

October 4, 2021

PML Ref.: 19KF007  
Report: 4

Mr. Domenico De Palma  
257090 Ontario Inc.  
138 Kate Crescent  
Maple, Ontario  
L6A 3P9

Dear Mr. De Palma

**Excess Soil Management – Source Site Review**  
**White Rose Park Residential Subdivision, Phase 3**  
**North of Bradley Street**  
**Dundalk, Ontario**

Peto MacCallum Ltd. (PML) has completed a review of chemical analysis results for excess soil proposed to be imported to the White Rose Park Subdivision, Phase 3, located north of Bradley Street in Dundalk, Ontario. Authorization to proceed with this assignment was provided by Mr. Vittorio De Palma of White Rose Park in an email dated September 30, 2021.

**Methodology**

PML reviewed the report(s) provided for the Source Site. A summary of the findings is provided in the following table:

<b>Data</b>	<b>Notes/Comments</b>
Source Site Location:	Southwest corner of Highway 7 and Interchange Way, Vaughan, Ontario
Source Site Data: Report(s) Title, Author and Date:	<b>Document 1:</b> GTR-00038035 Festival – Highway 7 and Interchange Way, Vaughan, Excess Soil Sampling Program for Importation to the Roads at Watersands Subdivision, City of Barrie and Town of Innisfil– Prepared by exp. dated June 21, 2021 (copy attached as Appendix A)  <b>Document 2:</b> Phase I Environmental Site Assessment (ESA) by Golder Associates in August 2018 (Reviewed and referenced by exp. in Document 1, but copy not provided)
What is the Source Site history / use in the vicinity of Source Site?	It is understood that the Source Site is currently and historically undeveloped land. exp. reports that the Golder Phase I ESA did not identify any Areas of Potential Environmental Concern (APECs) on the Site.
Date that Samples were Obtained:	June 7, 2021
Source of the excess soil:	In situ soil to be excavated during excavations for construction at the Source Site.



Data	Notes/Comments
Contaminants of concern (COCs) identified in the Phase One ESA:	None
COCs tested in the soil samples:	12 Metals (including hydride forming metals) and inorganics (including EC/SAR); 12 Petroleum hydrocarbon (PHC) fractions F1 to F4; 12 Benzene, Toluene, Ethylbenzene, Xylene (BTEX) 12 Polycyclic aromatic hydrocarbons (PAHs)
Appropriate vapour screening conducted?	Yes (max. reported value 10 ppmv)
Samples specific to the excess soil approval:	Refer to <b>Document 1</b> .
Sampling and testing frequency in accordance with O. Reg. 406/19 <sup>1</sup>	Yes (Refer to Note 1)
Estimated schedule for importation of material:	October 2021
Volume approved/represented by the analyses provided:	Refer to Drawing 1 attached
What is the soil type/description?	Brown Sandy Silt
Soil quality meets the applicable Table 2.1 residential/parkland/institutional Excess Soil Quality Standards (ESQS):	Yes, except for the following: <ol style="list-style-type: none"> <li>1. Several parameters have reported detection limits which are above the corresponding ESQS;</li> <li>2. One sample (TH101-SS2) which has an exceedance of Sodium Adsorption Ratio (SAR)</li> </ol>

**Note:**

1. Cognizant of the fact that there are no identified APECs on the site, the sampling frequency is considered reasonable.

Based on our review of the Source Site Information, the reported test results meet the applicable ESQSs for residential/parkland/institutional property use in a potable ground water condition as presented in “Rules for Soil Management and Excess Soil Quality Standards”, Appendix 1, Table 2.1 **except for the following:**

1. Several parameters have reported detection limits that are above the corresponding ESQSs;
2. One sample (TH101-SS2) which has an exceedance of Sodium Adsorption Ratio (SAR)



Regarding Item 1, the parameters for which the laboratory analytical detection limit was above the corresponding ESQS, are not identified as Contaminants of Potential Concern (COPCs) for the Source Site; as such, it is unlikely that there are exceedances of these parameters.

Regarding Item 2, elevated SAR is typically attributed to the use and application of de-icing salts for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both. Under O.Reg. 406/19, excess soil quality standards for chemicals (i.e. EC and SAR) in soil resulting solely from the use of a substance for the safety of vehicular or pedestrian traffic applied under conditions of snow or ice or both are deemed to be met if the following criteria are met:

If the soil is to be removed from the Source Site for off-site reuse, the following conditions must be met.

- i. The excess soil is finally placed at one of the following locations:
  - a) where it is reasonable to expect that the soil will be affected by the same chemicals (EC/SAR) as a result of continued application of a substance for the safety of vehicular or pedestrian traffic under conditions of snow or ice;
  - b) at an industrial or commercial property use and to which non-potable standards would be applicable; or
  - c) at least 1.5 metres below the surface of the soil.
- ii. The excess soil is not finally placed at any of the following locations:
  - a) within 30 metres of a waterbody;
  - b) within 100 metres of a potable water well or area with an intended property use that may require a potable water well; or,
  - c) a location that will be used for growing crops or pasturing livestock unless the excess soil is placed 1.5 metres or greater below the soil surface.
- iii. The project leader or operator of the Source Site Project Area has informed the Receiving Site owner or operator that the excess soil is from a location that may be expected to contain chemicals (EC and/or SAR) and, if sampling and analysis has been conducted in accordance with the regulation, the project leader or operator of the Project Area has provided relevant sampling results to the Receiving Site owner or operator, including the soil characterization report if prepared, and identified and communicated any potential risks to surface water and ground water to the receiving Site owner or operator.

As per the regulation, the SAR impacted material is not suitable for reuse at White Rose Residential Subdivision, Phase 3 except if it is placed as subsurface fill (below 1.5 m depth) or is placed within the limits of roadway areas which will be subjected to ongoing application of de-icing salts.

Based on the test results provided, an area of approximately 12,290 m<sup>2</sup> between 0.0 to 3.0 m depth in the south area of the site as shown on the attached Source Site Plan, Drawing 1, is suitable for importation to the White Rose Residential Subdivision, Phase 3 for use as general fill, subject to geotechnical suitability.



An approximate area of 8,850 m<sup>2</sup> in the north area of the site as shown on the attached source Site Plan, Drawing 1, is indicated to be impacted or potentially impacted with salt (EC and/or SAR) and is not suitable for importation to the White Rose Residential Subdivision, Phase 3, except where it can be placed in roadways and/or as subsurface fill, and subject to the placement restrictions outlined in O.Reg. 406/19 as previously discussed. Additional sampling and analytical testing at the Source Site can be undertaken by the Source Site QP to further delineate the extent of the SAR impacts and to refine the quantity estimates.

It should be noted that the soil conditions between and beyond the sampled locations at the Source Site may differ from those encountered during the sampling. PML should be contacted if impacted soil conditions become apparent during excavation and evaluate whether modifications to the conclusions documented in this report are necessary.

PML recommends the excavated material be carefully examined during excavation under the supervision of the Source Site Qualified Professional (QP) to confirm the soil quality meets the findings of this soil sampling and chemical testing report. It is recommended that a tracking system be in place to document the transport of excess soil from the Source Site to the Reuse Site.

It is recommended that the audit sampling of all imported excess soil be carried out to verify that the environmental quality of the excess soil meets the applicable ESQs. Sampling and analytical testing should be at a minimum frequency of 1 sample for 2,000 m<sup>3</sup>.

This report is subject to the Statement of Limitations that is included with this report (Appendix B) and which must be read in conjunction with the report.

We trust the information presented in this report is sufficient for your present purposes. If you have any questions, please do not hesitate to contact our office.

Sincerely

Peto MacCallum Ltd.

A handwritten signature in blue ink, appearing to read 'SAG', is located below the name Scott Jeffrey.

Scott Jeffrey, P.Eng., QP<sub>ESA</sub>, LEED<sub>GA</sub>  
Senior Associate  
Regional Manager, Geotechnical and Geoenvironmental Services

SJ:ld

Enclosure(s):

Drawing 1 – Source Site Plan Southwest Corner of Highway 7 and Interchange Way, Vaughan, Ontario  
Appendix A – Source Site Data  
Appendix B – Statement of Limitations

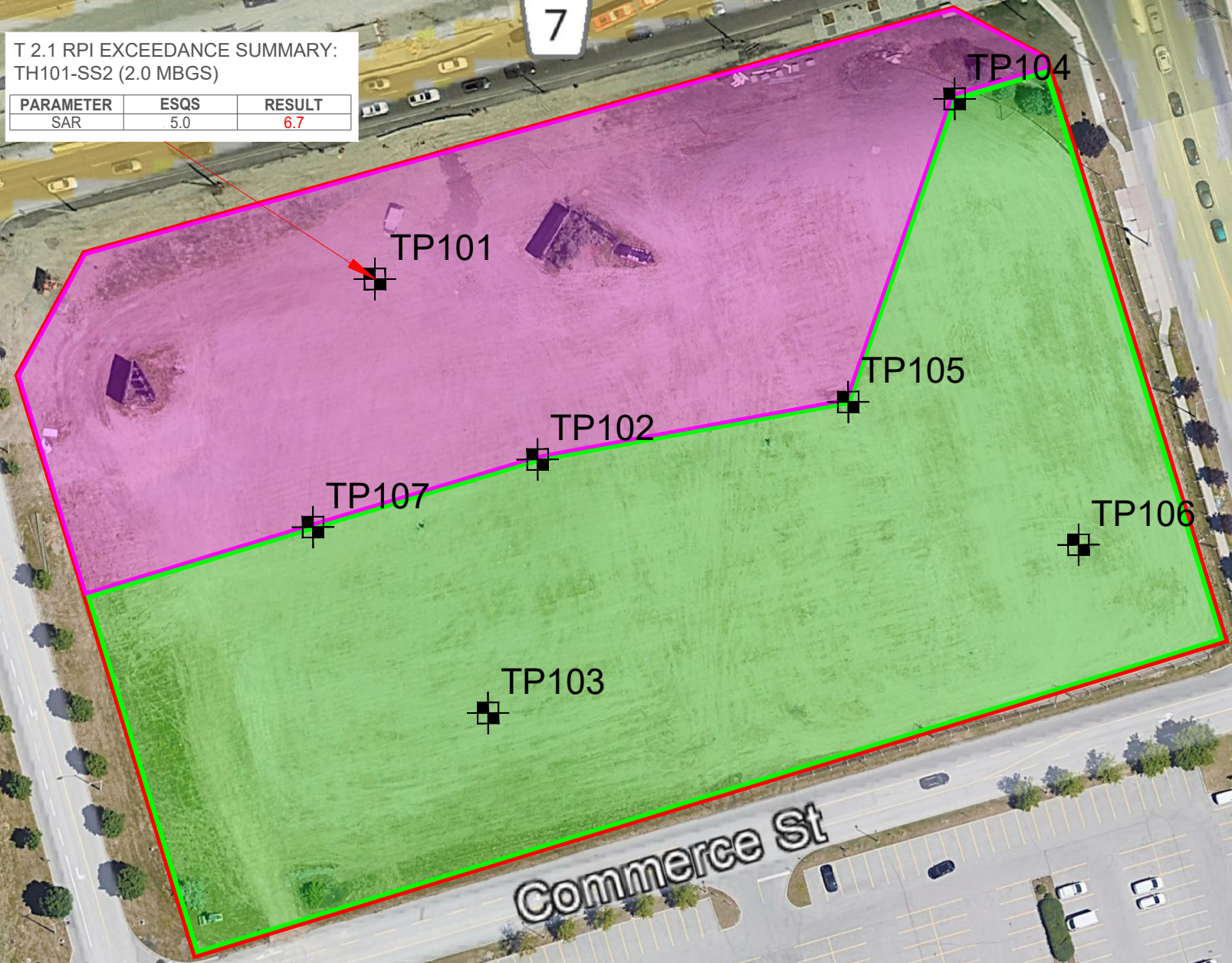
Distribution (via email):

1 cc: Domenico De Palma, 257090 Ontario Inc. (dd@whiterosepark.com)  
1 cc: Vittorio De Palma, 257090 Ontario Inc. (victor@whiterosepark.com)



T 2.1 RPI EXCEEDANCE SUMMARY:  
TH101-SS2 (2.0 MBGS)

PARAMETER	ESQS	RESULT
SAR	5.0	6.7



KEY PLAN  
VAUGHAN, ONTARIO

LEGEND:

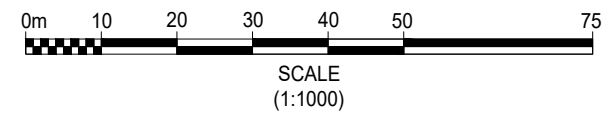
- TESTPIT LOCATION (EXP SERVICES INC.)
- APPROXIMATE SITE BOUNDARY

SOURCE OF EXCESS SOIL:

- APPROXIMATE EXCAVATION AREA LIMITS APPROVED FOR IMPORTATION TO WHITE ROSE RESIDENTIAL SUBDIVISION, PHASE 3, FROM DEPTHS 0 TO 3.0 m (APPROXIMATELY 12920 m<sup>2</sup>)
- APPROXIMATE AREA NOT SUITABLE FOR IMPORTATION TO WHITE ROSE RESIDENTIAL SUBDIVISION, PHASE 3, EXCEPT FOR USE WITHIN ROADWAYS OR AS SUBSURFACE FILL BELOW 1.5 M DEPTH (APPROXIMATELY 8850 m<sup>2</sup>)

REFERENCE:

PLAN PRODUCED FROM EXCESS SOIL SAMPLING PROGRAM FOR IMPORTATION TO THE ROADS AT WATERSANDS SUBDIVISION, CITY OF BARRIE AND TOWN OF INNSFIL - TEST PIT LOCATION PLAN, PREPARED BY EXP SERVICES INC., DRAWING NO. 1, DATED 06/2021.



