PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

2256 MAYFIELD ROAD, CALEDON, ONTARIO

WSP Project No. 161-08392-00

Prepared for: **GB (MAYFIELD) INC.**

September 13, 2016

WSP Canada Inc.

51 Constellation Court Toronto, ON M9W 1K4 Phone: 416-798-0065 www.wspgroup.com



September 13, 2016

GB (Mayfield) Inc. 145 Reynolds Street, Oakville, ON L6J 0A7

Subject: Phase Two Environmental Site Assessment Report 2256 Mayfield Road, Caledon, ON WSP Project No: 161-08392-00

Dear Mr. Amar Persaud,

WSP Canada Inc. is pleased to present our Phase Two Environmental Site Assessment report for the above noted property. The report documents relevant background information, methodologies, findings, and conclusions following our investigation which was conducted in June 2016.

We trust that this information is sufficient for your current needs. Please do not hesitate to contact the undersigned should you have any questions, or require any further assistance.

Yours truly,

WSP Canada Inc.

M. Bare

Marty Barons, P.Eng., QP_{ESA} Environmental Engineer

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GB (Mayfield) Inc.

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Phase Two ESA - 2256 Mayfield Road, Caledon, ON

1 EXECUTIVE SUMMARY

WSP Canada Inc. (WSP) was retained by Mr. Amar Persaud from GB (Mayfield) Inc. to conduct a Phase Two Environmental Site Assessment (ESA) at 2256 Mayfield Road, in the Town of Caledon (hereafter referred to as the "Phase Two Property" or the "Site"). It is our understanding that this Phase Two ESA was undertaken to assess the soil and groundwater conditions prior to a future property redevelopment.

The Phase Two Property comprise of agricultural land vacant of structure proposed for residential redevelopment.

A Phase One ESA was completed on the Site concurrently with this investigation by WSP (WSP, 2016). Based on the findings of the Phase One ESA, the following potentially contaminating activities (PCAs) contributing to areas of potential environmental concern (APECs) were identified:

OBSERVATIONS

Table 1-1 Summary of PCAs Contributing to On-Site APECs

POTENTIALLY CONTAMINATING ACTIVITY

PCA No. 28 Gasoline and Associated Products Storage in Fixed Tanks	Phase One Property – Historical heating oil underground storage tank (UST) was present on the southwest corner of the Phase One Property near the west building wall. The UST was decommissioned in 2013 when the residential building was demolished. (APEC 1 – southwest corner of the Phase One Property)
PCA No. 30	Phase One Property - The use of fill material of unknown quality during
Importation of Fill Material of	the demolition of the residential building in 2013. (APEC 2 - southwest
Unknown Quality	corner of the Phase One Property)
PCA No. 40 Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	Phase One Property – Based on an interview with the former property owner (AME, 2011), pesticides and herbicides were used on the property for agricultural purposes. (APEC 3 – entire Phase One Property)
PCA No. N/S Use of de-icing agents	Phase One Study Area – As the Phase One Property is located adjacent to municipal road way (Mayfield Road to the south), seasonal de-icing activities are anticipated. (APEC 4 – southern portion of the Phase One Property)

N/S - Not Specified

Given that there are four (4) APECs on the Phase One Property, further investigation is warranted to evaluate the environmental quality of the soil and groundwater. The potential contaminants of concern (PCOCs) in soil and groundwater were determined to include: metals and inorganics, electrical conductivity and sodium adsorption ratio (EC/SAR), petroleum hydrocarbons (PHCs) including benzene, toluene, ethylbenzene and xylenes (BTEX), volatile organic compounds (VOCs), and organochlorine (OC) pesticides.

A total of six (6) boreholes (BH16-1 to BH16-6) were advanced to depths ranging from 3.0 to 8.5 metres below ground surface (mbgs) on June 24, 2016 under the supervision of a WSP personnel. Three (3) boreholes (BH16-1, BH16-2, and BH16-4) were converted into monitoring wells. These wells were developed and sampled by WSP on June 27, 2016. The borehole locations were selected based on APECs and to provide site coverage. Soil and groundwater samples were submitted for analysis of metals and inorganics, PHCs, VOCs, and OC Pesticides.

Based on the Phase Two ESA, WSP presents the following findings:

- → A surficial topsoil layer approximately 150 mm in thickness was identified on the surface at all borehole locations. Underlying the topsoil at all borehole locations was heterogonous sandy clayey silt extending to depths ranging from 1.5 to 3.0 mbgs. Underlying the clayey sand at boreholes BH16-1, BH16-2, BH16-5, and BH16-6 is a layer of clayey silt/silty clay with seams of moist sand to depths ranging from 3.0 to 6.1 mbgs. Beneath the clayey silt/silty clay at borehole BH16-2 is a layer of silty clay till to a depth of 6.1 mbgs.
- The groundwater elevations in the monitoring wells ranged from 258.3 to 259.8 metres above sea level (masl) on June 27, 2016 for the three (3) monitoring wells (BH16-1, BH16-2, and BH16-4) installed by WSP. Based on the water levels the inferred groundwater flow direction is to the southeast. It is possible that groundwater elevations may vary seasonally in this area
- The soil and groundwater analytical results were compared to the 2011 Ministry of the Environment and Climate Change (MOECC) Table 1 Generic Site Condition Standards (SCS) for residential/parkland/institutional/industrial/commercial/community property use in coarse textured soil (MOECC, 2011b).
- A total of eighteen (18) soil samples were submitted for the following analyses: six (6) metals and inorganics, three (3) PHCs, three (3) VOCs, and six (6) OC Pesticides. Two (2) additional samples were submitted for the analysis of PHCs and VOCs as part of the quality assurance/quality control (QA/QC) program. Results indicated that all analyzed soil samples met Table 1 SCS (MOECC, 2011b) for all tested parameters.
- A total of fourteen (14) groundwater samples were submitted for the following analysis: three (3) metals and inorganics, three (3) PHCs, three (3) VOCs and three (3) OC Pesticides. Two (2) additional groundwater samples were submitted for the analysis of VOCs as part of the QA/QC program. Results indicated that all analyzed groundwater samples met Table 1 SCS (MOECC, 2011b) for all tested parameters.

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

- It is our understanding that the Phase Two Property is proposed for residential redevelopment and is considered less sensitive property use. As such a Record of Site Condition (RSC) is not required under Ontario Regulation 153/04, as amended (O.Reg. 153/04) (MOECC, 2011a).
- Should aesthetically impacted soil be identified during future redevelopment, WSP should be notified in order to collect soil samples for soil characterization.
- All monitoring wells should be decommissioned in accordance with O.Reg. 903 when no longer required.

2 INTRODUCTION

2.1 SITE DESCRIPTION

The Site is a rectangular shaped parcel of land, on the north side of Caledon Road approximately 490 m west of McLaughlin Road in the Town of Caledon, Ontario. The property is currently occupied by agricultural land vacant of structures. The municipal address associated with the Phase Two Property is 2256 Mayfield Road, Caledon, Ontario. A borehole location plan showing the Site is provided as Drawing 1. Property information for the Site is provided in the table below.

Table 2-1 Property Information

CRITERIA	PHASE ONE PROPERTY INFORMATION
Current Site Owner	GB (Mayfield) Inc.
Phase One Representative	Mr. Amar Persaud GB (Mayfield) Inc
	145 Reynolds Street, Oakville, Ontario
	L6J 0A7
	Email: APersaud@Meiroseinvestments.com
Municipal Address	2256 Mayfield Road, Caledon, Ontario
Property Identification	14252-0073
Numbers (PINs)	
Legal Descriptions for Both	Part of Lot 18, Concession 2, West of Hurontario Street, Town of Caledon, Region
Properties	Municipality of Peel

The Site is rectangular in shape, approximately 11.6 hectares (28.5 acres) in area and is shown in Drawing 1. A legal survey of the Site provided by GB (Mayfield) Inc. is included in Appendix A.

2.2 PROPERTY OWNERSHIP

Property ownership information for the Site is provided in the table below.

Table 2-2 Property Ownership Information

CRITERION	DESCRIPTION
Current Site Owner	GB (Mayfield) Inc. 145 Reynolds Street, Oakville, ON L6J 0A7
Owner's Representative	Mr. Amar Persaud GB (Mayfield) Inc. 145 Reynolds Street, Oakville, ON L6J 0A7Email: APersaud@MelroseInvestments.com

2.3 CURRENT AND PROPOSED FUTURE USES

The Site currently consists of agricultural land vacant of structures and proposed for residential redevelopment.

2.4 APPLICABLE SITE CONDITION STANDARD

Analytical results were compared to Table 1: Full Depth Background Site Condition Standards in coarse textures soil for residential/institutional/parkland property uses set out in the MOECC publication *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act* (April 15, 2011), hereinafter referred to as the "Table 1 SCS" (MOECC, 2011b). This evaluation standard for the Site was selected for comparison purposes based on the following:

- → The Town of Caledon obtains its potable water from potable groundwater wells.
- → The North adjoining property is located within the Greenbelt
- → Residential land use is proposed for the Site.

The pH values reported from analysis of surface soil samples were within the acceptable range to use the Table 1 SCS (MOECC, 2011b).

3 BACKGROUND INFORMATION

3.1 PHYSICAL SETTING

The Site is a rectangular shaped parcel of land, on the north side of Mayfield Road approximately 490 m west of McLaughlin Road in the Town of Caledon. The property is currently occupied by agricultural land vacant of structures. The municipal of the site is 2256 Mayfield Road, Caledon, Ontario.

According to bedrock maps provided by the Ontario Geological Society (MNDM, 2016), bedrock in the area of the Phase One Property is of the Queenston Formation, and generally consists of shale, limestone, dolestone and siltstone. The surficial geology maps (MNDM, 2016), show the surficial soils in the area of the Phase One Property consisted of clay to silt textured till derived from glacuolacustrine deposits. Based on the physiography maps (MNDM, 2016), the Phase One Property is situated within the drumlinized till plans.

At the time of the Phase One ESA Site reconnaissance, land uses within the Phase One Study Area were predominantly agricultural and residential, and the adjoining property uses were noted as follows:

Table 3-1 Adjoining Property Use

IDENTIFIABLE FEATURES

Immediately Adjacent Properties	
Adjacent Land Uses	Adjacent land uses at the time of the Site reconnaissance were noted as follows: <u>North:</u> Forested Land <u>South</u> : Agricultural land <u>East</u> : Agricultural land <u>West</u> : Agricultural land

SPECIFIC OBSERVATIONS

3.1.1 WATER BODIES AND AREAS OF NATURAL SIGNIFICANCE

Based on a review of the City of Brampton (Brampton, 2015) and Town of Caledon (Caledon, 2005) Official Plans no area of natural significance was identified on the Phase One Property. The north adjoining property is located within the Greenbelt. Wetlands and woodlands are identified on north and south adjoining properties. Tributaries of the Lake Ontario watershed cross the Phase One Property as well as the east and west adjoining properties travelling in a north to south direction.

3.1.2 TOPOGRAPHY AND SURFACE WATER DRAINAGE

The Site is relatively flat with a gradual slope to the south. The elevation of the Phase One Property is approximately 260 masl. The inferred groundwater flow direction within the Phase One Study Area is expected to be in the south-easterly direction.

3.2 PAST ASSESSMENTS AND INVESTIGATIONS

Three (3) environmental reports were provided to WSP by Amar Persaud of GB (Mayfield) Inc. The report was reviewed and the salient points are provided below.

Report Title:	Phase One Environmental Site Assessment, 2256 Mayfield Road, Caledon, Ontario
Date:	November 7, 2011
Author:	AME Materials Engineering
Report/work Completed for:	Guglietti Brothers Investments Limited

Relevant Findings:

AME conducted a Phase One ESA on the current Phase One Property in November of 2011. Based on a chain of tittle search the first ownership of the property took place in 1832. The first development of the property occurred in the mid-1970s when the residential building was constructed. Prior to the development the property was undeveloped agricultural land.

At the time of the investigation, the property consisted of agricultural land with a residential dwelling with a double car parking garage on the southwest corner of the property. One (1) 1000 litre (L) heating oil UST was identified within the west side of the building.

The Phase One ESA was conducted in conjunction with a Geotechnical Investigation. During the investigation soil samples were collected across the property, including a location 2 m west of the UST. Soil samples were submitted for the analysis of metals and inorganics, OC pesticides, PCB, and PHCs. Results were compared to Table 1 SCS (MOECC, 2011b). Results indicated that all tested parameters met Table 1 SCS (MOECC, 2011b) criteria.

Based on the chemical results, AME concluded that no APECs are present one the Phase One Property at the time. Any leakage from the UST is believed to be localized due to the impervious nature of the soil. As such, no Phase Two ESA was recommended.

AME advanced a total of ten (10) boreholes on the currently Phase One Property.

Report Title:	Geotechnical Investigation, Proposed Residential
	Development, 2256 Mayfield Road, Caledon
Date:	November, 2011
Author:	AME Materials Engineering
Report/work Completed for:	Guglietti Brothers Investments Limited

Relevant Findings:

A total of ten (10) boreholes were advanced on October 25 and 26, 2011 to depths ranging from 6.4 to 8.1 mbgs for the purpose of characterizing underlying soil and groundwater conditions. Topsoil was

encountered in all borehole locations with a thickness ranging from 250 to 400 millimetres (mm). Underlying the topsoil was a veneer of earth fill consisting of clayey silt followed by disturbed native. The disturbed native consisted of clayey silt with trace gravel and sandy silt to silty sand. Underlying the disturbed native are varying layers of cohesive native material including silty clay/clayey silt till, sandy silt till, and silt till. Groundwater was encountered in one (1) borehole location at a depth of 1.18 to 1.58 mbgs.

Selected soil samples were submitted to AGAT Laboratories for chemical analysis. Soil samples were collected across the property, including a location 2 m west of the UST. Soil samples were submitted for the analysis of metals and inorganics, OC pesticides, PCB, and PHCs. Results were compared to Table 1 SCS (MOECC, 2011b). Results indicated that all tested parameters met Table 1 SCS (MOECC, 2011b) criteria.

Report Title:	Phase One Environmental Site Assessment		
	Proposed Residential Development, 2256 Mayfield Road, Caledon		
Date:	August, 2016		
Author:	WSP Canada Inc.		
Report/work Completed for:	GB (Mayfield) Inc.		

Relevant Findings:

The Phase One ESA was conducted on the current Phase Two Property by WSP. The investigation identified a total of four (4) PCAs resulting in APECs) which are summarized in the table below:

POTENTIALLY CONTAMINATING ACTIVITY	OBSERVATIONS
PCA No. 28 Gasoline and Associated Products Storage in Fixed Tanks	<u>Phase One Property</u> – Historical heating oil UST was present on the southwest corner of the Phase One Property near the west building wall. The UST was decommissioned in 2013 when the residential building was demolished. (APEC 1 – southwest corner of the Phase One Property)
PCA No. 30 Importation of Fill Material of Unknown Quality	<u>Phase One Property</u> – The use of fill material of unknown quality during the demolition of the residential building in 2013. (APEC 2 – southwest corner of the Phase One Property)
PCA No. 40 Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	<u>Phase One Property</u> – Based on an interview with the former property owner for the 2011 AME Phase One ESA, pesticides and herbicides were used on the property for agricultural purposes. (APEC 3 – entire Phase One Property)
PCA No. N/S Use of de-icing agents	Phase One Study Area – As the Phase One Property is located adjacent to municipal road way (Mayfield Road to the south), seasonal de-icing activities are anticipated. (APEC 4 – southern portion of the Phase One Property)

N/S - Not Specified

Given that there are four (4) APECs on the Phase One Property, further investigation is warranted to evaluate the environmental quality of the soil and groundwater. The PCOCs in soil and groundwater were determined to include: metals and inorganics, EC/SAR, PHCs including BTEX, VOCs, and OC pesticides.

Based on the findings of this Phase One ESA, a Phase Two ESA is recommended for the filling of a RSC.

4 SCOPE OF THE INVESTIGATION

This report section discusses:

- → an overview of the site investigation,
- → the media investigated,
- \rightarrow the Phase One Conceptual Site Model (CSM),
- \rightarrow deviations from the sampling and analysis plan, and
- → any impediments that were encountered during the execution of this Phase Two ESA.

4.1 OVERVIEW OF SITE INVESTIGATION

The primary objectives of the Phase Two ESA are as follows:

- → Investigate subsurface soil and groundwater conditions in relation to the PCAs and APECs as identified in the Phase One ESA (WSP, 2016) for the Site.
- → Compare soil and groundwater results to the applicable Table 1 SCS (MOECC, 2011b).

The Phase Two ESA was carried out according to O.Reg. 153/04 (MOECC, 2011a). The Site investigation activities were limited to visible and accessible locations of the Site. Subsurface investigations, testing, sampling, and laboratory analyses were completed based on available historical findings, site access, and current site observations.

4.1.1 SAMPLING AND ANALYSIS PLAN

See Appendix C for the Sampling and Analysis Plan.

Per O.Reg. 153/04 Schedule E. Condition 3(5) (MOECC, 2011a) WSP developed standard operating procedures (SOPs) used in the field investigation, listed in the following table.

Fieldwork for this Phase Two ESA was undertaken following the SOPs. Deviations from the Sampling and Analysis Plan and SOPs, if any, are detailed in Section 5.

SOP

Table 4-1 List of Standard Operating Procedures Used in Field Investigation

1.	Excavating	Soil Sample Material Descriptions
2.	Soil Sampling	Field Soil Sampling for Metals and inorganics, PHC, VOC and OC Pesticide Analysis
3.	Soil Field Testing	Odour Identification Field Screening of Samples for Organic Vapours
4.	Monitor Construction	Monitoring Well Development
5.	Field Measurement of Water Quality Indicators	Temperature Measurement Conductivity Measurement pH Measurement
6.	Groundwater Monitoring/Sampling	Water Level Monitoring Non-Aqueous Phase Liquid Level Monitoring Monitor Purging

CATEGORY

CATEGORY	SOP		
	Monitoring Well Sampling Volatile Organic Sampling		
 Quality Assurance/Quality Control (QA/QC) Program 	Quality Assurance (QA) Quality Control (QC)		

4.2 MEDIA INVESTIGATED

A summary of the media investigated at the Site during the Phase Two ESA is provided in the table below.

Table 4-2 Media Investigated During Phase Two ESA

ENVIRONMENTAL CONCERN	MEDIA INVESTIGATED
APEC-1	Soil and Groundwater
Environmental impact of a former underground storage tank on the southwest corner of the Phase One Property.	PHC BTEX VOC
APEC-2	<u>Soil</u>
Environmental impact of fill material of unknown quality on the southwest corner of the Phase One Property.	Metals and Inorganics
APEC-3	Soil and Groundwater
Environmental impact from the historical use of pesticides on the Phase One Property.	Metals and Inorganics OC Pesticides
APEC-4	Soil
Environmental impact from the use of de-icing agent on adjoining roadway (Mayfield Road to the south)	EC/SAR

4.3 PHASE ONE CONCEPTUAL SITE MODEL

A Phase One CSM was presented in the Phase One ESA (WSP) that was conducted concurrently with this report under a separate cover. The Phase One CSM identified PCAs and APECs for the Site, as summarized in the following table. PCAs are numbered in accordance with Table 2, Schedule D of O.Reg. 153/04 (MOECC, 2011a).

POTENTIALLY CONTAMINATING ACTIVITY	OBSERVATIONS
PCA No. 28 Gasoline and Associated Products Storage in Fixed Tanks	<u>Phase One Property</u> – Historical heating oil underground storage tank (UST) was present on the southwest corner of the Phase One Property near the west building wall. The UST was decommissioned in 2013 when the residential building was demolished. (APEC 1 – southwest corner of the Phase One Property)
PCA No. 30 Importation of Fill Material of Unknown Quality	<u>Phase One Property</u> – The use of fill material of unknown quality during the demolition of the residential building in 2013. (APEC 2 – southwest corner of the Phase One Property)
PCA No. 40 Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	<u>Phase One Property</u> – Based on an interview with the former property owner (AME, 2011), pesticides and herbicides were used on the property for agricultural purposes. (APEC 3 – entire Phase One Property)
PCA No. N/S Use of de-icing agents	Phase One Study Area – As the Phase One Property is located adjacent to municipal road way (Mayfield Road to the south), seasonal de-icing activities are anticipated. (APEC 4 – southern portion of the Phase One Property)
N/S - Not Specified	

Table 4-3 Environmental Concerns Identified in Phase One ESA

The following conclusions and recommendations are made based on a review of previous investigations:

APECs were identified across the site as noted in the table above. PCOCs based on the current investigations include: metals and inorganics, EC/SAR, PHCs, BTEX, VOCs, and OC Pesticides. A Phase Two ESA was warranted based on the findings of the Phase One ESA to further assess the quality of the soils and groundwater onsite.

4.4 DEVIATIONS FROM SAMPLING AND ANALYSIS PLAN

The program completed in the ESA was conducted in general accordance with the sampling and analysis plan completed for the investigation.

