV	0.4	-
EC	mS/cm	0.19	-
pH	NV	7.52	7.59
B-HWS, CN-, Cr(VI), Hg	-	Met T2 SCS	

BH23-18			
Sample ID:	SS1	DUP-2	
Sample Date:	16-Jun-23		
Sample Depth (mbgs):	0-0.6		
SAR	NV	<0.2	<0.2
EC	mS/cm	0.21	0.24
pH	NV	7.12	7.31
B-HWS, CN-, Cr(VI), Hg	-	Met T2 SCS	

TP7		
Sample ID:	TP7-1	
Sample Date:	10-Jan-22	
Sample Depth (mbgs):	0-0.7	
SAR	NV	0.4
EC	mS/cm	0.14
pH	NV	7.77
B-HWS, CN-, Cr(VI), Hg	-	Met T2 SCS

BH23-19		
Sample ID:	SS1	
Sample Date:	16-Jun-23	
Sample Depth (mbgs):	0.2-0.6	
SAR	NV	0.3
EC	mS/cm	0.29
pH	NV	7.72
B-HWS, CN-, Cr(VI), Hg	-	Met T2 SCS

TP3			
Sample ID:	TP3-1	TP3-4	
Sample Date:	10-Jan-22		
Sample Depth (mbgs):	0-0.7	2.2-2.7	
SAR	NV	0.4	-
EC	mS/cm	0.25	-
pH	NV	7.61	7.76
B-HWS, CN-, Cr(VI), Hg	-	Met T2 SCS	

BH23-21		
Sample ID:	SS1	
Sample Date:	16-Jun-23	
Sample Depth (mbgs):	0.2-0.6	
SAR	NV	0.3
EC	mS/cm	0.18
pH	NV	7.48
B-HWS, CN-, Cr(VI), Hg	-	Met T2 SCS

BH23-12		
Sample ID:	SS2	
Sample Date:	20-Jun-23	
Sample Depth (mbgs):	0.8-1.4	
SAR	NV	2.3
EC	mS/cm	0.23
pH	NV	7.82
B-HWS, CN-, Cr(VI), Hg	-	Met T2 SCS

BH23-20		
Sample ID:	SS1	
Sample Date:	16-Jun-23	
Sample Depth (mbgs):	0.2-0.6	
SAR	NV	<0.2
EC	mS/cm	0.31
pH	NV	7.3
B-HWS, CN-, Cr(VI), Hg	-	Met T2 SCS

BH23-15		
Sample ID:	SS1	
Sample Date:	16-Jun-23	
Sample Depth (mbgs):	0.2-0.6	
SAR	NV	0.3
EC	mS/cm	0.11
pH	NV	7.26
B-HWS, CN-, Cr(VI), Hg	-	Met T2 SCS

BH23-11		
Sample ID:	SS2	
Sample Date:	20-Jun-23	
Sample Depth (mbgs):	0.8-1.4	
SAR	NV	0.2
EC	mS/cm	0.13
pH	NV	7.79
B-HWS, CN-, Cr(VI), Hg	-	Met T2 SCS

TP2			
Sample ID:	TP2-1	TP2-3	
Sample Date:	10-Jan-22		
Sample Depth (mbgs):	0-0.7	1.5-2.5	
SAR	NV	0.4	-
EC	mS/cm	0.27	-
pH	NV	7.63	7.8
B-HWS, CN-, Cr(VI), Hg	-	Met T2 SCS	

BH23-10		
Sample ID:	SS2	
Sample Date:	20-Jun-23	
Sample Depth (mbgs):	0.8-1.4	
SAR	NV	0.2
EC	mS/cm	0.13
pH	NV	7.82
B-HWS, CN-, Cr(VI), Hg	-	Met T2 SCS

- Legend**
- Property Boundary
  - ⊕ Borehole - DS 2023
  - ⊗ Monitoring Well - DS 2023
  - ⊙ Monitoring Well - SHAD 2022
  - Test Pit - DS 2022
  - Sample met applicable standards

Parameter	Table 2 SCS
Sodium Adsorption Ratio (SAR)	5
Electrical Conductivity (EC)	0.7
Parameter	O. Reg. 153/04 Section 41
pH (Surface Soil)	5 to 9
pH (Sub-surface Soil)	5 to 11

\*Parameter deemed not exceeded under Section 49.1 (1) of O. Reg. 153/04

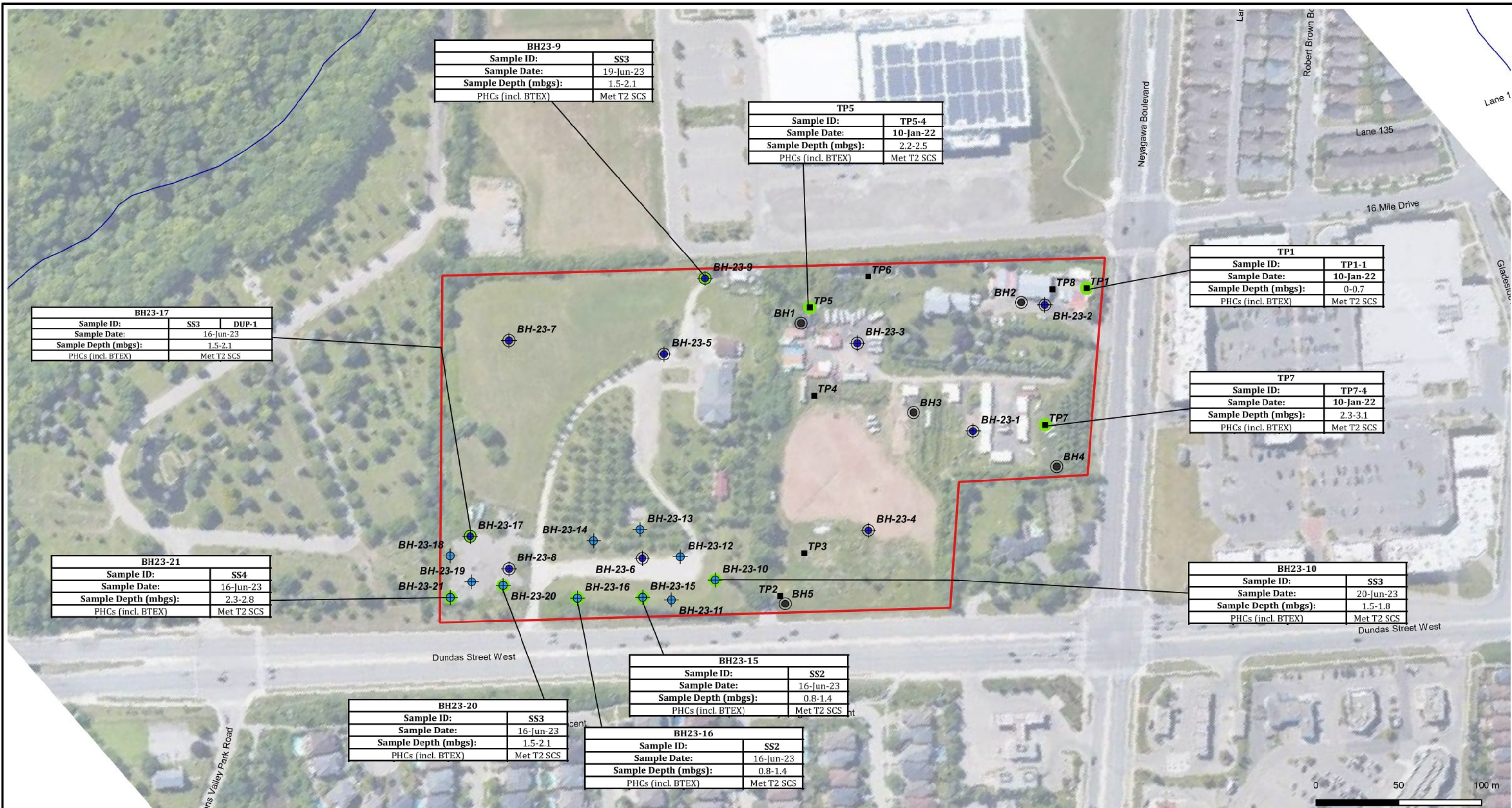
**DS CONSULTANTS LTD.**  
 6221 Highway 7, UNIT 16  
 Vaughan, Ontario L4H 0K8  
 Telephone: (905) 264-9393  
 www.dsconsultants.ca

Client: NEATT SIXTEEN MILE CREEK INC.

Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 3065 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, ON				
Title: <b>SOIL CHARACTERIZATION - ORPs</b>				
Client: NEATT SIXTEEN MILE CREEK INC.	Size: 11x17	Approved By: R.F	Drawn By: P.P	Date: May 2024
Rev: 0		Scale: As Shown	Project No.: 22-012-101	Figure No.: <b>7B</b>
Image/Map Source: Google Satellite Image				



J:\GIS\2022 PROJECTS\22-012-100 3056 Neyagawa Blvd., Oakville\1-QGIS\101\Phase Two\Figure 7C - Soil Characterization - PHCs including BTEX.sgs Apr-22 14:51



BH23-9	
Sample ID:	SS3
Sample Date:	19-Jun-23
Sample Depth (mbgs):	1.5-2.1
PHCs (incl. BTEX)	Met T2 SCS

TP5	
Sample ID:	TP5-4
Sample Date:	10-Jan-22
Sample Depth (mbgs):	2.2-2.5
PHCs (incl. BTEX)	Met T2 SCS

TP1	
Sample ID:	TP1-1
Sample Date:	10-Jan-22
Sample Depth (mbgs):	0-0.7
PHCs (incl. BTEX)	Met T2 SCS

BH23-17		
Sample ID:	SS3	DUP-1
Sample Date:	16-Jun-23	
Sample Depth (mbgs):	1.5-2.1	
PHCs (incl. BTEX)	Met T2 SCS	

TP7	
Sample ID:	TP7-4
Sample Date:	10-Jan-22
Sample Depth (mbgs):	2.3-3.1
PHCs (incl. BTEX)	Met T2 SCS

BH23-21	
Sample ID:	SS4
Sample Date:	16-Jun-23
Sample Depth (mbgs):	2.3-2.8
PHCs (incl. BTEX)	Met T2 SCS

BH23-10	
Sample ID:	SS3
Sample Date:	20-Jun-23
Sample Depth (mbgs):	1.5-1.8
PHCs (incl. BTEX)	Met T2 SCS

BH23-20	
Sample ID:	SS3
Sample Date:	16-Jun-23
Sample Depth (mbgs):	1.5-2.1
PHCs (incl. BTEX)	Met T2 SCS

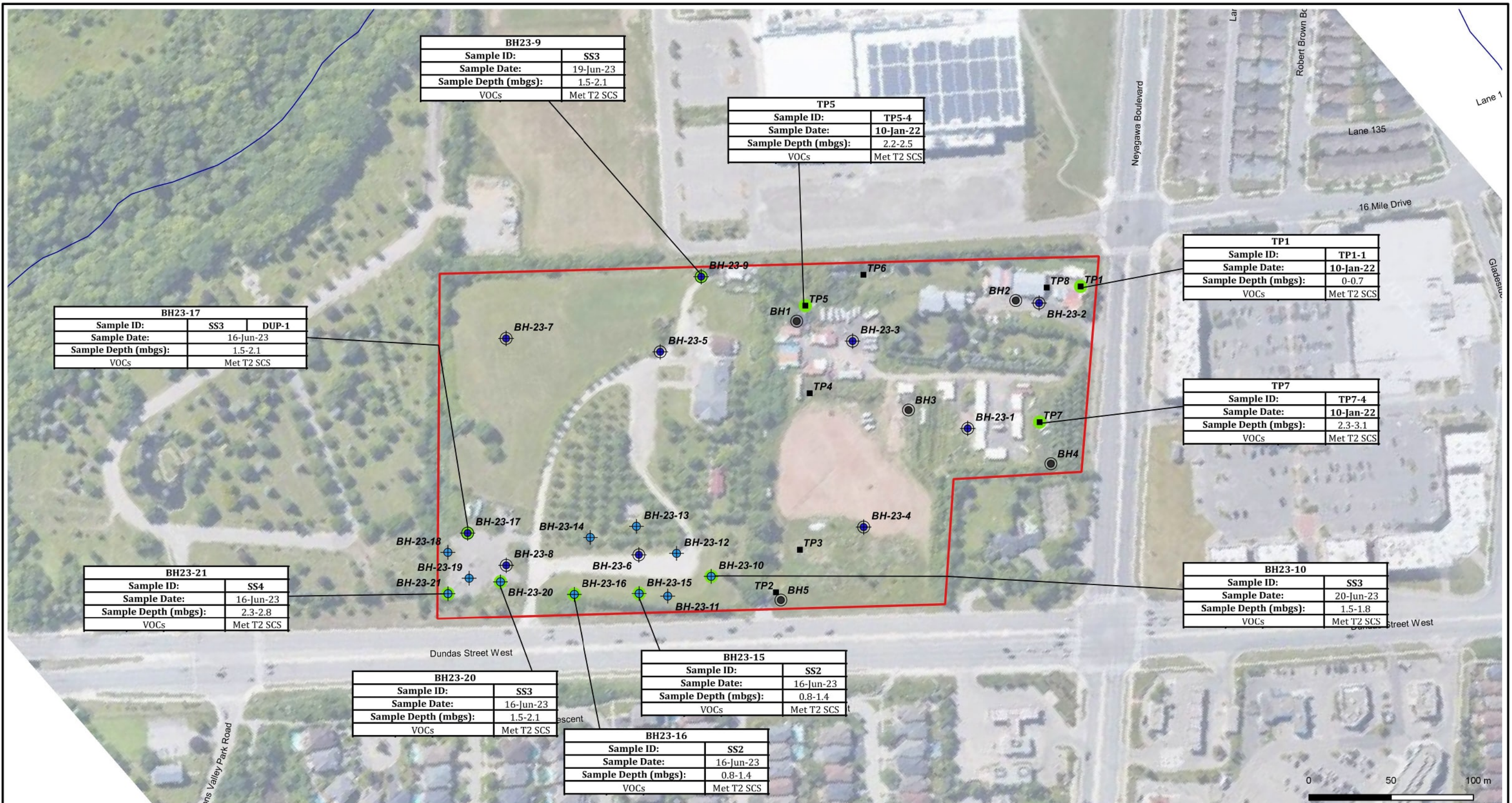
BH23-15	
Sample ID:	SS2
Sample Date:	16-Jun-23
Sample Depth (mbgs):	0.8-1.4
PHCs (incl. BTEX)	Met T2 SCS

BH23-16	
Sample ID:	SS2
Sample Date:	16-Jun-23
Sample Depth (mbgs):	0.8-1.4
PHCs (incl. BTEX)	Met T2 SCS

- Legend**
- Property Boundary
  - + Borehole - DS 2023
  - Monitoring Well - DS 2023
  - Monitoring Well - SHAD 2022
  - Test Pit - DS 2022
  - Sample met applicable standards

<p><b>DS CONSULTANTS LTD.</b> 6221 Highway 7, UNIT 16 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca</p>	Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 3065 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, ON		
	Title: <b>SOIL CHARACTERIZATION - PHCs INCLUDING BTEX</b>		
Client:	NEATT SIXTEEN MILE CREEK INC.		
Size:	11x17	Approved By: R.F	Drawn By: P.P
Rev:	0	Scale: As Shown	Date: April 2024
		Project No.: 22-012-101	Figure No.: <b>7C</b>
Image/Map Source: Google Satellite Image			

J:\GIS\2022 PROJECTS\22-012-100 3056 Neyagawa Blvd., Oakville\1-QGIS\101\Phase Two\Figure 7D - Soil Characterization - VOCs.ags Dec-18 13:34



BH23-9	
Sample ID:	SS3
Sample Date:	19-Jun-23
Sample Depth (mbgs):	1.5-2.1
VOCs	Met T2 SCS

TP5	
Sample ID:	TP5-4
Sample Date:	10-Jan-22
Sample Depth (mbgs):	2.2-2.5
VOCs	Met T2 SCS

TP1	
Sample ID:	TP1-1
Sample Date:	10-Jan-22
Sample Depth (mbgs):	0-0.7
VOCs	Met T2 SCS

BH23-17		
Sample ID:	SS3	DUP-1
Sample Date:	16-Jun-23	
Sample Depth (mbgs):	1.5-2.1	
VOCs	Met T2 SCS	

TP7	
Sample ID:	TP7-4
Sample Date:	10-Jan-22
Sample Depth (mbgs):	2.3-3.1
VOCs	Met T2 SCS

BH23-21	
Sample ID:	SS4
Sample Date:	16-Jun-23
Sample Depth (mbgs):	2.3-2.8
VOCs	Met T2 SCS

BH23-10	
Sample ID:	SS3
Sample Date:	20-Jun-23
Sample Depth (mbgs):	1.5-1.8
VOCs	Met T2 SCS

BH23-20	
Sample ID:	SS3
Sample Date:	16-Jun-23
Sample Depth (mbgs):	1.5-2.1
VOCs	Met T2 SCS

BH23-15	
Sample ID:	SS2
Sample Date:	16-Jun-23
Sample Depth (mbgs):	0.8-1.4
VOCs	Met T2 SCS

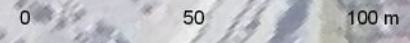
BH23-16	
Sample ID:	SS2
Sample Date:	16-Jun-23
Sample Depth (mbgs):	0.8-1.4
VOCs	Met T2 SCS

- Legend**
- Property Boundary
  - + Borehole - DS 2023
  - ⊙ Monitoring Well - DS 2023
  - ⊙ Monitoring Well - SHAD 2022
  - Test Pit - DS 2022
  - Sample met applicable standards

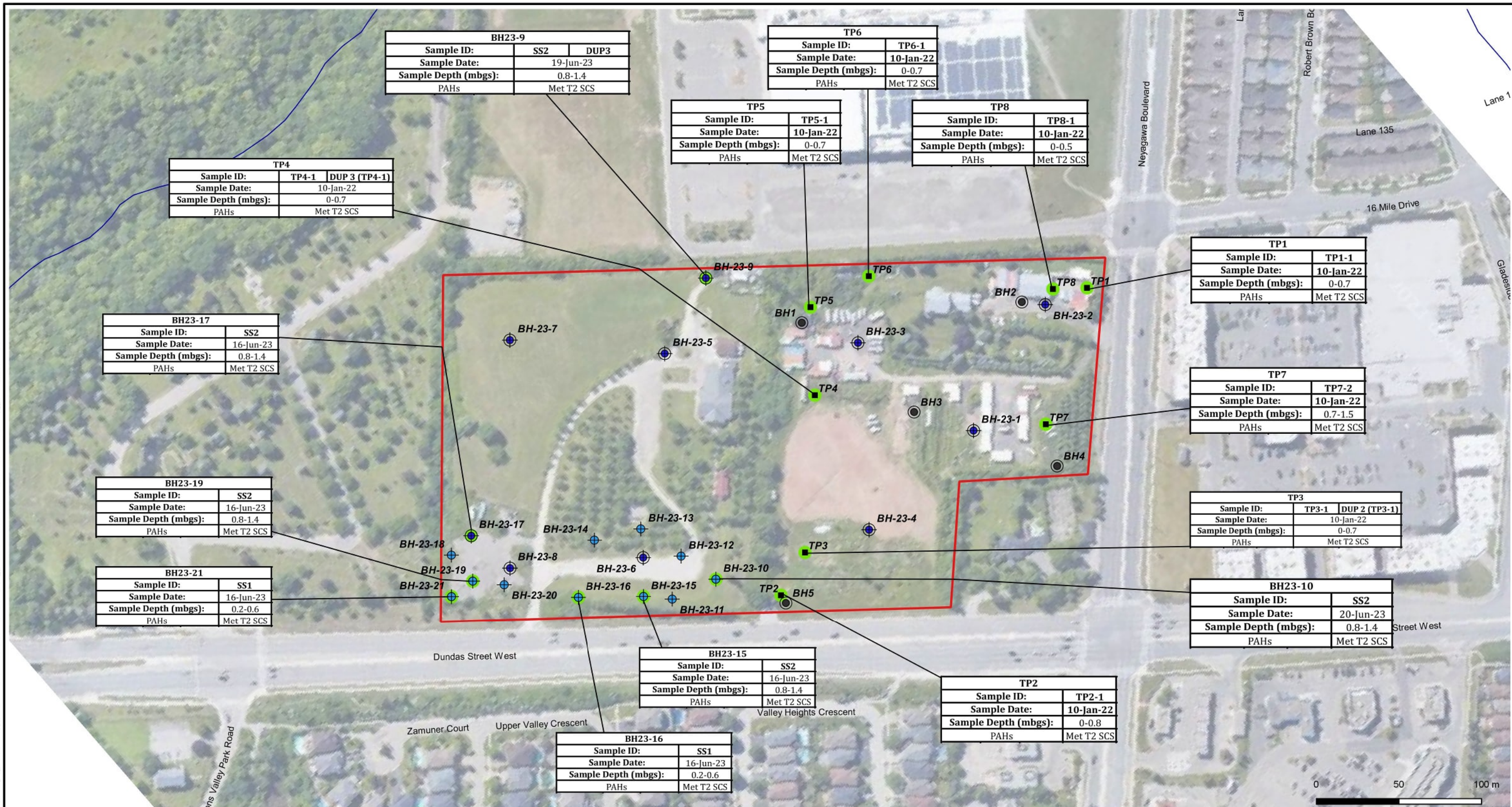
**DS CONSULTANTS LTD.**  
 6221 Highway 7, UNIT 16  
 Vaughan, Ontario L4H 0K8  
 Telephone: (905) 264-9393  
 www.dsconsultants.ca

Client: NEATT SIXTEEN MILE CREEK INC.

Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 3065 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, ON			
Title: <b>SOIL CHARACTERIZATION - VOCs</b>			
Size: 11x17	Approved By: R.F	Drawn By: P.P	Date: December 2023
Rev: 0	Scale: As Shown	Project No.: 22-012-101	Figure No.: <b>7D</b>
Image/Map Source: Google Satellite Image			



J:\GIS\2022 PROJECTS\22-012-100 3056 Neyagawa Blvd., Oakville\1-QGIS\101\Phase Two\Figure 7E - Soil Characterization - PAHs.ags Dec-18 13:41



- Legend**
- Property Boundary
  - + Borehole - DS 2023
  - ⊙ Monitoring Well - DS 2023
  - ⊙ Monitoring Well - SHAD 2022
  - Test Pit - DS 2022
  - Sample met applicable standards

<p><b>DS CONSULTANTS LTD.</b> 6221 Highway 7, UNIT 16 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca</p>	Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 3065 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, ON		
	Title: <b>SOIL CHARACTERIZATION - PAHs</b>		
Client:	NEATT SIXTEEN MILE CREEK INC.		
Size:	Approved By: R.F	Drawn By: P.P	Date: December 2023
Rev. 0	Scale: As Shown	Project No.: 22-012-101	Figure No.: <b>7E</b>
Image/Map Source: Google Satellite Image			

J:\GIS\2022 PROJECTS\22-012-100 3056 Neyagawa Blvd., Oakville\1-QGIS\101\Phase Two\Figure 7F - Soil Characterization - OCPs.ags Dec-18 13:46



- Legend**
- Property Boundary
  - + Borehole - DS 2023
  - ⊕ Monitoring Well - DS 2023
  - ⊙ Monitoring Well - SHAD 2022
  - Test Pit - DS 2022
  - Sample met applicable standards

<p><b>DS CONSULTANTS LTD.</b> 6221 Highway 7, UNIT 16 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca</p>	Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 3065 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, ON		
	Title: <b>SOIL CHARACTERIZATION - OCPs</b>		
Client:	NEATT SIXTEEN MILE CREEK INC.		
Size:	11x17	Approved By: R.F	Drawn By: P.P
Rev:	0	Scale: As Shown	Date: December 2023
		Project No.: 22-012-101	Figure No.: <b>7F</b>
Image/Map Source: Google Satellite Image			

J:\GIS\2022 PROJECTS\22-012-100 3056 Neyagawa Blvd., Oakville\1-QGIS\101\Phase Two\Figure 8A - Groundwater Characterization - Metals & Hydride Forming Metals.qgs Apr-22 14:54



BH23-9	
Sample ID:	MW22-9
Sample Date:	30-Jun-23
Screen Depth (mbgs):	3.1-6.1
Metals, As, Sb, Se	Met T2 SCS

BH1		
Sample ID:	BH1	DUP 2 (BH1)
Sample Date:	10-Jan-22	
Screen Depth (mbgs):	2.5-5.5	
Metals, As, Sb, Se	Met T2 SCS	

BH2	
Sample ID:	BH2
Sample Date:	10-Jan-22
Screen Depth (mbgs):	4.1-7.1
Metals, As, Sb, Se	Met T2 SCS

BH23-17		
Sample ID:	MW22-17	DUP1
Sample Date:	30-Jun-23	
Screen Depth (mbgs):	3.1-6.1	
Metals, As, Sb, Se	Met T2 SCS	

BH4		
Sample ID:	BH4	DUP 1 (BH4)
Sample Date:	10-Jan-22	
Screen Depth (mbgs):	3.1-6.1	
Metals, As, Sb, Se	Met T2 SCS	

- Legend**
- Property Boundary
  - + Borehole - DS 2023
  - Monitoring Well - DS 2023
  - Monitoring Well - SHAD 2022
  - Test Pit - DS 2022
  - Sample met applicable standards

<p><b>DS CONSULTANTS LTD.</b> 6221 Highway 7, UNIT 16 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca</p>	Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 3065 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, ON		
	Title: <b>GROUNDWATER CHARACTERIZATION - METALS &amp; HYDRIDE FORMING METALS</b>		
Client:	NEATT SIXTEEN MILE CREEK INC.	Size:	11x17
Rev:	0	Approved By:	R.F
		Drawn By:	P.P
		Scale:	As Shown
		Project No.:	22-012-101
		Date:	April 2024
		Figure No.:	<b>8A</b>
Image/Map Source: Google Satellite Image			

J:\GIS\2022 PROJECTS\22-012-100 3056 Neyagawa Blvd., Oakville\1-QGIS\101\Phase Two\Figure 8B - Groundwater Characterization - ORPs.qgs May-15 08:47



BH23-9	
Sample ID:	MW22-9
Sample Date:	30-Jun-23
Screen Depth (mbgs):	3.1-6.1
Chloride ug/L:	810000*
Sodium ug/L:	440000
CN-, Cr(VI), Hg	- Met T2 SCS

BH1		
Sample ID:	BH1	DUP 2 (BH1)
Sample Date:	10-Jan-22	
Screen Depth (mbgs):	2.5-5.5	
Chloride ug/L:	900000*	900000*
Sodium ug/L:	420000	430000
CN-, Cr(VI), Hg	- Met T2 SCS	

BH2	
Sample ID:	BH2
Sample Date:	10-Jan-22
Screen Depth (mbgs):	4.1-7.1
Chloride ug/L:	520000
Sodium ug/L:	190000
CN-, Cr(VI), Hg	- Met T2 SCS

BH23-17			
Sample ID:	MW22-17	DUP1	
Sample Date:	30-Jun-23		
Screen Depth (mbgs):	3.1-6.1		
Chloride ug/L:	620000	650000	
Sodium ug/L:	310000	300000	
CN-, Cr(VI), Hg	- Met T2 SCS		

BH4			
Sample ID:	BH4	DUP 1 (BH4)	
Sample Date:	10-Jan-22		
Screen Depth (mbgs):	3.1-6.1		
Chloride ug/L:	30000	29000	
Sodium ug/L:	23000	23000	
CN-, Cr(VI), Hg	- Met T2 SCS		

Parameter	Table 2 SCS
Chloride	790000
Sodium	490000

\*Parameter deemed not exceeded under Section 49.1 (1) of O. Reg. 153/04

- Legend**
- Property Boundary
  - + Borehole - DS 2023
  - ⊙ Monitoring Well - DS 2023
  - ⊙ Monitoring Well - SHAD 2022
  - Test Pit - DS 2022
  - Sample met applicable standards

**DS CONSULTANTS LTD.**  
 6221 Highway 7, UNIT 16  
 Vaughan, Ontario L4H 0K8  
 Telephone: (905) 264-9393  
 www.dsconsultants.ca

Client: NEATT SIXTEEN MILE CREEK INC.

Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 3065 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, ON			
Title: <b>GROUNDWATER CHARACTERIZATION - ORPs</b>			
Size: 11x17	Approved By: R.F	Drawn By: P.P	Date: May 2024
Rev: 0	Scale: As Shown	Project No.: 22-012-101	Figure No.: <b>8B</b>
Image/Map Source: Google Satellite Image			

J:\GIS\2022 PROJECTS\22-012-100 3056 Neyagawa Blvd., Oakville\1-QGIS\101\Phase Two\Figure 8C - Groundwater Characterization - PHCs Including BTEX.ags Apr-22 14:57



BH23-9	
Sample ID:	MW22-9
Sample Date:	30-Jun-23
Screen Depth (mbgs):	3.1-6.1
PHCs (incl. BTEX)	Met T2 SCS

BH1		
Sample ID:	BH1	DUP 2 (BH1)
Sample Date:	10-Jan-22	
Screen Depth (mbgs):	2.5-5.5	
PHCs (incl. BTEX)	Met T2 SCS	

BH2	
Sample ID:	BH2
Sample Date:	10-Jan-22
Screen Depth (mbgs):	4.1-7.1
PHCs (incl. BTEX)	Met T2 SCS

BH4		
Sample ID:	BH1	DUP 1 (BH4)
Sample Date:	10-Jan-22	
Screen Depth (mbgs):	3.1-6.1	
PHCs (incl. BTEX)	Met T2 SCS	

BH23-17		
Sample ID:	MW22-17	DUP1
Sample Date:	30-Jun-23	
Screen Depth (mbgs):	3.1-6.1	
PHCs (incl. BTEX)	Met T2 SCS	

**Legend**

- Property Boundary
- ⊕ Borehole - DS 2023
- ⊗ Monitoring Well - DS 2023
- ⊙ Monitoring Well - SHAD 2022
- Test Pit - DS 2022
- Sample met applicable standards



**DS CONSULTANTS LTD.**  
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 Vaughan, Ontario L4H 0K8  
 Telephone: (905) 264-9393  
 www.dsconsultants.ca

Client: NEATT SIXTEEN MILE CREEK INC.

Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT  
 3065 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, ON

Title: **GROUNDWATER CHARACTERIZATION - PHCs Including BTEX**

Size: 11x17  
 Approved By: R.F  
 Drawn By: P.P  
 Date: April 2024

Rev: 0  
 Scale: As Shown  
 Project No.: 22-012-101  
 Figure No.: **8C**

Image/Map Source: Google Satellite Image

J:\GIS\2022 PROJECTS\22-012-100 3056 Neyagawa Blvd., Oakville\1-QGIS\101\Phase Two\Figure 8D - Groundwater Characterization - VOCs.qgs Apr-22 14:58



**Legend**

- Property Boundary
- + Borehole - DS 2023
- ⊙ Monitoring Well - DS 2023
- ⊙ Monitoring Well - SHAD 2022
- Test Pit - DS 2022
- Sample met applicable standards



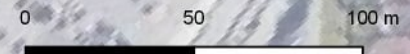
**DS CONSULTANTS LTD.**  
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 Vaughan, Ontario L4H 0K8  
 Telephone: (905) 264-9393  
 www.dsconsultants.ca

Client: NEATT SIXTEEN MILE CREEK INC.

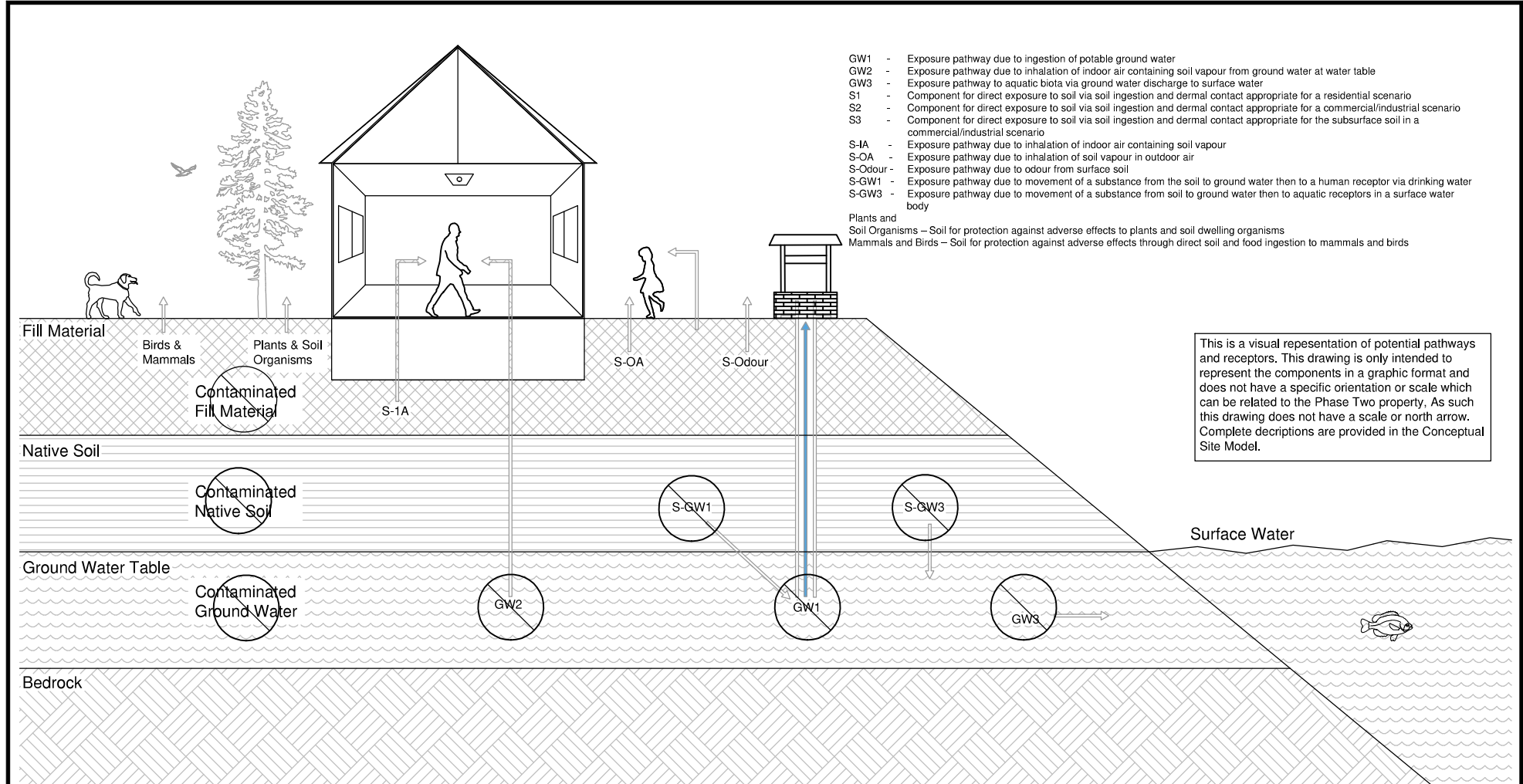
Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT  
 3065 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, ON

Title: **GROUNDWATER CHARACTERIZATION - VOCs**

Size:	11x17	Approved By:	R.F	Drawn By:	P.P	Date:	April 2024
Rev:	0	Scale:	As Shown	Project No.:	22-012-101	Figure No.:	<b>8D</b>
Image/Map Source: Google Satellite Image							









- GW1 - Exposure pathway due to ingestion of potable ground water
- GW2 - Exposure pathway due to inhalation of indoor air containing soil vapour from ground water at water table
- GW3 - Exposure pathway due to aquatic biota via ground water discharge to surface water
- S1 - Component for direct exposure to soil via soil ingestion and dermal contact appropriate for a residential scenario
- S2 - Component for direct exposure to soil via soil ingestion and dermal contact appropriate for a commercial/industrial scenario
- S3 - Component for direct exposure to soil via soil ingestion and dermal contact appropriate for the subsurface soil in a commercial/industrial scenario
- S-1A - Exposure pathway due to inhalation of indoor air containing soil vapour
- S-OA - Exposure pathway due to inhalation of soil vapour in outdoor air
- S-Odour - Exposure pathway due to odour from surface soil
- S-GW1 - Exposure pathway due to movement of a substance from the soil to ground water then to a human receptor via drinking water
- S-GW3 - Exposure pathway due to movement of a substance from soil to ground water then to aquatic receptors in a surface water body
- Plants and Soil Organisms – Soil for protection against adverse effects to plants and soil dwelling organisms
- Mammals and Birds – Soil for protection against adverse effects through direct soil and food ingestion to mammals and birds

This is a visual representation of potential pathways and receptors. This drawing is only intended to represent the components in a graphic format and does not have a specific orientation or scale which can be related to the Phase Two property. As such this drawing does not have a scale or north arrow. Complete descriptions are provided in the Conceptual Site Model.

 Not Identified

 <b>DS CONSULTANTS LTD.</b> 6221 Highway 7, UNIT 16 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca	Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 3056 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, ON		
	Title: <b>CONTAMINANT TRANSPORT DIAGRAM</b>		
Client: <b>NEATT SIXTEEN MILE CREEK INC.</b>	Size: 8.5 x 11	Approved By: K.O	Drawn By: S.Y
	Rev.	Scale: N.T.S	Project No: 22-012-101
		Date: May 2024	Figure No. 9



---

# Appendix A



---

22-012-101

January 2, 2022

NEATT Sixteen Mile Creek Inc.  
5926 Chercover Court  
Burlington, Ontario  
L7L 6T1

Re: Sampling and Analysis Plan – Phase Two Environmental Site Assessment  
3056 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, Ontario

## 1. Introduction

---

DS Consultants Limited (DS) is pleased to present the Sampling and Analysis Plan (SAP) for the proposed Phase Two Environmental Site Assessment of 3056 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, Ontario, (the Site). The purpose of the proposed Phase Two ESA program is to assess the current subsurface environmental conditions in support of the proposed redevelopment of the Site.

The Phase Two ESA will involve intrusive investigation in the areas determined in the Site visit to be Areas of Potential Environmental Concern (APECs), and will be completed in general accordance with O.Reg 153/04. Based on the findings of the field and laboratory analyses, a Phase Two ESA report will be prepared.

## 2. Background

---

Based on the Phase One Environmental Site Assessment completed by DS it is DS's understanding that the Site is a 8.12 hectare (20.0 acres) parcel of land which is currently used for mixed residential and institutional purposes. The first developed use of the Site is interpreted to be Residential based on the findings of the Phase One ESA. A total of twenty (20) potentially contaminating activities were identified on the Phase One Property or on neighbouring properties within the Phase One Study Area which are considered to be contributing to Areas of Potential Environmental Concern (APECs) on the Phase Two Property. A summary of the APECs identified, the potential contaminants of concern, and the media potentially impacted is presented in Table 1 below:



Table 1: Areas of Potential Environmental Concern

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC-1A	Northeastern portion of the Site	#30: Importation of Fill Material of Unknown Origin	On-Site PCA-1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-1B	Central portion of the Site	#30: Importation of Fill Material of Unknown Origin	On-Site PCA-2	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-1C	Entire Site	#30: Importation of Fill Material of Unknown Origin	On-Site PCA-5	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-1D	Vicinity of former Site Building F, located in the southwestern portion of the Site	#30: Importation of Fill Material of Unknown Origin	On-Site PCA-11	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-1E	Vicinity of former Site Building G, located in the southern portion of the Site	#30: Importation of Fill Material of Unknown Origin	On-Site PCA-12	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-1F	Vicinity of former Shed 2, located in the southern portion of the Site	#30: Importation of Fill Material of Unknown Origin	On-Site PCA-14	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-2	Northern portion of the Site	#58: Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners.	Off-Site PCA-6	PHCs, VOCs, BTEX, Metals, As, Sb, Se, CN-, Cr (VI), Hg, PAHs	Groundwater
APEC-3	Southwestern portion of the Site in the vicinity of former orchard	#40: Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On-Site PCA-8	OCPs	Soil



Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC-4A	Northern portion of the Property in the vicinity of Shed 1.	#N/S: Storage of miscellaneous debris, refuse and boats	On-Site PCA-13	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-4B	Eastern portion of the Site	#N/S: Storage of miscellaneous debris and refuse	On-Site PCA-15	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-4C	Central portion of the Site immediately north of agricultural field	#N/S: Storage of miscellaneous debris and refuse	On-Site PCA-16	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-4D	Southern portion of the Site immediately south of agricultural field	#N/S: Storage of miscellaneous debris and refuse	On-Site PCA-17	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-5A	Eastern portion of the Site	#N/S: Inferred application of de-icing agents	On-Site PCA-18	EC, SAR	Soil
				Sodium, Chloride	Groundwater
APEC-5B	Western portion of the Site	#N/S: Inferred application of de-icing agents	On-Site PCA-19	EC, SAR	Soil
				Sodium, Chloride	Groundwater
APEC-6	Within the Vicinity of Site Building B	#27: Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	On-Site PCA-20	PHCs, VOCs, BTEX, Metals, As, Sb, Se, Cr (VI), Hg, PAHs	Soil and Groundwater

Notes:

- N/S - not specified in Table 2, Schedule D, of O.Reg. 153/04
- BTEX = Benzene, Toluene, Ethylbenzene, Xylene
- OCs = Organochlorine Pesticides
- PAHs = Polycyclic Aromatic Hydrocarbons
- PHCs = Petroleum Hydrocarbons
- VOCs = Volatile Organic Compounds

### 3. Site Investigation Program

The proposed field investigation will involve the advancement of eight (8) test pits (TP1 to TP8) on the eastern portion of the Phase Two Property using a backhoe under the supervision of DS



personnel, to depths ranging between 2.3 to 3.5 metres below ground surface (mbgs). As well as the advancement of twenty-one (21) additional boreholes (BH23-1 to BH23-21), to depths ranging from 1.4 to 18.8 mbgs on the western portion of the Phase Two Property. Ten (10) of the boreholes were instrumented with groundwater monitoring wells (BH23-1 to BH23-9 and BH23-17) upon completion.

Prior to mobilizing a drilling rig, we will lay out the proposed borehole and clear the buried utilities and services by using Ontario One Call System in addition to private utility locates.

The borings will be advanced to the indicated depths using a combination of a truck/track mounted continuous flight auger machine and portable drilling equipment (for MW20-20S and MW20-24S). Samples will be retrieved by means of a 50 mm O.D. split-spoon barrel sampler at 0.75 metre intervals in the upper 3 metres and at 1.5 metres intervals below this level. The monitoring wells will be constructed using 50 mm I.D. PVC pipe, equipped with 3.1 m slotted screens and finished at the ground surface with flush mount well casings. A geodetic benchmark will be used to establish the elevation of each borehole. Drilling and sampling will conform to standard practice.

The Phase Two ESA involves the following principal tasks:

- Retain the services of public and private utility locaters to identify the locations of buried and overhead utility services prior to any excavation or demolition activities;
  - Certain underground utilities (such as those constructed or encased in plastic, fibreglass, clay, concrete pipe, untraceable cast iron, steel, and/or repaired services) cannot be traced by standard locating practices. DS will review all available Site Plans and/or "As Built" figures in an attempt to identify the locations of potential untraceable services. DS will not be held responsible for any damages to utility services that are not on the figures provided or cannot be located by standard utility locating practices;
- Advancement of boreholes as described above. The proposed boreholes will be used to facilitate the collection of representative soil and groundwater samples, and to provide information regarding the Site-specific geological and hydrogeological conditions;
- All soil samples recovered during the proposed drilling activities will be field screened for visual and olfactory evidence of deleterious impacts and for the presence of petroleum hydrocarbon (PHC) and volatile organic compound (VOC) derived vapours using either a combustible gas detector (CGD) calibrated to hexane or a photo-ionization detector (PID) calibrated to isobutylene or equivalent;



- Measure the depth to groundwater levels in the monitoring wells installed, and monitor the wells for the presence/absence of non-aqueous phase liquid using an interface probe;
- Survey each of the monitoring wells to a geodetic datum;
- Develop and purge all of the monitoring wells installed;
- Submit soil samples from the newly advanced boreholes as follows:

Table 3-1: Summary of proposed soil chemical analyses

Borehole ID	Sample No.	Sample Depth (mbgs)	Soil Description	Parameter Analyzed	APEC Investigated
TP1	TP1-1	0.0-0.6	Sandy silt	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs, PHCs, BTEX, VOCs	APEC-1C, APEC-1F
	Dup 1 (TP1-1)			Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR	
TP2	TP2-1	0.0-0.6	Sandy silt	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs	APEC-1C, APEC-4D
	TP2-3	1.5-2.5	Sand	pH	
TP3	TP3-1	0.0-0.6	Sandy silt	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs	APEC-1C, APEC-4C, APEC-5A
	Dup 2 (TP3-1)			PAHs	
	TP3-4	2.2-2.7	Silty sand	pH	
TP4	TP4-1	0.0-0.6	Sandy silt	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs	APEC-1B, APEC-1C, APEC-2
	Dup 3 (TP4-1)			PAHs	
	TP4-3	1.5-2.2	Silty sand	pH	
TP5	TP5-1	0.0-0.7	Sandy silt	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs	APEC-1C, APEC-2, APEC-4A
	TP5-4	2.2-2.5	Silty sand	PHCs, BTEX, VOCs	
TP6	TP6-1	0.0-0.7	Sandy silt	PAHs	APEC-1C, APEC-4B, APEC-5A
	TP6-2	0.7-1.5	Sandy silt	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR	
	TP6-3	1.5-2.2	Silty sand	pH	
TP7	TP7-1	0.0-0.7	Silty sand	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR	APEC-1C, APEC-5A, APEC-6
	TP7-2	0.7-1.5	Silty sand	PAHs	
	TP7-4	2.3-3.1	Silty sand	PHCs, BTEX, VOCs	
TP8	TP8-1	0.0-0.6	Sandy silt	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs	APEC-1A, APEC-1C, APEC-5A
BH23-9	SS1	0.1-0.7	Fill - Sand	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, OCPs	APEC-1C, APEC-2
	SS2	0.8-1.4	Silty clay till	PAHs	
	DUP-3			PHCs, BTEX, VOCs	
BH23-10	SS3	1.5-2.1	Silty clay till	PHCs, BTEX, VOCs	APEC-1C, APEC-3
	SS1	0.3-0.6	Fill - Clayey silt	OCPs	
	DUP-4			Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs	
	SS2	0.8-1.4	Silty clay till	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs	
	SS3	1.5-1.8	Silty clay till	PHCs, BTEX, VOCs	



BH23-11	SS2	0.8-1.4	Silty clay till	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR	APEC-1C
BH23-12	SS2	0.8-1.4	Silty clay till	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR	APEC-1C, APEC-1E
BH23-13	SS1	0.2-0.6	Fill - Silty clay	OCPs	APEC-1C, APEC-3
	SS2	0.8-1.4	Silty clay till	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR	
BH23-14	SS1	0.2-0.6	Fill - Silty clay	OCPs	APEC-1C, APEC-3
BH23-15	SS1	0.2-0.6	Fill - Silty clay	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, OCPs	APEC-1C, APEC-3
	SS2	0.8-1.4	Silty clay till	PAHs, PHCs, BTEX, VOCs	
BH23-16	SS1	0.2-0.6	Fill - Silty clay	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, PAHs	APEC-1C, APEC-5B
	SS2	0.8-1.4	Fill - Silty clay	PHCs, BTEX, VOCs	
BH23-17	SS1	0.3-0.6	Fill - Silty clay	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, OCPs	APEC-1C, APEC-5B
	SS2	0.8-1.4	Silty clay till	PAHs	
	DUP-1	1.5-2.1	Silty clay till	PHCs, BTEX, VOCs	
BH23-18	SS1	0-0.6	Fill - Silty clay	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, OCPs	APEC-1C, APEC-5B
	DUP-2			Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR	
BH23-19	SS1	0.2-0.6	Fill - Silty clay	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, OCPs	APEC-1C, APEC-1D
	SS2	0.8-1.4	Silty clay till	PAHs	
BH23-20	SS1	0.2-0.6	Fill - Silty clay	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR, OCPs	APEC-1C, APEC-5B
	SS3	1.5-2.1	Silty clay till	PHCs, BTEX, VOCs	
BH23-21	SS1	0.2-0.6	Fill - Silty clay	PAHs, OCPs	APEC-1C, APEC-5B
	SS2	0.8-1.4	Silty clay till	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR	
	SS4	2.3-2.8	Silty clay till	PHCs, BTEX, VOCs	

- Submit groundwater samples from the monitoring wells as follows:

Table 3-2: Summary of proposed groundwater analyses

Well ID	Well Screen Interval masl		Sample Date	Parameter Analyzed	APEC Investigated
BH1	152.94	-	155.94	22-Jan-22	Metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl, PHCs, BTEX, VOCs, PAHs
DUP2					
BH2	152.66	-	155.66	22-Jan-22	Metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl, PHCs, BTEX, VOCs, PAHs
BH4	152.25	-	155.25	22-Jan-22	Metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl, PHCs, BTEX, VOCs, PAHs
DUP1					
MW23-9	152.10	-	155.10	30-Jun-23	Metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl, PHCs, BTEX, VOCs, PAHs
MW23-17	148.40	-	151.40	30-Jun-23	Metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl, PHCs, BTEX, VOCs, PAHs
DUP1					





A summary of the proposed soil and groundwater analytical program is presented in the following table:

Table 3-3: Summary of Soil and Groundwater Analytical Program

Soil	Groundwater
<ul style="list-style-type: none"><li>• 22 Samples for analysis of metals and inorganics</li><li>• 11 Samples for analysis of PHCs</li><li>• 11 Samples for analysis of VOCs</li><li>• 18 Samples for analysis of PAHs</li><li>• 11 Samples for analysis of SVOCs</li></ul>	<ul style="list-style-type: none"><li>• 5 Samples for analysis of metals and inorganics</li><li>• 5 Samples for analysis of PHCs</li><li>• 5 Samples for analysis of VOCs</li><li>• 5 Samples for analysis of PAHs</li><li>• 1 VOC Trip Blank</li></ul>

- A Quality Assurance and Quality Control (QAQC) program will be implemented, involving the collection and analysis of duplicate soil and groundwater samples and trip blanks at the frequency specified under O.Reg. 153/04 (as amended);
- A Phase Two ESA Report will be prepared upon receipt of all analytical results and groundwater monitoring data. The Phase Two ESA Report will be completed in general accordance with O.Reg. 153/04 (as amended).

It should be noted that drilling activities may result in some disturbance to the ground surface at the site. Precautions will be taken by the drilling contractor to minimize any damage. The Client will be notified should there be cause to extend the borehole termination depth based on field observations. It is assumed that the site can be accessed at our convenience, during regular business hours. Prior notice will be sent to the client and site representative

It is noted that if the Phase Two ESA reveals parameter concentrations greater than the applicable standards set out in *Ontario Regulation 153/04*, then additional work (i.e., supplemental delineation, additional drilling, sampling, analysis, and/or site remediation activities) will be deemed necessary prior to RSC filing, should an RSC be required. The costs for any additional work, if necessary, are beyond the current scope of work.

The SAP was created based on the request to complete a Phase Two ESA in support of the proposed redevelopment of the Site. The SAP was compiled to collect data to provide information on soil and/or groundwater quality in each APEC.

Additional delineation may be required following the implementation of this SAP to meet the requirements of O.Reg. 153/04 which requires delineation of all areas where concentrations are above the applicable SCS such as in the following conditions:



- 
- Unexpected contamination not previously discovered, or not related to identified APECs, is discovered which will require further delineation to identify source(s); and
  - If the sampling results indicate that the soil and/or groundwater impacts are deeper than initially expected.

#### 4. Closure

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We trust that this Sampling and Analysis Plan meets the objectives of the Client. If further assistance is required on this matter please do not hesitate to contact the undersigned.

Yours Very Truly,

DS Consultants Ltd.