EXCESS SOIL MANAGEMENT - SOURCE SITE REVIEW  
WHITE ROSE PARK SUBDIVISION  
DUNDALK, ONTARIO

SOURCE SITE PLAN: SOUTHWEST CORNER OF HIGHWAY 7  
AND INTERCHANGE WAY, VAUGHAN, ONTARIO



DRAWN	FH	DATE	SCALE	PML REF.	DRAWING NO.
CHECKED	SJ	OCT 2021	AS SHOWN	19KF007	1
APPROVED	SJ				





## **APPENDIX A**

### SOURCE SITE DATA



June 21, 2021

ConDrain Company Limited  
30 Floral Parkway, Suite 300  
Concord, Ontario  
L4K 4R1

Attention: Mr. Angelo Macchiusi

Re: GTR-00038035-00 Festival – Highway 7 and Interchange Way, Vaughan  
Excess Soil Sampling Program for Importation to the Roads at Watersands Subdivision,  
City of Barrie and Town of Innisfil

Dear Mr. Macchiusi:

EXP Services Inc. (EXP) was retained by ConDrain Company Limited (Client) to conduct a Soil Sampling Program at the property located at the southwest corner of Highway 7 and Interchange Way, Vaughan, Ontario (hereafter referred to as the “source site”). EXP understands that the Soil Sampling Program was required to determine the soil quality of the material at the source site for potential soil exportation to the reuse site (Roads at Watersands Subdivision, City of Barrie and Town of Innisfil; hereafter referred to as the “reuse site”). Based on EXP’s review of a Phase I Environmental Site Assessment (ESA) conducted by Golder Associated in August 2018 (Golder, 2018) from the City of Vaughan website, the site does not contain any areas of potential environmental concern (APECs) and as such, the sampling frequency and methodology was chosen at the discretion of the Qualified Person for Environmental Site Assessment (QPESA) in compliance with Ontario Regulation 406/19 as applicable in the calendar year 2021.

## 1 Scope of Work

EXP collected a total of twelve (12) soil samples from the seven (7) test pits at the source site for commonly found contaminants in soil. Based on a lack of APECs at the source site, the number of samples retrieved was deemed sufficient. Approximately 10,000 m<sup>3</sup> of soil is anticipated to be imported to the reuse site.

The soil samples were submitted to Bureau Veritas Labs (BV Labs), an accredited laboratory by the Standards Council of Canada/Canadian Association of Environmental Analytical Laboratories (Accredited Laboratory No.97) in accordance with ISO/IEC 17025:1999 – “General Requirements for the Competence of Testing and Calibration Laboratories” for one or more of the following analysis: Petroleum Hydrocarbons (PHCs), Benzene Toluene Ethylbenzene and Xylenes (BTEX), Metals and Inorganics, and Polycyclic Aromatic Hydrocarbons (PAHs) analysis.

## 2 Assessment Criteria

The assessment criteria, Site Condition Standards, established under subsection 168.4(1) of the Environmental Protection Act. Tabulated generic criteria are provided in “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act” (“the SGWS Standards”). The SGWS Standards specify SCS for soil, groundwater and sediment that are tabulated as follows:

Table 1 - applicable to sites where background concentrations must be met (full depth) such as sensitive sites where site-specific criteria have not been derived;

Table 2 - applicable to sites with potable groundwater and full depth restoration;

Table 3 - applicable to sites with non-potable groundwater and full depth restoration;

Table 4 - applicable to sites with potable groundwater and stratified restoration;

Table 5 - applicable to sites with non-potable groundwater and stratified restoration;

Table 6 - applicable to sites with less than 2 m of overburden above bedrock in a potable groundwater condition;

Table 7 - applicable to sites with less than 2 m of overburden above bedrock in non-potable groundwater condition;

Table 8 - applicable to sites within 30 m of a water body in a potable groundwater condition;

Table 9 - applicable to sites within 30 m of a water body in a non-potable groundwater condition

In addition, for the purposes of soil exportation, EXP also compared the analytical results against the generic Excess Soil Quality Standards (ESQS) as established under the Environmental Protection Act and presented in the document MECP "O. Reg 406/19: On-Site and Excess Soil Management" (MECP 2019). Tabulated background ESQS (Table 1) applicable to environmentally sensitive Sites and effects based generic ESQS (Tables 2.1 to 9.1) applicable to non-environmentally sensitive Sites are provided in the accompanying "Rules for Soil Management and Excess Soil Quality Standards" (MECP 2019) document. The effects based ESQS (Tables 2.1 to 9.1) are protective of human health and the environment for different groundwater conditions (potable and non-potable), land use scenarios (residential, parkland, institutional, commercial, industrial, community and agricultural/other), soil texture (coarse or medium/fine) and restoration depth (full or stratified).

Tables 1 to 9.1 of MECP (2019) are summarized as follows:

Table 1 – applicable to sites where background concentrations must be met (full depth), such as sensitive sites where site-specific criteria have not been derived;

Table 2.1 – applicable to sites with potable groundwater and full depth restoration;

Table 3.1 – applicable to sites with non-potable groundwater and full depth restoration;

Table 4.1 – applicable to sites with potable groundwater and stratified restoration;

Table 5.1 – applicable to sites with non-potable groundwater and stratified restoration;

Table 6.1 – applicable to sites with potable groundwater and shallow soils;

Table 7.1 – applicable to sites with non-potable groundwater and shallow soils;

Table 8.1 – applicable to sites with potable groundwater and that are within 30 m of a water body; and,

Table 9.1 – applicable to sites with non-potable groundwater and that are within 30 m of a water body.

Application of the generic or background ESQS to a specific site is based on a consideration of site conditions related to soil pH (i.e. surface and subsurface soil), thickness and extent of overburden material, (i.e. shallow soil conditions), and proximity to an area of environmental sensitivity or of natural significance.

For the purposes of soil exploration, EXP compared the tested soil samples with Table 2.1 SCS, for Industrial/Commercial/Community (ICC), in a coarse textured soil condition.

### 3 Methodology

The fieldwork of the Soil Sampling Program was conducted on June 7, 2021. Twelves (12) soil samples were collected from seven (7) test pits advanced with a contractor provided excavator at the source site, at approximately 0.3 metres below ground surface (m bgs) to 3.0 m bgs.

EXP staff documented the depth of soil sample collection, the total headspace reading in parts per million using an RKI Eagle 2, and recorded visual or olfactory observations of potential impacts. Dedicated nitrile gloves (i.e., one (1) pair per sample) were used during sample handling. No petroleum-based greases or solvents were used during the sampling program.

The soil samples were submitted for the following analysis: PHCs, BTEX, Metals and Inorganics, and PAHs analysis. No petroleum odor or staining was detected in the soil samples at the time of sampling.

The approximate location of each soil samples is shown on the Soil Sampling Plan (Figure 1) while field observations are summarized below.

Sample ID	Test Pit ID	Headspace Vapour Reading (ppmv)	Depth (m bgs)	Soil Type	Analysis
TH101-SS1	TP101	0	0.3	Brown/Dark Gray Sandy silt	PHCs, BTEX, Metals and Inorganics, and PAHs
TH101-SS2	TP101	0	2.0	Brown Sandy silt	PHCs, BTEX, Metals and Inorganics, and PAHs
TH102-SS1	TP102	0	3.0	Brown Sandy silt	PHCs, BTEX, Metals and Inorganics, and PAHs
TH103-SS1	TP103	0	0.3	Brown Sandy silt	PHCs, BTEX, Metals and Inorganics, and PAHs
TH103-SS2	TP103	0	2.0	Brown Sandy silt	PHCs, BTEX, Metals and Inorganics, and PAHs
TH104-SS1	TP104	0	0.3	Brown Sandy silt with gravel inclusion	PHCs, BTEX, Metals and Inorganics, and PAHs
TH104-SS2	TP104	0	2.0	Brown Sandy silt	PHCs, BTEX, Metals and Inorganics, and PAHs
TH105-SS1	TP105	0	0.3	Brown Sandy silt	PHCs, BTEX, Metals and Inorganics, and PAHs
TH105-SS2	TP105	0	2.0	Brown Sandy silt	PHCs, BTEX, Metals and Inorganics, and PAHs



Soil Sampling Program  
Festival – Highway 7 and Interchange Way, Vaughan  
GTR-00038035-00  
June 21, 2021

Sample ID	Test Pit ID	Headspace Vapour Reading (ppmv)	Depth (m bgs)	Soil Type	Analysis
TH106-SS1	TP106	10	0.3	Brown Sandy silt	PHCs, BTEX, Metals and Inorganics, and PAHs
TH106-SS2	TP106	0	2.0	Brown Sandy silt	PHCs, BTEX, Metals and Inorganics, and PAHs
TH107-SS1	TP107	0	3.0	Brown Sandy silt	PHCs, BTEX, Metals and Inorganics, and PAHs
TH1050-SS2	Duplicate of TH105-SS2	0	2.0	Brown Sandy silt	PHCs, BTEX, Metals and Inorganics, and PAHs

## 4 Analytical Results

In accordance with the scope of work, chemical analyses were performed on soil samples recovered at the selected depth. Soil analytical results are summarized, and the Certificates of Analysis are enclosed in Appendix A. The results of the soil samples compare to the applicable SCS are shown below.

Tables 2.1 ICC SCS				
Sample IDs	PHC	BTEX	Metals and Inorganics	PAHs
TH101-SS1	Pass	DL* of Benzene above Table 2.1	Pass	Pass
TH101-SS2	Pass	Pass	Pass	Pass
TH102-SS1	Pass	Pass	Pass	Pass
TH103-SS1	Pass	Pass	Pass	Pass
TH103-SS2	Pass	DL* of Benzene above Table 2.1	Pass	Pass
TH104-SS1	Pass	Pass	Pass	Pass
TH104-SS2	Pass	DL* of Benzene above Table 2.1	Pass	Pass
TH105-SS1	DL* of PHC F1 above Table 2.1 SCS	DLs* of Benzene, Ethylbenzene and Xylenes above Table 2.1	Pass	Pass
TH105-SS2	Pass	DL* of Benzene above Table 2.1	Pass	Pass
TH106-SS1	DL* of PHC F1 above Table 2.1 SCS	DLs* of Benzene, Ethylbenzene and Xylenes above Table 2.1	Pass	Pass
TH106-SS2	Pass	Pass	Pass	Pass

Sample IDs	Tables 2.1 ICC SCS			
	PHC	BTEX	Metals and Inorganics	PAHs
TH107-SS1	Pass	Pass	Pass	Pass
TH1050-SS2	Pass	DL* of Benzene above Table 2.1	Pass	Pass

\* DL(s) – Detection Limit(s)

The results indicate the following:

- When compared to Table 2.1 for Industrial/Commercial/Community (ICC) property uses, the analytical results of the tested parameters in the soil samples are within Table 2.1 ICC SCS, with exception of the detection limits of PHC F1, Ethylbenzene and Xylenes in TH105-SS1 and TH106-SS1; and detection limits of benzene in TH101-SS1, TH103-SS2, TH104-SS2, TH105-SS1, TH105-SS2, duplicate sample TH1050-SS2 and TH106-SS1.
- When compared to Tables 2 for Industrial/Commercial/Community (ICC) property uses, the analytical results of the tested parameters in the soil samples are within Table 2 ICC SCS.