4.5 IMPEDIMENTS

No impediments were identified on the Phase Two Property. Data was collected across the Phase Two Property to provide representative site coverage and as such these impediments did not limit the ability to meet the requirements of O.Reg. 153/04 (MOECC, 2011a).

5 INVESTIGATION METHOD

5.1 GENERAL

The methods used to complete this Phase Two ESA were in general accordance with O.Reg. 153/04 (MOECC, 2011a), WSP standard operating procedures, and generally accepted industry practices. The Phase Two ESA was generally completed in accordance with the Sampling and Analysis Plan.

5.2 DRILLING AND EXCAVATING

WSP staff inspected the Site and determined the borehole locations based on the findings of the Phase One assessment conducted on the property. The boreholes were advanced using a track-mounted Geoprobe. The boreholes were advanced to depths ranging from 3.0 to 8.5 mbgs on June 24, 2016. The borehole locations depicted in Drawing 1. The location of underground services and utilities within the Site were cleared by public locators through the Ontario One Call service prior to the commencement of the excavation activities.

DETAILS

Table 5-1 Summary of Drilling/Excavation

INFORMATION PARAMETER

Name of Drilling/Excavation Contractor	Landshark Drilling
Drilling/Excavating Equipment Used	Track-mounted Geoprobe
Measures taken to minimize the potential for cross- contamination,	New disposal plastic sampling tubes were used between each sample run to minimize the risk of cross-contamination.
Frequency of sample collection	Continuously every 0.76 m to the termination of the borehole.

On June 24, 2016, a total of six (6) boreholes were advanced across the Site. Three (3) boreholes (BH16-1, BH16-2, and BH16-4) were converted into monitoring wells upon completion.

5.3 SOIL

5.3.1 SOIL SAMPLING

New disposal plastic sampling tubes and nitrile gloves were used between each soil sampling collection to minimize the risk of cross-contamination. Soil samples were described in the field by WSP staff and observations were recorded in a dedicated field book. Soil samples were collected directly into laboratory-supplied amber glass jars and 40-mL methanol-preserved vials and were stored at a temperature of less than 10°C. Samples selected for laboratory analysis were handled under standard chain of custody procedures until received at the laboratory. The soil samples selected for laboratory analysis were

considered representative of worst-case conditions in the boreholes based on field screening results and visual and olfactory observations.

A total of eighteen (18) soil samples (including 2 field duplicate sample) were submitted to AGAT Laboratories in Mississauga, Ontario. A summary of the soil samples submitted for chemical analysis are summarized in Table 2.

5.3.2 FIELD SCREENING MEASUREMENTS

Soil samples were examined in the field for lithology as well as for aesthetic evidence of impacts (e.g. debris, staining, and odours). Soil headspace monitoring was undertaken to screen soil samples for potential organic contaminants.

Table 5-2 Summary of Field Screening Information

INFORMATION PARAMETER

DETAILS

Make and Model of Field Screening Instrument	MiniRae Lite Photoionization Detector (PID), Serial Number 059-4022- 000
Chemicals that Field Screening Instrument Detects and Respective Detection Limits	VOCs, 0.1 to 5000 ppm
Precision of the Measurements	3 significant figures
Accuracy of the Measurements	± 5% display reading ± one digit
Calibration Reference Standards	isobutylene
Calibration Procedures	The PID was calibrated according to manufacturer procedures prior to use in the field.

5.4 **GROUND WATER**

5.4.1 GROUND WATER MONITORING WELL INSTALLATION

Groundwater monitoring wells were installed at three (3) of the borehole locations (BH16-1, BH16-2, and BH16-4) by Landshark Drilling. A track mounted Geoprobe equipped with continuous direct push sampling system was used for the installation of monitoring wells on June 24, 2016 upon completion of soil sampling activities. Nitrile gloves were used to handle the well casings and screens during installation to minimize the potential for cross contamination during installation.

The wells were constructed using 52-mm Schedule 40 PVC riser and included a 3.0-m well screen (slot 10) for all monitoring wells. A sand pack was placed in the borehole annulus around the well screen from the bottom of the well to approximately 0.6 m above the well screen. Bentonite holeplug seal was placed above the sand pack to 0.3 mbgs. All monitoring wells were completed with monument casings. The monitoring well construction details are shown on the attached borehole logs included as Appendix D.

Each monitoring well was equipped with dedicated 1L PVC bailer with rope or Waterra tubing with a footvalve to facilitate groundwater sampling. Following installation, the wells were then developed by purging three (3) well volumes or by purging the well dry three (3) times.

5.4.2 GROUND WATER FIELD MEASUREMENT OF WATER QUALITY PARAMETERS

On June 27, 2016 the monitoring wells were developed and sampled. The wells were developed by removing three (3) well volumes or bailing the wells dry. Sampling was conducted using Waterra tubing. Field measurements of water quality parameters were collected using a Hanna multi-meter as part of this assessment including field pH, EC, and temperature.

5.4.3 GROUND WATER SAMPLING

On June 27, 2016 following purging of the wells, groundwater samples were collected from the installed wells BH16-1, BH16-2, and BH16-4 using 1L PVC bailers. The samples were collected in laboratory-supplied bottles and stored in an ice-filled cooler. The groundwater samples were submitted under proper chain of custody procedures to AGAT Laboratories in Mississauga for analysis of metals and inorganics, PHCs, VOCs, and PAHs.

5.5 SEDIMENT SAMPLING

Sediment sampling was not conducted as part of this Phase Two ESA.

5.6 ANALYTICAL TESTING

RESIDUE

Soil and groundwater samples were submitted to AGAT Laboratories for chemical analysis for the above listed parameters. AGAT Laboratories is certified by the Canadian Association for Laboratory Accreditation (CALA).

5.7 RESIDUE MANAGEMENT PROCEDURES

The management of residues such as soil cuttings, purge and development groundwater, and fluids from equipment cleaning was conducted as indicated in the following table.

MANAGEMENT PROCEDURE

Table 5-3	Summary	of	Residue	Management	Procedures
	C anna y	•••		management	

i.	Soil cuttings from drilling and excavations	Soil cuttings from the drilling were left onsite
ii.	Water from well development and purging	Ground water from the development and purging of the monitoring wells was emptied onto the ground adjacent to the wells and allowed to re-penetrate into the ground.
iii.	Fluids from equipment cleaning.	Equipment cleaning water was emptied onto the ground adjacent to the wells.

5.8 ELEVATION SURVEYING

The existing ground surface and top of pipe (well casing) elevations of the groundwater monitoring wells were surveyed with a Sokkia GRX 2 GPS unit with reference to a Town of Caledon benchmark #BM-00819728393 with a known elevation of 253.978 masl.

The ground surface elevations are included on the borehole logs in Appendix D.

DESCRIPTION

5.9 QUALITY ASSURANCE AND QUALITY CONTROL MEASURES

The project-specific QA/QC measures are described in the table below:

QA/QC MEASURE

i. Sample containers, Soil samples from the boreholes were collected in 40 mL methanol-preserved vials for PHC F1/VOCs/BTEX analysis, and glass jars without preservative for preservation, labelling, handling and custody for analysis of all other parameters at the sample locations. samples submitted for Ground water samples from the monitoring wells were collected using the laboratory analysis, following laboratory supplied containers: including any deviations • PHC F1/BTEX - three (3) 40 mL amber glass vials, NaHSO4 preservative from the SAP. • PHC F2-F4 - one (1) 500 mL amber glass bottle, NaHSO4 preservative • VOC - three (3) 40 mL amber glass vials, NaHSO4 preservative • Dissolved metals - one (1) 100 mL plastic bottle, HNO₃ preservative • Mercury - one (1) 250 mL amber glass bottle, HCl preservative Chromium VI – one (1) 250 mL plastic bottle, (NH₄)²SO₄/NH₄OH • Cyanide - one (1) 250 mL plastic bottle, sodium hydroxide preservative • OC Pesticides - one (1) 1 L amber glass bottle, no preservative Groundwater samples were collected using dedicated sampling equipment (Waterra tubing) for each well. Ground water samples collected for dissolved metals, mercury, and chromium (VI) analysis were field filtered using a dedicated 0.45-micron filter. Groundwater containers used for PHC F1/BTEX analysis were filled to achieve zero headspace. Sample containers were labelled with unique sample identification, the project number, and the sampling date. A laboratory-supplied chain of custody was completed. One (1) copy was sent with the samples to the laboratory, and one (1) copy was retained for the project file. Nitrile gloves were replaced after each sample was collected to reduce the ii. Equipment cleaning procedures during sampling potential for cross-contamination of the samples. Field equipment was cleaned with soap and water and was rinsed with distilled water between samples. Blind field duplicate samples of soil and ground water were collected and iii. Field QC measures submitted for laboratory analysis as part of this investigation. A laboratoryprepared VOC trip blank was brought to the Site during the ground water sampling and was submitted to the laboratory for analysis. iv. Deviations from the None. procedures set out in the QA/QC program set out in the SAP.

AGAT Laboratories also performed QA/QC procedures as outlined in their CALA procedures. These procedures included analysis of lab duplicates and blanks as well as analysis of surrogate recovery as outlined in the Certificates of Analysis provided in Appendix E.

6 REVIEW AND EVALUATION

6.1 GEOLOGY

A brief summary of the subsurface conditions encountered at the Site is presented below. Detailed borehole logs are included in Appendix D.

A surficial topsoil layer approximately 150 mm in thickness was identified on the surface at all borehole locations. Underlying the topsoil, at all borehole locations was heterogonous sandy clayey silt extending to depths ranging from 1.5 to 3.0 mbgs. Borehole BH16-3 was terminated in this stratum at 3.0 mbgs. Underlying the clayey sand at boreholes BH16-1, BH16-2, and BH16-5 and BH16-6 is a layer of clayey silt/silty clay with seams of moist sand do depths ranging from 3.0 to 6.1 mbgs. Boreholes BH16-1 and BH16-4 to BH16-6 were terminated in this deposit. Beneath the clayey silt/silty clay at borehole BH16-2 is a layer of silty clay till to a depth of 6.1 mbgs. Boreholes BH16-2 and BH16-4 were straight drilled from 6.1 mbgs to 7.3 and 8.5 mbgs, respectively, for the purpose of monitoring well installation.

6.2 HYDROGEOLOGY

6.2.1 ELEVATIONS AND FLOW DIRECTION

The groundwater elevations in the monitoring wells ranged from 258.3 to 259.8 masl on June 27, 2016 for the three (3) monitoring wells (BH16-1, BH16-2, and BH16-4) installed by WSP. Groundwater levels can only be confirmed with long term groundwater monitoring. The inferred groundwater flow direction based of the June 27, 2016 data is to the southeast.

No light non-aqueous phase liquids (LNAPL) or dense non-aqueous phase liquids (DNAPL) were present in any of the monitoring wells on-Site.

6.2.2 HYDRAULIC GRADIENTS

Hydraulic gradients have been calculated with the average gradient across the site being 0.0019 m/m. No vertical gradients were calculated as no nested wells were installed during this investigation.

6.3 RESULTS OF ANALYSIS

6.3.1 SOIL

FIELD SCREENING

The PID concentrations ranged from 0.1 to 0.5 ppm. No odorous or stained soils were encountered in any of the boreholes.

SOIL QUALITY

The soil analysis results from the present investigation are presented in Tables 4 through 7.

A total of eighteen (18) soil samples were submitted for the following analysis: six (6) metals and inorganics, three (3) PHCs, three (3) VOCs, and six (6) OC Pesticides. Two (2) additional samples were submitted for the analysis of PHCs and VOCs as part of the quality assurance/quality control (QA/QC) program. Results indicated that all analyzed soil samples met Table 1 SCS (MOECC, 2011b) for all tested parameters.

The Laboratory Certificates of Analysis for the soil analysis completed during the present investigation in are provided in Appendix E.

6.3.2 GROUND WATER QUALITY

The groundwater analysis results from the June 27, 2016 sampling event are presented in Tables 8 through 11.

A total of fourteen (14) groundwater samples were submitted for the following analysis: three (3) metals and inorganics, three (3) PHCs, three (3) VOCs and three (3) OC Pesticides. Two (2) additional groundwater samples were submitted for the analysis of VOCs as part of the QA/QC program. Results indicated that all analyzed groundwater samples met Table 1 SCS (MOECC, 2011b) for all tested parameters.

The Laboratory Certificates of Analysis for the groundwater analysis completed during the Phase Two ESA are provided in Appendix E.

ODOURS/FREE PRODUCT

During this Phase Two ESA, no free product, odours, or sheen was noted in the groundwater purged during well development.

6.3.3 SEDIMENT QUALITY

No sediment is present on the Site, as defined by O.Reg. 153/04 (MOECC 2011a).

6.4 QUALITY ASSURANCE AND QUALITY CONTROL RESULTS

Appropriate field protocols for sample collection and handling were followed by all WSP personnel to ensure sample integrity was maintained. All field equipment was decontaminated before and between sample collection and clean nitrile gloves were used for each sample to eliminate the potential for cross contamination of samples. All soil and groundwater samples were collected directly into laboratory-supplied containers, preserved as required, and stored and shipped in ice-filled coolers. Appropriate chain of custody procedures were followed by WSP and the laboratory during sample transfer.

Field duplicate samples were assessed as part of the QA/QC program during the Phase Two ESA. Table 6-1, below provides a summary of the field duplicate soil and groundwater samples and the results of the QA/QC comparisons of the duplicate samples.

DATE	SAMPLE ID	FIELD DUPLICATE ID	PARAMETER	MEDIA OF INVESTIGATION
June 24, 16	BH16-3 S2B	QA/QC 1	PHCs	Soil
June 24, 16	BH16-4 S2B	QA/QC 2	VOCs	Soil
June 27, 16	BH16-1	QA/QC1	VOCs	Groundwater
June 27, 16	BH16-4	QA/QC2	VOCs	Groundwater

Table 6-1 Summary of Soil & Groundwater QA/QC Results

A trip blank (VOC-free water), prepared by the laboratory, travelled along with the June 27, 2016 groundwater samples and was analyzed by the laboratory for VOCs. All concentrations were below the reported detection limit (RDL), indicating no contamination from the sample containers, preservatives, and transportation and storage conditions. The results also indicate that the laboratory instrument was not detecting false interference.

AGAT Laboratories carried out internal QA/QC measures including process recoveries, blanks, and replicate samples. The laboratory QA/QC results are provided on the Certificates of Analysis in Appendix E. The results were acceptable and therefore suitable for interpretation.

With respect to subsection 47(3) of O. Reg. 153/04 (MOECC, 2011a), all certificates of analysis of analytical reports received pursuant to clause 47(2) (b) of the regulation comply with subsection 47(3), a certificate of analysis of analytical report has been received for each sample submitted for analysis, and all certificates of analysis or analytical reports received have been included in full in Appendix E of the Phase Two ESA report.

6.5 PHASE TWO CONCEPTUAL SITE MODEL

Through analysis and interpretation of the Phase One ESA, Phase One CSM, and field data gathered during this Phase Two ESA, a Phase Two CSM was developed.

Based on information obtained as part of the Phase One ESA, it was concluded that APECs associated with past activities/operations exist at the Site. The table of APECs, prepared in accordance with clause 16(2) (a), Schedule D, O. Reg. 153/04 (MOECC, 2011a), is presented below.

Table 6-2 Summary of APECs Identified in Phase One ESA

Environmental Concern	Media Investigated
APEC-1	Soil and Groundwater
Environmental impact of a former underground storage tank on the southwest corner of the Phase One Property.	PHC BTEX VOC
APEC-2	<u>Soil</u>
Environmental impact of fill material of unknown quality on the southwest corner of the Phase One Property.	Metals and Inorganics
APEC-3	Soil and Groundwater

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Environmental impact from the historical use of pesticides on the Phase One Metals and Inor	rganics
Property. OC Pesticides	
APEC-4 Soil	
Environmental impact from the use of de-icing agent on adjoining roadway EC/SAR	

The following table provides a summary discussion of the interpreted field data that is incorporated into the Phase Two CSM.

Table 6-2	Summary	of	Phase	Two	Conceptual	Site	Model
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CRITERIA

DISCUSSION

 B. The on-Site APECs that were interpreted from the occurrence of the PCAs were: APEC #1 – Former residential home located on the southwest corner of the Phase One Property APEC associated with historical underground storage tank APEC #2 Former residential home located on the southwest corner of the Phase One Property APEC associated with historical underground storage tank APEC #2 Former residential home located on the southwest corner of the Phase One Property APEC associated with the importation of fill material of unknown quality following the demolition of the residential home APEC #3 Entire Phase One Property APEC associated with the historical use of pesticides and/or herbicides for the agricultural operation, APEC #4 Along the southern property line adjoining Mayfield Road APEC associated with de-icing activities along adjoining municipal roadway (Mayfield Road to the south) Underground utilities can affect contaminant distribution and transport. Public and private utility locates conducted as part of this investigation indicated that no buried utilities are present on the Phase Two Property. Based on the physical setting of the phase two property and any areas 	 i. a description and assessment of, A. areas where potentially contaminating activity has occurred, B. areas of potential environmental concern, and C. any subsurface structures and utilities on, in or under the phase two property that may affect contaminant distribution and transport, 	 A. The Phase One ESA by WSP identified PCAs that contributed to the identification of APECs detailed in Table 6-2 of this report. In summary, on- and off-Site PCAs that were identified as contributing to on-Site APECs were: 28. Gasoline and associated products in fixed tanks. 30. Importation of fill material of unknown quality 40. Pesticides manufacturing, processing, bulk storage and large-scale applications. N/S. De-icing salt application on roadways and parking areas on the
 b. The off-Site APEC's that were interpreted from the occurrence of the PCAs were: APEC #1 – Former residential home located on the southwest corner of the Phase One Property APEC #2 Former residential home located on the southwest corner of the Phase One Property APEC #2 Former residential home located on the southwest corner of the Phase One Property APEC #3 Entire Phase One Property APEC #3 Entire Phase One Property APEC #3 Entire Phase One Property APEC associated with the inportation of fill material of unknown quality following the demolition of the residential home APEC #3 Entire Phase One Property APEC associated with the historical use of pesticides and//or herbicides for the agricultural operation, APEC #4 Along the southern property line adjoining Mayfield Road APEC #4 Along the southern property line adjoining Mayfield Road APEC associated with de-icing activities along adjoining municipal roadway (Mayfield Road to the south) C. Underground utilities can affect contaminant distribution and transport. Public and private utility locates conducted as part of this investigation indicated that no buried utilities are present on the Phase Two Property. ii. a description of and, as appropriate, figures illustrating, the physical setting of the phase two property and any areas A urficial tengoil lance approximately 150 mm is thickness unce		Site & adjoining properties.
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 APEC #4 Along the southern property line adjoining Mayfield Road APEC associated with de-icing activities along adjoining municipal roadway (Mayfield Road to the south) C. Underground utilities can affect contaminant distribution and transport. Public and private utility locates conducted as part of this investigation indicated that no buried utilities are present on the Phase Two Property. A. Based on the physiography maps provided by the Ontario Geological Society (MNDM, 2016), the Phase One Property is situated within the drumlinized till plans. 		 APEC associated with the historical use of pesticides and//or herbicides for the agricultural operation,
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A STITUTAL DOSTOFIANAL ADDITIONATION OF THE DOSTOFIA ADDITION AND ADDITION ADDITION ADDITION ADDITION ADDITION ADDITION ADDITION ADDITION ADDITIONAL ADDITION ADDITIONAL AD	 a description of and, as appropriate, figures illustrating, the physical setting of the phase two property and any areas 	 A. Based on the physiography maps provided by the Ontario Geological Society (MNDM, 2016), the Phase One Property is situated within the drumlinized till plans. A surficial topsoil layer approximately 150 mm in thickness was