Kirstin Olsen, M.Sc., C.E.T

kolsen@dsconsultants.ca



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# Appendix B

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Hollow Stem Auger/Mud Rotary
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter: 200mm
DATUM: Geodetic	Date: Jun/06/2023
BH LOCATION: See Figure 5 N 4813210.47 E 601359.2	REF. NO.: 22-012-101
	ENCL NO.: 1

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
158.1																
0.0	<b>FILL:</b> clayey silt to silty clay, trace rootlets, trace gravel, trace sand, reddish brown, moist, stiff		1	SS	9											
157.3	<b>SILTY CLAY TILL:</b> sandy, trace gravel, reddish brown, moist, very stiff to hard		2	SS	18										4	21 49 26
0.8	weathered shale pieces at 1.5m		3	SS	37											
155.8	<b>SILTY CLAY TILL/SHALE COMPLEX:</b> trace sand, reddish brown, moist, hard		4	SS	50/ 30mm											
154.0	<b>SHALE BEDROCK:</b> Queenston Formation, reddish brown, weathered		5	SS	50/ 25mm											
153.4			6	SS	50/ 30mm											
5.1	TCR=94%, SCR=77%, RQD=55% Hard layers=11%, Maximum hard layer thickness=50mm		R1	RC												
151.5	TCR=96%, SCR=83%, RQD=46% Hard layers=25%, Maximum hard layer thickness=75mm		R2	RC												
6.6	TCR=96%, SCR=81%, RQD=72% Hard layers=14%, Maximum hard layer thickness=50mm		R3	RC												
150.1	TCR=95%, SCR=63%, RQD=51% Hard layers=10%, Maximum hard layer thickness=60mm		R4	RC												
148.5	TCR=100%, SCR=88%, RQD=86% Hard layers=25%, Maximum hard layer thickness=75mm		R5	RC												
147.0	TCR=92%, SCR=75%, RQD=64% Hard layers=11%, Maximum hard layer thickness=75mm		R6	RC												
145.4	TCR=100%, SCR=93%, RQD=55% Hard layers=20%, Maximum hard layer thickness=60mm		R7	RC												
144.0	TCR=91%, SCR=91%, RQD=88% Hard layers=18%, Maximum hard layer thickness=75mm		R8	RC												
142.5	TCR=98%, SCR=95%, RQD=95% Hard layers=16%, Maximum hard layer thickness=150mm		R9	RC												
141.0	TCR=95%, SCR=90%, RQD=77% Hard layers=10%, Maximum hard layer thickness=130mm		R10	RC												
139.5																
18.6	<b>END OF BOREOLE:</b> Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water Level Readings:  Date: Water Level(mbg): June 26, 2023 4.3 July 19, 2023 4.4															

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W. L. 153.7 masl  
Jul 19, 2023

**GROUNDWATER ELEVATIONS**  
Measurement 1st 2nd 3rd 4th

**GRAPH NOTES** + 3, × 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Hollow Stem Auger/Mud Rotary
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter: 200mm
DATUM: Geodetic	Date: Jun/05/2023
BH LOCATION: See Figure 5 N 4813293.29 E 601330.07	REF. NO.: 22-012-101
	ENCL NO.: 2

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
159.6																
159.9	<b>GRANULAR FILL:</b> sand and gravel, 50mm		1	SS	13											
158.8	<b>FILL:</b> clayey silt to silty clay, trace gravel, reddish brown, moist, stiff		2	SS	27											
158.0	<b>SILTY CLAY TILL:</b> some sand, trace gravel, brown to reddish brown, moist, very stiff to hard		3	SS	29											
157.0	trace shale fragments at 2.3m		4	SS	62											
157.0	<b>SHALE BEDROCK:</b> Queenston Formation, reddish brown, weathered		5	SS	50/30mf											
154.9			6	SS	50/100mf											
154.5	TCR=94%, SCR=64%, RQD=23% Hard layers=11%, Maximum hard layer thickness=50mm		R1	SS												
153.0	TCR=90%, SCR=81%, RQD=68% Hard layers=11%, Maximum hard layer thickness=50mm		R2	RC												
153.0	TCR=91%, SCR=85%, RQD=66% Hard layers=16%, Maximum hard layer thickness=75mm		R3	RC												
151.5	TCR=100%, SCR=93%, RQD=75% Hard layers=19%, Maximum hard layer thickness=78mm		R4	RC												
149.9	TCR=95%, SCR=91%, RQD=91% Hard layers=15%, Maximum hard layer thickness=50mm		R5	RC												
148.4	TCR=93%, SCR=93%, RQD=90% Hard layers=25%, Maximum hard layer thickness=78mm		R6	RC												
146.9	TCR=100%, SCR=93%, RQD=82% Hard layers=14%, Maximum hard layer thickness=55mm		R7	RC												
145.3	TCR=98%, SCR=93%, RQD=88% Hard layers=23%, Maximum hard layer thickness=78mm		R8	RC												
143.8	TCR=96%, SCR=96%, RQD=93% Hard layers=27%, Maximum hard layer thickness=78mm		R9	RC												
142.4	TCR=100%, SCR=100%, RQD=94% Hard layers=22%, Maximum hard layer thickness=127mm		R10	RC												
140.8	<b>END OF BOREHOLE:</b> Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water Level Readings:  Date: Water Level(mbg): June 26, 2023 2.5 July 19, 2023 2.8															

W. L. 156.8 masl  
Jul 19, 2023

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**GROUNDWATER ELEVATIONS**  
Measurement

**GRAPH NOTES** + 3, x 3: Numbers refer to Sensitivity      ○ ● =3% Strain at Failure

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Hollow Stem Auger/Mud Rotary
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter: 200mm
DATUM: Geodetic	Date: Jun/06/2023
BH LOCATION: See Figure 5 N 4813192.51 E 601273.15	REF. NO.: 22-012-101
	ENCL NO.: 3

SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE			"N" BLOWS 0.3 m	PID (ppm)						
158.2														
0.0	<b>FILL:</b> clayey silt to silty clay, some sand, trace cobble fragments, trace weathered shale, reddish brown, moist, stiff to very stiff		1	SS	26									
157.2			2	SS	8									
1.0	<b>SILTY CLAY TILL:</b> some sand, trace gravel, reddish brown, moist, stiff		3	SS	13									
155.8			4	SS	50/30mf									1 12 58 29
2.4	weathered shale inclusions at 2.3m <b>SHALE BEDROCK:</b> Queenston Formation, reddish brown, weathered		5	SS	50/30mf									
153.5			6	SS	50/30mf									
5.1	TCR=78%, SCR=57%, RQD=28% Hard layers=5%, Maximum hard layer thickness=25mm		R1	RC										
151.7	TCR=94%, SCR=89%, RQD=54% Hard layers=10%, Maximum hard layer thickness=50mm		R2	RC										
6.5	TCR=98%, SCR=95%, RQD=95% Hard layers=24%, Maximum hard layer thickness=100mm		R3	RC										
8.1	TCR=98%, SCR=98%, RQD=95% Hard layers=18%, Maximum hard layer thickness=50mm		R4	RC										
148.6			R5	RC										
9.6	TCR=100%, SCR=100%, RQD=95% Hard layers=20%, Maximum hard layer thickness=75mm		R6	RC										
11.1	TCR=96%, SCR=96%, RQD=88% Hard layers=20%, Maximum hard layer thickness=50mm		R7	RC										
12.6	TCR=94%, SCR=93%, RQD=74% Hard layers=24%, Maximum hard layer thickness=130mm		R8	RC										
14.0	TCR=96%, SCR=94%, RQD=88% Hard layers=28%, Maximum hard layer thickness=100mm		R9	RC										
142.6			R10	RC										
15.6	TCR=100%, SCR=100%, RQD=88% Hard layers=16%, Maximum hard layer thickness=100mm													
17.2	TCR=100%, SCR=100%, RQD=76% Hard layers=12%, Maximum hard layer thickness=50mm													
18.7	<b>END OF BOREHOLE:</b> Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water Level Readings:  Date: Water Level(mbg): June 26, 2023 3.0													

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**GROUNDWATER ELEVATIONS**  
Measurement 1st 2nd 3rd 4th

**GRAPH NOTES** + 3, x 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Hollow Stem Auger/Mud Rotary
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter: 200mm
DATUM: Geodetic	Date: Jun/07/2023
BH LOCATION: See Figure 5 N 4813123.32 E 601363.01	REF. NO.: 22-012-101
	ENCL NO.: 4

SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE			"N" BLOWS 0.3 m	PID (ppm)	CGD (ppm)						
156.9															
0.0	<b>FILL:</b> clayey silt to silty clay, trace sand, trace rootlets, reddish brown, moist, stiff		1	SS	11										
156.1															
0.8	<b>SILTY CLAY TILL:</b> some sand, trace gravel, reddish brown, moist, very stiff		2	SS	18										
155.3															
1.6			3	SS	50/100mm										
154.5	<b>SILTY CLAY TILL/SHALE COMPLEX:</b> trace sand, trace gravel, reddish brown, moist, hard		4	SS	50/75mm										
2.4	<b>SHALE BEDROCK:</b> Queenston Formation, reddish brown, weathered		5	SS	50/75mm										
152.2															
5.1	TCR=98%, SCR=77%, RQD=66% Hard layers=19%. Maximum hard layer thickness=50mm		R1	RC	50/75mm										
150.3	TCR=98%, SCR=93%, RQD=73% Hard layers=20%. Maximum hard layer thickness=50mm		R2	RC											
6.6	TCR=100%, SCR=98%, RQD=93% Hard layers=20%. Maximum hard layer thickness=60mm		R3	RC											
148.8															
8.1	TCR=100%, SCR=100%, RQD=98% Hard layers=11%. Maximum hard layer thickness=50mm		R4	RC											
147.3															
9.6	TCR=100%, SCR=98%, RQD=89% Hard layers=22%. Maximum hard layer thickness=130mm		R5	RC											
145.8															
11.1	TCR=98%, SCR=98%, RQD=84% Hard layers=11%. Maximum hard layer thickness=50mm		R6	RC											
144.3															
12.6	TCR=94%, SCR=94%, RQD=89% Hard layers=25%. Maximum hard layer thickness=100mm		R7	RC											
142.9															
14.0	TCR=96%, SCR=96%, RQD=93% Hard layers=12%. Maximum hard layer thickness=50mm		R8	RC											
141.3															
15.6	TCR=100%, SCR=91%, RQD=67% Hard layers=19%. Maximum hard layer thickness=150mm		R9	RC											
139.7															
17.2	TCR=100%, SCR=100%, RQD=91% Hard layers=25%. Maximum hard layer thickness=100mm		R10	RC											
138.2															
18.7	<b>END OF BOREHOLE:</b> Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water Level Readings:  Date: Water Level(mbgf): June 26, 2023 9.4 July 19, 2023 10.5														

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W. L. 146.4 masl  
Jul 19, 2023

**GROUNDWATER ELEVATIONS**  
Measurement 1st 2nd 3rd 4th

**GRAPH NOTES** + 3, x 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA

**DRILLING DATA**

CLIENT: NEATT Sixteen Mile Creek Inc.

Method: Hollow Stem Auger/Mud Rotary

PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON Diameter: 200mm

REF. NO.: 22-012-101

DATUM: Geodetic

Date: Jun/13/2023

ENCL NO.: 5

BH LOCATION: See Figure 5 N 4813099.92 E 601201.33

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
157.6	<b>TOPSOIL:</b> 250mm		1	SS	8											
157.0	<b>FILL:</b> clayey silt to silty clay, trace gravel, trace organic staining, trace sand, trace rootlets, brown to reddish brown, moist, firm to stiff		2	SS	7											
156.5	<b>SILTY CLAY TILL:</b> some sand to sandy, trace gravel, reddish brown, moist, firm to hard weathered shale inclusions at 2.3m		3	SS	38										4	18 52 26
154.5	<b>SILTY CLAY TILL/SHALE COMPLEX:</b> trace sand, trace gravel, reddish brown, moist, hard		4	SS	50/25mm											
154.3	<b>SHALE BEDROCK:</b> Queenston Formation, reddish brown, weathered		5	SS	50/150mm											
152.9	TCR=98%, SCR=83%, RQD=22% Hard layers=33%, Maximum hard layer thickness=50mm		6	SS	50/150mm											
152.4	TCR=84%, SCR=52%, RQD=29% Hard layers=15%, Maximum hard layer thickness=100mm		R1	RC												
151.0	TCR=98%, SCR=98%, RQD=90% Hard layers=20%, Maximum hard layer thickness=60mm		R2	RC												
149.5	TCR=100%, SCR=100%, RQD=95% Hard layers=18%, Maximum hard layer thickness=50mm		R3	RC												
148.0	TCR=100%, SCR=100%, RQD=94% Hard layers=25%, Maximum hard layer thickness=50mm		R4	RC												
146.5	TCR=98%, SCR=93%, RQD=90% Hard layers=16%, Maximum hard layer thickness=50mm		R5	RC												
144.9	TCR=95%, SCR=95%, RQD=95% Hard layers=20%, Maximum hard layer thickness=150mm		R6	RC												
143.4	TCR=100%, SCR=100%, RQD=100% Hard layers=33%, Maximum hard layer thickness=100mm		R7	RC												
141.9	TCR=100%, SCR=100%, RQD=100% Hard layers=20%, Maximum hard layer thickness=100mm		R8	RC												
140.4	TCR=100%, SCR=100%, RQD=100% Hard layers=13%, Maximum hard layer thickness=100mm		R9	RC												
138.9	TCR=100%, SCR=100%, RQD=100% Hard layers=13%, Maximum hard layer thickness=100mm		R10	RC												
18.7	<b>END OF BOREHOLE:</b> Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water Level Readings:  Date: Water Level(mbgf): June 26, 2023 4.2 July 19, 2023 4.1															

W. L. 153.5 masl  
Jul 19, 2023

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV/GPJ\_DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement 1st 2nd 3rd 4th

**GRAPH NOTES** + 3, x 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure



PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Hollow Stem Auger/Mud Rotary
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter: 200mm
DATUM: Geodetic	Date: Jun/09/2023
BH LOCATION: See Figure 5 N 4813009.03 E 601286.1	REF. NO.: 22-012-101
	ENCL NO.: 6

SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE			"N" BLOWS 0.3 m	PID (ppm)	CGD (ppm)						
155.4	<b>TOPSOIL:</b> 180mm		1	SS	12										
154.6	<b>FILL:</b> clayey silt to silty clay, trace sand, trace rootlets, trace asphalt fragment, brown, moist, stiff		2	SS	54									3 14 61 22	
153.1	<b>SILTY CLAY TILL:</b> some sand, trace gravel, weathered shale inclusions, reddish brown, moist, hard		3	SS	50/ 30mm										
152.2	<b>SILTY CLAY TILL/SHALE COMPLEX:</b> trace sand, reddish brown, moist, hard		4	SS	50/ 30mm										
150.7	<b>SHALE BEDROCK:</b> Queenston Formation, reddish brown, weathered		5	SS	50/ 75mm										
150.2	TCR=89%, SCR=89%, RQD=68% Hard layers=10%. Maximum hard layer thickness=50mm		6	SS R1	50/ 75mm										
148.7	TCR=100%, SCR=96%, RQD=96% Hard layers=21%. Maximum hard layer thickness=100mm		R2	RC											
147.3	TCR=100%, SCR=98%, RQD=90% Hard layers=11%. Maximum hard layer thickness=50mm		R3	RC											
145.8	TCR=90%, SCR=90%, RQD=83% Hard layers=20%. Maximum hard layer thickness=50mm		R4	RC											
144.3	TCR=98%, SCR=95%, RQD=95% Hard layers=16%. Maximum hard layer thickness=60mm		R5	RC											
142.8	TCR=96%, SCR=96%, RQD=90% Hard layers=25%. Maximum hard layer thickness=200mm		R6	RC											
141.2	TCR=100%, SCR=100%, RQD=83% Hard layers=24%. Maximum hard layer thickness=50mm		R7	RC											
139.7	TCR=100%, SCR=100%, RQD=100% Hard layers=16%. Maximum hard layer thickness=50mm		R8	RC											
138.2	TCR=98%, SCR=98%, RQD=98% Hard layers=21%. Maximum hard layer thickness=100mm		R9	RC											
136.7	TCR=100%, SCR=100%, RQD=85% Hard layers=10%. Maximum hard layer thickness=50mm		R10	RC											
18.7	<b>END OF BOREHOLE:</b> Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water Level Readings:  Date: Water Level(mbgf): June 26, 2023 4.1 July 19, 2023 4.2														

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV/GPJ\_DS.GDT 4/25/24

W. L. 151.2 masl  
Jul 19, 2023

**GROUNDWATER ELEVATIONS**  
Measurement 1st 2nd 3rd 4th

**GRAPH NOTES** + 3 , × 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA

**DRILLING DATA**

CLIENT: NEATT Sixteen Mile Creek Inc.

Method: Hollow Stem Auger/Mud Rotary

PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON Diameter: 200mm

REF. NO.: 22-012-101

DATUM: Geodetic

Date: Jun/14/2023

ENCL NO.: 7

BH LOCATION: See Figure 5 N 4813034.31 E 601133.46

SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE			"N" BLOWS 0.3 m	PID (ppm)						
157.6	<b>TOPSOIL:</b> 150mm		1	SS	10									
156.9	<b>FILL:</b> silty clay, trace to some organics, trace rootlets, reddish brown, moist, firm to stiff		2	SS	7									
156.1	<b>SILTY CLAY TILL:</b> sandy, trace clay, trace weathered shale fragments, brown to reddish brown, moist, very stiff to hard		3	SS	19									
154.3			4	SS	32									
152.9	<b>SHALE BEDROCK:</b> Queenston Formation, reddish brown, weathered		5	SS	50/30mf									
152.5	TCR=100%, SCR=75%, RQD=0% Hard layers=25%. Maximum hard layer thickness=100mm		R1	RC	25mm									
151.0	TCR=100%, SCR=82%, RQD=61% Hard layers=31%. Maximum hard layer thickness=100mm		R2	RC										
149.5	TCR=100%, SCR=100%, RQD=80% Hard layers=34%, Maximum hard layer thickness=75mm		R3	RC										
148.0	TCR=95%, SCR=95%, RQD=90% Hard layers=13%. Maximum hard layer thickness=50mm		R4	RC										
146.5	TCR=100%, SCR=97%, RQD=52% Hard layers=21%. Maximum hard layer thickness=50mm		R5	RC										
144.9	TCR=100%, SCR=100%, RQD=98% Hard layers=16%, Maximum hard layer thickness=100mm		R6	RC										
143.4	TCR=98%, SCR=95%, RQD=93% Hard layers=15%, Maximum hard layer thickness=60mm		R7	RC										
141.9	TCR=100%, SCR=98%, RQD=97% Hard layers=31%, Maximum hard layer thickness=100mm		R8	RC										
140.4	TCR=100%, SCR=98%, RQD=93% Hard layers=20%, Maximum hard layer thickness=100mm		R9	RC										
138.8	TCR=100%, SCR=100%, RQD=100% Hard layers=10%, Maximum hard layer thickness=50mm		R10	RC										
138.8	<b>END OF BOREHOLE:</b> Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water Level Readings:  Date: Water Level(mbg): June 26, 2023 5.0 July 19, 2023 5.0													

W. L. 152.6 masl  
Jul 19, 2023

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV/GPJ\_DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement 1st 2nd 3rd 4th

**GRAPH NOTES** + 3, x 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Hollow Stem Auger/Mud Rotary
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter: 200mm
DATUM: Geodetic	Date: Jun/15/2023
BH LOCATION: See Figure 5 N 4812943.74 E 601237.76	REF. NO.: 22-012-101
	ENCL NO.: 8

SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE			"N" BLOWS 0.3 m	PID (ppm)						
154.9	<b>ASPHALT:</b> 150mm		1	SS	13									
154.1	<b>FILL:</b> silty clay, trace rootlets, trace gravel, brown, moist, stiff		2	SS	23									9 20 48 23
153.2	<b>SILTY CLAY TILL:</b> sandy, trace gravel, reddish brown, moist, very stiff		3	SS	50/ 30mm									
152.5	<b>SILTY CLAY TILL/SHALE COMPLEX:</b> trace sand, reddish brown, moist, hard		4	SS	50/ 75mm									
150.2	<b>SHALE BEDROCK:</b> Queenston Formation, reddish brown, weathered		5	SS	50/ 100mm									
149.8	TCR=98%, SCR=75%, RQD=35% Hard layers=9%, Maximum hard layer thickness=25mm		6	SS	50/ 50mm									
148.3	TCR=93%, SCR=93%, RQD=85% Hard layers=10%, Maximum hard layer thickness=30mm		R1	RC										
146.8	TCR=100%, SCR=97%, RQD=66% Hard layers=18%, Maximum hard layer thickness=50mm		R2	RC										
145.3	TCR=100%, SCR=100%, RQD=90% Hard layers=19%, Maximum hard layer thickness=50mm		R3	RC										
143.9	TCR=89%, SCR=63%, RQD=54% Hard layers=10%, Maximum hard layer thickness=50mm		R4	RC										
142.3	TCR=100%, SCR=100%, RQD=84% Hard layers=13%, Maximum hard layer thickness=50mm		R5	RC										
140.7	TCR=100%, SCR=94%, RQD=94% Hard layers=16%, Maximum hard layer thickness=50mm		R6	RC										
139.2	TCR=100%, SCR=100%, RQD=93% Hard layers=20%, Maximum hard layer thickness=50mm		R7	RC										
137.7	TCR=99%, SCR=99%, RQD=91% Hard layers=15%, Maximum hard layer thickness=50mm		R8	RC										
136.1	TCR=100%, SCR=100%, RQD=100% Hard layers=16%, Maximum hard layer thickness=150mm		R9	RC										
136.1	<b>END OF BOREHOLE:</b> Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water Level Readings:  Date: Water Level (mbgl): June 26, 2023 12.9 July 19, 2023 13.1		R10	RC										

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV/GPJ\_DS.GDT 4/25/24

W. L. 141.8 masl  
Jul 19, 2023

**GROUNDWATER ELEVATIONS**  
Measurement 1st 2nd 3rd 4th

**GRAPH NOTES** + 3, x 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Solid Stem Auger
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter: 150mm
DATUM: Geodetic	Date: Jun/19/2023
BH LOCATION: See Figure 5 N 4813148.75 E 601183.14	REF. NO.: 22-012-101
	ENCL NO.: 9

SOIL PROFILE			SAMPLES			Soil Head Space Vapors		PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION						
158.2	<b>TOPSOIL:</b> 100mm												GR SA SI CL
158.0 0.1	<b>FILL:</b> limestone screening, sand and gravel, surface vegetation, brown, moist, compact		1	SS	22		158						Metals, As, Sb, Se, B-HWS, CN-, EC, Cr(VI), Hg, pH and SAR, OCPs PAHs and DUP-3 (PAHs)  PHCs, BTEX, VOCs
157.4 0.8	<b>SILTY CLAY TILL:</b> some sand, trace gravel, weathered shale inclusions, reddish brown, moist, hard		2	SS	31		157						
			3	SS	46		156						
155.8 2.4	<b>SILTY CLAY TILL/SHALE COMPLEX:</b> some sand, reddish brown, moist, hard		4	SS	50/ 130mm		155						
155.0 3.2	<b>SHALE BEDROCK:</b> Queenston Formation, reddish brown, weathered		5	SS	50/ 130mm		153						
			6	SS	50/ 50mm								
152.0 6.2	<b>END OF BOREHOLE:</b> Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water Level Readings:  Date: Water Level(mbg): June 26, 2023 4.1 July 19, 2023 4.1		7	SS	50/ 50mm								

W. L. 154.1 masl  
Jul 19, 2023

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement 1st 2nd 3rd 4th

**GRAPH NOTES** + 3 , × 3 : Numbers refer to Sensitivity ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Solid Stem Auger
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter: 150mm
DATUM: Geodetic	Date: Jun/20/2023
BH LOCATION: See Figure 5 N 4813033.64 E 601324.81	REF. NO.: 22-012-101
	ENCL NO.: 10

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
156.0 0.0	<b>TOSPOIL:</b> 250mm						156									GR SA SI CL
155.8 0.3	<b>FILL:</b> clayey silt, trace sand, trace gravel, reddish brown, moist, stiff		1	SS	7											OCPs and DUP-4 (OCPs)
155.2 0.8	<b>SILTY CLAY TILL:</b> some sand, trace gravel, reddish brown, moist, hard															
155.0 1.0	<b>SILTY CLAY TILL/SHALE COMPLEX:</b> trace sand, reddish brown, moist, hard		2	SS	40		155									Metals, As, Sb, Se, B-HWS, CN-, Cr(VI), Hg, pH and SAR, PAHs
			3	SS	50/ 130mm											PHCs, BTEX and VOCs
153.6 2.4	<b>SHALE BEDROCK:</b> Queenston Formation, reddish brown, weathered		4	SS	50/ 130mm		154									
153.4 2.6	<b>END OF BOREHOLE:</b> Notes: 1) Borehole dry at the bottom upon completion.															

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement

**GRAPH NOTES** + 3, x 3: Numbers refer to Sensitivity      ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Solid Stem Auger
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter: 150mm
DATUM: Geodetic	Date: Jun/20/2023
BH LOCATION: See Figure 5 N 4813005.79 E 601316.57	REF. NO.: 22-012-101
	ENCL NO.: 11

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)						
155.4	<b>TOPSOIL:</b> 150mm														
0.0 155.3	<b>FILL:</b> silty clay, trace rootlets, dark brown to brown, moist, stiff		1	SS	8										
0.2															
154.6	<b>SILTY CLAY TILL:</b> some sand, trace gravel, reddish brown, moist, hard														
0.8 154.4															
1.0	<b>SILTY CLAY TILL/SHALE COMPLEX:</b> some sand, trace gravel, reddish brown, moist, hard		2	SS	39										Metals, As, Sb, Se, B-HWS, CN-, EC, Cr(VI), Hg, pH and SAR
154.0															
1.4	<b>END OF BOREHOLE:</b> Notes: 1) Borehole dry at the bottom upon completion.														

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement

**GRAPH NOTES** + 3, × 3: Numbers refer to Sensitivity      ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Solid Stem Auger
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter: 150mm
DATUM: Geodetic	Date: Jun/20/2023
BH LOCATION: See Figure 5 N 4813026.93 E 601300.44	REF. NO.: 22-012-101
	ENCL NO.: 12

SOIL PROFILE			SAMPLES			Soil Head Space Vapors		PLASTIC NATURAL LIQUID LIMIT MOISTURE CONTENT LIMIT W <sub>p</sub> W W <sub>L</sub>			POCKET PEN. (Cu) (kPa)		NATURAL UNIT WT (kN/m <sup>3</sup> )		REMARKS AND GRAIN SIZE DISTRIBUTION (%)			
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (ppm)	WATER CONTENT (%)					GR	SA	SI	CL
155.9 0.0	<b>FILL:</b> silty sand, some clay, some gravel, trace asphalt pieces, trace rootlets, brown, moist, loose		1	SS	9													
155.1 0.8	<b>SILTY CLAY TILL:</b> some sand, trace gravel, trace shale fragments, brown to reddish brown, moist, very stiff		2	SS	26		155											Metals, As, Sb, Se, B-HWS, CN-, EC, Cr(VI), Hg, pH and SAR
154.5 1.4	<b>END OF BOREHOLE:</b> Notes: 1) Borehole is dry at the bottom upon completion.																	

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement

**GRAPH NOTES** + 3, × 3: Numbers refer to Sensitivity      ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Solid Stem Auger
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter: 150mm
DATUM: Geodetic	Date: Jun/20/2023
BH LOCATION: See Figure 5 N 4813019.33 E 601271.99	REF. NO.: 22-012-101
	ENCL NO.: 13

SOIL PROFILE			SAMPLES			Soil Head Space Vapors		WATER CONTENT (%)			REMARKS AND GRAIN SIZE DISTRIBUTION (%)			
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (ppm)	PLASTIC LIMIT W <sub>p</sub>		NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)
155.9	TOPSOIL: 180mm													
155.8	FILL: silty clay, trace rootlets, dark brown to reddish brown, moist, firm		1	SS	5									
0.2														
155.1	SILTY CLAY TILL: some sand, trace gravel, reddish brown, moist, stiff		2	SS	13		155							
0.8														
154.5	END OF BOREHOLE:													
1.4	Notes: 1) Borehole dry at the bottom upon completion.													

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement

**GRAPH NOTES** + 3, × 3: Numbers refer to Sensitivity      ○ ●=3% Strain at Failure



PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Solid Stem Auger
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter: 150mm
DATUM: Geodetic	Date: Jun/20/2023
BH LOCATION: See Figure 5 N 4812993.67 E 601258.7	REF. NO.: 22-012-101
	ENCL NO.: 14

SOIL PROFILE			SAMPLES			Soil Head Space Vapors		WATER CONTENT (%)			REMARKS AND GRAIN SIZE DISTRIBUTION (%)			
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (ppm)	PLASTIC LIMIT W <sub>p</sub>		NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)
155.0	TOPSOIL: 230mm													
154.7	FILL: silty clay, trace rootlets, reddish brown, moist, firm		1	SS	6									OCPs
154.2	SILTY CLAY TILL: some sand, trace gravel, reddish brown, moist, hard		2	SS	32		154							
153.6	END OF BOREHOLE: Notes: 1) Borehole dry at the bottom upon completion.													

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement

**GRAPH NOTES** + 3, × 3: Numbers refer to Sensitivity      ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Solid Stem Auger
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter: 150mm
DATUM: Geodetic	Date: Jun/16/2023
BH LOCATION: See Figure 5 N 4812993.73 E 601303.98	REF. NO.: 22-012-101
	ENCL NO.: 15

SOIL PROFILE			SAMPLES			Soil Head Space Vapors		WATER CONTENT (%)			REMARKS AND GRAIN SIZE DISTRIBUTION (%)			
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (ppm)	PLASTIC LIMIT W <sub>p</sub>		NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)
155.0	<b>TOPSOIL:</b> 150mm													
154.8	<b>FILL:</b> silty clay, trace rootlets, reddish brown, moist, stiff		1	SS	9									
154.2	<b>SILTY CLAY TILL:</b> some sand, trace gravel, reddish brown, moist, very stiff		2	SS	27		154							
153.6	<b>END OF BOREHOLE:</b> Notes: 1) Borehole dry at the bottom upon completion.													

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement

**GRAPH NOTES** + 3, × 3: Numbers refer to Sensitivity      ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Solid Stem Auger
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter: 150mm
DATUM: Geodetic	Date: Jun/16/2023
BH LOCATION: See Figure 5 N 4812963.39 E 601278.32	REF. NO.: 22-012-101
	ENCL NO.: 16

SOIL PROFILE			SAMPLES			Soil Head Space Vapors		PLASTIC NATURAL LIQUID			POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)	
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (ppm)	W <sub>p</sub>				W
154.7	TOPSOIL: 230mm													
0.0	FILL: silty clay, trace rootlets, reddish brown, moist, firm to stiff  trace organics, trace concrete pieces at 0.8m		1	SS	7		154							Metals, As, Sb, Se, B-HWS, CN-, EC, Cr(VI), Hg, pH and SAR, PAHs
154.5			2	SS	11									PHCs, BTEX, VOCs
153.3	END OF BOREHOLE: Notes: 1) Borehole was dry at the bottom upon completion.													

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
 Measurement

**GRAPH NOTES** + 3, × 3: Numbers refer to Sensitivity      ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA

CLIENT: NEATT Sixteen Mile Creek Inc.

PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON Diameter: 150mm

DATUM: Geodetic

BH LOCATION: See Figure 5 N 4812938.88 E 601207.53

**DRILLING DATA**

Method: Solid Stem Auger

REF. NO.: 22-012-101

ENCL NO.: 17

SOIL PROFILE			SAMPLES			Soil Head Space Vapors		WATER CONTENT (%)			REMARKS AND GRAIN SIZE DISTRIBUTION (%)			
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (ppm)	PLASTIC LIMIT W <sub>p</sub>		NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)
154.5	<b>TOPSOIL:</b> 280mm													
0.0														
154.2	<b>FILL:</b> silty clay, trace rootlets, trace asphalt, trace organics, black to brown, moist, stiff		1	SS	11		154	25	15		15			Metals, As, Sb, Se, B-HWS, CN-, EC, Cr(VI), Hg, pH and SAR, OCPs PAHs
0.3														
153.7	<b>SILTY CLAY TILL:</b> some sand, trace gravel, reddish brown, moist, very stiff to hard		2	SS	26		153	25	15		15			PHCs, BTEX, VOCs and DUP-1 (PHCs, VOCs)
0.8														
1			3	SS	21		152	25	15		15			
2			4	SS	50/100mm		152	25	15		15			
3														
151.4	<b>SHALE BEDROCK:</b> Queentson Formation, reddish brown, weathered		5	SS	50/75mm		151	25	15		15			
3.1														
4														
6			6	SS	50/130mm		150	25	15		15			
5														
149														
6														
148.3	<b>END OF BOREHOLE:</b>		7	SS	50/50mm		149	25	15		15			
6.2	Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water Level Readings:  Date: Water Level(mbg): June 26, 2023 3.7 July 19, 2023 3.7													

W. L. 150.8 masl  
Jul 19, 2023

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement 1st 2nd 3rd 4th

**GRAPH NOTES** + 3, x 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Solid Stem Auger
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter: 150mm
DATUM: Geodetic	Date: Jun/16/2023
BH LOCATION: See Figure 5 N 4812922.1 E 601208.51	REF. NO.: 22-012-101
	ENCL NO.: 18

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)						
154.3	<b>FILL:</b> silty clay, trace organics, sand and gravel, brown, moist, firm		1	SS	7		154								Metals, As, Sb, Se, B-HWS, CN-, EC, Cr(VI), Hg, pH and SAR, OCPs and DUP-2 (Metals and ORPs)
153.5															
0.8	<b>SILTY CLAY TILL:</b> some sand, trace gravel, reddish brown, moist, very stiff		2	SS	28		153								
1.4	<b>END OF BOREHOLE:</b> Notes: 1) Borehole dry at the bottom upon completion.														

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement

**GRAPH NOTES** + 3, × 3: Numbers refer to Sensitivity      ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Solid Stem Auger
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter: 150mm
DATUM: Geodetic	Date: Jun/16/2023
BH LOCATION: See Figure 5 N 4812921.54 E 601228.89	REF. NO.: 22-012-101
	ENCL NO.: 19

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)						
154.4															
0.0	<b>GRANULAR FILL:</b> sand and gravel, 150mm														
154.2															
0.2	<b>FILL:</b> silty clay, organic staining, black, moist, stiff to very stiff		1	SS	26										Metals, As, Sb, Se, B-HWS, CN-, EC, Cr(VI), Hg, pH and SAR, OCPs
153.4															
1.0	<b>SILTY CLAY TILL:</b> some sand, trace gravel, reddish brown, moist, stiff		2	SS	12										PAHs
153.0															
1.4	<b>END OF BOREHOLE:</b> Notes: 1) Borehole dry at the bottom upon completion.														

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement

**GRAPH NOTES** + 3, × 3: Numbers refer to Sensitivity      ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Solid Stem Auger
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter: 150mm
DATUM: Geodetic	Date: Jun/16/2023
BH LOCATION: See Figure 5 N 4812934.48 E 601243.05	REF. NO.: 22-012-101
	ENCL NO.: 20

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)						
154.6															
0.0	<b>GRANULAR FILL:</b> sand and gravel, 180mm														
154.4															
0.2	<b>FILL:</b> silty clay, trace sand, trace gravel, brown, moist, very stiff		1	SS	16		154								Metals, As, Sb, Se, B-HWS, CN-, EC, Cr(VI), Hg, pH and SAR, OCPs
153.8															
0.8	<b>SILTY CLAY TILL:</b> some sand, trace gravel, reddish brown, moist, very stiff to hard		2	SS	22		153								PHCs, BTEX, VOCs
152.3															
2.3															
152.2	<b>SHALE BEDROCK:</b> reddish brown, weathered		4	SS	50/ 30mm										
2.4	<b>END OF BOREHOLE:</b> Notes: 1) Borehole is dry at the bottom upon completion.														

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement 1st 2nd 3rd 4th

**GRAPH NOTES** + 3, x 3: Numbers refer to Sensitivity      ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA

**DRILLING DATA**

CLIENT: NEATT Sixteen Mile Creek Inc.

Method: Solid Stem Auger

PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON Diameter: 150mm

REF. NO.: 22-012-101

DATUM: Geodetic

Date: Jun/16/2023

ENCL NO.: 21

BH LOCATION: See Figure 5 N 4812905.65 E 601227.53

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)						
154.2 0.0	<b>GRANULAR FILL:</b> sand and gravel, 200mm														
154.0 0.2	<b>FILL:</b> silty clay, trace organics, trace sand, dark brown, moist, very stiff		1	SS	15		154								PAHs, OCPs
153.4 0.8	<b>SILTY CLAY TILL:</b> some sand, trace gravel, reddish brown, moist, very stiff to hard		2	SS	20		153								Metals, As, Sb, Se, B-HWS, CN-, EC, Cr(VI), Hg, pH and SAR
151.9 2.3	<b>SILTY CLAY TILL/SHALE COMPLEX:</b> trace sand, trace gravel, reddish brown, moist, hard		4	SS	50/ 75mm		152								PHCs, BTEX, VOCs
151.4 2.8	<b>END OF BOREHOLE:</b> Notes: 1) Borehole is dry upon completion.														

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement 1st 2nd 3rd 4th

**GRAPH NOTES** + 3, × 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure



PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Excavator
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter:
DATUM: Geodetic	Date: Jan/10/2022
BH LOCATION: See Figure 5 N 4813061.378 E 601351.21	REF. NO.: 22-012-101
	ENCL NO.: 22

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
156.1	<b>TOPSOIL:</b> 180mm															
156.0	<b>SANDY SILT:</b> reddish brown, moist, trace shale fragments		1	TP			156								Metals, As, Sb, Se, B-HWS, CN-, EC, Cr(VI), Hg, pH and SAR, PAHs, PHCs, BTEX, VOCs and DUP 1 (Metals and ORPs)	
0.2			2	TP			155									
1			3	TP												
2			4	TP												
153.8	<b>END OF BOREHOLE</b>															
2.3																

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
 Measurement

**GRAPH NOTES** + 3, x 3: Numbers refer to Sensitivity      ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Excavator
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter:
DATUM: Geodetic	Date: Jan/10/2022
BH LOCATION: See Figure 5 N 4813078.718 E 601340.954	REF. NO.: 22-012-101
	ENCL NO.: 23

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)						
155.9															
153.9	<b>TOPSOIL:</b> 180mm														
0.2	<b>SANDY SILT:</b> reddish grey, moist, gravel		1	TP											Metals, As, Sb, Se, B-HWS, CN-, EC, Cr(VI), Hg, pH, and SAR, PAHs
1			2	TP											
154.4															
1.5	<b>SAND:</b> reddish grey, dry to moist, trace shale fragments		3	TP											pH
153.4															
2.5	END OF BOREHOLE														

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement

**GRAPH NOTES** + 3, × 3: Numbers refer to Sensitivity      ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Excavator
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter:
DATUM: Geodetic	Date: Jan/10/2022
BH LOCATION: See Figure 5 N 4813158.915 E 601265.277	REF. NO.: 22-012-101
	ENCL NO.: 24

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
158.3	<b>TOPSOIL:</b> 180mm															
158.0	<b>SANDY SILT:</b> reddish brown, moist, gravel		1	TP											Metals, As, Sb, Se, B-HWS, CN-, EC, Cr(VI), Hg, pH and SAR, PAHs and DUP 2 (PAHs)  pH	
156.8	<b>SAND:</b> brown, moist		2	TP												
156.1	<b>SILTY SAND:</b> reddish brown, moist, gravel		3	TP												
155.3	<b>SANDY SILT:</b> reddish brown, moist, gravel		4	TP												
155.3	<b>SANDY SILT:</b> reddish brown, moist, gravel		5	TP												
3.0	END OF BOREHOLE															

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement

**GRAPH NOTES** +<sup>3</sup>, ×<sup>3</sup>: Numbers refer to Sensitivity      ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Excavator
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter:
DATUM: Geodetic	Date: Jan/10/2022
BH LOCATION: See Figure 5 N 4813186.229 E 601237.412	REF. NO.: 22-012-101
	ENCL NO.: 25

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)						
158.8	<b>TOPSOIL: 170mm</b>														
0.2	<b>SANDY SILT: reddish brown, moist</b>		1	TP											Metals, As, Sb, Se, B-HWS, CN-, EC, Cr(VI), Hg, pH and SAR, PAHs and DUP 3 (PAHs)  pH
			2	TP											
157.3	<b>SILTY SAND: brown, moist</b>		3	TP											
156.6	<b>SANDY SILT: reddish brown, trace shale fragments, moist</b>		4	TP											
155.8	<b>END OF BOREHOLE</b>														

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement

**GRAPH NOTES** + 3, × 3: Numbers refer to Sensitivity      ○ ● = 3% Strain at Failure

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Excavator
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter:
DATUM: Geodetic	Date: Jan/10/2022
BH LOCATION: See Figure 5 N 4813219.431 E 601247.816	REF. NO.: 22-012-101
	ENCL NO.: 26

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
158.4																
158.0	<b>TOPSOIL: 170mm</b>															
0.2	<b>SANDY SILT: reddish brown, moist</b>		1	TP											Metals, As, Sb, Se, B-HWS, CN-, EC, Cr(VI), Hg, pH and SAR, PAHs	
157.7																
0.7	<b>SILTY SAND: reddish brown, moist, gravel, shale fragments</b>		2	TP												
1																
2																
155.9			3	TP												
2																
155.9			4	TP											PHCs, BTEX, VOCs	
2.5	END OF BOREHOLE															

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement

**GRAPH NOTES** + 3, x 3: Numbers refer to Sensitivity      ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Excavator
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter:
DATUM: Geodetic	Date: Jan/10/2022
BH LOCATION: See Figure 5 N 4813234.249 E 601368.947	REF. NO.: 22-012-101
	ENCL NO.: 27

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)						
158.8	<b>TOPSOIL:</b> 180mm														
0.2	<b>SANDY SILT:</b> reddish brown, gravel, moist		1	TP											PAHs
157.3	<b>SILTY SAND:</b> reddish grey, moist, trace shale fragments		2	TP											Metals, As, Sb, Se, B-HWS, CN-, EC, Cr(VI), Hg, pH and SAR, PAHs pH
1.5			3	TP											
			4	TP											
156.0	<b>END OF BOREHOLE</b>														
2.8															

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement 1st 2nd 3rd 4th

**GRAPH NOTES** + 3, × 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA

**DRILLING DATA**

CLIENT: NEATT Sixteen Mile Creek Inc.

Method: Excavator

PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON

REF. NO.: 22-012-101

DATUM: Geodetic

Date: Jan/10/2022

ENCL NO.: 28

BH LOCATION: See Figure 5 N 4813305.64 E 601327.268

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)						
159.9	TOPSOIL: 170mm														
0.2	SILTY SAND: reddish brown, moist, gravel, trace shale fragments		1	TP											Metals, As, Sb, Se, B-HWS, CN-, EC, Cr(VI), Hg, pH and SAR, PAHs
			2	TP											
			3	TP											
			4	TP											PHCs, BTEX, VOCs
156.8	END OF BOREHOLE														

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement 1st 2nd 3rd 4th

**GRAPH NOTES** + 3, x 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure

PROJECT: Phase Two ESA	<b>DRILLING DATA</b>
CLIENT: NEATT Sixteen Mile Creek Inc.	Method: Excavator
PROJECT LOCATION: 3056 Neyagawa Blvd. & 1039 Dundas St. W., Oakville, ON	Diameter:
DATUM: Geodetic	Date: Jan/10/2022
BH LOCATION: See Figure 5 N 4813312.07 E 601335.055	REF. NO.: 22-012-101
	ENCL NO.: 29

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)	
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)							WATER CONTENT (%)
159.6	<b>TOPSOIL: 180mm</b>															
159.9	<b>SANDY SILT:</b> reddish grey, moist, trace shale fragments		1	TP											Metals, As, Sb, Se, B-HWS, CN-, EC, Cr(VI), Hg, pH and SAR, PAHs	
0.2																
1			2	TP												
158			3	TP												
2																
3																
157			4	TP												
3.5	END OF BOREHOLE															

DS ENVIRO 0-50 PPM-2021 22-012-101 ENV.GPJ DS.GDT 4/25/24

**GROUNDWATER ELEVATIONS**  
Measurement

**GRAPH NOTES** + 3, × 3: Numbers refer to Sensitivity      ○ ●=3% Strain at Failure





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# Appendix C



## FINAL REPORT

CA40062-FEB22 R

22-012-100, 3056 Neyagawa Blvd

Prepared for

**DS Consultants**

**First Page**

**CLIENT DETAILS**

**LABORATORY DETAILS**

Client	DS Consultants	Project Specialist	Jill Campbell, B.Sc.,GISAS
Address	6221 Highway 7 Unit 16 Vaughan, Ontario L4H 0K8, Canada	Laboratory	SGS Canada Inc.
Contact	Kirstin Olsen	Address	185 Concession St., Lakefield ON, K0L 2H0
Telephone	905-264-9393	Telephone	2165
Facsimile	905-264-2685	Facsimile	705-652-6365
Email	kirstin.olsen@dsconsultants.ca	Email	jill.campbell@sgs.com
Project	22-012-100, 3056 Neyagawa Blvd	SGS Reference	CA40062-FEB22
Order Number		Received	02/03/2022
Samples	Soil (3)	Approved	02/09/2022
		Report Number	CA40062-FEB22 R
		Date Reported	02/09/2022

**COMMENTS**

Quality Compliance: Instrument performance / calibration quality criteria were met and extraction and analysis limits for holding times were met.

Benzo(b)fluoranthene results for comparison to the standard are reported as benzo(b+j)fluoranthene. Benzo(b)fluoranthene and benzo(j)fluoranthene co-elute and cannot be reported individually by the analytical method used.