The Certificate of Analysis is presented in the Appendix A.

## 5 Conclusion and Recommendations

Based on the findings of the Soil Sampling Program, the following summary can be provided:

- When compared to Tables 2.1 for Industrial/Commercial/Community (ICC) property uses, the analytical results of the tested parameters in the soil samples are within Table 2.1 ICC SCS, with exception of the detection limits of PHC F1, Ethylbenzene and Xylenes in TH105-SS1 and TH106-SS1; and detection limits of benzene in TH101-SS1, TH103-SS2, TH104-SS2, TH105-SS1, TH105-SS2, duplicate sample TH1050-SS2 and TH106-SS1.
- When compared to Tables 2 for Industrial/Commercial/Community (ICC) property uses, the analytical results of the tested parameters in the soil samples are within Table 2 ICC SCS.
- Based on the review of the Phase I ESA by Golder Associates (Golder, 2018) for the source site, there are APECs and no potential contaminants of concern (pCOCs) at the source site. In addition, the elevated detection limits are within Table 2 SCS. Therefore, the elevated detection limit are not considered exceedances in soil, and the material at the source site is acceptable for soil exportation to the reuse site.

EXP Services Inc.



Samuel Lee, P.Geo.  
 Senior Project Manager  
 Environmental Services



Ruxandra Côté, M.E.Sc.  
 Manager - Markham Environmental Services  
 Environmental Services

*Soil Sampling Program  
Festival – Highway 7 and Interchange Way, Vaughan  
GTR-00038035-00  
June 21, 2021*

## Attachments

Figure 1 – Soil Sampling Plan

Appendix A – Certificate of Analysis



## 6 References

1. Ministry of the Environment and Climate Change [MECP] (1996) Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario. Ontario Ministry of the Environment, December 1996.
2. MECP (2011a) Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. Ontario Ministry of the Environment, March 2004, amended as of July 1, 2011.
3. MECP (2011) Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. Ontario Ministry of the Environment, April 15, 20101.
4. Ontario Regulation 153/04 and Ontario Regulation 406/19, made under the Environmental Protection Act, May 2004, amended.
5. Golder Associates Inc., Phase One Environmental Site Assessment, Block 3 North, Part of Lot 5, Concession 5, designated as Part 1 on Draft Plan, Vaughan, Ontario, dated August 2018.

## Figure 1– Sampling Location Plan

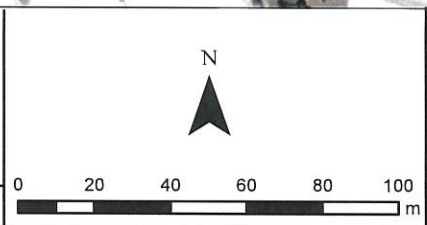




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 • INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY •



TITLE AND LOCATION:

**TEST PIT LOCATION PLAN**  
**Festival - Highway 7 and Interchange Way**  
**Vaughan, Ontario**

PROJECT No.	GTR-00038305-00	DWN	AC
SCALE	AS NOTED	CHKD	SL
DATE	MAY 2021	FIG. No.	1

## Appendix A – Certificate of Analysis





Your Project #: GTR-00038305-00  
Site Location: Highway 7 and Interchange Way  
Your C.O.C. #: 830822-01-01, 830822-02-01

**Attention: Samuel Lee**

exp Services Inc  
220 Commerce Valley Dr W  
Suite 500  
Markham, ON  
CANADA L3T 0A8

**Report Date: 2021/06/15**

Report #: R6677188

Version: 3 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1F6621**

**Received: 2021/06/08, 15:32**

Sample Matrix: Soil  
# Samples Received: 13

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	13	N/A	2021/06/14	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron	11	2021/06/10	2021/06/10	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	2	2021/06/11	2021/06/11	CAM SOP-00408	R153 Ana. Prot. 2011
Free (WAD) Cyanide	10	2021/06/10	2021/06/11	CAM SOP-00457	OMOE E3015 m
Free (WAD) Cyanide	3	2021/06/11	2021/06/11	CAM SOP-00457	OMOE E3015 m
Conductivity	13	2021/06/11	2021/06/11	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	13	2021/06/11	2021/06/11	CAM SOP-00436	EPA 3060/7199 m
Petroleum Hydro. CCME F1 & BTEX in Soil (2)	13	N/A	2021/06/14	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (3)	13	2021/06/10	2021/06/11	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	11	2021/06/10	2021/06/11	CAM SOP-00447	EPA 6020B m
Acid Extractable Metals by ICPMS	2	2021/06/11	2021/06/11	CAM SOP-00447	EPA 6020B m
Moisture	13	N/A	2021/06/09	CAM SOP-00445	Carter 2nd ed 51.2 m
PAH Compounds in Soil by GC/MS (SIM)	13	2021/06/10	2021/06/11	CAM SOP-00318	EPA 8270D m
pH CaCl2 EXTRACT	13	2021/06/11	2021/06/11	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	12	N/A	2021/06/14	CAM SOP-00102	EPA 6010C
Sodium Adsorption Ratio (SAR)	1	N/A	2021/06/15	CAM SOP-00102	EPA 6010C

**Remarks:**

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.



Your Project #: GTR-00038305-00  
Site Location: Highway 7 and Interchange Way  
Your C.O.C. #: 830822-01-01, 830822-02-01

**Attention: Samuel Lee**

exp Services Inc  
220 Commerce Valley Dr W  
Suite 500  
Markham, ON  
CANADA L3T 0A8

**Report Date: 2021/06/15**

Report #: R6677188

Version: 3 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C1F6621**

**Received: 2021/06/08, 15:32**

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Soils are reported on a dry weight basis unless otherwise specified.

(2) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.

(3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

**Encryption Key**

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Patricia Legette, Project Manager

Email: Patricia.Legette@bureauveritas.com

Phone# (905)817-5799

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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BV Labs Job #: C1F6621

Report Date: 2021/06/15

exp Services Inc

Client Project #: GTR-00038305-00

Site Location: Highway 7 and Interchange Way

Sampler Initials: JV

**O.REG 153 METALS & INORGANICS PKG (SOIL)**

BV Labs ID		PTY941		PTY942		PTY943		
Sampling Date		2021/06/07		2021/06/07		2021/06/07		
COC Number		830822-01-01		830822-01-01		830822-01-01		
	<b>UNITS</b>	<b>TH101-SS1</b>	<b>QC Batch</b>	<b>TH101-SS2</b>	<b>QC Batch</b>	<b>TH102-SS1</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Calculated Parameters</b>								
Sodium Adsorption Ratio	N/A	2.7	7397410	6.7	7397410	0.61		7397410
<b>Inorganics</b>								
Conductivity	mS/cm	0.47	7402251	0.34	7402251	0.26	0.002	7402496
Available (CaCl <sub>2</sub> ) pH	pH	7.51	7402672	7.60	7402449	7.84		7402449
WAD Cyanide (Free)	ug/g	<0.01	7400901	<0.01	7402311	<0.01	0.01	7402271
Chromium (VI)	ug/g	<0.18	7402549	<0.18	7402549	<0.18	0.18	7402549
<b>Metals</b>								
Hot Water Ext. Boron (B)	ug/g	0.60	7400861	0.085	7400861	0.10	0.050	7400861
Acid Extractable Antimony (Sb)	ug/g	<0.20	7400759	<0.20	7400759	<0.20	0.20	7400759
Acid Extractable Arsenic (As)	ug/g	2.9	7400759	2.5	7400759	1.9	1.0	7400759
Acid Extractable Barium (Ba)	ug/g	100	7400759	79	7400759	43	0.50	7400759
Acid Extractable Beryllium (Be)	ug/g	0.71	7400759	0.48	7400759	0.25	0.20	7400759
Acid Extractable Boron (B)	ug/g	7.7	7400759	5.4	7400759	<5.0	5.0	7400759
Acid Extractable Cadmium (Cd)	ug/g	0.18	7400759	<0.10	7400759	<0.10	0.10	7400759
Acid Extractable Chromium (Cr)	ug/g	25	7400759	23	7400759	9.9	1.0	7400759
Acid Extractable Cobalt (Co)	ug/g	9.7	7400759	8.4	7400759	4.1	0.10	7400759
Acid Extractable Copper (Cu)	ug/g	20	7400759	18	7400759	8.8	0.50	7400759
Acid Extractable Lead (Pb)	ug/g	15	7400759	8.1	7400759	4.1	1.0	7400759
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	7400759	<0.50	7400759	<0.50	0.50	7400759
Acid Extractable Nickel (Ni)	ug/g	22	7400759	20	7400759	8.3	0.50	7400759
Acid Extractable Selenium (Se)	ug/g	<0.50	7400759	<0.50	7400759	<0.50	0.50	7400759
Acid Extractable Silver (Ag)	ug/g	<0.20	7400759	<0.20	7400759	<0.20	0.20	7400759
Acid Extractable Thallium (Tl)	ug/g	0.17	7400759	0.13	7400759	0.067	0.050	7400759
Acid Extractable Uranium (U)	ug/g	0.58	7400759	0.57	7400759	0.36	0.050	7400759
Acid Extractable Vanadium (V)	ug/g	35	7400759	28	7400759	16	5.0	7400759
Acid Extractable Zinc (Zn)	ug/g	59	7400759	36	7400759	24	5.0	7400759
Acid Extractable Mercury (Hg)	ug/g	<0.050	7400759	<0.050	7400759	<0.050	0.050	7400759
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								





BV Labs Job #: C1F6621  
Report Date: 2021/06/15

exp Services Inc  
Client Project #: GTR-00038305-00  
Site Location: Highway 7 and Interchange Way  
Sampler Initials: JV

### O.REG 153 METALS & INORGANICS PKG (SOIL)

BV Labs ID		PTY944		PTY945		PTY946		
Sampling Date		2021/06/07		2021/06/07		2021/06/07		
COC Number		830822-01-01		830822-01-01		830822-01-01		
	UNITS	TH103-SS1	QC Batch	TH103-SS2	QC Batch	TH104-SS1	RDL	QC Batch
<b>Calculated Parameters</b>								
Sodium Adsorption Ratio	N/A	0.61	7397410	0.48	7397410	1.8		7397410
<b>Inorganics</b>								
Conductivity	mS/cm	0.20	7402496	0.22	7402251	0.34	0.002	7402789
Available (CaCl <sub>2</sub> ) pH	pH	7.70	7402449	7.70	7402449	7.66		7402449
WAD Cyanide (Free)	ug/g	<0.01	7401173	<0.01	7400901	<0.01	0.01	7400901
Chromium (VI)	ug/g	<0.18	7402549	<0.18	7402549	<0.18	0.18	7402549
<b>Metals</b>								
Hot Water Ext. Boron (B)	ug/g	0.11	7400861	0.14	7400861	0.15	0.050	7402565
Acid Extractable Antimony (Sb)	ug/g	<0.20	7400759	<0.20	7400759	<0.20	0.20	7402396
Acid Extractable Arsenic (As)	ug/g	1.9	7400759	2.9	7400759	2.8	1.0	7402396
Acid Extractable Barium (Ba)	ug/g	76	7400759	99	7400759	77	0.50	7402396
Acid Extractable Beryllium (Be)	ug/g	0.46	7400759	0.66	7400759	0.65	0.20	7402396
Acid Extractable Boron (B)	ug/g	6.4	7400759	10	7400759	7.0	5.0	7402396
Acid Extractable Cadmium (Cd)	ug/g	0.12	7400759	<0.10	7400759	0.11	0.10	7402396
Acid Extractable Chromium (Cr)	ug/g	18	7400759	25	7400759	24	1.0	7402396
Acid Extractable Cobalt (Co)	ug/g	6.9	7400759	9.8	7400759	9.2	0.10	7402396
Acid Extractable Copper (Cu)	ug/g	15	7400759	19	7400759	18	0.50	7402396
Acid Extractable Lead (Pb)	ug/g	7.7	7400759	10	7400759	11	1.0	7402396
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	7400759	<0.50	7400759	<0.50	0.50	7402396
Acid Extractable Nickel (Ni)	ug/g	16	7400759	24	7400759	23	0.50	7402396
Acid Extractable Selenium (Se)	ug/g	<0.50	7400759	<0.50	7400759	<0.50	0.50	7402396
Acid Extractable Silver (Ag)	ug/g	<0.20	7400759	<0.20	7400759	<0.20	0.20	7402396
Acid Extractable Thallium (Tl)	ug/g	0.14	7400759	0.20	7400759	0.17	0.050	7402396
Acid Extractable Uranium (U)	ug/g	0.50	7400759	0.59	7400759	0.55	0.050	7402396
Acid Extractable Vanadium (V)	ug/g	25	7400759	32	7400759	33	5.0	7402396
Acid Extractable Zinc (Zn)	ug/g	38	7400759	51	7400759	45	5.0	7402396
Acid Extractable Mercury (Hg)	ug/g	<0.050	7400759	<0.050	7400759	<0.050	0.050	7402396
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								