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 B. The clayey sandy silt/clayey silt/silty clay represent the overburden hydrostratigraphic unit where one or more contaminants is present at concentrations above the applicable site condition standards, lateral and vertical gradients, F. approximate depth to bedrock, G. approximate depth to water table, H. any respect in which section 41 or 43.1 of the regulation applies to the property, and placed on, in or under the phase two property and placed on, in or under the phase two property, and J. approximate locations, if known, of any proposed buildings and other structures 	under it including, D. stratigraphy from ground surface to the deepest aquifer or aquitard investigated, E. hydrogeological characteristics including	identified on the surface at all borehole locations. Underlying the topsoil, at all borehole locations was heterogonous sandy clayey silt extending to depths ranging from 1.5 to 3.0 mbgs. Underlying the clayey sandy silt at boreholes BH16-1, BH16-2, and Bh16-5 and BH16-6 is a layer of clayey silt/silt clay with seams of moist sand do depths ranging from 3.0 to 6.1 mbgs. Beneath the clayey silt/silty clay at borehole BH16-2 is a layer of silty clay till to a depth of 6.1 mbgs.
 c. Bedrock was not encountered during this investigation. c. Bedrock was not encountered during this investigation. c. Bedrock was not encountered during this investigation. d. approximate depth to water table, H. any respect in which section 41 nor section 41 nor section 43.1 apply to the Site as: the soil at the property has a pH within the acceptable range of 5 to 9 F. It is anticipated that off-site soil was imported onto the Phase Two Property following the demolition of the residential property in 2013 on the southwest corner of the property. G. The location of proposed future structures on the Phase Two Property is unknown. 	aquifers, aquitards and, in each hydrostratigraphic unit where one or more contaminants is present at concentrations above the applicable site condition	B. The clayey sandy silt/clayey silt/silty clay represent the overburden hydrostratigraphic unit. Analytical sampling and analysis indicated all groundwater samples collected meeting the Table 1 SCS (MOECC 2011b). The average horizontal hydraulic gradient was calculated as 0.0019 m/m. The vertical hydraulic gradient could not be determined as nested wells are not present on the Site.
 vertical gradients, F. approximate depth to bedrock, G. approximate depth to water table, H. any respect in which section 41 or 43.1 of the regulation applies to the property, I. areas where soil has been brought from another property and placed on, in or under the phase two property, and J. approximate locations, if known, of any proposed buildings and other structures D. The depth to ground water in the overburden ranged from 0.5 and 2.55 mbgs E. Neither section 41 nor section 43.1 apply to the Site as: the soil at the property has a pH within the acceptable range of 5 to 9 F. It is anticipated that off-site soil was imported onto the Phase Two Property following the demolition of the residential property in 2013 on the southwest corner of the property. G. The location of proposed future structures on the Phase Two Property is unknown. 	standards, lateral and	C. Bedrock was not encountered during this investigation.
 G. approximate depth to water table, H. any respect in which section 41 or 43.1 of the regulation applies to the property, I. areas where soil has been brought from another property and placed on, in or under the phase two property, and J. approximate locations, if known, of any proposed buildings and other structures 	vertical gradients, F. approximate depth to bedrock	 The depth to ground water in the overburden ranged from 0.5 and 2.55 mbgs
 table, H. any respect in which section 41 or 43.1 of the regulation applies to the property, I. areas where soil has been brought from another property and placed on, in or under the phase two property, and J. approximate locations, if known, of any proposed buildings and other structures the soil at the property has a pH within the acceptable range of 5 to 9 F. It is anticipated that off-site soil was imported onto the Phase Two Property following the demolition of the residential property in 2013 on the southwest corner of the property. G. The location of proposed future structures on the Phase Two Property is unknown. 	G. approximate depth to water	E. Neither section 41 nor section 43.1 apply to the Site as:
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J. approximate locations, if known, of any proposed buildings and other structures	brought from another property and placed on, in or under the phase two property, and	G. The location of proposed future structures on the Phase Two Property is unknown.
	J. approximate locations, if known, of any proposed buildings and other structures	

7 CONCLUSIONS

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

- → Soil samples met Table 1 SCS (MOECC, 2011b) for all analyzed parameters
- → Groundwater samples met Table 1 SCS (MOECC, 2011b) for all analyzed parameters.
- → All monitoring wells should be decommissioned in accordance with O.Reg. 903 when no longer required.

7.1 QUALIFIER

This assignment is limited to the completion of a Phase Two ESA and analysis of potential contamination at the selected borehole locations. This report is prepared for the sole use of GB (Mayfield) Inc. in the evaluation of the property at 2256 Mayfield Road, Caledon, Ontario.

The Phase Two ESA, sampling, and laboratory analyses were completed as documented in the report. Extrapolation of data beyond the borehole locations assumes that homogenous conditions exist beyond the sampling locations, which may not be the case. Therefore, it is not feasible to state conclusively, that the subsurface conditions encountered during this investigation exist beyond the sampled locations.

The conclusions provided in this report reflect our best judgment in light of the information available at the time of report preparation. Any use, which a third party makes of this report, or any reliance on or any decisions to be made based on it, is the responsibility of such third parties. WSP accepts no responsibility for damages, if any, suffered by any third party because of decisions or actions taken, based on this report. Conclusions documented in this report do not apply to other land uses. It is understood that site conditions, environmental or otherwise, are not static and that this report documents Site conditions at the time of the investigation.

7.2 QUALIFICATIONS OF THE ASSESSORS

This report was prepared by **Eric Wong**, **P.Eng.**, who is an Environmental Project Officer in the Toronto, Ontario office of WSP. He has experience in conducting Phase One and Two ESAs on numerous residential, commercial, and industrial properties.

Marty Barons, P.Eng., QP_{ESA}, is an Environmental Engineer in the Toronto Office of WSP, with a Bachelors of Applied Science Degree in Environmental Engineering, and is a recognized Professional Engineer in Ontario since 2008. Marty has conducted and managed dozens of environmental investigations including Phase One ESAs, Phase Two ESAs, and various site remediation projects across Ontario. Marty is a Qualified Person (QP_{ESA}) under the O.Reg. 153/04 (MOECC, 2011a).

7.3 SIGNATURES

WSP carried out this Phase Two ESA and confirms the findings and conclusions presented in this report.

Report prepared by WSP Canada Inc.

Reviewed by

into

Eric Wong, P.Eng Project Officer, Environment

M. Bana

Marty Barons, P.Eng., QP_{ESA} Environmental Engineer



8 **REFERENCES**

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DRAWINGS

Phase Two ESA – 2256 Mayfield Road, Caledon, ON GB (Mayfield0 Inc.

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LEGEND:		Client:	lient: Melrose Investments Inc. F			Project No.:	161-08392-00	Drawing No.: 1	
	Phase Two Property	Drawn:	RA	Approved:	MB	Title:	itle: BOREHOLE LOCATION PLAN		
•	Monitoring Well Borehole	Date: S	September 2016	Scale:	As Shown	Project:	PHASE TWO ENVIRO 2256 MAYFIEL	NMENTAL SITE ASSESSMENT D ROAD, CALEDON, ON	
\bigcirc	Approximate Location of Former UST		Tabloid	Rev:	N/A		V	VSP	





PCA 28	Gasoline in Fixed	& Asso Tanks	ociated	produc	cts Storag	je

AFECTA
APEC 3
APEC 4

Client: GB (Mayfield) Inc.				
Drawn: NS	Approved: MB	Title:		
Date: August 2016	Scale: As shown	Proje		
Original Size: Tabloid	Rev: 0			



			ient: Melrose Investments Inc.			Project No.:	161-08392-00	Drawing No.:	3
	Nonitoring Weil	Drawn:	RA	Approved:	МВ	Title:	RECTION		
$\overset{\frown}{\bigcirc}$	Approximate Location of Former UST	Date:	September 2016	Scale:	As Shown	Project:	PHASE TWO ENVIRO 2256 MAYFIEL	ONMENTAL SITE AS D ROAD, CALEDO	SESSMENT N, ON
	Groundwater Contour	Original	Tableid	Rev:	N/A			VCD	·
(258.7)	Groundwater Level (masl)	Size:	Tabloid					VJF	

Appendix A

LEGAL SURVEY



Appendix B

TABLES
Table 1: Monitoring Well Installation & Water Levels

	Ground		27-Jun-16			
Monitoring Well	Surface Elevation (masl)	Well screen depth (masl)	Depth to Groundwater (mbgs)	Groundwater Elevation (masl)		
BH16-1	259.8	2.4-5.5	0.5	259.3		
BH16-2	258.3	5.8-7.3	1.15	257.15		
BH16-4	258.7	5.5-8.5	2.55	256.15		

Table 2: Summary of Soil Samples Submitted for Chemical Analysis

Location/	Sample	Depth		Chemical Analyses		es	Petienelo	
Borehole	No.	(m)	Date	M&I	PHCs	VOCs	OC Pes	Rationale
	S1B	0.8-1.5	24- lun-16				1	For the purpose of investigating APEC 3
BH16-1	S2A	1.5-2.3	24-5011-10	~				For the purpose of investigating APEC 3
	S1B	0.8-1.5	24- lun-16				✓	For the purpose of investigating APEC 3
BH16-2	S3B	3.8-4.6	24-5011-10	~				For the purpose of investigating APEC 3
	S1A	0-0.8					✓	For the purpose of investigating APEC 3
	S1B	0.8-1.5	24-Jun-16	~				For the purpose of investigating APEC 3
BH16-3	S2B	2.3-3.1			✓	✓		For the purpose of investigating APEC 1
	S1B	0.8-1.5		~				For the purpose of investigating APEC 2
	S2B	2.3-3.1	24-Jun-16		✓	✓		For the purpose of investigating APEC 1
BH16-4	S4B	5.3-6.1			✓	✓		For the purpose of investigating APEC 1
	S1A	0-0.8	24 Jun 16	✓			 ✓ 	For the purpose of investigating APEC 2 and 3
BH16-5	S2A	1.5-2.3	24-Juli-16				✓	For the purpose of investigating APEC 3
BH16-6	S1A	0-0.8	24-Jun-16	1			✓	For the purpose of investigating APEC 3
QA/QC 1	-	2.3-3.1	24-Jun-16		✓			Field duplicate of BH16-3 S2B
QA/QC2	-	2.3-3.1	24-Jun-16			1		Field duplicate of BH16-4 S2B

Borehole	Date	Screened Interval			Chemical Analyses				Rationale	
		(m bg	s)	M&I	PHCs	VOCs	OC Pes		
BH15-1	June 27. 16	2.40	-	5.50	*	*	1	*	To assess chemical quality of groundwater	
BH15-2	June 27. 16	5.80	-	7.30	*	*	~	*	To assess chemical quality of groundwater	
BH15-4	June 27. 16	5.50	-	8.60	~	1	~	*	To assess chemical quality of groundwater	
QAQC1	June 27. 16	-	-	-			~		Field duplicate of BH16-1	
QA/QC2	June 27. 16						~		Field duplicate of BH16-4	

Table 3: Summary of Groundwater Samples Submitted for Chemical Analysis

Table 4: Summary of M&I in Soil

Parameter	2011	BH16 - 1 SS2A	BH16 - 2 S3B	BH16 - 3 S1B	BH16 - 4 S1B	BH16 - 5 S1A	BH16 - 6 S1A
Date of Collection	MOECC	24-Jun-16	24-Jun-16	24-Jun-16	24-Jun-16	24-Jun-16	24-Jun-16
Date of Analysis	Table 1	27-Jun-16	27-Jun-16	27-Jun-16	27-Jun-16	27-Jun-16	27-Jun-16
Sampling Depth (m)	RPI	1.5-2.3	3.8-4.6	0.8-1.5	0.8-1.5	0-0.8	0-0.8
Analytical Report Reference No.		7666261	7666264	7666267	7666271	7666278	7666290
Antimony	1.3	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	18	5	6	5	5	5	5
Barium	220	55	76	70	80	60	73
Beryllium	2.5	0.6	0.7	0.7	0.8	0.9	0.8
Boron	36	9	10	9	9	<5	8
Boron (Hot Water Soluble)	NA	0.27	0.23	0.10	0.14	0.13	0.11
Cadmium	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	70	17	17	17	18	19	18
Cobalt	21	8.7	10.5	9.5	9.6	8.6	9.9
Copper	92	24	25	24	24	10	23
Lead	120	7	8	9	8	9	7
Molybdenum	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel	82	20	21	20	21	17	21
Selenium	1.5	<0.4	<0.4	<0.4	<0.4	0.5	<0.4
Silver	0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	1	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Uranium	2.5	<0.5	0.5	<0.5	<0.5	0.5	<0.5
Vanadium	86	23	23	24	24	26	25
Zinc	290	53	57	53	53	79	55
Chromium VI	0.66	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cyanide	0.051	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Mercury	0.27	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Electrical Conductivity	0.57	0.183	0.168	0.167	0.192	0.174	0.168
Sodium Adsorption Ratio	2.4	0.272	0.270	0.178	0.616	0.260	0.259
pH, 2:1 CaCl2 Extraction		7.92	7.87	7.83	7.78	7.20	7.72

Table 5: Summary of PHCs in Soil

Parameter	2011	BH16 - 3 S2B	BH16 - 4 S2B	BH16 - 4 S4B	QA/QC 1
Date of Collection	MOFCC	24-Jun-16	24-Jun-16	24-Jun-16	24-Jun-16
Date of Analysis	Table 1	27-Jun-16	27-Jun-16	27-Jun-16	27-Jun-16
Sampling Depth (m)	RPI	2.3-3.1	2.3-3.1	5.3-6.1	
Analytical Report Reference No.		7666269	7666273	7666275	7666296
F1 (C6 to C10) minus BTEX	25	<5	<5	<5	<5
F2 (C10 to C16)	10	<10	<10	<10	<10
F3 (C16 to C34)	240	<50	<50	<50	<50
F4 (C34 to C50)	120	<50	<50	<50	<50
Benzene	0.02	-	-	-	<0.02
Toluene	0.2	-	-	-	<0.08
Ethylbenzene	0.05	-	-	-	<0.05
Xylene, Total	0.05	-	-	-	< 0.05

able 6: Summary of VOCs in Soil

Parameter	2011	BH16 - 3 S2B	BH16 - 4 S2B	BH16 - 4 S4B	QA/QC 2
Date of Collection	MOECC	24-Jun-16	24-Jun-16	24-Jun-16	24-Jun-16
Date of Analysis	Table 1	27-Jun-16	27-Jun-16	27-Jun-16	27-Jun-16
Sampling Depth (m)	RPI	2.3-3.1	2.3-3.1	5.3-6.1	
Analytical Report Reference No.		7666269	7666273	7666275	7666298
Acetone	0.5	<0.50	<0.50	<0.50	<0.50
Benzene	0.02	<0.02	< 0.02	< 0.02	<0.02
Bromodichloromethane	0.05	<0.05	<0.05	<0.05	< 0.05
Bromoform	0.05	< 0.05	<0.05	<0.05	< 0.05
Bromomethane	0.05	< 0.05	<0.05	<0.05	< 0.05
Carbon Tetrachloride	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlorobenzene	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chloroform	0.05	< 0.04	<0.04	<0.04	<0.04
Dibromochloromethane	0.05	< 0.05	<0.05	<0.05	< 0.05
Dichlorobenzene 1,2-	0.05	< 0.05	< 0.05	<0.05	< 0.05
Dichlorobenzene 1,3-	0.05	<0.05	<0.05	<0.05	< 0.05
Dichlorobenzene 1,4-	0.05	<0.05	<0.05	<0.05	< 0.05
Dichlorodifluoromethane	0.05	<0.05	<0.05	<0.05	<0.05
Dichloroethane 1,1-	0.05	<0.02	<0.02	<0.02	<0.02
Dichloroethane 1,2-	0.05	< 0.03	< 0.03	<0.03	<0.03
Dichloroethylene 1,1-	0.05	< 0.05	<0.05	<0.05	< 0.05
Dichloroethylene Cis- 1,2-	0.05	<0.02	<0.02	<0.02	<0.02
Dichloroethylene Trans- 1,2-	0.05	< 0.05	< 0.05	<0.05	< 0.05
Dichloropropane 1,2-	0.05	< 0.03	< 0.03	< 0.03	< 0.03
Dichloropropene 1,3-	0.05	< 0.04	<0.04	<0.04	< 0.04
Ethylbenzene	0.05	< 0.05	< 0.05	<0.05	< 0.05
Ethylene Dibromide	0.05	< 0.04	<0.04	<0.04	< 0.04
Methyl Ethyl Ketone	0.5	<0.50	<0.50	<0.50	<0.50
Methyl Isobutyl Ketone	0.5	<0.50	<0.50	<0.50	<0.50
Methyl tert-butyl Ether	0.05	<0.05	<0.05	<0.05	<0.05
Methylene Chloride	0.05	<0.05	<0.05	<0.05	<0.05
n-Hexane	0.05	<0.05	<0.05	<0.05	<0.05
Styrene	0.05	<0.05	<0.05	<0.05	<0.05
Tetrachloroethane 1,1,1,2-	0.05	<0.04	<0.04	<0.04	<0.04
Tetrachloroethane 1,1,2,2-	0.05	< 0.05	< 0.05	<0.05	< 0.05
Tetrachloroethylene	0.05	< 0.05	< 0.05	<0.05	< 0.05
Toluene	0.2	< 0.05	<0.05	<0.05	< 0.05
Trichloroethane 1,1,1-	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethane 1,1,2-	0.05	< 0.04	< 0.04	< 0.04	< 0.04
Trichloroethylene	0.05	< 0.03	< 0.03	< 0.03	< 0.03
Trichlorofluoromethane	0.25	< 0.05	< 0.05	< 0.05	< 0.05
Vinyl Chloride	0.02	<0.02	<0.02	<0.02	<0.02
Xylene Mixture	0.05	< 0.05	< 0.05	< 0.05	< 0.05

Table 8: Summary of OC Pesticides in Soil

Parameter	2011	BH16 - 1 SS1B	BH16 - 2 S1B	BH16 - 3 S1A	BH16 - 5 S1A	BH16 - 5 S2A	BH16 - 6 S1A
Date of Collection	MOECC	24-Jun-16	24-Jun-16	24-Jun-16	24-Jun-16	24-Jun-16	24-Jun-16
Date of Analysis	Table 1	27-Jun-16	27-Jun-16	27-Jun-16	27-Jun-16	27-Jun-16	27-Jun-16
Sampling Depth (m)	RPI	0.8-1.5	0.8-1.5	0-0.8	0-0.8	1.5-2.3	0-0.8
Analytical Report Reference No.		7666238	7666263	7666265	7666278	7666283	7666290
Aldrin	0.05	< 0.005	< 0.005	<0.005	<0.005	< 0.005	<0.005
Chlordane	0.05	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
DDD	0.05	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
DDE	0.05	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
DDT	1.4	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
Dieldrin	0.05	< 0.005	< 0.005	<0.005	<0.005	< 0.005	<0.005
Endosulfan	0.04	< 0.005	< 0.005	<0.005	<0.005	< 0.005	<0.005
Endrin	0.04	< 0.005	< 0.005	<0.005	<0.005	< 0.005	<0.005
Gamma-Hexachlorocyclohexane	0.01	< 0.005	< 0.005	<0.005	<0.005	< 0.005	<0.005
Heptachlor	0.05	< 0.005	< 0.005	<0.005	<0.005	< 0.005	<0.005
Heptachlor Epoxide	0.05	< 0.005	< 0.005	<0.005	< 0.005	< 0.005	<0.005
Hexachlorobenzene	0.01	< 0.005	< 0.005	<0.005	<0.005	< 0.005	<0.005
Hexachlorobutadiene	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Hexachloroethane	0.01	< 0.01	< 0.01	< 0.01	<0.01	<0.01	<0.01
Methoxychlor	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

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Table 8: Summary of M&I in Groundwater

Parameter	2011	BH16 - 1	BH16 - 2	BH16 - 4
Date of Collection	MOFCC	27-Jun-16	27-Jun-16	27-Jun-16
Date of Analysis	Table 1	28-Jun-16	28-Jun-16	28-Jun-16
Screen Interval (mbgs)		2.4-5.5	5.8-7.3	5.5-8.5
Analytical Report Reference No.		7666357	7666381	7666395
Antimony	1.5	<1.0	<1.0	<1.0
Arsenic	13	1.0	3.0	<1.0
Barium	610	99.7	96.2	151
Beryllium	0.5	<0.5	<0.5	<0.5
Boron	1700	186	117	89.3
Cadmium	0.5	<0.2	<0.2	<0.2
Chromium	11	<2.0	<2.0	<2.0
Cobalt	3.8	<0.5	<0.5	<0.5
Copper	5	1.2	<1.0	1.3
Lead	1.9	<0.5	<0.5	<0.5
Molybdenum	23	12.1	5.9	10.5
Nickel	14	<1.0	<1.0	<1.0
Selenium	5	<1.0	<1.0	<1.0
Silver	0.3	<0.2	<0.2	<0.2
Thallium	0.5	<0.3	<0.3	<0.3
Uranium	8.9	2.5	3.3	4.4
Vanadium	3.9	1.6	1.4	1.5
Zinc	160	5.5	<5.0	8.7
Mercury	0.1	<0.02	<0.02	<0.02
Chromium VI	25	<5	<5	<5
Cyanide	5	<2	<2	<2
Sodium	490000	44600	28600	29100
Chloride	790000	16100	37700	38700
Electrical Conductivity		899	1140	951
рН		8.10	8.03	7.94

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Table 9: Summary of PHCs in Groundwater

Parameter	2011	BH16 - 1	BH16 - 2	BH16 - 4
Date of Collection	MOFCC	27-Jun-16	27-Jun-16	27-Jun-16
Date of Analysis	Table 1	28-Jun-16	28-Jun-16	28-Jun-16
Screen Interval (mbgs)		2.4-5.5	5.8-7.3	5.5-8.5
Analytical Report Reference No.		7666357	7666381	7666395
F1 (C6 to C10) minus BTEX	420	<25	<25	<25
F2 (C10 to C16)	150	<100	<100	<100
F3 (C16 to C34)	500	<100	<100	<100
F4 (C34 to C50)	500	<100	<100	<100