Temperature of Sample upon Receipt: 9 degrees C

Cooling Agent Present: Yes

Custody Seal Present: Yes

Chain of Custody Number:NA

CN spike made with wrong std (1000mg/l) accepting on before and after working spike

**SIGNATORIES**

Jill Campbell, B.Sc.,GISAS





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# FINAL REPORT

CA40062-FEB22 R

**Client:** DS Consultants

**Project:** 22-012-100, 3056 Neyagawa Blvd

**Project Manager:** Kirstin Olsen

**Samplers:** Ryan Zhang

MATRIX: SOIL

Sample Number	9	10	11
Sample Name	DUP 1	DUP 2	DUP 3
Sample Matrix	Soil	Soil	Soil
Sample Date	03/02/2022	03/02/2022	03/02/2022

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result
<b>Hydrides</b>						
Antimony	µg/g	0.8	7.5	< 0.8	---	---
Arsenic	µg/g	0.5	18	4.1	---	---
Selenium	µg/g	0.7	2.4	< 0.7	---	---
<b>Metals and Inorganics</b>						
Moisture Content	%	no		13.6	15.4	13.4
Barium	µg/g	0.1	390	76	---	---
Beryllium	µg/g	0.02	4	0.76	---	---
Boron	µg/g	1	120	9	---	---
Cadmium	µg/g	0.05	1.2	0.12	---	---
Chromium	µg/g	0.5	160	25	---	---
Cobalt	µg/g	0.01	22	15	---	---
Copper	µg/g	0.1	140	12	---	---
Lead	µg/g	0.1	120	14	---	---
Molybdenum	µg/g	0.1	6.9	0.7	---	---
Nickel	µg/g	0.5	100	33	---	---
Silver	µg/g	0.05	20	< 0.05	---	---
Thallium	µg/g	0.02	1	0.09	---	---
Uranium	µg/g	0.002	23	0.50	---	---
Vanadium	µg/g	3	86	30	---	---
Zinc	µg/g	0.7	340	66	---	---
Water Soluble Boron	µg/g	0.5	1.5	< 0.5	---	---



# FINAL REPORT

CA40062-FEB22 R

**Client:** DS Consultants

**Project:** 22-012-100, 3056 Neyagawa Blvd

**Project Manager:** Kirstin Olsen

**Samplers:** Ryan Zhang

MATRIX: SOIL

Sample Number	9	10	11
Sample Name	DUP 1	DUP 2	DUP 3
Sample Matrix	Soil	Soil	Soil
Sample Date	03/02/2022	03/02/2022	03/02/2022

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result
<b>Other (ORP)</b>						
Mercury	ug/g	0.05	0.27	< 0.05	---	---
Sodium Adsorption Ratio	No unit	0.2	5	0.2	---	---
SAR Calcium	mg/L	0.2		38.3	---	---
SAR Magnesium	mg/L	0.3		3.0	---	---
SAR Sodium	mg/L	0.1		5.7	---	---
Conductivity	mS/cm	0.002	0.7	0.24	---	---
pH	pH Units	0.05		7.68	---	---
Chromium VI	µg/g	0.2	8	< 0.2	---	---
Free Cyanide	µg/g	0.05	0.051	< 0.05	---	---

**PAHs**

Acenaphthene	µg/g	0.05	7.9	---	< 0.05	< 0.05
Acenaphthylene	µg/g	0.05	0.15	---	< 0.05	< 0.05
Anthracene	µg/g	0.05	0.67	---	< 0.05	< 0.05
Benzo(a)anthracene	µg/g	0.05	0.5	---	< 0.05	< 0.05
Benzo(a)pyrene	µg/g	0.05	0.3	---	< 0.05	< 0.05
Benzo(b+j)fluoranthene	µg/g	0.05	0.78	---	< 0.05	< 0.05
Benzo(ghi)perylene	µg/g	0.1	6.6	---	< 0.1	< 0.1
Benzo(k)fluoranthene	µg/g	0.05	0.78	---	< 0.05	< 0.05
Chrysene	µg/g	0.05	7	---	< 0.05	< 0.05
Dibenzo(a,h)anthracene	µg/g	0.06	0.1	---	< 0.06	< 0.06
Fluoranthene	µg/g	0.05	0.69	---	< 0.05	< 0.05
Fluorene	µg/g	0.05	62	---	< 0.05	< 0.05



# FINAL REPORT

CA40062-FEB22 R

**Client:** DS Consultants

**Project:** 22-012-100, 3056 Neyagawa Blvd

**Project Manager:** Kirstin Olsen

**Samplers:** Ryan Zhang

MATRIX: SOIL

Sample Number	9	10	11
Sample Name	DUP 1	DUP 2	DUP 3
Sample Matrix	Soil	Soil	Soil
Sample Date	03/02/2022	03/02/2022	03/02/2022

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result
<b>PAHs (continued)</b>						
Indeno(1,2,3-cd)pyrene	µg/g	0.1	0.38	---	< 0.1	< 0.1
1-Methylnaphthalene	µg/g	0.05		---	< 0.05	< 0.05
2-Methylnaphthalene	µg/g	0.05		---	< 0.05	< 0.05
Methylnaphthalene, 2-(1-)	µg/g	0.05	0.99	---	< 0.05	< 0.05
Naphthalene	µg/g	0.05	0.6	---	< 0.05	< 0.05
Phenanthrene	µg/g	0.05	6.2	---	< 0.05	< 0.05
Pyrene	µg/g	0.05	78	---	< 0.05	< 0.05

**SVOC Surrogates**

Surr Nitrobenzene-d5	Surr Rec %	no		---	98	101
Surr 2-Fluorobiphenyl	Surr Rec %	no		---	97	99
Surr 4-Terphenyl-d14	Surr Rec %	no		---	104	120
Surr 2-Fluorophenol	Surr Rec %	no		---	99	98
Surr Phenol-d6	Surr Rec %	no		---	101	103
Surr 2,4,6-Tribromophenol	Surr Rec %	no		---	98	107



**EXCEEDANCE SUMMARY**

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No exceedances are present above the regulatory limit(s) indicated

## HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/ Prepared	Analysed	Holding Time	Approved
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### Conductivity

Method: EPA 6010/SM 2510 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-006

DUP 1	EWL0092-FEB22	9	02/03/2022	02/03/2022	02/04/2022	02/04/2022	03/03/2022	02/07/2022
DUP 2		10	02/03/2022	02/03/2022	02/04/2022	02/04/2022	03/03/2022	02/07/2022
DUP 3		11	02/03/2022	02/03/2022	02/04/2022	02/04/2022	03/03/2022	02/07/2022

### Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-[ENV]SFA-LAK-AN-005

DUP 1	SKA5026-FEB22	9	02/03/2022	02/03/2022			02/17/2022	02/08/2022
DUP 2		10	02/03/2022	02/03/2022			02/17/2022	02/08/2022
DUP 3		11	02/03/2022	02/03/2022			02/17/2022	02/08/2022

### Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-[ENV]SKA-LAK-AN-012

DUP 1	SKA5027-FEB22	9	02/03/2022	02/03/2022	02/08/2022	02/08/2022	03/05/2022	02/09/2022
DUP 2		10	02/03/2022	02/03/2022	02/08/2022	02/08/2022	03/05/2022	02/09/2022
DUP 3		11	02/03/2022	02/03/2022	02/08/2022	02/08/2022	03/05/2022	02/09/2022

### Mercury by CVAAS

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-004

DUP 1	EMS0031-FEB22	9	02/03/2022	02/03/2022	02/04/2022	02/04/2022	03/03/2022	02/08/2022
DUP 2		10	02/03/2022	02/03/2022	02/04/2022	02/04/2022	03/03/2022	02/08/2022
DUP 3		11	02/03/2022	02/03/2022	02/04/2022	02/04/2022	03/03/2022	02/08/2022

### Metals in aqueous samples - ICP-OES

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-003

DUP 1	ESG0015-FEB22	9	02/03/2022	02/03/2022	02/04/2022	02/07/2022	08/02/2022	02/07/2022
DUP 2		10	02/03/2022	02/03/2022	02/04/2022	02/07/2022	08/02/2022	02/07/2022
DUP 3		11	02/03/2022	02/03/2022	02/04/2022	02/07/2022	08/02/2022	02/07/2022

### Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-005

DUP 1	EMS0031-FEB22	9	02/03/2022	02/03/2022	02/04/2022	02/04/2022	08/02/2022	02/08/2022
DUP 2		10	02/03/2022	02/03/2022	02/04/2022	02/04/2022	08/02/2022	02/08/2022
DUP 3		11	02/03/2022	02/03/2022	02/04/2022	02/04/2022	08/02/2022	02/08/2022

### Moisture

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

DUP 1	GCM0069-FEB22	9	02/03/2022	02/03/2022	02/04/2022	02/05/2022	04/04/2022	02/05/2022
DUP 2	GCM0069-FEB22	10	02/03/2022	02/03/2022	02/04/2022	02/05/2022	04/04/2022	02/05/2022
DUP 3	GCM0069-FEB22	11	02/03/2022	02/03/2022	02/04/2022	02/05/2022	04/04/2022	02/05/2022

## HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
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### pH

Method: SM 4500 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-001

DUP 1	ARD0023-FEB22	9	02/03/2022	02/03/2022	02/04/2022	02/04/2022	03/05/2022	02/04/2022
DUP 2		10	02/03/2022	02/03/2022	02/04/2022	02/04/2022	03/05/2022	02/04/2022
DUP 3		11	02/03/2022	02/03/2022	02/04/2022	02/04/2022	03/05/2022	02/04/2022

### Semi-Volatile Organics

Method: EPA 3541/8270D | Internal ref.: ME-CA-[ENV]GC-LAK-AN-005

DUP 1		9	02/03/2022	02/03/2022	02/05/2022	02/07/2022	02/17/2022	02/08/2022
DUP 2	GCM0073-FEB22	10	02/03/2022	02/03/2022	02/05/2022	02/07/2022	04/04/2022	02/08/2022
DUP 3	GCM0073-FEB22	11	02/03/2022	02/03/2022	02/05/2022	02/07/2022	02/17/2022	02/08/2022

### Sodium adsorption ratio (SAR)

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-[ENV]JARD-LAK-AN-021

DUP 1		9	02/03/2022	02/03/2022	02/04/2022	02/07/2022	08/02/2022	02/07/2022
DUP 2		10	02/03/2022	02/03/2022	02/04/2022	02/07/2022	08/02/2022	02/07/2022
DUP 3		11	02/03/2022	02/03/2022	02/04/2022	02/07/2022	08/02/2022	02/07/2022

### Water Soluble Boron

Method: O.Reg. 15 3/04 | Internal ref.: ME-CA-[ENV] SPE-LAK-AN-003

DUP 1	ESG0010-FEB22	9	02/03/2022	02/03/2022	02/04/2022	02/04/2022	08/02/2022	02/04/2022
DUP 2		10	02/03/2022	02/03/2022	02/04/2022	02/04/2022	08/02/2022	02/04/2022
DUP 3		11	02/03/2022	02/03/2022	02/04/2022	02/04/2022	08/02/2022	02/04/2022



# FINAL REPORT

CA40062-FEB22 R

## QC SUMMARY

### Conductivity

Method: EPA 6010/SM 2510 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Conductivity	EWL0092-FEB22	mS/cm	0.002	<0.002	0	10	101	90	110	NA		

### Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-IENVISFA-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Free Cyanide	SKA5026-FEB22	µg/g	0.05	<0.05	ND	20	11	80	120	101	75	125

### Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-IENVISKA-LAK-AN-012

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Chromium VI	SKA5027-FEB22	ug/g	0.2	<0.2	ND	20	95	80	120	100	75	125



# FINAL REPORT

CA40062-FEB22 R

## QC SUMMARY

### Mercury by CVAAS

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-IENVISPE-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Mercury	EMS0031-FEB22	ug/g	0.05	<0.05	ND	20	96	80	120	98	70	130

### Metals in aqueous samples - ICP-OES

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-IENVISPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
SAR Calcium	ESG0015-FEB22	mg/L	0.2	<0.09	2	20	109	80	120	89	70	130
SAR Magnesium	ESG0015-FEB22	mg/L	0.3	<0.02	3	20	106	80	120	89	70	130
SAR Sodium	ESG0015-FEB22	mg/L	0.1	<0.15	2	20	108	80	120	115	70	130

## QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0031-FEB22	ug/g	0.05	<0.05	7	20	90	70	130	99	70	130
Arsenic	EMS0031-FEB22	µg/g	0.5	<0.5	2	20	100	70	130	107	70	130
Barium	EMS0031-FEB22	ug/g	0.1	<0.1	0	20	103	70	130	107	70	130
Beryllium	EMS0031-FEB22	µg/g	0.02	<0.02	8	20	98	70	130	95	70	130
Boron	EMS0031-FEB22	µg/g	1	<1	8	20	98	70	130	84	70	130
Cadmium	EMS0031-FEB22	ug/g	0.05	<0.05	12	20	103	70	130	115	70	130
Cobalt	EMS0031-FEB22	µg/g	0.01	<0.01	8	20	107	70	130	116	70	130
Chromium	EMS0031-FEB22	µg/g	0.5	<0.5	1	20	108	70	130	118	70	130
Copper	EMS0031-FEB22	µg/g	0.1	<0.1	4	20	108	70	130	118	70	130
Molybdenum	EMS0031-FEB22	µg/g	0.1	<0.1	11	20	106	70	130	113	70	130
Nickel	EMS0031-FEB22	ug/g	0.5	<0.5	5	20	107	70	130	118	70	130
Lead	EMS0031-FEB22	ug/g	0.1	<0.1	0	20	99	70	130	104	70	130
Antimony	EMS0031-FEB22	µg/g	0.8	<0.8	ND	20	97	70	130	117	70	130
Selenium	EMS0031-FEB22	µg/g	0.7	<0.7	ND	20	101	70	130	113	70	130
Thallium	EMS0031-FEB22	µg/g	0.02	<0.02	11	20	100	70	130	112	70	130
Uranium	EMS0031-FEB22	µg/g	0.002	<0.002	3	20	93	70	130	106	70	130
Vanadium	EMS0031-FEB22	µg/g	3	<3	6	20	108	70	130	119	70	130
Zinc	EMS0031-FEB22	µg/g	0.7	<0.7	2	20	106	70	130	115	70	130

## QC SUMMARY

### pH

Method: SM 4500 | Internal ref.: ME-CA-ENVIEWL-LAK-AN-001

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
pH	ARD0023-FEB22	pH Units	0.05		1	20	100	80	120			

QC SUMMARY

Semi-Volatile Organics

Method: EPA 3541/8270D | Internal ref.: ME-CA-IENVIGC-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1-Methylnaphthalene	GCM0073-FEB22	µg/g	0.05	< 0.05	ND	40	101	50	140	104	50	140
2-Methylnaphthalene	GCM0073-FEB22	µg/g	0.05	< 0.05	ND	40	101	50	140	103	50	140
Acenaphthene	GCM0073-FEB22	µg/g	0.05	< 0.05	ND	40	108	50	140	109	50	140
Acenaphthylene	GCM0073-FEB22	µg/g	0.05	< 0.05	ND	40	97	50	140	102	50	140
Anthracene	GCM0073-FEB22	µg/g	0.05	< 0.05	ND	40	107	50	140	107	50	140
Benzo(a)anthracene	GCM0073-FEB22	µg/g	0.05	< 0.05	ND	40	102	50	140	105	50	140
Benzo(a)pyrene	GCM0073-FEB22	µg/g	0.05	< 0.05	ND	40	98	50	140	102	50	140
Benzo(b+j)fluoranthene	GCM0073-FEB22	µg/g	0.05	< 0.05	ND	40	99	50	140	106	50	140
Benzo(ghi)perylene	GCM0073-FEB22	µg/g	0.1	< 0.1	ND	40	109	50	140	107	50	140
Benzo(k)fluoranthene	GCM0073-FEB22	µg/g	0.05	< 0.05	ND	40	108	50	140	108	50	140
Chrysene	GCM0073-FEB22	µg/g	0.05	< 0.05	ND	40	107	50	140	108	50	140
Dibenzo(a,h)anthracene	GCM0073-FEB22	µg/g	0.06	< 0.06	ND	40	109	50	140	109	50	140
Fluoranthene	GCM0073-FEB22	µg/g	0.05	< 0.05	ND	40	108	50	140	108	50	140
Fluorene	GCM0073-FEB22	µg/g	0.05	< 0.05	ND	40	113	50	140	114	50	140
Indeno(1,2,3-cd)pyrene	GCM0073-FEB22	µg/g	0.1	< 0.1	ND	40	113	50	140	114	50	140
Naphthalene	GCM0073-FEB22	µg/g	0.05	< 0.05	ND	40	103	50	140	103	50	140
Phenanthrene	GCM0073-FEB22	µg/g	0.05	< 0.05	ND	40	107	50	140	107	50	140
Pyrene	GCM0073-FEB22	µg/g	0.05	< 0.05	ND	40	106	50	140	106	50	140



## QC SUMMARY

### Water Soluble Boron

Method: O.Reg. 15 3/04 | Internal ref.: ME-CA-IENV1 SPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Water Soluble Boron	ESG0010-FEB22	µg/g	0.5	<0.5	ND	20	107	80	120	94	70	130

**Method Blank:** a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

**Duplicate:** Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

**LCS/Spike Blank:** Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

**Matrix Spike:** A sample to which a known amount of the analyte of interest has been added. Used to evaluate laboratory accuracy with sample matrix effects.

**Reference Material:** a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

**RL:** Reporting limit

**RPD:** Relative percent difference

**AC:** Acceptance criteria

**Multielement Scan Qualifier:** as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

**Duplicate Qualifier:** for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

**Matrix Spike Qualifier:** for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

**LEGEND**

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**FOOTNOTES**

**NSS** Insufficient sample for analysis.  
**RL** Reporting Limit.  
    ↑ Reporting limit raised.  
    ↓ Reporting limit lowered.  
**NA** The sample was not analysed for this analyte  
**ND** Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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-- End of Analytical Report --



Received By: [Signature]  
 Received Date: 02/03/2022 (mm/dd/yy)  
 Received Time: 17:00 (hr: min)

Received By (signature): \_\_\_\_\_  
 Cooling Agent Present: Yes  No   
 Custody Seal Present: Yes  No   
 Custody Seal Intact: Yes  No   
 Temperature Upon Receipt (°C): 12.3

**REPORT INFORMATION**

Company: DS Consultants  
 Contact: Kirstin Olsen  
 Address: 6221 Hwy 7, Unit 16, Vaughan, Ontario  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 Email: kirstin.olsen@dconsultants.ca

**INVOICE INFORMATION**

(same as Report Information)  
 Company: DS  
 Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: accounting@dconsultants.ca

Quotation #: \_\_\_\_\_ P.O. #: \_\_\_\_\_

Project #: 22-012-100 Site Location/ID: 3056 Meygawa Blvd

**TURNAROUND TIME (TAT) REQUIRED**

TAT's are quoted in business days (exclude statutory holidays & weekends).  
 Samples received after 6pm or on weekends: TAT begins next business day

Regular TAT (5-7 days)  1 Day  2 Days  3 Days  4 Days

**RUSH TAT (Additional Charges May Apply):**  1 Day  2 Days  3 Days  4 Days

**PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION**

Specify Due Date: \_\_\_\_\_ NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

**REGULATIONS**

Regulation 153/04:  
 Table 1  Res/Park  Soil Texture: \_\_\_\_\_  
 Table 2  Ind/Com  Coarse  
 Table 3  Agr/Other  Medium/  
 Table \_\_\_\_\_ Fine

Other Regulations:  
 Reg 347/558 (3 Day min TAT)  
 PWQO  MMR  Other:  
 CCME  MISA

Sewer By-Law:  
 Sanitary  
 Storm  
 Municipality:

**RECORD OF SITE CONDITION (RSC) YES  NO**

**SAMPLE IDENTIFICATION**

	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX
1	Feb 3 2022	-	1	Soil
2	Feb 3 2022	-	1	Soil
3	Feb 3 2022	-	1	Soil
4				
5				
6				
7				
8				
9				
10				
11				
12				

**ANALYSIS REQUESTED**

M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)	Water Characterization Pkg	TCLP
Metals & Inorganics (Cl, Na-water) Ind CM, CN, Hg, Pb, (B)(H)(S), EC, SAR, soil)	PAHs only	PCBs Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only no BTEX	VOCS all incl BTEX	Pesticides Organochlorine or specify other		General <input type="checkbox"/> Extended <input type="checkbox"/>	Specify TCLP <input type="checkbox"/> tests <input type="checkbox"/> M&I <input type="checkbox"/> VOC <input type="checkbox"/> PCB <input type="checkbox"/> Biop <input type="checkbox"/> ABN <input type="checkbox"/> gnL <input type="checkbox"/>
Full Metals Suite ICP metals plus B(H)(S)-soil only Hg, CMV	ICP Metals only Sb, As, Ba, Bi, B, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, Ag, Tl, U, Zn	SVOCs all incl PAHs, ABNs, CPs	F1-F4 + BTEX	BTEX only			Sewer Use: Specify pkg: _____	
Field Filtered (Y/N)								

**COMMENTS:**

Observations/Comments/Special Instructions

Sampled By (NAME): Ryan Zhang

Relinquished by (NAME): Ryan Zhang

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ (mm/dd/yy)

Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ (mm/dd/yy)

Yellow & White Copy - SGS  
 Note: Submission of samples to SGS is acknowledgment that you have been provided direction on sample collection/handling and transportation of samples. (2) Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). (3) Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under its General Conditions of Service accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). (Printed copies are available upon request.) Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.



## FINAL REPORT

CA40064-JAN22 R

22-012-100, 3056 Neyagawa Blvd.

Prepared for

**DS Consultants**

**First Page**

CLIENT DETAILS		LABORATORY DETAILS	
Client	DS Consultants	Project Specialist	Brad Moore Hon. B.Sc
Address	6221 Highway 7 Unit 16 Vaughan, Ontario L4H 0K8, Canada	Laboratory	SGS Canada Inc.
Contact	Kirstin Olsen	Address	185 Concession St., Lakefield ON, K0L 2H0
Telephone	905-264-9393	Telephone	705-652-2143
Facsimile	905-264-2685	Facsimile	705-652-6365
Email	kirstin.olsen@dsconsultants.ca	Email	brad.moore@sgs.com
Project	22-012-100, 3056 Neyagawa Blvd.	SGS Reference	CA40064-JAN22
Order Number		Received	01/11/2022
Samples	Soil (16)	Approved	01/19/2022
		Report Number	CA40064-JAN22 R
		Date Reported	01/19/2022

**COMMENTS**

CCME Method Compliance: Analyses were conducted using analytical procedures that comply with the Reference Method for the CWS for Petroleum Hydrocarbons in Soil and have been validated for use at the SGS laboratory, Lakefield, ON site.

Quality Compliance: Instrument performance / calibration quality criteria were met and extraction and analysis limits for holding times were met.

nC6 and nC10 response factors within 30% of response factor for toluene: YES

nC10, nC16 and nC34 response factors within 10% of the average response for the three compounds: YES

C50 response factors within 70% of nC10 + nC16 + nC34 average: YES

Linearity is within 15%: YES

F4G - gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

The results for F4 and F4G are both reported and the greater of the two values is to be used in application to the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

Benzo(b)fluoranthene results for comparison to the standard are reported as benzo(b+j)fluoranthene. Benzo(b)fluoranthene and benzo(j)fluoranthene co-elute and cannot be reported individually by the analytical method used.

Temperature of Sample upon Receipt: 5 degrees C

Cooling Agent Present: Yes


Custody Seal Present: Yes

Chain of Custody Number: 024176

Dichlorodifluoromethane Matrix Spike; Recovery is outside control limits; the overall quality control for this analysis has been assessed and was determined to be acceptable.

**SIGNATORIES**

Brad Moore Hon. B.Sc



PHC F4 (C34-C50) Duplicate: RPD for this parameter is outside control limits. The average of the two duplicates is less than five times the RL, therefore a greater uncertainty is expected.

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# FINAL REPORT

CA40064-JAN22 R

**Client:** DS Consultants

**Project:** 22-012-100, 3056 Neyagawa Blvd.

**Project Manager:** Kirstin Olsen

**Samplers:** Ryan Zhang

MATRIX: SOIL

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Sample Number	9	10	11	12	13	14	15	16
<b>Sample Name</b>	TP1-1	TP2-1	TP2-3	TP3-1	TP3-4	TP4-1	TP4-3	TP5-1
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
<b>BTEX</b>												
Benzene	µg/g	0.02	0.21	< 0.02	---	---	---	---	---	---	---	
Ethylbenzene	µg/g	0.05	1.1	< 0.05	---	---	---	---	---	---	---	
Toluene	µg/g	0.05	2.3	< 0.05	---	---	---	---	---	---	---	
Xylene (total)	µg/g	0.05	3.1	< 0.05	---	---	---	---	---	---	---	
m/p-xylene	µg/g	0.05		< 0.05	---	---	---	---	---	---	---	
o-xylene	µg/g	0.05		< 0.05	---	---	---	---	---	---	---	

<b>Hydrides</b>												
Antimony	µg/g	0.8	7.5	< 0.8	< 0.8	---	< 0.8	---	< 0.8	---	< 0.8	
Arsenic	µg/g	0.5	18	4.4	4.2	---	6.1	---	4.6	---	5.9	
Selenium	µg/g	0.7	2.4	< 0.7	< 0.7	---	< 0.7	---	< 0.7	---	< 0.7	

<b>Metals and Inorganics</b>												
Moisture Content	%	no		15.2	13.9	9.4	16.5	10.2	15.3	13.5	15.1	
Barium	µg/g	0.1	390	95	130	---	120	---	130	---	94	
Beryllium	µg/g	0.02	4	0.88	0.77	---	0.87	---	0.76	---	0.80	
Boron	µg/g	1	120	12	9	---	7	---	8	---	6	
Cadmium	µg/g	0.05	1.2	0.10	0.10	---	0.15	---	0.28	---	0.15	
Chromium	µg/g	0.5	160	24	23	---	26	---	22	---	23	
Cobalt	µg/g	0.01	22	14	13	---	15	---	13	---	13	
Copper	µg/g	0.1	140	14	10	---	34	---	16	---	35	
Lead	µg/g	0.1	120	15	13	---	19	---	18	---	18	
Molybdenum	µg/g	0.1	6.9	0.6	0.4	---	0.4	---	0.7	---	0.3	





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MATRIX: SOIL

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Sample Number	9	10	11	12	13	14	15	16
<b>Sample Name</b>	TP1-1	TP2-1	TP2-3	TP3-1	TP3-4	TP4-1	TP4-3	TP5-1
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
<b>Metals and Inorganics (continued)</b>												
Nickel	µg/g	0.5	100	32	29	---	36	---	26	---	32	
Silver	µg/g	0.05	20	< 0.05	< 0.05	---	< 0.05	---	0.09	---	< 0.05	
Thallium	µg/g	0.02	1	0.11	0.10	---	0.16	---	0.13	---	0.17	
Uranium	µg/g	0.002	23	0.59	0.53	---	0.56	---	0.75	---	0.55	
Vanadium	µg/g	3	86	30	27	---	32	---	27	---	29	
Zinc	µg/g	0.7	340	67	65	---	77	---	75	---	78	
Water Soluble Boron	µg/g	0.5	1.5	< 0.5	< 0.5	---	< 0.5	---	< 0.5	---	< 0.5	

**Other (ORP)**

Mercury	ug/g	0.05	0.27	< 0.05	< 0.05	---	< 0.05	---	< 0.05	---	< 0.05
Sodium Adsorption Ratio	No unit	0.2	5	0.4	0.3	---	0.4	---	0.4	---	0.2
SAR Calcium	mg/L	0.2		48.3	38.5	---	45.7	---	38.1	---	36.5
SAR Magnesium	mg/L	0.3		4.1	2.8	---	2.0	---	5.5	---	1.3
SAR Sodium	mg/L	0.1		10.7	6.0	---	10.4	---	9.4	---	5.6
Conductivity	mS/cm	0.002	0.7	0.27	0.21	---	0.25	---	0.19	---	0.17
pH	pH Units	0.05		7.63	7.65	7.80	7.61	7.76	7.52	7.59	7.71
Chromium VI	µg/g	0.2	8	< 0.2	< 0.2	---	< 0.2	---	< 0.2	---	< 0.2
Free Cyanide	µg/g	0.05	0.051	< 0.05	< 0.05	---	< 0.05	---	< 0.05	---	< 0.05



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**Project:** 22-012-100, 3056 Neyagawa Blvd.

**Project Manager:** Kirstin Olsen

**Samplers:** Ryan Zhang

MATRIX: SOIL

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Sample Number	9	10	11	12	13	14	15	16
Sample Name	TP1-1	TP2-1	TP2-3	TP3-1	TP3-4	TP4-1	TP4-3	TP5-1
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
<b>PAHs</b>												
Acenaphthene	µg/g	0.05	7.9	< 0.05	< 0.05	---	< 0.05	---	< 0.05	---	< 0.05	
Acenaphthylene	µg/g	0.05	0.15	< 0.05	< 0.05	---	< 0.05	---	< 0.05	---	< 0.05	
Anthracene	µg/g	0.05	0.67	< 0.05	< 0.05	---	< 0.05	---	< 0.05	---	< 0.05	
Benzo(a)anthracene	µg/g	0.05	0.5	< 0.05	< 0.05	---	< 0.05	---	< 0.05	---	< 0.05	
Benzo(a)pyrene	µg/g	0.05	0.3	< 0.05	< 0.05	---	< 0.05	---	< 0.05	---	< 0.05	
Benzo(b+j)fluoranthene	µg/g	0.05	0.78	< 0.05	< 0.05	---	< 0.05	---	< 0.05	---	< 0.05	
Benzo(ghi)perylene	µg/g	0.1	6.6	< 0.1	< 0.1	---	< 0.1	---	< 0.1	---	< 0.1	
Benzo(k)fluoranthene	µg/g	0.05	0.78	< 0.05	< 0.05	---	< 0.05	---	< 0.05	---	< 0.05	
Chrysene	µg/g	0.05	7	< 0.05	< 0.05	---	< 0.05	---	< 0.05	---	< 0.05	
Dibenzo(a,h)anthracene	µg/g	0.06	0.1	< 0.06	< 0.06	---	< 0.06	---	< 0.06	---	< 0.06	
Fluoranthene	µg/g	0.05	0.69	< 0.05	< 0.05	---	< 0.05	---	< 0.05	---	< 0.05	
Fluorene	µg/g	0.05	62	< 0.05	< 0.05	---	< 0.05	---	< 0.05	---	< 0.05	
Indeno(1,2,3-cd)pyrene	µg/g	0.1	0.38	< 0.1	< 0.1	---	< 0.1	---	< 0.1	---	< 0.1	
1-Methylnaphthalene	µg/g	0.05		< 0.05	< 0.05	---	< 0.05	---	< 0.05	---	< 0.05	
2-Methylnaphthalene	µg/g	0.05		< 0.05	< 0.05	---	< 0.05	---	< 0.05	---	< 0.05	
Methylnaphthalene, 2-(1-)	µg/g	0.05	0.99	< 0.05	< 0.05	---	< 0.05	---	< 0.05	---	< 0.05	
Naphthalene	µg/g	0.05	0.6	< 0.05	< 0.05	---	< 0.05	---	< 0.05	---	< 0.05	
Phenanthrene	µg/g	0.05	6.2	< 0.05	< 0.05	---	< 0.05	---	< 0.05	---	< 0.05	
Pyrene	µg/g	0.05	78	< 0.05	< 0.05	---	< 0.05	---	< 0.05	---	< 0.05	



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MATRIX: SOIL

Sample Number	9	10	11	12	13	14	15	16
<b>Sample Name</b>	TP1-1	TP2-1	TP2-3	TP3-1	TP3-4	TP4-1	TP4-3	TP5-1
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
<b>PHCs</b>												
F1 (C6-C10)	µg/g	10	55	< 10	---	---	---	---	---	---	---	
F1-BTEX (C6-C10)	µg/g	10	55	< 10	---	---	---	---	---	---	---	
F2 (C10-C16)	µg/g	10	98	< 10	---	---	---	---	---	---	---	
F3 (C16-C34)	µg/g	50	300	< 50	---	---	---	---	---	---	---	
F4 (C34-C50)	µg/g	50	2800	< 50	---	---	---	---	---	---	---	
Chromatogram returned to baseline at nC50	Yes / No	no		YES	---	---	---	---	---	---	---	

**SVOC Surrogates**

Surr Nitrobenzene-d5	Surr Rec %	no		91	90	---	84	---	93	---	90
Surr 2-Fluorobiphenyl	Surr Rec %	no		85	85	---	86	---	90	---	84
Surr 4-Terphenyl-d14	Surr Rec %	no		95	95	---	92	---	109	---	98
Surr 2-Fluorophenol	Surr Rec %	no		86	85	---	80	---	90	---	84
Surr Phenol-d6	Surr Rec %	no		90	88	---	84	---	92	---	88
Surr 2,4,6-Tribromophenol	Surr Rec %	no		85	88	---	86	---	95	---	85



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MATRIX: SOIL

Sample Number	9	10	11	12	13	14	15	16
Sample Name	TP1-1	TP2-1	TP2-3	TP3-1	TP3-4	TP4-1	TP4-3	TP5-1
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result
-----------	-------	----	----	--------	--------	--------	--------	--------	--------	--------	--------

### THMs (VOC)

Bromodichloromethane	µg/g	0.05	1.5	< 0.05	---	---	---	---	---	---	---
Bromoform	µg/g	0.05	0.27	< 0.05	---	---	---	---	---	---	---
Dibromochloromethane	µg/g	0.05	2.3	< 0.05	---	---	---	---	---	---	---

### VOC Surrogates

Surr 1,2-Dichloroethane-d4	Surr Rec %	no		100	---	---	---	---	---	---	---
Surr 4-Bromofluorobenzene	Surr Rec %	no		91	---	---	---	---	---	---	---
Surr 2-Bromo-1-Chloropropane	Surr Rec %	no		87	---	---	---	---	---	---	---

### VOCs

Acetone	µg/g	0.5	16	< 0.5	---	---	---	---	---	---	---
Bromomethane	µg/g	0.05	0.05	< 0.05	---	---	---	---	---	---	---
Carbon tetrachloride	µg/g	0.05	0.05	< 0.05	---	---	---	---	---	---	---
Chlorobenzene	µg/g	0.05	2.4	< 0.05	---	---	---	---	---	---	---
Chloroform	µg/g	0.05	0.05	< 0.05	---	---	---	---	---	---	---
1,2-Dichlorobenzene	µg/g	0.05	1.2	< 0.05	---	---	---	---	---	---	---
1,3-Dichlorobenzene	µg/g	0.05	4.8	< 0.05	---	---	---	---	---	---	---
1,4-Dichlorobenzene	µg/g	0.05	0.083	< 0.05	---	---	---	---	---	---	---
Dichlorodifluoromethane	µg/g	0.05	16	< 0.05	---	---	---	---	---	---	---
1,1-Dichloroethane	µg/g	0.05	0.47	< 0.05	---	---	---	---	---	---	---
1,2-Dichloroethane	µg/g	0.05	0.05	< 0.05	---	---	---	---	---	---	---
1,1-Dichloroethylene	µg/g	0.05	0.05	< 0.05	---	---	---	---	---	---	---
trans-1,2-Dichloroethylene	µg/g	0.05	0.084	< 0.05	---	---	---	---	---	---	---



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CA40064-JAN22 R

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**Project Manager:** Kirstin Olsen

**Samplers:** Ryan Zhang

MATRIX: SOIL

Sample Number	9	10	11	12	13	14	15	16
<b>Sample Name</b>	TP1-1	TP2-1	TP2-3	TP3-1	TP3-4	TP4-1	TP4-3	TP5-1
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
<b>VOCs (continued)</b>												
cis-1,2-Dichloroethylene	µg/g	0.05	1.9	< 0.05	---	---	---	---	---	---	---	
1,2-Dichloropropane	µg/g	0.05	0.05	< 0.05	---	---	---	---	---	---	---	
cis-1,3-dichloropropene	µg/g	0.03		< 0.03	---	---	---	---	---	---	---	
trans-1,3-dichloropropene	µg/g	0.03		< 0.03	---	---	---	---	---	---	---	
1,3-dichloropropene (total)	µg/g	0.05	0.05	< 0.05	---	---	---	---	---	---	---	
Ethylenedibromide	µg/g	0.05	0.05	< 0.05	---	---	---	---	---	---	---	
n-Hexane	µg/g	0.05	2.8	< 0.05	---	---	---	---	---	---	---	
Methyl ethyl ketone	µg/g	0.5	16	< 0.5	---	---	---	---	---	---	---	
Methyl isobutyl ketone	µg/g	0.5	1.7	< 0.5	---	---	---	---	---	---	---	
Methyl-t-butyl Ether	µg/g	0.05	0.75	< 0.05	---	---	---	---	---	---	---	
Methylene Chloride	µg/g	0.05	0.1	< 0.05	---	---	---	---	---	---	---	
Styrene	µg/g	0.05	0.7	< 0.05	---	---	---	---	---	---	---	
Tetrachloroethylene	µg/g	0.05	0.28	< 0.05	---	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	µg/g	0.05	0.058	< 0.05	---	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	µg/g	0.05	0.05	< 0.05	---	---	---	---	---	---	---	
1,1,1-Trichloroethane	µg/g	0.05	0.38	< 0.05	---	---	---	---	---	---	---	
1,1,2-Trichloroethane	µg/g	0.05	0.05	< 0.05	---	---	---	---	---	---	---	
Trichloroethylene	µg/g	0.05	0.061	< 0.05	---	---	---	---	---	---	---	
Trichlorofluoromethane	µg/g	0.05	4	< 0.05	---	---	---	---	---	---	---	
Vinyl Chloride	µg/g	0.02	0.02	< 0.02	---	---	---	---	---	---	---	



# FINAL REPORT

CA40064-JAN22 R

**Client:** DS Consultants

**Project:** 22-012-100, 3056 Neyagawa Blvd.

**Project Manager:** Kirstin Olsen

**Samplers:** Ryan Zhang

MATRIX: SOIL

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Sample Number	17	18	19	20	21	22	23	24
Sample Name	TP5-4	TP6-1	TP6-2	TP6-3	TP7-1	TP7-2	TP7-4	TP8-1
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
<b>BTEX</b>												
Benzene	µg/g	0.02	0.21	< 0.02	---	---	---	---	---	< 0.02	---	
Ethylbenzene	µg/g	0.05	1.1	< 0.05	---	---	---	---	---	< 0.05	---	
Toluene	µg/g	0.05	2.3	< 0.05	---	---	---	---	---	< 0.05	---	
Xylene (total)	µg/g	0.05	3.1	< 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	---	

<b>Hydrides</b>												
Antimony	µg/g	0.8	7.5	---	---	< 0.8	---	< 0.8	---	---	< 0.8	
Arsenic	µg/g	0.5	18	---	---	4.9	---	4.9	---	---	6.8	
Selenium	µg/g	0.7	2.4	---	---	< 0.7	---	< 0.7	---	---	< 0.7	

<b>Metals and Inorganics</b>												
Moisture Content	%	no		8.4	12.1	10.4	10.5	12.5	11.8	8.7	19.1	
Barium	µg/g	0.1	390	---	---	110	---	94	---	---	140	
Beryllium	µg/g	0.02	4	---	---	0.60	---	0.65	---	---	1.1	
Boron	µg/g	1	120	---	---	8	---	7	---	---	6	
Cadmium	µg/g	0.05	1.2	---	---	0.11	---	0.12	---	---	0.20	
Chromium	µg/g	0.5	160	---	---	19	---	20	---	---	28	
Cobalt	µg/g	0.01	22	---	---	12	---	12	---	---	17	
Copper	µg/g	0.1	140	---	---	27	---	26	---	---	35	
Lead	µg/g	0.1	120	---	---	11	---	11	---	---	17	
Molybdenum	µg/g	0.1	6.9	---	---	0.4	---	0.3	---	---	0.5	



# FINAL REPORT

CA40064-JAN22 R

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**Project:** 22-012-100, 3056 Neyagawa Blvd.

**Project Manager:** Kirstin Olsen

**Samplers:** Ryan Zhang

MATRIX: SOIL

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Sample Number	17	18	19	20	21	22	23	24
Sample Name	TP5-4	TP6-1	TP6-2	TP6-3	TP7-1	TP7-2	TP7-4	TP8-1
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
<b>Metals and Inorganics (continued)</b>												
Nickel	µg/g	0.5	100	---	---	27	---	26	---	---	37	
Silver	µg/g	0.05	20	---	---	< 0.05	---	< 0.05	---	---	< 0.05	
Thallium	µg/g	0.02	1	---	---	0.15	---	0.15	---	---	0.17	
Uranium	µg/g	0.002	23	---	---	0.62	---	0.54	---	---	0.67	
Vanadium	µg/g	3	86	---	---	25	---	25	---	---	35	
Zinc	µg/g	0.7	340	---	---	63	---	68	---	---	82	
Water Soluble Boron	µg/g	0.5	1.5	---	---	< 0.5	---	< 0.5	---	---	< 0.5	

<b>Other (ORP)</b>												
Mercury	ug/g	0.05	0.27	---	---	< 0.05	---	< 0.05	---	---	< 0.05	
Sodium Adsorption Ratio	No unit	0.2	5	---	---	0.3	---	0.4	---	---	0.5	
SAR Calcium	mg/L	0.2		---	---	25.1	---	48.0	---	---	31.4	
SAR Magnesium	mg/L	0.3		---	---	2.9	---	5.9	---	---	4.0	
SAR Sodium	mg/L	0.1		---	---	6.6	---	11.8	---	---	11.3	
Conductivity	mS/cm	0.002	0.7	---	---	0.14	---	0.14	---	---	0.20	
pH	pH Units	0.05		---	---	7.79	---	7.77	---	---	7.27	
Chromium VI	µg/g	0.2	8	---	---	< 0.2	---	< 0.2	---	---	< 0.2	
Free Cyanide	µg/g	0.05	0.051	---	---	< 0.05	---	< 0.05	---	---	< 0.05	



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**Samplers:** Ryan Zhang

MATRIX: SOIL

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Sample Number	17	18	19	20	21	22	23	24
Sample Name	TP5-4	TP6-1	TP6-2	TP6-3	TP7-1	TP7-2	TP7-4	TP8-1
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
<b>PAHs</b>												
Acenaphthene	µg/g	0.05	7.9	---	< 0.05	---	---	---	< 0.05	---	< 0.05	
Acenaphthylene	µg/g	0.05	0.15	---	< 0.05	---	---	---	< 0.05	---	< 0.05	
Anthracene	µg/g	0.05	0.67	---	< 0.05	---	---	---	< 0.05	---	< 0.05	
Benzo(a)anthracene	µg/g	0.05	0.5	---	< 0.05	---	---	---	< 0.05	---	< 0.05	
Benzo(a)pyrene	µg/g	0.05	0.3	---	< 0.05	---	---	---	< 0.05	---	< 0.05	
Benzo(b+j)fluoranthene	µg/g	0.05	0.78	---	< 0.05	---	---	---	< 0.05	---	< 0.05	
Benzo(ghi)perylene	µg/g	0.1	6.6	---	< 0.1	---	---	---	< 0.1	---	< 0.1	
Benzo(k)fluoranthene	µg/g	0.05	0.78	---	< 0.05	---	---	---	< 0.05	---	< 0.05	
Chrysene	µg/g	0.05	7	---	< 0.05	---	---	---	< 0.05	---	< 0.05	
Dibenzo(a,h)anthracene	µg/g	0.06	0.1	---	< 0.06	---	---	---	< 0.06	---	< 0.06	
Fluoranthene	µg/g	0.05	0.69	---	< 0.05	---	---	---	< 0.05	---	< 0.05	
Fluorene	µg/g	0.05	62	---	< 0.05	---	---	---	< 0.05	---	< 0.05	
Indeno(1,2,3-cd)pyrene	µg/g	0.1	0.38	---	< 0.1	---	---	---	< 0.1	---	< 0.1	
1-Methylnaphthalene	µg/g	0.05		---	< 0.05	---	---	---	< 0.05	---	< 0.05	
2-Methylnaphthalene	µg/g	0.05		---	< 0.05	---	---	---	< 0.05	---	< 0.05	
Methylnaphthalene, 2-(1-)	µg/g	0.05	0.99	---	< 0.05	---	---	---	< 0.05	---	< 0.05	
Naphthalene	µg/g	0.05	0.6	---	< 0.05	---	---	---	< 0.05	---	< 0.05	
Phenanthrene	µg/g	0.05	6.2	---	< 0.05	---	---	---	< 0.05	---	< 0.05	
Pyrene	µg/g	0.05	78	---	< 0.05	---	---	---	< 0.05	---	< 0.05	





# FINAL REPORT

CA40064-JAN22 R

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**Project:** 22-012-100, 3056 Neyagawa Blvd.

**Project Manager:** Kirstin Olsen

**Samplers:** Ryan Zhang

MATRIX: SOIL

Sample Number	17	18	19	20	21	22	23	24
<b>Sample Name</b>	TP5-4	TP6-1	TP6-2	TP6-3	TP7-1	TP7-2	TP7-4	TP8-1
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
<b>PHCs</b>												
F1 (C6-C10)	µg/g	10	55	< 10	---	---	---	---	---	< 10	---	
F1-BTEX (C6-C10)	µg/g	10	55	< 10	---	---	---	---	---	< 10	---	
F2 (C10-C16)	µg/g	10	98	< 10	---	---	---	---	---	< 10	---	
F3 (C16-C34)	µg/g	50	300	< 50	---	---	---	---	---	< 50	---	
F4 (C34-C50)	µg/g	50	2800	< 50	---	---	---	---	---	< 50	---	
Chromatogram returned to baseline at nC50	Yes / No	no		YES	---	---	---	---	---	YES	---	

**SVOC Surrogates**

Surr Nitrobenzene-d5	Surr Rec %	no		---	92	---	---	---	91	---	90
Surr 2-Fluorobiphenyl	Surr Rec %	no		---	90	---	---	---	90	---	90
Surr 4-Terphenyl-d14	Surr Rec %	no		---	99	---	---	---	101	---	99
Surr 2-Fluorophenol	Surr Rec %	no		---	87	---	---	---	86	---	88
Surr Phenol-d6	Surr Rec %	no		---	90	---	---	---	90	---	92
Surr 2,4,6-Tribromophenol	Surr Rec %	no		---	92	---	---	---	89	---	91



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**Samplers:** Ryan Zhang

MATRIX: SOIL

Sample Number	17	18	19	20	21	22	23	24
Sample Name	TP5-4	TP6-1	TP6-2	TP6-3	TP7-1	TP7-2	TP7-4	TP8-1
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result
-----------	-------	----	----	--------	--------	--------	--------	--------	--------	--------	--------

### THMs (VOC)

Bromodichloromethane	µg/g	0.05	1.5	< 0.05	---	---	---	---	---	< 0.05	---
Bromoform	µg/g	0.05	0.27	< 0.05	---	---	---	---	---	< 0.05	---
Dibromochloromethane	µg/g	0.05	2.3	< 0.05	---	---	---	---	---	< 0.05	---

### VOC Surrogates

Surr 1,2-Dichloroethane-d4	Surr Rec %	no		100	---	---	---	---	---	100	---
Surr 4-Bromofluorobenzene	Surr Rec %	no		90	---	---	---	---	---	90	---
Surr 2-Bromo-1-Chloropropane	Surr Rec %	no		86	---	---	---	---	---	86	---

### VOCs

Acetone	µg/g	0.5	16	< 0.5	---	---	---	---	---	< 0.5	---
Bromomethane	µg/g	0.05	0.05	< 0.05	---	---	---	---	---	< 0.05	---
Carbon tetrachloride	µg/g	0.05	0.05	< 0.05	---	---	---	---	---	< 0.05	---
Chlorobenzene	µg/g	0.05	2.4	< 0.05	---	---	---	---	---	< 0.05	---
Chloroform	µg/g	0.05	0.05	< 0.05	---	---	---	---	---	< 0.05	---
1,2-Dichlorobenzene	µg/g	0.05	1.2	< 0.05	---	---	---	---	---	< 0.05	---
1,3-Dichlorobenzene	µg/g	0.05	4.8	< 0.05	---	---	---	---	---	< 0.05	---
1,4-Dichlorobenzene	µg/g	0.05	0.083	< 0.05	---	---	---	---	---	< 0.05	---
Dichlorodifluoromethane	µg/g	0.05	16	< 0.05	---	---	---	---	---	< 0.05	---
1,1-Dichloroethane	µg/g	0.05	0.47	< 0.05	---	---	---	---	---	< 0.05	---
1,2-Dichloroethane	µg/g	0.05	0.05	< 0.05	---	---	---	---	---	< 0.05	---
1,1-Dichloroethylene	µg/g	0.05	0.05	< 0.05	---	---	---	---	---	< 0.05	---
trans-1,2-Dichloroethylene	µg/g	0.05	0.084	< 0.05	---	---	---	---	---	< 0.05	---



# FINAL REPORT

CA40064-JAN22 R

**Client:** DS Consultants

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**Project Manager:** Kirstin Olsen

**Samplers:** Ryan Zhang

MATRIX: SOIL

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Sample Number	17	18	19	20	21	22	23	24
Sample Name	TP5-4	TP6-1	TP6-2	TP6-3	TP7-1	TP7-2	TP7-4	TP8-1
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
<b>VOCs (continued)</b>												
cis-1,2-Dichloroethylene	µg/g	0.05	1.9	< 0.05	---	---	---	---	---	< 0.05	---	
1,2-Dichloropropane	µg/g	0.05	0.05	< 0.05	---	---	---	---	---	< 0.05	---	
cis-1,3-dichloropropene	µg/g	0.03		< 0.03	---	---	---	---	---	< 0.03	---	
trans-1,3-dichloropropene	µg/g	0.03		< 0.03	---	---	---	---	---	< 0.03	---	
1,3-dichloropropene (total)	µg/g	0.05	0.05	< 0.05	---	---	---	---	---	< 0.05	---	
Ethylenedibromide	µg/g	0.05	0.05	< 0.05	---	---	---	---	---	< 0.05	---	
n-Hexane	µg/g	0.05	2.8	< 0.05	---	---	---	---	---	< 0.05	---	
Methyl ethyl ketone	µg/g	0.5	16	< 0.5	---	---	---	---	---	< 0.5	---	
Methyl isobutyl ketone	µg/g	0.5	1.7	< 0.5	---	---	---	---	---	< 0.5	---	
Methyl-t-butyl Ether	µg/g	0.05	0.75	< 0.05	---	---	---	---	---	< 0.05	---	
Methylene Chloride	µg/g	0.05	0.1	< 0.05	---	---	---	---	---	< 0.05	---	
Styrene	µg/g	0.05	0.7	< 0.05	---	---	---	---	---	< 0.05	---	
Tetrachloroethylene	µg/g	0.05	0.28	< 0.05	---	---	---	---	---	< 0.05	---	
1,1,1,2-Tetrachloroethane	µg/g	0.05	0.058	< 0.05	---	---	---	---	---	< 0.05	---	
1,1,2,2-Tetrachloroethane	µg/g	0.05	0.05	< 0.05	---	---	---	---	---	< 0.05	---	
1,1,1-Trichloroethane	µg/g	0.05	0.38	< 0.05	---	---	---	---	---	< 0.05	---	
1,1,2-Trichloroethane	µg/g	0.05	0.05	< 0.05	---	---	---	---	---	< 0.05	---	
Trichloroethylene	µg/g	0.05	0.061	< 0.05	---	---	---	---	---	< 0.05	---	
Trichlorofluoromethane	µg/g	0.05	4	< 0.05	---	---	---	---	---	< 0.05	---	
Vinyl Chloride	µg/g	0.02	0.02	< 0.02	---	---	---	---	---	< 0.02	---	

**EXCEEDANCE SUMMARY**

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No exceedances are present above the regulatory limit(s) indicated

## HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/ Prepared	Analysed	Holding Time	Approved
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### Conductivity

Method: EPA 6010/SM 2510 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-006

TP1-1	EWL0167-JAN22	9	01/10/2022	01/11/2022	01/12/2022	01/13/2022	02/07/2022	01/13/2022
TP2-1	EWL0167-JAN22	10	01/10/2022	01/11/2022	01/12/2022	01/13/2022	02/07/2022	01/13/2022
TP2-3		11	01/10/2022	01/11/2022	01/12/2022	01/13/2022	02/07/2022	01/13/2022
TP3-1	EWL0167-JAN22	12	01/10/2022	01/11/2022	01/12/2022	01/13/2022	02/07/2022	01/13/2022
TP3-4		13	01/10/2022	01/11/2022	01/12/2022	01/13/2022	02/07/2022	01/13/2022
TP4-1	EWL0167-JAN22	14	01/10/2022	01/11/2022	01/12/2022	01/13/2022	02/07/2022	01/13/2022
TP4-3		15	01/10/2022	01/11/2022	01/12/2022	01/13/2022	02/07/2022	01/13/2022
TP5-1	EWL0167-JAN22	16	01/10/2022	01/11/2022	01/12/2022	01/13/2022	02/07/2022	01/13/2022
TP5-4		17	01/10/2022	01/11/2022	01/12/2022	01/13/2022	02/07/2022	01/13/2022
TP6-1		18	01/10/2022	01/11/2022	01/12/2022	01/13/2022	02/07/2022	01/13/2022
TP6-2	EWL0167-JAN22	19	01/10/2022	01/11/2022	01/12/2022	01/13/2022	02/07/2022	01/13/2022
TP6-3		20	01/10/2022	01/11/2022	01/12/2022	01/13/2022	02/07/2022	01/13/2022
TP7-1	EWL0167-JAN22	21	01/10/2022	01/11/2022	01/12/2022	01/13/2022	02/07/2022	01/13/2022
TP7-2		22	01/10/2022	01/11/2022	01/12/2022	01/13/2022	02/07/2022	01/13/2022
TP7-4		23	01/10/2022	01/11/2022	01/12/2022	01/13/2022	02/07/2022	01/13/2022
TP8-1	EWL0167-JAN22	24	01/10/2022	01/11/2022	01/12/2022	01/13/2022	02/07/2022	01/13/2022

### Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-[ENV]SFA-LAK-AN-005

TP1-1	SKA5029-JAN22	9	01/10/2022	01/11/2022			01/24/2022	01/14/2022
TP2-1	SKA5029-JAN22	10	01/10/2022	01/11/2022			01/24/2022	01/14/2022
TP2-3		11	01/10/2022	01/11/2022			01/24/2022	01/14/2022
TP3-1	SKA5029-JAN22	12	01/10/2022	01/11/2022			01/24/2022	01/14/2022
TP3-4		13	01/10/2022	01/11/2022			01/24/2022	01/14/2022
TP4-1	SKA5029-JAN22	14	01/10/2022	01/11/2022			01/24/2022	01/14/2022
TP4-3		15	01/10/2022	01/11/2022			01/24/2022	01/14/2022
TP5-1	SKA5029-JAN22	16	01/10/2022	01/11/2022			01/24/2022	01/14/2022
TP5-4		17	01/10/2022	01/11/2022			01/24/2022	01/14/2022
TP6-1		18	01/10/2022	01/11/2022			01/24/2022	01/14/2022
TP6-2	SKA5029-JAN22	19	01/10/2022	01/11/2022			01/24/2022	01/14/2022
TP6-3		20	01/10/2022	01/11/2022			01/24/2022	01/14/2022
TP7-1	SKA5029-JAN22	21	01/10/2022	01/11/2022			01/24/2022	01/14/2022
TP7-2		22	01/10/2022	01/11/2022			01/24/2022	01/14/2022
TP7-4		23	01/10/2022	01/11/2022			01/24/2022	01/14/2022
TP8-1	SKA5029-JAN22	24	01/10/2022	01/11/2022			01/24/2022	01/14/2022

### Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-[ENV]SKA-LAK-AN-012

TP1-1	SKA5044-JAN22	9	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/09/2022	01/18/2022
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## HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
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### Hexavalent Chromium by SFA (continued)

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-[ENV]SKA-LAK-AN-012

TP2-1	SKA5044-JAN22	10	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/09/2022	01/18/2022
TP2-3		11	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/09/2022	01/18/2022
TP3-1	SKA5044-JAN22	12	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/09/2022	01/18/2022
TP3-4		13	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/09/2022	01/18/2022
TP4-1	SKA5044-JAN22	14	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/09/2022	01/18/2022
TP4-3		15	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/09/2022	01/18/2022
TP5-1	SKA5044-JAN22	16	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/09/2022	01/18/2022
TP5-4		17	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/09/2022	01/18/2022
TP6-1		18	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/09/2022	01/18/2022
TP6-2	SKA5044-JAN22	19	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/09/2022	01/18/2022
TP6-3		20	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/09/2022	01/18/2022
TP7-1	SKA5044-JAN22	21	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/09/2022	01/18/2022
TP7-2		22	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/09/2022	01/18/2022
TP7-4		23	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/09/2022	01/18/2022
TP8-1	SKA5044-JAN22	24	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/09/2022	01/18/2022

### Mercury by CVAAS

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-004

TP1-1	EMS0108-JAN22	9	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/07/2022	01/18/2022
TP2-1	EMS0108-JAN22	10	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/07/2022	01/18/2022
TP2-3		11	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/07/2022	01/18/2022
TP3-1	EMS0108-JAN22	12	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/07/2022	01/18/2022
TP3-4		13	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/07/2022	01/18/2022
TP4-1	EMS0108-JAN22	14	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/07/2022	01/18/2022
TP4-3		15	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/07/2022	01/18/2022
TP5-1	EMS0108-JAN22	16	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/07/2022	01/18/2022
TP5-4		17	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/07/2022	01/18/2022
TP6-1		18	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/07/2022	01/18/2022
TP6-2	EMS0108-JAN22	19	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/07/2022	01/18/2022
TP6-3		20	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/07/2022	01/18/2022
TP7-1	EMS0108-JAN22	21	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/07/2022	01/18/2022
TP7-2		22	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/07/2022	01/18/2022
TP7-4		23	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/07/2022	01/18/2022
TP8-1	EMS0108-JAN22	24	01/10/2022	01/11/2022	01/18/2022	01/18/2022	02/07/2022	01/18/2022

### Metals in aqueous samples - ICP-OES

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-003

TP1-1	ESG0026-JAN22	9	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP2-1	ESG0026-JAN22	10	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022

## HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
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### Metals in aqueous samples - ICP-OES (continued)

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-003

TP2-3		11	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP3-1	ESG0026-JAN22	12	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP3-4		13	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP4-1	ESG0026-JAN22	14	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP4-3		15	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP5-1	ESG0026-JAN22	16	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP5-4		17	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP6-1		18	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP6-2	ESG0026-JAN22	19	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP6-3		20	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP7-1	ESG0026-JAN22	21	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP7-2		22	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP7-4		23	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP8-1	ESG0026-JAN22	24	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022

### Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-005

TP1-1	EMS0108-JAN22	9	01/10/2022	01/11/2022	01/18/2022	01/18/2022	07/09/2022	01/18/2022
TP2-1	EMS0108-JAN22	10	01/10/2022	01/11/2022	01/18/2022	01/18/2022	07/09/2022	01/18/2022
TP2-3		11	01/10/2022	01/11/2022	01/18/2022	01/18/2022	07/09/2022	01/18/2022
TP3-1	EMS0108-JAN22	12	01/10/2022	01/11/2022	01/18/2022	01/18/2022	07/09/2022	01/18/2022
TP3-4		13	01/10/2022	01/11/2022	01/18/2022	01/18/2022	07/09/2022	01/18/2022
TP4-1	EMS0108-JAN22	14	01/10/2022	01/11/2022	01/18/2022	01/18/2022	07/09/2022	01/18/2022
TP4-3		15	01/10/2022	01/11/2022	01/18/2022	01/18/2022	07/09/2022	01/18/2022
TP5-1	EMS0108-JAN22	16	01/10/2022	01/11/2022	01/18/2022	01/18/2022	07/09/2022	01/18/2022
TP5-4		17	01/10/2022	01/11/2022	01/18/2022	01/18/2022	07/09/2022	01/18/2022
TP6-1		18	01/10/2022	01/11/2022	01/18/2022	01/18/2022	07/09/2022	01/18/2022
TP6-2	EMS0108-JAN22	19	01/10/2022	01/11/2022	01/18/2022	01/18/2022	07/09/2022	01/18/2022
TP6-3		20	01/10/2022	01/11/2022	01/18/2022	01/18/2022	07/09/2022	01/18/2022
TP7-1	EMS0108-JAN22	21	01/10/2022	01/11/2022	01/18/2022	01/18/2022	07/09/2022	01/18/2022
TP7-2		22	01/10/2022	01/11/2022	01/18/2022	01/18/2022	07/09/2022	01/18/2022
TP7-4		23	01/10/2022	01/11/2022	01/18/2022	01/18/2022	07/09/2022	01/18/2022
TP8-1	EMS0108-JAN22	24	01/10/2022	01/11/2022	01/18/2022	01/18/2022	07/09/2022	01/18/2022

### Moisture

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

TP1-1	GCM0113-JAN22	9	01/10/2022	01/11/2022			03/11/2022	01/13/2022
TP2-1	GCM0113-JAN22	10	01/10/2022	01/11/2022			03/11/2022	01/13/2022
TP2-3	GCM0113-JAN22	11	01/10/2022	01/11/2022			03/11/2022	01/13/2022

## HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
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### Moisture (continued)

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

TP3-1	GCM0113-JAN22	12	01/10/2022	01/11/2022			03/11/2022	01/13/2022
TP3-4	GCM0113-JAN22	13	01/10/2022	01/11/2022			03/11/2022	01/13/2022
TP4-1	GCM0113-JAN22	14	01/10/2022	01/11/2022			03/11/2022	01/13/2022
TP4-3	GCM0113-JAN22	15	01/10/2022	01/11/2022			03/11/2022	01/13/2022
TP5-1	GCM0113-JAN22	16	01/10/2022	01/11/2022			03/11/2022	01/13/2022
TP5-4	GCM0113-JAN22	17	01/10/2022	01/11/2022			03/11/2022	01/13/2022
TP6-1	GCM0113-JAN22	18	01/10/2022	01/11/2022			03/11/2022	01/13/2022
TP6-2	GCM0113-JAN22	19	01/10/2022	01/11/2022			03/11/2022	01/13/2022
TP6-3	GCM0113-JAN22	20	01/10/2022	01/11/2022			03/11/2022	01/13/2022
TP7-1	GCM0113-JAN22	21	01/10/2022	01/11/2022			03/11/2022	01/13/2022
TP7-2	GCM0113-JAN22	22	01/10/2022	01/11/2022			03/11/2022	01/13/2022
TP7-4	GCM0113-JAN22	23	01/10/2022	01/11/2022			03/11/2022	01/13/2022
TP8-1	GCM0113-JAN22	24	01/10/2022	01/11/2022			03/11/2022	01/13/2022

### Petroleum Hydrocarbons (F1)

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

TP1-1	GCM0115-JAN22	9	01/10/2022	01/11/2022			01/24/2022	01/13/2022
TP2-1		10	01/10/2022	01/11/2022			01/24/2022	01/13/2022
TP2-3		11	01/10/2022	01/11/2022			01/24/2022	01/13/2022
TP3-1		12	01/10/2022	01/11/2022			01/24/2022	01/13/2022
TP3-4		13	01/10/2022	01/11/2022			01/24/2022	01/13/2022
TP4-1		14	01/10/2022	01/11/2022			01/24/2022	01/13/2022
TP4-3		15	01/10/2022	01/11/2022			01/24/2022	01/13/2022
TP5-1		16	01/10/2022	01/11/2022			01/24/2022	01/13/2022
TP5-4	GCM0115-JAN22	17	01/10/2022	01/11/2022			01/24/2022	01/13/2022
TP6-1		18	01/10/2022	01/11/2022			01/24/2022	01/13/2022
TP6-2		19	01/10/2022	01/11/2022			01/24/2022	01/13/2022
TP6-3		20	01/10/2022	01/11/2022			01/24/2022	01/13/2022
TP7-1		21	01/10/2022	01/11/2022			01/24/2022	01/13/2022
TP7-2		22	01/10/2022	01/11/2022			01/24/2022	01/13/2022
TP7-4	GCM0115-JAN22	23	01/10/2022	01/11/2022			01/24/2022	01/13/2022
TP8-1		24	01/10/2022	01/11/2022			01/24/2022	01/13/2022

### Petroleum Hydrocarbons (F2-F4)

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

TP1-1	GCM0145-JAN22	9	01/10/2022	01/11/2022			01/24/2022	01/19/2022
TP2-1		10	01/10/2022	01/11/2022			02/19/2022	01/19/2022
TP2-3		11	01/10/2022	01/11/2022			01/24/2022	01/19/2022
TP3-1		12	01/10/2022	01/11/2022			01/24/2022	01/19/2022



## HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
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### Petroleum Hydrocarbons (F2-F4) (continued)

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

TP3-4		13	01/10/2022	01/11/2022			01/24/2022	01/19/2022
TP4-1		14	01/10/2022	01/11/2022			01/24/2022	01/19/2022
TP4-3		15	01/10/2022	01/11/2022			02/19/2022	01/19/2022
TP5-1		16	01/10/2022	01/11/2022			01/24/2022	01/19/2022
TP5-4	GCM0145-JAN22	17	01/10/2022	01/11/2022			01/24/2022	01/19/2022
TP6-1		18	01/10/2022	01/11/2022			01/24/2022	01/19/2022
TP6-2		19	01/10/2022	01/11/2022			02/19/2022	01/19/2022
TP6-3		20	01/10/2022	01/11/2022			02/19/2022	01/19/2022
TP7-1		21	01/10/2022	01/11/2022			01/24/2022	01/19/2022
TP7-2		22	01/10/2022	01/11/2022			01/24/2022	01/19/2022
TP7-4	GCM0145-JAN22	23	01/10/2022	01/11/2022			02/19/2022	01/19/2022
TP8-1		24	01/10/2022	01/11/2022			02/19/2022	01/19/2022

### pH

Method: SM 4500 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-001

TP1-1	ARD0059-JAN22	9	01/10/2022	01/11/2022	01/12/2022	01/12/2022	02/09/2022	01/12/2022
TP2-1	ARD0059-JAN22	10	01/10/2022	01/11/2022	01/12/2022	01/12/2022	02/09/2022	01/12/2022
TP2-3	ARD0059-JAN22	11	01/10/2022	01/11/2022	01/12/2022	01/12/2022	02/09/2022	01/12/2022
TP3-1	ARD0059-JAN22	12	01/10/2022	01/11/2022	01/12/2022	01/12/2022	02/09/2022	01/12/2022
TP3-4	ARD0059-JAN22	13	01/10/2022	01/11/2022	01/12/2022	01/12/2022	02/09/2022	01/12/2022
TP4-1	ARD0059-JAN22	14	01/10/2022	01/11/2022	01/12/2022	01/12/2022	02/09/2022	01/12/2022
TP4-3	ARD0059-JAN22	15	01/10/2022	01/11/2022	01/12/2022	01/12/2022	02/09/2022	01/12/2022
TP5-1	ARD0059-JAN22	16	01/10/2022	01/11/2022	01/12/2022	01/12/2022	02/09/2022	01/12/2022
TP5-4		17	01/10/2022	01/11/2022	01/12/2022	01/12/2022	02/09/2022	01/12/2022
TP6-1		18	01/10/2022	01/11/2022	01/12/2022	01/12/2022	02/09/2022	01/12/2022
TP6-2	ARD0059-JAN22	19	01/10/2022	01/11/2022	01/12/2022	01/12/2022	02/09/2022	01/12/2022
TP6-3		20	01/10/2022	01/11/2022	01/12/2022	01/12/2022	02/09/2022	01/12/2022
TP7-1	ARD0059-JAN22	21	01/10/2022	01/11/2022	01/12/2022	01/12/2022	02/09/2022	01/12/2022
TP7-2		22	01/10/2022	01/11/2022	01/12/2022	01/12/2022	02/09/2022	01/12/2022
TP7-4		23	01/10/2022	01/11/2022	01/12/2022	01/12/2022	02/09/2022	01/12/2022
TP8-1	ARD0059-JAN22	24	01/10/2022	01/11/2022	01/12/2022	01/12/2022	02/09/2022	01/12/2022

### Semi-Volatile Organics

Method: EPA 3541/8270D | Internal ref.: ME-CA-[ENV]GC-LAK-AN-005

TP1-1	GCM0103-JAN22	9	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/14/2022
TP2-1	GCM0103-JAN22	10	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/14/2022
TP2-3		11	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/14/2022
TP3-1	GCM0103-JAN22	12	01/10/2022	01/11/2022	01/12/2022	01/12/2022	03/11/2022	01/14/2022
TP3-4		13	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/14/2022

## HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
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### Semi-Volatile Organics (continued)

Method: EPA 3541/8270D | Internal ref.: ME-CA-[ENV]GC-LAK-AN-005

TP4-1	GCM0103-JAN22	14	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/14/2022
TP4-3		15	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/14/2022
TP5-1	GCM0103-JAN22	16	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/14/2022
TP5-4		17	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/14/2022
TP6-1	GCM0103-JAN22	18	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/14/2022
TP6-2		19	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/14/2022
TP6-3		20	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/14/2022
TP7-1		21	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/14/2022
TP7-2	GCM0103-JAN22	22	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/14/2022
TP7-4		23	01/10/2022	01/11/2022	01/12/2022	01/12/2022	03/11/2022	01/14/2022
TP8-1	GCM0103-JAN22	24	01/10/2022	01/11/2022	01/12/2022	01/12/2022	03/11/2022	01/14/2022

### Sodium adsorption ratio (SAR)

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-[ENV]JARD-LAK-AN-021

TP1-1		9	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP2-1		10	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP2-3		11	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP3-1		12	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP3-4		13	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP4-1		14	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP4-3		15	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP5-1		16	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP5-4		17	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP6-1		18	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP6-2		19	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP6-3		20	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP7-1		21	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP7-2		22	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP7-4		23	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022
TP8-1		24	01/10/2022	01/11/2022	01/13/2022	01/13/2022	07/09/2022	01/13/2022

### Volatile Organics

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-[ENV]GC-LAK-AN-004

TP1-1	GCM0114-JAN22	9	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/13/2022
TP2-1		10	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/13/2022
TP2-3		11	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/13/2022
TP3-1		12	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/13/2022
TP3-4		13	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/13/2022
TP4-1		14	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/13/2022

## HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
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### Volatile Organics (continued)

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-[ENV]GC-LAK-AN-004

TP4-3		15	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/13/2022
TP5-1		16	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/13/2022
TP5-4	GCM0114-JAN22	17	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/13/2022
TP6-1		18	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/13/2022
TP6-2		19	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/13/2022
TP6-3		20	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/13/2022
TP7-1		21	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/13/2022
TP7-2		22	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/13/2022
TP7-4	GCM0114-JAN22	23	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/13/2022
TP8-1		24	01/10/2022	01/11/2022	01/12/2022	01/12/2022	01/24/2022	01/13/2022

### Water Soluble Boron

Method: O.Reg. 15 3/04 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-003

TP1-1	ESG0032-JAN22	9	01/10/2022	01/11/2022	01/17/2022	01/17/2022	07/09/2022	01/17/2022
TP2-1	ESG0032-JAN22	10	01/10/2022	01/11/2022	01/17/2022	01/17/2022	07/09/2022	01/17/2022
TP2-3		11	01/10/2022	01/11/2022	01/17/2022	01/17/2022	07/09/2022	01/17/2022
TP3-1	ESG0032-JAN22	12	01/10/2022	01/11/2022	01/17/2022	01/17/2022	07/09/2022	01/17/2022
TP3-4		13	01/10/2022	01/11/2022	01/17/2022	01/17/2022	07/09/2022	01/17/2022
TP4-1	ESG0032-JAN22	14	01/10/2022	01/11/2022	01/17/2022	01/17/2022	07/09/2022	01/17/2022
TP4-3		15	01/10/2022	01/11/2022	01/17/2022	01/17/2022	07/09/2022	01/17/2022
TP5-1	ESG0032-JAN22	16	01/10/2022	01/11/2022	01/17/2022	01/17/2022	07/09/2022	01/17/2022
TP5-4		17	01/10/2022	01/11/2022	01/17/2022	01/17/2022	07/09/2022	01/17/2022
TP6-1		18	01/10/2022	01/11/2022	01/17/2022	01/17/2022	07/09/2022	01/17/2022
TP6-2	ESG0032-JAN22	19	01/10/2022	01/11/2022	01/17/2022	01/17/2022	07/09/2022	01/17/2022
TP6-3		20	01/10/2022	01/11/2022	01/17/2022	01/17/2022	07/09/2022	01/17/2022
TP7-1	ESG0032-JAN22	21	01/10/2022	01/11/2022	01/17/2022	01/17/2022	07/09/2022	01/17/2022
TP7-2		22	01/10/2022	01/11/2022	01/17/2022	01/17/2022	07/09/2022	01/17/2022
TP7-4		23	01/10/2022	01/11/2022	01/17/2022	01/17/2022	07/09/2022	01/17/2022
TP8-1	ESG0032-JAN22	24	01/10/2022	01/11/2022	01/17/2022	01/17/2022	07/09/2022	01/17/2022

## QC SUMMARY

### Conductivity

Method: EPA 6010/SM 2510 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Conductivity	EWL0167-JAN22	mS/cm	0.002	<0.002	0	10	99	90	110	NA		

### Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-IENVISFA-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Free Cyanide	SKA5029-JAN22	µg/g	0.05	<0.05	ND	20	105	80	120	79	75	125

### Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-IENVISKA-LAK-AN-012

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Chromium VI	SKA5044-JAN22	ug/g	0.2	<0.2	ND	20	103	80	120	98	75	125



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## QC SUMMARY

### Mercury by CVAAS

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-IENVISPE-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Mercury	EMS0108-JAN22	ug/g	0.05	<0.05	ND	20	94	80	120	96	70	130

### Metals in aqueous samples - ICP-OES

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-IENVISPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
SAR Calcium	ESG0026-JAN22	mg/L	0.2	<0.09	1	20	104	80	120	NV	70	130
SAR Magnesium	ESG0026-JAN22	mg/L	0.3	<0.02	9	20	103	80	120	NV	70	130
SAR Sodium	ESG0026-JAN22	mg/L	0.1	<0.15	4	20	98	80	120	NV	70	130

## QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0108-JAN22	ug/g	0.05	<0.05	ND	20	97	70	130	106	70	130
Arsenic	EMS0108-JAN22	µg/g	0.5	<0.5	2	20	92	70	130	106	70	130
Barium	EMS0108-JAN22	ug/g	0.1	<0.1	0	20	102	70	130	93	70	130
Beryllium	EMS0108-JAN22	µg/g	0.02	<0.02	1	20	95	70	130	101	70	130
Boron	EMS0108-JAN22	µg/g	1	<1	2	20	100	70	130	98	70	130
Cadmium	EMS0108-JAN22	ug/g	0.05	<0.05	9	20	95	70	130	105	70	130
Cobalt	EMS0108-JAN22	µg/g	0.01	<0.01	3	20	94	70	130	112	70	130
Chromium	EMS0108-JAN22	µg/g	0.5	<0.5	1	20	93	70	130	110	70	130
Copper	EMS0108-JAN22	µg/g	0.1	<0.1	1	20	97	70	130	108	70	130
Molybdenum	EMS0108-JAN22	µg/g	0.1	<0.1	3	20	94	70	130	95	70	130
Nickel	EMS0108-JAN22	ug/g	0.5	<0.5	1	20	99	70	130	110	70	130
Lead	EMS0108-JAN22	ug/g	0.1	<0.1	2	20	100	70	130	101	70	130
Antimony	EMS0108-JAN22	µg/g	0.8	<0.8	ND	20	106	70	130	121	70	130
Selenium	EMS0108-JAN22	µg/g	0.7	<0.7	ND	20	92	70	130	100	70	130
Thallium	EMS0108-JAN22	µg/g	0.02	<0.02	7	20	99	70	130	105	70	130
Uranium	EMS0108-JAN22	µg/g	0.002	<0.002	1	20	94	70	130	126	70	130
Vanadium	EMS0108-JAN22	µg/g	3	<3	0	20	94	70	130	109	70	130
Zinc	EMS0108-JAN22	µg/g	0.7	<0.7	1	20	96	70	130	109	70	130



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## QC SUMMARY

### Petroleum Hydrocarbons (F1)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F1 (C6-C10)	GCM0115-JAN22	µg/g	10	<10	ND	30	107	80	120	92	60	140

### Petroleum Hydrocarbons (F2-F4)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F2 (C10-C16)	GCM0145-JAN22	µg/g	10	<10	ND	30	110	80	120	91	60	140
F3 (C16-C34)	GCM0145-JAN22	µg/g	50	<50	11	30	110	80	120	91	60	140
F4 (C34-C50)	GCM0145-JAN22	µg/g	50	<50	68	30	110	80	120	91	60	140

## QC SUMMARY

### pH

Method: SM 4500 | Internal ref.: ME-CA-ENVIEWL-LAK-AN-001

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
pH	ARD0059-JAN22	pH Units	0.05		1	20	100	80	120			



## QC SUMMARY

### Semi-Volatile Organics

Method: EPA 3541/8270D | Internal ref.: ME-CA-IENVIGC-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1-Methylnaphthalene	GCM0103-JAN22	µg/g	0.05	< 0.05	ND	40	91	50	140	89	50	140
2-Methylnaphthalene	GCM0103-JAN22	µg/g	0.05	< 0.05	ND	40	87	50	140	85	50	140
Acenaphthene	GCM0103-JAN22	µg/g	0.05	< 0.05	ND	40	96	50	140	93	50	140
Acenaphthylene	GCM0103-JAN22	µg/g	0.05	< 0.05	ND	40	89	50	140	87	50	140
Anthracene	GCM0103-JAN22	µg/g	0.05	< 0.05	ND	40	92	50	140	88	50	140
Benzo(a)anthracene	GCM0103-JAN22	µg/g	0.05	< 0.05	ND	40	91	50	140	88	50	140
Benzo(a)pyrene	GCM0103-JAN22	µg/g	0.05	< 0.05	ND	40	83	50	140	80	50	140
Benzo(b+j)fluoranthene	GCM0103-JAN22	µg/g	0.05	< 0.05	ND	40	87	50	140	84	50	140
Benzo(ghi)perylene	GCM0103-JAN22	µg/g	0.1	< 0.1	ND	40	89	50	140	84	50	140
Benzo(k)fluoranthene	GCM0103-JAN22	µg/g	0.05	< 0.05	ND	40	89	50	140	86	50	140
Chrysene	GCM0103-JAN22	µg/g	0.05	< 0.05	ND	40	94	50	140	90	50	140
Dibenzo(a,h)anthracene	GCM0103-JAN22	µg/g	0.06	< 0.06	ND	40	87	50	140	83	50	140
Fluoranthene	GCM0103-JAN22	µg/g	0.05	< 0.05	ND	40	92	50	140	89	50	140
Fluorene	GCM0103-JAN22	µg/g	0.05	< 0.05	ND	40	94	50	140	91	50	140
Indeno(1,2,3-cd)pyrene	GCM0103-JAN22	µg/g	0.1	< 0.1	ND	40	90	50	140	85	50	140
Naphthalene	GCM0103-JAN22	µg/g	0.05	< 0.05	ND	40	92	50	140	90	50	140
Phenanthrene	GCM0103-JAN22	µg/g	0.05	< 0.05	ND	40	92	50	140	89	50	140
Pyrene	GCM0103-JAN22	µg/g	0.05	< 0.05	ND	40	94	50	140	90	50	140

## QC SUMMARY

### Volatile Organics

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-IENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1,1,1,2-Tetrachloroethane	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	93	60	130	93	50	140
1,1,1-Trichloroethane	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	91	60	130	91	50	140
1,1,2,2-Tetrachloroethane	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	93	60	130	97	50	140
1,1,2-Trichloroethane	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	95	60	130	97	50	140
1,1-Dichloroethane	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	85	60	130	97	50	140
1,1-Dichloroethylene	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	88	60	130	92	50	140
1,2-Dichlorobenzene	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	93	60	130	94	50	140
1,2-Dichloroethane	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	90	60	130	92	50	140
1,2-Dichloropropane	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	90	60	130	94	50	140
1,3-Dichlorobenzene	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	93	60	130	93	50	140
1,4-Dichlorobenzene	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	92	60	130	92	50	140
Acetone	GCM0114-JAN22	µg/g	0.5	< 0.5	18	50	94	50	140	103	50	140
Benzene	GCM0114-JAN22	µg/g	0.02	< 0.02	ND	50	91	60	130	92	50	140
Bromodichloromethane	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	90	60	130	89	50	140
Bromoform	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	91	60	130	87	50	140
Bromomethane	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	85	50	140	79	50	140
Carbon tetrachloride	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	90	60	130	88	50	140
Chlorobenzene	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	91	60	130	93	50	140
Chloroform	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	92	60	130	93	50	140
cis-1,2-Dichloroethylene	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	91	60	130	92	50	140

QC SUMMARY

Volatile Organics (continued)

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-IENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
cis-1,3-dichloropropene	GCM0114-JAN22	µg/g	0.03	< 0.03	ND	50	90	60	130	86	50	140
Dibromochloromethane	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	91	60	130	89	50	140
Dichlorodifluoromethane	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	63	50	140	49	50	140
Ethylbenzene	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	91	60	130	92	50	140
Ethylenedibromide	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	92	60	130	92	50	140
n-Hexane	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	88	60	130	74	50	140
m/p-xylene	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	89	60	130	90	50	140
Methyl ethyl ketone	GCM0114-JAN22	µg/g	0.5	< 0.5	ND	50	93	50	140	101	50	140
Methyl isobutyl ketone	GCM0114-JAN22	µg/g	0.5	< 0.5	ND	50	92	50	140	99	50	140
Methyl-t-butyl Ether	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	96	60	130	102	50	140
Methylene Chloride	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	89	60	130	95	50	140
o-xylene	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	93	60	130	94	50	140
Styrene	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	91	60	130	93	50	140
Tetrachloroethylene	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	90	60	130	87	50	140
Toluene	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	90	60	130	90	50	140
trans-1,2-Dichloroethylene	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	89	60	130	93	50	140
trans-1,3-dichloropropene	GCM0114-JAN22	µg/g	0.03	< 0.03	ND	50	91	60	130	85	50	140
Trichloroethylene	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	89	60	130	87	50	140
Trichlorofluoromethane	GCM0114-JAN22	µg/g	0.05	< 0.05	ND	50	87	50	140	98	50	140
Vinyl Chloride	GCM0114-JAN22	µg/g	0.02	< 0.02	ND	50	80	50	140	78	50	140

## QC SUMMARY

### Water Soluble Boron

Method: O.Reg. 15 3/04 | Internal ref.: ME-CA-IENV1 SPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Water Soluble Boron	ESG0032-JAN22	µg/g	0.5	<0.5	ND	20	110	80	120	103	70	130

**Method Blank:** a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

**Duplicate:** Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

**LCS/Spike Blank:** Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

**Matrix Spike:** A sample to which a known amount of the analyte of interest has been added. Used to evaluate laboratory accuracy with sample matrix effects.

**Reference Material:** a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

**Multielement Scan Qualifier:** as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

**Duplicate Qualifier:** for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

**Matrix Spike Qualifier:** for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

**LEGEND****FOOTNOTES**

**NSS** Insufficient sample for analysis.  
**RL** Reporting Limit.  
    ↑ Reporting limit raised.  
    ↓ Reporting limit lowered.  
**NA** The sample was not analysed for this analyte  
**ND** Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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-- End of Analytical Report --

## Request for Laboratory Services and CHAIN OF CUSTODY

Received By: ED Wetmore

Received By (signature): [Signature]

Received Date: 1/11/22 (mm/dd/yy)

Project #: 22-012-100

LAB LIMS #: CA 40064- JAN22

Received Time: 11:45 (hr : min)

Custody Seal Present: Yes  No

Cooling Agent Present: Yes  No

Temperature Upon Receipt (°C): 5.8

Site Location ID: 3056 Neyaigawa Blvd

### REPORT INFORMATION

### INVOICE INFORMATION

Company: BS CONSULTANTS

Company: (same as Report Information)

Contact: Kristin Olsen

Contact: BS ACCOUNTANT

Address: 0221 Hwy 7

Address: \_\_\_\_\_

Phone: 905 244 UNITE.

Phone: \_\_\_\_\_

Fax: 905 244 UNITE.

Phone: \_\_\_\_\_

Email: kristin.olsen@bsconsultants.ca

Email: \_\_\_\_\_

REGULATIONS

O.Reg 153/04  O.Reg 406/19

Table 1  Res/Park  Soil Texture:

Table 2  Ind/Com  Coarse

Table 3  Agri/Other  Medium/Fine

Table  Appx. \_\_\_\_\_

Soil Volume  <350m3  >350m3

Other Regulations:  Reg 347/558 (3 Day min TAT)

PWOO  MMER

CGME  Other: \_\_\_\_\_

MISA \_\_\_\_\_

ODWS Not Reportable - See note

Sewer By-Law:  Sanitary  Storm

Municipality: \_\_\_\_\_

RECORD OF SITE CONDITION (RSC)  YES  NO

Quotation #: \_\_\_\_\_

Regular TAT (5-7 days)

RUSH TAT (Additional Charges May Apply):  1 Day  2 Days  3 Days  4 Days

PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION

Specify Due Date: \_\_\_\_\_

NOTE: DRINKING (PORTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

### ANALYSIS REQUESTED

M & I

SVOC

PCB

PHC

VOC

Pest

Other (please specify): ORP, pH

Sewer Use:  General  Extended

Water Characterization Pkg:  I-A  I-B  I-C  I-D  I-E  I-F  I-G  I-H  I-I  I-J  I-K  I-L  I-M  I-N  I-O  I-P  I-Q  I-R  I-S  I-T  I-U  I-V  I-W  I-X  I-Y  I-Z

SPLP  TCLP

Specify tests:  Metals  Inorganics  Full Metals Suite  ICP Metals only  PAHs only  SVOCs  PCBs  F1-F4 + BTEX  F1-F4 only  VOCs  BTEX only  Pesticides

Specify tests:  Metals  Inorganics  Full Metals Suite  ICP Metals only  PAHs only  SVOCs  PCBs  F1-F4 + BTEX  F1-F4 only  VOCs  BTEX only  Pesticides

DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX
TP1-1	Jan 10 2022	4	Soil
TP2-1			
TP2-3			
TP3-1			
TP3-4			
TP4-1			
TP4-3			
TP5-1			
TP5-4			
TP6-1			
TP6-2			
TP6-3			

Field Filtered (Y/N)	Metals & Inorganics	Full Metals Suite	ICP Metals only	PAHs only	SVOCs	PCBs	F1-F4 + BTEX	F1-F4 only	VOCs	BTEX only	Pesticides	Other	Sewer Use	Water Characterization Pkg	SPLP	TCLP	COMMENTS:
X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	
X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	

## Request for Laboratory Services and CHAIN OF CUSTODY

No: \_\_\_\_\_

Page 1 of 2

Received By: ED WETTER

Received By (signature): [Signature]

LABORATORY INFORMATION SECTION - Lab use only

Received Date: 12-11-22 (mm/dd/yy)  
 Received Time: 12:46 (hr: min)

Cooling Agent Present: Yes  No   
 Custody Seal Present: Yes  No   
 Temperature Upon Receipt (°C): 5 x 3 Type: Ice

Custody Seal Intact: Yes  No   
 LAB LIMS #: \_\_\_\_\_

### REPORT INFORMATION

Company: DS Consultants

### INVOICE INFORMATION

(same as Report Information)

Contact: elunage.khumbah@dsconsultants.ca

Company: DS Consultants

Address: 6221 Hwy 7, Unit 16, Vaughan, Ontario

Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_

Phone: 905 204 9493

Phone: \_\_\_\_\_

Fax: Kristin.Alsin@dsconsultants.ca

Phone: \_\_\_\_\_

Email: elunage.khumbah@dsconsultants.ca

Email: accounting@dsconsultants.ca

### REGULATIONS

Other Regulations: \_\_\_\_\_

Regulation 153/04:  Reas/Park  Soil Texture: \_\_\_\_\_

Reg 347/558 (3 Day min TAT)  PWOC  MMER  Other: \_\_\_\_\_

Table 1  Ind/Com  Coarse  Medium/  Fine

Sewer By-Law:  Sanitary  Storm  Municipality: \_\_\_\_\_

### RECORD OF SITE CONDITION (RSC)

YES  NO

	SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX
1	TP 2 -1	Jan 10	9:11		Soil
2	TP 2 -2				
3	TP 2 -4				
4	TP 8 -1				
5					
6					
7					
8					
9					
10					
11					
12					

Observations/Comments/Special Instructions

Sampled By (NAME): [Signature]

Signature: [Signature]

Date: Jan 10 2022 (mm/dd/yy)

Print Copy - Client

Relinquished by (NAME): [Signature]

Signature: [Signature]

Date: Jan 10 2022 (mm/dd/yy)

Yellow & White Copy - SGS

Revision # 1.3  
 Date of Issue: 13 Oct. 2019  
 Note: Submission of samples to SGS is acknowledgment that you have been provided direction on sample collection, handling and transportation of samples. (2) Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). (3) Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under the General Conditions of Service accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). (Printed copies are available upon request.) Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Quotation #: \_\_\_\_\_  
 Project #: 22-012-100  
 P.O. #: \_\_\_\_\_  
 Site Location/ID: 7056 Newmarket Blvd  
 TURNAROUND TIME (TAT) REQUIRED  
 TAT's are quoted in business days (exclude statutory holidays & weekends).  
 Samples received after 6pm or on weekends: TAT begins next business day  
 Regular TAT (5-7 days)  
 RUSH TAT (Additional Charges May Apply):  1 Day  2 Days  3 Days  4 Days  
 PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION  
 NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY  
 Specify Due Date: \_\_\_\_\_

### ANALYSIS REQUESTED

M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)	TCLP
Field Filtered (Y/N)							
Metals & Inorganics incl CrVI, CN, Hg, pH, B(HWS), EC, SAR, soil) (Cl, Na-water)							
Full Metals Suite ICP metals plus B(HWS-soil only) Hg, CrVI							
ICP Metals only Sr, As, Ba, Be, B, Cd, Cr, Co, Cu, Pb, Mo, Ni, Ag, Tl, U, V, Zn							
PAHs only							
SVOCs all incl PAHs, ABNs, CPs							
PCBs Total <input type="checkbox"/> Aroclor <input type="checkbox"/>							
F1-F4 + BTEX							
F1-F4 only no BTEX							
VOCs all incl BTEX							
BTEX only							
Pesticides Organochlorine or specify other							
Sewer Use: Specify pkg:							
Water Characterization Pkg General <input type="checkbox"/> Extended <input type="checkbox"/>							
Specify TCLP tests MAL VOC PCB B(a)P ABN pH/L							

### COMMENTS:



## FINAL REPORT

CA40197-JUN23 R

22-012-101, 3056 Neyagawa Blvd, Oakville

Prepared for

**DS Consultants**



**First Page**

**CLIENT DETAILS**

**LABORATORY DETAILS**

Client	DS Consultants	Project Specialist	Jill Campbell, B.Sc.,GISAS
Address	6221 Highway 7 Unit 6 Vaughan, Ontario L4H 0K8, Canada	Laboratory	SGS Canada Inc.
Contact	Fahmida Anwar	Address	185 Concession St., Lakefield ON, K0L 2H0
Telephone	647-879-3866	Telephone	2165
Facsimile		Facsimile	705-652-6365
Email	fanwar@dsconsultants.ca	Email	jill.campbell@sgs.com
Project	22-012-101, 3056 Neyagawa Blvd, Oakville	SGS Reference	CA40197-JUN23
Order Number		Received	06/20/2023
Samples	Soil (17)	Approved	06/29/2023
		Report Number	CA40197-JUN23 R
		Date Reported	06/29/2023

**COMMENTS**

CCME Method Compliance: Analyses were conducted using analytical procedures that comply with the Reference Method for the CWS for Petroleum Hydrocarbons in Soil and have been validated for use at the SGS laboratory, Lakefield, ON site.

Quality Compliance: Instrument performance / calibration quality criteria were met and extraction and analysis limits for holding times were met.

nC6 and nC10 response factors within 30% of response factor for toluene: YES

nC10, nC16 and nC34 response factors within 10% of the average response for the three compounds: YES

C50 response factors within 70% of nC10 + nC16 + nC34 average: YES

Linearity is within 15%: YES.

Hydrocarbon results are expressed on a dry weight basis.

Benzo(b)fluoranthene results for comparison to the standard are reported as benzo(b+j)fluoranthene. Benzo(b)fluoranthene and benzo(j)fluoranthene co-elute and cannot be reported individually by the analytical method used.

Temperature of Sample upon Receipt: 5 degrees C

Cooling Agent Present:yes

Custody Seal Present:yes

Chain of Custody Number:NA

BH23-17 SS1: TCMX surrogate was slightly low for pesticide analysis, which is likely due to sample matrix. Decachlorobiphenyl surrogate was fine.

**SIGNATORIES**

Jill Campbell, B.Sc.,GISAS





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# FINAL REPORT

CA40197-JUN23 R

**Client:** DS Consultants

**Project:** 22-012-101, 3056 Neyagawa Blvd, Oakville

**Project Manager:** Fahmida Anwar

**Samplers:** Fahmida Anwar

MATRIX: SOIL

	Sample Number	9	10	11	12	13	14	15	16
	<b>Sample Name</b>	BH23-15 SS1	BH23-15 SS2	BH23-16 SS1	BH23-16 SS2	BH23-17 SS1	BH23-17 SS2	BH23-17 SS3	BH23-18 SS1
	<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	<b>Sample Date</b>	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
<b>BTEX</b>												
Benzene	µg/g	0.02	0.32	0.21	---	< 0.02	---	< 0.02	---	---	< 0.02	---
Ethylbenzene	µg/g	0.05	1.1	1.1	---	< 0.05	---	< 0.05	---	---	< 0.05	---
Toluene	µg/g	0.05	6.4	2.3	---	< 0.05	---	< 0.05	---	---	< 0.05	---
Xylene (total)	µg/g	0.05	26	3.1	---	< 0.05	---	< 0.05	---	---	< 0.05	---
m/p-xylene	µg/g	0.05			---	< 0.05	---	< 0.05	---	---	< 0.05	---
o-xylene	µg/g	0.05			---	< 0.05	---	< 0.05	---	---	< 0.05	---

## Hydrides

Antimony	µg/g	0.8	40	7.5	< 0.8	---	< 0.8	---	< 0.8	---	---	< 0.8
Arsenic	µg/g	0.5	18	18	5.9	---	7.0	---	4.4	---	---	5.8
Selenium	µg/g	0.1	5.5	2.4	0.2	---	0.3	---	0.4	---	---	0.2

## Metals and Inorganics

Moisture Content	%	no			13.2	15.4	16.9	12.5	15.3	10.0	10.1	10.9
Barium	µg/g	0.1	670	390	120	---	89	---	94	---	---	100
Beryllium	µg/g	0.02	8	4	0.95	---	0.77	---	0.76	---	---	0.89
Boron	µg/g	1	120	120	8	---	11	---	4	---	---	8
Cadmium	µg/g	0.05	1.9	1.2	0.19	---	0.24	---	0.17	---	---	0.13
Chromium	µg/g	0.5	160	160	23	---	19	---	21	---	---	23
Cobalt	µg/g	0.01	80	22	13	---	10	---	12	---	---	13
Copper	µg/g	0.1	230	140	27	---	96	---	19	---	---	29
Lead	µg/g	0.1	120	120	19	---	51	---	18	---	---	15
Molybdenum	µg/g	0.1	40	6.9	0.6	---	1.1	---	0.7	---	---	0.6



# FINAL REPORT

CA40197-JUN23 R

**Client:** DS Consultants

**Project:** 22-012-101, 3056 Neyagawa Blvd, Oakville

**Project Manager:** Fahmida Anwar

**Samplers:** Fahmida Anwar

MATRIX: SOIL

	Sample Number	9	10	11	12	13	14	15	16
	<b>Sample Name</b>	BH23-15 SS1	BH23-15 SS2	BH23-16 SS1	BH23-16 SS2	BH23-17 SS1	BH23-17 SS2	BH23-17 SS3	BH23-18 SS1
	<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	<b>Sample Date</b>	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
<b>Metals and Inorganics (continued)</b>												
Nickel	µg/g	0.5	270	100	31	---	23	---	20	---	---	29
Silver	µg/g	0.05	40	20	< 0.05	---	0.07	---	< 0.05	---	---	< 0.05
Thallium	µg/g	0.02	3.3	1	0.18	---	0.13	---	0.16	---	---	0.19
Uranium	µg/g	0.002	33	23	0.56	---	0.77	---	0.59	---	---	0.58
Vanadium	µg/g	3	86	86	31	---	29	---	32	---	---	30
Zinc	µg/g	0.7	340	340	62	---	79	---	55	---	---	61
Water Soluble Boron	µg/g	0.5	2	1.5	< 0.5	---	< 0.5	---	< 0.5	---	---	< 0.5

### Organochlorine Pests (OCs)

Aldrin	µg/g	0.05	0.088	0.05	< 0.05	---	---	---	< 0.05	---	---	< 0.05
alpha-Chlordane	µg/g	0.02			< 0.02	---	---	---	< 0.02	---	---	< 0.02
gamma-Chlordane	µg/g	0.02			< 0.02	---	---	---	< 0.02	---	---	< 0.02
Chlordane (total)	µg/g	0.05	0.05	0.05	< 0.05	---	---	---	< 0.05	---	---	< 0.05
o,p-DDD	µg/g	0.02			< 0.02	---	---	---	< 0.02	---	---	< 0.02
pp-DDD	µg/g	0.02			< 0.02	---	---	---	< 0.02	---	---	< 0.02
DDD (total)	µg/g	0.05	4.6	3.3	< 0.05	---	---	---	< 0.05	---	---	< 0.05
o,p-DDE	µg/g	0.02			< 0.02	---	---	---	< 0.02	---	---	< 0.02
pp-DDE	µg/g	0.02			< 0.02	---	---	---	< 0.02	---	---	< 0.02
DDE (total)	µg/g	0.05	0.52	0.26	< 0.05	---	---	---	< 0.05	---	---	< 0.05
op-DDT	µg/g	0.02			< 0.02	---	---	---	< 0.02	---	---	< 0.02
pp-DDT	µg/g	0.02			< 0.02	---	---	---	< 0.02	---	---	< 0.02
DDT (total)	µg/g	0.05	1.4	1.4	< 0.05	---	---	---	< 0.05	---	---	< 0.05
Dieldrin	µg/g	0.05	0.088	0.05	< 0.05	---	---	---	< 0.05	---	---	< 0.05



# FINAL REPORT

CA40197-JUN23 R

**Client:** DS Consultants

**Project:** 22-012-101, 3056 Neyagawa Blvd, Oakville

**Project Manager:** Fahmida Anwar

**Samplers:** Fahmida Anwar

MATRIX: SOIL

	Sample Number	9	10	11	12	13	14	15	16
	<b>Sample Name</b>	BH23-15 SS1	BH23-15 SS2	BH23-16 SS1	BH23-16 SS2	BH23-17 SS1	BH23-17 SS2	BH23-17 SS3	BH23-18 SS1
	<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	<b>Sample Date</b>	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
<b>Organochlorine Pests (OCs) (continued)</b>												
gamma-BHC	µg/g	0.01	0.056	0.056	< 0.01	---	---	---	< 0.01	---	---	< 0.01
Endosulfan I	µg/g	0.02			< 0.02	---	---	---	< 0.02	---	---	< 0.02
Endosulfan II	µg/g	0.02			< 0.02	---	---	---	< 0.02	---	---	< 0.02
Endosulfan (total)	µg/g	0.04	0.3	0.04	< 0.04	---	---	---	< 0.04	---	---	< 0.04
Endrin	µg/g	0.04	0.04	0.04	< 0.04	---	---	---	< 0.04	---	---	< 0.04
Heptachlor	µg/g	0.01	0.19	0.15	< 0.01	---	---	---	< 0.01	---	---	< 0.01
Heptachlor epoxide	µg/g	0.01	0.05	0.05	< 0.01	---	---	---	< 0.01	---	---	< 0.01
Hexachlorobenzene	µg/g	0.01	0.66	0.52	< 0.01	---	---	---	< 0.01	---	---	< 0.01
Hexachlorobutadiene	µg/g	0.01	0.031	0.012	< 0.01	---	---	---	< 0.01	---	---	< 0.01
Hexachloroethane	µg/g	0.01	0.21	0.089	< 0.01	---	---	---	< 0.01	---	---	< 0.01
Methoxychlor	µg/g	0.05	1.6	0.13	< 0.05	---	---	---	< 0.05	---	---	< 0.05

**Other (ORP)**

Mercury	ug/g	0.05	3.9	0.27	< 0.05	---	< 0.05	---	< 0.05	---	---	< 0.05
Sodium Adsorption Ratio	No unit	0.2	12	5	0.3	---	< 0.2	---	< 0.2	---	---	< 0.2
SAR Calcium	mg/L	0.2			15.4	---	37.4	---	30.2	---	---	35.9
SAR Magnesium	mg/L	0.3			1.7	---	3.6	---	3.1	---	---	3.0
SAR Sodium	mg/L	0.1			3.9	---	2.4	---	3.0	---	---	3.2
Conductivity	mS/cm	0.002	1.4	0.7	0.11	---	0.22	---	0.19	---	---	0.21
pH	pH Units	0.05			7.26	---	7.48	---	6.87	---	---	7.12
Chromium VI	µg/g	0.2	8	8	0.3	---	< 0.2	---	0.9	---	---	< 0.2
Free Cyanide	µg/g	0.05	0.051	0.051	< 0.05	---	< 0.05	---	< 0.05	---	---	< 0.05



# FINAL REPORT

CA40197-JUN23 R

**Client:** DS Consultants

**Project:** 22-012-101, 3056 Neyagawa Blvd, Oakville

**Project Manager:** Fahmida Anwar

**Samplers:** Fahmida Anwar

MATRIX: SOIL

	Sample Number	9	10	11	12	13	14	15	16
	Sample Name	BH23-15 SS1	BH23-15 SS2	BH23-16 SS1	BH23-16 SS2	BH23-17 SS1	BH23-17 SS2	BH23-17 SS3	BH23-18 SS1
	Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
<b>PAHs</b>												
Acenaphthene	µg/g	0.05	21	7.9	---	< 0.05	< 0.05	---	---	< 0.05	---	---
Acenaphthylene	µg/g	0.05	0.15	0.15	---	< 0.05	< 0.05	---	---	< 0.05	---	---
Anthracene	µg/g	0.05	0.67	0.67	---	< 0.05	< 0.05	---	---	< 0.05	---	---
Benzo(a)anthracene	µg/g	0.05	0.96	0.5	---	< 0.05	0.12	---	---	< 0.05	---	---
Benzo(a)pyrene	µg/g	0.05	0.3	0.3	---	< 0.05	0.14	---	---	< 0.05	---	---
Benzo(b+j)fluoranthene	µg/g	0.05	0.96	0.78	---	< 0.05	0.16	---	---	< 0.05	---	---
Benzo(ghi)perylene	µg/g	0.1	9.6	6.6	---	< 0.1	< 0.1	---	---	< 0.1	---	---
Benzo(k)fluoranthene	µg/g	0.05	0.96	0.78	---	< 0.05	0.06	---	---	< 0.05	---	---
Chrysene	µg/g	0.05	9.6	7	---	< 0.05	0.12	---	---	< 0.05	---	---
Dibenzo(a,h)anthracene	µg/g	0.06	0.1	0.1	---	< 0.06	< 0.06	---	---	< 0.06	---	---
Fluoranthene	µg/g	0.05	9.6	0.69	---	< 0.05	0.25	---	---	< 0.05	---	---
Fluorene	µg/g	0.05	62	62	---	< 0.05	< 0.05	---	---	< 0.05	---	---
Indeno(1,2,3-cd)pyrene	µg/g	0.1	0.76	0.38	---	< 0.1	< 0.1	---	---	< 0.1	---	---
1-Methylnaphthalene	µg/g	0.05			---	< 0.05	< 0.05	---	---	< 0.05	---	---
2-Methylnaphthalene	µg/g	0.05			---	< 0.05	< 0.05	---	---	< 0.05	---	---
Methylnaphthalene, 2-(1-)	µg/g	0.05	30	0.99	---	< 0.05	< 0.05	---	---	< 0.05	---	---
Naphthalene	µg/g	0.05	9.6	0.6	---	< 0.05	< 0.05	---	---	< 0.05	---	---
Phenanthrene	µg/g	0.05	12	6.2	---	< 0.05	0.12	---	---	< 0.05	---	---
Pyrene	µg/g	0.05	96	78	---	< 0.05	0.22	---	---	< 0.05	---	---



# FINAL REPORT

CA40197-JUN23 R

**Client:** DS Consultants

**Project:** 22-012-101, 3056 Neyagawa Blvd, Oakville

**Project Manager:** Fahmida Anwar

**Samplers:** Fahmida Anwar

MATRIX: SOIL

	Sample Number	9	10	11	12	13	14	15	16
	<b>Sample Name</b>	BH23-15 SS1	BH23-15 SS2	BH23-16 SS1	BH23-16 SS2	BH23-17 SS1	BH23-17 SS2	BH23-17 SS3	BH23-18 SS1
	<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	<b>Sample Date</b>	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
<b>Pesticides Surrogate</b>												
Surr Decachlorobiphenyl	Surr Rec %				96	---	---	---	73	---	---	100

**PHCs**

F1 (C6-C10)	µg/g	10	55	55	---	< 10	---	< 10	---	---	< 10	---
F1-BTEX (C6-C10)	µg/g	10	55	55	---	< 10	---	< 10	---	---	< 10	---
F2 (C10-C16)	µg/g	10	230	98	---	< 10	---	< 10	---	---	< 10	---
F3 (C16-C34)	µg/g	50	1700	300	---	< 50	---	< 50	---	---	54	---
F4 (C34-C50)	µg/g	50	3300	2800	---	< 50	---	< 50	---	---	128	---
Chromatogram returned to baseline at nC50	Yes / No	no			---	YES	---	YES	---	---	YES	---

**SVOC Surrogates**

Surr 2-Fluorobiphenyl	Surr Rec %	no			---	108	100	---	---	105	---	---
Surr 4-Terphenyl-d14	Surr Rec %	no			---	104	90	---	---	94	---	---
Surr 2-Methylnaphthalene-D10	Surr Rec %	no			---	104	93	---	---	97	---	---
Surr Fluoranthene-D10	Surr Rec %	no			---	98	86	---	---	90	---	---





# FINAL REPORT

CA40197-JUN23 R

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**Project Manager:** Fahmida Anwar

**Samplers:** Fahmida Anwar

MATRIX: SOIL

	Sample Number	9	10	11	12	13	14	15	16
	<b>Sample Name</b>	BH23-15 SS1	BH23-15 SS2	BH23-16 SS1	BH23-16 SS2	BH23-17 SS1	BH23-17 SS2	BH23-17 SS3	BH23-18 SS1
	<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	<b>Sample Date</b>	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
<b>THMs (VOC)</b>												
Bromodichloromethane	µg/g	0.05	1.5	1.5	---	< 0.05	---	< 0.05	---	---	< 0.05	---
Bromoform	µg/g	0.05	0.61	0.27	---	< 0.05	---	< 0.05	---	---	< 0.05	---
Dibromochloromethane	µg/g	0.05	2.3	2.3	---	< 0.05	---	< 0.05	---	---	< 0.05	---

### VOC Surrogates

Surr 1,2-Dichloroethane-d4	Surr Rec %	no			---	100	---	102	---	---	102	---
Surr 4-Bromofluorobenzene	Surr Rec %	no			---	97	---	96	---	---	96	---
Surr 2-Bromo-1-Chloropropane	Surr Rec %	no			---	95	---	95	---	---	95	---
Surr TCMX	Surr Rec %	no			81	---	---	---	22	---	---	79

### VOCs

Acetone	µg/g	0.5	16	16	---	< 0.5	---	< 0.5	---	---	< 0.5	---
Bromomethane	µg/g	0.05	0.05	0.05	---	< 0.05	---	< 0.05	---	---	< 0.05	---
Carbon tetrachloride	µg/g	0.05	0.21	0.05	---	< 0.05	---	< 0.05	---	---	< 0.05	---
Chlorobenzene	µg/g	0.05	2.4	2.4	---	< 0.05	---	< 0.05	---	---	< 0.05	---
Chloroform	µg/g	0.05	0.47	0.05	---	< 0.05	---	< 0.05	---	---	< 0.05	---
1,2-Dichlorobenzene	µg/g	0.05	1.2	1.2	---	< 0.05	---	< 0.05	---	---	< 0.05	---
1,3-Dichlorobenzene	µg/g	0.05	9.6	4.8	---	< 0.05	---	< 0.05	---	---	< 0.05	---
1,4-Dichlorobenzene	µg/g	0.05	0.2	0.083	---	< 0.05	---	< 0.05	---	---	< 0.05	---
Dichlorodifluoromethane	µg/g	0.05	16	16	---	< 0.05	---	< 0.05	---	---	< 0.05	---
1,1-Dichloroethane	µg/g	0.05	0.47	0.47	---	< 0.05	---	< 0.05	---	---	< 0.05	---
1,2-Dichloroethane	µg/g	0.05	0.05	0.05	---	< 0.05	---	< 0.05	---	---	< 0.05	---
1,1-Dichloroethylene	µg/g	0.05	0.064	0.05	---	< 0.05	---	< 0.05	---	---	< 0.05	---