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Client Project #: GTR-00038305-00

Site Location: Highway 7 and Interchange Way

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**O.REG 153 METALS & INORGANICS PKG (SOIL)**

BV Labs ID		PTY947		PTY948		PTY949		
Sampling Date		2021/06/07		2021/06/07		2021/06/07		
COC Number		830822-01-01		830822-01-01		830822-01-01		
	<b>UNITS</b>	<b>TH104-SS2</b>	<b>QC Batch</b>	<b>TH105-SS1</b>	<b>QC Batch</b>	<b>TH105-SS2</b>	<b>RDL</b>	<b>QC Batch</b>

**Calculated Parameters**

Sodium Adsorption Ratio	N/A	0.54	7397410	0.55	7397410	0.55		7397410
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**Inorganics**

Conductivity	mS/cm	0.47	7402251	0.25	7402251	0.24	0.002	7402251
Available (CaCl <sub>2</sub> ) pH	pH	7.69	7402449	7.62	7402449	7.67		7402449
WAD Cyanide (Free)	ug/g	<0.01	7400901	<0.01	7402271	<0.01	0.01	7400901
Chromium (VI)	ug/g	<0.18	7402549	<0.18	7402549	<0.18	0.18	7402549

**Metals**

Hot Water Ext. Boron (B)	ug/g	0.055	7400861	<0.050	7400861	0.081	0.050	7400861
Acid Extractable Antimony (Sb)	ug/g	<0.20	7400759	<0.20	7400759	<0.20	0.20	7400759
Acid Extractable Arsenic (As)	ug/g	3.0	7400759	1.9	7400759	3.0	1.0	7400759
Acid Extractable Barium (Ba)	ug/g	71	7400759	62	7400759	75	0.50	7400759
Acid Extractable Beryllium (Be)	ug/g	0.53	7400759	0.44	7400759	0.42	0.20	7400759
Acid Extractable Boron (B)	ug/g	6.6	7400759	6.0	7400759	6.9	5.0	7400759
Acid Extractable Cadmium (Cd)	ug/g	<0.10	7400759	0.13	7400759	<0.10	0.10	7400759
Acid Extractable Chromium (Cr)	ug/g	18	7400759	17	7400759	18	1.0	7400759
Acid Extractable Cobalt (Co)	ug/g	9.4	7400759	6.5	7400759	6.8	0.10	7400759
Acid Extractable Copper (Cu)	ug/g	21	7400759	15	7400759	16	0.50	7400759
Acid Extractable Lead (Pb)	ug/g	13	7400759	7.4	7400759	8.7	1.0	7400759
Acid Extractable Molybdenum (Mo)	ug/g	0.80	7400759	<0.50	7400759	<0.50	0.50	7400759
Acid Extractable Nickel (Ni)	ug/g	24	7400759	15	7400759	16	0.50	7400759
Acid Extractable Selenium (Se)	ug/g	<0.50	7400759	<0.50	7400759	<0.50	0.50	7400759
Acid Extractable Silver (Ag)	ug/g	<0.20	7400759	<0.20	7400759	<0.20	0.20	7400759
Acid Extractable Thallium (Tl)	ug/g	0.17	7400759	0.11	7400759	0.12	0.050	7400759
Acid Extractable Uranium (U)	ug/g	0.69	7400759	0.48	7400759	0.57	0.050	7400759
Acid Extractable Vanadium (V)	ug/g	24	7400759	23	7400759	23	5.0	7400759
Acid Extractable Zinc (Zn)	ug/g	42	7400759	40	7400759	33	5.0	7400759
Acid Extractable Mercury (Hg)	ug/g	<0.050	7400759	<0.050	7400759	<0.050	0.050	7400759

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch



BV Labs Job #: C1F6621  
Report Date: 2021/06/15

exp Services Inc  
Client Project #: GTR-00038305-00  
Site Location: Highway 7 and Interchange Way  
Sampler Initials: JV

### O.REG 153 METALS & INORGANICS PKG (SOIL)

BV Labs ID		PTY949			PTY950			PTY950		
Sampling Date		2021/06/07			2021/06/07			2021/06/07		
COC Number		830822-01-01			830822-01-01			830822-01-01		
	UNITS	TH105-SS2 Lab-Dup	RDL	QC Batch	TH1050-SS2	RDL	QC Batch	TH1050-SS2 Lab-Dup	RDL	QC Batch

#### Calculated Parameters

Sodium Adsorption Ratio	N/A				0.41		7397410			
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#### Inorganics

Conductivity	mS/cm				0.23	0.002	7402496	0.26	0.002	7402496
Available (CaCl <sub>2</sub> ) pH	pH				7.71		7402449			
WAD Cyanide (Free)	ug/g				<0.01	0.01	7400901			
Chromium (VI)	ug/g				<0.18	0.18	7402549			

#### Metals

Hot Water Ext. Boron (B)	ug/g	0.088	0.050	7400861	<0.050	0.050	7400861			
Acid Extractable Antimony (Sb)	ug/g				<0.20	0.20	7400759			
Acid Extractable Arsenic (As)	ug/g				2.2	1.0	7400759			
Acid Extractable Barium (Ba)	ug/g				87	0.50	7400759			
Acid Extractable Beryllium (Be)	ug/g				0.47	0.20	7400759			
Acid Extractable Boron (B)	ug/g				6.7	5.0	7400759			
Acid Extractable Cadmium (Cd)	ug/g				0.12	0.10	7400759			
Acid Extractable Chromium (Cr)	ug/g				19	1.0	7400759			
Acid Extractable Cobalt (Co)	ug/g				8.5	0.10	7400759			
Acid Extractable Copper (Cu)	ug/g				17	0.50	7400759			
Acid Extractable Lead (Pb)	ug/g				8.5	1.0	7400759			
Acid Extractable Molybdenum (Mo)	ug/g				<0.50	0.50	7400759			
Acid Extractable Nickel (Ni)	ug/g				20	0.50	7400759			
Acid Extractable Selenium (Se)	ug/g				<0.50	0.50	7400759			
Acid Extractable Silver (Ag)	ug/g				<0.20	0.20	7400759			
Acid Extractable Thallium (Tl)	ug/g				0.14	0.050	7400759			
Acid Extractable Uranium (U)	ug/g				0.54	0.050	7400759			
Acid Extractable Vanadium (V)	ug/g				26	5.0	7400759			
Acid Extractable Zinc (Zn)	ug/g				40	5.0	7400759			
Acid Extractable Mercury (Hg)	ug/g				<0.050	0.050	7400759			

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate



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Report Date: 2021/06/15

exp Services Inc

Client Project #: GTR-00038305-00

Site Location: Highway 7 and Interchange Way

Sampler Initials: JV

**O.REG 153 METALS & INORGANICS PKG (SOIL)**

BV Labs ID		PTY951		PTY952		PTY953		
Sampling Date		2021/06/07		2021/06/07		2021/06/07		
COC Number		830822-02-01		830822-02-01		830822-02-01		
	<b>UNITS</b>	<b>TH106-SS1</b>	<b>QC Batch</b>	<b>TH106-SS2</b>	<b>QC Batch</b>	<b>TH107-SS1</b>	<b>RDL</b>	<b>QC Batch</b>

**Calculated Parameters**

Sodium Adsorption Ratio	N/A	1.0	7397410	0.46	7397410	1.4		7397410
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**Inorganics**

Conductivity	mS/cm	0.20	7402500	0.17	7402262	0.36	0.002	7402496
Available (CaCl2) pH	pH	7.48	7402449	7.73	7402449	7.65		7402449
WAD Cyanide (Free)	ug/g	<0.01	7400901	<0.01	7400901	<0.01	0.01	7400901
Chromium (VI)	ug/g	<0.18	7402549	<0.18	7402549	<0.18	0.18	7402276

**Metals**

Hot Water Ext. Boron (B)	ug/g	0.18	7402344	<0.050	7400861	0.11	0.050	7400861
Acid Extractable Antimony (Sb)	ug/g	<0.20	7402396	<0.20	7400759	<0.20	0.20	7400759
Acid Extractable Arsenic (As)	ug/g	3.0	7402396	2.3	7400759	2.1	1.0	7400759
Acid Extractable Barium (Ba)	ug/g	140	7402396	66	7400759	59	0.50	7400759
Acid Extractable Beryllium (Be)	ug/g	0.83	7402396	0.39	7400759	0.42	0.20	7400759
Acid Extractable Boron (B)	ug/g	9.3	7402396	6.1	7400759	6.4	5.0	7400759
Acid Extractable Cadmium (Cd)	ug/g	0.15	7402396	0.11	7400759	<0.10	0.10	7400759
Acid Extractable Chromium (Cr)	ug/g	29	7402396	15	7400759	16	1.0	7400759
Acid Extractable Cobalt (Co)	ug/g	12	7402396	6.5	7400759	7.2	0.10	7400759
Acid Extractable Copper (Cu)	ug/g	23	7402396	14	7400759	16	0.50	7400759
Acid Extractable Lead (Pb)	ug/g	11	7402396	6.7	7400759	7.0	1.0	7400759
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	7402396	<0.50	7400759	<0.50	0.50	7400759
Acid Extractable Nickel (Ni)	ug/g	27	7402396	15	7400759	17	0.50	7400759
Acid Extractable Selenium (Se)	ug/g	<0.50	7402396	<0.50	7400759	<0.50	0.50	7400759
Acid Extractable Silver (Ag)	ug/g	<0.20	7402396	<0.20	7400759	<0.20	0.20	7400759
Acid Extractable Thallium (Tl)	ug/g	0.18	7402396	0.13	7400759	0.13	0.050	7400759
Acid Extractable Uranium (U)	ug/g	0.62	7402396	0.51	7400759	0.49	0.050	7400759
Acid Extractable Vanadium (V)	ug/g	39	7402396	22	7400759	24	5.0	7400759
Acid Extractable Zinc (Zn)	ug/g	55	7402396	37	7400759	38	5.0	7400759
Acid Extractable Mercury (Hg)	ug/g	<0.050	7402396	<0.050	7400759	<0.050	0.050	7400759

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

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BV Labs Job #: C1F6621

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Sampler Initials: JV

**O.REG 153 PAHS (SOIL)**

BV Labs ID		PTY941	PTY942	PTY943	PTY944			PTY944		
Sampling Date		2021/06/07	2021/06/07	2021/06/07	2021/06/07			2021/06/07		
COC Number		830822-01-01	830822-01-01	830822-01-01	830822-01-01			830822-01-01		
	<b>UNITS</b>	<b>TH101-SS1</b>	<b>TH101-SS2</b>	<b>TH102-SS1</b>	<b>TH103-SS1</b>	<b>RDL</b>	<b>QC Batch</b>	<b>TH103-SS1 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>