Table 10: Summary of VOCs in Groundwater

Parameter	2011	BH16 - 1	BH16 - 2	BH16 - 4	QA/QC 1	QA/QC 2
Date of Collection	MOFCC	27-Jun-16	27-Jun-16	27-Jun-16	27-Jun-16	27-Jun-16
Date of Analysis	Table 1	28-Jun-16	28-Jun-16	28-Jun-16	28-Jun-16	28-Jun-16
Screen Interval (mbgs)		2.4-5.5	5.8-7.3	5.5-8.5		
Analytical Report Reference No.		7666357	7666381	7666395	7666408	7666409
Acetone	2700	11	<1.0	15	17	16
Benzene	0.5	<0.20	<0.20	<0.20	<0.20	<0.20
Bromodichloromethane	2	<0.20	<0.20	<0.20	<0.20	<0.20
Bromoform	5	<0.10	<0.10	<0.10	<0.10	<0.10
Bromomethane	0.89	<0.20	<0.20	<0.20	<0.20	<0.20
Carbon Tetrachloride	0.2	<0.20	<0.20	<0.20	<0.20	<0.20
Chlorobenzene	0.5	<0.10	<0.10	<0.10	<0.10	<0.10
Chloroform	2	<0.20	<0.20	<0.20	<0.20	<0.20
Dibromochloromethane	2	<0.10	<0.10	<0.10	<0.10	<0.10
Dichlorobenzene 1,2-	0.5	<0.10	<0.10	<0.10	<0.10	<0.10
Dichlorobenzene 1,3-	0.5	<0.10	<0.10	<0.10	<0.10	<0.10
Dichlorobenzene 1,4-	0.5	<0.10	<0.10	<0.10	<0.10	<0.10
Dichlorodifluoromethane	590	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloroethane 1,1-	0.5	<0.30	<0.30	<0.30	<0.30	<0.30
Dichloroethane 1,2-	0.5	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloroethylene 1,1-	0.5	<0.30	<0.30	<0.30	<0.30	<0.30
Dichloroethylene cis- 1,2-	1.6	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloroethylene trans- 1,2-	1.6	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloropropane 1,2-	0.5	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloropropene 1,3-	0.5	<0.30	<0.30	<0.30	<0.30	<0.30
Ethylbenzene	0.5	0.12	0.11	<0.10	0.13	<0.10
Ethylene Dibromide	0.2	<0.10	<0.10	<0.10	<0.10	<0.10
Methyl Ethyl Ketone	400	3.1	<1.0	<1.0	4.6	<1.0
Methyl Isobutyl Ketone	640	4.5	2.6	2.1	4.7	2.9
Methyl tert-butyl ether	15	<0.20	<0.20	<0.20	<0.20	<0.20
Methylene Chloride	5	<0.30	<0.30	<0.30	<0.30	<0.30
n-Hexane	5	<0.20	0.20	<0.20	<0.20	<0.20
Styrene	0.5	<0.10	<0.10	<0.10	<0.10	<0.10
Tetrachloroethane 1,1,1,2-	1.1	<0.10	<0.10	<0.10	<0.10	<0.10
Tetrachloroethane 1,1,2,2-	0.5	<0.10	<0.10	<0.10	<0.10	<0.10
Tetrachloroethylene	0.5	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	0.8	0.47	0.59	0.32	0.53	0.28
Trichloroethane 1,1,1-	0.5	<0.30	<0.30	<0.30	<0.30	<0.30
Trichloroethane 1,1,2-	0.5	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethylene	0.5	<0.20	<0.20	<0.20	<0.20	<0.20
Trichlorofluoromethane	150	<0.40	<0.40	<0.40	<0.40	<0.40
Vinyl Chloride	0.5	<0.17	<0.17	<0.17	<0.17	<0.17
Xylene Mixture	72	0.84	0.80	<0.20	0.97	<0.20

Table 10: Summary of VOCs in Groundwa

Parameter	Trip
i didineter	Blank
Date of Collection	27-Jun-16
Date of Analysis	28-Jun-16
Screen Interval (mbgs)	
Analytical Report Reference No.	7666412
Acetone	<1.0
Benzene	<0.20
Bromodichloromethane	<0.20
Bromoform	<0.10
Bromomethane	<0.20
Carbon Tetrachloride	<0.20
Chlorobenzene	<0.10
Chloroform	<0.20
Dibromochloromethane	<0.10
Dichlorobenzene 1,2-	<0.10
Dichlorobenzene 1,3-	<0.10
Dichlorobenzene 1,4-	<0.10
Dichlorodifluoromethane	<0.20
Dichloroethane 1,1-	<0.30
Dichloroethane 1,2-	<0.20
Dichloroethylene 1,1-	<0.30
Dichloroethylene cis- 1,2-	<0.20
Dichloroethylene trans- 1,2-	<0.20
Dichloropropane 1,2-	<0.20
Dichloropropene 1,3-	<0.30
Ethylbenzene	<0.10
Ethylene Dibromide	<0.10
Methyl Ethyl Ketone	<1.0
Methyl Isobutyl Ketone	<1.0
Methyl tert-butyl ether	<0.20
Methylene Chloride	<0.30
n-Hexane	<0.20
Styrene	<0.10
Tetrachloroethane 1,1,1,2-	<0.10
Tetrachloroethane 1,1,2,2-	<0.10
Tetrachloroethylene	<0.20
Toluene	<0.20
Trichloroethane 1,1,1-	<0.30
Trichloroethane 1,1,2-	<0.20
Trichloroethylene	<0.20
Trichlorofluoromethane	<0.40
Vinyl Chloride	<0.17
Xylene Mixture	<0.20

*For Table Notes see Notes included at the

Table 11: Summary of OC Pesticides in Groundwater

Parameter	2011	BH16 - 1	BH16 - 2	BH16 - 4
Date of Collection	MOFCC	27-Jun-16	27-Jun-16	27-Jun-16
Date of Analysis	Table 1	28-Jun-16	28-Jun-16	28-Jun-16
Screen Interval (mbgs)		2.4-5.5	5.8-7.3	5.5-8.5
Analytical Report Reference No.		7666357	7666381	7666395
Aldrin	0.01	<0.01	<0.01	<0.01
Chlordane	0.06	<0.04	<0.04	<0.04
DDD	1.8	<0.05	<0.05	<0.05
DDE	10	<0.01	<0.01	<0.01
DDT	0.05	<0.04	<0.04	<0.04
Dieldrin	0.05	<0.02	<0.02	<0.02
Endosulfan	0.05	<0.05	<0.05	<0.05
Endrin	0.05	<0.05	<0.05	<0.05
Gamma-Hexachlorocyclohexane	0.01	<0.01	<0.01	<0.01
Heptachlor	0.01	<0.01	<0.01	<0.01
Heptachlor Epoxide	0.01	<0.01	<0.01	<0.01
Hexachlorobenzene	0.01	<0.01	<0.01	<0.01
Hexachlorobutadiene	0.01	<0.01	<0.01	<0.01
Hexachloroethane	0.01	<0.01	<0.01	<0.01
Methoxychlor	0.05	< 0.04	< 0.04	< 0.04

Notes for Soil & Groundwater Summary Tables

- 1. mbgs = Meters below ground surface
- 2. masl = Meters above sea level
- 3. Sampling Depth (m) for groundwater samples indicates the screen depth of the monitoring well
- 4. Units for all soil analyses are in μ g/g (ppm) unless otherwise indicated
- 5. Units for all groundwater analyses are in $\mu\text{g/L}$ (ppb) unless otherwise indicated
- 6. Table 1 RPIICC = Full Depth Generic Site Condition for a Residential/ Parkland/Institutional/Industrial/Commercial/Community (RPIICC) Property Use with coarse textured soils as contained in Table 1 of the "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", published by the MOE on April 15, 2011
- 7. Bold = Concentration exceeds Table 1 RPIICC Standards
- 8. " " = Parameter not analysed
- 9. <x.x = Concentration less than the reported detection limit for samples analyzed
- 10. Analytical Report Reference No. indicates laboratory report reference number
- 11. VOCs = Volatile Organic Compounds
- 12. PHCs = Petroleum Hydrocarbons
- 13. M&I = Metals and Inorganics
- 14. OC Pesticides Organochlorine Pesticides

Appendix C

SAMPLING AND ANALYSIS PLAN



June 2, 2016

GB (Mayfield) Inc. 145 Reynolds Street, Oakville, ON L6J 0A7

Attention:Mr. Amar PersaudRe:Sampling & Analysis Plan – Phase Two Environmental Site Assessment2256 Mayfield Road,
Caledon, Ontario

WSP was retained by GB (Mayfield0 Inc. to conduct a Phase Two Environmental Site Assessment (ESA) for the property located at 2256 Mayfield Road, Caledon, Ontario (the Site). The purpose of the proposed Phase Two ESA program is to assess the current subsurface environmental conditions to support proposed residential redevelopment.

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

The Site Investigation Program will be completed as follows:

- → Public and private underground utilities and services will be cleared prior to commencement of intrusive investigation activities
- → A Health and Safety Plan will be prepared and all work will be executed safely
- → Six (6) boreholes will be advanced on the Phase Two Property, to an approximate depth ranging from 3.1 to 8.5 meters below ground surface (mbgs); using a Geoprobe drilling rig equipped with a direct push soil sampling system. The soil profile from each borehole will be logged in the field and samples will be screened for total organic vapours with a photo-ionization detector. The location of the boreholes will be selected to investigate any areas of potential environmental concern identified during the Site visit, as well as to delineate the horizontal and vertical extents of relevant parameters of concern.
- → Based on field screening and visual/olfactory observations, worst-case/representative soil samples from the boreholes will be submitted for laboratory testing of relevant parameters of concern.
- → Three (3) groundwater monitoring wells will be installed within three (3) of the boreholes to assess groundwater quality below the Site and determine the direction of groundwater flow;
- → The groundwater levels within the three (3) newly installed wells, will be measured at least 24 hours after well development has been completed to determine the groundwater table elevation. The wells will be surveyed to a geodetic benchmark to determine groundwater flow direction.
- → The three (3) newly installed wells will be purged to remove stagnant water, and sampled for laboratory testing of relevant parameters of concern.
- → Both soil and groundwater samples will be submitted for chemical analysis by a CALA laboratory in accordance with the Ontario Ministry of the Environment standards and requirements of O.Reg. 153/04 under the Environmental Protection Act.

The proposed analytical program is outlined below (proposed program subject to change as a result of site observations/findings). All soil and groundwater sampling will be carried out in accordance with WSP's Standard Operating Procedures (SOPs).



Soils:

- \rightarrow Six (6) soil samples for metals and inorganics (M&I);
- → Three (3) soil samples for petroleum hydrocarbons (PHCs);
- \rightarrow Three (3) soil samples for volatile organic compounds (VOCs);
- → Five (5) soil samples for OC Pesticides; and
- \rightarrow Two (2) soil samples for QA/QC purposes.

Groundwater:

- → Three (3) groundwater samples for VOCs, PHCs, OC Pesticides and M&I; and
- → Three (3) groundwater samples for QA/QC purposes (including one (1) trip blank).

Following receipt of all of the results, a report in accordance with O.Reg. 153/04 (as amended) will be prepared.

Very truly yours,

WSP CANADA INC.

M. Bons

Marty Barons, P.Eng., QP_{ESA}, CESA Environmental Engineer

Appendix D

FINALIZED FIELD LOGS

			_\	NSP	MON	1IT(DR	IN	G W	EL	LD	RILLING	3 R	ECC	RD : B	H16-1
											Prepa Revie	ared by: ewed by:			Date (Start): Date (End):	24/06/2016 24/06/2016
	Proje Site: Secte Clier	ect Na or: nt:	me: Pha 225 GB	ase Two Environmental Site Assessme 56 Mayfield Road, Caledon, ON 8 (Mayfield) Inc.	nt						Proje Geog Surfa	ect Number: graphic Coord	inates	16 S: X = Y = 259	9.8 m <i>(Geodeti</i>)0 c)
	Drillin Drillin Drillin Bore Drillin Sam	ng Co ng Eq ng Me hole E ng Flu pling I	mpany: uipment: ethod: Diameter: iid: Method:	Landshark Drilling Géoprobe 7822DT : 50 mm	ODOUR F - Light M - Mediu P - Persist VISUAL D - Dissen S - Satura	m ient ted with f Water L	roduct Product	SA DC SS MA TR ST TU	AMPLE TYPE C - Diamond C S Split Spoon A - Manual Aug - Trowel - Shelby Tubi J - DT32 Liner Free Phase	orer ger e	CHEMICA PCB BTEX Inorg. C. Phenol. C. VOC Diox. & Fu CAH	Or VVeII EleVat AL ANALYSIS Polychlorinated Biph Benzene, Toluene, E Xylene Inorganic Compound Phenolic Compound Volatil Organic Comp & CAH) r. Dioxins & Furans Chlorinated Aliphatic	enyls thylbenze s soounds (M Hydrocar	MAH PAH PH C ₁₀ PH F1- Metals HWR bons	Monocyclic Aromati Połycyclic Aromati Cogo Petroleum Hydroca 47 Petroleum Hydroca Arsenic, Barium, C Cobalt, Copper, Le Mołydołemum, Nick Leacheate Tests (H	ic Hydrocarbons Hydrocarbons trbons C ₁₀ -C ₅₀ trbons F1-F4 (C ₁₀ -C ₅₀) admium, Chromium, ad, Manganese, al, Silver, Tin, Zinc. łaz. Waste Reg.)
				GEOLOGY / LITHOLOGY		OBSE	RVATI	ONS			SAMPLE	ES		MON		
	<u>DEP</u> ELEVA (m)	<u>TH</u> ITION)	гшногоду	DESCRIPTION		VAPOR CONC. (ppm)	Subour Level		SAMPLE TYPE & No.	% RECOVERY	N (Blow/6")	ANALYSIS	DUPLICATE	DIAGRAM	DESCRIPTION	REMARKS
	T			Ground surface.												
(2 2 0.5	<u>0.15</u> 259.65		TOPSOIL 150 mm of topsoil on the surface CLAYEY SAND Brown, soft, saturated		0.1			S1A					Ā	WATER Depth : 0.5 m Elev. : m Date : 27/06/2016	0.5
1	0.			1.2 mogs		0.3			S1B							1.0 - - -
13/9/2016	.5 - - - 2.0 -					0.2	-		S2A							1.5 - - - - 2.0
GEOTECH.GDT						0.1	-		S2B							- - 2.5 – - -
EMPLATE_	8.0 <u>-</u> - 2	<u>3.05</u> 256.75		SILTY CLAY Dry, brown with seams	of	0	-		S3A							3.0 - -
te : WSP_T	9.5 -			moist sand.												
Data Templa	+.0 - - - -					0.6			S3B						Diam.: 51 mm Open: Length: 3.05 m	4.0
ONMENTAL	1.5 — — — —					0.4			S4A						· · · ·	4.5 - - 5 0
ELL-ENVIR	i.o					0.2	-		S4B							
VSP_EN_W	- - - - 6.0	6 10														
be rapport : \	5.5 - 2	253.70	EVEVVVVV.	END OF BOREHOLE Notes: 1) 50 mm monitoring well was installed 5 mbms offer some lation	lat											- - - 6.5 —
-00.GPJ Tyr	7.0			0.5 mbgs after completion. Water Level Reading Date Water Level (mbgs	5)											- - - 7.0
: 161-08392-	- - - - - - -			End of borehole at 6.10 m.]											
Projet																- - 8.0

			_\	NSP '	MON	IITO	DR	RIN	IG W	EL	LD	RILLING	6 R	ECO	RD : B	H16-2 ge 1 of 1
											Prepa Revie	ared by: ewed by:			Date (Start): Date (End):	24/06/2016 24/06/2016
	Proj Site Sec	ect Na : tor:	me: Pha 225	ase Two Environmental Site Assessme 56 Mayfield Road, Caledon, ON	nt						Proje Geo	ect Number: graphic Coordi	inates	16 S: X = Y =	1-08392-(W N	00
	Clie	nt:	GB	(Mayfield) Inc.							Surf Top	ace Elevation: of Well Elevati	ion:	258	.3 m <i>(Geodeti</i>	c)
	Drill Drill Drill Bore Drill Sam	ing Co ing Eq ing Me ehole [ing Flu npling l	mpany: uipment: thod: Diameter: id: Method:	Landshark Drilling Géoprobe 7822DT : 50 mm	ODOUR F - Light M - Mediuu P - Persist VISUAL D - Dissen S - Satura	m ent hinated Pr ted with P Water Le	roduct Product	S/ D0 SS M TF S ⁻ TU	AMPLE TYPE C - Diamond Cc S - Split Spoon A - Manual Aug R - Trowel T - Shelby Tube U - DT32 Liner	prer E ler I e F b e	CHEMIC/ PCB 3TEX norg. C. Phenol. C /OC Diox. & Fu CAH	AL ANALYSIS Polychlorinated Biphe Benzene, Toluene, Et Xylene Inorganic Compounds Volatil Organic Compounds Volatil Organic Comp & CAH) Ir. Dioxins & Furans Chlorinated Aliphatic I	enyls thylbenze ounds (N Hydrocar	MAH PAH PH C ₁₀ - PH F1-F Metals HWR bons	Monocyclic Aromat Połycyclic Aromatic C ₅₀ Petroleum Hydrocz Arsenic, Barium, C Cobałt, Copper, Le Mołybdenum, Nick Leacheate Tests (H	ic Hydrocarbons Hydrocarbons rbons C ₁₀ -C ₅₀ rbons F1-F4 (C ₁₀ -C ₅₀) admium, Chromium, ad, Manganese, al, Silver, Tin, Zinc. Iaz. Waste Reg.)
				GEOLOGY / LITHOLOGY		OBSE	RVAT	IONS		1	SAMPLI	ES		MONIT	FORING WELL	
	<u>DEF</u> ELEV/ (n	PTH A <i>TION</i> n)	ГІТНОГОGY	DESCRIPTION		VAPOR CONC. (ppm)	NODO F M	NISUAL P D S	SAMPLE TYPE & No.	% RECOVERY	N (Blow/6")	ANALYSIS	DUPLICATE	DIAGRAM	DESCRIPTION	REMARKS
		0.45		Ground surface.												
	0.5	<u>0.15</u> 258.15		TOPSOIL 150 mm of topsoil on the surface		0			S1A							0.5
	1.0-			CLAYEY SAND Brown, Dry		0.2			S1B					Ā	WATER Depth : 1.15 m Elev. : m	- 1.0 — -
16	1.5	<u>1.52</u> 256.78		CLAYEY SILT Greyish brown with trac of rubbles.	e	0.2			S2A						Date : 27/06/2016	1.5 - - 2.0 -
DT 13/9/20	2.5					0.4			S2B							2.5 -
EOTECH.G	3.0-					0.3	-		S3A							3.0
MPLATE_G	3.5 -					0.5	-		S3B							3.5 — - 4.0 —
te : WSP_TE	4.5	<u>4.57</u> 253.73		Moist at 4.3 mbgs	009	0.1	-		<u> </u>							4.5
Data Templat	5.0			SILTI CLAT TILL Crey, we at 3.0 mb	93	0.1			54A							5.0
IMENTAL [5.5 — 6.0 —	6.10				0.1			S4B							5.5 - - 6.0 -
L-ENVIRON	6.5			-STRAIGHT DRILL											Diam.: 51 mm	6.5
EN_WEL	7.0	054.00		END OF BOREHOLE	г										Open: Length: 1.52 m	7.0
port : WSF	7.5	251.00		Notes: 1) 50 mm monitoring well was installed	lat											7.5
J Type rap	8.5			Water Level Reading Date Water Level (mbgs	5)											8.0 — - - 8.5 —
392-00.GP.	9.0			June 27, 16 1.15 End of borehole at 7.30 m.												9.0 -
rojet : 161-08;	9.5															9.5 -
م ل	0.0					I				I			1			10.0