# FINAL REPORT

CA40197-JUN23 R

**Client:** DS Consultants

**Project:** 22-012-101, 3056 Neyagawa Blvd, Oakville

**Project Manager:** Fahmida Anwar

**Samplers:** Fahmida Anwar

MATRIX: SOIL

Sample Number	9	10	11	12	13	14	15	16
<b>Sample Name</b>	BH23-15 SS1	BH23-15 SS2	BH23-16 SS1	BH23-16 SS2	BH23-17 SS1	BH23-17 SS2	BH23-17 SS3	BH23-18 SS1
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
<b>VOCs (continued)</b>												
trans-1,2-Dichloroethylene	µg/g	0.05	1.3	0.084	---	< 0.05	---	< 0.05	---	---	< 0.05	---
cis-1,2-Dichloroethylene	µg/g	0.05	1.9	1.9	---	< 0.05	---	< 0.05	---	---	< 0.05	---
1,2-Dichloropropane	µg/g	0.05	0.16	0.05	---	< 0.05	---	< 0.05	---	---	< 0.05	---
cis-1,3-dichloropropene	µg/g	0.03			---	< 0.03	---	< 0.03	---	---	< 0.03	---
trans-1,3-dichloropropene	µg/g	0.03			---	< 0.03	---	< 0.03	---	---	< 0.03	---
1,3-dichloropropene (total)	µg/g	0.05	0.059	0.05	---	< 0.05	---	< 0.05	---	---	< 0.05	---
Ethylenedibromide	µg/g	0.05	0.05	0.05	---	< 0.05	---	< 0.05	---	---	< 0.05	---
n-Hexane	µg/g	0.05	46	2.8	---	< 0.05	---	< 0.05	---	---	< 0.05	---
Methyl ethyl ketone	µg/g	0.5	70	16	---	< 0.5	---	< 0.5	---	---	< 0.5	---
Methyl isobutyl ketone	µg/g	0.5	31	1.7	---	< 0.5	---	< 0.5	---	---	< 0.5	---
Methyl-t-butyl Ether	µg/g	0.05	1.6	0.75	---	< 0.05	---	< 0.05	---	---	< 0.05	---
Methylene Chloride	µg/g	0.05	1.6	0.1	---	< 0.05	---	< 0.05	---	---	< 0.05	---
Styrene	µg/g	0.05	34	0.7	---	< 0.05	---	< 0.05	---	---	< 0.05	---
Tetrachloroethylene	µg/g	0.05	1.9	0.28	---	< 0.05	---	< 0.05	---	---	< 0.05	---
1,1,1,2-Tetrachloroethane	µg/g	0.05	0.087	0.058	---	< 0.05	---	< 0.05	---	---	< 0.05	---
1,1,2,2-Tetrachloroethane	µg/g	0.05	0.05	0.05	---	< 0.05	---	< 0.05	---	---	< 0.05	---
1,1,1-Trichloroethane	µg/g	0.05	6.1	0.38	---	< 0.05	---	< 0.05	---	---	< 0.05	---
1,1,2-Trichloroethane	µg/g	0.05	0.05	0.05	---	< 0.05	---	< 0.05	---	---	< 0.05	---
Trichloroethylene	µg/g	0.05	0.55	0.061	---	< 0.05	---	< 0.05	---	---	< 0.05	---
Trichlorofluoromethane	µg/g	0.05	4	4	---	< 0.05	---	< 0.05	---	---	< 0.05	---
Vinyl Chloride	µg/g	0.02	0.032	0.02	---	< 0.02	---	< 0.02	---	---	< 0.02	---



# FINAL REPORT

CA40197-JUN23 R

**Client:** DS Consultants

**Project:** 22-012-101, 3056 Neyagawa Blvd, Oakville

**Project Manager:** Fahmida Anwar

**Samplers:** Fahmida Anwar

MATRIX: SOIL

	Sample Number	17	18	19	20	21	22	23	24
	<b>Sample Name</b>	BH23-19 SS1	BH23-19 SS2	BH23-20 SS1	BH23-20 SS3	BH23-21 SS1	BH23-21 SS2	BH23-21 SS4	Dup-1
	<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	<b>Sample Date</b>	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
<b>BTEX</b>												
Benzene	µg/g	0.02	0.32	0.21	---	---	---	< 0.02	---	---	< 0.02	< 0.02
Ethylbenzene	µg/g	0.05	1.1	1.1	---	---	---	< 0.05	---	---	< 0.05	< 0.05
Toluene	µg/g	0.05	6.4	2.3	---	---	---	< 0.05	---	---	< 0.05	< 0.05
Xylene (total)	µg/g	0.05	26	3.1	---	---	---	< 0.05	---	---	< 0.05	< 0.05
m/p-xylene	µg/g	0.05			---	---	---	< 0.05	---	---	< 0.05	< 0.05
o-xylene	µg/g	0.05			---	---	---	< 0.05	---	---	< 0.05	< 0.05

### Hydrides

Antimony	µg/g	0.8	40	7.5	< 0.8	---	< 0.8	---	---	< 0.8	---	---
Arsenic	µg/g	0.5	18	18	7.4	---	3.5	---	---	5.2	---	---
Selenium	µg/g	0.1	5.5	2.4	0.2	---	0.2	---	---	< 0.1	---	---

### Metals and Inorganics

Moisture Content	%	no			8.7	15.1	16.0	9.9	14.3	14.7	7.5	8.2
Barium	µg/g	0.1	670	390	49	---	88	---	---	66	---	---
Beryllium	µg/g	0.02	8	4	0.39	---	0.58	---	---	0.63	---	---
Boron	µg/g	1	120	120	10	---	6	---	---	10	---	---
Cadmium	µg/g	0.05	1.9	1.2	0.33	---	0.14	---	---	0.10	---	---
Chromium	µg/g	0.5	160	160	14	---	18	---	---	19	---	---
Cobalt	µg/g	0.01	80	22	6.9	---	11	---	---	12	---	---
Copper	µg/g	0.1	230	140	38	---	18	---	---	25	---	---
Lead	µg/g	0.1	120	120	46	---	18	---	---	11	---	---
Molybdenum	µg/g	0.1	40	6.9	1.4	---	0.6	---	---	0.5	---	---



# FINAL REPORT

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**Project Manager:** Fahmida Anwar

**Samplers:** Fahmida Anwar

MATRIX: SOIL

Sample Number	17	18	19	20	21	22	23	24
<b>Sample Name</b>	BH23-19 SS1	BH23-19 SS2	BH23-20 SS1	BH23-20 SS3	BH23-21 SS1	BH23-21 SS2	BH23-21 SS4	Dup-1
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
<b>Metals and Inorganics (continued)</b>												
Nickel	µg/g	0.5	270	100	18	---	20	---	---	25	---	---
Silver	µg/g	0.05	40	20	0.07	---	< 0.05	---	---	< 0.05	---	---
Thallium	µg/g	0.02	3.3	1	0.13	---	0.13	---	---	0.14	---	---
Uranium	µg/g	0.002	33	23	0.48	---	0.46	---	---	0.55	---	---
Vanadium	µg/g	3	86	86	25	---	26	---	---	23	---	---
Zinc	µg/g	0.7	340	340	100	---	58	---	---	50	---	---
Water Soluble Boron	µg/g	0.5	2	1.5	< 0.5	---	< 0.5	---	---	< 0.5	---	---

### Organochlorine Pests (OCs)

Aldrin	µg/g	0.05	0.088	0.05	< 0.05	---	< 0.05	---	< 0.05	---	---	---
alpha-Chlordane	µg/g	0.02			< 0.02	---	< 0.02	---	< 0.02	---	---	---
gamma-Chlordane	µg/g	0.02			< 0.02	---	< 0.02	---	< 0.02	---	---	---
Chlordane (total)	µg/g	0.05	0.05	0.05	< 0.05	---	< 0.05	---	< 0.05	---	---	---
o,p-DDD	µg/g	0.02			< 0.02	---	< 0.02	---	< 0.02	---	---	---
pp-DDD	µg/g	0.02			< 0.02	---	< 0.02	---	< 0.02	---	---	---
DDD (total)	µg/g	0.05	4.6	3.3	< 0.05	---	< 0.05	---	< 0.05	---	---	---
o,p-DDE	µg/g	0.02			< 0.02	---	< 0.02	---	< 0.02	---	---	---
pp-DDE	µg/g	0.02			< 0.02	---	< 0.02	---	< 0.02	---	---	---
DDE (total)	µg/g	0.05	0.52	0.26	< 0.05	---	< 0.05	---	< 0.05	---	---	---
op-DDT	µg/g	0.02			< 0.02	---	< 0.02	---	< 0.02	---	---	---
pp-DDT	µg/g	0.02			< 0.02	---	< 0.02	---	< 0.02	---	---	---
DDT (total)	µg/g	0.05	1.4	1.4	< 0.05	---	< 0.05	---	< 0.05	---	---	---
Dieldrin	µg/g	0.05	0.088	0.05	< 0.05	---	< 0.05	---	< 0.05	---	---	---



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**Project Manager:** Fahmida Anwar

**Samplers:** Fahmida Anwar

MATRIX: SOIL

Sample Number	17	18	19	20	21	22	23	24
<b>Sample Name</b>	BH23-19 SS1	BH23-19 SS2	BH23-20 SS1	BH23-20 SS3	BH23-21 SS1	BH23-21 SS2	BH23-21 SS4	Dup-1
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
<b>Organochlorine Pests (OCs) (continued)</b>												
gamma-BHC	µg/g	0.01	0.056	0.056	< 0.01	---	< 0.01	---	< 0.01	---	---	---
Endosulfan I	µg/g	0.02			< 0.02	---	< 0.02	---	< 0.02	---	---	---
Endosulfan II	µg/g	0.02			< 0.02	---	< 0.02	---	< 0.02	---	---	---
Endosulfan (total)	µg/g	0.04	0.3	0.04	< 0.04	---	< 0.04	---	< 0.04	---	---	---
Endrin	µg/g	0.04	0.04	0.04	< 0.04	---	< 0.04	---	< 0.04	---	---	---
Heptachlor	µg/g	0.01	0.19	0.15	< 0.01	---	< 0.01	---	< 0.01	---	---	---
Heptachlor epoxide	µg/g	0.01	0.05	0.05	< 0.01	---	< 0.01	---	< 0.01	---	---	---
Hexachlorobenzene	µg/g	0.01	0.66	0.52	< 0.01	---	< 0.01	---	< 0.01	---	---	---
Hexachlorobutadiene	µg/g	0.01	0.031	0.012	< 0.01	---	< 0.01	---	< 0.01	---	---	---
Hexachloroethane	µg/g	0.01	0.21	0.089	< 0.01	---	< 0.01	---	< 0.01	---	---	---
Methoxychlor	µg/g	0.05	1.6	0.13	< 0.05	---	< 0.05	---	< 0.05	---	---	---

**Other (ORP)**

Mercury	ug/g	0.05	3.9	0.27	< 0.05	---	< 0.05	---	---	< 0.05	---	---
Sodium Adsorption Ratio	No unit	0.2	12	5	0.3	---	< 0.2	---	---	0.3	---	---
SAR Calcium	mg/L	0.2			38.3	---	47.0	---	---	25.2	---	---
SAR Magnesium	mg/L	0.3			4.6	---	3.8	---	---	2.7	---	---
SAR Sodium	mg/L	0.1			6.2	---	5.1	---	---	6.1	---	---
Conductivity	mS/cm	0.002	1.4	0.7	0.29	---	0.31	---	---	0.18	---	---
pH	pH Units	0.05			7.72	---	7.30	---	---	7.48	---	---
Chromium VI	µg/g	0.2	8	8	< 0.2	---	< 0.2	---	---	< 0.2	---	---
Free Cyanide	µg/g	0.05	0.051	0.051	< 0.05	---	< 0.05	---	---	< 0.05	---	---



# FINAL REPORT

CA40197-JUN23 R

**Client:** DS Consultants

**Project:** 22-012-101, 3056 Neyagawa Blvd, Oakville

**Project Manager:** Fahmida Anwar

**Samplers:** Fahmida Anwar

MATRIX: SOIL

	Sample Number	17	18	19	20	21	22	23	24
	<b>Sample Name</b>	BH23-19 SS1	BH23-19 SS2	BH23-20 SS1	BH23-20 SS3	BH23-21 SS1	BH23-21 SS2	BH23-21 SS4	Dup-1
	<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	<b>Sample Date</b>	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
<b>PAHs</b>												
Acenaphthene	µg/g	0.05	21	7.9	---	< 0.05	---	---	< 0.05	---	---	---
Acenaphthylene	µg/g	0.05	0.15	0.15	---	< 0.05	---	---	< 0.05	---	---	---
Anthracene	µg/g	0.05	0.67	0.67	---	< 0.05	---	---	< 0.05	---	---	---
Benzo(a)anthracene	µg/g	0.05	0.96	0.5	---	< 0.05	---	---	0.14	---	---	---
Benzo(a)pyrene	µg/g	0.05	0.3	0.3	---	< 0.05	---	---	0.15	---	---	---
Benzo(b+j)fluoranthene	µg/g	0.05	0.96	0.78	---	< 0.05	---	---	0.18	---	---	---
Benzo(ghi)perylene	µg/g	0.1	9.6	6.6	---	< 0.1	---	---	0.10	---	---	---
Benzo(k)fluoranthene	µg/g	0.05	0.96	0.78	---	< 0.05	---	---	0.08	---	---	---
Chrysene	µg/g	0.05	9.6	7	---	< 0.05	---	---	0.14	---	---	---
Dibenzo(a,h)anthracene	µg/g	0.06	0.1	0.1	---	< 0.06	---	---	< 0.06	---	---	---
Fluoranthene	µg/g	0.05	9.6	0.69	---	< 0.05	---	---	0.32	---	---	---
Fluorene	µg/g	0.05	62	62	---	< 0.05	---	---	< 0.05	---	---	---
Indeno(1,2,3-cd)pyrene	µg/g	0.1	0.76	0.38	---	< 0.1	---	---	< 0.1	---	---	---
1-Methylnaphthalene	µg/g	0.05			---	< 0.05	---	---	< 0.05	---	---	---
2-Methylnaphthalene	µg/g	0.05			---	< 0.05	---	---	< 0.05	---	---	---
Methylnaphthalene, 2-(1-)	µg/g	0.05	30	0.99	---	< 0.05	---	---	< 0.05	---	---	---
Naphthalene	µg/g	0.05	9.6	0.6	---	< 0.05	---	---	< 0.05	---	---	---
Phenanthrene	µg/g	0.05	12	6.2	---	< 0.05	---	---	0.19	---	---	---
Pyrene	µg/g	0.05	96	78	---	< 0.05	---	---	0.27	---	---	---



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**Samplers:** Fahmida Anwar

MATRIX: SOIL

Sample Number	17	18	19	20	21	22	23	24
<b>Sample Name</b>	BH23-19 SS1	BH23-19 SS2	BH23-20 SS1	BH23-20 SS3	BH23-21 SS1	BH23-21 SS2	BH23-21 SS4	Dup-1
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
<b>Pesticides Surrogate</b>												
Surr Decachlorobiphenyl	Surr Rec %				112	---	96	---	106	---	---	---

**PHCs**

F1 (C6-C10)	µg/g	10	55	55	---	---	---	< 10	---	---	< 10	< 10
F1-BTEX (C6-C10)	µg/g	10	55	55	---	---	---	< 10	---	---	< 10	< 10
F2 (C10-C16)	µg/g	10	230	98	---	---	---	< 10	---	---	< 10	< 10
F3 (C16-C34)	µg/g	50	1700	300	---	---	---	< 50	---	---	< 50	< 50
F4 (C34-C50)	µg/g	50	3300	2800	---	---	---	133	---	---	< 50	124
Chromatogram returned to baseline at nC50	Yes / No	no			---	---	---	YES	---	---	YES	YES

**SVOC Surrogates**

Surr 2-Fluorobiphenyl	Surr Rec %	no			---	106	---	---	121	---	---	---
Surr 4-Terphenyl-d14	Surr Rec %	no			---	100	---	---	102	---	---	---
Surr 2-Methylnaphthalene-D10	Surr Rec %	no			---	95	---	---	100	---	---	---
Surr Fluoranthene-D10	Surr Rec %	no			---	93	---	---	97	---	---	---



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**Project:** 22-012-101, 3056 Neyagawa Blvd, Oakville

**Project Manager:** Fahmida Anwar

**Samplers:** Fahmida Anwar

MATRIX: SOIL

Sample Number	17	18	19	20	21	22	23	24
<b>Sample Name</b>	BH23-19 SS1	BH23-19 SS2	BH23-20 SS1	BH23-20 SS3	BH23-21 SS1	BH23-21 SS2	BH23-21 SS4	Dup-1
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
<b>THMs (VOC)</b>												
Bromodichloromethane	µg/g	0.05	1.5	1.5	---	---	---	< 0.05	---	---	< 0.05	< 0.05
Bromoform	µg/g	0.05	0.61	0.27	---	---	---	< 0.05	---	---	< 0.05	< 0.05
Dibromochloromethane	µg/g	0.05	2.3	2.3	---	---	---	< 0.05	---	---	< 0.05	< 0.05

**VOC Surrogates**

Surr 1,2-Dichloroethane-d4	Surr Rec %	no			---	---	---	102	---	---	101	102
Surr 4-Bromofluorobenzene	Surr Rec %	no			---	---	---	96	---	---	96	96
Surr 2-Bromo-1-Chloropropane	Surr Rec %	no			---	---	---	95	---	---	94	94
Surr TCMX	Surr Rec %	no			87	---	71	---	87	---	---	---

**VOCs**

Acetone	µg/g	0.5	16	16	---	---	---	< 0.5	---	---	< 0.5	< 0.5
Bromomethane	µg/g	0.05	0.05	0.05	---	---	---	< 0.05	---	---	< 0.05	< 0.05
Carbon tetrachloride	µg/g	0.05	0.21	0.05	---	---	---	< 0.05	---	---	< 0.05	< 0.05
Chlorobenzene	µg/g	0.05	2.4	2.4	---	---	---	< 0.05	---	---	< 0.05	< 0.05
Chloroform	µg/g	0.05	0.47	0.05	---	---	---	< 0.05	---	---	< 0.05	< 0.05
1,2-Dichlorobenzene	µg/g	0.05	1.2	1.2	---	---	---	< 0.05	---	---	< 0.05	< 0.05
1,3-Dichlorobenzene	µg/g	0.05	9.6	4.8	---	---	---	< 0.05	---	---	< 0.05	< 0.05
1,4-Dichlorobenzene	µg/g	0.05	0.2	0.083	---	---	---	< 0.05	---	---	< 0.05	< 0.05
Dichlorodifluoromethane	µg/g	0.05	16	16	---	---	---	< 0.05	---	---	< 0.05	< 0.05
1,1-Dichloroethane	µg/g	0.05	0.47	0.47	---	---	---	< 0.05	---	---	< 0.05	< 0.05
1,2-Dichloroethane	µg/g	0.05	0.05	0.05	---	---	---	< 0.05	---	---	< 0.05	< 0.05
1,1-Dichloroethylene	µg/g	0.05	0.064	0.05	---	---	---	< 0.05	---	---	< 0.05	< 0.05





# FINAL REPORT

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**Project:** 22-012-101, 3056 Neyagawa Blvd, Oakville

**Project Manager:** Fahmida Anwar

**Samplers:** Fahmida Anwar

MATRIX: SOIL

Sample Number	17	18	19	20	21	22	23	24
<b>Sample Name</b>	BH23-19 SS1	BH23-19 SS2	BH23-20 SS1	BH23-20 SS3	BH23-21 SS1	BH23-21 SS2	BH23-21 SS4	Dup-1
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023	16/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
<b>VOCs (continued)</b>												
trans-1,2-Dichloroethylene	µg/g	0.05	1.3	0.084	---	---	---	< 0.05	---	---	< 0.05	< 0.05
cis-1,2-Dichloroethylene	µg/g	0.05	1.9	1.9	---	---	---	< 0.05	---	---	< 0.05	< 0.05
1,2-Dichloropropane	µg/g	0.05	0.16	0.05	---	---	---	< 0.05	---	---	< 0.05	< 0.05
cis-1,3-dichloropropene	µg/g	0.03			---	---	---	< 0.03	---	---	< 0.03	< 0.03
trans-1,3-dichloropropene	µg/g	0.03			---	---	---	< 0.03	---	---	< 0.03	< 0.03
1,3-dichloropropene (total)	µg/g	0.05	0.059	0.05	---	---	---	< 0.05	---	---	< 0.05	< 0.05
Ethylenedibromide	µg/g	0.05	0.05	0.05	---	---	---	< 0.05	---	---	< 0.05	< 0.05
n-Hexane	µg/g	0.05	46	2.8	---	---	---	< 0.05	---	---	< 0.05	< 0.05
Methyl ethyl ketone	µg/g	0.5	70	16	---	---	---	< 0.5	---	---	< 0.5	< 0.5
Methyl isobutyl ketone	µg/g	0.5	31	1.7	---	---	---	< 0.5	---	---	< 0.5	< 0.5
Methyl-t-butyl Ether	µg/g	0.05	1.6	0.75	---	---	---	< 0.05	---	---	< 0.05	< 0.05
Methylene Chloride	µg/g	0.05	1.6	0.1	---	---	---	< 0.05	---	---	< 0.05	< 0.05
Styrene	µg/g	0.05	34	0.7	---	---	---	< 0.05	---	---	< 0.05	< 0.05
Tetrachloroethylene	µg/g	0.05	1.9	0.28	---	---	---	< 0.05	---	---	< 0.05	< 0.05
1,1,1,2-Tetrachloroethane	µg/g	0.05	0.087	0.058	---	---	---	< 0.05	---	---	< 0.05	< 0.05
1,1,2,2-Tetrachloroethane	µg/g	0.05	0.05	0.05	---	---	---	< 0.05	---	---	< 0.05	< 0.05
1,1,1-Trichloroethane	µg/g	0.05	6.1	0.38	---	---	---	< 0.05	---	---	< 0.05	< 0.05
1,1,2-Trichloroethane	µg/g	0.05	0.05	0.05	---	---	---	< 0.05	---	---	< 0.05	< 0.05
Trichloroethylene	µg/g	0.05	0.55	0.061	---	---	---	< 0.05	---	---	< 0.05	< 0.05
Trichlorofluoromethane	µg/g	0.05	4	4	---	---	---	< 0.05	---	---	< 0.05	< 0.05
Vinyl Chloride	µg/g	0.02	0.032	0.02	---	---	---	< 0.02	---	---	< 0.02	< 0.02



# FINAL REPORT

CA40197-JUN23 R

**Client:** DS Consultants

**Project:** 22-012-101, 3056 Neyagawa Blvd, Oakville

**Project Manager:** Fahmida Anwar

**Samplers:** Fahmida Anwar

MATRIX: SOIL

**Sample Number** 25  
**Sample Name** Dup-2  
**Sample Matrix** Soil  
**Sample Date** 16/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result
<b>Hydrides</b>					
Antimony	µg/g	0.8	40	7.5	< 0.8
Arsenic	µg/g	0.5	18	18	8.7
Selenium	µg/g	0.1	5.5	2.4	0.2

## Metals and Inorganics

Moisture Content	%	no			7.6
Barium	µg/g	0.1	670	390	80
Beryllium	µg/g	0.02	8	4	0.68
Boron	µg/g	1	120	120	9
Cadmium	µg/g	0.05	1.9	1.2	0.23
Chromium	µg/g	0.5	160	160	19
Cobalt	µg/g	0.01	80	22	10
Copper	µg/g	0.1	230	140	39
Lead	µg/g	0.1	120	120	43
Molybdenum	µg/g	0.1	40	6.9	1.1
Nickel	µg/g	0.5	270	100	22
Silver	µg/g	0.05	40	20	0.07
Thallium	µg/g	0.02	3.3	1	0.17
Uranium	µg/g	0.002	33	23	0.53
Vanadium	µg/g	3	86	86	27
Zinc	µg/g	0.7	340	340	86
Water Soluble Boron	µg/g	0.5	2	1.5	< 0.5



# FINAL REPORT

CA40197-JUN23 R

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**Project Manager:** Fahmida Anwar

**Samplers:** Fahmida Anwar

MATRIX: SOIL

**Sample Number** 25  
**Sample Name** Dup-2  
**Sample Matrix** Soil  
**Sample Date** 16/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result
<b>Other (ORP)</b>					
Mercury	ug/g	0.05	3.9	0.27	< 0.05
Sodium Adsorption Ratio	No unit	0.2	12	5	< 0.2
SAR Calcium	mg/L	0.2			41.2
SAR Magnesium	mg/L	0.3			4.0
SAR Sodium	mg/L	0.1			3.0
Conductivity	mS/cm	0.002	1.4	0.7	0.24
pH	pH Units	0.05			7.31
Chromium VI	µg/g	0.2	8	8	0.3
Free Cyanide	µg/g	0.05	0.051	0.051	< 0.05



# FINAL REPORT

CA40197-JUN23 R

**Client:** DS Consultants

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**Project Manager:** Fahmida Anwar

**Samplers:** Fahmida Anwar

MATRIX: SOIL

**Sample Number** 25  
**Sample Name** Dup-2  
**Sample Matrix** Soil  
**Sample Date** 16/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Industrial/Commercial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result
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**EXCEEDANCE SUMMARY**

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No exceedances are present above the regulatory limit(s) indicated

## QC SUMMARY

### Conductivity

Method: EPA 6010/SM 2510 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Conductivity	EWL0601-JUN23	mS/cm	0.002	<0.002	4	10	99	90	110	NA		

### Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-IENVISFA-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Free Cyanide	SKA5085-JUN23	µg/g	0.05	<0.05	ND	20	99	80	120	96	75	125

### Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-IENVISKA-LAK-AN-012

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Chromium VI	SKA5088-JUN23	ug/g	0.2	<0.2	ND	20	94	80	120	97	75	125

## QC SUMMARY

### Mercury by CVAAS

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-IENVISPE-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Mercury	EMS0197-JUN23	ug/g	0.05	<0.05	ND	20	107	80	120	82	70	130

### Metals in aqueous samples - ICP-OES

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-IENVISPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
SAR Calcium	ESG0051-JUN23	mg/L	0.2	<0.2	1	20	101	80	120	NV	70	130
SAR Magnesium	ESG0051-JUN23	mg/L	0.3	<0.3	1	20	103	80	120	NV	70	130
SAR Sodium	ESG0051-JUN23	mg/L	0.1	<0.1	1	20	100	80	120	NV	70	130
SAR Calcium	ESG0055-JUN23	mg/L	0.2	<0.2	1	20	99	80	120	99	70	130
SAR Magnesium	ESG0055-JUN23	mg/L	0.3	<0.3	ND	20	103	80	120	101	70	130
SAR Sodium	ESG0055-JUN23	mg/L	0.1	<0.1	3	20	108	80	120	96	70	130

## QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0197-JUN23	ug/g	0.05	<0.05	ND	20	104	70	130	102	70	130
Arsenic	EMS0197-JUN23	µg/g	0.5	<0.5	1	20	92	70	130	92	70	130
Barium	EMS0197-JUN23	ug/g	0.1	<0.1	0	20	98	70	130	103	70	130
Beryllium	EMS0197-JUN23	µg/g	0.02	<0.02	1	20	100	70	130	97	70	130
Boron	EMS0197-JUN23	µg/g	1	<1	3	20	98	70	130	90	70	130
Cadmium	EMS0197-JUN23	ug/g	0.05	<0.05	6	20	98	70	130	93	70	130
Cobalt	EMS0197-JUN23	µg/g	0.01	<0.01	1	20	98	70	130	96	70	130
Chromium	EMS0197-JUN23	µg/g	0.5	<0.5	2	20	97	70	130	95	70	130
Copper	EMS0197-JUN23	µg/g	0.1	<0.1	2	20	100	70	130	93	70	130
Molybdenum	EMS0197-JUN23	µg/g	0.1	<0.1	15	20	106	70	130	101	70	130
Nickel	EMS0197-JUN23	ug/g	0.5	<0.5	2	20	99	70	130	95	70	130
Lead	EMS0197-JUN23	ug/g	0.1	<0.1	1	20	104	70	130	98	70	130
Antimony	EMS0197-JUN23	µg/g	0.8	<0.8	ND	20	109	70	130	113	70	130
Selenium	EMS0197-JUN23	ug/g	0.1	<0.1	3	20	104	70	130	93	70	130
Thallium	EMS0197-JUN23	µg/g	0.02	<0.02	2	20	99	70	130	102	70	130
Uranium	EMS0197-JUN23	µg/g	0.002	<0.002	4	20	103	70	130	NV	70	130
Vanadium	EMS0197-JUN23	µg/g	3	<3	1	20	99	70	130	94	70	130
Zinc	EMS0197-JUN23	µg/g	0.7	<0.7	2	20	98	70	130	88	70	130



QC SUMMARY

Pesticides

Method: EPA 3541/8270D | Internal ref.: ME-CA-IENVIGC-LAK-AN-018

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Aldrin	GCM0381-JUN23	µg/g	0.05	< 0.05	ND	40	83	50	140	81	50	140
alpha-Chlordane	GCM0381-JUN23	µg/g	0.02	< 0.02	ND	40	81	50	140	90	50	140
Dieldrin	GCM0381-JUN23	µg/g	0.05	< 0.05	ND	40	87	50	140	85	50	140
Endosulfan I	GCM0381-JUN23	µg/g	0.02	< 0.02	ND	40	82	50	140	86	50	140
Endosulfan II	GCM0381-JUN23	µg/g	0.02	< 0.02	ND	40	88	50	140	92	50	140
Endrin	GCM0381-JUN23	µg/g	0.04	< 0.04	ND	40	91	50	140	92	50	140
gamma-BHC	GCM0381-JUN23	µg/g	0.01	< 0.01	ND	40	83	50	140	81	50	140
gamma-Chlordane	GCM0381-JUN23	µg/g	0.02	< 0.02	ND	40	81	50	140	90	50	140
Heptachlor epoxide	GCM0381-JUN23	µg/g	0.01	< 0.01	ND	40	81	50	140	86	50	140
Heptachlor	GCM0381-JUN23	µg/g	0.01	< 0.01	ND	40	83	50	140	83	50	140
Hexachlorobenzene	GCM0381-JUN23	µg/g	0.01	< 0.01	ND	40	82	50	140	84	50	140
Hexachlorobutadiene	GCM0381-JUN23	µg/g	0.01	< 0.01	ND	40	82	50	140	85	50	140
Hexachloroethane	GCM0381-JUN23	µg/g	0.01	< 0.01	ND	40	81	50	140	83	50	140
Methoxychlor	GCM0381-JUN23	µg/g	0.05	< 0.05	ND	40	88	50	140	131	50	140
o,p-DDD	GCM0381-JUN23	µg/g	0.02	< 0.02	ND	40	93	50	140	108	50	140
o,p-DDE	GCM0381-JUN23	µg/g	0.02	< 0.02	ND	40	82	50	140	91	50	140
op-DDT	GCM0381-JUN23	µg/g	0.02	< 0.02	ND	40	89	50	140	73	50	140
pp-DDD	GCM0381-JUN23	µg/g	0.02	< 0.02	ND	40	90	50	140	122	50	140
pp-DDE	GCM0381-JUN23	µg/g	0.02	< 0.02	ND	40	83	50	140	94	50	140
pp-DDT	GCM0381-JUN23	µg/g	0.02	< 0.02	ND	40	89	50	140	123	50	140

## QC SUMMARY

### Petroleum Hydrocarbons (F1)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F1 (C6-C10)	GCM0370-JUN23	µg/g	10	<10	ND	30	105	80	120	93	60	140

### Petroleum Hydrocarbons (F2-F4)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F2 (C10-C16)	GCM0364-JUN23	µg/g	10	<10	ND	30	114	80	120	113	60	140
F3 (C16-C34)	GCM0364-JUN23	µg/g	50	<50	ND	30	114	80	120	113	60	140
F4 (C34-C50)	GCM0364-JUN23	µg/g	50	<50	ND	30	114	80	120	113	60	140

QC SUMMARY

pH  
 Method: SM 4500 | Internal ref.: ME-CA-ENVIEWL-LAK-AN-001

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
pH	ARD0092-JUN23	pH Units	0.05		0	20	100	80	120			

## QC SUMMARY

### Semi-Volatile Organics

Method: EPA 3541/8270D | Internal ref.: ME-CA-IENVIGC-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1-Methylnaphthalene	GCM0351-JUN23	µg/g	0.05	< 0.05	ND	40	90	50	140	80	50	140
2-Methylnaphthalene	GCM0351-JUN23	µg/g	0.05	< 0.05	ND	40	89	50	140	83	50	140
Acenaphthene	GCM0351-JUN23	µg/g	0.05	< 0.05	ND	40	93	50	140	78	50	140
Acenaphthylene	GCM0351-JUN23	µg/g	0.05	< 0.05	ND	40	90	50	140	80	50	140
Anthracene	GCM0351-JUN23	µg/g	0.05	< 0.05	ND	40	86	50	140	75	50	140
Benzo(a)anthracene	GCM0351-JUN23	µg/g	0.05	< 0.05	ND	40	85	50	140	77	50	140
Benzo(a)pyrene	GCM0351-JUN23	µg/g	0.05	< 0.05	ND	40	86	50	140	77	50	140
Benzo(b+j)fluoranthene	GCM0351-JUN23	µg/g	0.05	< 0.05	ND	40	87	50	140	79	50	140
Benzo(ghi)perylene	GCM0351-JUN23	µg/g	0.1	< 0.1	ND	40	89	50	140	77	50	140
Benzo(k)fluoranthene	GCM0351-JUN23	µg/g	0.05	< 0.05	ND	40	87	50	140	77	50	140
Chrysene	GCM0351-JUN23	µg/g	0.05	< 0.05	ND	40	89	50	140	79	50	140
Dibenzo(a,h)anthracene	GCM0351-JUN23	µg/g	0.06	< 0.06	ND	40	81	50	140	73	50	140
Fluoranthene	GCM0351-JUN23	µg/g	0.05	< 0.05	ND	40	81	50	140	74	50	140
Fluorene	GCM0351-JUN23	µg/g	0.05	< 0.05	ND	40	97	50	140	81	50	140
Indeno(1,2,3-cd)pyrene	GCM0351-JUN23	µg/g	0.1	< 0.1	ND	40	83	50	140	74	50	140
Naphthalene	GCM0351-JUN23	µg/g	0.05	< 0.05	ND	40	95	50	140	82	50	140
Phenanthrene	GCM0351-JUN23	µg/g	0.05	< 0.05	ND	40	86	50	140	76	50	140
Pyrene	GCM0351-JUN23	µg/g	0.05	< 0.05	ND	40	87	50	140	75	50	140
1-Methylnaphthalene	GCM0357-JUN23	µg/g	0.05	< 0.05	ND	40	97	50	140	93	50	140
2-Methylnaphthalene	GCM0357-JUN23	µg/g	0.05	< 0.05	ND	40	96	50	140	91	50	140

## QC SUMMARY

### Semi-Volatile Organics (continued)

Method: EPA 3541/8270D | Internal ref.: ME-CA-IENVIGC-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Acenaphthene	GCM0357-JUN23	µg/g	0.05	< 0.05	ND	40	96	50	140	93	50	140
Acenaphthylene	GCM0357-JUN23	µg/g	0.05	< 0.05	ND	40	93	50	140	82	50	140
Anthracene	GCM0357-JUN23	µg/g	0.05	< 0.05	ND	40	92	50	140	88	50	140
Benzo(a)anthracene	GCM0357-JUN23	µg/g	0.05	< 0.05	ND	40	96	50	140	92	50	140
Benzo(a)pyrene	GCM0357-JUN23	µg/g	0.05	< 0.05	ND	40	93	50	140	90	50	140
Benzo(b+j)fluoranthene	GCM0357-JUN23	µg/g	0.05	< 0.05	ND	40	100	50	140	92	50	140
Benzo(ghi)perylene	GCM0357-JUN23	µg/g	0.1	< 0.1	ND	40	94	50	140	90	50	140
Benzo(k)fluoranthene	GCM0357-JUN23	µg/g	0.05	< 0.05	ND	40	96	50	140	92	50	140
Chrysene	GCM0357-JUN23	µg/g	0.05	< 0.05	ND	40	96	50	140	93	50	140
Dibenzo(a,h)anthracene	GCM0357-JUN23	µg/g	0.06	< 0.06	ND	40	92	50	140	85	50	140
Fluoranthene	GCM0357-JUN23	µg/g	0.05	< 0.05	ND	40	88	50	140	84	50	140
Fluorene	GCM0357-JUN23	µg/g	0.05	< 0.05	ND	40	105	50	140	90	50	140
Indeno(1,2,3-cd)pyrene	GCM0357-JUN23	µg/g	0.1	< 0.1	ND	40	89	50	140	84	50	140
Naphthalene	GCM0357-JUN23	µg/g	0.05	< 0.05	ND	40	96	50	140	92	50	140
Phenanthrene	GCM0357-JUN23	µg/g	0.05	< 0.05	ND	40	93	50	140	89	50	140
Pyrene	GCM0357-JUN23	µg/g	0.05	< 0.05	ND	40	94	50	140	90	50	140

## QC SUMMARY

### Volatile Organics

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-IENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1,1,1,2-Tetrachloroethane	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	99	60	130	99	50	140
1,1,1-Trichloroethane	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	102	60	130	100	50	140
1,1,2,2-Tetrachloroethane	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	97	60	130	NV	50	140
1,1,2-Trichloroethane	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	94	60	130	91	50	140
1,1-Dichloroethane	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	101	60	130	101	50	140
1,1-Dichloroethylene	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	115	60	130	112	50	140
1,2-Dichlorobenzene	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	102	60	130	NV	50	140
1,2-Dichloroethane	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	98	60	130	98	50	140
1,2-Dichloropropane	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	100	60	130	100	50	140
1,3-Dichlorobenzene	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	104	60	130	NV	50	140
1,4-Dichlorobenzene	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	102	60	130	NV	50	140
Acetone	GCM0369-JUN23	µg/g	0.5	< 0.5	ND	50	99	50	140	100	50	140
Benzene	GCM0369-JUN23	µg/g	0.02	< 0.02	ND	50	102	60	130	99	50	140
Bromodichloromethane	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	99	60	130	98	50	140
Bromoform	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	98	60	130	98	50	140
Bromomethane	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	101	50	140	93	50	140
Carbon tetrachloride	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	104	60	130	100	50	140
Chlorobenzene	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	100	60	130	99	50	140
Chloroform	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	100	60	130	100	50	140
cis-1,2-Dichloroethylene	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	101	60	130	101	50	140

## QC SUMMARY

### Volatile Organics (continued)

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-IENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
cis-1,3-dichloropropene	GCM0369-JUN23	µg/g	0.03	< 0.03	ND	50	102	60	130	96	50	140
Dibromochloromethane	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	100	60	130	99	50	140
Dichlorodifluoromethane	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	87	50	140	69	50	140
Ethylbenzene	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	100	60	130	98	50	140
Ethylenedibromide	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	98	60	130	98	50	140
n-Hexane	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	96	60	130	82	50	140
m/p-xylene	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	101	60	130	99	50	140
Methyl ethyl ketone	GCM0369-JUN23	µg/g	0.5	< 0.5	ND	50	98	50	140	89	50	140
Methyl isobutyl ketone	GCM0369-JUN23	µg/g	0.5	< 0.5	ND	50	103	50	140	97	50	140
Methyl-t-butyl Ether	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	102	60	130	95	50	140
Methylene Chloride	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	100	60	130	100	50	140
o-xylene	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	102	60	130	101	50	140
Styrene	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	100	60	130	98	50	140
Tetrachloroethylene	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	103	60	130	99	50	140
Toluene	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	101	60	130	101	50	140
trans-1,2-Dichloroethylene	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	102	60	130	99	50	140
trans-1,3-dichloropropene	GCM0369-JUN23	µg/g	0.03	< 0.03	ND	50	101	60	130	95	50	140
Trichloroethylene	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	102	60	130	100	50	140
Trichlorofluoromethane	GCM0369-JUN23	µg/g	0.05	< 0.05	ND	50	97	50	140	91	50	140
Vinyl Chloride	GCM0369-JUN23	µg/g	0.02	< 0.02	ND	50	97	50	140	90	50	140

## QC SUMMARY

### Water Soluble Boron

Method: O.Reg. 15 3/04 | Internal ref.: ME-CA-IENV1 SPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Water Soluble Boron	ESG0038-JUN23	µg/g	0.5	<0.5	ND	20	100	80	120	98	70	130

**Method Blank:** a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

**Duplicate:** Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

**LCS/Spike Blank:** Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

**Matrix Spike:** A sample to which a known amount of the analyte of interest has been added. Used to evaluate laboratory accuracy with sample matrix effects.

**Reference Material:** a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

**Multielement Scan Qualifier:** as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

**Duplicate Qualifier:** for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

**Matrix Spike Qualifier:** for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.



## LEGEND

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### FOOTNOTES

- NSS** Insufficient sample for analysis.
- RL** Reporting Limit.
  - ↑ Reporting limit raised.
  - ↓ Reporting limit lowered.
- NA** The sample was not analysed for this analyte
- ND** Non Detect

Results relate only to the sample tested.

Data reported represent the sample as submitted to SGS. Solid samples expressed on a dry weight basis.

"Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the "Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act and Excess Soil Quality" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated.

SGS Canada Inc. statement of conformity decision rule does not consider uncertainty when analytical results are compared to a specified standard or regulation.

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This report supersedes all previous versions.

-- End of Analytical Report --



**Request for Laboratory Services and CHAIN OF CUSTODY**

No: \_\_\_\_\_

Page 1 of 2

Received By: APACEV  
 Received Date: 06/20/23 (mm/dd/yy)  
 Received Time: 09:30 (hr : min)

Received By (signature): AD  
 Custody Seal Present: Yes  No   
 Custody Seal Intact: Yes  No

Temperature Upon Receipt (°C): 4.5  
 Type: ICE

LAB LIMS #: CA40197-2023

**REPORT INFORMATION**  
 Company: DS  
 Contact: Fahmida Anwar  
 Address: 6221 Hwy 7, Unit 16  
Vaughan, ON  
 Phone: 647-879-3866  
 Fax: fanwar@dsconsultants.ca  
 Email: fanwar@dsconsultants.ca

**INVOICE INFORMATION**  
 (same as Report Information)  
 Company: DS  
 Contact: Bindu Goel  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: accounting@dsconsultants.ca

Quotation #: \_\_\_\_\_ P.O. #: \_\_\_\_\_  
 Project #: 22-012-101 Site Location/ID: 3056 Negajawa Blvd., Oakville, ON  
**TURNAROUND TIME (TAT) REQUIRED**  
 Regular TAT (5-7days)  
 TAT's are quoted in business days (exclude statutory holidays & weekends).  
 Samples received after 6pm or on weekends: TAT begins next business day

RUSH TAT (Additional Charges May Apply):  1 Day  2 Days  3 Days  4 Days  
**PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION**  
 Specify Due Date: \_\_\_\_\_  
 \*NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

**REGULATIONS**  
 O.Reg 153/04  O.Reg 406/19  
 Table 1  Yes/Part  Soil Texture: \_\_\_\_\_  
 Table 2  Ind/Com  coarse  
 Table 3  Agri/Other  Medium/Fine  
 Table \_\_\_\_\_  
 Soil Volume  <350m3  >350m3

**Other Regulations:**  
 Reg 347/558 (3 Day min TAT)  
 PW/QO  JMER  
 CCME  Other: \_\_\_\_\_  
 MISA  
 ODWS Not Reportable \*See note

**Sewer By-Law:**  
 Sanitary  
 Storm  
 Municipality: \_\_\_\_\_

**RECORD OF SITE CONDITION (RSC)** YES  NO

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX
1 BH23-15 S51	16/06/23	PM	2	Soil
2 BH23-15 S52			4	
3 BH23-16 S51			2	
4 BH23-16 S52			3	
5 BH23-17 S51			2	
6 BH23-17 S52			1	
7 BH23-17 S53			3	
8 BH23-18 S51			2	
9 BH23-19 S51			2	
10 BH23-19 S52			1	
11 BH23-20 S51			2	
12 BH23-20 S53			3	

M & I		SVOC	PCB	PHC	VOC	Pest	Other (please specify)	TCLP
<input checked="" type="checkbox"/> Field Filtered (Y/N)	<input checked="" type="checkbox"/> Metals & Inorganics <small>As, Cd, Cr, Hg, Pb, Se, V, Ni, Mn, Cu, Zn, Fe, Al, Si, Ti, B, Mo, Ni, Sb, As, Ba, B, Cd, Cr, Co, Cu, Pb, Mo, Ni, S, Se, V, Ni, Mn, Cu, Zn, Fe, Al, Si, Ti, B, Mo, Ni</small>	<input checked="" type="checkbox"/> PAHs only <small>all PAHs, ABNs, CPs</small>	<input type="checkbox"/> PCB <small>Total <input type="checkbox"/> Aroclor</small>	<input checked="" type="checkbox"/> F1-F4 + BTEX <small>F1-F4 only</small>	<input checked="" type="checkbox"/> VOCs <small>all incl BTEX</small>	<input checked="" type="checkbox"/> BTEX only <small>Organochlorine or specify other: (OCPR)</small>		<input type="checkbox"/> Specify TCLP tests <input type="checkbox"/> M&I <input type="checkbox"/> VOC <input type="checkbox"/> PCB <input type="checkbox"/> BTEX <input type="checkbox"/> ABN <input type="checkbox"/> Light
Appendix 2: 406/19 Leachate Screening Levels Table:								<b>Water Characterization Pkg</b> General <input type="checkbox"/> Extended <input type="checkbox"/>
Sewer Use: _____								

**COMMENTS:**

Signature: [Signature] Date: 06/19/23 (mm/dd/yy)  
 Signature: [Signature] Date: 06/19/23 (mm/dd/yy)

Sampled By (NAME): FAHMIDA ANWAR Pink Copy - Client  
 Relinquished by (NAME): FAHMIDA ANWAR Yellow & White Copy - SGS  
 Note: Submission of samples to SGS is acknowledged that you have been provided direction on sample collection, handling and transportation of samples. (2) Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). (3) Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com> and is available in French. Attention is drawn to the limitation of liability, indemnification and jurisdiction terms defined therein.

Received By: Amner  
 Received Date: 06/20/2023 (mm/dd/yy)  
 Received Time: 09:30 (hr.: min)

Received By (signature): AA  
 Custody Seal Present: Yes  No   
 Custody Seal Intact: Yes  No

Cooling Agent Present: Yes  No   
 Temperature Upon Receipt (°C): 4.45  
 Type: ICE

LAB LIMS #: \_\_\_\_\_

### REPORT INFORMATION

Company: DS  
 Contact: Fahmida Anwar  
 Address: 6221 Hwy #7, Unit 16  
Vaughan, ON  
 Phone: 647-879-3866  
 Fax: \_\_\_\_\_  
 Email: fahmida@edconsultants.ca

### INVOICE INFORMATION

(same as Report Information)  
 Company: DS  
 Contact: Accounting-Bindu Geel  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Email: accounting@edconsultants.ca

Quotation #: \_\_\_\_\_  
 Project #: 22-012-101

P.O. #: \_\_\_\_\_  
 Site Location/ID: 3056 Noyagawa Blvd.

### TURNAROUND TIME (TAT) REQUIRED

Regular TAT (5-7days)  
 TAT's are quoted in business days (exclude statutory holidays & weekends).  
 Samples received after 6pm or on weekends: TAT begins next business day

RUSH TAT (Additional Charges May Apply):  1 Day  2 Days  3 Days  4 Days  
 PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION

\*NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

### REGULATIONS

O.Reg 153/04  O.Reg 406/19  
 Table 1  Res/Park  Soil Texture: \_\_\_\_\_  
 Table 2  Ind/Com  Coarse \_\_\_\_\_  
 Table 3  Agr/Other  Medium/Fine \_\_\_\_\_  
 Table \_\_\_\_\_  
 Soil Volume  <350m3  >350m3

Other Regulations: \_\_\_\_\_  
 Reg 347/558 (3 Day min TAT)  
 PW/QO  MMER  
 CCME  Other: \_\_\_\_\_  
 MISA  
 ODWS Not Reportable \*See note

Sewer By-Law: \_\_\_\_\_  
 Sanitary  
 Storm  
 Municipality: \_\_\_\_\_

### RECORD OF SITE CONDITION (RSC)

YES  NO

### SAMPLE IDENTIFICATION

	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX
1 BH23-21 SS1	16/06/23	PM	2	Soil
2 BH23-21 SS2			1	
3 BH23-21 SS4			3	
4 DUP-1			3	
5 DUP2			1	
6				
7				
8				
9				
10				
11				
12				

### ANALYSIS REQUESTED

M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)	TCLP
Field Filtered (Y/N)	PAHs only PAHs, PCBs, PCPs, PAHs, PCBs, PCPs, PAHs, PCBs, PCPs	PCB Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	VOCs all incl BTEX BTEX only	Pesticides (see table) Organochlorine or specify other	Appendix 2: 406/19 Leachate Screening Levels Table	Water Characterization Pkg Specify pkg: General <input type="checkbox"/> Extended <input type="checkbox"/> Light <input type="checkbox"/>
Metals & Inorganics (Cd, Ni, Pb, Hg, Cr, Cu, Zn, Fe, Mn, Al, As, Se, Ba, B, Be, Bi, Br, Ca, Co, Cr, Cs, Cu, Pb, Mo, Ni, Sn, Sb, Sr, Tl, V, W, Zn)	ICP Metals only		F1-F4 only no BTEX				
Full Metals Suite (As, Ba, Be, Bi, Br, Ca, Co, Cr, Cs, Cu, Pb, Mo, Ni, Sn, Sb, Sr, Tl, V, W, Zn)							

### COMMENTS:

Observations/Comments/Special Instructions

Sampled By (NAME): FAHMIDA ANWAR Signature: Fahmida Anwar Date: 06/19/23 (mm/dd/yyyy)  
 Relinquished by (NAME): FAHMIDA ANWAR Signature: Fahmida Anwar Date: 06/19/23 (mm/dd/yyyy)  
 Note: Submission of samples to SGS is acknowledgement that you have been provided direction on sample collection, handling and transportation of samples. (2) Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). (3) Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/terms> and conditions for use. (Do not provide any information to the media or other third parties without the prior written consent of SGS.)  
 Version # 1.4  
 Date of Issue: 22 May, 2020  
 Pink Copy - Client  
 Yellow & White Copy - SGS



Your Project #: 22-012-100  
 Site Location: 3056 NEYAGAWA BLVD.  
 Your C.O.C. #: 862749-01-01

**Attention: Kirstin Olsen**

DS Consultants Limited  
 6221 Highway 7, Unit 16  
 Vaughan, ON  
 CANADA L4H 0K8

**Report Date: 2022/01/28**  
 Report #: R6980732  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C217346**

**Received: 2022/01/21, 15:16**

Sample Matrix: Water  
 # Samples Received: 5

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Methylnaphthalene Sum	5	N/A	2022/01/27	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum	5	N/A	2022/01/27		EPA 8260C m
Chloride by Automated Colourimetry	5	N/A	2022/01/25	CAM SOP-00463	SM 23 4500-Cl E m
Chromium (VI) in Water	5	N/A	2022/01/25	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	5	N/A	2022/01/24	CAM SOP-00457	OMOE E3015 m
Petroleum Hydrocarbons F2-F4 in Water (1)	5	2022/01/26	2022/01/26	CAM SOP-00316	CCME PHC-CWS m
Mercury	5	2022/01/25	2022/01/25	CAM SOP-00453	EPA 7470A m
Dissolved Metals by ICPMS	5	N/A	2022/01/25	CAM SOP-00447	EPA 6020B m
PAH Compounds in Water by GC/MS (SIM)	1	2022/01/26	2022/01/26	CAM SOP-00318	EPA 8270D m
PAH Compounds in Water by GC/MS (SIM)	4	2022/01/26	2022/01/27	CAM SOP-00318	EPA 8270D m
Volatile Organic Compounds and F1 PHCs	5	N/A	2022/01/26	CAM SOP-00230	EPA 8260C m

**Remarks:**

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.



Your Project #: 22-012-100  
Site Location: 3056 NEYAGAWA BLVD.  
Your C.O.C. #: 862749-01-01

**Attention: Kirstin Olsen**

DS Consultants Limited  
6221 Highway 7, Unit 16  
Vaughan, ON  
CANADA L4H 0K8

**Report Date: 2022/01/28**  
Report #: R6980732  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C217346**

**Received: 2022/01/21, 15:16**

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key



**AUTHORIZED REPORT  
RAPPORT AUTORISÉ**

Bureau Veritas  
28 Jan 2022 11:59:53

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Ashton Gibson, Project Manager  
Email: Ashton.Gibson@bureauveritas.com  
Phone# (905)817-5765

=====  
This report has been generated and distributed using a secure automated process.