**Calculated Parameters**

Methylnaphthalene, 2-(1-)	ug/g	<0.0071	<0.0071	<0.0071	<0.0071	0.0071	7397411			
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**Polyaromatic Hydrocarbons**

Acenaphthene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346	<0.0050	0.0050	7401346
Acenaphthylene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346	<0.0050	0.0050	7401346
Anthracene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346	<0.0050	0.0050	7401346
Benzo(a)anthracene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346	<0.0050	0.0050	7401346
Benzo(a)pyrene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346	<0.0050	0.0050	7401346
Benzo(b,j)fluoranthene	ug/g	0.0082	<0.0050	<0.0050	<0.0050	0.0050	7401346	<0.0050	0.0050	7401346
Benzo(g,h,i)perylene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346	<0.0050	0.0050	7401346
Benzo(k)fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346	<0.0050	0.0050	7401346
Chrysene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346	<0.0050	0.0050	7401346
Dibenzo(a,h)anthracene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346	<0.0050	0.0050	7401346
Fluoranthene	ug/g	0.0075	<0.0050	<0.0050	<0.0050	0.0050	7401346	<0.0050	0.0050	7401346
Fluorene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346	<0.0050	0.0050	7401346
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346	<0.0050	0.0050	7401346
1-Methylnaphthalene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346	<0.0050	0.0050	7401346
2-Methylnaphthalene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346	<0.0050	0.0050	7401346
Naphthalene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346	<0.0050	0.0050	7401346
Phenanthrene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346	<0.0050	0.0050	7401346
Pyrene	ug/g	0.0060	<0.0050	<0.0050	<0.0050	0.0050	7401346	<0.0050	0.0050	7401346

**Surrogate Recovery (%)**

D10-Anthracene	%	90	90	90	90		7401346	84		7401346
D14-Terphenyl (FS)	%	88	88	88	89		7401346	84		7401346
D8-Acenaphthylene	%	91	85	87	89		7401346	80		7401346

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate



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BV Labs Job #: C1F6621

Report Date: 2021/06/15

exp Services Inc

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Sampler Initials: JV

**O.REG 153 PAHS (SOIL)**

BV Labs ID		PTY945	PTY946	PTY947	PTY948	PTY949	PTY950		
Sampling Date		2021/06/07	2021/06/07	2021/06/07	2021/06/07	2021/06/07	2021/06/07		
COC Number		830822-01-01	830822-01-01	830822-01-01	830822-01-01	830822-01-01	830822-01-01		
	<b>UNITS</b>	<b>TH103-SS2</b>	<b>TH104-SS1</b>	<b>TH104-SS2</b>	<b>TH105-SS1</b>	<b>TH105-SS2</b>	<b>TH1050-SS2</b>	<b>RDL</b>	<b>QC Batch</b>

**Calculated Parameters**

Methylnaphthalene, 2-(1-)	ug/g	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	0.0071	7397411
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**Polyaromatic Hydrocarbons**

Acenaphthene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346
Acenaphthylene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346
Anthracene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346
Benzo(a)anthracene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346
Benzo(a)pyrene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346
Benzo(b,j)fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346
Benzo(g,h,i)perylene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346
Benzo(k)fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346
Chrysene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346
Dibenzo(a,h)anthracene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346
Fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346
Fluorene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346
1-Methylnaphthalene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346
2-Methylnaphthalene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346
Naphthalene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346
Phenanthrene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346
Pyrene	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	7401346

**Surrogate Recovery (%)**

D10-Anthracene	%	90	92	90	91	88	91		7401346
D14-Terphenyl (FS)	%	87	89	87	87	88	89		7401346
D8-Acenaphthylene	%	86	90	87	89	87	85		7401346

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch



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Sampler Initials: JV

### O.REG 153 PAHS (SOIL)

BV Labs ID		PTY951	PTY952	PTY953		
Sampling Date		2021/06/07	2021/06/07	2021/06/07		
COC Number		830822-02-01	830822-02-01	830822-02-01		
	UNITS	TH106-SS1	TH106-SS2	TH107-SS1	RDL	QC Batch
<b>Calculated Parameters</b>						
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	<0.0071	<0.0071	0.0071	7397411
<b>Polyaromatic Hydrocarbons</b>						
Acenaphthene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	7401346
Acenaphthylene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	7401346
Anthracene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	7401346
Benzo(a)anthracene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	7401346
Benzo(a)pyrene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	7401346
Benzo(b/j)fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	7401346
Benzo(g,h,i)perylene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	7401346
Benzo(k)fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	7401346
Chrysene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	7401346
Dibenzo(a,h)anthracene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	7401346
Fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	7401346
Fluorene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	7401346
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	7401346
1-Methylnaphthalene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	7401346
2-Methylnaphthalene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	7401346
Naphthalene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	7401346
Phenanthrene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	7401346
Pyrene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	7401346
<b>Surrogate Recovery (%)</b>						
D10-Anthracene	%	88	90	93		7401346
D14-Terphenyl (FS)	%	87	86	92		7401346
D8-Acenaphthylene	%	82	85	86		7401346
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						

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**O.REG 153 PHCS, BTEX/F1-F4 (SOIL)**

BV Labs ID		PTY941		PTY942			PTY942		
Sampling Date		2021/06/07		2021/06/07			2021/06/07		
COC Number		830822-01-01		830822-01-01			830822-01-01		
	<b>UNITS</b>	<b>TH101-SS1</b>	<b>RDL</b>	<b>TH101-SS2</b>	<b>RDL</b>	<b>QC Batch</b>	<b>TH101-SS2 Lab-Dup</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Inorganics</b>									
Moisture	%	15	1.0	16	1.0	7398952			
<b>BTEX &amp; F1 Hydrocarbons</b>									
Benzene	ug/g	<0.040	0.040	<0.020	0.020	7405071	<0.020	0.020	7405071
Toluene	ug/g	<0.040	0.040	<0.020	0.020	7405071	<0.020	0.020	7405071
Ethylbenzene	ug/g	<0.040	0.040	<0.020	0.020	7405071	<0.020	0.020	7405071
o-Xylene	ug/g	<0.040	0.040	<0.020	0.020	7405071	<0.020	0.020	7405071
p+m-Xylene	ug/g	<0.080	0.080	<0.040	0.040	7405071	<0.040	0.040	7405071
Total Xylenes	ug/g	<0.080	0.080	<0.040	0.040	7405071	<0.040	0.040	7405071
F1 (C6-C10)	ug/g	<20	20	<10	10	7405071	<10	10	7405071
F1 (C6-C10) - BTEX	ug/g	<20	20	<10	10	7405071	<10	10	7405071
<b>F2-F4 Hydrocarbons</b>									
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	<10	10	7401302			
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	<50	50	7401302			
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	<50	50	7401302			
Reached Baseline at C50	ug/g	Yes		Yes		7401302			
<b>Surrogate Recovery (%)</b>									
1,4-Difluorobenzene	%	99		99		7405071	98		7405071
4-Bromofluorobenzene	%	93		95		7405071	95		7405071
D10-o-Xylene	%	80		89		7405071	92		7405071
D4-1,2-Dichloroethane	%	89		89		7405071	90		7405071
o-Terphenyl	%	97		95		7401302			
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									
Lab-Dup = Laboratory Initiated Duplicate									



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Report Date: 2021/06/15

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Client Project #: GTR-00038305-00

Site Location: Highway 7 and Interchange Way

Sampler Initials: JV

**O.REG 153 PHCS, BTEX/F1-F4 (SOIL)**

BV Labs ID		PTY943	PTY944		PTY945		PTY946		PTY947		
Sampling Date		2021/06/07	2021/06/07		2021/06/07		2021/06/07		2021/06/07		
COC Number		830822-01-01	830822-01-01		830822-01-01		830822-01-01		830822-01-01		
	<b>UNITS</b>	<b>TH102-SS1</b>	<b>TH103-SS1</b>	<b>RDL</b>	<b>TH103-SS2</b>	<b>RDL</b>	<b>TH104-SS1</b>	<b>RDL</b>	<b>TH104-SS2</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Inorganics</b>											
Moisture	%	7.8	10	1.0	14	1.0	11	1.0	17	1.0	7398952
<b>BTEX &amp; F1 Hydrocarbons</b>											
Benzene	ug/g	<0.020	<0.020	0.020	<0.040	0.040	<0.020	0.020	<0.040	0.040	7405071
Toluene	ug/g	<0.020	<0.020	0.020	<0.040	0.040	<0.020	0.020	<0.040	0.040	7405071
Ethylbenzene	ug/g	<0.020	<0.020	0.020	<0.040	0.040	<0.020	0.020	<0.040	0.040	7405071
o-Xylene	ug/g	<0.020	<0.020	0.020	<0.040	0.040	<0.020	0.020	<0.040	0.040	7405071
p+m-Xylene	ug/g	<0.040	<0.040	0.040	<0.080	0.080	<0.040	0.040	<0.080	0.080	7405071
Total Xylenes	ug/g	<0.040	<0.040	0.040	<0.080	0.080	<0.040	0.040	<0.080	0.080	7405071
F1 (C6-C10)	ug/g	<10	<10	10	<20	20	<10	10	<20	20	7405071
F1 (C6-C10) - BTEX	ug/g	<10	<10	10	<20	20	<10	10	<20	20	7405071
<b>F2-F4 Hydrocarbons</b>											
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	10	<10	10	<10	10	<10	10	7401302
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	50	<50	50	<50	50	<50	50	7401302
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	50	<50	50	<50	50	<50	50	7401302
Reached Baseline at C50	ug/g	Yes	Yes		Yes		Yes		Yes		7401302
<b>Surrogate Recovery (%)</b>											
1,4-Difluorobenzene	%	101	99		99		99		100		7405071
4-Bromofluorobenzene	%	94	92		93		93		94		7405071
D10-o-Xylene	%	93	90		89		89		87		7405071
D4-1,2-Dichloroethane	%	91	93		91		91		93		7405071
o-Terphenyl	%	98	97		100		96		96		7401302
RDL = Reportable Detection Limit											
QC Batch = Quality Control Batch											



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Client Project #: GTR-00038305-00

Site Location: Highway 7 and Interchange Way

Sampler Initials: JV

**O.REG 153 PHCS, BTEX/F1-F4 (SOIL)**

BV Labs ID		PTY948		PTY949	PTY950		PTY951		PTY952		
Sampling Date		2021/06/07		2021/06/07	2021/06/07		2021/06/07		2021/06/07		
COC Number		830822-01-01		830822-01-01	830822-01-01		830822-02-01		830822-02-01		
	<b>UNITS</b>	<b>TH105-SS1</b>	<b>RDL</b>	<b>TH105-SS2</b>	<b>TH1050-SS2</b>	<b>RDL</b>	<b>TH106-SS1</b>	<b>RDL</b>	<b>TH106-SS2</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Inorganics</b>											
Moisture	%	11	1.0	14	16	1.0	28	1.0	11	1.0	7398952
<b>BTEX &amp; F1 Hydrocarbons</b>											
Benzene	ug/g	<0.060	0.060	<0.040	<0.040	0.040	<0.060	0.060	<0.020	0.020	7405071
Toluene	ug/g	<0.060	0.060	<0.040	<0.040	0.040	<0.060	0.060	<0.020	0.020	7405071
Ethylbenzene	ug/g	<0.060	0.060	<0.040	<0.040	0.040	<0.060	0.060	<0.020	0.020	7405071
o-Xylene	ug/g	<0.060	0.060	<0.040	<0.040	0.040	<0.060	0.060	<0.020	0.020	7405071
p+m-Xylene	ug/g	<0.12	0.12	<0.080	<0.080	0.080	<0.12	0.12	<0.040	0.040	7405071
Total Xylenes	ug/g	<0.12	0.12	<0.080	<0.080	0.080	<0.12	0.12	<0.040	0.040	7405071
F1 (C6-C10)	ug/g	<30	30	<20	<20	20	<30	30	<10	10	7405071
F1 (C6-C10) - BTEX	ug/g	<30	30	<20	<20	20	<30	30	<10	10	7405071
<b>F2-F4 Hydrocarbons</b>											
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	<10	<10	10	<10	10	<10	10	7401302
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	<50	<50	50	<50	50	<50	50	7401302
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	<50	<50	50	<50	50	<50	50	7401302
Reached Baseline at C50	ug/g	Yes		Yes	Yes		Yes		Yes		7401302
<b>Surrogate Recovery (%)</b>											
1,4-Difluorobenzene	%	98		100	99		99		101		7405071
4-Bromofluorobenzene	%	93		93	93		91		95		7405071
D10-o-Xylene	%	82		93	89		97		101		7405071
D4-1,2-Dichloroethane	%	90		90	90		89		90		7405071
o-Terphenyl	%	99		93	97		100		99		7401302
RDL = Reportable Detection Limit											
QC Batch = Quality Control Batch											