							E	80	REHC	DLI	E D	RILLING	B R	ECO	RD : B	H16-3
		\square		NSP							Prep	ared by:			Pa Date (Start):	nge 1 of 1 24/06/2016
_	Droi	io ot No	ma: Dh	asa Tuya Environmantal Sita Assassma	nt						Revie	ewed by:		16	Date (End):	24/06/2016
	Site	tor:	22:	56 Mayfield Road, Caledon, ON	110						Geo	graphic Coord	inates	s: X = Y =	W N	
	Clie	nt:	GE	3 (Mayfield) Inc.							Surf Top	ace Elevation: of Well Elevati	ion:	m (Geodetic)	
	Drill Drill Drill Bor Drill San	ing Co ing Eq ing Me ehole I ing Flu	ompany: juipment: ethod: Diameter uid: Method:	Landshark Drilling Géoprobe 7822DT : 50 mm	ODOUR F - Light M - Mediur P - Persist VISUAL D - Dissen S - Satural	m ient ninated P ted with f	roduct Produc	S D S M T S t t	AMPLE TYPE DC - Diamond Cc SC - Split Spoon A - Manual Aug R - Trowel ST - Shelby Tube U - DT32 Liner	prer	CHEMIC. PCB BTEX Inorg. C. Phenol. C VOC Diox. & Fi CAH	AL ANALYSIS Polychlorinated Biphe Benzene, Toluene, El Xylene Inorganic Compounds Volatil Organic Comp & CAH) Jr. Dioxins & Furans Chlorinated Aliphatic I	enyls thylbenze s ounds (M Hydrocar	MAH PAH PH C ₁₀ PH F1-F Metals HWR rbons	Monocyclic Aromat Połycyclic Aromatic C ₂₀ Petroleum Hydrocz Arsenic, Barium, C Cobałt, Copper, Le Mołybdenum, Nick Leacheate Tests (h	ic Hydrocarbons c Hydrocarbons arbons C_{10} - C_{50} arbons F1-F4 (C_{10} - C_{50}) admium, Chromium, ad, Manganese, el, Silver, Tin, Zinc. łaz. Waste Reg.)
┢	Can	ping		GEOLOGY / LITHOLOGY	<u>¥</u>	OBSE	evel RVA1	TIONS	Free Phas	e	SAMPL	ES		MONIT	ORING WELL	
	<u>DEI</u> ELEV (r	<u>PTH</u> A <i>TION</i> n)	гітногобу	DESCRIPTION		VAPOR CONC. (ppm)	Support of the second s		SAMPLE TYPE & No.	% RECOVERY	N (Blow/6")	ANALYSIS	DUPLICATE	DIAGRAM	DESCRIPTION	REMARKS
				Ground surface.												
(- - - - - - - - -	0.15		TOPSOIL 150 mm topsoil on the surfa	ace	0.1			S1A							
I.GDT 13/9/2016	- - - - - -					0.1			S1B							1.0— - - -
SP_TEMPLATE_GEOTECH	1.5 — - - 2.0 — - -					0.2			S2A					-		1.5 - - - - 2.0 - - -
TAL Data Template : W	- - 2.5 - - - -					0.1	-		S2B							- - 2.5 – - - -
AVIRONMEN	3.0 <u>-</u> - -	3.05		← END OF BOREHOLE End of borehole at 3.05 m.	/									-		3.0 <i>—</i> -
WSP_EN_WELL-EI	- - 3.5 - - -															- - - - - -
SPJ Type rapport:	- 4.0 <u>-</u> - -															- 4.0 - - -
Projet : 161-08392-00.6	- 4.5 — - - - -															

			_\	NSP	MON	IITO	DR	IN	IG W	EL	L D	RILLING	6 R	ECO	RD:B	H16-4 ge 1 of 1
											Prepa Revie	ared by: ewed by:			Date (Start): Date (End):	24/06/2016 24/06/2016
	Proj Site Sec Clie	ect Na : tor: nt:	me: Pha 225 GB	ase Two Environmental Site Assessme 56 Mayfield Road, Caledon, ON 8 (Mayfield) Inc.	ent						Proje Geo Surfa Top	ect Number: graphic Coordi ace Elevation: of Well Elevati	inates	16 X = Y = 258	1-08392-(W N .7 m <i>(Geodetic</i>)0 \$)
	Drill Drill Drill Bord Drill San	ing Co ing Eq ing Me ehole [ing Flu npling l	mpany: uipment: thod: Diameter: iid: Method:	Landshark Drilling Géoprobe 7822DT : 50 mm	ODOUR F - Light M - Mediuu P - Persist VISUAL D - Dissen S - Satura	m ent hinated Pi ted with F Water Lo	roduct Iroduct evel	SA DC SS MA TR ST TU	AMPLE TYPE C - Diamond C S - Split Spoon A - Manual Au, - Trowel T - Shelby Tub J - DT32 Liner Free Phase	Corer ger e	CHEMIC/ PCB 3TEX norg. C. Phenol. C. VOC Diox. & Fu CAH	AL ANALYSIS Polychlorinated Biphe Benzene, Toluene, Er Xylene Inorganic Compounds Phenolic Compounds Volatil Organic Comp & CAH) Ir. Dioxins & Furans Chlorinated Aliphatic	nyls hylbenze ounds (M Hydrocar	MAH PAH PH C ₁₀ - PH F1-F Metals HWR bons	Monocyclic Aromat Polycyclic Aromati C ₆₀ Petroleum Hydroca Arsenic, Barium, C Cobalt, Copper, Le Molybdenum, Nick Leacheate Tests (F	ic Hydrocarbons Hydrocarbons trons C ₁₀ -C ₅₀ trons F1-F4 (C ₁₀ -C ₅₀) admium, Chromium, ad, Manganese, I, Silver, Tin, Zinc. Iaz. Waste Reg.)
				GEOLOGY / LITHOLOGY		OBSE	RVATI	ONS			SAMPLI	ES		MONIT		
	<u>DEI</u> ELEV (r	<u>PTH</u> A <i>TION</i> n)	гітногобу	DESCRIPTION		VAPOR CONC. (ppm)	Support of the second s		SAMPLE TYPE & No.	% RECOVERY	N (Blow/6")	ANALYSIS	DUPLICATE	DIAGRAM	DESCRIPTION	REMARKS
		0.15		Ground surface.												
	0.5	258.55		TOPSOIL 150 mm of topsoil on the surface		0.3			S1A							0.5
	1.0			CLAYEY SAND Dark brown, moist		0.2			S1B							1.0
	1.5					0.2			S2A							1.5
016	2.0															2.0
DT 13/9/2	2.5	3.05				0.4			S2B					Ţ	WATER Depth : 2.55 m Elev. : m Date : 27/06/2016	2.5
TECH.G	3.5	255.65		CLAYEY SILT Grey, moist		0.3			S3A							3.0 - - - - 3.5 -
ATE_GEC	4.0					0.1			S3B							4.0
TEMPL	4.5															4.5
te : WSP	5.0					0.4			S4A							5.0
a Templa	5.5					0.3			S4B							5.5 -
AL Data	6.0	6.10														6.0
DNMENT	6.5															6.5 -
ENVIRG	7.0			-STRAIGHT DRILL											Diam.: 51 mm Open:	7.0
N_WELI	7.5														Longal. 0.00 m	7.5 -
: WSP_E	8.0															8.0
tapport	0.0 	250.16		END OF BOREHOLE Notes: 1) 50 mm monitoring well was installed	d at									<u> </u>		8.5 - - - 9.0 -
3PJ Typ	9.5			5.5 mbgs after completion. Water Level Reading												9.5
392-00.0	10.0			Date Water Level (mbg: June 27, 16 2.55	s)											10.0
rojet : 161-08 	10.5			End of borehole at 8.54 m.												10.5
₽ 4	1.0 7					I					1		1	L	1	11.0

							E	80	REHC	DLI	ΕD	RILLING	B R	ECO	RD : B	H16-5
											Prepa	ared by:			Pa Date (Start):	age 1 of 1 24/06/2016 24/06/2016
-	Pro	ject Na	ıme: Ph	ase Two Environmental Site Assessme	nt						Proj	ect Number:		16	1-08392-0)0
	Site	e: ctor:	22	56 Mayfield Road, Caledon, ON							Geo Surf	graphic Coordi ace Elevation:	inates	s: X = Y = m (W N Geodetic)	
$\left \right $	Dril	ling Co	mpany:	Landshark Drilling	ODOUR E - Light			s	SAMPLE TYPE		Тор снеміс,	of Well Elevati	ion:	ман	Monocyclic Aromat	ic Hydrocarbons
	Dril Dril Bor	ling Eq ling Me ehole [uipment: ethod: Diameter	Géoprobe 7822DT : 50 mm	M - Mediu P - Persist VISUAL D - Dissen	m ient ninated P	roduct	L S N T S	DC - Diamond Co SS - Split Spoon /A - Manual Aug R - Trowel ST - Shelby Tube	prer i	BTEX Inorg. C. Phenol. C	Benzene, Toluene, Et Xylene Inorganic Compounds Phenolic Compounds Volatil Organic Comp	hylbenze	PAH PH C ₁₀ -0 PH F1-F Metals	Polycyclic Aromatic C ₅₀ Petroleum Hydroca Arsenic, Barium, C Cobalt Conner, Le	c Hydrocarbons arbons C_{10} - C_{50} arbons F1-F4 (C_{10} - C_{50}) admium, Chromium, ad Manganese
	Dril Sar	ling Flu npling l	iid: Method:		S - Satura	ted with F	Produc evel	t I	U - D132 Liner ▼ Free Phas	e I	Diox. & Fu CAH	& CAH) I. Dioxins & Furans Chlorinated Aliphatic I	Hydrocar	HWR	Molybdenum, Nicke Leacheate Tests (H	el, Silver, Tin, Zinc. Iaz. Waste Reg.)
				GEOLOGY / LITHOLOGY		OBSE	RVAT				SAMPL	ES		MONIT	ORING WELL	
	DE ELEV (I	<u>PTH</u> A <i>TION</i> 11)	гшногоду	DESCRIPTION		VAPOR CONC. (ppm)	ODOUR		SAMPLE TYPE & No.	% RECOVERY	N (Blow/6")	ANALYSIS	DUPLICATE	DIAGRAM	DESCRIPTION	REMARKS
				Ground surface.			FIM	FDS	2							
	_	0.15		TOPSOIL 150 mm topsoil on the surfa	ace	0.1			S1A							-
	- 0.5 - -			CLAYEY SAND Brown, moist, soft												- - 0.5 - -
13/9/2016	- - 1.0 - -					0.3			S1B					-		- - 1.0 — -
_GEOTECH.GDT	- - 1.5 - -	1.52		CLAYEY SILT Gryeish brown, moist w trace of pebbles	vith	0.1			S2A					-		- - 1.5 — - -
WSP_TEMPLATE	- 2.0 - -															- - 2.0 — -
.L Data Template :	- 2.5 — - -					0.2			S2B							2.5 - - -
VIRONMENTA	- 3.0 - -	3.05		END OF BOREHOLE	/		-							-		- 3.0 - -
/SP_EN_WELL-EN	- 3.5 — -															- - 3.5 – -
Type rapport : M	- 4.0 - -															
161-08392-00.GPu	- - 4.5 - - -															- 4.5 – -
Projet :	- - 5.0															- - 5.0

			_\	NCP			E	3C	R	EHC	DLI	E D	RILLING	6 R	ECO	RD : B	H16-6
												Prepa Revie	ared by: ewed by:			Date (Start): Date (End):	24/06/2016 24/06/2016
	Pro Site Sec	ject Na e: ctor:	ime: Ph 22	ase Two Environmental Site Assessme 56 Mayfield Road, Caledon, ON	nt							Proje Geo Surfa	ect Number: graphic Coordi ace Elevation:	nates	16 s: X = Y = m (1-08392-(W N 'Geodetic)	00
-	Dril	ling Co ling Eq	mpany: uipment:	Landshark Drilling Géoprobe 7822DT	ODOUR F - Light M - Mediu P - Persist	m			SAMF DC - I SS - S MA - I	PLE TYPE Diamond Co Split Spoon Manual Aug	orer I	Top CHEMICA PCB BTEX	of Well Elevati AL ANALYSIS Polychlorinated Biphe Benzene, Toluene, Et Xylene	ON: nyls hylbenze	MAH ene, PAH PH C ₁₀ -	Monocyclic Aromati Połycyclic Aromatic C ₅₀ Petroleum Hydroca	tic Hydrocarbons c Hydrocarbons arbons C_{10} - C_{50}
	Bor Dril Sar	ehole [ling Flu npling	Diameter iid: Method:	: 50 mm	VISUAL D - Dissen S - Satura	ninated P ted with F Water L	roduc Produc	t ct	TR - 1 ST - S TU - D	Free Phase		Phenol. C. VOC Diox. & Fu CAH	Phenolic Compounds Volatil Organic Comp & CAH) Ir. Dioxins & Furans Chlorinated Aliphatic	, ounds (N Hydrocai	PH F1-F Metals IAH HWR bons	Petroleum Hydroca Arsenic, Barium, C Cobalt, Copper, Le Molybdenum, Nick Leacheate Tests (H	arbons F1-F4 (C ₁₀ -C ₅₀) admium, Chromium, ad, Manganese, el, Silver, Tin, Zinc. Haz. Waste Reg.)
				GEOLOGY / LITHOLOGY		OBSE	RVA ⁻	TION	IS			SAMPLI	ES		MONIT	FORING WELL	
	<u>DE</u> ELEV (I	<u>PTH</u> ATION m)	гітногобу	DESCRIPTION		VAPOR CONC. (ppm)	NODO F M			SAMPLE TYPE & No.	% RECOVERY	N (Blow/6")	ANALYSIS	DUPLICATE	DIAGRAM	DESCRIPTION	REMARKS
				Ground surface.													
	- - - 0.5 — -	0.15		TOPSOIL 150 mm topsoil on the surfa	ace	0.3				S1A							
JT 13/9/2016	- - 1.0 - -					0.2	-			S1B					-		- - 1.0 — - -
TE_GEOTECH.GD	- 1.5 — - - -	1.52		CLAYEY SILT Gryeish brown, moist w trace of pebbles	vith	0.3	-			S2A					-		- 1.5 - - - -
te : WSP_TEMPLA	- 2.0 - - - -					0.1	-			S2B					-		2.0-
ITAL Data Templa	2.5					0.1				SZD							2.5
LL-ENVIRONME	3.0	3.05		END OF BOREHOLE	ſ										-		3.0
nt : WSP_EN_WE	3.5 - - -																3.5
.GPJ Type rappo	4.0																4.0
Projet : 161-08392-00.	4.5 - - - - - 5.0																4.5

Appendix E

LABORATORY CERTIFICATES OF ANALYSIS



CLIENT NAME: WSP CANADA INC. 51 CONSTELLATION COURT TORONTO, ON M9W1K4 (416) 798-0065

ATTENTION TO: Joeline Chan

PROJECT: 161-08392-00

AGAT WORK ORDER: 16T109353

SOIL ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Coordinator

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

DATE REPORTED: Jul 04, 2016

PAGES (INCLUDING COVER): 17

VERSION*: 1

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

*NOTES

VERSION 1: June 30, 2016: Partial results excluded OCP

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

AGAT Laboratories (V1)

Page 1 of 17

Member of: Association of Professional Engineers, Geologists and Geophysicists	
of Alberta (APEGGA)	
Western Enviro-Agricultural Laboratory Association (WEALA)	
Environmental Services Association of Alberta (ESAA)	

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation.

Results relate only to the items tested and to all the items tested All reportable information as specified by ISO 17025:2005 is available from AGAT Laboratories upon request



ATTENTION TO: Joeline Chan

SAMPLED BY: Josh Slobodsky

AGAT WORK ORDER: 16T109353 PROJECT: 161-08392-00 5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.aqatlabs.com

CLIENT NAME: WSP CANADA INC.

SAMPLING SITE:2256 Mayfield

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

DATE RECEIVED: 2016-06-27								I	DATE REPORTED	9: 2016-07-04
		SAMPLE DES SAMI DATE S	CRIPTION: PLE TYPE: SAMPLED:	BH16 - 1 SS2A Soil 6/24/2016	BH16 - 2 S3B Soil 6/24/2016	BH16 - 3 S1B Soil 6/24/2016	BH16 - 4 S1B Soil 6/24/2016	BH16 - 5 S1A Soil 6/24/2016	BH16 - 6 S1A Soil 6/24/2016	
Parameter	Unit	G/S	RDL	7666261	7666264	7666267	7666271	7666278	7666290	
Antimony	µg/g	1.3	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	
Arsenic	µg/g	18	1	5	6	5	5	5	5	
Barium	µg/g	220	2	55	76	70	80	60	73	
Beryllium	µg/g	2.5	0.5	0.6	0.7	0.7	0.8	0.9	0.8	
Boron	µg/g	36	5	9	10	9	9	<5	8	
Boron (Hot Water Soluble)	µg/g	NA	0.10	0.27	0.23	0.10	0.14	0.13	0.11	
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Chromium	µg/g	70	2	17	17	17	18	19	18	
Cobalt	µg/g	21	0.5	8.7	10.5	9.5	9.6	8.6	9.9	
Copper	µg/g	92	1	24	25	24	24	10	23	
Lead	µg/g	120	1	7	8	9	8	9	7	
Molybdenum	µg/g	2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Nickel	µg/g	82	1	20	21	20	21	17	21	
Selenium	µg/g	1.5	0.4	<0.4	<0.4	<0.4	<0.4	0.5	<0.4	
Silver	µg/g	0.5	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Thallium	µg/g	1	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	
Uranium	µg/g	2.5	0.5	<0.5	0.5	<0.5	<0.5	0.5	<0.5	
Vanadium	µg/g	86	1	23	23	24	24	26	25	
Zinc	µg/g	290	5	53	57	53	53	79	55	
Chromium VI	µg/g	0.66	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Cyanide	µg/g	0.051	0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	
Mercury	µg/g	0.27	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Electrical Conductivity	mS/cm	0.57	0.005	0.183	0.168	0.167	0.192	0.174	0.168	
Sodium Adsorption Ratio	NA	2.4	NA	0.272	0.270	0.178	0.616	0.260	0.259	
pH, 2:1 CaCl2 Extraction	pH Units		NA	7.92	7.87	7.83	7.78	7.20	7.72	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil -

Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

7666261-7666290 EC & SAR were determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio.

Certified By:

Amanjot Bhela



ATTENTION TO: Joeline Chan

SAMPLED BY: Josh Slobodsky

AGAT WORK ORDER: 16T109353 PROJECT: 161-08392-00 5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.aqatlabs.com

CLIENT NAME: WSP CANADA INC.

SAMPLING SITE:2256 Mayfield

O. Reg. 153(511) - OC Pesticides (Soil)

DATE RECEIVED: 2016-06-27 **DATE REPORTED: 2016-07-04** SAMPLE DESCRIPTION: BH16 - 1 SS1B BH16 - 2 S1B BH16 - 3 S1A BH16 - 5 S1A BH16 - 5 S2A BH16 - 6 S1A SAMPLE TYPE: Soil Soil Soil Soil Soil Soil DATE SAMPLED: 6/24/2016 6/24/2016 6/24/2016 6/24/2016 6/24/2016 6/24/2016 RDL 7666238 7666263 7666265 7666278 7666283 7666290 Parameter Unit G/S Gamma-Hexachlorocyclohexane 0.01 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 µg/g Heptachlor 0.05 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 µg/g Aldrin < 0.005 µg/g 0.05 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 Heptachlor Epoxide µg/g 0.05 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 Endosulfan 0.04 0.005 <0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 µg/g Chlordane µg/g 0.05 0.007 < 0.007 < 0.007 < 0.007 < 0.007 < 0.007 < 0.007 DDE µg/g 0.05 0.007 < 0.007 < 0.007 < 0.007 < 0.007 < 0.007 < 0.007 DDD µg/g 0.05 0.007 < 0.007 < 0.007 < 0.007 < 0.007 < 0.007 < 0.007 DDT 0.007 <0.007 < 0.007 <0.007 < 0.007 < 0.007 < 0.007 µg/g 1.4 Dieldrin 0.05 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 µg/g 0.005 Endrin µg/g 0.04 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 0.05 < 0.005 < 0.005 < 0.005 < 0.005 Methoxychlor µg/g 0.005 < 0.005 < 0.005 Hexachlorobenzene 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 < 0.005 µg/g 0.01 < 0.01 Hexachlorobutadiene µg/g 0.01 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 Hexachloroethane 0.01 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 < 0.01 µg/g Moisture Content % 0.1 19.0 12.4 16.3 13.1 9.7 20.5 Surrogate Unit Acceptable Limits тсмх 64 % 50-140 74 70 62 82 56 Decachlorobiphenyl % 60-130 96 88 98 88 90 90

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil -Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

7666238-7666290 Results are based on the dry weight of the soil.

Note: DDT applies to the total of op'DDT and pp'DDT, DDD applies to the total of op'DDD and pp'DDD and DDE applies to the total of op'DDE and pp'DDE. Endosulfan applies to the total of Endosulfan I and Endosulfan II.

Chlordane applies to the total of Alpha-Chlordane and Gamma-Chlordane.

Certified By:

Jung



AGAT WORK ORDER: 16T109353 PROJECT: 161-08392-00 5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.aqatlabs.com

CLIENT NAME: WSP CANADA INC.