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



BUREAU  
VERITAS

Bureau Veritas Job #: C217346  
Report Date: 2022/01/28

DS Consultants Limited  
Client Project #: 22-012-100  
Site Location: 3056 NEYAGAWA BLVD.  
Sampler Initials: RZ

**O.REG 153 METALS & INORGANICS PKG (WTR)**

<b>Bureau Veritas ID</b>			RRD592			RRD592			RRD593		
<b>Sampling Date</b>			2022/01/20			2022/01/20			2022/01/20		
<b>COC Number</b>			862749-01-01			862749-01-01			862749-01-01		
	<b>UNITS</b>	<b>Criteria</b>	<b>BH1</b>	<b>RDL</b>	<b>QC Batch</b>	<b>BH1 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>	<b>BH2</b>	<b>RDL</b>	<b>QC Batch</b>

**Inorganics**

WAD Cyanide (Free)	ug/L	66	<1	1	7796846				<1	1	7796846
Dissolved Chloride (Cl-)	mg/L	790	<b>900</b>	10	7796788				520	6.0	7796788

**Metals**

Chromium (VI)	ug/L	25	<0.50	0.50	7796180	<0.50	0.50	7796180	<0.50	0.50	7796180
Mercury (Hg)	ug/L	0.29	<0.10	0.10	7798095				<0.10	0.10	7798095
Dissolved Antimony (Sb)	ug/L	6.0	0.57	0.50	7797531	<0.50	0.50	7797531	0.55	0.50	7797531
Dissolved Arsenic (As)	ug/L	25	<1.0	1.0	7797531	<1.0	1.0	7797531	1.3	1.0	7797531
Dissolved Barium (Ba)	ug/L	1000	180	2.0	7797531	180	2.0	7797531	230	2.0	7797531
Dissolved Beryllium (Be)	ug/L	4.0	<0.40	0.40	7797531	<0.40	0.40	7797531	<0.40	0.40	7797531
Dissolved Boron (B)	ug/L	5000	150	10	7797531	150	10	7797531	150	10	7797531
Dissolved Cadmium (Cd)	ug/L	2.7	<0.090	0.090	7797531	<0.090	0.090	7797531	<0.090	0.090	7797531
Dissolved Chromium (Cr)	ug/L	50	<5.0	5.0	7797531	<5.0	5.0	7797531	<5.0	5.0	7797531
Dissolved Cobalt (Co)	ug/L	3.8	<0.50	0.50	7797531	<0.50	0.50	7797531	<0.50	0.50	7797531
Dissolved Copper (Cu)	ug/L	87	0.92	0.90	7797531	0.96	0.90	7797531	<0.90	0.90	7797531
Dissolved Lead (Pb)	ug/L	10	<0.50	0.50	7797531	<0.50	0.50	7797531	<0.50	0.50	7797531
Dissolved Molybdenum (Mo)	ug/L	70	6.9	0.50	7797531	6.8	0.50	7797531	5.0	0.50	7797531
Dissolved Nickel (Ni)	ug/L	100	<1.0	1.0	7797531	<1.0	1.0	7797531	1.1	1.0	7797531
Dissolved Selenium (Se)	ug/L	10	<2.0	2.0	7797531	<2.0	2.0	7797531	<2.0	2.0	7797531
Dissolved Silver (Ag)	ug/L	1.5	<0.090	0.090	7797531	<0.090	0.090	7797531	<0.090	0.090	7797531
Dissolved Sodium (Na)	ug/L	490000	420000	100	7797531	430000	100	7797531	190000	100	7797531
Dissolved Thallium (Tl)	ug/L	2.0	<0.050	0.050	7797531	<0.050	0.050	7797531	<0.050	0.050	7797531
Dissolved Uranium (U)	ug/L	20	4.7	0.10	7797531	4.6	0.10	7797531	5.6	0.10	7797531
Dissolved Vanadium (V)	ug/L	6.2	0.57	0.50	7797531	0.50	0.50	7797531	0.71	0.50	7797531
Dissolved Zinc (Zn)	ug/L	1100	<5.0	5.0	7797531	<5.0	5.0	7797531	<5.0	5.0	7797531

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)  
 Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition  
 Potable Ground Water- All Types of Property Uses - Coarse Textured Soil



BUREAU  
VERITAS

Bureau Veritas Job #: C217346  
Report Date: 2022/01/28

DS Consultants Limited  
Client Project #: 22-012-100  
Site Location: 3056 NEYAGAWA BLVD.  
Sampler Initials: RZ

**O.REG 153 METALS & INORGANICS PKG (WTR)**

Bureau Veritas ID			RRD594	RRD595		RRD596			RRD596		
Sampling Date			2022/01/20	2022/01/20		2022/01/20			2022/01/20		
COC Number			862749-01-01	862749-01-01		862749-01-01			862749-01-01		
	UNITS	Criteria	BH4	DUP1	RDL	DUP2	RDL	QC Batch	DUP2 Lab-Dup	RDL	QC Batch

**Inorganics**

WAD Cyanide (Free)	ug/L	66	<1	<1	1	<1	1	7796846			
Dissolved Chloride (Cl-)	mg/L	790	30	29	1.0	<b>900</b>	10	7796788			

**Metals**

Chromium (VI)	ug/L	25	<0.50	<0.50	0.50	<0.50	0.50	7796180			
Mercury (Hg)	ug/L	0.29	<0.10	<0.10	0.10	<0.10	0.10	7798095	<0.10	0.10	7798095
Dissolved Antimony (Sb)	ug/L	6.0	<0.50	<0.50	0.50	<0.50	0.50	7797531			
Dissolved Arsenic (As)	ug/L	25	1.1	1.1	1.0	<1.0	1.0	7797531			
Dissolved Barium (Ba)	ug/L	1000	140	140	2.0	190	2.0	7797531			
Dissolved Beryllium (Be)	ug/L	4.0	<0.40	<0.40	0.40	<0.40	0.40	7797531			
Dissolved Boron (B)	ug/L	5000	120	120	10	140	10	7797531			
Dissolved Cadmium (Cd)	ug/L	2.7	<0.090	<0.090	0.090	<0.090	0.090	7797531			
Dissolved Chromium (Cr)	ug/L	50	<5.0	<5.0	5.0	<5.0	5.0	7797531			
Dissolved Cobalt (Co)	ug/L	3.8	<0.50	<0.50	0.50	<0.50	0.50	7797531			
Dissolved Copper (Cu)	ug/L	87	<0.90	<0.90	0.90	<0.90	0.90	7797531			
Dissolved Lead (Pb)	ug/L	10	<0.50	<0.50	0.50	<0.50	0.50	7797531			
Dissolved Molybdenum (Mo)	ug/L	70	3.0	3.0	0.50	6.4	0.50	7797531			
Dissolved Nickel (Ni)	ug/L	100	<1.0	<1.0	1.0	<1.0	1.0	7797531			
Dissolved Selenium (Se)	ug/L	10	<2.0	<2.0	2.0	<2.0	2.0	7797531			
Dissolved Silver (Ag)	ug/L	1.5	<0.090	<0.090	0.090	<0.090	0.090	7797531			
Dissolved Sodium (Na)	ug/L	490000	23000	23000	100	430000	100	7797531			
Dissolved Thallium (Tl)	ug/L	2.0	<0.050	<0.050	0.050	<0.050	0.050	7797531			
Dissolved Uranium (U)	ug/L	20	3.7	3.7	0.10	4.7	0.10	7797531			
Dissolved Vanadium (V)	ug/L	6.2	0.60	0.51	0.50	0.57	0.50	7797531			
Dissolved Zinc (Zn)	ug/L	1100	<5.0	<5.0	5.0	<5.0	5.0	7797531			

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Lab-Dup = Laboratory Initiated Duplicate  
 Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)  
 Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition  
 Potable Ground Water- All Types of Property Uses - Coarse Textured Soil



BUREAU  
VERITAS

Bureau Veritas Job #: C217346  
Report Date: 2022/01/28

DS Consultants Limited  
Client Project #: 22-012-100  
Site Location: 3056 NEYAGAWA BLVD.  
Sampler Initials: RZ

### O.REG 153 PAHS (WATER)

Bureau Veritas ID			RRD592	RRD593	RRD594	RRD595	RRD596		
Sampling Date			2022/01/20	2022/01/20	2022/01/20	2022/01/20	2022/01/20		
COC Number			862749-01-01	862749-01-01	862749-01-01	862749-01-01	862749-01-01		
	UNITS	Criteria	BH1	BH2	BH4	DUP1	DUP2	RDL	QC Batch
<b>Calculated Parameters</b>									
Methylnaphthalene, 2-(1-)	ug/L	3.2	<0.071	<0.071	<0.071	<0.071	<0.071	0.071	7796615
<b>Polyaromatic Hydrocarbons</b>									
Acenaphthene	ug/L	4.1	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7801529
Acenaphthylene	ug/L	1	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7801529
Anthracene	ug/L	2.4	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7801529
Benzo(a)anthracene	ug/L	1.0	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7801529
Benzo(a)pyrene	ug/L	0.01	<0.0090	<0.0090	<0.0090	<0.0090	<0.0090	0.0090	7801529
Benzo(b,j)fluoranthene	ug/L	0.1	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7801529
Benzo(g,h,i)perylene	ug/L	0.2	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7801529
Benzo(k)fluoranthene	ug/L	0.1	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7801529
Chrysene	ug/L	0.1	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7801529
Dibenzo(a,h)anthracene	ug/L	0.2	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7801529
Fluoranthene	ug/L	0.41	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7801529
Fluorene	ug/L	120	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7801529
Indeno(1,2,3-cd)pyrene	ug/L	0.2	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7801529
1-Methylnaphthalene	ug/L	3.2	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7801529
2-Methylnaphthalene	ug/L	3.2	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7801529
Naphthalene	ug/L	11	<0.050	<0.050	0.070	0.069	<0.050	0.050	7801529
Phenanthrene	ug/L	1	<0.030	<0.030	<0.030	<0.030	<0.030	0.030	7801529
Pyrene	ug/L	4.1	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	7801529
<b>Surrogate Recovery (%)</b>									
D10-Anthracene	%	-	84	100	100	88	100		7801529
D14-Terphenyl (FS)	%	-	88	92	95	83	104		7801529
D8-Acenaphthylene	%	-	77	94	91	80	94		7801529
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)									
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition									
Potable Ground Water- All Types of Property Uses - Coarse Textured Soil									





BUREAU  
VERITAS

Bureau Veritas Job #: C217346  
Report Date: 2022/01/28

DS Consultants Limited  
Client Project #: 22-012-100  
Site Location: 3056 NEYAGAWA BLVD.  
Sampler Initials: RZ

**O.REG 153 VOCs BY HS & F1-F4 (WATER)**

Bureau Veritas ID			RRD592	RRD593	RRD594	RRD595	RRD596		
Sampling Date			2022/01/20	2022/01/20	2022/01/20	2022/01/20	2022/01/20		
COC Number			862749-01-01	862749-01-01	862749-01-01	862749-01-01	862749-01-01		
	UNITS	Criteria	BH1	BH2	BH4	DUP1	DUP2	RDL	QC Batch

Calculated Parameters									
1,3-Dichloropropene (cis+trans)	ug/L	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7796324
Volatile Organics									
Acetone (2-Propanone)	ug/L	2700	<10	<10	<10	<10	<10	10	7796661
Benzene	ug/L	5.0	<0.17	<0.17	<0.17	<0.17	<0.17	0.17	7796661
Bromodichloromethane	ug/L	16.0	<0.50	0.56	<0.50	<0.50	<0.50	0.50	7796661
Bromoform	ug/L	25.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7796661
Bromomethane	ug/L	0.89	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7796661
Carbon Tetrachloride	ug/L	0.79	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7796661
Chlorobenzene	ug/L	30	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7796661
Chloroform	ug/L	2.4	0.42	0.52	0.34	0.30	0.45	0.20	7796661
Dibromochloromethane	ug/L	25.0	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7796661
1,2-Dichlorobenzene	ug/L	3.0	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7796661
1,3-Dichlorobenzene	ug/L	59	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7796661
1,4-Dichlorobenzene	ug/L	1.0	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7796661
Dichlorodifluoromethane (FREON 12)	ug/L	590	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7796661
1,1-Dichloroethane	ug/L	5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7796661
1,2-Dichloroethane	ug/L	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7796661
1,1-Dichloroethylene	ug/L	1.6	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7796661
cis-1,2-Dichloroethylene	ug/L	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7796661
trans-1,2-Dichloroethylene	ug/L	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7796661
1,2-Dichloropropane	ug/L	5.0	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7796661
cis-1,3-Dichloropropene	ug/L	0.5	<0.30	<0.30	<0.30	<0.30	<0.30	0.30	7796661
trans-1,3-Dichloropropene	ug/L	0.5	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	7796661
Ethylbenzene	ug/L	2.4	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7796661
Ethylene Dibromide	ug/L	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7796661
Hexane	ug/L	51	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	7796661
Methylene Chloride(Dichloromethane)	ug/L	50	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	7796661
Methyl Ethyl Ketone (2-Butanone)	ug/L	1800	<10	<10	<10	<10	<10	10	7796661
Methyl Isobutyl Ketone	ug/L	640	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	7796661

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit  
 QC Batch = Quality Control Batch  
 Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)  
 Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition  
 Potable Ground Water- All Types of Property Uses - Coarse Textured Soil



BUREAU  
VERITAS

Bureau Veritas Job #: C217346  
Report Date: 2022/01/28

DS Consultants Limited  
Client Project #: 22-012-100  
Site Location: 3056 NEYAGAWA BLVD.  
Sampler Initials: RZ

**O.REG 153 VOCs BY HS & F1-F4 (WATER)**

Bureau Veritas ID			RRD592	RRD593	RRD594	RRD595	RRD596		
Sampling Date			2022/01/20	2022/01/20	2022/01/20	2022/01/20	2022/01/20		
COC Number			862749-01-01	862749-01-01	862749-01-01	862749-01-01	862749-01-01		
	UNITS	Criteria	BH1	BH2	BH4	DUP1	DUP2	RDL	QC Batch
Methyl t-butyl ether (MTBE)	ug/L	15	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7796661
Styrene	ug/L	5.4	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7796661
1,1,1,2-Tetrachloroethane	ug/L	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7796661
1,1,2,2-Tetrachloroethane	ug/L	1.0	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7796661
Tetrachloroethylene	ug/L	1.6	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7796661
Toluene	ug/L	24	<0.20	0.22	0.21	<0.20	<0.20	0.20	7796661
1,1,1-Trichloroethane	ug/L	200	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7796661
1,1,2-Trichloroethane	ug/L	4.7	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7796661
Trichloroethylene	ug/L	1.6	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7796661
Trichlorofluoromethane (FREON 11)	ug/L	150	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	7796661
Vinyl Chloride	ug/L	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7796661
p+m-Xylene	ug/L	-	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7796661
o-Xylene	ug/L	-	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7796661
Total Xylenes	ug/L	300	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7796661
F1 (C6-C10)	ug/L	750	<25	<25	<25	<25	<25	25	7796661
F1 (C6-C10) - BTEX	ug/L	750	<25	<25	<25	<25	<25	25	7796661
<b>F2-F4 Hydrocarbons</b>									
F2 (C10-C16 Hydrocarbons)	ug/L	150	<100	<100	<100	<100	<100	100	7801542
F3 (C16-C34 Hydrocarbons)	ug/L	500	<200	<200	<200	<200	<200	200	7801542
F4 (C34-C50 Hydrocarbons)	ug/L	500	<200	<200	<200	<200	<200	200	7801542
Reached Baseline at C50	ug/L	-	Yes	Yes	Yes	Yes	Yes		7801542
<b>Surrogate Recovery (%)</b>									
o-Terphenyl	%	-	97	91	91	88	87		7801542
4-Bromofluorobenzene	%	-	101	100	98	100	100		7796661
D4-1,2-Dichloroethane	%	-	99	101	102	106	109		7796661
D8-Toluene	%	-	92	91	91	90	89		7796661
No Fill	No Exceedance								
Grey	Exceeds 1 criteria policy/level								
Black	Exceeds both criteria/levels								
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)									
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition									
Potable Ground Water- All Types of Property Uses - Coarse Textured Soil									



BUREAU  
VERITAS

Bureau Veritas Job #: C217346  
Report Date: 2022/01/28

DS Consultants Limited  
Client Project #: 22-012-100  
Site Location: 3056 NEYAGAWA BLVD.  
Sampler Initials: RZ

### TEST SUMMARY

**Bureau Veritas ID:** RRD592  
**Sample ID:** BH1  
**Matrix:** Water

**Collected:** 2022/01/20  
**Shipped:**  
**Received:** 2022/01/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	7796615	N/A	2022/01/27	Automated Statchk
1,3-Dichloropropene Sum	CALC	7796324	N/A	2022/01/27	Automated Statchk
Chloride by Automated Colourimetry	KONE	7796788	N/A	2022/01/25	Alina Dobreanu
Chromium (VI) in Water	IC	7796180	N/A	2022/01/25	Theodora LI
Free (WAD) Cyanide	SKAL/CN	7796846	N/A	2022/01/24	Nimarta Singh
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	7801542	2022/01/26	2022/01/26	(Kent) Maolin Li
Mercury	CV/AA	7798095	2022/01/25	2022/01/25	Gagandeep Rai
Dissolved Metals by ICPMS	ICP/MS	7797531	N/A	2022/01/25	Nan Raykha
PAH Compounds in Water by GC/MS (SIM)	GC/MS	7801529	2022/01/26	2022/01/26	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7796661	N/A	2022/01/26	Juan Pangilinan

**Bureau Veritas ID:** RRD592 Dup  
**Sample ID:** BH1  
**Matrix:** Water

**Collected:** 2022/01/20  
**Shipped:**  
**Received:** 2022/01/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chromium (VI) in Water	IC	7796180	N/A	2022/01/25	Theodora LI
Dissolved Metals by ICPMS	ICP/MS	7797531	N/A	2022/01/25	Nan Raykha

**Bureau Veritas ID:** RRD593  
**Sample ID:** BH2  
**Matrix:** Water

**Collected:** 2022/01/20  
**Shipped:**  
**Received:** 2022/01/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	7796615	N/A	2022/01/27	Automated Statchk
1,3-Dichloropropene Sum	CALC	7796324	N/A	2022/01/27	Automated Statchk
Chloride by Automated Colourimetry	KONE	7796788	N/A	2022/01/25	Alina Dobreanu
Chromium (VI) in Water	IC	7796180	N/A	2022/01/25	Theodora LI
Free (WAD) Cyanide	SKAL/CN	7796846	N/A	2022/01/24	Nimarta Singh
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	7801542	2022/01/26	2022/01/26	(Kent) Maolin Li
Mercury	CV/AA	7798095	2022/01/25	2022/01/25	Gagandeep Rai
Dissolved Metals by ICPMS	ICP/MS	7797531	N/A	2022/01/25	Nan Raykha
PAH Compounds in Water by GC/MS (SIM)	GC/MS	7801529	2022/01/26	2022/01/27	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7796661	N/A	2022/01/26	Juan Pangilinan

**Bureau Veritas ID:** RRD594  
**Sample ID:** BH4  
**Matrix:** Water

**Collected:** 2022/01/20  
**Shipped:**  
**Received:** 2022/01/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	7796615	N/A	2022/01/27	Automated Statchk
1,3-Dichloropropene Sum	CALC	7796324	N/A	2022/01/27	Automated Statchk
Chloride by Automated Colourimetry	KONE	7796788	N/A	2022/01/25	Alina Dobreanu
Chromium (VI) in Water	IC	7796180	N/A	2022/01/25	Theodora LI



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VERITAS

Bureau Veritas Job #: C217346

Report Date: 2022/01/28

DS Consultants Limited

Client Project #: 22-012-100

Site Location: 3056 NEYAGAWA BLVD.

Sampler Initials: RZ

### TEST SUMMARY

**Bureau Veritas ID:** RRD594  
**Sample ID:** BH4  
**Matrix:** Water

**Collected:** 2022/01/20  
**Shipped:**  
**Received:** 2022/01/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	SKAL/CN	7796846	N/A	2022/01/24	Nimarta Singh
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	7801542	2022/01/26	2022/01/26	(Kent) Maolin Li
Mercury	CV/AA	7798095	2022/01/25	2022/01/25	Gagandeep Rai
Dissolved Metals by ICPMS	ICP/MS	7797531	N/A	2022/01/25	Nan Raykha
PAH Compounds in Water by GC/MS (SIM)	GC/MS	7801529	2022/01/26	2022/01/27	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7796661	N/A	2022/01/26	Juan Pangilinan

**Bureau Veritas ID:** RRD595  
**Sample ID:** DUP1  
**Matrix:** Water

**Collected:** 2022/01/20  
**Shipped:**  
**Received:** 2022/01/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	7796615	N/A	2022/01/27	Automated Statchk
1,3-Dichloropropene Sum	CALC	7796324	N/A	2022/01/27	Automated Statchk
Chloride by Automated Colourimetry	KONE	7796788	N/A	2022/01/25	Alina Dobreanu
Chromium (VI) in Water	IC	7796180	N/A	2022/01/25	Theodora LI
Free (WAD) Cyanide	SKAL/CN	7796846	N/A	2022/01/24	Nimarta Singh
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	7801542	2022/01/26	2022/01/26	(Kent) Maolin Li
Mercury	CV/AA	7798095	2022/01/25	2022/01/25	Gagandeep Rai
Dissolved Metals by ICPMS	ICP/MS	7797531	N/A	2022/01/25	Nan Raykha
PAH Compounds in Water by GC/MS (SIM)	GC/MS	7801529	2022/01/26	2022/01/27	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7796661	N/A	2022/01/26	Juan Pangilinan

**Bureau Veritas ID:** RRD596  
**Sample ID:** DUP2  
**Matrix:** Water

**Collected:** 2022/01/20  
**Shipped:**  
**Received:** 2022/01/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	7796615	N/A	2022/01/27	Automated Statchk
1,3-Dichloropropene Sum	CALC	7796324	N/A	2022/01/27	Automated Statchk
Chloride by Automated Colourimetry	KONE	7796788	N/A	2022/01/25	Alina Dobreanu
Chromium (VI) in Water	IC	7796180	N/A	2022/01/25	Theodora LI
Free (WAD) Cyanide	SKAL/CN	7796846	N/A	2022/01/24	Nimarta Singh
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	7801542	2022/01/26	2022/01/26	(Kent) Maolin Li
Mercury	CV/AA	7798095	2022/01/25	2022/01/25	Gagandeep Rai
Dissolved Metals by ICPMS	ICP/MS	7797531	N/A	2022/01/25	Nan Raykha
PAH Compounds in Water by GC/MS (SIM)	GC/MS	7801529	2022/01/26	2022/01/27	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7796661	N/A	2022/01/26	Juan Pangilinan



BUREAU  
VERITAS

Bureau Veritas Job #: C217346  
Report Date: 2022/01/28

DS Consultants Limited  
Client Project #: 22-012-100  
Site Location: 3056 NEYAGAWA BLVD.  
Sampler Initials: RZ

### TEST SUMMARY

**Bureau Veritas ID:** RRD596 Dup  
**Sample ID:** DUP2  
**Matrix:** Water

**Collected:** 2022/01/20  
**Shipped:**  
**Received:** 2022/01/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury	CV/AA	7798095	2022/01/25	2022/01/25	Gagandeep Rai



BUREAU  
VERITAS

Bureau Veritas Job #: C217346  
Report Date: 2022/01/28

DS Consultants Limited  
Client Project #: 22-012-100  
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Sampler Initials: RZ

### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	1.7°C
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**Results relate only to the items tested.**



BUREAU  
VERITAS

Bureau Veritas Job #: C217346

Report Date: 2022/01/28

### QUALITY ASSURANCE REPORT

DS Consultants Limited

Client Project #: 22-012-100

Site Location: 3056 NEYAGAWA BLVD.

Sampler Initials: RZ

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7796661	4-Bromofluorobenzene	2022/01/26	114	70 - 130	113	70 - 130	100	%		
7796661	D4-1,2-Dichloroethane	2022/01/26	101	70 - 130	99	70 - 130	103	%		
7796661	D8-Toluene	2022/01/26	94	70 - 130	100	70 - 130	89	%		
7801529	D10-Anthracene	2022/01/26	87	50 - 130	101	50 - 130	99	%		
7801529	D14-Terphenyl (FS)	2022/01/26	90	50 - 130	111	50 - 130	113	%		
7801529	D8-Acenaphthylene	2022/01/26	80	50 - 130	95	50 - 130	82	%		
7801542	o-Terphenyl	2022/01/26	99	60 - 130	102	60 - 130	104	%		
7796180	Chromium (VI)	2022/01/25	104	80 - 120	104	80 - 120	<0.50	ug/L	NC	20
7796661	1,1,1,2-Tetrachloroethane	2022/01/26	102	70 - 130	101	70 - 130	<0.50	ug/L	NC	30
7796661	1,1,1-Trichloroethane	2022/01/26	106	70 - 130	102	70 - 130	<0.20	ug/L	NC	30
7796661	1,1,2,2-Tetrachloroethane	2022/01/26	104	70 - 130	101	70 - 130	<0.50	ug/L	NC	30
7796661	1,1,2-Trichloroethane	2022/01/26	87	70 - 130	88	70 - 130	<0.50	ug/L	NC	30
7796661	1,1-Dichloroethane	2022/01/26	90	70 - 130	91	70 - 130	<0.20	ug/L	1.9	30
7796661	1,1-Dichloroethylene	2022/01/26	91	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
7796661	1,2-Dichlorobenzene	2022/01/26	91	70 - 130	90	70 - 130	<0.50	ug/L	NC	30
7796661	1,2-Dichloroethane	2022/01/26	99	70 - 130	95	70 - 130	<0.50	ug/L	NC	30
7796661	1,2-Dichloropropane	2022/01/26	91	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
7796661	1,3-Dichlorobenzene	2022/01/26	96	70 - 130	93	70 - 130	<0.50	ug/L	1.6	30
7796661	1,4-Dichlorobenzene	2022/01/26	120	70 - 130	113	70 - 130	<0.50	ug/L	1.6	30
7796661	Acetone (2-Propanone)	2022/01/26	79	60 - 140	82	60 - 140	<10	ug/L	NC	30
7796661	Benzene	2022/01/26	87	70 - 130	86	70 - 130	<0.17	ug/L	NC	30
7796661	Bromodichloromethane	2022/01/26	105	70 - 130	102	70 - 130	<0.50	ug/L	NC	30
7796661	Bromoform	2022/01/26	119	70 - 130	114	70 - 130	<1.0	ug/L	NC	30
7796661	Bromomethane	2022/01/26	106	60 - 140	94	60 - 140	<0.50	ug/L	NC	30
7796661	Carbon Tetrachloride	2022/01/26	110	70 - 130	107	70 - 130	<0.20	ug/L	NC	30
7796661	Chlorobenzene	2022/01/26	97	70 - 130	97	70 - 130	<0.20	ug/L	5.9	30
7796661	Chloroform	2022/01/26	101	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
7796661	cis-1,2-Dichloroethylene	2022/01/26	106	70 - 130	104	70 - 130	<0.50	ug/L	1.0	30
7796661	cis-1,3-Dichloropropene	2022/01/26	101	70 - 130	91	70 - 130	<0.30	ug/L	NC	30
7796661	Dibromochloromethane	2022/01/26	98	70 - 130	96	70 - 130	<0.50	ug/L	NC	30
7796661	Dichlorodifluoromethane (FREON 12)	2022/01/26	71	60 - 140	68	60 - 140	<1.0	ug/L	NC	30



BUREAU  
VERITAS

Bureau Veritas Job #: C217346

Report Date: 2022/01/28

### QUALITY ASSURANCE REPORT(CONT'D)

DS Consultants Limited

Client Project #: 22-012-100

Site Location: 3056 NEYAGAWA BLVD.

Sampler Initials: RZ

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7796661	Ethylbenzene	2022/01/26	84	70 - 130	85	70 - 130	<0.20	ug/L	NC	30
7796661	Ethylene Dibromide	2022/01/26	95	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
7796661	F1 (C6-C10) - BTEX	2022/01/26					<25	ug/L	NC	30
7796661	F1 (C6-C10)	2022/01/26	85	60 - 140	90	60 - 140	<25	ug/L	NC	30
7796661	Hexane	2022/01/26	86	70 - 130	89	70 - 130	<1.0	ug/L	NC	30
7796661	Methyl Ethyl Ketone (2-Butanone)	2022/01/26	90	60 - 140	91	60 - 140	<10	ug/L	NC	30
7796661	Methyl Isobutyl Ketone	2022/01/26	91	70 - 130	91	70 - 130	<5.0	ug/L	NC	30
7796661	Methyl t-butyl ether (MTBE)	2022/01/26	90	70 - 130	91	70 - 130	<0.50	ug/L	NC	30
7796661	Methylene Chloride(Dichloromethane)	2022/01/26	98	70 - 130	98	70 - 130	<2.0	ug/L	NC	30
7796661	o-Xylene	2022/01/26	87	70 - 130	87	70 - 130	<0.20	ug/L	NC	30
7796661	p+m-Xylene	2022/01/26	88	70 - 130	88	70 - 130	<0.20	ug/L	NC	30
7796661	Styrene	2022/01/26	104	70 - 130	105	70 - 130	<0.50	ug/L	NC	30
7796661	Tetrachloroethylene	2022/01/26	100	70 - 130	102	70 - 130	<0.20	ug/L	NC	30
7796661	Toluene	2022/01/26	97	70 - 130	98	70 - 130	<0.20	ug/L	NC	30
7796661	Total Xylenes	2022/01/26					<0.20	ug/L	NC	30
7796661	trans-1,2-Dichloroethylene	2022/01/26	103	70 - 130	103	70 - 130	<0.50	ug/L	NC	30
7796661	trans-1,3-Dichloropropene	2022/01/26	100	70 - 130	86	70 - 130	<0.40	ug/L	NC	30
7796661	Trichloroethylene	2022/01/26	116	70 - 130	113	70 - 130	<0.20	ug/L	2.0	30
7796661	Trichlorofluoromethane (FREON 11)	2022/01/26	104	70 - 130	102	70 - 130	<0.50	ug/L	NC	30
7796661	Vinyl Chloride	2022/01/26	82	70 - 130	83	70 - 130	<0.20	ug/L	3.3	30
7796788	Dissolved Chloride (Cl-)	2022/01/25	111	80 - 120	101	80 - 120	<1.0	mg/L	1.3	20
7796846	WAD Cyanide (Free)	2022/01/24	109	80 - 120	105	80 - 120	<1	ug/L	NC	20
7797531	Dissolved Antimony (Sb)	2022/01/25	112	80 - 120	102	80 - 120	<0.50	ug/L	13	20
7797531	Dissolved Arsenic (As)	2022/01/25	108	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
7797531	Dissolved Barium (Ba)	2022/01/25	106	80 - 120	99	80 - 120	<2.0	ug/L	1.5	20
7797531	Dissolved Beryllium (Be)	2022/01/25	114	80 - 120	102	80 - 120	<0.40	ug/L	NC	20
7797531	Dissolved Boron (B)	2022/01/25	104	80 - 120	98	80 - 120	<10	ug/L	2.2	20
7797531	Dissolved Cadmium (Cd)	2022/01/25	106	80 - 120	100	80 - 120	<0.090	ug/L	NC	20
7797531	Dissolved Chromium (Cr)	2022/01/25	102	80 - 120	96	80 - 120	<5.0	ug/L	NC	20
7797531	Dissolved Cobalt (Co)	2022/01/25	103	80 - 120	97	80 - 120	<0.50	ug/L	NC	20
7797531	Dissolved Copper (Cu)	2022/01/25	104	80 - 120	98	80 - 120	<0.90	ug/L	3.9	20





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VERITAS

Bureau Veritas Job #: C217346

Report Date: 2022/01/28

### QUALITY ASSURANCE REPORT(CONT'D)

DS Consultants Limited

Client Project #: 22-012-100

Site Location: 3056 NEYAGAWA BLVD.

Sampler Initials: RZ

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7797531	Dissolved Lead (Pb)	2022/01/25	98	80 - 120	97	80 - 120	<0.50	ug/L	NC	20
7797531	Dissolved Molybdenum (Mo)	2022/01/25	117	80 - 120	104	80 - 120	<0.50	ug/L	1.6	20
7797531	Dissolved Nickel (Ni)	2022/01/25	98	80 - 120	95	80 - 120	<1.0	ug/L	NC	20
7797531	Dissolved Selenium (Se)	2022/01/25	107	80 - 120	101	80 - 120	<2.0	ug/L	NC	20
7797531	Dissolved Silver (Ag)	2022/01/25	105	80 - 120	102	80 - 120	<0.090	ug/L	NC	20
7797531	Dissolved Sodium (Na)	2022/01/25	NC	80 - 120	94	80 - 120	<100	ug/L	3.1	20
7797531	Dissolved Thallium (Tl)	2022/01/25	98	80 - 120	97	80 - 120	<0.050	ug/L	NC	20
7797531	Dissolved Uranium (U)	2022/01/25	99	80 - 120	95	80 - 120	<0.10	ug/L	2.0	20
7797531	Dissolved Vanadium (V)	2022/01/25	107	80 - 120	98	80 - 120	<0.50	ug/L	12	20
7797531	Dissolved Zinc (Zn)	2022/01/25	101	80 - 120	98	80 - 120	<5.0	ug/L	NC	20
7798095	Mercury (Hg)	2022/01/25	82	75 - 125	93	80 - 120	<0.10	ug/L	NC	20
7801529	1-Methylnaphthalene	2022/01/26	104	50 - 130	100	50 - 130	<0.050	ug/L	NC	30
7801529	2-Methylnaphthalene	2022/01/26	105	50 - 130	100	50 - 130	<0.050	ug/L	NC	30
7801529	Acenaphthene	2022/01/26	93	50 - 130	91	50 - 130	<0.050	ug/L	NC	30
7801529	Acenaphthylene	2022/01/26	90	50 - 130	86	50 - 130	<0.050	ug/L	NC	30
7801529	Anthracene	2022/01/26	92	50 - 130	91	50 - 130	<0.050	ug/L	NC	30
7801529	Benzo(a)anthracene	2022/01/26	85	50 - 130	86	50 - 130	<0.050	ug/L	NC	30
7801529	Benzo(a)pyrene	2022/01/26	84	50 - 130	85	50 - 130	<0.0090	ug/L	NC	30
7801529	Benzo(b,j)fluoranthene	2022/01/26	84	50 - 130	88	50 - 130	<0.050	ug/L	NC	30
7801529	Benzo(g,h,i)perylene	2022/01/26	87	50 - 130	87	50 - 130	<0.050	ug/L	NC	30
7801529	Benzo(k)fluoranthene	2022/01/26	81	50 - 130	80	50 - 130	<0.050	ug/L	NC	30
7801529	Chrysene	2022/01/26	90	50 - 130	90	50 - 130	<0.050	ug/L	NC	30
7801529	Dibenzo(a,h)anthracene	2022/01/26	80	50 - 130	80	50 - 130	<0.050	ug/L	NC	30
7801529	Fluoranthene	2022/01/26	107	50 - 130	108	50 - 130	<0.050	ug/L	NC	30
7801529	Fluorene	2022/01/26	102	50 - 130	99	50 - 130	<0.050	ug/L	NC	30
7801529	Indeno(1,2,3-cd)pyrene	2022/01/26	91	50 - 130	92	50 - 130	<0.050	ug/L	NC	30
7801529	Naphthalene	2022/01/26	91	50 - 130	87	50 - 130	<0.050	ug/L	NC	30
7801529	Phenanthrene	2022/01/26	98	50 - 130	98	50 - 130	<0.030	ug/L	NC	30
7801529	Pyrene	2022/01/26	104	50 - 130	105	50 - 130	<0.050	ug/L	NC	30
7801542	F2 (C10-C16 Hydrocarbons)	2022/01/27	90	60 - 130	90	60 - 130	<100	ug/L	NC	30
7801542	F3 (C16-C34 Hydrocarbons)	2022/01/27	95	60 - 130	97	60 - 130	<200	ug/L	NC	30



BUREAU  
VERITAS

Bureau Veritas Job #: C217346

Report Date: 2022/01/28

### QUALITY ASSURANCE REPORT(CONT'D)

DS Consultants Limited

Client Project #: 22-012-100

Site Location: 3056 NEYAGAWA BLVD.

Sampler Initials: RZ

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7801542	F4 (C34-C50 Hydrocarbons)	2022/01/27	98	60 - 130	98	60 - 130	<200	ug/L	NC	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).



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VERITAS

Bureau Veritas Job #: C217346  
Report Date: 2022/01/28

DS Consultants Limited  
Client Project #: 22-012-100  
Site Location: 3056 NEYAGAWA BLVD.  
Sampler Initials: RZ

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

\_\_\_\_\_  
Anastassia Hamanov, Scientific Specialist

---

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



BUREAU  
VERITAS

Bureau Veritas Job #: C217346  
Report Date: 2022/01/28

DS Consultants Limited  
Client Project #: 22-012-100  
Site Location: 3056 NEYAGAWA BLVD.  
Sampler Initials: RZ

**Exceedance Summary Table – Reg153/04 T2-GW-C**  
**Result Exceedances**

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
BH1	RRD592-01	Dissolved Chloride (Cl-)	790	900	10	mg/L
DUP2	RRD596-01	Dissolved Chloride (Cl-)	790	900	10	mg/L

The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

21-Jan-22 15:16

Ashton Gibson



C217346

### Presence of Visible Particulate/Sediment

Maxxam Analytics  
CAM FCD-01013/5  
Page 1 of 1

When there is >1cm of visible particulate/sediment, the amount will be recorded in the field below

		Bottle Types																												
Sample ID		Inorganics					Organics										Hydrocarbons						Volatiles				Other			
	All	CrVI	CN	General	Hg	Metals (Diss.)	Organic 1 of 2	Organic 2 of 2	PCB 1 of 2	PCB 2 of 2	Pest/Herb 1 of 2	Pest/Herb 2 of 2	SVOC/ABN 1 of 2	SVOC/ABN 2 of 2	PAH 1 of 2	PAH 2 of 2	Dioxin/Furan	F1 Vial 1	F1 Vial 2	F1 Vial 3	F1 Vial 4	F2-F4 1 of 2	F2-F4 2 of 2	F4G	VOC Vial 1	VOC Vial 2	VOC Vial 3	VOC Vial 4		
1	BH1	TS																												
2	BH2	TS																												
3	BH4	TS																												
4	DUP1	TS																												
5	DUP2	TS																												
6																														
7																														
8																														
9																														
10																														

Comments: Except Metals, Cr VI, Hg

Legend:	
P	Suspended Particulate
TS	Trace Settled Sediment (just covers bottom of container or less)
S	Sediment greater than (>) Trace, but less than (<) 1 cm

Recorded By: (signature/print) *DIPIKA SINGH*



CHAIN OF CUSTODY RECORD

<b>INVOICE TO:</b> Company Name: #32616 DS Consultants Limited Attention: Accounts Payable Address: 6221 Highway 7, Unit 16 Vaughan ON L4H 0K8 Tel: (905) 264-9393 Email: accounting@dsconsultants.ca; bindu.goel@dsconsultant		<b>REPORT TO:</b> Company Name: DS Consultants Ltd Attention: Kirstin Olsen Address: Tel: Email: kirstin.olsen@dsconsultants.ca		<b>PROJECT INFORMATION:</b> Quotation #: B83863 P.O. #: Project: 22-012-100 Project Name: Site #: 3056 Neyagawa Blvd Sampled By:		<b>Laboratory Use Only:</b> Bureau Veritas Job #: Bottle Order #: 862749 COC #: Project Manager: Ashton Gibson C#862749-01-01	
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	------------------------------------------------------------------------------------------------------------------------------------------------	--	----------------------------------------------------------------------------------------------------------------------------------------------------	--	----------------------------------------------------------------------------------------------------------------------------------------------	--

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY						ANALYSIS REQUESTED (PLEASE BE SPECIFIC)			Turnaround Time (TAT) Required: Please provide advance notice for rush projects		
Regulation 153 (2011)		Other Regulations		Special Instructions		Field Filtered (Please circle): Metals / Hg / Cr VI	O Reg 153 VOCs by HS & F1-F4	O Reg 153 PAHs	O Reg 153 Metals & Inorganics Pkg (W)	Regular (Standard) TAT: <i>(will be applied if Rush TAT is not specified)</i> Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.	
<input type="checkbox"/> Table 1	<input checked="" type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw						Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ (call lab for #)	
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw						<input checked="" type="checkbox"/>	
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	Municipality _____							
<input type="checkbox"/> Table _____			<input type="checkbox"/> PWQO	Reg 406 Table _____							
Include Criteria on Certificate of Analysis (Y/N)? <input checked="" type="checkbox"/>											
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix						# of Bottles	Comments
1	BH1	Jan 20 21 22	am pm	CTW		X	X	X			
2	BH2					X	X	X			
3	BH4					X	X	X			
4	DUP 1					X	X	X			
5	DUP 2					X	X	X			
6	Trip Blank					X					
7											
8											
9											
10											

21-Jan-22 15:16  
Ashton Gibson  
C217346  
DSG ENV-951

* RELINQUISHED BY: (Signature/Print) Ryan Zhang		Date: (YY/MM/DD) 21 2022 Jun 21	Time	RECEIVED BY: (Signature/Print) [Signature]	Date: (YY/MM/DD) 21 2022 Jun 21	Time 15:16	# jars used and not submitted	Laboratory Use Only			
Time Sensitive	Temperature (°C) on Recept [Signature]	Custody Seal Present Intact	Yes	No	White: Bureau Veritas Yellow: Client						

\* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.  
 \*\* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.  
 \*\*\* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.  
 SAMPLES MUST BE KEPT COOL (< 10° C.) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS



## FINAL REPORT

CA40240-JUN23 R

22-012-101

Prepared for

**DS Consultants**

**First Page**

CLIENT DETAILS		LABORATORY DETAILS	
Client	DS Consultants	Project Specialist	Brad Moore Hon. B.Sc
Address	6221 Highway 7 Unit 6 Vaughan, Ontario L4H 0K8, Canada	Laboratory	SGS Canada Inc.
Contact	Fahmida Anwar	Address	185 Concession St., Lakefield ON, K0L 2H0
Telephone	647-879-3866	Telephone	705-652-2143
Facsimile		Facsimile	705-652-6365
Email	fanwar@dsconsultants.ca	Email	brad.moore@sgs.com
Project	22-012-101	SGS Reference	CA40240-JUN23
Order Number		Received	06/21/2023
Samples	Soil (13)	Approved	06/29/2023
		Report Number	CA40240-JUN23 R
		Date Reported	06/29/2023

**COMMENTS**

CCME Method Compliance: Analyses were conducted using analytical procedures that comply with the Reference Method for the CWS for Petroleum Hydrocarbons in Soil and have been validated for use at the SGS laboratory, Lakefield, ON site.

Quality Compliance: Instrument performance / calibration quality criteria were met and extraction and analysis limits for holding times were met.

nC6 and nC10 response factors within 30% of response factor for toluene: YES

nC10, nC16 and nC34 response factors within 10% of the average response for the three compounds: YES

C50 response factors within 70% of nC10 + nC16 + nC34 average: YES

Linearity is within 15%: YES

F4G - gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

The results for F4 and F4G are both reported and the greater of the two values is to be used in application to the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

Benzo(b)fluoranthene results for comparison to the standard are reported as benzo(b+j)fluoranthene. Benzo(b)fluoranthene and benzo(j)fluoranthene co-elute and cannot be reported individually by the analytical method used.

Temperature of Sample upon Receipt: 8 degrees C


Cooling Agent Present:yes

Custody Seal Present:yes

Chain of Custody Number:032208/032209

**SIGNATORIES**

Brad Moore Hon. B.Sc





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# FINAL REPORT

CA40240-JUN23 R

**Client:** DS Consultants

**Project:** 22-012-101

**Project Manager:** Fahmida Anwar

**Samplers:** NA

MATRIX: SOIL

Sample Number	9	10	11	12	13	14	15	16
<b>Sample Name</b>	BH23-9 SS1	BH23-9 SS2	BH23-9 SS3	BH23-10 SS1	BH23-10 SS2	BH23-10 SS3	BH23-11 SS2	BH23-12 SS2
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	19/06/2023	19/06/2023	19/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
<b>BTEX</b>												
Benzene	µg/g	0.02	0.21	---	---	< 0.02	---	---	< 0.02	---	---	
Ethylbenzene	µg/g	0.05	1.1	---	---	< 0.05	---	---	< 0.05	---	---	
Toluene	µg/g	0.05	2.3	---	---	< 0.05	---	---	< 0.05	---	---	
Xylene (total)	µg/g	0.05	3.1	---	---	< 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	---	---	

**Hydrides**

Antimony	µg/g	0.8	7.5	< 0.8	---	---	---	< 0.8	---	< 0.8	< 0.8
Arsenic	µg/g	0.5	18	7.5	---	---	---	4.7	---	4.9	5.6
Selenium	µg/g	0.1	2.4	< 0.1	---	---	---	< 0.1	---	< 0.1	< 0.1

**Metals and Inorganics**

Moisture Content	%	no		4.0	9.2	8.6	11.3	6.5	8.5	7.7	10.8
Barium	µg/g	0.1	390	8.2	---	---	---	68	---	61	82
Beryllium	µg/g	0.02	4	0.08	---	---	---	0.70	---	0.73	0.67
Boron	µg/g	1	120	10	---	---	---	13	---	14	10
Cadmium	µg/g	0.05	1.2	0.21	---	---	---	0.11	---	0.10	0.10
Chromium	µg/g	0.5	160	2.4	---	---	---	18	---	20	18
Cobalt	µg/g	0.01	22	1.4	---	---	---	11	---	12	11
Copper	µg/g	0.1	140	4.2	---	---	---	16	---	18	21
Lead	µg/g	0.1	120	9.9	---	---	---	10	---	12	9.8
Molybdenum	µg/g	0.1	6.9	0.8	---	---	---	0.6	---	0.8	0.5



# FINAL REPORT

CA40240-JUN23 R

Client: DS Consultants

Project: 22-012-101

Project Manager: Fahmida Anwar

Samplers: NA

MATRIX: SOIL	Sample Number	9	10	11	12	13	14	15	16
	Sample Name	BH23-9 SS1	BH23-9 SS2	BH23-9 SS3	BH23-10 SS1	BH23-10 SS2	BH23-10 SS3	BH23-11 SS2	BH23-12 SS2
	Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	19/06/2023	19/06/2023	19/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
<b>Metals and Inorganics (continued)</b>												
Nickel	µg/g	0.5	100	3.4	---	---	---	24	---	27	25	
Silver	µg/g	0.05	20	< 0.05	---	---	---	< 0.05	---	< 0.05	< 0.05	
Thallium	µg/g	0.02	1	0.04	---	---	---	0.10	---	0.10	0.13	
Uranium	µg/g	0.002	23	0.24	---	---	---	0.50	---	0.51	0.51	
Vanadium	µg/g	3	86	< 3	---	---	---	25	---	26	24	
Zinc	µg/g	0.7	340	63	---	---	---	49	---	54	52	
Water Soluble Boron	µg/g	0.5	1.5	< 0.5	---	---	---	< 0.5	---	< 0.5	< 0.5	

### Organochlorine Pests (OCs)

Aldrin	µg/g	0.05	0.05	< 0.05	---	---	< 0.05	---	---	---	---
alpha-Chlordane	µg/g	0.02		< 0.02	---	---	< 0.02	---	---	---	---
gamma-Chlordane	µg/g	0.02		< 0.02	---	---	< 0.02	---	---	---	---
Chlordane (total)	µg/g	0.05	0.05	< 0.05	---	---	< 0.05	---	---	---	---
o,p-DDD	µg/g	0.02		< 0.02	---	---	< 0.02	---	---	---	---
pp-DDD	µg/g	0.02		< 0.02	---	---	< 0.02	---	---	---	---
DDD (total)	µg/g	0.05	3.3	< 0.05	---	---	< 0.05	---	---	---	---
o,p-DDE	µg/g	0.02		< 0.02	---	---	< 0.02	---	---	---	---
pp-DDE	µg/g	0.02		< 0.02	---	---	< 0.02	---	---	---	---
DDE (total)	µg/g	0.05	0.26	< 0.05	---	---	< 0.05	---	---	---	---
op-DDT	µg/g	0.02		< 0.02	---	---	< 0.02	---	---	---	---
pp-DDT	µg/g	0.02		< 0.02	---	---	< 0.02	---	---	---	---
DDT (total)	µg/g	0.05	1.4	< 0.05	---	---	< 0.05	---	---	---	---
Dieldrin	µg/g	0.05	0.05	< 0.05	---	---	< 0.05	---	---	---	---



# FINAL REPORT

CA40240-JUN23 R

**Client:** DS Consultants

**Project:** 22-012-101

**Project Manager:** Fahmida Anwar

**Samplers:** NA

MATRIX: SOIL

Sample Number	9	10	11	12	13	14	15	16
<b>Sample Name</b>	BH23-9 SS1	BH23-9 SS2	BH23-9 SS3	BH23-10 SS1	BH23-10 SS2	BH23-10 SS3	BH23-11 SS2	BH23-12 SS2
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	19/06/2023	19/06/2023	19/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
<b>Organochlorine Pests (OCs) (continued)</b>												
gamma-BHC	µg/g	0.01	0.056	< 0.01	---	---	< 0.01	---	---	---	---	
Endosulfan I	µg/g	0.02		< 0.02	---	---	< 0.02	---	---	---	---	
Endosulfan II	µg/g	0.02		< 0.02	---	---	< 0.02	---	---	---	---	
Endosulfan (total)	µg/g	0.04	0.04	< 0.04	---	---	< 0.04	---	---	---	---	
Endrin	µg/g	0.04	0.04	< 0.04	---	---	< 0.04	---	---	---	---	
Heptachlor	µg/g	0.01	0.15	< 0.01	---	---	< 0.01	---	---	---	---	
Heptachlor epoxide	µg/g	0.01	0.05	< 0.01	---	---	< 0.01	---	---	---	---	
Hexachlorobenzene	µg/g	0.01	0.52	< 0.01	---	---	< 0.01	---	---	---	---	
Hexachlorobutadiene	µg/g	0.01	0.012	< 0.01	---	---	< 0.01	---	---	---	---	
Hexachloroethane	µg/g	0.01	0.089	< 0.01	---	---	< 0.01	---	---	---	---	
Methoxychlor	µg/g	0.05	0.13	< 0.05	---	---	< 0.05	---	---	---	---	

**Other (ORP)**

Mercury	ug/g	0.05	0.27	< 0.05	---	---	---	< 0.05	---	< 0.05	< 0.05
Sodium Adsorption Ratio	No unit	0.2	5	0.3	---	---	---	0.2	---	0.2	2.3
SAR Calcium	mg/L	0.2		20.9	---	---	---	20.7	---	10.6	14.2
SAR Magnesium	mg/L	0.3		9.6	---	---	---	1.4	---	0.8	1.1
SAR Sodium	mg/L	0.1		7.7	---	---	---	3.7	---	3.0	33.5
Conductivity	mS/cm	0.002	0.7	0.24	---	---	---	0.13	---	0.13	0.23
pH	pH Units	0.05		8.38	---	---	---	7.82	---	7.79	7.82
Chromium VI	µg/g	0.2	8	< 0.2	---	---	---	< 0.2	---	< 0.2	< 0.2
Free Cyanide	µg/g	0.05	0.051	< 0.05	---	---	---	< 0.05	---	< 0.05	< 0.05