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Sampler Initials: JV

### O.REG 153 PHCS, BTEX/F1-F4 (SOIL)

BV Labs ID		PTY953		
Sampling Date		2021/06/07		
COC Number		830822-02-01		
	UNITS	TH107-SS1	RDL	QC Batch
<b>Inorganics</b>				
Moisture	%	14	1.0	7398952
<b>BTEX &amp; F1 Hydrocarbons</b>				
Benzene	ug/g	<0.020	0.020	7405071
Toluene	ug/g	<0.020	0.020	7405071
Ethylbenzene	ug/g	<0.020	0.020	7405071
o-Xylene	ug/g	<0.020	0.020	7405071
p+m-Xylene	ug/g	<0.040	0.040	7405071
Total Xylenes	ug/g	<0.040	0.040	7405071
F1 (C6-C10)	ug/g	<10	10	7405071
F1 (C6-C10) - BTEX	ug/g	<10	10	7405071
<b>F2-F4 Hydrocarbons</b>				
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	7401302
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	7401302
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	7401302
Reached Baseline at C50	ug/g	Yes		7401302
<b>Surrogate Recovery (%)</b>				
1,4-Difluorobenzene	%	100		7405071
4-Bromofluorobenzene	%	93		7405071
D10-o-Xylene	%	96		7405071
D4-1,2-Dichloroethane	%	90		7405071
o-Terphenyl	%	98		7401302
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				

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BV Labs Job #: C1F6621

Report Date: 2021/06/15

exp Services Inc

Client Project #: GTR-00038305-00

Site Location: Highway 7 and Interchange Way

Sampler Initials: JV

## TEST SUMMARY

**BV Labs ID:** PTY941  
**Sample ID:** TH101-SS1  
**Matrix:** Soil

**Collected:** 2021/06/07  
**Shipped:**  
**Received:** 2021/06/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	7397411	N/A	2021/06/14	Automated Statchk
Hot Water Extractable Boron	ICP	7400861	2021/06/10	2021/06/10	Medhat Nasr
Free (WAD) Cyanide	TECH	7400901	2021/06/10	2021/06/11	Louise Harding
Conductivity	AT	7402251	2021/06/11	2021/06/11	Khushbu Vijay kumar Patel
Hexavalent Chromium in Soil by IC	IC/SPEC	7402549	2021/06/11	2021/06/11	Violeta Porcila
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7405071	N/A	2021/06/14	Domnica Andronesco
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7401302	2021/06/10	2021/06/11	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	7400759	2021/06/10	2021/06/11	Daniel Teclu
Moisture	BAL	7398952	N/A	2021/06/09	Gurpreet Kaur (ONT)
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	7401346	2021/06/10	2021/06/11	Mitesh Raj
pH CaCl2 EXTRACT	AT	7402672	2021/06/11	2021/06/11	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	7397410	N/A	2021/06/14	Automated Statchk

**BV Labs ID:** PTY942  
**Sample ID:** TH101-SS2  
**Matrix:** Soil

**Collected:** 2021/06/07  
**Shipped:**  
**Received:** 2021/06/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	7397411	N/A	2021/06/14	Automated Statchk
Hot Water Extractable Boron	ICP	7400861	2021/06/10	2021/06/10	Medhat Nasr
Free (WAD) Cyanide	TECH	7402311	2021/06/11	2021/06/11	Aditiben Patel
Conductivity	AT	7402251	2021/06/11	2021/06/11	Khushbu Vijay kumar Patel
Hexavalent Chromium in Soil by IC	IC/SPEC	7402549	2021/06/11	2021/06/11	Violeta Porcila
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7405071	N/A	2021/06/14	Domnica Andronesco
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7401302	2021/06/10	2021/06/11	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	7400759	2021/06/10	2021/06/11	Daniel Teclu
Moisture	BAL	7398952	N/A	2021/06/09	Gurpreet Kaur (ONT)
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	7401346	2021/06/10	2021/06/11	Mitesh Raj
pH CaCl2 EXTRACT	AT	7402449	2021/06/11	2021/06/11	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	7397410	N/A	2021/06/14	Automated Statchk

**BV Labs ID:** PTY942 Dup  
**Sample ID:** TH101-SS2  
**Matrix:** Soil

**Collected:** 2021/06/07  
**Shipped:**  
**Received:** 2021/06/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7405071	N/A	2021/06/14	Domnica Andronesco

**BV Labs ID:** PTY943  
**Sample ID:** TH102-SS1  
**Matrix:** Soil

**Collected:** 2021/06/07  
**Shipped:**  
**Received:** 2021/06/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	7397411	N/A	2021/06/14	Automated Statchk



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BV Labs Job #: C1F6621

Report Date: 2021/06/15

exp Services Inc

Client Project #: GTR-00038305-00

Site Location: Highway 7 and Interchange Way

Sampler Initials: JV

## TEST SUMMARY

**BV Labs ID:** PTY943  
**Sample ID:** TH102-SS1  
**Matrix:** Soil

**Collected:** 2021/06/07  
**Shipped:**  
**Received:** 2021/06/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	7400861	2021/06/10	2021/06/10	Medhat Nasr
Free (WAD) Cyanide	TECH	7402271	2021/06/11	2021/06/11	Aditiben Patel
Conductivity	AT	7402496	2021/06/11	2021/06/11	Khushbu Vijay kumar Patel
Hexavalent Chromium in Soil by IC	IC/SPEC	7402549	2021/06/11	2021/06/11	Violeta Porcila
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7405071	N/A	2021/06/14	Domnica Andronesco
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7401302	2021/06/10	2021/06/11	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	7400759	2021/06/10	2021/06/11	Daniel Teclu
Moisture	BAL	7398952	N/A	2021/06/09	Gurpreet Kaur (ONT)
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	7401346	2021/06/10	2021/06/11	Mitesh Raj
pH CaCl2 EXTRACT	AT	7402449	2021/06/11	2021/06/11	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	7397410	N/A	2021/06/14	Automated Statchk

**BV Labs ID:** PTY944  
**Sample ID:** TH103-SS1  
**Matrix:** Soil

**Collected:** 2021/06/07  
**Shipped:**  
**Received:** 2021/06/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	7397411	N/A	2021/06/14	Automated Statchk
Hot Water Extractable Boron	ICP	7400861	2021/06/10	2021/06/10	Medhat Nasr
Free (WAD) Cyanide	TECH	7401173	2021/06/10	2021/06/11	Aditiben Patel
Conductivity	AT	7402496	2021/06/11	2021/06/11	Khushbu Vijay kumar Patel
Hexavalent Chromium in Soil by IC	IC/SPEC	7402549	2021/06/11	2021/06/11	Violeta Porcila
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7405071	N/A	2021/06/14	Domnica Andronesco
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7401302	2021/06/10	2021/06/11	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	7400759	2021/06/10	2021/06/11	Daniel Teclu
Moisture	BAL	7398952	N/A	2021/06/09	Gurpreet Kaur (ONT)
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	7401346	2021/06/10	2021/06/11	Mitesh Raj
pH CaCl2 EXTRACT	AT	7402449	2021/06/11	2021/06/11	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	7397410	N/A	2021/06/14	Automated Statchk

**BV Labs ID:** PTY944 Dup  
**Sample ID:** TH103-SS1  
**Matrix:** Soil

**Collected:** 2021/06/07  
**Shipped:**  
**Received:** 2021/06/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	7401346	2021/06/10	2021/06/11	Mitesh Raj

**BV Labs ID:** PTY945  
**Sample ID:** TH103-SS2  
**Matrix:** Soil

**Collected:** 2021/06/07  
**Shipped:**  
**Received:** 2021/06/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	7397411	N/A	2021/06/14	Automated Statchk
Hot Water Extractable Boron	ICP	7400861	2021/06/10	2021/06/10	Medhat Nasr



BV Labs Job #: C1F6621  
Report Date: 2021/06/15

exp Services Inc  
Client Project #: GTR-00038305-00  
Site Location: Highway 7 and Interchange Way  
Sampler Initials: JV

## TEST SUMMARY

**BV Labs ID:** PTY945  
**Sample ID:** TH103-SS2  
**Matrix:** Soil

**Collected:** 2021/06/07  
**Shipped:**  
**Received:** 2021/06/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	7400901	2021/06/10	2021/06/11	Louise Harding
Conductivity	AT	7402251	2021/06/11	2021/06/11	Khushbu Vijay kumar Patel
Hexavalent Chromium in Soil by IC	IC/SPEC	7402549	2021/06/11	2021/06/11	Violeta Porcila
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7405071	N/A	2021/06/14	Domnica Andronesco
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7401302	2021/06/10	2021/06/11	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	7400759	2021/06/10	2021/06/11	Daniel Teclu
Moisture	BAL	7398952	N/A	2021/06/09	Gurpreet Kaur (ONT)
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	7401346	2021/06/10	2021/06/11	Mitesh Raj
pH CaCl2 EXTRACT	AT	7402449	2021/06/11	2021/06/11	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	7397410	N/A	2021/06/14	Automated Statchk

**BV Labs ID:** PTY946  
**Sample ID:** TH104-SS1  
**Matrix:** Soil

**Collected:** 2021/06/07  
**Shipped:**  
**Received:** 2021/06/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	7397411	N/A	2021/06/14	Automated Statchk
Hot Water Extractable Boron	ICP	7402565	2021/06/11	2021/06/11	Medhat Nasr
Free (WAD) Cyanide	TECH	7400901	2021/06/10	2021/06/11	Louise Harding
Conductivity	AT	7402789	2021/06/11	2021/06/11	Khushbu Vijay kumar Patel
Hexavalent Chromium in Soil by IC	IC/SPEC	7402549	2021/06/11	2021/06/11	Violeta Porcila
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7405071	N/A	2021/06/14	Domnica Andronesco
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7401302	2021/06/10	2021/06/11	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	7402396	2021/06/11	2021/06/11	Viviana Canzonieri
Moisture	BAL	7398952	N/A	2021/06/09	Gurpreet Kaur (ONT)
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	7401346	2021/06/10	2021/06/11	Mitesh Raj
pH CaCl2 EXTRACT	AT	7402449	2021/06/11	2021/06/11	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	7397410	N/A	2021/06/14	Automated Statchk

**BV Labs ID:** PTY947  
**Sample ID:** TH104-SS2  
**Matrix:** Soil

**Collected:** 2021/06/07  
**Shipped:**  
**Received:** 2021/06/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	7397411	N/A	2021/06/14	Automated Statchk
Hot Water Extractable Boron	ICP	7400861	2021/06/10	2021/06/10	Medhat Nasr
Free (WAD) Cyanide	TECH	7400901	2021/06/10	2021/06/11	Louise Harding
Conductivity	AT	7402251	2021/06/11	2021/06/11	Khushbu Vijay kumar Patel
Hexavalent Chromium in Soil by IC	IC/SPEC	7402549	2021/06/11	2021/06/11	Violeta Porcila
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7405071	N/A	2021/06/14	Domnica Andronesco
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7401302	2021/06/10	2021/06/11	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	7400759	2021/06/10	2021/06/11	Daniel Teclu
Moisture	BAL	7398952	N/A	2021/06/09	Gurpreet Kaur (ONT)
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	7401346	2021/06/10	2021/06/11	Mitesh Raj





BV Labs Job #: C1F6621  
Report Date: 2021/06/15

exp Services Inc  
Client Project #: GTR-00038305-00  
Site Location: Highway 7 and Interchange Way  
Sampler Initials: JV