SAMPLING SITE:2256 Mayfield

ATTENTION TO: Joeline Chan

SAMPLED BY: Josh Slobodsky

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

DATE RECEIVED: 2016-06-27

		SAMPLE DES	CRIPTION:	BH16 - 3 S2B	BH16 - 4 S2B	BH16 - 4 S4B	
		SAM	PLE TYPE:	Soil	Soil	Soil	
		DATES	SAMPLED:	6/24/2016	6/24/2016	6/24/2016	
Parameter	Unit	G/S	RDL	7666269	7666273	7666275	
F1 (C6 to C10)	µg/g		5	<5	<5	<5	
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5	<5	<5	
F2 (C10 to C16)	µg/g	10	10	<10	<10	<10	
F3 (C16 to C34)	µg/g	240	50	<50	<50	<50	
F4 (C34 to C50)	µg/g	120	50	<50	<50	<50	
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA	NA	NA	
Moisture Content	%		0.1	9.4	14.4	14.9	
Surrogate	Unit	Acceptab	le Limits				
Terphenyl	%	60-1	140	92	90	74	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil -

Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

7666269-7666275 Results are based on sample dry weight.

The C6-C10 fraction is calculated using toluene response factor.

The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.

Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.

The chromatogram has returned to baseline by the retention time of nC50.

Total C6 - C50 results are corrected for BTEX contributions.

This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.

nC6 and nC10 response factors are within 30% of Toluene response factor.

nC10, nC16 and nC34 response factors are within 10% of their average.

C50 response factor is within 70% of nC10 + nC16 + nC34 average.

Linearity is within 15%.

Extraction and holding times were met for this sample.

Fractions 1-4 are quantified without the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

DATE REPORTED: 2016-07-04



AGAT WORK ORDER: 16T109353 PROJECT: 161-08392-00 5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: WSP CANADA INC.

SAMPLING SITE:2256 Mayfield

ATTENTION TO: Joeline Chan

SAMPLED BY: Josh Slobodsky

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

DATE RECEIVED: 2016-06-27

			DIDTION	04/004
		SAMPLE DESC	RIPTION:	QA/QC 1
		SAMP	LE TYPE:	Soil
		DATE S	AMPLED:	6/24/2016
Parameter	Unit	G/S	RDL	7666296
Benzene	µg/g	0.02	0.02	<0.02
Toluene	µg/g	0.2	0.08	<0.08
Ethylbenzene	µg/g	0.05	0.05	< 0.05
Xylene Mixture	µg/g	0.05	0.05	<0.05
F1 (C6 to C10)	µg/g		5	<5
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5
F2 (C10 to C16)	µg/g	10	10	<10
F3 (C16 to C34)	µg/g	240	50	<50
F4 (C34 to C50)	µg/g	120	50	<50
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA
Moisture Content	%		0.1	13.6
Surrogate	Unit	Acceptable	e Limits	
Terphenyl	%	60-14	40	87
erphenyl	%	60-14	40	87

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil -

Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

7666296 Results are based on sample dry weight.

The C6-C10 fraction is calculated using Toluene response factor.

The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.

Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present. The chromatogram has returned to baseline by the retention time of nC50.

Total C6 - C50 results are corrected for BTEX contributions.

This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.

nC6 and nC10 response factors are within 30% of Toluene response factor.

nC10, nC16 and nC34 response factors are within 10% of their average.

C50 response factor is within 70% of nC10 + nC16 + nC34 average.

Linearity is within 15%.

Extraction and holding times were met for this sample.

Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client. Quality Control Data is available upon request.

Certified By:

DATE REPORTED: 2016-07-04



AGAT WORK ORDER: 16T109353 PROJECT: 161-08392-00 5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: WSP CANADA INC.

SAMPLING SITE:2256 Mayfield

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

DATE RECEIVED: 2016-06-27

DATE REPORTED: 2016-07-04

ATTENTION TO: Joeline Chan

SAMPLED BY: Josh Slobodsky

		SAMPLE DESC	RIPTION:	BH16 - 3 S2B	BH16 - 4 S2B	BH16 - 4 S4B	
		SAMP	LE TYPE:	Soil	Soil	Soil	
		DATE S	AMPLED:	6/24/2016	6/24/2016	6/24/2016	
Parameter	Unit	G/S	RDL	7666269	7666273	7666275	
Dichlorodifluoromethane	µg/g	0.05	0.05	<0.05	<0.05	<0.05	
Vinyl Chloride	ug/g	0.02	0.02	<0.02	<0.02	<0.02	
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	
Trichlorofluoromethane	ug/g	0.25	0.05	<0.05	<0.05	<0.05	
Acetone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	
Methylene Chloride	ug/g	0.05	0.05	<0.05	<0.05	<0.05	
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	
Methyl tert-butyl Ether	ug/g	0.05	0.05	<0.05	<0.05	<0.05	
1,1-Dichloroethane	ug/g	0.05	0.02	<0.02	<0.02	<0.02	
Methyl Ethyl Ketone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	
Cis- 1,2-Dichloroethylene	ug/g	0.05	0.02	<0.02	<0.02	<0.02	
Chloroform	ug/g	0.05	0.04	<0.04	< 0.04	<0.04	
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	< 0.03	<0.03	
1,1,1-Trichloroethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05	<0.05	<0.05	
Benzene	ug/g	0.02	0.02	<0.02	<0.02	<0.02	
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03	< 0.03	<0.03	
Trichloroethylene	ug/g	0.05	0.03	<0.03	< 0.03	<0.03	
Bromodichloromethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	
Methyl Isobutyl Ketone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04	
Toluene	ug/g	0.2	0.05	<0.05	<0.05	<0.05	
Dibromochloromethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	
Ethylene Dibromide	ug/g	0.05	0.04	< 0.04	< 0.04	<0.04	
Tetrachloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	
1,1,1,2-Tetrachloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04	
Chlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	
Ethylbenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	
m & p-Xvlene	ua/a		0.05	< 0.05	< 0.05	< 0.05	

Certified By:

teus



AGAT WORK ORDER: 16T109353 PROJECT: 161-08392-00 5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.aqatlabs.com

CLIENT NAME: WSP CANADA INC.

SAMPLING SITE:2256 Mayfield

ATTENTION TO: Joeline Chan SAMPLED BY:Josh Slobodsky

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

DATE RECEIVED: 2016-06-27

	:	SAMPLE DES	CRIPTION:	BH16 - 3 S2B	BH16 - 4 S2B	BH16 - 4 S4B	
		SAM	PLE TYPE:	Soil	Soil	Soil	
		DATE	SAMPLED:	6/24/2016	6/24/2016	6/24/2016	
Parameter	Unit	G/S	RDL	7666269	7666273	7666275	
Bromoform	ug/g	0.05	0.05	<0.05	<0.05	<0.05	
Styrene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	
o-Xylene	ug/g		0.05	<0.05	<0.05	<0.05	
1,3-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	
1,4-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	
1,2-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	
Xylene Mixture	ug/g	0.05	0.05	<0.05	<0.05	<0.05	
1,3-Dichloropropene	µg/g	0.05	0.04	<0.04	<0.04	<0.04	
n-Hexane	µg/g	0.05	0.05	<0.05	<0.05	<0.05	
Surrogate	Unit	Acceptab	le Limits				
Toluene-d8	% Recovery	50-	140	94	101	98	
4-Bromofluorobenzene	% Recovery	50-	140	106	103	113	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil -Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

7666269-7666275 The sample was analysed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.

teus

DATE REPORTED: 2016-07-04

Certified By:



AGAT WORK ORDER: 16T109353 PROJECT: 161-08392-00 5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: WSP CANADA INC.

SAMPLING SITE:2256 Mayfield

ATTENTION TO: Joeline Chan

SAMPLED BY: Josh Slobodsky

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

DATE RECEIVED: 2016-06-27

	_			
	SAMPLE DESCRIPTION:		QA/QC 2	
		SAMF	PLE TYPE:	Soil
		DATE S	SAMPLED:	6/24/2016
Parameter	Unit	G/S	RDL	7666298
Dichlorodifluoromethane	µg/g	0.05	0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05
Trichlorofluoromethane	ug/g	0.25	0.05	<0.05
Acetone	ug/g	0.5	0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05
Methylene Chloride	ug/g	0.05	0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.05	0.05	<0.05
1,1-Dichloroethane	ug/g	0.05	0.02	<0.02
Methyl Ethyl Ketone	ug/g	0.5	0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	0.05	0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	< 0.03
1,1,1-Trichloroethane	ug/g	0.05	0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05
Benzene	ug/g	0.02	0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03
Trichloroethylene	ug/g	0.05	0.03	<0.03
Bromodichloromethane	ug/g	0.05	0.05	<0.05
Methyl Isobutyl Ketone	ug/g	0.5	0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	< 0.04
Toluene	ug/g	0.2	0.05	<0.05
Dibromochloromethane	ug/g	0.05	0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04
Tetrachloroethylene	uq/q	0.05	0.05	<0.05
1,1,1,2-Tetrachloroethane	uq/q	0.05	0.04	<0.04
Chlorobenzene	uq/q	0.05	0.05	<0.05
Ethylbenzene	uq/q	0.05	0.05	<0.05
m & p-Xylene	uq/q		0.05	<0.05
Ethylbenzene m & p-Xylene	ug/g ug/g	0.05	0.05 0.05	<0.05 <0.05

Certified By:

DATE REPORTED: 2016-07-04



AGAT WORK ORDER: 16T109353 PROJECT: 161-08392-00 5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: WSP CANADA INC.

SAMPLING SITE:2256 Mayfield

ATTENTION TO: Joeline Chan

SAMPLED BY: Josh Slobodsky

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

DATE RECEIVED: 2016-06-27

	SAMPLE DESCRIPTION:			QA/QC 2
		SAMP	LE TYPE:	Soil
		DATE S	AMPLED:	6/24/2016
Parameter	Unit	G/S	RDL	7666298
Bromoform	ug/g	0.05	0.05	<0.05
Styrene	ug/g	0.05	0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05
o-Xylene	ug/g		0.05	<0.05
1,3-Dichlorobenzene	ug/g	0.05	0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.05	0.05	<0.05
1,2-Dichlorobenzene	ug/g	0.05	0.05	<0.05
Xylene Mixture	ug/g	0.05	0.05	<0.05
1,3-Dichloropropene	µg/g	0.05	0.04	< 0.04
n-Hexane	µg/g	0.05	0.05	<0.05
Moisture Content	%		0.1	11.8
Surrogate	Unit	Acceptable	e Limits	
Toluene-d8	% Recovery	50-14	40	98
4-Bromofluorobenzene	% Recovery	50-14	40	101

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil -Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

7666298 The sample was analysed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.

Certified By:

DATE REPORTED: 2016-07-04



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

Quality Assurance

CLIENT NAME: WSP CANADA INC.

PROJECT: 161-08392-00

SAMPLING SITE:2256 Mayfield

AGAT WORK ORDER: 16T109353

ATTENTION TO: Joeline Chan SAMPLED BY:Josh Slobodsky

Soil Analysis

BBT Deter hel 04 0040					-	-										
RP1 Date: Jul 04, 2016				DUPLICATE			REFEREI			METHOD	BLANK SPIKE		MAI			
PARAMETER	Batch	Sample	Dup #1	Dup #2	RPD	Method Blank	Measured	Acceptable Limits		Recoverv	Acceptable Limits		Recovery	Acceptable Limits		
		ld	Dup "I	Dup #2			value	Lower	Upper		Lower	Upper		Lower	Upper	
O. Reg. 153(511) - Metals & Inor																
Antimony	7666271	7666271	<0.8	<0.8	NA	< 0.8	107%	70%	130%	101%	80%	120%	101%	70%	130%	
Arsenic	7666271	7666271	5	5	0.0%	< 1	113%	70%	130%	100%	80%	120%	98%	70%	130%	
Barium	7666271	7666271	80	82	2.5%	< 2	101%	70%	130%	94%	80%	120%	89%	70%	130%	
Beryllium	7666271	7666271	0.8	0.9	NA	< 0.5	114%	70%	130%	111%	80%	120%	120%	70%	130%	
Boron	7666271	7666271	9	10	NA	< 5	76%	70%	130%	106%	80%	120%	108%	70%	130%	
Boron (Hot Water Soluble)	7665679	1	<0.10	<0.10	NA	< 0.10	102%	60%	140%	98%	70%	130%	99%	60%	140%	
Cadmium	7666271	7666271	<0.5	<0.5	NA	< 0.5	102%	70%	130%	98%	80%	120%	96%	70%	130%	
Chromium	7666271	7666271	18	18	0.0%	< 2	88%	70%	130%	109%	80%	120%	87%	70%	130%	
Cobalt	7666271	7666271	9.6	9.8	2.1%	< 0.5	84%	70%	130%	90%	80%	120%	86%	70%	130%	
Copper	7666271	7666271	24	25	4.1%	< 1	98%	70%	130%	100%	80%	120%	94%	70%	130%	
Lead	7666271	7666271	8	8	0.0%	< 1	97%	70%	130%	89%	80%	120%	94%	70%	130%	
Molybdenum	7666271	7666271	<0.5	<0.5	NA	< 0.5	100%	70%	130%	103%	80%	120%	102%	70%	130%	
Nickel	7666271	7666271	21	22	4.7%	< 1	91%	70%	130%	96%	80%	120%	94%	70%	130%	
Selenium	7666271	7666271	<0.4	<0.4	NA	< 0.4	114%	70%	130%	98%	80%	120%	97%	70%	130%	
Silver	7666271	7666271	<0.2	<0.2	NA	< 0.2	82%	70%	130%	91%	80%	120%	89%	70%	130%	
Thallium	7666271	7666271	<0.4	<0.4	NA	< 0.4	81%	70%	130%	96%	80%	120%	93%	70%	130%	
Uranium	7666271	7666271	<0.5	<0.5	NA	< 0.5	76%	70%	130%	96%	80%	120%	95%	70%	130%	
Vanadium	7666271	7666271	24	24	0.0%	< 1	82%	70%	130%	88%	80%	120%	86%	70%	130%	
Zinc	7666271	7666271	53	55	3.7%	< 5	111%	70%	130%	106%	80%	120%	96%	70%	130%	
Chromium VI	7663457		<0.2	<0.2	NA	< 0.2	91%	70%	130%	96%	80%	120%	88%	70%	130%	
Cyanide	7665067		<0.040	<0.040	NA	< 0.040	93%	70%	130%	100%	80%	120%	109%	70%	130%	
Mercury	7666271	7666271	<0.10	<0.10	NA	< 0.10	109%	70%	130%	87%	80%	120%	94%	70%	130%	
Electrical Conductivity	7666858		0.205	0.205	0.0%	< 0.005	99%	90%	110%	NA			NA			
Sodium Adsorption Ratio	7665679		0.103	0.104	1.0%	NA	NA			NA			NA			
pH, 2:1 CaCl2 Extraction	7660929		8.74	8.65	1.0%	NA	101%	80%	120%	NA			NA			

Comments: NA signifies Not Applicable.

Duplicate Qualifier: 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.

Certified By:

AGAT QUALITY ASSURANCE REPORT (V1)

Amanjot Bhela

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

Quality Assurance

CLIENT NAME: WSP CANADA INC.

PROJECT: 161-08392-00

SAMPLING SITE:2256 Mayfield

AGAT WORK ORDER: 16T109353 ATTENTION TO: Joeline Chan SAMPLED BY:Josh Slobodsky

Trace Organics Analysis

		•													
RPT Date: Jul 04, 2016	DUPLICATE				REFERENCE MATERIA		TERIAL	L METHOD BLANK SPIKE			MATRIX SPIKE				
PARAMETER	Batch	Sample	Dup #1	Dup #2	RPD	Method Blank	Measured	Acce Lir	ptable nits	Recovery	Acceptable Limits		Recovery	Acceptable Limits	
		ld					Value	Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - OC Pesticides	(Soil)														
Gamma-Hexachlorocyclohexane	7666290	7666290	< 0.005	< 0.005	NA	< 0.005	116%	50%	140%	80%	50%	140%	88%	50%	140%
Heptachlor	7666290	7666290	< 0.005	< 0.005	NA	< 0.005	105%	50%	140%	94%	50%	140%	80%	50%	140%
Aldrin	7666290	7666290	< 0.005	< 0.005	NA	< 0.005	105%	50%	140%	106%	50%	140%	106%	50%	140%
Heptachlor Epoxide	7666290	7666290	< 0.005	< 0.005	NA	< 0.005	107%	50%	140%	112%	50%	140%	88%	50%	140%
Endosulfan	7666290	7666290	< 0.005	< 0.005	NA	< 0.005	113%	50%	140%	114%	50%	140%	90%	50%	140%
Chlordane	7666290	7666290	< 0.007	< 0.007	NA	< 0.007	111%	50%	140%	105%	50%	140%	81%	50%	140%
DDE	7666290	7666290	< 0.007	< 0.007	NA	< 0.007	106%	50%	140%	90%	50%	140%	75%	50%	140%
DDD	7666290	7666290	< 0.007	< 0.007	NA	< 0.007	119%	50%	140%	106%	50%	140%	76%	50%	140%
DDT	7666290	7666290	< 0.007	< 0.007	NA	< 0.007	118%	50%	140%	112%	50%	140%	79%	50%	140%
Dieldrin	7666290	7666290	< 0.005	< 0.005	NA	< 0.005	107%	50%	140%	106%	50%	140%	88%	50%	140%
Endrin	7666290	7666290	< 0.005	< 0.005	NA	< 0.005	117%	50%	140%	114%	50%	140%	96%	50%	140%
Methoxychlor	7666290	7666290	< 0.005	< 0.005	NA	< 0.005	111%	50%	140%	98%	50%	140%	88%	50%	140%
Hexachlorobenzene	7666290	7666290	< 0.005	< 0.005	NA	< 0.005	116%	50%	140%	90%	50%	140%	82%	50%	140%
Hexachlorobutadiene	7666290	7666290	< 0.01	< 0.01	NA	< 0.01	114%	50%	140%	72%	50%	140%	70%	50%	140%
Hexachloroethane	7666290	7666290	< 0.01	< 0.01	NA	< 0.01	115%	50%	140%	68%	50%	140%	80%	50%	140%
O. Reg. 153(511) - VOCs (Soil)															
Dichlorodifluoromethane	7664044		< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	76%	50%	140%	88%	50%	140%
Vinyl Chloride	7664044		< 0.02	< 0.02	NA	< 0.02	113%	50%	140%	106%	50%	140%	77%	50%	140%
Bromomethane	7664044		< 0.05	< 0.05	NA	< 0.05	109%	50%	140%	119%	50%	140%	99%	50%	140%
Trichlorofluoromethane	7664044		< 0.05	< 0.05	NA	< 0.05	118%	50%	140%	99%	50%	140%	81%	50%	140%
Acetone	7664044		< 0.50	< 0.50	NA	< 0.50	116%	50%	140%	113%	50%	140%	104%	50%	140%
1,1-Dichloroethylene	7664044		< 0.05	< 0.05	NA	< 0.05	120%	50%	140%	107%	60%	130%	103%	50%	140%
Methylene Chloride	7664044		< 0.05	< 0.05	NA	< 0.05	84%	50%	140%	120%	60%	130%	118%	50%	140%
Trans- 1,2-Dichloroethylene	7664044		< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	111%	60%	130%	123%	50%	140%
Methyl tert-butyl Ether	7664044		< 0.05	< 0.05	NA	< 0.05	79%	50%	140%	97%	60%	130%	83%	50%	140%
1,1-Dichloroethane	7664044		< 0.02	< 0.02	NA	< 0.02	123%	50%	140%	102%	60%	130%	101%	50%	140%
Methyl Ethyl Ketone	7664044		< 0.50	< 0.50	NA	< 0.50	114%	50%	140%	118%	50%	140%	107%	50%	140%
Cis- 1,2-Dichloroethylene	7664044		< 0.02	< 0.02	NA	< 0.02	115%	50%	140%	101%	60%	130%	117%	50%	140%
Chloroform	7664044		< 0.04	< 0.04	NA	< 0.04	95%	50%	140%	88%	60%	130%	101%	50%	140%
1,2-Dichloroethane	7664044		< 0.03	< 0.03	NA	< 0.03	89%	50%	140%	93%	60%	130%	113%	50%	140%
1,1,1-Trichloroethane	7664044		< 0.05	< 0.05	NA	< 0.05	85%	50%	140%	87%	60%	130%	86%	50%	140%
Carbon Tetrachloride	7664044		< 0.05	< 0.05	NA	< 0.05	81%	50%	140%	81%	60%	130%	91%	50%	140%
Benzene	7664044		< 0.02	< 0.02	NA	< 0.02	93%	50%	140%	96%	60%	130%	118%	50%	140%
1,2-Dichloropropane	7664044		< 0.03	< 0.03	NA	< 0.03	89%	50%	140%	97%	60%	130%	111%	50%	140%
Trichloroethylene	7664044		0.05	0.05	NA	< 0.03	102%	50%	140%	90%	60%	130%	118%	50%	140%
Bromodichloromethane	7664044		< 0.05	< 0.05	NA	< 0.05	90%	50%	140%	90%	60%	130%	102%	50%	140%
Methyl Isobutyl Ketone	7664044		< 0.50	< 0.50	NA	< 0.50	88%	50%	140%	94%	50%	140%	102%	50%	140%
1,1,2-Trichloroethane	7664044		< 0.04	< 0.04	NA	< 0.04	95%	50%	140%	97%	60%	130%	125%	50%	140%
Toluene	7664044		< 0.05	< 0.05	NA	< 0.05	96%	50%	140%	91%	60%	130%	125%	50%	140%

AGAT QUALITY ASSURANCE REPORT (V1)

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Quality Assurance

CLIENT NAME: WSP CANADA INC.