# FINAL REPORT

CA40240-JUN23 R

**Client:** DS Consultants

**Project:** 22-012-101

**Project Manager:** Fahmida Anwar

**Samplers:** NA

MATRIX: SOIL

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Sample Number	9	10	11	12	13	14	15	16
<b>Sample Name</b>	BH23-9 SS1	BH23-9 SS2	BH23-9 SS3	BH23-10 SS1	BH23-10 SS2	BH23-10 SS3	BH23-11 SS2	BH23-12 SS2
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	19/06/2023	19/06/2023	19/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
<b>PAHs</b>												
Acenaphthene	µg/g	0.05	7.9	---	< 0.05	---	---	< 0.05	---	---	---	
Acenaphthylene	µg/g	0.05	0.15	---	< 0.05	---	---	< 0.05	---	---	---	
Anthracene	µg/g	0.05	0.67	---	< 0.05	---	---	< 0.05	---	---	---	
Benzo(a)anthracene	µg/g	0.05	0.5	---	< 0.05	---	---	< 0.05	---	---	---	
Benzo(a)pyrene	µg/g	0.05	0.3	---	< 0.05	---	---	< 0.05	---	---	---	
Benzo(b+j)fluoranthene	µg/g	0.05	0.78	---	< 0.05	---	---	< 0.05	---	---	---	
Benzo(ghi)perylene	µg/g	0.1	6.6	---	< 0.1	---	---	< 0.1	---	---	---	
Benzo(k)fluoranthene	µg/g	0.05	0.78	---	< 0.05	---	---	< 0.05	---	---	---	
Chrysene	µg/g	0.05	7	---	< 0.05	---	---	< 0.05	---	---	---	
Dibenzo(a,h)anthracene	µg/g	0.06	0.1	---	< 0.06	---	---	< 0.06	---	---	---	
Fluoranthene	µg/g	0.05	0.69	---	< 0.05	---	---	< 0.05	---	---	---	
Fluorene	µg/g	0.05	62	---	< 0.05	---	---	< 0.05	---	---	---	
Indeno(1,2,3-cd)pyrene	µg/g	0.1	0.38	---	< 0.1	---	---	< 0.1	---	---	---	
1-Methylnaphthalene	µg/g	0.05		---	< 0.05	---	---	< 0.05	---	---	---	
2-Methylnaphthalene	µg/g	0.05		---	< 0.05	---	---	< 0.05	---	---	---	
Methylnaphthalene, 2-(1-)	µg/g	0.05	0.99	---	< 0.05	---	---	< 0.05	---	---	---	
Naphthalene	µg/g	0.05	0.6	---	< 0.05	---	---	< 0.05	---	---	---	
Phenanthrene	µg/g	0.05	6.2	---	< 0.05	---	---	< 0.05	---	---	---	
Pyrene	µg/g	0.05	78	---	< 0.05	---	---	< 0.05	---	---	---	



# FINAL REPORT

CA40240-JUN23 R

**Client:** DS Consultants

**Project:** 22-012-101

**Project Manager:** Fahmida Anwar

**Samplers:** NA

MATRIX: SOIL

Sample Number	9	10	11	12	13	14	15	16
<b>Sample Name</b>	BH23-9 SS1	BH23-9 SS2	BH23-9 SS3	BH23-10 SS1	BH23-10 SS2	BH23-10 SS3	BH23-11 SS2	BH23-12 SS2
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	19/06/2023	19/06/2023	19/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
<b>Pesticides Surrogate</b>												
Surr Decachlorobiphenyl	Surr Rec %			105	---	---	95	---	---	---	---	

<b>PHCs</b>												
F1 (C6-C10)	µg/g	10	55	---	---	< 10	---	---	< 10	---	---	
F1-BTEX (C6-C10)	µg/g	10	55	---	---	< 10	---	---	< 10	---	---	
F2 (C10-C16)	µg/g	10	98	---	---	< 10	---	---	< 10	---	---	
F3 (C16-C34)	µg/g	50	300	---	---	< 50	---	---	< 50	---	---	
F4 (C34-C50)	µg/g	50	2800	---	---	< 50	---	---	< 50	---	---	
Chromatogram returned to baseline at nC50	Yes / No	no		---	---	YES	---	---	YES	---	---	

<b>SVOC Surrogates</b>												
Surr 2-Fluorobiphenyl	Surr Rec %	no		---	86	---	---	89	---	---	---	
Surr 4-Terphenyl-d14	Surr Rec %	no		---	88	---	---	90	---	---	---	
Surr 2-Methylnaphthalene-D10	Surr Rec %	no		---	84	---	---	81	---	---	---	
Surr Fluoranthene-D10	Surr Rec %	no		---	82	---	---	86	---	---	---	



# FINAL REPORT

CA40240-JUN23 R

Client: DS Consultants

Project: 22-012-101

Project Manager: Fahmida Anwar

Samplers: NA

MATRIX: SOIL

Sample Number	9	10	11	12	13	14	15	16
Sample Name	BH23-9 SS1	BH23-9 SS2	BH23-9 SS3	BH23-10 SS1	BH23-10 SS2	BH23-10 SS3	BH23-11 SS2	BH23-12 SS2
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	19/06/2023	19/06/2023	19/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
<b>THMs (VOC)</b>												
Bromodichloromethane	µg/g	0.05	1.5	---	---	< 0.05	---	---	< 0.05	---	---	
Bromoform	µg/g	0.05	0.27	---	---	< 0.05	---	---	< 0.05	---	---	
Dibromochloromethane	µg/g	0.05	2.3	---	---	< 0.05	---	---	< 0.05	---	---	

### VOC Surrogates

Surr 1,2-Dichloroethane-d4	Surr Rec %	no		---	---	102	---	---	101	---	---
Surr 4-Bromofluorobenzene	Surr Rec %	no		---	---	94	---	---	95	---	---
Surr 2-Bromo-1-Chloropropane	Surr Rec %	no		---	---	93	---	---	95	---	---
Surr TCMX	Surr Rec %	no		76	---	---	69	---	---	---	---

### VOCs

Acetone	µg/g	0.5	16	---	---	< 0.5	---	---	< 0.5	---	---
Bromomethane	µg/g	0.05	0.05	---	---	< 0.05	---	---	< 0.05	---	---
Carbon tetrachloride	µg/g	0.05	0.05	---	---	< 0.05	---	---	< 0.05	---	---
Chlorobenzene	µg/g	0.05	2.4	---	---	< 0.05	---	---	< 0.05	---	---
Chloroform	µg/g	0.05	0.05	---	---	< 0.05	---	---	< 0.05	---	---
1,2-Dichlorobenzene	µg/g	0.05	1.2	---	---	< 0.05	---	---	< 0.05	---	---
1,3-Dichlorobenzene	µg/g	0.05	4.8	---	---	< 0.05	---	---	< 0.05	---	---
1,4-Dichlorobenzene	µg/g	0.05	0.083	---	---	< 0.05	---	---	< 0.05	---	---
Dichlorodifluoromethane	µg/g	0.05	16	---	---	< 0.05	---	---	< 0.05	---	---
1,1-Dichloroethane	µg/g	0.05	0.47	---	---	< 0.05	---	---	< 0.05	---	---
1,2-Dichloroethane	µg/g	0.05	0.05	---	---	< 0.05	---	---	< 0.05	---	---
1,1-Dichloroethylene	µg/g	0.05	0.05	---	---	< 0.05	---	---	< 0.05	---	---



# FINAL REPORT

CA40240-JUN23 R

**Client:** DS Consultants

**Project:** 22-012-101

**Project Manager:** Fahmida Anwar

**Samplers:** NA

MATRIX: SOIL

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Sample Number	9	10	11	12	13	14	15	16
<b>Sample Name</b>	BH23-9 SS1	BH23-9 SS2	BH23-9 SS3	BH23-10 SS1	BH23-10 SS2	BH23-10 SS3	BH23-11 SS2	BH23-12 SS2
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	19/06/2023	19/06/2023	19/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023	20/06/2023

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
<b>VOCs (continued)</b>												
trans-1,2-Dichloroethylene	µg/g	0.05	0.084	---	---	< 0.05	---	---	< 0.05	---	---	
cis-1,2-Dichloroethylene	µg/g	0.05	1.9	---	---	< 0.05	---	---	< 0.05	---	---	
1,2-Dichloropropane	µg/g	0.05	0.05	---	---	< 0.05	---	---	< 0.05	---	---	
cis-1,3-dichloropropene	µg/g	0.03		---	---	< 0.03	---	---	< 0.03	---	---	
trans-1,3-dichloropropene	µg/g	0.03		---	---	< 0.03	---	---	< 0.03	---	---	
1,3-dichloropropene (total)	µg/g	0.05	0.05	---	---	< 0.05	---	---	< 0.05	---	---	
Ethylenedibromide	µg/g	0.05	0.05	---	---	< 0.05	---	---	< 0.05	---	---	
n-Hexane	µg/g	0.05	2.8	---	---	< 0.05	---	---	< 0.05	---	---	
Methyl ethyl ketone	µg/g	0.5	16	---	---	< 0.5	---	---	< 0.5	---	---	
Methyl isobutyl ketone	µg/g	0.5	1.7	---	---	< 0.5	---	---	< 0.5	---	---	
Methyl-t-butyl Ether	µg/g	0.05	0.75	---	---	< 0.05	---	---	< 0.05	---	---	
Methylene Chloride	µg/g	0.05	0.1	---	---	< 0.05	---	---	< 0.05	---	---	
Styrene	µg/g	0.05	0.7	---	---	< 0.05	---	---	< 0.05	---	---	
Tetrachloroethylene	µg/g	0.05	0.28	---	---	< 0.05	---	---	< 0.05	---	---	
1,1,1,2-Tetrachloroethane	µg/g	0.05	0.058	---	---	< 0.05	---	---	< 0.05	---	---	
1,1,2,2-Tetrachloroethane	µg/g	0.05	0.05	---	---	< 0.05	---	---	< 0.05	---	---	
1,1,1-Trichloroethane	µg/g	0.05	0.38	---	---	< 0.05	---	---	< 0.05	---	---	
1,1,2-Trichloroethane	µg/g	0.05	0.05	---	---	< 0.05	---	---	< 0.05	---	---	
Trichloroethylene	µg/g	0.05	0.061	---	---	< 0.05	---	---	< 0.05	---	---	
Trichlorofluoromethane	µg/g	0.05	4	---	---	< 0.05	---	---	< 0.05	---	---	
Vinyl Chloride	µg/g	0.02	0.02	---	---	< 0.02	---	---	< 0.02	---	---	





# FINAL REPORT

CA40240-JUN23 R

**Client:** DS Consultants

**Project:** 22-012-101

**Project Manager:** Fahmida Anwar

**Samplers:** NA

MATRIX: SOIL

Sample Number	17	18	19	20	21
<b>Sample Name</b>	BH23-13 SS1	BH23-13 SS2	BH23-14 SS1	DUP-3	DUP-4
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	20/06/2023	20/06/2023	20/06/2023	19/06/2023	20/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result
<b>Hydrides</b>								
Antimony	µg/g	0.8	7.5	---	< 0.8	---	---	---
Arsenic	µg/g	0.5	18	---	5.3	---	---	---
Selenium	µg/g	0.1	2.4	---	0.1	---	---	---
<b>Metals and Inorganics</b>								
Moisture Content	%	no		13.8	13.3	14.8	9.5	12.9
Barium	µg/g	0.1	390	---	87	---	---	---
Beryllium	µg/g	0.02	4	---	0.74	---	---	---
Boron	µg/g	1	120	---	10	---	---	---
Cadmium	µg/g	0.05	1.2	---	0.11	---	---	---
Chromium	µg/g	0.5	160	---	20	---	---	---
Cobalt	µg/g	0.01	22	---	12	---	---	---
Copper	µg/g	0.1	140	---	22	---	---	---
Lead	µg/g	0.1	120	---	11	---	---	---
Molybdenum	µg/g	0.1	6.9	---	0.4	---	---	---
Nickel	µg/g	0.5	100	---	27	---	---	---
Silver	µg/g	0.05	20	---	< 0.05	---	---	---
Thallium	µg/g	0.02	1	---	0.13	---	---	---
Uranium	µg/g	0.002	23	---	0.50	---	---	---
Vanadium	µg/g	3	86	---	26	---	---	---
Zinc	µg/g	0.7	340	---	51	---	---	---
Water Soluble Boron	µg/g	0.5	1.5	---	< 0.5	---	---	---



# FINAL REPORT

CA40240-JUN23 R

**Client:** DS Consultants

**Project:** 22-012-101

**Project Manager:** Fahmida Anwar

**Samplers:** NA

MATRIX: SOIL

Sample Number	17	18	19	20	21
<b>Sample Name</b>	BH23-13 SS1	BH23-13 SS2	BH23-14 SS1	DUP-3	DUP-4
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	20/06/2023	20/06/2023	20/06/2023	19/06/2023	20/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result
<b>Organochlorine Pests (OCs)</b>								
Aldrin	µg/g	0.05	0.05	< 0.05	---	< 0.05	---	< 0.05
alpha-Chlordane	µg/g	0.02		< 0.02	---	< 0.02	---	< 0.02
gamma-Chlordane	µg/g	0.02		< 0.02	---	< 0.02	---	< 0.02
Chlordane (total)	µg/g	0.05	0.05	< 0.05	---	< 0.05	---	< 0.05
o,p-DDD	µg/g	0.02		< 0.02	---	< 0.02	---	< 0.02
pp-DDD	µg/g	0.02		< 0.02	---	< 0.02	---	< 0.02
DDD (total)	µg/g	0.05	3.3	< 0.05	---	< 0.05	---	< 0.05
o,p-DDE	µg/g	0.02		< 0.02	---	< 0.02	---	< 0.02
pp-DDE	µg/g	0.02		< 0.02	---	< 0.02	---	< 0.02
DDE (total)	µg/g	0.05	0.26	< 0.05	---	< 0.05	---	< 0.05
op-DDT	µg/g	0.02		< 0.02	---	< 0.02	---	< 0.02
pp-DDT	µg/g	0.02		< 0.02	---	< 0.02	---	< 0.02
DDT (total)	µg/g	0.05	1.4	< 0.05	---	< 0.05	---	< 0.05
Dieldrin	µg/g	0.05	0.05	< 0.05	---	< 0.05	---	< 0.05
gamma-BHC	µg/g	0.01	0.056	< 0.01	---	< 0.01	---	< 0.01
Endosulfan I	µg/g	0.02		< 0.02	---	< 0.02	---	< 0.02
Endosulfan II	µg/g	0.02		< 0.02	---	< 0.02	---	< 0.02
Endosulfan (total)	µg/g	0.04	0.04	< 0.04	---	< 0.04	---	< 0.04
Endrin	µg/g	0.04	0.04	< 0.04	---	< 0.04	---	< 0.04
Heptachlor	µg/g	0.01	0.15	< 0.01	---	< 0.01	---	< 0.01
Heptachlor epoxide	µg/g	0.01	0.05	< 0.01	---	< 0.01	---	< 0.01
Hexachlorobenzene	µg/g	0.01	0.52	< 0.01	---	< 0.01	---	< 0.01



# FINAL REPORT

CA40240-JUN23 R

**Client:** DS Consultants

**Project:** 22-012-101

**Project Manager:** Fahmida Anwar

**Samplers:** NA

MATRIX: SOIL

Sample Number	17	18	19	20	21
<b>Sample Name</b>	BH23-13 SS1	BH23-13 SS2	BH23-14 SS1	DUP-3	DUP-4
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	20/06/2023	20/06/2023	20/06/2023	19/06/2023	20/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result
-----------	-------	----	----	--------	--------	--------	--------	--------

**Organochlorine Pests (OCs) (continued)**

Hexachlorobutadiene	µg/g	0.01	0.012	< 0.01	---	< 0.01	---	< 0.01
Hexachloroethane	µg/g	0.01	0.089	< 0.01	---	< 0.01	---	< 0.01
Methoxychlor	µg/g	0.05	0.13	< 0.05	---	< 0.05	---	< 0.05

**Other (ORP)**

Mercury	ug/g	0.05	0.27	---	< 0.05	---	---	---
Sodium Adsorption Ratio	No unit	0.2	5	---	1.2	---	---	---
SAR Calcium	mg/L	0.2		---	18.2	---	---	---
SAR Magnesium	mg/L	0.3		---	1.5	---	---	---
SAR Sodium	mg/L	0.1		---	19.2	---	---	---
Conductivity	mS/cm	0.002	0.7	---	0.19	---	---	---
pH	pH Units	0.05		---	7.52	---	---	---
Chromium VI	µg/g	0.2	8	---	< 0.2	---	---	---
Free Cyanide	µg/g	0.05	0.051	---	< 0.05	---	---	---



# FINAL REPORT

CA40240-JUN23 R

**Client:** DS Consultants

**Project:** 22-012-101

**Project Manager:** Fahmida Anwar

**Samplers:** NA

MATRIX: SOIL

Sample Number	17	18	19	20	21
<b>Sample Name</b>	BH23-13 SS1	BH23-13 SS2	BH23-14 SS1	DUP-3	DUP-4
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	20/06/2023	20/06/2023	20/06/2023	19/06/2023	20/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result
<b>PAHs</b>								
Acenaphthene	µg/g	0.05	7.9	---	---	---	< 0.05	---
Acenaphthylene	µg/g	0.05	0.15	---	---	---	< 0.05	---
Anthracene	µg/g	0.05	0.67	---	---	---	< 0.05	---
Benzo(a)anthracene	µg/g	0.05	0.5	---	---	---	< 0.05	---
Benzo(a)pyrene	µg/g	0.05	0.3	---	---	---	< 0.05	---
Benzo(b+j)fluoranthene	µg/g	0.05	0.78	---	---	---	< 0.05	---
Benzo(ghi)perylene	µg/g	0.1	6.6	---	---	---	< 0.1	---
Benzo(k)fluoranthene	µg/g	0.05	0.78	---	---	---	< 0.05	---
Chrysene	µg/g	0.05	7	---	---	---	< 0.05	---
Dibenzo(a,h)anthracene	µg/g	0.06	0.1	---	---	---	< 0.06	---
Fluoranthene	µg/g	0.05	0.69	---	---	---	< 0.05	---
Fluorene	µg/g	0.05	62	---	---	---	< 0.05	---
Indeno(1,2,3-cd)pyrene	µg/g	0.1	0.38	---	---	---	< 0.1	---
1-Methylnaphthalene	µg/g	0.05		---	---	---	< 0.05	---
2-Methylnaphthalene	µg/g	0.05		---	---	---	< 0.05	---
Methylnaphthalene, 2-(1-)	µg/g	0.05	0.99	---	---	---	< 0.05	---
Naphthalene	µg/g	0.05	0.6	---	---	---	< 0.05	---
Phenanthrene	µg/g	0.05	6.2	---	---	---	< 0.05	---
Pyrene	µg/g	0.05	78	---	---	---	< 0.05	---



# FINAL REPORT

CA40240-JUN23 R

**Client:** DS Consultants

**Project:** 22-012-101

**Project Manager:** Fahmida Anwar

**Samplers:** NA

MATRIX: SOIL

Sample Number	17	18	19	20	21
<b>Sample Name</b>	BH23-13 SS1	BH23-13 SS2	BH23-14 SS1	DUP-3	DUP-4
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	20/06/2023	20/06/2023	20/06/2023	19/06/2023	20/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result
<b>Pesticides Surrogate</b>								
Surr Decachlorobiphenyl	Surr Rec %			98	---	90	---	108
<b>SVOC Surrogates</b>								
Surr 2-Fluorobiphenyl	Surr Rec %	no		---	---	---	83	---
Surr 4-Terphenyl-d14	Surr Rec %	no		---	---	---	85	---
Surr 2-Methylnaphthalene-D10	Surr Rec %	no		---	---	---	81	---
Surr Fluoranthene-D10	Surr Rec %	no		---	---	---	79	---



# FINAL REPORT

CA40240-JUN23 R

**Client:** DS Consultants

**Project:** 22-012-101

**Project Manager:** Fahmida Anwar

**Samplers:** NA

MATRIX: SOIL

<b>Sample Number</b>	17	18	19	20	21
<b>Sample Name</b>	BH23-13 SS1	BH23-13 SS2	BH23-14 SS1	DUP-3	DUP-4
<b>Sample Matrix</b>	Soil	Soil	Soil	Soil	Soil
<b>Sample Date</b>	20/06/2023	20/06/2023	20/06/2023	19/06/2023	20/06/2023

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result
Surr TCMX	Surr Rec %	no		79	---	52	---	73

**EXCEEDANCE SUMMARY**

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No exceedances are present above the regulatory limit(s) indicated



# FINAL REPORT

CA40240-JUN23 R

## QC SUMMARY

### Conductivity

Method: EPA 6010/SM 2510 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Conductivity	EWL0634-JUN23	mS/cm	0.002	<0.002	0	10	99	90	110	NA		

### Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-IENVISFA-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Free Cyanide	SKA5097-JUN23	µg/g	0.05	<0.05	ND	20	95	80	120	98	75	125

### Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-IENVISKA-LAK-AN-012

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Chromium VI	SKA5089-JUN23	ug/g	0.2	<0.2	ND	20	95	80	120	78	75	125



## QC SUMMARY

### Mercury by CVAAS

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-IENVISPE-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Mercury	EMS0209-JUN23	ug/g	0.05	<0.05	ND	20	102	80	120	80	70	130

### Metals in aqueous samples - ICP-OES

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-IENVISPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
SAR Calcium	ESG0057-JUN23	mg/L	0.2	<0.2	0	20	99	80	120	104	70	130
SAR Magnesium	ESG0057-JUN23	mg/L	0.3	<0.3	1	20	99	80	120	109	70	130
SAR Sodium	ESG0057-JUN23	mg/L	0.1	<0.1	1	20	103	80	120	96	70	130

## QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0209-JUN23	ug/g	0.05	<0.05	9	20	108	70	130	107	70	130
Arsenic	EMS0209-JUN23	µg/g	0.5	<0.5	2	20	92	70	130	92	70	130
Barium	EMS0209-JUN23	ug/g	0.1	<0.1	1	20	96	70	130	110	70	130
Beryllium	EMS0209-JUN23	µg/g	0.02	<0.02	0	20	99	70	130	98	70	130
Boron	EMS0209-JUN23	µg/g	1	<1	4	20	102	70	130	90	70	130
Cadmium	EMS0209-JUN23	ug/g	0.05	<0.05	7	20	99	70	130	93	70	130
Cobalt	EMS0209-JUN23	µg/g	0.01	<0.01	2	20	99	70	130	99	70	130
Chromium	EMS0209-JUN23	µg/g	0.5	<0.5	1	20	100	70	130	97	70	130
Copper	EMS0209-JUN23	µg/g	0.1	<0.1	1	20	100	70	130	92	70	130
Molybdenum	EMS0209-JUN23	µg/g	0.1	<0.1	7	20	102	70	130	98	70	130
Nickel	EMS0209-JUN23	ug/g	0.5	<0.5	2	20	105	70	130	98	70	130
Lead	EMS0209-JUN23	ug/g	0.1	<0.1	3	20	102	70	130	97	70	130
Antimony	EMS0209-JUN23	µg/g	0.8	<0.8	ND	20	107	70	130	90	70	130
Selenium	EMS0209-JUN23	ug/g	0.1	<0.1	1	20	102	70	130	92	70	130
Thallium	EMS0209-JUN23	µg/g	0.02	<0.02	6	20	NV	70	130	96	70	130
Uranium	EMS0209-JUN23	µg/g	0.002	<0.002	2	20	96	70	130	96	70	130
Vanadium	EMS0209-JUN23	µg/g	3	<3	1	20	100	70	130	96	70	130
Zinc	EMS0209-JUN23	µg/g	0.7	<0.7	1	20	104	70	130	88	70	130

QC SUMMARY

Pesticides

Method: EPA 3541/8270D | Internal ref.: ME-CA-IENVIGC-LAK-AN-018

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Aldrin	GCM0381-JUN23	µg/g	0.05	< 0.05	ND	40	83	50	140	81	50	140
alpha-Chlordane	GCM0381-JUN23	µg/g	0.02	< 0.02	ND	40	81	50	140	90	50	140
Dieldrin	GCM0381-JUN23	µg/g	0.05	< 0.05	ND	40	87	50	140	85	50	140
Endosulfan I	GCM0381-JUN23	µg/g	0.02	< 0.02	ND	40	82	50	140	86	50	140
Endosulfan II	GCM0381-JUN23	µg/g	0.02	< 0.02	ND	40	88	50	140	92	50	140
Endrin	GCM0381-JUN23	µg/g	0.04	< 0.04	ND	40	91	50	140	92	50	140
gamma-BHC	GCM0381-JUN23	µg/g	0.01	< 0.01	ND	40	83	50	140	81	50	140
gamma-Chlordane	GCM0381-JUN23	µg/g	0.02	< 0.02	ND	40	81	50	140	90	50	140
Heptachlor epoxide	GCM0381-JUN23	µg/g	0.01	< 0.01	ND	40	81	50	140	86	50	140
Heptachlor	GCM0381-JUN23	µg/g	0.01	< 0.01	ND	40	83	50	140	83	50	140
Hexachlorobenzene	GCM0381-JUN23	µg/g	0.01	< 0.01	ND	40	82	50	140	84	50	140
Hexachlorobutadiene	GCM0381-JUN23	µg/g	0.01	< 0.01	ND	40	82	50	140	85	50	140
Hexachloroethane	GCM0381-JUN23	µg/g	0.01	< 0.01	ND	40	81	50	140	83	50	140
Methoxychlor	GCM0381-JUN23	µg/g	0.05	< 0.05	ND	40	88	50	140	131	50	140
o,p-DDD	GCM0381-JUN23	µg/g	0.02	< 0.02	ND	40	93	50	140	108	50	140
o,p-DDE	GCM0381-JUN23	µg/g	0.02	< 0.02	ND	40	82	50	140	91	50	140
op-DDT	GCM0381-JUN23	µg/g	0.02	< 0.02	ND	40	89	50	140	73	50	140
pp-DDD	GCM0381-JUN23	µg/g	0.02	< 0.02	ND	40	90	50	140	122	50	140
pp-DDE	GCM0381-JUN23	µg/g	0.02	< 0.02	ND	40	83	50	140	94	50	140
pp-DDT	GCM0381-JUN23	µg/g	0.02	< 0.02	ND	40	89	50	140	123	50	140

## QC SUMMARY

### Petroleum Hydrocarbons (F1)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F1 (C6-C10)	GCM0338-JUN23	µg/g	10	<10	ND	30	115	80	120	111	60	140

### Petroleum Hydrocarbons (F2-F4)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F2 (C10-C16)	GCM0364-JUN23	µg/g	10	<10	ND	30	114	80	120	113	60	140
F3 (C16-C34)	GCM0364-JUN23	µg/g	50	<50	ND	30	114	80	120	113	60	140
F4 (C34-C50)	GCM0364-JUN23	µg/g	50	<50	ND	30	114	80	120	113	60	140



# FINAL REPORT

CA40240-JUN23 R

## QC SUMMARY

pH

Method: SM 4500 | Internal ref.: ME-CA-ENVIEWL-LAK-AN-001

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
pH	ARD0105-JUN23	pH Units	0.05		0	20	103	80	120			

## QC SUMMARY

### Semi-Volatile Organics

Method: EPA 3541/8270D | Internal ref.: ME-CA-IENVIGC-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1-Methylnaphthalene	GCM0409-JUN23	µg/g	0.05	< 0.05	ND	40	85	50	140	60	50	140
2-Methylnaphthalene	GCM0409-JUN23	µg/g	0.05	< 0.05	ND	40	84	50	140	61	50	140
Acenaphthene	GCM0409-JUN23	µg/g	0.05	< 0.05	ND	40	81	50	140	63	50	140
Acenaphthylene	GCM0409-JUN23	µg/g	0.05	< 0.05	ND	40	77	50	140	60	50	140
Anthracene	GCM0409-JUN23	µg/g	0.05	< 0.05	ND	40	80	50	140	61	50	140
Benzo(a)anthracene	GCM0409-JUN23	µg/g	0.05	< 0.05	ND	40	82	50	140	63	50	140
Benzo(a)pyrene	GCM0409-JUN23	µg/g	0.05	< 0.05	ND	40	80	50	140	60	50	140
Benzo(b+j)fluoranthene	GCM0409-JUN23	µg/g	0.05	< 0.05	ND	40	82	50	140	60	50	140
Benzo(ghi)perylene	GCM0409-JUN23	µg/g	0.1	< 0.1	ND	40	84	50	140	63	50	140
Benzo(k)fluoranthene	GCM0409-JUN23	µg/g	0.05	< 0.05	ND	40	81	50	140	61	50	140
Chrysene	GCM0409-JUN23	µg/g	0.05	< 0.05	ND	40	82	50	140	62	50	140
Dibenzo(a,h)anthracene	GCM0409-JUN23	µg/g	0.06	< 0.06	ND	40	79	50	140	61	50	140
Fluoranthene	GCM0409-JUN23	µg/g	0.05	< 0.05	ND	40	79	50	140	59	50	140
Fluorene	GCM0409-JUN23	µg/g	0.05	< 0.05	ND	40	81	50	140	65	50	140
Indeno(1,2,3-cd)pyrene	GCM0409-JUN23	µg/g	0.1	< 0.1	ND	40	80	50	140	60	50	140
Naphthalene	GCM0409-JUN23	µg/g	0.05	< 0.05	ND	40	84	50	140	63	50	140
Phenanthrene	GCM0409-JUN23	µg/g	0.05	< 0.05	ND	40	81	50	140	60	50	140
Pyrene	GCM0409-JUN23	µg/g	0.05	< 0.05	ND	40	83	50	140	61	50	140

## QC SUMMARY

### Volatile Organics

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-IENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1,1,1,2-Tetrachloroethane	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	100	60	130	92	50	140
1,1,1-Trichloroethane	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	105	60	130	94	50	140
1,1,2,2-Tetrachloroethane	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	98	60	130	85	50	140
1,1,2-Trichloroethane	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	101	60	130	89	50	140
1,1-Dichloroethane	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	103	60	130	98	50	140
1,1-Dichloroethylene	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	107	60	130	99	50	140
1,2-Dichlorobenzene	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	103	60	130	85	50	140
1,2-Dichloroethane	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	99	60	130	92	50	140
1,2-Dichloropropane	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	100	60	130	95	50	140
1,3-Dichlorobenzene	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	104	60	130	87	50	140
1,4-Dichlorobenzene	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	105	60	130	87	50	140
Acetone	GCM0337-JUN23	µg/g	0.5	< 0.5	ND	50	96	50	140	96	50	140
Benzene	GCM0337-JUN23	µg/g	0.02	< 0.02	ND	50	103	60	130	95	50	140
Bromodichloromethane	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	100	60	130	93	50	140
Bromoform	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	95	60	130	83	50	140
Bromomethane	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	100	50	140	94	50	140
Carbon tetrachloride	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	106	60	130	92	50	140
Chlorobenzene	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	102	60	130	91	50	140
Chloroform	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	101	60	130	96	50	140
cis-1,2-Dichloroethylene	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	101	60	130	94	50	140

QC SUMMARY

Volatile Organics (continued)

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-IENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
cis-1,3-dichloropropene	GCM0337-JUN23	µg/g	0.03	< 0.03	ND	50	104	60	130	96	50	140
Dibromochloromethane	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	98	60	130	90	50	140
Dichlorodifluoromethane	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	95	50	140	87	50	140
Ethylbenzene	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	104	60	130	93	50	140
Ethylenedibromide	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	98	60	130	88	50	140
n-Hexane	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	122	60	130	98	50	140
m/p-xylene	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	103	60	130	92	50	140
Methyl ethyl ketone	GCM0337-JUN23	µg/g	0.5	< 0.5	ND	50	95	50	140	86	50	140
Methyl isobutyl ketone	GCM0337-JUN23	µg/g	0.5	< 0.5	ND	50	98	50	140	90	50	140
Methyl-t-butyl Ether	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	101	60	130	96	50	140
Methylene Chloride	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	100	60	130	97	50	140
o-xylene	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	104	60	130	94	50	140
Styrene	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	101	60	130	92	50	140
Tetrachloroethylene	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	106	60	130	90	50	140
Toluene	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	103	60	130	94	50	140
trans-1,2-Dichloroethylene	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	104	60	130	97	50	140
trans-1,3-dichloropropene	GCM0337-JUN23	µg/g	0.03	< 0.03	ND	50	103	60	130	93	50	140
Trichloroethylene	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	105	60	130	95	50	140
Trichlorofluoromethane	GCM0337-JUN23	µg/g	0.05	< 0.05	ND	50	105	50	140	93	50	140
Vinyl Chloride	GCM0337-JUN23	µg/g	0.02	< 0.02	ND	50	99	50	140	90	50	140



QC SUMMARY

Water Soluble Boron

Method: O.Reg. 15 3/04 | Internal ref.: ME-CA-IENV1 SPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Water Soluble Boron	ESG0042-JUN23	µg/g	0.5	<0.5	ND	20	102	80	120	93	70	130

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate laboratory accuracy with sample matrix effects.

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

**Multielement Scan Qualifier:** as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

**Duplicate Qualifier:** for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

**Matrix Spike Qualifier:** for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

## LEGEND

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### FOOTNOTES

**NSS** Insufficient sample for analysis.  
**RL** Reporting Limit.  
 ↑ Reporting limit raised.  
 ↓ Reporting limit lowered.  
**NA** The sample was not analysed for this analyte  
**ND** Non Detect

Results relate only to the sample tested.

Data reported represent the sample as submitted to SGS. Solid samples expressed on a dry weight basis.

"Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the "Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act and Excess Soil Quality" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated.

SGS Canada Inc. statement of conformity decision rule does not consider uncertainty when analytical results are compared to a specified standard or regulation.

This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm).

The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Reproduction of this analytical report in full or in part is prohibited.

This report supersedes all previous versions.

-- End of Analytical Report --

## Request for Laboratory Services and CHAIN OF CUSTODY

### Laboratory Information Section - Lab use only

Received By: Amber  
 Received Date: 06/21/2023 (mm/dd/yy)  
 Received Time: 15:00 (hr : min)

Received By (signature): [Signature]  
 Custody Seal Present: Yes  No   
 Cooling Agent Present: Yes  No   
 Temperature Upon Receipt (°C): 8.8 Type: FCE  
 Quotation #: 22-012-101  
 Project #: 22-012-101  
 P.O. #: LAB LIMS # CA40240-3023  
 Site Location/ID: CA40240-3023

Company: DS Consultants  
 Contact: Accounting  
 Address: Unit 16 6221 Hwy 7 Vaughan

Company: DS Consultants  
 Contact: Fahmida Anwar  
 Address: [Blank]

Phone: [Blank]  
 Fax: [Blank]  
 Email: Fanward@sgs.com

Phone: [Blank]  
 Email: Fanward@sgs.com

O.Reg 153/04  O.Reg 406/19

REGULATIONS

Table 1  Res/Part.  Soil Texture:  
 Table 2  Ind/Com  Coarse  
 Table 3  Agr/Other  Medium/Fine  
 Table [Blank] Appx. [Blank]  
 Soil Volume  <350m3  >350m3

Other Regulations:  
 Reg 347/558 (3 Day min TAT)   
 PWOC  MMER   
 CCME  Other: [Blank]  
 MISA   
 Sewer By-Law:  Sanitary  Storm  Municipality: [Blank]  
 ODWS Not Reportable \*See note

RECORD OF SITE CONDITION (RSC)  YES  NO

COMMENTS:

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX	ANALYSIS REQUESTED														
					Field Filtered (Y/N)	M & I Incl Cr,VI, CN,Hg pH,(B(HWS),EC,SAR-soil) (Cl, Na-water)	SVOC ICP Metals only Sb,As,Ba,Bi,Cd,Cr,Co,Cu,Pb,Mo,Ni,Se,Ag,TLU,V,Zn	PAHs only SVOCs all incl PAHs, ABNs, CPs	PCB Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	F1-F4 only no BTEX	VOCs all incl BTEX	BTEX only	Pesticides Organochlorine or specify other	Other (please specify)	SPLP Specify tests	TCLP Specify tests		
1 BH23-9 SS1	19 Jun 23		2	SS															
2 BH23-9 SS2			1	SS															
3 BH23-9 SS3			3	SS															
4 BH23-10 SS1	20 Jun 23		1	SS															
5 BH23-10 SS2			1	SS															
6 BH23-10 SS3			3	SS															
7 BH23-11 SS2			1	SS															
8 BH23-12 SS2			1	SS															
9 GH23-13 SS1			1	SS															
10 BH23-13 SS2			1	SS															
11 BH23-14 SS1			1	SS															
12 DUP3	19 Jun 23		1	SS															

Retinquished by (NAME): Megan Bender Signature: [Signature] Date: 06/21/23 (mm/dd/yy)  
 Signature: [Signature] Date: 06/21/23 (mm/dd/yy)  
 Note: Submission of samples to SGS is acknowledgement that you have been provided direction on sample collection, handling and transportation of samples. (2) Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be returned on file in the contract, or in an alternative format (e.g. shipping documents). (3) Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under its General Conditions of Service accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). (Printed copies are available upon request.) Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.





Your Project #: 22-012-101  
 Site Location: 30 56 NEYAGAWA BLVD, OAKVILLE, ON  
 Your C.O.C. #: 941406-01-01

**Attention: Rick Fioravanti**

DS Consultants Limited  
 6221 Highway 7, Unit 16  
 Vaughan, ON  
 CANADA L4H 0K8

**Report Date: 2023/07/12**  
 Report #: R7712061  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BUREAU VERITAS JOB #: C3J3318**

**Received: 2023/06/30, 12:44**

Sample Matrix: Water  
 # Samples Received: 4

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Methylnaphthalene Sum (1)	3	N/A	2023/07/10	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum (1)	4	N/A	2023/07/07		EPA 8260C m
Chloride by Automated Colourimetry (1)	3	N/A	2023/07/07	CAM SOP-00463	SM 23 4500-Cl E m
Chromium (VI) in Water (1)	3	N/A	2023/07/05	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide (1)	3	N/A	2023/07/07	CAM SOP-00457	OMOE E3015 m
Petroleum Hydrocarbons F2-F4 in Water (1, 2)	3	2023/07/05	2023/07/06	CAM SOP-00316	CCME PHC-CWS m
Mercury (1)	3	2023/07/05	2023/07/05	CAM SOP-00453	EPA 7470A m
Dissolved Metals by ICPMS (1)	3	N/A	2023/07/11	CAM SOP-00447	EPA 6020B m
PAH Compounds in Water by GC/MS (SIM) (1)	3	2023/07/05	2023/07/06	CAM SOP-00318	EPA 8270E
Volatile Organic Compounds and F1 PHCs (1)	4	N/A	2023/07/06	CAM SOP-00230	EPA 8260C m

**Remarks:**

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCCFP, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8

(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the



Your Project #: 22-012-101  
Site Location: 30 56 NEYAGAWA BLVD, OAKVILLE, ON  
Your C.O.C. #: 941406-01-01

**Attention: Rick Fioravanti**

DS Consultants Limited  
6221 Highway 7, Unit 16  
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CANADA L4H 0K8

**Report Date: 2023/07/12**  
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**Received: 2023/06/30, 12:44**

reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Ashton Gibson  
Project Manager  
12 Jul 2023 18:12:11

Please direct all questions regarding this Certificate of Analysis to:  
Ashton Gibson, Project Manager  
Email: Ashton.Gibson@bureauveritas.com  
Phone# (905)817-5765

=====  
This report has been generated and distributed using a secure automated process.  
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rob Whelan, Laboratory Manager responsible for Newfoundland & Labrador Environmental laboratory operations.



BUREAU  
VERITAS

Bureau Veritas Job #: C3J3318  
Report Date: 2023/07/12

DS Consultants Limited  
Client Project #: 22-012-101  
Site Location: 30 56 NEYAGAWA BLVD, OAKVILLE, ON  
Sampler Initials: MAD

**VOLATILE ORGANICS BY GC/MS (WATER)**

Bureau Veritas ID			WGN146		
Sampling Date			2023/06/30		
COC Number			941406-01-01		
	UNITS	Criteria A	TRIP BLANK	RDL	QC Batch
<b>Calculated Parameters</b>					
1,3-Dichloropropene (cis+trans)	ug/L	0.5	<0.50	0.50	8762770
<b>Volatile Organics</b>					
Acetone (2-Propanone)	ug/L	2700	<10	10	8768676
Benzene	ug/L	5.0	<0.17	0.17	8768676
Bromodichloromethane	ug/L	16.0	<0.50	0.50	8768676
Bromoform	ug/L	25.0	<1.0	1.0	8768676
Bromomethane	ug/L	0.89	<0.50	0.50	8768676
Carbon Tetrachloride	ug/L	0.79	<0.20	0.20	8768676
Chlorobenzene	ug/L	30	<0.20	0.20	8768676
Chloroform	ug/L	2.4	<0.20	0.20	8768676
Dibromochloromethane	ug/L	25.0	<0.50	0.50	8768676
1,2-Dichlorobenzene	ug/L	3.0	<0.50	0.50	8768676
1,3-Dichlorobenzene	ug/L	59	<0.50	0.50	8768676
1,4-Dichlorobenzene	ug/L	1.0	<0.50	0.50	8768676
Dichlorodifluoromethane (FREON 12)	ug/L	590	<1.0	1.0	8768676
1,1-Dichloroethane	ug/L	5	<0.20	0.20	8768676
1,2-Dichloroethane	ug/L	1.6	<0.50	0.50	8768676
1,1-Dichloroethylene	ug/L	1.6	<0.20	0.20	8768676
cis-1,2-Dichloroethylene	ug/L	1.6	<0.50	0.50	8768676
trans-1,2-Dichloroethylene	ug/L	1.6	<0.50	0.50	8768676
1,2-Dichloropropane	ug/L	5.0	<0.20	0.20	8768676
cis-1,3-Dichloropropene	ug/L	0.5	<0.30	0.30	8768676
trans-1,3-Dichloropropene	ug/L	0.5	<0.40	0.40	8768676
Ethylbenzene	ug/L	2.4	<0.20	0.20	8768676
Ethylene Dibromide	ug/L	0.2	<0.20	0.20	8768676
Hexane	ug/L	51	<1.0	1.0	8768676
Methylene Chloride(Dichloromethane)	ug/L	50	<2.0	2.0	8768676
Methyl Ethyl Ketone (2-Butanone)	ug/L	1800	<10	10	8768676
No Fill	No Exceedance				
Grey	Exceeds 1 criteria policy/level				
Black	Exceeds both criteria/levels				
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
Criteria A: Ontario Reg. 153/04 (Amended April 15, 2011)					
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition					
Potable Ground Water- All Types of Property Uses - Coarse Textured Soil					



**VOLATILE ORGANICS BY GC/MS (WATER)**

Bureau Veritas ID			WGN146		
Sampling Date			2023/06/30		
COC Number			941406-01-01		
	UNITS	Criteria A	TRIP BLANK	RDL	QC Batch
Methyl Isobutyl Ketone	ug/L	640	<5.0	5.0	8768676
Methyl t-butyl ether (MTBE)	ug/L	15	<0.50	0.50	8768676
Styrene	ug/L	5.4	<0.50	0.50	8768676
1,1,1,2-Tetrachloroethane	ug/L	1.1	<0.50	0.50	8768676
1,1,2,2-Tetrachloroethane	ug/L	1.0	<0.50	0.50	8768676
Tetrachloroethylene	ug/L	1.6	<0.20	0.20	8768676
Toluene	ug/L	24	<0.20	0.20	8768676
1,1,1-Trichloroethane	ug/L	200	<0.20	0.20	8768676
1,1,2-Trichloroethane	ug/L	4.7	<0.50	0.50	8768676
Trichloroethylene	ug/L	1.6	<0.20	0.20	8768676
Trichlorofluoromethane (FREON 11)	ug/L	150	<0.50	0.50	8768676
Vinyl Chloride	ug/L	0.5	<0.20	0.20	8768676
p-m-Xylene	ug/L	-	<0.20	0.20	8768676
o-Xylene	ug/L	-	<0.20	0.20	8768676
Total Xylenes	ug/L	300	<0.20	0.20	8768676
F1 (C6-C10)	ug/L	750	<25	25	8768676
F1 (C6-C10) - BTEX	ug/L	750	<25	25	8768676
<b>Surrogate Recovery (%)</b>					
4-Bromofluorobenzene	%	-	96		8768676
D4-1,2-Dichloroethane	%	-	96		8768676
D8-Toluene	%	-	100		8768676
No Fill	No Exceedance				
Grey	Exceeds 1 criteria policy/level				
Black	Exceeds both criteria/levels				
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
Criteria A: Ontario Reg. 153/04 (Amended April 15, 2011)					
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition					
Potable Ground Water- All Types of Property Uses - Coarse Textured Soil					





BUREAU  
VERITAS

Bureau Veritas Job #: C3J3318  
Report Date: 2023/07/12

DS Consultants Limited  
Client Project #: 22-012-101  
Site Location: 30 56 NEYAGAWA BLVD, OAKVILLE, ON  
Sampler Initials: MAD

**O.REG 153 METALS & INORGANICS PKG (WTR)**

Bureau Veritas ID			WGN143			WGN143			WGN144		
Sampling Date			2023/06/30			2023/06/30			2023/06/30		
COC Number			941406-01-01			941406-01-01			941406-01-01		
	UNITS	Criteria A	MW22-9	RDL	QC Batch	MW22-9 Lab-Dup	RDL	QC Batch	MW22-17	RDL	QC Batch
<b>Inorganics</b>											
WAD Cyanide (Free)	ug/L	66	<1	1	8774095				<1	1	8774095
Dissolved Chloride (Cl-)	mg/L	790	<b>810</b>	10	8774367				620	5.0	8772828
<b>Metals</b>											
Chromium (VI)	ug/L	25	<0.50	0.50	8768645	<0.50	0.50	8768645	<0.50	0.50	8768645
Mercury (Hg)	ug/L	0.29	<0.10	0.10	8769204				<0.10	0.10	8769204
Dissolved Antimony (Sb)	ug/L	6.0	1.0	0.50	8769184				<0.50	0.50	8769184
Dissolved Arsenic (As)	ug/L	25	2.3	1.0	8769184				<1.0	1.0	8769184
Dissolved Barium (Ba)	ug/L	1000	150	2.0	8769184				180	2.0	8769184
Dissolved Beryllium (Be)	ug/L	4.0	<0.40	0.40	8769184				<0.40	0.40	8769184
Dissolved Boron (B)	ug/L	5000	350	10	8769184				140	10	8769184
Dissolved Cadmium (Cd)	ug/L	2.7	<0.090	0.090	8769184				<0.090	0.090	8769184
Dissolved Chromium (Cr)	ug/L	50	<5.0	5.0	8769184				<5.0	5.0	8769184
Dissolved Cobalt (Co)	ug/L	3.8	<0.50	0.50	8769184				<0.50	0.50	8769184
Dissolved Copper (Cu)	ug/L	87	0.97	0.90	8769184				1.1	0.90	8769184
Dissolved Lead (Pb)	ug/L	10	<0.50	0.50	8769184				<0.50	0.50	8769184
Dissolved Molybdenum (Mo)	ug/L	70	12	0.50	8769184				1.9	0.50	8769184
Dissolved Nickel (Ni)	ug/L	100	1.3	1.0	8769184				1.7	1.0	8769184
Dissolved Selenium (Se)	ug/L	10	<2.0	2.0	8769184				<2.0	2.0	8769184
Dissolved Silver (Ag)	ug/L	1.5	<0.090	0.090	8769184				<0.090	0.090	8769184
Dissolved Sodium (Na)	ug/L	490000	440000	100	8769184				310000	100	8769184
Dissolved Thallium (Tl)	ug/L	2.0	<0.050	0.050	8769184				<0.050	0.050	8769184
Dissolved Uranium (U)	ug/L	20	4.1	0.10	8769184				3.8	0.10	8769184
Dissolved Vanadium (V)	ug/L	6.2	0.54	0.50	8769184				0.58	0.50	8769184
Dissolved Zinc (Zn)	ug/L	1100	<5.0	5.0	8769184				9.0	5.0	8769184
No Fill	No Exceedance										
Grey	Exceeds 1 criteria policy/level										
Black	Exceeds both criteria/levels										
RDL = Reportable Detection Limit											
QC Batch = Quality Control Batch											
Lab-Dup = Laboratory Initiated Duplicate											
Criteria A: Ontario Reg. 153/04 (Amended April 15, 2011)											
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition											
Potable Ground Water- All Types of Property Uses - Coarse Textured Soil											



BUREAU  
VERITAS

Bureau Veritas Job #: C3J3318  
Report Date: 2023/07/12

DS Consultants Limited  
Client Project #: 22-012-101  
Site Location: 30 56 NEYAGAWA BLVD, OAKVILLE, ON  
Sampler Initials: MAD

**O.REG 153 METALS & INORGANICS PKG (WTR)**

Bureau Veritas ID			WGN145			WGN145		
Sampling Date			2023/06/30			2023/06/30		
COC Number			941406-01-01			941406-01-01		
	UNITS	Criteria A	DUP1	RDL	QC Batch	DUP1 Lab-Dup	RDL	QC Batch
<b>Inorganics</b>								
WAD Cyanide (Free)	ug/L	66	<1	1	8774095	<1	1	8774095
Dissolved Chloride (Cl-)	mg/L	790	650	10	8774367			
<b>Metals</b>								
Chromium (VI)	ug/L	25	<0.50	0.50	8768645			
Mercury (Hg)	ug/L	0.29	<0.10	0.10	8769204	<0.10	0.10	8769204
Dissolved Antimony (Sb)	ug/L	6.0	<0.50	0.50	8769184			
Dissolved Arsenic (As)	ug/L	25	<1.0	1.0	8769184			
Dissolved Barium (Ba)	ug/L	1000	190	2.0	8769184			
Dissolved Beryllium (Be)	ug/L	4.0	<0.40	0.40	8769184			
Dissolved Boron (B)	ug/L	5000	130	10	8769184			
Dissolved Cadmium (Cd)	ug/L	2.7	<0.090	0.090	8769184			
Dissolved Chromium (Cr)	ug/L	50	<5.0	5.0	8769184			
Dissolved Cobalt (Co)	ug/L	3.8	<0.50	0.50	8769184			
Dissolved Copper (Cu)	ug/L	87	1.4	0.90	8769184			
Dissolved Lead (Pb)	ug/L	10	<0.50	0.50	8769184			
Dissolved Molybdenum (Mo)	ug/L	70	1.8	0.50	8769184			
Dissolved Nickel (Ni)	ug/L	100	1.9	1.0	8769184			
Dissolved Selenium (Se)	ug/L	10	<2.0	2.0	8769184			
Dissolved Silver (Ag)	ug/L	1.5	<0.090	0.090	8769184			
Dissolved Sodium (Na)	ug/L	490000	300000	100	8769184			
Dissolved Thallium (Tl)	ug/L	2.0	<0.050	0.050	8769184			
Dissolved Uranium (U)	ug/L	20	3.8	0.10	8769184			
Dissolved Vanadium (V)	ug/L	6.2	0.65	0.50	8769184			
Dissolved Zinc (Zn)	ug/L	1100	7.8	5.0	8769184			
No Fill	No Exceedance							
Grey	Exceeds 1 criteria policy/level							
Black	Exceeds both criteria/levels							
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
Lab-Dup = Laboratory Initiated Duplicate								
Criteria A: Ontario Reg. 153/04 (Amended April 15, 2011)								
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition								
Potable Ground Water- All Types of Property Uses - Coarse Textured Soil								