## TEST SUMMARY

**BV Labs ID:** PTY947  
**Sample ID:** TH104-SS2  
**Matrix:** Soil

**Collected:** 2021/06/07  
**Shipped:**  
**Received:** 2021/06/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH CaCl2 EXTRACT	AT	7402449	2021/06/11	2021/06/11	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	7397410	N/A	2021/06/14	Automated Statchk

**BV Labs ID:** PTY948  
**Sample ID:** TH105-SS1  
**Matrix:** Soil

**Collected:** 2021/06/07  
**Shipped:**  
**Received:** 2021/06/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	7397411	N/A	2021/06/14	Automated Statchk
Hot Water Extractable Boron	ICP	7400861	2021/06/10	2021/06/10	Medhat Nasr
Free (WAD) Cyanide	TECH	7402271	2021/06/11	2021/06/11	Aditiben Patel
Conductivity	AT	7402251	2021/06/11	2021/06/11	Khushbu Vijay kumar Patel
Hexavalent Chromium in Soil by IC	IC/SPEC	7402549	2021/06/11	2021/06/11	Violeta Porcila
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7405071	N/A	2021/06/14	Domnica Andronesco
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7401302	2021/06/10	2021/06/11	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	7400759	2021/06/10	2021/06/11	Daniel Teclu
Moisture	BAL	7398952	N/A	2021/06/09	Gurpreet Kaur (ONT)
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	7401346	2021/06/10	2021/06/11	Mitesh Raj
pH CaCl2 EXTRACT	AT	7402449	2021/06/11	2021/06/11	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	7397410	N/A	2021/06/14	Automated Statchk

**BV Labs ID:** PTY949  
**Sample ID:** TH105-SS2  
**Matrix:** Soil

**Collected:** 2021/06/07  
**Shipped:**  
**Received:** 2021/06/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	7397411	N/A	2021/06/14	Automated Statchk
Hot Water Extractable Boron	ICP	7400861	2021/06/10	2021/06/10	Medhat Nasr
Free (WAD) Cyanide	TECH	7400901	2021/06/10	2021/06/11	Louise Harding
Conductivity	AT	7402251	2021/06/11	2021/06/11	Khushbu Vijay kumar Patel
Hexavalent Chromium in Soil by IC	IC/SPEC	7402549	2021/06/11	2021/06/11	Violeta Porcila
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7405071	N/A	2021/06/14	Domnica Andronesco
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7401302	2021/06/10	2021/06/11	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	7400759	2021/06/10	2021/06/11	Daniel Teclu
Moisture	BAL	7398952	N/A	2021/06/09	Gurpreet Kaur (ONT)
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	7401346	2021/06/10	2021/06/11	Mitesh Raj
pH CaCl2 EXTRACT	AT	7402449	2021/06/11	2021/06/11	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	7397410	N/A	2021/06/14	Automated Statchk

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BV Labs Job #: C1F6621

Report Date: 2021/06/15

exp Services Inc

Client Project #: GTR-00038305-00

Site Location: Highway 7 and Interchange Way

Sampler Initials: JV

## TEST SUMMARY

**BV Labs ID:** PTY949 Dup  
**Sample ID:** TH105-SS2  
**Matrix:** Soil

**Collected:** 2021/06/07  
**Shipped:**  
**Received:** 2021/06/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	7400861	2021/06/10	2021/06/10	Medhat Nasr

**BV Labs ID:** PTY950  
**Sample ID:** TH1050-SS2  
**Matrix:** Soil

**Collected:** 2021/06/07  
**Shipped:**  
**Received:** 2021/06/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	7397411	N/A	2021/06/14	Automated Statchk
Hot Water Extractable Boron	ICP	7400861	2021/06/10	2021/06/10	Medhat Nasr
Free (WAD) Cyanide	TECH	7400901	2021/06/10	2021/06/11	Louise Harding
Conductivity	AT	7402496	2021/06/11	2021/06/11	Khushbu Vijay kumar Patel
Hexavalent Chromium in Soil by IC	IC/SPEC	7402549	2021/06/11	2021/06/11	Violeta Porcila
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7405071	N/A	2021/06/14	Domnica Andronescu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7401302	2021/06/10	2021/06/11	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	7400759	2021/06/10	2021/06/11	Daniel Teclu
Moisture	BAL	7398952	N/A	2021/06/09	Gurpreet Kaur (ONT)
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	7401346	2021/06/10	2021/06/11	Mitesh Raj
pH CaCl2 EXTRACT	AT	7402449	2021/06/11	2021/06/11	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	7397410	N/A	2021/06/14	Automated Statchk

**BV Labs ID:** PTY950 Dup  
**Sample ID:** TH1050-SS2  
**Matrix:** Soil

**Collected:** 2021/06/07  
**Shipped:**  
**Received:** 2021/06/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductivity	AT	7402496	2021/06/11	2021/06/11	Khushbu Vijay kumar Patel

**BV Labs ID:** PTY951  
**Sample ID:** TH106-SS1  
**Matrix:** Soil

**Collected:** 2021/06/07  
**Shipped:**  
**Received:** 2021/06/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	7397411	N/A	2021/06/14	Automated Statchk
Hot Water Extractable Boron	ICP	7402344	2021/06/11	2021/06/11	Jolly John
Free (WAD) Cyanide	TECH	7400901	2021/06/10	2021/06/11	Louise Harding
Conductivity	AT	7402500	2021/06/11	2021/06/11	Khushbu Vijay kumar Patel
Hexavalent Chromium in Soil by IC	IC/SPEC	7402549	2021/06/11	2021/06/11	Violeta Porcila
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7405071	N/A	2021/06/14	Domnica Andronescu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7401302	2021/06/10	2021/06/11	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	7402396	2021/06/11	2021/06/11	Viviana Canzonieri
Moisture	BAL	7398952	N/A	2021/06/09	Gurpreet Kaur (ONT)
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	7401346	2021/06/10	2021/06/11	Mitesh Raj
pH CaCl2 EXTRACT	AT	7402449	2021/06/11	2021/06/11	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	7397410	N/A	2021/06/14	Automated Statchk



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BV Labs Job #: C1F6621

Report Date: 2021/06/15

exp Services Inc

Client Project #: GTR-00038305-00

Site Location: Highway 7 and Interchange Way

Sampler Initials: JV

## TEST SUMMARY

**BV Labs ID:** PTY952  
**Sample ID:** TH106-SS2  
**Matrix:** Soil

**Collected:** 2021/06/07  
**Shipped:**  
**Received:** 2021/06/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	7397411	N/A	2021/06/14	Automated Statchk
Hot Water Extractable Boron	ICP	7400861	2021/06/10	2021/06/10	Medhat Nasr
Free (WAD) Cyanide	TECH	7400901	2021/06/10	2021/06/11	Louise Harding
Conductivity	AT	7402262	2021/06/11	2021/06/11	Khushbu Vijay kumar Patel
Hexavalent Chromium in Soil by IC	IC/SPEC	7402549	2021/06/11	2021/06/11	Violeta Porcila
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7405071	N/A	2021/06/14	Domnica Andronesco
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7401302	2021/06/10	2021/06/11	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	7400759	2021/06/10	2021/06/11	Daniel Teclu
Moisture	BAL	7398952	N/A	2021/06/09	Gurpreet Kaur (ONT)
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	7401346	2021/06/10	2021/06/11	Mitesh Raj
pH CaCl2 EXTRACT	AT	7402449	2021/06/11	2021/06/11	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	7397410	N/A	2021/06/15	Automated Statchk

**BV Labs ID:** PTY953  
**Sample ID:** TH107-SS1  
**Matrix:** Soil

**Collected:** 2021/06/07  
**Shipped:**  
**Received:** 2021/06/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	7397411	N/A	2021/06/14	Automated Statchk
Hot Water Extractable Boron	ICP	7400861	2021/06/10	2021/06/10	Medhat Nasr
Free (WAD) Cyanide	TECH	7400901	2021/06/10	2021/06/11	Louise Harding
Conductivity	AT	7402496	2021/06/11	2021/06/11	Khushbu Vijay kumar Patel
Hexavalent Chromium in Soil by IC	IC/SPEC	7402276	2021/06/11	2021/06/11	Violeta Porcila
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7405071	N/A	2021/06/14	Domnica Andronesco
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7401302	2021/06/10	2021/06/11	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	7400759	2021/06/10	2021/06/11	Daniel Teclu
Moisture	BAL	7398952	N/A	2021/06/09	Gurpreet Kaur (ONT)
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	7401346	2021/06/10	2021/06/11	Mitesh Raj
pH CaCl2 EXTRACT	AT	7402449	2021/06/11	2021/06/11	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	7397410	N/A	2021/06/14	Automated Statchk





BV Labs Job #: C1F6621  
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exp Services Inc  
Client Project #: GTR-00038305-00  
Site Location: Highway 7 and Interchange Way  
Sampler Initials: JV

### GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.3°C
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Sample PTY941 [TH101-SS1] : F1 BTEX analysis : Detection limits were adjusted for sample weight .

Sample PTY945 [TH103-SS2] : F1 BTEX analysis : Detection limits were adjusted for sample weight .

Sample PTY947 [TH104-SS2] : F1 BTEX analysis : Detection limits were adjusted for sample weight .

Sample PTY948 [TH105-SS1] : F1 BTEX analysis : Detection limits were adjusted for sample weight .

Sample PTY949 [TH105-SS2] : F1 BTEX analysis : Detection limits were adjusted for sample weight .

Sample PTY950 [TH1050-SS2] : F1 BTEX analysis : Detection limits were adjusted for sample weight .

Sample PTY951 [TH106-SS1] : F1 BTEX analysis : Detection limits were adjusted for sample weight .

**Results relate only to the items tested.**



**BUREAU**  
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BV Labs Job #: C1F6621

Report Date: 2021/06/15

## QUALITY ASSURANCE REPORT

exp Services Inc

Client Project #: GTR-00038305-00

Site Location: Highway 7 and Interchange Way

Sampler Initials: JV

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7401302	o-Terphenyl	2021/06/11	97	60 - 130	95	60 - 130	104	%		
7401346	D10-Anthracene	2021/06/11	89	50 - 130	93	50 - 130	87	%		
7401346	D14-Terphenyl (FS)	2021/06/11	87	50 - 130	87	50 - 130	84	%		
7401346	D8-Acenaphthylene	2021/06/11	86	50 - 130	86	50 - 130	83	%		
7405071	1,4-Difluorobenzene	2021/06/14	97	60 - 140	97	60 - 140	101	%		
7405071	4-Bromofluorobenzene	2021/06/14	95	60 - 140	95	60 - 140	94	%		
7405071	D10-o-Xylene	2021/06/14	91	60 - 140	96	60 - 140	92	%		
7405071	D4-1,2-Dichloroethane	2021/06/14	84	60 - 140	84	60 - 140	89	%		
7398952	Moisture	2021/06/09							0.54	20
7400759	Acid Extractable Antimony (Sb)	2021/06/11	93	75 - 125	103	80 - 120	<0.20	ug/g	NC	30
7400759	Acid Extractable Arsenic (As)	2021/06/11	99	75 - 125	101	80 - 120	<1.0	ug/g	1.8	30
7400759	Acid Extractable Barium (Ba)	2021/06/11	NC	75 - 125	104	80 - 120	<0.50	ug/g	4.9	30
7400759	Acid Extractable Beryllium (Be)	2021/06/11	97	75 - 125	98	80 - 120	<0.20	ug/g	2.8	30
7400759	Acid Extractable Boron (B)	2021/06/11	96	75 - 125	100	80 - 120	<5.0	ug/g	7.2	30
7400759	Acid Extractable Cadmium (Cd)	2021/06/11	97	75 - 125	100	80 - 120	<0.10	ug/g	2.4	30
7400759	Acid Extractable Chromium (Cr)	2021/06/11	101	75 - 125	101	80 - 120	<1.0	ug/g	0.086	30
7400759	Acid Extractable Cobalt (Co)	2021/06/11	93	75 - 125	103	80 - 120	<0.10	ug/g	4.9	30
7400759	Acid Extractable Copper (Cu)	2021/06/11	90	75 - 125	100	80 - 120	<0.50	ug/g	3.5	30
7400759	Acid Extractable Lead (Pb)	2021/06/11	93	75 - 125	102	80 - 120	<1.0	ug/g	3.9	30
7400759	Acid Extractable Mercury (Hg)	2021/06/11	83	75 - 125	88	80 - 120	<0.050	ug/g	NC	30
7400759	Acid Extractable Molybdenum (Mo)	2021/06/11	103	75 - 125	101	80 - 120	<0.50	ug/g	7.3	30
7400759	Acid Extractable Nickel (Ni)	2021/06/11	NC	75 - 125	101	80 - 120	<0.50	ug/g	5.8	30
7400759	Acid Extractable Selenium (Se)	2021/06/11	97	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
7400759	Acid Extractable Silver (Ag)	2021/06/11	99	75 - 125	103	80 - 120	<0.20	ug/g	NC	30
7400759	Acid Extractable Thallium (Tl)	2021/06/11	93	75 - 125	101	80 - 120	<0.050	ug/g	0.70	30
7400759	Acid Extractable Uranium (U)	2021/06/11	96	75 - 125	101	80 - 120	<0.050	ug/g	1.0	30
7400759	Acid Extractable Vanadium (V)	2021/06/11	111	75 - 125	102	80 - 120	<5.0	ug/g	3.5	30
7400759	Acid Extractable Zinc (Zn)	2021/06/11	NC	75 - 125	106	80 - 120	<5.0	ug/g	0.65	30
7400861	Hot Water Ext. Boron (B)	2021/06/10	108	75 - 125	103	75 - 125	<0.050	ug/g	8.2	40
7400901	WAD Cyanide (Free)	2021/06/11	100	75 - 125	98	80 - 120	<0.01	ug/g	NC	35
7401173	WAD Cyanide (Free)	2021/06/11	101	75 - 125	97	80 - 120	<0.01	ug/g	NC	35