PROJECT: 161-08392-00

SAMPLING SITE:2256 Mayfield

AGAT WORK ORDER: 16T109353 ATTENTION TO: Joeline Chan SAMPLED BY:Josh Slobodsky

Trace Organics Analysis (Continued)															
RPT Date: Jul 04, 2016			DUPLICATE				REFERENCE MATERIAL			METHOD	BLANK		MATRIX SPIKE		
PARAMETER	Batch	Sample	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recoverv	Acceptable Limits		Recoverv	Acceptable Limits	
		iù	-					Lower	Upper	_	Lower	Upper]	Lower	Upper
Dibromochloromethane	7664044		< 0.05	< 0.05	NA	< 0.05	77%	50%	140%	86%	60%	130%	106%	50%	140%
Ethylene Dibromide	7664044		< 0.04	< 0.04	NA	< 0.04	90%	50%	140%	96%	60%	130%	123%	50%	140%
Tetrachloroethylene	7664044		4.4	4.5	2.2%	< 0.05	96%	50%	140%	91%	60%	130%	127%	50%	140%
1,1,1,2-Tetrachloroethane	7664044		< 0.04	< 0.04	NA	< 0.04	93%	50%	140%	79%	60%	130%	102%	50%	140%
Chlorobenzene	7664044		< 0.05	< 0.05	NA	< 0.05	96%	50%	140%	89%	60%	130%	119%	50%	140%
Ethylbenzene	7664044		< 0.05	< 0.05	NA	< 0.05	92%	50%	140%	84%	60%	130%	115%	50%	140%
m & p-Xylene	7664044		< 0.05	< 0.05	NA	< 0.05	92%	50%	140%	84%	60%	130%	112%	50%	140%
Bromoform	7664044		< 0.05	< 0.05	NA	< 0.05	89%	50%	140%	89%	60%	130%	95%	50%	140%
Styrene	7664044		< 0.05	< 0.05	NA	< 0.05	84%	50%	140%	80%	60%	130%	108%	50%	140%
1,1,2,2-Tetrachloroethane	7664044		< 0.05	< 0.05	NA	< 0.05	92%	50%	140%	98%	60%	130%	101%	50%	140%
o-Xylene	7664044		< 0.05	< 0.05	NA	< 0.05	96%	50%	140%	87%	60%	130%	115%	50%	140%
1,3-Dichlorobenzene	7664044		< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	82%	60%	130%	99%	50%	140%
1,4-Dichlorobenzene	7664044		< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	88%	60%	130%	107%	50%	140%
1,2-Dichlorobenzene	7664044		< 0.05	< 0.05	NA	< 0.05	92%	50%	140%	86%	60%	130%	104%	50%	140%
1,3-Dichloropropene	7664044		< 0.04	< 0.04	NA	< 0.04	82%	50%	140%	73%	60%	130%	74%	50%	140%
n-Hexane	7664044		< 0.05	< 0.05	NA	< 0.05	118%	50%	140%	100%	60%	130%	93%	50%	140%
O. Reg. 153(511) - PHCs F1 - ∣	F4 (-BTEX) (Soi	I)													
F1 (C6 to C10)	7668927		< 5	< 5	NA	< 5	87%	60%	130%	94%	85%	115%	105%	70%	130%
F2 (C10 to C16)	7662131		< 10	< 10	NA	< 10	98%	60%	130%	99%	80%	120%	95%	70%	130%
F3 (C16 to C34)	7662131		59	66	NA	< 50	99%	60%	130%	86%	80%	120%	88%	70%	130%
F4 (C34 to C50)	7662131		63	75	NA	< 50	81%	60%	130%	82%	80%	120%	99%	70%	130%
O. Reg. 153(511) - PHCs F1 - ∣	F4 (Soil)														
Benzene	7663661		< 0.02	< 0.02	NA	< 0.02	106%	60%	130%	104%	60%	130%	111%	60%	130%
Toluene	7663661		< 0.08	< 0.08	NA	< 0.08	98%	60%	130%	109%	60%	130%	114%	60%	130%
Ethylbenzene	7663661		< 0.05	< 0.05	NA	< 0.05	90%	60%	130%	103%	60%	130%	108%	60%	130%
Xylene Mixture	7663661		< 0.05	< 0.05	NA	< 0.05	82%	60%	130%	107%	60%	130%	105%	60%	130%
F1 (C6 to C10)	7663661		< 5	< 5	NA	< 5	87%	60%	130%	94%	85%	115%	105%	70%	130%

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

Certified By:

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AGAT QUALITY ASSURANCE REPORT (V1)

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Method Summary

CLIENT NAME: WSP CANADA INC.

PROJECT: 161-08392-00

SAMPLING SITE:2256 Mayfield

AGAT WORK ORDER: 16T109353 ATTENTION TO: Joeline Chan SAMPI ED BY: Josh Slobodsky

OAMIT EINO OTTELEZSO Mayheid			Shobbusky
PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis	I		_
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	EPA SW 846 6010C; MSA, Part 3, Ch.21	ICP/OES
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium VI	INOR-93-6029	SM 3500 B; MSA Part 3, Ch. 25	SPECTROPHOTOMETER
Cyanide	INOR-93-6052	MOE CN-3015 & E 3009 A;SM 4500 CN	TECHNICON AUTO ANALYZER
Mercury	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Electrical Conductivity	INOR-93-6036	McKeague 4.12, SM 2510 B	EC METER
Sodium Adsorption Ratio	INOR-93-6007	McKeague 4.12 & 3.26 & EPA SW-846 6010B	ICP/OES
pH, 2:1 CaCl2 Extraction	INOR-93-6031	MSA part 3 & SM 4500-H+ B	PH METER



Method Summary

CLIENT NAME: WSP CANADA INC.

PROJECT: 161-08392-00

SAMPLING SITE:2256 Mayfield

AGAT WORK ORDER: 16T109353 ATTENTION TO: Joeline Chan SAMPI ED BY: Josh Slobodsky

	ACATSOD		
	AGAT S.O.P	LITERATORE REFERENCE	ANALTTICAL TECHNIQUE
Trace Organics Analysis			00/505
Gamma-Hexachlorocyclohexane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachior	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor Epoxide	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Endosultan	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Chlordane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDE	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDD	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDT	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Dieldrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Endrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Methoxychlor	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobenzene	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobutadiene	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachloroethane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
тсмх	ORG-91-5112	EPA SW-846 3541,3620 & 8081	GC/ECD
Decachlorobiphenyl	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Moisture Content		MOE E3139	BALANCE
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P &T GC / FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P & T GC / FID
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method	GC / FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method	GC / FID
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method	GC / FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	GRAVIMETRIC ANALYSIS
Moisture Content	VOL-91-5009	CCME Tier 1 Method, SW846 5035,8015	BALANCE
Terphenyl	VOL-91-5009		GC/FID
Benzene	VOL-91-5009	EPA SW-846 5035 & 8260	P & T GC/MS
Toluene	VOL-91-5009	EPA SW-846 5035 & 8260	P & T GC/MS
Ethylbenzene	VOL-91-5009	EPA SW-846 5035 & 8260	P & T GC/MS
Xylene Mixture	VOL-91-5009	EPA SW-846 5035 & 8260	P & T GC/MS
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method	P & T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method	P & T GC/FID
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method, EPA SW846 8015	GC / FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method, EPA SW846 8015	GC / FID
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method, EPA SW846 8015	GC / FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	BALANCE
Moisture Content	VOL-91-5009	CCME Tier 1 Method	BALANCE
Dichlorodifluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Bromomethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Acetone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS

AGAT METHOD SUMMARY (V1)



Method Summary

CLIENT NAME: WSP CANADA INC.

PROJECT: 161-08392-00

SAMPLING SITE:2256 Mayfield

AGAT WORK ORDER: 16T109353 ATTENTION TO: Joeline Chan SAMPI ED BY: Josh Slobodsky

CANIT EINE OTTE:2250 Mayfield			USIT Olobousky
PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
1,1-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Chloroform	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Benzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Toluene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Bromoform	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Styrene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
o-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Xylene Mixture	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
n-Hexane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Toluene-d8	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Moisture Content	VOL-91-5002	MOE E3139	BALANCE

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Page 16 of 17

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CLIENT NAME: WSP CANADA INC. **51 CONSTELLATION COURT** TORONTO, ON M9W1K4 (416) 798-0065

ATTENTION TO: Joeline Chan

PROJECT: 161-08392-00

AGAT WORK ORDER: 16T109357

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

WATER ANALYSIS REVIEWED BY: Sofka Pehlyova, Senior Analyst

DATE REPORTED: Jun 30, 2016

PAGES (INCLUDING COVER): 12

VERSION*: 1

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

*NOTES	

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

AGAT Laboratories (V1)

Member of: Association of Professional Engineers, Geologists and Geophysicists AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory of Alberta (APEGGA) Western Enviro-Agricultural Laboratory Association (WEALA) Environmental Services Association of Alberta (ESAA)

Page 1 of 12

Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation.

Results relate only to the items tested and to all the items tested All reportable information as specified by ISO 17025:2005 is available from AGAT Laboratories upon request



AGAT WORK ORDER: 16T109357 PROJECT: 161-08392-00

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

CLIENT NAME: WSP CANADA INC.

SAMPLING SITE:2256 Mayfield

ATTENTION TO: Joeline Chan SAMPLED BY: Josh Slobodsky

O. Reg. 153(511) - OC Pesticides (Water)

DATE RECEIVED: 2016-06-27							DATE REPORTED: 2016-06-30
		SAMPLE DES SAM DATE	CRIPTION: PLE TYPE: SAMPLED:	BH16 - 1 Water 6/27/2016	BH16 - 2 Water 6/27/2016	BH16 - 4 Water 6/27/2016	
Parameter	Unit	G/S	RDL	7666357	7666381	7666395	
Gamma-Hexachlorocyclohexane	µg/L	0.01	0.01	<0.01	<0.01	<0.01	
Heptachlor	µg/L	0.01	0.01	<0.01	<0.01	<0.01	
Aldrin	μg/L	0.01	0.01	<0.01	<0.01	<0.01	
Heptachlor Epoxide	µg/L	0.01	0.01	<0.01	<0.01	<0.01	
Endosulfan	µg/L	0.05	0.05	<0.05	<0.05	<0.05	
Chlordane	µg/L	0.06	0.04	<0.04	<0.04	<0.04	
DDE	µg/L	10	0.01	<0.01	<0.01	<0.01	
DDD	µg/L	1.8	0.05	<0.05	<0.05	<0.05	
DDT	µg/L	0.05	0.04	<0.04	<0.04	<0.04	
Dieldrin	µg/L	0.05	0.02	<0.02	<0.02	<0.02	
Endrin	µg/L	0.05	0.05	<0.05	<0.05	<0.05	
Methoxychlor	µg/L	0.05	0.04	<0.04	<0.04	<0.04	
Hexachlorobenzene	ug/L	0.01	0.01	<0.01	<0.01	<0.01	
Hexachlorobutadiene	ug/L	0.01	0.01	<0.01	<0.01	<0.01	
Hexachloroethane	ug/L	0.01	0.01	<0.01	<0.01	<0.01	
Surrogate	Unit	Acceptab	le Limits				
ТСМХ	%	50-	140	104	112	109	
Decachlorobiphenyl	%	60-	140	114	114	119	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Ground Water - All Types of Property Uses

7666357-7666395 Note: DDT applies to the total of op'DDT and pp'DDT, DDD applies to the total of op'DDD and DDE applies to the total of op'DDE. Endosulfan applies to the total of Endosulfan I and Endosulfan II.

Chlordane applies to the total of Alpha-Chlordane and Gamma-Chlordane.

Certified By:

NPopukolof



AGAT WORK ORDER: 16T109357 PROJECT: 161-08392-00 5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: WSP CANADA INC.

SAMPLING SITE:2256 Mayfield

ATTENTION TO: Joeline Chan

SAMPLED BY: Josh Slobodsky

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

DATE RECEIVED: 2016-06-27

		SAMPLE DESC	RIPTION:	BH16 - 1	BH16 - 2	BH16 - 4	
		SAMP	LE TYPE:	Water	Water	Water	
		DATE S	AMPLED:	6/27/2016	6/27/2016	6/27/2016	
Parameter	Unit	G/S	RDL	7666357	7666381	7666395	
F1 (C6 to C10)	µg/L		25	<25	<25	<25	
F1 (C6 to C10) minus BTEX	µg/L	420	25	<25	<25	<25	
F2 (C10 to C16)	µg/L	150	100	<100	<100	<100	
F3 (C16 to C34)	µg/L	500	100	<100	<100	<100	
F4 (C34 to C50)	µg/L	500	100	<100	<100	<100	
Gravimetric Heavy Hydrocarbons	µg/L	500	500	NA	NA	NA	
Surrogate	Unit	Acceptabl	e Limits				
Terphenyl	%	60-1	40	110	100	74	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Ground Water - All Types of Property Uses

7666357-7666395 The C6-C10 fraction is calculated using Toluene response factor.

The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and nC34.

Gravimetric Heavy Hydrocarbons are not included in the Total C16 - C50 and are only determined if the chromatogram of the C34 - C50 Hydrocarbons indicated that hydrocarbons >C50 are present. The chromatogram has returned to baseline by the retention time of nC50.

Total C6-C50 results are corrected for BTEX contributions.

This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.

nC6 and nC10 response factors are within 30% of Toluene response factor.

nC10, nC16 and nC34 response factors are within 10% of their average.

C50 response factor is within 70% of nC10 + nC16 nC34 average.

Linearity is within 15%.

Extraction and holding times were met for this sample.

Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

Certified By:

NPopukolof

DATE REPORTED: 2016-06-30



AGAT WORK ORDER: 16T109357 PROJECT: 161-08392-00

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

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

CLIENT NAME: WSP CANADA INC.

SAMPLING SITE:2256 Mayfield

ATTENTION TO: Joeline Chan

SAMPLED BY: Josh Slobodsky

DATE RECEIVED: 2016-06-27									DATE REPORTED: 20	016-06-30
	ę	SAMPLE DESC SAMF DATE S	CRIPTION: PLE TYPE: SAMPLED:	BH16 - 1 Water 6/27/2016	BH16 - 2 Water 6/27/2016	BH16 - 4 Water 6/27/2016	QA/QC 1 Water 6/27/2016	QA/QC 2 Water 6/27/2016	Trip Blank Water 6/27/2016	
Parameter	Unit	G/S	RDL	7666357	7666381	7666395	7666408	7666409	7666412	
Dichlorodifluoromethane	µg/L	590	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
Vinyl Chloride	µg/L	0.5	0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	
Bromomethane	µg/L	0.89	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
Trichlorofluoromethane	µg/L	150	0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	
Acetone	µg/L	2700	1.0	11	<1.0	15	17	16	<1.0	
1,1-Dichloroethylene	µg/L	0.5	0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	
Methylene Chloride	µg/L	5	0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	
trans- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
Methyl tert-butyl ether	µg/L	15	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
1,1-Dichloroethane	µg/L	0.5	0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	
Methyl Ethyl Ketone	µg/L	400	1.0	3.1	<1.0	<1.0	4.6	<1.0	<1.0	
cis- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
Chloroform	µg/L	2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
1,2-Dichloroethane	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
1,1,1-Trichloroethane	μg/L	0.5	0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	
Carbon Tetrachloride	μg/L	0.2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
Benzene	μg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
1,2-Dichloropropane	μg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
Trichloroethylene	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
Bromodichloromethane	µg/L	2	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
Methyl Isobutyl Ketone	µg/L	640	1.0	4.5	2.6	2.1	4.7	2.9	<1.0	
1,1,2-Trichloroethane	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
Toluene	µg/L	0.8	0.20	0.47	0.59	0.32	0.53	0.28	<0.20	
Dibromochloromethane	µg/L	2	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Ethylene Dibromide	µg/L	0.2	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Tetrachloroethylene	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
1,1,1,2-Tetrachloroethane	μg/L	1.1	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Chlorobenzene	μg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Ethylbenzene	μg/L	0.5	0.10	0.12	0.11	<0.10	0.13	<0.10	<0.10	
m & p-Xylene	µg/L		0.20	0.59	0.59	<0.20	0.68	<0.20	<0.20	

Certified By:

NPopukolof



AGAT WORK ORDER: 16T109357 PROJECT: 161-08392-00 5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.aqatlabs.com

CLIENT NAME: WSP CANADA INC.

SAMPLING SITE:2256 Mayfield

ATTENTION TO: Joeline Chan

SAMPLED BY: Josh Slobodsky

					<u> </u>		,			
DATE RECEIVED: 2016-06-27								I	DATE REPORTED	: 2016-06-30
	S	SAMPLE DES	CRIPTION:	BH16 - 1	BH16 - 2	BH16 - 4	QA/QC 1	QA/QC 2	Trip Blank	
		SAM	PLE TYPE:	Water	Water	Water	Water	Water	Water	
		DATE	SAMPLED:	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	
Parameter	Unit	G/S	RDL	7666357	7666381	7666395	7666408	7666409	7666412	
Bromoform	µg/L	5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Styrene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
1,1,2,2-Tetrachloroethane	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
o-Xylene	µg/L		0.10	0.25	0.21	<0.10	0.29	<0.10	<0.10	
1,3-Dichlorobenzene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
1,4-Dichlorobenzene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
1,2-Dichlorobenzene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
1,3-Dichloropropene	µg/L	0.5	0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	
Xylene Mixture	µg/L	72	0.20	0.84	0.80	<0.20	0.97	<0.20	<0.20	
n-Hexane	µg/L	5	0.20	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	
Surrogate	Unit	Acceptat	ole Limits							
Toluene-d8	% Recovery	50-	140	104	103	104	103	103	105	
4-Bromofluorobenzene	% Recovery	50-	140	105	105	105	106	106	103	

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

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Ground Water - All Types of Property Uses

Certified By:

NPopukolof



AGAT WORK ORDER: 16T109357 PROJECT: 161-08392-00 5835 COOPERS AVENUE MISSISSAUGA, ONTARIO CANADA L4Z 1Y2 TEL (905)712-5100 FAX (905)712-5122 http://www.agatlabs.com

CLIENT NAME: WSP CANADA INC.

SAMPLING SITE:2256 Mayfield

ATTENTION TO: Joeline Chan

SAMPLED BY: Josh Slobodsky

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

DATE RECEIVED: 2016-06-27							DATE REPORTED: 2016-06-30
_		SAMPLE DESC SAMP DATE S	RIPTION: LE TYPE: AMPLED:	BH16 - 1 Water 6/27/2016	BH16 - 2 Water 6/27/2016	BH16 - 4 Water 6/27/2016	
Parameter	Unit	G/S	RDL	7666357	7666381	7666395	
Antimony	µg/L	1.5	1.0	<1.0	<1.0	<1.0	
Arsenic	µg/L	13	1.0	1.0	3.0	<1.0	
Barium	µg/L	610	2.0	99.7	96.2	151	
Beryllium	µg/L	0.5	0.5	<0.5	<0.5	<0.5	
Boron	µg/L	1700	10.0	186	117	89.3	
Cadmium	µg/L	0.5	0.2	<0.2	<0.2	<0.2	
Chromium	µg/L	11	2.0	<2.0	<2.0	<2.0	
Cobalt	µg/L	3.8	0.5	<0.5	<0.5	<0.5	
Copper	µg/L	5	1.0	1.2	<1.0	1.3	
Lead	µg/L	1.9	0.5	<0.5	<0.5	<0.5	
Molybdenum	µg/L	23	0.5	12.1	5.9	10.5	
Nickel	µg/L	14	1.0	<1.0	<1.0	<1.0	
Selenium	µg/L	5	1.0	<1.0	<1.0	<1.0	
Silver	µg/L	0.3	0.2	<0.2	<0.2	<0.2	
Thallium	µg/L	0.5	0.3	<0.3	<0.3	<0.3	
Uranium	µg/L	8.9	0.5	2.5	3.3	4.4	
Vanadium	µg/L	3.9	0.4	1.6	1.4	1.5	
Zinc	µg/L	160	5.0	5.5	<5.0	8.7	
Mercury	µg/L	0.1	0.02	<0.02	<0.02	<0.02	
Chromium VI	µg/L	25	5	<5	<5	<5	
Cyanide	µg/L	5	2	<2	<2	<2	
Sodium	µg/L	490000	1000	44600	28600	29100	
Chloride	µg/L	790000	500	16100	37700	38700	
Electrical Conductivity	uS/cm		2	899	1140	951	
рН	pH Units		NA	8.10	8.03	7.94	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Ground Water - All Types of Property Uses

7666357-7666395 Elevated RDLs for Anions & Sodium indicate the degree of sample dilutions prior to analyses to keep analytes within the calibration range, reduce matrix interference and/or to avoid contaminating the instruments.