**O.REG 153 PAHS (WATER)**

Bureau Veritas ID			WGN143	WGN144	WGN145		
Sampling Date			2023/06/30	2023/06/30	2023/06/30		
COC Number			941406-01-01	941406-01-01	941406-01-01		
	UNITS	Criteria A	MW22-9	MW22-17	DUP1	RDL	QC Batch
<b>Calculated Parameters</b>							
Methylnaphthalene, 2-(1-)	ug/L	3.2	<0.071	<0.071	<0.071	0.071	8763625
<b>Polyaromatic Hydrocarbons</b>							
Acenaphthene	ug/L	4.1	<0.050	<0.050	<0.050	0.050	8769342
Acenaphthylene	ug/L	1	<0.050	<0.050	<0.050	0.050	8769342
Anthracene	ug/L	2.4	<0.050	<0.050	<0.050	0.050	8769342
Benzo(a)anthracene	ug/L	1.0	<0.050	<0.050	<0.050	0.050	8769342
Benzo(a)pyrene	ug/L	0.01	<0.0090	<0.0090	<0.0090	0.0090	8769342
Benzo(b/j)fluoranthene	ug/L	0.1	<0.050	<0.050	<0.050	0.050	8769342
Benzo(g,h,i)perylene	ug/L	0.2	<0.050	<0.050	<0.050	0.050	8769342
Benzo(k)fluoranthene	ug/L	0.1	<0.050	<0.050	<0.050	0.050	8769342
Chrysene	ug/L	0.1	<0.050	<0.050	<0.050	0.050	8769342
Dibenzo(a,h)anthracene	ug/L	0.2	<0.050	<0.050	<0.050	0.050	8769342
Fluoranthene	ug/L	0.41	<0.050	<0.050	<0.050	0.050	8769342
Fluorene	ug/L	120	<0.050	<0.050	<0.050	0.050	8769342
Indeno(1,2,3-cd)pyrene	ug/L	0.2	<0.050	<0.050	<0.050	0.050	8769342
1-Methylnaphthalene	ug/L	3.2	<0.050	<0.050	<0.050	0.050	8769342
2-Methylnaphthalene	ug/L	3.2	<0.050	<0.050	<0.050	0.050	8769342
Naphthalene	ug/L	11	<0.050	<0.050	<0.050	0.050	8769342
Phenanthrene	ug/L	1	<0.030	<0.030	<0.030	0.030	8769342
Pyrene	ug/L	4.1	<0.050	<0.050	<0.050	0.050	8769342
<b>Surrogate Recovery (%)</b>							
D10-Anthracene	%	-	117	118	117		8769342
D14-Terphenyl (FS)	%	-	113	111	108		8769342
D8-Acenaphthylene	%	-	103	109	107		8769342
No Fill	No Exceedance						
Grey	Exceeds 1 criteria policy/level						
Black	Exceeds both criteria/levels						
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							
Criteria A: Ontario Reg. 153/04 (Amended April 15, 2011)							
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition							
Potable Ground Water- All Types of Property Uses - Coarse Textured Soil							



BUREAU  
VERITAS

Bureau Veritas Job #: C3J3318  
Report Date: 2023/07/12

DS Consultants Limited  
Client Project #: 22-012-101  
Site Location: 30 56 NEYAGAWA BLVD, OAKVILLE, ON  
Sampler Initials: MAD

**O.REG 153 VOCS BY HS & F1-F4 (WATER)**

Bureau Veritas ID			WGN143	WGN144	WGN145		
Sampling Date			2023/06/30	2023/06/30	2023/06/30		
COC Number			941406-01-01	941406-01-01	941406-01-01		
	UNITS	Criteria A	MW22-9	MW22-17	DUP1	RDL	QC Batch
<b>Calculated Parameters</b>							
1,3-Dichloropropene (cis+trans)	ug/L	0.5	<0.50	<0.50	<0.50	0.50	8762770
<b>Volatile Organics</b>							
Acetone (2-Propanone)	ug/L	2700	<10	<10	<10	10	8768676
Benzene	ug/L	5.0	<0.17	<0.17	<0.17	0.17	8768676
Bromodichloromethane	ug/L	16.0	<0.50	<0.50	<0.50	0.50	8768676
Bromoform	ug/L	25.0	<1.0	<1.0	<1.0	1.0	8768676
Bromomethane	ug/L	0.89	<0.50	<0.50	<0.50	0.50	8768676
Carbon Tetrachloride	ug/L	0.79	<0.20	<0.20	<0.20	0.20	8768676
Chlorobenzene	ug/L	30	<0.20	<0.20	<0.20	0.20	8768676
Chloroform	ug/L	2.4	1.3	0.66	0.62	0.20	8768676
Dibromochloromethane	ug/L	25.0	<0.50	<0.50	<0.50	0.50	8768676
1,2-Dichlorobenzene	ug/L	3.0	<0.50	<0.50	<0.50	0.50	8768676
1,3-Dichlorobenzene	ug/L	59	<0.50	<0.50	<0.50	0.50	8768676
1,4-Dichlorobenzene	ug/L	1.0	<0.50	<0.50	<0.50	0.50	8768676
Dichlorodifluoromethane (FREON 12)	ug/L	590	<1.0	<1.0	<1.0	1.0	8768676
1,1-Dichloroethane	ug/L	5	<0.20	<0.20	<0.20	0.20	8768676
1,2-Dichloroethane	ug/L	1.6	<0.50	<0.50	<0.50	0.50	8768676
1,1-Dichloroethylene	ug/L	1.6	<0.20	<0.20	<0.20	0.20	8768676
cis-1,2-Dichloroethylene	ug/L	1.6	<0.50	<0.50	<0.50	0.50	8768676
trans-1,2-Dichloroethylene	ug/L	1.6	<0.50	<0.50	<0.50	0.50	8768676
1,2-Dichloropropane	ug/L	5.0	<0.20	<0.20	<0.20	0.20	8768676
cis-1,3-Dichloropropene	ug/L	0.5	<0.30	<0.30	<0.30	0.30	8768676
trans-1,3-Dichloropropene	ug/L	0.5	<0.40	<0.40	<0.40	0.40	8768676
Ethylbenzene	ug/L	2.4	<0.20	<0.20	<0.20	0.20	8768676
Ethylene Dibromide	ug/L	0.2	<0.20	<0.20	<0.20	0.20	8768676
Hexane	ug/L	51	<1.0	<1.0	<1.0	1.0	8768676
Methylene Chloride(Dichloromethane)	ug/L	50	<2.0	<2.0	<2.0	2.0	8768676
Methyl Ethyl Ketone (2-Butanone)	ug/L	1800	<10	<10	<10	10	8768676
Methyl Isobutyl Ketone	ug/L	640	<5.0	<5.0	<5.0	5.0	8768676
No Fill	No Exceedance						
Grey	Exceeds 1 criteria policy/level						
Black	Exceeds both criteria/levels						
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							
Criteria A: Ontario Reg. 153/04 (Amended April 15, 2011)							
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition							
Potable Ground Water- All Types of Property Uses - Coarse Textured Soil							



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Bureau Veritas Job #: C3J3318  
Report Date: 2023/07/12

DS Consultants Limited  
Client Project #: 22-012-101  
Site Location: 30 56 NEYAGAWA BLVD, OAKVILLE, ON  
Sampler Initials: MAD

**O.REG 153 VOCs BY HS & F1-F4 (WATER)**

Bureau Veritas ID			WGN143	WGN144	WGN145		
Sampling Date			2023/06/30	2023/06/30	2023/06/30		
COC Number			941406-01-01	941406-01-01	941406-01-01		
	UNITS	Criteria A	MW22-9	MW22-17	DUP1	RDL	QC Batch
Methyl t-butyl ether (MTBE)	ug/L	15	<0.50	<0.50	<0.50	0.50	8768676
Styrene	ug/L	5.4	<0.50	<0.50	<0.50	0.50	8768676
1,1,1,2-Tetrachloroethane	ug/L	1.1	<0.50	<0.50	<0.50	0.50	8768676
1,1,2,2-Tetrachloroethane	ug/L	1.0	<0.50	<0.50	<0.50	0.50	8768676
Tetrachloroethylene	ug/L	1.6	<0.20	<0.20	<0.20	0.20	8768676
Toluene	ug/L	24	<0.20	<0.20	<0.20	0.20	8768676
1,1,1-Trichloroethane	ug/L	200	<0.20	<0.20	<0.20	0.20	8768676
1,1,2-Trichloroethane	ug/L	4.7	<0.50	<0.50	<0.50	0.50	8768676
Trichloroethylene	ug/L	1.6	<0.20	<0.20	<0.20	0.20	8768676
Trichlorofluoromethane (FREON 11)	ug/L	150	<0.50	<0.50	<0.50	0.50	8768676
Vinyl Chloride	ug/L	0.5	<0.20	<0.20	<0.20	0.20	8768676
p+m-Xylene	ug/L	-	<0.20	<0.20	<0.20	0.20	8768676
o-Xylene	ug/L	-	<0.20	<0.20	<0.20	0.20	8768676
Total Xylenes	ug/L	300	<0.20	<0.20	<0.20	0.20	8768676
F1 (C6-C10)	ug/L	750	<25	<25	<25	25	8768676
F1 (C6-C10) - BTEX	ug/L	750	<25	<25	<25	25	8768676
<b>F2-F4 Hydrocarbons</b>							
F2 (C10-C16 Hydrocarbons)	ug/L	150	<100	<100	<100	100	8769343
F3 (C16-C34 Hydrocarbons)	ug/L	500	<200	<200	<200	200	8769343
F4 (C34-C50 Hydrocarbons)	ug/L	500	<200	<200	<200	200	8769343
Reached Baseline at C50	ug/L	-	Yes	Yes	Yes		8769343
<b>Surrogate Recovery (%)</b>							
o-Terphenyl	%	-	105	101	103		8769343
4-Bromofluorobenzene	%	-	96	97	96		8768676
D4-1,2-Dichloroethane	%	-	95	95	95		8768676
D8-Toluene	%	-	100	100	100		8768676
No Fill	No Exceedance						
Grey	Exceeds 1 criteria policy/level						
Black	Exceeds both criteria/levels						
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							
Criteria A: Ontario Reg. 153/04 (Amended April 15, 2011)							
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition							
Potable Ground Water- All Types of Property Uses - Coarse Textured Soil							



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Bureau Veritas Job #: C3J3318  
Report Date: 2023/07/12

DS Consultants Limited  
Client Project #: 22-012-101  
Site Location: 30 56 NEYAGAWA BLVD, OAKVILLE, ON  
Sampler Initials: MAD

### TEST SUMMARY

**Bureau Veritas ID:** WGN143  
**Sample ID:** MW22-9  
**Matrix:** Water

**Collected:** 2023/06/30  
**Shipped:**  
**Received:** 2023/06/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8763625	N/A	2023/07/10	Automated Statchk
1,3-Dichloropropene Sum	CALC	8762770	N/A	2023/07/07	Automated Statchk
Chloride by Automated Colourimetry	KONE	8774367	N/A	2023/07/07	Massarat Jan
Chromium (VI) in Water	IC	8768645	N/A	2023/07/05	Theodora Luck
Free (WAD) Cyanide	SKAL/CN	8774095	N/A	2023/07/07	Prgya Panchal
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8769343	2023/07/05	2023/07/06	Emir Danisman
Mercury	CV/AA	8769204	2023/07/05	2023/07/05	Japneet Gill
Dissolved Metals by ICPMS	ICP/MS	8769184	N/A	2023/07/11	Prempal Bhatti
PAH Compounds in Water by GC/MS (SIM)	GC/MS	8769342	2023/07/05	2023/07/06	Mitesh Raj
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8768676	N/A	2023/07/06	Dina Wang

**Bureau Veritas ID:** WGN143 Dup  
**Sample ID:** MW22-9  
**Matrix:** Water

**Collected:** 2023/06/30  
**Shipped:**  
**Received:** 2023/06/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chromium (VI) in Water	IC	8768645	N/A	2023/07/05	Theodora Luck

**Bureau Veritas ID:** WGN144  
**Sample ID:** MW22-17  
**Matrix:** Water

**Collected:** 2023/06/30  
**Shipped:**  
**Received:** 2023/06/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8763625	N/A	2023/07/10	Automated Statchk
1,3-Dichloropropene Sum	CALC	8762770	N/A	2023/07/07	Automated Statchk
Chloride by Automated Colourimetry	KONE	8772828	N/A	2023/07/07	Alina Dobreanu
Chromium (VI) in Water	IC	8768645	N/A	2023/07/05	Theodora Luck
Free (WAD) Cyanide	SKAL/CN	8774095	N/A	2023/07/07	Prgya Panchal
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8769343	2023/07/05	2023/07/06	Emir Danisman
Mercury	CV/AA	8769204	2023/07/05	2023/07/05	Japneet Gill
Dissolved Metals by ICPMS	ICP/MS	8769184	N/A	2023/07/11	Prempal Bhatti
PAH Compounds in Water by GC/MS (SIM)	GC/MS	8769342	2023/07/05	2023/07/06	Mitesh Raj
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8768676	N/A	2023/07/06	Dina Wang

**Bureau Veritas ID:** WGN145  
**Sample ID:** DUP1  
**Matrix:** Water

**Collected:** 2023/06/30  
**Shipped:**  
**Received:** 2023/06/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8763625	N/A	2023/07/10	Automated Statchk
1,3-Dichloropropene Sum	CALC	8762770	N/A	2023/07/07	Automated Statchk
Chloride by Automated Colourimetry	KONE	8774367	N/A	2023/07/07	Massarat Jan
Chromium (VI) in Water	IC	8768645	N/A	2023/07/05	Theodora Luck
Free (WAD) Cyanide	SKAL/CN	8774095	N/A	2023/07/07	Prgya Panchal
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8769343	2023/07/05	2023/07/06	Emir Danisman



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Bureau Veritas Job #: C3J3318  
Report Date: 2023/07/12

DS Consultants Limited  
Client Project #: 22-012-101  
Site Location: 30 56 NEYAGAWA BLVD, OAKVILLE, ON  
Sampler Initials: MAD

### TEST SUMMARY

**Bureau Veritas ID:** WGN145  
**Sample ID:** DUP1  
**Matrix:** Water

**Collected:** 2023/06/30  
**Shipped:**  
**Received:** 2023/06/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury	CV/AA	8769204	2023/07/05	2023/07/05	Japneet Gill
Dissolved Metals by ICPMS	ICP/MS	8769184	N/A	2023/07/11	Prempal Bhatti
PAH Compounds in Water by GC/MS (SIM)	GC/MS	8769342	2023/07/05	2023/07/06	Mitesh Raj
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8768676	N/A	2023/07/06	Dina Wang

**Bureau Veritas ID:** WGN145 Dup  
**Sample ID:** DUP1  
**Matrix:** Water

**Collected:** 2023/06/30  
**Shipped:**  
**Received:** 2023/06/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	SKAL/CN	8774095	N/A	2023/07/07	Prgya Panchal
Mercury	CV/AA	8769204	2023/07/05	2023/07/05	Japneet Gill

**Bureau Veritas ID:** WGN146  
**Sample ID:** TRIP BLANK  
**Matrix:** Water

**Collected:** 2023/06/30  
**Shipped:**  
**Received:** 2023/06/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	8762770	N/A	2023/07/07	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8768676	N/A	2023/07/06	Dina Wang



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VERITAS

Bureau Veritas Job #: C3J3318  
Report Date: 2023/07/12

DS Consultants Limited  
Client Project #: 22-012-101  
Site Location: 30 56 NEYAGAWA BLVD, OAKVILLE, ON  
Sampler Initials: MAD

### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.7°C
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**Results relate only to the items tested.**





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Bureau Veritas Job #: C3J3318

Report Date: 2023/07/12

### QUALITY ASSURANCE REPORT

DS Consultants Limited

Client Project #: 22-012-101

Site Location: 30 56 NEYAGAWA BLVD, OAKVILLE, ON

Sampler Initials: MAD

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8768676	4-Bromofluorobenzene	2023/07/06	97	70 - 130	98	70 - 130	95	%		
8768676	D4-1,2-Dichloroethane	2023/07/06	96	70 - 130	95	70 - 130	94	%		
8768676	D8-Toluene	2023/07/06	104	70 - 130	105	70 - 130	101	%		
8769342	D10-Anthracene	2023/07/05	118	50 - 130	112	50 - 130	121	%		
8769342	D14-Terphenyl (FS)	2023/07/05	120	50 - 130	114	50 - 130	120	%		
8769342	D8-Acenaphthylene	2023/07/05	110	50 - 130	107	50 - 130	103	%		
8769343	o-Terphenyl	2023/07/06	104	60 - 130	104	60 - 130	101	%		
8768645	Chromium (VI)	2023/07/05	104	80 - 120	104	80 - 120	<0.50	ug/L	NC	20
8768676	1,1,1,2-Tetrachloroethane	2023/07/06	97	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
8768676	1,1,1-Trichloroethane	2023/07/06	93	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
8768676	1,1,2,2-Tetrachloroethane	2023/07/06	99	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
8768676	1,1,2-Trichloroethane	2023/07/06	100	70 - 130	95	70 - 130	<0.50	ug/L	NC	30
8768676	1,1-Dichloroethane	2023/07/06	95	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
8768676	1,1-Dichloroethylene	2023/07/06	95	70 - 130	91	70 - 130	<0.20	ug/L	NC	30
8768676	1,2-Dichlorobenzene	2023/07/06	100	70 - 130	96	70 - 130	<0.50	ug/L	NC	30
8768676	1,2-Dichloroethane	2023/07/06	90	70 - 130	85	70 - 130	<0.50	ug/L	NC	30
8768676	1,2-Dichloropropane	2023/07/06	98	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
8768676	1,3-Dichlorobenzene	2023/07/06	99	70 - 130	97	70 - 130	<0.50	ug/L	NC	30
8768676	1,4-Dichlorobenzene	2023/07/06	117	70 - 130	115	70 - 130	<0.50	ug/L	NC	30
8768676	Acetone (2-Propanone)	2023/07/06	99	60 - 140	92	60 - 140	<10	ug/L	NC	30
8768676	Benzene	2023/07/06	96	70 - 130	92	70 - 130	<0.17	ug/L	NC	30
8768676	Bromodichloromethane	2023/07/06	93	70 - 130	88	70 - 130	<0.50	ug/L	NC	30
8768676	Bromoform	2023/07/06	90	70 - 130	86	70 - 130	<1.0	ug/L	NC	30
8768676	Bromomethane	2023/07/06	94	60 - 140	93	60 - 140	<0.50	ug/L	NC	30
8768676	Carbon Tetrachloride	2023/07/06	91	70 - 130	89	70 - 130	<0.20	ug/L	NC	30
8768676	Chlorobenzene	2023/07/06	100	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
8768676	Chloroform	2023/07/06	95	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
8768676	cis-1,2-Dichloroethylene	2023/07/06	99	70 - 130	95	70 - 130	<0.50	ug/L	NC	30
8768676	cis-1,3-Dichloropropene	2023/07/06	93	70 - 130	87	70 - 130	<0.30	ug/L	NC	30
8768676	Dibromochloromethane	2023/07/06	93	70 - 130	88	70 - 130	<0.50	ug/L	NC	30
8768676	Dichlorodifluoromethane (FREON 12)	2023/07/06	96	60 - 140	90	60 - 140	<1.0	ug/L	NC	30
8768676	Ethylbenzene	2023/07/06	97	70 - 130	95	70 - 130	<0.20	ug/L	NC	30



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Bureau Veritas Job #: C3J3318

Report Date: 2023/07/12

### QUALITY ASSURANCE REPORT(CONT'D)

DS Consultants Limited

Client Project #: 22-012-101

Site Location: 30 56 NEYAGAWA BLVD, OAKVILLE, ON

Sampler Initials: MAD

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8768676	Ethylene Dibromide	2023/07/06	96	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
8768676	F1 (C6-C10) - BTEX	2023/07/06					<25	ug/L	NC	30
8768676	F1 (C6-C10)	2023/07/06	91	60 - 140	92	60 - 140	<25	ug/L	NC	30
8768676	Hexane	2023/07/06	99	70 - 130	97	70 - 130	<1.0	ug/L	NC	30
8768676	Methyl Ethyl Ketone (2-Butanone)	2023/07/06	91	60 - 140	85	60 - 140	<10	ug/L	NC	30
8768676	Methyl Isobutyl Ketone	2023/07/06	87	70 - 130	83	70 - 130	<5.0	ug/L	NC	30
8768676	Methyl t-butyl ether (MTBE)	2023/07/06	90	70 - 130	87	70 - 130	<0.50	ug/L	NC	30
8768676	Methylene Chloride(Dichloromethane)	2023/07/06	101	70 - 130	97	70 - 130	<2.0	ug/L	NC	30
8768676	o-Xylene	2023/07/06	85	70 - 130	83	70 - 130	<0.20	ug/L	NC	30
8768676	p+m-Xylene	2023/07/06	96	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
8768676	Styrene	2023/07/06	95	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
8768676	Tetrachloroethylene	2023/07/06	90	70 - 130	88	70 - 130	<0.20	ug/L	NC	30
8768676	Toluene	2023/07/06	100	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
8768676	Total Xylenes	2023/07/06					<0.20	ug/L	NC	30
8768676	trans-1,2-Dichloroethylene	2023/07/06	99	70 - 130	96	70 - 130	<0.50	ug/L	NC	30
8768676	trans-1,3-Dichloropropene	2023/07/06	98	70 - 130	94	70 - 130	<0.40	ug/L	NC	30
8768676	Trichloroethylene	2023/07/06	99	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
8768676	Trichlorofluoromethane (FREON 11)	2023/07/06	92	70 - 130	90	70 - 130	<0.50	ug/L	NC	30
8768676	Vinyl Chloride	2023/07/06	96	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
8769184	Dissolved Antimony (Sb)	2023/07/12	109	80 - 120	103	80 - 120	<0.50	ug/L	NC	20
8769184	Dissolved Arsenic (As)	2023/07/12	99	80 - 120	97	80 - 120	<1.0	ug/L	6.8	20
8769184	Dissolved Barium (Ba)	2023/07/12	101	80 - 120	98	80 - 120	<2.0	ug/L	2.6	20
8769184	Dissolved Beryllium (Be)	2023/07/12	100	80 - 120	98	80 - 120	<0.40	ug/L	NC	20
8769184	Dissolved Boron (B)	2023/07/12	96	80 - 120	93	80 - 120	<10	ug/L	NC	20
8769184	Dissolved Cadmium (Cd)	2023/07/12	102	80 - 120	96	80 - 120	<0.090	ug/L	NC	20
8769184	Dissolved Chromium (Cr)	2023/07/12	96	80 - 120	94	80 - 120	<5.0	ug/L	NC	20
8769184	Dissolved Cobalt (Co)	2023/07/12	95	80 - 120	94	80 - 120	<0.50	ug/L	NC	20
8769184	Dissolved Copper (Cu)	2023/07/12	98	80 - 120	95	80 - 120	<0.90	ug/L	NC	20
8769184	Dissolved Lead (Pb)	2023/07/12	100	80 - 120	97	80 - 120	<0.50	ug/L	NC	20
8769184	Dissolved Molybdenum (Mo)	2023/07/12	106	80 - 120	100	80 - 120	<0.50	ug/L	NC	20
8769184	Dissolved Nickel (Ni)	2023/07/12	95	80 - 120	93	80 - 120	<1.0	ug/L	NC	20
8769184	Dissolved Selenium (Se)	2023/07/12	99	80 - 120	96	80 - 120	<2.0	ug/L	NC	20



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### QUALITY ASSURANCE REPORT(CONT'D)

DS Consultants Limited

Client Project #: 22-012-101

Site Location: 30 56 NEYAGAWA BLVD, OAKVILLE, ON

Sampler Initials: MAD

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8769184	Dissolved Silver (Ag)	2023/07/12	100	80 - 120	98	80 - 120	<0.090	ug/L	NC	20
8769184	Dissolved Sodium (Na)	2023/07/12	97	80 - 120	95	80 - 120	<100	ug/L	2.9	20
8769184	Dissolved Thallium (Tl)	2023/07/12	102	80 - 120	98	80 - 120	<0.050	ug/L	NC	20
8769184	Dissolved Uranium (U)	2023/07/12	102	80 - 120	97	80 - 120	<0.10	ug/L	18	20
8769184	Dissolved Vanadium (V)	2023/07/12	98	80 - 120	96	80 - 120	<0.50	ug/L	NC	20
8769184	Dissolved Zinc (Zn)	2023/07/12	95	80 - 120	94	80 - 120	<5.0	ug/L	NC	20
8769204	Mercury (Hg)	2023/07/05	102	75 - 125	105	80 - 120	<0.10	ug/L	NC	20
8769342	1-Methylnaphthalene	2023/07/05	113	50 - 130	110	50 - 130	<0.050	ug/L	NC	30
8769342	2-Methylnaphthalene	2023/07/05	113	50 - 130	110	50 - 130	<0.050	ug/L	NC	30
8769342	Acenaphthene	2023/07/05	112	50 - 130	107	50 - 130	<0.050	ug/L	NC	30
8769342	Acenaphthylene	2023/07/05	113	50 - 130	108	50 - 130	<0.050	ug/L	NC	30
8769342	Anthracene	2023/07/05	116	50 - 130	111	50 - 130	<0.050	ug/L	NC	30
8769342	Benzo(a)anthracene	2023/07/05	120	50 - 130	112	50 - 130	<0.050	ug/L	NC	30
8769342	Benzo(a)pyrene	2023/07/05	115	50 - 130	107	50 - 130	<0.0090	ug/L	NC	30
8769342	Benzo(b,j)fluoranthene	2023/07/05	112	50 - 130	104	50 - 130	<0.050	ug/L	NC	30
8769342	Benzo(g,h,i)perylene	2023/07/05	111	50 - 130	103	50 - 130	<0.050	ug/L	NC	30
8769342	Benzo(k)fluoranthene	2023/07/05	116	50 - 130	109	50 - 130	<0.050	ug/L	NC	30
8769342	Chrysene	2023/07/05	115	50 - 130	108	50 - 130	<0.050	ug/L	NC	30
8769342	Dibenzo(a,h)anthracene	2023/07/05	127	50 - 130	114	50 - 130	<0.050	ug/L	NC	30
8769342	Fluoranthene	2023/07/05	112	50 - 130	105	50 - 130	<0.050	ug/L	NC	30
8769342	Fluorene	2023/07/05	111	50 - 130	107	50 - 130	<0.050	ug/L	NC	30
8769342	Indeno(1,2,3-cd)pyrene	2023/07/05	113	50 - 130	105	50 - 130	<0.050	ug/L	NC	30
8769342	Naphthalene	2023/07/05	115	50 - 130	119	50 - 130	<0.050	ug/L	NC	30
8769342	Phenanthrene	2023/07/05	114	50 - 130	108	50 - 130	<0.030	ug/L	NC	30
8769342	Pyrene	2023/07/05	113	50 - 130	107	50 - 130	<0.050	ug/L	NC	30
8769343	F2 (C10-C16 Hydrocarbons)	2023/07/06	101	60 - 130	107	60 - 130	<100	ug/L	NC	30
8769343	F3 (C16-C34 Hydrocarbons)	2023/07/06	100	60 - 130	109	60 - 130	<200	ug/L	NC	30
8769343	F4 (C34-C50 Hydrocarbons)	2023/07/06	102	60 - 130	109	60 - 130	<200	ug/L	NC	30
8772828	Dissolved Chloride (Cl-)	2023/07/07	NC	80 - 120	92	80 - 120	<1.0	mg/L	0.61	20
8774095	WAD Cyanide (Free)	2023/07/07	94	80 - 120	92	80 - 120	<1	ug/L	NC	20



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### QUALITY ASSURANCE REPORT(CONT'D)

DS Consultants Limited

Client Project #: 22-012-101

Site Location: 30 56 NEYAGAWA BLVD, OAKVILLE, ON

Sampler Initials: MAD

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8774367	Dissolved Chloride (Cl-)	2023/07/07	90	80 - 120	97	80 - 120	<1.0	mg/L	NC	20

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).



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Sampler Initials: MAD

### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

\_\_\_\_\_  
Anastassia Hamanov, Scientific Specialist

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Bureau Veritas Job #: C3J3318  
Report Date: 2023/07/12

DS Consultants Limited  
Client Project #: 22-012-101  
Site Location: 30 56 NEYAGAWA BLVD, OAKVILLE, ON  
Sampler Initials: MAD

**Exceedance Summary Table – Reg153/04 T2-GW-C**  
**Result Exceedances**

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
MW22-9	WGN143-01	Dissolved Chloride (Cl-)	790	810	10	mg/L
The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						









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# Appendix D

## Phase Two Conceptual Site Model

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The Phase Two Conceptual Site Model (CSM) has been prepared for the Site located at 3056 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, Ontario. This Phase Two CSM has been prepared based on the following environmental site assessment reports:

- ◆ *"Phase One Environmental Site Assessment, "3056 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, Ontario" dated April 18, 2024, prepared for NEATT Sixteen Mile Creek Inc., prepared by DS Consultants Ltd. (DS).*
- ◆ *"Phase Two Environmental Site Assessment, "3056 Neyagawa Boulevard & 1039 Dundas Street West, Oakville, Ontario" dated April 29, 2024, prepared for NEATT Sixteen Mile Creek Inc., prepared by DS Consultants Ltd.*

The Phase Two CSM is comprised of the following figures and text:

Figure 1 – Site Location Plan

Figure 2 – Phase One Property Site Plan

Figure 3 – Phase One Study Area

Figure 4 – PCAs within Phase One Study Area

Figure 5 – Borehole/Monitoring Well Location Plan with APECs

Figure 5A – Geological Cross Section A-A'

Figure 6 – Groundwater Elevation Contours and Flow Direction

Figure 7A – Soil Characterization – Metals & Hydride Forming Metals

Figure 7B – Soil Characterization – ORPs

Figure 7C – Soil Characterization – PHCs

Figure 7D – Soil Characterization – VOCs

Figure 7E – Soil Characterization – PAHs

Figure 7F – Soil Characterization – OCPs

Figure 8A – Groundwater Characterization – Metals & Hydride Forming Metals

Figure 8B – Groundwater Characterization – ORPs

Figure 8C – Groundwater Characterization – PHCs

Figure 8D – Groundwater Characterization – VOCs

Figure 8E – Groundwater Characterization – PAHs

Figure 9 – Contaminant Transport Diagram

The RSC Property is an irregularly shaped 8.12-hectare (20.0 acre) parcel of land situated within a mixed residential, community and commercial neighbourhood in the Town of

Oakville, Ontario. The RSC Property is located approximately 110 m northwest of the intersection of Neyagawa Boulevard and Dundas Street West.

The Site is currently developed with eight structures. 3056 Neyagawa Boulevard was occupied by residential tenants, including a 320 m<sup>2</sup> two-storey rectangular-shaped residential dwelling (Site Building A) with one level of basement and attached two-car garage located within the northeastern portion of the Site. A detached 280 m<sup>2</sup> residential double car garage (Site Building B) located along the eastern portion of the Site. One canvas shed (Shed 1) approximately 10 m<sup>2</sup> located along the northern portion of the Site. Multiple (more than 10) shipping containers were present adjacent to the gravel driveway within the northeastern, western and central portions of the Site. The southwestern portion of the Site was comprised of agricultural land.

1039 Dundas Street West was occupied by St. Peter & Paul Serbian Orthodox Church and comprised of a 120 m<sup>2</sup> one-storey rectangular-shaped common area (Site Building C) with an attached 30 m<sup>2</sup> storage shed (Shed 3). South of Shed 3 is a 650 m<sup>2</sup> irregularly shaped building (Site Building D) which is used as an event hall and is outfitted with a commercial kitchen. A chapel is present on the central portion of the Site (Site Building E), occupying an approximate footprint of 100 m<sup>2</sup>. An enclosed 40 m<sup>2</sup> gazebo is present within the northern portion of the Site. An asphalt paved fenced area with an abandoned trailer and several cars is present within the southwestern portion of the Site. A Telus telecommunication tower is present on-Site adjacent to the northern Property boundary.

A gravel paved driveway traverses through the Site in a north-south orientation connecting Site Buildings C, D and E to Dundas Street West. The remaining balance of the Site consisted of landscaped grass, trees and shrubbery. A small, paved playground is present on the south-central portion of the Site adjacent to the gravel driveway.

The following issues of potential environmental concern (PCAs) were identified on the RSC Property:

- ◆ It is inferred that de-icing agents have been utilized upon the driveways present within the RSC Property for the purpose of pedestrian and vehicular safety.
- ◆ Miscellaneous debris, refuse and boats appear to have been stored at the Site for extended periods of time within the western extent of the 3056 Neyagawa Boulevard in the vicinity of Shed 1.
- ◆ Based on historic imagery and the Site Reconnaissance, storage of miscellaneous debris and refuse appears to be stored within the eastern portion of the Site.
- ◆ A shed appears to have been formerly located in the southern portion of the Site (Former Shed 2) from at least 2004 to 2007. The structure was subsequently

- demolished and fill material of unknown origin may have been utilized for grading/infilling at this location.
- ◆ Based on historic satellite imagery, areas within the western portion of the Site immediately north of the current agricultural field appears to have been utilized for the storage of miscellaneous debris and refuse.
  - ◆ Based on historic satellite imagery, an area within the southwestern portion of the Site immediately south of the current agricultural field appears to have been utilized for the storage of miscellaneous debris and refuse.
  - ◆ Based on photographs provided by AEL (2021) it is inferred that light vehicle servicing has likely taken place within the residential garage.
  - ◆ AEL (2021) reported a gravel material stockpile containing soil of unknown origin located to the north/northeast of the residential garage.
  - ◆ According to the Phase One Interview provided by AEL (2021) the previous property owner indicated that fill material of unknown origin may have been placed on the western portion of the property.
  - ◆ DS geotechnical investigation (2023) encountered fill material extending to depths ranging from 0.8 to 1.5 metres below ground surface (mbgs) across majority of the Site.
  - ◆ Based on historic aerial imagery a residential dwelling (Former Site Building F) was present on the southwestern portion of the Property, along Dundas Street West, between 1934 to 1965. The structure was subsequently demolished and fill material of unknown origin may have been utilized for grading/infilling at this location.
  - ◆ In the 1934 aerial imagery an orchard can be observed on the southwest portion of the RSC Property.
  - ◆ Based on historic aerial imagery a residential dwelling (Former Site Building G) was present on the southern portion of the Property between 1985 to 2004. The structure was subsequently demolished and fill material of unknown origin may have been utilized for grading/infilling at this location.

The neighboring properties within 250 m of the Site have been used for residential and commercial purposes since 1985. By 2013 a community center was developed on the north adjacent property, and was registered for waste of alkaline solutions - other metals and non-metals, paint/pigment/coating residues, oils & lubricants, inorganic and organic laboratory chemicals, waste of light fuels and organic acids in 2015 and 2021.

Following completion of the Phase One ESA, a Phase Two ESA was recommended in order to investigate the Areas of Potential Environmental Concern (APECs) identified.

The Phase Two ESA involved the advancement of eight (8) test pits (TP1 to TP8), which were completed on January 10, 2022. The test pits were advanced to a maximum depth of 3.5 metres below ground surface (mbgs) under the supervision of DS personnel. Additionally, twenty-one (21) boreholes (BH23-1 to BH23-21) were advanced on the Phase Two Property, in conjunction with a preliminary geotechnical and hydrogeological investigation, between June 5, 2023 and June 25, 2023. The boreholes were advanced to depths ranging from 1.4 to 18.8 mbgs. Ten (10) boreholes were instrumented with monitoring wells (BH23-1 to BH23-9 and BH23-17) and screened at depths ranging from 3.1 to 18.4 mbgs. In addition, existing monitoring wells (BH1 to BH5) previously installed as part of a historic geotechnical investigation, were utilized to monitor groundwater levels.

Soil samples were submitted for chemical analysis as follows:

- ◆ Twenty-two (22) soil samples were submitted for analysis of Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, and SAR. Three (3) soil samples were also submitted for analysis of pH only;
- ◆ Eleven (11) soil samples were submitted for analysis of Petroleum Hydrocarbons (PHCs) and Benzene, Toluene, Ethylbenzene and Xylenes (BTEX);
- ◆ Eleven (11) soil samples were submitted for analysis of Volatile Organic Compounds (VOCs);
- ◆ Eighteen (18) soil samples were submitted for analysis of Polyaromatic Hydrocarbons (PAHs);
- ◆ Eleven (11) soil samples were submitted for analysis of Organochlorine Pesticides (OCPs).

Groundwater samples were obtained from the five (5) monitoring wells (BH1, BH2, BH4, BH23-9 and BH23-17) and submitted for analysis of metals, As, Sb, Se, CN-, Cr (VI), Hg, Na, Cl, PHCs, VOCs and PAHs.

The soil and groundwater analytical results were compared to the "Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/ Parkland/ Institutional Use with coarse textured soils" provided in the MECP document entitled, "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" dated April 15, 2011 (Table 2 RPI SCS) for coarse-textured soils.

All of the soil samples analysed were found to meet the Table 2 SCS.

The result of the groundwater chemical analysis indicated that there was an elevated concentration of chloride present in groundwater collected from monitoring wells BH1 and BH23-9. Both boreholes are located adjacent to driveways/parking areas on the Property and have been subject to the application of de-icing agents during winter. Per Section 49.1 (1) of O.Reg. 153/04 (as amended), *"If an applicable site condition standard is exceeded at a property solely because of one of the following reasons, the applicable site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act": "...that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both"*. Based on this provision, the site condition standards for chloride in groundwater is deemed not to be exceeded. As such all groundwater samples analyzed were found to meet the Table 2 SCS.

I. Description and Assessment of:

A. Areas where potentially contaminating activity has occurred

A total of fifteen (15) PCAs were identified to be contributing to APECs on-Site. A summary of the PCAs considered to be contributing to APECs on the Phase Two Property is provided in the table below.

Table 1-1: Summary of PCAs Contributing to APECs

PCA Item.	PCA Description (Per. Table 2, Schedule D of O.Reg. 153/04)	Description	Rationale
1	#30: Importation of Fill Material of Unknown Origin	AEL (2021) reported a gravel material stockpile containing soil of unknown origin located to the north/northeast of the residential garage.	PCA is on-Site
2	#30: Importation of Fill Material of Unknown Origin	According to the Phase One Interview provided by AEL the current property owner indicated that fill material of unknown origin may have been placed on the western portion of 3056 Neyagawa Boulevard.	PCA is on-Site
5	#30: Importation of Fill Material of Unknown Origin	DS geotechnical investigation (2023) encountered fill material extending to depths ranging from 0.8 to 1.5 mbgs across the entire Site.	PCA is on-Site
6	#58: Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners.	3070 – 3090 Neyagawa Blvd, the north adjacent property, had one (1) record in the Ontario Regulation 347 Waste Generators database in 2015 and 2021 for alkaline solutions – other metals and non-metals	PCA is immediately upgradient of the Site.

PCA Item.	PCA Description (Per. Table 2, Schedule D of O.Reg. 153/04)	Description	Rationale
		paint/pigment/coating residues, oils & lubricants, inorganic and organic laboratory chemicals, light fuels and organic acids.	
8	#40: Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	In the 1934 aerial imagery an orchard can be observed on the southwest portion of the Phase One Property.	PCA is on-Site
11	#30: Importation of Fill Material of Unknown Origin	In the 1965 aerial imagery the residential dwelling (Former Site Building F) on the southwestern portion of the Property, along Dundas Street West, appears to have been demolished.	PCA is on-Site
12	#30: Importation of Fill Material of Unknown Origin	The residential dwelling (Former Site Building G) on the southern portion of the Property has been demolished.	PCA is on-Site
13	#N/S: Storage of miscellaneous debris, refuse and boats	Miscellaneous debris, refuse and boats appears to have been stored at the Site for extended periods of time within the western extent of the Property in the vicinity of Shed 1.	PCA is on-Site
14	#30: Importation of Fill Material of Unknown Origin	A shed appears to have been formerly located in the southern portion of the Site (Former Shed 2) from at least 2004 to 2007. The structure was subsequently demolished and fill material of unknown origin may have been utilized for grading/infilling at this location.	PCA is on-Site
15	#N/S: Storage of miscellaneous debris and refuse	Based on historic imagery and the Site Reconnaissance, storage of miscellaneous debris and refuse appears to have taken place within the eastern portion of the Site.	PCA is on-Site
16	#N/S: Storage of miscellaneous debris and refuse	Based on historic satellite imagery, areas within the western portion of 3056 Neyagawa Boulevard, immediately north of the current agricultural field appears to have been utilized for the storage of miscellaneous debris and refuse.	PCA is on-Site

PCA Item.	PCA Description (Per. Table 2, Schedule D of O.Reg. 153/04)	Description	Rationale
17	#N/S: Storage of miscellaneous debris and refuse	Based on historic satellite imagery, an area within the southern portion of the Site immediately south of the current agricultural field appears to have been utilized for the storage of miscellaneous debris and refuse.	PCA is on-Site
18	#N/S: Application of De-Icing Agents	It is inferred that de-icing agents have been utilized upon the driveways present within the eastern portion of the Property for the purpose of pedestrian and vehicular safety.	PCA is on-Site
19	#N/S: Application of De-Icing Agents	It is inferred that de-icing agents have been utilized upon the driveways present within the western portion of the Property for the purpose of pedestrian and vehicular safety.	PCA is on-Site
20	#27: Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	Based on photographs provided by AEL it is inferred that light vehicle servicing has likely taken place within the residential garage.	PCA is on-Site

N/S - not specified in Table 2, Schedule D, of O.Reg. 153/04

### B. Areas of potential environmental concern

Fifteen (15) APECs were identified to be present on the RSC Property through the completion of the Phase One ESA. A summary of the APECs identified, and the associated COPCs is provided in the table below.

Table 1-2: Summary of APECs identified on the RSC Property

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC-1A	Northeastern portion of the Site	#30: Importation of Fill Material of Unknown Origin	On-Site PCA-1	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-1B	Central portion of the Site	#30: Importation of Fill Material of Unknown Origin	On-Site PCA-2	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-1C	Entire Site	#30: Importation of Fill Material of Unknown Origin	On-Site PCA-5	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-1D	Vicinity of former Site Building F, located in the	#30: Importation of Fill Material of Unknown Origin	On-Site PCA-11	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil



Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
	southwestern portion of the Site				
APEC-1E	Vicinity of former Site Building G, located in the southern portion of the Site	#30: Importation of Fill Material of Unknown Origin	On-Site PCA-12	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-1F	Vicinity of former Shed 2, located in the southern portion of the Site	#30: Importation of Fill Material of Unknown Origin	On-Site PCA-14	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-2	Northern portion of the Site	#58: Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners.	Off-Site PCA-6	PHCs, VOCs, BTEX, Metals, As, Sb, Se, CN-, Cr (VI), Hg, PAHs	Groundwater
APEC-3	Southwestern portion of the Site in the vicinity of former orchard	#40: Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On-Site PCA-8	OCPs	Soil
APEC-4A	Northern portion of the Property in the vicinity of Shed 1.	#N/S: Storage of miscellaneous debris, refuse and boats	On-Site PCA-13	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-4B	Eastern portion of the Site	#N/S: Storage of miscellaneous debris and refuse	On-Site PCA-15	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-4C	Central portion of the Site immediately north of agricultural field	#N/S: Storage of miscellaneous debris and refuse	On-Site PCA-16	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-4D	Southern portion of the Site immediately south of agricultural field	#N/S: Storage of miscellaneous debris and refuse	On-Site PCA-17	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-5A	Eastern portion of the Site	#N/S: Inferred application of de-icing agents	On-Site PCA-18	EC, SAR	Soil
				Sodium, Chloride	Groundwater
APEC-5B	Western portion of the Site	#N/S: Inferred application of de-icing agents	On-Site PCA-19	EC, SAR	Soil
				Sodium, Chloride	Groundwater

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC-6	Within the Vicinity of Site Building B	#27: Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	On-Site PCA-20	PHCs, VOCs, BTEX, Metals, As, Sb, Se, Cr (VI), Hg, PAHs	Soil and Groundwater

Notes:

N/S - not specified in Table 2, Schedule D, of O.Reg. 153/04  
 BTEX = Benzene, Toluene, Ethylbenzene, Xylene  
 OCPs = Organochlorine Pesticides  
 PAHs = Polycyclic Aromatic Hydrocarbons  
 PHCs = Petroleum Hydrocarbons  
 VOCs = Volatile Organic Compounds

C. Any subsurface structures and utilities on, in or under the Phase Two Property that may affect contaminant distribution and transport

Underground utilities can affect contaminant distribution and transport. Trenches excavated to install utility services, and the associated granular backfill may provide preferential pathways for horizontal contaminant migration in the shallow subsurface.

Plans were not available to confirm the depths of these utilities or whether they are present, however they are estimated to be installed at depths ranging from 2 to 3 metres below ground surface.

The depth to groundwater at the RSC Property is inferred to be approximately 3.6 to 5.5 mbgs, therefore the utility corridors do have the potential to act as preferential pathways for contaminant distribution and transport in the event that shallow subsurface contaminants exist at the RSC Property.

II. Description of, and as appropriate, figures illustrating, the physical setting of the Phase Two Property and any areas under it including:

A. Stratigraphy from ground surface to the deepest aquifer or aquitard investigated

A surficial layer of topsoil approximately 150 to 250 mm in thickness was encountered in all test-pits (TP1 to TP8) and boreholes BH23-5, BH23-6 and BH23-7 advanced. An asphalt layer, approximately 150 mm in thickness, was encountered at the ground surface in borehole BH23-8 and a 50 mm thick layer of granular fill consisting of sand and gravel was present at the ground surface in borehole BH23-2. Fill materials consisting of clayey silt to silty clay with trace rootlets/organics and/or weathered shale, and cobble fragments were present in all boreholes extending to depths ranging from 0.8 to 1.5 mbgs. Beneath the fill strata, the native soil generally consisted of silty clay till extending to depths of between 1.6 to 3.1 m in all the boreholes. Shale bedrock was encountered at approximate depths ranging from 2.3 to 3.3 mbgs which extended to a maximum termination depth of 18.8 mbgs, and was confirmed by coring.

The borehole locations are depicted on Figure 5. A visual representation of the stratigraphy investigated is presented on the cross-sections provided in Figure 5A.

B. Hydrogeological Characteristics, including aquifers, aquitards and, in each hydrostratigraphic unit where one or more contaminants is present at concentrations above the applicable site condition standards, lateral and vertical gradients

Two (2) of the monitoring wells installed by DS on the Phase Two Property (MW23-9 and MW23-17) were utilized to assess the groundwater quality in relation to APEC-2 and APEC-5B. In addition, groundwater monitoring wells (BH1, BH2 and BH4) installed as part of the SHAD Geotechnical Investigation (2022) were also utilized for groundwater sampling purposes in relation to assessing APEC-2, APEC-5A, APEC-5B, and APEC-6. Two additional wells installed by SHAD (2022, namely BH3 and BH5) were utilized solely for groundwater monitoring purposes.

Monitoring wells were screened to intersect the first water bearing formation encountered, generally to allow for the assessment of LNAPL, and to provide information regarding the quality of the groundwater.

The remaining monitoring wells were installed on the Phase Two Property as a part of hydrogeological and geotechnical investigations conducted concurrently with the

environmental investigation. These monitoring wells were not used to assess the groundwater conditions on-Site.

Generally, the groundwater elevation on July 19, 2023 was found to range between 2.66 to 4.12 mbgs, with groundwater elevations ranging between 150.83 and 156.38 masl in the aquifer investigated. Based on the groundwater elevations recorded, the groundwater flow direction was southwest towards the Sixteen Mile Creek. The groundwater elevation contours, and flow direction are presented on Figure 5.

The horizontal hydraulic gradient was calculated based on the groundwater levels recorded on July 19, 2023.

Summary of Horizontal Hydraulic Gradient Calculations

Hydrogeological Unit	Calculated Horizontal Hydraulic Gradient
Till-Highly Weathered Shale Interface	Minimum: 0.013 m/m Average: 0.014 m/m Maximum: 0.015 m/m

C. Depth to bedrock

Shale bedrock was encountered at approximate depths ranging from 2.3 to 3.3 mbgs which extended to a maximum termination depth of 18.8 mbgs in all advanced boreholes except BH23-12, BH23-13, BH23-14, BH23-15, BH23-16, BH23-18, BH23-19, TP1 to TP8. Shale bedrock was confirmed by coring.

D. Approximate depth to water table

The depth to groundwater was measured in seven (7) monitoring wells installed during the course of this investigation (the remaining wells were utilized solely as part of a hydrogeological investigation conducted concurrently). On July 19, 2023 the groundwater levels were found to range between 2.66 to 4.12 mbgs.

E. Any respect in which section 41 or 43.1 of the regulation applies to the property

Section 35

Section 35 is not applicable to the Phase Two Property, permission to use the non-potable groundwater standards was not obtained from Halton Region.

Section 41

A total of twenty-one (21) pH samples were collected and submitted for analysis on the RSC Property.

Eighteen (18) pH samples were collected from depths of between 0 to 1.5m representing surficial soils. The pH values of surficial soils measured between 6.87 and 8.38 units, which are within the acceptable limits for non-sensitive sites.

Three (3) pH samples were collected from depths of between 1.5 to 1.6 m, representing subsurface soils. The pH values of the subsurface soils measured between 7.59 and 7.8 units, which is within the acceptable limits for non-sensitive sites. Figure 7B has been updated in order to show the pH results.

There are no areas of natural significance on the Site, or within 30 m of the Site. As such the Site is not considered to be environmentally sensitive as defined by Section 41.

#### Section 43.1

Not applicable – the Site is not a shallow soil property, nor does it include a water body, nor is it within 30 metres of a water body.

- F. Areas on, in or under the Phase Two Property where excess soil is finally placed

No excess soil was placed on the Site.

- G. Approximate locations, if known, of any proposed buildings and other structures

The proposed redevelopment will feature a residential subdivision. The proposed building locations have not been finalized.

- III. Where a contaminant is present on, in or under the Phase Two Property at a concentration greater than the applicable site condition standard, identification of

- A. Each area where a contaminant is present on, in or under the Phase Two Property at a concentration greater than the applicable SCS

The results of the chemical analyses conducted on soil and groundwater samples indicate that the applicable Site Condition Standards have been met, as such no areas of contamination are present on the RSC Property.

- B. The contaminants associated with each of the areas

The results of the chemical analyses conducted on soil and groundwater samples indicate that the applicable Site Condition Standards have been met.

- C. Medium that contaminants were identified in

No contaminants were identified at concentrations greater than the applicable SCS in soil or groundwater.

D. Description and assessment of what is known about each of the areas

No contaminants were identified at concentrations greater than the applicable SCS in soil or groundwater, as such no contaminated areas are present on the RSC Property.

E. Distribution in which the areas of each contaminant is present in the area at a concentration greater than the applicable SCS, for each medium in which the contaminant is present, together with figures showing the distribution

No contaminants were identified at concentrations greater than the applicable SCS in soil or groundwater.

F. Anything known about the reason for the discharge of the contaminants present on, in or under the Phase Two Property at a concentration greater than the applicable SCS

No contaminants were identified at concentrations greater than the applicable SCS in soil or groundwater. No discharge of contamination has occurred.

G. Anything known about migration of the contaminants present on, in or under the phase two property at a concentration greater than the applicable SCS away from any area of potential environmental concern, including the identification of any preferential pathways

No contaminants were identified at concentrations greater than the applicable SCS in soil or groundwater. No contaminant migration has occurred.

H. Climatic or meteorological conditions that may have influenced distribution and migration of the contaminants, such as temporal fluctuations in groundwater levels

No contaminants were identified at concentrations greater than the applicable SCS in soil or groundwater. Therefore the potential effect of meteorological and climatic conditions on the migration of contaminants on the Phase Two Property is considered to be minimal.

I. Information concerning soil vapour intrusion of the contaminants into buildings

No volatile parameters were identified at concentrations greater than the applicable SCS, therefore vapour intrusion is not considered to be an exposure pathway at this time.

- IV. Where contaminants on, in or under the Phase Two Property are present at concentrations greater than the applicable SCS, one or more cross-sections showing
- A. The lateral and vertical distribution of a contaminant in each area where the contaminants are present at concentrations greater than the applicable SCS in soil, groundwater and sediment
  - B. Approximate depth to water table
  - C. Stratigraphy from ground surface to the deepest aquifer or aquitard investigated
  - D. Any subsurface structures and utilities that may affect contaminants distribution and transport

No contaminants were identified at concentrations greater than the applicable SCS in soil or groundwater. However, for illustration purposes a cross section has been provided in Figure 5A.

- V. For each area where a contaminant is present on, in or under the property at a concentration greater than the applicable SCS for the contaminant, a diagram identifying, with narrative explanatory notes
- A. The release mechanisms
  - B. Contaminant transport pathway
  - C. The human and ecological receptors located on, in or under the phase two property
  - D. Receptor exposure points
  - E. Routes of exposure

No contaminants were identified at concentrations greater than the applicable SCS in soil or groundwater. Refer to Figure 9.