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## QUALITY ASSURANCE REPORT(CONT'D)

exp Services Inc

Client Project #: GTR-00038305-00

Site Location: Highway 7 and Interchange Way

Sampler Initials: JV

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7401302	F2 (C10-C16 Hydrocarbons)	2021/06/11	104	50 - 130	103	80 - 120	<10	ug/g	NC	30
7401302	F3 (C16-C34 Hydrocarbons)	2021/06/11	105	50 - 130	103	80 - 120	<50	ug/g	NC	30
7401302	F4 (C34-C50 Hydrocarbons)	2021/06/11	106	50 - 130	103	80 - 120	<50	ug/g	NC	30
7401346	1-Methylnaphthalene	2021/06/11	87	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
7401346	2-Methylnaphthalene	2021/06/11	83	50 - 130	91	50 - 130	<0.0050	ug/g	NC	40
7401346	Acenaphthene	2021/06/11	86	50 - 130	90	50 - 130	<0.0050	ug/g	NC	40
7401346	Acenaphthylene	2021/06/11	83	50 - 130	88	50 - 130	<0.0050	ug/g	NC	40
7401346	Anthracene	2021/06/11	85	50 - 130	88	50 - 130	<0.0050	ug/g	NC	40
7401346	Benzo(a)anthracene	2021/06/11	87	50 - 130	92	50 - 130	<0.0050	ug/g	NC	40
7401346	Benzo(a)pyrene	2021/06/11	92	50 - 130	93	50 - 130	<0.0050	ug/g	NC	40
7401346	Benzo(b,j)fluoranthene	2021/06/11	99	50 - 130	113	50 - 130	<0.0050	ug/g	NC	40
7401346	Benzo(g,h,i)perylene	2021/06/11	94	50 - 130	104	50 - 130	<0.0050	ug/g	NC	40
7401346	Benzo(k)fluoranthene	2021/06/11	91	50 - 130	104	50 - 130	<0.0050	ug/g	NC	40
7401346	Chrysene	2021/06/11	97	50 - 130	104	50 - 130	<0.0050	ug/g	NC	40
7401346	Dibenzo(a,h)anthracene	2021/06/11	94	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
7401346	Fluoranthene	2021/06/11	90	50 - 130	93	50 - 130	<0.0050	ug/g	NC	40
7401346	Fluorene	2021/06/11	89	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
7401346	Indeno(1,2,3-cd)pyrene	2021/06/11	93	50 - 130	102	50 - 130	<0.0050	ug/g	NC	40
7401346	Naphthalene	2021/06/11	77	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
7401346	Phenanthrene	2021/06/11	91	50 - 130	93	50 - 130	<0.0050	ug/g	NC	40
7401346	Pyrene	2021/06/11	90	50 - 130	92	50 - 130	<0.0050	ug/g	NC	40
7402251	Conductivity	2021/06/11			101	90 - 110	<0.002	mS/cm	2.7	10
7402262	Conductivity	2021/06/11			100	90 - 110	<0.002	mS/cm	0.49	10
7402271	WAD Cyanide (Free)	2021/06/11	100	75 - 125	96	80 - 120	<0.01	ug/g	NC	35
7402276	Chromium (VI)	2021/06/11	60 (1)	70 - 130	90	80 - 120	<0.18	ug/g	NC	35
7402311	WAD Cyanide (Free)	2021/06/11	100	75 - 125	94	80 - 120	<0.01	ug/g	NC	35
7402344	Hot Water Ext. Boron (B)	2021/06/11	101	75 - 125	96	75 - 125	<0.050	ug/g	NC	40
7402396	Acid Extractable Antimony (Sb)	2021/06/11	81	75 - 125	102	80 - 120	<0.20	ug/g		
7402396	Acid Extractable Arsenic (As)	2021/06/11	91	75 - 125	105	80 - 120	<1.0	ug/g	1.8	30
7402396	Acid Extractable Barium (Ba)	2021/06/11	NC	75 - 125	106	80 - 120	<0.50	ug/g		
7402396	Acid Extractable Beryllium (Be)	2021/06/11	93	75 - 125	101	80 - 120	<0.20	ug/g		





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## QUALITY ASSURANCE REPORT(CONT'D)

exp Services Inc

Client Project #: GTR-00038305-00

Site Location: Highway 7 and Interchange Way

Sampler Initials: JV

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7402396	Acid Extractable Boron (B)	2021/06/11	82	75 - 125	93	80 - 120	<5.0	ug/g		
7402396	Acid Extractable Cadmium (Cd)	2021/06/11	95	75 - 125	101	80 - 120	<0.10	ug/g		
7402396	Acid Extractable Chromium (Cr)	2021/06/11	95	75 - 125	102	80 - 120	<1.0	ug/g		
7402396	Acid Extractable Cobalt (Co)	2021/06/11	97	75 - 125	105	80 - 120	<0.10	ug/g		
7402396	Acid Extractable Copper (Cu)	2021/06/11	90	75 - 125	100	80 - 120	<0.50	ug/g		
7402396	Acid Extractable Lead (Pb)	2021/06/11	NC	75 - 125	100	80 - 120	<1.0	ug/g		
7402396	Acid Extractable Mercury (Hg)	2021/06/11	85	75 - 125	90	80 - 120	<0.050	ug/g		
7402396	Acid Extractable Molybdenum (Mo)	2021/06/11	94	75 - 125	102	80 - 120	<0.50	ug/g		
7402396	Acid Extractable Nickel (Ni)	2021/06/11	95	75 - 125	101	80 - 120	<0.50	ug/g		
7402396	Acid Extractable Selenium (Se)	2021/06/11	97	75 - 125	104	80 - 120	<0.50	ug/g		
7402396	Acid Extractable Silver (Ag)	2021/06/11	94	75 - 125	101	80 - 120	<0.20	ug/g		
7402396	Acid Extractable Thallium (Tl)	2021/06/11	95	75 - 125	101	80 - 120	<0.050	ug/g		
7402396	Acid Extractable Uranium (U)	2021/06/11	99	75 - 125	103	80 - 120	<0.050	ug/g	6.3	30
7402396	Acid Extractable Vanadium (V)	2021/06/11	NC	75 - 125	102	80 - 120	<5.0	ug/g		
7402396	Acid Extractable Zinc (Zn)	2021/06/11	NC	75 - 125	104	80 - 120	<5.0	ug/g		
7402449	Available (CaCl <sub>2</sub> ) pH	2021/06/11			100	97 - 103			0.076	N/A
7402496	Conductivity	2021/06/11			102	90 - 110	<0.002	mS/cm	8.9	10
7402500	Conductivity	2021/06/11			100	90 - 110	<0.002	mS/cm	2.3	10
7402549	Chromium (VI)	2021/06/11	73	70 - 130	92	80 - 120	<0.18	ug/g	NC	35
7402565	Hot Water Ext. Boron (B)	2021/06/11	98	75 - 125	98	75 - 125	<0.050	ug/g	14	40
7402672	Available (CaCl <sub>2</sub> ) pH	2021/06/11			100	97 - 103			0.43	N/A
7402789	Conductivity	2021/06/11			100	90 - 110	<0.002	mS/cm	2.5	10
7405071	Benzene	2021/06/14	94	50 - 140	96	50 - 140	<0.020	ug/g	NC	50
7405071	Ethylbenzene	2021/06/14	109	50 - 140	111	50 - 140	<0.020	ug/g	NC	50
7405071	F1 (C6-C10) - BTEX	2021/06/14					<10	ug/g	NC	30
7405071	F1 (C6-C10)	2021/06/14	93	60 - 140	91	80 - 120	<10	ug/g	NC	30
7405071	o-Xylene	2021/06/14	104	50 - 140	108	50 - 140	<0.020	ug/g	NC	50
7405071	p+m-Xylene	2021/06/14	112	50 - 140	116	50 - 140	<0.040	ug/g	NC	50
7405071	Toluene	2021/06/14	99	50 - 140	100	50 - 140	<0.020	ug/g	NC	50



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## QUALITY ASSURANCE REPORT(CONT'D)

exp Services Inc  
Client Project #: GTR-00038305-00  
Site Location: Highway 7 and Interchange Way  
Sampler Initials: JV

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7405071	Total Xylenes	2021/06/14					<0.040	ug/g	NC	50

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference  $\leq 2 \times$  RDL).

(1) The matrix spike recovery was below the lower control limit. This may be due in part to the reducing environment of the sample. The sample was reanalyzed with the same results



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Client Project #: GTR-00038305-00

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### VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.





## **APPENDIX B**

### STATEMENT OF LIMITATIONS

# STATEMENT OF LIMITATIONS

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This report is prepared for and made available for the sole use of the client named. Peto MacCallum Ltd. (PML) hereby disclaims any liability or responsibility to any person or entity, other than those for whom this report is specifically issued, for any loss, damage, expenses, or penalties that may arise or result from the use of any information or recommendations contained in this report. The contents of this report may not be used or relied upon by any other person without the express written consent and authorization of PML.

This report shall not be relied upon for any purpose other than as agreed with the client named without the written consent of PML. A portion of this report may not be used as a separate entity: that is to say the report is to be read in its entirety at all times.

The report is based solely on the scope of services which are specifically referred to in this report. No physical or intrusive testing has been performed by PML. Further, PML presumes the chemical quality of the excess soil reported for the Source Site is representative of the actual soil to be excavated and transported to the Reuse Site.

The scope of services carried out by PML is based on details of the proposed development and land use to address certain issues, purposes and objectives with respect to the specific site as identified by the client. Services not expressly set forth in writing are expressly excluded from the services provided by PML. In other words, PML has not performed any observations, investigations, study analysis, engineering evaluation or testing that is not specifically listed in the scope of services in this report. PML assumes no responsibility or duty to the client for any such services and shall not be liable for failing to discover any condition, whose discovery would require the performance of services not specifically referred to in this report.

Regulations, codes and guidelines may change at any time subsequent to the date of this report and these changes may affect the validity of the findings and recommendations given in this report.

Environmental site assessment studies are performed in different phases by the application of different levels of effort and expense. The level of effort proposed for this assignment were based solely on PML's understanding of the client's needs as described in the scope of services contained in this report and applicable proposal.

This assessment does not wholly eliminate uncertainty regarding the potential for existing or future costs, hazards or losses in connection with the subject property and must be viewed as a mechanism to reduce risk rather than eliminate the risk of contamination concerns.