Certified By:

Sofrea Pehlyora



Quality Assurance

CLIENT NAME: WSP CANADA INC.

PROJECT: 161-08392-00

SAMPLING SITE:2256 Mayfield

AGAT WORK ORDER: 16T109357 ATTENTION TO: Joeline Chan

SAMPLED BY: Josh Slobodsky

			Trac	eOr	gann	CS AI	laiys	15							
RPT Date: Jun 30, 2016			D	UPLICAT	E		REFEREN	NCE MA	TERIAL	METHOD	BLANK	SPIKE	MAT	RIX SPI	KE
PARAMETER	Batch	Sample	Dup #1	Dun #2	RPD	Method Blank	Measured	Acce Lir	ptable nits	Recovery	Acce Lir	ptable nits	Recovery	Acce Lin	ptable nits
	Buton	ld	Dup "I	Dup #2			Value	Lower	Upper		Lower	Upper	licouvery	Lower	Upper
O. Reg. 153(511) - VOCs (Water)								•	•		•				
Dichlorodifluoromethane	7665170		< 0.20	< 0.20	NA	< 0.20	119%	50%	140%	85%	50%	140%	62%	50%	140%
Vinyl Chloride	7665170		< 0.17	< 0.17	NA	< 0.17	104%	50%	140%	94%	50%	140%	86%	50%	140%
Bromomethane	7665170		< 0.20	< 0.20	NA	< 0.20	91%	50%	140%	95%	50%	140%	79%	50%	140%
Trichlorofluoromethane	7665170		< 0.40	< 0.40	NA	< 0.40	96%	50%	140%	107%	50%	140%	89%	50%	140%
Acetone	7665170		< 1.0	< 1.0	NA	< 1.0	104%	50%	140%	104%	50%	140%	88%	50%	140%
1,1-Dichloroethylene	7665170		< 0.30	< 0.30	NA	< 0.30	112%	50%	140%	112%	60%	130%	92%	50%	140%
Methylene Chloride	7665170		< 0.30	< 0.30	NA	< 0.30	102%	50%	140%	108%	60%	130%	119%	50%	140%
trans- 1,2-Dichloroethylene	7665170		< 0.20	< 0.20	NA	< 0.20	97%	50%	140%	108%	60%	130%	91%	50%	140%
Methyl tert-butyl ether	7665170		< 0.20	< 0.20	NA	< 0.20	112%	50%	140%	98%	60%	130%	98%	50%	140%
1,1-Dichloroethane	7665170		< 0.30	< 0.30	NA	< 0.30	99%	50%	140%	90%	60%	130%	98%	50%	140%
Methyl Ethyl Ketone	7665170		< 1.0	< 1.0	NA	< 1.0	102%	50%	140%	119%	50%	140%	108%	50%	140%
cis- 1,2-Dichloroethylene	7665170		< 0.20	< 0.20	NA	< 0.20	89%	50%	140%	105%	60%	130%	84%	50%	140%
Chloroform	7665170		< 0.20	< 0.20	NA	< 0.20	99%	50%	140%	118%	60%	130%	84%	50%	140%
1,2-Dichloroethane	7665170		< 0.20	< 0.20	NA	< 0.20	110%	50%	140%	110%	60%	130%	93%	50%	140%
1,1,1-Trichloroethane	7665170		< 0.30	< 0.30	NA	< 0.30	109%	50%	140%	96%	60%	130%	89%	50%	140%
Carbon Tetrachloride	7665170		< 0.20	< 0.20	NA	< 0.20	104%	50%	140%	110%	60%	130%	89%	50%	140%
Benzene	7665170		< 0.20	< 0.20	NA	< 0.20	100%	50%	140%	114%	60%	130%	79%	50%	140%
1,2-Dichloropropane	7665170		< 0.20	< 0.20	NA	< 0.20	103%	50%	140%	118%	60%	130%	76%	50%	140%
Trichloroethylene	7665170		< 0.20	< 0.20	NA	< 0.20	92%	50%	140%	93%	60%	130%	91%	50%	140%
Bromodichloromethane	7665170		< 0.20	< 0.20	NA	< 0.20	109%	50%	140%	96%	60%	130%	81%	50%	140%
Methyl Isobutyl Ketone	7665170		< 1.0	< 1.0	NA	< 1.0	75%	50%	140%	77%	50%	140%	79%	50%	140%
1,1,2-Trichloroethane	7665170		< 0.20	< 0.20	NA	< 0.20	108%	50%	140%	107%	60%	130%	107%	50%	140%
Toluene	7665170		< 0.20	< 0.20	NA	< 0.20	108%	50%	140%	115%	60%	130%	110%	50%	140%
Dibromochloromethane	7665170		< 0.10	< 0.10	NA	< 0.10	88%	50%	140%	95%	60%	130%	83%	50%	140%
Ethylene Dibromide	7665170		< 0.10	< 0.10	NA	< 0.10	100%	50%	140%	94%	60%	130%	96%	50%	140%
Tetrachloroethylene	7665170		< 0.20	< 0.20	NA	< 0.20	106%	50%	140%	105%	60%	130%	116%	50%	140%
1,1,1,2-Tetrachloroethane	7665170		< 0.10	< 0.10	NA	< 0.10	114%	50%	140%	105%	60%	130%	94%	50%	140%
Chlorobenzene	7665170		< 0.10	< 0.10	NA	< 0.10	104%	50%	140%	116%	60%	130%	102%	50%	140%
Ethylbenzene	7665170		< 0.10	< 0.10	NA	< 0.10	95%	50%	140%	113%	60%	130%	99%	50%	140%
m & p-Xylene	7665170		< 0.20	< 0.20	NA	< 0.20	107%	50%	140%	120%	60%	130%	112%	50%	140%
Bromoform	7665170		< 0.10	< 0.10	NA	< 0.10	99%	50%	140%	93%	60%	130%	86%	50%	140%
Styrene	7665170		< 0.10	< 0.10	NA	< 0.10	93%	50%	140%	106%	60%	130%	91%	50%	140%
1,1,2,2-Tetrachloroethane	7665170		< 0.10	< 0.10	NA	< 0.10	106%	50%	140%	108%	60%	130%	102%	50%	140%
o-Xylene	7665170		< 0.10	< 0.10	NA	< 0.10	111%	50%	140%	118%	60%	130%	108%	50%	140%
1,3-Dichlorobenzene	7665170		< 0.10	< 0.10	NA	< 0.10	99%	50%	140%	110%	60%	130%	97%	50%	140%
1,4-Dichlorobenzene	7665170		< 0.10	< 0.10	NA	< 0.10	106%	50%	140%	114%	60%	130%	106%	50%	140%
1,2-Dichlorobenzene	7665170		< 0.10	< 0.10	NA	< 0.10	103%	50%	140%	109%	60%	130%	98%	50%	140%
1,3-Dichloropropene	7665170		< 0.30	< 0.30	NA	< 0.30	95%	50%	140%	111%	60%	130%	84%	50%	140%
n-Hexane	7665170		< 0.20	< 0.20	NA	< 0.20	102%	50%	140%	81%	60%	130%	119%	50%	140%

AGAT QUALITY ASSURANCE REPORT (V1)

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation.

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Quality Assurance

CLIENT NAME: WSP CANADA INC.

PROJECT: 161-08392-00

SAMPLING SITE:2256 Mayfield

AGAT WORK ORDER: 16T109357 ATTENTION TO: Joeline Chan

SAMPLED BY: Josh Slobodsky

Trace Organics Analysis (Continued)

						-	-			-					
RPT Date: Jun 30, 2016	DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE				
PARAMETER	Batch	Sample	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
		Ia						Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PHCs F1 - F4 (·	-BTEX) (Wa	ter)													
F1 (C6 to C10)	7666357		< 25	< 25	NA	< 25	79%	60%	140%	83%	60%	140%	79%	60%	140%
F2 (C10 to C16)	1	TW	< 100	< 100	NA	< 100	107%	60%	140%	74%	60%	140%	75%	60%	140%
F3 (C16 to C34)	1	TW	< 100	< 100	NA	< 100	109%	60%	140%	85%	60%	140%	90%	60%	140%
F4 (C34 to C50)	1	TW	< 100	< 100	NA	< 100	83%	60%	140%	95%	60%	140%	92%	60%	140%
O. Reg. 153(511) - OC Pesticides	(Water)														
Gamma-Hexachlorocyclohexane		TW	< 0.01	< 0.01	NA	< 0.01	93%	50%	140%	106%	50%	140%	97%	50%	140%
Heptachlor		TW	< 0.01	< 0.01	NA	< 0.01	90%	50%	140%	108%	50%	140%	99%	50%	140%
Aldrin		TW	< 0.01	< 0.01	NA	< 0.01	92%	50%	140%	103%	50%	140%	94%	50%	140%
Heptachlor Epoxide		TW	< 0.01	< 0.01	NA	< 0.01	96%	50%	140%	105%	50%	140%	104%	50%	140%
Endosulfan		TW	< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	104%	50%	140%	91%	50%	140%
Chlordane		TW	< 0.04	< 0.04	NA	< 0.04	103%	50%	140%	109%	50%	140%	97%	50%	140%
DDE		TW	< 0.01	< 0.01	NA	< 0.01	100%	50%	140%	104%	50%	140%	98%	50%	140%
DDD		TW	< 0.05	< 0.05	NA	< 0.05	102%	50%	140%	102%	50%	140%	92%	50%	140%
DDT		TW	< 0.04	< 0.04	NA	< 0.04	89%	50%	140%	91%	50%	140%	76%	50%	140%
Dieldrin		TW	< 0.02	< 0.02	NA	< 0.02	92%	50%	140%	101%	50%	140%	86%	50%	140%
Endrin		TW	< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	91%	50%	140%	96%	50%	140%
Methoxychlor		TW	< 0.04	< 0.04	NA	< 0.04	82%	50%	140%	103%	50%	140%	87%	50%	140%
Hexachlorobenzene		TW	< 0.01	< 0.01	NA	< 0.01	102%	50%	140%	110%	50%	140%	96%	50%	140%

Comments: Tap water analysis has been performed as QC sample testing for duplicate and matrix spike due to insufficient sample volume. When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By:

NPopukok

AGAT QUALITY ASSURANCE REPORT (V1)

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Quality Assurance

CLIENT NAME: WSP CANADA INC.

PROJECT: 161-08392-00

SAMPLING SITE:2256 Mayfield

AGAT WORK ORDER: 16T109357 ATTENTION TO: Joeline Chan

SAMPLED BY: Josh Slobodsky

Water Analysis

RPT Date: Jun 30, 2016			DUPLICATE				REFERENCE MATERIAL		METHOD BLANK SPIKE			MATRIX SPIKE			
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acce Lir	ptable nits
							Value	Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals & Inorg	anics (Wa	ter)													
Antimony	7666357	7666357	<1.0	<1.0	NA	< 1.0	98%	70%	130%	95%	80%	120%	86%	70%	130%
Arsenic	7666357	7666357	1.0	1.1	NA	< 1.0	105%	70%	130%	102%	80%	120%	105%	70%	130%
Barium	7666357	7666357	99.7	97.3	2.4%	< 2.0	102%	70%	130%	100%	80%	120%	102%	70%	130%
Beryllium	7666357	7666357	<0.5	<0.5	NA	< 0.5	97%	70%	130%	101%	80%	120%	102%	70%	130%
Boron	7666357	7666357	186	192	3.2%	< 10.0	103%	70%	130%	109%	80%	120%	113%	70%	130%
Cadmium	7666357	7666357	<0.2	<0.2	NA	< 0.2	101%	70%	130%	101%	80%	120%	101%	70%	130%
Chromium	7666357	7666357	<2.0	<2.0	NA	< 2.0	105%	70%	130%	102%	80%	120%	104%	70%	130%
Cobalt	7666357	7666357	<0.5	<0.5	NA	< 0.5	103%	70%	130%	99%	80%	120%	99%	70%	130%
Copper	7666357	7666357	1.2	1.2	NA	< 1.0	105%	70%	130%	104%	80%	120%	103%	70%	130%
Lead	7666357	7666357	<0.5	<0.5	NA	< 0.5	104%	70%	130%	100%	80%	120%	104%	70%	130%
Molybdenum	7666357	7666357	12.1	12.0	0.8%	< 0.5	100%	70%	130%	99%	80%	120%	99%	70%	130%
Nickel	7666357	7666357	<1.0	<1.0	NA	< 1.0	100%	70%	130%	97%	80%	120%	98%	70%	130%
Selenium	7666357	7666357	<1.0	<1.0	NA	< 1.0	93%	70%	130%	94%	80%	120%	105%	70%	130%
Silver	7666357	7666357	<0.2	<0.2	NA	< 0.2	99%	70%	130%	100%	80%	120%	105%	70%	130%
Thallium	7666357	7666357	<0.3	<0.3	NA	< 0.3	98%	70%	130%	95%	80%	120%	97%	70%	130%
Uranium	7666357	7666357	2.5	2.5	0.0%	< 0.5	97%	70%	130%	95%	80%	120%	98%	70%	130%
Vanadium	7666357	7666357	1.6	1.5	NA	< 0.4	100%	70%	130%	97%	80%	120%	99%	70%	130%
Zinc	7666357	7666357	5.5	5.0	NA	< 5.0	99%	70%	130%	99%	80%	120%	96%	70%	130%
Mercury	7666357	7666357	<0.02	<0.02	NA	< 0.02	100%	70%	130%	97%	80%	120%	98%	70%	130%
Chromium VI	7663642		<5	<5	NA	< 5	103%	70%	130%	106%	80%	120%	103%	70%	130%
Cyanide	7666357	7666357	<2	<2	NA	< 2	93%	70%	130%	100%	80%	120%	92%	70%	130%
Sodium	7662320		36800	36100	1.9%	< 500	102%	70%	130%	101%	80%	120%	96%	70%	130%
Chloride	7666357	7666357	16100	15900	1.3%	< 100	99%	70%	130%	103%	70%	130%	106%	70%	130%
Electrical Conductivity	7666357	7666357	899	903	0.4%	< 2	107%	90%	110%	NA			NA		
рН	7666357	7666357	8.10	8.02	1.0%	NA	99%	90%	110%	NA			NA		

Comments: NA signifies Not Applicable.

Duplicate Qualifier: 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.

Certified By:

Sofiéa Pehlyora

AGAT QUALITY ASSURANCE REPORT (V1)

AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from www.cala.ca and/or www.scc.ca. The tests in this report may not necessarily be included in the scope of accreditation.

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Method Summary

CLIENT NAME: WSP CANADA INC.

PROJECT: 161-08392-00

SAMPLING SITE:2256 Mayfield

AGAT WORK ORDER: 16T109357 ATTENTION TO: Joeline Chan SAMPLED BY:Josh Slobodsky

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Gamma-Hexachlorocyclohexane	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Heptachlor	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Aldrin	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Heptachlor Epoxide	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Endosulfan	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Chlordane	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
DDE	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
DDD	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
DDT	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Dieldrin	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Endrin	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Methoxychlor	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Hexachlorobenzene	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Hexachlorobutadiene	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Hexachloroethane	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
тсмх	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Decachlorobiphenyl	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
F1 (C6 to C10)	VOL-91-5010	MOE PHC E3421	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	MOE PHC E3421	(P&T)GC/FID
F2 (C10 to C16)	VOL-91-5010	MOE PHC E3421	GC / FID
F3 (C16 to C34)	VOL-91-5010	MOE PHC E3421	GC / FID
F4 (C34 to C50)	VOL-91-5010	MOE PHC E3421	GC / FID
Gravimetric Heavy Hydrocarbons	VOL-91-5010	MOE PHC E3421	BALANCE
Terphenyl	VOL-91-5010		GC/FID
Dichlorodifluoromethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Vinyl Chloride	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Bromomethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Acetone	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Methylene Chloride	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
trans- 1,2-Dichloroethylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Methyl tert-butyl ether	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
cis- 1,2-Dichloroethylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Chloroform	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Benzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Trichloroethylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Bromodichloromethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&I)GC/MS
Methyl Isobutyl Ketone	VOL-91-5001	EPA SW-846 5030 & 8260	(P&I)GC/MS
1,1,2- Γrichloroethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&I)GC/MS
loluene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&I)GC/MS
Dibromochloromethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&I)GC/MS
Ethylene Dibromide	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS



Method Summary

CLIENT NAME: WSP CANADA INC.

PROJECT: 161-08392-00

SAMPLING SITE:2256 Mayfield

AGAT WORK ORDER: 16T109357 ATTENTION TO: Joeline Chan SAMPLED BY:Josh Slobodsky

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Tetrachloroethylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Chlorobenzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Ethylbenzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
m & p-Xylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Bromoform	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Styrene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
o-Xylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Xylene Mixture	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
n-Hexane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Toluene-d8	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Water Analysis			
Antimony	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Barium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Boron	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Cadmium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Chromium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Copper	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Lead	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Nickel	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Selenium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Silver	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Thallium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Uranium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Zinc	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Mercury	MET-93-6100	EPA SW-846 7470 & 245.1	CVAAS
Chromium VI	INOR-93-6034	SM 3500-Cr B	SPECTROPHOTOMETER
Cyanide	INOR-93-6052	MOE METHOD CN- 3015 & SM 4500 CN- I	TECHNICON AUTO ANALYZER
Sodium	MET-93-6105	EPA SW-846 6010C & 200.7	ICP/OES
Chloride	INOR-93-6004	SM 4110 B	ION CHROMATOGRAPH
Electrical Conductivity	INOR-93-6000	SM 2510 B	PC TITRATE
рн	INOR-93-6000	SM 4500-H+ B	PC TITRATE

Samples Relinquished By (Pinit Name and Sign); Date Time Samples Rel Document ID:Div 76-1511.011 Document ID:Div 76-1511.011 Document ID:Div 76-1511.011 Document ID:Div 76-1511.011	Samples Relinquished By (Pint Name and Sigh): Date Time Samples Relinquished By (Pint Name and Sigh): Date Time Samples Relinquished By (Pint Name and Sigh): Date Time Samples Relinquished By (Pint Name and Sigh): Date Time Samples Relinquished Sight S		TRIPBE DATS	ONISCY &	BH/6-4	12-91 MS	Sample Identification Date Time # or Sample Comment Sampled Containers Matrix Special Instru	Please note: If quotation number is not provided, client will be billed full price for analysis Legen Invoice Information: Bill To Same: Yes to To C B Biota Company: 0 0il 0 0il Contact: P Paint S Soil Email: SD Sediment SD Sediment	Project Information: 08592.00 Is this sub Project: 2256 Nevy FileUD Record of S Sampled By: 2256.00544 Leves Sample M	Address: Statistical Attact (Indicated indicated indicat	Report Information: Security Company: Regulatory Company: Security Contact: Security Contact:	Chain of Custody Record If this is a Drinking Water sample, please use Drinking Water	AGAT Laboratories
Ecceived By (Print Name and Sign): Pink Copy - Client	Received By (Print Name and Sign): July 27 /10 /10				X	X	Volati	Field Filtered - Metals, Hg, CrVI (Please Circle) s and Inorganics Scan le Forming Metals Custom Metals B-HWS Cr CN EC FOC N0,/N0, N0, N0,/N0, N0, N0,/N0, es: UVOC BTEX THM	Ibmission for a Report Guideline on Site Condition? Certificate of Analysis No Image: Site Condition of Certificate of Analysis No Image: Site Certificate of Analysis No Image: Site Certificate of Analysis	eck One) Region Indicate One In	y Requirements: No Regulatory Requiremen	r Chain of Custody Form (potable water intended for human consumption)	5835 Coopers Avenue Mississauga, Ontario L4Z 1Y2 Ph: 905.712.5100 Fax: 905.712.5122 webearth.agatlabs.com
t I Yellow Copy - AGAT White Copy - AGAT W	0 SO Time Page of					X	 Volati CCME ABNs PAHs Chlord PCBs Orgar TCLP Sewer I <lii< li=""></lii<>	Fractions 1 to 4 phenols ochlorine Pesticides Wetals/Inorganics Use	Please provide prior notification for rush TAT *TAT is exclusive of weekends and standory holidays	Turnaround Time (TAT) Require: Regular TAT □ 5 to 7 Business Days Rush TAT (Rush Surcharges Apply) □ 2 Business □ 1 Business 3 Business □ 2 Business □ 1 Business 3 Business □ 2 Business □ 1 Business	nt Custody Seal Intact: Yes No	Arrival Temperatures: 477 4440	Laboratory Use Only Work Order #: 107109357